2021 Navigator

Procedure revision date: 02/14/2018

Floor Panel Section

Special Tool(s) / General Equipment

6.5 mm Drill Bit					
Scraper for Straight Edges					
Spherical Cutter					
Self-Piercing Rivet (SPR) Remover/Installer					
Belt Sander					
Blind Rivet Gun					
Hot Air Gun					
Air Body Saw					
Locking Pliers					

Materials

Name	Specification		
Metal Bonding Adhesive TA-1, TA-1-B, 3M™ 08115, LORD Fusor® 108B	-		
Seam Sealer TA-2-B, 3M™ 08308, LORD Fusor® 803DTM	-		

Removal

NOTICE: Sectioning may not be performed within 50 mm of restraints, seats, door hinge or door striker anchoring points. Failure to follow this direction may compromise vehicle integrity.

NOTE: Aluminum body panels are highly receptive to heat transfer. With the extensive use of structural adhesives and non-structural sealers used in vehicle construction, the potential of heat transfer could impact adhesives and sealers in non-associated panels during the repair process. Many repairs areas that utilize structural adhesive may be separated after fastener removal by using a panel chisel along the joint/flange. Using heat not exceeding 425° F to loosen a bonded panel should only be done when **all panels in the joint** will be replaced and new adhesive applied.

NOTE: The floor panel may be sectioned at any point providing restraints, seats, door hinge or striker provisions are met. Adjust the following procedure to meet repair needs.

NOTE: It is recommended when possible to section the floor panel over floor reinforcements. In any case the repair should be sectioned allowing for a lap weld at the sectioning point.

- 1. Verify the vehicle is dimensionally correct.

 Refer to: <u>Body and Frame</u> (501-26 Body Repairs Vehicle Specific Information and Tolerance Checks, Description and Operation).
- Depower the supplemental restraint system.
 Refer to: <u>Supplemental Restraint System (SRS) Depowering</u> (501-20B Supplemental Restraint System, General Procedures).
- 3. Remove the interior trim as necessary.

 Refer to: A-Pillar Trim Panel (501-05 Interior Trim and Ornamentation, Removal and Installation).

Refer to: B-Pillar Trim Panel (501-05 Interior Trim and Ornamentation, Removal and Installation).

Refer to: C-Pillar Trim Panel (501-05 Interior Trim and Ornamentation, Removal and Installation).

Refer to: <u>D-Pillar Trim Panel - Long Wheelbase</u> (501-05 Interior Trim and Ornamentation, Removal and Installation).

Refer to: <u>D-Pillar Trim Panel - Short Wheelbase</u> (501-05 Interior Trim and Ornamentation, Removal and Installation).

Refer to: Loadspace Trim Panel (501-05 Interior Trim and Ornamentation, Removal and Installation).

4. Remove the seats and console.

Refer to: Floor Console (501-12 Instrument Panel and Console, Removal and Installation).

Refer to: Front Seat (501-10A Front Seats, Removal and Installation).

Refer to: Front Seat Track (501-10A Front Seats, Removal and Installation).

Refer to: Second Row Seat (501-10B Second Row Seats, Removal and Installation).

Refer to: Second Row Center Seat (501-10B Second Row Seats, Removal and Installation).

- 5. Remove the door opening weather strips and scuff plate.
- 6. Position the carpeting and wiring harnesses away from the work area.
- 7. Remove any NVH materials in the repair area.

