



Technical Service BULLETIN

August 21, 2006

Title:

MOON ROOF STUCK/IMPROPER OPERATION

Models:

'03 – '07 4Runner

REVIS
B0016-06
BODY

TSB REVISION NOTICE:

- August 25, 2006: The Warranty Information table has been updated to include warranty.

Previous versions of this TSB should be discarded.

Introduction Some customers may experience a moon roof that exhibits improper operation, such as:

- The moon roof does not close from its fully open position (an improper jam protection operation occurs).
- The moon roof is stuck due to a difference of alignment between the right and left parts of the moon roof.
- Sliding parts are stuck due to hardened grease.

Perform the following repair procedure to correct these conditions.

Applicable Vehicles

- **2003 – 2007** model year **4Runner** vehicles.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
BD5037	Clean/Lubricate Wind Deflector Links & Align Moon Roof Cable	0.9	63203-35040 63203-35041 63203-35050 63203-35060	9A	83

Applicable Warranty*:

This repair is covered under the Toyota Comprehensive Warranty. This warranty is in effect for 36 months or 36,000 miles, whichever occurs first, from the vehicle's in-service date.

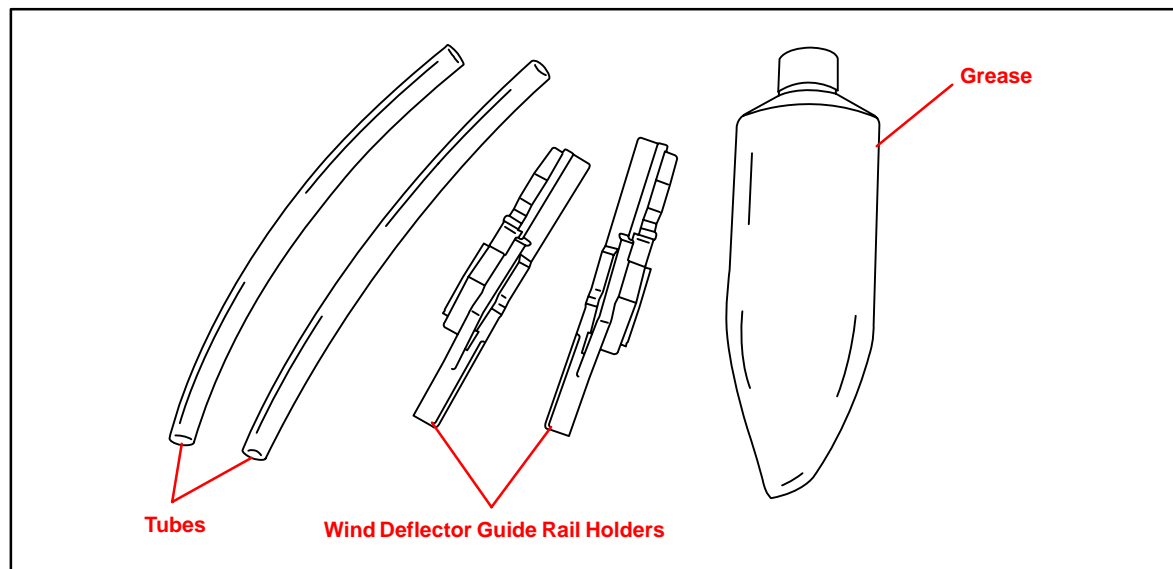
* Warranty application is limited to correction of a problem based upon a customer's specific complaint.



Toyota Supports ASE Certification

**Parts
Information**

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
63207-35040	Same	Base Sub-assembly, Roof Window Balancer (Repair Kit)	1

