

2007-08 ACCESSORIES AND BODY, CAB

Moonroof - TL

COMPONENT LOCATION INDEX

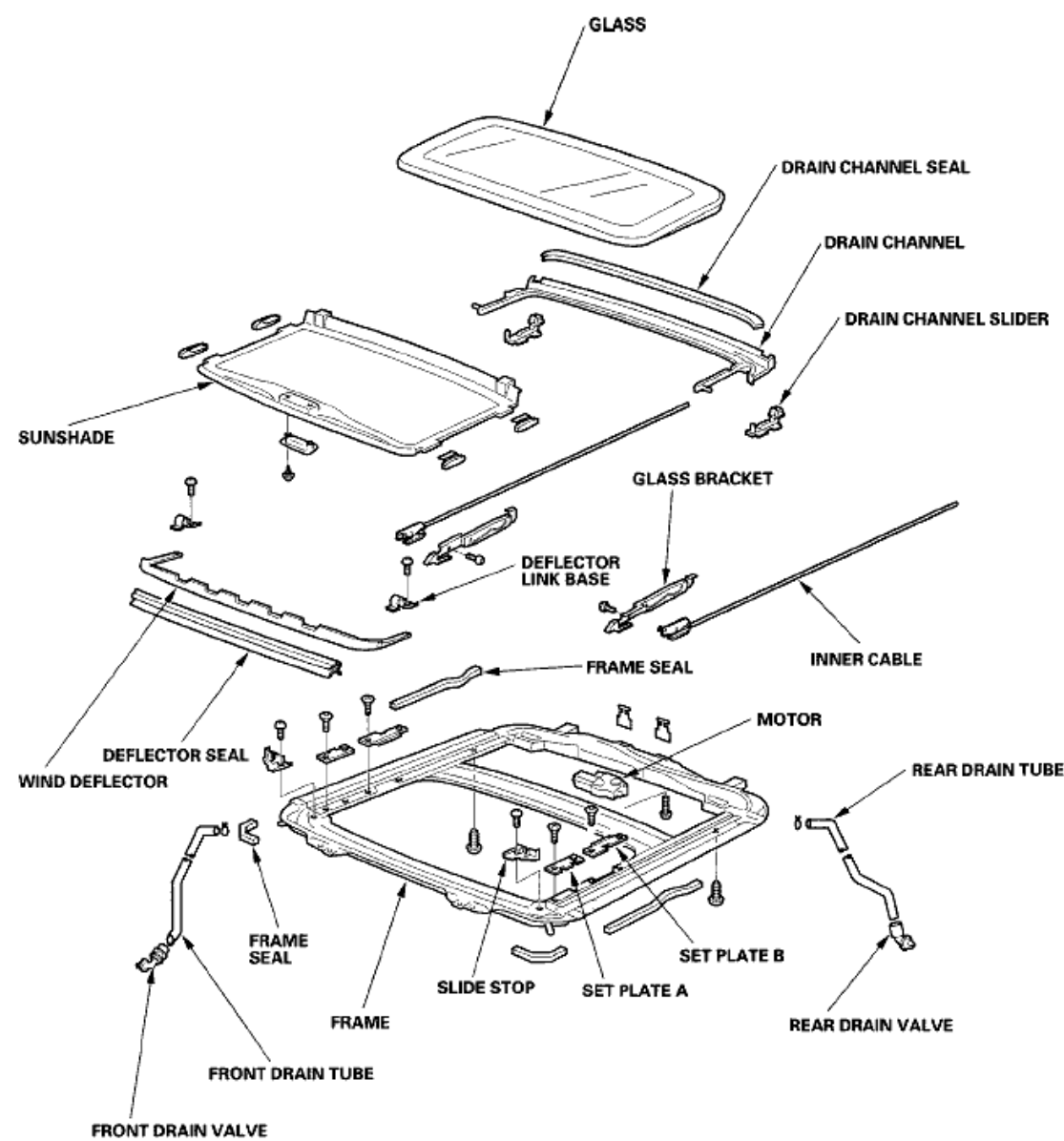


Fig. 1: Identifying Moonroof Components
Courtesy of AMERICAN HONDA MOTOR CO., INC.

SYMPTOM TROUBLESHOOTING INDEX

SYMPTOM TROUBLESHOOTING CHART

Symptom	Diagnostic procedure
	1. Check for a clogged drain tube. 2. Check for a gap between the glass

