

501-29 Side Panel Sheet Metal Repairs
Removal and Installation

2021 F-150

Procedure revision date: 10/23/2020

Rocker Panel - Regular Cab

Special Tool(s) / General Equipment

6.5 mm Drill Bit
Scraper for Straight Edges
Polydrive Bit Socket
Self-Piercing Rivet (SPR) Remover/Installer
Belt Sander
Blind Rivet Gun
Hot Air Gun
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).

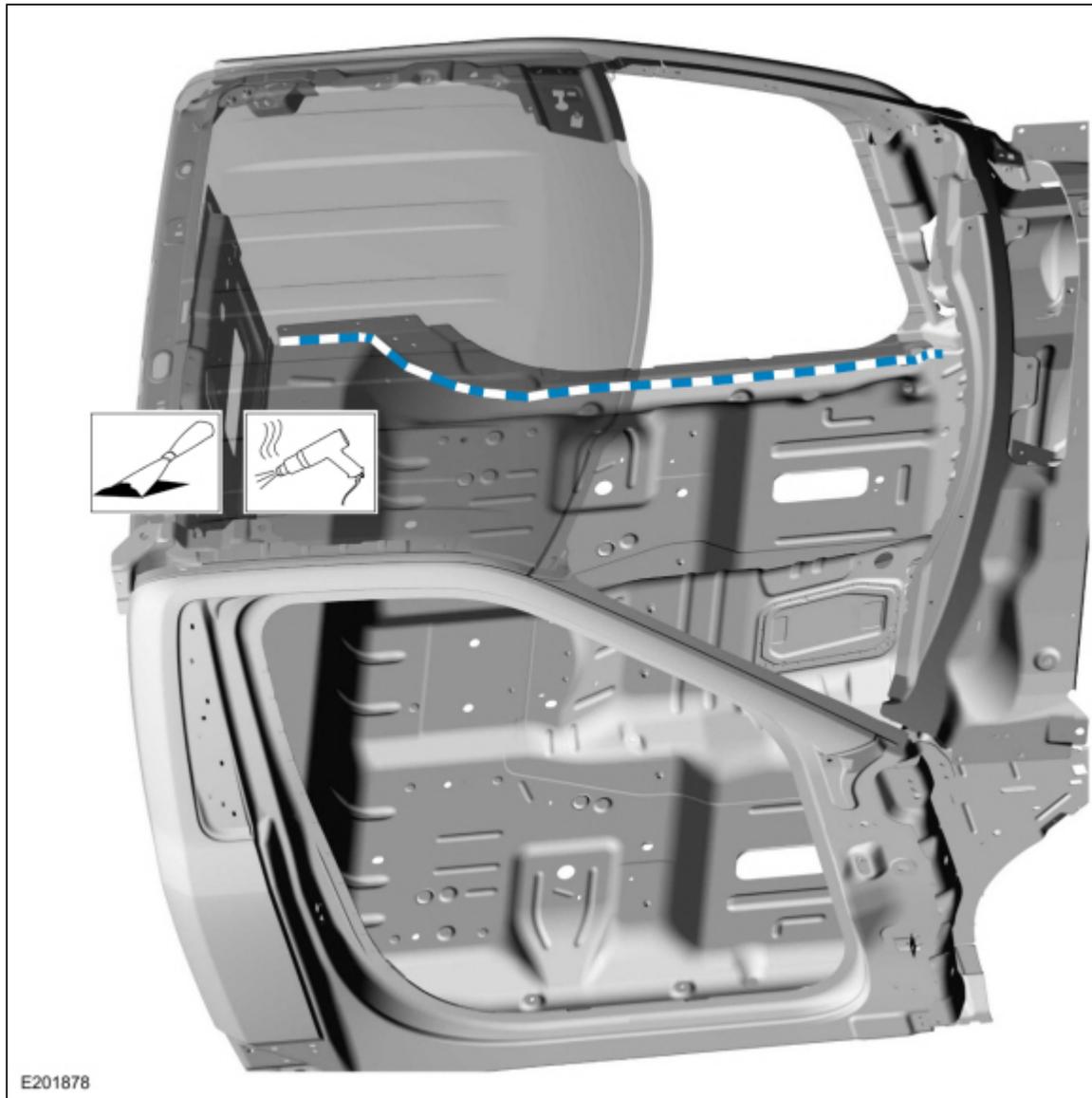
NOTICE: Body side sectioning is prohibited within 50 mm of door hinge, door striker and restraints anchoring points.

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 rocker panel may be sectioned at any point providing restraints, door hinge and door striker restrictions are met. Adjust sectioning point to meet repair requirements. The following procedure assumes full component replacement.

