

SECTION

GW

GLASS & WINDOW SYSTEM

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SQUEAK AND RATTLE TROUBLE DIAGNOSES

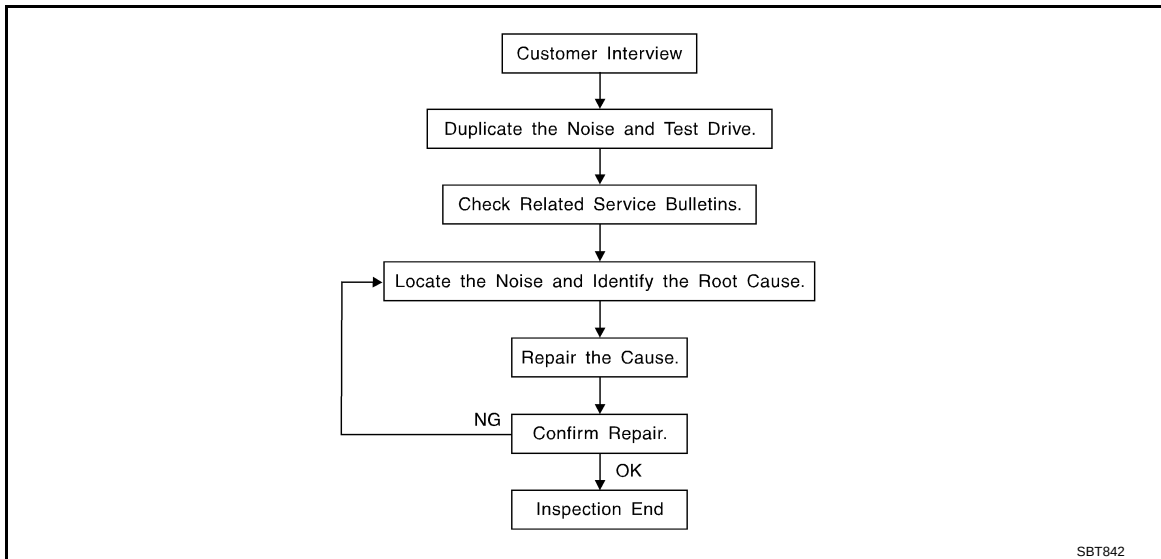
< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow

INFOID:000000003943092



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 the customer's comments; refer to [GW-6. "Diagnostic Worksheet"](#). This information is necessary to duplicate the conditions that exist when the noise occurs.

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

SQUEAK AND RATTLE TROUBLE DIAGNOSES

< 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 the repair is reconfirmed.

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

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

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 (Engine Ear or 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 is are suspected to be the cause of the noise.
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 is are suspected to be the cause of 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 by hand by touching the component(s) that is are suspected to be the cause of the noise.
 - Placing a piece of paper between components that is are suspected to be the cause of the noise.
 - Looking for loose components and contact marks.
Refer to [GW-4, "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. These insulators are available through the authorized Nissan Parts Department.

CAUTION:

Never use excessive force as many components are constructed of plastic and may be damaged.

NOTE:

- URETHANE PADS
Insulates connectors, harness, etc.
- INSULATOR (Foam blocks)
Insulates components from contact. Can be used to fill space behind a panel.
- INSULATOR (Light foam block)
- FELT CLOTHTAPE
Used to insulate where movement does not occur. Ideal for instrument panel applications.
The following materials, not available through NISSAN Parts Department, 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 is be visible or does not fit.
Note: Will only last a few months.
- SILICONE SPRAY
Used when grease cannot be applied.
- DUCT TAPE
Used to eliminate movement.

CONFIRM THE REPAIR

SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

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:000000003943093

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

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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

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

CAUTION:

Never use silicone spray to isolate a squeak or rattle. If the area is saturated with silicone, the recheck of repair becomes impossible.

CENTER CONSOLE

Components to pay attention to include:

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

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

DOORS

Pay attention to the following:

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

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. The areas can usually be insulated with felt cloth tape or insulator foam blocks to repair the noise.

TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the customer.

In addition look for the following:

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

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

SUNROOF/HEADLINING

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

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

SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

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.

A

SEATS

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

B

Cause of seat noise include:

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

C

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.

D

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.

E

Causes of transmitted underhood noise include:

F

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

G

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.

H

I

J

GW

L

M

N

O

P

SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

Diagnostic Worksheet

INFOID:000000003943094



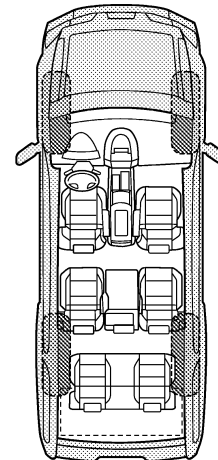
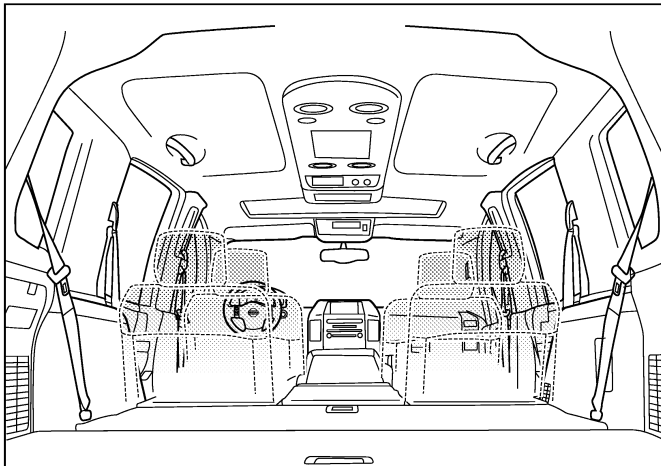
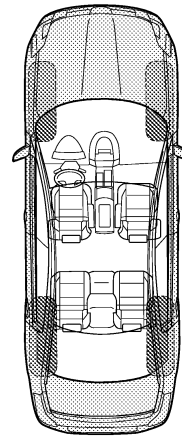
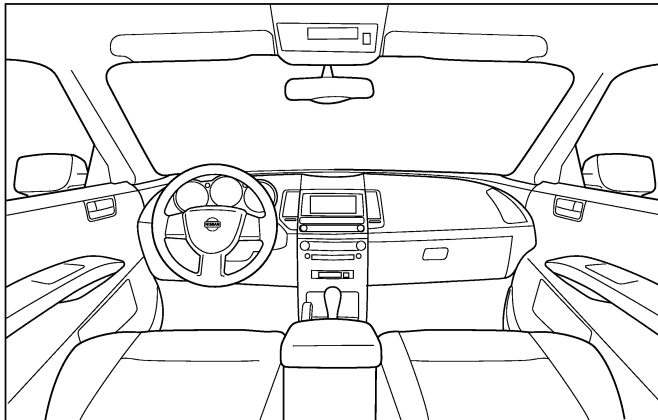
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Nissan Customer:

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

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

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



Continue to 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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SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

II. WHEN DOES IT OCCUR? (please check the boxes that apply)

- | | |
|---|--|
| ☐ anytime | ☐ after sitting out in the rain |
| ☐ 1st time in the morning | ☐ when it is raining or wet |
| ☐ only when it is cold outside | ☐ dry or dusty conditions |
| ☐ only when it is hot outside | ☐ other: |

III. WHEN DRIVING:

- ☐ 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: _____
- ☐ after driving ____ miles or ____ minutes

IV. WHAT TYPE OF NOISE

- ☐ squeak (like tennis shoes on a clean floor)
- ☐ creak (like walking on an old wooden floor)
- ☐ rattle (like shaking a baby rattle)
- ☐ knock (like a knock at the door)
- ☐ tick (like a clock second hand)
- ☐ thump (heavy, muffled knock noise)
- ☐ buzz (like a bumble bee)

TO BE COMPLETED BY DEALERSHIP PERSONNEL

Test Drive Notes:

	YES	NO	Initials of person performing
Vehicle test driven with customer	☐	☐	_____
- Noise verified on test drive	☐	☐	_____
- Noise source located and repaired	☐	☐	_____
- Follow up test drive performed to confirm repair	☐	☐	_____

VIN: _____ Customer Name: _____
W.O.# _____ Date: _____

This form must be attached to Work Order

PIIB8742E

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000003825365

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 AIRBAG" and "SEAT BELT" of this Service Manual.