Water leaks from moonroof	weatherstrip and the roof panel. 3. Check for a defective or an improperly installed glass weatherstrip or drain channel. 4. Check for a gap between the drain seal and the roof panel.
Wind noise from moonroof	Check for excessive clearance between the glass weatherstrip and the roof panel.
Motor noise from moonroof	1. Check for a loose motor. 2. Check for a worn gear or bearing. 3. Check for a deformed cable assembly.
Moonroof glass does not move, but motor turns	1. Check for a defective gear or inner cable. 2. Check for foreign matter stuck between the guide rail and the slider. 3. Check for a loose inner cable. 4. Make sure the cable assembly is attached properly.
Moonroof glass does not move and motor does not turn (glass can be moved with 5 mm hexagonal wrench)	1. Check for a blown fuse. 2. Check for a faulty moonroof switch. 3. Check for a run down battery. 4. Check for a defective motor control unit.
Moonroof glass does not stop at proper flush closed position	1. Do the moonroof calibration. 2. Check glass position adjustment.
Moonroof glass moves in a jerking motion (moves 40 mm (1.57 in.), stops for 0.4 seconds, and repeats)	Do the moonroof calibration.
During auto close operation, moonroof glass reverses when no object is trapped	Check for dirt and debris in the track. Do the moonroof calibration.
Moonroof glass moves, but there is no AUTO function	Reprogram moonroof motor (see <u>MOONROOF CALIBRATION</u>).

GLASS POSITION ADJUSTMENT

The roof panel (A) should be even with the glass weatherstrip (B), to within 0+1/-1 mm (0+0.04/-0.04 in.) all the way around. If not, make the following adjustment:

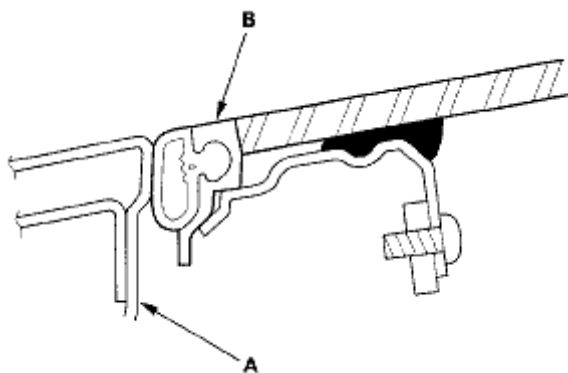


Fig. 2: Identifying Roof Panel And Glass Weatherstrip
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

NOTE: Do the moonroof motor calibration procedure (see MOONROOF CALIBRATION). If glass position is still incorrect, go to step 1.

1. Make sure that the tips of the molding (A) are pointing up. Using a TORX T25 bit, loosen the bolts on one side, and adjust the glass (B).

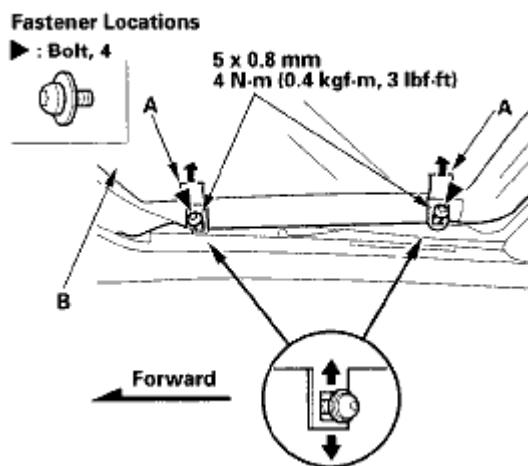


Fig. 3: Identifying Glass Fastener Locations With Torque Specifications
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. If necessary, repeat on the opposite side.

NOTE: After glass position is mechanically adjusted. Do the moonroof calibration (see MOONROOF CALIBRATION).

GLASS REPLACEMENT

1. Close the glass fully.
2. Slide the sunshade all the way back.
3. Make sure that the tips of the molding (A) are pointing up. Using a TORX T25 bit, remove the bolts from both glass brackets (B).

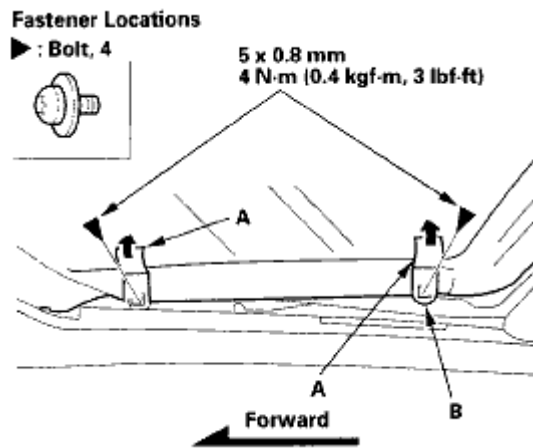


Fig. 4: Removing Bolts From Both Glass Brackets With Torque Specifications
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the glass (A) by lifting it up. Do not damage the roof panel.

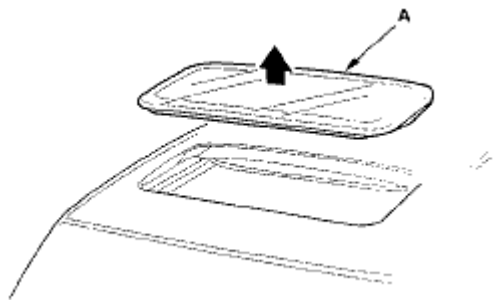


Fig. 5: Removing Glass
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Install the glass in the reverse order of the removal, and note these items:
 - Apply medium strength type liquid thread lock to the glass mounting bolts before reinstallation.
 - Do the moonroof calibration (see **MOONROOF CALIBRATION**).
 - Adjust the glass position alignment.
6. Check for water leaks. Use free-flowing water from a hose without a nozzle. Do not use high-pressure water.