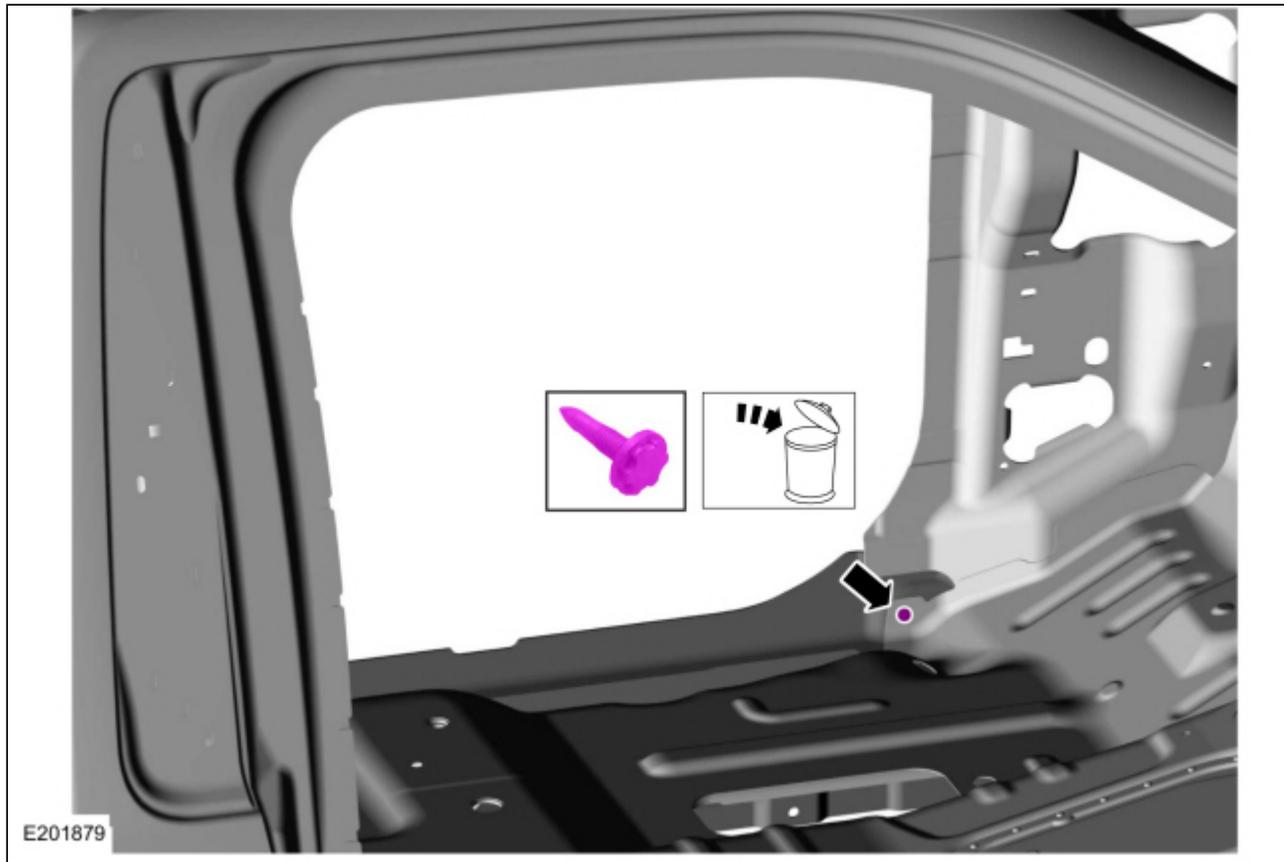
2. Remove the rocker panel reinforcement.
Refer to: [Rocker Panel Inner Reinforcement - Regular Cab](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).
3. Remove the safety belt and shoulder height adjuster.
Refer to: [Front Center Seatbelt Retractor - Regular Cab](#) (501-20A Seatbelt Systems, Removal and Installation).
Refer to: [Seatbelt Shoulder Height Adjuster - Regular Cab](#) (501-20A Seatbelt Systems, Removal and Installation).
4. Remove the C-pillar reinforcement.
Refer to: [C-Pillar Reinforcement](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).
5. Remove the seat.
Refer to: [Front Seat](#) (501-10A Front Seats, Removal and Installation).
6. Position aside the carpet and wiring harness.
7. Remove the floor pan to rocker panel seam sealer.
Use the General Equipment: Scraper for Straight Edges
Use the General Equipment: Hot Air Gun