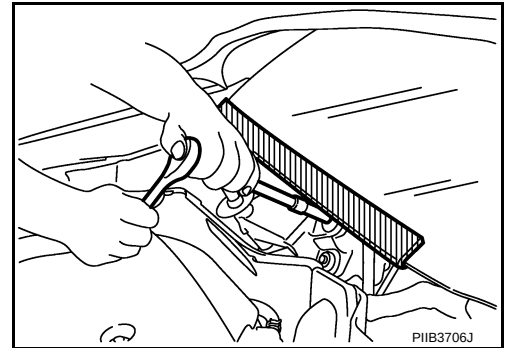
WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIRBAG".
- 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.

Precaution for Procedure without Cowl Top Cover

INFOID:000000003825366

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



Handling for Adhesive and Primer

INFOID:000000003825367

- Never use an adhesive which is past its usable date. Shelf life of this product is limited to six months after the date of manufacture. Carefully adhere to the expiration or manufacture date printed on the box.
- Keep primers and adhesive in a cool, dry place. Ideally, they should be stored in a refrigerator.
- Open the seal of the primer and adhesive just before application. Discard the remainder.
- Before application, be sure to shake the primer container to stir the contents. If any floating material is found, do not use it.
- If any primer or adhesive contacts the skin, wipe it off with gasoline or equivalent and wash the skin with soap.
- When using primer and adhesive, always observe the precautions in the instruction manual.

PREPARATION

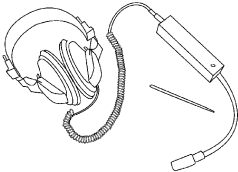
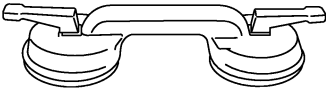
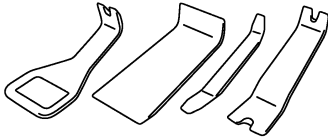
< PREPARATION >

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:000000003825369

Tool name	Description
Engine ear  SIIA0995E	Locating the noise
Suction lifter  PIIB1805J	Holding the door glass
Remover tools  PIIB7923J	Removes clips, pawls and metal clips

GW

WINDSHIELD GLASS

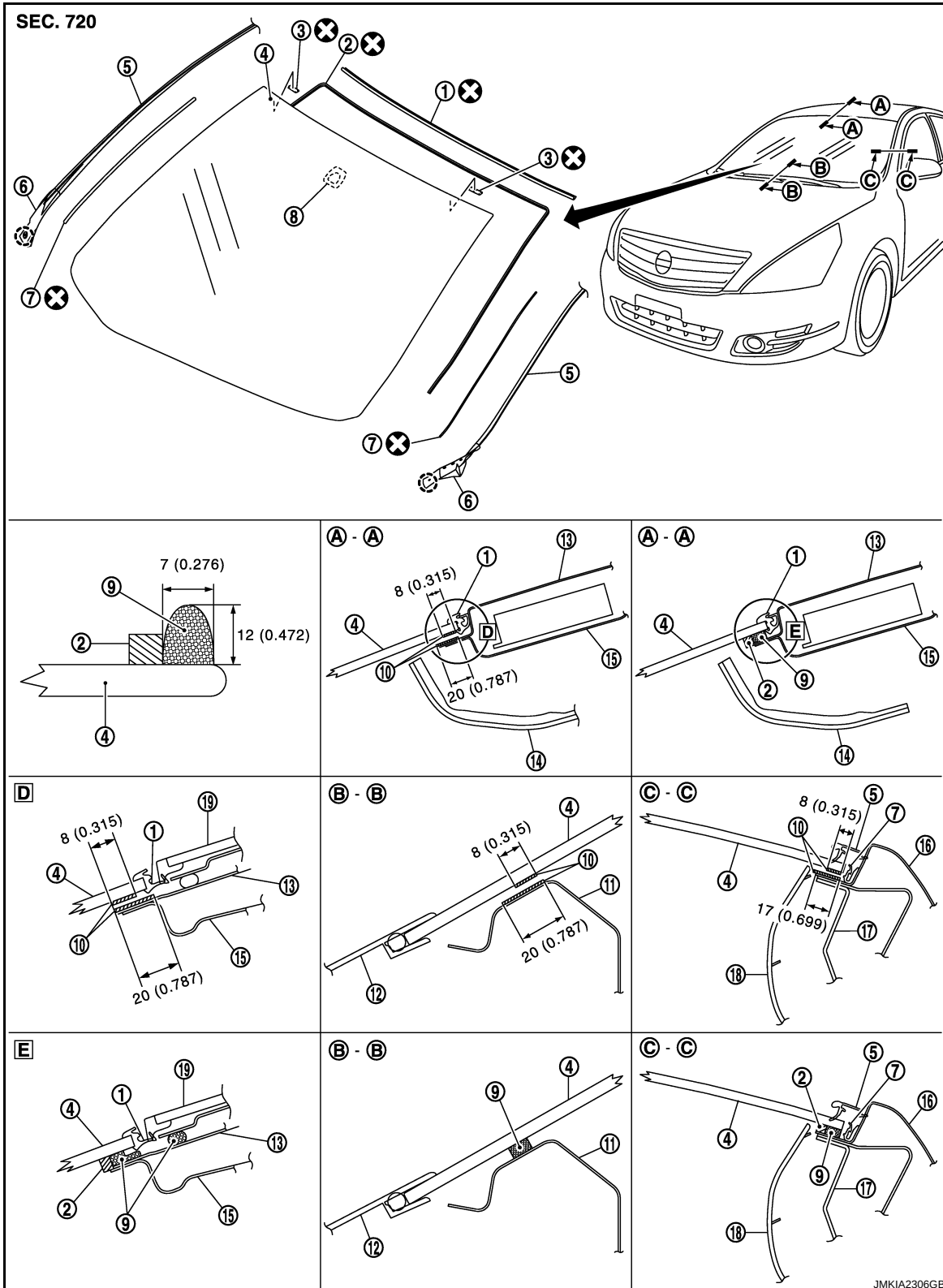
< ON-VEHICLE REPAIR >

ON-VEHICLE REPAIR

WINDSHIELD GLASS

Exploded View

INFOID:000000003825397



WINDSHIELD GLASS

< ON-VEHICLE REPAIR >

- | | | |
|-------------------------------|------------------------------|--------------------------|
| 1. Windshield molding (upper) | 2. Dam sealant rubber | 3. Spacer (LH/RH) |
| 4. Windshield glass assembly | 5. Roof side molding (LH/RH) | 6. Front fender cover |
| 7. Roof side molding fastener | 8. Mirror base | 9. Adhesive |
| 10. Primer | 11. Cowl top center | 12. Cowl top cover |
| 13. Roof | 14. Headlining assembly | 15. Front roof rail |
| 16. Body side outer | 17. Front pillar inner upper | 18. Front pillar garnish |

() : Clip

Unit : mm (in)

Note : D and E on the exploded view are sections of sunroof models.

