

Date: April 26, 2019

SERVICE BULLETIN

Bulletin No.: 2019-0034

Product Models Affected:

Aero Elite Ford (AEF) models – 2016MY - earlier

FORM Rev 2019-0417

Purpose:

To add support to the driver side A-pillar and windshield frame.

Warranty Status:

Standard warranty coverage for all product models.

Tool(s) / Equipment Required:

7/16-inch socket with extension
Ratchet
7/16-inch open end wrench
#2 Phillips Screw Driver
Drill
5/16-inch drill bit

Part(s) / Material Required:

<u>Description</u>	<u>Part Number</u>
Reference Engineering Dwg, CAP RNFRMNT ASM, AEF 11-16	0039762
Technical Data Sheet, 3M NVH Dampening Material,	04274
Isopropyl Alcohol	N/A
Gloves (PPE)	N/A
Safety Glasses (PPE)	N/A

General

1. Park the vehicle on a flat level surface.
2. Chock wheels of the vehicle.
3. Ensure that the product use date is not greater than one (1) year from the manufacturing date for all adhesives and sealants. Ensure product handling and storage processes meet manufacturer requirements.
4. Protect adjacent areas, e.g.; dash, steering wheel, floor, seat, etc. from material discharge and drip during application.
5. Read the 3M 4274 Technical Data Sheet and ensure understanding of dwell times related to dispensing of material.
6. Read the 3M 4274 Technical Data Sheet and ensure understanding of material Directions for Use as outlined in the Technical Data Sheet.
7. Disconnect battery(ies), PC/ECM/Modules, and other electrical device connections as described in the Ford Service Manual for welding on the chassis.
8. Reconnect battery(ies), PC/ECM/Modules, and other electrical device connections as described in the Ford Service Manual for welding on the chassis only after completing all weld process operations.
9. Wear appropriate PPE during rework process operations.
10. Ensure a fire extinguisher or other fire control apparatus are available during hot work operations.

Procedure:

1. Remove carefully the interior pads, stanchions, handrails, mirrors and/or sun visor in order to gain access to roof cut/top of windshield area. Reference Photo #1 and Photo #2.



Photo #1
(representative example of interior assembly)



Photo #2

2. Put aside the components removed. These components will be reinstalled after completion of the rework/repair.
3. Remove hardware used in assembly of front cap to the chassis cab, and remove any plywood spacers used in the assembly. Discard hardware and plywood pieces. Reference Photo #3 and Illustration #4.