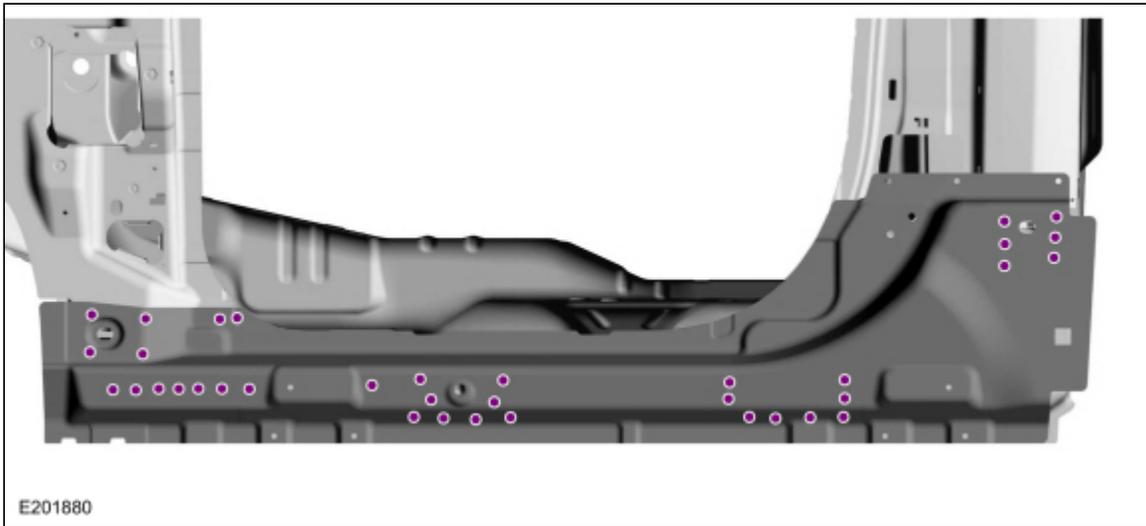
8. Remove and discard the rocker panel to A-pillar FDS fastener.
Use the General Equipment: Polydrive Bit Socket





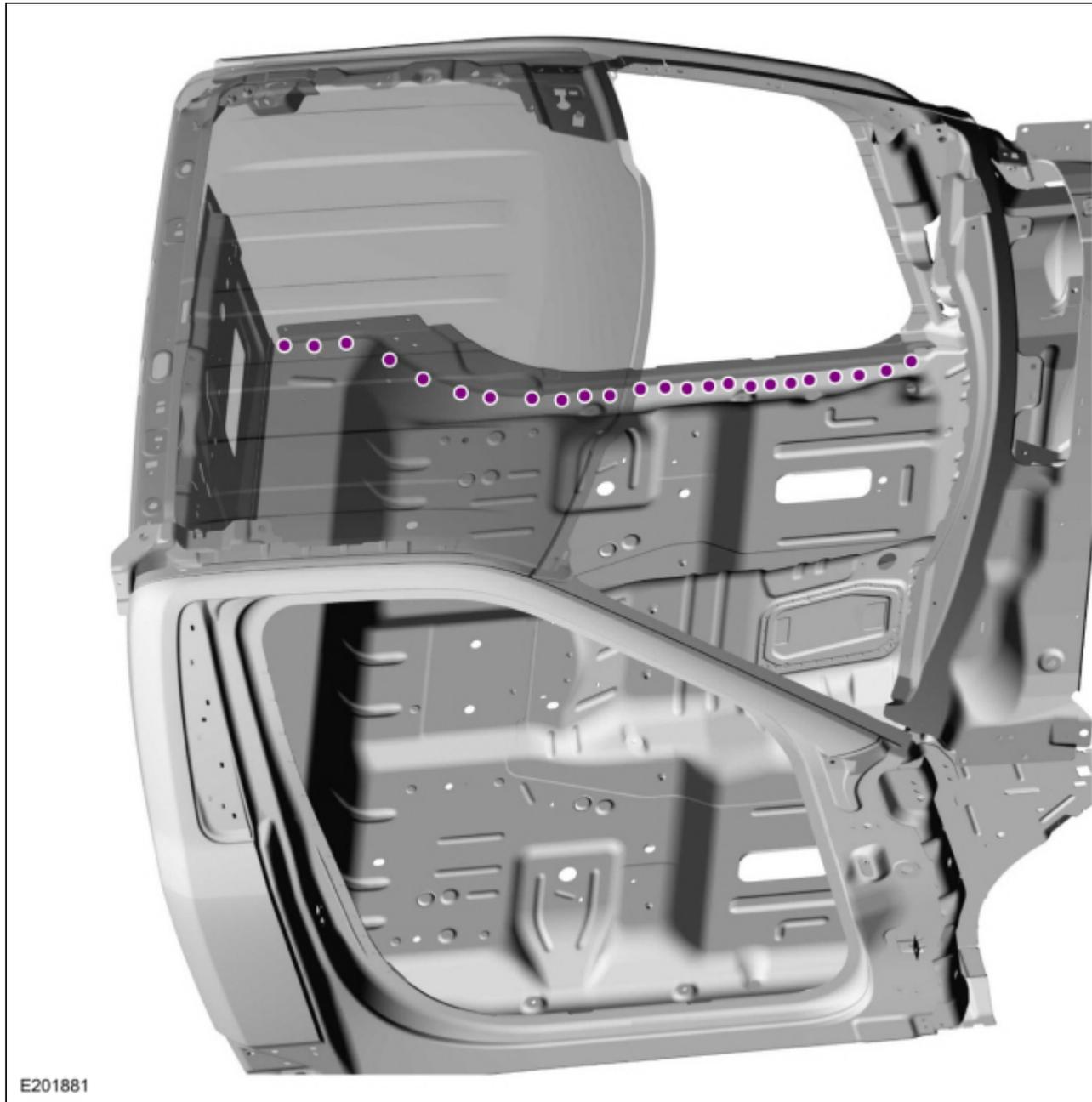
- 9. Remove the SPR fasteners.
Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer
Use the General Equipment: Belt Sander





