

501-30 Rear End Sheet Metal Repairs  
Removal and Installation

2021 F-150

Procedure revision date: 09/25/2020

### Floor Panel Section


#### Special Tool(s) / General Equipment

6.5 mm Drill Bit
11 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

 **WARNING:** Electric vehicles damaged by a crash may have compromised high voltage safety systems and present a potential high voltage electrical shock hazard. Exercise caution and wear appropriate Personal Protective Equipment (PPE) safety gear, including high voltage safety gloves and boots. Remove all metallic jewelry, including watches and rings. Isolate the HV system as directed by the Ford Emergency Response Guide for the vehicle. Failure to follow these instructions may result in serious personal injury or death.

**NOTICE:** Battery electric vehicle (BEV), hybrid electric vehicle (HEV) and plug-in hybrid electric vehicle (PHEV) contain a high-voltage battery. Before cutting or welding near the high-voltage battery it must be removed to avoid damage.

-  **WARNING:** Before beginning any service procedure in this manual, refer to health and safety warnings in section 100-00 General Information. Failure to follow this instruction may result in serious personal injury.

Refer to: [Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

Refer to: [High Voltage System Health and Safety Precautions - Overview](#) (100-00 General Information, Description and Operation).

**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:** *SuperCab shown unless noted, SuperCrew and Regular Cabs similar.*

2. Depower the **SRS**.

Refer to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).

3. Remove the seats.

Refer to: [Front Center Seat](#) (501-10A Front Seats, 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: [Rear Seat LH - SuperCab](#) (501-10B Rear Seats, Removal and Installation).

Refer to: [Rear Seat RH - SuperCab](#) (501-10B Rear Seats, Removal and Installation).

Refer to: [Rear Seat LH - SuperCrew](#) (501-10B Rear Seats, Removal and Installation).

Refer to: [Rear Seat RH - SuperCrew](#) (501-10B Rear Seats, Removal and Installation).

4. If equipped:

Remove the console.

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

5. Remove the C-pillar trim panel.

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

6. Remove the door opening weather strips and scuff plate.

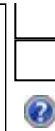
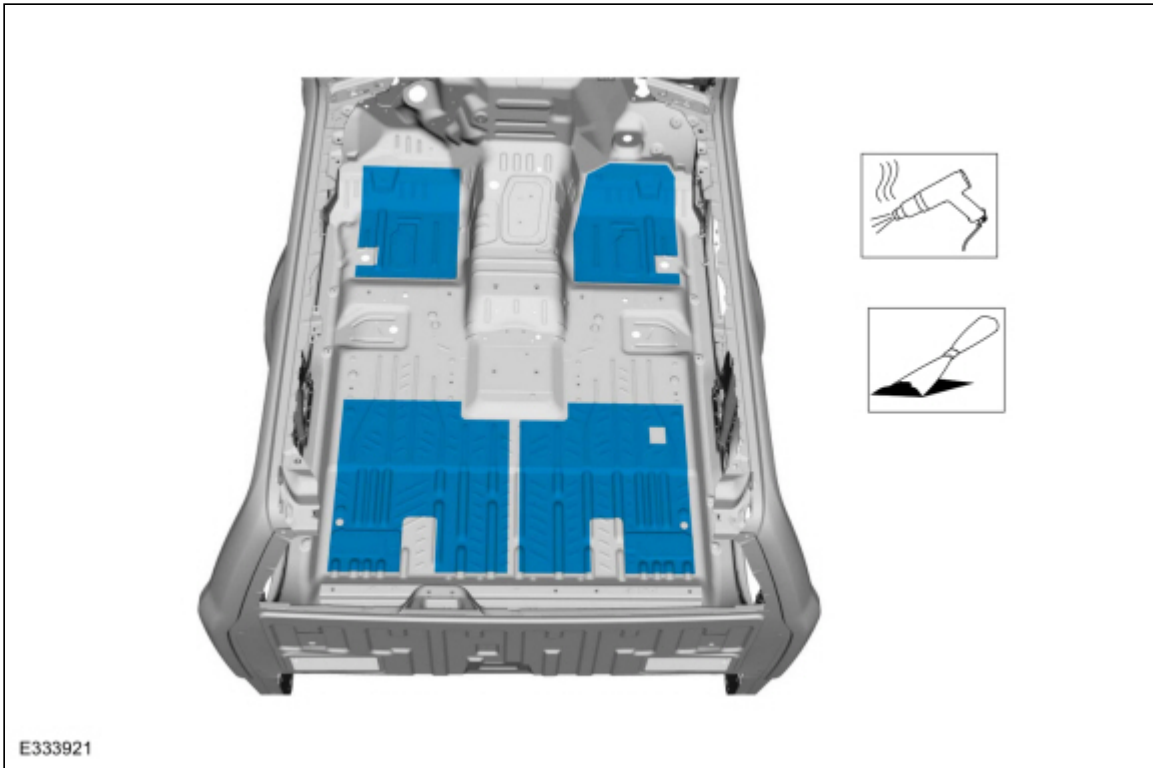
7. Position the carpeting and wiring harnesses away from the work area.

8. Remove the **NVH** pads as necessary.

Use the General Equipment: Scraper for Straight Edges

Use the General Equipment: Hot Air Gun





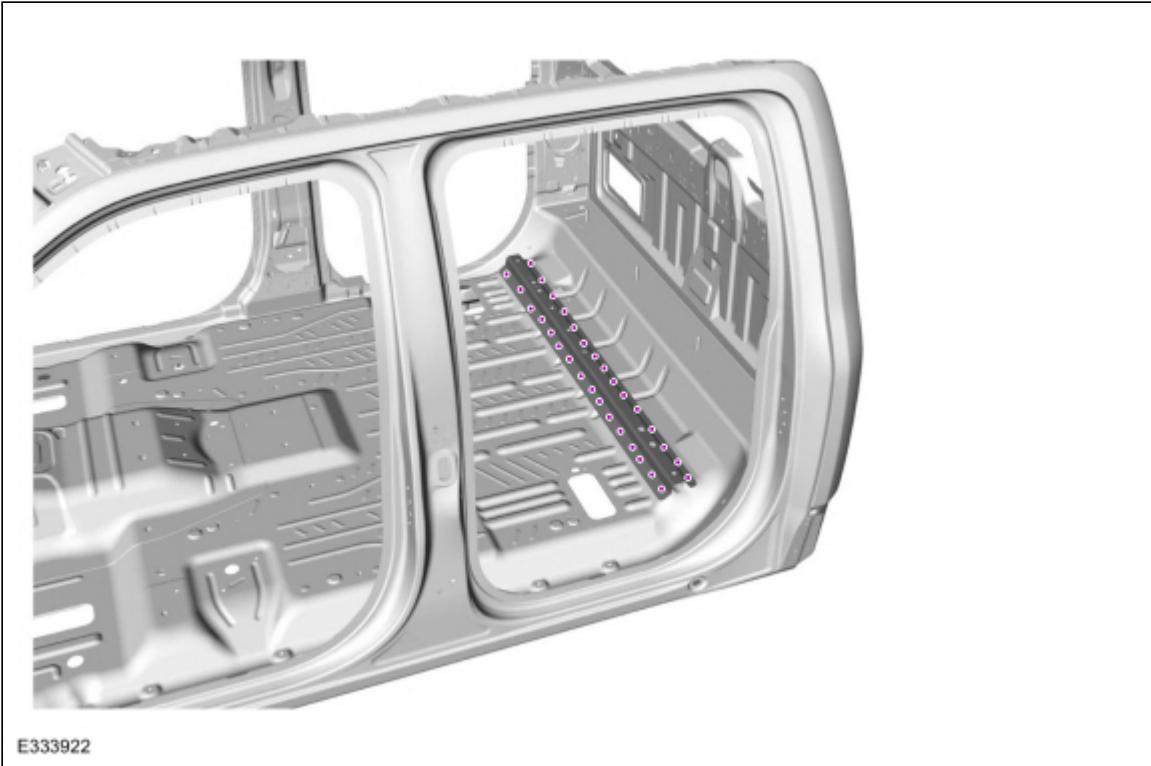
**9. SuperCab and SuperCrew:**

Remove the SPR fasteners.

Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer

Use the General Equipment: Belt Sander

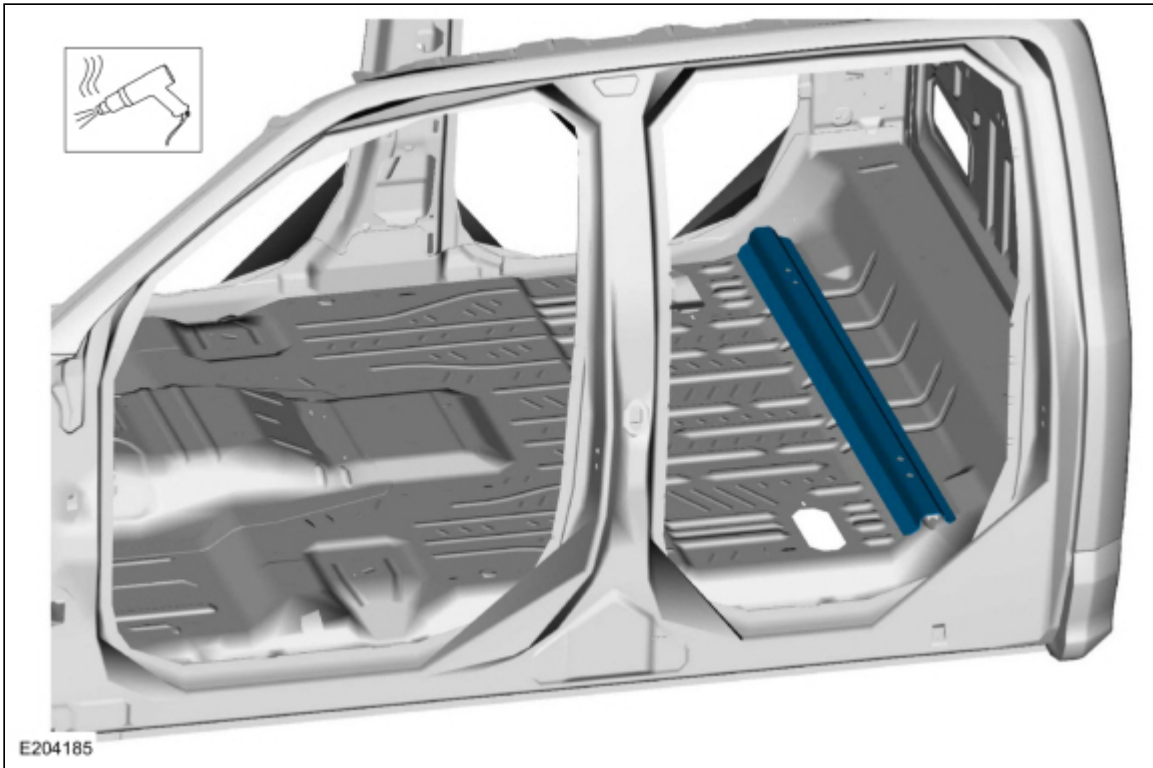




10. **SuperCab and SuperCrew:**

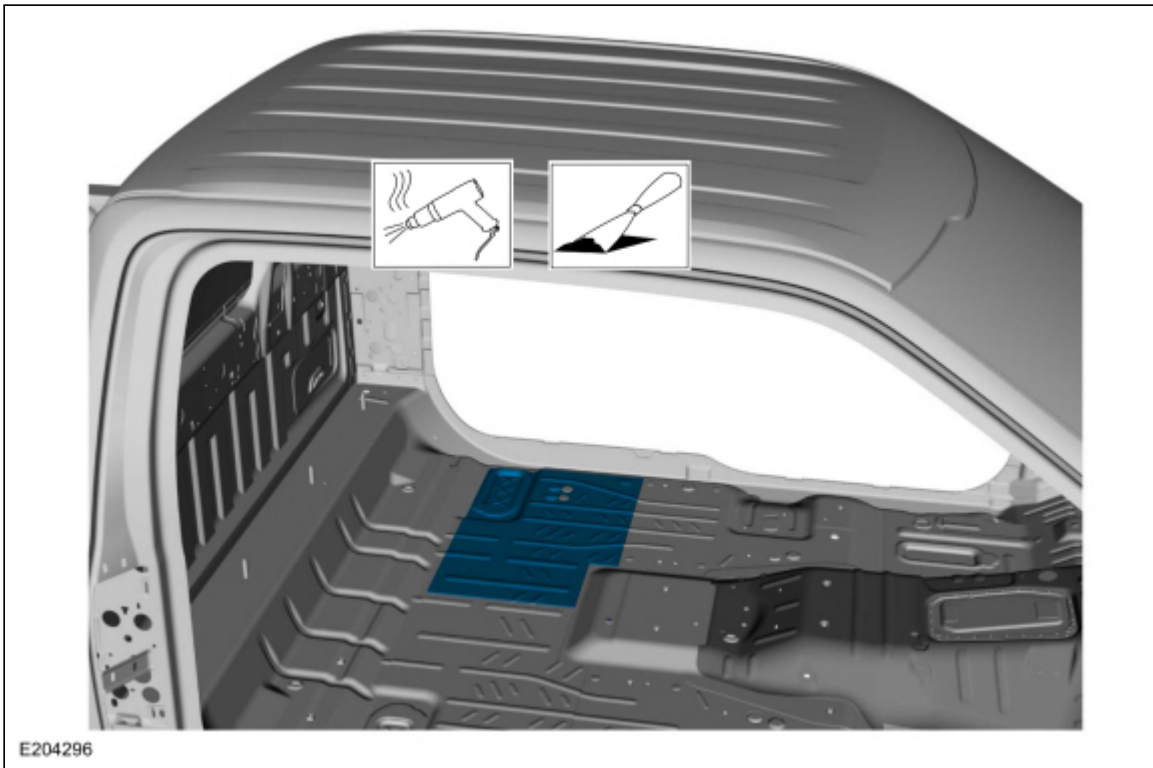
Break the adhesive bond and remove the rear seat brace.  
Use the General Equipment: Hot Air Gun





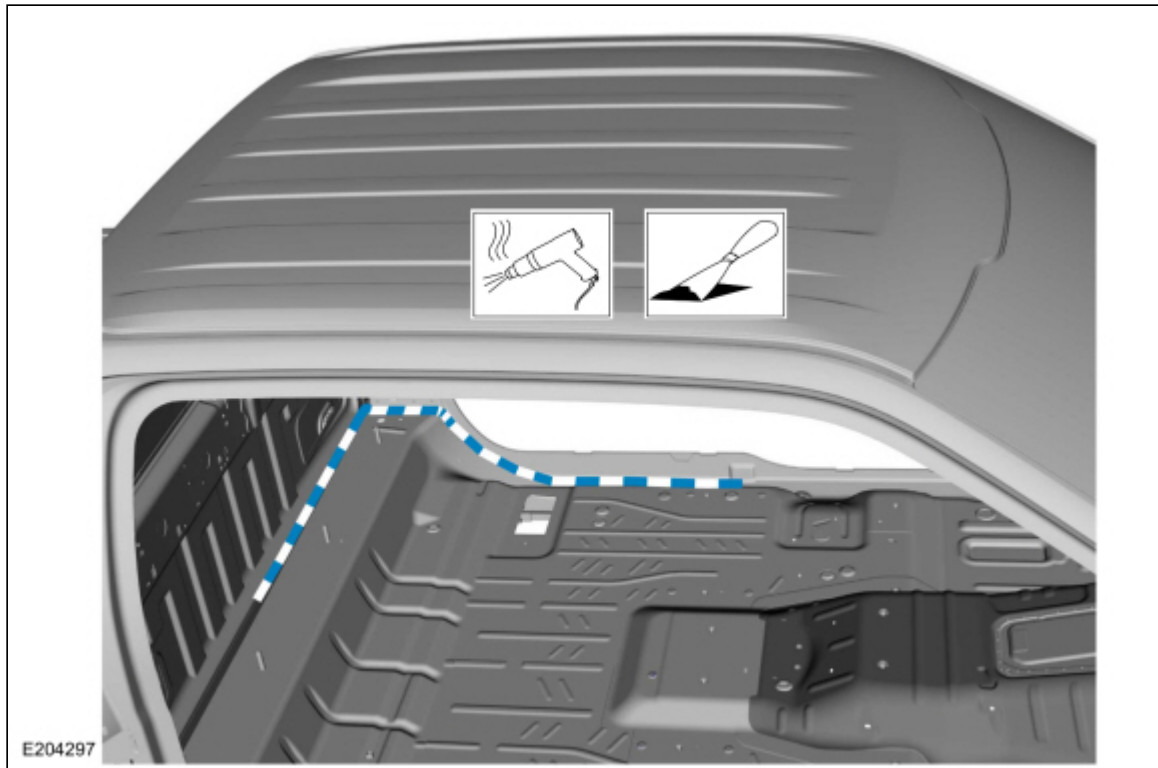
- 11. Remove the NVH pad.  
Use the General Equipment: Hot Air Gun  
Use the General Equipment: Scraper for Straight Edges



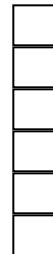


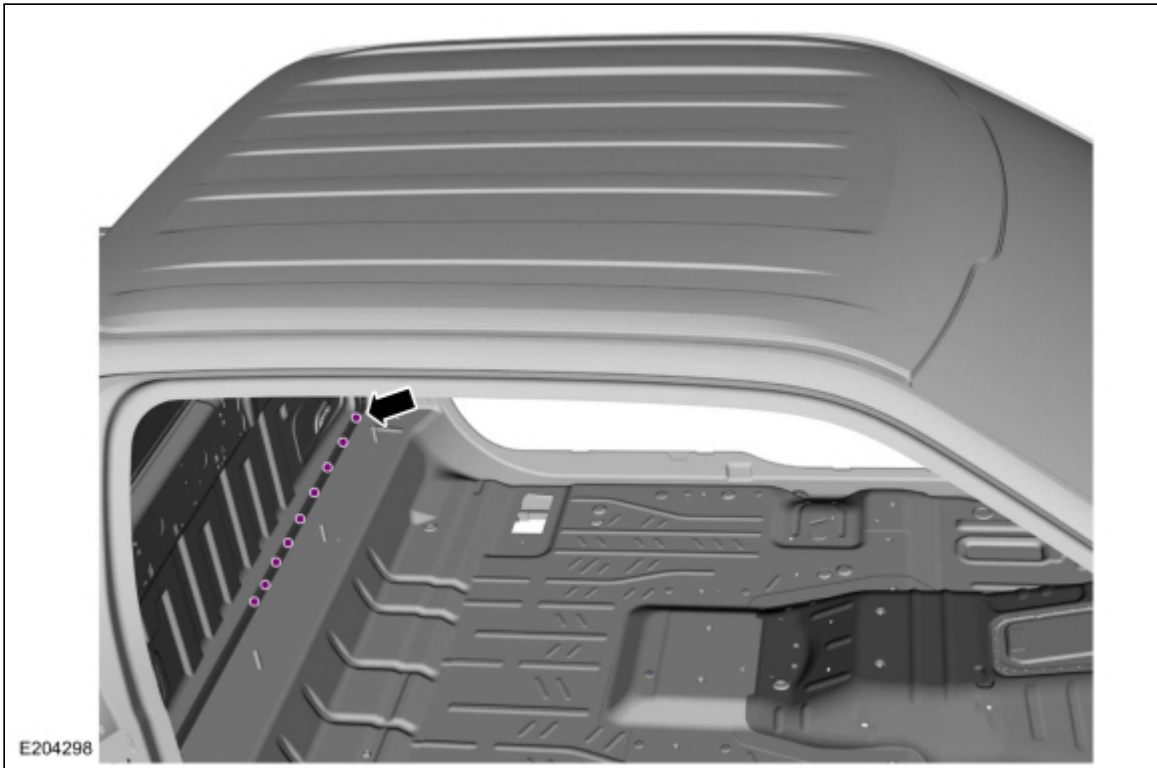
- 12. Remove the seam sealer.  
Use the General Equipment: Hot Air Gun  
Use the General Equipment: Scraper for Straight Edges





13. Remove the floor panel to cab back SPR fasteners.  
Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer  
Use the General Equipment: Belt Sander

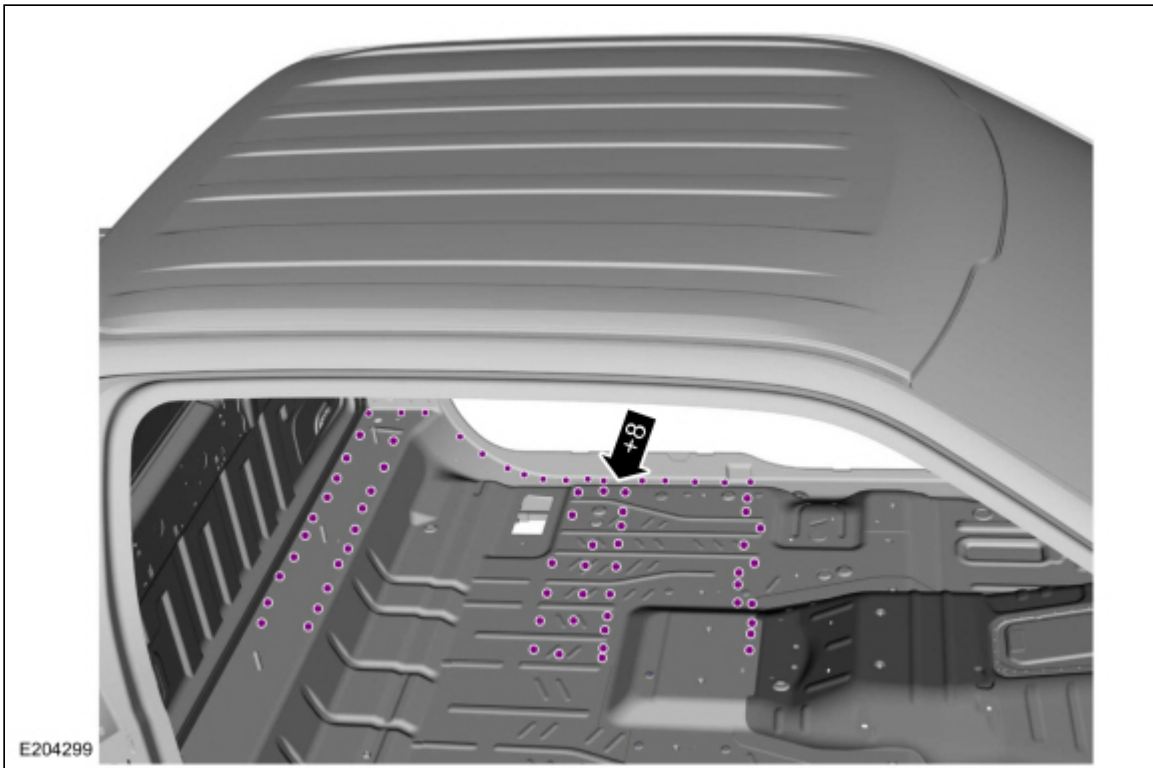




- 14. Remove the floor panel SPR fasteners.  
Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer  
Use the General Equipment: Belt Sander

