

# SECTION BT

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# PRECAUTIONS

Service Notice

## Service Notice

NDBT0001

- When removing or installing various parts, place a cloth or padding onto the vehicle body to prevent scratches.
- Handle trim, molding, instruments, grille, etc. carefully during removing or installing. Be careful not to soil or damage them.
- Apply sealing compound where necessary when installing parts.
- When applying sealing compound, be careful that the sealing compound does not protrude from parts.
- When replacing any metal parts (for example body outer panel, members, etc.), be sure to take rust prevention measures.

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## Supplemental Restraint System (SRS) “AIR BAG”

NDBT0002

The Supplemental Restraint System “AIR BAG”, used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger in a frontal collision. The Supplemental Restraint System consists of air bag modules (located in the center of the steering wheel and on the instrument panel on the passenger side), a diagnosis sensor unit, warning lamp, wiring harness and spiral cable. Information necessary to service the system safely is included in the **RS section** of this Service Manual.

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### **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 should be performed by an authorized NISSAN dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses are covered with yellow insulation either just before the harness connectors or for the complete harness, for easy identification.**

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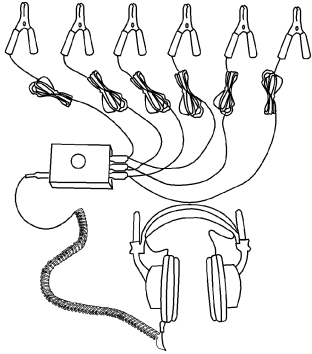
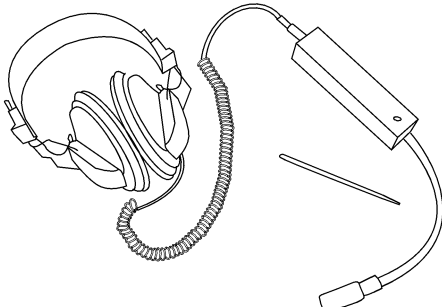
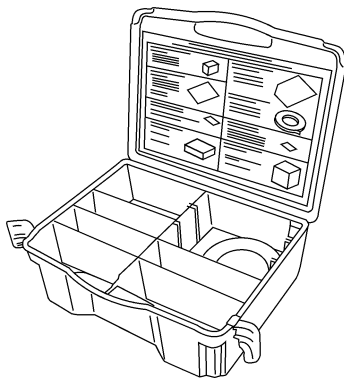
# PREPARATION

Special Service Tools

## Special Service Tools

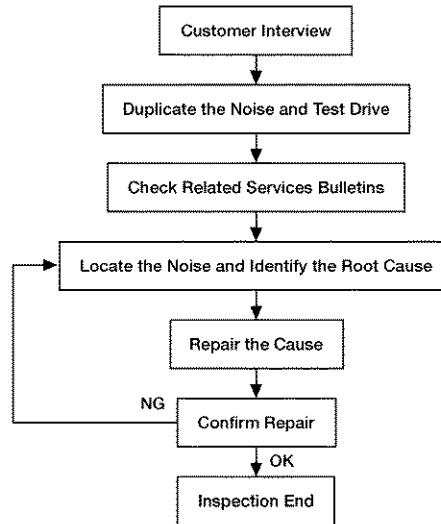
NDBT0026

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

| Tool number<br>(Kent-Moore No.)<br>Tool Name | Description  |
|--|--|
| (J39570)<br>Chassis Ear                      |  <p>Locating the noise</p> <p>ABT465</p>    |
| (J-39565)<br>Engine Ear                      |  <p>Locating the Noise</p> <p>ABT466</p>   |
| (J-43980)<br>Nissan Squeak and<br>Rattle Kit |  <p>Repairing the Noise</p> <p>ABT474</p> |

## Work Flow

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NDBT0033S0107

## 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 comments; refer to BT-9. This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by test driving the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics are provided so the customer, service adviser and technician are all speaking the same language when defining the noise.
- Squeak-(Like tennis shoes on a clean floor)  
Squeak characteristics include the light contact / fast movement / brought on by road conditions / hard surfaces = higher pitch noise / softer surfaces = lower pitch noises / edge to surface = chirping.
- Creak-(Like walking on a 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 sound / something repeating / often brought on by driver action.
- Tick-(Like a clock second hand)  
Tick characteristics include gentle contacting of light material / 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 will vary depending upon the person. A noise that you may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

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# SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow (Cont'd)

## DUPLICATE THE NOISE AND TEST DRIVE

NDBT0033S0108

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

## CHECK RELATED SERVICE BULLETINS

NDBT0033S0109

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.

If a TBS relates to the symptom, follow the procedure to repair the noise.

## LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

NDBT0033S0110

- 1) Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear : J-39570, Engine Ear : J-39565 and 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 fasteners can be broken or lost during the repair, resulting in the creation of noise.**
  - tapping or pushing/pulling the component 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 the components that you suspect are causing the noise.
  - looking for loose components and contact marks.

Refer to Generic Squeak and Rattle Troubleshooting, BT-7

## REPAIR THE CAUSE

NDBT0033S0111

- 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 components, 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-49380) is available thorough your authorized Nissan Parts Department.

### CAUTION:

**Do not use excessive force as many components are constructed of plastic and may be damaged. Always check with the Parts Department for the latest parts information.**

The following materials are contained in the NISSAN Squeak and Rattle Kit (J-49380). Each item can be ordered separately as needed.

URETHANE PADS (1.5mm thick)

insulates connectors, harnesses, etc.

76268–9E005 : 100 x 135mm / 76884–71L01 : 60 x 85mm / 76884–71L02 : 15 x 25mm

INSULATOR (foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982–9E000 : 45mm thick, 50 x 50mm / 73982–50Y00 : 10mm thick, 50 x 50mm

INSULATOR (light foam block)

80845–71L00 : 30mm thick, 30 x 50mm

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow (Cont'd)

## FELT CLOTH TAPE

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

68370-4B000 : 15 x 25mm pad / 68239-13E00 : 5mm 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.

Note : Will only last a few months.

## SILICONE SPRAY

Use when grease cannot be applied.

## DUCT TAPE

Use to eliminate movement.

## CONFIRM THE REPAIR

Confirm that the cause of the 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

### INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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

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

### DOORS

Pay attention to the:

- 1) Finisher and inner panel making a slapping noise
- 2) Inside 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 or foam blocks from the NISSAN Squeak and Rattle Kit (J-49380) 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
- 2) Trunk lid striker out of adjustment

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# SQUEAK AND RATTLE TROUBLE DIAGNOSES

*Generic Squeak and Rattle Troubleshooting (Cont'd)*

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- 3) The trunk lid torsion bars knocking together
- 4) A loose license plate bracket

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

## SUNROOF/HEADLINER

*NDBT0033S0205*

Noises in the sunroof and headliner 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 headliner and squeaking

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

## SEATS

*NDBT0033S0206*

When isolating seat noises 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.

Causes of seat noise include:

- 1) Headrest rods and holders
- 2) A squeak between the seat pad cushion and frame
- 3) The rear seat back lock and bracket

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

## UNDERHOOD

*NDBT0033S0207*

Some interior noises 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 components mounted to the engine wall
- 2) Components that pass through the engine wall
- 3) Engine wall mounts and connectors
- 4) Loose radiator mounting pins
- 5) Hood bumpers out of adjustment
- 6) Hood striker out of adjustment

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

Repair can usually be made by moving, adjusting, securing, or insulating the component causing the noise.



## Diagnostic Worksheet

NDBT0033S03



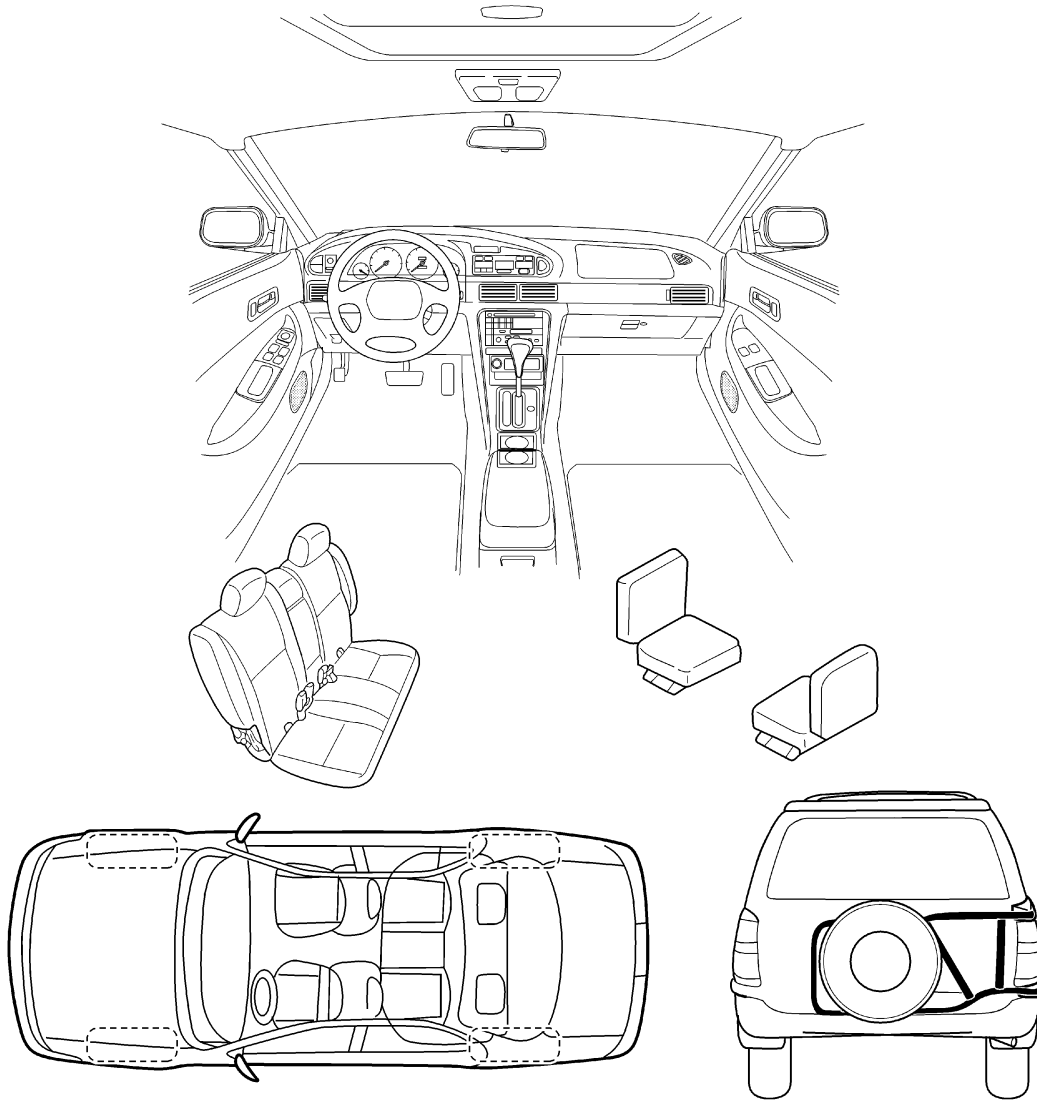
### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Nissan Customer:

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

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

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



Continue to the back of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

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# SQUEAK AND RATTLE TROUBLE DIAGNOSES

Diagnostic Worksheet (Cont'd)

## SQUEAK & RATTLE DIAGNOSTIC WORKSHEET- page 2

Briefly describe the location where the noise occurs:

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

- |  |   |
|--|---|
| <input type="checkbox"/> anytime                             | <input type="checkbox"/> after sitting out in the sun |
| <input type="checkbox"/> 1 <sup>st</sup> time in the morning | <input type="checkbox"/> when it is raining or wet    |
| <input type="checkbox"/> only when it is cold outside        | <input type="checkbox"/> dry or dusty conditions      |
| <input type="checkbox"/> only when it is hot outside         | <input type="checkbox"/> other: _____                 |

### III. WHEN DRIVING:

- through driveways
- over rough roads
- over speed bumps
- only at about \_\_\_\_ mph
- on acceleration
- coming to a stop
- on turns : left, right or either (circle)
- with passengers or cargo
- other: \_\_\_\_\_
- after driving \_\_\_\_ miles or \_\_\_\_ minutes

### IV. WHAT TYPE OF NOISE?

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

### TO BE COMPLETED BY DEALERSHIP PERSONNEL

Test Drive Notes:

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|  | <u>YES</u>               | <u>NO</u>                | Initials of person<br><u>performing</u> |
|--|--------------------------|--------------------------|---|
| Vehicle test driven with customer                  | <input type="checkbox"/> | <input type="checkbox"/> | _____                                   |
| - Noise verified on test drive                     | <input type="checkbox"/> | <input type="checkbox"/> | _____                                   |
| - Noise source located and repaired                | <input type="checkbox"/> | <input type="checkbox"/> | _____                                   |
| - Follow up test drive performed to confirm repair | <input type="checkbox"/> | <input type="checkbox"/> | _____                                   |

VIN: \_\_\_\_\_ Customer Name: \_\_\_\_\_

W.O. #: \_\_\_\_\_ Date: \_\_\_\_\_

**This form must be attached to Work Order**

ABT469


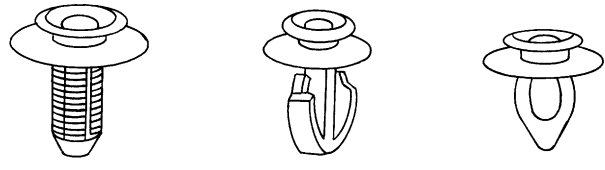
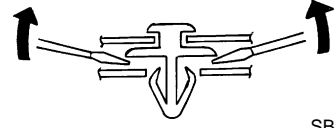

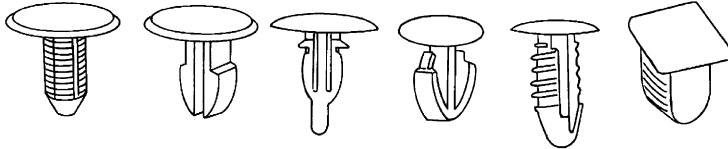
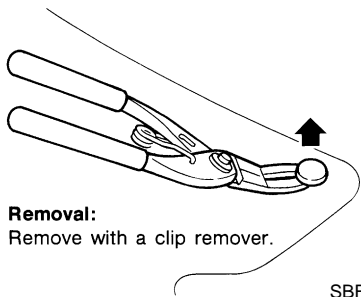

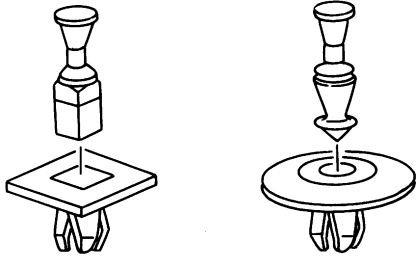
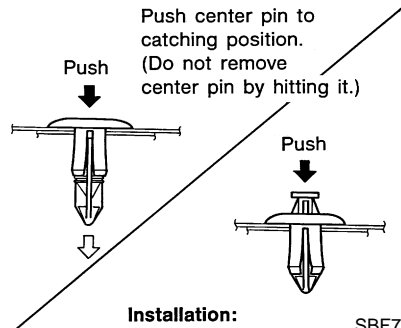

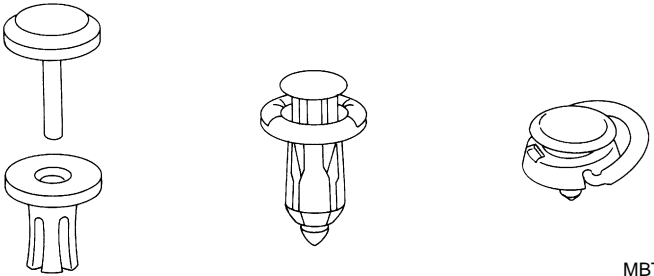
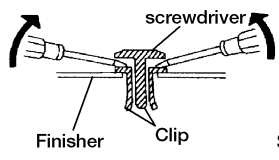
# CLIP AND FASTENER

Description

## Description

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- Clips and fasteners in BT section correspond to the following numbers and symbols.
- Replace any clips and/or fasteners which are damaged during removal or installation.

| Symbol No.  | Shapes   | Removal & Installation  |
|---|--|---|
| <p>C101</p>    |  <p>SBF302H</p>   | <p><b>Removal:</b><br/>Remove by bending up with flat-bladed screwdrivers or clip remover.</p>  <p>SBF367BA</p>                      |
| <p>C103</p>    |  <p>SBT095</p>    |  <p><b>Removal:</b><br/>Remove with a clip remover.</p> <p>SBF423H</p>   |
| <p>C203</p>  |  <p>SBF258G</p> | <p>Push center pin to catching position. (Do not remove center pin by hitting it.)</p>  <p><b>Installation:</b></p> <p>SBF708E</p> |
| <p>C205</p>  |  <p>MBT080A</p> | <p><b>Removal:</b></p>  <p>Flat-bladed screwdriver</p> <p>Finisher</p> <p>Clip</p> <p>SBF638CA</p>                                 |

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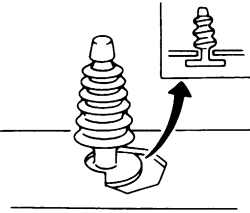
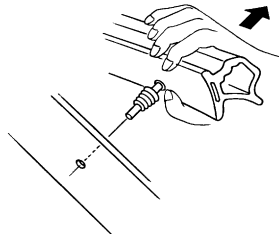

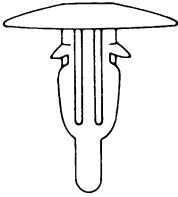
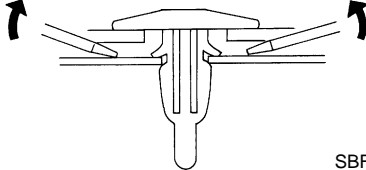

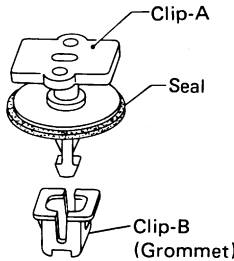
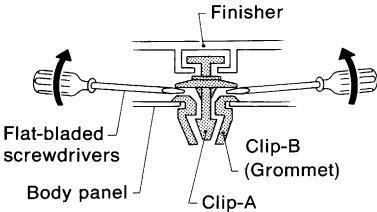

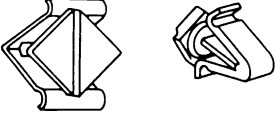

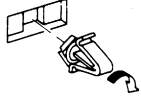


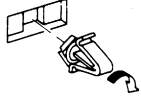


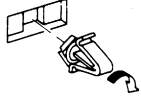

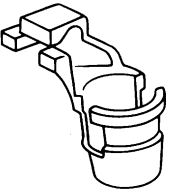
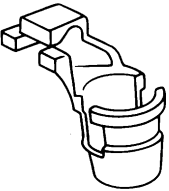
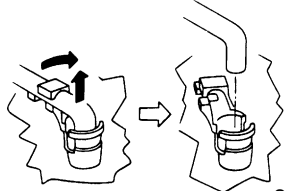
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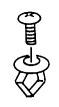
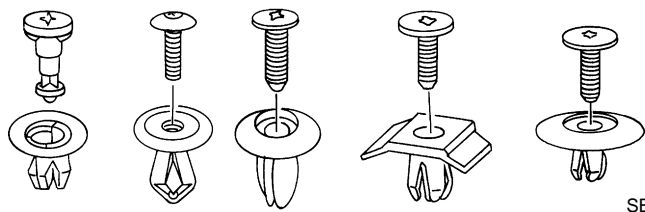
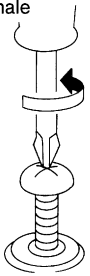
# CLIP AND FASTENER

Description (Cont'd)

| Symbol No.  | Shapes  | Removal & Installation  |   |   |  |   |
|---|---|---|---|---|--|---|
| <p>CE103</p>   |  <p style="text-align: right;">SBF104B</p>   | <p><b>Removal:</b></p>  <p style="text-align: right;">SBF147B</p>  |   |   |  |   |
| <p>CE117</p>   |  <p style="text-align: right;">SBF174D</p>   | <p><b>Removal:</b><br/>Remove with a flat-bladed screwdriver or pliers.</p>  <p style="text-align: right;">SBF175D</p>   |   |   |  |   |
| <p>CF109</p>   |  <p style="text-align: right;">SBF651B</p>  | <p><b>Removal:</b></p>  <p style="text-align: right;">SBF652B</p>   |   |   |  |   |
| <p>CG101</p>   |  <p style="text-align: right;">SBF145B</p> | <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Removal:</b></p>  <p>Rotate 45° to remove.</p> </td> <td style="width: 50%; vertical-align: top;"> <p><b>Installation:</b></p>  </td> </tr> <tr> <td style="vertical-align: bottom;">  <p><b>Removal:</b></p> </td> <td style="vertical-align: bottom;"> <p style="text-align: right;">SBF085B</p> </td> </tr> </table> | <p><b>Removal:</b></p>  <p>Rotate 45° to remove.</p> | <p><b>Installation:</b></p>  |  <p><b>Removal:</b></p> | <p style="text-align: right;">SBF085B</p> |
| <p><b>Removal:</b></p>  <p>Rotate 45° to remove.</p> | <p><b>Installation:</b></p>              |   |   |   |  |   |
|  <p><b>Removal:</b></p>                              | <p style="text-align: right;">SBF085B</p>   |   |   |   |  |   |
| <p>CR103</p>   |  <p style="text-align: right;">SBF768B</p> | <p><b>Removal:</b><br/>Holder portion of clip must be spread out to remove rod.</p>  <p style="text-align: right;">SBF770B</p>   |   |   |  |   |

# CLIP AND FASTENER

Description (Cont'd)

| Symbol No.   | Shapes  | Removal & Installation   |
|--|---|--|
| <p>CS101</p>  |  <p style="text-align: right;">SBF078B</p> | <p><b>Removal:</b></p> <ol style="list-style-type: none"> <li>1. Screw out with a Phillips screwdriver.</li> <li>2. Remove female portion with flat-bladed screwdriver.</li> </ol>  <p style="text-align: right;">SBF992G</p> |

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# BODY FRONT END

Removal and Installation

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## Removal and Installation

NDBT0004

- When removing or installing hood, place a cloth or other padding on front fender panel and cowl top. This prevents vehicle body from being scratched.
- Bumper fascia is made of plastic. Do not use excessive force and be sure to keep oil away from it.
- Hood adjustment: Adjust at hinge portion.
- Hood lock adjustment: After adjusting, check hood lock control operation. Apply a coat of grease to hood lock engaging mechanism.
- Hood opener: Do not attempt to bend cable forcibly. Doing so increases effort required to unlock hood.

## FRONT BUMPER ASSEMBLY

NDBT0004S01

1. Remove screws securing left and right combination lamps and remove the lamps. **C**
2. Remove bolts and nuts securing left and right headlamps and remove the headlamps. **B**
3. Remove clips securing front bumper fascia to radiator support.
4. Remove clips and screws securing left and right splash shields to front bumper fascia and move splash shields aside.
5. Remove clips securing front bumper fascia to bumper reinforcement.
6. Remove nuts securing front bumper fascia to left and right fenders and remove front bumper fascia.
7. Remove absorber pad from bumper reinforcement.
8. Remove nuts securing bumper reinforcement to left and right bumper brackets and remove bumper reinforcement.
9. Remove bolts securing left and right bumper brackets to left and right side members and then remove left and right bumper brackets.

# BODY FRONT END

Removal and Installation (Cont'd)

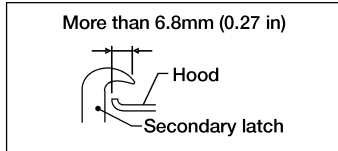
SEC. 260 • 262 • 620 • 623

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### Hood lock adjustment

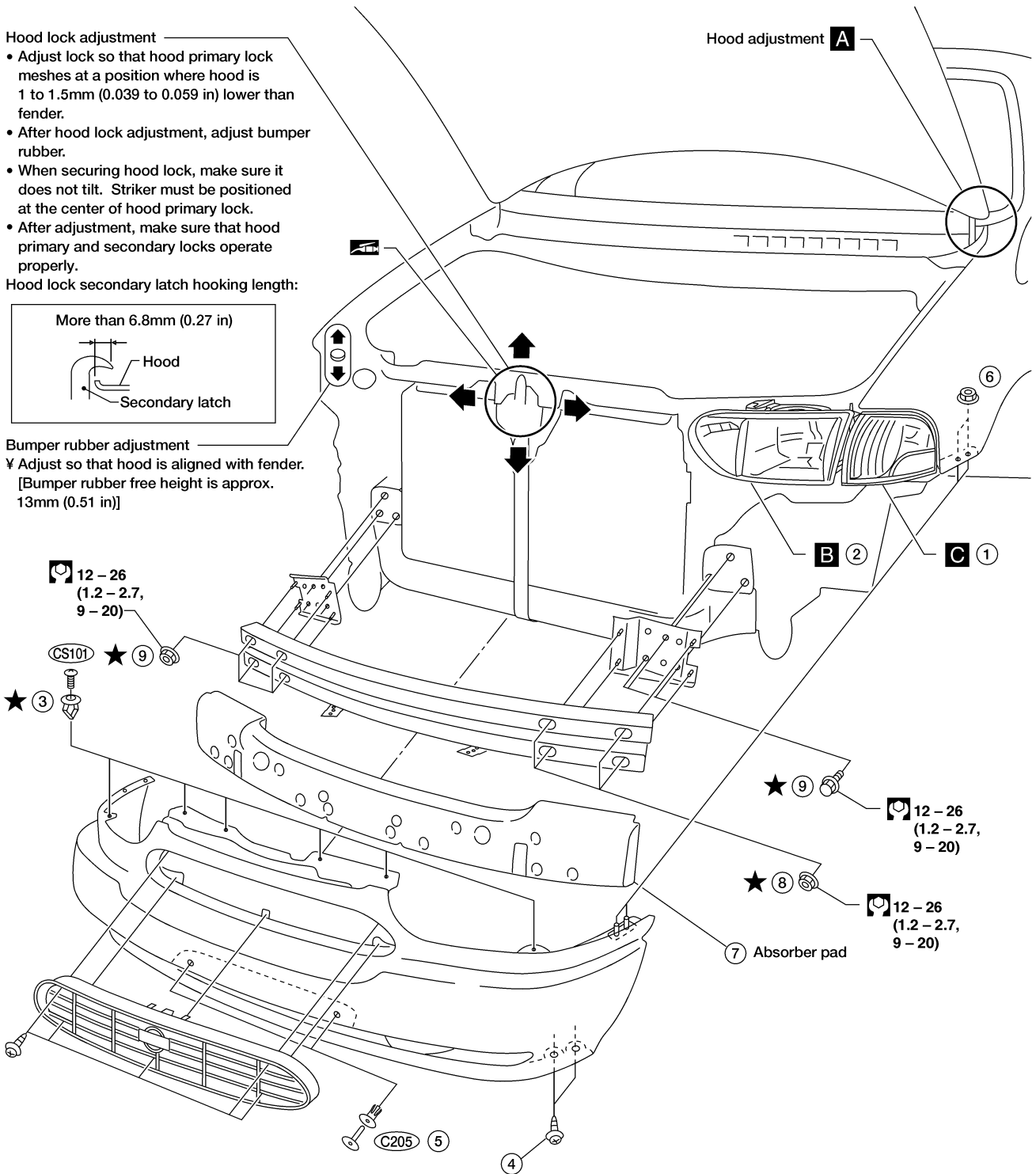
- Adjust lock so that hood primary lock meshes at a position where hood is 1 to 1.5mm (0.039 to 0.059 in) lower than fender.
- After hood lock adjustment, adjust bumper rubber.
- When securing hood lock, make sure it does not tilt. Striker must be positioned at the center of hood primary lock.
- After adjustment, make sure that hood primary and secondary locks operate properly.