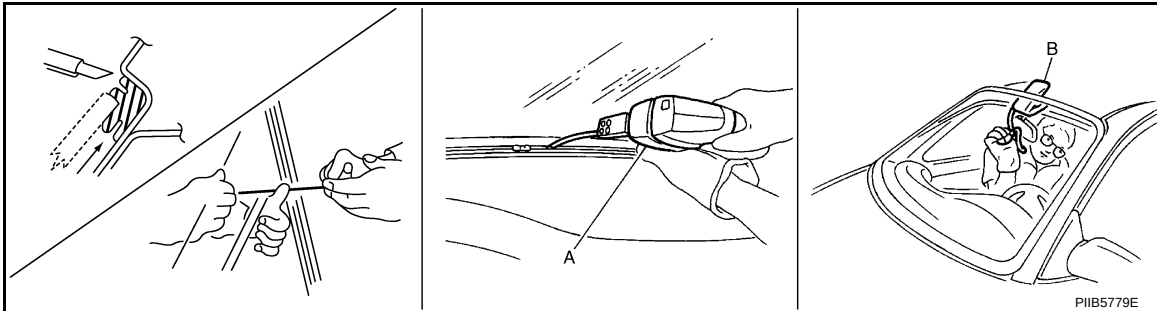
Refer to [GI-4, "Components"](#) for symbols in the figure.

Removal and Installation

INFOID:000000003825398

REMOVAL

1. Remove front pillar garnish (LH/RH). Refer to [INT-39, "Removal and Installation"](#).
2. Remove partially headlining (front edge). Refer to [INT-50, "NORMAL ROOF : Removal and Installation"](#) for normal roof or [INT-54, "SUNROOF : Removal and Installation"](#) for sunroof.
3. Remove front wiper arms (LH/RH). Refer to [WW-105, "Removal and Installation"](#).
4. Remove front fender cover (LH/RH). Refer to [DLK-199, "Exploded View"](#).
5. Remove cowl top cover. Refer to [EXT-20, "Removal and Installation"](#).
6. Remove roof side molding (LH/RH). Refer to [EXT-29, "Removal and Installation"](#).
7. Remove glass using piano wire or power cutting tool (A) and an inflatable pump bag (B) after removing moldings.



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 should be installed in position.
- Use a genuine Nissan Urethane Adhesive Kit (if available) or 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 compartment 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 skin or eyes.

WINDSHIELD GLASS

< ON-VEHICLE REPAIR >

- 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 [WW-105, "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.
- 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.
- Never drive the vehicle within 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:000000003825399

REPAIRING WATER LEAKAGE FOR WINDSHIELD

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.

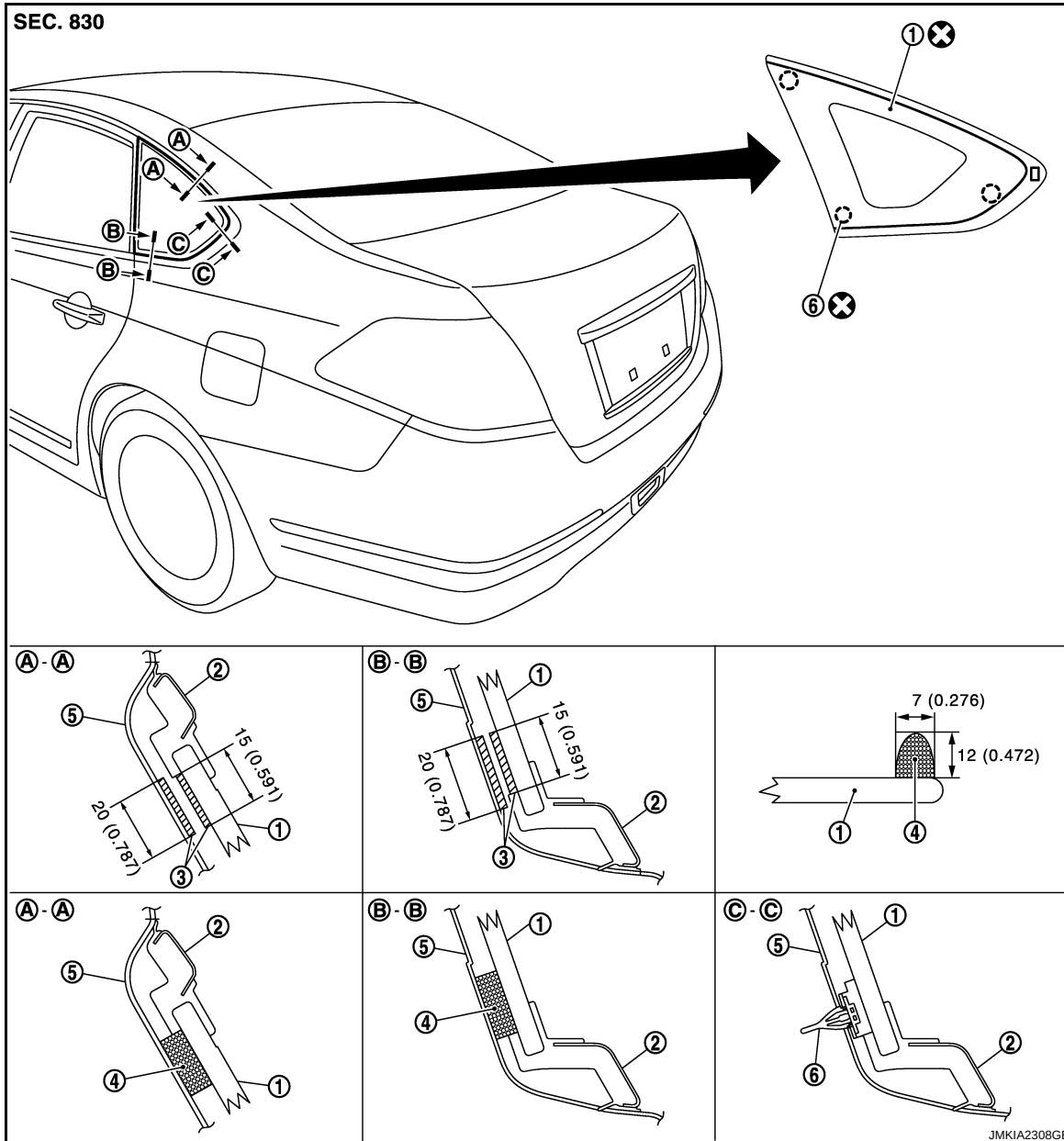
SIDE WINDOW GLASS

< ON-VEHICLE REPAIR >

SIDE WINDOW GLASS

Exploded View

INFOID:000000003825400



- | | | |
|----------------------|-------------------------------|-----------|
| 1. Side window glass | 2. Side window glass assembly | 3. Primer |
| 4. Adhesive | 5. Body side outer | 6. Clip |

Unit : mm (in)

Refer to [GI-4. "Components"](#) for symbols in the figure.