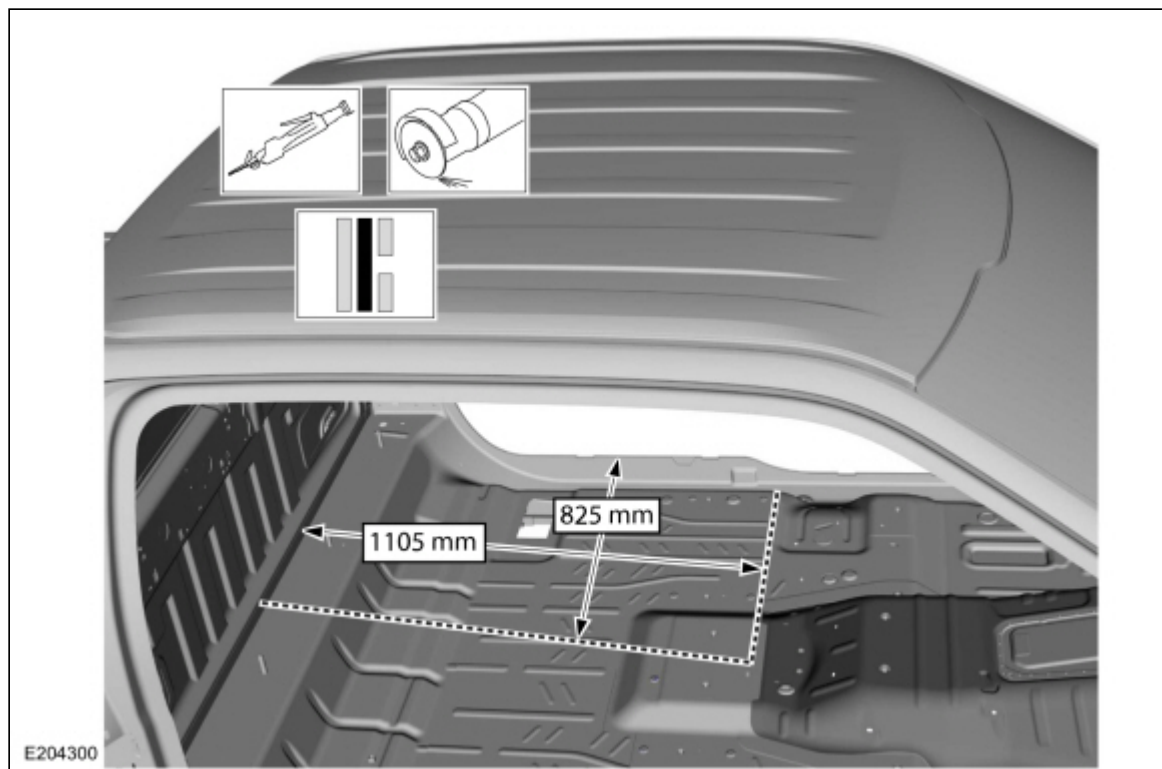






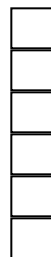
- 15. Carefully cut the outer panel only.  
Use the General Equipment: Air Body Saw  
Use the General Equipment: Spherical Cutter

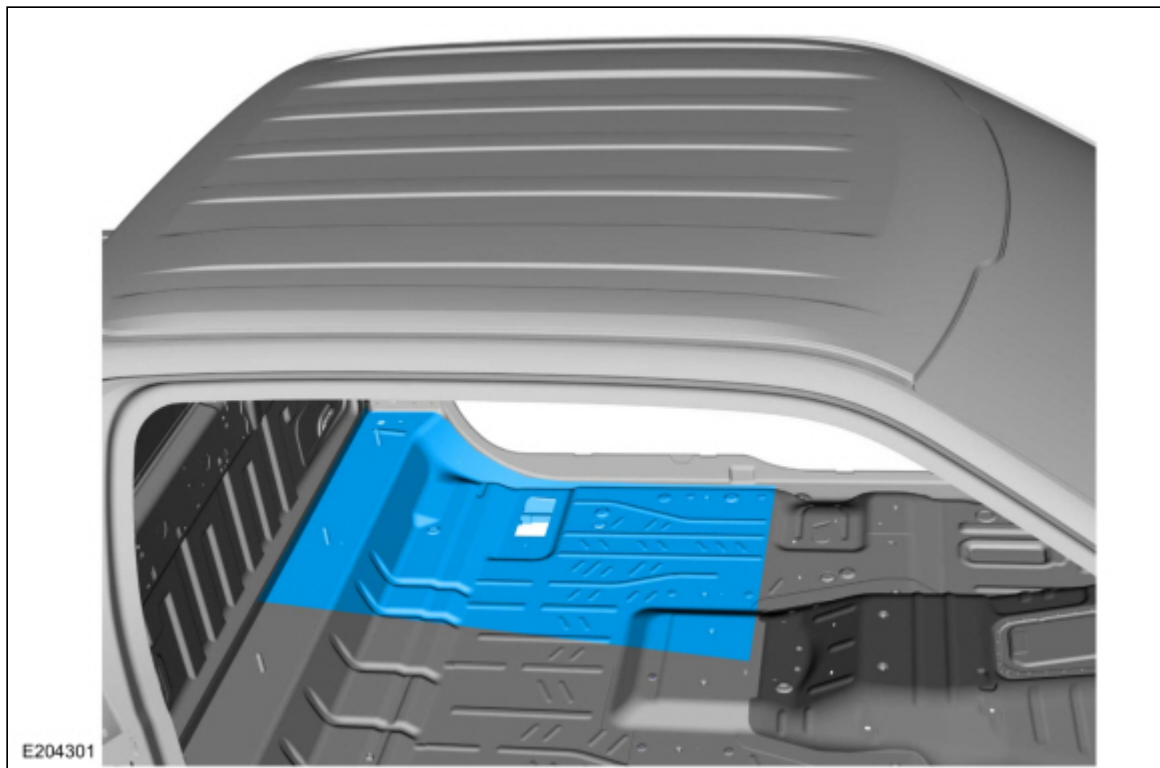




16. **NOTE:** Aluminum body panels are highly receptive to heat transfer. With the extensive use of structural adhesives and non-structural sealers used in vehicle construction, the potential of heat transfer could impact adhesives and sealers in non-associated panels during the repair process. Many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

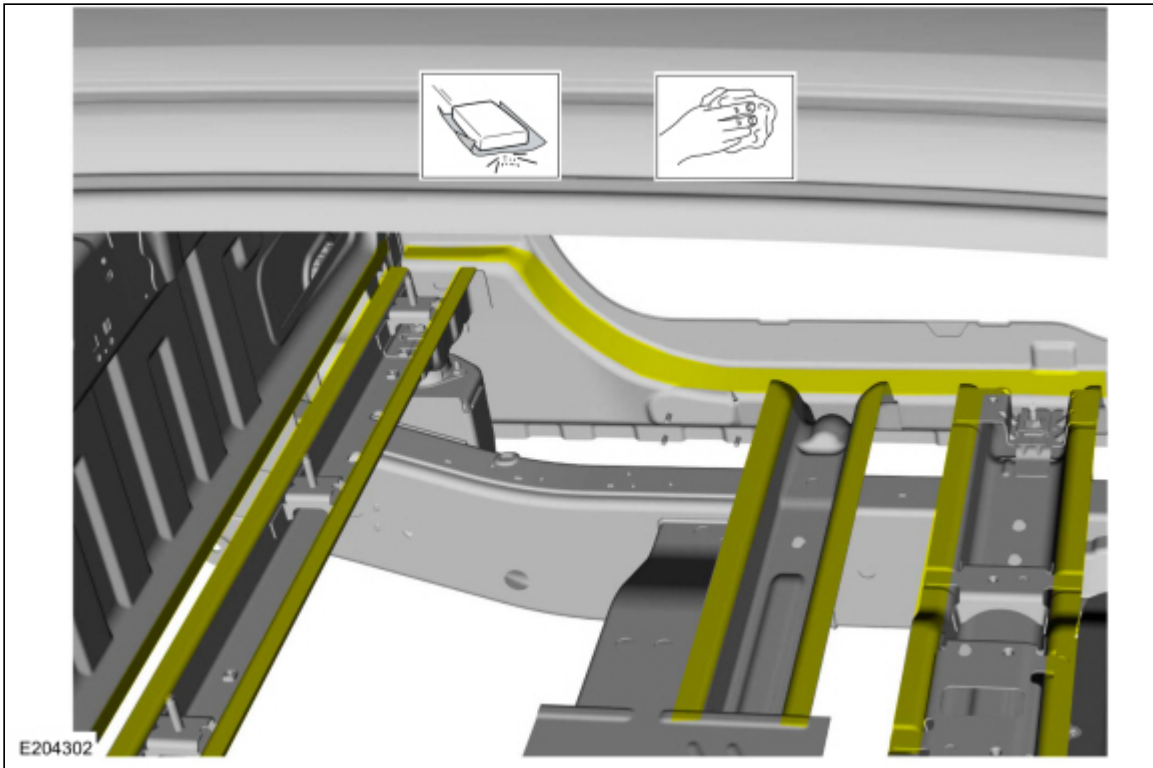
**NOTICE:** Sectioning may not be performed within 50 mm of restraints, seats, door hinge or door striker anchoring points. Failure to follow this direction may compromise vehicle integrity.

**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.

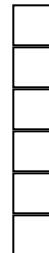
**NOTE:** SuperCab shown unless noted, SuperCrew and Regular Cabs similar.