Hood lock secondary latch hooking length:



### Bumper rubber adjustment

¥ Adjust so that hood is aligned with fender.  
[Bumper rubber free height is approx. 13mm (0.51 in)]



: N-m (kg-m, ft-lb)

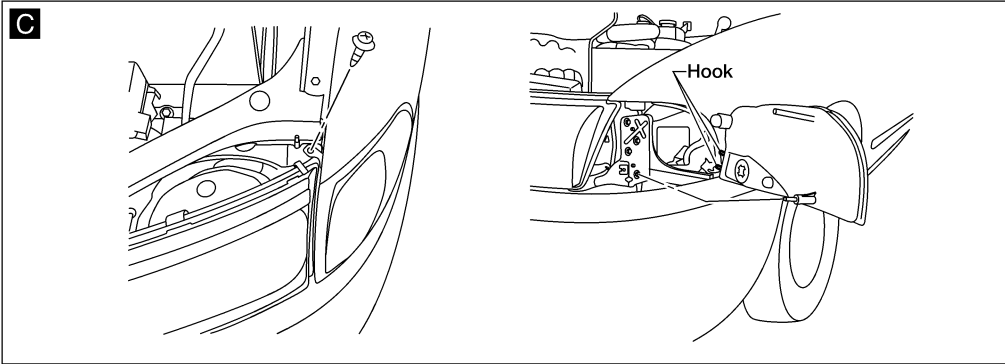
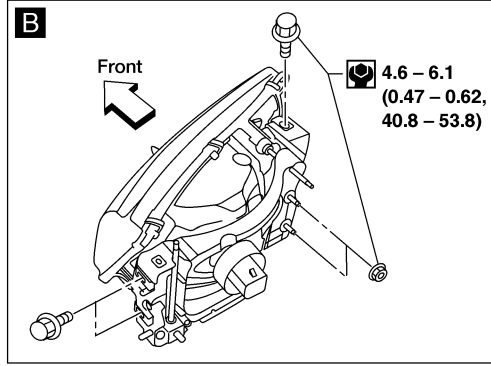
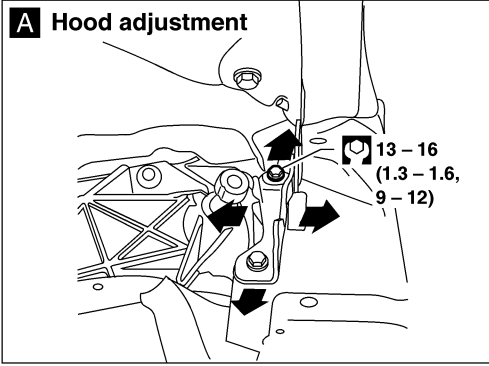
: Bumper assembly mounting nuts, bolts, and clips


: Should be lubricated with grease


ABT377

# BODY FRONT END

Removal and Installation (Cont'd)



 : N·m (kg-m, in-lb)

 : N·m (kg-m, ft-lb)

ABT423



## Removal and Installation

NDBT0005

- Bumper fascia is made of plastic. Do not use excessive force and be sure to keep oil away from it.
- Back door lock system adjustment: Adjust lock and striker so that they are in the center. After adjustment, check back door lock operation.
- Back door hatch lock system adjustment: Adjust lock and striker so that they are in the center. After adjustment, check back door hatch lock operation.
- Opener cable: Do not attempt to bend cable using excessive force.
- After installation, make sure that back door and fuel filler lid open smoothly.

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### WARNING:

- **Be careful not to scratch back door stay and/or back door hatch stay when installing back door and/or back door hatch. A scratched stay may cause gas leakage.**
- **The contents of the back door stay and back door hatch stay are under pressure. Do not take apart, puncture, apply heat or allow fire near them.**

LC

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### REAR BUMPER ASSEMBLY

NDBT0005S01

1. Remove clips securing bumper fascia to body.
2. Remove clips securing bumper fascia to left and right wheel wells.
3. Remove clips securing bumper fascia to left and right brackets.
4. Remove clips securing bumper fascia to rear crossmember.
5. Remove rear bumper fascia.
6. Remove absorber pad from rear bumper reinforcement.
7. Remove nuts securing rear bumper reinforcement to left and right bumper brackets.
8. Remove rear bumper reinforcement.
9. Remove bolts securing left and right bumper brackets from rear crossmember and remove left and right brackets.

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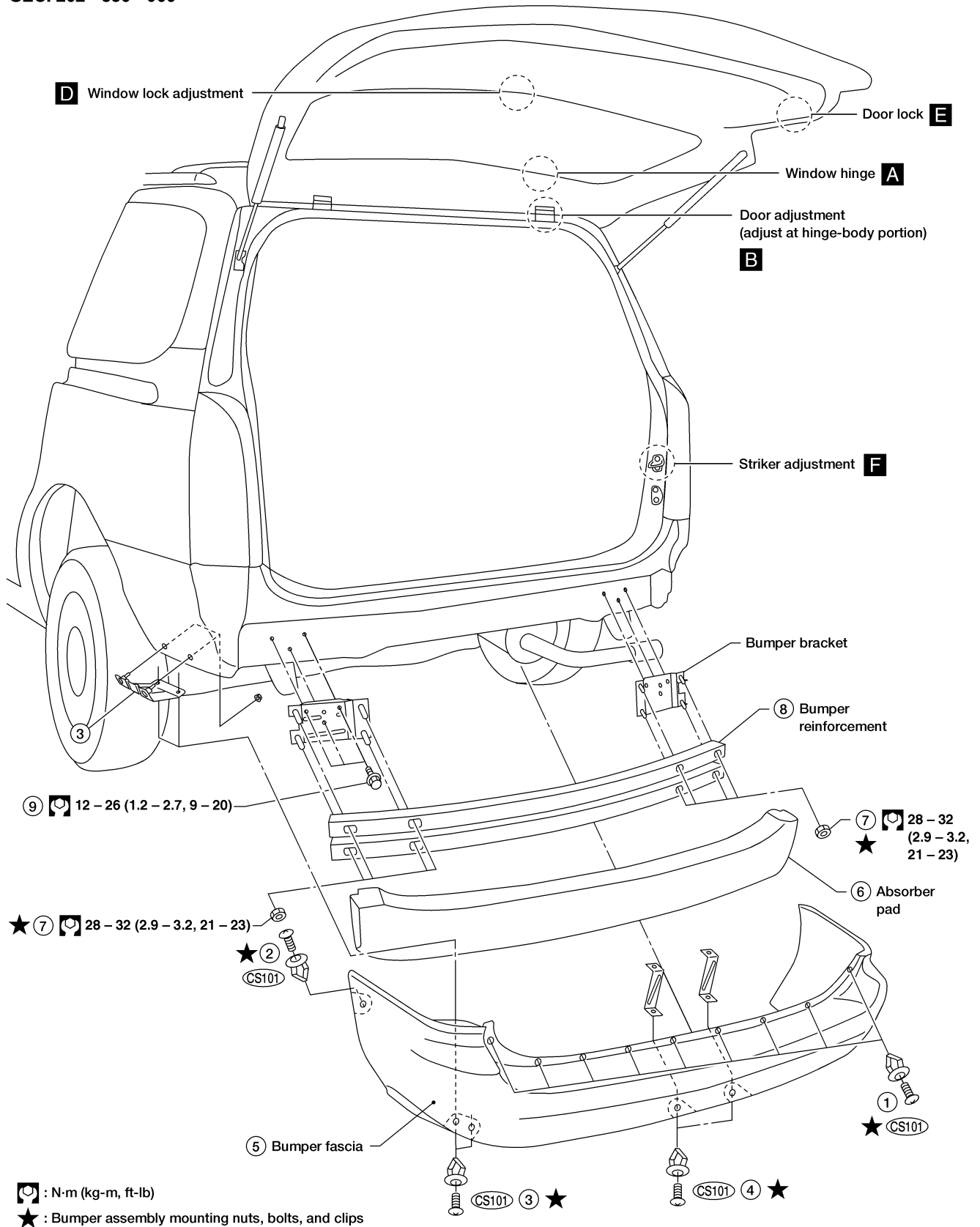
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# BODY REAR END AND OPENER

Removal and Installation (Cont'd)

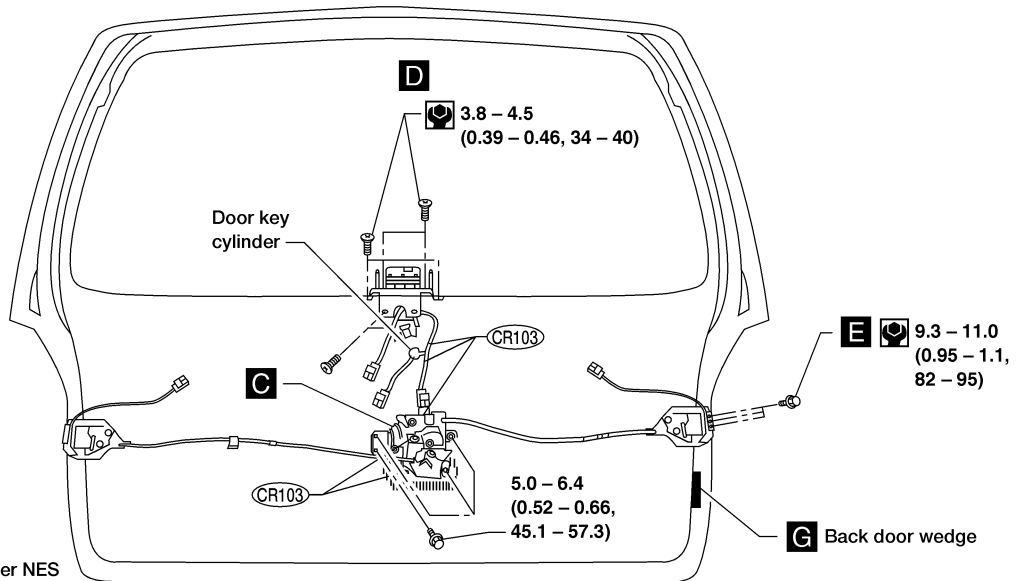
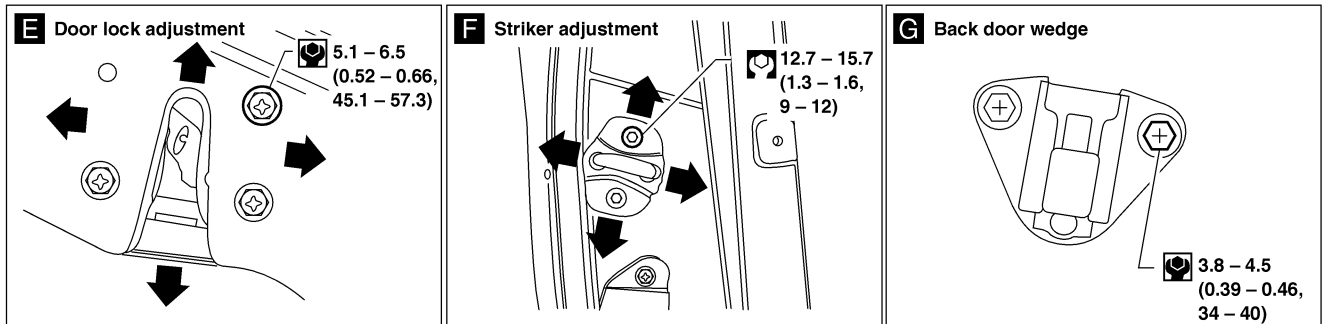
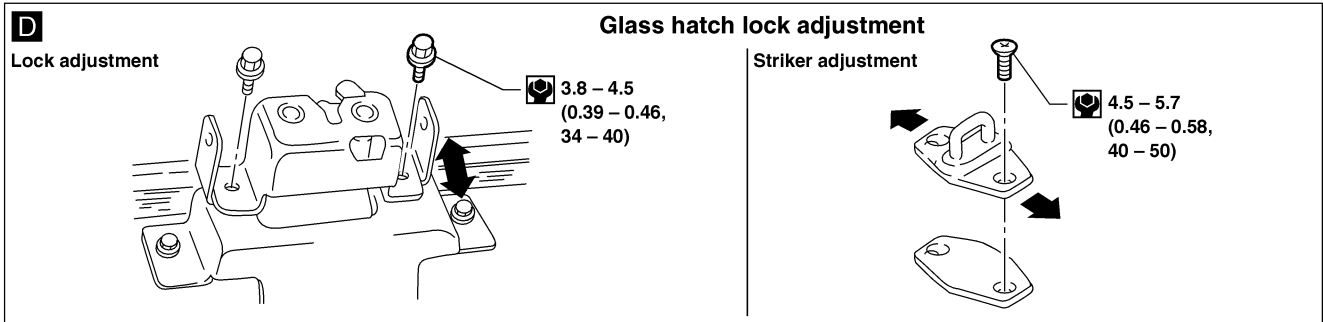
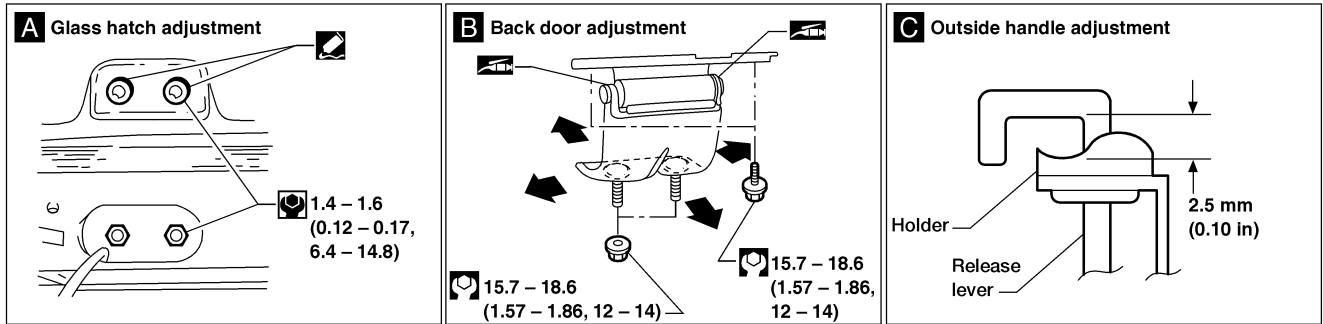
SEC. 262 • 850 • 900



WBT018

# BODY REAR END AND OPENER

Removal and Installation (Cont'd)



: N·m (kg·m, in·lb)

: N·m (kg·m, ft·lb)

: Lubricate with grease, per NES M5065 Grade NBS - 1B

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WBT016

# FRONT DOOR

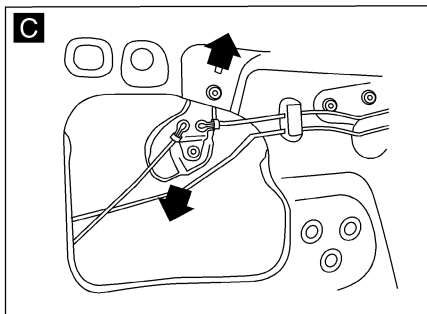
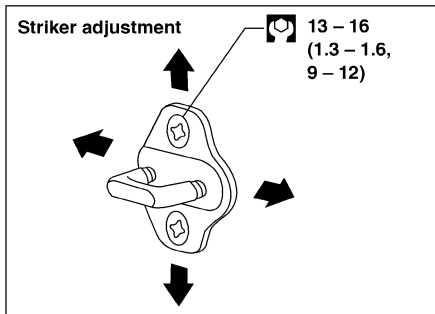
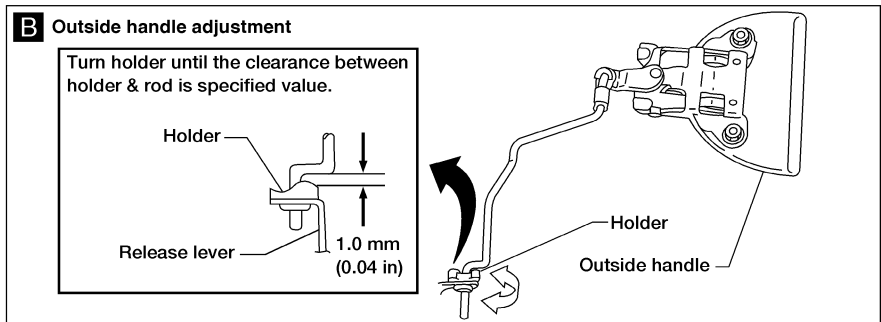
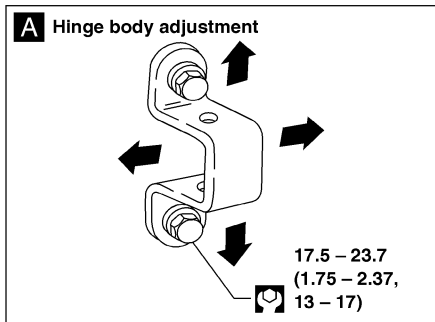
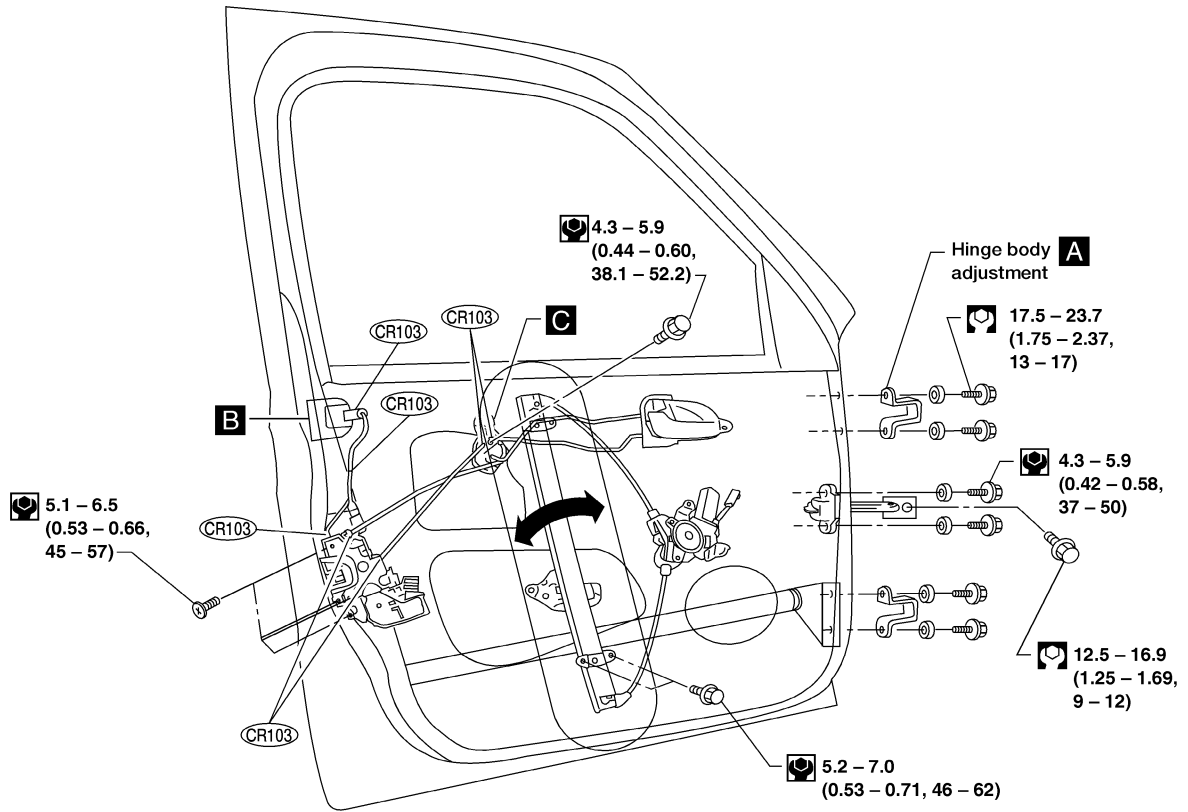
Overhaul

## Overhaul

NDBT0006

- For removal of door trim, refer to "DOOR TRIM" (BT-31).
- After adjusting door or door lock, check door lock operation.

SEC. 800 • 803 • 805 • 998



: N-m (kg-m, in-lb)

: N-m (kg-m, ft-lb)

WBT015

# SLIDING DOOR

Overhaul

## Overhaul

NDBT0022

- Left side slide door will not open when fuel door is open.

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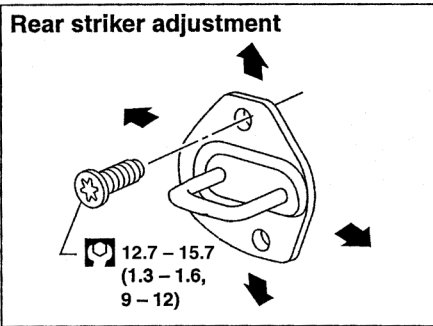
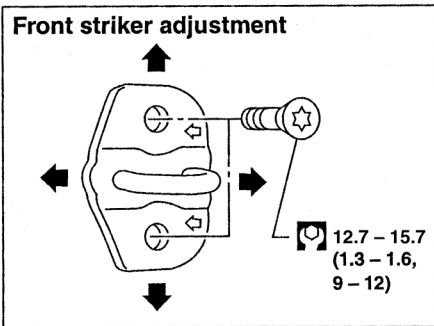
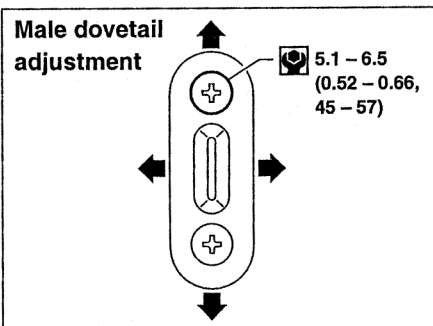
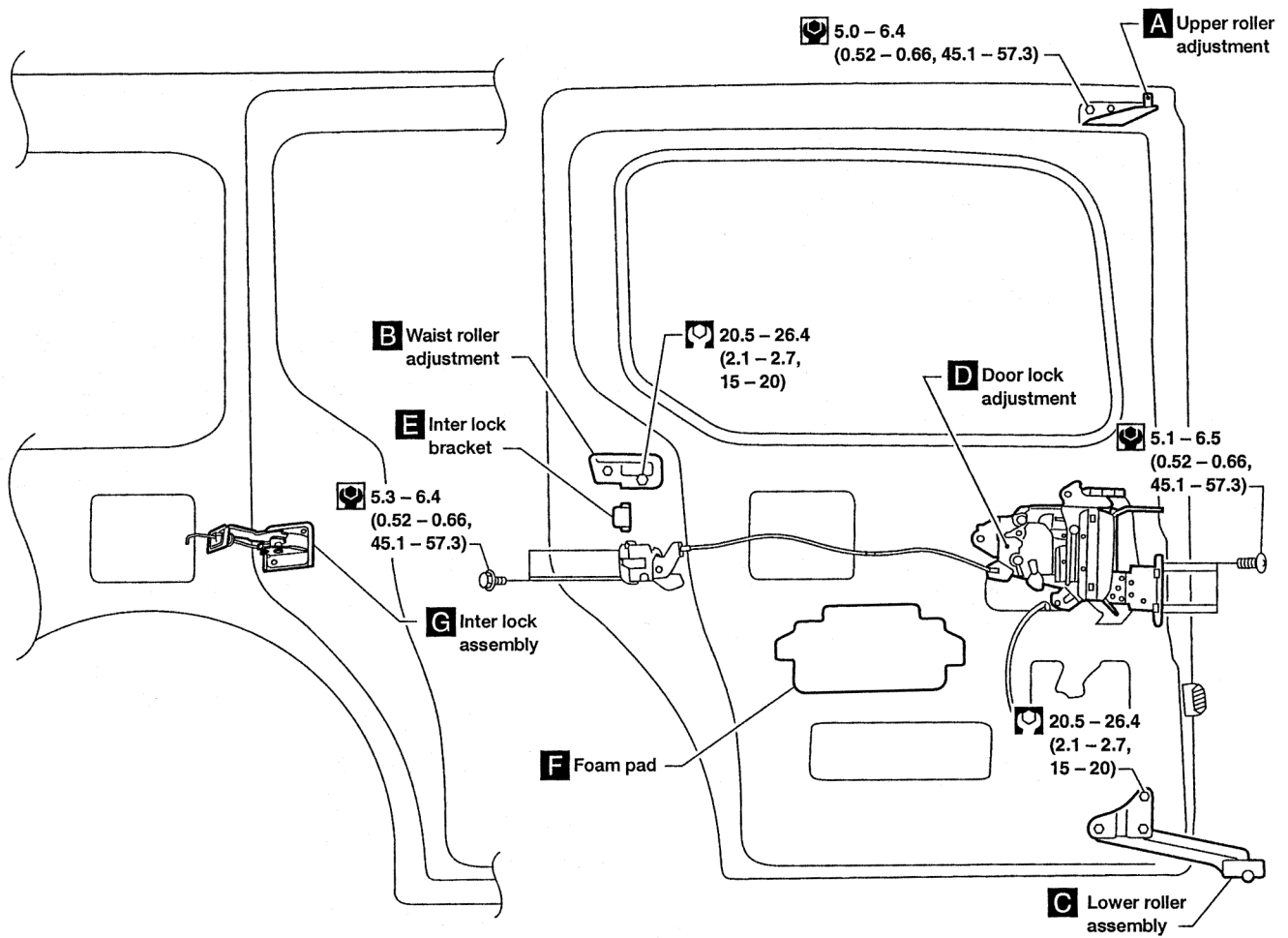
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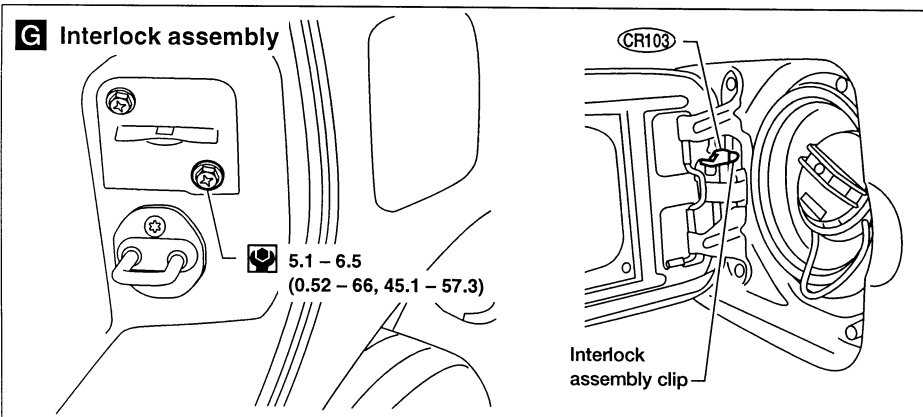
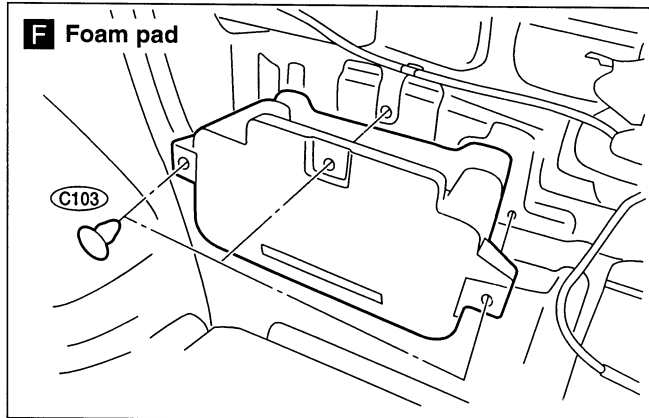
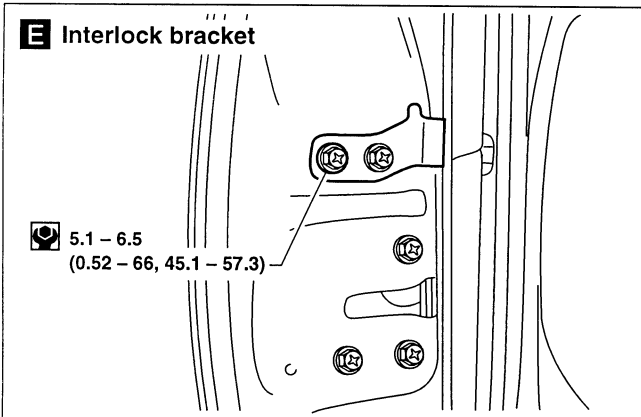
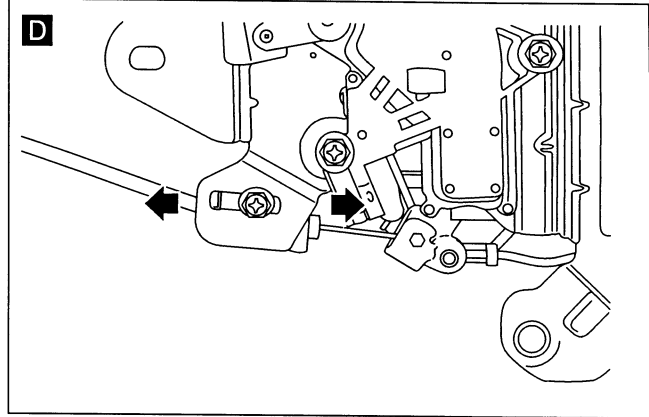
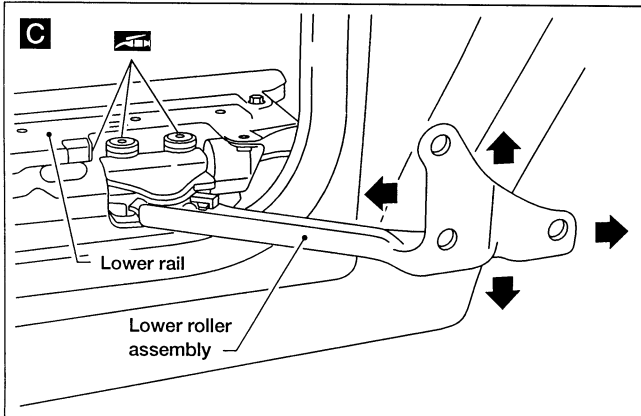
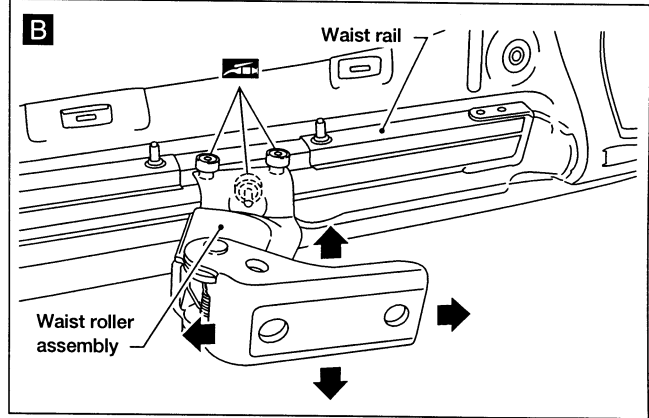
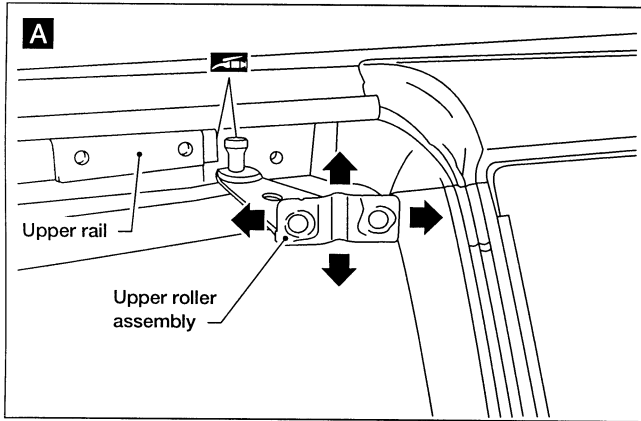
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# SLIDING DOOR

