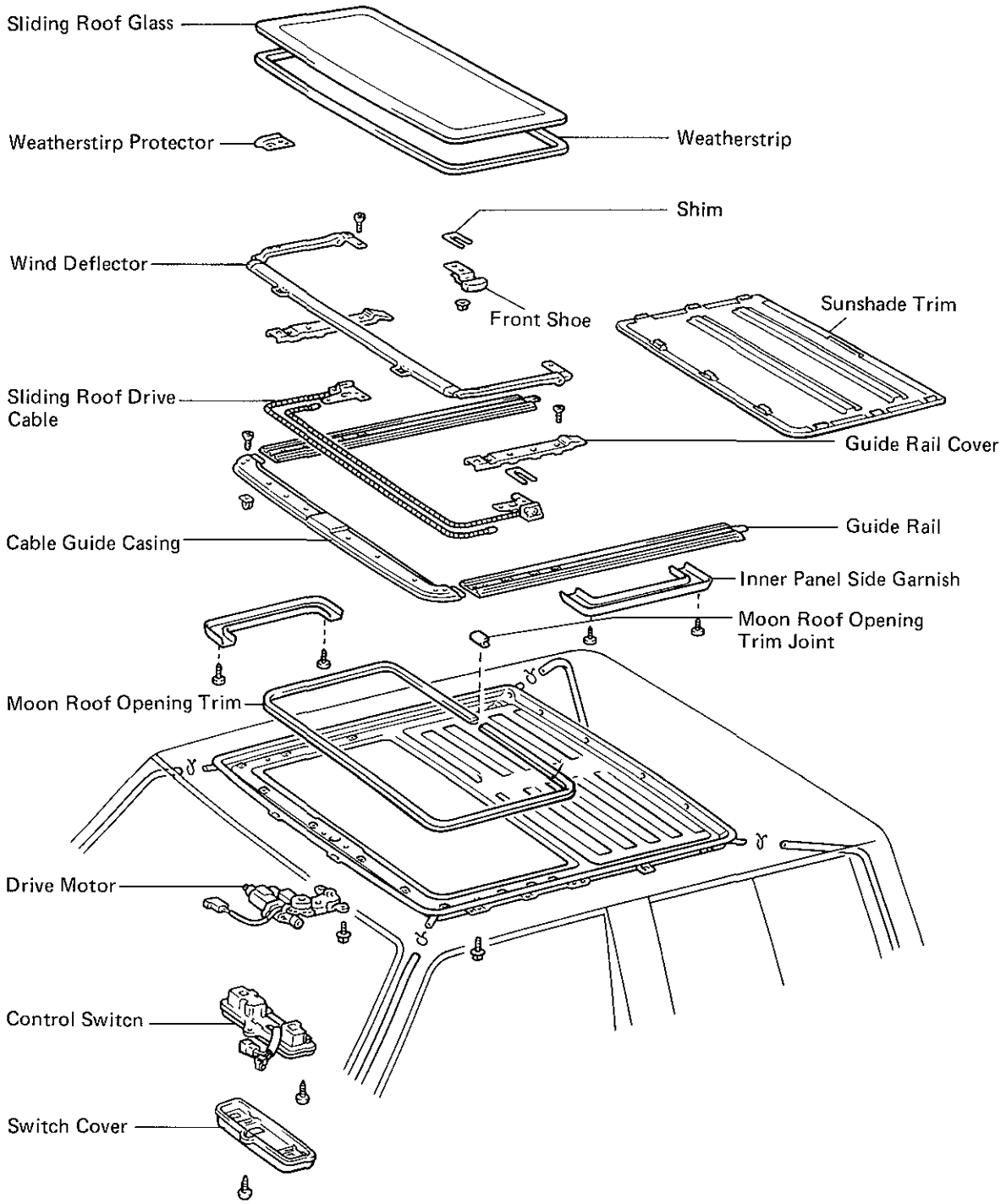
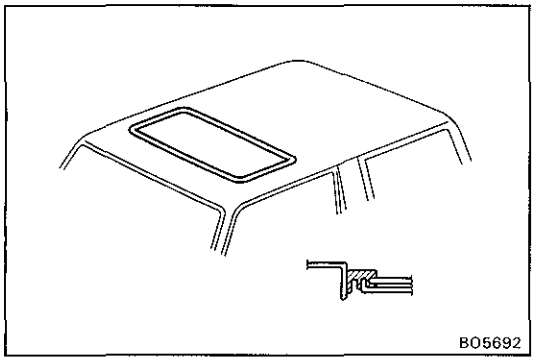
MOON ROOF

COMPONENTS





ON-VEHICLE INSPECTION

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

Operation time: Approx. 10 secs.

