

Roof Front Frame

Special Tool(s) / General Equipment

6.5 mm Drill Bit
Self-Piercing Rivet (SPR) Remover/Installer
Belt Sander
Blind Rivet Gun
Locking Pliers

Materials

Name	Specification
Metal Bonding Adhesive TA-1, TA-1-B, 3M [®] 08115, LORD Fusor [®] 108B	-

Removal

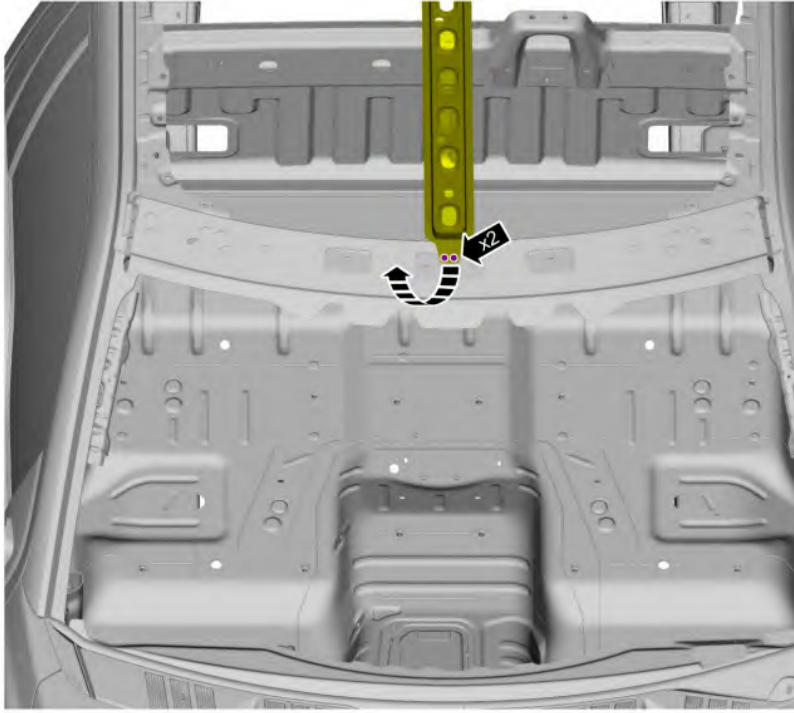
NOTE: Aluminum body panels are highly receptive to heat transfer. With the extensive use of structural adhesives and non-structural sealers used in vehicle construction, the potential of heat transfer could impact adhesives and sealers in non-associated panels during the repair process. Many repairs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

All vehicles

1. Remove the roof outer panel.
Refer to: Roof Panel - Regular Cab (501-28 Roof Sheet Metal Repairs, Removal and Installation).
Refer to: Roof Panel - Super Cab (501-28 Roof Sheet Metal Repairs, Removal and Installation).
Refer to: Roof Panel - Super Cab, Vehicles With: Roof Opening Panel (501-28 Roof Sheet Metal Repairs, Removal and Installation).
Refer to: Roof Panel - Crew Cab (501-28 Roof Sheet Metal Repairs, Removal and Installation).
Refer to: Roof Panel - Crew Cab, Vehicles With: Roof Opening Panel (501-28 Roof Sheet Metal Repairs, Removal and Installation).

Regular Cab

2. Remove the center reinforcement SPR fasteners and position aside.
Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer
Use the General Equipment: Belt Sander