Kit Contents**NOTE:**

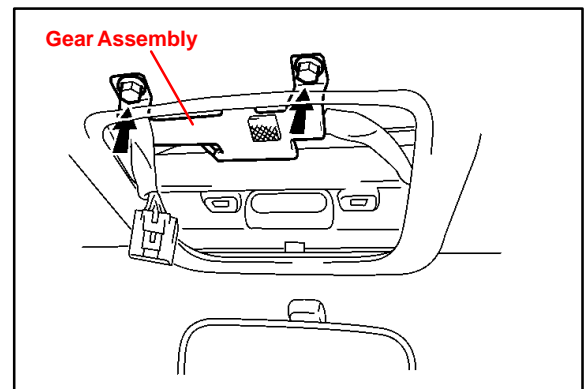
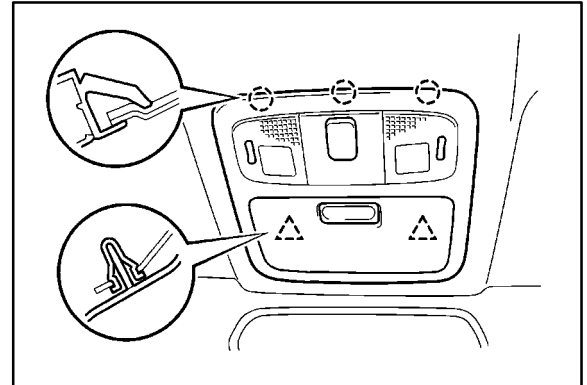
The plastic tubes are NOT required for this TSB.

Repair Procedure

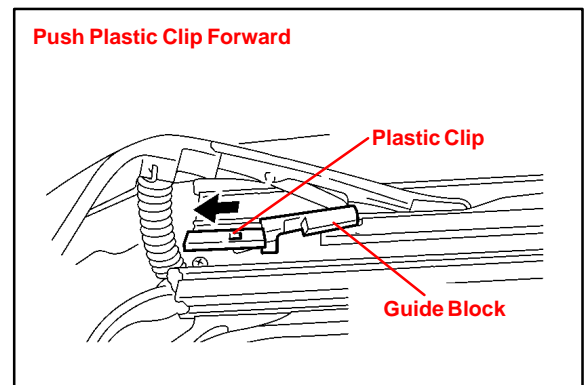
NOTE:

Perform the same procedure for both the RH and LH sides.

1. Remove the gear assembly.
 - A. Open the moon roof approximately 75% and then remove the ignition key.
 - B. Release the two (2) metal clips (behind the sunglass holder) by gently pulling down the front of the map light assembly.
 - C. Disconnect the connector and remove the map light assembly.
 - D. Remove the two (2) bolts, disconnect the motor connector, and then remove the gear assembly.



2. Remove the roof wind deflector.
 - A. Using a flathead screwdriver, hold down the guide block release lever and push the plastic clip forward.
 - B. Slide the guide block backwards and out. Repeat for the other side and remove the wind deflector.

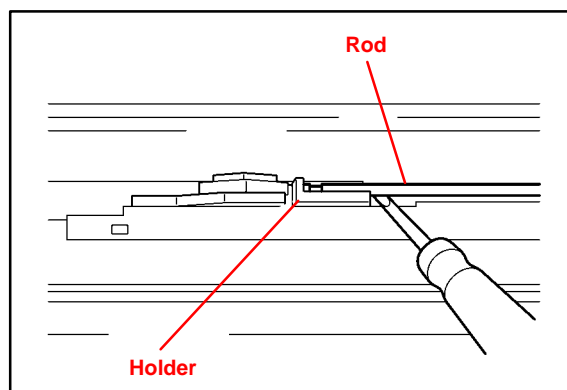


NOTE:

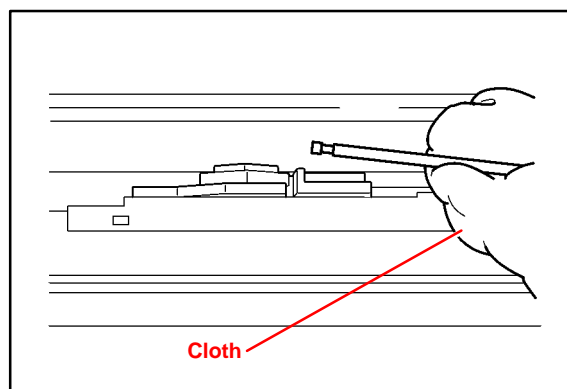
To prevent breakage of the guide block release lever when the outside temperature is below 40°F (4°C), use a heat gun to raise the temperature of the guide block and surrounding aluminum housing to at least 65°F (18°C). Be careful NOT to damage components or paint with the heat gun.