Overhaul (Cont'd)



: N-m (kg-m, in-lb)  
 : Should be lubricated with grease

ABT396

## Removal and Installation

NDBT0008

**CAUTION:**

- Disconnect both battery cables in advance.
- Disconnect air bag system line in advance.
- Never tamper with or force air bag lid open, as this may adversely affect air bag performance.
- Be careful not to scratch pad and other parts.
- Wrap the tip of a flat bladed screw driver with a cloth when removing metal clips.

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# INSTRUMENT PANEL ASSEMBLY

Removal and Installation (Cont'd)

| Instrument panel assembly   | Heater & A/C control | Audio control | Combination meter |
|---|----------------------|---------------|-------------------|
| Remove air bag module (driver) and steering wheel.<br>Refer to "SUPPLEMENTAL RESTRAINT SYSTEM" in RS section for details. |                      |               |                   |
| 1 Center console or compact disc magazine<br>• Remove clips.  |                      |               |                   |
| 2 Center console side finishers<br>• Remove clips.<br>• Remove screws and disconnect footlamp electrical connector.       |                      |               |                   |
| 3 Ashtray and cup holder<br>• Remove from astray slide bracket.   |                      |               |                   |
| 4 Cluster lid C <b>G</b><br>• Remove two screws.  |                      |               |                   |
| 5 Heater and air conditioner control<br>• Remove four screws.   |                      |               |                   |
| 6 Audio unit<br>• Remove four screws securing audio unit.   |                      |               |                   |
| 7 Glove box <b>H</b><br>• Remove eight screws and two clips (CS101).  |                      |               |                   |
| 8 Passenger air bag module<br>• Refer to RS section.  |                      |               |                   |
| 9 Instrument lower cover on driver side. <b>F</b><br>• Remove two screws and two clips (CS101).                           |                      |               |                   |
| 10 Ashtray slide bracket<br>• Remove three screws securing slide bracket to instrument panel.                             |                      |               |                   |
| 11 Knee protector<br>• Remove four bolts.<br>• Release data link connector for GST.                                       |                      |               |                   |
| 12 Headlamp switch <b>I</b><br>• Disconnect headlamp switch.  |                      |               |                   |
| 13 Cluster lid A<br>• Remove three screws.  |                      |               |                   |
| 14 Steering column cover<br>• Remove four screws.   |                      |               |                   |
| ↓<br>(A)  |                      | ↓<br>(B)      |                   |

ABT376



# INSTRUMENT PANEL ASSEMBLY

Removal and Installation (Cont'd)

|  |   |
|--|---|
| Ⓐ  | Ⓑ |
| <p>15 Steering column</p> <ul style="list-style-type: none"><li>• Disconnect shift indicator.</li><li>• Remove one screw securing air duct.</li><li>• Remove four nuts and lower steering column.</li><li>• Refer to ST section.</li></ul>         |   |
| <p>16 Combination meter</p> <ul style="list-style-type: none"><li>• Remove four screws.</li></ul>  |   |
| <p>17 Ventilators <b>B C D</b></p> <ul style="list-style-type: none"><li>• Remove side ventilators.</li><li>• If equipped, disconnect in-vehicle sensor electrical connector after removing center ventilator.</li></ul>                           |   |
| <p>18 Defroster grille <b>A</b></p> <ul style="list-style-type: none"><li>• Remove front door weatherstrip.</li><li>• Remove front pillar garnish. Refer to *1.</li></ul>  |   |
| <p>19 Dash lower side finisher</p> <ul style="list-style-type: none"><li>• Refer to *1.</li></ul>  |   |
| <p>20 Instrument panel</p> <ul style="list-style-type: none"><li>• Remove two screws from opening for passenger air bag module.</li><li>• Remove one screw each from lower LH and RH side.</li><li>• Remove upper two bolts and one nut.</li></ul> |   |

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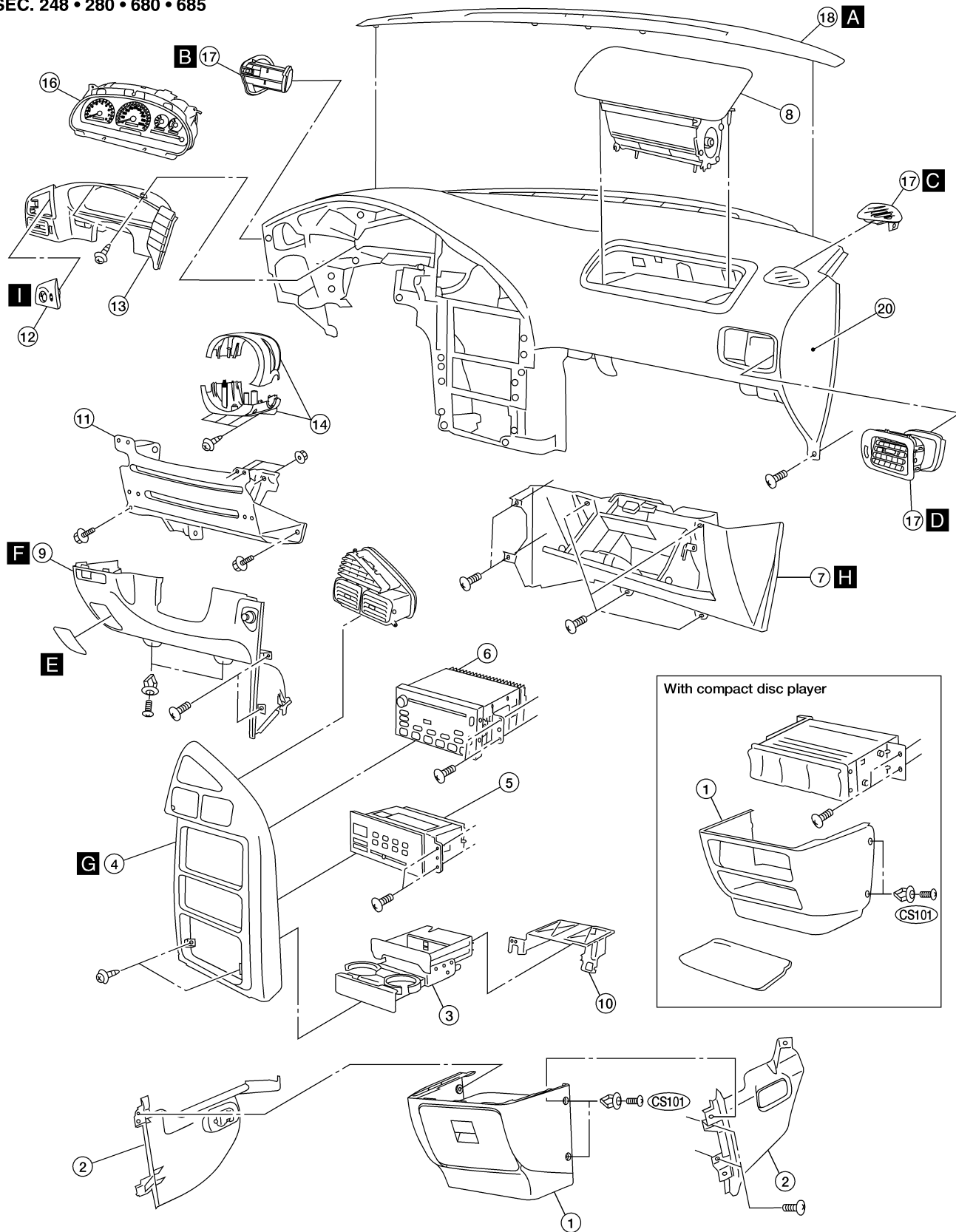
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\*1 BT-28

# INSTRUMENT PANEL ASSEMBLY

Removal and Installation (Cont'd)

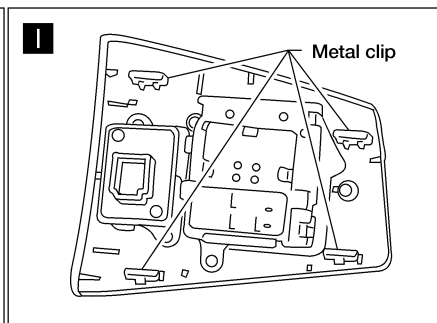
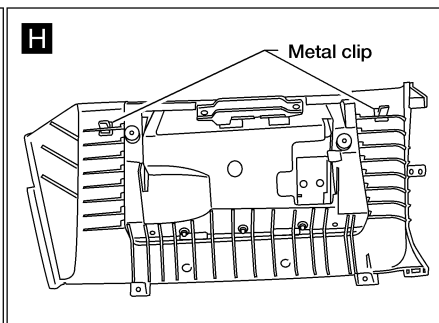
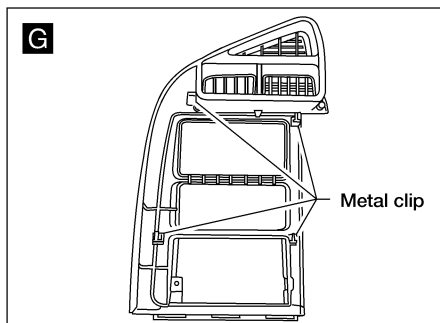
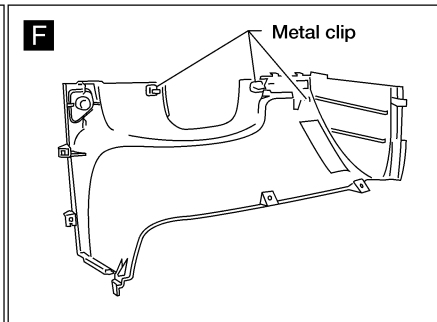
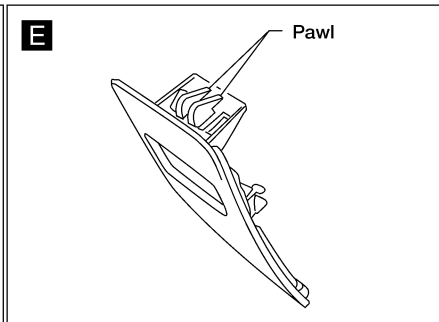
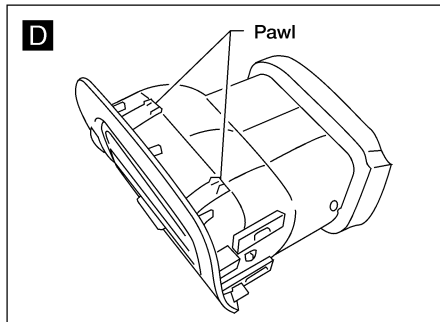
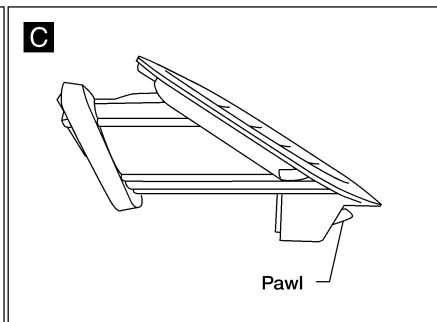
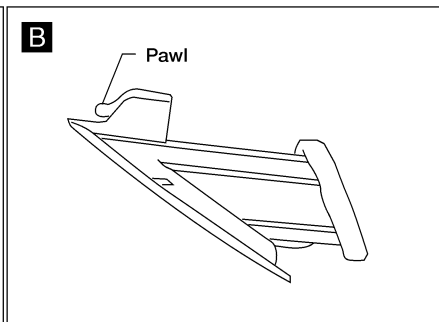
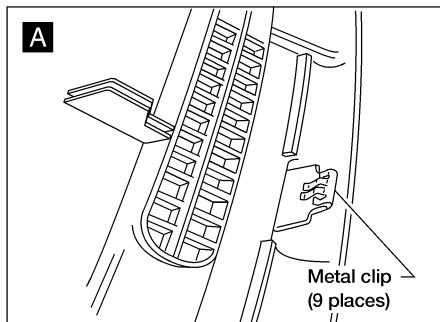
SEC. 248 • 280 • 680 • 685



ABT356

# INSTRUMENT PANEL ASSEMBLY

Removal and Installation (Cont'd)



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## SIDE AND FLOOR TRIM

Removal and Installation

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### Removal and Installation

NDBT0009

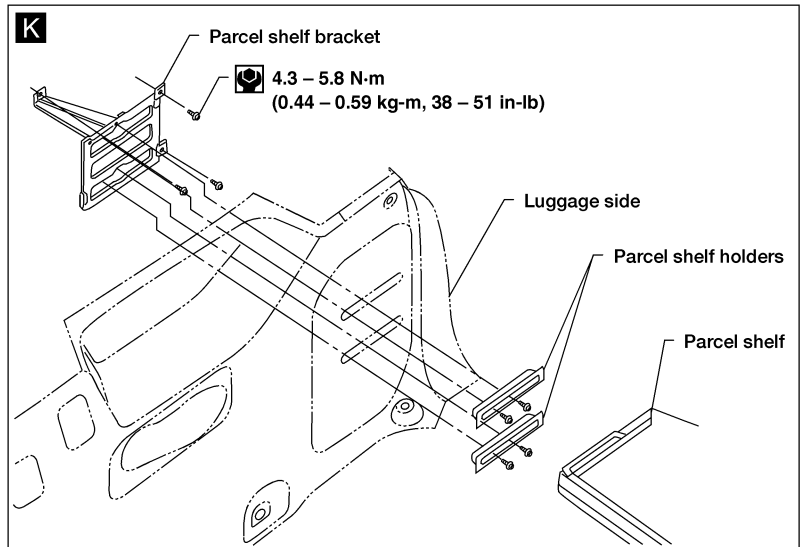
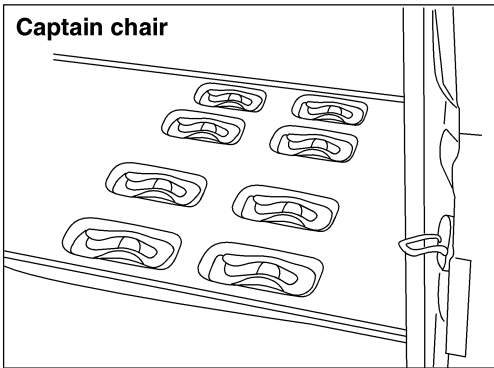
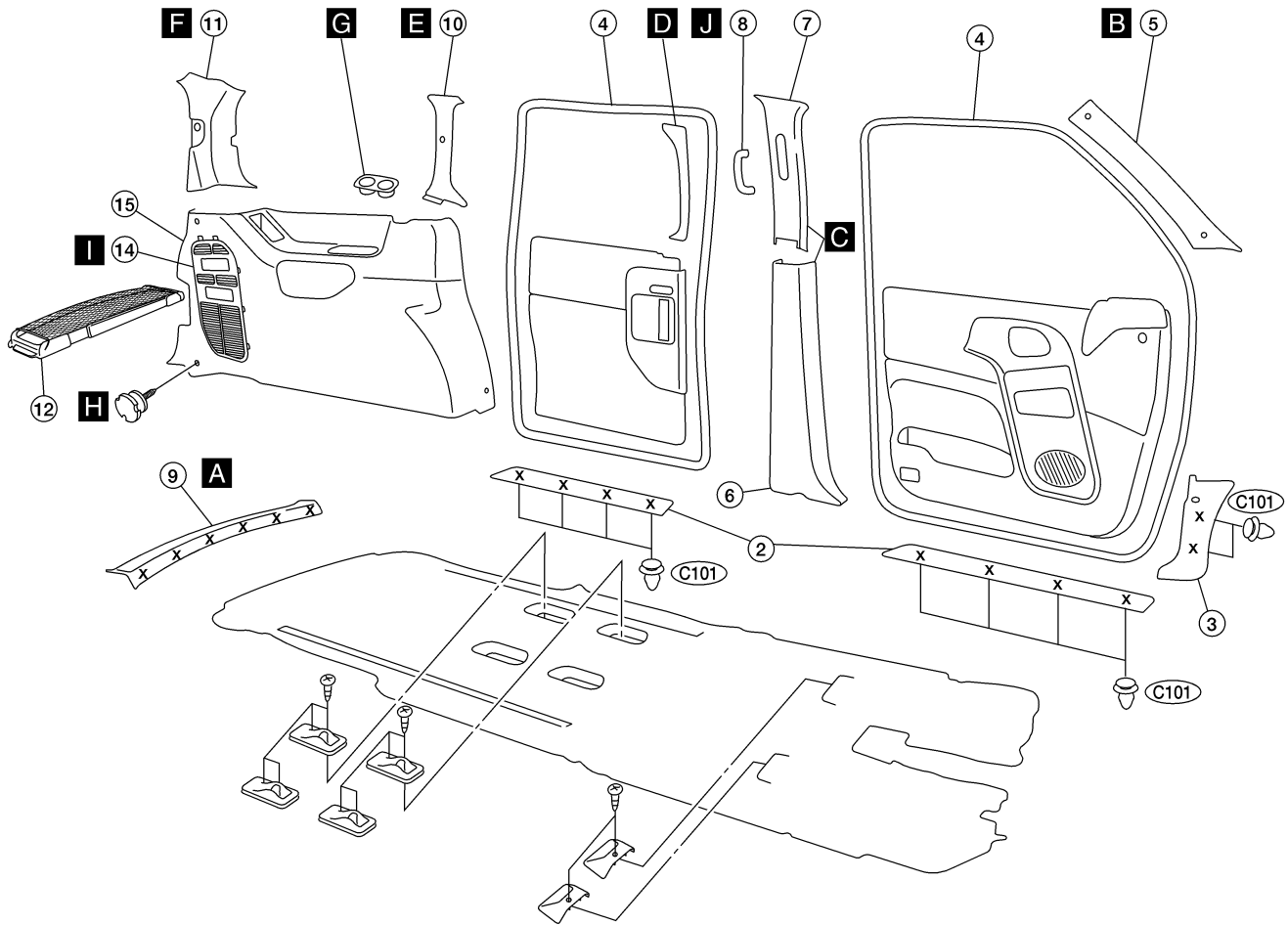
**CAUTION:**

**Wrap the tip of flat-bladed screwdriver with a cloth when removing metal clips from garnishes.**

1. Remove front and rear seats. Refer to "FRONT SEAT", "2ND SEAT" and "3RD SEAT" for details, BT-39, BT-41, BT-43.
2. Remove front and rear kicking plates.
3. Remove dash side lower finishers.
4. Remove front and rear body side welts.
5. Remove A pillar garnishes. **B**
6. Remove B pillar lower garnishes. **C**
7. Remove B pillar upper garnishes. **C**
8. Remove center assist grips. **J**
9. Remove rear gate kicking plate. **A**
10. Remove C pillar upper garnishes. **E**
11. Remove D pillar upper garnishes. **F**
12. Remove parcel shelf.
13. Remove parcel shelf holders. **K**
14. Remove rear side lower garnish finisher. **I**
15. Remove rear side lower garnishes. **H**
16. Remove parcel shelf brackets. **K**

# SIDE AND FLOOR TRIM

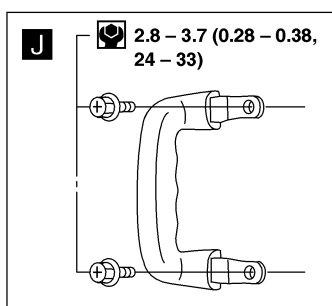
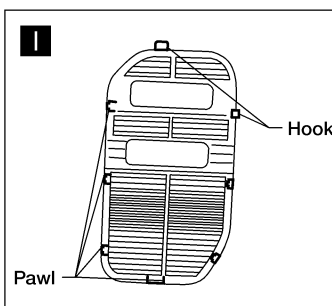
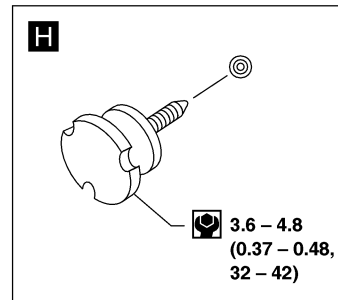
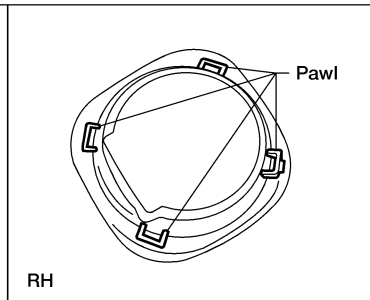
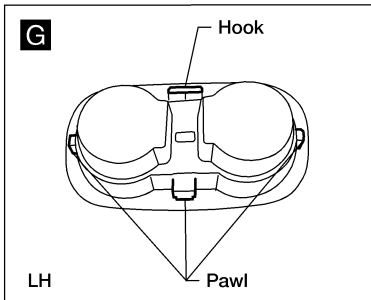
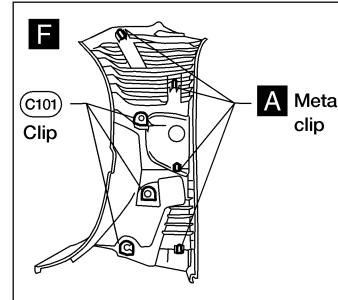
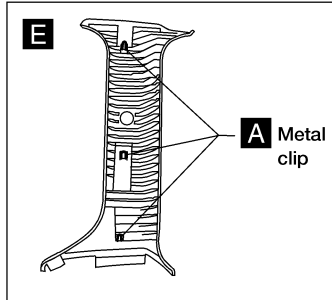
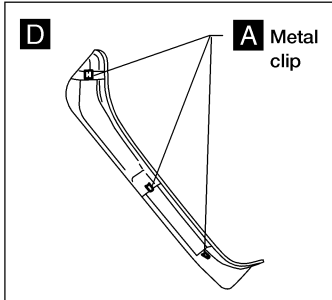
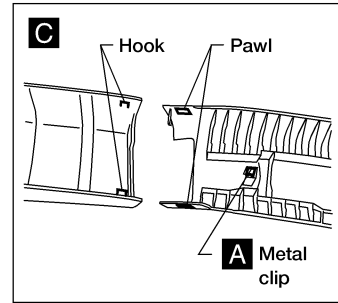
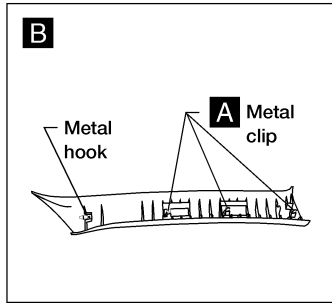
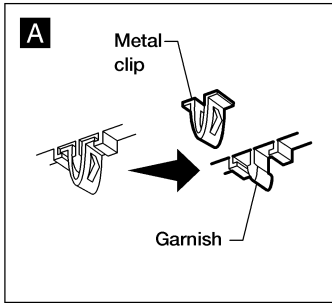
Removal and Installation (Cont'd)