Photo #3

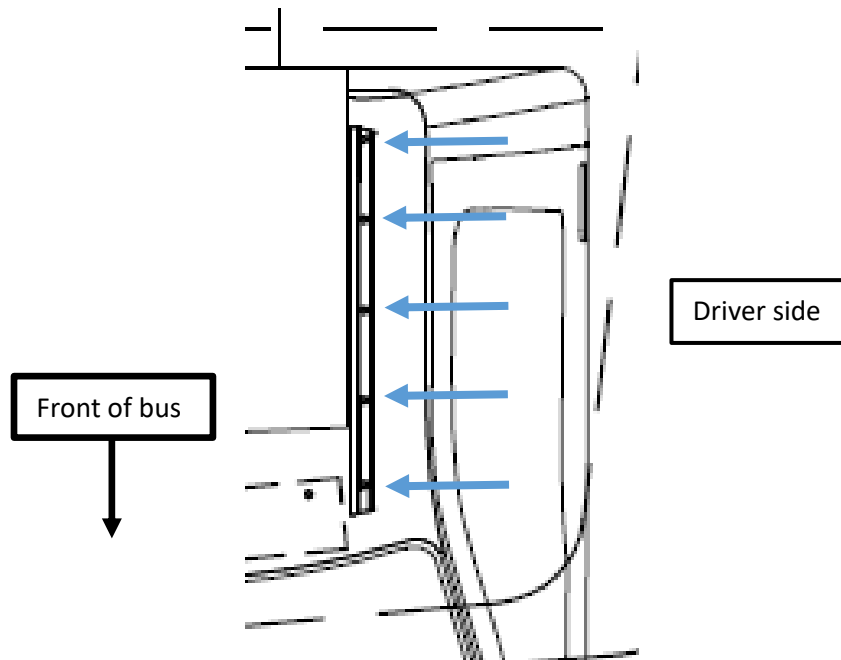


Illustration #4
Top view

4. Rough-up upper and lower surface over the top of the windshield where plywood was removed and 3M NVH Dampener material is to applied.
5. Vacuum area between upper and lower surface over the top of the windshield where plywood was removed. Reference Photos #3 and #5.

6. Wipe upper and lower surface over the top of the windshield with Isopropyl Alcohol. Reference Photo #5.



Photo #5
(representative example of location)

7. Inject 3M 4274 NVH Dampener between the outer roof shell and chassis cab frame, beginning at the driver side A-pillar, proceeding to the driver side B-pillar for 16 inches. Reference Illustrations #6, and Illustrations #7 and #8.

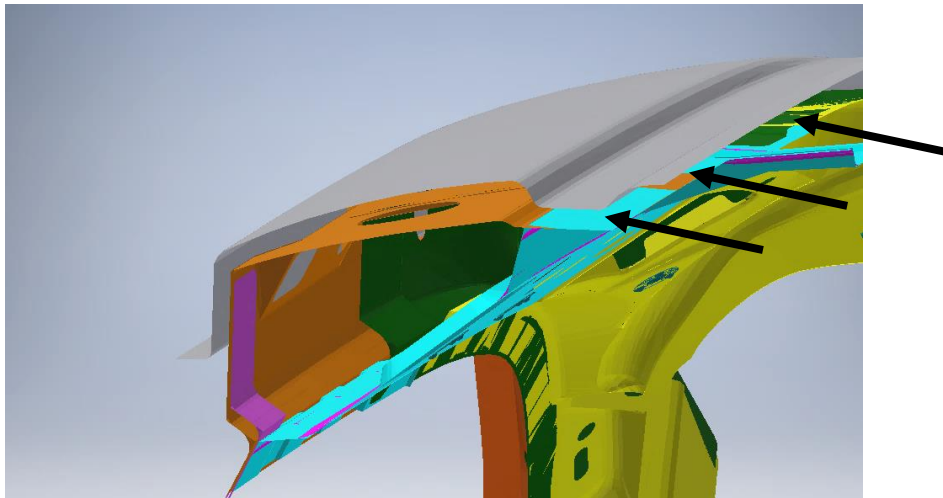


Photo #6

8. Inject 3M 4274 NVH Dampener material until the 3M 4274 is visible through the upper hole in the A-pillar to B-pillar chassis cab frame. Reference Illustrations #7 and #8.

NOTE:

Apply Dampener material in layers, ensuring that various layers are applied prior to set-up of the previous layer, and avoiding cold joints of the Dampener material being applied.

