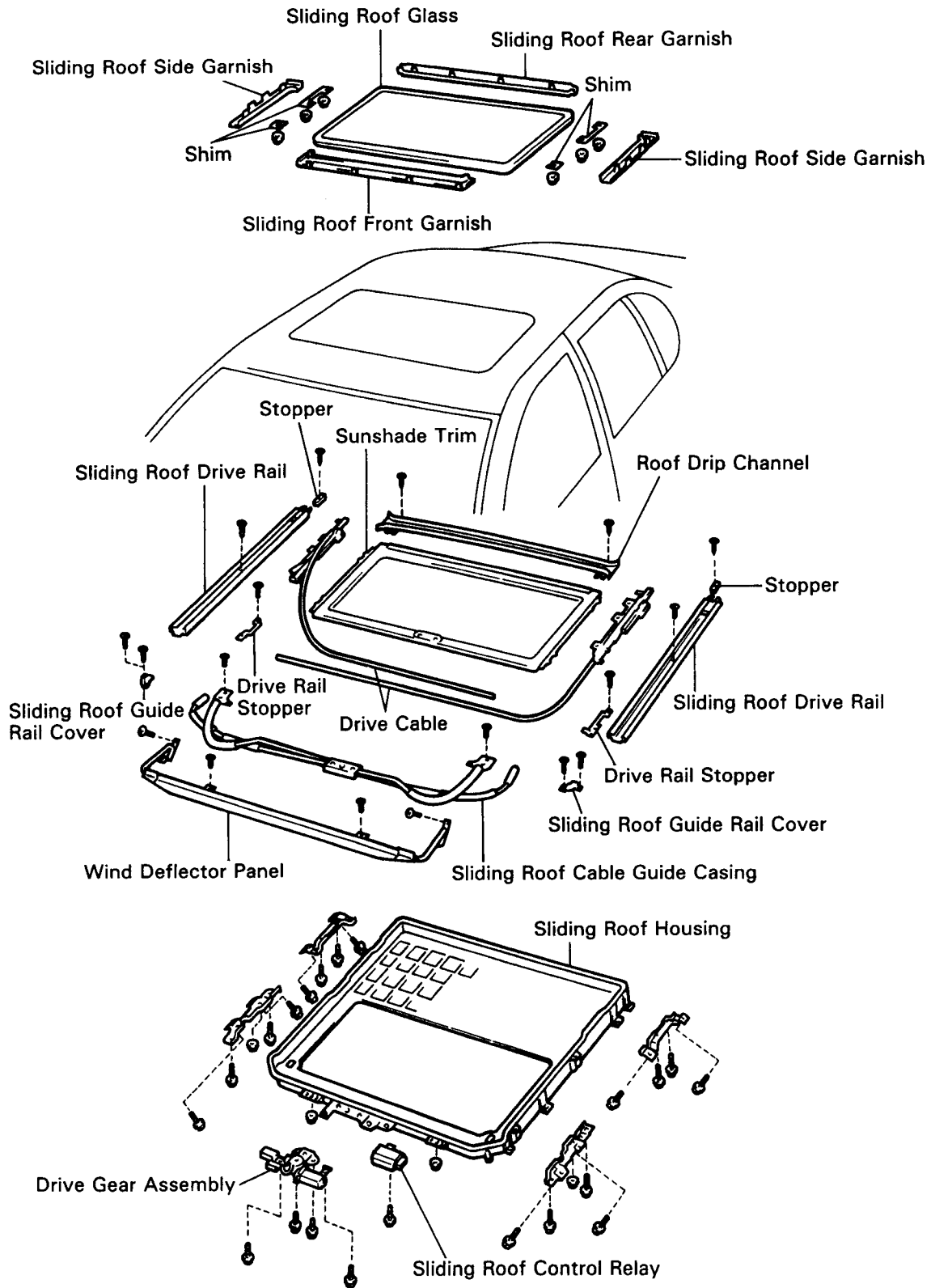
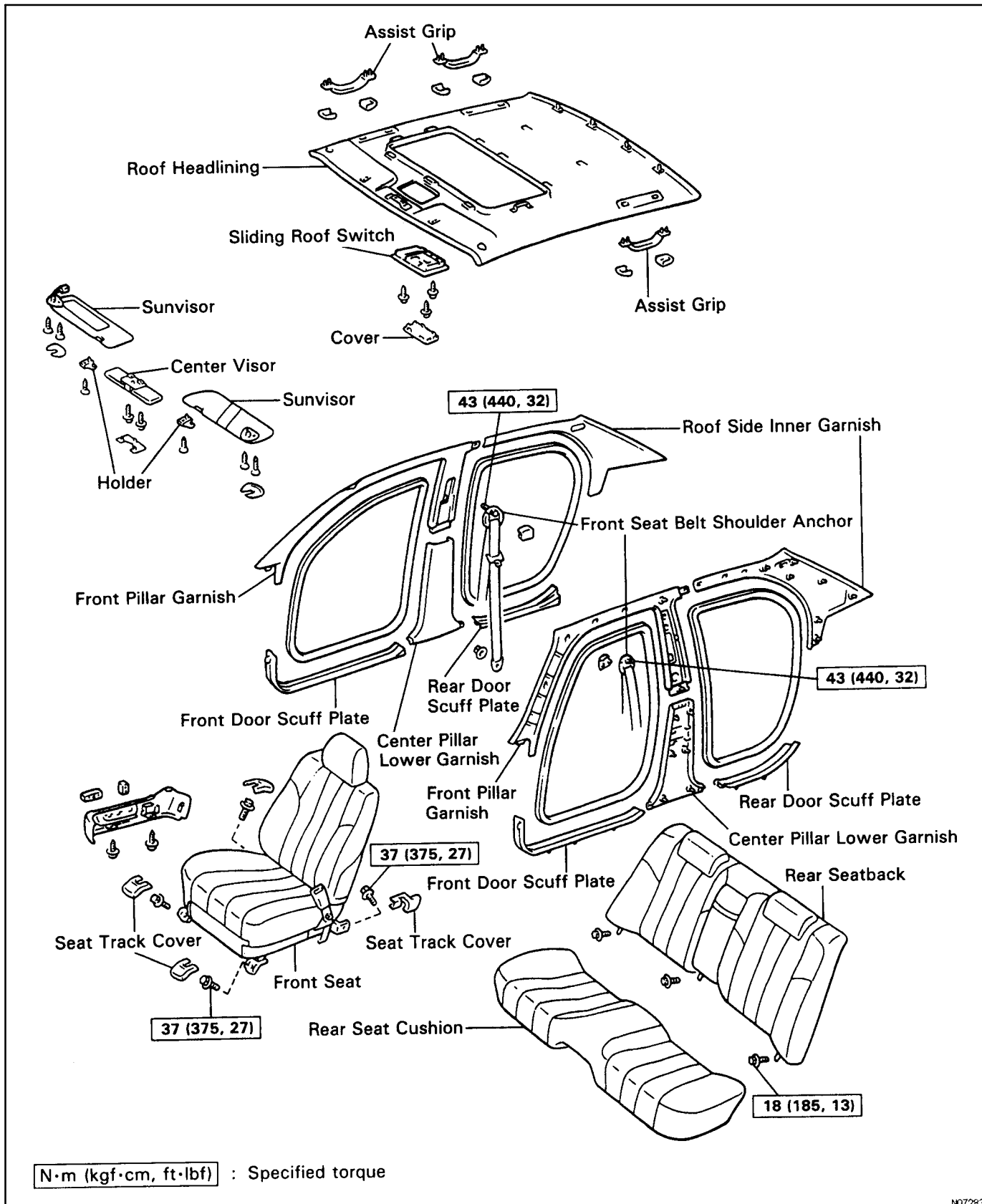