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# SIDE AND FLOOR TRIM

Removal and Installation (Cont'd)



: N·m (kg·m, in·lb)

ABT437

# DOOR TRIM

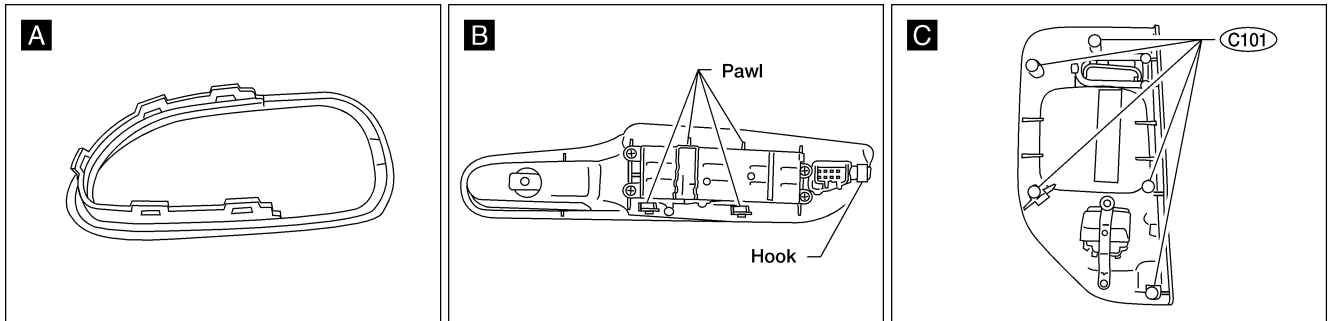
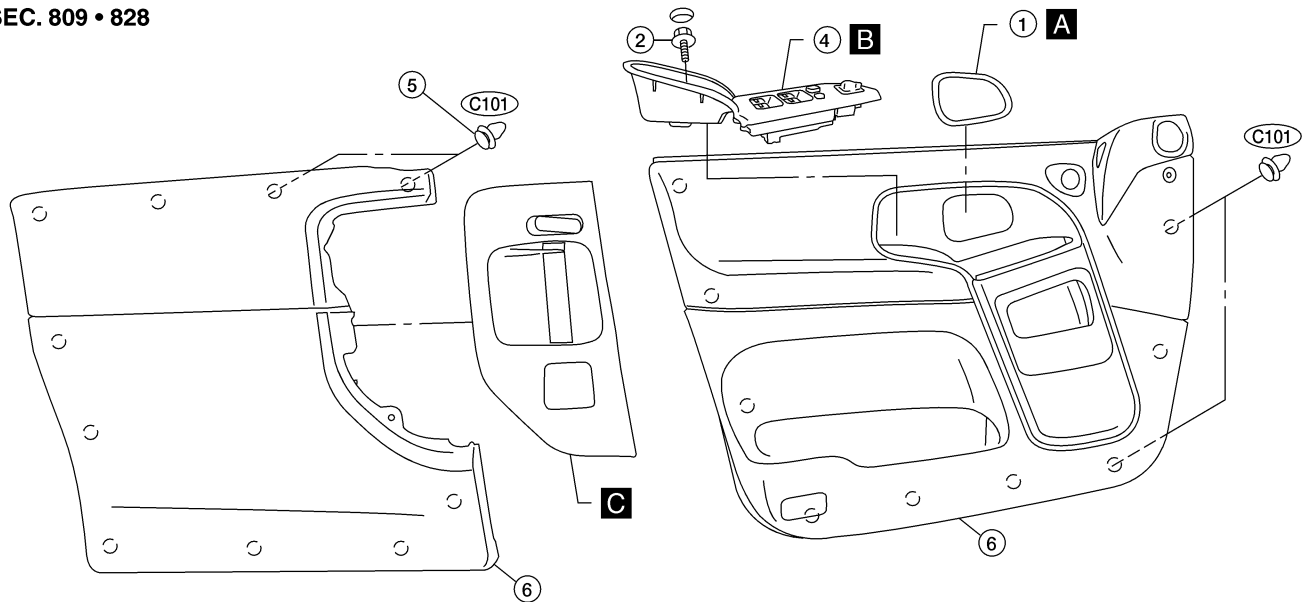
Removal and Installation

## Removal and Installation

NDBT0010

1. Remove inside handle escutcheon. **A**
2. Remove screw securing power window switches.
3. Remove hatch glass lock cover (if applicable).
4. Remove power window switches, then disconnect the connectors. **B**
5. Remove clips securing door finisher.
6. Lift out door finisher.

SEC. 809 • 828



WBT030

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# BACK DOOR TRIM

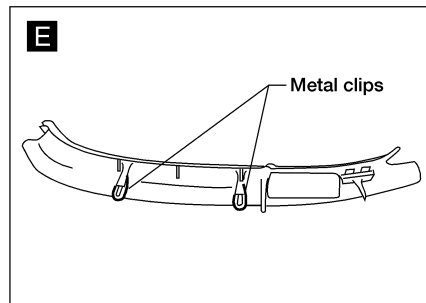
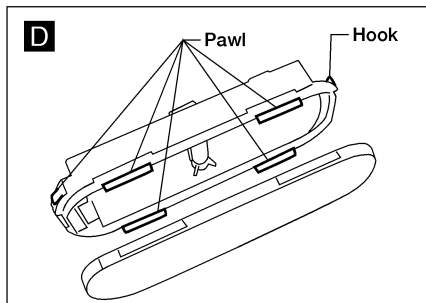
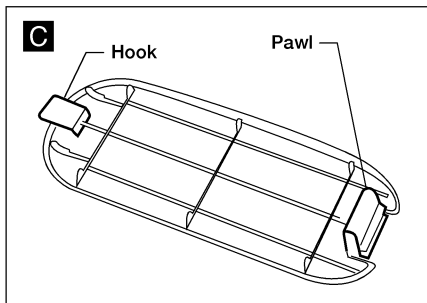
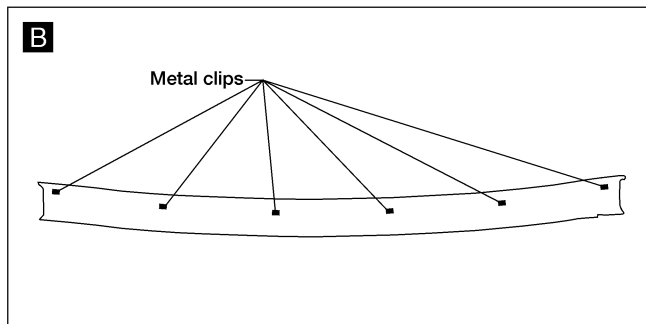
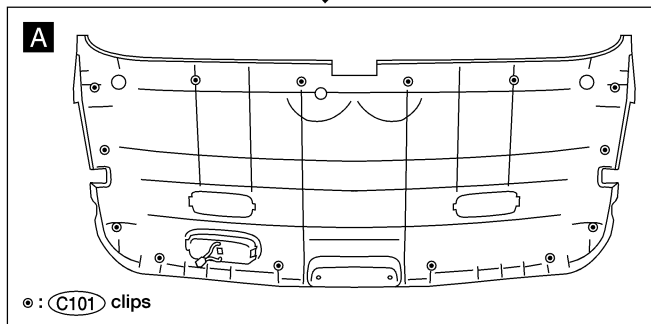
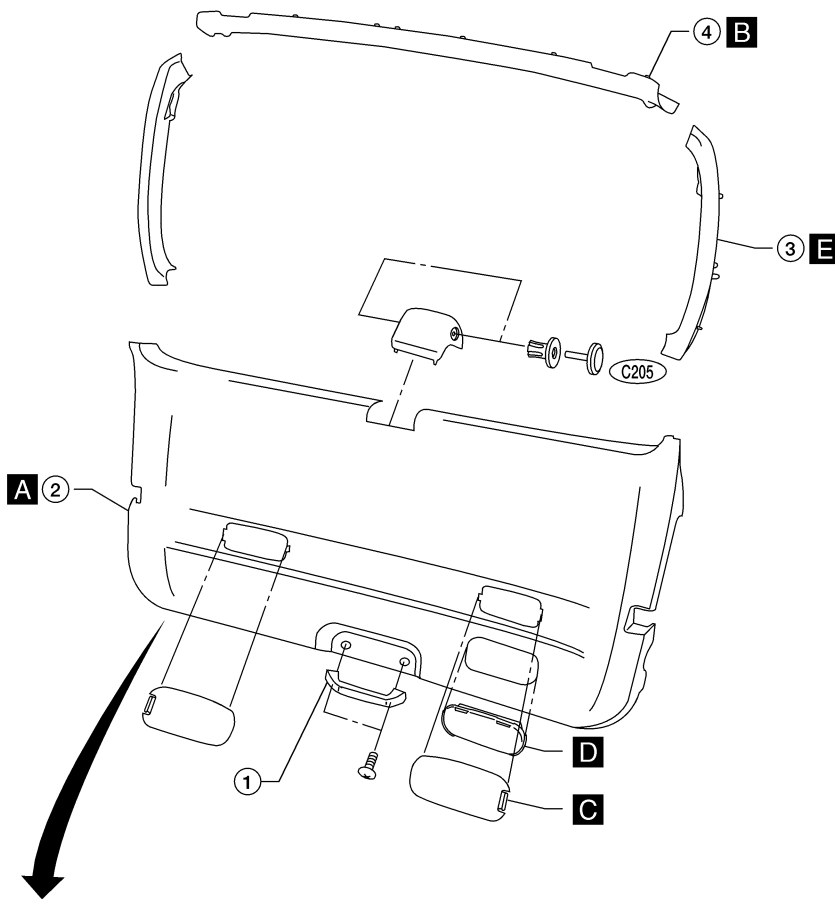
Removal and Installation

## Removal and Installation

NDBT0012

1. Remove back door grip.
2. Remove back door finisher assembly. **A**
3. Remove back window garnishes. **E**
4. Remove back door upper finisher assembly. **B**

SEC. 900



ABT438



# ROOF TRIM

Removal and Installation

## Removal and Installation

NDBT0011

1. Remove front and rear seats. Refer to "FRONT SEAT", "2ND SEAT" and "3RD SEAT" for details, BT-39, BT-41, BT-43. GI
2. Remove front and rear seat belts. Refer to "SEAT BELTS" in RS section for details.
3. Remove body side trim. Refer to "SIDE AND FLOOR TRIM" for details, BT-28. MA
4. Remove roof console assembly. **A**
5. Remove sun visors.
6. Remove interior lamp assembly and luggage room lamp assembly. **D** EM
7. Remove assist grips.
8. Remove A/C control and outlet grille (if equipped). **B** LC
9. Remove rear audio control panel (if equipped). **C**
10. Remove coat hooks.
11. Remove rear roof garnish. EC
12. Remove clip securing headlining.
13. Remove headlining from vehicle through back door. FE

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**BT**

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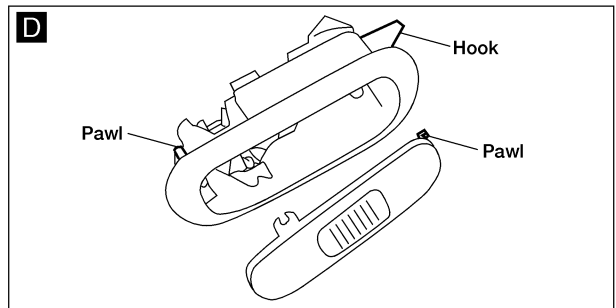
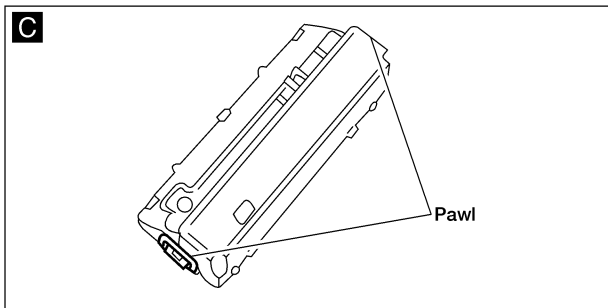
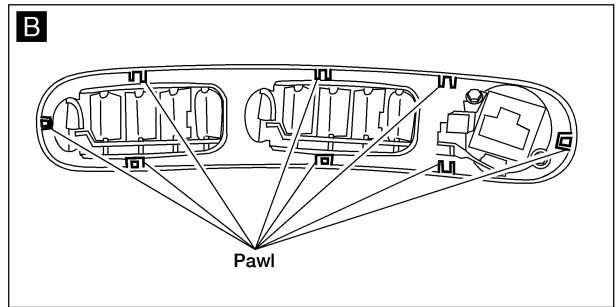
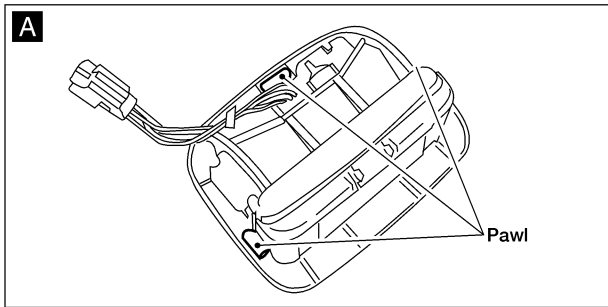
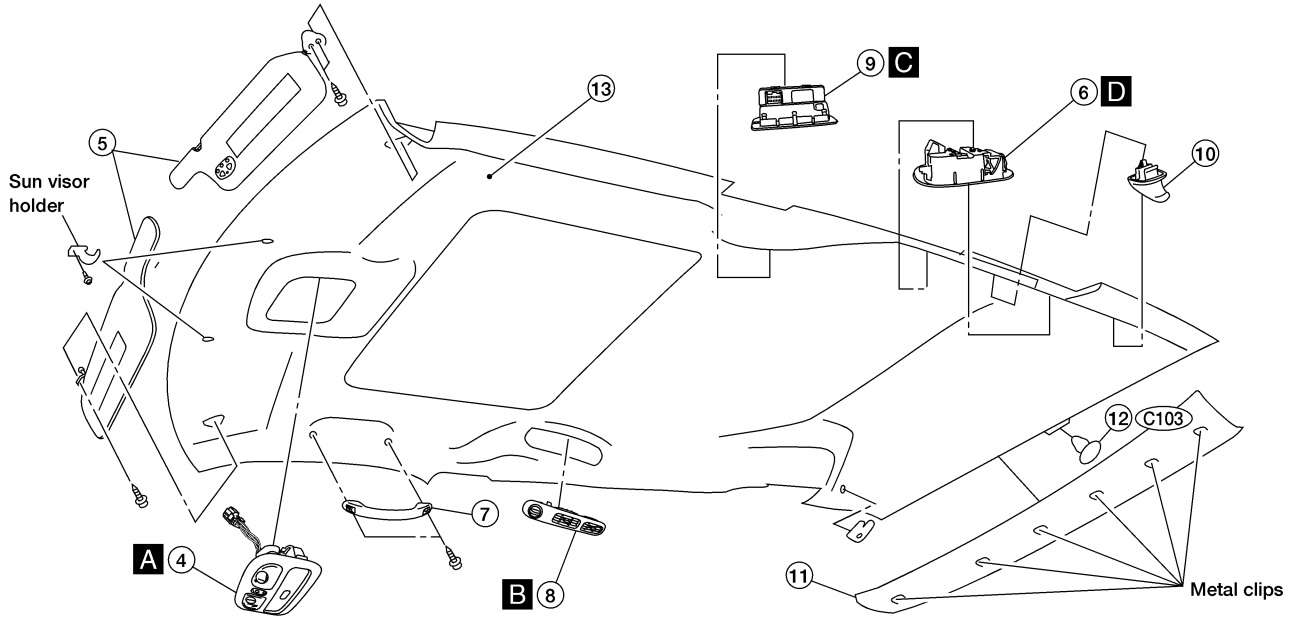
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# ROOF TRIM

Removal and Installation (Cont'd)

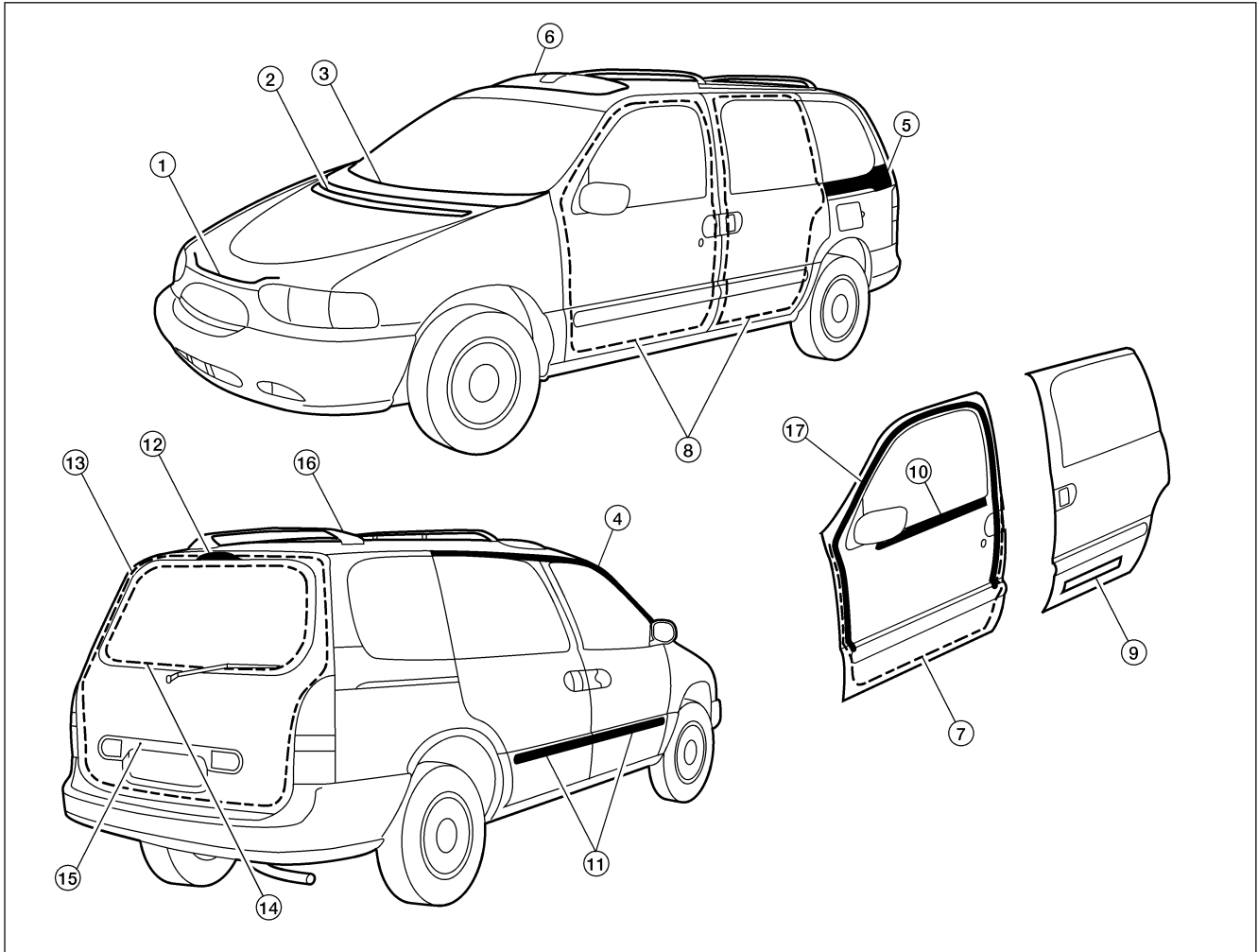
SEC. 264 • 738 • 964



ABT439

## Removal and Installation

NDBT0013

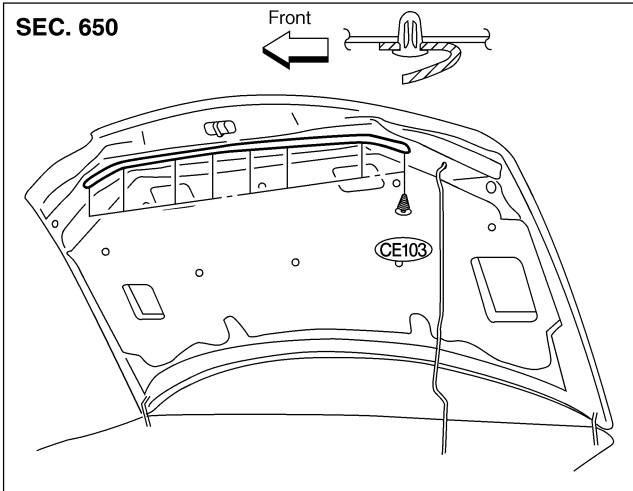


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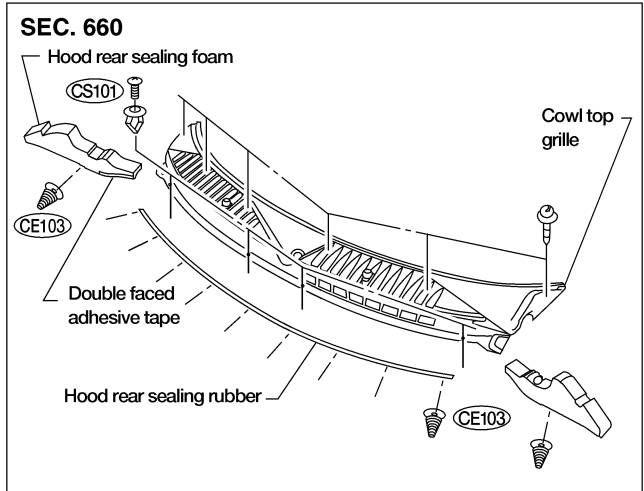
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### ① Hood front seal



### ② ③ Hood rear sealing rubber and cowl top grille

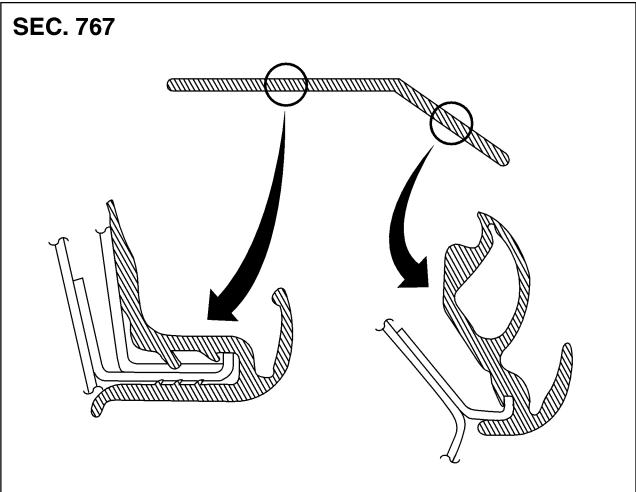


ABT362

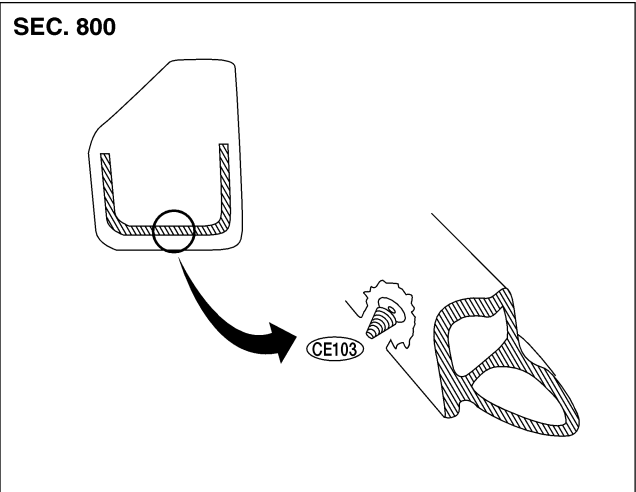
# EXTERIOR

Removal and Installation (Cont'd)