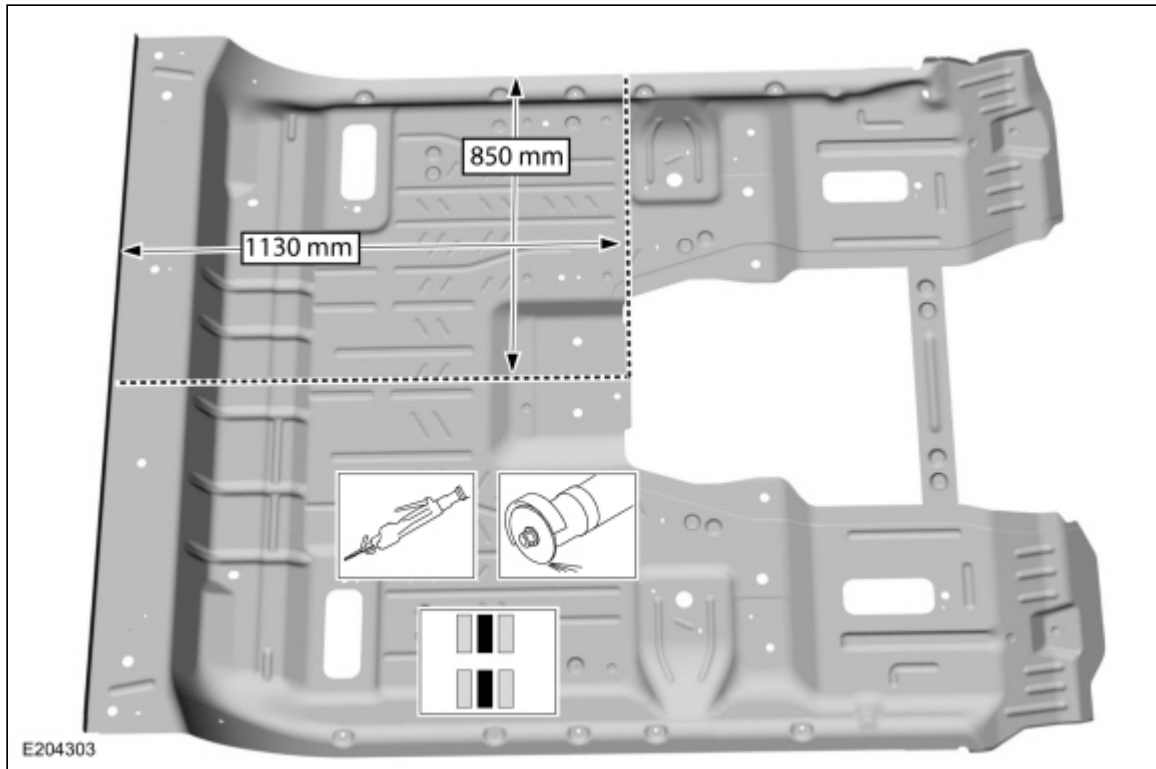
1. 80-120 grit sand paper.  
Sand to remove old adhesive and clean.





- 2. 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

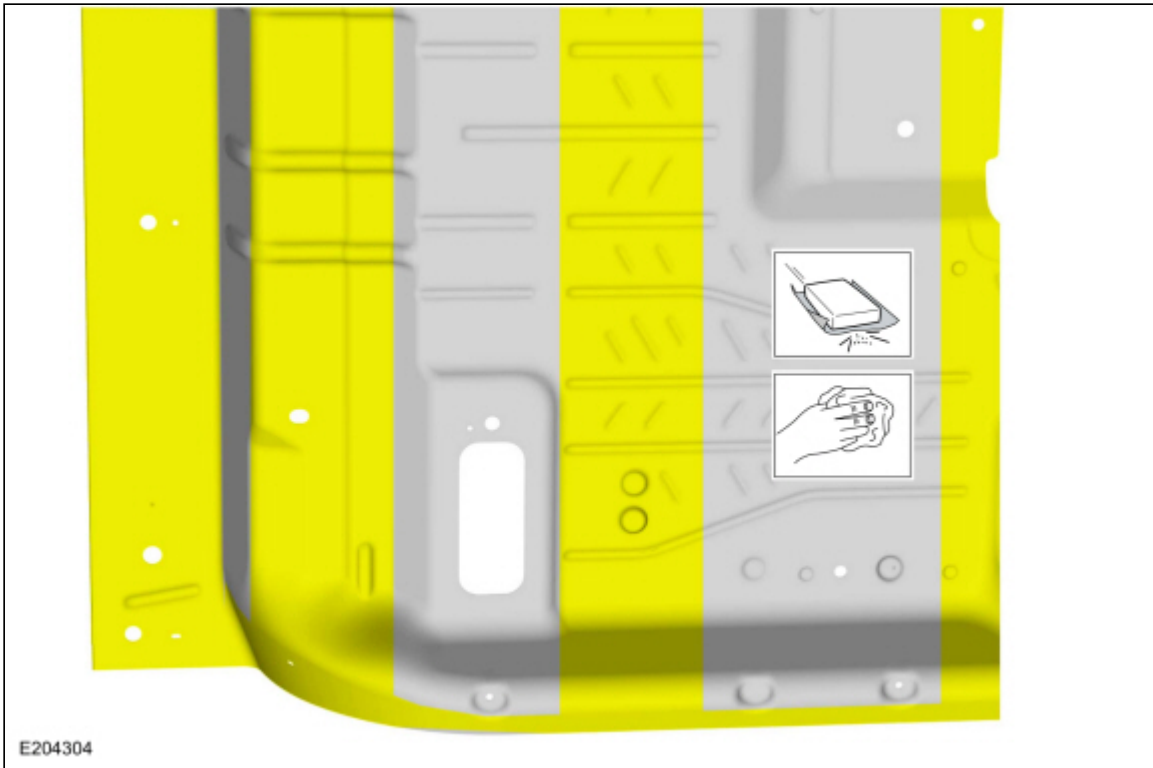




- 3. 80-120 grit sand paper.  
Sand to remove e-coat and clean.



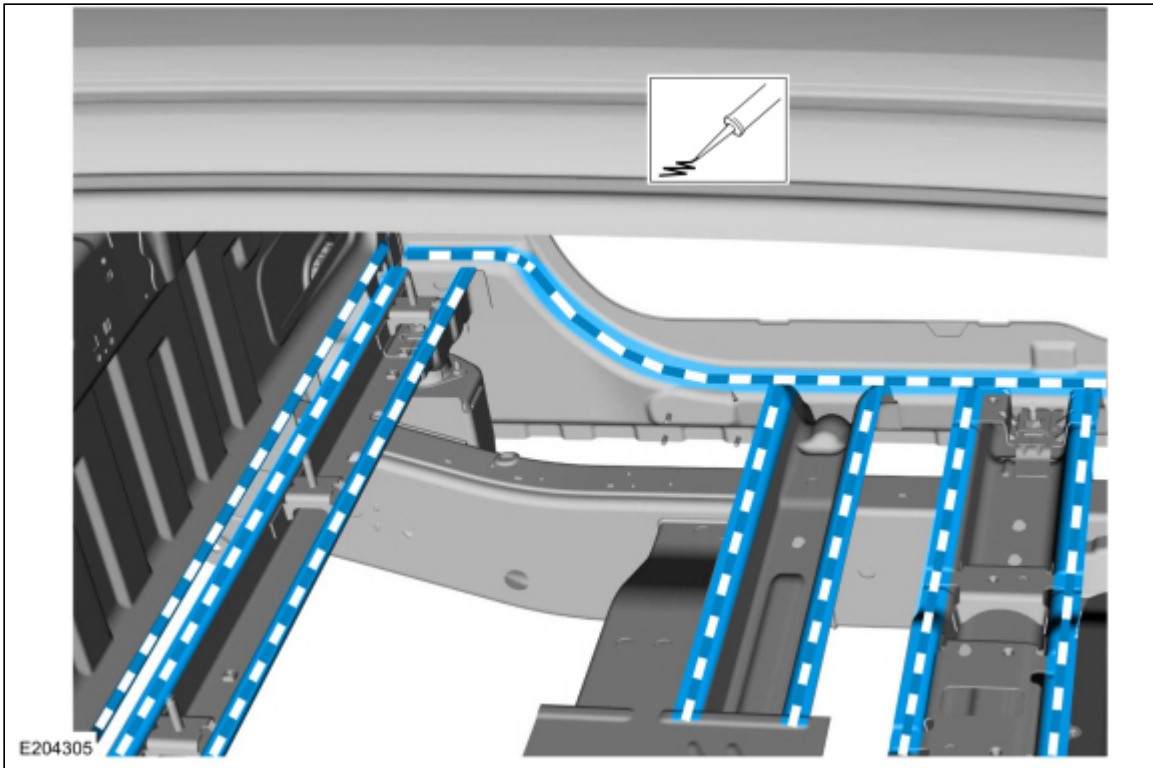


4. Apply adhesive.

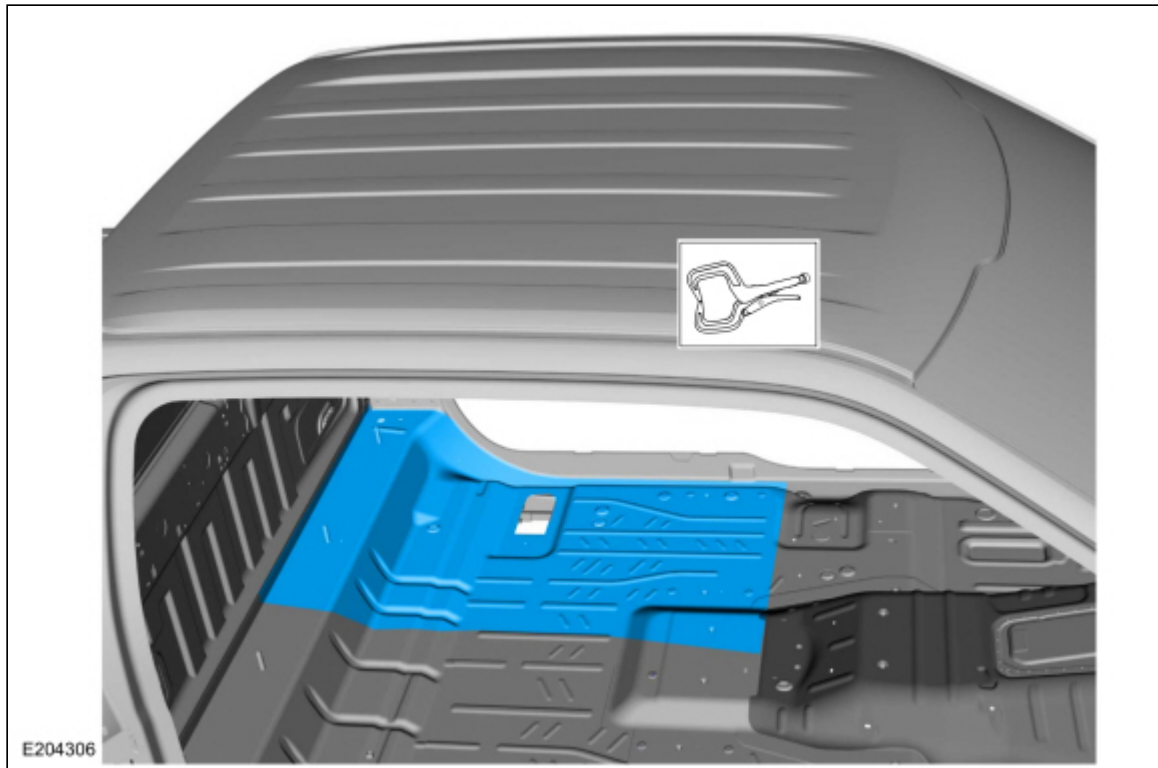
*Material:* Metal Bonding Adhesive / TA-1, TA-1-B, 3M™ 08115, LORD Fusor® 108B





