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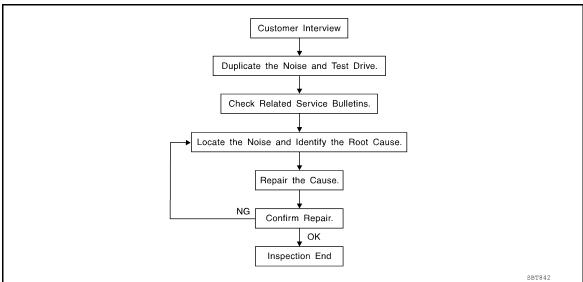
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## SYMPTOM DIAGNOSIS

## SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow



### **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 <a href="GW-6">GW-6</a>, "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 of 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 diagnoseand 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/broughton by road conditions/hard surfaces=higher pitch noise/softer surfaces=lowerpitch 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/oftenbrought on by driver action.
- Tick—(Like a clock second hand)
   Tick characteristics include gentle contacting of light materials/loosecomponents/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 dependingupon 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 agreat effect on noise level.

#### DUPLICATE THE NOISE AND TEST DRIVE

#### < SYMPTOM DIAGNOSIS >

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 models, drive position on CVT and A/T models).
- 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 TechnicalService Bulletins (TSBs) related to that concern or symptom.

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

#### 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 and mechanics stethoscope).
- 2. Narrow down the noise to a more specific area and identify the causeof the noise by:
- removing the components in the area that you suspect the noiseis coming from.
   Do not use too much force when removing clips and fasteners, otherwiseclips and fastener can be broken or lost during the repair, resulting in thecreation of new noise.
- tapping or pushing/pulling the component that you suspect is causingthe noise.
   Do not tap or push/pull the component with excessive force, otherwisethe 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 arecausing the noise.
- looking for loose components and contact marks.
   Refer to <u>GW-4</u>, "<u>Generic Squeak and Rattle Troubleshooting</u>".

## 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 retighteningthe 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. NOTE:

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  $\times$  135 mm (3.94  $\times$  5.31 in)/76884-71L01: 60  $\times$  85 mm (2.36  $\times$  3.35 in)/76884-71L01:

71L02: 15  $\times$  25 mm (0.59  $\times$  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,  $50 \times 50$  mm (1.97  $\times$  1.97 in)/73982-

50Y00: 10 mm (0.39 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30  $\times$  50 mm (1.18  $\times$  1.97 in)

FELT CLOTHTAPE

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### < SYMPTOM DIAGNOSIS >

Used to insulate where movement does not occur. Ideal for instrument panel applications. 68370-4B000:  $15 \times 25 \, \text{mm} \, (0.59 \times 0.98 \, \text{in}) \, \text{pad/68239-13E00:} \, 5 \, \text{mm} \, (0.20 \, \text{in}) \, \text{wide tape roll}$ 

The following materials, not found in the kit, can also be used to repair squeaks and rattles.

**UHMW (TEFLON) TAPE** 

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

SILICONE GREASE

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

INFOID:0000000006390903

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

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

#### **CAUTION:**

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

#### CENTER CONSOLE

Components to pay attention to include:

- 1. Shift selector cover to finisher
- 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
- 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.

#### 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

## < SYMPTOM DIAGNOSIS >

- 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:

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

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

SEATS

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

Cause of seat noise include:

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

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

#### UNDERHOOD

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

Causes of transmitted under hood noise include:

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

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## < SYMPTOM DIAGNOSIS >

## **Diagnostic Worksheet**

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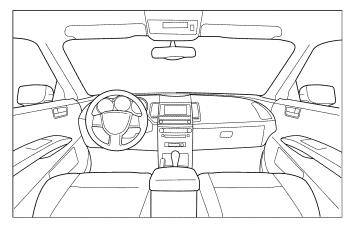
#### Dear Customer:

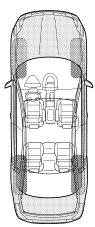
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked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

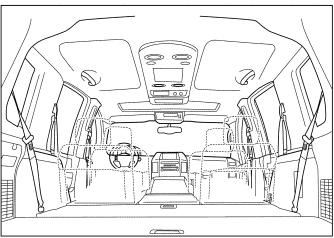
#### **SQUEAK & RATTLE DIAGNOSTIC WORKSHEET**

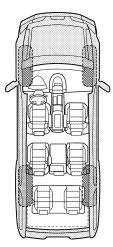
## I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

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









Continue to page 2 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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## < SYMPTOM DIAGNOSIS >