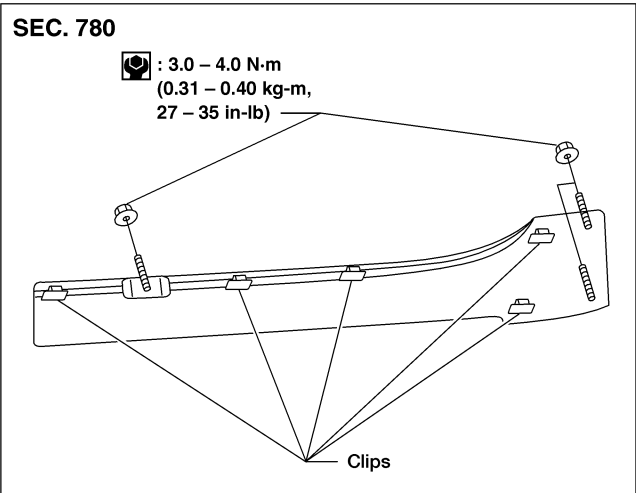
### ④ Body side drip molding



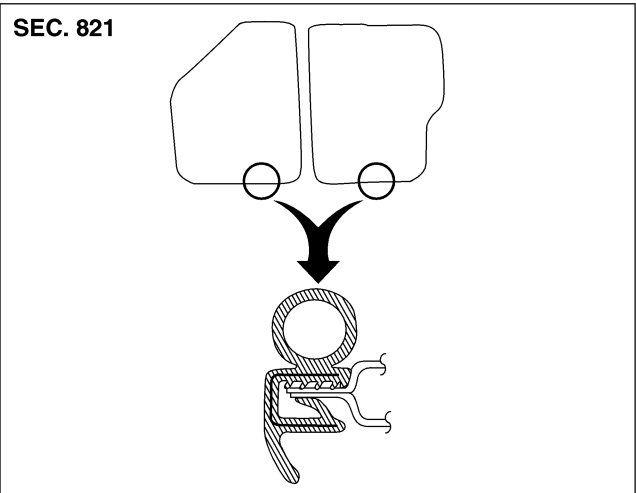
### ⑦ Front door weatherstrip



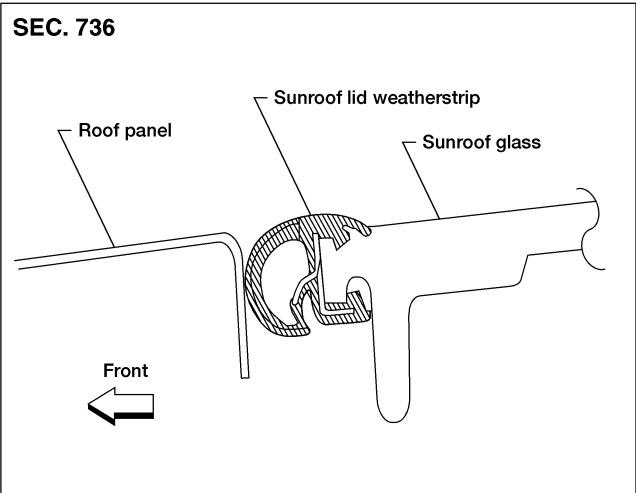
### ⑤ Waist rail finisher



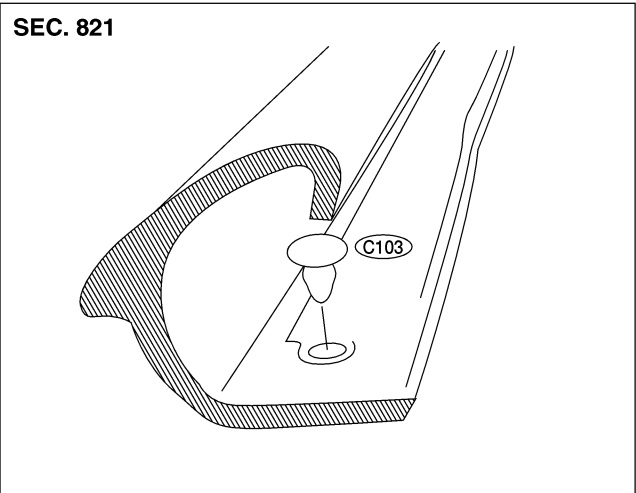
### ⑧ Body side welt



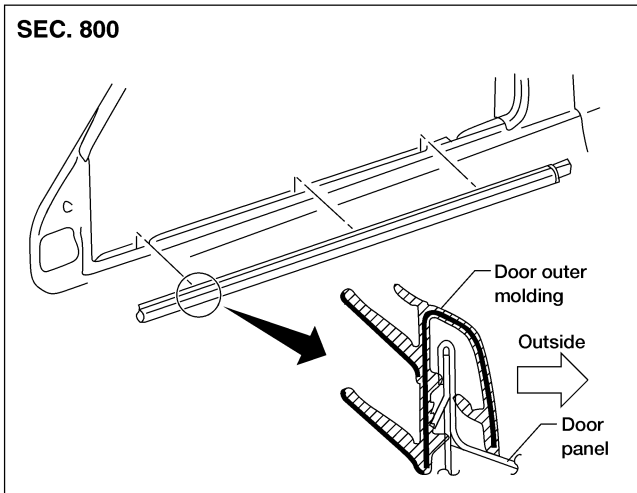
### ⑥ Sunroof lid weatherstrip



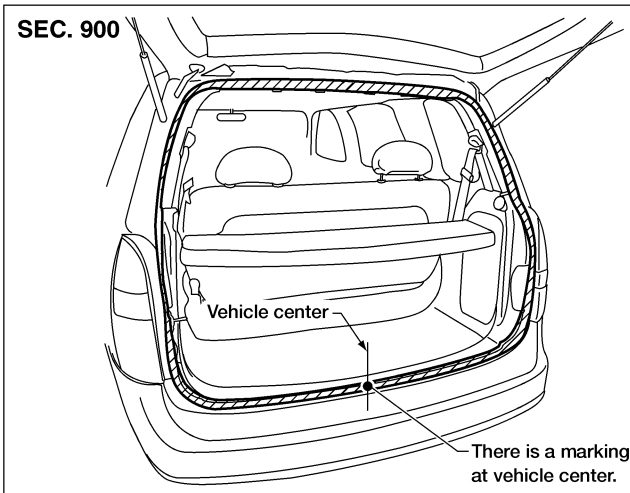
### ⑨ Sliding door lower seal



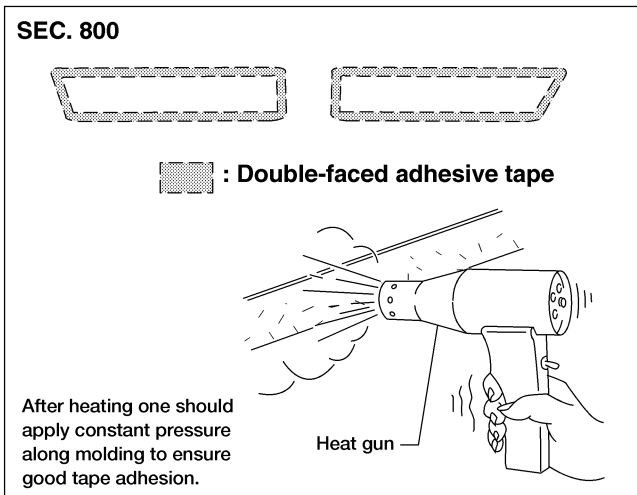
### ⑩ Door outer molding



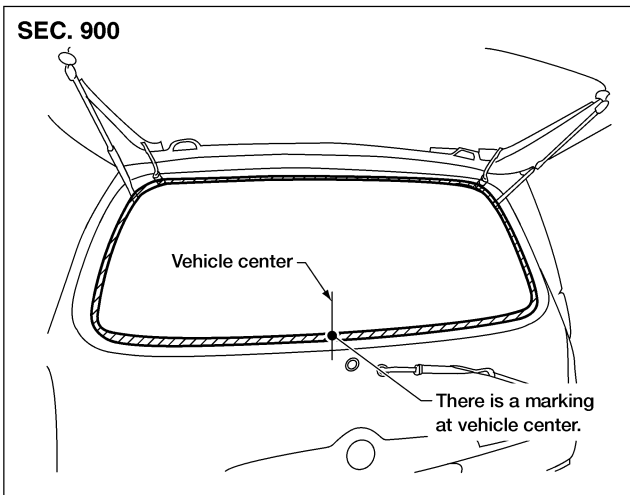
### ⑬ Back door weatherstrip



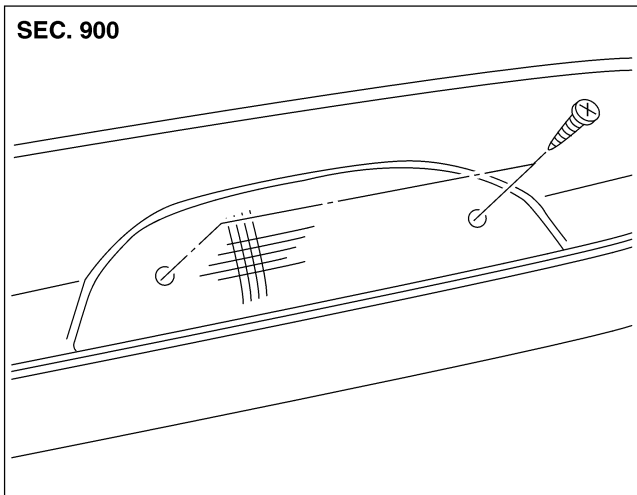
### ⑪ Side guard molding



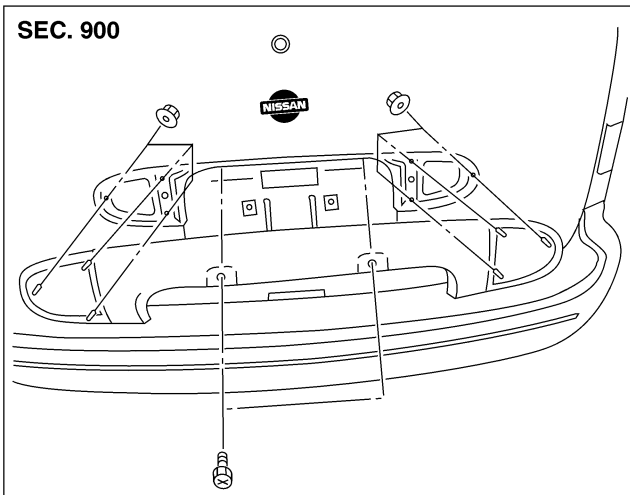
### ⑭ Back door window weatherstrip



### ⑫ High mount stop lamp



### ⑮ License plate finisher

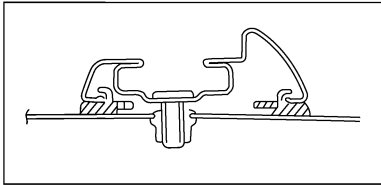
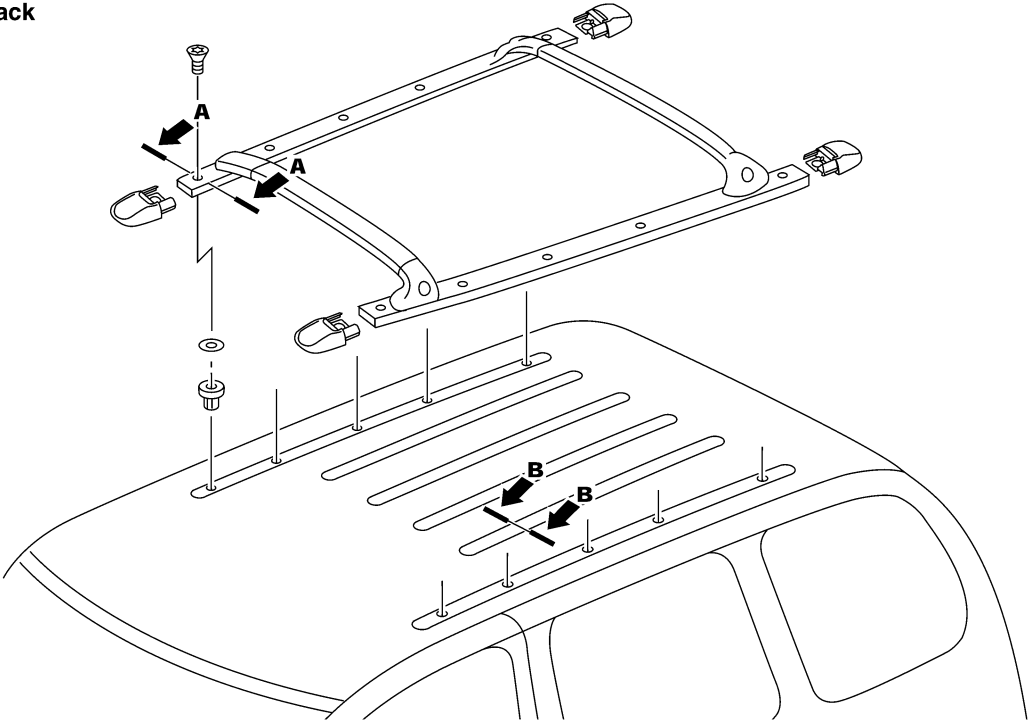


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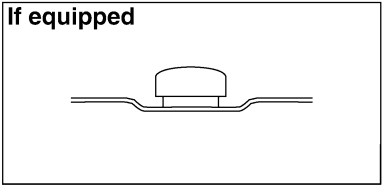
# EXTERIOR

Removal and Installation (Cont'd)

## 16 Luggage rack SEC. 730



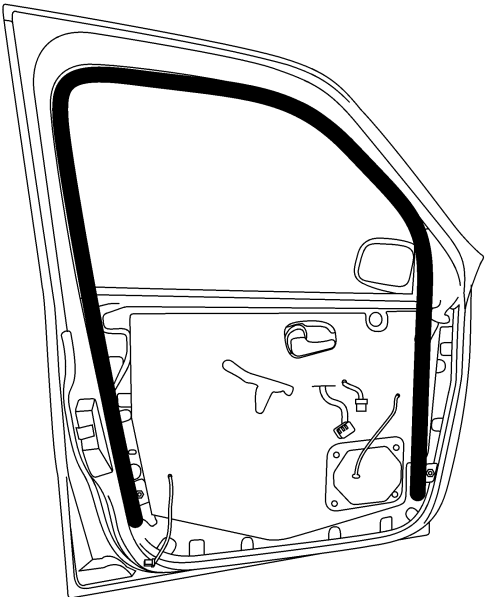
A - A



B - B

WBT142

## 17 Window run rubber



ABT426

# FRONT SEAT

Removal and Installation

## Removal and Installation

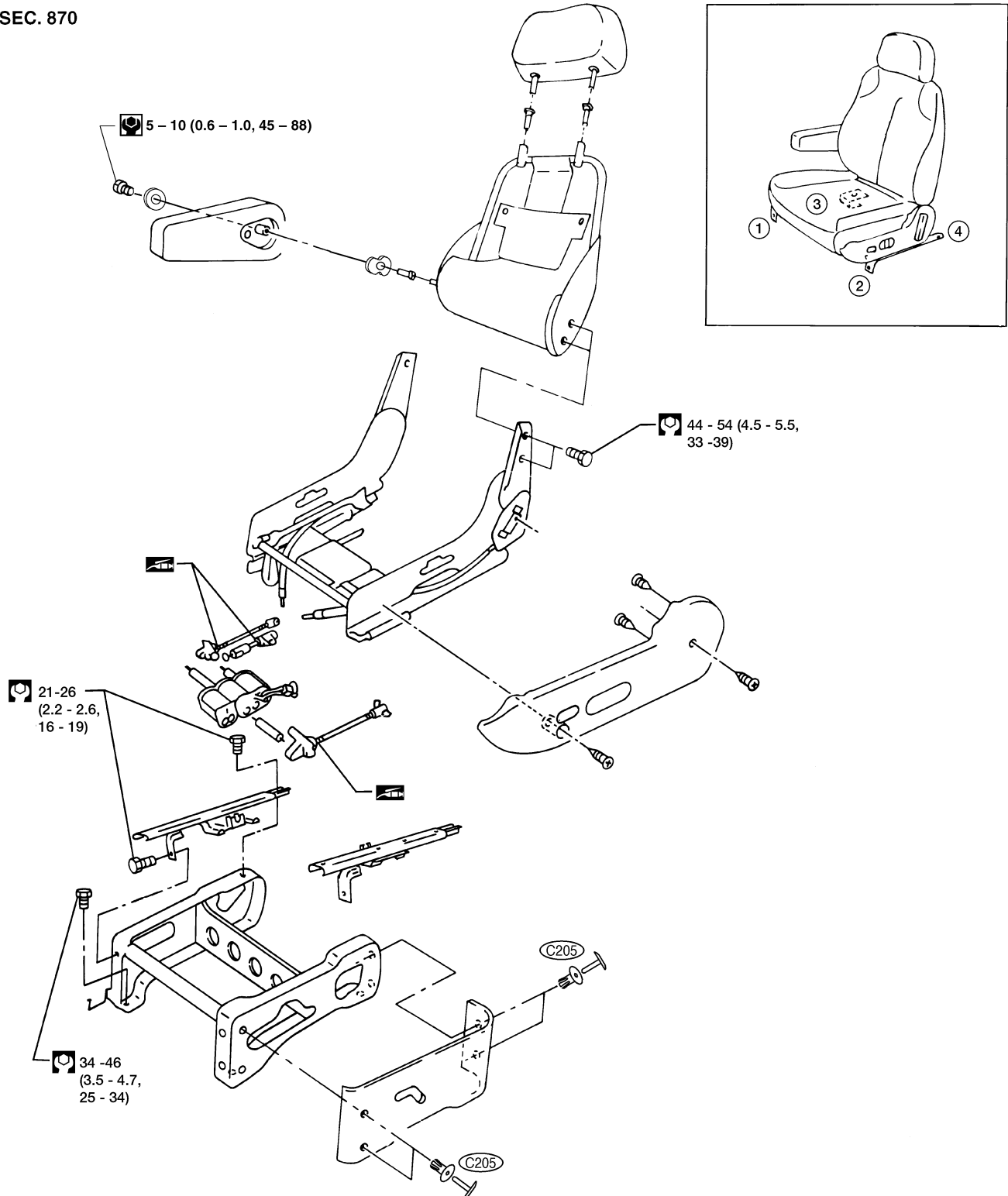
NDBT0014

- When removing or installing the seat trim, carefully handle it to keep dirt out and avoid damage.
- ★ For Wiring Diagram, refer to "POWER SEAT" in EL section.

### POWER SEAT

NDBT0014S01

SEC. 870



- : N·m (kg-m, in-lb)
- : N·m (kg-m, ft-lb)
- : Grease-up point (Do not apply too much grease as it will drip.)

BT-39

WBT021

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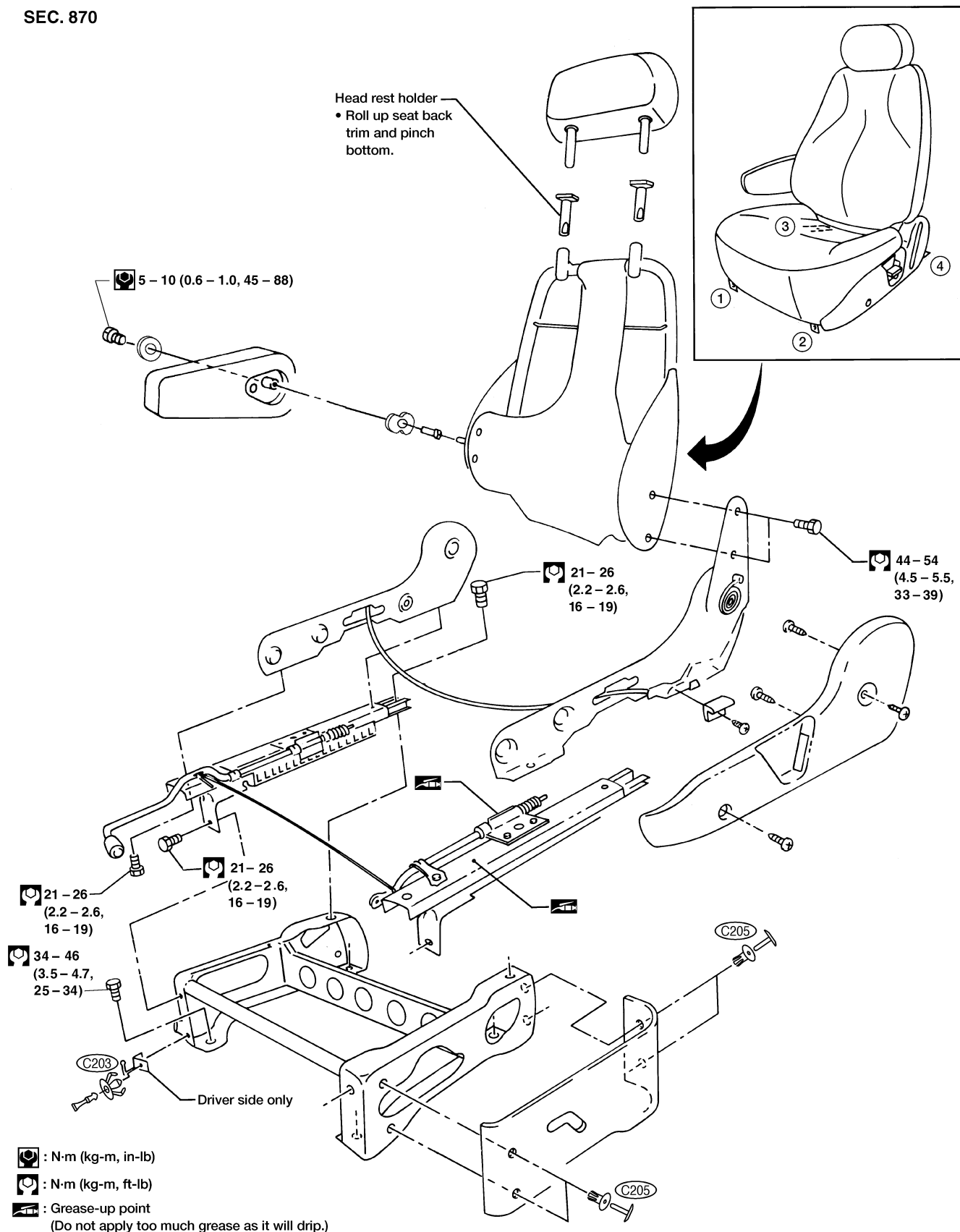
# FRONT SEAT

Removal and Installation (Cont'd)

## MANUAL SEAT

NDBT0014S02

SEC. 870



WBT022



# 2ND SEAT

Removal and Installation

## CAPTAIN'S CHAIR

NDBT0015

NDBT0015S01

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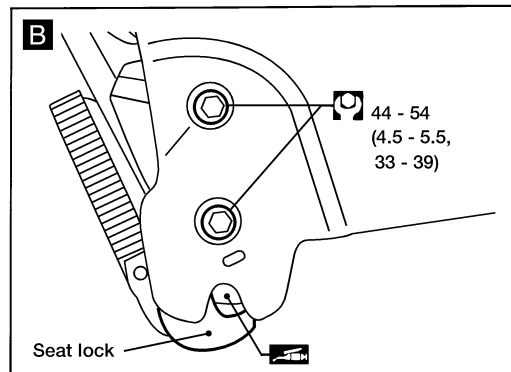
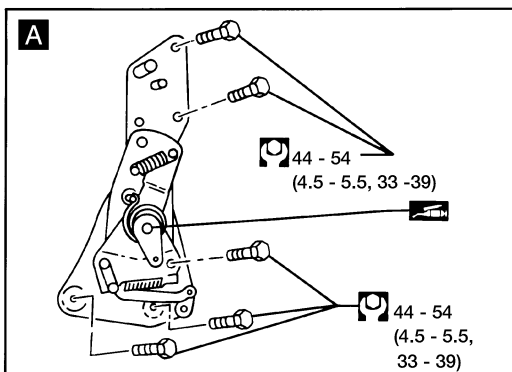
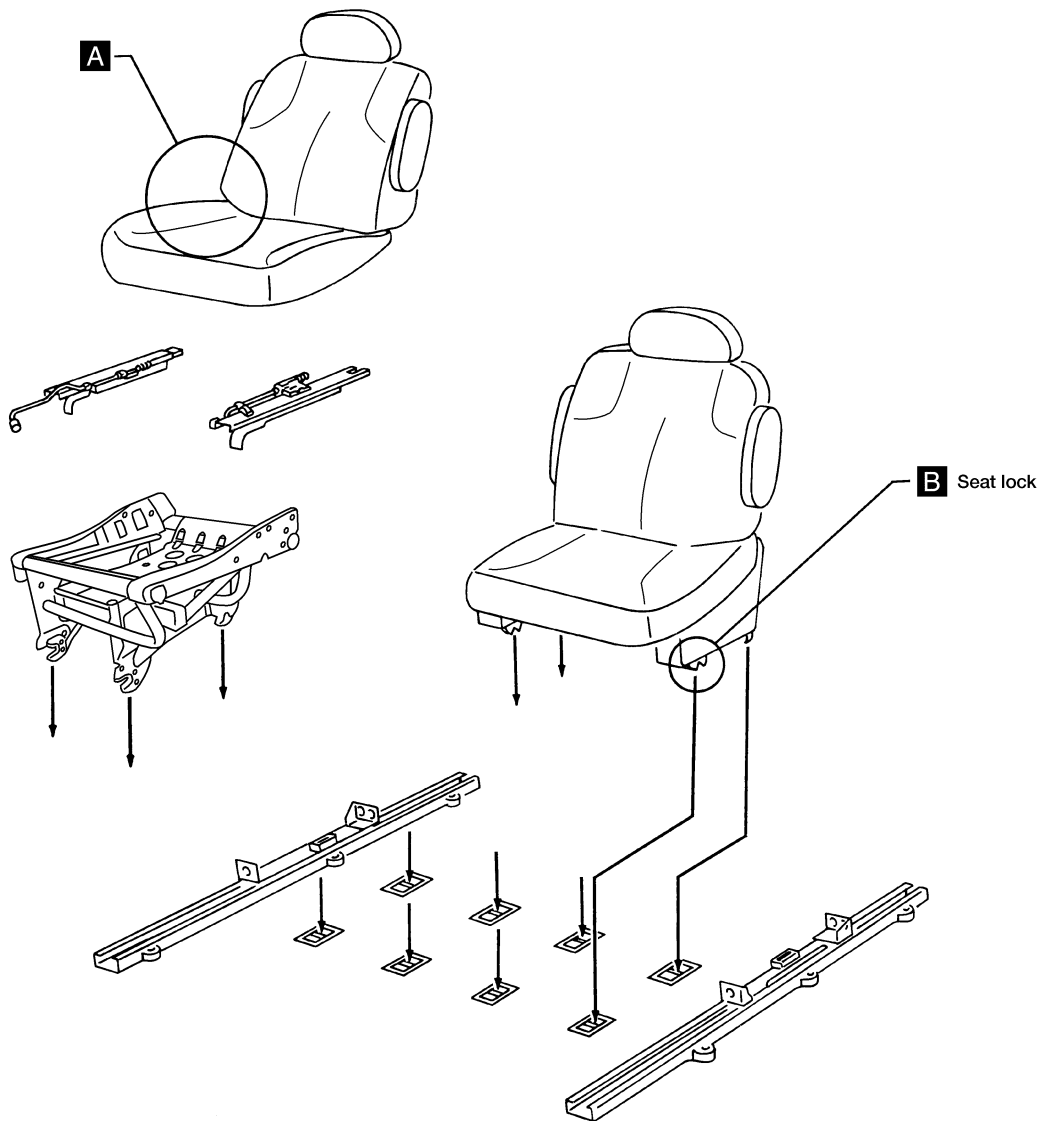
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SEC. 880C



 : N·m (kg·m, ft·lb)

 : Lubricate with grease

WBT019

# 2ND SEAT

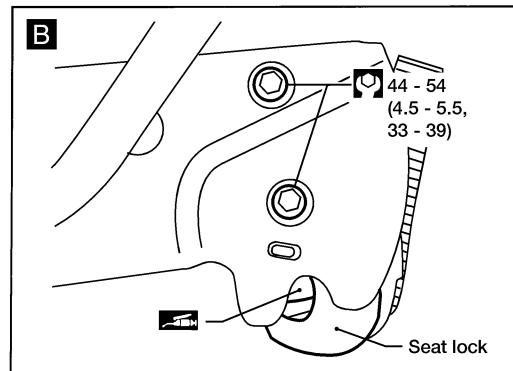
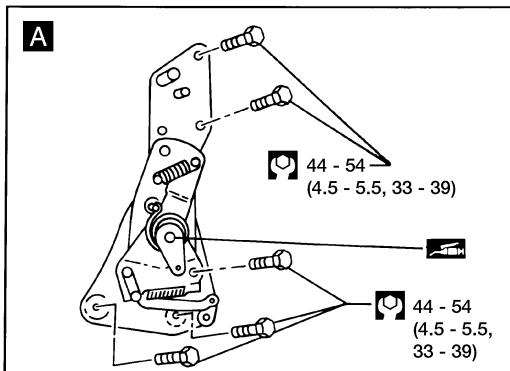
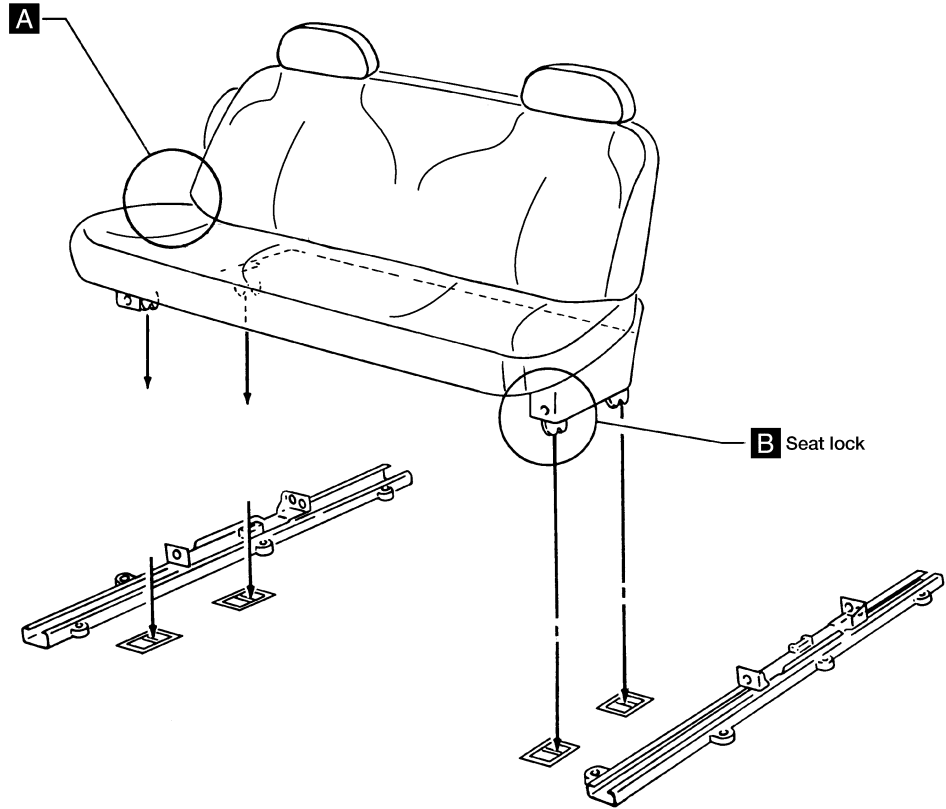
Removal and Installation (Cont'd)


## BENCH


NDBT0015S02

- For "BUILT-IN CHILD SEAT", refer to RS section.