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

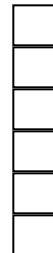




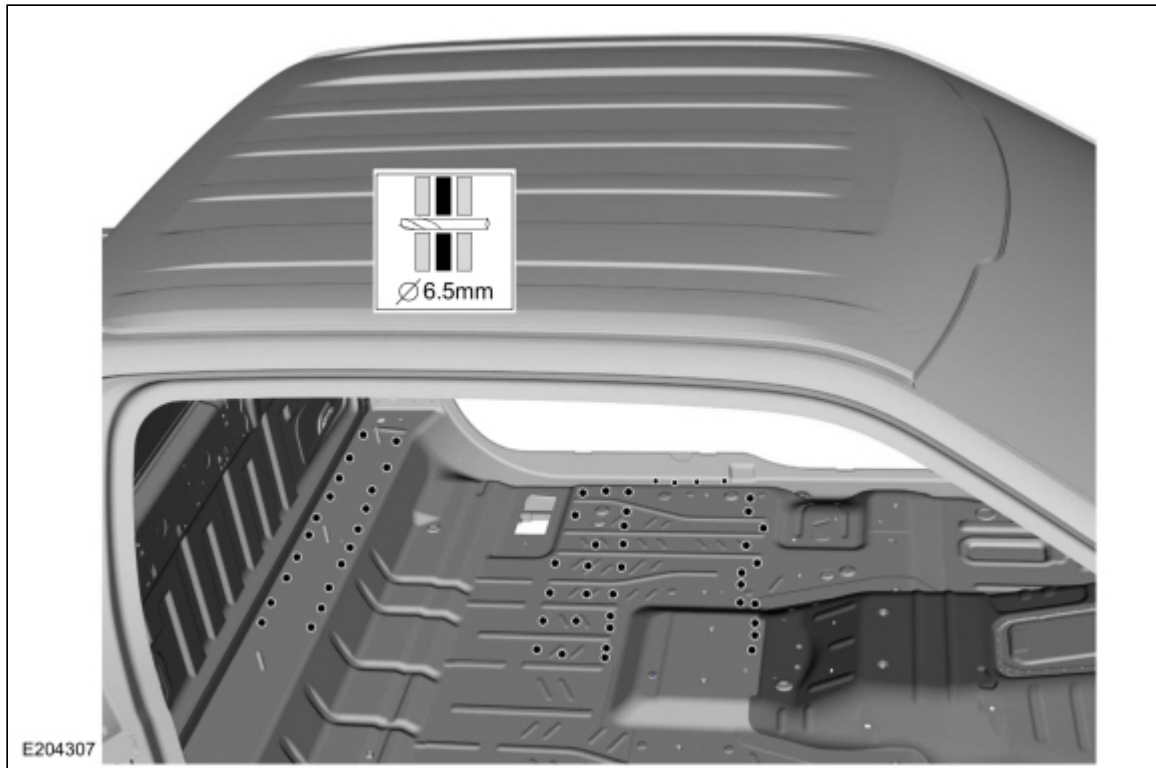
6. **NOTE:** *Blind or solid rivet fasteners may be used in place of SPR fasteners after enlarging holes to 6.5 mm.*

Drill for fastener installation.

Use the General Equipment: 6.5 mm Drill Bit





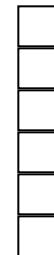


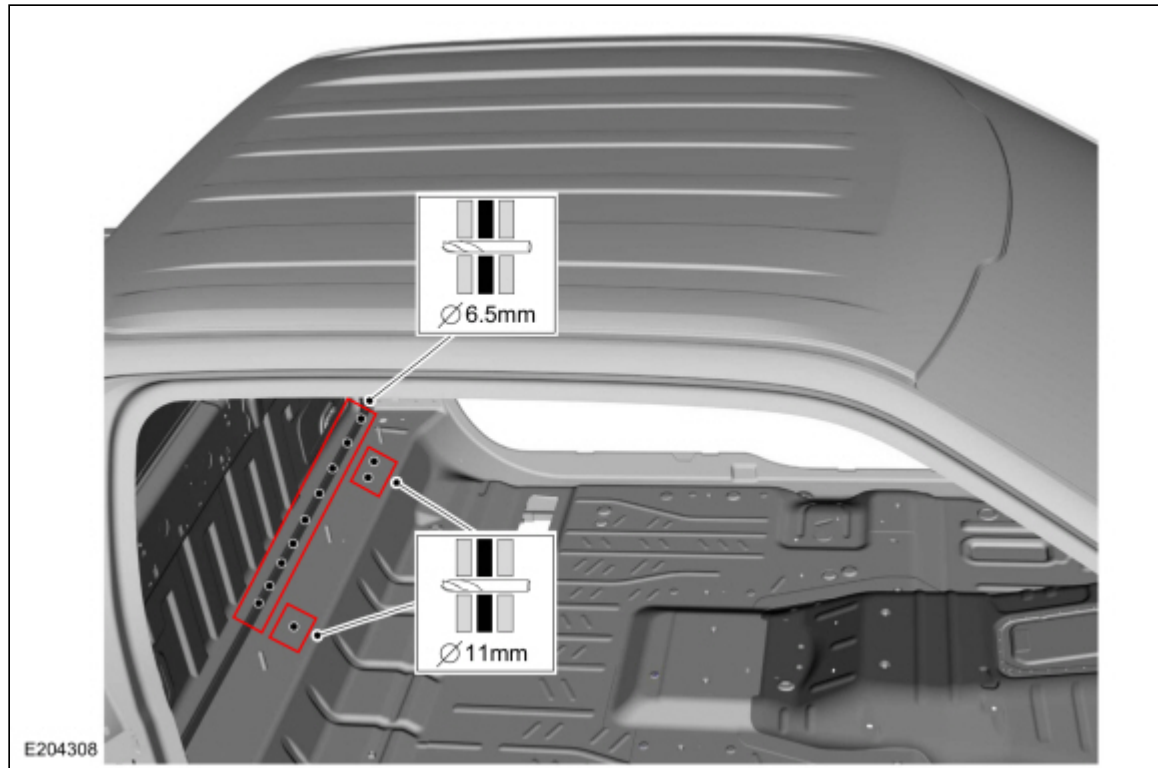
7. **NOTE:** *Blind or solid rivet fasteners may be used in place of SPR fasteners after enlarging holes to 6.5 mm.*

Drill for fastener installation.

Use the General Equipment: 11 mm Drill Bit

Use the General Equipment: 6.5 mm Drill Bit





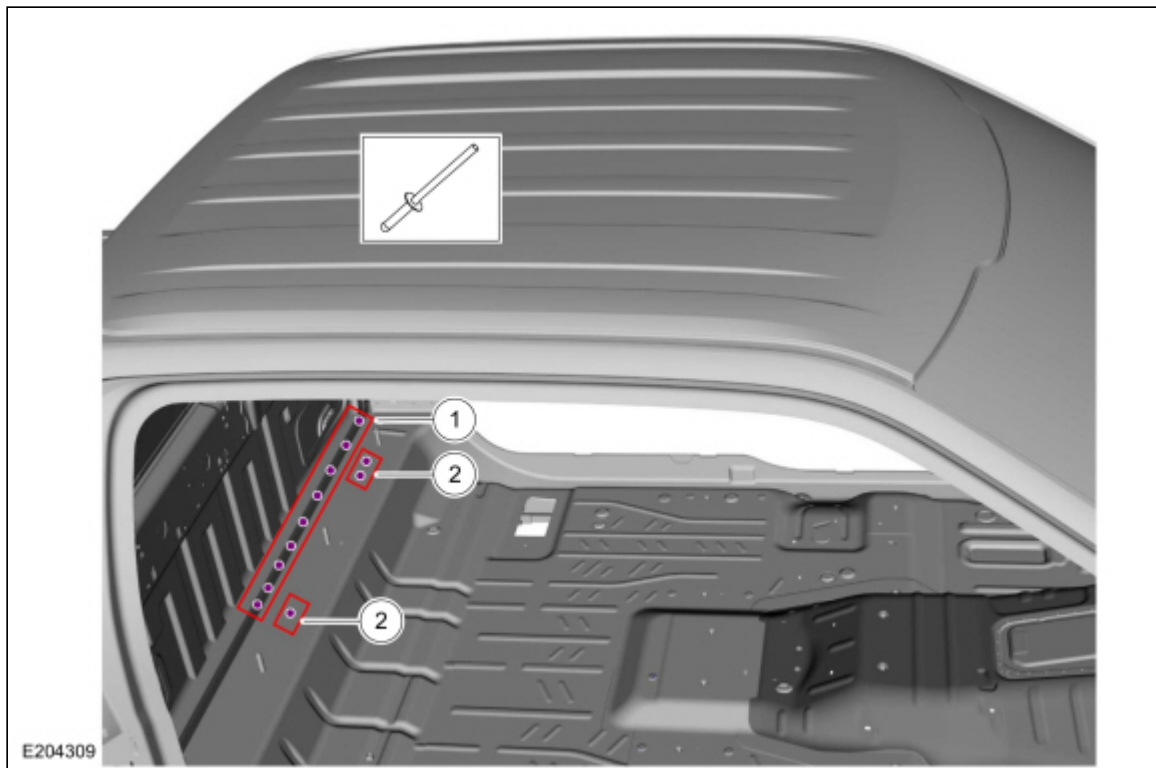
8. **NOTE:** Blind or solid rivet fasteners may be used in place of SPR fasteners after enlarging holes to 6.5 mm.

Install fasteners.

Item	SPR Number	SPR Code	Henrob®, Car-OLiner®, CMO®, Chief®, Spanesi®, Wielander and Schill® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W702512-S900C	-	-
2	-	-	-	-	-	-	W716819-S450 (M8)

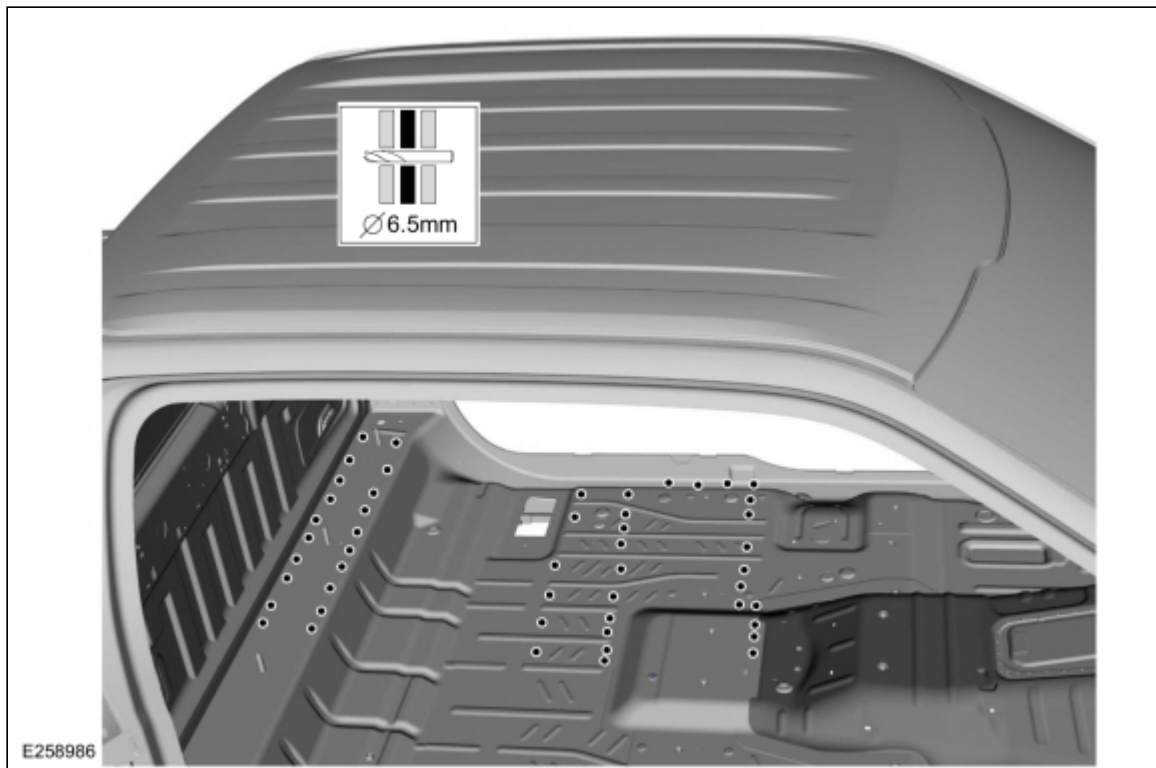
Refer to: [Joining Techniques](#) (501-25 Body Repairs - General Information, General Procedures).  
Use the General Equipment: Blind Rivet Gun