NOTE: It is normal for some water to seep past the moonroof into the moonroof frame and exit out through the drains.

WIND DEFLECTOR REPLACEMENT

1. Open the glass fully.
2. Remove the screws securing the wind deflector (A).

Fastener Locations

► : Screw, 2

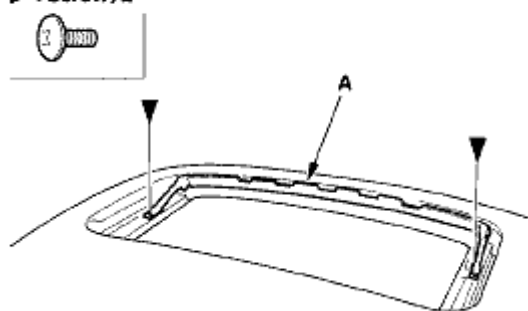


Fig. 6: Identifying Wind Deflector Fastener Locations
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Remove the deflector link base (A) from each side. Push the wind deflector (B) down, and pass the deflector spring (C) out through the slot of the slide stop (D) on each side, then remove the wind deflector.

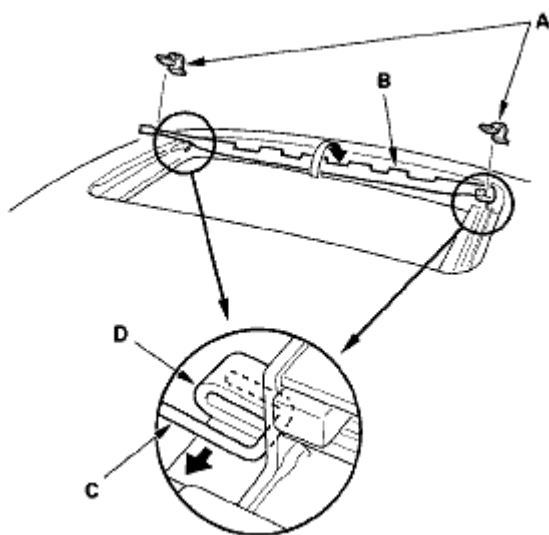


Fig. 7: Identifying Deflector Link Base, Wind Deflector And Deflector Spring
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Install the deflector in the reverse order of removal, and apply multipurpose grease to both slots where the deflector springs are installed.
5. Do the moonroof calibration (see **MOONROOF CALIBRATION**).

DRAIN CHANNEL REPLACEMENT

Special Tools Required

- KTC trim tool set SOJATP2014 *
- Trim pad remover, Snap-on A 177A or equivalent, commercially available

* Available through the American Honda Tool and Equipment Program; call 888-424-6857

1. Remove the glass (see **GLASS REPLACEMENT**).
2. Insert the trim tool between the glass brackets (A) and the drain channel. Twist the trim tool to unsnap the pins (B), then gently push the ends of the drain channel towards the center of the vehicle to disengage the pins from the glass bracket.

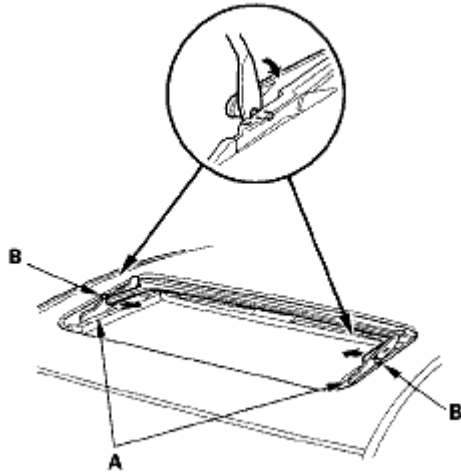


Fig. 8: Inserting Trim Tool Between Glass Brackets And Drain Channel
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Turn the drain channel (A) up while sliding it forward to release it from the pins (B) on both drain channel sliders (C).

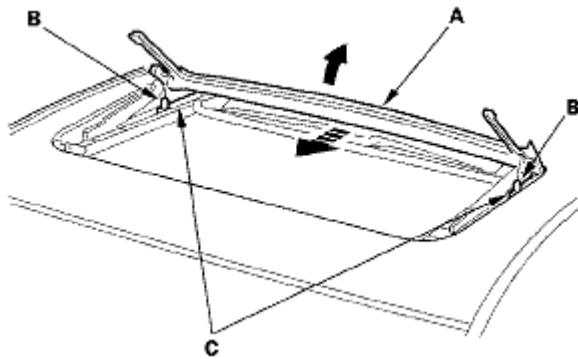


Fig. 9: Turning Drain Channel
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Stand the drain channel (A) upright, and pull up the channel to remove it from both drain channel sliders (B).