SEC. 880B



 : N-m (kg-m, ft-lb)

 : Lubricate with grease

WBT020

# 3RD SEAT

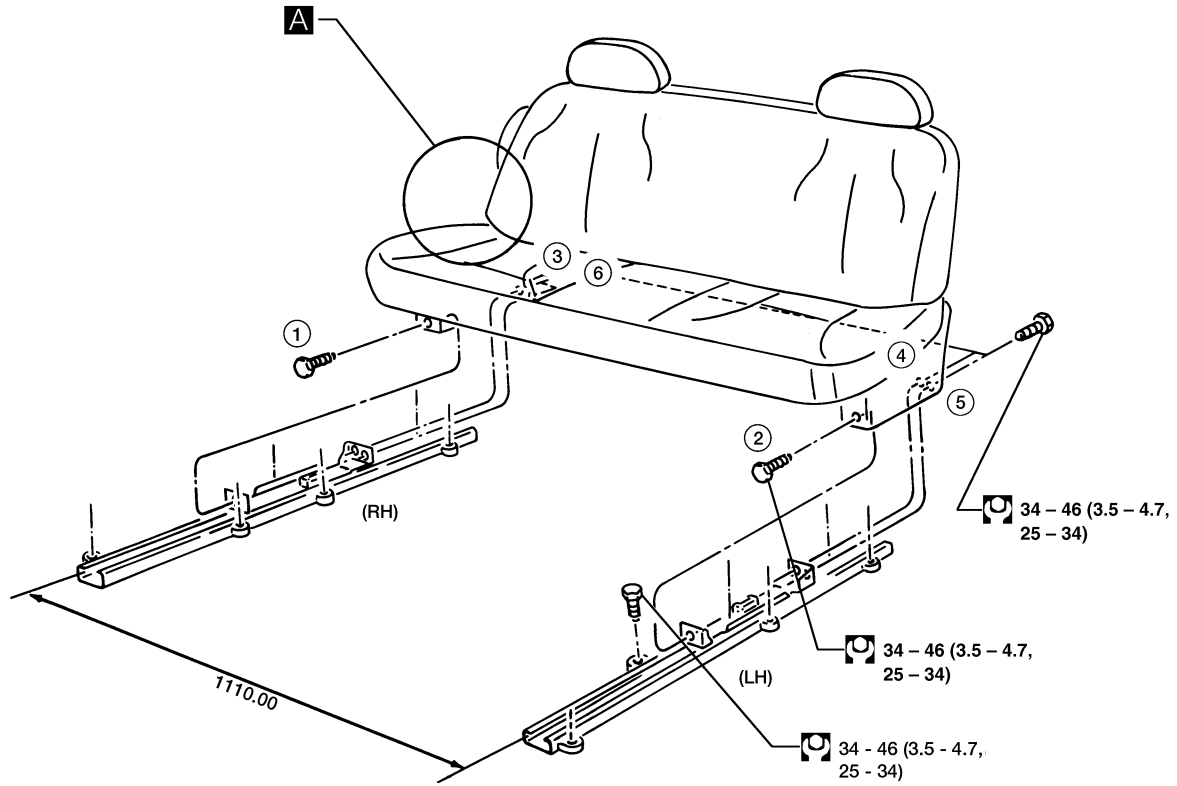
Removal and Installation

## Removal and Installation BENCH

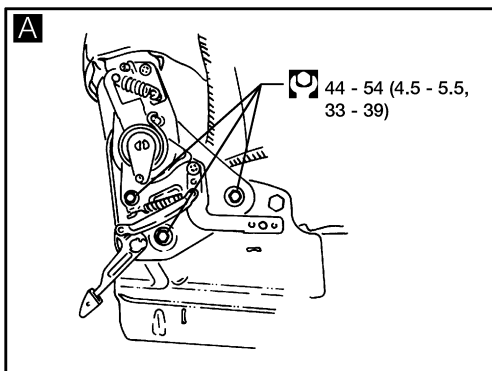
NDBT0023

NDBT0023S01

SEC. 880A



Important: Follow installation sequence and procedure.



: N·m (kg·m, ft·lb)

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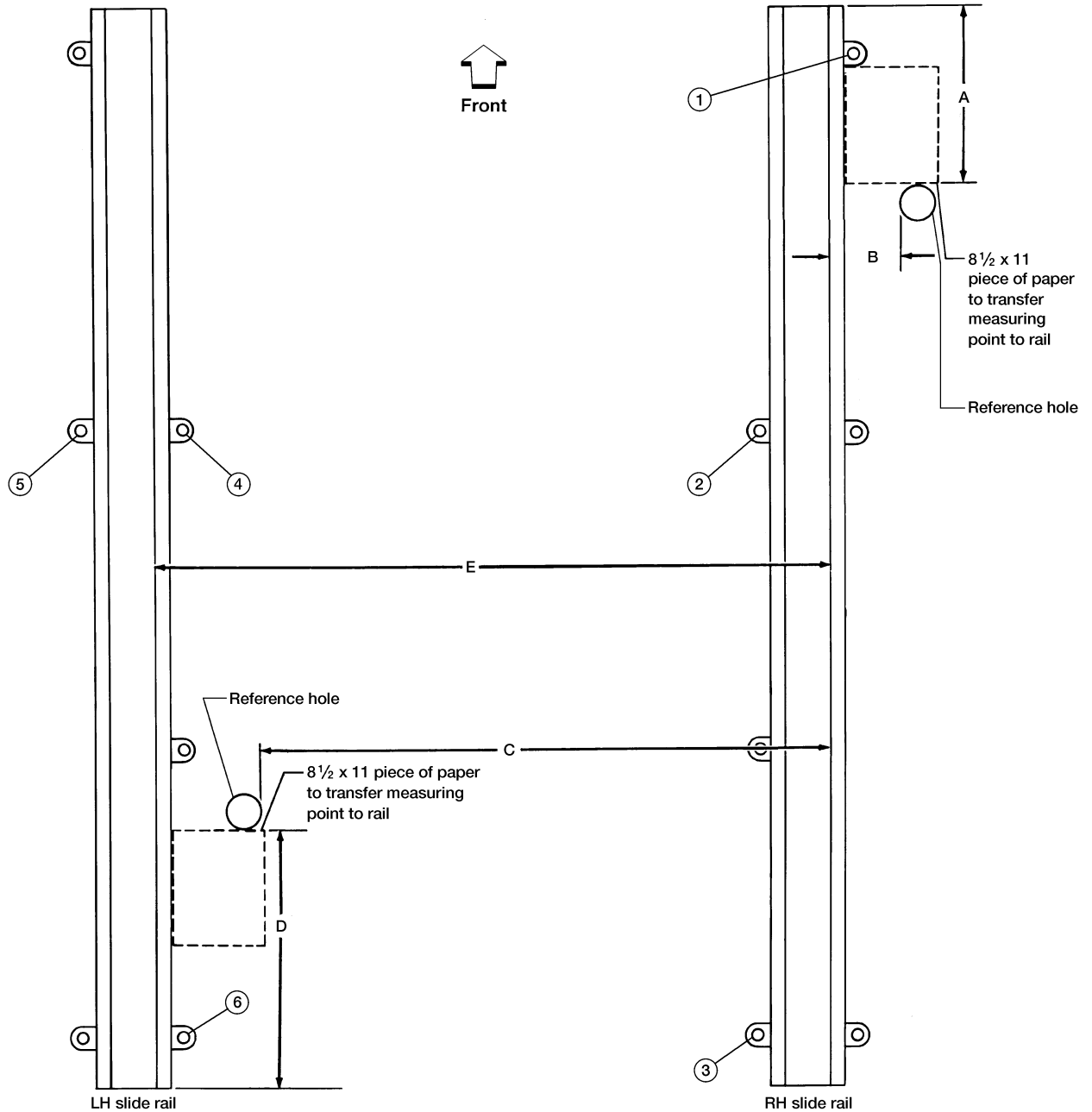
WBT017

# 3RD SEAT

Removal and Installation (Cont'd)

## 3RD SEAT SLIDING RAIL

NDBT0023S02




ABT387

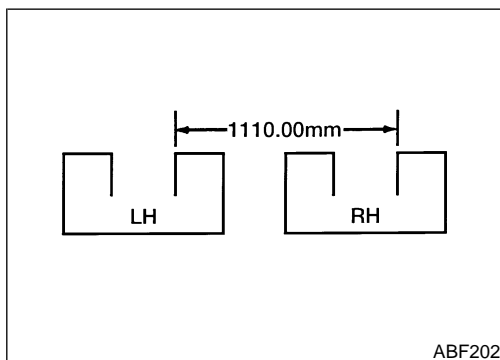
## 3RD SEAT




Removal and Installation (Cont'd)

### Installation for New Rails

NDBT0023S0201

- The following dimensions may vary by 0.5 mm (0.020 in) to obtain minimum effort to slide the 3rd seat.
  - Use an 8-1/2x11 inch piece of paper to determine distance from reference hole to edge of slide rail.
1. Position the RH slide assembly in the vehicle with the roller in 2nd seating position and loosely install bolts 1, 2 and 3.
  2. Measure distance "A".  
**Distance "A":**  
**321.3 mm (12.65 in)**
  3. Measure distance "B" with caliper.  
**Distance "B":**  
**87.7 mm (3.45 in)**
  4. Hand-tighten slide rail bolt 1.
  5. Measure distance "C".  
**Distance "C":**  
**885.50 mm (34.84 in)**
  6. Torque the RH side rail bolts 1, 2 and 3.  
** : 32 - 54 N·m (3.3 - 5.4 kg·m, 24 - 39 ft·lb)**
  7. Check distance "B" and "C" to confirm position, adjust if necessary.
  8. Position the LH slide assembly in the vehicle with roller in 2nd seating position and loosely install bolts 4, 5 and 6.
  9. Measure distance "D".  
**Distance "D":**  
**561.50 mm (22.11 in)**





10. Measure distance "E" between the right hand inner edge of each slide rail.  
**Distance "E":**  
**1,110.00 mm (43.70 in)**
  - Measure in two locations where no latch opening exists.
11. Hand-tighten slide rail bolts 4, 5 and 6.
12. Check distance "E" at several points along the slide rails, and adjust **only** the LH slide rail if necessary.
13. Torque the LH side rail bolts 4, 5 and 6.  
** : 32 - 54 N·m (3.3 - 5.4 kg·m, 24 - 39 ft·lb)**
14. Install the 3rd seat through side door.
  - Torque front 2 bolts of 3rd seat while it is in 2nd seat position.  
** : 34 - 46 N·m (3.5 - 4.7 kg·m, 25 - 34 ft·lb)**
  - Slide the 3rd seat to full rear position.
  - Hand-start all remaining bolts.
  - Torque rear position bolts, **inner bolts first**.  
** : 34 - 46 N·m (3.5 - 4.7 kg·m, 25 - 34 ft·lb)**
15. Check slide release effort.
16. Check slide effort.
17. Install all remaining slide rail bolts.
18. From front to rear, tighten the slide rail bolts.

BT-45

## 3RD SEAT

Removal and Installation (Cont'd)

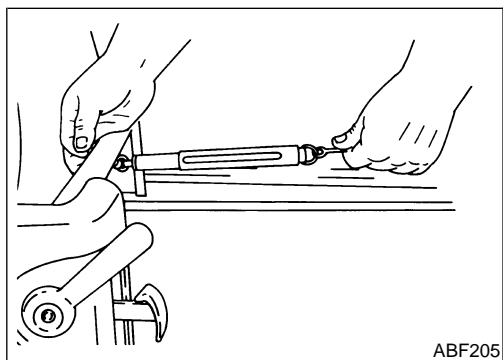
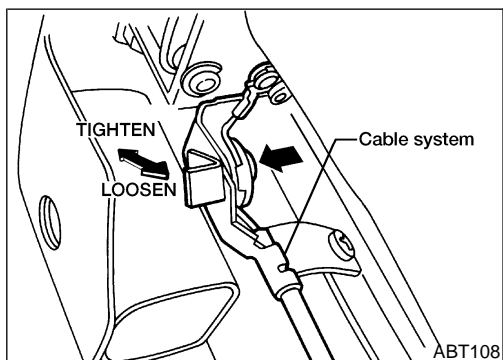
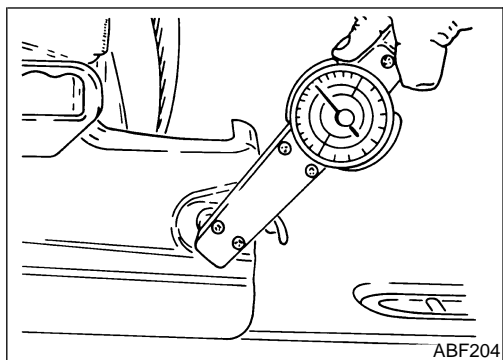
 : 32 - 54 N-m (3.3 - 5.4 kg-m, 24 - 39 ft-lb)

19. Place the 3rd bench seat in the 2nd seating position and remove the 3rd bench seat.
20. Install the floor carpeting.
21. Install the 3rd seat through side door.
  - **Torque front 2 bolts in 2nd seat position.**  
 : 34 - 46 N-m (3.5 - 4.7 kg-m, 25 - 34 ft-lb)
  - Slide the 3rd seat to full rear position.
  - Hand-start all remaining bolts.
  - Torque rear position bolts, **inner bolts first.**  
 : 34 - 46 N-m (3.5 - 4.7 kg-m, 25 - 34 ft-lb)
22. Check slide release effort. Make adjustments as necessary.
23. Check slide effort. Make adjustments as necessary.

### Slide Release Effort Check

NDBT002.3S0202

1. Remove plastic slide release handle to expose hex shaft.
  - 2. Check slide release effort with torque wrench and hex socket.  
**Release effort:**  
2.0 - 9.0 N-m (20 - 92 kg-cm, 17 - 80 in-lb)
    - Torque value is read when the 3rd seat can just begin to move.
    - Measure effort at all five positions.
  - 3. If release effort is not within the specified value, adjust the tension of cable system.
    - Loosen bolt on adjuster assembly.
    - Slide the bolt in the slotted holder as needed to adjust slide release effort. (Tightening the cable will reduce slide release effort.)
    - Tighten the bolt.



### Slide Effort Check

NDBT002.3S0203

- Check slide effort.  
**Maximum starting effort:**  
118 N (12 kg, 26 lb)  
(measured at center of the 3rd seat with slide release handle fully up)
- Measure rearward starting effort at front four latch positions with a force gauge (spring scale).
- After starting efforts have been taken, slide the 3rd seat five times the full length of the slide rails. If at anytime the seat binds, stop and take the starting effort at that location.

## 3RD SEAT

Removal and Installation (Cont'd)

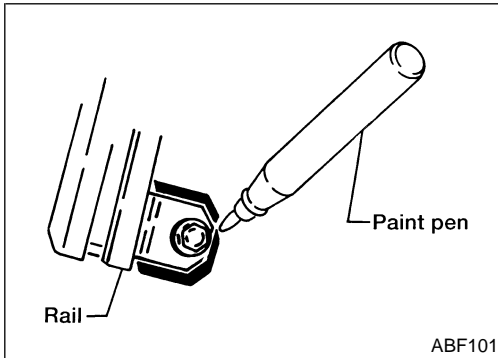
- Adjust LH slide rail side-to-side for excessive slide effort.
- If force is too high, adjust only LH slide rail until force is correct.

GI

MA

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LC



### Removal and Installation of the Same Rails

NDBT0023S0204

1. Mark the rails' positions on the floor panel at the points of bolts **1 to 6** before removing rails.
2. Loosen bolts and remove rails.
3. Install rails so that they will align with the marks made during step 1.  
Torque bolts 1 to 6.  
**ⓘ : 32 - 54 N·m (3.3 - 5.4 kg-m, 24 - 39 ft-lb)**
4. Follow the procedures beginning with step 14 in "Installation for New Rails" BT-45, then perform "Slide Release Effort Check" BT-46, and "Slide Effort Check" BT-46.

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# SUNROOF

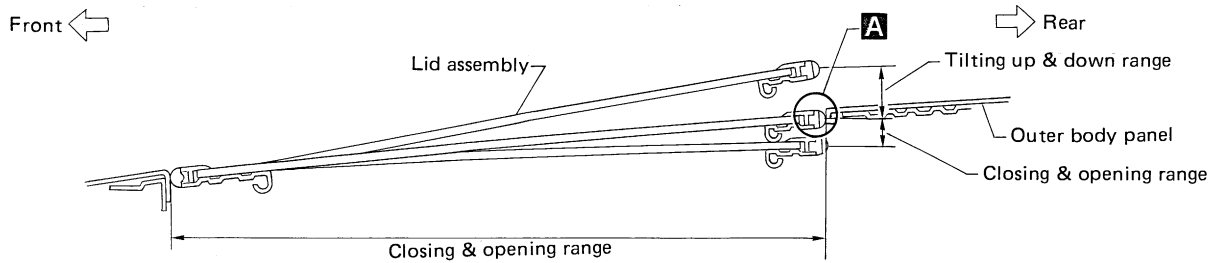
Adjustment

## Adjustment

NDBT0016

**Install motor assembly and guide rail assembly in the following sequence:**

1. Arrange equal lengths of link and wire assemblies on both sides of sunroof opening.
2. Connect sunroof connector to sunroof switch and positive (+) power supply.
3. Set lid assembly to fully closed position **A** by operating sunroof switch.
4. Fit outer side of lid assembly to the surface of roof on body outer panel.
5. Remove motor, and keep sunroof switch pressed OPEN until motor pinion gear reaches the end of its rotating range.
6. Install motor.
7. Check that motor drive gear fits properly in wires.
8. Press TILT-UP switch to check lid assembly for normal tilting.
9. Check sunroof lid assembly for normal operations (tilt-up, tilt-down, open, and close).



SBF920F



## Removal and Installation

=NDBT0017

- After any adjustment, check sunroof operation and sunroof glass alignment.
- Handle finisher plate and sunroof glass with care so not to cause damage.
- It is desirable for easy installation to mark each point before removal.

### NOTE:

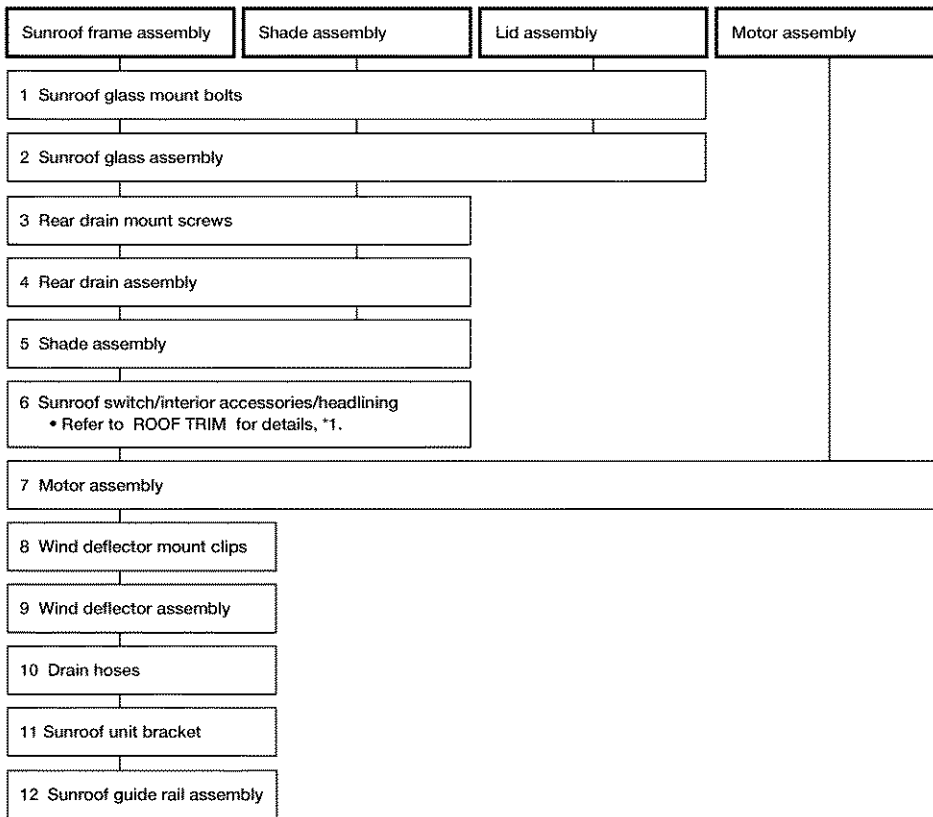
**When the battery or sunroof motor harness connector is disconnected during service, the sunroof will not operate properly.**

Procedure for resetting motor memory:

From any sunroof position (full open, partially open, closed, partially vented, and vented), push and hold the button in the forward position until the sunroof vents in the **Full-Up** position. This resets the sunroof motor memory and now the sunroof will operate correctly.

### CAUTION:

**Always work with a helper.**



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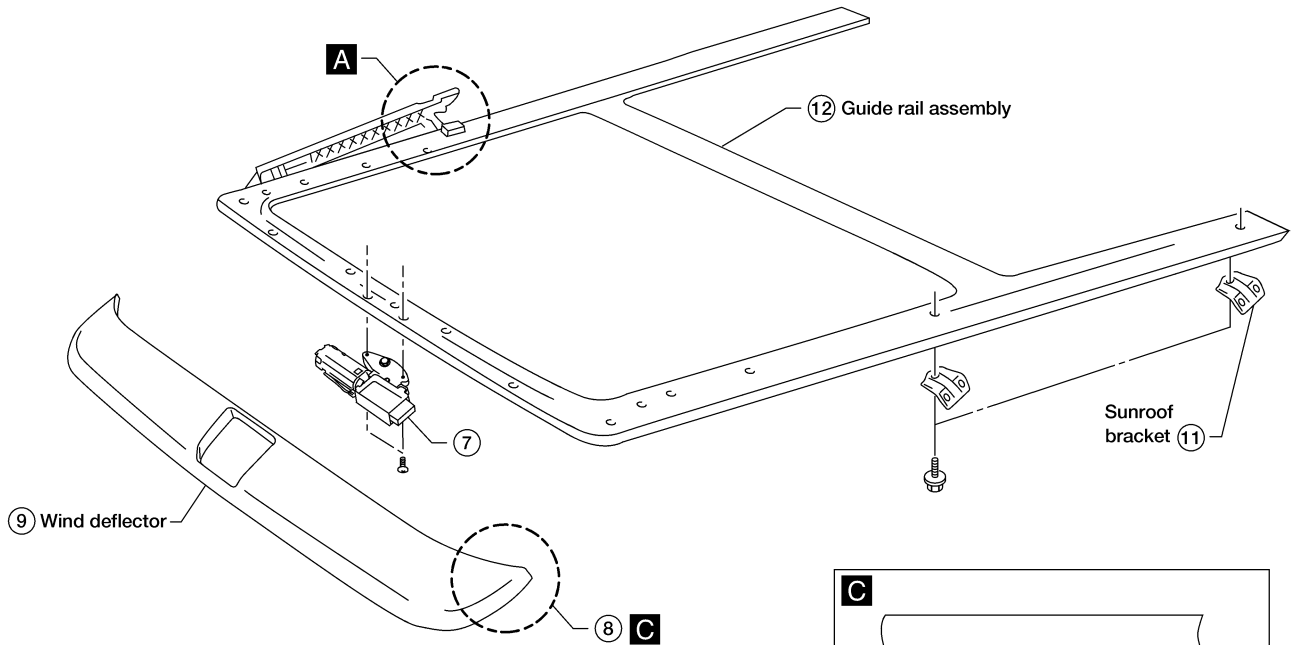
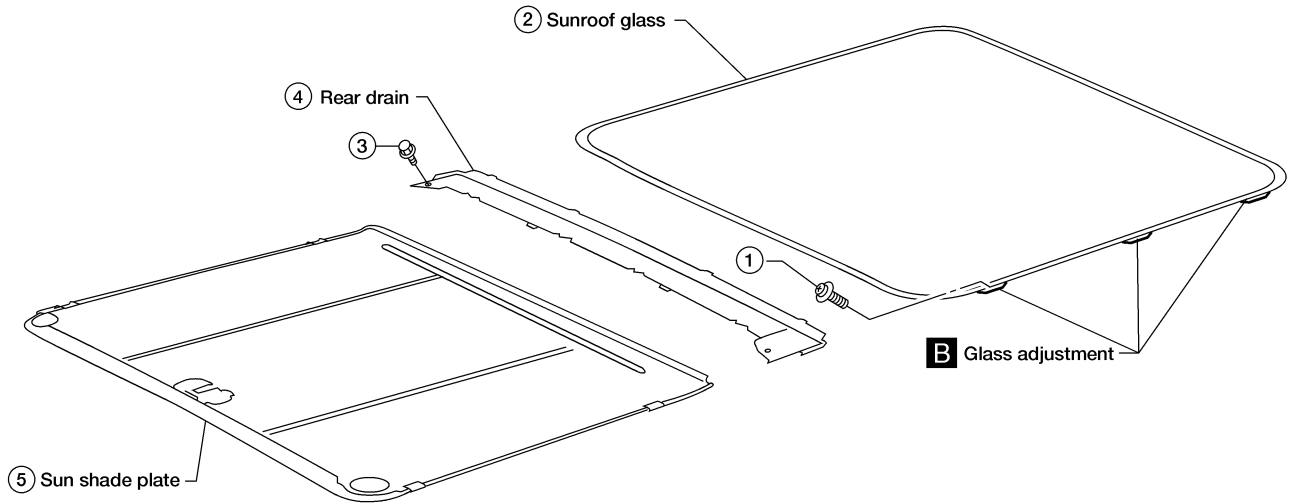
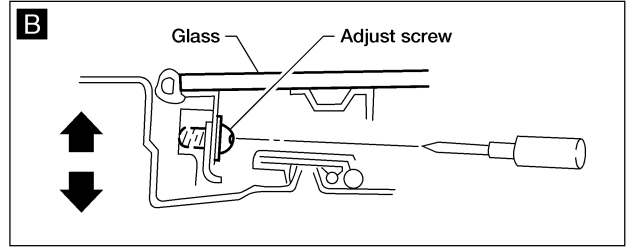
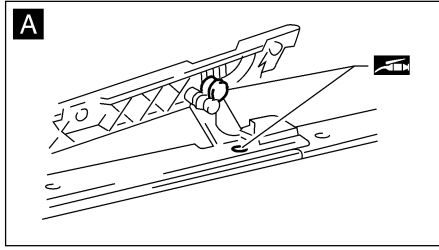
ABT394