III. WHEN DRIVING:  ☐ Through driveways	IV. WHAT TYPE OF NOISE  Squeak (like tennis shoes on a clean floor)
Through driveways	Squeak (like tennis shoes on a clean floor)
Over rough roads Over speed bumps Only about mph On acceleration	<ul><li>Creak (like walking on an old wooden floor)</li><li>Rattle (like shaking a baby rattle)</li></ul>
	<ul><li>☐ Knock (like a knock at the door)</li><li>☐ Tick (like a clock second hand)</li></ul>
Coming to a stop	☐ Thump (heavy muffled knock noise)
$oldsymbol{\square}$ On turns: left, right or either (circle	le) 🔲 Buzz (like a bumble bee)
With passengers or cargo	
☐ With passengers or cargo ☐ Other: miles or	
Other: miles or	_ minutes
Other: miles or  O BE COMPLETED BY DEALERSH	_ minutes
Other: miles or  O BE COMPLETED BY DEALERSH	_ minutes
Other: miles or  O BE COMPLETED BY DEALERSH	_ minutes HIP PERSONNEL
Other: miles or  O BE COMPLETED BY DEALERSH	_ minutes
Other: After driving miles or O BE COMPLETED BY DEALERSH Sest Drive Notes:	HIP PERSONNEL  YES NO Initials of person
Other:	HIP PERSONNEL  YES NO Initials of person performing

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# **PRECAUTION**

## **PRECAUTIONS**

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

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.

Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000006390906

#### NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

This vehicle is equipped with a push-button ignition switch and a steering lock unit.

If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, 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. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
- 3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
- 4. Perform the necessary repair operation.
- 5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)

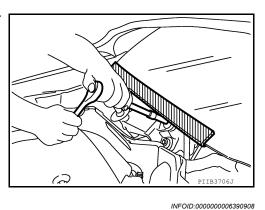
## **PRECAUTIONS**

### < PRECAUTION >

6. Perform self-diagnosis check of all control units using CONSULT.

## Procedure without Cowl Top Cover

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



## Handling for Adhesive and Primer

- 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.

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# **PREPARATION**

## **PREPARATION**

## Special Service Tools

INFOID:0000000006390909

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	SIIAO93E	Locating the noise
(J-43980) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairing the cause of noise

## Commercial Service Tools

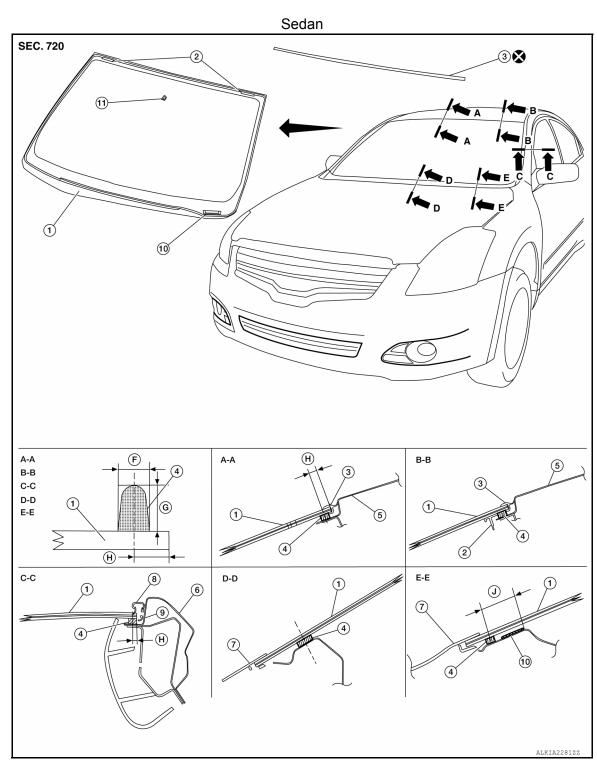
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Tool name		Description
Engine ear	SIIA0995E	Locating the noise
Suction lifter	PIIB1805J	Holding the door glass

# REMOVAL AND INSTALLATION

## WINDSHIELD GLASS

Components INFOID:0000000000931377



- Windshield glass
- 4. Adhesive
- 7. Cowl top center
- 10. Identification Number
- G. 12 +2/-0 mm (0.47 +0.08/-0 in)
- 2. Spacer
- 5. Roof panel
- 8. Windshield Side Trim Molding
- 11. Mirror Base
- H. 7.5 mm (0.30 in)

- 3. Windshield Molding Center Upper
- 6. Front pillar outer panel
- 9. Fastener Molding
- F. 7 +2/-0 mm (0.28 +0.08/-0 in)
- J. 33 mm (1.30 in)

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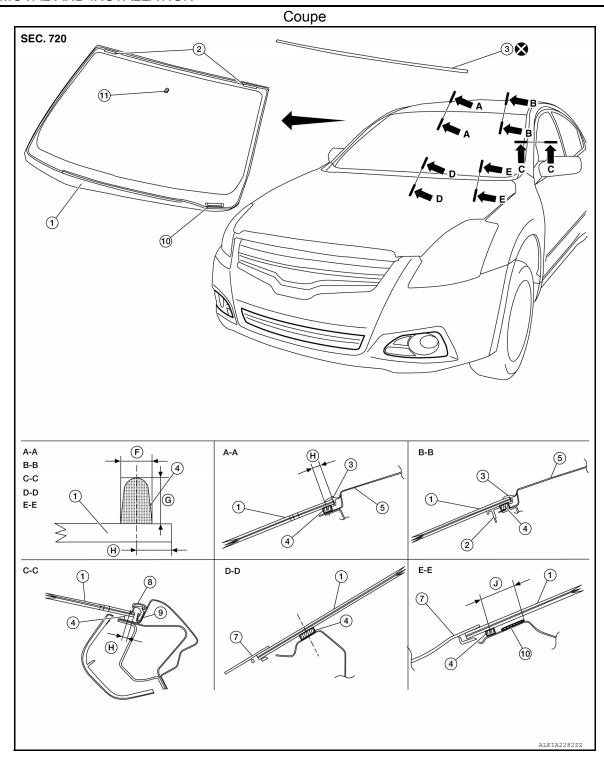
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- 1. Windshield glass
- 4. Adhesive
- 7. Cowl top center
- 10. Identification Number
- G. 12 +2/-0 mm (0.47 +0.08/-0 in)
- 2. Spacer
- 5. Roof panel
- 8. Windshield Side Trim Molding
- 11. Mirror Base
- H. 7.5 mm (0.30 in)