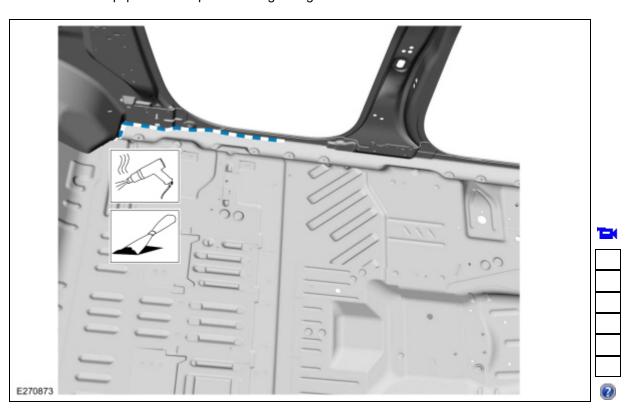
Use the General Equipment: Hot Air Gun

Use the General Equipment: Scraper for Straight Edges

8. Remove the seam sealer.

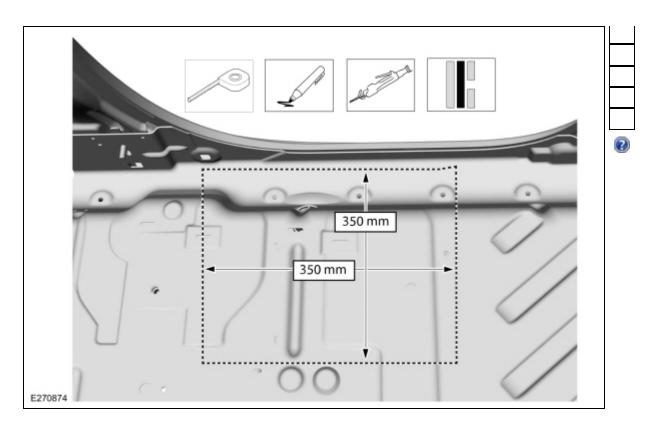
Use the General Equipment: Hot Air Gun

Use the General Equipment: Scraper for Straight Edges

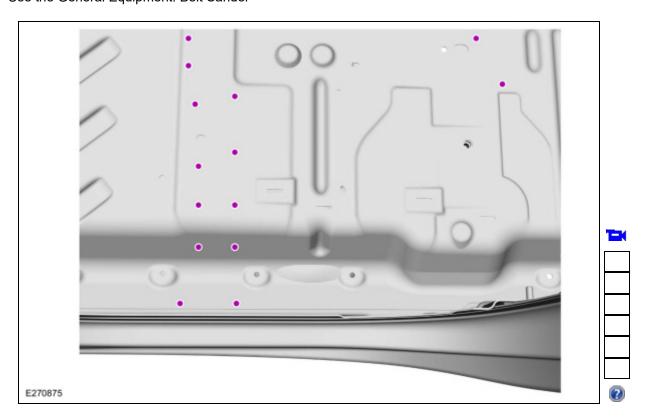


Carefully measure and cut the outer panel only.
 Use the General Equipment: Air Body Saw
 Use the General Equipment: Spherical Cutter





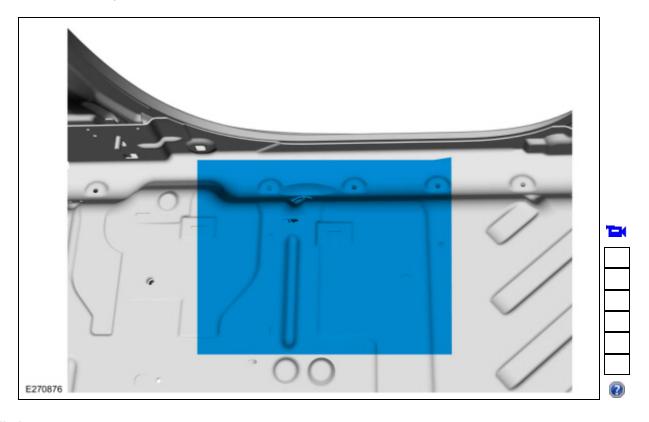
Remove the fasteners.
 Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer
 Use the General Equipment: Belt Sander



11. **NOTE:** Aluminum body panels are highly receptive to heat transfer. With the extensive use of structural adhesives and non-structural sealers used in vehicle construction, the potential of heat transfer could impact adhesives and sealers in non-associated panels during the repair process. Many repairs areas

that utilize structural adhesive may be separated after fastener removal by using a panel chisel along the joint/flange. Using heat not exceeding 425° F to loosen a bonded panel should only be done when **all panels in the joint** will be replaced and new adhesive applied.