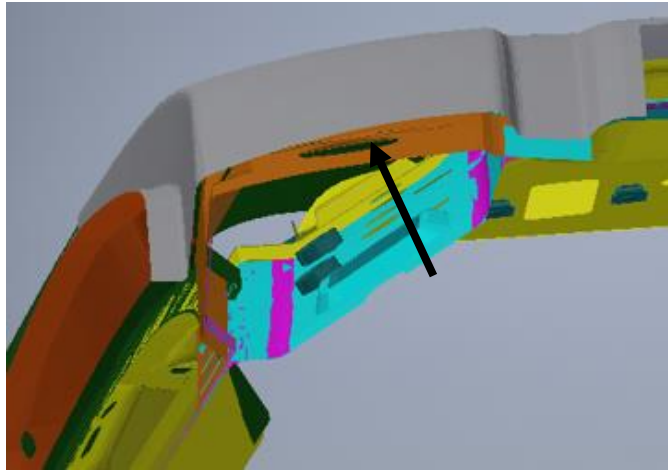


Photo #7

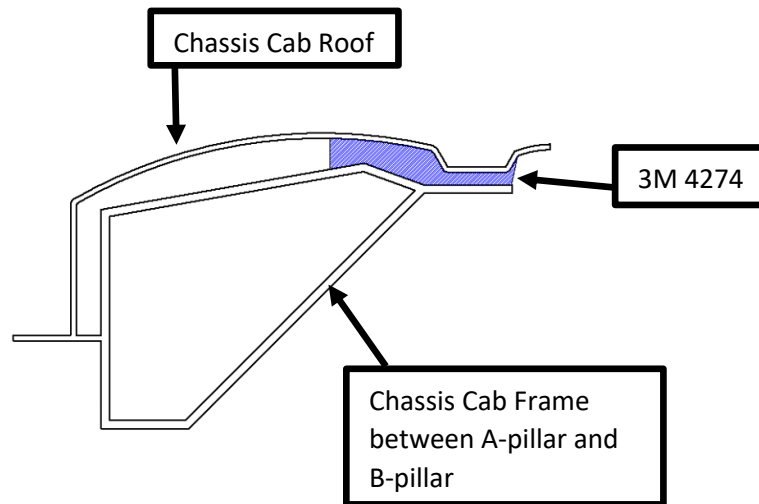


Illustration #8

9. Inject 3M 4274 NVH Dampener between the outer roof shell and the windshield frame from the driver side A-pillar to the passenger side A-pillar 48 inches. Reference Photo #9 & Illustration #10.

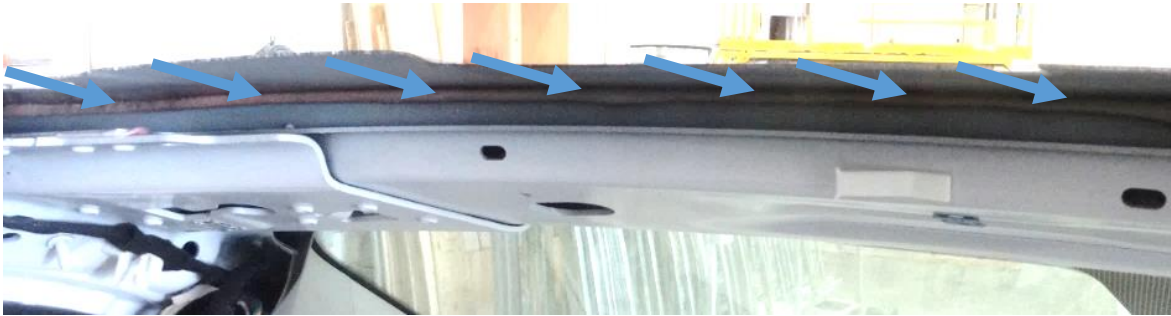


Photo #9
(representative example of location)

NOTE:

Ensure Dampener material is injected the full depth of the area between the windshield frame/cowl and the exterior cosmetic skin of the chassis cab. Reference Illustration #10.

NOTE:

Apply Dampener material in layers, ensuring that various layers are applied prior to set-up of the previous layer, and avoiding cold joints of the Dampener material being applied.