**Repair
Procedure**
(Continued)

3. Disconnect the wind deflector rod.
- A. Place a screwdriver against the rail, in the notch area as shown in the illustration, and pry the rod to disconnect it.

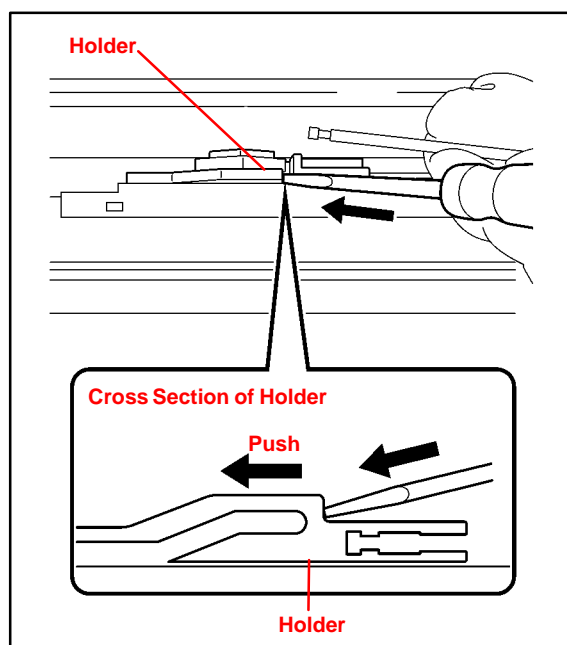


- B. Secure the rod with a piece of cloth. Place the cloth between the rod and track to keep it out of the way.



4. Remove the moon roof wind deflector guide rail holder.

- A. Place a flathead screwdriver against the stepped portion of the holder and lightly tap the screwdriver, using a hammer, to release the holder.
- B. Move the holder toward the front of the vehicle by pushing it with the screwdriver and remove it from the rail.

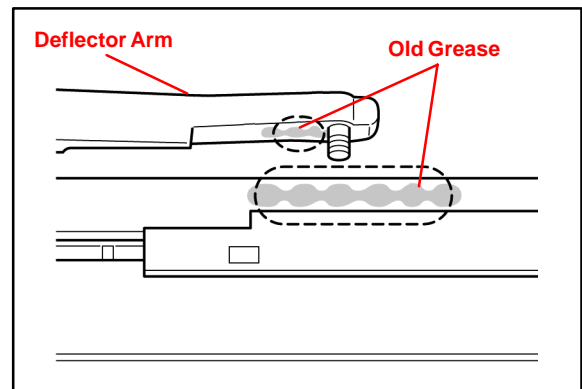


**Repair
Procedure**
(Continued)

5. Replace the grease.
 - A. Using a piece of cloth or scraper, remove the old grease that is adhering to the holder-sliding surface on the rail and the deflector arm.

NOTE:

Remove the grease on both the RH and LH sides.

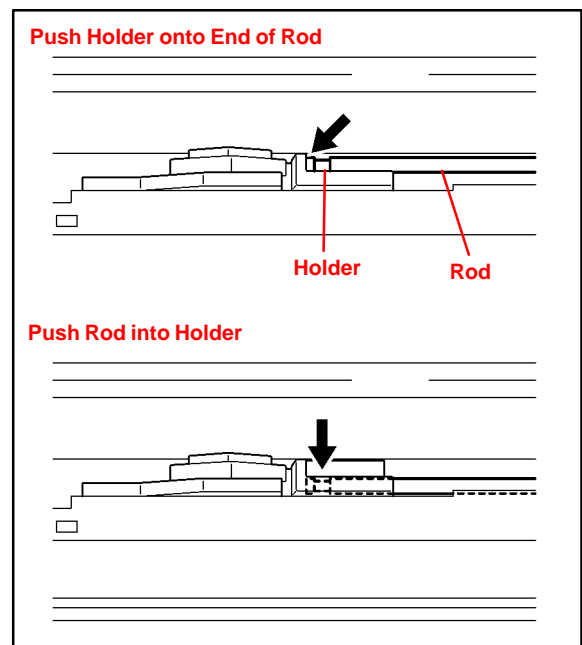


- B. Install the NEW holder (P/N 63257–35040/50, included in repair kit P/N 63207–35040) to the rail by performing the removal procedure in reverse order.

