# SECTION GLASS & WINDOW SYSTEM

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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. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### **WARNING:**

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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

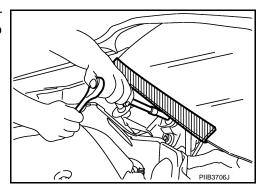
#### **WARNING:**

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the
  ignition ON or engine running, never 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 for Procedure without Cowl Top Cover

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



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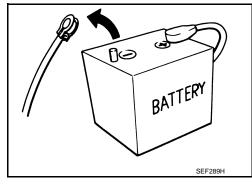
# **Precautions for Removing Battery Terminal**

 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

#### NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.
 NOTE:



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#### **PRECAUTIONS**

#### < PRECAUTION >

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
 NOTE:

The removal of 12V battery may cause a DTC detection error.

# Handling for Adhesive and Primer

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- 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

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

Tool number (Kent-Moore No.) Tool name		Description
(J-39570) Chassis ear	SIIAO993E	Locates the noise
(J-50397) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairs the cause of noise

# Commercial Service Tools

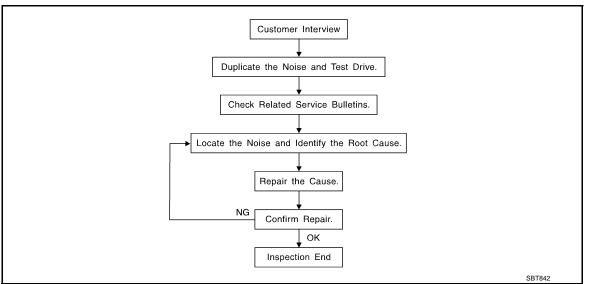
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Tool name		Description
Engine ear	SIIA0995E	Locates the noise
Suction lifter	PIIB1805J	Holds the door glass
Remover tools	JMKIA3050ZZ	Removes the clips, pawls and metal clips

# 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 of customer's comments; refer to <a href="GW-9">GW-9</a>, "Diagnostic Worksheet"</a>. 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, perform a diagnosis and repair the noise that the customer is concerned about. This can be accomplished by performing a cruise test on 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 bumblebee)
  Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending up on 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.

#### DUPLICATE THE NOISE AND TEST DRIVE

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#### < 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 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 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 and mechanics stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
- Removing the components in the area that you suspect the noise is coming from.
   Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
- Tapping or pushing/pulling the component that you suspect is causing the noise.
   Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- Feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
- Placing a piece of paper between components that you suspect are causing the noise.
- Looking for loose components and contact marks.
   Refer to GW-7, "Inspection Procedure".

#### 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-50397) 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-50397) are listed on the inside cover of the kit; and can each 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)/76884-71L02:15  $\times$  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  $\times$  1.97in)

FELT CLOTHTAPE

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

< SYMPTOM DIAGNOSIS >  $68370-4B000: 15 \times 25 \text{ mm}$  (0.59  $\times$  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. Α **UHMW (TEFLON) TAPE** Insulates where slight movement is present. Ideal for instrument panel applications. SILICONE GREASE В 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 D 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. Inspection Procedure INFOID:0000000010259107 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 Instrument panel to front pillar garnish Instrument panel to windshield 5. Instrument panel mounting pins Н Wiring harnesses behind the combination meter 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. J 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: Shifter assembly cover to finisher A/C control unit and cluster lid C 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
- 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-50397) to repair the noise.

#### TRUNK

Trunk noises are often caused by a loose jack or loose items put in to the trunk by the owner. In addition look for:

- Trunk lid dumpers out of adjustment
- Trunk lid striker out of adjustment

**GW-7** Revision: 2014 October 2015 QX80

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#### < SYMPTOM DIAGNOSIS >

- 3. The trunk lid torsion bars knocking together
- A loose license plate or bracket

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

#### SUNROOF/HEADLINING

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

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

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

#### SEATS

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

Cause of seat noise include:

- 1. Headrest rods and holder
- A squeak between the seat pad cushion and frame
- 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
- 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.