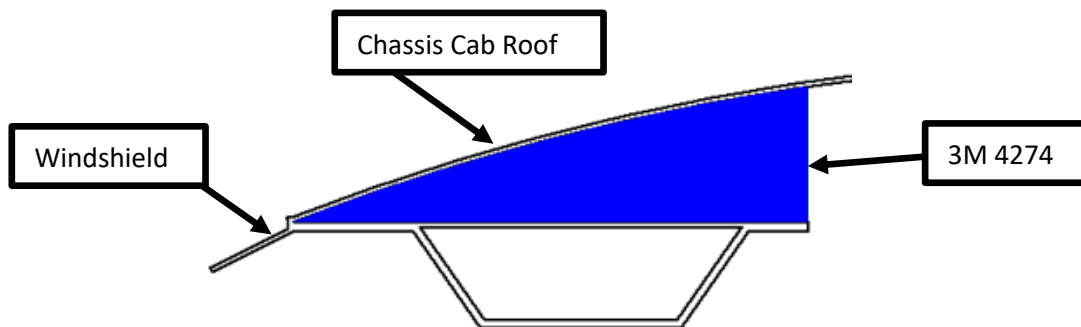


Illustration #10

10. Allow 3M 4274 NVH Dampener to cure for 24 hours minimum.
11. Insert CAP RNFRCMNT, AEF 11-16 metal component into the front cap. Reference Illustration #11.

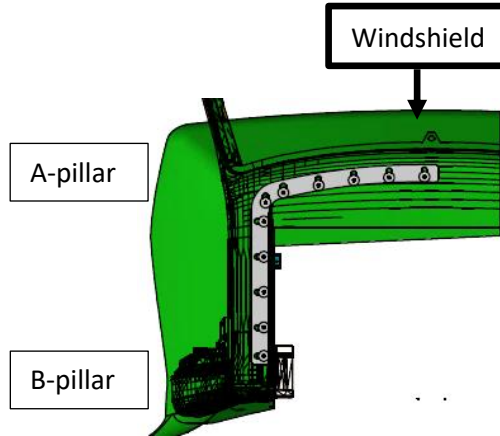


Illustration #11
Top View

NOTE:

Trim wood support in front cap as necessary to install the CAP RNFRMNT in location.
Reference Photo #12.



Photo #12

12. Align the CAP RNFRMNT metal component so that the portion over the window allows for the new bolt location to be drilled and inserted thru the front windshield frame at the pinch weld. Reference Illustration #11, and Illustration #13

13. Align the CAP RNFRMNT metal component between the A-pillar and B-pillar so that the holes of the CAP RNFRMNT allows for the new bolt location to be drilled and inserted through the pinch weld flange of the frame. Reference Illustration #11, and Illustration #14.
14. Mark each hole centerline location of the CAP RNFRMNT metal component on the interior side of the front cap fiberglass. Reference Illustration #11.

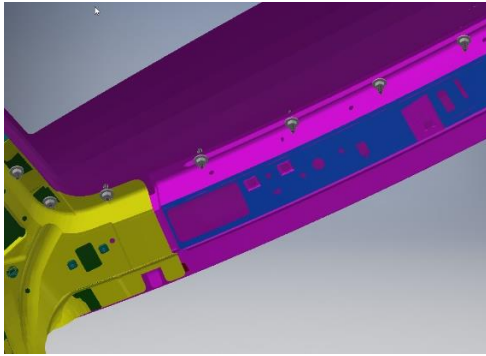


Illustration #13

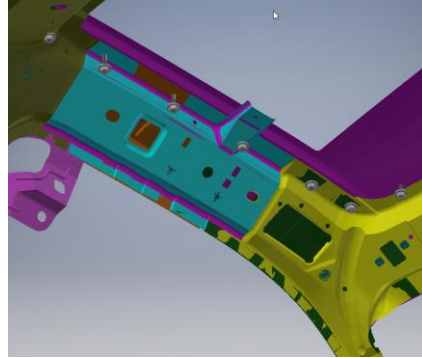


Illustration #14

15. Remove the CAP RNFRMNT metal component.
16. Drill a 5/16-inch hole thru the materials from interior surface of the front cap thru the front windshield frame pinch weld. Reference Illustration #6, and Illustrations #8 and #9.
17. Insert the CAP RNFRMNT metal component into the front cap, aligning the holes of the CAP RNFRMNT with the drilled/existing holes in the front cap.
18. Insert the bolts and hardware into each hole. Reference Illustration #11 and 0039762.
19. Tighten each bolt assembly until snug.
20. Torque each bolt assembly to 10 – 16 lb.ft.
21. Repair damaged sheetmetal per chassis manufacturer recommended practices or contact your local autobody shop for necessary repairs.
22. Reassemble interior components in reverse order as disassembly. Reference Photo #15.