SLIDING ROOF COMPONENTS



COMPONENTS (Cont'd)



ON-VEHICLE INSPECTION

BO102-01

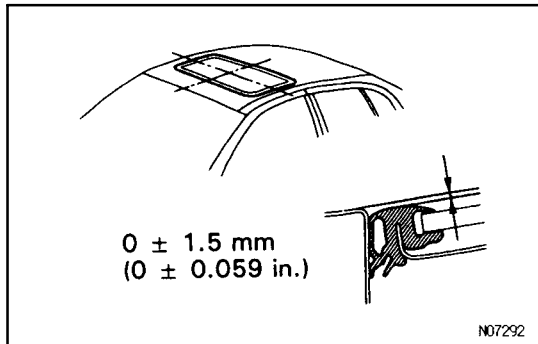
INSPECT SLIDING ROOF GLASS ALIGNMENT

- (a) Start the engine and check the operation time of the sliding roof.

Operation time:

Approx. 5 sec.

- (b) Check for abnormal noise or binding during operation.
 (c) With the sliding roof fully closed, check for water leakage.



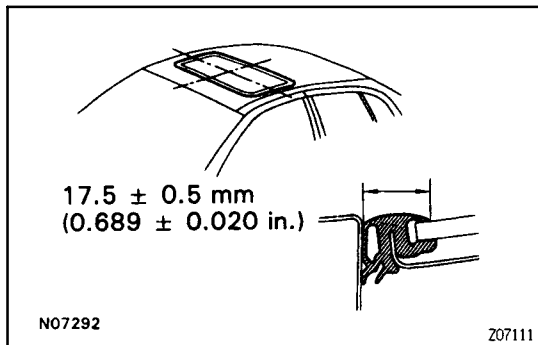
- (d) Check for a difference in level between the sliding roof weatherstrip and roof panel.

Front end:

0 ± 1.5 mm (0 ± 0.059 in.)

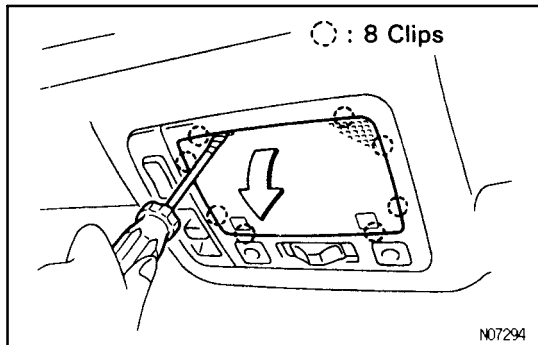
Rear end:

0 ± 1.5 mm (0 ± 0.059 in.)



- (e) Check for a clearance between the sliding roof glass and roof panel.

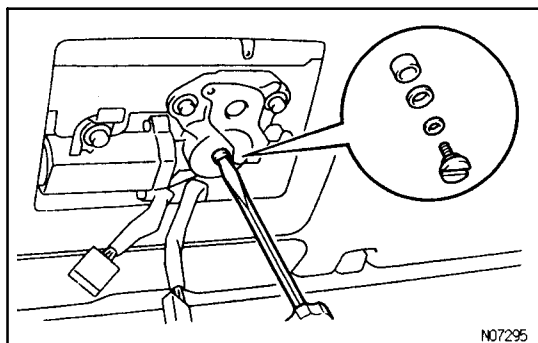
17.5 ± 0.5 mm (0.689 ± 0.020 in.)



If the sliding roof does not operate:

HINT: Tape a screwdriver tip before use.