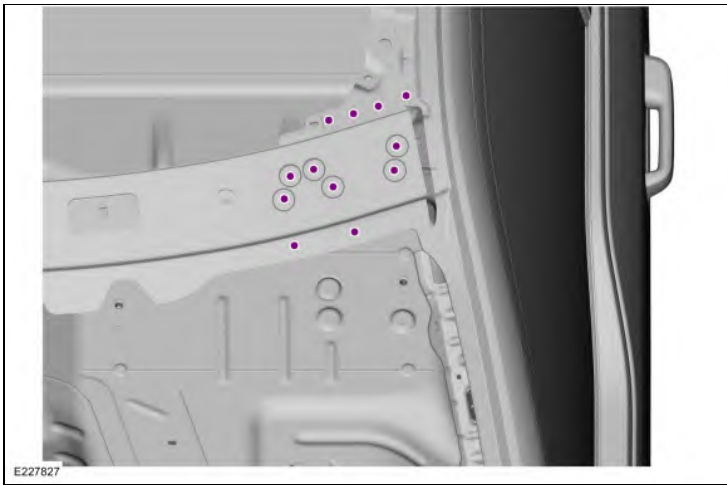


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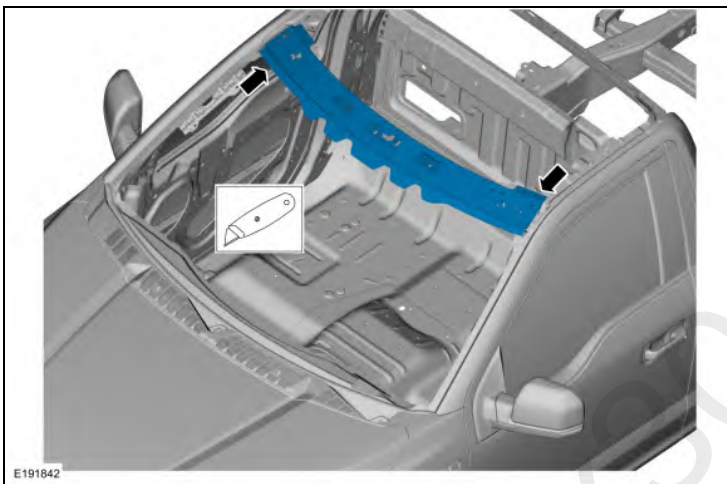


All vehicles

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



4. Break the adhesive bond and remove the roof front frame.



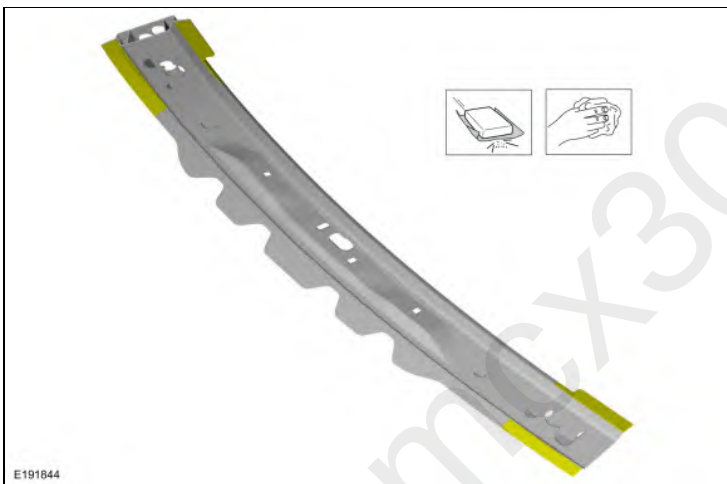
Installation

All vehicles

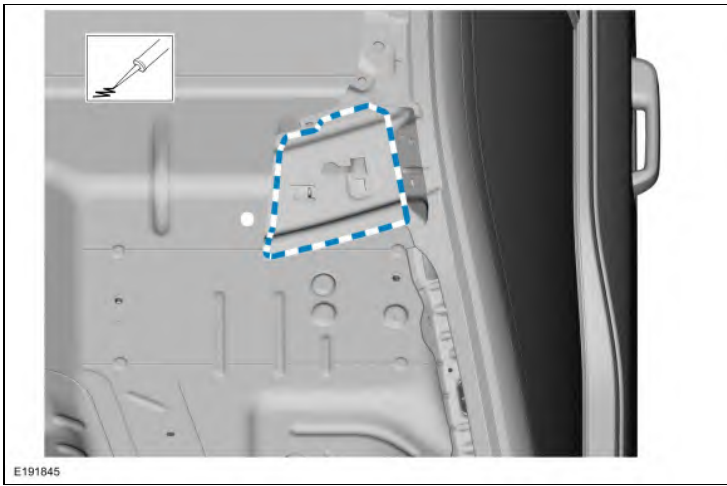
1. 80-120 grit sand paper. On both sides.
Sand to remove all remaining adhesive and clean.



