

SERVICE BULLETIN

APPLICABILITY '90 - '94 LEGACY WITH ELECTRIC SLIDING
SUNROOF

DATE 2/23/96

SUBJECT Sunroof Sealing Procedures

If you should encounter a customer complaint of a sunroof leak, after completing all basic adjustments, perform the following procedure as outlined below: (Refer to service bulletins for basic adjustments and procedures).

NOTE: Refer to the Legacy Service Manual, Section 5-1, Title Index C800, attached, for part nomenclature.

- 1) Remove the sunroof assembly as described in the Legacy Service Manual, Section 5-1
 - If working with a wagon, the headliner and sunroof assembly should be removed through the rear tailgate. For a sedan, the headliner and sunroof assembly can be removed through the front passenger door if the right front seat back is reclined fully. In either case, cover all interior surfaces that may get damaged by sharp edges during removal.
 - Once the sunroof assembly has been removed, place it on a solid, level surface near a 12V power supply, such as a work bench or a roll-away cart.
 - Block off all four drain holes securely with electrical tape or equivalent, and fill the drain trough with water, being careful not to let it overflow into the guide rails. Wait approximately 10-20 minutes, checking all the while for any water that leaks under the guide rails into the frame "center pan" area. If a leak is found, the guide rails need to be removed and resealed according to the following procedure.
- 2) Removal of the guide rail assembly
 - Remove the drain assembly (#6) by removing the two 8mm retaining nuts and lifting the front of the drain assembly while unhooking the rear brackets.
 - Remove the two 8mm retaining nuts from each pipe stopper (#21) and remove the stoppers themselves.
 - Remove the 8mm nut from the rear of both tracks that secure the spacer (#1) and stopper (#2) pieces. Note direction of stopper prior to removal.
 - Remove the two 7mm acorn nuts that secure the deflector assembly (#10) to the sunroof guide rails. Remove the four Phillips head screws that attach the deflector to the sunroof frame. Then remove the deflector, being careful not to bend the attaching arms.
 - Remove the Phillips screw from the front of each guide rail assembly (#11 & #12).

CAUTION

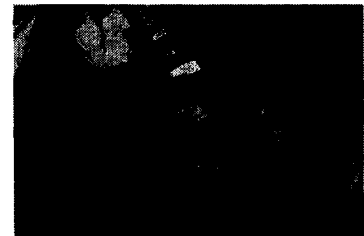
VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.
Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

3) Separate the guide rail assemblies from the sunroof frame one at a time

- To separate the guide rails from the frame, insert a screwdriver under both the inner and outer edges of the rail and pry gently.

NOTE: DO NOT PRY SO HARD AS TO BEND THE GUIDE RAILS OR THE SUNROOF WILL NOT WORK PROPERLY WHEN REASSEMBLED!

- If the rails do not lift easily, it is suggested that a heat gun be applied to the underside of the frame in the area of the guide rail to soften the existing adhesive. Continue prying gently until the guide rails are completely separated from the frame.
- After the rails have been separated, it is not necessary to remove them from the attached sliding cables. Turn the rails upside down and move them out of the way.
- Scrape the hardened glue from the underside of the rails and the sunroof frame where the rails make contact. Carb cleaner or solvent can be used to loosen the adhesive, while a razor blade scraper, wire wheel, or brush work best in removing it.
- After cleaning the tracks and frame, paint any areas of the frame that have been exposed to the underlying metal with a satin black paint, such as **Rustoleum** ®, to inhibit any future rust.
- Remove the plastic cap located at the front of each guide rail by removing the three small Phillips head attaching screws. Clean any sealant from this area and reseal the caps with a black silicone sealer, such as **G.E. Door and Window Caulk**. Reinstall both caps with their attaching screws.



4) Resealing the guide rails

- To seal the rails, it is best to apply three lines of the same silicon sealant (G.E. or equivalent) to the underside of the guide rails from front to back. Start by applying the sealer to the underside of the plastic cap that was resealed in the previous step.
- Next, lay a 1/4" to 3/8" bead of sealer down the center of the guide rail, starting from the front and working back. It is important to apply the sealer evenly down the length of the rail.
- Finally, apply the same size bead of sealant to the "stepped" portion on both the left and right on the underside of the rail.
- Carefully place the rail back in its appropriate spot and reattach with all hardware except for the 7mm acorn nut that attaches the deflector arm to the guide rail.
- Repeat the above procedure for the opposite side guide rail.
- Reinstall the deflector to the rails with the 7mm acorn nuts. Apply silicone sealant to the threads of the four Phillips head screws that attach the deflector brackets to the sunroof frame and reinstall.
- Build up with silicone sealer the low areas at the rear of the rail where the cable enters the slide rails, both sides.
- Reassemble the remaining components in reverse order of disassembly.



- 5) After reassembly, the sunroof assembly should be bench tested to ensure proper operation.
- Disconnect sunroof motor connector (natural color two pole). Apply power and ground from a 12V power supply equipped with a 20 amp in-line fuse or circuit breaker to motor leads. If the fuse blows or circuit breaker trips, reverse polarity and retry.
 - Alternately move roof mechanism fully fore and aft by reversing polarity of test leads. Check for smoothness of operation and confirm that the "pop up" function operates as well after testing. Reconnect motor connector and secure back in plastic tie wrap.
- 6) Reinstall sunroof assembly in reverse order of removal as stated in Service Manual, Section 5-1.

NOTE: It is recommended that the vehicle be left to sit overnight in order to ensure proper curing of the silicone sealer.

FAILURE CODE	OPERATION NUMBER	LABOR DESCRIPTIONS	LABOR TIME
Sunroof Assembly XFE - 35	A191-491	Sunroof Assembly - Reseal	4.0

5-1 [C 8 0 0]

BODY AND EXTERIOR

8. Sunroof