< SYMPTOM DIAGNOSIS >

# Diagnostic Worksheet

INFOID:0000000010259108



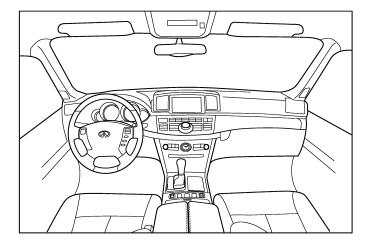
# SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

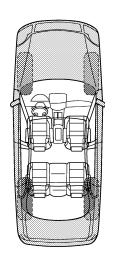
#### Dear Infiniti Customer:

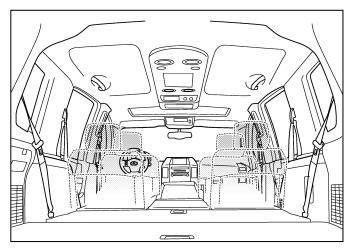
We are concerned about your satisfaction with your Infiniti vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Infiniti right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may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

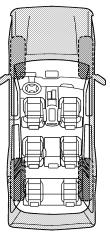
I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

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









Continue to 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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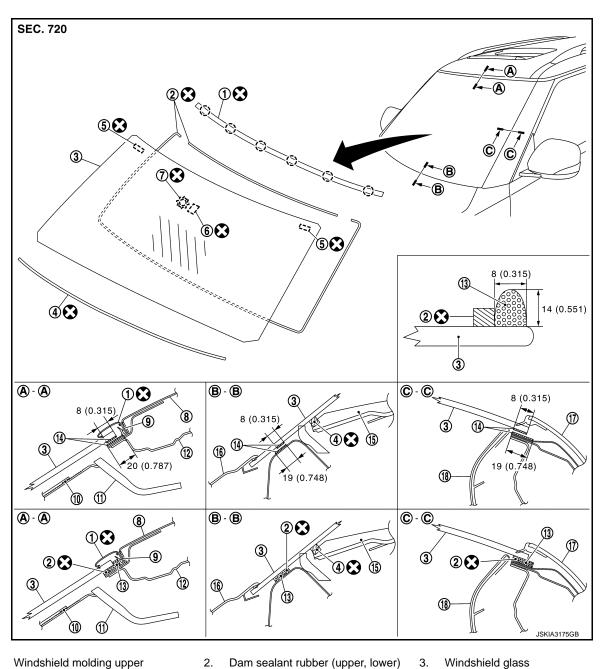
Briefly describe the location where the no	oise occurs:			
II. WHEN DOES IT OCCUR? (please ch  ☐ anytime ☐ 1st time in the morning ☐ only when it is cold outside ☐ only when it is hot outside	☐ after☐ whe	sitting ou n it is rain or dusty co	it in the ra	
III. WHEN DRIVING:	IV. WH	AT TYPE	OF NOIS	E
through driveways over rough roads over speed bumps only about mph on acceleration coming to a stop on turns: left, right or either (circle) with passengers or cargo other: miles or mi	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 at the door) tick (like a clock second hand) thump (heavy, muffled knock noise) buzz (like a bumble bee)			
TO BE COMPLETED BY DEALERSHIF Test Drive Notes:	PERSONI	NEL		
		YES	NO	Initials of person performing
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confir	m repair			

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# REMOVAL AND INSTALLATION

# WINDSHIELD GLASS

**Exploded View** INFOID:0000000010259109



- 1. Windshield molding upper
- 4. Insulator
- 7. Rain sensor bracket
- 10. Inside mirror cover
- 13. Adhesive
- 16. Cowl top cover
- $(\overline{\phantom{a}})$ : Clip
- : Always replace after every disassembly.
- Unit : mm (in)

- 3. Windshield glass
- Inside mirror base 6.
- Windshield molding upper fastener 9.
- 12. Front roof rail
- Instrument panel 15.
- 18. Front pillar garnish

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Dam sealant rubber (upper, lower)

Clip

Primer

Roof assembly

17. Front pillar finisher

Headlining assembly

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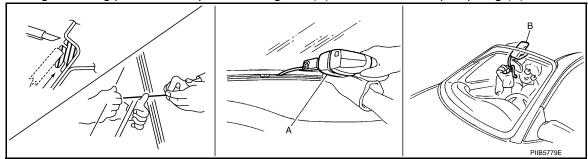
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#### Removal and Installation

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#### **REMOVAL**

- 1. Remove front pillar garnish (LH and RH). Refer to INT-14, "Removal and Installation".
- Remove partially headlining (front edge). Refer to <u>INT-29, "Removal and Installation"</u>.
- 3. Disconnect inside mirror harness connector.
- 4. Remove rain sensor cover and then disconnect rain sensor harness connector. Refer to <a href="https://www.nc.no.nector.com/www-71"><u>WW-71.</u></a>
- 5. Remove drip molding. Refer to EXT-44, "Removal and Installation".
- 6. Remove windshield molding upper using pliers. Refer to GW-11, "Exploded View".
- 7. Remove front wiper arm (LH and RH). Refer to WW-65, "Removal and Installation".
- 8. Remove cowl top cover. Refer to EXT-22, "Removal and Installation".
- 9. Remove front fender cover (LH and RH). Refer to EXT-22, "Exploded View".
- 10. Remove front pillar finisher (LH and RH). Refer to EXT-41, "Removal and Installation".
- 11. Apply protective tape around the windshield glass to protect the painted surface from damage.
- 12. Remove glass using piano wire or power cutting tool (A) and an inflatable pump bag (B).