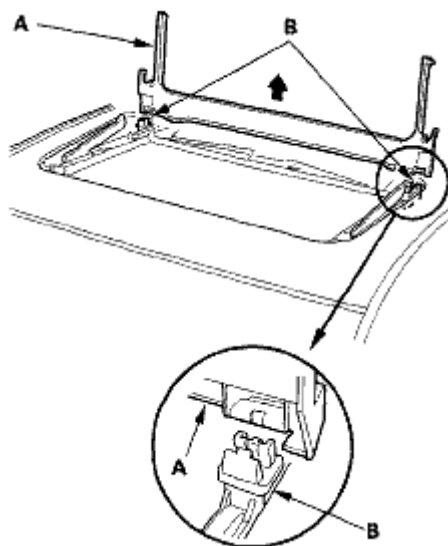


Fig. 10: Removing Drain Channel

Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Install the channel in the reverse order of removal, and check the glass position adjustment (see **GLASS POSITION ADJUSTMENT**).
6. Do the moonroof calibration (see **MOONROOF CALIBRATION**).
7. Check for water leaks. Let the water run freely from a hose without a nozzle. Do not use a high-pressure spray.

SUNSHADE REPLACEMENT

1. Remove the drain channel (see **DRAIN CHANNEL REPLACEMENT**).
2. Remove the screws, then remove the set plates (A) from each side.

Fastener Locations

► : Screw, 4

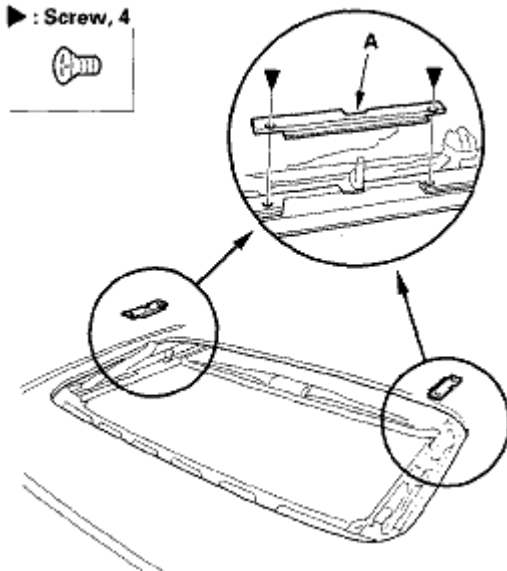


Fig. 11: Identifying Set Plates Fastener Locations

Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Slide the sunshade (A) until you can see both front sunshade base sliders (B).

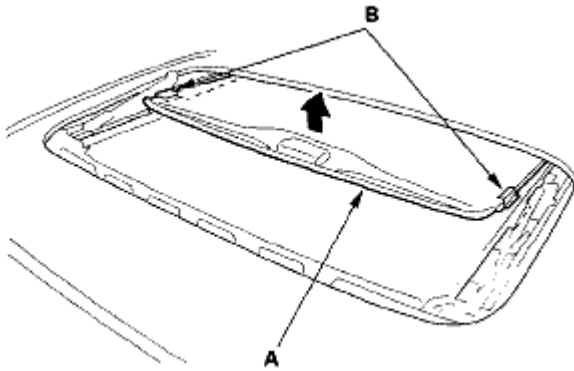


Fig. 12: Sliding Sunshade

Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. While lifting the front portion of the sunshade (A), move the sunshade forward until you can see both rear sunshade base sliders (B). Do not damage the sunshade.

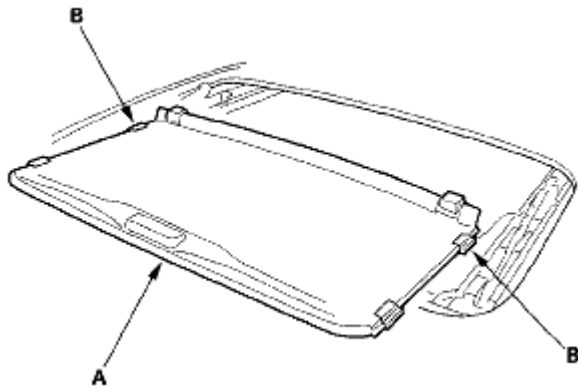


Fig. 13: Identifying Sunshade And Rear Sunshade Base Sliders

Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Release both rear sunshade base sliders from the guide rail portions of the frame, then remove the sunshade.
6. Install the sunshade in the reverse order of removal, and note these items:
 - Apply medium strength type liquid thread lock to the set plate mounting screws before reinstallation.
 - Check the glass position adjustment (see **GLASS POSITION ADJUSTMENT**).
7. Do the moonroof calibration (see **MOONROOF CALIBRATION**).
8. Check for water leaks. Let the water run freely from a hose without a nozzle. Do not use a high-pressure spray.

MOTOR REPLACEMENT

1. Remove the headliner (see **HEADLINER REMOVAL/INSTALLATION**).

2. Put on gloves to protect your hands. Disconnect the connector (A), and using a TORX T25 bit, remove the bolts, then remove the motor (B). Do not operate the motor before reinstallation.

