

DONMAR TSB: Troubleshooting and Resolving Water Leaks for FUNSPORT® Sunroofs

First determine where the water is coming in. Ask the vehicle owner to describe the circumstances under which they notice the leak. Always perform your own water test to validate the complaint. Replacing the main seal is often NOT the proper solution. Consider the following scenarios:

- 1. Opening the sunroof, just after it rains.** Standing water on the glass will usually result in water dripping into the cabin. This is not a sunroof fault. Prevention is the solution! Simply drive a short distance to allow any standing water to blow off the glass prior to opening the sunroof.
- 2. Only after a car wash.** High pressure water sprayed directly at the seal will often deflect the seal enough to enter the cabin. This is not a sunroof fault. Prevention is the solution! Don't spray high pressure water directly on the seal.
- 3. During a rainstorm,** water is immediately visible dripping on the rubber seal under the glass. There may be a problem with glass to seal contact. Carefully examine the seal. If it is visibly damaged or worn, it may need replacement. If dirty, it needs cleaning. An adjustment may solve the problem. Always water test to verify (see sprinkle test procedure below).
 - a. Often dirt or debris will prevent proper contact between the glass and seal. Clean both the glass and seal with plain water (a damp cloth), or if very dirty, a mild detergent solution. Repeat water test after cleaning. If water intrusion between glass and seal continues, adjust the glass hardware.
 - b. Adjust the glass hardware to increase clamping pressure on the seal. See procedure below. Repeat water test after adjusting. If water intrusion between glass and seal continues, replace seal.
- 4. Water is visible dripping through the glass hardware:** Water test to verify (soak and sprinkle). You may need to slightly shift the glass hardware or change the rubber gaskets under the rectangular mounting plates.
- 5. After a long soaking rain the headliner gets wet.** This is likely the result of water coming under the main frame or under the seal. Only a soak test will prove this.
 - a. Under the main frame: remove the screw cover strip or pull back the headliner (of wrapped) and examine the clamping screws. Water spots or rusty screws are an indication that water is coming under the main frame. Remove the clamp frame and water spots or rust will likely be visible on the inside of the roofskin. This can be the result of an over-cut hole, a sunroof not centered on the hole (left a gap) or inadequate sealant. Solution: Remove the sunroof and re-install with new sealant. If the hole was over-cut, a larger size may be required.
 - b. Underneath the main seal: carefully examine and verify proper seal insertion around perimeter of sunroof frame. Bottom of seal should be adhered to main frame with butyl tape. Top outer lip should be mechanically inserted into groove in frame. You may be able to manipulate the seal slightly to correct the problem. Otherwise replace the seal.
 - c. Frame joint: typically will see water spots or rust on hinge block and handle mounting screws, particularly on the right hand side. Remove the knock-in bead and examine the channel for water or water spots. Solution: pull back the main seal at the passenger side and apply a small amount of silicone sealant across the frame joint. Allow to dry before reinserting the main seal.

Water Test Procedure

When water testing, it is helpful to have a person inside the car viewing the results and location of any water intrusion.

- **Sprinkle Test:** spray water up in the air and allow to fall on top of the sunroof like rain for at least 10 minutes.
- **Soak test:** remove the hose nozzle. Tape the hose to the center of the glass (or hold above the roof). Allow low pressure water to flow across the glass and completely flood the entire outside of the sunroof for at least 15 minutes.

Note: Never spray high pressure water directly at the seal as it is likely to penetrate. This is not a natural weather condition and the sunroof is not designed to withstand high pressure directly against the seal.

Glass Hardware Adjustment Procedure

Remove the glass panel. Loosen the hinge brackets and slide them toward the handle. Loosen the handle assembly and slide toward the hinges. Tighten the hardware and re-install the glass panel.

Seal Cleaning Tips

Always use a damp (water only) cloth to wipe the seal clean. Never use any chemicals on the seal. Vinyl & Rubber protectants leave a sticky residue, which may cause the seal to fail or stick to the glass. Petroleum based products will dry out or corrode a sunroof seal.