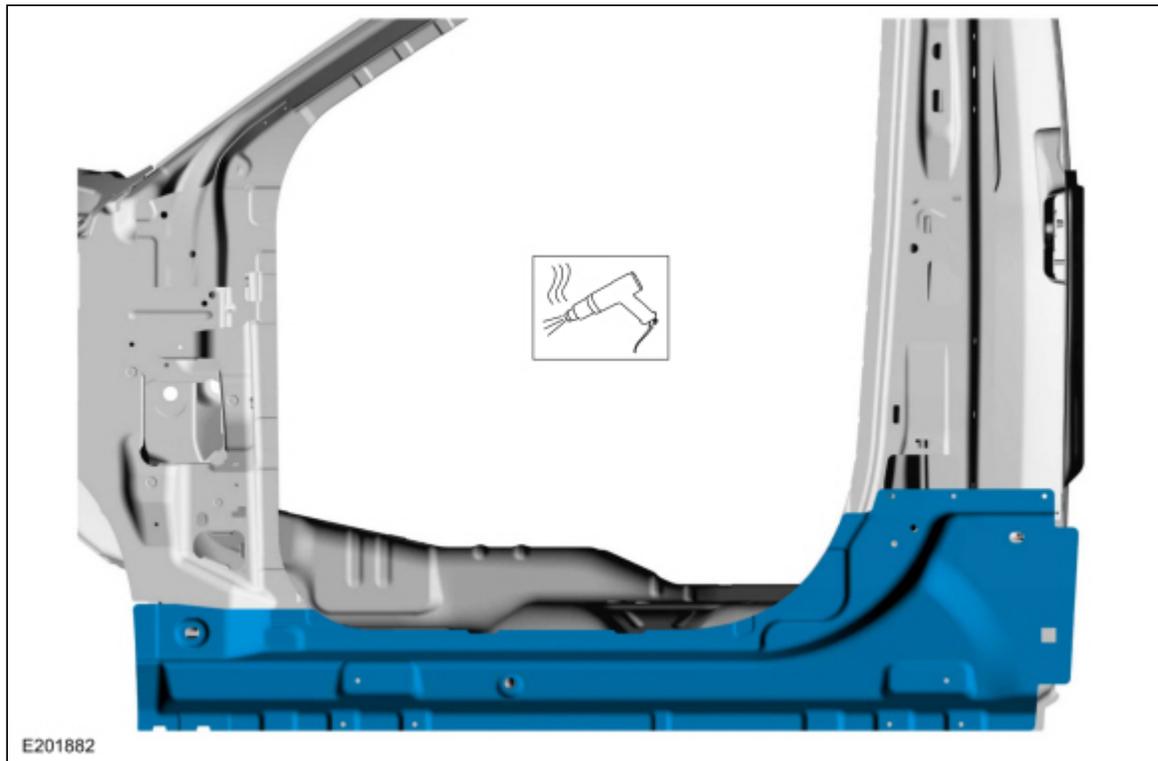
- 10. Remove the floor pan to rocker panel SPR fasteners.
Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer
Use the General Equipment: Belt Sander





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.

Break the adhesive bond and remove the rocker panel.
Use the General Equipment: Hot Air Gun



