

Fig. 1 Roof Low Spot Area Of Concern

1 - Low Spot

2 - Area Of Concern

DIAGNOSIS:

If the customer describes the symptom, perform the Repair Procedure.

PARTS REQUIRED:

Qty.	Part No.	Description
2 (AR)	68224653AA	SPACER, Roof
1 (AR)	04883971	Engine Sealant RTV Silicone Rubber Adhesive

NOTE: Each tube of Sealant RTV Silicone will service approximately 40 vehicles (Shop Supply).

REPAIR PROCEDURE:

1. While viewing the top of the roof, locate the center of the low spot and mark the location using a wax pencil or equivalent on the sunroof glass for easier identification of the low area later in the repair procedure.
2. To gain access to the underside of the roof, lower but do not remove the headliner. Refer to the detailed repair procedures available in: DealerCONNECT> TechCONNECT under: Service Info> 23 - Body> Interior> HEADLINER> Removal.
3. Locate the center of the low spot on the underside of the roof (2). The roof spacer from the PARTS REQUIRED section of this bulletin will need to be inserted between and above, the bodyside aperture flange (1) and the sunroof reinforcement ring (3) (Fig. 2).

4. Clean the top side of the bodyside aperture flange (1) and sunroof reinforcement ring (3) with isopropyl alcohol in the roof low spot area (2) where the roof spacer will be installed (Fig. 2).

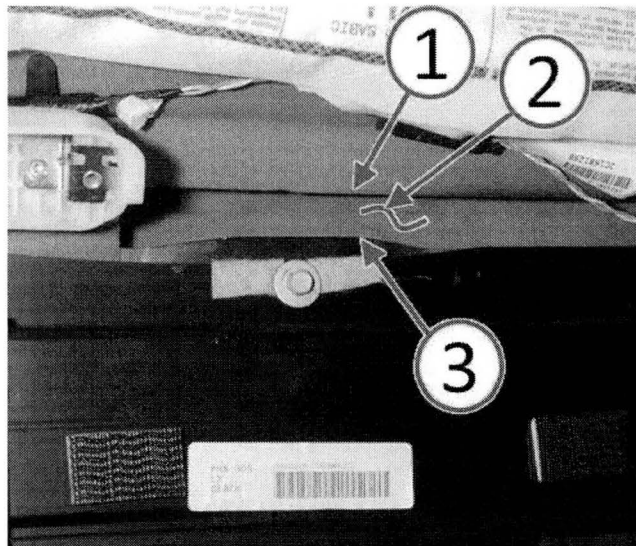


Fig. 2 Vehicle Roof Underside

- 1 - Bodyside Aperture Flange
- 2 - Roof Sheet Metal Underside
- 3 - Sunroof Reinforcement Ring

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5. Prepare the roof spacer (1) for adhesive application by scuffing the metal surface with an abrasive pad and cleaning the metal surface with isopropyl alcohol (Fig. 3).



Fig. 3 Prepare Roof Spacer

1 - Roof Spacer

6. Apply RTV adhesive to the two specified areas (1) identified in (Fig. 4).

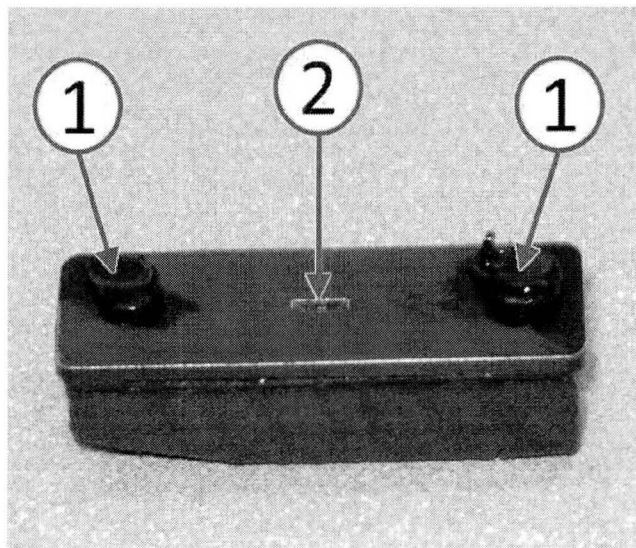


Fig. 4 Apply Adhesive

1 - Adhesive Application Area

2 - Positioning Slot

7. Insert a #2 flat blade screw driver into the roof spacer positioning slot (4) (Fig. 5).

8. When the roof spacer is correctly positioned in the vehicle, the square end of the roof spacer (1) must face toward the bodyside aperture flange toward the door frame. The tapered end of the roof spacer (3) identified on the underside by hole (2) must face toward the sunroof reinforcement ring toward the sunroof (Fig. 5).