#### NOTE:

Mark the body and the glass with matching marks if the windshield glass is reused.

#### WARNING.

Always wear safety glasses and heavy gloves to prevent injury.

#### **CAUTION:**

- Never use a cutting knife or power cutting tool when the windshield glass is reused.
- · Be careful not to scratch the glass when removing.
- Never set or stand the glass on its edge. Small chips may develop into cracks.

#### INSTALLATION

- The dam sealant rubber and insulator should be installed in position.
- Use a genuine Nissan Urethane Adhesive Kit (if available) or an equivalent and follow the instructions provided with it.
- Open a door window while the urethane adhesive is curing. This prevents the glass from being forced out by passenger room air pressure when all door windows are closed.
- The molding must be installed securely so that it is in position and leaves no clearance.
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (approximately 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. Never let them come in contact with the skin and eyes.
- Use in an open, well ventilated location. Never breathe the vapors. They may be harmful if inhaled. Move immediately to an area with fresh air if affected by vapor inhalation.
- Driving the vehicle before the urethane adhesive has completely cured may affect the performance of the windshield in case of an accident.

#### **CAUTION:**

- Perform adjustment of front wiper arms stop location. Refer to <u>WW-65</u>, "Adjustment".
- Never 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.

## WINDSHIELD GLASS

#### < REMOVAL AND INSTALLATION >

- Keep primers and adhesive in a cool, dry place. Ideally, they should be stored in a refrigerator.
- Never 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 increases under lower temperature and lower humidity.

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#### REPAIRING WATER LEAKAGE FOR WINDSHIELD GLASS

Leakage can be repaired without removing the glass.

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

Apply primer (if necessary) and then urethane adhesive to the leakage point to stop the leakage.

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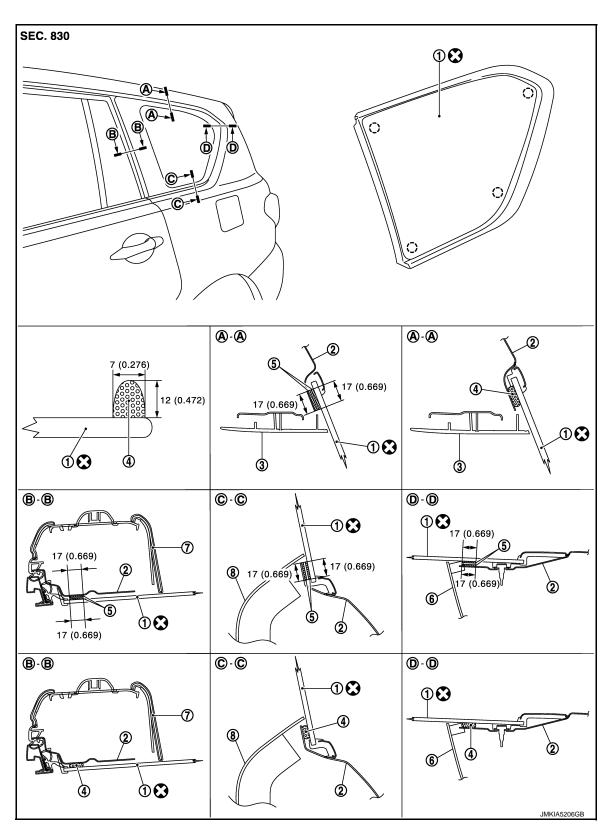
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# SIDE WINDOW GLASS

Exploded View



- 1. Side window glass
- 4. Adhesive
- 7. Rear pillar finisher
- 2. Body side outer panel
- Primer
- 8. Luggage side lower finisher
- 3. Luggage side upper finisher
- 6. Back pillar garnish

#### SIDE WINDOW GLASS

#### < REMOVAL AND INSTALLATION >

(_)	: Clip	
	: Always replace after every disassembly.	
Unit	: mm (in)	
Remo	oval and Installation	INFOID:0000000010259113
CAUTI	ON:	

Replace the side window glass assembly with a new part after removal as it cannot be reused.

