

Moon Roof Assembly Structure Noise

Service Category Vehicle Exterior

Section Exterior Panels/Trim

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2012 – 2013	Camry, Camry HV	WMI(s): 4T1, 4T4

REVISION NOTICE

December 17, 2013 Rev1:

- Applicability has been updated to include 2013 model year Camry and Camry HV vehicles.
- The Production Change Information section has been added.

Any previous printed versions of this bulletin should be discarded.

Introduction

Some 2012 – 2013 model year North American produced (NAP) Camry and Camry HV vehicles may exhibit a knocking, popping, ticking, or snapping noise from the moon roof area while driving. The repair procedure included in this bulletin has been developed to address this condition.

Production Change Information

This bulletin applies to vehicles produced **BEFORE** the Production Change Effective VINs shown below.

MODEL	PLANT	LINE	ENGINE	PRODUCTION CHANGE EFFECTIVE VIN
Camry	TMMK	1	4 Cyl	4T1BF1FK#DU228316
			V6	4T1BK1FK#DU021292
		2	4 Cyl	4T1BF1FK#DU662064
			V6	4T1BK1FK#DU527841
	SIA	–	4 Cyl	4T4BF1FK#DR294786
Camry HV	TMMK	2	HV	4T1BD1FK#DU072195

Moon Roof Assembly Structure Noise

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
BD1304	R & R Sliding Roof Housing Sub-Assembly	4.2	63111-06540	91	57
Combo A	Flex Roof Reinforcements and Install Shims	0.3			

APPLICABLE WARRANTY

- This repair is covered under the Toyota Basic Warranty. This warranty is in effect for 36 months or 36,000 miles, whichever occurs first, from the vehicle's in-service date.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

Parts Information

PART NUMBER	PART NAME	QTY
08231-00801	Interior Noise Kit	1
63021-06030	Silencer Sub-Assy, Slide Roof (Shim Kit)	1

Repair Procedure

1. Confirm that the noise is coming from the moon roof area.
2. Remove the sliding roof housing.

Refer to the Technical Information System (TIS), applicable model and model year Repair Manual:

- 2012 [Camry](#) / [Camry HV](#):
Vehicle Exterior – Sliding Roof/Convertible – “Sliding Roof/Convertible: Sliding Roof Housing: Removal”
 - 2013 [Camry](#) / [Camry HV](#):
Vehicle Exterior – Sliding Roof/Convertible – “Sliding Roof/Convertible: Sliding Roof Housing: Removal”
3. Flex and manipulate the roof structure to separate the coating between the roof reinforcements. Continue manipulating the roof structure until the crackling noise goes away. Refer to the video for a demonstration of this procedure.

[Demonstration of Flexing Roof Structure](#)

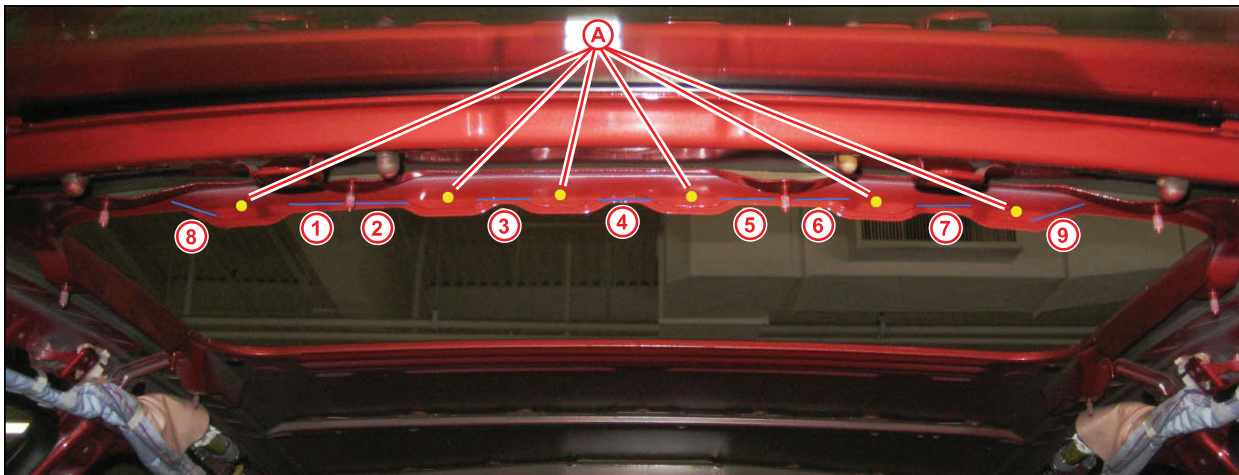
4. Clean out any remaining debris from the roof reinforcements with an air hose blow nozzle.