Fastener Locations

► : Bolt, 3

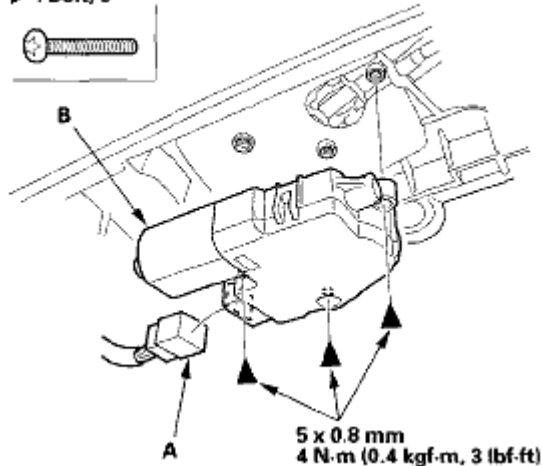


Fig. 14: Identifying Motor Fastener Locations With Torque Specifications
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Install the motor in the reverse order of removal, and note these items:
 - Apply medium strength type liquid thread lock to the motor mounting bolts before reinstallation.
 - Make sure the connector is plugged in properly.
 - Do the moonroof calibration (see **MOONROOF CALIBRATION**).
 - Check the motor operation.

FRAME AND DRAIN TUBE REPLACEMENT

1. Remove these items:
 - Headliner (see **HEADLINER REMOVAL/INSTALLATION**)
 - Moonroof glass (see **GLASS POSITION ADJUSTMENT**)
 - Side curtain airbag (see **SIDE CURTAIN AIRBAG REPLACEMENT**)
2. Remove the moonroof frame (A). Put on gloves to protect your hands.
 1. Disconnect the motor connector (B), harness clip (C) and the drain tubes (D).
 2. With an assistant holding the frame, remove the bolts starting at the rear, and release the rear hooks (E) by moving the frame forward, then remove the frame.
 3. With the help of an assistant, carefully remove the frame through the door opening. Take care not to scratch the interior trim and body, or tear the seat covers.

Fastener Locations

► : Bolt, 10

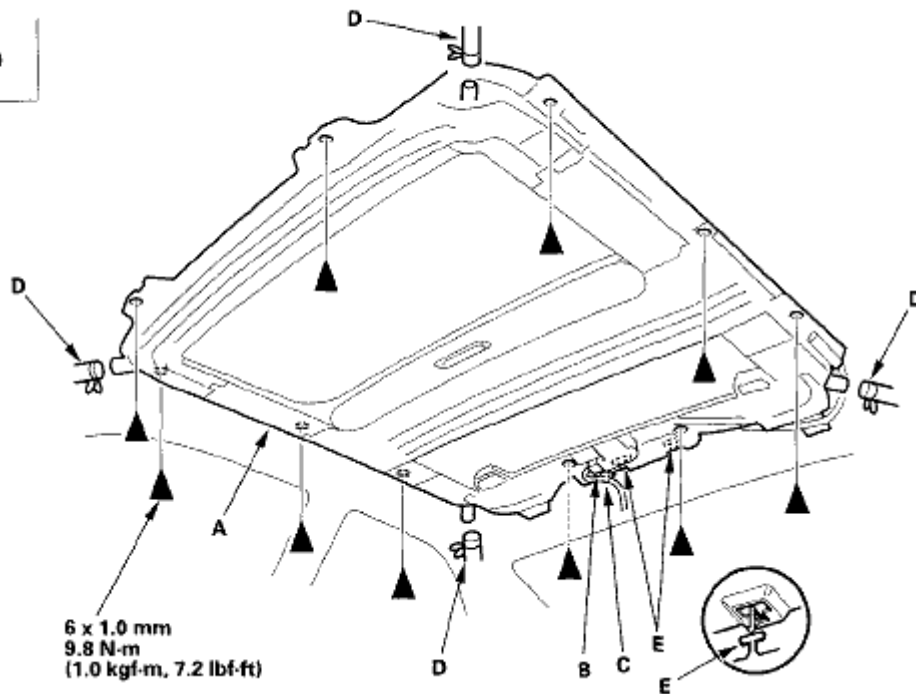


Fig. 15: Identifying Frame And Drain Tube Fastener Locations With Torque Specifications

Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. To remove a front drain valve (A) from the body, remove the kick panel, driver's or passenger's (see **TRIM REMOVAL/INSTALLATION - DOOR AREAS**). Tie a string to the top end of the drain tube, then pull the front drain tube (B) down out of the A-pillar.