Removal and Installation

INFOID:000000003825401

REMOVAL

1. Remove rear seatback and rear seat cushion. Refer to [SE-99. "Removal and Installation"](#).
2. Remove rear pillar finisher. Refer to [INT-39. "Removal and Installation"](#).
3. Apply protective tape around the side window to protect the painted surface from damage.
4. Remove side window glass using piano wire.

SIDE WINDOW GLASS

< ON-VEHICLE REPAIR >

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 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 skin or 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.
- Never drive the vehicle within 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:000000003825402

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.

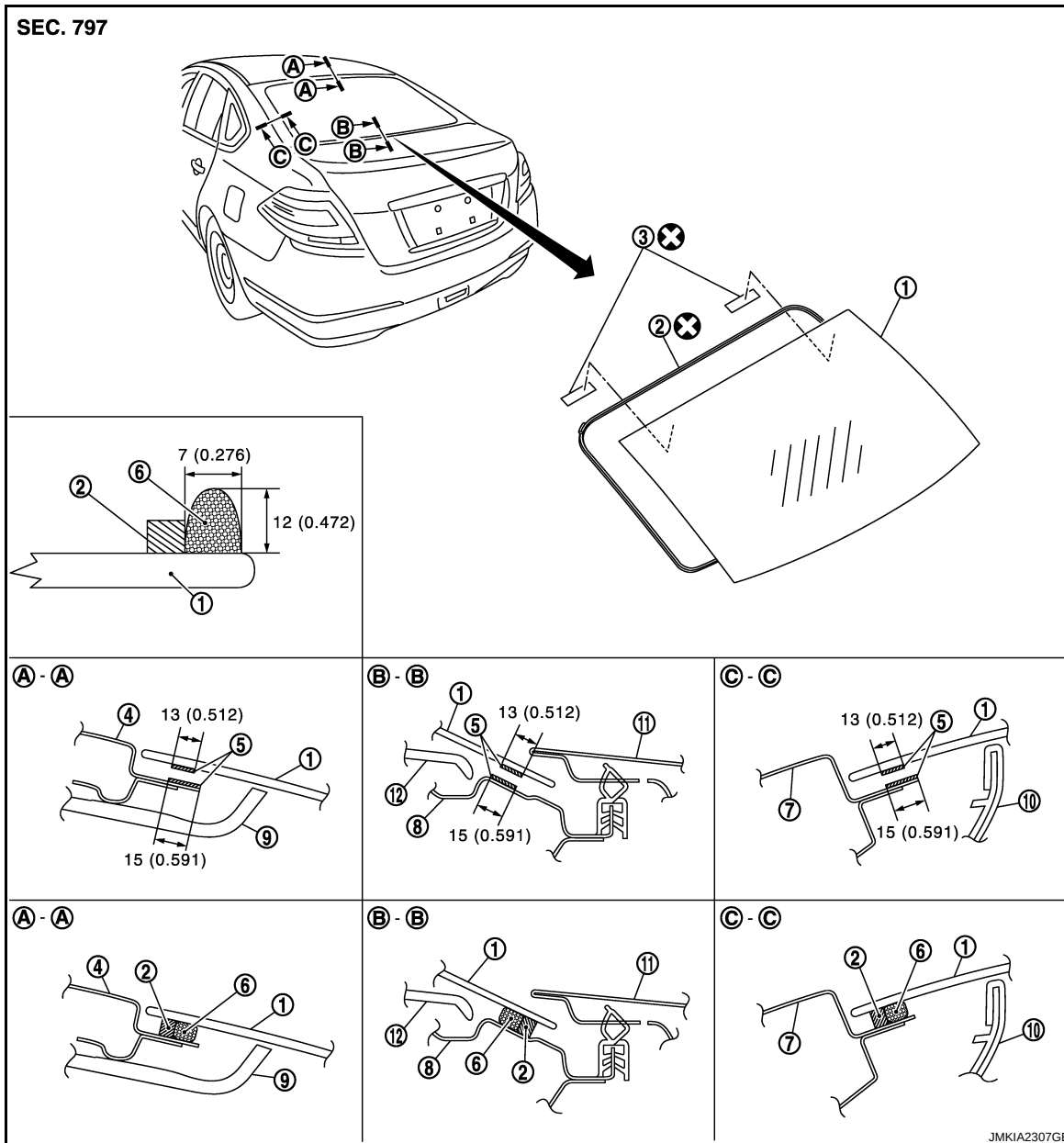
REAR WINDOW GLASS

< ON-VEHICLE REPAIR >

REAR WINDOW GLASS

Exploded View

INFOID:000000003825403



Removal and Installation

INFOID:000000003825404

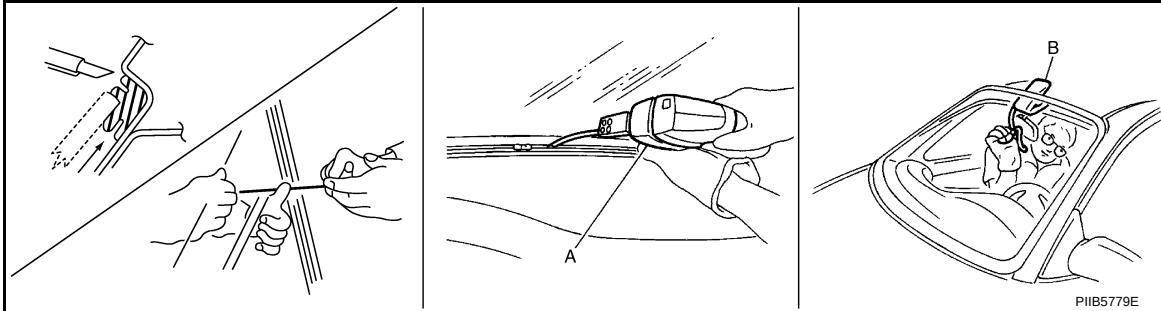
REMOVAL

1. Remove rear seatback and rear seat cushion. Refer to [SE-99, "Removal and Installation"](#).
2. Remove rear pillar finisher (RH/LH). Refer to [INT-39, "Removal and Installation"](#).

REAR WINDOW GLASS

< ON-VEHICLE REPAIR >

3. Remove rear parcel shelf finisher. Refer to [INT-43, "Removal and Installation"](#).
4. Remove partially the headlining assembly (rear edge). Refer to [INT-50, "NORMAL ROOF : Removal and Installation"](#) for normal roof and to [INT-54, "SUNROOF : Removal and Installation"](#) for sunroof.
5. Remove connectors and ground from the rear window defogger.
6. Remove glass using piano wire or power cutting tool (A) and an inflatable pump bag (B) after removing molding using pliers.



• NOTE:

Mark the body and the glass with matching marks if the rear window 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 rear window 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 should be installed in position.
- Use a genuine Nissan Urethane Adhesive Kit (if available) or 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 compartment 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 skin or 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 rear 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.
- Never drive the vehicle within 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:0000000003825405

REPAIRING WATER LEAKAGE FOR REAR WINDOW 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 back door window glass area while pushing glass outward.

