

Component Procedures: Sunroof / Moonroof Drain

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Component Procedures: Sunroof / Moonroof Drain

Sunroof Drain Inspection and Cleaning (Article 13160)

Drain Hose Routing

A drain trough encircles the sunroof window panel and water is drained off by the drain hoses located at each corner of the housing. A drain channel spans across the sunroof module at the rear of the window panel and directs water into the trough.

- The front drain hoses are routed down the windshield pillars and out the center of the pillar between the door hinges. The front hoses are installed in a rubber grommet and retained by clips.
- The rear drain hoses are routed around the trunk opening just below the back glass. In some vehicle the drain hoses are routed out through the metal roof slots and routed to the lower wheelhouse to drain out of the vehicle. The rear hoses are installed in a rubber grommet and retained by clips.

Plugged Drain Hose

If a waterleak has occurred check for a plugged drain hose at each corner of drainage system.

- Open the sunroof window front.
- To test for blockage, pour a small container of water into the module housing drain trough. Check each corner to confirm the drain hose is draining water.
- Use compressed air, 241 kPa (35 psi) or less to blow out any drain hose that is plugged.
- Test the system again.
- If the hose remains plugged, check to see it is properly routed and does not have a kink. Refer to Sunroof Housing Front Drain Hose Replacement or Sunroof Housing Rear Drain Hose Replacement .
- Remove the blockage using the following steps.
- Push mechanics wire through the hose to remove the obstruction.
- Use compressed air in order to blow out any remaining material.

Disconnected Drain Hose

Inspect the drainage system for disconnected drain hoses. Complete the following steps in order to obtain partial access to drain hoses and check for a disconnected hose.

- Open the sunroof window panel.
- Lower the headliner as needed. Refer to Headlining Trim Panel Replacement .
- Connect any disconnected hoses and replace the tie strap if necessary.
- Ensure that the rear drain hoses are properly routed in the metal roof slot and taped in place.

Sunroof Housing Front Drain Hose Replacement (Article 13163)

Removal Procedure

- It is only necessary to lower the headliner . Only do those steps in the headliner replacement procedure that will lower the headliner enough to gain access to the part. Refer to Headlining Trim Panel Replacement .
- Remove the front drain hose (1) from the sunroof frame . [Click for full-size image](#)
- Disengage the sunroof drain hose from the attachment points (2) on the windshield pillar.
- Remove the body hinge pillar trim panel . Refer to Body Hinge Pillar Trim Panel Replacement .
- Pull the front drain hose grommet (3) out of the front lower hinge pillar.
- Tie a 3-foot length of string onto the lower end of the front drain hose.
- Remove the hose through the top of the I/P. Do NOT pull the string all of the way out.
- Remove the left and right air outlet duct and screw.
- Disconnect the string from the hose.

Installation Procedure

- Attach the string used in the removal procedure to the lower end of the drain hose.
- Pulling the hose in place with the string, route the front drain hose down the windshield post and into the front lower hinge pillar.
- Push the drain hose into the hole in the front lower hinge pillar. Insert approximately 25 mm (1 in) of drain hose into the hole. [Click for full-size image](#)
- Connect the drain hose (1) to the sunroof frame.
- Connect the front drain hose to the attachments points (2) on the windshield pillar.
- Install the front drain hose grommet (3) in the front lower hinge pillar.
- Install the body hinge pillar trim panel. Refer to Body Hinge Pillar Trim Panel Replacement .
- Install the left and right air outlet duct.
- Install the outlet screw. Tighten the door striker bolts to 2 Nm (89 lb in).
- Install the carpet retainer.
- Install the headliner. Refer to Headlining Trim Panel Replacement .

Sunroof Housing Rear Drain Hose Replacement (Article 13164)

Removal Procedure

- It is only necessary to lower the headliner . Only do those steps in the headliner replacement procedure that will lower the headliner enough to gain access to the part. Refer to Headlining Trim Panel Replacement .
- Remove the rear compartment trim panel . Refer to Rear Compartment Side Trim Panel Replacement .
- Remove the rear drain hose from the sunroof frame (1). [Click for full-size image](#)
- Disengage the sunroof drain hose from the attachment points (2) on the rear body side quarter panel.
- Remove the rear window panel trim. Refer to Rear Window Panel Trim Replacement .
- Pull the sunroof drain hose and grommet (3) out of the rear compartment panel.
- Pull the rear drain hose out of the rear compartment. Remove the rear drain hose.

Installation Procedure

- Route the rear drain hose down the rear body side quarter panel.
- Connect the rear drain hose to the sunroof frame (1). [Click for full-size image](#)
- Connect the rear drain hose to the attachments points (2) on the rear body side quarter panel.
- Push the rear drain hose and grommet (3) into the hole in the rear compartment panel until the grommet is fully engaged.
- Install the rear window panel trim. Refer to Rear Window Panel Trim Replacement .
- Install the rear compartment trim panel. Refer to Rear Compartment Side Trim Panel Replacement .
- Install the headliner. Refer to Headlining Trim Panel Replacement .