Remove the floor panel section.



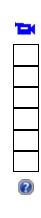
Installation

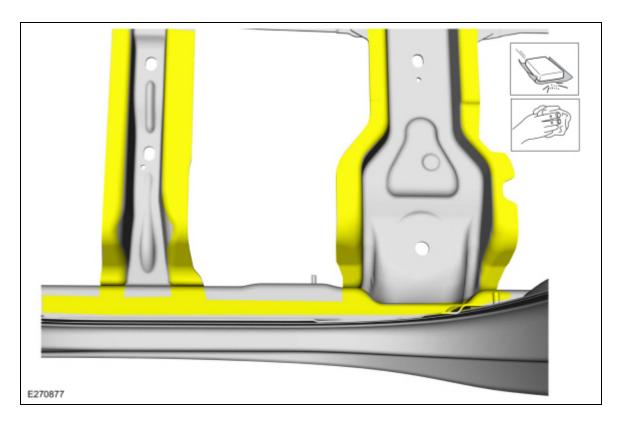
NOTICE: Sectioning may not be performed within 50 mm of restraints, seats, door hinge or door striker anchoring points. Failure to follow this direction may compromise vehicle integrity.

NOTE: The floor panel may be sectioned at any point providing restraints, seats, door hinge or striker provisions are met. Adjust the following procedure to meet repair needs.

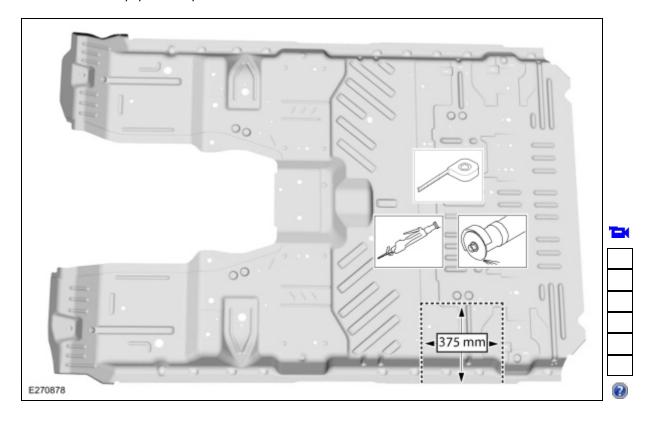
NOTE: It is recommended when possible to section the floor panel over floor reinforcements. In any case the repair should be sectioned allowing for a lap weld at the sectioning point.

1. 80-120 grit sand paper.
Sand to remove old adhesive and clean.