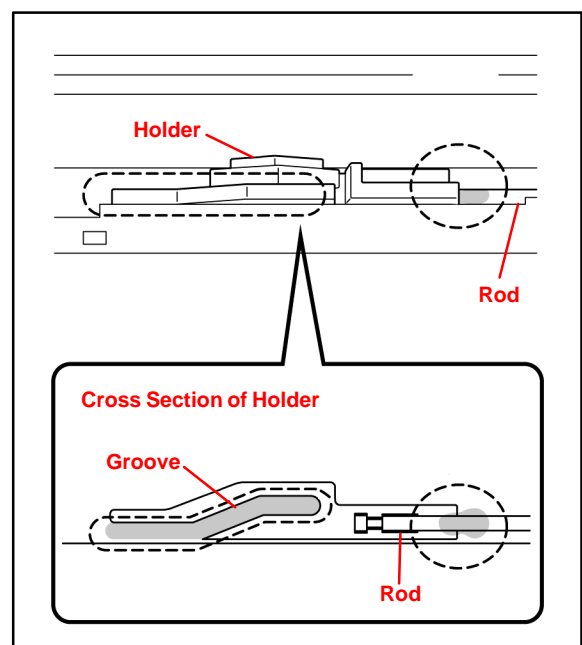
- C. Push the rod into the holder.

NOTE:

Make sure the wind deflector rod is installed in the guide block's forwardmost position.



- D. Apply grease (P/N 09170–35010, included in the repair kit) to the contact surface between the holder and the rail and the groove (deflector arm installation portion).

