



Service Bulletin

File in Section: -

Bulletin No.: PI0897

Date: February, 2013

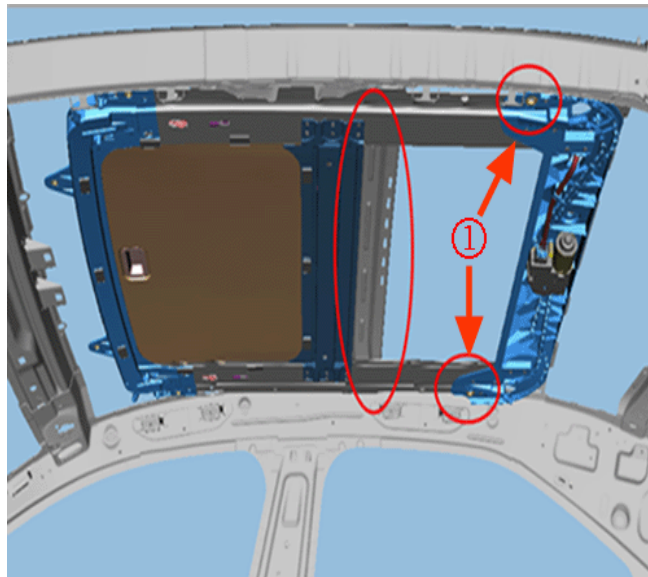
PRELIMINARY INFORMATION

Subject: Sunroof Rattle Noise When Glass Open and Driving Vehicle

Models: 2013 Cadillac ATS
Equipped with Sunroof (RPO CF5) and Built Prior to VIN Breakpoint D0149142

Condition/Concern

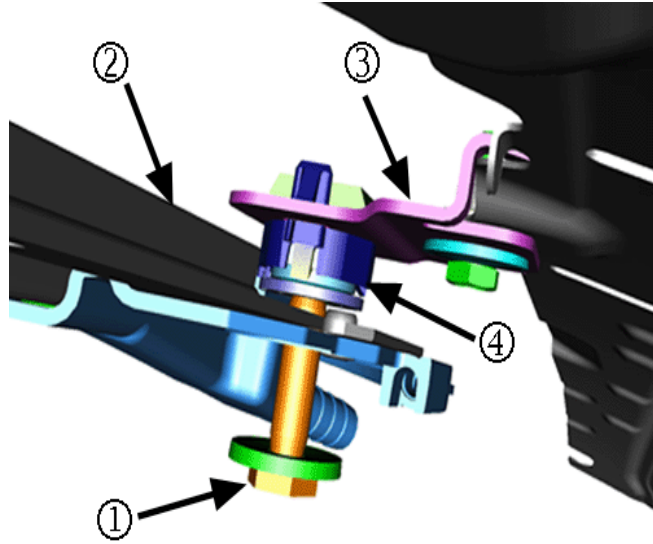
Some customers may comment on hearing a rattle noise coming from the sunroof when the glass is open and the vehicle is being driven. The condition is usually more evident when the vehicle is driven over bumpy surfaces.



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The cause of this condition may be that, during production, the rear of the sunroof module was installed too high when the two rear leveling features (1) were not properly adjusted. When the sunroof glass is open, the distance between the glass and the roof structure #2 bow (shown circled above) is too narrow and contact of the glass to the roof bow may occur.

Recommendation/Instructions



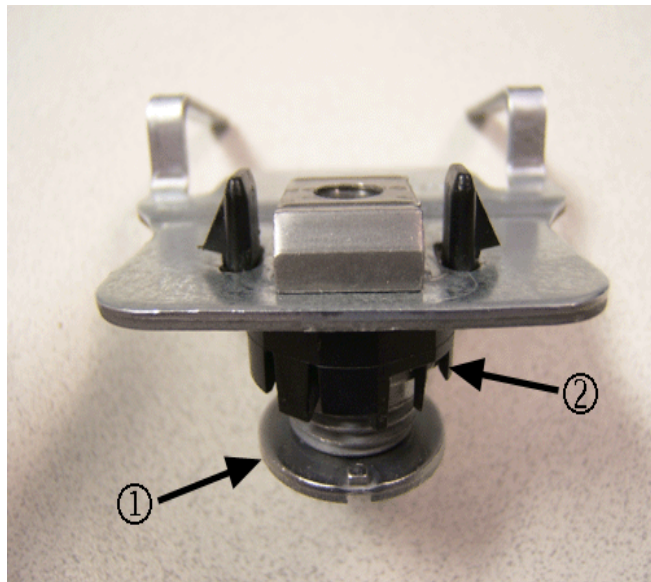
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The two rear bolts (1) of the sunroof module (2) thread into a bracket (3), mounted to the roof structure on each side, which contain a unique leveling nut mechanism (4).



