# **B-Pillar and Reinforcement - SuperCrew**

# Special Tool(s) / General Equipment

6.5 mm Drill Bit
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	-

# 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.

# 1. 🕰 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: <u>Health and Safety Precautions</u> (100-00 General Information, Description and Operation). Refer to: <u>High Voltage System Health and Safety Precautions - Overview</u> (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

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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: <u>LH</u> side shown, <u>RH</u> side similar.

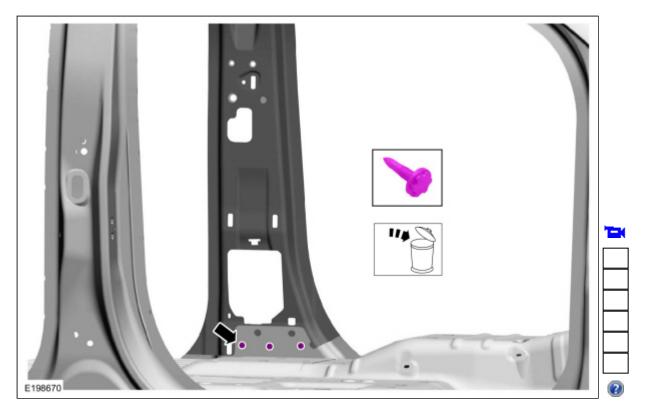
- 2. Remove the side curtain air bag. Refer to: <u>Side Curtain Airbag - SuperCrew</u> (501-20B Supplemental Restraint System, Removal and Installation).
- Remove the front safety belt and safety belt height adjuster. Refer to: <u>Front Seatbelt Retractor and Pretensioner - SuperCrew</u> (501-20A Seatbelt Systems, Removal and Installation). Refer to: <u>Seatbelt Shoulder Height Adjuster - SuperCrew</u> (501-20A Seatbelt Systems, Removal and Installation).
- 4. 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).
- 5. Remove the rocker panel reinforcement. Refer to: <u>Rocker Panel Inner Reinforcement - SuperCrew</u> (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).

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



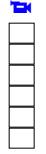
7. Remove and discard the <u>FDS</u> fasteners.

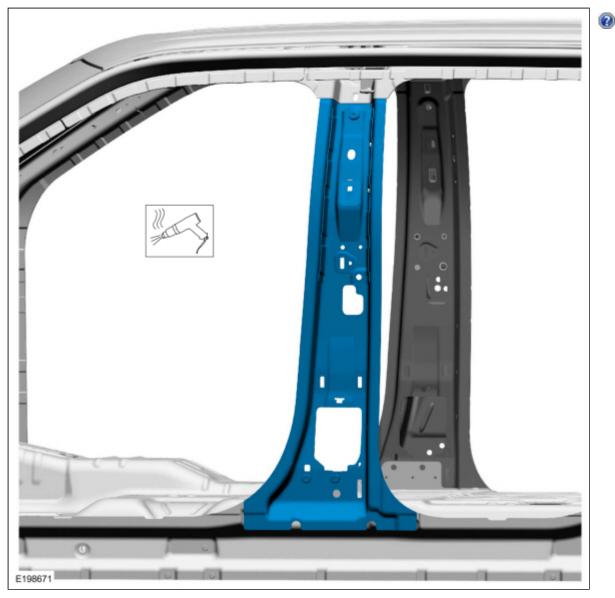
Use the General Equipment: Polydrive Bit Socket



8. 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 B-pillar. Use the General Equipment: Hot Air Gun





# Installation

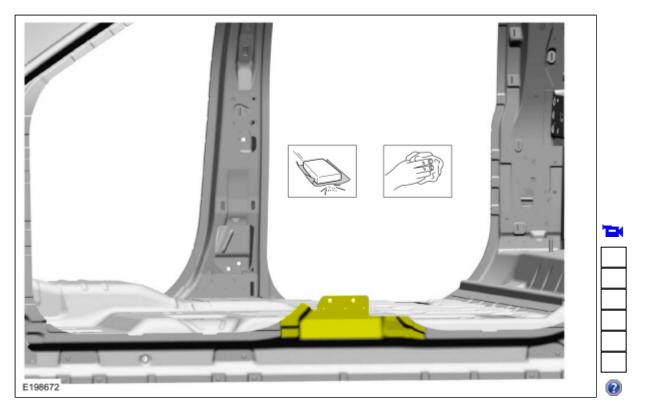
NOTICE: Body side sectioning is prohibited within 50 mm of door hinge, door striker and restraints anchoring points.