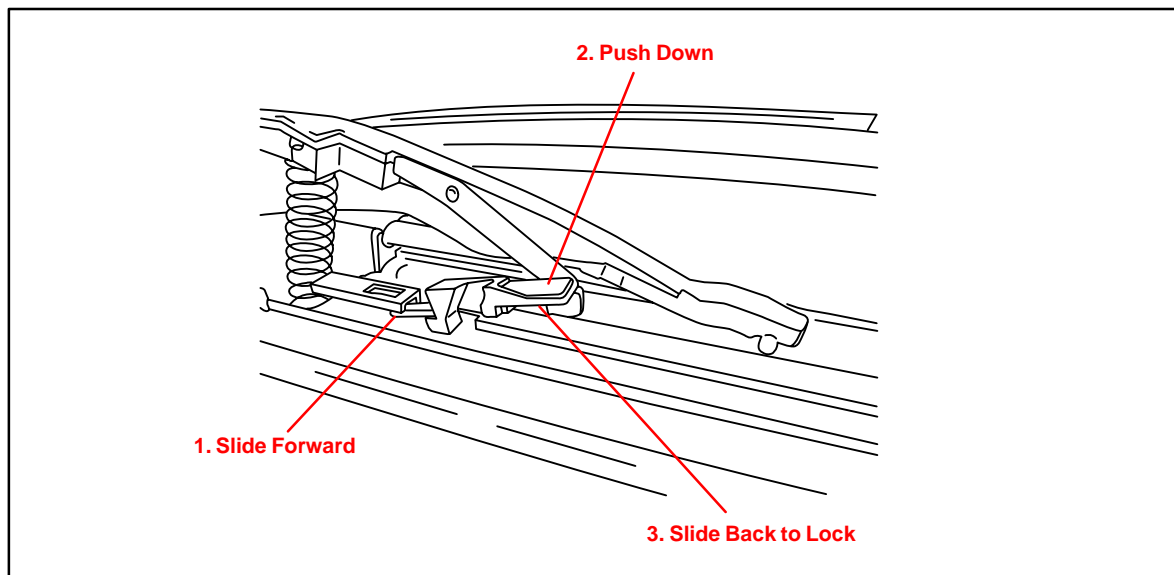


**Repair
Procedure**
(Continued)

6. Install the roof wind deflector by performing the removal procedure in the reverse order.

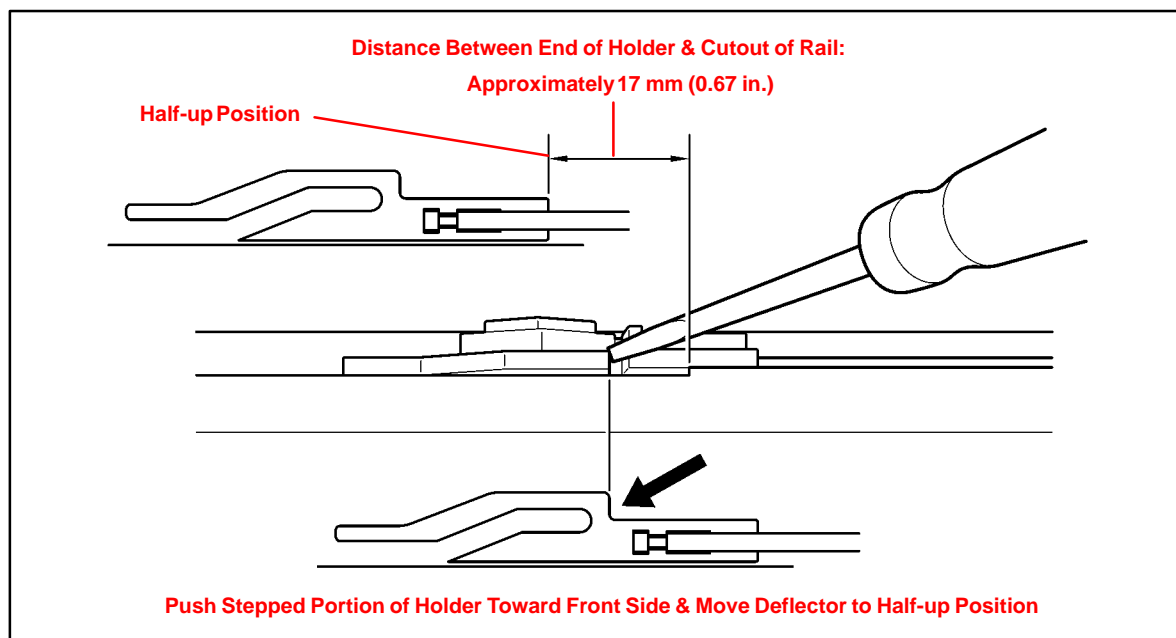
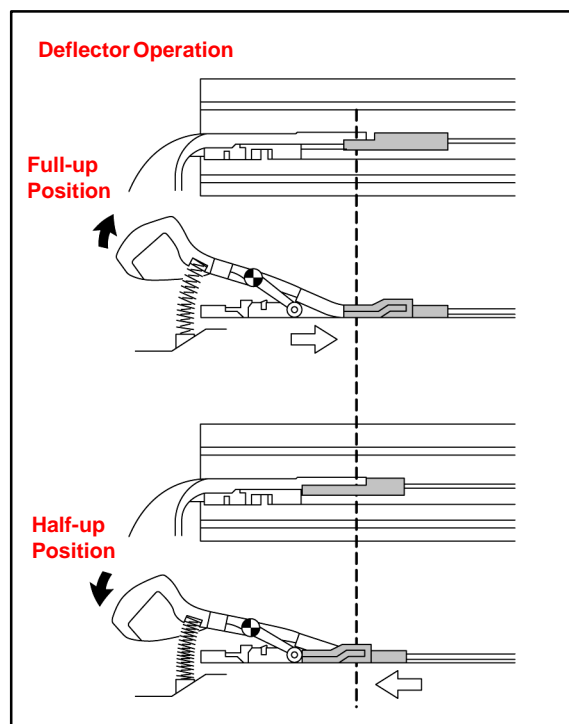
NOTE:

Install the front tab first, then slide back, and snap into position.