\*1 BT-33


# SUNROOF

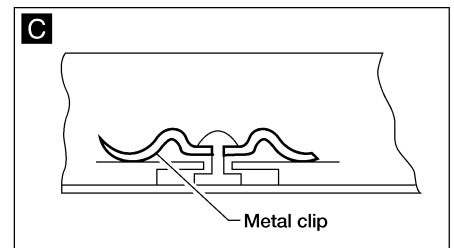
Removal and Installation (Cont'd)

## SEC. 736



 : N·m (kg·m, in·lb)

 : Should be lubricated with grease



ABT395

# SUNROOF

Trouble Diagnoses

## Trouble Diagnoses DIAGNOSTIC TABLE

=NDBT0018

NDBT0018S01

### NOTE:

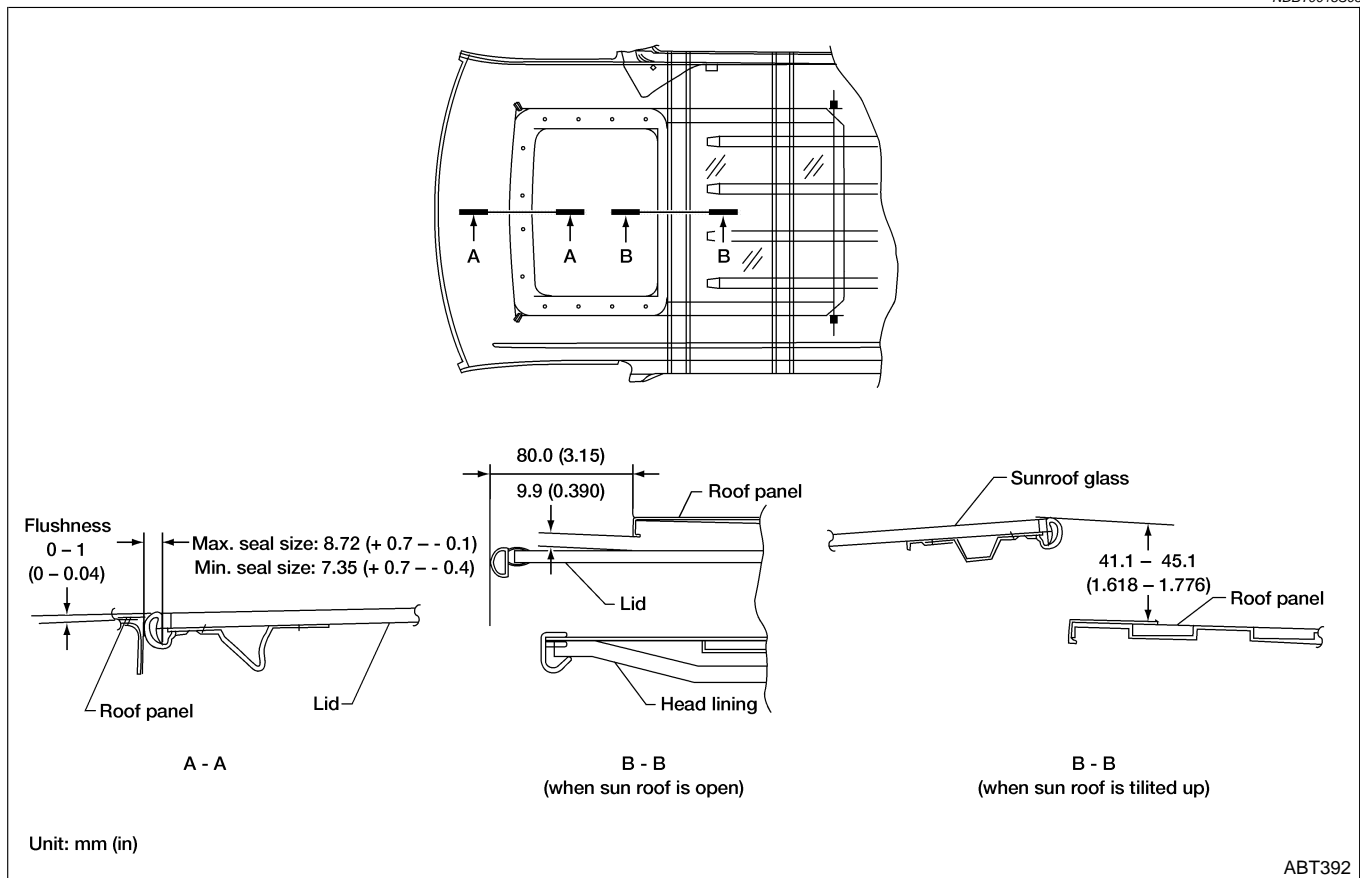
For diagnosing electric problem, refer to "POWER SUNROOF" in EL section.

|         | Reference page            | Check items (Components) |           |            |             |              |                     |
|---------|---------------------------|--------------------------|-----------|------------|-------------|--------------|---------------------|
|         |                           | Wind deflector           | Sun shade | Adjustment | Drain hoses | Weatherstrip | Guide rail assembly |
|         |                           | BT-49                    | BT-49     | BT-51      | BT-52       | BT-53        | BT-53               |
| Symptom | Excessive wind noise      | 1                        |           | 2          |             | 3            |                     |
|         | Water leaks               |                          |           | 1          | 2           | 3            |                     |
|         | Sunroof rattles           |                          | 1         | 1          | 4           | 2            | 3                   |
|         | Excessive operation noise |                          | 1         | 1          |             | 2            | 3                   |

The numbers in this table mean checking order.

## ADJUSTMENT

NDBT0018S03



If any gap or height difference between glass lid and roof is found, check sunroof glass fit and adjust as follows:

### Gap Adjustment

1. Open shade assembly.
2. Tilt sunroof glass up.

NDBT0018S0301

## BT-51

# SUNROOF

Trouble Diagnoses (Cont'd)

3. Loosen sunroof glass securing nuts (3 each on left and right sides), then tilt sunroof glass down.
4. Adjust sunroof glass from outside of vehicle so it resembles "A-A" as shown in the figure above.
5. Tilt sunroof glass up and down until it is adjusted to "B-B" as shown in the figure above.
6. After adjusting sunroof glass, tilt sunroof glass up and tighten nuts.
7. Tilt sunroof glass up and down several times to check that it moves smoothly.

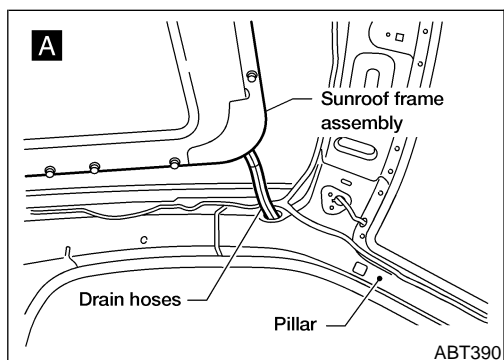
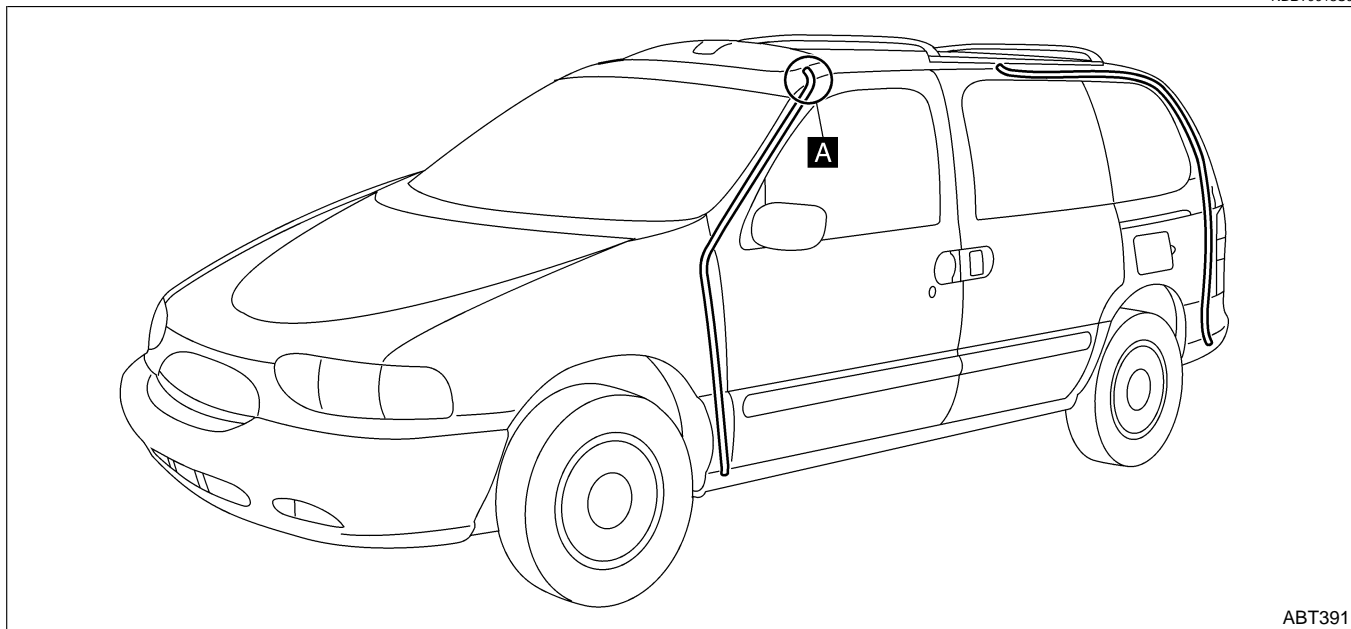
## Height Difference Adjustment

NDBT0018S0302

1. Tilt sunroof glass up and down.
2. Check height difference between roof panel and sunroof glass to see if it is as "A-A" as shown in the figure above.
3. If necessary, adjust it by using one of following procedures.
  - Adjust by adding or removing adjustment shim(s) between sunroof glass and guide rail assembly.
  - If sunroof glass protrudes above roof panel, add shim(s) or plain washer(s) at sunroof mounting bracket or stud bolt locations to adjust sunroof installation as required.

## DRAIN HOSES

NDBT0018S04



1. Remove headlining to access drain hose connections. (Refer to "Removal and Installation" in "ROOF TRIM", BT-33, for detail.)
2. Check visually for proper connections, damage or deterioration. **A** (The figure shows only the front side.)
3. If leakage occurs around luggage room, remove luggage room side trim and check connecting area. Check for proper connection, damage or tear.
4. Remove drain hoses and check visually for any damage, cracks, or deterioration.
5. Pour water into drain hoses and find damaged portion.

# SUNROOF

Trouble Diagnoses (Cont'd)

- If any damaged portion is found at each step, replace the damaged part.

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## WEATHERSTRIP

NDBT0018S05

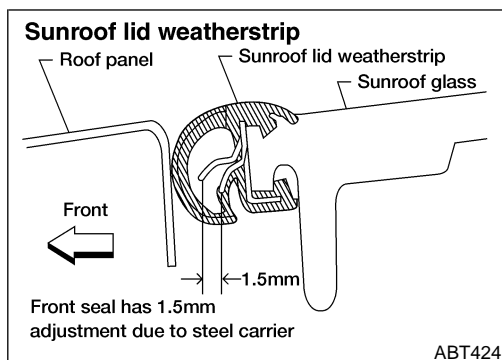
- In the case of leakage around sunroof glass, close sunroof glass and pour water over glass lid to find damaged or gap portion.
1. Remove sunroof glass assembly. (Refer to removal procedures, BT-49, for details.)

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AX



2. Visually check weatherstrip for proper installation. If a gap exists between sunroof glass and weatherstrip, check sunroof glass fit and adjust. (Refer to "ADJUSTMENT" BT-51.) If the gap still exists, remove sunroof glass and adjust seal using plastic applicator. The applicator should be placed in the seal groove to tighten gap.
3. Check weatherstrip visually for any damage, deterioration, or flattening.

SU

BR

ST

- If any damage is found, replace weatherstrip.

RS

### CAUTION:

Do not remove weatherstrip.

## GUIDE RAIL ASSEMBLY

NDBT0018S06

### NOTE:

Before replacing a suspect part, carefully ensure it is the source of noise being experienced.

1. Check link to determine if coating film has peeled off to such an extent that substrate is visible. Check also to determine if link is the source of noise. If it is, replace guide rail assembly.
2. Visually check to determine if a sufficient amount of petroleum jelly has been applied to wire or rail groove. If not, add petroleum jelly as required.
3. Check wire for any damage or deterioration. If any damage is found, replace guide rail assembly (refer to removal procedures, BT-49 for details).

HA

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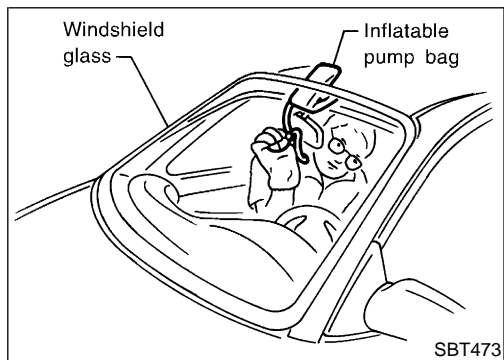
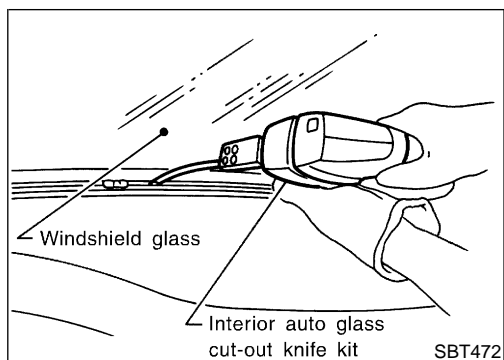
EL

IDX

BT

# WINDSHIELD AND WINDOWS

## Removal and Installation



## Removal and Installation

### REMOVAL

After removing side windshield moldings, remove glass using power cutting tool and an inflatable pump bag.

#### 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.

### INSTALLATION

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

#### WARNING:

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

#### CAUTION:

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

# WINDSHIELD AND WINDOWS

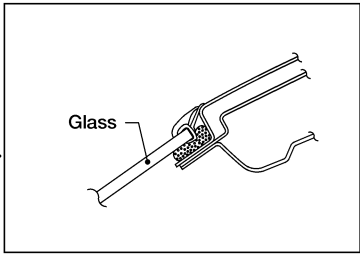
Removal and Installation (Cont'd)

## WINDSHIELD AND REAR WINDOW

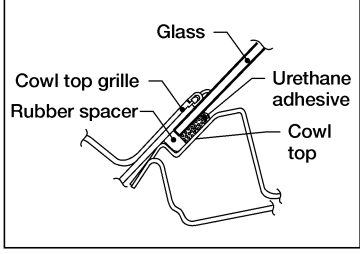
NDBT0019S03

### Windshield

Install upper windshield molding to glass before installing windshield.

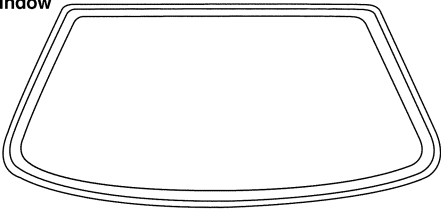


500 (19.68)  
Unit: mm (in)  
Install spacer to panel.



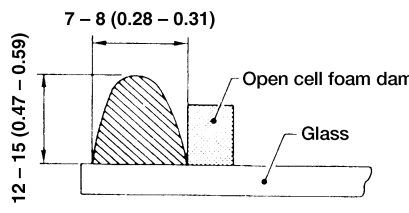
### Rear Window

Install moulding to glass.  
Rear window



Apply urethane adhesive evenly.  
Windshield and rear window

7 - 8 (0.28 - 0.31)



Unit: mm (in)

ABT397

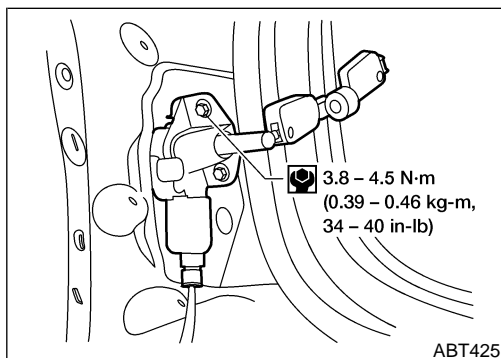
### Repairing Water Leaks for Windshield and Rear Window

NDBT0019S0301

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 SIDE WINDOW Removal and Installation

NDBT0019S04

NDBT0019S0401

1. Remove rear gate kicking plate.
2. Remove rear roof garnish.
3. Remove parcel shelf and rear side lower garnish finisher.
4. Remove rear side lower garnish.
5. Remove C pillar upper garnish and D pillar upper garnish.
6. Disconnect power vent window motor connector.
7. Remove bolts securing power vent window motor.

Reverse the procedure for installation.

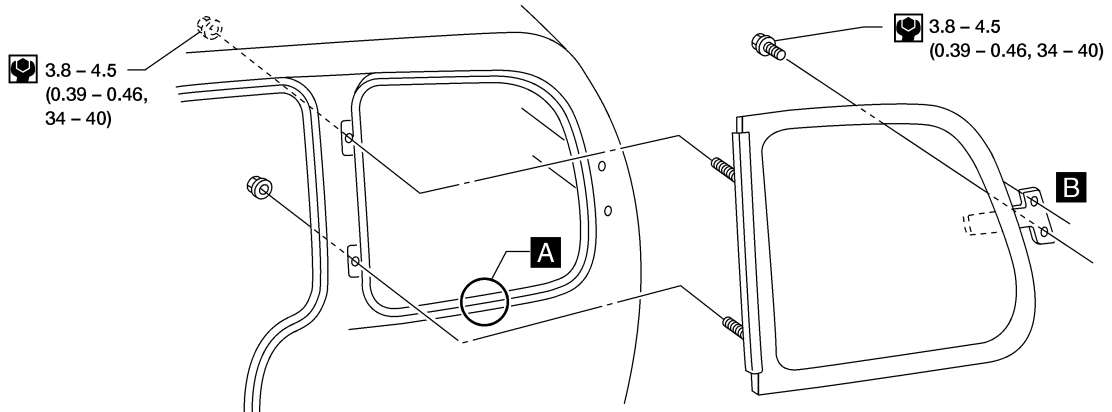
GI  
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# WINDSHIELD AND WINDOWS

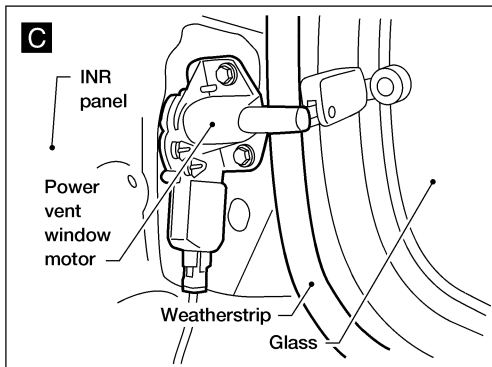
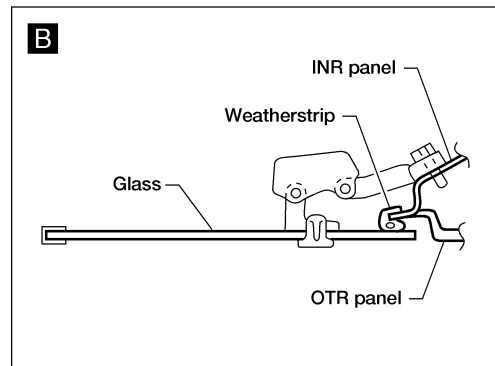
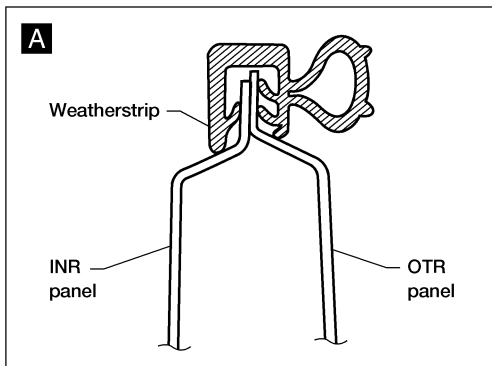
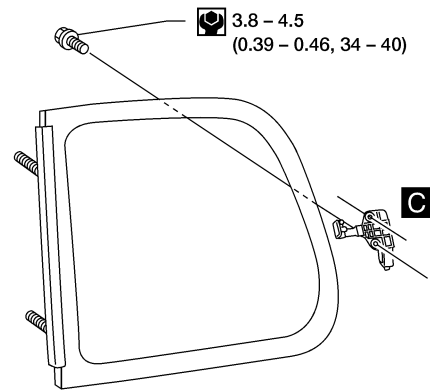
Removal and Installation (Cont'd)


## SEC. 830

### Manual vent window



### Power vent window



 : N-m (kg-m, in-lb)

ABT441



# DOOR MIRROR

Removal and Installation

## Removal and Installation

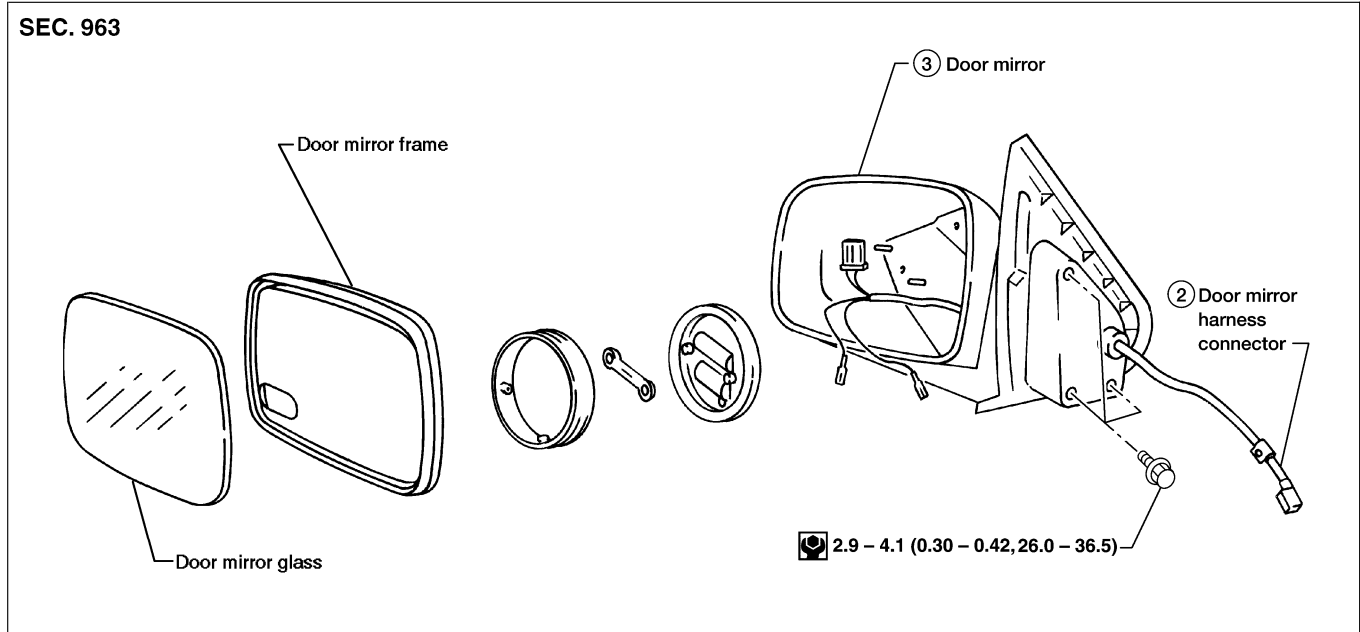
NDBT0020

### CAUTION:

Be careful not to scratch door rear view mirror body.

★ For Wiring Diagram, refer to “POWER DOOR MIRROR” in EL section.

1. Remove door trim. Refer to “DOOR TRIM” for details, BT-31.
2. Disconnect door mirror harness connector and clip.
3. Remove bolts securing door mirror, then remove door mirror assembly.



### Mirror glass replacement

#### CAUTION:

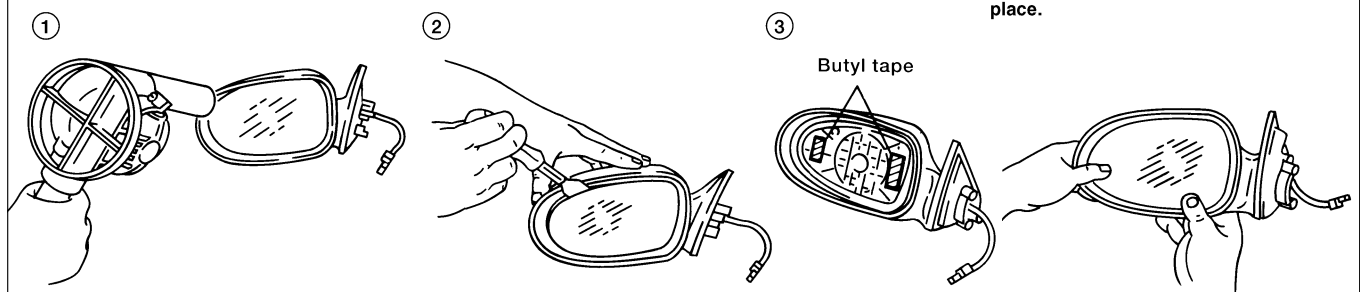
Do not exceed specified temperature or time limit. Excess heat or duration may cause damage to the mirror housing.

#### • Removal

1. Use a heat lamp (at least 500 watts) to thoroughly warm the frame edge of the door mirror glass to approximately 70°C (159 F) for three minutes.
2. Insert a stiff blade scraper between the mirror glass and the frame. Pry the glass loose.
3. Remove any remaining adhesive (butyl tape) from the mounting surface on the frame.

#### • Installation

1. Install butyl/adhesive tape (2 pieces) on the frame.
2. Warm the mirror glass frame edge thoroughly with a heat lamp.
3. Position mirror glass on frame. Carefully press on the mirror glass to seat it in place.