**NOTE:** Do not install <u>SPR</u> fasteners directly in old <u>SPR</u> fastener location. <u>SPR</u> fasteners must be installed adjacent to the original location matching original quantity.

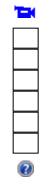
**NOTE:** Solid rivets or blind rivet fasteners may be used in place of <u>SPR</u> fasteners after enlarging existing holes to 6.5 mm.

**NOTE:** <u>*LH*</u> side shown, <u>*RH*</u> side similar.

1. Sand using 80 grit sand paper to remove old adhesive and clean the B-pillar reinforcement lower mating surface.

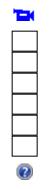


2. Sand using 80 grit sand paper to remove old adhesive and clean the B-pillar reinforcement upper mating surface.





3. Sand using 80 grit sand paper to remove e-coat and clean the B-pillar service panel lower mating surface.



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4. Sand using 80 grit sand paper to remove e-coat and clean the B-pillar service panel upper mating surface.





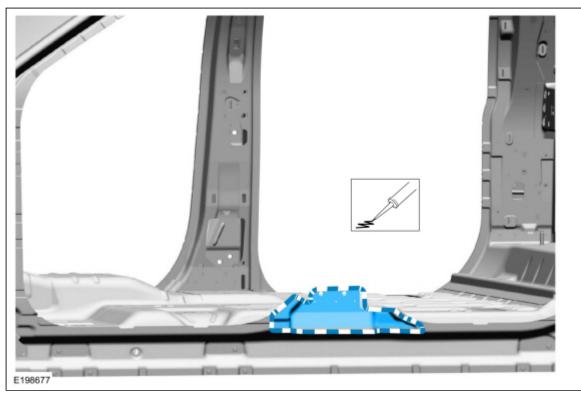
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Apply adhesive.
Material: Metal Bonding Adhesive / TA-1, TA-1-B, 3M<sup>™</sup> 08115, LORD Fusor® 108B



Apply adhesive. Material: Metal Bonding Adhesive / TA-1, TA-1-B, 3M<sup>™</sup> 08115, LORD Fusor® 108B





7. Install the B-pillar and clamp in position. Use the General Equipment: Locking Pliers





8. Drill for blind rivet fasteners.

Use the General Equipment: 6.5 mm Drill Bit



9. NOTE: Do not install <u>SPR</u> fasteners directly in old <u>SPR</u> fastener location. <u>SPR</u> fasteners must be installed adjacent to the original location matching original quantity.

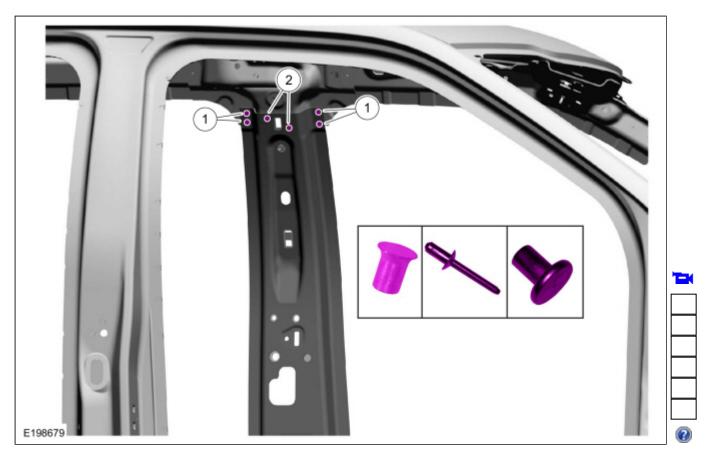
**NOTE:** Solid rivets or blind rivet fasteners may be used in place of <u>SPR</u> fasteners after enlarging existing holes to 6.5 mm.