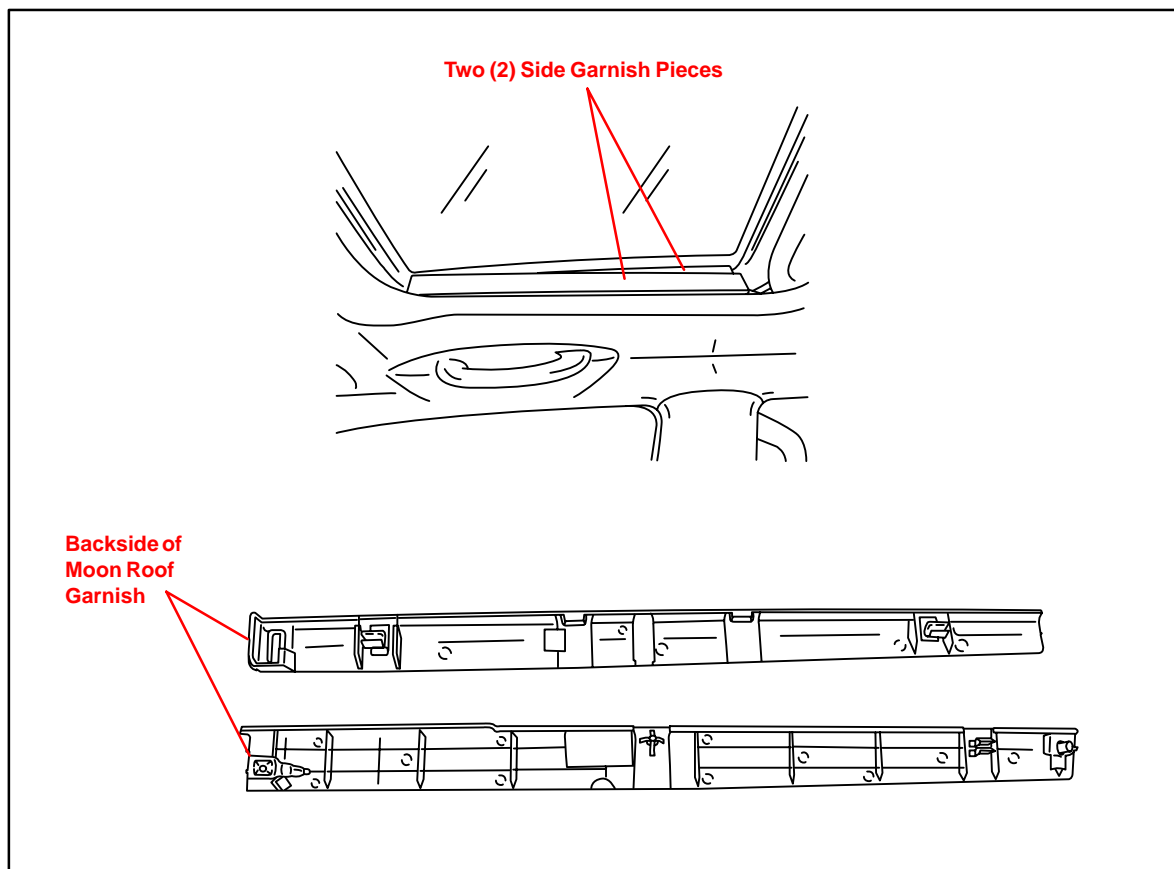
**Repair
Procedure**
(Continued)

7. Align the drive cable holders.
 - A. Place a flathead screwdriver against the stepped portion of the holder and push the holder toward the front of the vehicle to move the deflector to the half-up position. Align the RH and LH holder positions.



**Repair
Procedure**
(Continued)

- B. Install the gear assembly and connect the map light assembly. Operate the moon roof switch to move the slide panel to its fully closed position.
- C. Remove the two (2) moon roof side garnish pieces by releasing the locking clips (pull gently).