#### REMOVAL

- 1. Remove third seat cushion and third seatback assembly. Refer to SE-137, "Removal and Installation".
- 2. Remove luggage side lower finisher. Refer to <a href="INT-36">INT-36</a>, "LUGGAGE SIDE LOWER FINISHER: Removal and Installation".
- 3. Remove rear pillar finisher. Refer to INT-37, "REAR PILLAR FINISHER: Removal and Installation".
- 4. Remove back pillar garnish. Refer to INT-37, "BACK PILLAR GARNISH: Removal and Installation".
- 5. Remove luggage side upper finisher. Refer to <a href="INT-38">INT-38</a>, "LUGGAGE SIDE UPPER FINISHER: Removal and Installation".
- 6. Disconnect the harness connector from side window glass.
- 7. Apply protective tape around the side window to protect the painted surface from damage.
- 8. Remove the side window glass using piano wire.

#### **WARNING:**

Always wear safety glasses and heavy gloves to prevent injury. CAUTION:

- · Be careful not to scratch the glass when removing.
- Never set or stand the glass on its edge. Small chips may develop into cracks.

#### INSTALLATION

- Use a genuine Nissan Urethane Adhesive Kit (if available) or an equivalent and follow the instructions provided with it.
- Open a door window while the urethane adhesive is curing. This prevents the glass from being forced out by passenger room air pressure when all door windows are closed.
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (approximately 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. Never let them come in contact with the skin and eyes.
- Use in an open, well ventilated location. Never breathe the vapors. They may be harmful if inhaled.
   Move immediately to an area with fresh air if affected by vapor inhalation.
- Driving the vehicle before the urethane adhesive has completely cured may affect the performance of the side window in case of an accident.

#### CAUTION.

- Never 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.
- Never 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 increases under lower temperature and lower humidity.

Inspection INFOID:0000000010259114

#### REPAIRING WATER LEAKAGE FOR SIDE WINDOW GLASS

Leakage can be repaired without removing glass.

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

Apply primer (if necessary) and then urethane adhesive to the leakage point to stop the leakage.

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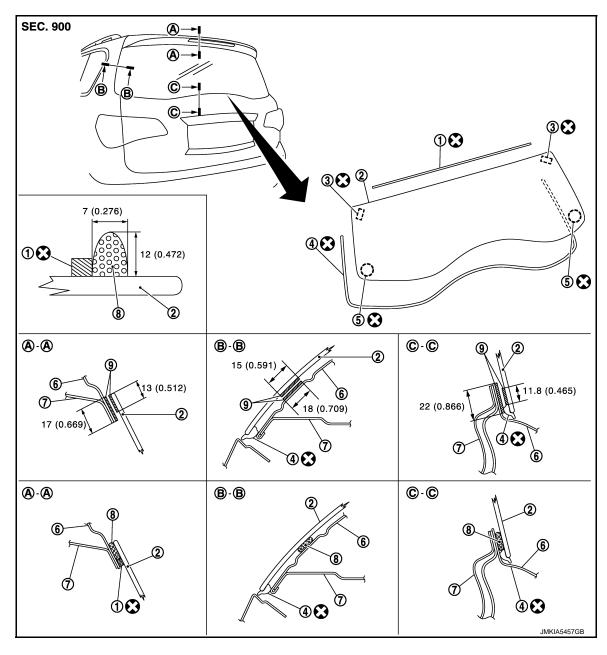
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**Exploded View** INFOID:0000000010259115



- 1. Dam-sealant rubber upper
- 2. Back door window glass
- Back door window glass holder (up-

- 4. Back door window glass molding
- Back door window glass holder (low- 6. er)
- Back door panel outer

- 7. Back door panel inner
- Adhesive

Primer

: Always replace after every disassembly.

Unit: mm (in)

#### Removal and Installation

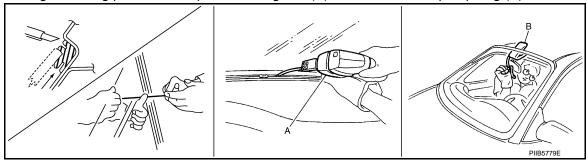
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#### **REMOVAL**

- Remove rear spoiler. Refer to EXT-42, "Removal and Installation".
- Remove the connectors and grounds for the back door window defogger.

#### < REMOVAL AND INSTALLATION >

- 3. Remove rear wiper arm. Refer to WW-73, "Removal and Installation".
- 4. Remove rear wiper motor. Refer to WW-75, "Removal and Installation".
- Remove back door window glass molding using a pliers. Refer to <u>GW-16</u>, "Exploded View".
- 6. Apply protective tape around the back door window glass to protect the painted surface from damage.
- 7. Remove glass using piano wire or power cutting tool (A) and an inflatable pump bag (B).