- 9. Drill for fastener installation.  
Use the General Equipment: 6.5 mm Drill Bit





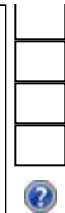
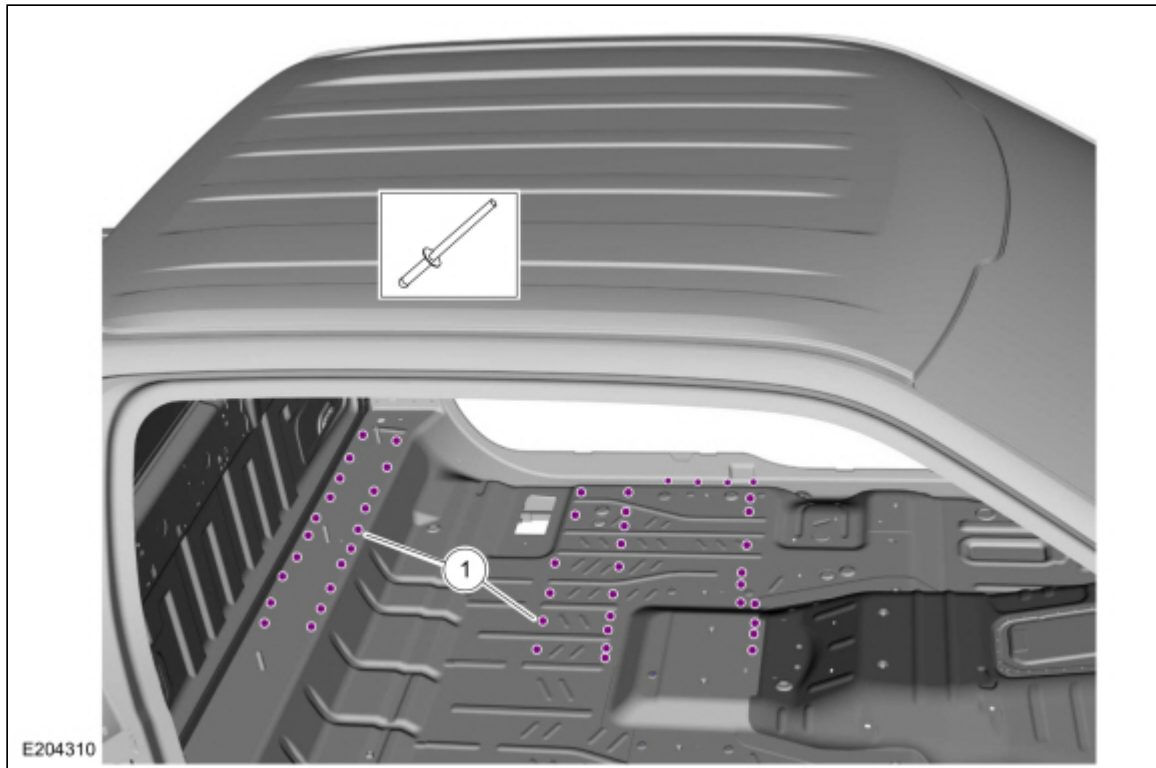
10. **NOTE:** Blind or solid rivet fasteners may be used in place of SPR fasteners after enlarging holes to 6.5 mm.

Install fasteners.

Item	SPR Number	SPR Code	Henrob®, Car-OLiner®, CMO®, Chief®, Spanesi®, Wielander and Schill® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W702512-S900C	-	-

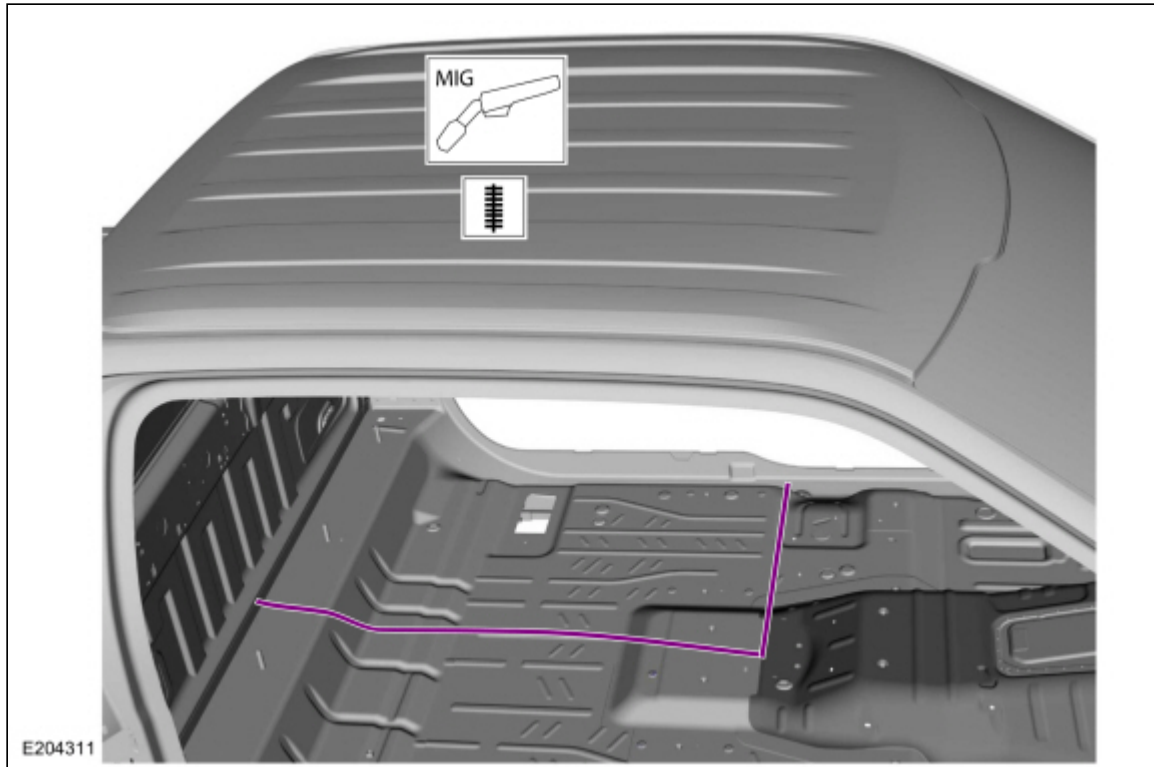
Refer to: [Joining Techniques](#) (501-25 Body Repairs - General Information, General Procedures).  
 Use the General Equipment: Blind Rivet Gun





11. Seam weld floor panel section lap joints using a MIG welder set up for aluminum repair.





12. Metal finishing:

Metal finish using typical aluminum metal finishing techniques.

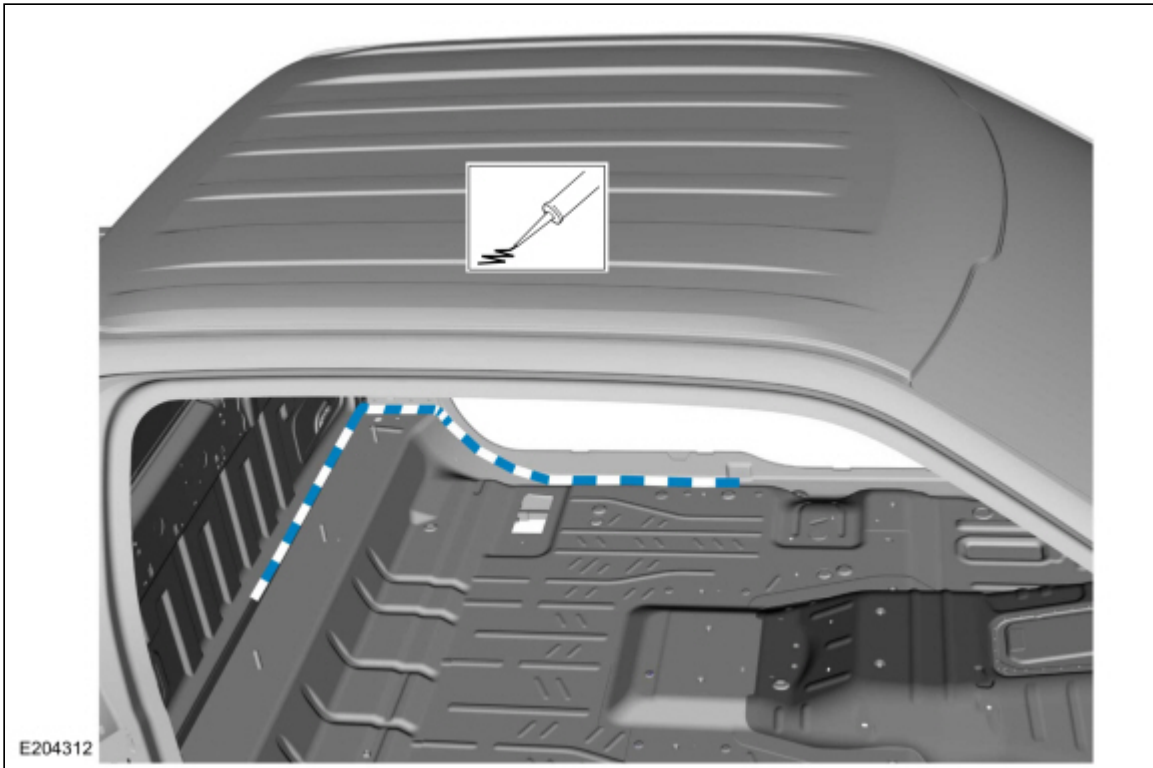
Refer to: [Special Repair Considerations for Aluminum Repairs](#) (501-25 Body Repairs - General Information, Description and Operation).

13. Seam Sealing:

All seams must be sealed to production level.