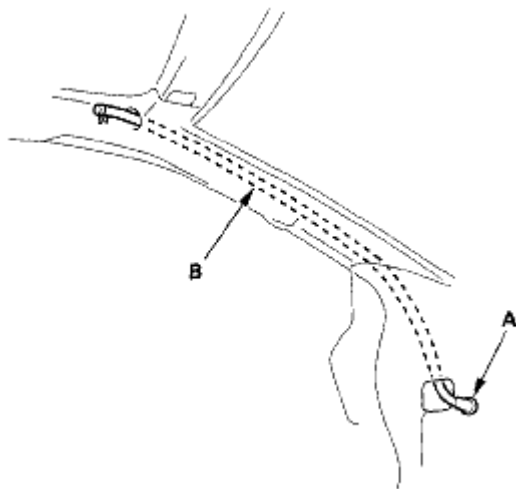


Fig. 16: Identifying Front Drain Valve And Front Drain Tube

Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. To remove a rear drain valve (A) from the body, remove these parts.
 - Spare tire lid (see step 1 on page 20-71).
 - Trunk rear trim panel (see step 3 on page 20-71).

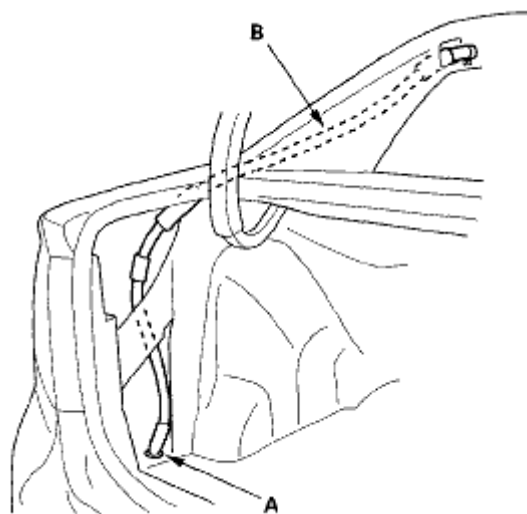


Fig. 17: Identifying Rear Drain Valve

Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Tie a string to the top end of the rear drain tube (B), then pull back the trunk side trim panel and pull the drain tube down out of the pillar.
6. Install the frame and drain tube in the reverse order of removal, and note these items:
 - Before installing the frame, clear the drain tubes and drain valves using compressed air.
 - Check the frame seal.
 - Clean the surface of the frame.
 - When installing the frame, first attach the rear hooks into the body holes.
 - Make sure the connectors are plugged in properly.
 - When connecting the drain tube, slide it over the frame nozzle at least 10 mm (0.39 in.).
 - Install the tube clip (A) on the drain tube (B) as shown.
 - After all parts are installed, including the headliner, do the moonroof calibration (see **MOONROOF CALIBRATION**).

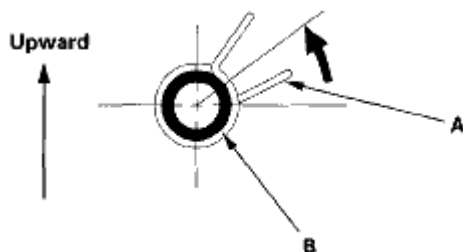


Fig. 18: Installing Tube Clip On Drain Tube

Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Check for water leaks. Let the water run freely from a hose without a nozzle. Do not use a high-pressure spray.

INNER CABLE REPLACEMENT

1. Remove the moonroof frame (see **FRAME AND DRAIN TUBE REPLACEMENT**).

2. Remove these items:
 - Wind deflector (see **WIND DEFLECTOR REPLACEMENT**)
 - Drain channel (see **DRAIN CHANNEL REPLACEMENT**)
 - Moonroof motor (see **MOTOR REPLACEMENT**)
3. Remove the screws (A, B), then remove the slide stop (C) and the plate (D).

Fastener Locations

A ► : Screw, 1 B ► : Screw, 2

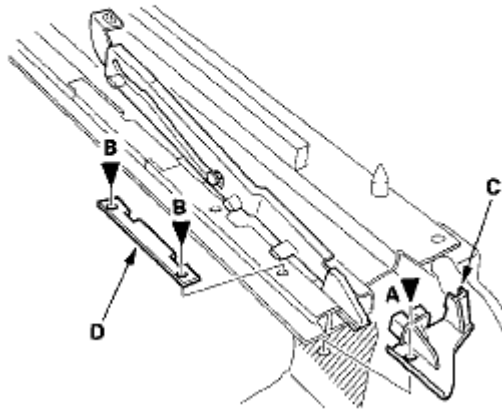


Fig. 19: Identifying Slide Stop And Plate Fastener Locations
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Slide the glass bracket (A) out of the guide rail (B).

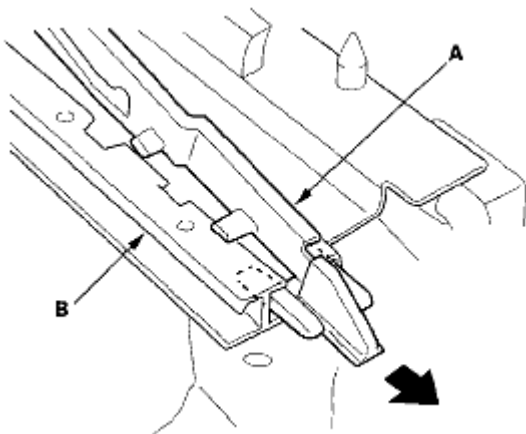


Fig. 20: Sliding Glass Bracket Out Of Guide Rail
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Remove the glass bracket (A) from the link lifter (B).