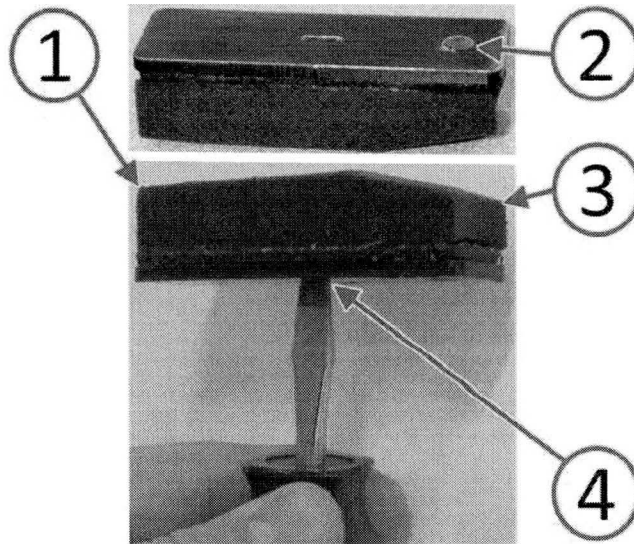


Fig. 5 Roof Spacer Feature Identification

- 1 - Spacer Square End
- 2 - Tapered End Identification Hole
- 3 - Spacer Tapered End
- 4 - Spacer Positioning Slot

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9. The roof spacer needs to be inserted fore/aft between the bodyside aperture flange and the sunroof reinforcement ring then compress the roof spacer foam against the underside of the roof sheet metal as shown in roof spacer insertion steps (1, 2, 3, 4) of (Fig. 6)

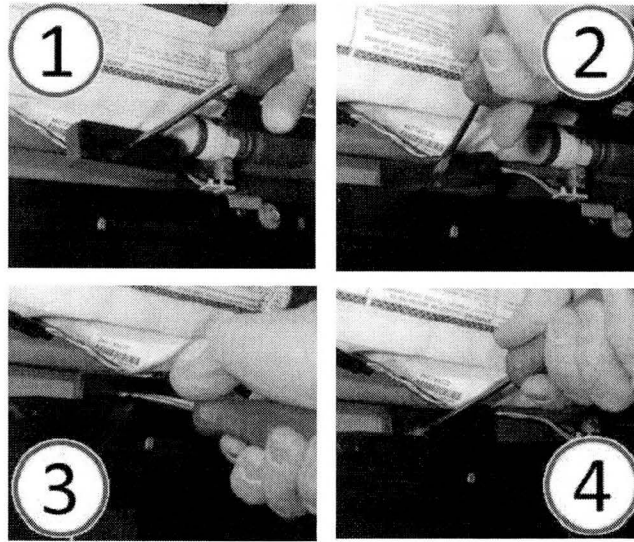


Fig. 6 Insert Roof Spacer

- 1 - Roof Spacer Insertion Step 1
- 2 - Roof Spacer Insertion Step 2
- 3 - Roof Spacer Insertion Step 3
- 4 - Roof Spacer Insertion Step 4

NOTE: The square end of the roof spacer foam must face toward the bodyside aperture flange toward the door frame. The tapered end of the roof spacer foam (identified by a hole on underside of the roof spacer) must face toward the sunroof reinforcement ring toward the sunroof.

- 10. While continuing to compress the roof spacer foam against the underside of the roof to prevent disturbing or wiping off the RTV adhesive, the roof spacer needs to be rotated 90 degrees to span between the bodyside aperture flange and the sunroof reinforcement ring as shown in roof spacer positioning steps (1, 2, 3) of (Fig. 7).
- 11. When the roof spacer is properly positioned (4), it will be resting on top of the bodyside aperture flange and the sunroof reinforcement ring and will be located directly under the roof low spot (Fig. 7). The roof spacer foam will press against the underside of the roof sheet metal eliminating the low spot.

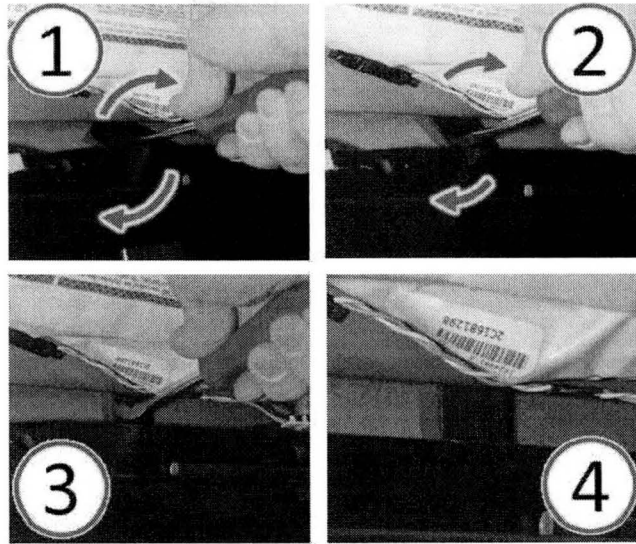


Fig. 7 Position Roof Spacer

- 1 - Roof Spacer Positioning Step 1
- 2 - Roof Spacer Positioning Step 2
- 3 - Roof Spacer Positioning Step 3
- 4 - Roof Spacer Positioning Step 4

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- 12. Two roof spacers positioned side-by-side may be necessary to achieve the desired affect of completely eliminating the low spot. Repeat the installation process with a second roof spacer if necessary to achieve the desired result.
 - 13. If a low spot exists on both sides of the vehicle roof, repeat the process for the opposite side.

NOTE: Allow the RTV adhesive to cure per the manufacturer’s directions.

- 14. Once the roof low spot(s) have been eliminated, install the headliner. Refer to the detailed repair procedures available in: DealerCONNECT> TechCONNECT under: Service Info> 23 - Body> Interior> HEADLINER> Installation.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
23-30-56-9J	Install Roof Spacer(s), One Side Only (1 - Semi-Skilled)	6 - Electrical and Body Systems	2.3 Hrs.
23-30-56-9K	Install Roof Spacer(s), Both Sides (1 - Semi-Skilled)	6 - Electrical and Body Systems	2.4 Hrs.

FAILURE CODE:

ZZ	Service Action
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