Moon Roof Assembly Structure Noise

Repair Procedure (Continued)

5. Install the shims in the following locations.

Figure 1.



1-9 Shim Installation Locations

A Spot Welds

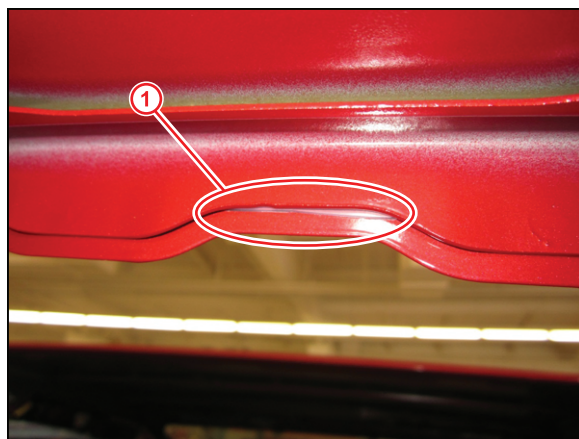
- A. At positions 1 – 7 (shown in Figure 1), insert the 7 shims between the spot welds.

Shims 1 – 7: Smaller Rectangle, 12.7 x 43.2 mm (0.5 x 1.7 in.)

NOTE

At positions 1 – 2 and 5 – 6, two shims are positioned side by side with NO spot weld between them.

Figure 2.



1 Example of Installed Shim

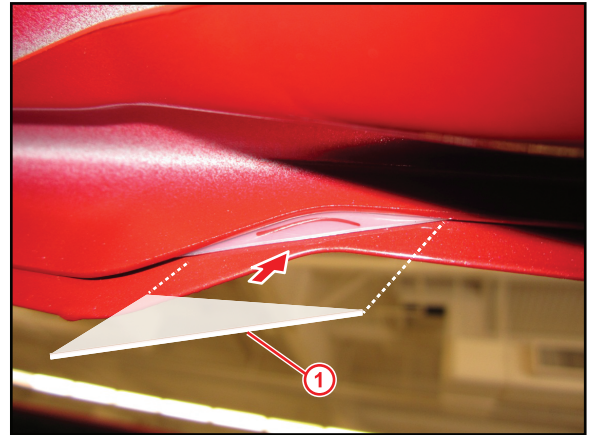
Moon Roof Assembly Structure Noise

Repair Procedure (Continued)

- B. At positions 8 and 9 (shown in Figure 1), insert the 2 triangular shims to the outboard sides of the spot welds.

Shims 8 and 9: Triangle

Figure 3.



1 Triangular Shim

- C. At positions 10 and 11 (shown in Figure 4) on both the RH and LH sides of the moon roof reinforcement structure, insert the 4 shims between the spot welds as indicated.

Shims 10 and 11: Larger Rectangle, 25.4 x 63.5 mm (1.0 x 2.5 in.)

NOTE

LH side is shown.

Figure 4.

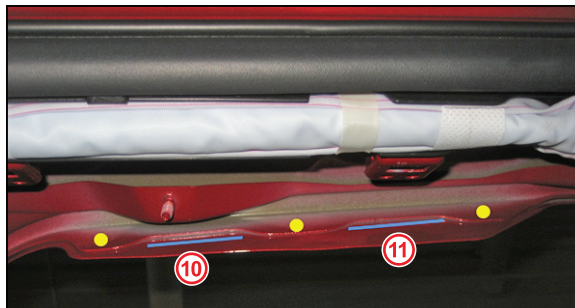
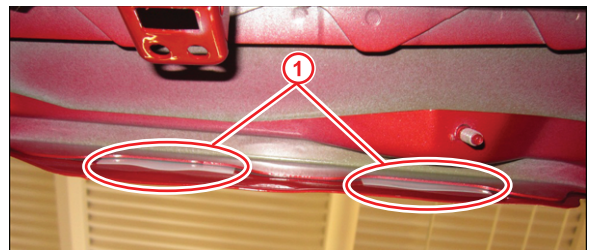


Figure 5.