(b) Check for abnormal noise or binding during operation.

(c) With the moon roof fully closed, check for water leakage.

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

Front side: $0^{+1.0}_{-2.0}$ **mm** ($0^{+0.039}_{-0.079}$ **in.**)

Rear side: $0^{+1.0}_{-2.0}$ **mm** ($0^{+0.039}_{-0.079}$ **in.**)

Left and right side: $0^{+1.0}_{-2.0}$ **mm** ($0^{+0.039}_{-0.079}$ **in.**)

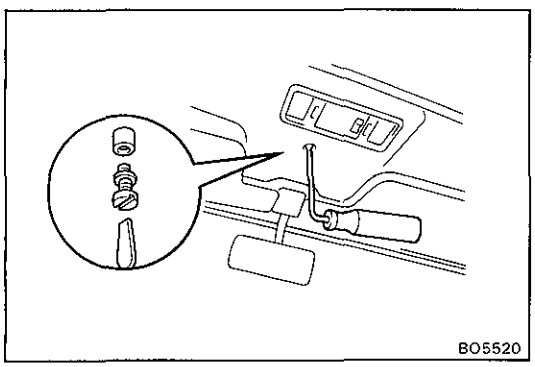
If the sliding roof does not operate:

(a) Remove the grommet in front of the control switch.

(b) Remove the screw inside.

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

(c) Manually operate the moon roof by inserting a screwdriver into the hole and turning the drive shaft.

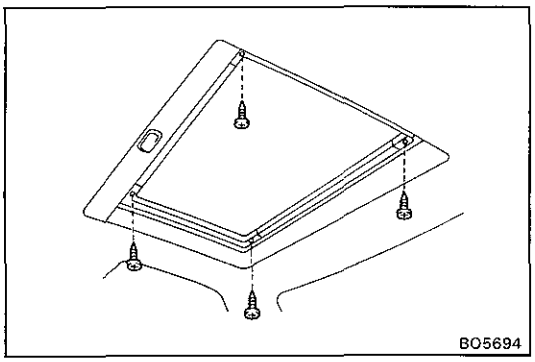


ADJUSTMENT OF SLIDING ROOF

1. REMOVE SLIDING ROOF GARNISHES

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

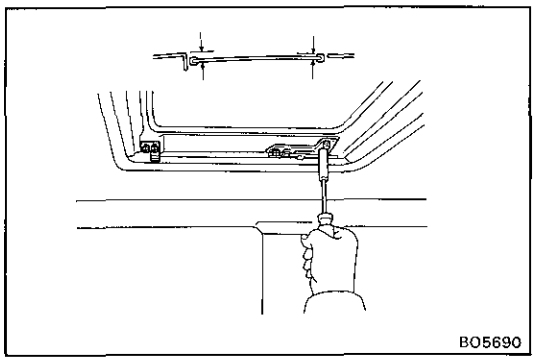
HINT: After adjustment, reinstall the sliding roof garnishes.



2. TO ADJUST LEVEL DIFFERENCE

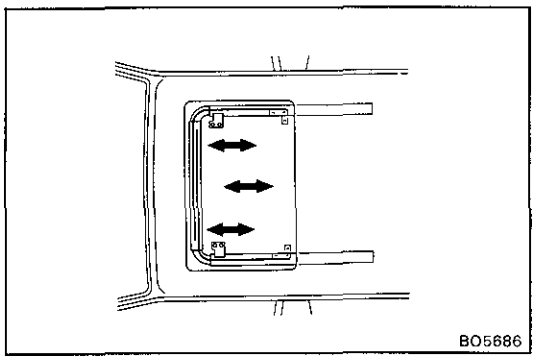
Adjust by increasing or decreasing the number of shims.