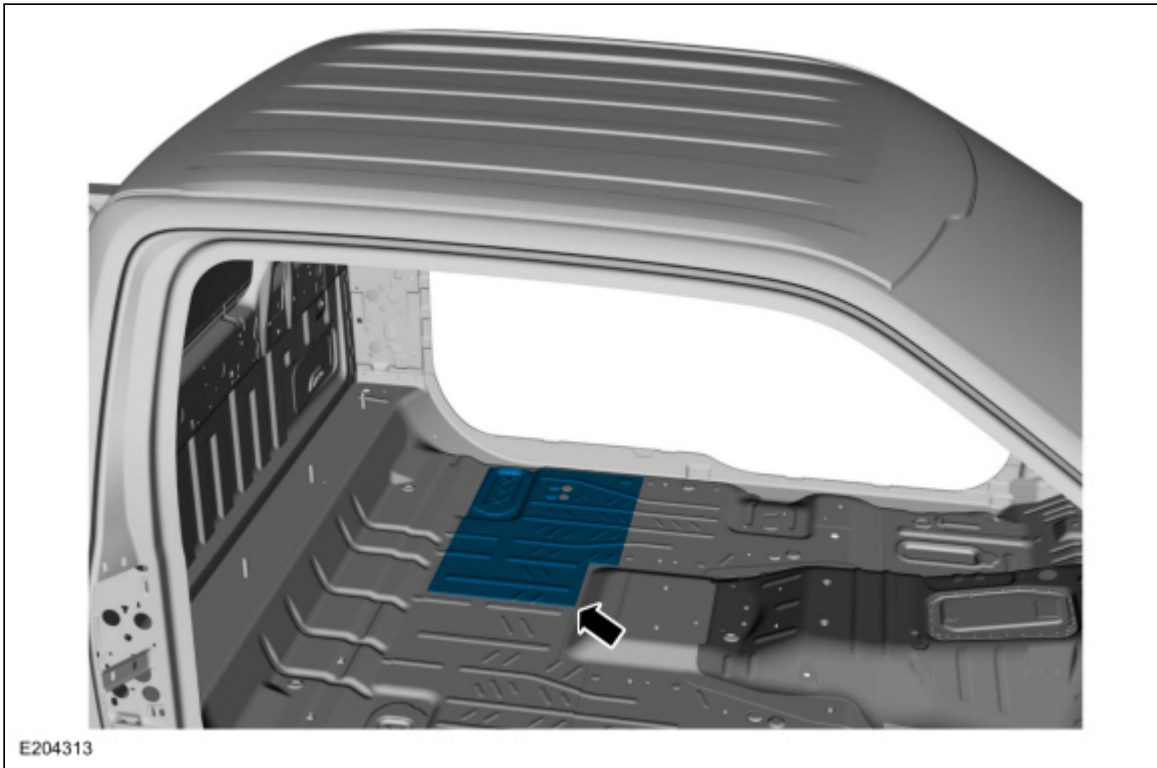
*Material:* Seam Sealer / TA-2-B, 3M™ 08308, LORD Fusor® 803DTM





14. Install the NVH pad.



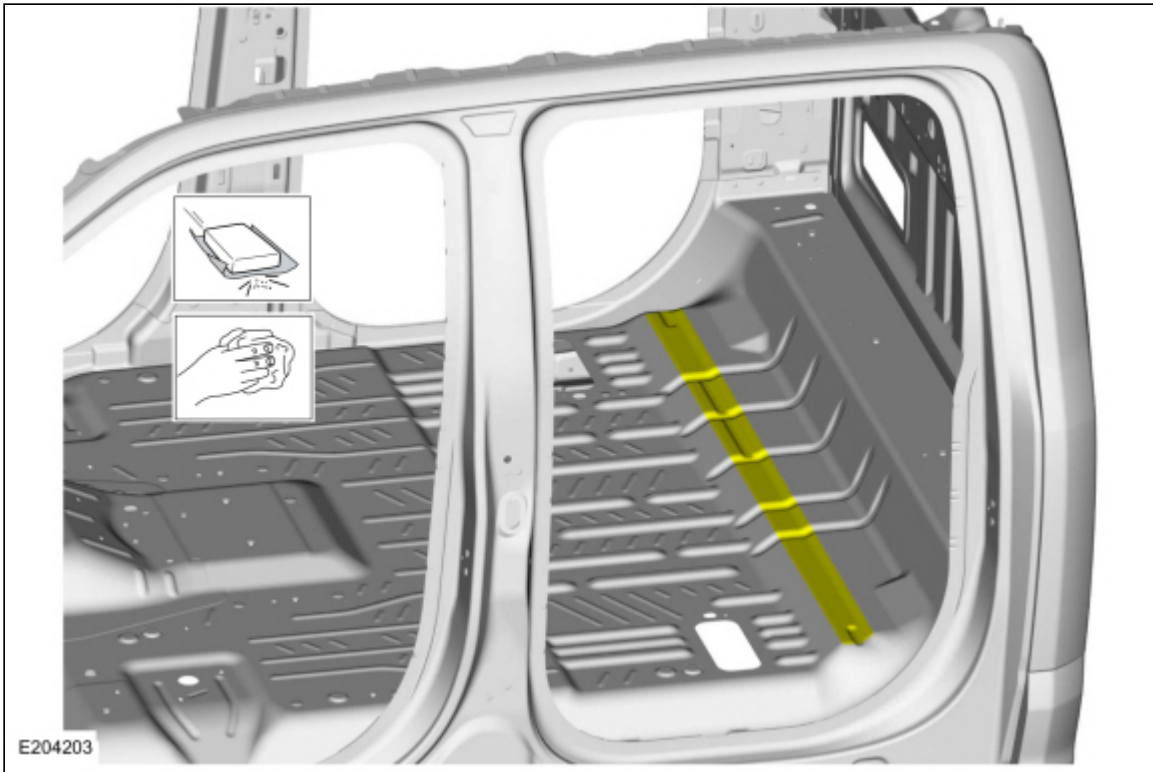


- 15. **SuperCab and SuperCrew: 80-120 grit sand paper.**  
Sand using 80 grit sand paper to remove e-coat and clean.

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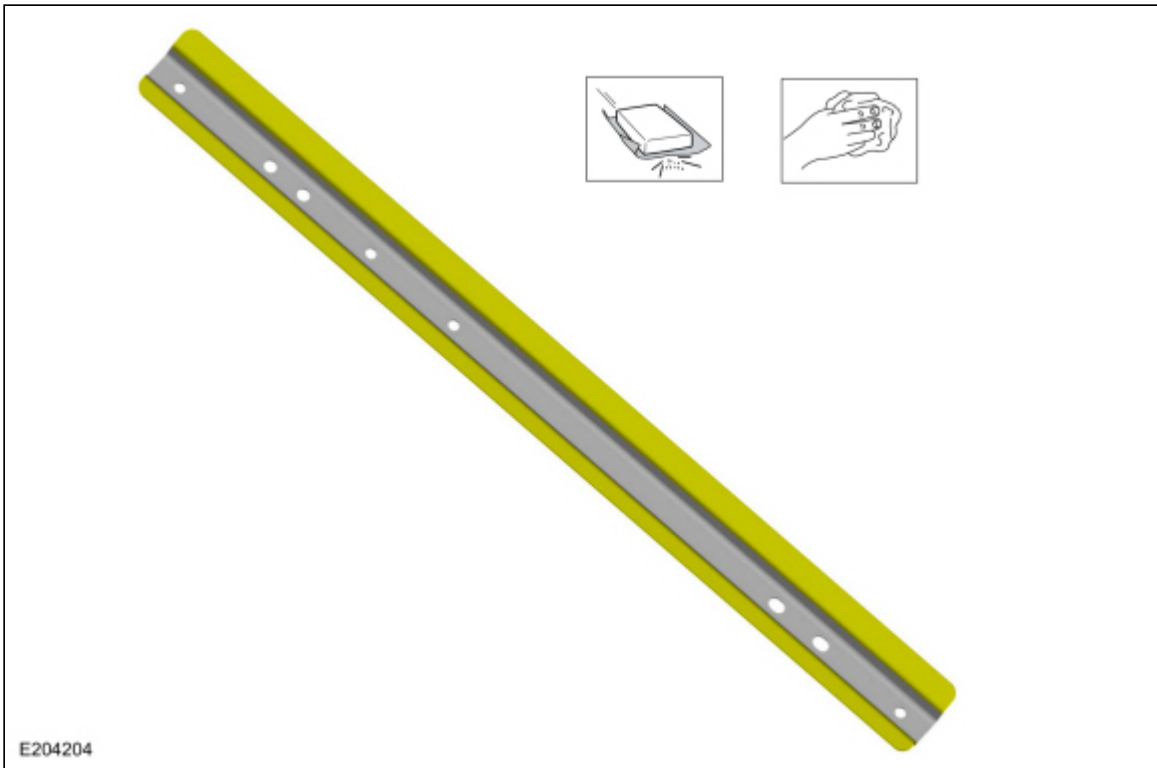

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16. **SuperCab and SuperCrew: 80-120 grit sand paper.**  
Sand to remove e-coat and clean.

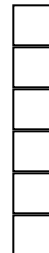


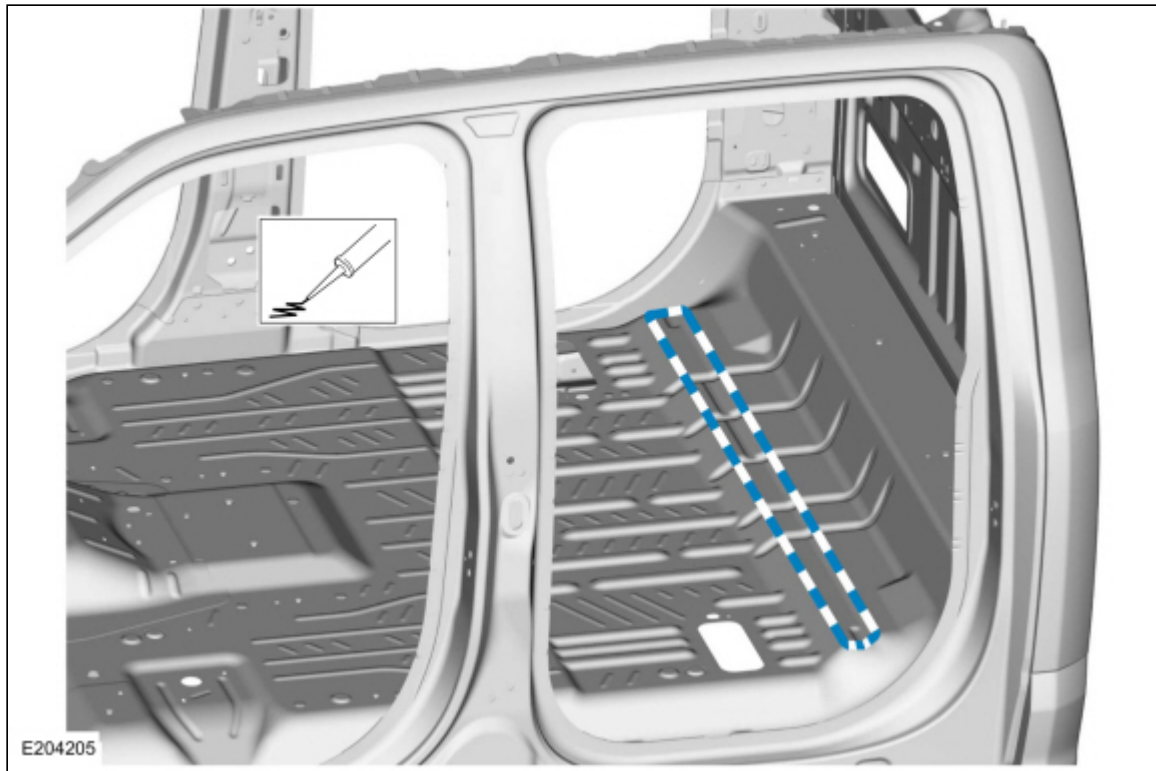


**17. SuperCab and SuperCrew:**

Apply adhesive.