- 3. Windshield Molding Center Upper
- 6. Front pillar outer panel
- 9. Fastener Molding
- F. 7 +2/-0 mm (0.28 +0.08/-0 in)
- J. 33 mm (1.30 in)

## Removal and Installation

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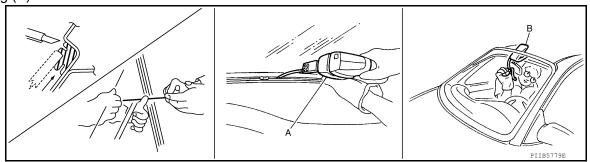
## **REMOVAL**

1. Remove the inside mirror. Refer to MIR-21, "Removal and Installation".

## WINDSHIELD GLASS

#### < REMOVAL AND INSTALLATION >

- 2. Partially remove the headlining (front edge). Refer to <a href="INT-27">INT-27</a>, "Removal and Installation", (sedan) or <a href="INT-27">INT-50</a>, "Removal and Installation" (coupe).
- 3. Remove the cowl top. Refer to <u>EXT-45</u>, "Removal and Installation" (sedan) or <u>EXT-21</u>, "Removal and <u>Installation"</u> (coupe).
- 4. Remove roof side molding. Refer to <u>EXT-51</u>, "<u>Removal and Installation</u>" (sedan), or <u>EXT-25</u>, "<u>Removal and Installation</u>" (coupe).
- 5. After removing moldings, remove glass using piano wire or power cutting tool (A) and an inflatable pump bag (B).



- Apply a protective tape around the windshield glass to protect the painted surface from damage.
- 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:**

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

#### 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.
- The start and finish of the urethane adhesive application shall be located at the bottom to assure watertightness.
- 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 humidity. The curing time will increase under lower temperature and lower humidity.

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## **WINDSHIELD GLASS**

### < REMOVAL AND INSTALLATION >

Inspection INFOID:0000000006390913

## 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.

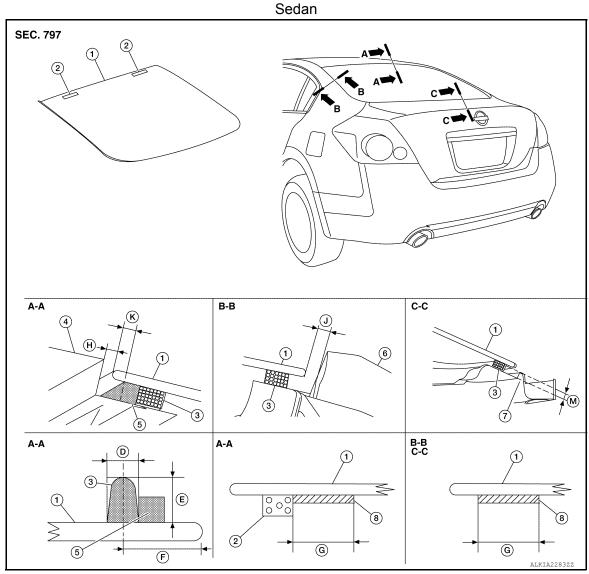
This can be done by applying water to the windshield area while pushing glass outward.

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

## **REAR WINDOW GLASS**

## Components - Sedan

INFOID:0000000006390914



- 1. Rear window glass
- 4. Roof panel outer
- 7. Parcel shelf
- E. 12 +2/-0 mm (0.47+ 0.08/-0 in)
- H. 2.8 +4.8/-0.8 mm (0.11 +0.19/-0.03 in) J.
- M. 5.3 +1.5/-0.5 mm (0.21 +0.06/-0.02 in)
- 2. Spacer
- 5. Rubber dam
- 8. Primer
- F. 13.5 mm (0.53 in)
  - 4.5 +6.6/-2.4 mm (0.18 +0.26/-0.09 in) K.
- 3. Adhesive
- 6. Body side outer
- D. 7 +2/-0 mm (0.28 +0.08/-0 in)
- G. 16 +2/-0 mm (0.63 +0.08/-0 in)
- K.  $5 \pm 1 \text{ mm} (0.20 \pm 0.04 \text{ in})$