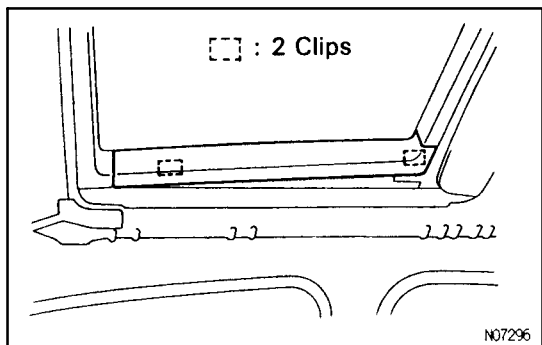
- (f) Using the screwdriver, remove the interior light cover.



- (g) Remove the large screw inside.

NOTICE: Be careful not to lose the spring washer or shim.

- (h) Manually operate the moon roof by inserting a special crank-shaped screwdriver into the hole and turning the drive shaft.



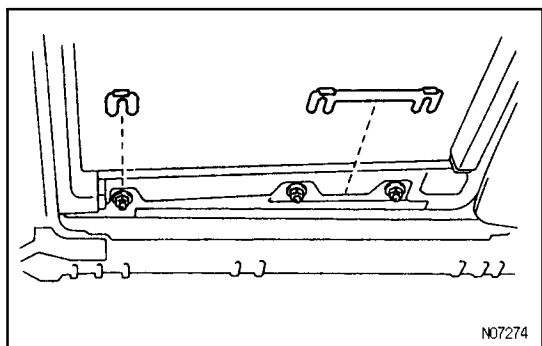
SLIDING ROOF ADJUSTMENT

BO105-01

1. REMOVE SLIDING ROOF GARNISHES

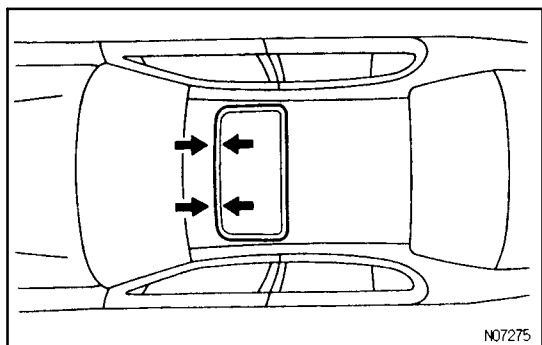
Before making adjustments, remove the left and right sliding roof garnishes.

HINT: After adjustment, reinstall the sliding roof garnishes.



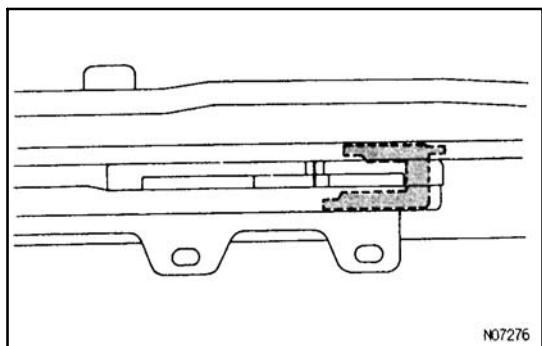
2. TO ADJUST LEVEL DIFFERENCE

Adjust by increasing or decreasing the number of shims between the bracket and sliding roof.



3. TO ADJUST FORWARD OR REARWARD

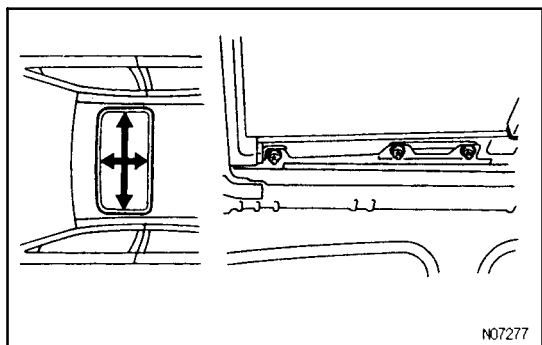
(a) Adjust by loosening the sliding roof installation nuts, and move the sliding roof bracket forward and backward.



(b) When the front or rear alignment is not correct, remove the glass and adjust the drive rail.

(c) Using a screwdriver, slide the link forward or backward to align the two marks as shown.

(d) Slide the bracket to the front with your hand.



4. TO ADJUST RIGHT OR LEFT

Adjust by loosening the sliding roof rear shoe installation nuts, and move the sliding roof to the right and left.

5. TO ADJUST CLEARANCE

(Difference in left and right clearance)

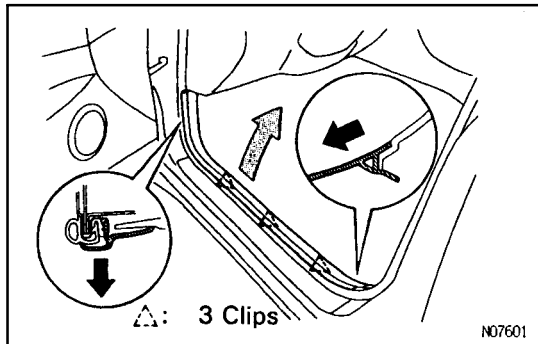
Adjust by loosening the sliding roof installation nuts and readjust the sliding roof to the proper position.

SLIDING ROOF REMOVAL

BO108-01

1. DISCONNECT BATTERY CABLE FROM NEGATIVE TERMINAL

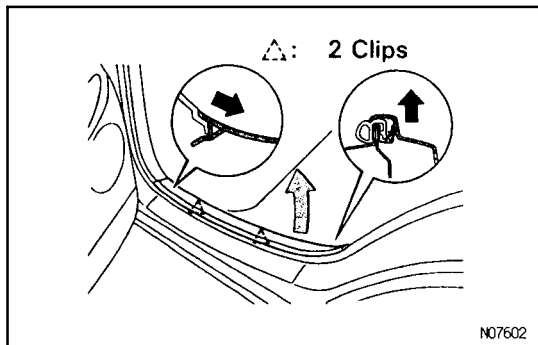
CAUTION: Work must be started after 90 seconds from the time the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.