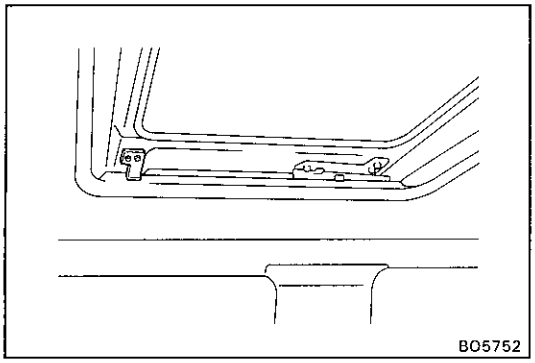
HINT: If the front end is high, even without a shoe shim, check to see if the front shoes are in contact with the stoppers.



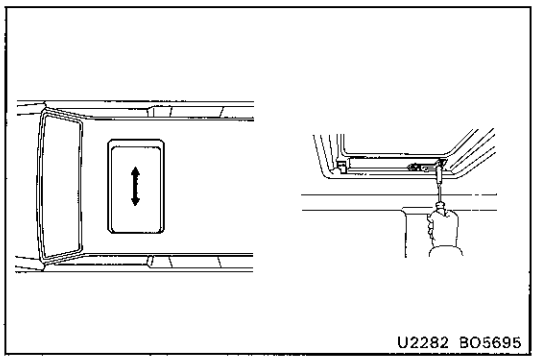
3. TO ADJUST FORWARD OR REARWARD

Adjust by moving the front shoe on both sides.



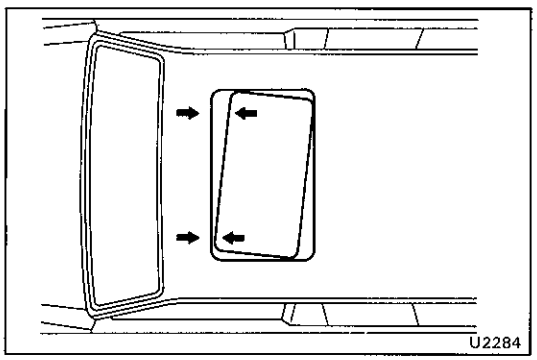


HINT: When the sliding roof is fully closed, confirm that the front shoes are in contact with the stopper.



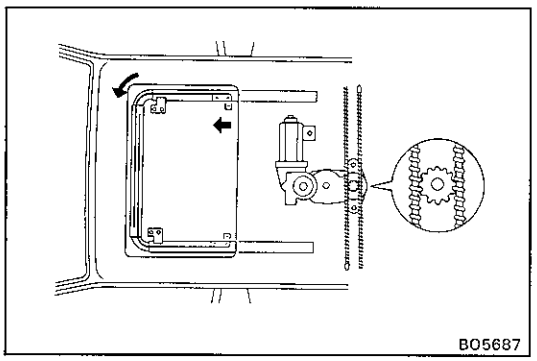
4. TO ADJUST RIGHT OR LEFT

Adjust by loosening the rear shoe nuts and moving the sliding roof to the right and left.



5. TO ADJUST CLEARANCE

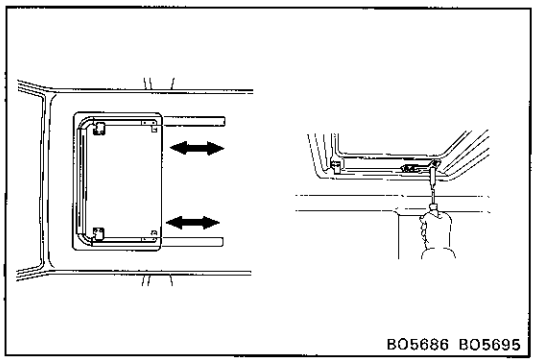
(Difference in left and right front clearance)



If the difference is about 2 mm (0.08 in.):

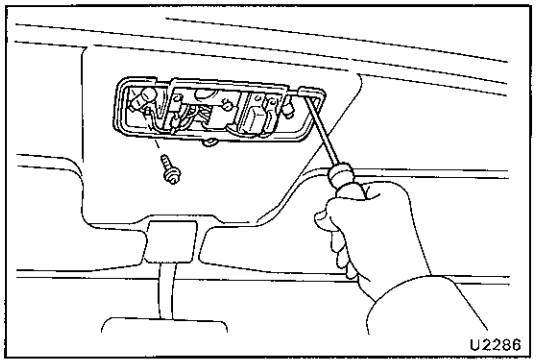
(a) Remove the drive motor and shift the cable one notch on the side with the larger clearance.

(b) Reinstall the motor.