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

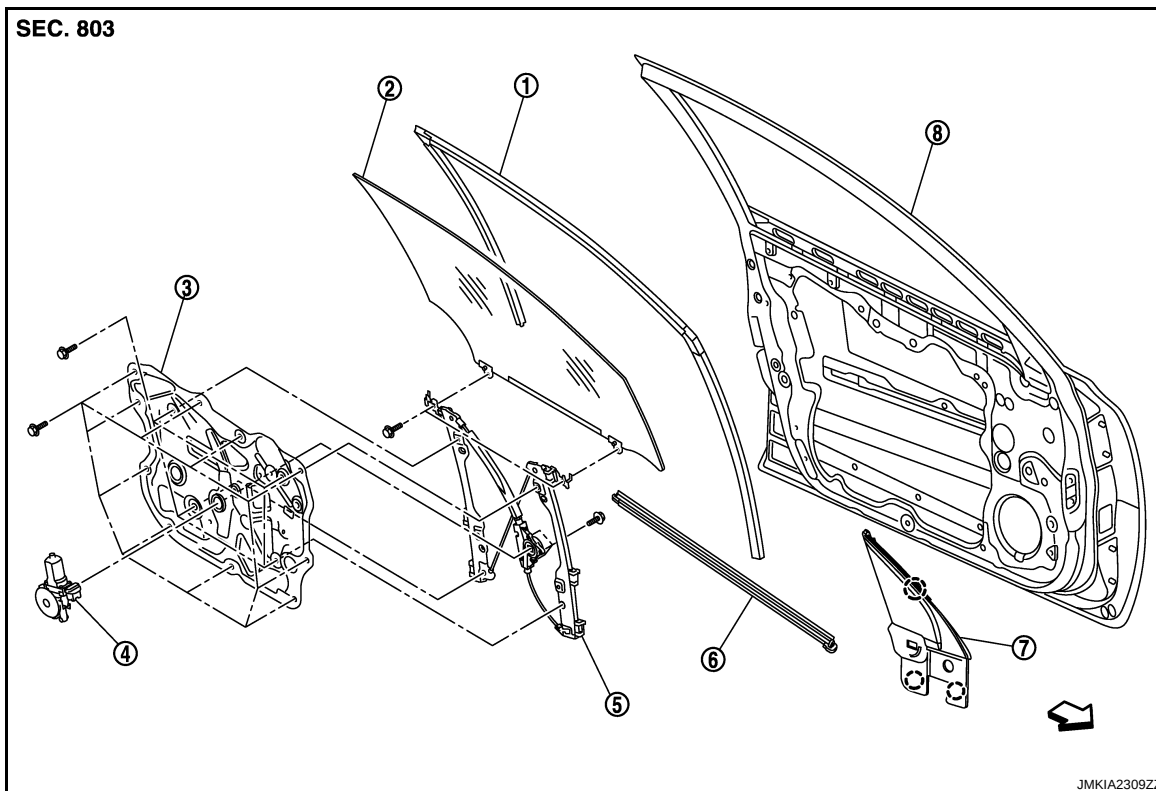
FRONT DOOR GLASS

< ON-VEHICLE REPAIR >

FRONT DOOR GLASS

Exploded View

INFOID:000000003825379



- | | | |
|-------------------------|-----------------------|---------------------------|
| 1. Front door glass run | 2. Front door glass | 3. Module base |
| 4. Power window motor | 5. Regulator assembly | 6. Front door inside seal |
| 7. Corner cover | 8. Front door panel | |

○ : Clip

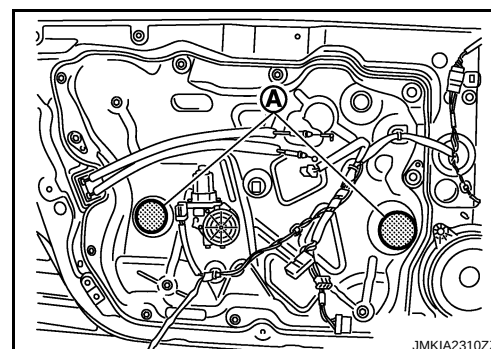
⇨ : Vehicle front

Removal and Installation

INFOID:000000003825380

REMOVAL

1. Remove front door finisher. Refer to [INT-30, "DRIVER SIDE : Removal and Installation"](#).
2. Remove front door corner cover. Refer to [MIR-15, "DOOR MIRROR ASSEMBLY : Exploded View"](#).
3. Remove front door inside seal.
4. Remove both seals (A) as shown in the figure.

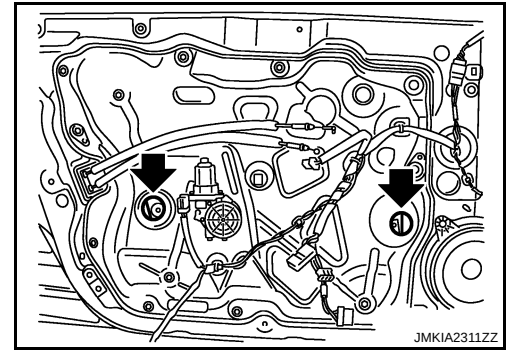


FRONT DOOR GLASS

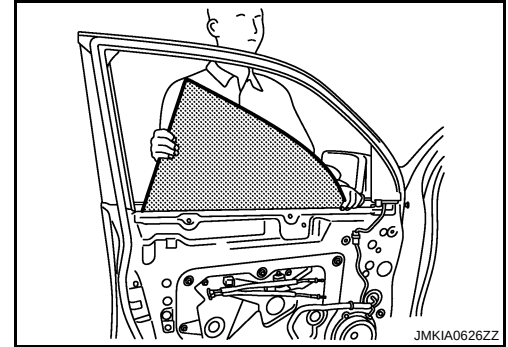
< ON-VEHICLE REPAIR >

5. Reconnect the power window main switch and then operate the power window main switch to raise or lower the door window until the glass mounting bolts can be seen.
6. Remove the front door glass mounting bolts.

← : Bolt



7. Hold securely the front door glass and pull it out of the sash to remove the door glass.



INSTALLATION

Install in the reverse order of removal.

Inspection and Adjustment

INFOID:000000003825381

SYSTEM INITIALIZATION

Initialize the system if any of the following work has been done.

- 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.
- Removal and installation of the door glass.
- Removal and installation of the front door glass run.
- Disconnection and connection of the minus terminal of the battery.

Initialization

Follow the steps below after installing each component to the vehicle.

1. Disconnect the minus terminal of battery or disconnect power window switch harness connector temporarily. Then reconnect after at least 1 minute.
2. Turn ignition switch ON.
3. Operate power window switch to open the window full width.
4. Draw fully the power window switch in the up direction (auto close position) and hold. Continue holding the switch even when window is completely closed and then release after more than 3 seconds.
5. Inspect the anti-pinch system function.

NOTE:

Initialization may be cancelled with continuous opening and closing operation. In this case, initialize the system.

INSPECT THE FUNCTION OF THE ANTI-PINCH SYSTEM

1. Fully open the door glass.
2. Place a wooden piece (wooden hammer handle, etc.) at near fully closed position.
3. Perform fully closing operation with auto up switch.

FRONT DOOR GLASS

< ON-VEHICLE REPAIR >

- Check that the glass reverses without pinching the wooden piece, is lowered approximately 150 mm (5.906 in) or for more than 2 seconds and then stops.
- The glass should not be raised with power window main switch operated while it is reversing or lowering.