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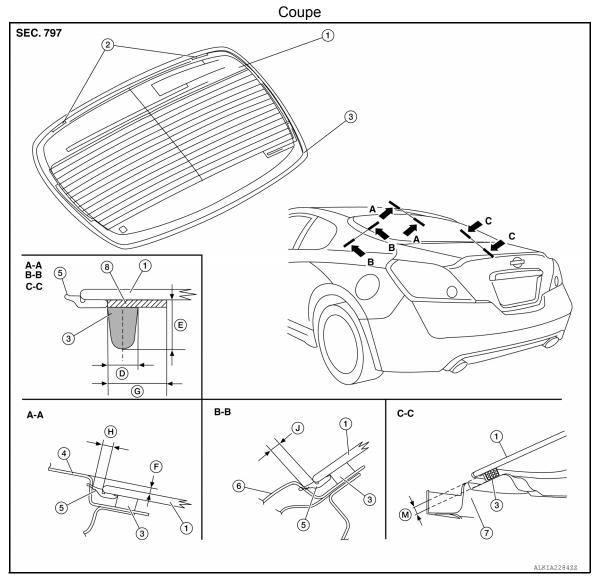
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## Components - Coupe

INFOID:0000000006390915



- Rear window glass 1.
- 4. Roof panel outer
- Parcel shelf 7.
- 12 +2/-0 mm (0.47 +0.08/-0 in)
- 4.5 +6.0/-3.0 mm (0.18 +0.24/-0.12 in) J.
- Spacer
- Rear window molding
- Primer
- 2.8 +4.8/-0.8 mm (0.11 +0.19/-0.03 in) G.
  - 4.5 +6.6/-2.4 mm (0.18 +0.26/-0.09 in) M. 5.3 +1.5/-0.5 mm (0.21 +0.06/-0.02 in)

3.

- Adhesive Body side outer
- 7 +2/-0 mm (0.28 +0.08/-0 in)
- 16 +2 /-0 mm (0.63 +0.08/-0 in)

## Removal and Installation

INFOID:0000000006390916

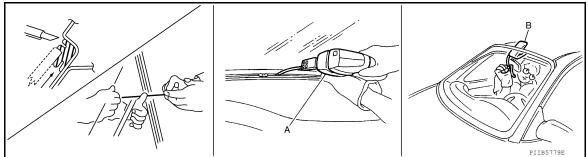
#### **REMOVAL**

- Partially remove the rear of the headliner (rear edge). Refer to <u>INT-27</u>, "Removal and Installation" (sedan) or INT-50, "Removal and Installation" (coupe).
- 2. Remove the rear pillar finisher. Refer to INT-27, "Removal and Installation" for Sedan or INT-46, "Removal and Installation" for Coupe.
- 3. Remove the upper pillar finisher (Coupe only). Refer to INT-46, "Removal and Installation".
- Remove the connectors and grounds for the rear window defogger and printed antenna.

## **REAR WINDOW GLASS**

#### < REMOVAL AND INSTALLATION >

5. After removing moldings, remove glass using piano wire or power cutting tool (A) and an inflatable pump bag (B).



- Apply protective tape around the rear window glass to protect the painted surface from damage.
- 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

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.
- The start and finish of the urethane adhesive application shall be located at the bottom to assure watertightness.
- 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 rear window glass in case of an accident.

#### **CAUTION:**

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

Inspection INFOID:000000006390917

## REPAIRING WATER LEAKS

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 side window area while pushing glass outward.

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

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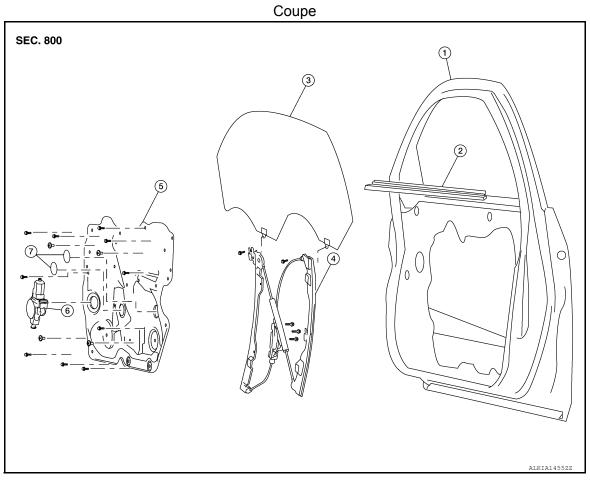
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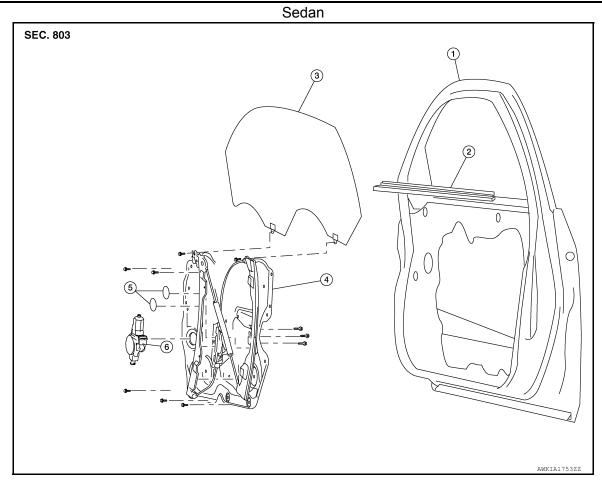
## FRONT DOOR GLASS