If the difference is about 1 mm (0.04 in.):

Loosen the rear shoe bolts and readjust the sliding roof to the proper position.

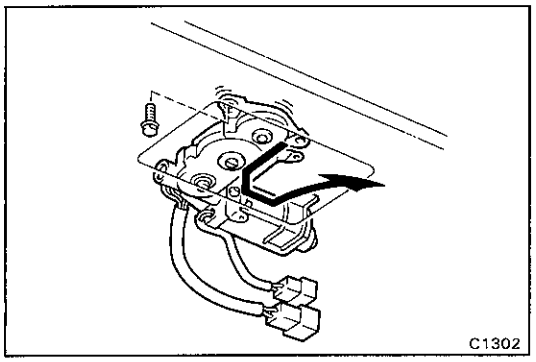


REMOVAL OF MOON ROOF

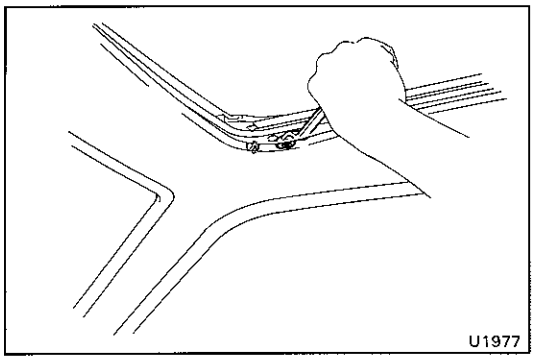
(See page BO-43)

1. **DISCONNECT BATTERY CABLE FROM NEGATIVE TERMINAL**
2. **REMOVE SWITCH COVER**
3. **REMOVE CONTROL SWITCH**
4. **REMOVE MOON ROOF OPENING TRIM**
5. **REMOVE DRIVE MOTOR**

   Remove the three screws and the drive motor.

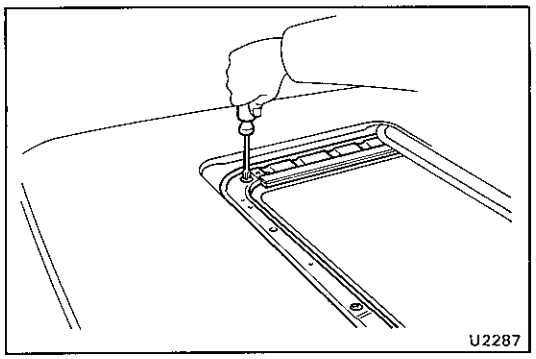


6. **REMOVE WIND DEFLECTOR**

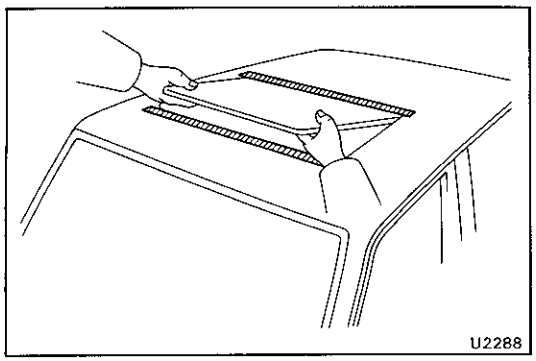


7. **REMOVE GUIDE RAIL COVER**

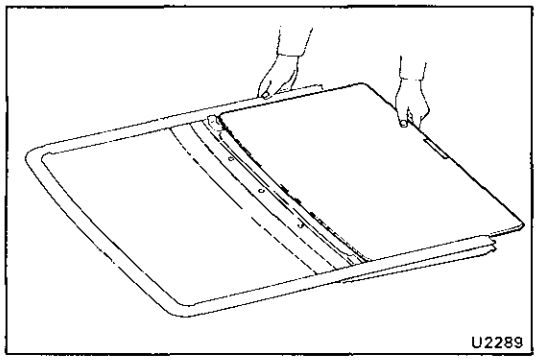
   Remove the one bolt from the inside and the two screws from the outside, then remove the guide rail cover.



8. **REMOVE SLIDING ROOF AND GUIDE RAIL**
   (a) Apply adhesive tape to protect the body.
   (b) Remove the four set screws of the cable guide casing.



