Date: January 17, 2020

Service Bulletin

Bulletin No.: 2019-0042

Product Models Affected:
AeroElite Ford, 2017MY

FORM Rev 2020-0127

Purpose:
To repair the second unit body front hood and roof attachment assembly.

Warranty Status:
Standard warranty coverage for all product models.

Tool(s) / Equipment Required:
Grinder
  Cut-off Wheel
  Grinding/Sanding Disk
Scraper
Chocks
Wire Brush
Safety Glasses (PPE)
Hearing Protection (PPE)
Gloves, Cut Resistant (PPE)
Gloves, Rubber/Chemical Resistant (PPE)
Dust Mask (PPE)
Tape Measure
Screwdriver, Phillips #2 & #3
Plastic Putty Knife
Steel Wool, as necessary
Utility Knife
Micro fiber Rag(s)
Paint Brush
Roller (fiberglass)
Sandpaper, 60 – 80 grit
Scissor
Heat Gun
Saw

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Part(s) / Material Required:

Description	*Part Number*	*Quantity*
Sikaflex 252 (or equivalent)	E52631	A/R
Isopropyl Alcohol	N/A	A/R
Paint Reducer	N/A	A/R
3.50 x 36.00 inch Plywood ¾ BCX	010670	2
3.50 x 7.00 inch Plywood ¾ BCX	010670	2
3M EXTREME SEALING TAPE WHT 2"	E55084	A/R
3M 94 Primer	E54713	A/R
Two-part adhesive	N/A	A/R
Everglass Short Strand Fiberglass Reinforcement Body Filler	N/A	A/R
Hardener	N/A	A/R
Fiberglass catalyst	N/A	A/R
Fiberglass resin	N/A	A/R
Chopped strand matt – fiberglass 3.0 oz/sq ft mat x .045”	N/A	2 YD
H-mold	0020348	12 ft

Estimate Time-To-Repair:

16 hours (not including dry time)

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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 expiration/manufacturing date of adhesives and sealants. Ensure product handling and storage processes meet manufacturer requirements.
4. Protect adjacent areas, from weld spatter and debris from grinding during hot work operations.
5. Protect adjacent areas, from overspray of paints and adhesives during assembly/finish operations.
6. Disconnect battery(ies), PCM/ECM/Modules, and other electrical device connections as described in the Ford Service Manual for welding on the chassis.
7. Reconnect battery(ies), PCM/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.
8. Wear appropriate PPE during rework process operations.
9. Ensure a fire extinguisher or other fire control apparatus are available during hot work operations.
10. Follow OEM instructions regarding the removal and re-installation, or protection of alternate fuel cells and/or components of the alternate fuel system installed on the vehicle when completing hot work operations.
11. Move any hoses, electrical harnesses or wire, or other components from the immediate work area where the hot work operations may be performed.
12. Follow appropriate industry standards and best practices for welding operations.
13. Follow manufacturer instructions for the handling and use of adhesives, sealants, and other materials used in sub-assembly and assembly processes.

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Procedure:

1. Remove passenger side stanchion & handrail assembly by removing screws in the end caps at the ceiling, floor and sidewall. Reference Photos 1 & 2. Do not discard the screws. They will be reused during reinstallation of the stanchion & handrail assembly.

Photo 1

Photo 2

2. Remove driver side stanchion assembly by removing screws in the end caps at the ceiling, floor and sidewall. Reference Photo 3. Do not discard the screws. They will be reused during reinstallation of the stanchion assembly.

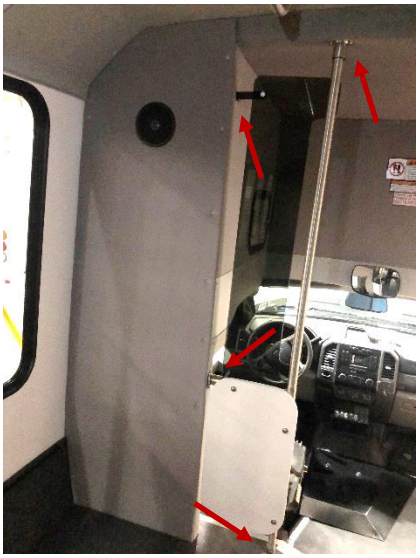

Photo 3

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3. Remove overhead handrail assembly(ies), as necessary, by removing screws in the end caps at the ceiling. Reference Photo 4. Do not discard the screws. They will be reused during reinstallation of the overhead handrail assembly.