2. REMOVE FRONT DOOR SCUFF PLATE

HINT: Tape a screwdriver tip before use.

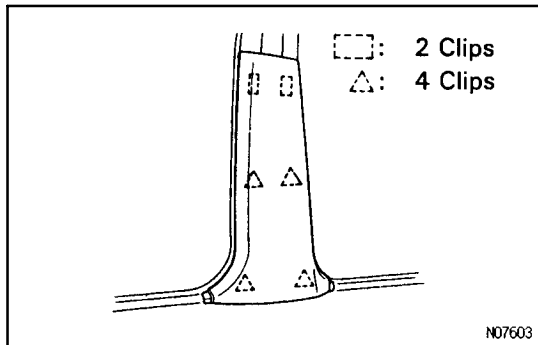
- (a) Using the screwdriver, pry out the front side of the clip.
- (b) Using a clip remover, remove the scuff plate.



3. REMOVE REAR DOOR SCUFF PLATE

HINT: Tape a screwdriver tip before use.

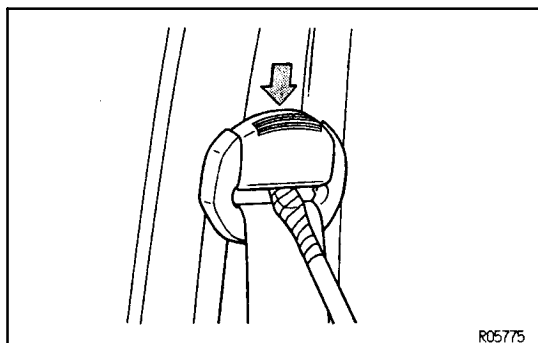
- (a) Using the screwdriver, pry out the rear side of the clip.
- (b) Using a clip remover, remove the scuff plate.



4. REMOVE CENTER PILLAR LOWER GARNISH

HINT: Tape a screwdriver tip before use.

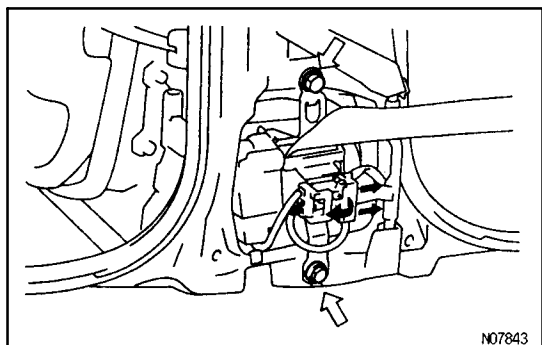
Using the screwdriver, remove garnish.



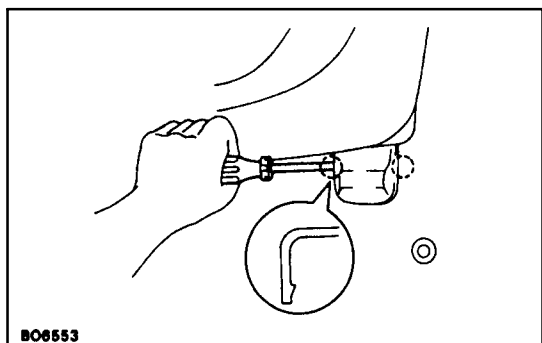
5. REMOVE FRONT SEAT BELT SHOULDER ANCHOR

HINT: Tape a screwdriver tip before use.

- (a) Using the screwdriver, pry out the shoulder anchor cover.
- (b) Remove the front seat belt shoulder anchor.

**6. REMOVE FRONT SEAT BELT RETRACTOR**

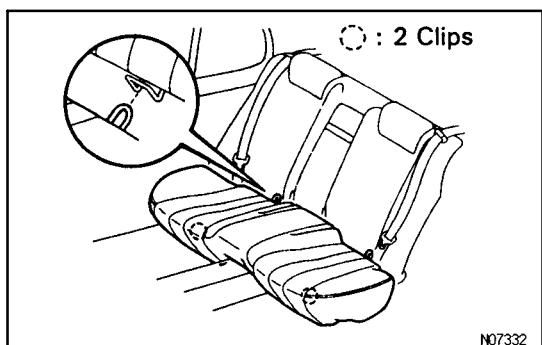
- (a) Disconnect the connectors.
- (b) Remove two bolts and the retractor.

**7. REMOVE SEAT TRACK COVER**

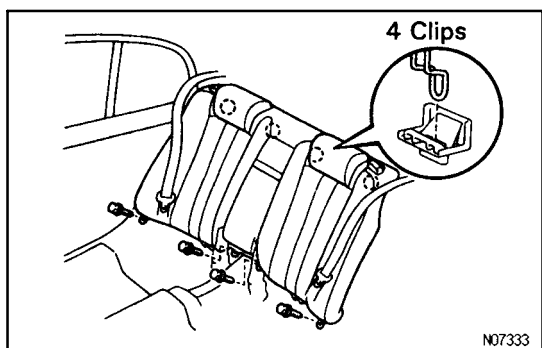
HINT: Tape a screwdriver tip before use.
Using the screwdriver, pry out four covers.

8. REMOVE FRONT SEAT

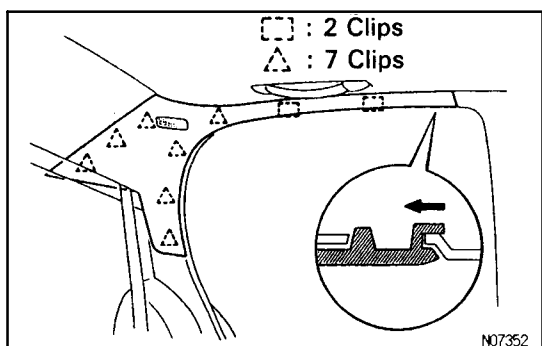
- (a) Remove four bolts.
- (b) Disconnect the connector.
- (c) Remove the front seat with the seat belt.

