

OBSOLETE

PLEASE SEE NV013-03 (superceding TSB)



Technical Service BULLETIN

April 25, 2003

Title:

MOON ROOF AND HEADLINER RATTLES

Models:

'03 4Runner

REVISED
NV003-03
N/A

TSB UPDATE NOTICE:

The information contained in this TSB supercedes the original NV009-02. The previous TSB should be discarded.

TSB REVISION NOTICE:

June 11, 2003: The TSB title and introduction have been updated. The previous TSB should be discarded.

Introduction Rattles from the moon roof (sliding roof) and headliner may be heard when shutting one of the front doors with all of the other doors and windows closed or when traveling on a rough surface. The following procedures have been developed to reduce this noise.

- Applicable Vehicles**
- **2003** model year **4Runner** vehicles produced before the VIN shown below.

Production Change Information

MODEL	STARTING VIN
2003 4Runner	JTE**1#R#30005900

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
NV1017	Apply Grease to Connecting Rod of Moon Roof (RH and LH)	0.3	63200-35030	91	55
	Apply Grease to Clamp and Rod of Moon Roof Rail (RH and LH)				
	Apply Grease to Drive Cable Pin (RH and LH)				
	Apply Grease to Drive Cable Lifter Pin (RH and LH)				
NV1018	Fit Felt to Moon Roof Deflector Housing	0.3	63200-35030	91	44
NV1019	Fit Felt and Clear Tape to Moon Roof Center Reinforcement	0.4	63306-35060-#0		
NV1020	Fit Felt to Moon Roof Side Garnish (RH and LH)	0.3	63255-350#0		

Applicable Warranty*:

This repair is covered under the Toyota Comprehensive 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 correction of a problem based upon a customer's specific complaint.



Parts Information

PART NUMBER	PART NAME	QUANTITY
08231-00801	Noise Kit	1
08887-02007	Body Grease W	1

Required Tools & Material

TOOLS & MATERIALS	PART NUMBER	QUANTITY
3M Clear Tape	3M 84906	1

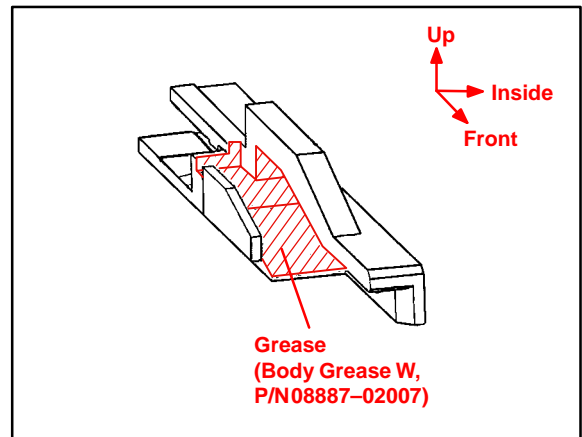
Repair Procedure

There are seven field fix methods covered in the following pages. One or all of these methods may be used depending on the source of the noise being addressed on a particular vehicle.

NOISE FROM MOON ROOF WIND DEFLECTOR

Apply Grease to Connecting Rod of Moon Roof Rail.

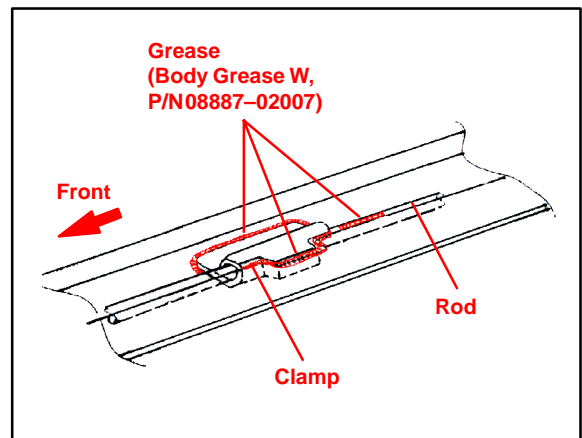
Using a brush, apply Body Grease W (P/N 08887-02007) to connecting rod of moon roof rail as shown (both RH and LH).



Apply Grease to Clamp and Rod of Moon Roof Rail.

Using a brush, apply Body Grease W (P/N 08887-02007) to clamp and rod of moon roof rail (both RH and LH).

NOTE:
Please open and close the moon roof after applying grease so that the grease can penetrate the rod of the moon roof rail (both RH and LH).