Installation

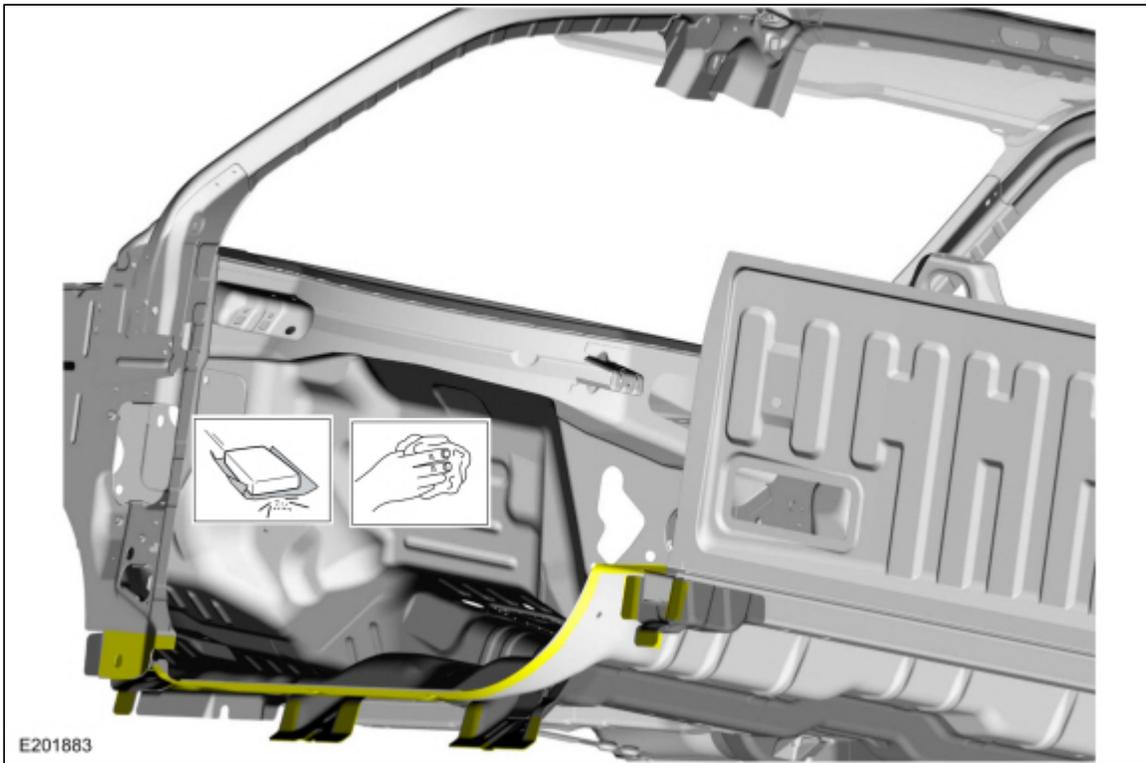
NOTICE: Body side sectioning is prohibited within 50mm of door hinge, door striker and restraints anchoring points.

NOTE: SPR fasteners may not be placed directly over original SPR location. They must be placed adjacent to original location matching original quantity.

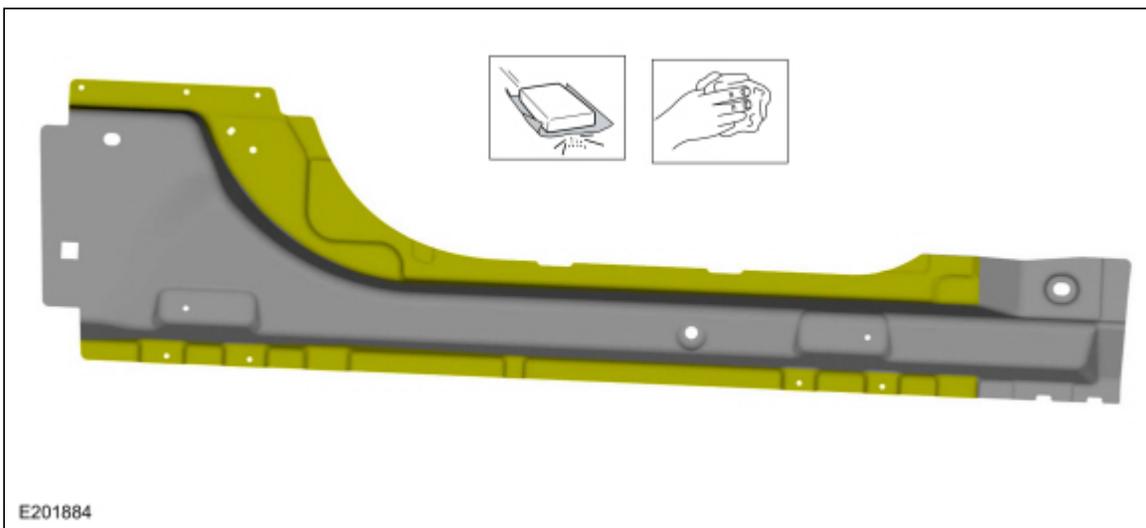
NOTE: Blind rivet or solid rivet fasteners may be used in place of SPR fasteners after enlarging holes to 6.5 mm.