1 Example of Installed Shims

Moon Roof Assembly Structure Noise

Repair Procedure (Continued)

6. From the Interior Noise Kit, use 2 felt strips with the following dimensions:

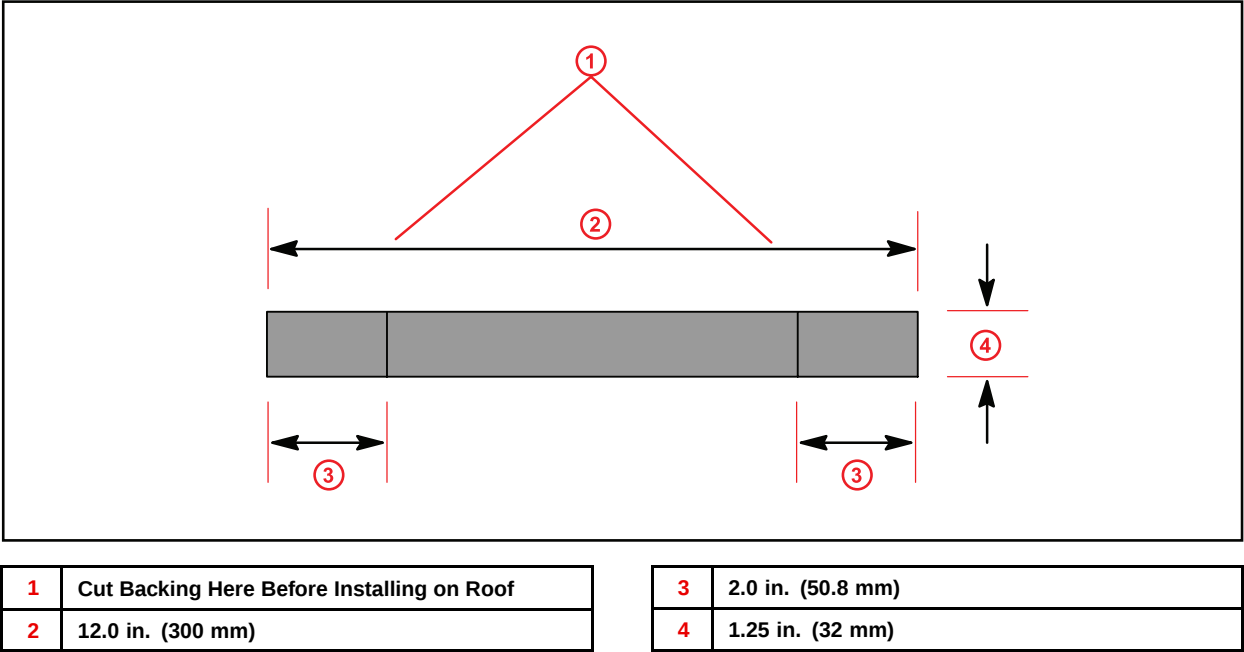
- Length: 300 mm (12.00 in.)
- Width: 32 mm (1.25 in.)
- Thickness: 0.5 mm (0.02 in. thinnest felt sheet material in the kit)

Temporarily peel back the backing paper at both ends and make a cut in the backing paper ONLY, 2 inches (50.8 mm) away from the ends. Place the backing paper back on the felt.

NOTICE

Do NOT cut the felt, ONLY the backing paper.

Figure 6.



Moon Roof Assembly Structure Noise

Repair Procedure (Continued)

7. Place the felt strips on both corners of the roof structure, between the roof panel and the moon roof mounting structure panel.

NOTICE

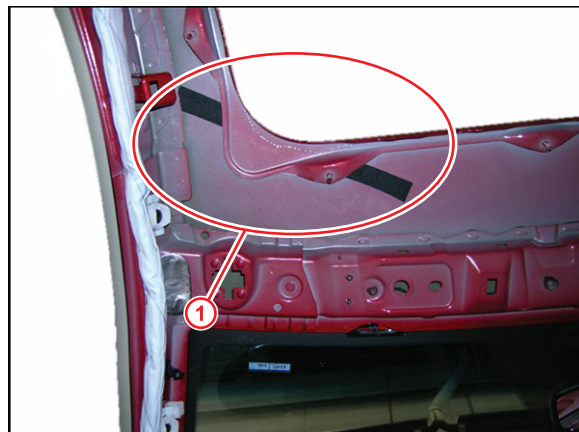
Use caution when pulling down on the moon roof mounting structure in the front mounting stud area (to make space for the felt to slide into place) to prevent damage to the roof outer sheet metal.