Components INFOID:0000000006390918



- 1. Door
- 4. Regulator assembly
- 7. Cover

- 2. Inside seal
- 5. Door module assembly
- 3. Door glass
- 6. Window motor



- 1. Door
- 4. Door module assembly
- 2. Inside seal
- 5. Cover

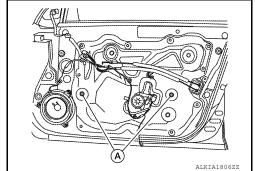
- 3. Door glass
- 6. Window motor

## Removal and Installation

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## **REMOVAL**

- 1. Remove the front door finisher. Refer to <a href="INT-41">INT-41</a>, "Removal and Installation" for Coupe or <a href="INT-13">INT-13</a>, "Removal and Installation" for Sedan.
- 2. Remove the bolt hole access covers from the door module assembly.
- 3. Reconnect the window switch to raise/lower the door glass until the door glass bolts (A) can be seen through the access holes on the door module assembly.
- 4. Remove the door glass bolts (A).



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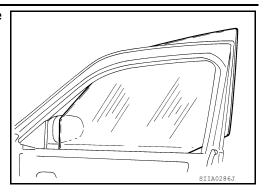
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## FRONT DOOR GLASS

### < REMOVAL AND INSTALLATION >

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



#### Installation

Installation is in the reverse order of removal.

Inspection and Resetting the Window Motor Limit Switch After Installation

Front Door Glass Inspection After Installation

- Check that the door glass is securely set into the glass run groove.
- Lower the door 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 door glass and sash is not parallel, loosen the regulator bolts, guide rail bolts, and door glass and guide rail bolts to correct the glass position.

#### NOTE:

If any of the following occur, initialization procedure must be performed. Refer to <a href="PWC-103">PWC-103</a>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement" (coupe), <a href="PWC-195">PWC-195</a>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement" (sedan).

- Electric power supply to power window switch or motor is interrupted by blown fuse or disconnecting battery cable, etc.
- Removal and installation of the regulator assembly.
- Removal and installation of the motor from the regulator assembly.
- Removal and installation of the harness connector of the power window switch.
- Operation of the regulator assembly as a unit.
- · Removal and installation of the door glass.
- Removal and installation of the door glass run.
- Window is partly opened and or closed multiple times with out being fully closed.

## INSPECTION AND ADJUSTMENT

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## Inspect The Function Of The Anti-Pinch System

- Fully open the door glass.
- 2. Place a wooden piece (wooden hammer handle etc.) at near fully closed position.
- 3. Carry out fully closing operation with auto up switch.
  - Check that the glass reverses without pinching the wooden piece, is lowered approx.150 mm (5.91 in) or for 2 seconds and then stops.
  - The glass should not be raised with power window main switch operated while it is reversing or lowering.

#### **CAUTION:**

- Do not inspect with pinching a part of worker's body, a hand etc. Work carefully not to be pinched.
- Check that auto up function is normal before inspection following the system initialization.

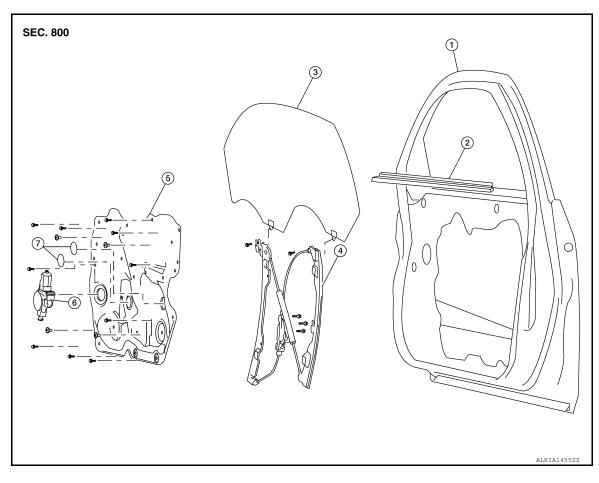
#### FINAL INSPECTION

- Make sure the glass is securely set into the glass run groove.
- Lower the glass slightly [approx. 10 to 20 mm (0.39 to 0.79 in)] and make sure 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 adjust the glass position.

## **FRONT REGULATOR**

Components

COUPE



- 1. Door
- 4. Regulator assembly
- 7. Cover

- 2. Inside seal
- 5. Door module assembly
- 3. Door glass
- 6. Window motor

Components

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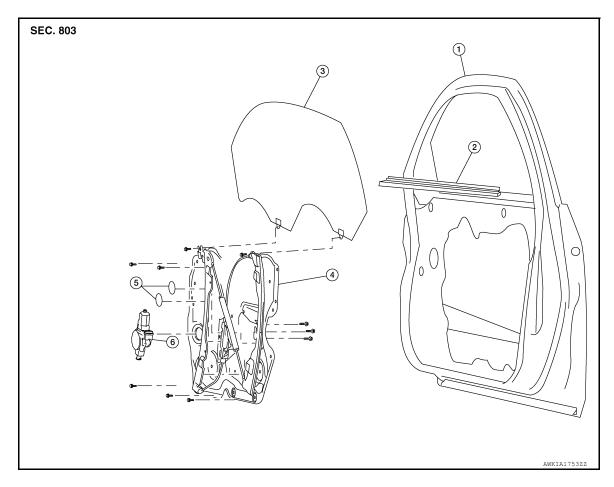
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Revision: June 2012 GW-21 2011 Altima GCC