**9. REMOVE REAR SEAT CUSHION**

Pull up the front portion of the rear seat cushion.

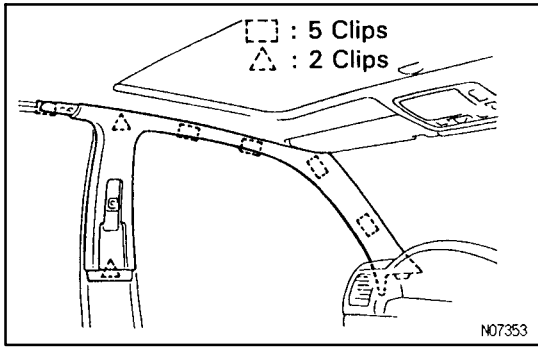
**10. REMOVE REAR SEATBACK**

- (a) Disconnect the seat belt from the belt guide.
- (b) Remove four bolts.
- (c) Pull up the seatback to remove it.

**11. REMOVE ROOF SIDE INNER GARNISH**

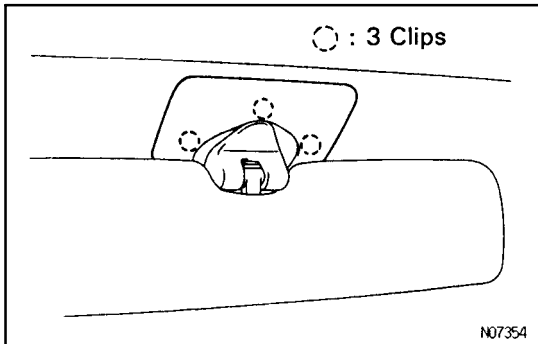
HINT: Tape a screwdriver tip before use.

- (a) Using the screwdriver, remove the garnish.
- (b) Disconnect the connector.

**12. REMOVE FRONT PILLAR GARNISH**

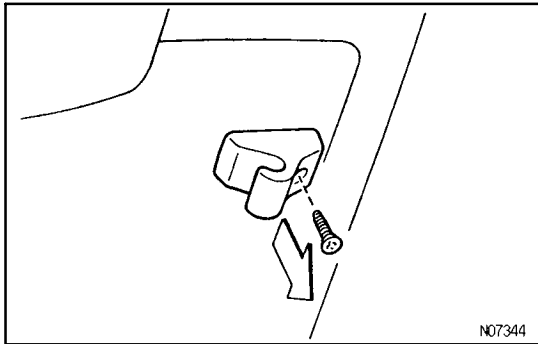
HINT: Tape a screwdriver tip before use.

- (a) Using the screwdriver, pry out the clips.
- (b) Pull the garnish rearward to remove it.

**13. REMOVE CENTER VISOR**

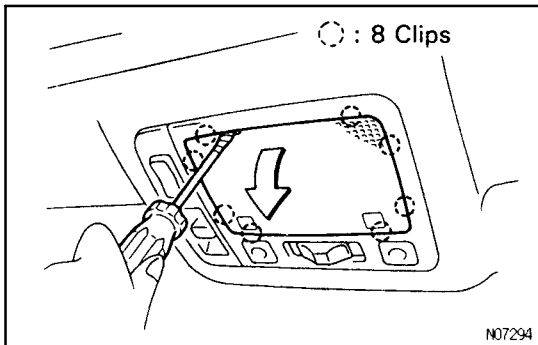
HINT: Tape a screwdriver tip before use.

- (a) Using the screwdriver, remove the center visor cover.
- (b) Remove two screws and the center visor.

**14. REMOVE SUNVISOR AND HOLDER**

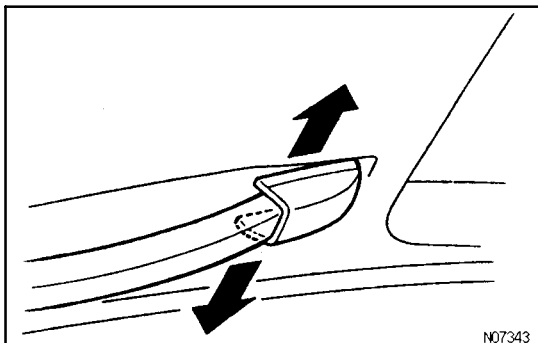
HINT: Tape a screwdriver tip before use.

- (a) Using the screwdriver, remove the sunvisor bracket cover.
- (b) Remove two screws and the sunvisor.
- (c) Disconnect the connector.
- (d) Remove the screw and the holder.

**15. REMOVE SLIDING ROOF SWITCH**

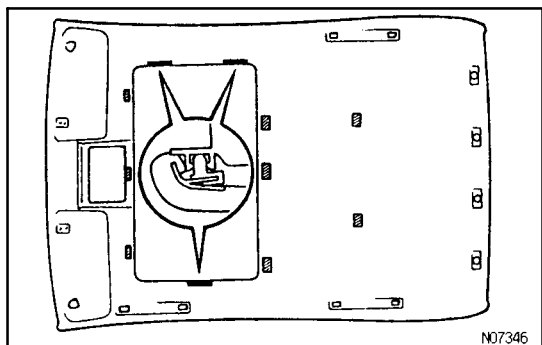
HINT: Tape a screwdriver tip before use.

- (a) Using the screwdriver, remove the cover.
- (b) Remove three screws and the switch, then disconnect the connector.