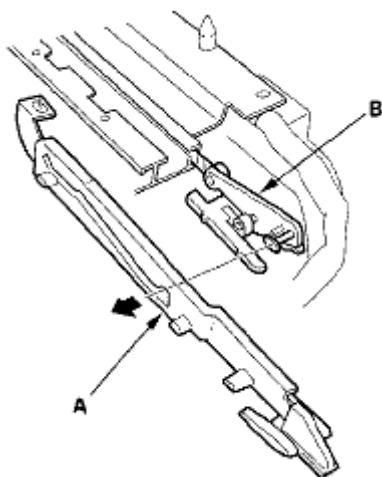


Fig. 21: Removing Glass Bracket From Link Lifter
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Pull the slider portion (A) of the inner cable (B) out of the slide rail (C), then remove the inner cable.

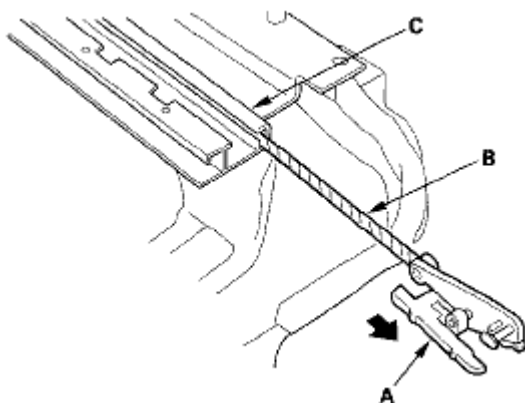


Fig. 22: Removing Inner Cable
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. If necessary, remove the drain channel slider (A) by sliding it forward.

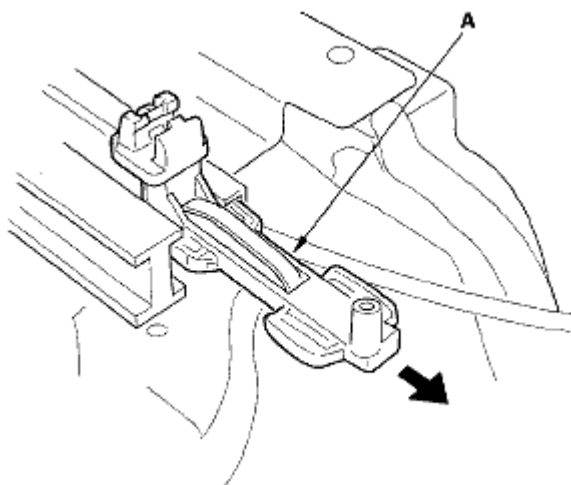
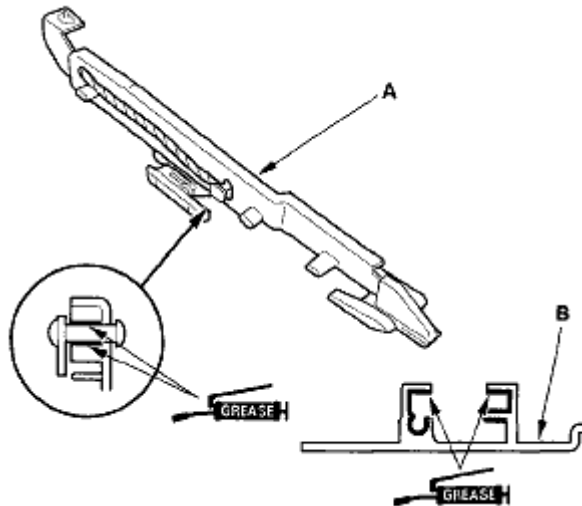


Fig. 23: Removing Drain Channel Slider

Courtesy of AMERICAN HONDA MOTOR CO., INC.

8. Install the slider and cable in the reverse order of removal, and note these items:
- Damaged parts should be replaced.
 - Apply multipurpose grease to the glass bracket (A) and guide rail portion of the frame (B) indicated by the arrows.
 - Apply butyl sealant (C) to both the frame (D) and the slide stop (E), then reinstall with screw (F).
 - Apply medium strength type liquid thread lock to the set plate (G) mounting screws (H) before reinstallation.
 - Before reinstalling the motor, slide both glass brackets rearward fully until the slider portions (I) of the inner cable contact with the screws (J) on the guide rail to align both glass brackets.
 - Before reinstalling the motor, install the frame and glass, then check the opening drag (see **CLOSING FORCE AND OPENING DRAG CHECK**).
 - After reinstalling the motor, do the moonroof calibration (see **MOONROOF CALIBRATION**).