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



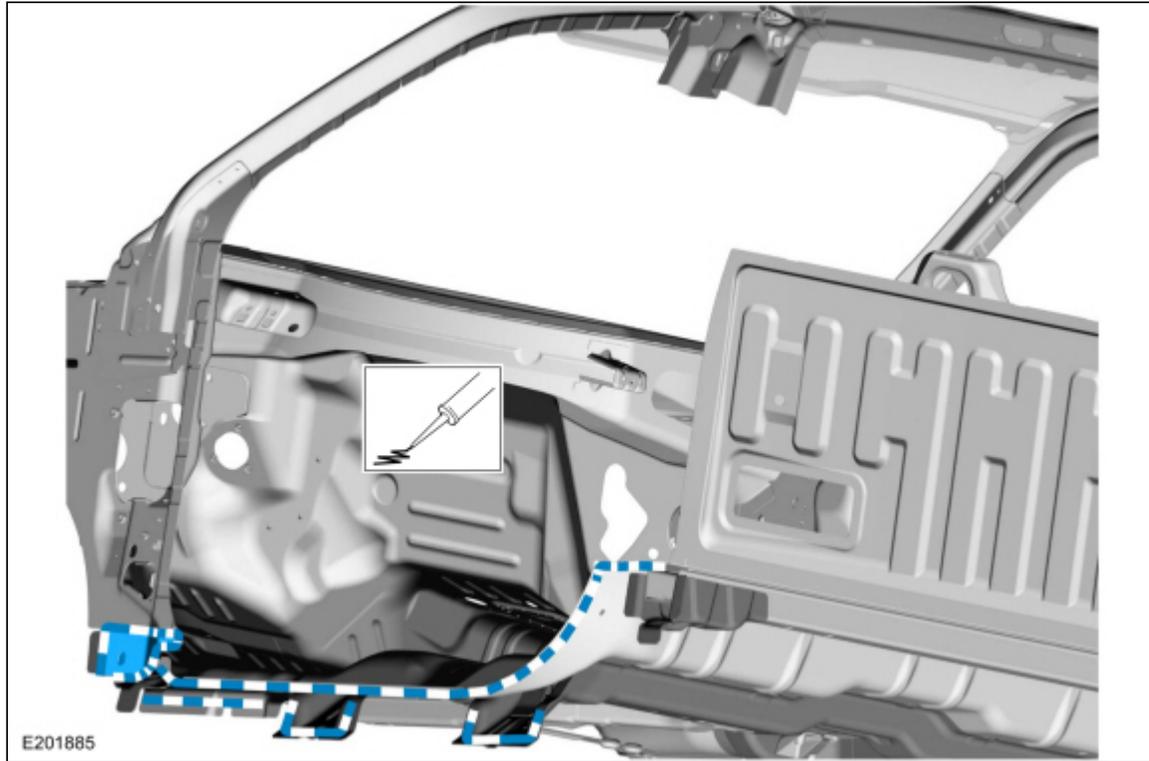


2. Sand using 80 grit sand paper to remove e-coat and clean.



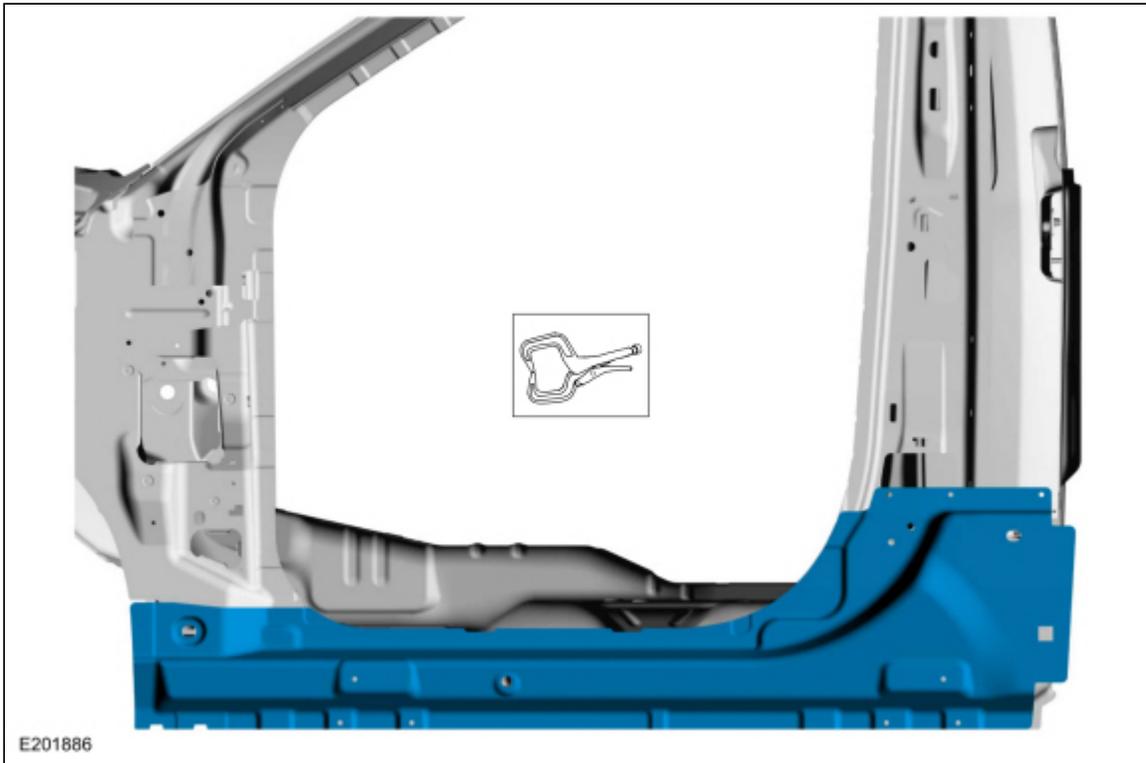
3. Apply adhesive.