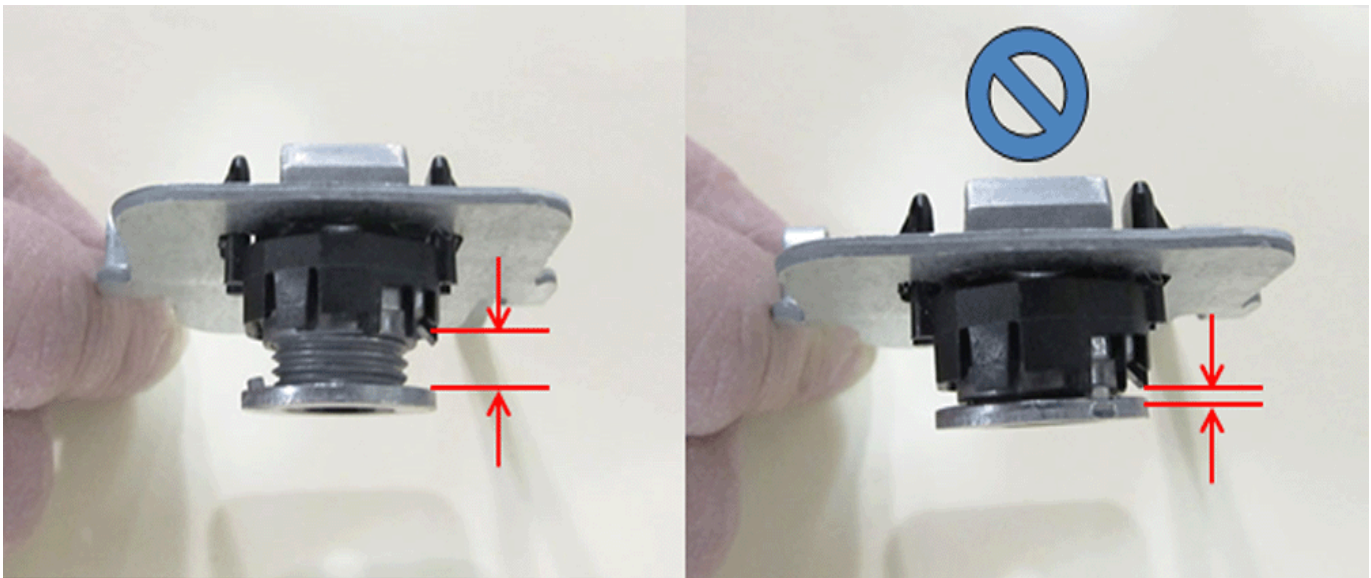
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This leveling nut is sandwiched between the bracket and the topside of the sunroof frame, so it is not visible when the sunroof module is installed. A right rear view of the module is shown in the graphic above.



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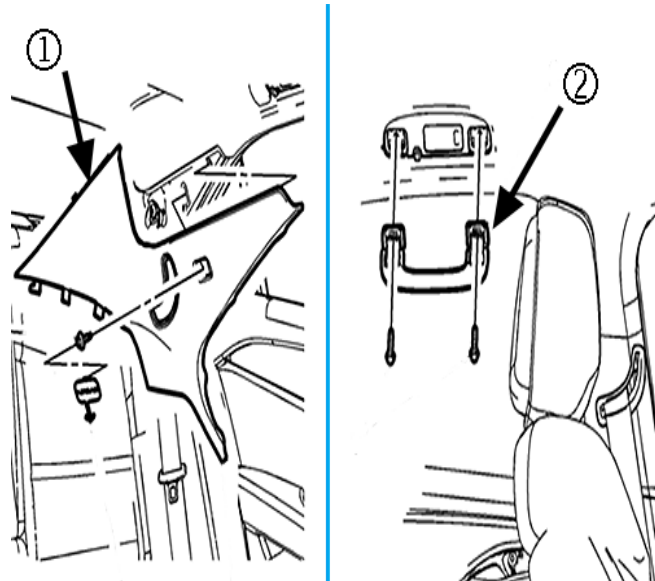
The washer insert (1) of the leveling nut has a reverse thread. Turning it clockwise will increase the gap between the washer and housing (2) and turning it counterclockwise decreases the gap. By design, when the sunroof bolt is installed into the leveling nut, the washer insert will thread downward and open the gap until the washer contacts the topside of the sunroof frame.



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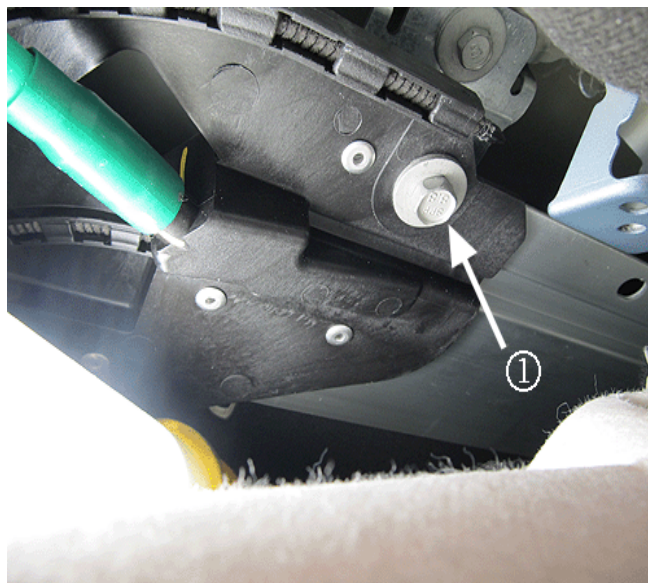
Design intent is to maintain a 5 mm (0.20 in) gap in the leveling nut during installation of the sunroof. The graphics above show the correct/incorrect gap.