**Fig. 24: Applying Multipurpose Grease To Glass Bracket And Guide Rail Portion Of Frame**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

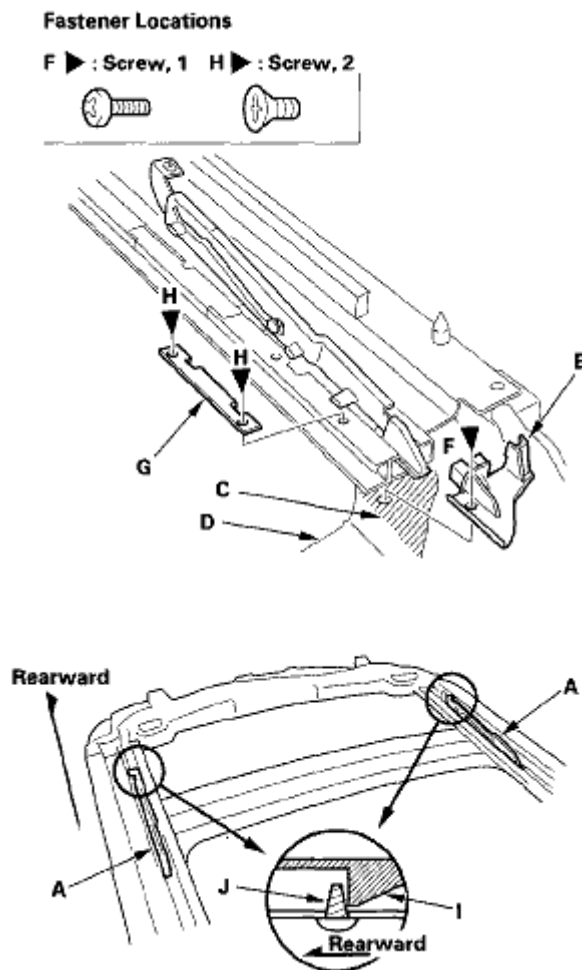


Fig. 25: Identifying Slider And Cable Fastener Locations
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

CLOSING FORCE AND OPENING DRAG CHECK

1. Remove the headliner (see [HEADLINER REMOVAL/INSTALLATION](#)).
2. Closing force check:
 - With a shop towel (A) on the leading edge of the glass (B), attach a spring scale (C) as shown.
 - Have an assistant hold the switch to close the glass while you measure the force required to stop it.

NOTE: This moonroof switch has two detents in the slide open/closed positions, the first one is for manual operation, the second is for auto operation. Only use the first detent (manual close) while doing this test.

- Read the force as soon as the glass stops moving, then immediately release the switch and spring scale.

Closing force: 200-290 N (20-30 kgf, 44-66 lbf)

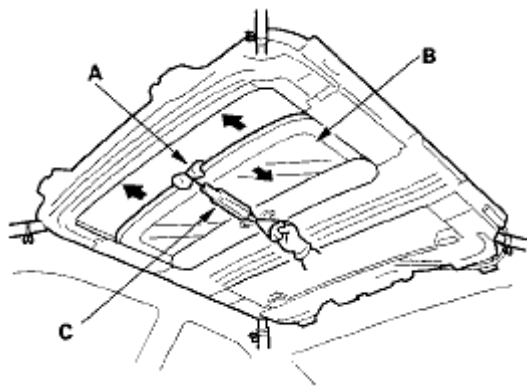


Fig. 26: Checking Closing Force

Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If the force is not within specification, replace the moonroof motor (see **MOTOR REPLACEMENT**).
4. Opening drag check: Protect the leading edge of the glass with a shop towel (A). Measure the effort required to open the glass using a spring scale (B) as shown.

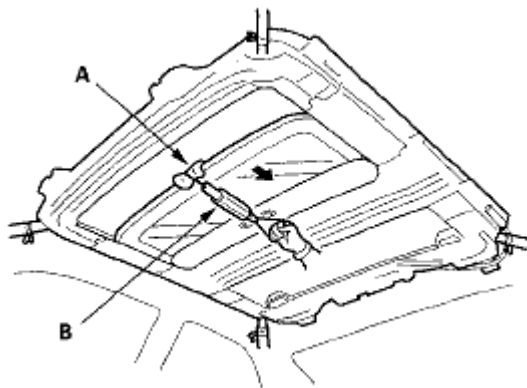


Fig. 27: Checking Opening Drag

Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. If the load is over 40 N (4 kgf, 9 lbf), check:
 - The side clearance and glass position adjustment (see **GLASS POSITION ADJUSTMENT**).
 - For broken or damaged sliding parts. If any sliding parts are damaged, replace them.
 - The gear portion and the inner cable for damage. If the gear portion is broken, replace the motor. If the inner cable is damaged, remove the frame (see **FRAME AND DRAIN TUBE REPLACEMENT**), and replace the cable (see **INNER CABLE REPLACEMENT**).
 - The moonroof motor (see **MOTOR REPLACEMENT**). If the motor fails to run or doesn't turn smoothly, replace it.
6. Do the moonroof calibration (see **MOONROOF CALIBRATION**) after reinstalling the moonroof motor.