



## SIB 54 11 19 SUNROOF WATER LEAK DIAGNOSIS

### MODEL

| E-Series | Model Description            |
|----------|------------------------------|
| G01      | X3 Sports Activity Vehicle   |
| G02      | X4 Sports Activity Coupe     |
| G05      | X5 Sports Activity Vehicle   |
| G07      | X7 Sports Activity Vehicle   |
| F97      | X3 M Sports Activity Vehicle |
| F98      | X4 M Sports Activity Coupe   |

### SITUATION

This bulletin outlines multiple known areas of possible water entry for the vehicles listed above. It serves only as a diagnostic resource in troubleshooting water leak complaints from the roof area.

This bulletin does not include all potential areas of water entry from the sunroof. Additional diagnosis may be required for vehicles which are not affected by the scenarios outlined below.

### CAUSE

The following situations are known to be potential causes for water entry into the vehicle from the sunroof area:

- Incorrect adjustment of sunroof glass panels
- Damage to the sunroof “perimeter seal” mounted to the roof
- Misplaced or damaged support foam for the center drip tray
- Damaged side seals of the rear sunroof glass panel
- Improperly installed, clogged, or kinked panoramic sunroof drain(s)

### CORRECTION

Follow the procedures listed in the table below to inspect and/or repair the outlined areas.

### PROCEDURE

#### **Area of possible water intrusion:**

#### **Incorrect adjustment of sunroof glass panels**

Reference ISTA for specific repair instructions for adjustment of the sunroof glass panels based on the specific model of vehicle being worked on.

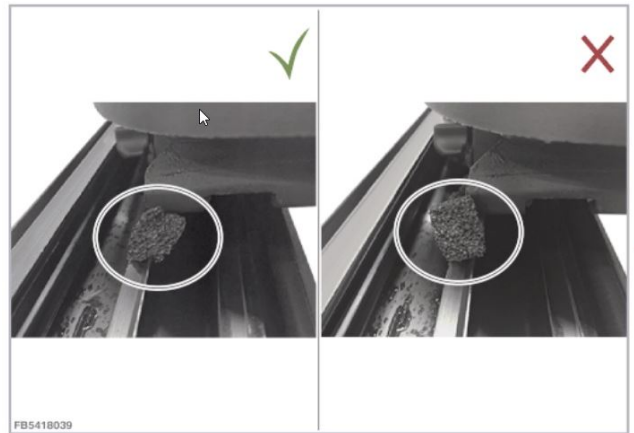
Sunroof glass inspection and adjustment should always be a starting point when investigating water intrusion from the roof area.

Note: A vehicle’s sunroof and drains are ONLY capable of draining up to a certain volume of water. Excess water allowed to enter the sunroof can overflow into the vehicle. This is not always a defect in the vehicle’s ability to drain the water, but can also be attributed to too much water being allowed to enter the sunroof (i.e., improperly adjust sunroof glass panels, faulty seal, etc).

#### **Damage to the sunroof perimeter seal mounted to the roof**

This typically occurs in the corners.

Additional damage may include indentation or deformity at any point of the perimeter seal.



**Misplaced or damaged support foam for the center drip tray**

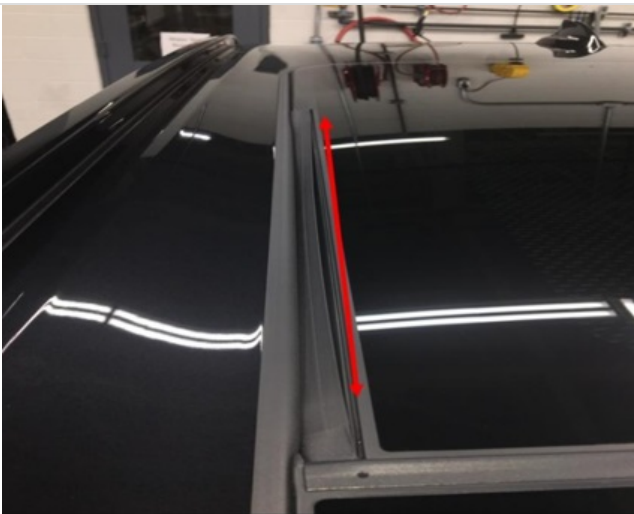
Photo shows correct (green) vs incorrect (red).

If the foam has become misplaced:

- Correctly position support foam, operate sunroof 5 times, and check to ensure proper position remains.
- Replace foam if found out of place after operation.

If the foam is missing or damaged:

- Replace support foam, ensuring proper installation as shown to the left.



**Damaged side seals of the rear sunroof glass panel**

Note the gap and incomplete installation of the side seal (long arrow; passenger side shown, looking rearward).

If the seal is incorrectly installed:

- Replace the glass panel side seals.

**Improperly installed, clogged, or kinked panoramic sunroof drain(s)**

- Position the vehicle on a flat surface
- Familiarize yourself with which sunroof "track" is used for water management. Ensure water is ONLY introduced to the water management track of the sunroof.



- Introduce approximately 300ml of water to each drain tube and compare drainage speed at all the tubes.

If water enters the vehicle during testing, or one drain tube is slower than the others, remove the corresponding interior trim as needed to investigate causes of potential blockages.

Note: A borescope can be a useful tool for investigating the front hoses in the A-Pillar area.

If a front drain hose requires replacement, submit TSARA case for additional assistance due to replacement complexity.

### **PARTS INFORMATION**

Required parts will depend on the specific repair that is necessary. This bulletin only serves as a diagnostic resource. Refer to ETK/AIR.

### **WARRANTY INFORMATION**

Warranty defect code and labor operations will depend on the specific repairs made to each vehicle. This bulletin only serves as a diagnostic resource.

Repairs which are eligible for warranty coverage should be claimed for using the applicable defect code and labor operations found in AIR.