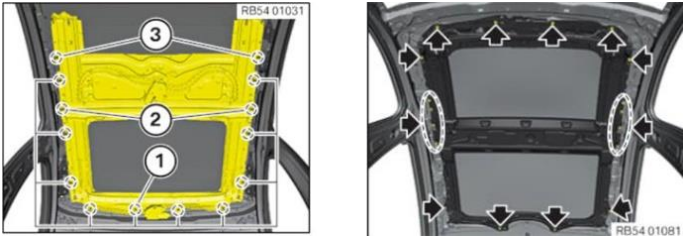







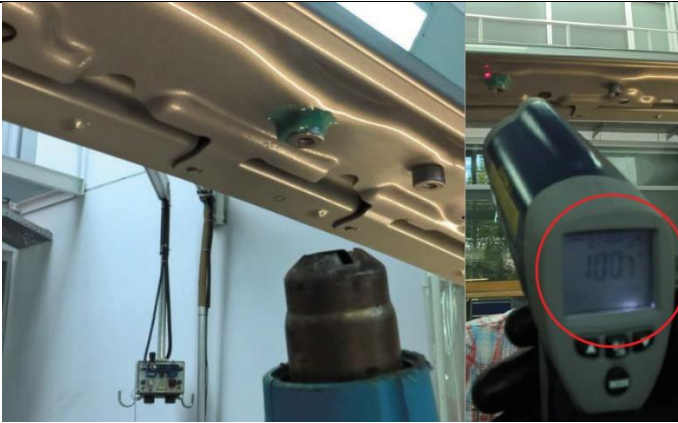
REPAIR INSTRUCTIONS FOR G12 SUNROOF NOISE



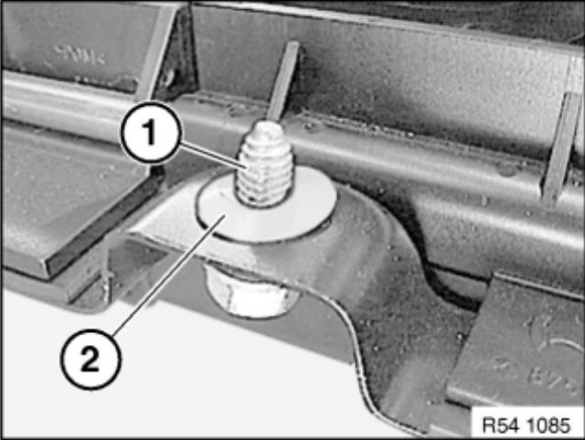
Special Tools/Fluids Required:



- Heat gun with adjustable temperature (locally available)
- Non-contact infra-red thermometer
- R2 Cleaner (83 19 0 417 324)
- R1 Cleaner (83 19 2 211 217)
- Body adhesive K5a (83 19 2 158 654)
- Body adhesive cartridge gun (83 19 2 149 522)
- Infra-red Thermometer (locally available)
- Thread lock adhesive (83 19 2 210 339)

PROCEDURE

	<p>1. Remove the rear sunroof glass panel following repair instructions REP 54 13 250 “Removing and installing/replacing rear glass slide/tilt sunroof panel”. The front glass slide/tilt sunroof will be removed at the same time.</p>
	<p>2. With both glass panels removed from the vehicle, reinforce the threaded bushings by completing the following steps.</p> <p>A. Clean the surface area around each threaded bushing with R2 cleaner. Allow to air dry for 2 minutes.</p> <p>B. Clean the area around each threaded bushing with R1 cleaner. Allow to air dry for 2 minutes.</p>

	<p>C. Use cartridge gun 83 19 2 149 522 to apply K5a body adhesive around the side of each bushing as shown.</p> <p> Note: Apply adhesive on all of the threaded bushings on the roof for the front and rear glass panels.</p>
	<p> Note: Keep all adhesive off the flat surface of the bushing.</p>
	<p>D. Heat the applied adhesive with a heat gun to an approximate temperature of 175 to 212 degree F (80-100° C). Check the temperature with an infra-red thermometer.</p> <p>E. Apply another layer of adhesive to the side of the bushing repeating Steps 2C and 2D, above.</p> <p>F. Allow the adhesive to cure for at least 12 hours.</p>

	<p>3. Reinstall the rear glass sunroof panel, following repair instructions. The original screws will be reused.</p> <p> Note: Tighten the rear glass panel mounting screws exactly to 10Nm using a torque wrench. Coat the screw threads with medium-tight thread locking adhesive (Loctite 243) (BMW part # 83 19 2 210 339)</p>
	<p>4. Reinstall the front glass unit into the vehicle, using new screws (1). Be sure to install plastic washers (2) between the sunroof cassette and the threaded bushing.</p>

	<p>5. Coat the front screw threads with medium-tight thread locking adhesive (Loctite 243) (BMW part # 83 19 2 210 339).</p> <p> Note: Tighten screws, with a torque wrench, to exactly 10 Nm.</p> <p>Over-tightening or under-tightening will lead to a loose connection and a repeat visit.</p>
	<p>6. Before completely assembling the vehicle, test drive and verify the roof noise is no longer present.</p> <p>7. If the noise is no longer present after the repair, completely reassemble the vehicle.</p>