

15. Roof Rack (Wagon only, if equipped)

A: REMOVAL

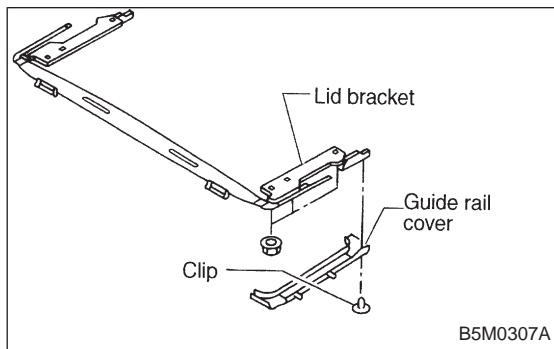
- 1) Remove roof trim, rear quarter trim, pillar trim, etc. <Ref. to 5-3 [W5A0].>
- 2) Remove flange bolts.
- 3) Remove flange nuts.
- 4) Remove roof rail.

B: INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

To prevent deformation, be sure to install roof rail in steps 4), 3), 2) and 1), in that order.

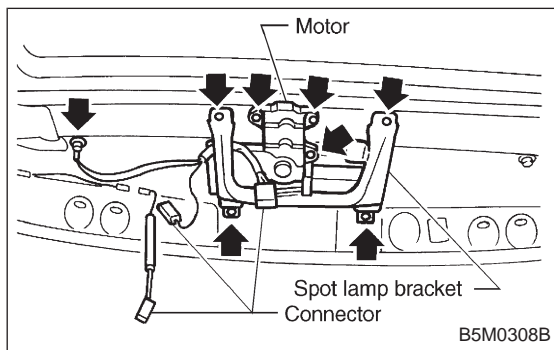


16. Sunroof

A: REMOVAL

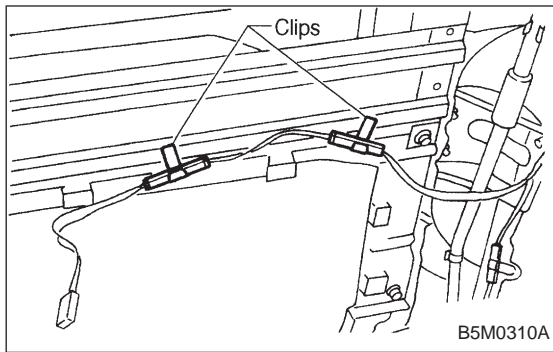
1. GLASS LID ASSEMBLY

- 1) Completely open sun shade. (Push it back far.)
- 2) Remove a clip and detach guide rail cover.
- 3) Remove six nuts from the left and right lid bracket.
- 4) Working inside, slightly raise glass lid assembly until it is disengaged from lid bracket.
- 5) Hold both ends of glass lid assembly and remove it at an angle.



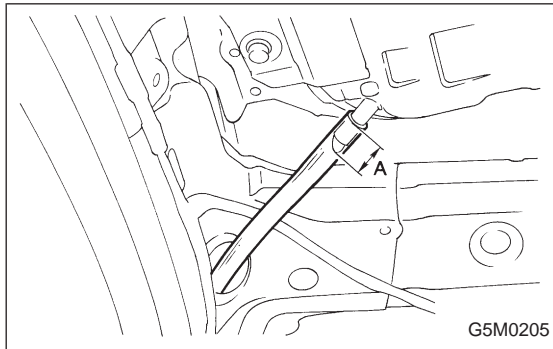
2. SUNROOF MOTOR AND RELAY

- 1) Remove center pillar trim upper. <Ref. to 5-3 [W5A3].>
- 2) Remove front pillar trim upper. <Ref. to 5-3 [W5A4].>
- 3) Remove assist grip on left side.
- 4) Remove sunvisor with hook.
- 5) Remove sunroof switch.
- 6) Remove rearview mirror.
- 7) While rolling up roof trim, disconnect harness clips and connector.
- 8) While rolling up roof trim, remove spot lamp bracket and sunroof motor.



3. SUNROOF FRAME

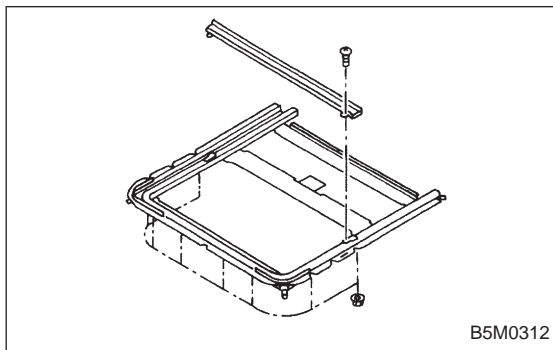
- 1) Remove sunroof switch, center and rear room lamps.
- 2) Remove roof trim, rear quarter trim, pillar trim, etc.
<Ref. to 5-3 [W5A0].>
- 3) Remove glass lid assembly.
- 4) Remove two harness support clips.