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



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





- 5. Drill for blind rivet fastener installation.
Use the General Equipment: 6.5 mm Drill Bit





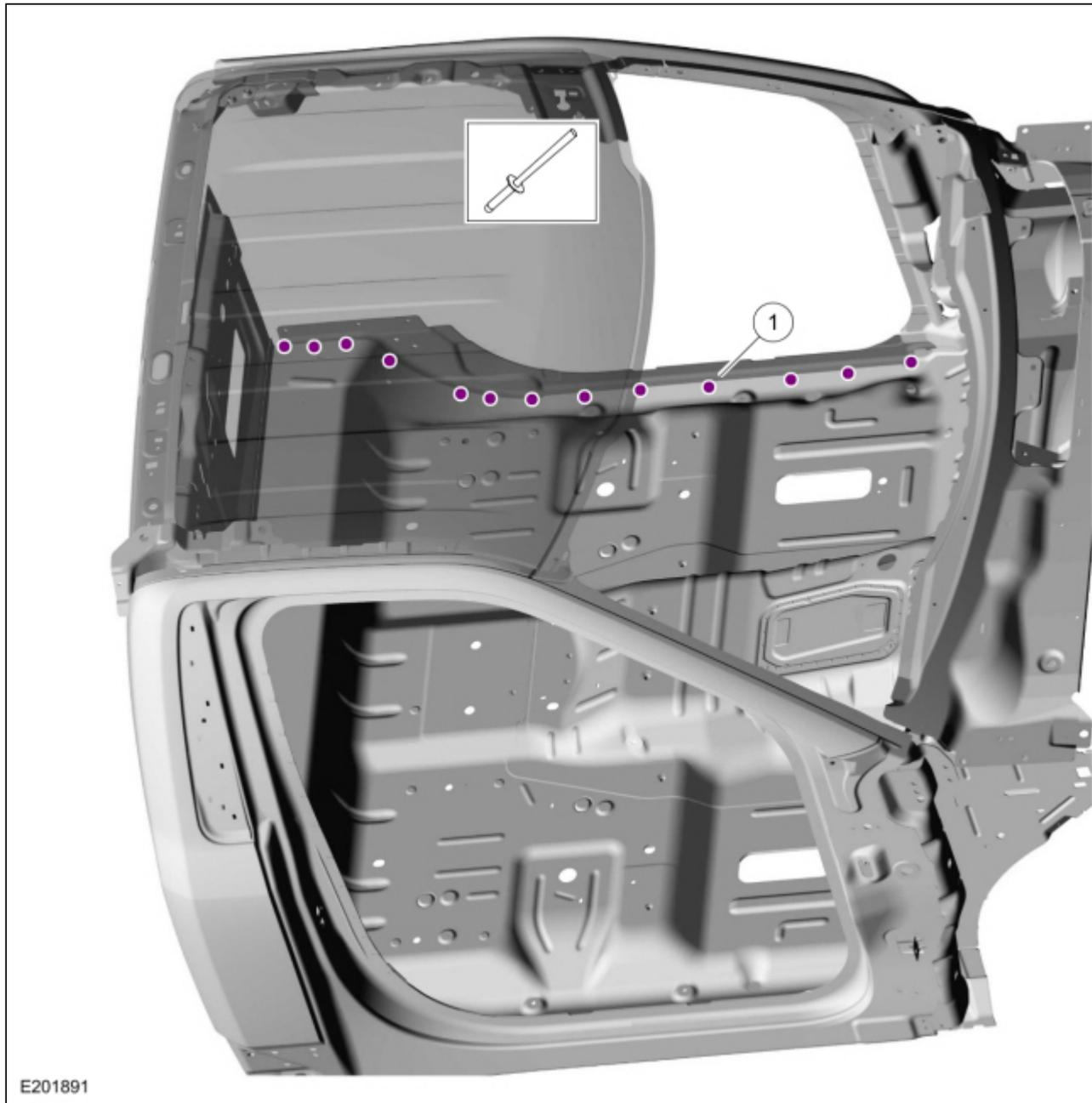
6. **NOTE:** *Blind rivet or solid rivet fasteners may be used in place of SPR fasteners after enlarging holes to 6.5 mm.*

Install fasteners.