Once the felt is placed as close to the inner edge as possible, peel off the backing paper at the ends of the felt strip and attach the felt to the roof panel.

NOTE

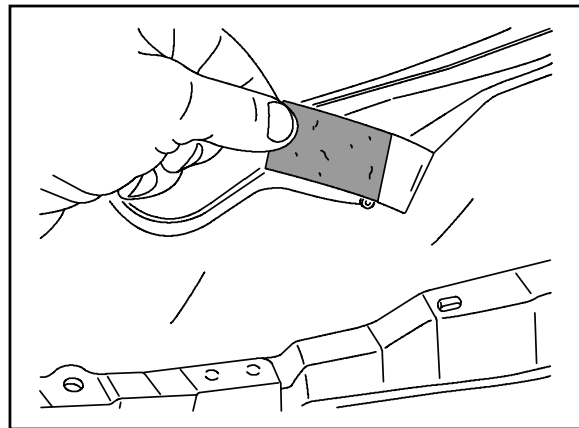
Do NOT remove the backing paper in the middle of the felt strip.

Figure 7. View Above Driver's Seat



1	Felt Strip
---	------------

Figure 8.



8. Perform the felt repair on both front corners of the moon roof structure.

Moon Roof Assembly Structure Noise

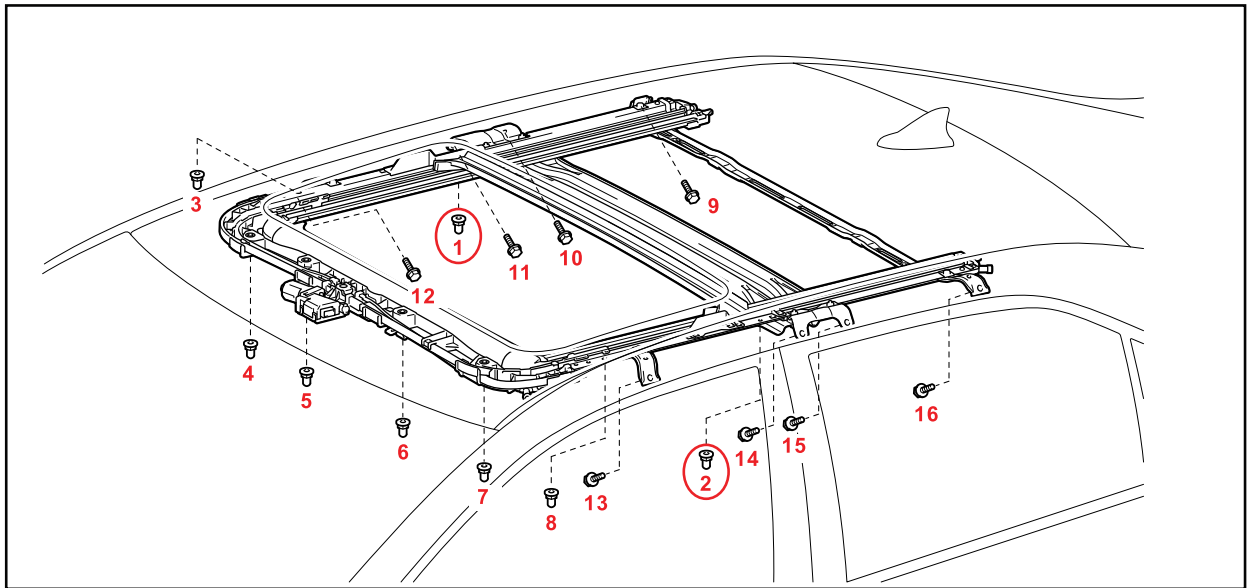
Repair Procedure (Continued)

9. Temporarily install the sliding roof housing sub-assembly with the 8 nuts and 8 bolts.

Tighten the RH nut first and then the LH nut shown circled in the Figure below.

Torque: 5.5 N*m (56 kgf*cm, 49 in*lbf)

Figure 9.



NOTE

RH and LH rear nuts must be tightened before any other moon roof assembly fasteners are tightened.