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



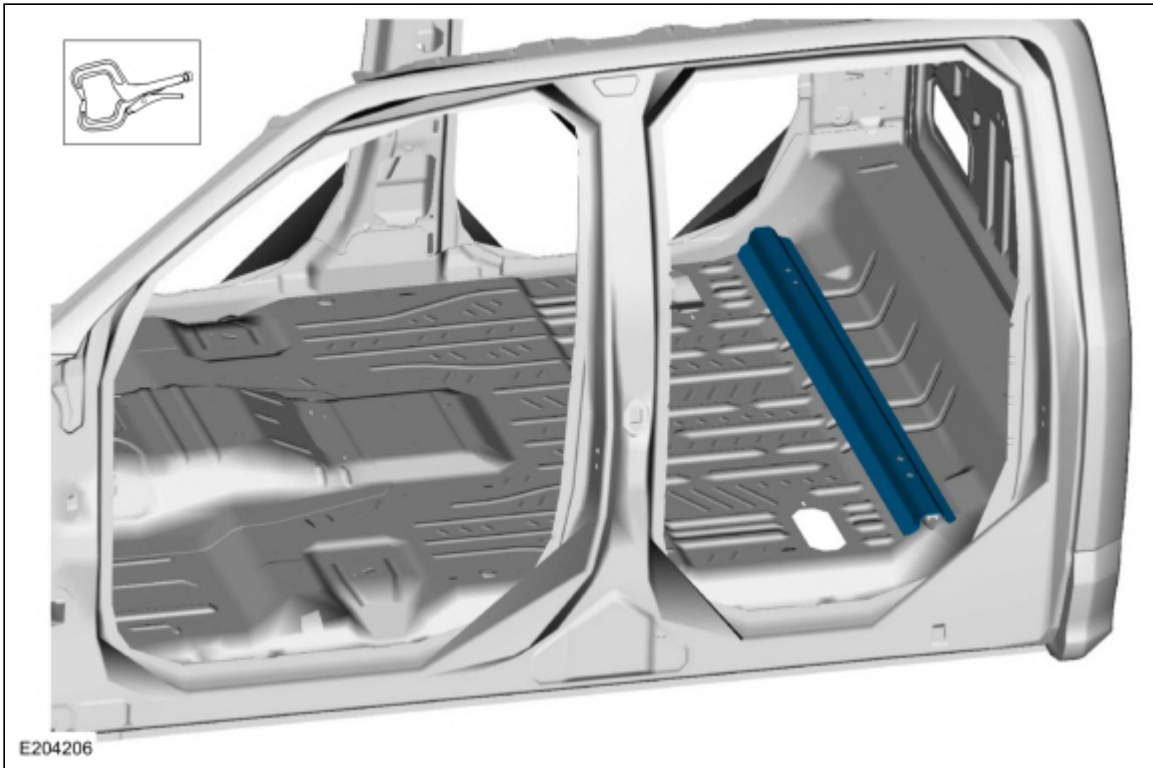


**18. SuperCab and SuperCrew:**

Install the rear seat brace and clamp in position.

Use the General Equipment: Locking Pliers





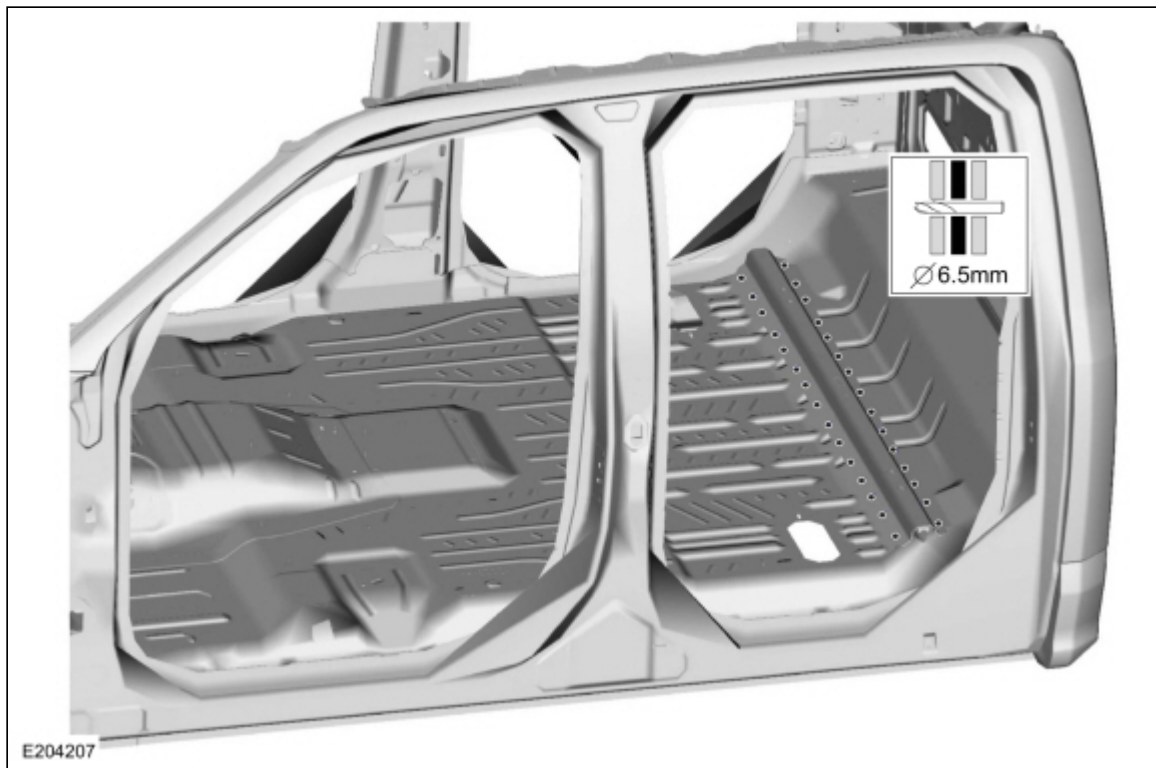
19. **NOTE:** *Blind or solid rivet fasteners may be used in place of SPR fasteners after enlarging holes to 6.5 mm.*

**SuperCab and SuperCrew:**

Drill for fastener installation.

Use the General Equipment: 6.5 mm Drill Bit



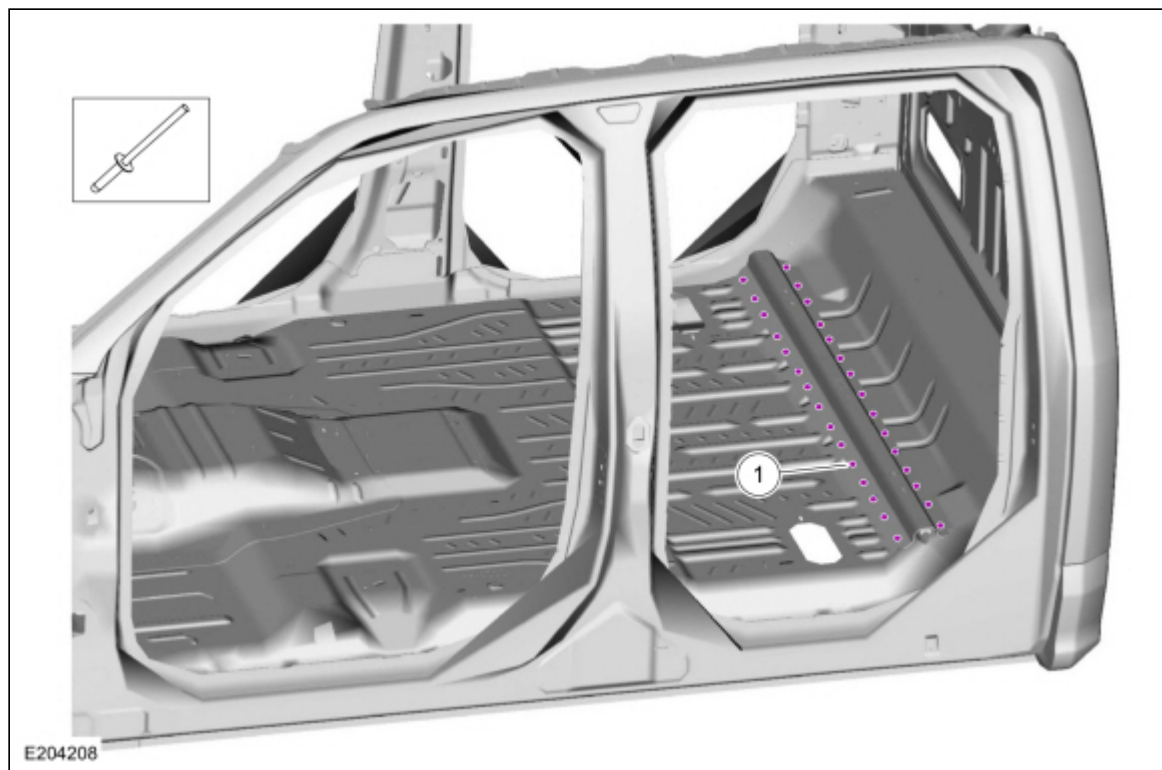


**20. SuperCab and SuperCrew:**  
Install fasteners.

Item	SPR Number	SPR Code	Henrob®, Car-OLiner®, CMO®, Chief®, Spanesi®, Wielander and Schill® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W707638-S900C	-	-

Refer to: [Joining Techniques](#) (501-25 Body Repairs - General Information, General Procedures).  
Use the General Equipment: Blind Rivet Gun





21. Refinish the entire repair using a Ford approved paint system.
22. Restore corrosion protection.  
Refer to: [Corrosion Prevention](#) (501-25 Body Repairs - General Information, General Procedures).
23. Reposition the wiring harnesses and carpeting.
24. Install the door opening weather strips and scuff plate.
25. Install the C-pillar trim panel.  
Refer to: [C-Pillar Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
26. If equipped:  
Install the console.  
Refer to: [Floor Console](#) (501-12 Instrument Panel and Console, Removal and Installation).
27. Install the seats.  
Refer to: [Front Center Seat](#) (501-10A Front Seats, 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: [Rear Seat LH - SuperCab](#) (501-10B Rear Seats, Removal and Installation).  
Refer to: [Rear Seat RH - SuperCab](#) (501-10B Rear Seats, Removal and Installation).

Refer to: [Rear Seat LH - SuperCrew](#) (501-10B Rear Seats, Removal and Installation).

Refer to: [Rear Seat RH - SuperCrew](#) (501-10B Rear Seats, Removal and Installation).

28. Repower the **SRS**.

Refer to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).

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