**16. REMOVE ASSIST GRIP**

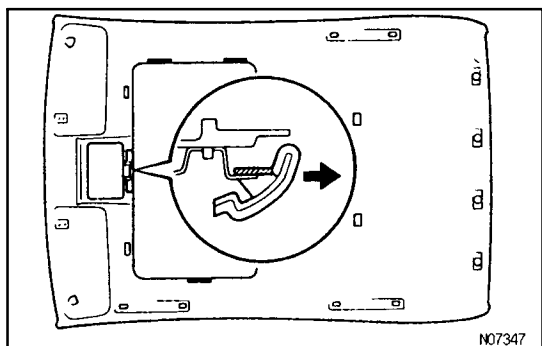
HINT: Tape a screwdriver tip before use.

- (a) Using the screwdriver, remove the cover.
- (b) Remove two screws and the assist grip.

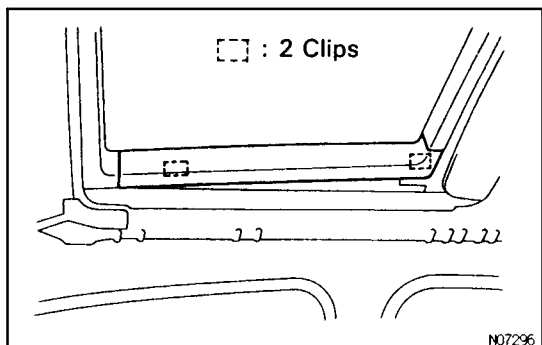


17. REMOVE ROOF HEADLINING

- (a) Remove eight hook fasteners, and three clips around the sliding roof opening.



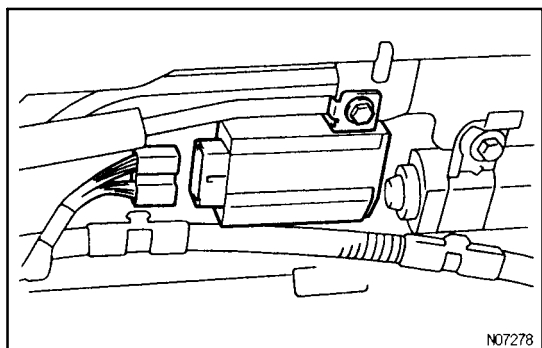
- (b) Using a clip remover, remove four clips from the rear of the roof headlining.
- (c) Slide the roof headlining toward the vehicle rear to remove it.
NOTICE: Do not fold down the headlining.



18. REMOVE SLIDING ROOF GLASS

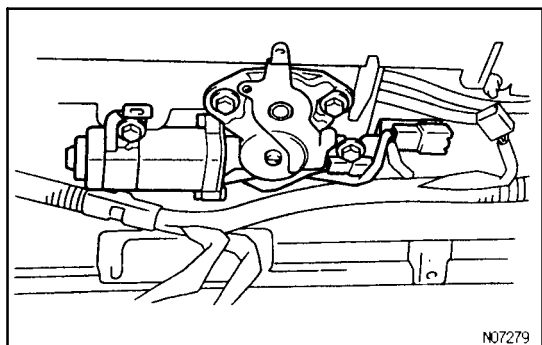
HINT: Tape a screwdriver tip before use.

- (a) Using the screwdriver, remove the garnishes.
NOTICE: Do not scratch the glass or garnish with the screwdriver.
- (b) Remove six nuts and shims.
HINT: Make sure of the number of shims.
- (c) Pull the glass upward to remove it.



19. REMOVE SLIDING ROOF CONTROL RELAY

- (a) Disconnect the connector.
- (b) Remove the bolt and the relay.