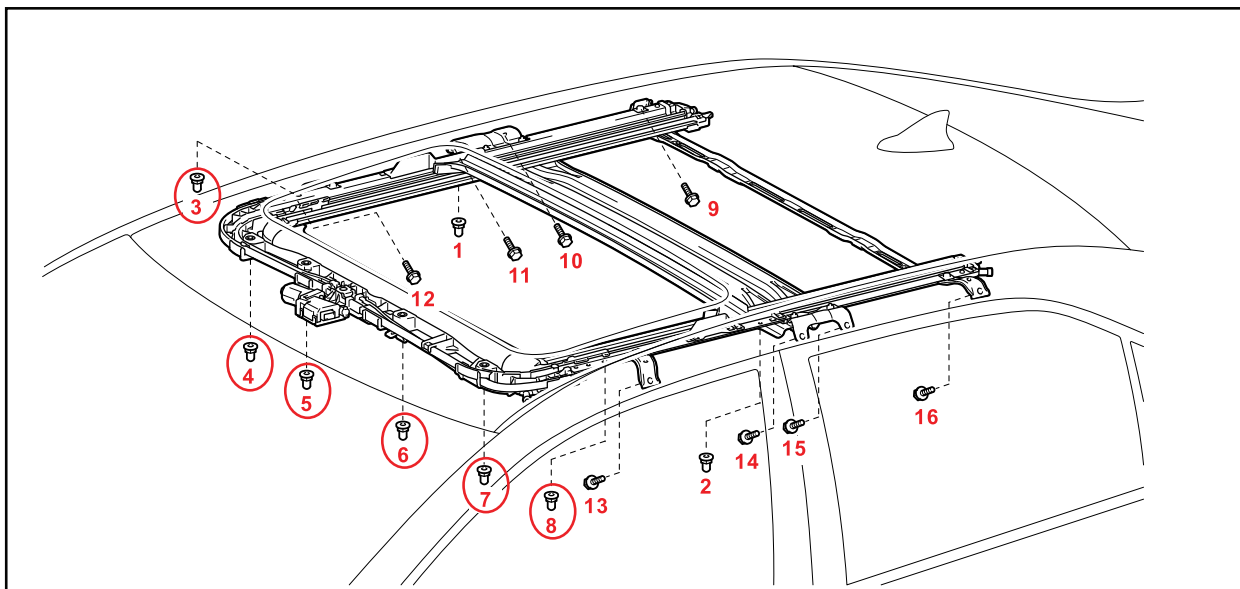
Moon Roof Assembly Structure Noise

Repair Procedure (Continued)

10. Tighten the remaining 6 nuts.

Torque: 5.5 N*m (56 kgf*cm, 49 in*lbf)

Figure 10.



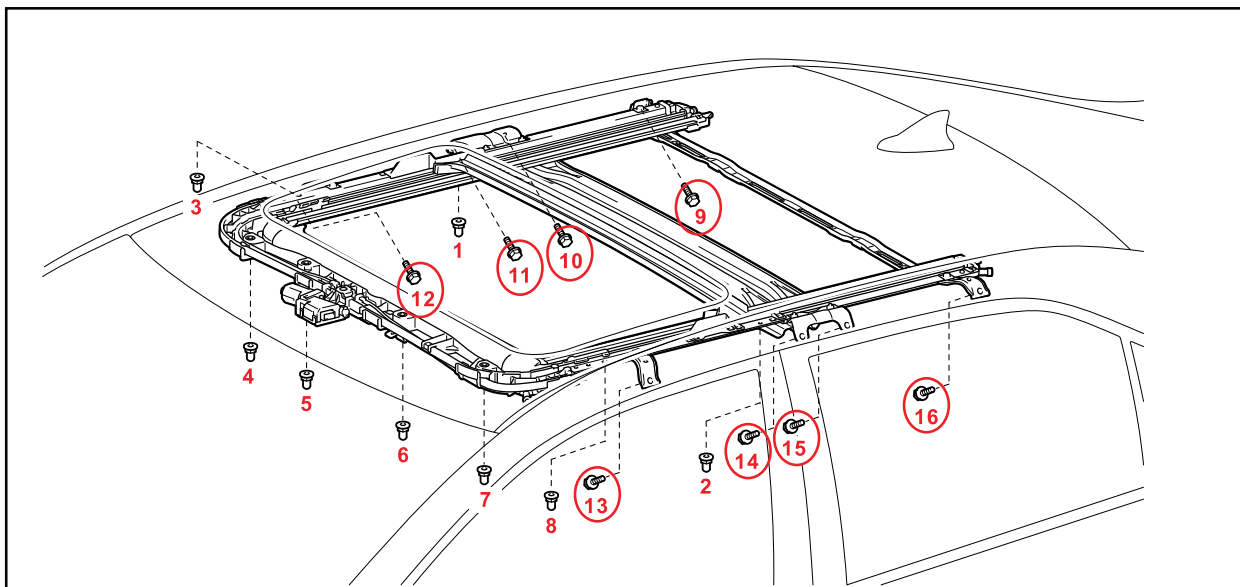
Moon Roof Assembly Structure Noise

Repair Procedure (Continued)