Repair Procedure
(Continued)

NOISE FROM MOON ROOF WIND DEFLECTOR (Continued)

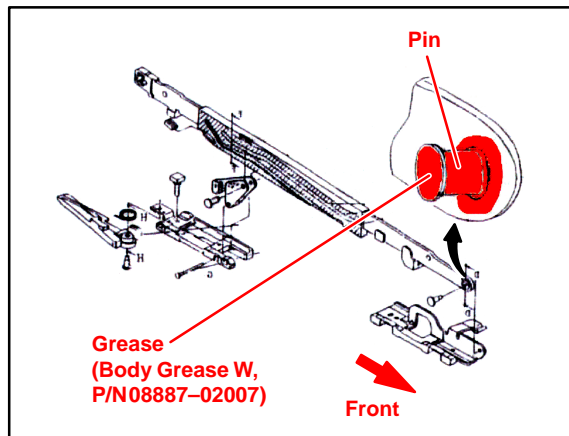
Apply Grease to Drive Cable Pin.

Using a brush, apply Body Grease W (P/N 08887-02007) to the housing drive cable pin as shown in the shaded area.

1. Tilt moon roof up.
2. Remove moon roof side garnish.
3. Apply grease to the pin as shown in the shaded area in the illustration.
4. Reinstall moon roof side garnish.

NOTE:

Before reinstallation, see page 6 for modification to side garnish.



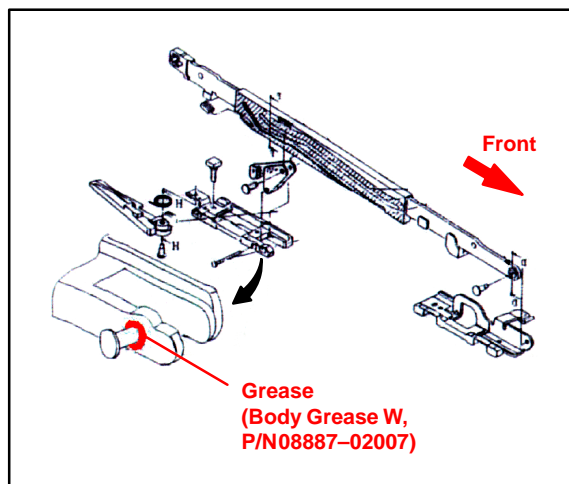
Apply Grease to Drive Cable Lifter Pin.

Using a brush, apply Body Grease W (P/N 08887-02007) to the housing drive cable lifter pin surface as shown in the shaded area.

1. Tilt moon roof up.
2. Remove moon roof side garnish.
3. Apply grease to pin as shown in the shaded area in the illustration.
4. Reinstall moon roof side garnish.

NOTE:

Before reinstallation, see page 6 for modification to side garnish.



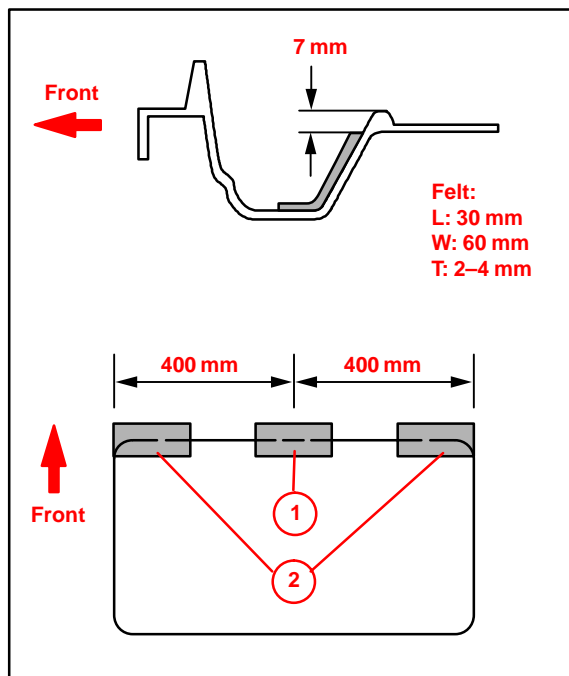
Fit Felt to Moon Roof Deflector Housing.

Fit three pieces of felt to the moon roof deflector housing as shown.

NOTE:

Please remove the original felt before adding new pieces.

1. Fit a piece of felt 30 mm x 60 mm x 2-4 mm at the center of the moon roof deflector housing as shown in the illustration.
2. Fit felt 30 mm x 60 mm x 2-4 mm to the right and left corners at the front of the moon roof deflector housing 400 mm from the center of the deflector housing to the outer edge of the felt.