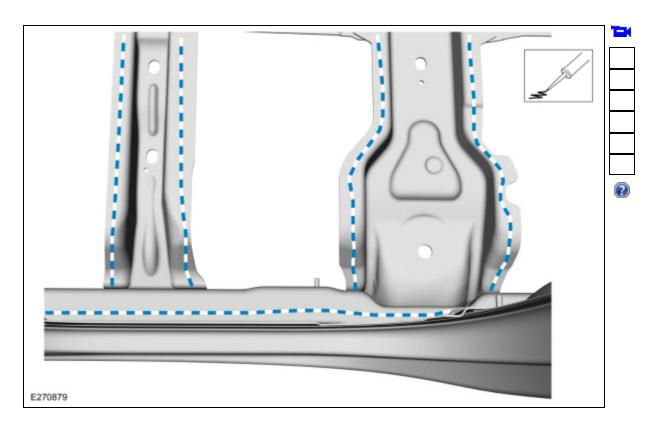




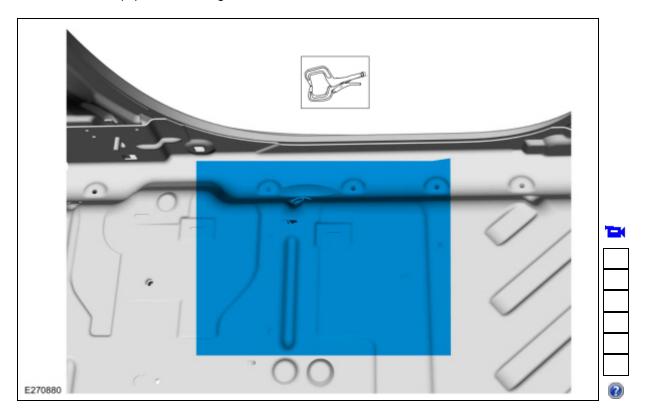
Cut the replacement panel 25 mm larger in length and width to fit vehicle opening creating a lap joint.
 Use the General Equipment: Air Body Saw
 Use the General Equipment: Spherical Cutter



3. Apply adhesive. *Material*: Metal Bonding Adhesive / TA-1, TA-1-B, 3M[™] 08115, LORD Fusor® 108B

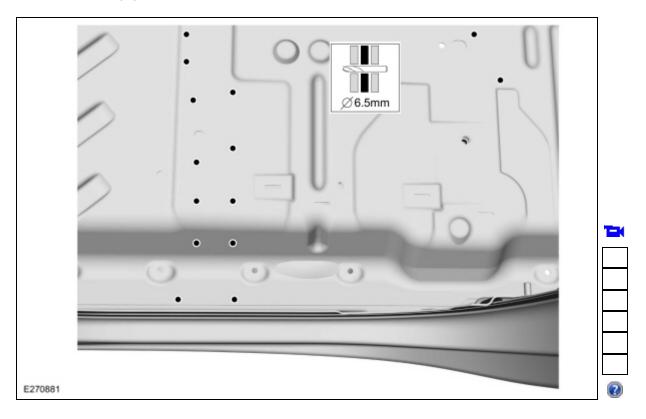


4. Install the floor panel section and clamp in position. Use the General Equipment: Locking Pliers



5. **NOTE:** Blind or solid rivet fasteners may be used in place of <u>SPR</u> fasteners after enlarging holes to 6.5 mm.

Drill for fasteners.
Use the General Equipment: 6.5 mm Drill Bit

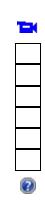


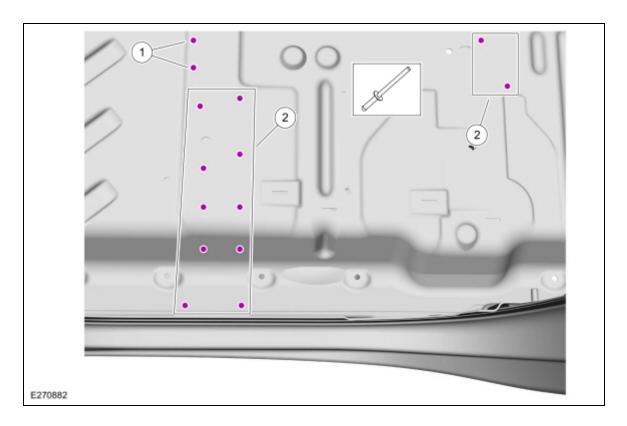
6. **NOTE:** Blind or solid rivet fasteners may be used in place of <u>SPR</u> fasteners after enlarging holes to 6.5 mm.

Install fasteners.