NOTE:

Apply one (1) drop of Loctite 242 onto the threads of each screw prior to assembly.

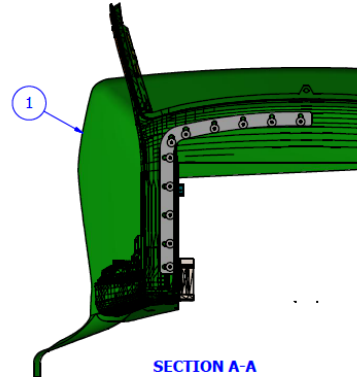
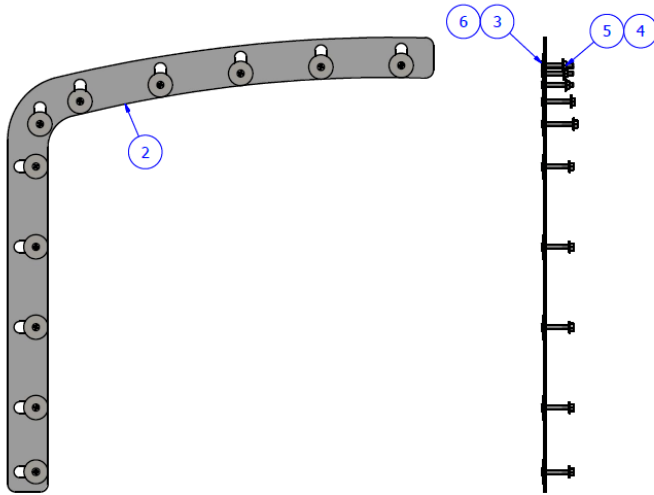


Photo #15

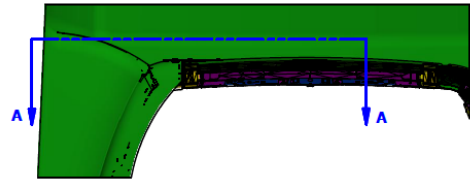
Contact Information:

Contact Eldorado Customer Service, 1655 Wall Street, Salina, KS 67401; or by calling (785) 827-1033 / (800) 955-9086; or by Email: bussupport@eldorado-bus.com; or by Fax: (785) 827-3017.

ITEM	PART NUMBER	DESCRIPTION	QTY
1	REF	FRT CAP	REF
2	0039763	CAP RNFRCMNT, AEF 11-16	1
3	0017997	SCREW, SMS 1/4-20 x 2 FH CNTSK SS	11
4	0000489	WASHER, FLAT 1/4" PLTD	11
5	113421	NUT, HEX NYLOCK 1/4-20 PLTD	11
6	0020938	WASHER, FENDER 1/4ID X 1-1/2OD	11
7	04274	3M NVH DAMPENING MATERIAL, 200ml CARTRIDGE	3
8	08193	3M STATIC MIXING NOZZLE, 200ml	2
9	08571	3M MANUAL CARTRIDGE APPLICATOR GUN, 200ml	1




SECTION A-A
SCALE 1/14
HIDDEN LINES OF CAB STEEL SHOWN



VIEW FROM BACK OF CAB

NOTES:
1) REFER TO SERVICE BULLETIN #2019-0034 FOR TOOLS & INSTRUCTIONS
2) ITEMS 7, 8, & 9 NOT SHOWN

MATERIAL: , SEE BOM		DRAWN BY: camerond		DATE: 2/27/2019	SCALE: 1:5
		TOLERANCES UNLESS NOTED		ALL DIMENSIONS IN INCHES UNLESS NOTED	
		.XX ±.06 .XXX ±.005 ANG ±.1°		SHEET NO: 1 OF 1	
REV: 2019-0034	DESCRIPTION: CAP RNFRCMNT ASM, AEF 11-16	DATE: 2/27/2019	BY: camerond	SHEET SIZE: B	WEIGHT: N/A
ECN: 0039762	TITLE: CAP RNFRCMNT ASM, AEF 11-16	DRAWING NO: 0039762			