- 1. Door
- 4. Door module assembly
- 2. Inside seal
- 5. Cover

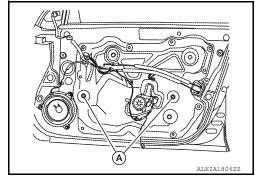
- 3. Door glass
- 6. Window motor

## Removal and Installation

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## **REMOVAL**

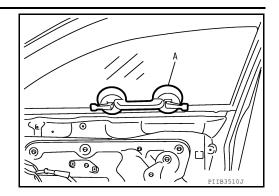
- 1. Remove the front door finisher. Refer to <a href="INT-13">INT-13</a>, "Removal and Installation" for Sedan or <a href="INT-41">INT-41</a>, "Removal and Installation" for Coupe.
- 2. Remove the bolt hole access covers from the module assembly.
- Reconnect the power window switch to raise/lower the door glass until the door glass bolts (A) can be seen through the access holes on the door module assembly.
- 4. Remove the door glass bolts (A).



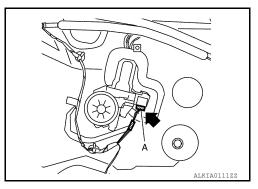
## FRONT REGULATOR

### < REMOVAL AND INSTALLATION >

Raise the door glass and hold with a suction lifter (A).



Disconnect the window motor connector (A).

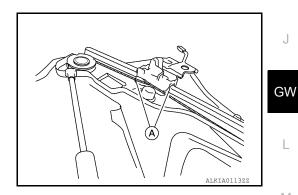


- 7. Remove the door module assembly.
- 8. Remove the regulator assembly from the door module assembly (coupe only).

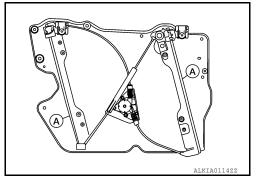
### INSPECTION AFTER REMOVAL

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

- · Excessive cable wear.
- · Regulator channel deformation (A).



· Apply grease for each sliding part. Apply grease at the application points (A) as shown.



**INSTALLATION** 

Installation is in the reverse order of removal.

Inspection and Adjustment

INFOID:0000000006390923

INSPECTION AND RESETTING THE WINDOW MOTOR LIMINT SWITCH AFTER INSTALLATION **GW-23** Revision: June 2012 2011 Altima GCC

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## FRONT REGULATOR

#### < REMOVAL AND INSTALLATION >

Front Door Glass Inspection After Installation

- Check that the door glass is securely set into the glass run groove.
- Lower the door 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 door glass and sash is not parallel, loosen the regulator bolts, guide rail bolts, and door glass and guide rail bolts to correct the glass position.

#### NOTE:

If any of the following occur, initialization procedure must be performed. Refer to <a href="PWC-11">PWC-11</a>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement"

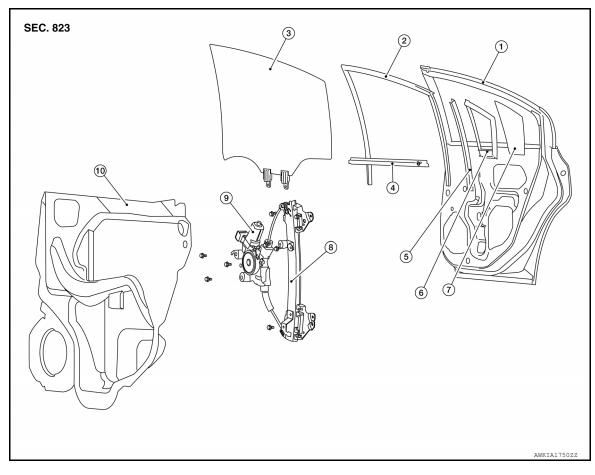
- Electric power supply to power window switch or motor is interrupted by blown fuse or disconnecting battery cable, etc.
- · Removal and installation of the regulator assembly.
- Removal and installation of the motor from the regulator assembly.
- Removal and installation of the harness connector of the power window switch.
- · Operation of the regulator assembly as a unit.
- Removal and installation of the door glass.
- · Removal and installation of the door glass run.
- Window is partly opened and or closed multible times with out being fully closed.

#### FITTING INSPECTION

- Make sure the glass is securely set into the glass run groove.
- Lower the glass slightly [approx. 10 to 20 mm (0.39 to 0.79 in)] and make sure 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 adjust the glass position.