Photo 4

4. Remove the overhead luggage bin assembly(ies), as necessary, by removing screws in the brackets attached to the ceiling and the screws attaching the luggage rack to the sidewall. Reference Photo 5. Do not discard the screws. They will be reused during reinstallation of the overhead luggage bin assembly.
   Note: Remove enough luggage bin sections to allow removal of the first section of interior ceiling panel behind the driver area.

Photo 5

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5. Remove the interior panel on the bulkhead behind the driver area by removing any retaining screws. Reference Photo 6. Do not discard the screws. They will be reused during reinstallation of the interior panel.

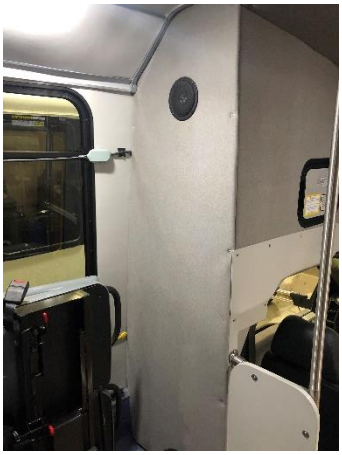

Photo 6

6. Remove the interior ceiling panel behind the driver area by removing any retaining screws. Reference Photo 7. Do not discard the screws. They will be reused during reinstallation of the interior panel.

Photo 7

7. If it is necessary to remove the interior ceiling panel over the driver;
    a. Remove overhead lights by removing the retaining screws and disconnecting the electrical plug. Reference Photo 8. Do not discard the screws. They will be reused during reinstallation of the light fixtures.
    b. Remove the ceiling panel(s) over the driver by removing any retaining screws. Reference Photo 8. Do not discard the screws. They will be reused during reinstallation of the ceiling panel.

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Photo 8

8. Remove any screws holding electrical harness clamps to the ceiling/sidewall and move the harness out of the way. Reference Photo 9.

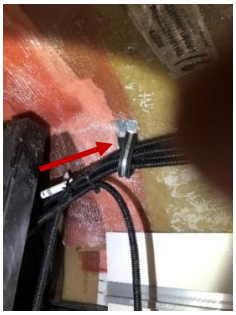

Photo 9

NOTE
Protect adjacent areas and area under the joint from sanding operations, fiberglass resin or from overspray of paints and adhesives during assembly/finish operations.

9. If there is plywood in the recess area of the front cap/roof joint seam with a fiberglass matte overlay, remove the fiberglass matte overlay and plywood pieces along the ceiling. Reference Photo 10.

Photo 10

10. If there is a fiberglass matte underneath the plywood pieces covering the front cap/roof H-mold seam, remove the fiberglass matte, exposing the H-mold. Reference Photo 11.

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Photo 11

11. Carefully cut the H-mold on the front cap/roof joint area from the top of window on the driver sidewall to the top of entry door on the passenger side, and remove the H-mold from the joint area using a diamond saw. Reference Photo 12.
    Note: There should be 0.12 – 0.25 inch gap between the front cap edge and the roof edge.

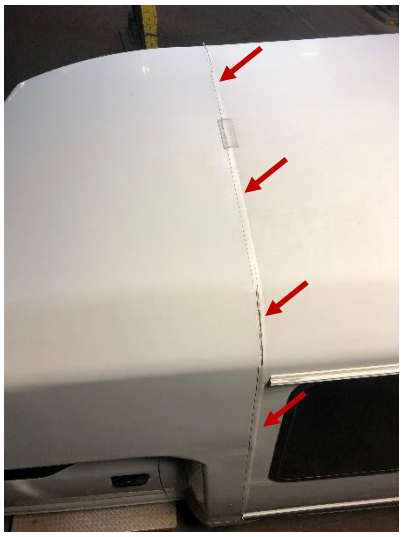

Photo 12

12. Sand the interior side of the front cap and roof along the seam where the H-mold has been removed. Ensure sanding results in the entire area between the front hood hoop and the roof offset has a rough surface for installation of the fiberglass matte. Reference Photo 15.