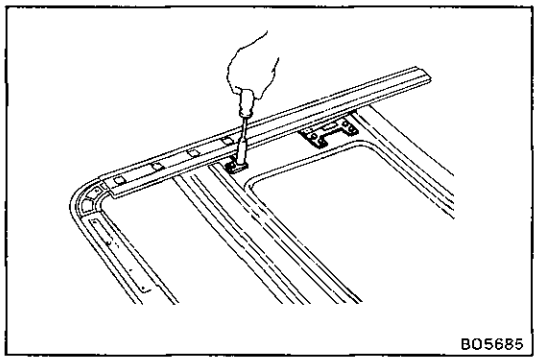
   (c) Pull the sliding roof with the guide rail upward and forward to remove.



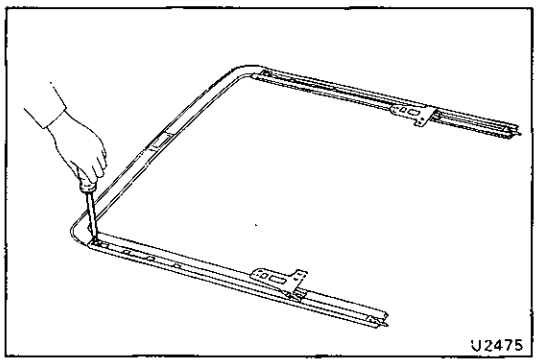
DISASSEMBLY OF MOON ROOF

(See page BO-43)

1. **REMOVE SUNSHADE TRIM**
   (a) Pry off the clip.
   (b) Pull the trim rearward to remove.



2. **NOTE NUMBER OF SHIMS ON FRONT AND REAR**
3. **REMOVE TWO FRONT SHOE SET NUTS**
4. **REMOVE THREE REAR SHOE SET NUTS**

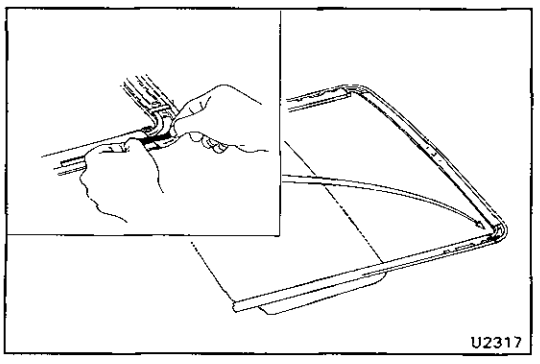


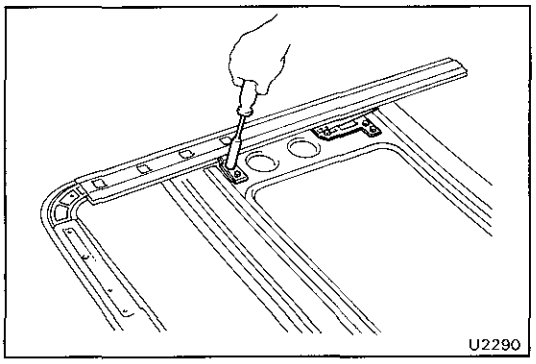
5. **REMOVE GUIDE RAIL**
   (a) Loosen the screw.
   (b) Pull the guide rail rearward to remove.
6. **REMOVE DRIVE CABLES FROM CABLE GUIDE CASING**

ASSEMBLY OF MOON ROOF

(See page BO-43)

1. **APPLY MP GREASE TO DRIVE CABLE**
2. **PLACE DRIVE CABLES INTO GUIDE CASING**
3. **INSTALL GUIDE RAILS ON BOTH SIDES**
   (a) Install both side guide rails through the rear and front shoes.
   (b) Install the guide rail and cable guide casing with screws.
   (c) Use butyl tape to cover the cut portion of the weatherstrip at the connection between the cable guide case and guide rail.

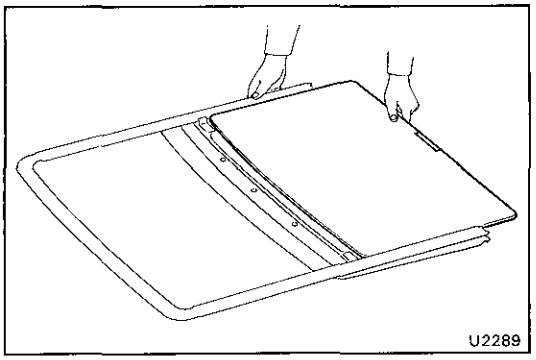




4. INSTALL FRONT AND REAR SHOES ONTO ROOF GLASS

Install the front and rear shoes and shims to their original positions when disassembled.