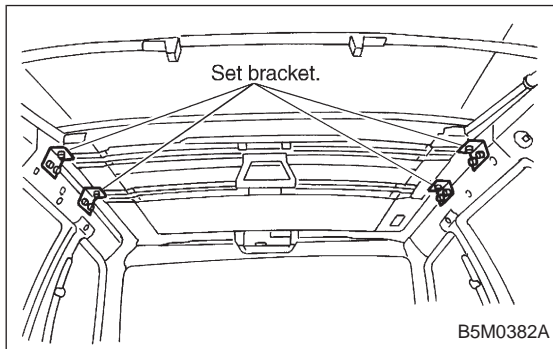
- 5) Disconnect harness clips and connector of sunroof motor.
- 6) Disconnect front and rear drain tubes.

CAUTION:
When installing drain tube, insert it securely into drain pipe.

Length A:
15 mm (0.59 in) or more



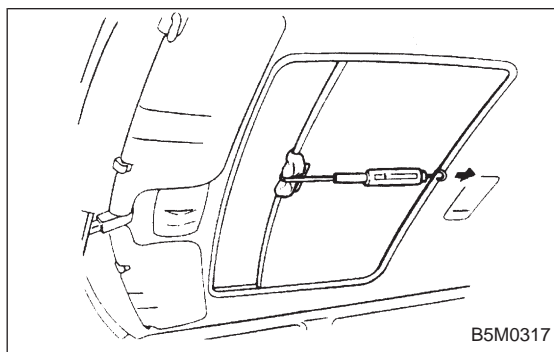
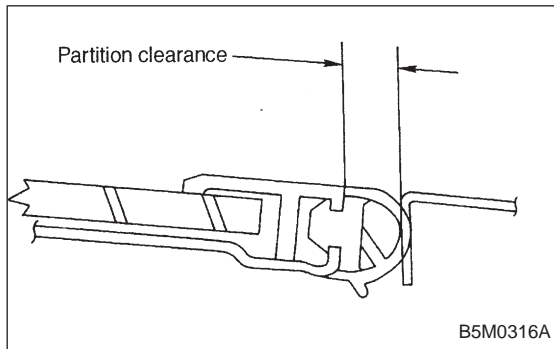
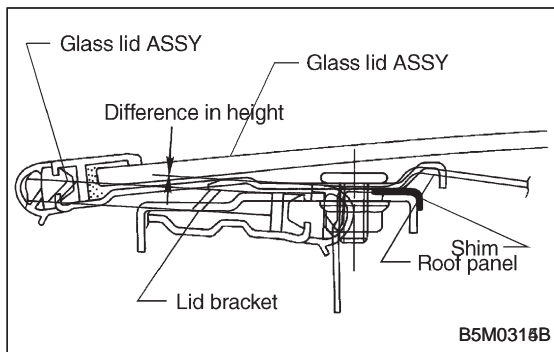
- 7) Remove eight nuts.



- 8) Remove set bracket mounting bolts.
- 9) Remove sunroof frame.

B: INSTALLATION

Installation is in the reverse order of removal.



C: ADJUSTMENTS

1. ALIGNMENT OF HEIGHT BETWEEN GLASS LID ASSEMBLY AND ROOF PANEL

- 1) Remove guide rail cover.
- 2) Loosen nuts and adjust height by adding (Max: two pieces) and extracting (Max: one piece) shim(s) (Standard: one piece) between glass lid assembly and lid bracket.

Difference in height between glass lid assembly and roof panel:

$0\pm 0.5\text{ mm}$ ($0\pm 0.020\text{ in}$)

2. ALIGNMENT OF GLASS LID ASSEMBLY WITH ROOF PANEL

- 1) Remove guide rail cover.
- 2) Loosen nuts and move glass lid assembly to either side to adjust front, rear, right, and left side partitions.

Partition clearance:

$7.0\pm 0.5\text{ mm}$ ($0.276\pm 0.020\text{ in}$)

3. CHECKING FOR MOVEMENT OF GLASS LID ASSEMBLY ITSELF

- 1) Before installing sunroof motor, check glass lid assembly for movement.
- 2) Place a cloth on glass lid assembly and sun shade, and attach a spring scale to glass lid assembly edge using the cloth.
- 3) Pull spring scale to measure force required to move glass lid assembly.

Force required to move glass lid assembly and sun shade trim:

Less than 196 N (20 kg, 44 lb)

Considerable effort is required to start glass lid assembly moving, so take scale reading while glass lid assembly is moving smoothly.

- 4) If force required exceeds specifications, check the following points:

- Glass lid assembly, sun shade and deflector and guide rail assembly for improper installation
- Cable for seizure