11. Tighten the 8 bolts in the order sequence shown below.

Torque: 8.0 N*m (82 kgf*cm, 71 in*lbf)

Figure 11.



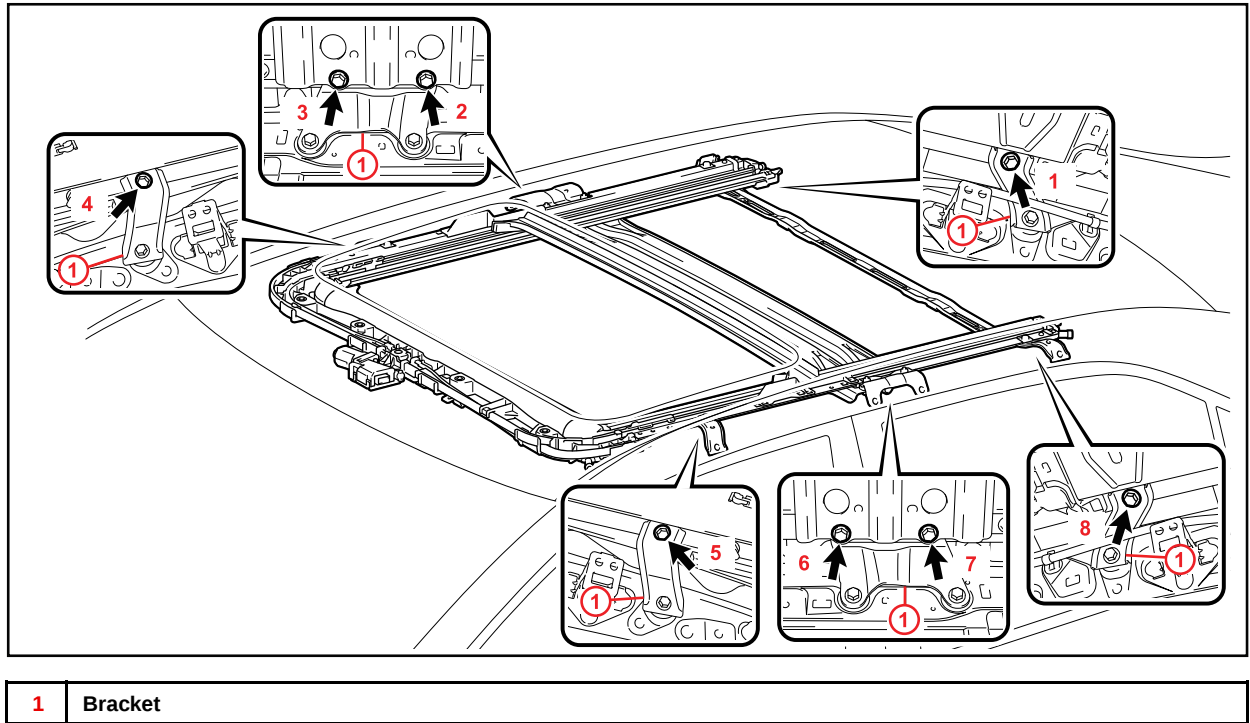
Moon Roof Assembly Structure Noise

Repair Procedure (Continued)

12. Tighten the 8 bolts of the brackets in the order sequence shown below.

Torque: 8.0 N*m (82 kgf*cm, 71 in*lb)

Figure 12.



13. Install the remainder of the sliding roof components.

Refer to TIS, applicable model and model year Repair Manual:

- 2012 [Camry](#) / [Camry HV](#):
Vehicle Exterior – Sliding Roof/Convertible – “Sliding Roof/Convertible: Sliding Roof Housing: Installation”
- 2013 [Camry](#) / [Camry HV](#):
Vehicle Exterior – Sliding Roof/Convertible – “Sliding Roof/Convertible: Sliding Roof Housing: Installation”

14. Test drive the vehicle to verify repair.