## **REAR DOOR GLASS**

Exploded View



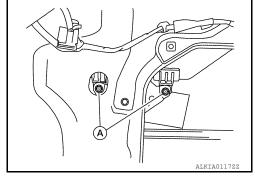
- 1. Rear door
- 4. Inside seal
- 7. Door rear, glass
- 10. Vapor barrier

- 2. Door glass run
- 5. Partition sash
- 8. Regulator assembly
- 3. Door glass
- 6. Rear window seal
- 9. Window motor

## Removal and Installation

**REMOVAL** 

- Remove the rear door finisher. Refer to <u>INT-13, "Removal and Installation"</u>.
- 2. Remove the vapor barrier, being careful not to tear/damage it.
- 3. Temporarily reconnect the power window switch to the door harness.
- 4. Operate the power window switch to raise/lower the door glass until the door glass bolts (A) can be seen.
- 5. Remove the door glass bolts (A).



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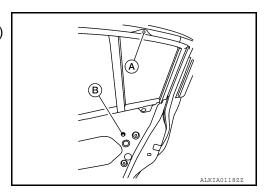
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Revision: June 2012 GW-25 2011 Altima GCC

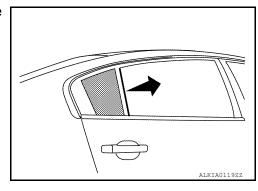
## **REAR DOOR GLASS**

### < REMOVAL AND INSTALLATION >

- 6. Remove the door glass.
- 7. Remove the partition sash from the glass run.
  - Remove the partition sash bolt (lower) (B) and screw (upper)
     (A) to remove the sash.



8. Remove the partition glass from the inside of the door in the direction as shown.



#### **INSTALLATION**

Installation is in the reverse order of removal.

After installation inspect and adjust as necessary.

## Inspection and Adjustment

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### FITTING INSPECTION

- Make sure the glass is securely fit into the glass run groove.
- Lower the glass slightly [approx. 10 to 20 mm (0.39 to 0.79 in)], and make sure 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.

## **REAR REGULATOR**

## **Exploded View**

SEC. 823

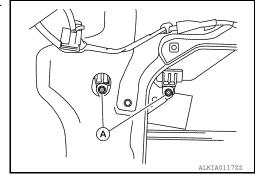
- 1. Rear door
- 4. Inside seal
- 7. Door rear, glass
- 10. Vapor barrier

- 2. Door glass run
- 5. Partition sash
- Regulator assembly
- 3. Door glass
- 6. Rear window seal
- 9. Window motor

## Removal and Installation

### **REMOVAL**

- Remove the rear door finisher. Refer to <u>INT-13, "Removal and Installation"</u>.
- 2. Remove the vapor barrier, being careful not to tear/damage it.
- 3. Temporarily reconnect the power window switch to the door harness.
- 4. Operate the power window switch to raise/lower the door window until the glass mounting bolts (A) can be seen.
- 5. Remove the door glass bolts (A).



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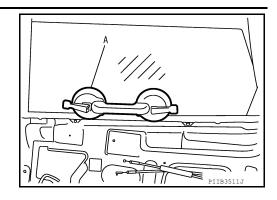
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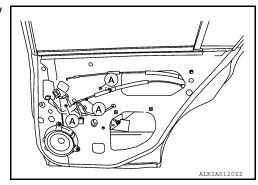
## **REAR REGULATOR**

### < REMOVAL AND INSTALLATION >

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



- 7. Disconnect the window motor connector.
- 8. Remove the window regulator bolts (A) and remove the window regulator from the rear door panel.



#### INSTALLATION

Installation is in the reverse order of removal.

· After installation, inspect and adjust as necessary.

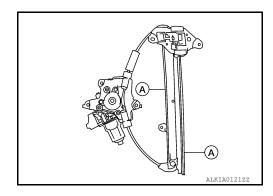
Inspection

## INSPECTION AFTER REMOVAL

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

- · Gear wear
- Regulator deformation
- · Grease condition for each sliding part

Apply multi-purpose grease at points (A) shown.

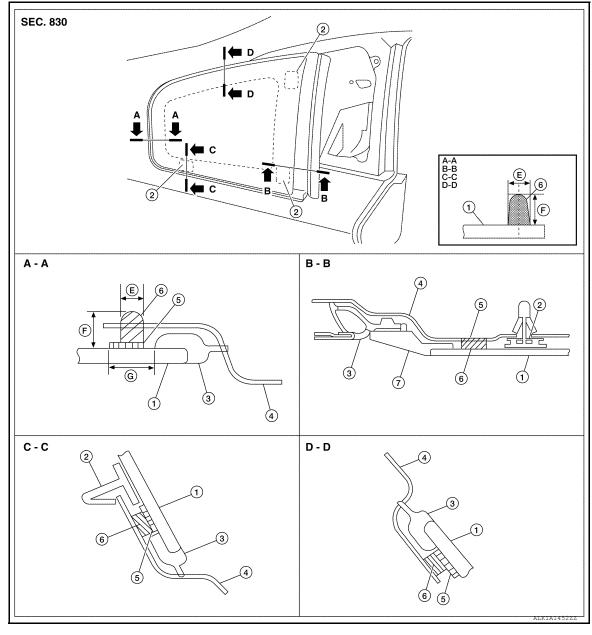


#### FINAL INSPECTION

- · Make sure the glass is securely fit into the glass run groove.
- Lower the glass slightly [approx. 10 to 20 mm (0.39 to 0.79 in)], and make sure 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.