13. Measure the gap between the top of the front hood hoop and the bottom of the fiberglass interior. Ensure the gap is 0.38 inches minimum. Reference Photo 13.

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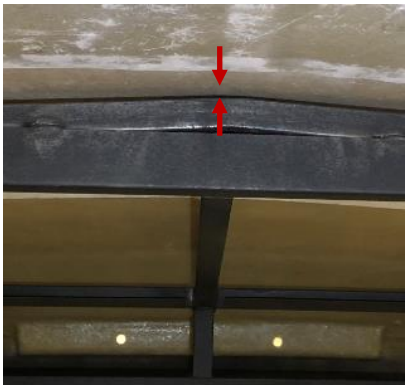

Photo 13

14. Install new H-mold into the gap between the front cap edge and the roof edge.
    Note: Using a heat gun, ensure H-mold seams are tight and there are no gaps, and the H-mold lays flat against the interior and exterior surfaces of the fiberglass components.

15. Remove all dust and debris from the plywood joint and sanded roof area.

16. Wipe the areas with acetone to remove find particles.

NOTE
Protect adjacent areas and area under the joint from sanding operations,
fiberglass resin or from overspray of paints and adhesives
during assembly/finish operations.

17. Cut the fiberglass matting in strips approximately 6.00 inches wide by 24.00 inches long (maximum).

18. Mix fiberglass resin to the same formula as before, 20 cc of catalyst to 2 quarts of resin.

19. Saturate the fiberglass matting with the fiberglass resin mixture.

20. Apply fiberglass matting to seam in the recessed area covering the H-mold using a smoothing back and forth motion working from one end to the other. Apply and smooth the fiberglass matte from the front hood hoop to the rear of the vehicle. Reference Photo 14 for a representation of the process. Roll the fiberglass matte to remove air bubbles.

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Photo 14

21. Apply the 6.00 inch by 24.00 inches pieces of saturated matting, as needed, to cover the new H-mold installation.

22. Allow to dry 6 hours minimum.

23. Sand off bumps, hairs or extrusions that may show through headliners.
    Ensure sanding results in the entire area between the front hood hoop and the roof offset has a rough surface for installation of the fiberglass matte.
    Note: The entire area at the seams will be slightly raised and is normal.

24. Cut two pieces of 0.75 inch thick plywood 3.50 inches wide x 36 inches long, making a 45 degree chamfer on one 36.00 inch length.

25. Cut two pieces of 0.75 inch thick plywood 3.50 inches wide x 7.00 inches long, making a 45 degree chamfer on one 36.00 inch length.

26. Make rough the flat surfaces of the plywood using a 60 – 80 grit sandpaper.

27. Remove all dust and debris from the plywood.

28. Apply the two-part adhesive to the 3.50 x 36.00 inch cut pieces of plywood on the unchamfered side and insert in the recess just behind the front hood hoop, pushing the plywood against roof offset. Hold into place. Reference Photos 15 & 16.
    Note: Ensure the chamfered edge is not pushed against the roof offset.
    Note: Place the plywood into the recess quickly to ensure good adhesion to the fiberglass.

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Photo 15

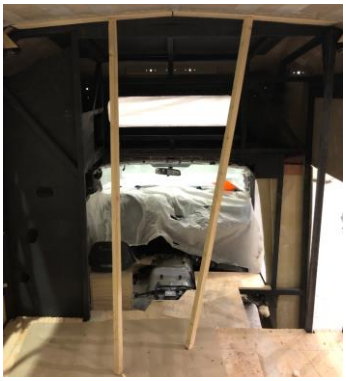

Photo 16

29. Apply the two-part adhesive to the 3.50 x 7.00 inch cut pieces of plywood on the unchamfered side and insert in the recess just behind the front hood hoop, pushing the plywood against roof offset. Hold into place. Reference Photos 17.
    Note: Ensure the chamfered edge is not pushed against the roof offset.
    Note: Place the plywood into the recess quickly to ensure good adhesion to the fiberglass.