Item	<u>SPR</u> Number	<u>SPR</u> Code	Henrob® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W708777- S900C	-	-
2	-	-	-	-	W702512- S900C	-	-

Use the General Equipment: Blind Rivet Gun





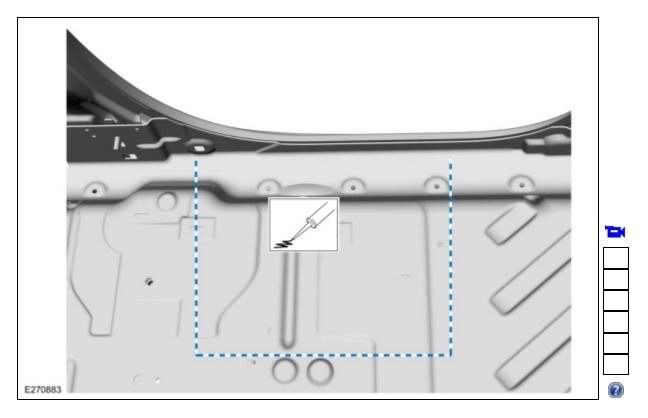
7. Metal finishing:

Metal finish using typical aluminum metal finishing techniques and materials.

Refer to: Special Repair Considerations for Aluminum Repairs (501-25 Body Repairs - General Information, Description and Operation).

8. Seam seal the floor panel section lap joints

*Material: Seam Sealer / TA-2-B, 3M™ 08308, LORD Fusor® 803DTM



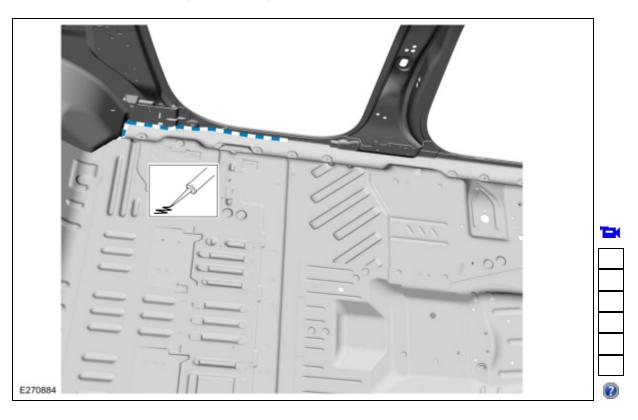
9. Apply locally obtained butyl NVH pads in areas noted during removal.

10. Seam Sealing:

All seams must be sealed to production level.

Material: Seam Sealer / TA-2-B, 3M™ 08308, LORD Fusor® 803DTM

**TA-2-B, 3M™ 083DTM*



- 11. Refinish the entire repair using a Ford approved paint system.
- Restore corrosion protection.
 Refer to: <u>Corrosion Prevention</u> (501-25 Body Repairs General Information, General Procedures).
- 13. Reposition the wiring harnesses and carpeting.
- 14. Install the door opening weather strips and scuff plate.
- 15. Install the interior trim as necessary.
 - Refer to: A-Pillar Trim Panel (501-05 Interior Trim and Ornamentation, Removal and Installation).
 - Refer to: B-Pillar Trim Panel (501-05 Interior Trim and Ornamentation, Removal and Installation).
 - Refer to: C-Pillar Trim Panel (501-05 Interior Trim and Ornamentation, Removal and Installation).
 - Refer to: <u>D-Pillar Trim Panel Long Wheelbase</u> (501-05 Interior Trim and Ornamentation, Removal and Installation).
 - Refer to: <u>D-Pillar Trim Panel Short Wheelbase</u> (501-05 Interior Trim and Ornamentation, Removal and Installation).
 - Refer to: Loadspace Trim Panel (501-05 Interior Trim and Ornamentation, Removal and Installation).
- 16. Install the seats and console.
 - Refer to: Floor Console (501-12 Instrument Panel and Console, Removal and Installation).
 - Refer to: Front Seat (501-10A Front Seats, Removal and Installation).
 - Refer to: Front Seat Track (501-10A Front Seats, Removal and Installation).
 - Refer to: Second Row Seat (501-10B Second Row Seats, Removal and Installation).
 - Refer to: Second Row Center Seat (501-10B Second Row Seats, Removal and Installation).

17. Repower the SRS.

Refer to: <u>Supplemental Restraint System (SRS) Repowering</u> (501-20B Supplemental Restraint System, General Procedures).

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