#### NOTE:

Mark the body and the glass with matching marks if the back door window glass is reused.

#### WARNING:

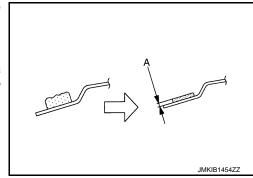
Always wear safety glasses and heavy gloves to prevent injury. CAUTION:

- · Be careful not to scratch the glass when removing.
- Never set or stand the glass on its edge. Small chips may develop into cracks.

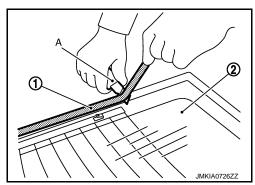
#### **INSTALLATION**

 Using a scraper, remove remaining adhesive (sealant) on the body side down to approximately a depth that is 2 mm (0.08 in) thick (A) so that entire contour becomes smooth.
 CAUTION:

If the bonded area on the body is scratched, repair it with a two-liquid type urethane paint. Never use lacquer type paint.



2. When reusing the glass (2), use the cutter (A) to remove the remaining adhesive (1) (sealant) and smooth out the surface.



Mount the glass onto the vehicle and paint matching marks on the body and glass when installing new glass. Then remove the glass again. Α

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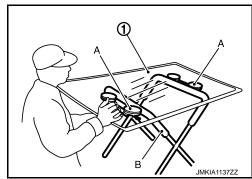
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#### < REMOVAL AND INSTALLATION >

4. Use the rubber suction cups or suction lifter (A) to set the glass (1) on the glass stand (B).



- 5. Clean the bonded area on the glass and body with white gasoline or degreasing agent.
- 6. Install new back door window glass holder (upper and lower).
- 7. Apply primer for the glass along the entire circumference of the glass.

  Use the sealing kit for glass application and the special holder for cartridge or similar tools.

#### **CAUTION:**

There are 2 types of primer. Never confuse the application methods.

- Primer for painted surfaces
- Primer for glass

#### NOTE:

The essential function of primers is to strengthen adhesion between glass and painted surface.

8. Apply primer for the painted surface to the body side bonding surface.

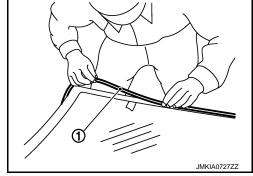
#### **CAUTION:**

- If the body side bonding surface is repaired with a two-liquid type urethane paint, always apply the primer after drying the paint.
- If primer for painted surfaces adheres to a painted surface other than the bonding area, or if it overflows, quickly remove it with white gasoline or degreasing agent.
- 9. Affix the dam sealant rubber and apply adhesive along the edge of the glass within the time period indicated in the instruction manual after applying primer.
  - When reusing the glass, affix new dam sealant rubber at the same place where old dam sealant rubber was affixed.
  - When installing new glass, apply the dam sealant rubber from the edge of the glass so as to hide the black print.

#### **CAUTION:**

Apply the dam sealant rubber upper (1) to the outer edge of the outline mark of black print as shown in Exploded View. Apply it so as to only place it without pulling. NOTE:

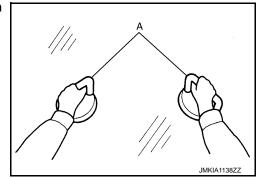
Open adhesive by cutting off the nozzle tip and set it in a sealant gun.



10. Use rubber suction cups or suction lifter (A) that are installed in advance, align the matching marks to install.

#### **CAUTION:**

2 or more workers are required when installing the glass.



After installing glass, keep the front door glass open until the adhesive is completely cured. Avoid

#### < REMOVAL AND INSTALLATION >

- 11. Press the entire surface of the glass lightly to fit it completely.
- 12. Correct any adhesive overflow or shortage using a spatula to make the surface smooth. **CAUTION:**

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driving the vehicle.13. Remove protective tape.

- 14. Install new back door window glass molding.
- 15. Install the removed parts.

#### **CAUTION:**

Check the mating area with surrounding parts. Adjust if necessary.

INFOID:0000000010259117

Inspection

WATER LEAKAGE INSPECTION

**CAUTION:** 

Wait at least 2 hours after installing the glass because the adhesive must be cured before performing the leakage test.