ABT421

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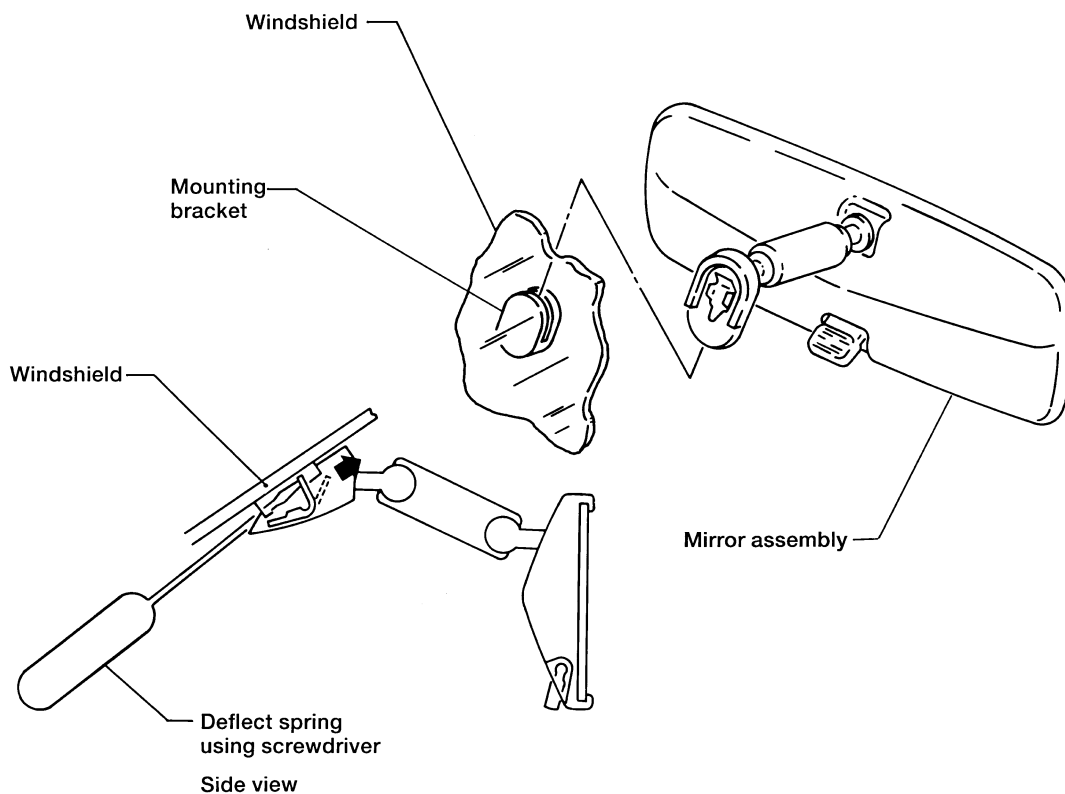
# REAR VIEW MIRROR

Removal

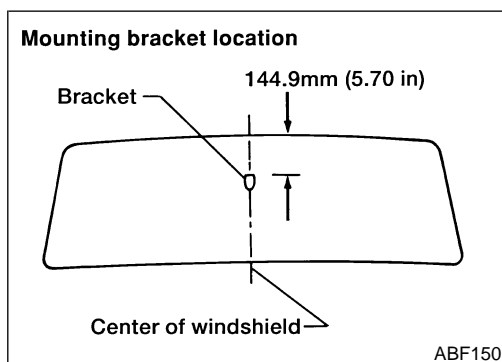
## Removal

Remove rear view mirror by pushing deflect spring with screwdriver as shown in the figure. NDBT0024

SEC. 963



ABT083



## Installation

NDBT0025

1. Install mounting bracket as follows:
  - a. Determine mounting bracket position on windshield by measuring from top of windshield to top of mounting bracket as shown in the figure.
  - b. Mark location on outside of windshield with wax pencil or equivalent.
  - c. Clean attaching point on inside of windshield with an alcohol-saturated paper towel.
  - d. Sand bonding surface of mounting bracket with sandpaper (No. 320 or No. 360).
  - e. Clean bonding surface of mounting bracket with an alcohol-saturated paper towel.
  - f. Apply Loctite Adhesive 11067-2 or equivalent to bonding surface of mounting bracket.
  - g. Install mounting bracket at premarked position and press mounting bracket against glass for 30 to 60 seconds.
  - h. After five minutes, wipe off excess adhesive with an alcohol-moistened paper towel.
2. Install rear view mirror.

# BODY (ALIGNMENT)

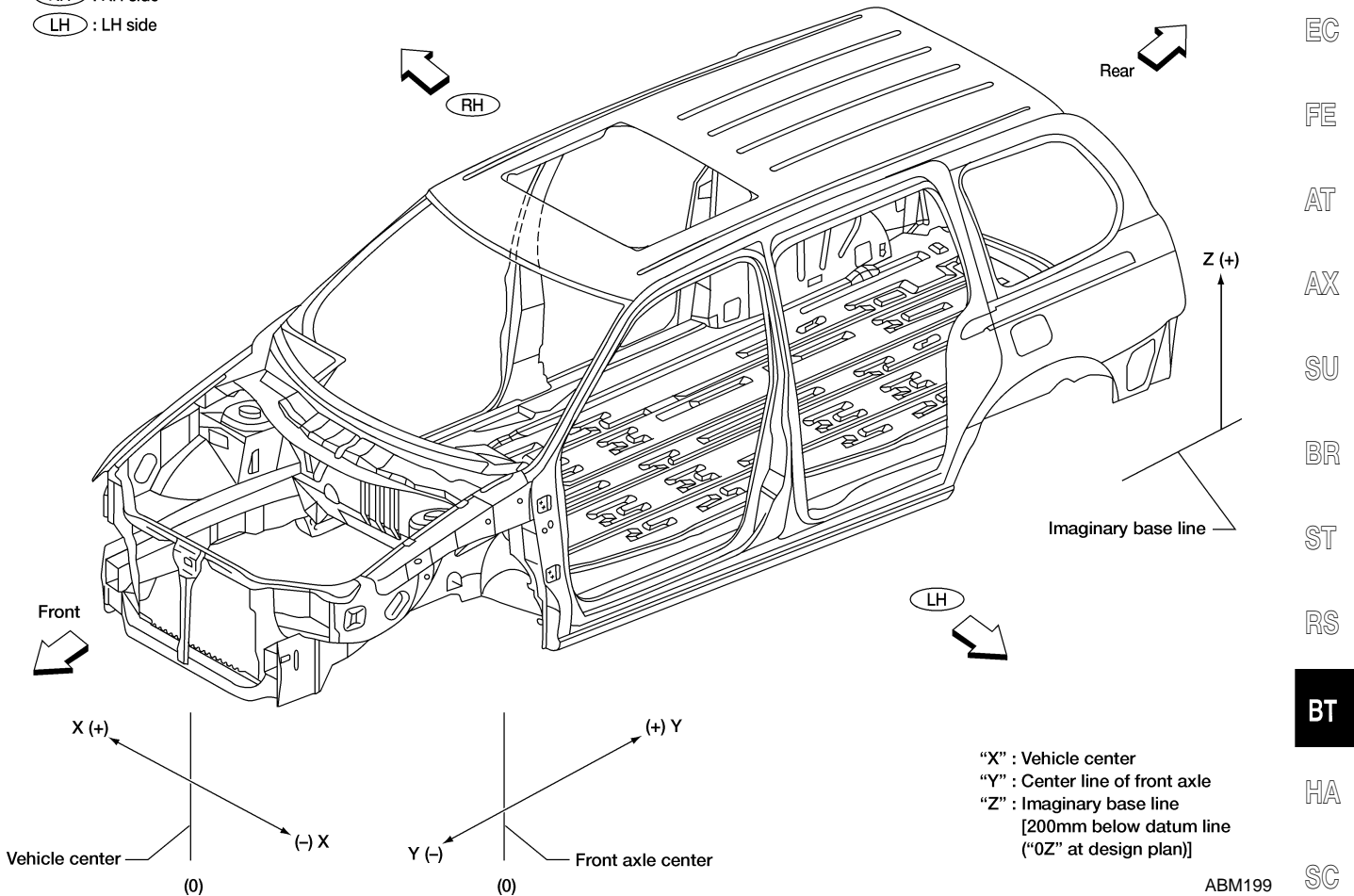
Alignment

## Alignment

NDBT0021

- All dimensions indicated in figures are actual ones.
- When using a tracking gauge, adjust both pointers to equal length. Then check the pointers and gauge itself to make sure there is no free play.
- When a measuring tape is used, check to be sure there is no elongation, twisting or bending.
- Measurements should be taken at the center of the mounting holes.
- An asterisk (★) following the value at the measuring point indicates that the measuring point on the other side is symmetrically the same value.
- The coordinates of the measurement points are the distances measured from the standard line of "X", "Y" and "Z".

(RH) : RH side  
(LH) : LH side



ABM199

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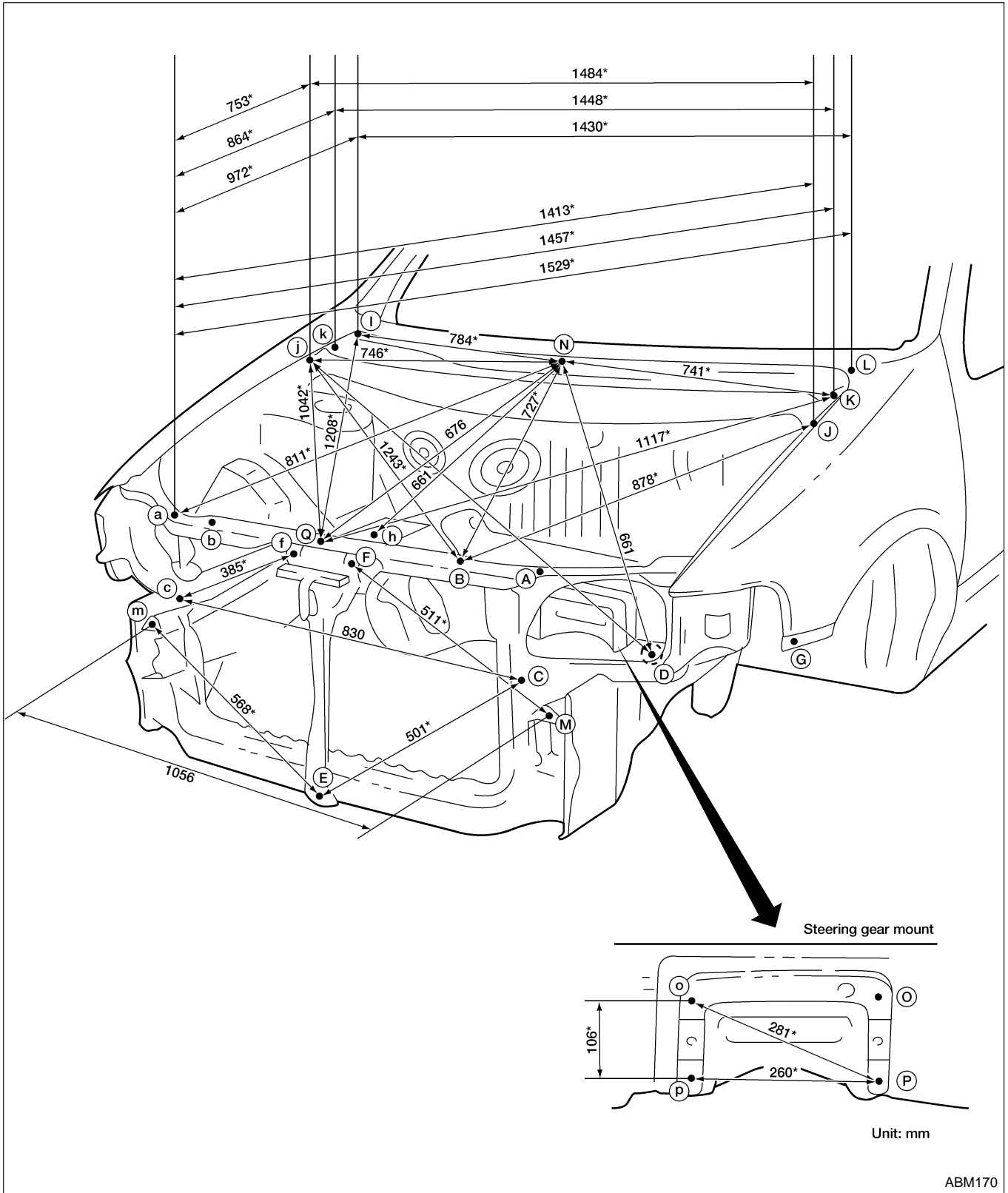
# BODY (ALIGNMENT)

Alignment (Cont'd)

## ENGINE COMPARTMENT Measurement

NDBT0021S01

NDBT0021S0101



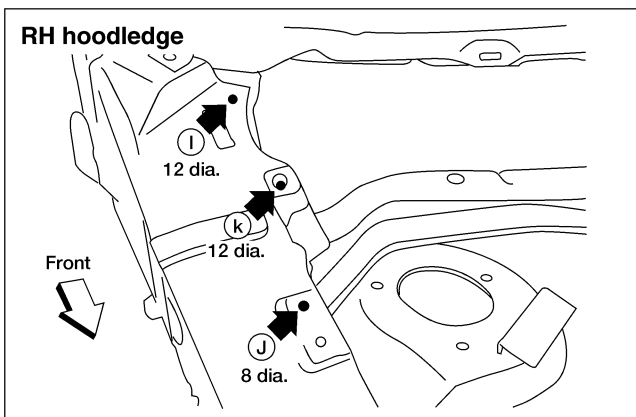
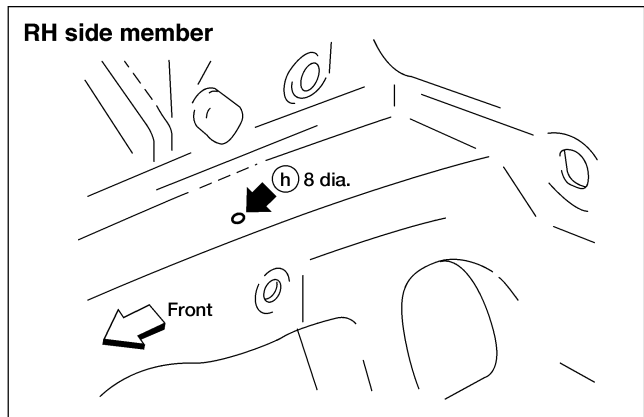
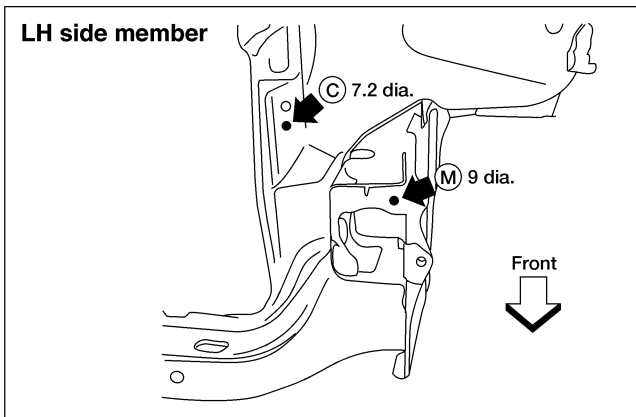
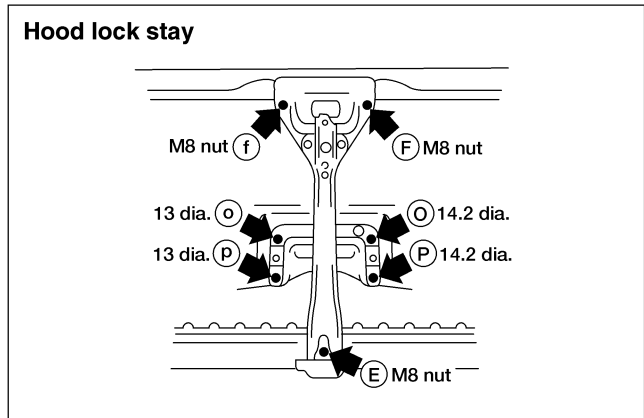
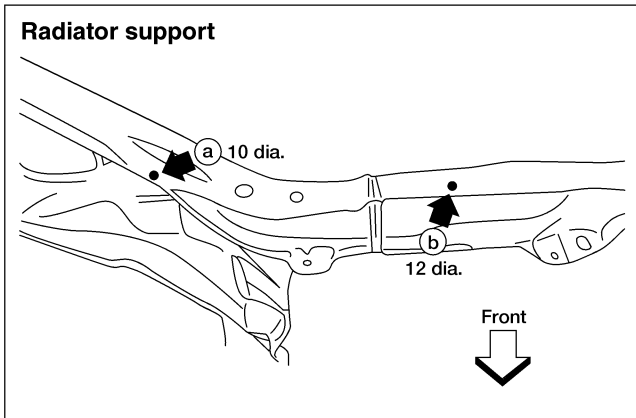
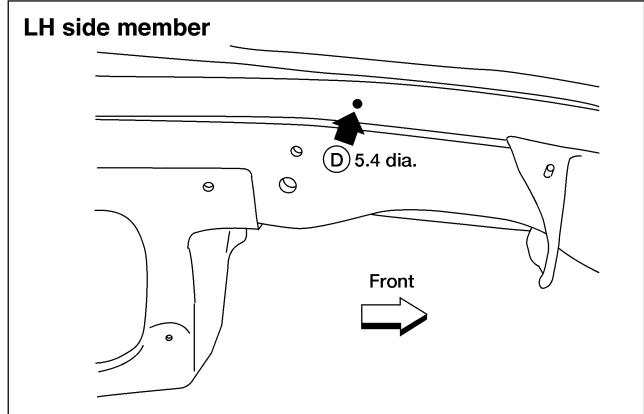
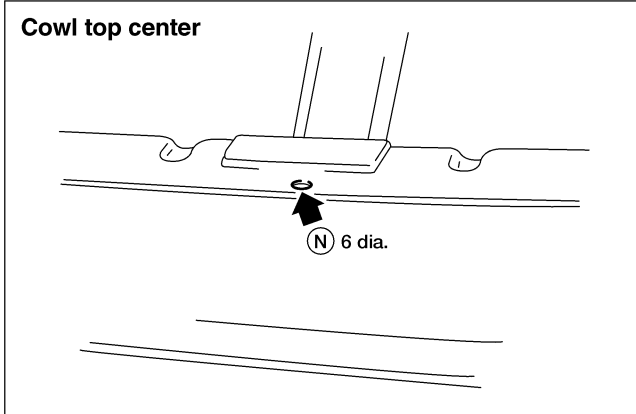
ABM170

# BODY (ALIGNMENT)

Alignment (Cont'd)

## Measurement Points

NDBT0021S0102



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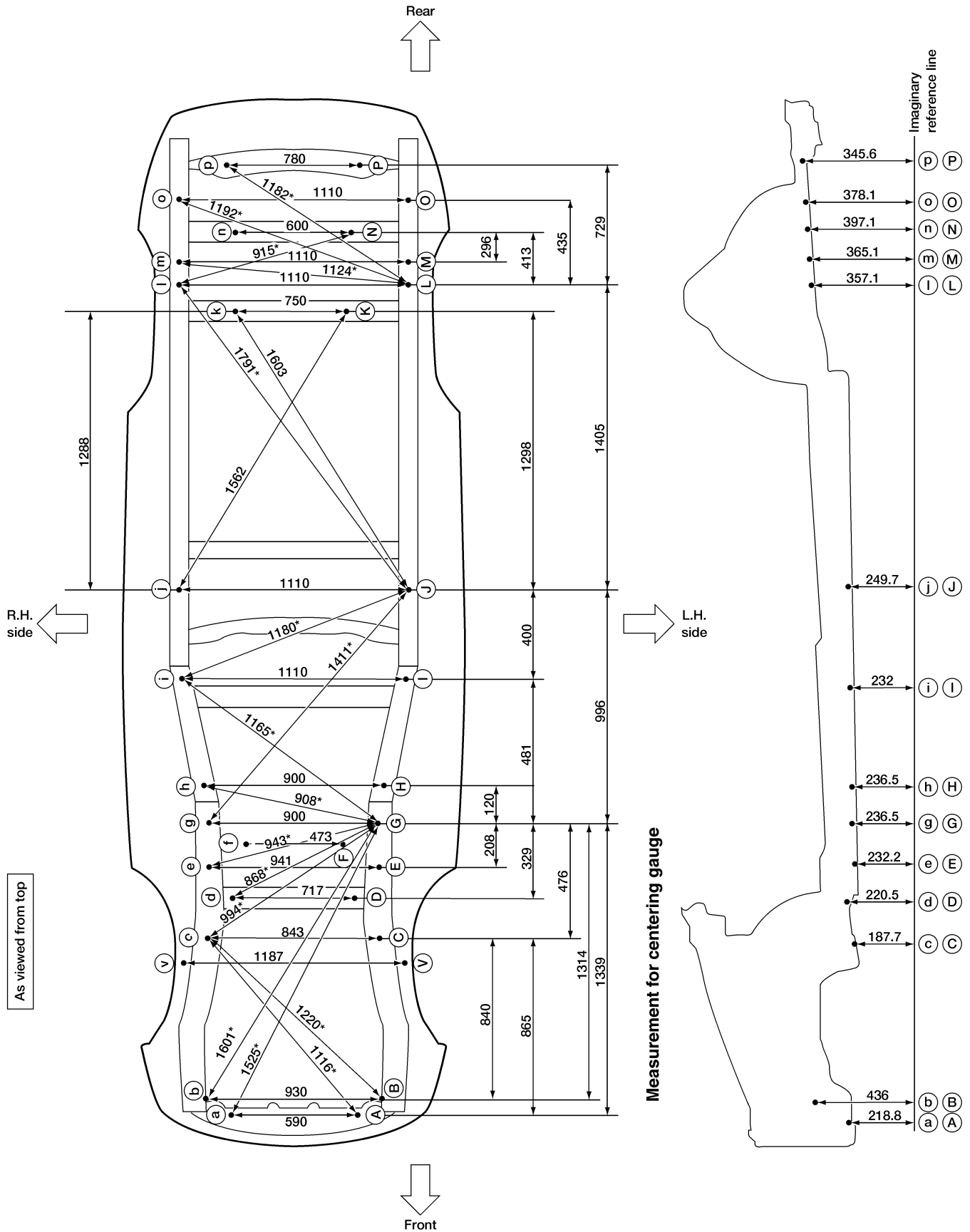
# BODY (ALIGNMENT)

Alignment (Cont'd)

## UNDERBODY Measurement

NDBT0021S02

NDBT0021S0201



ABM169

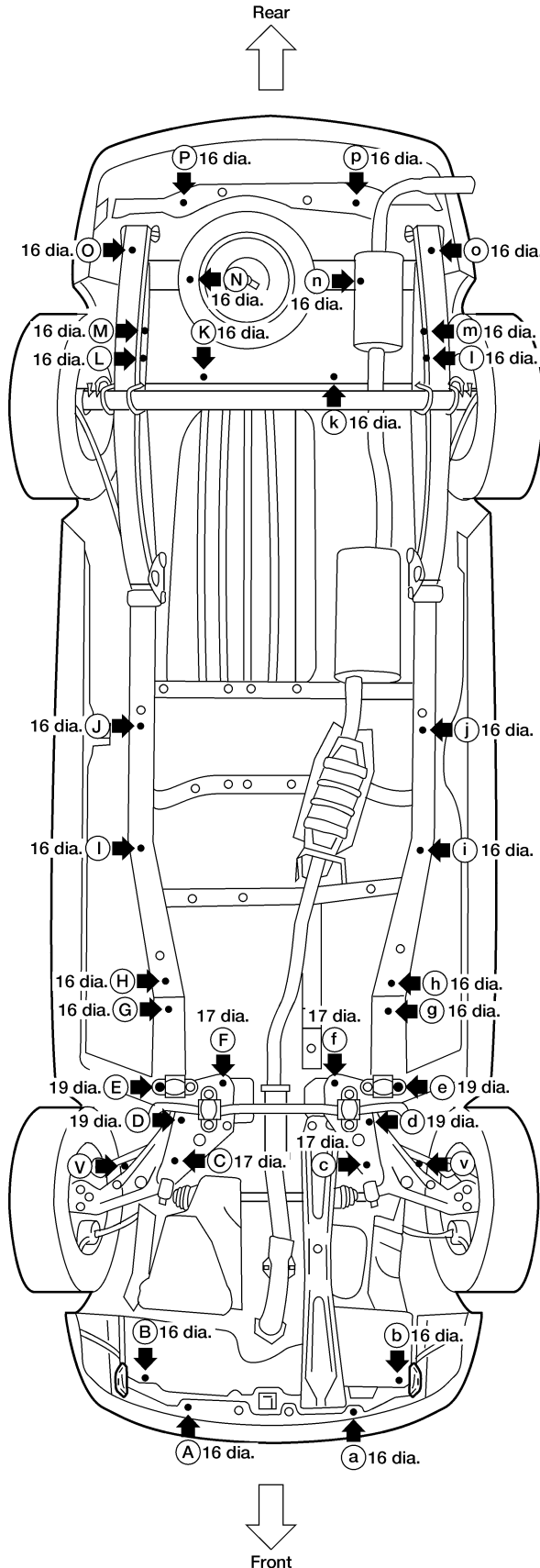
# BODY (ALIGNMENT)

Alignment (Cont'd)

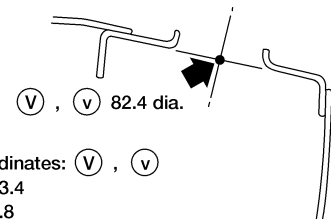
NDBT0021S0202

## Measurement Points

- |          |          |
|----------|----------|
| (A), (a) | (O), (o) |
| X: 295   | X: 555   |
| Y: -750  | Y: 3410  |
| Z: 218.8 | Z: 378.1 |
| (B), (b) | (P), (p) |
| X: 465   | X: 390   |
| Y: -734  | Y: 3685  |
| Z: 436   | Z: 345.6 |
| (C), (c) |          |
| X: 421.5 |          |
| Y: 105   |          |
| Z: 187.9 |          |
| (D), (d) |          |
| X: 358.8 |          |
| Y: 264.4 |          |
| Z: 220.5 |          |
| (E), (e) |          |
| X: 470.5 |          |
| Y: 373.3 |          |
| Z: 232.2 |          |
| (F), (f) |          |
| X: 236.5 |          |
| Y: 373.3 |          |
| Z: 232.2 |          |
| (G), (g) |          |
| X: 450   |          |
| Y: 580   |          |
| Z: 236.5 |          |
| (H), (h) |          |
| X: 450   |          |
| Y: 700   |          |
| Z: 236.5 |          |
| (I), (i) |          |
| X: 555   |          |
| Y: 1170  |          |
| Z: 232   |          |
| (J), (j) |          |
| X: 555   |          |
| Y: 1570  |          |
| Z: 249.7 |          |
| (K)      |          |
| X: 340   |          |
| Y: 2850  |          |
| Z: 353.7 |          |
| (k)      |          |
| X: 410   |          |
| Y: 2850  |          |
| Z: 379.1 |          |
| (L), (l) |          |
| X: 555   |          |
| Y: 2975  |          |
| Z: 357.1 |          |
| (M), (m) |          |
| X: 555   |          |
| Y: 3150  |          |
| Z: 365.1 |          |
| (N), (n) |          |
| X: 300   |          |
| Y: 3300  |          |
| Z: 397.1 |          |



### Front strut tower centers



- GI
- MA
- EM
- LC
- EC
- FE
- AT
- AX
- SU
- BR
- ST
- RS
- BT**
- HA
- SC
- EL
- IDX

## NOTES