Item	SPR Number	SPR Code	Henrob® Car-O- Liner®, CMO®, Chief®, Spanesi® Wielande and Schill® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W702554-S900C	-	-

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



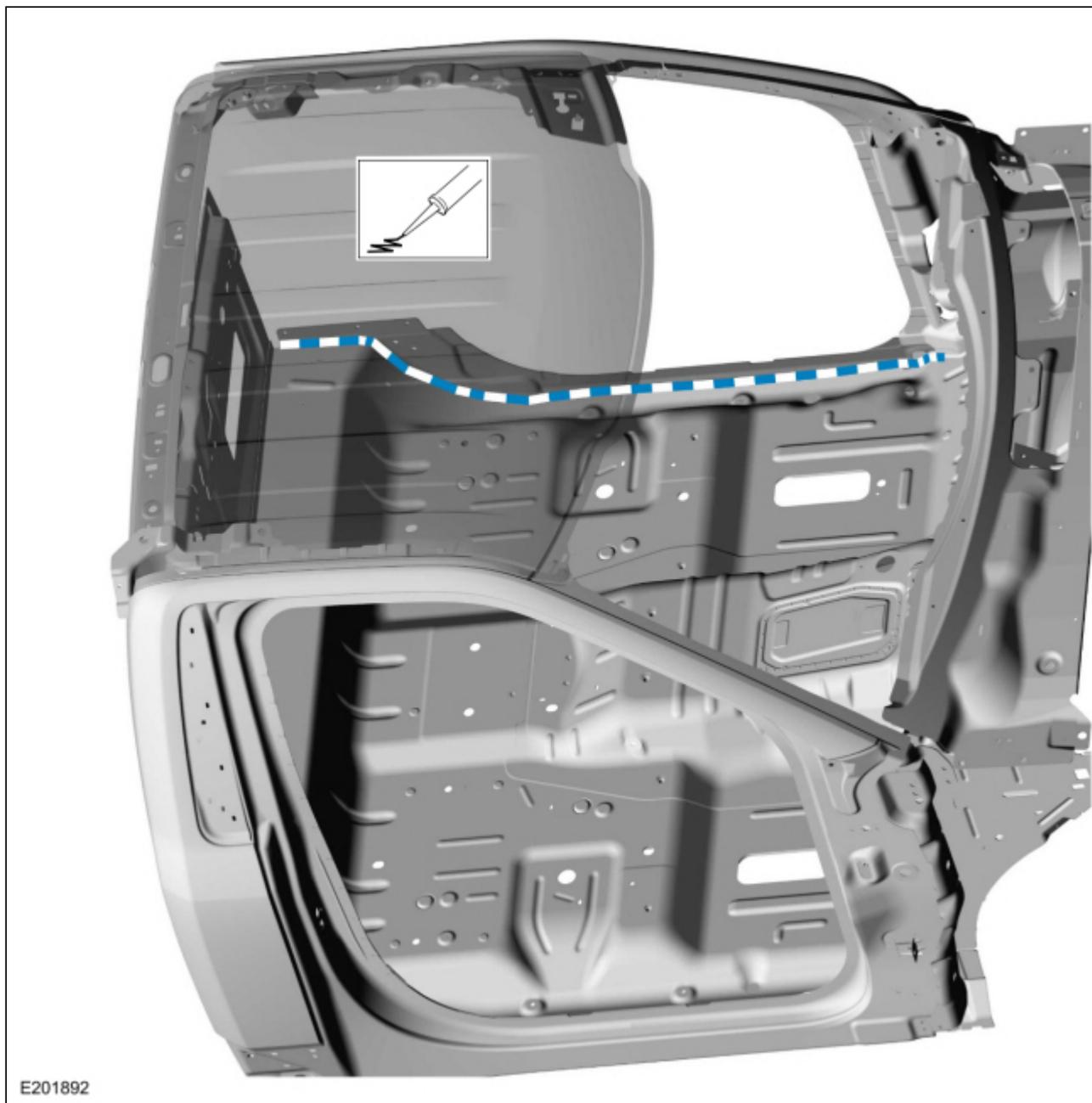


7. Install the C-pillar reinforcement.
Refer to: [C-Pillar Reinforcement](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).

8. Sealing work:

All areas must be sealed to production level.

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



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9. Install the rocker panel reinforcement.
Refer to: [Rocker Panel Inner Reinforcement - Regular Cab](#) (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).
10. Install the safety belt and shoulder height adjuster.
Refer to: [Front Center Seatbelt Retractor - Regular Cab](#) (501-20A Seatbelt Systems, Removal and Installation).
Refer to: [Seatbelt Shoulder Height Adjuster - Regular Cab](#) (501-20A Seatbelt Systems, Removal and Installation).
11. Reposition the wiring harness and carpet.
12. Install the seat.
Refer to: [Front Seat](#) (501-10A Front Seats, Removal and Installation).
13. Repower the SRS.
Refer to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).

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