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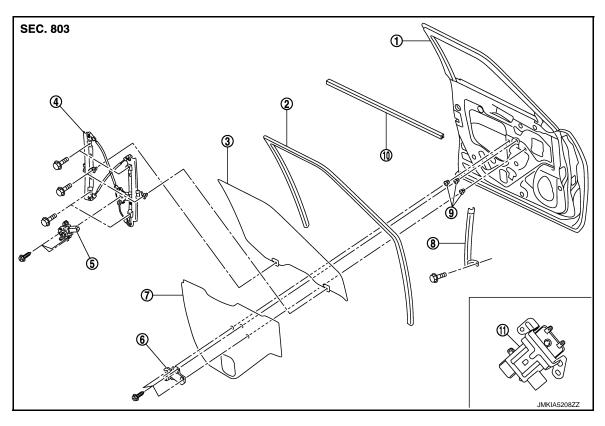
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Revision: 2014 October GW-19 2015 QX80

## FRONT DOOR GLASS

Exploded View



- 1. Front door panel
- 4. Front door regulator
- 7. Front door sealing screen
- 10. Front door inside seal
- 2. Front door glass run
- 5. Front door power window motor
- 8. Front door lower sash
- 11. Power window controller
- 3. Front door glass
- 6. Front door pull handle bracket
- 9. Grommet

#### Removal and Installation

INFOID:0000000010259119

#### **REMOVAL**

- Remove front door finisher. Refer to <u>INT-14, "Removal and Installation"</u>.
- 2. Disconnect door mirror harness connector and remove the fixing clip.
- 3. Remove front door inside seal.
- 4. Remove front door pull handle bracket.
- 5. Remove front door speaker. Refer to AV-286, "Removal and Installation".
- 6. Remove front door speaker bracket from front door panel.
- 7. Remove front door speaker harness from front door speaker bracket.
- 8. Remove front door glass sealing screen with a cutter tool.

#### NOTE:

Cute the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- 9. Reconnect front power window main switch, and then operate the power window main switch to raise or lower front door glass until the mounting bolts can be seen.
- 10. Remove front door glass mounting bolts.
- Hold securely front door glass and pull it out of the sash to remove the front door glass from inside or outside front door panel.
- 12. Remove front door glass run.

#### FRONT DOOR GLASS

#### < REMOVAL AND INSTALLATION >

13. Remove front door lower sash mounting bolt and pull it out of front door panel.

#### **INSTALLATION**

Install in the reverse order of removal.

## Inspection and Adjustment

#### INFOID:0000000010259120

#### SYSTEM INITIALIZATION

Initialize the system if any of the following work has been done. Refer to PWC-31, "Description".

#### Initialization

Follow the steps below after installing each component to the vehicle. Refer to PWC-31, "Work Procedure".

#### FITTING INSPECTION

- Check that the glass is fit securely into the sash groove.
- Lower the glass slightly [approximately 10 to 20 mm (0.394 to 0.787 in)], and check that the clearance to the sash is parallel. Loosen the regulator mounting bolts, guide rail mounting bolts, and glass and guide rail mounting bolts to correct the glass position if the clearance between the glass and sash is not parallel.

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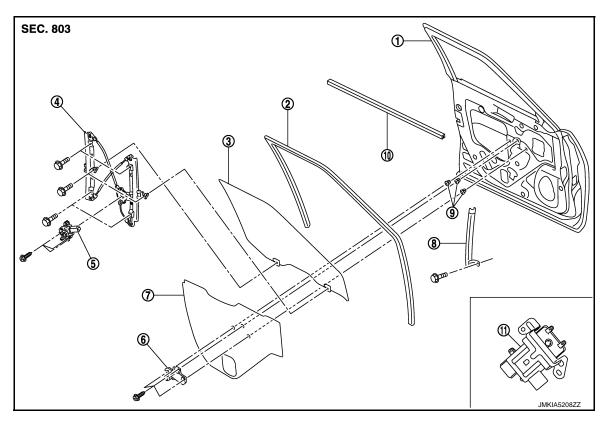
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# FRONT REGULATOR

Exploded View



- 1. Front door panel
- 4. Front door regulator
- 7. Front door sealing screen
- 10. Front door inside seal
- 2. Front door glass run
- 5. Front door power window motor
- 8. Front door lower sash
- 11. Power window controller
- 3. Front door glass
- 6. Front door pull handle bracket
- 9. Grommet

#### Removal and Installation

INFOID:0000000010259122

#### **REMOVAL**

- Remove front door glass. Refer to <u>GW-20, "Removal and Installation"</u>.
- 2. Disconnect front power window motor harness connector.
- 3. Remove front door regulator mounting bolts.
- 4. Remove front door power window motor mounting bolts.
- Remove front door regulator and front door power window motor from front door panel.

#### **INSTALLATION**

Install in the reverse order of removal.