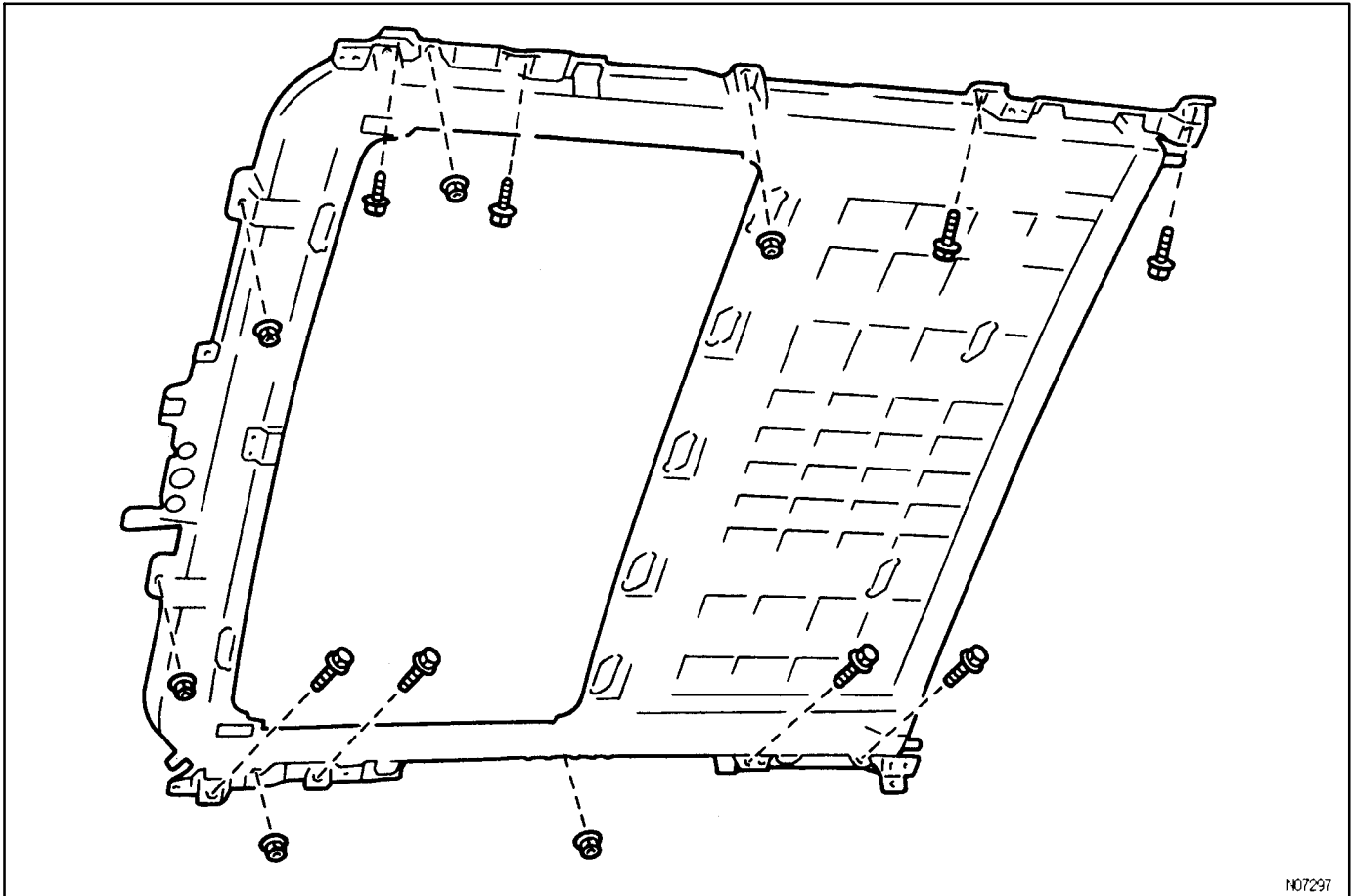


20. REMOVE DRIVE GEAR ASSEMBLY

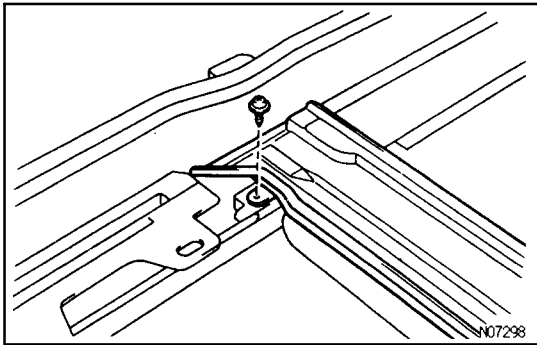
- (a) Disconnect the connectors.
- (b) Remove four bolts and the gear assembly.

21. REMOVE SLIDING ROOF HOUSING

- (a) Disconnect the four drain hoses from the housing.
- (b) Remove eight bolts, six nuts and the housing.



N07297

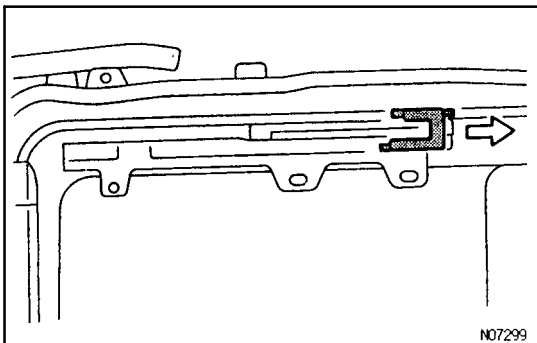


N07298

SLIDING ROOF DISASSEMBLY AND ASSEMBLY

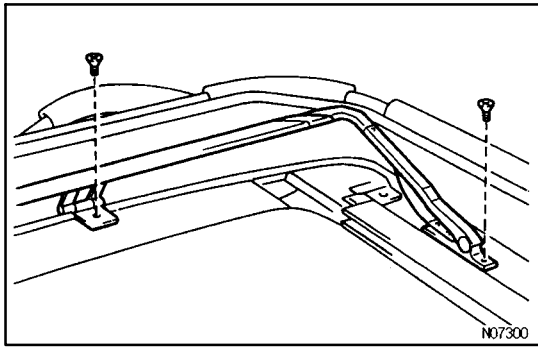
HINT: Assemble the sliding roof parts by following the disassembly sequence in reverse. BO10B-01

1. **REMOVE ROOF DRIP CHANNEL**
Remove two screws and the channel.

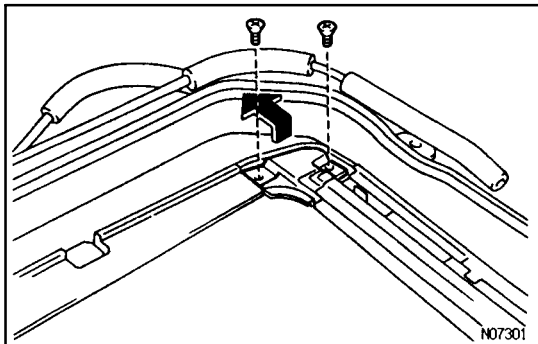


N07299

2. **REMOVE WIND DEFLECTOR PANEL**
(a) Using a screwdriver, slide the drive cable backward.

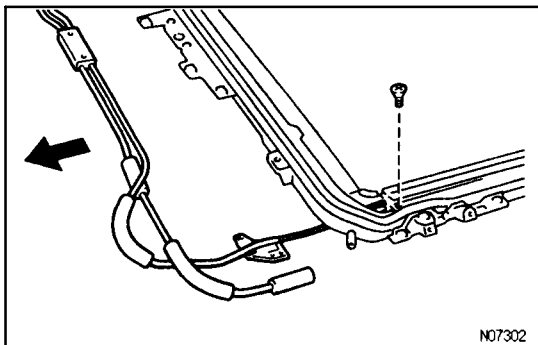


- (b) Remove four screws and the panel.