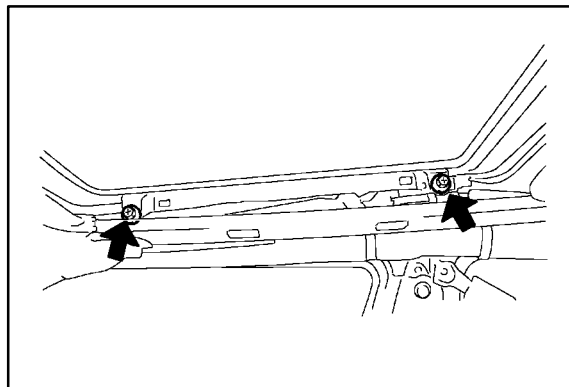


**Repair
Procedure**
(Continued)

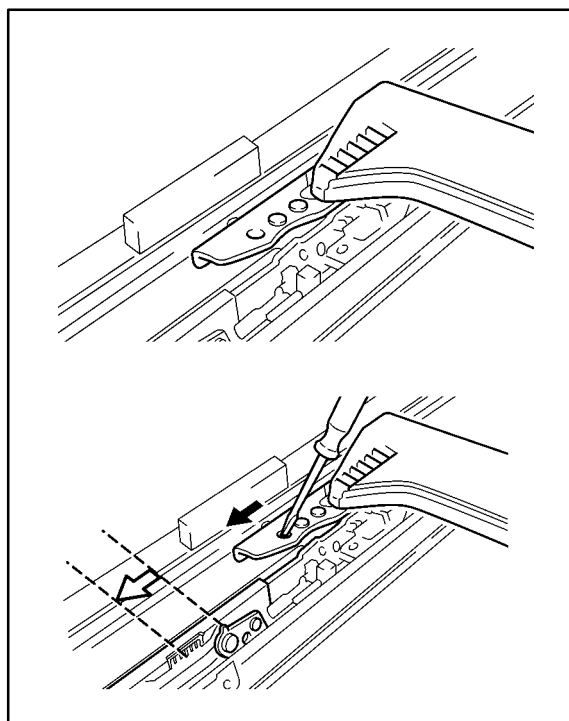
- D. Remove the moon roof panel and gear assembly. Set the moon roof system to the fully closed position.

NOTE:

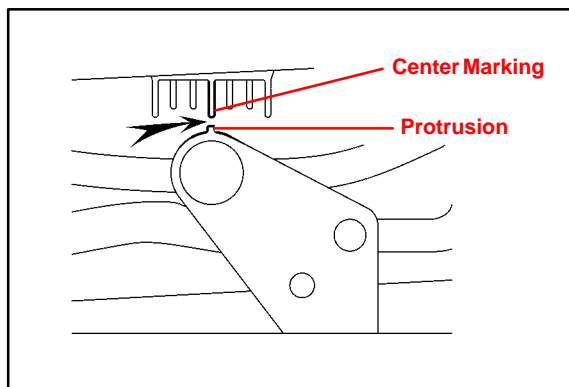
Be careful when removing the Torx screws for the moon roof panel to prevent damage to the screws.



- a. Using a flathead screwdriver, push the bracket of the cable assembly forward.



- b. Align the protrusion of the link to the center marking of the bracket.



**Repair
Procedure**
(Continued)

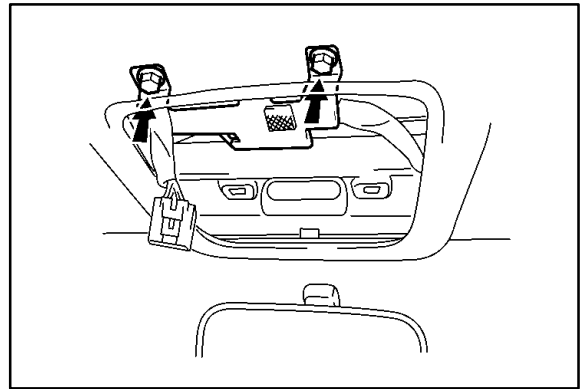
8. Install the moon roof drive gear assembly, the moon roof panel, and the side garnish.

**Moon Roof Glass Assembly
Mounting Screw Torque:**

4.0 N•m (41 kgf•cm, 35 in.•lbf)

**Moon Roof Drive Gear Assembly
Mounting Bolt Torque:**

5.4 N•m (55 kgf•cm, 48 in.•lbf)



9. Initialize the moon roof.
- A. Press the moon roof switch on the “TILT-UP” side and hold the button (the button may have to be held for up to 10 seconds).
 - The moon roof will lock in the fully tilted up position.
 - Then, the moon roof will move down a few millimeters.
 - B. Release the switch — initialization is complete.
 - C. Cycle the moon roof through all the operating modes (including auto-open and auto-close modes) to make sure the moon roof functions properly.
10. Install the connected map lamp assembly.