# Disassembly and Assembly

INFOID:0000000010259123

#### DISASSEMBLY

- Remove front door regulator from front door panel.
- 2. Remove front door power window motor from front door regulator.

#### **ASSEMBLY**

Assemble in the reverse order of disassembly.

#### FRONT REGULATOR

#### < REMOVAL AND INSTALLATION >

## Inspection and Adjustment

INFOID:0000000010259124

#### SYSTEM INITIALIZATION

Initialize the system if any of the following work has been done. Refer to PWC-31, "Description".

Initialization

Follow the steps below after installing each component to the vehicle. Refer to <a href="PWC-31">PWC-31</a>, "Work Procedure".

#### FITTING INSPECTION

- Check that the glass is fit securely into the sash groove.
- Lower the glass slightly [approximately 10 to 20 mm (0.394 to 0.787 in)], and check that the clearance to the sash is parallel. Loosen the regulator mounting bolts, guide rail mounting bolts, and glass and guide rail mounting bolts to correct the glass position if the clearance between the glass and sash is not parallel.

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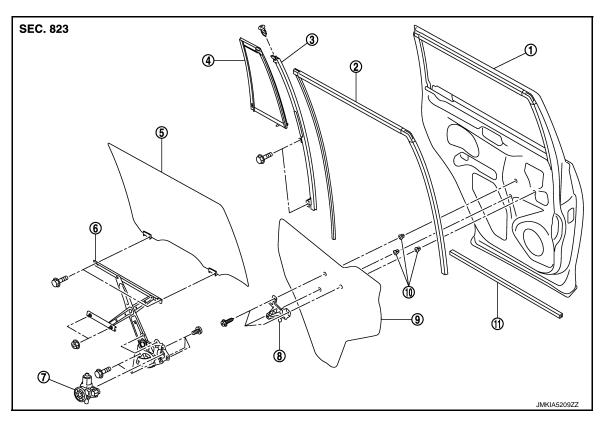
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# **REAR DOOR GLASS**

Exploded View



- 1. Rear door panel
- 4. Partition glass
- 7. Rear power window motor
- 10. Grommet

- 2. Rear door glass run
- 5. Rear door glass
- 8. Rear door pull handle bracket
- 11. Rear door inside seal
- 3. Partition sash
- 6. Rear door regulator
- 9. Rear door sealing screen

#### Removal and Installation

INFOID:0000000010259126

#### **REMOVAL**

- Remove rear door finisher. Refer to <u>INT-16, "Removal and Installation"</u>.
- 2. Remove rear door inside seal.
- 3. Remove rear door outside molding. Refer to EXT-33, "Removal and Installation".
- 4. Remove rear door pull handle bracket mounting bolts and remove it.
- 5. Disconnect rear door speaker harness connector.
- 6. Remove the rear door sealing screen with a cutter tool.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the rear door sealing screen, if the sealing screen is reused.

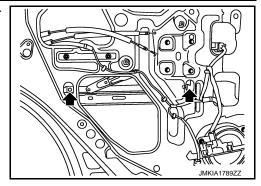
7. Reconnect the rear door power window switch.

#### **REAR DOOR GLASS**

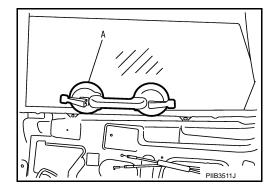
#### < REMOVAL AND INSTALLATION >

- 8. Operate the power window switch to raise or lower the door window until the glass mounting bolts can be seen.
- 9. Remove the rear door glass mounting bolts.

= : Bolt



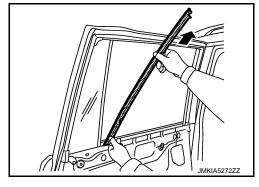
10. Raise rear door glass up and hold it with a suction lifter (A).



- 11. Disconnect rear door power window motor harness connector.
- 12. Remove rear door regulator mounting nuts.
- 13. Remove rear door power window motors mounting bolts.
- 14. Remove rear door regulator from rear door panel.
- 15. Securely place rear door glass down inside rear door panel.
- 16. Remove rear door glass run.
- 17. Remove rear door sash mounting bolts and screw, and then pull it up to remove.

#### **CAUTION:**

Be careful not to scratch or damage rear door glass with rear door sash.



18. Remove rear door glass from rear door panel as shown by the figure.



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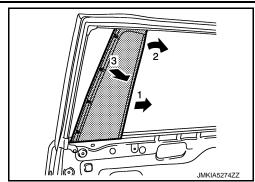
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#### **REAR DOOR GLASS**

#### < REMOVAL AND INSTALLATION >

19. Slide partition glass toward the vehicle and remove it as shown in the figure.



#### **INSTALLATION**

Install in the reverse order of removal.