CAUTION:

- **Be careful not to be pinched.**
- **When performing the inspection after the system initialization, check that the auto up function is normal. Then, start the inspection.**

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.

A

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E

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GW

L

M

N

O

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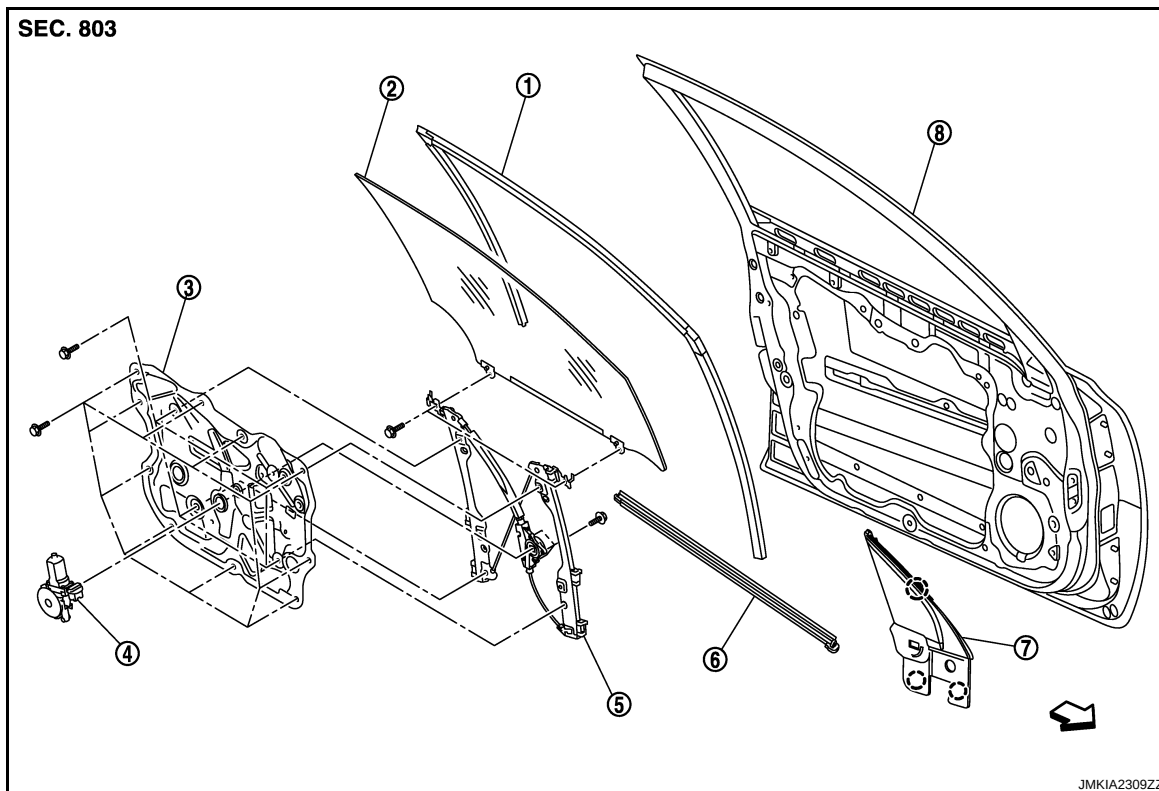
FRONT REGULATOR

< ON-VEHICLE REPAIR >

FRONT REGULATOR

Exploded View

INFOID:000000003825946



- | | | |
|-------------------------|-----------------------|---------------------------|
| 1. Front door glass run | 2. Front door glass | 3. Module base |
| 4. Power window motor | 5. Regulator assembly | 6. Front door inside seal |
| 7. Corner cover | 8. Front door panel | |

○ : Clip

↖ : Vehicle front

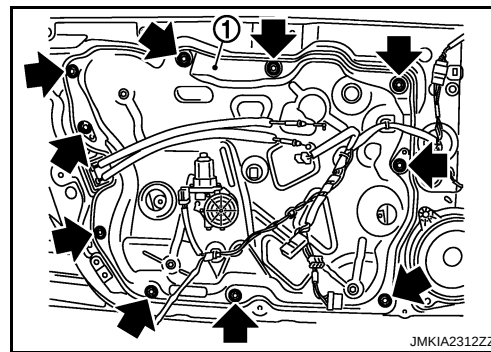
Removal and Installation

INFOID:000000003825383

REMOVAL

1. Remove front door glass. Refer to [GW-17. "Removal and Installation"](#).
2. Disconnect the power window motor harness connector (1) and remove the bolts from the module assembly.

← : Bolt

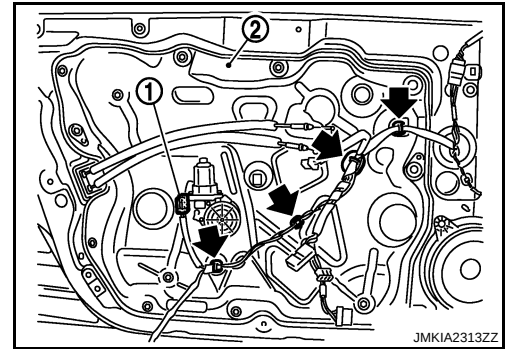


FRONT REGULATOR

< ON-VEHICLE REPAIR >

3. Remove the harnesses fixing clips shown by the arrows in the figure with a tool from the module assembly (2).
4. Disconnect the regulator motor harness connector (1).

← : Clip



5. Remove the door module assembly from door panel.
6. Remove front door glass run.

INSTALLATION

Install in the reverse order of removal.

Disassembly and Assembly

INFOID:0000000003825384

DISASSEMBLY

1. Remove the power window motor from the module assembly.
2. Remove the regulator assembly mounting bolts, then remove the regulator assembly.

ASSEMBLY

Assemble in the reverse order of disassembly.

Inspection and Adjustment

INFOID:0000000003825385

Inspection after Removal

Check the regulator assembly for the following items. Replace it if a malfunction is detected.

- Wire wear
- Regulator deformation

SYSTEM INITIALIZATION

Initialize the system if any of the following work has been done.

- 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.
- Removal and installation of the door glass.
- Removal and installation of the front door glass run.
- Disconnection and connection of the minus terminal of battery.

Initialization

Follow the steps below after installing each component to the vehicle.

1. Disconnect the minus terminal of battery or disconnect power window switch harness connector temporarily. Then reconnect after at least 1 minute.
2. Turn ignition switch ON.
3. Operate power window switch to open the window full width.
4. Draw fully the power window switch in the up direction (auto close position) and hold. Continue holding the switch even when window is completely closed and then release after more than 3 seconds.
5. Inspect the anti-pinch system function.

NOTE:

Initialization may be cancelled with continuous opening and closing operation. In this case, initialize the system.

INSPECT THE FUNCTION OF THE ANTI-PINCH SYSTEM

1. Fully open the door glass.

A
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GW
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P

FRONT REGULATOR

< ON-VEHICLE REPAIR >

2. Place a wooden piece (wooden hammer handle, etc.) at near fully closed position.
 3. Perform fully closing operation with auto up switch.
- Check that the glass reverses without pinching the wooden piece, is lowered approximately 150 mm (5.906 in) or for more than 2 seconds and then stops.
 - The glass should not be raised with power window main switch operated while it is reversing or lowering.