Install fasteners.

Item	<u>SPR</u> Number	<u>SPR</u> Code	Henrob® Car-O- Liner®, CMO®, Chief®, Spanesi® Wielande and Schill® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	W717186- S900	EN	DG11-200/H	SA-0400/SA- 0401		W790376- S900	-
2	-	-	-	-	W708777- S900C	-	-

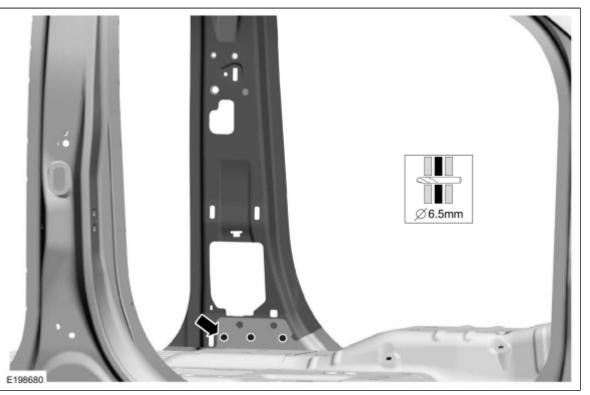
Refer to: Joining Techniques (501-25 Body Repairs - General Information, General Procedures).

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



10. Drill 6.5 mm holes for blind rivet installation. Use the General Equipment: 6.5 mm Drill Bit





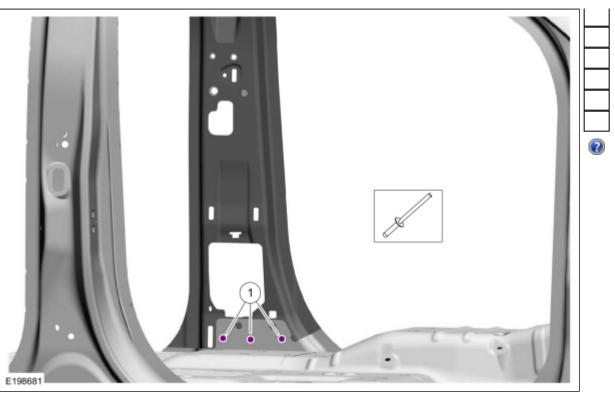
11. **NOTE:** Do not install <u>SPR</u> fasteners directly in old <u>SPR</u> fastener location. <u>SPR</u> fasteners must be installed adjacent to the original location matching original quantity.

NOTE: Solid rivets or blind rivet fasteners may be used in place of <u>SPR</u> fasteners after enlarging existing holes to 6.5 mm.

Install fasteners.

Item	<u>SPR</u> Number	<u>SPR</u> Code	Henrob® Car-O- Liner®, CMO®, Chief®, Spanesi® Wielande and Schill® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W708777- S900C	-	-

Refer to: <u>Joining Techniques</u> (501-25 Body Repairs - General Information, General Procedures). Use the General Equipment: Blind Rivet Gun



- 12. Refinish using a Ford approved paint system and typical refinishing techniques.
- 13. Install the rocker panel reinforcement. Refer to: <u>Rocker Panel Inner Reinforcement - SuperCrew</u> (501-29 Side Panel Sheet Metal Repairs, Removal and Installation).
- Install the side curtain air bag. Refer to: <u>Side Curtain Airbag - SuperCrew</u> (501-20B Supplemental Restraint System, Removal and Installation).
- Install the front safety belt and safety belt height adjuster. Refer to: <u>Front Seatbelt Retractor and Pretensioner - SuperCrew</u> (501-20A Seatbelt Systems, Removal and Installation). Refer to: <u>Seatbelt Shoulder Height Adjuster - SuperCrew</u> (501-20A Seatbelt Systems, Removal and Installation).

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