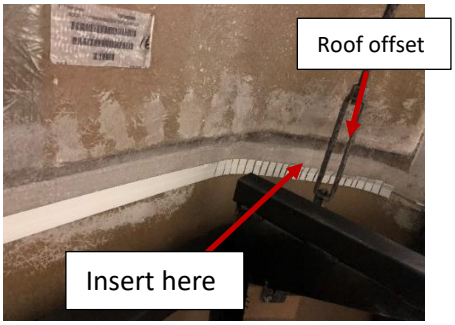

Photo 17

30. Allow plywood joint to dry for at least 2 hours with braces in place.

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31. Remove the braces and supports.

NOTE
Protect adjacent areas and area under the joint from sanding operations, fiberglass resin or from overspray of paints and adhesives during assembly/finish operations.

32. Sand the fiberglass ceiling 5.00 – 6.00 inches rearward of the plywood joint from the driver sidewall to the passenger sidewall. Reference Photo 18. Ensure sanding results in the entire area behind the roof offset has a rough surface for installation of the fiberglass matte.

Photo 18

33. Remove all dust and debris from the plywood joint and sanded roof area.

34. Wipe the areas with acetone to remove find particles.

35. Apply 1.50 inch wide masking tape over the seam between the roof ceiling offset and the plywood insert. Reference Photo 19.

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Photo 19

36. Cut the fiberglass matting in strips approximately 10.00 inches wide x 24.00 inches long (maximum).

37. Mix fiberglass resin to the same formula as before, 20 cc of catalyst to 2 quarts of resin.

38. Saturate the fiberglass matting with the fiberglass resin mixture.

39. Apply fiberglass matting to seams using a smoothing back and forth motion working from one end to the other, ensuring the fiberglass matting is laid flat to the front hood ceiling over the top of the front hood hoop. Apply and smooth the fiberglass matte from the front hood hoop to the rear of the vehicle. Roll the fiberglass matte to remove air bubbles. Reference Photo 20.

Photo 20

40. Apply the 10.00 inch by 24.00 inches pieces of saturated matting, as needed, to cover the plywood installation.

41. Allow to dry 6 hours minimum.

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42. Sand off bumps, hairs or extrusions that may show through headliners.
    Note: The entire area at the seams will be slightly raised and is normal.

43. Remove all dust and debris from the repaired area, cleaning the unit in preparation for reinstallation of removed components and assemblies.

44. Reinstall any electrical harness retention clamps, reversing operations completed in Step 8.

45. Reinstall ceiling panel(s) and overhead light assemblies over the driver, reversing operations completed in Step 7.

46. Reinstall ceiling panels behind the driver, reversing operations completed in Step 6.

47. Reinstall interior panel on the bulkhead behind the driver area, reversing operations completed in Step 5.

48. Reinstall overhead luggage bins, as applicable, reversing operations completed in Step 4.
49. Reinstall overhead handrails, as applicable, reversing operations completed in Step 3.

50. Reinstall driver stanchion, reversing operations completed in Step 2.

51. Reinstall passenger stanchion and handrail, reversing operations completed in Step 1.

52. On the exterior of the vehicle along the front cap/roof seam, apply Sika 252 sealant along either side of the H-mold.

53. Allow Sika 252 to dry 2 hours minimum.

54. Wipe area of front cap/roof assembly seam where the 3M Sealing Tape is to be applied, using Isopropyl Alcohol. Reference Photo 21 for a representation of the process step.

Photo 21

55. Apply 3M 94 Primer to both surfaces. Allow time to completely dry prior to tape application. Reference Photo 22 for a representation of the process step.

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Photo 22

56. Apply 3M Sealing Tape to the front cap/roof from the drip rail on the driver sidewall to approximately the top of entry door, laying it over the top of the H-mold. Reference Photo 23 for a representation of the process step.

Photo 23

57. Firmly press tape down along the seam and on either side of the H-mold. Reference Photo 24.

Photo 24

58. Clean the vehicle removing all dust and debris from the repair operations.

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Body Paint

If Body Paint is required;

1. Ensure metal and/or fiberglass areas being painted have been appropriately prepped for painting, ensuring the area stays clear of debris and any contaminants.

2. Protect adjacent areas from paint overspray.

3. Apply paint to metal and fiberglass areas to match surrounding area, allowing adequate time to dry prior to any subsequent coats of paint being applied.

4. Apply additional coats of paint as desired.

5. If there are graphics applied to the fiberglass of the vehicle, ensure to protect from paint overspray, or repair as required.

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) 823-9471.

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