REV	ECN	DESCRIPTION	DATE	BY

3M NVH Dampening Material 04274

Technical Data Sheet

May, 2011

3M Part No.(s)	3M Part Descriptor(s)
04274	3M™ NVH Dampening Material

Product Description A heavy bodied, flexible 2-part urethane adhesive to be used for NVH (noise, vibration and harshness) damping applications. Ideally suited for applications requiring long open time and/or non-expanding material.

- Features**
- 200 ml Dual-Syringe Cartridge System
 - Non-expanding
 - Long work time
 - Remains flexible

Typical Physical Properties Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

	Part A	Part B
Container	200 ml Dual-Syringe Cartridge	
Base/Accelerator	Urethane	
Color	Black	Amber / Clear
Solids Content (Appx.)	100%	
Consistency	Thick paste when mixed	
Service Temperature - °F	-20 to 180°F	

- Product Uses** NVH applications throughout the vehicle, including, but not limited to:
- Between roof bows and roof skin
 - Between door skin and intrusion beam
 - Between quarter panel and inner structure
 - Between hood and deck lid skins and underlying spider frames

Use with the following applicators: PN 08571 (manual), PN 08117 (manual), and PN 09930 (pneumatic).

3M™ Static Mixing Nozzle: PN 08193 (6/bag), PN 08194 (50/box).

3M™ NVH Dampening Material 04274

Typical Performance Properties

The following times have been determined with ambient air temperature and substrate temperature @ 70°F and are considered typical values.

WORK TIME:
60 minutes

MIX NOZZLE DWELL TIME:
20 minutes

CURE TIME:
24 hours at 77°F
1 hour at 160°F
30 minutes at 210°F

HARDNESS:
45 shore A

Directions for Use

1. Where applicable, clean areas with an appropriate 3M VOC compliant product for removal of surface contaminants. Reference the 3M Automotive Aftermarket Catalog for a suitable VOC compliant product.
2. Dry fit replacement panel to ensure proper fit up prior to applying 3M™ NVH Dampening Material.

PRODUCT PREPARATION:

1. Insert cartridge into applicator gun.
2. Remove retaining collar and plug from end of cartridge. Discard plug, save retaining collar.
3. Extrude a small amount of product until both parts A and B dispense equally.
NOTE: Parts A and B of this product are very runny prior to mixing. It is recommended that you extrude the material with the dispensing end of the cartridge facing upward, into a paper towel. Continue to hold the cartridge in this position until you have completed the next step (4).
4. Attach 3M™ Static Mixing Nozzle (PN 08193, 08194) to cartridge and lock in place with retaining collar.
5. Dispense a small amount of material through the nozzle and discard.

PRECAUTIONARY INFORMATION:

Before using this product, please reference Product Label and/or Material Safety Data Sheet for Health and Safety Information.

GENERAL REPAIR PROCESS:

1. Apply adhesive to the desired area.
2. Allow to cure 24 hours.

CLEAN-UP:

Remove excess PN04274 prior to complete cure by using an appropriate VOC compliant adhesive remover suitable for most surfaces, such as 3M™ Specialty Adhesive Remover (PN38984 / PN38987).

3M™ NVH Dampening Material 04274

Applications May be used as a noise dampening material in the form of a bead, or tooled with a spreader over an area to form a sound dampening pad.

Storage and Handling When stored at the recommended conditions in original, unopened containers, this product has a shelf life of 12 months. Store at room temperature. Rotate stock on a "first-in-first-out" basis.

After use, leave mix nozzle in place to seal the cartridge.

Precautionary Information Refer to Product Label and Material Safety Data Sheet for Health and Safety Information before using this product.

Technical Information The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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For Additional Health and Safety Information

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