Repair Procedure
(Continued)

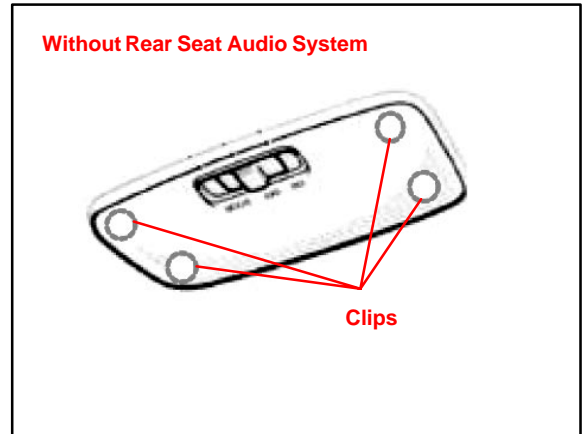
NOISE FROM MOON ROOF SUNSHADE

Fit Felt and Clear Tape to Moon Roof Center Reinforcement.

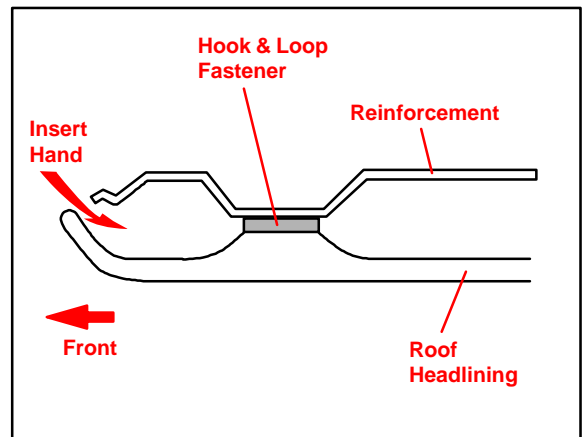
Fit a piece of clear tape (P/N 3M SJ6595) and felt (2 mm thick from Noise Kit, P/N 08231-00801) to the center moon roof reinforcement.

1. Remove the interior light.
 - A. For the interior light with rear seat audio system, refer to the 2003 4Runner Repair Manual, Volume 2 (Pub. No. RM1001U2), page 76-46.
 - B. For the interior light without rear seat audio system, disengage the 4 clips shown in the illustration.

2. Disconnect the four hook and loop fasteners located behind the sunshade that secure the roof headlining to the roof.

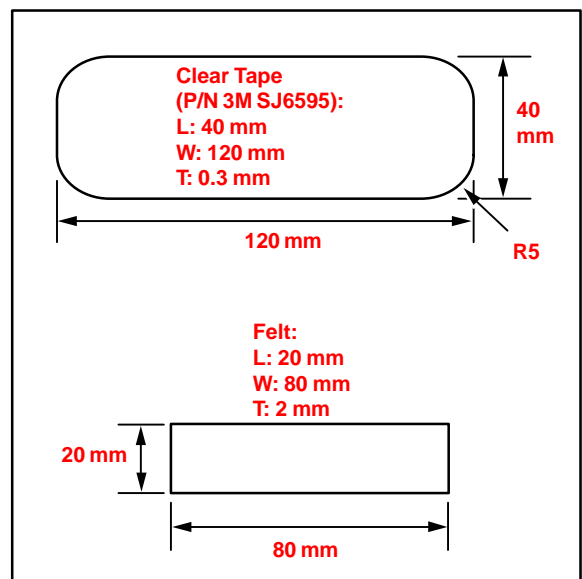


NOTE:
It is not necessary to remove the headliner to complete this operation.



3. Measure and cut the tape and felt.
 - A. Cut clear tape (P/N 3M SJ6595) and felt (2 mm thick from Noise Kit, P/N 08231-00801) to the sizes shown in the illustration.
 - B. Remove release paper from tape.

NOTE:
Do not remove the release paper from the felt.