Verify the condition, then properly adjust the two rear sunroof leveling nuts following the steps below:



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1. Remove the right and left quarter upper trim panels (1), the rear roof rail assist handles (2) and lower the rear of the headliner. Refer to Headlining Trim Panel Replacement (With Sunroof) in SI.

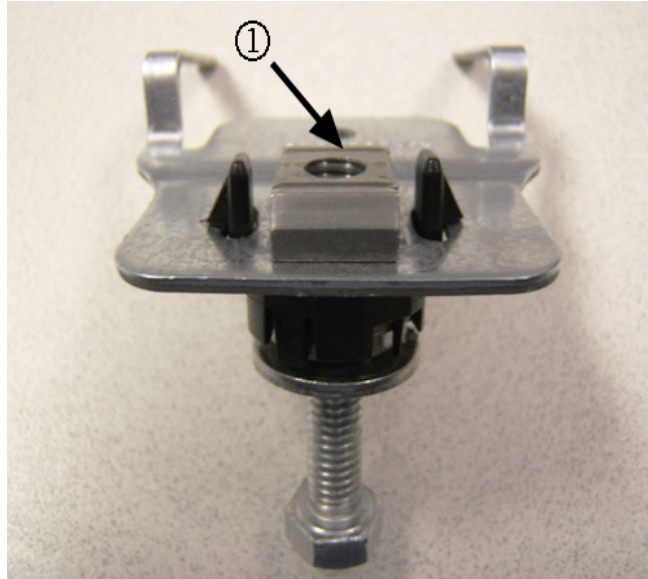


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2. Starting on either side, remove the rear sunroof bolt (1) from the module.

Note: It may be difficult to visually verify the washer revolutions and the 5 mm (0.20 in) gap, so the verification may have to be done by feel.

3. Adjust the gap on the leveling nut to 5 mm (0.20 in) using either of the following methods:
 - If enough hand access is available, reach above the sunroof frame and turn the washer insert counterclockwise until it seats tight against the housing. Then turn the washer insert three revolutions clockwise, which will adjust the gap to the proper 5 mm (0.20 in) distance.



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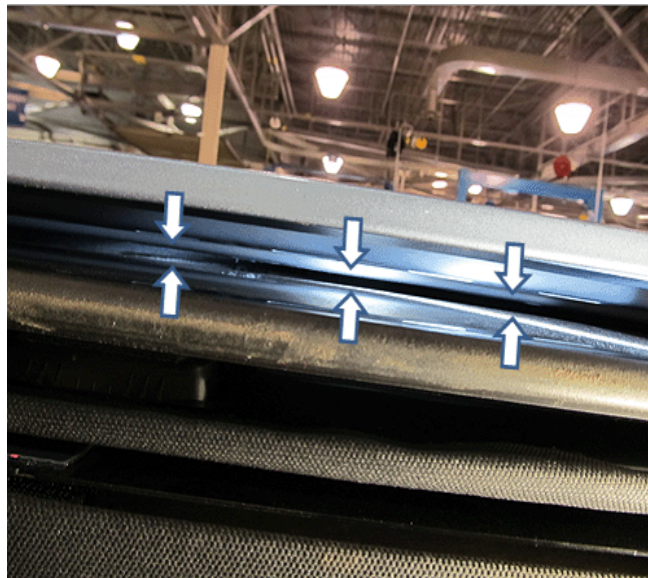
Note: To ensure proper adjustment of the washer insert, do not push the bolt hard enough to engage and thread into the nut (1) on the top side of the roof bracket.

- Push the sunroof bolt into the washer insert until you feel/hear it snap into position. Turn the bolt counterclockwise to thread the washer insert tight against the housing. Then turn the bolt clockwise so the washer insert threads out three revolutions.
4. With the leveling nut gap at proper adjustment, push the sunroof frame firmly upward against the bracket and reinstall the sunroof bolt.

Tighten

Tighten the bolt to 23 N•m (17 lb ft).

5. Repeat steps 2-4 on the opposite side.
6. Adjust the sunroof glass. Refer to Sunroof Window Height and Opening Fit Adjustment in SI.



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7. After adjustment of the glass, open the sunroof and visually inspect the gap between the glass and the roof #2 bow. As shown above, the gap should be in the 3-5 mm (0.120-0.20 in) range.
8. Reposition the headliner, reinstall the right and left quarter upper trim panels and the rear roof rail assist handles. Refer to Headlining Trim Panel Replacement (With Sunroof) in SI.

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
B6840*	Adjust Sunroof Module Rear Leveling Nuts	0.9 hr
* This is a unique labor operation for bulletin use only. It will not be published in the Labor Time Guide.		