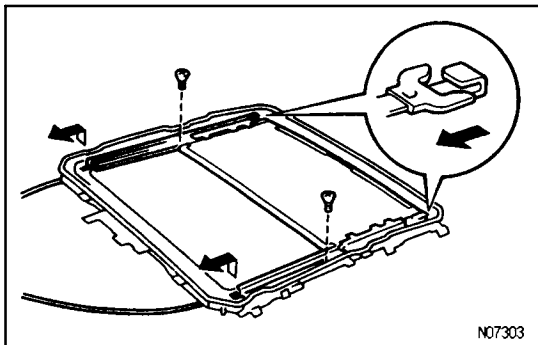


3. REMOVE SLIDING ROOF CABLE GUIDE CASING

- (a) Remove two screws and the sliding roof guide rail cover.

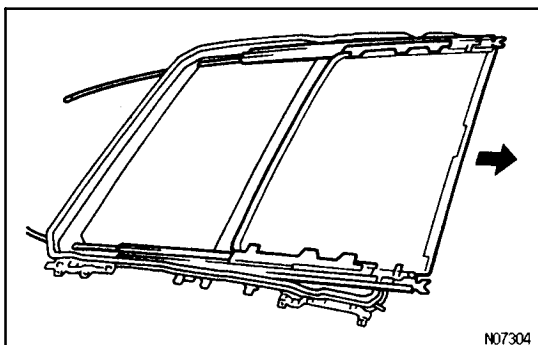


- (b) Remove two screws.
 (c) Pull the cable guide casing toward the front.
 (d) Pull the driver cable out of the cable guide casing.



4. REMOVE SLIDING ROOF DRIVE RAIL

- (a) Remove two screws.
 (b) Pull the drive rail forward while lifting its front side up, and release the drive rail from the hook at the rear of the housing.

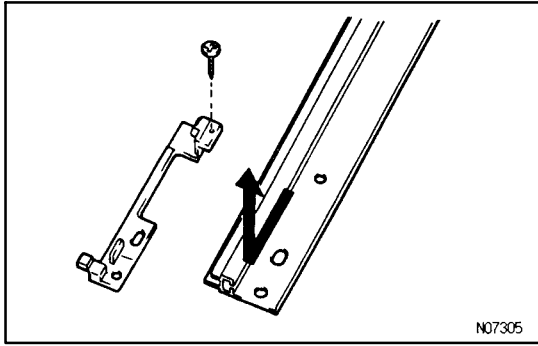


- (c) Remove the drive rail.

5. REMOVE STOPPER

- Remove the screw and the stopper.

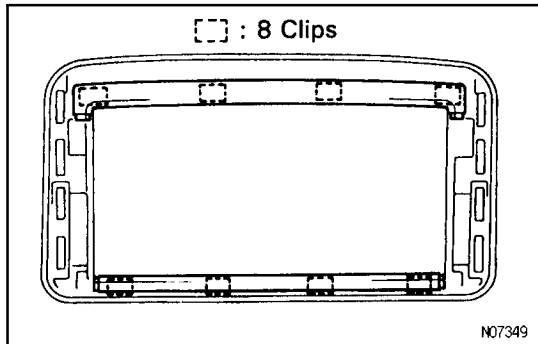
6. REMOVE SUNSHADE TRIM

**7. REMOVE DRIVE RAIL STOPPER**

Remove the screw and the stopper from the rail.

8. REMOVE DRIVE CABLE

Pull the drive cable from the rail.



SLIDING ROOF GLASS DISASSEMBLY AND ASSEMBLY

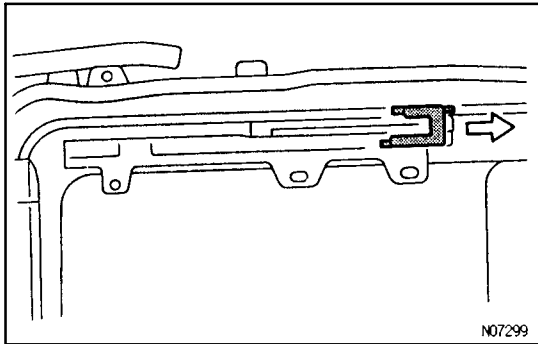
BO10C-01

HINT: Assemble the sliding roof glass parts by following the disassembly sequence in reverse.

REMOVE SLIDING ROOF GARNISHES

HINT: Tape a screwdriver tip before use.

- (a) Using the screwdriver, remove the front garnish.
- (b) Using the screwdriver, remove the rear garnish.



SLIDING ROOF INSTALLATION

BO0TC-02

INSTALL SLIDING ROOF PARTS BY FOLLOWING REMOVAL SEQUENCE IN REVERSE

ADJUST DRIVE RAIL

HINT: Adjust the drive rail to a closed and tilted down position.

- (a) Using a screwdriver, slide the link forward or backward to align the two marks as shown.
- (b) Slide the bracket to the forefront with your hand.

ADJUST AND INSTALL DRIVE GEAR ASSEMBLY

- (a) Remove the screw and cam plate cover.
- (b) Remove the large screw, washers and shims.
- (c) Turn the drive shaft by screwdriver to align the housing and gear point mark as shown.
- (d) Install cam plate cover with a screw.
- (e) Install the drive gear assembly with four bolts.
- (f) Connect the connectors.

TORQUE FOLLOWING BOLTS:

- (a) Rear seatback
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)
- (b) Front seat
Torque: 37 N·m (375 kgf·cm, 27 ft·lbf)
- (c) Front seat retractor (Upper Side)
Torque: 19 N·m (195 kgf·cm, 14 ft·lbf)
- (d) Front seat retractor (Lower Side)
Torque: 43 N·m (440 kgf·cm, 32 ft·lbf)
- (e) Front seat belt shoulder anchor
Torque: 43 N·m (440 kgf·cm, 32 ft·lbf)