## SIDE WINDOW GLASS

Components



- 1. Side window glass
- 4. Body side outer panel
- 7. Encapsulation
- G. 15 mm (0.59 in)

- 2. Spacer
- 5. Primer
- E. 5 mm (0.20 in)

- 3. Seal
- 6. Adhesive
- F. 9 mm (0.35 in)

## Removal and Installation

## **REMOVAL**

Remove the upper pillar finisher. Refer to <u>INT-50, "Removal and Installation"</u>.

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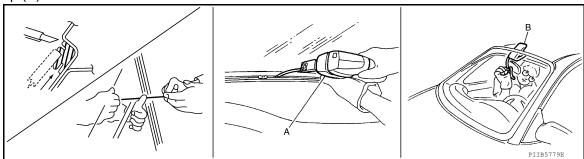
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## SIDE WINDOW GLASS

#### < REMOVAL AND INSTALLATION >

2. After removing moldings, remove the glass using piano wire or power cutting tool (A) and an inflatable pump (B).



#### **WARNING:**

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

#### **CAUTION:**

- · 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.
- When the windshield glass is to be reused, do not use a cutting knife or power cutting tool.

#### NOTE:

If the side window glass is to be reused, mark the body and the glass with mating marks.

#### 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.
- 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 side window glass in case of an accident.

#### **CAUTION:**

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

Inspection INFOID:000000006390932

Repairing water Leaks for Side Window Glass

Leaks can be repaired without removing and reinstalling glass.

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

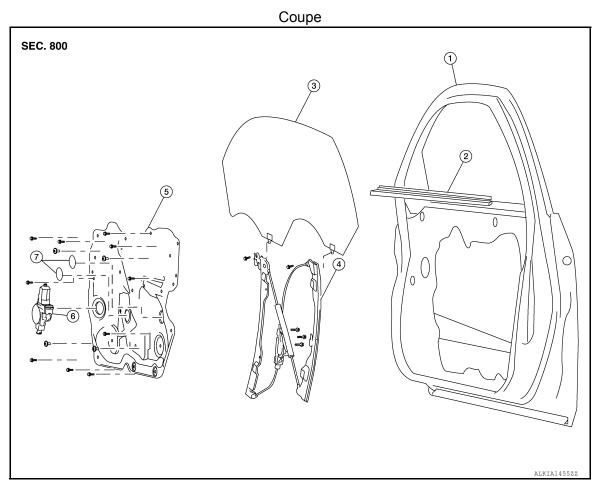
To stop the leak, apply primer (if necessary) and then urethane adhesive to the leak point.

## FRONT REGULATOR

# **UNIT DISASSEMBLY AND ASSEMBLY**

## FRONT REGULATOR

Components INFOID:00000000006931381 B



- 1. Door
- 4. Regulator assembly
- 7. Cover

- 2. Inside seal
- 5. Door module assembly
- 3. Door glass
- 6. Window motor

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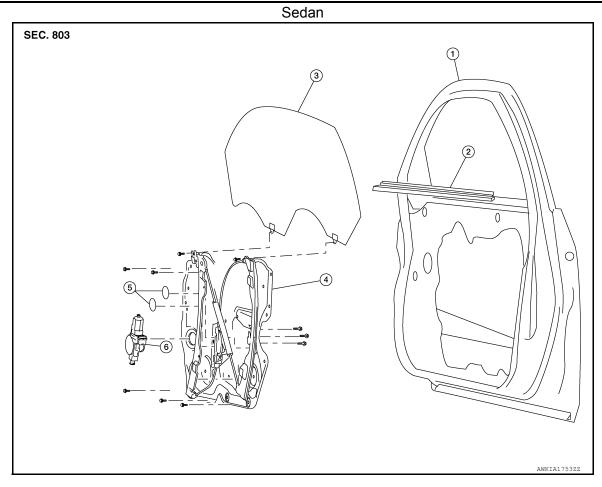
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- 1. Door
- 4. Door module assembly
- 2. Inside seal
- 5. Window motor

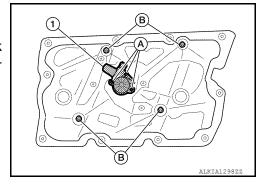
- Door glass
- 6. Cover

## Disassembly and Assembly

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## DISASSEMBLY

- 1. Remove the window motor nuts (A).
- 2. Remove the window motor (1) from the door module assembly.
- Remove the four window regulator bolts (B). Then from the back side remove the window regulator from the door module assembly (for coupe only).



## **ASSEMBLY**

Assembly is in the reverse order of disassembly.

# REAR REGULATOR

## **Exploded View**

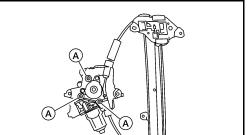
SEC. 823 (10)

- 1. Rear door
- Inside seal
- Door rear glass 7.
- 10. Vaper barrier

- 2. Door glass run
- 5. Partition sash
- Regulator assembly
- 3. Door glass
- 6. Door rear glass seal
- Window motor

# Disassembly

- Remove the power window motor screws (A).
- Remove power window motor from regulator assembly.



Assembly

Assembly is in the reverse order of disassembly.

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**GW-33** Revision: June 2012 2011 Altima GCC

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