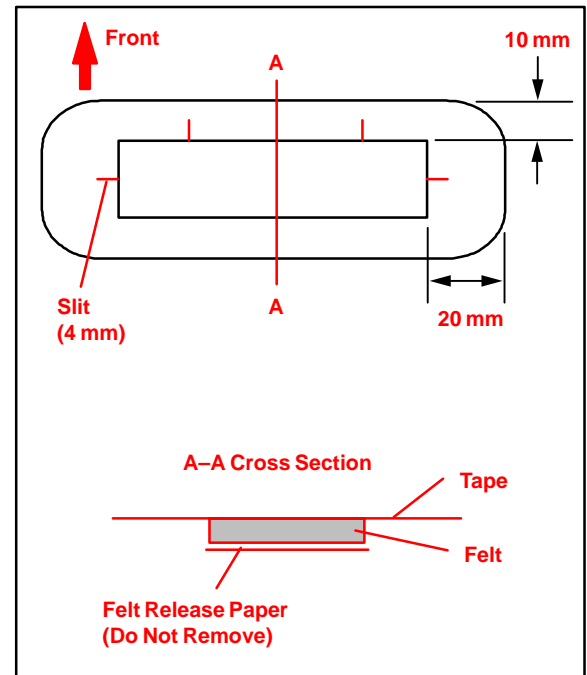


**Repair
Procedure
(Continued)**

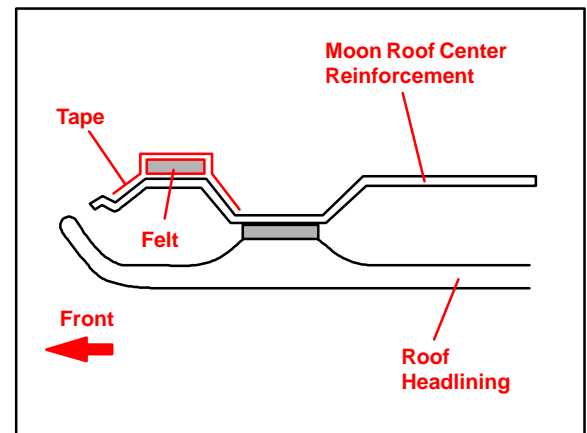
**NOISE FROM MOON ROOF
SUNSHADE (Continued)**

- C. Superimpose the felt onto the tape, and make four slits as shown in the illustration.

NOTE:
Slits allow for air evacuation.



4. Lift up sunshade trim, position the tape and felt to the center upper surface of the center moon roof reinforcement (black metal painted parts) which is located rearward of the sunshade trim handle. Attach the tape securely to the reinforcement as shown in the illustration.
5. Reconnect the four hook and loop fasteners located behind the sunshade that secure the roof headliner to the roof.
6. Reinstall the interior light.



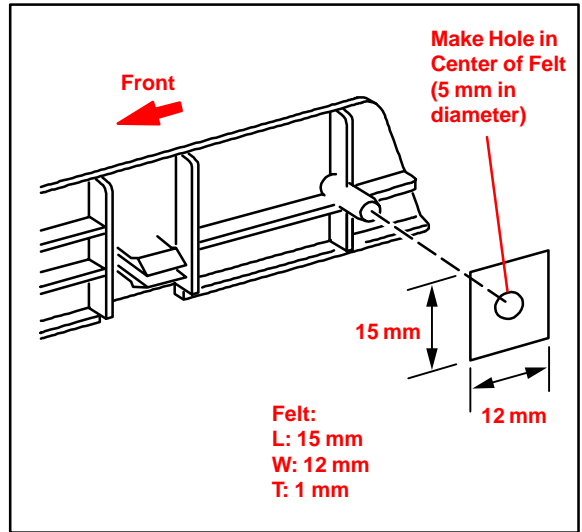
Repair Procedure
(Continued)

NOISE FROM MOON ROOF GUIDE RAIL GARNISH

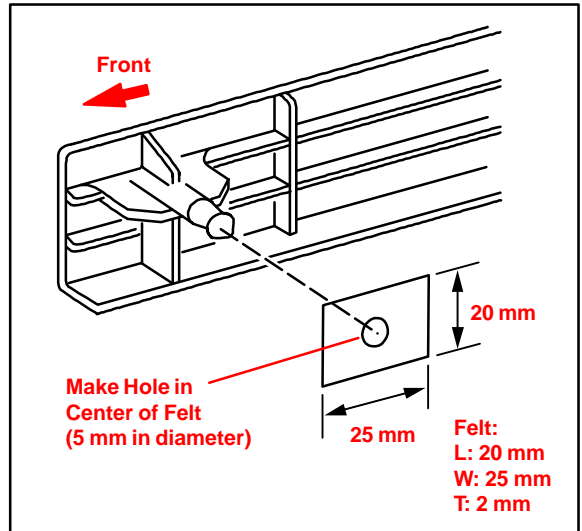
Fit Felt to the Moon Roof Guide Rail Garnish.

Fit three pieces of felt to the moon roof side garnish. (Total of 6 positions for both RH and LH.)

1. Remove moon roof side garnish.
2. Fit a piece of felt to the rear clip of the moon roof side garnish as shown in the illustration.



3. Fit a piece of felt to the front clip of the moon roof side garnish after removing the original felt.



4. Fit a piece of felt to the front side bottom of the moon roof garnish as shown in the illustration.
5. Reinstall the moon roof garnish.