HINT: Hand tighten the front shoe nuts firmly tighten the rear shoe nuts.

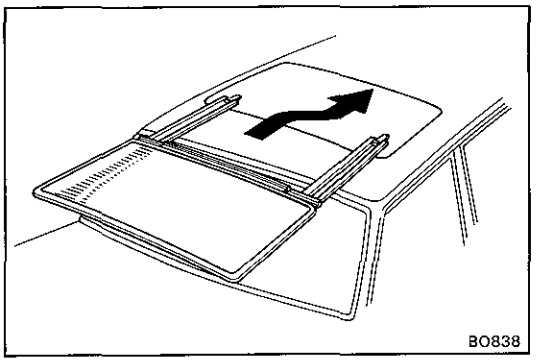


5. INSTALL SUNSHADE TRIM

Install the trim through the guide rail and install the clips to the trim.

INSTALLATION OF MOON ROOF

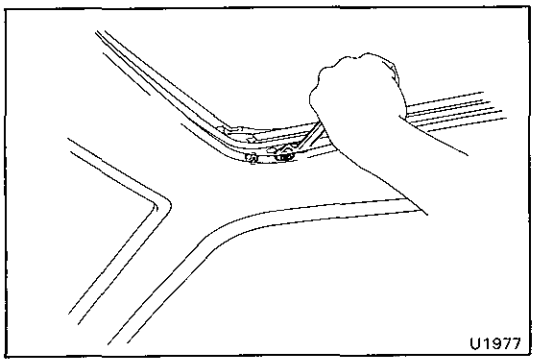
(See page BO-43)



1. INSTALL SLIDING ROOF WITH GUIDE RAIL ONTO ROOF

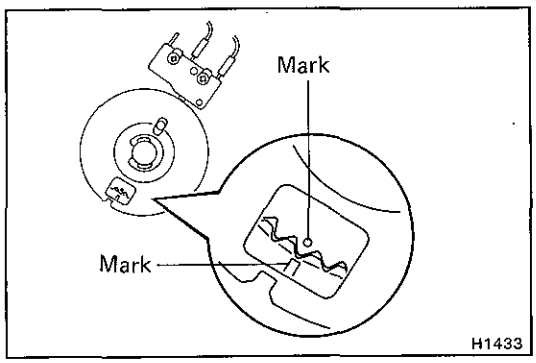
(a) Install the sliding roof assembly onto the roof.

(b) Tighten the four cable guide casing set screws.



2. INSTALL GUIDE RAIL COVER

Install the side rail cover from the inside with the one bolt and from the outside with the two screws.



3. INSTALL WIND DEFLECTOR

4. INSTALL DRIVE MOTOR

(a) Fully open the sliding roof.

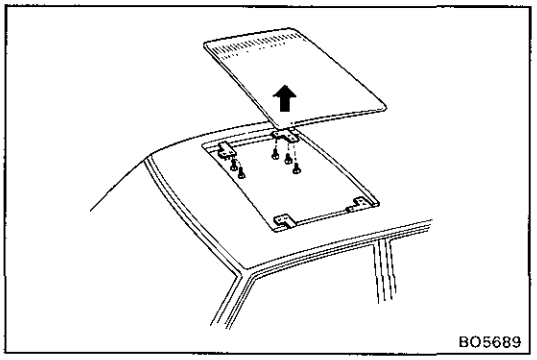
(b) Peel off tape on motor cam adjusting hole.

(c) Rotate the drive motor cam and align the housing and cam marks.

(d) Adhere tape to motor cam adjusting hole.

(e) Connect the two connectors and install the drive motor with the three bolts.

5. INSTALL MOON ROOF OPENING TRIM
6. ADJUST SLIDING ROOF
(See pages BO-44 to 45)
7. INSTALL CONTROL SWITCH
8. INSTALL SWITCH COVER
9. CONNECT BATTERY CABLE TO NEGATIVE TERMINAL



REMOVAL OF SLIDING ROOF GLASS

TO REMOVE SLIDING ROOF GLASS ONLY

(a) Pull loose the clips and slide the sunshade trim rearward.
(b) Remove the front and rear shoe nuts.
(c) Remove the sliding roof glass