CAUTION:

- **Be careful not to be pinched.**
- **When performing the inspection after the system initialization, check that the auto up function is normal. Then, start the inspection.**

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.

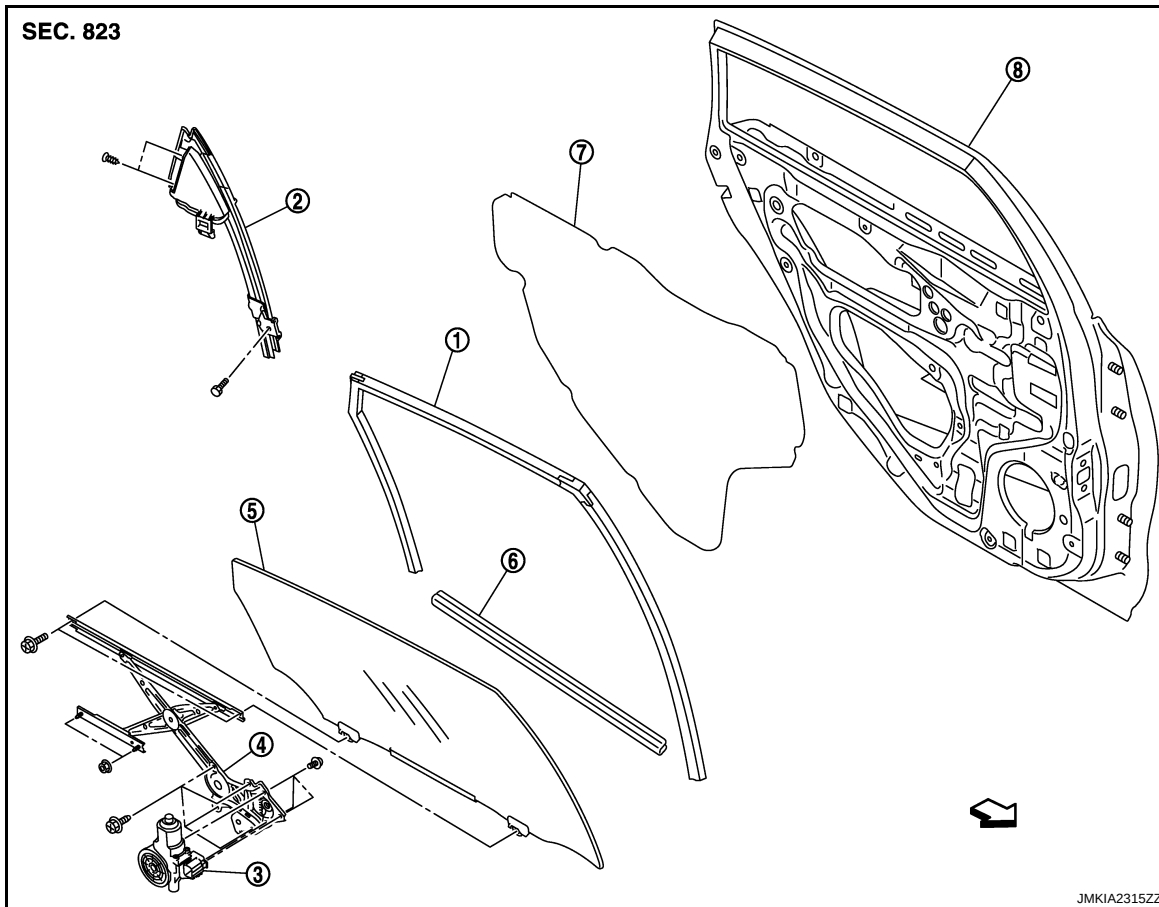
REAR DOOR GLASS

< ON-VEHICLE REPAIR >

REAR DOOR GLASS

Exploded View

INFOID:000000003825386



- | | | |
|------------------------|--------------------------|--------------------------|
| 1. Rear door glass run | 2. Corner piece assembly | 3. Power window motor |
| 4. Regulator assembly | 5. Rear door glass | 6. Rear door inside seal |
| 7. Sealing screen | 8. Rear door panel | |

↶ : Vehicle front

Removal and Installation

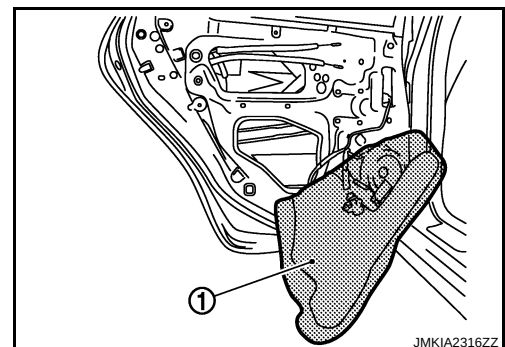
INFOID:000000003825387

REMOVAL

1. Remove rear door finisher. Refer to [INT-36, "Removal and Installation"](#).
2. Remove rear door inside seal.
3. Remove partially the sealing screen (1) with a cutter knife.

NOTE:

Cut the butyl-tape so that no parts of the butyl-tape remain on the sealing screen, if the sealing screen is reused.

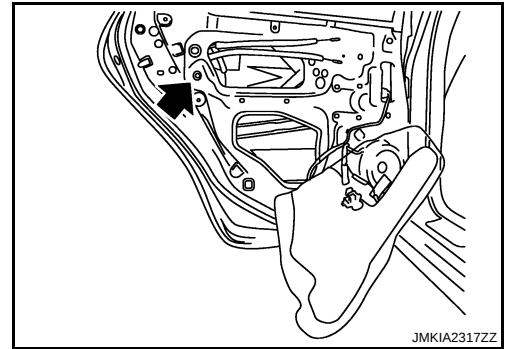


REAR DOOR GLASS

< ON-VEHICLE REPAIR >

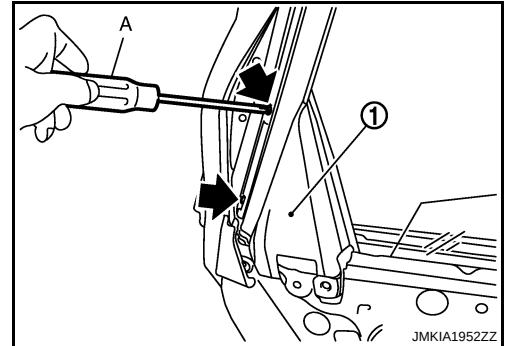
4. Remove the bolt fixing the corner piece assembly lower side to the door panel as shown in the figure.

← : Bolt



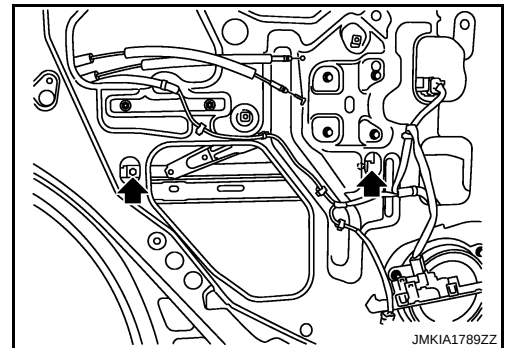
5. Remove partially the door side weather strip, then remove both screws fixing the corner piece assembly (1) upper side to the door panel as shown in the figure with a screwdriver (A).