# Inspection and Adjustment

INFOID:0000000010259127

#### SYSTEM INITIALIZATION

Initialize the system if any of the following work has been done. Refer to PWC-31. "Description".

Initialization

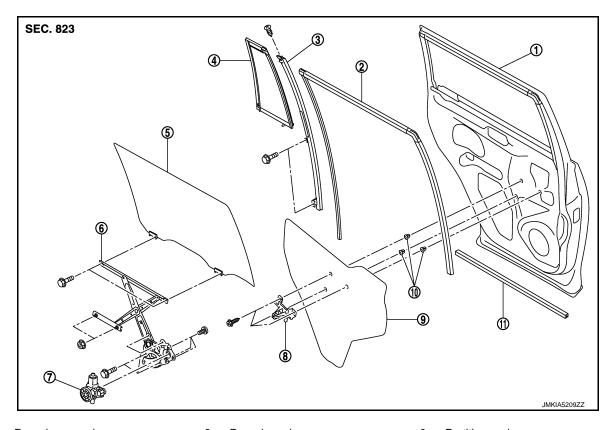
Follow the steps below after installing each component to the vehicle. Refer to PWC-31, "Work Procedure".

#### FITTING INSPECTION

- Check that the glass is fit securely into the sash groove.
- Lower the glass slightly [approximately 10 to 20 mm (0.394 to 0.787 in)], and check that the clearance to the sash is parallel. Loosen the regulator mounting bolts, guide rail mounting bolts, and glass and guide rail mounting bolts to correct the glass position if the clearance between the glass and sash is not parallel.

# **REAR REGULATOR**

**Exploded View** INFOID:0000000010259128



- 1. Rear door panel
- 4. Partition glass
- Rear power window motor 7.
- 10. Grommet

- 2. Rear door glass run
- 5. Rear door glass
- Rear door pull handle bracket
- 11. Rear door inside seal
- Partition sash 3.
- 6. Rear door regulator
- 9. Rear door sealing screen

Removal and Installation

INFOID:0000000010259129

#### **REMOVAL**

- Remove rear door finisher. Refer to <a href="INT-16">INT-16</a>, "Removal and Installation".
- Remove rear door inside seal.
- Remove rear door outside molding. Refer to EXT-33, "Removal and Installation".
- 4. Remove rear pull handle bracket mounting bolts and then remove it.
- 5. Disconnect rear door speaker harness connector.
- 6. Remove the sealing screen with a cutter tool.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

7. Reconnect the rear door power window switch.

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**GW-27** Revision: 2014 October 2015 QX80

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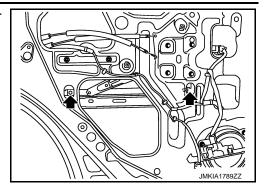
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#### REAR REGULATOR

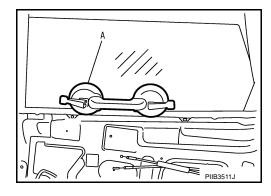
#### < REMOVAL AND INSTALLATION >

- Operate the power window switch to raise or lower the door window until the glass mounting bolts can be seen.
- Remove the rear door glass mounting bolts.

= : Bolt



10. Raise rear door glass up and hold it with a suction lifter (A).



- 11. Disconnect rear door power window motor harness connector.
- 12. Remove rear door regulator mounting nuts.
- 13. Remove rear door power window motors mounting bolts.
- 14. Remove rear door regulator from rear door panel.

#### **INSTALLATION**

Install in the reverse order of removal.

# Disassembly and Assembly

INFOID:0000000010259130

#### DISASSEMBLY

Remove rear power window motor from rear door regulator.

#### **ASSEMBLY**

Assemble in the reverse order of disassembly.

# Inspection and Adjustment

INFOID:0000000010259131

#### SYSTEM INITIALIZATION

Initialize the system if any of the following work has been done. Refer to <u>ADP-51, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description".</u>

#### Initialization

Follow the steps below after installing each component to the vehicle. Refer to <u>ADP-51</u>, "<u>ADDITIONAL SER-VICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</u>: <u>Special Repair Requirement</u>".

#### FITTING INSPECTION

- Check that the glass is fit securely into the sash groove.
- Lower the glass slightly [approximately 10 to 20 mm (0.394 to 0.787 in)], and check that the clearance to the sash is parallel. Loosen the regulator mounting bolts, guide rail mounting bolts, and glass and guide rail mounting bolts to correct the glass position if the clearance between the glass and sash is not parallel.