← : Screw

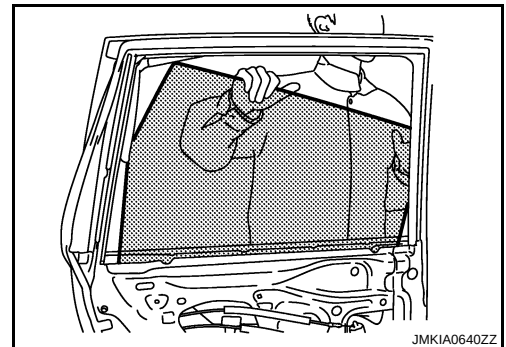


6. Remove the corner piece assembly from the glass upper side.
7. Reconnect the rear door power window switch.
8. Operate the power window switch to raise or lower the door window until the glass mounting bolts can be seen.
9. Remove the rear door glass mounting bolts.

← : Bolt



10. Remove the rear door glass from inside or outside of door panel.



INSTALLATION

Install in the reverse order of removal.

Inspection and Adjustment

INFOID:000000003825388

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 carrier plate mounting bolts to correct the glass position if the clearance between the glass and sash is not parallel.

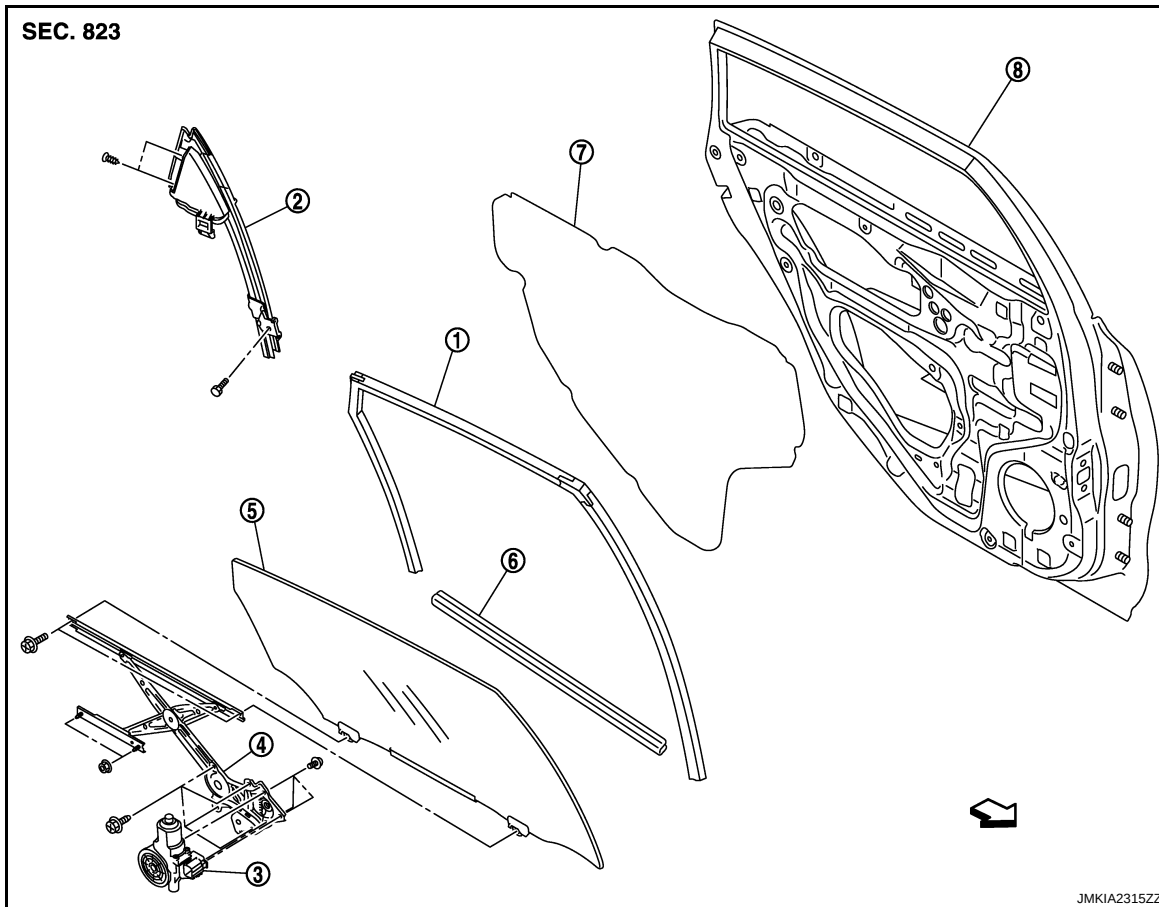
REAR REGULATOR

< ON-VEHICLE REPAIR >

REAR REGULATOR

Exploded View

INFOID:000000003825947



- | | | |
|------------------------|--------------------------|--------------------------|
| 1. Rear door glass run | 2. Corner piece assembly | 3. Power window motor |
| 4. Regulator assembly | 5. Rear door glass | 6. Rear door inside seal |
| 7. Sealing screen | 8. Rear door panel | |

↩ : Vehicle front

GW

Removal and Installation

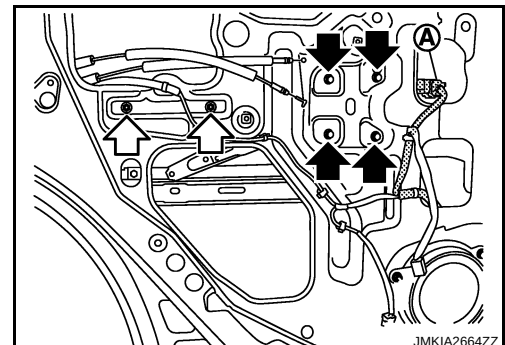
INFOID:000000003825390

REMOVAL

1. Remove rear door glass. Refer to [GW-23, "Removal and Installation"](#).
2. Remove the regulator mounting bolts, disconnect the power window motor harness connector (A) and then remove the regulator from the door panel.

⬅ : Bolt

↩ : Nut



3. Remove the rear door glass run.

INSTALLATION

REAR REGULATOR

< ON-VEHICLE REPAIR >

Install in the reverse order of removal.

Disassembly and Assembly

INFOID:000000003825391

DISASSEMBLY

Remove power window motor from regulator assembly.

ASSEMBLY

Assemble in the reverse order of disassembly.

Inspection and Adjustment

INFOID:000000003825392

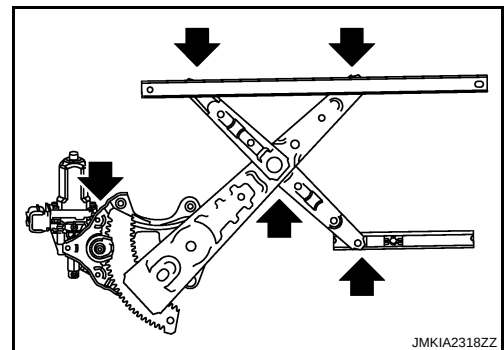
Inspection after Removal

Check the regulator assembly for the following items. Replace or grease it if a malfunction is detected.

- Wire wear
- Regulator deformation

The arrows in the figure show the application points of the multi-purpose grease.

← : Grease application point



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 carrier plate mounting bolts to correct the glass position if the clearance between the glass and sash is not parallel.