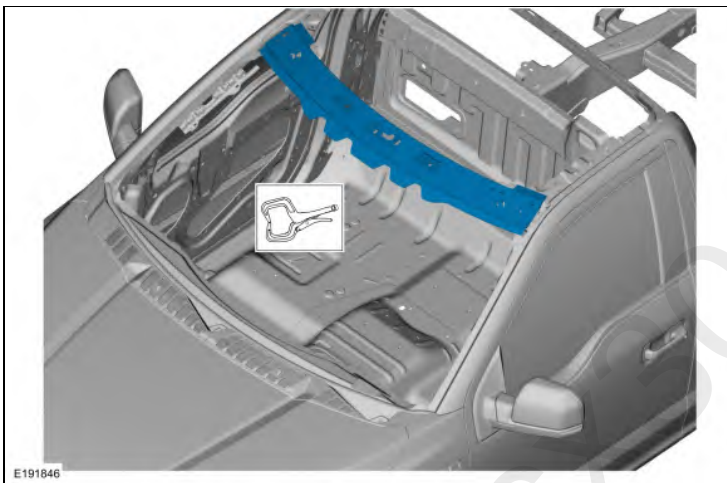
2. 80-120 grit sand paper.
Sand the roof front frame to remove e-coat and clean at the mating surfaces only.



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

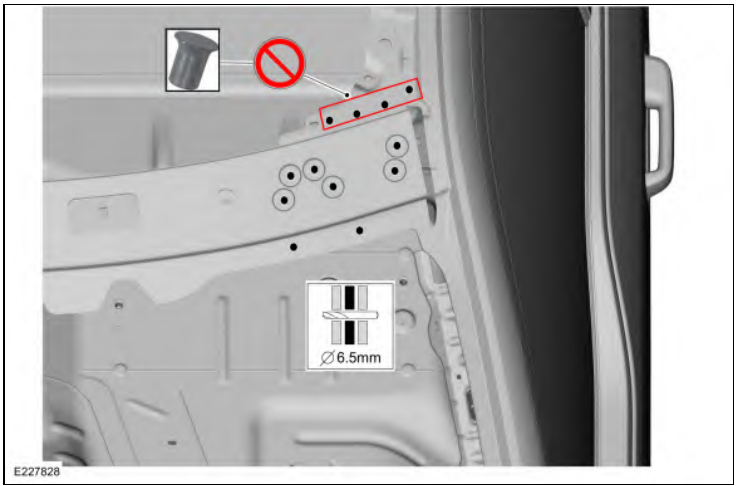


4. Install and clamp the roof front frame.
Use the General Equipment: Locking Pliers



5. **NOTE:** The rear 4 holes are drilled only if using solid rivets. If using SPR fasteners, disregard.

On both sides.
Drill for fasteners as indicated.
Use the General Equipment: 6.5 mm Drill Bit



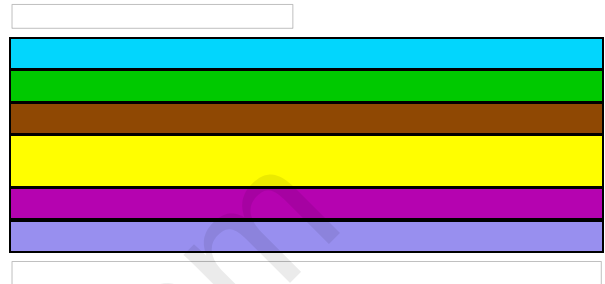
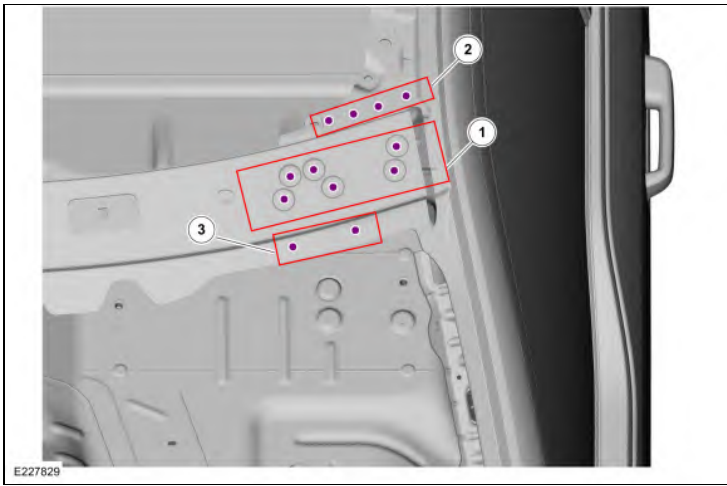
6. **NOTE:** SPR fasteners may not be placed directly over original SPR location. They must be placed adjacent to original location matching original quantity.

NOTE: Solid rivets may be used in place of SPR fasteners in the original SPR location after enlarging hole to 6.5 mm.

On both sides.
Install fasteners.

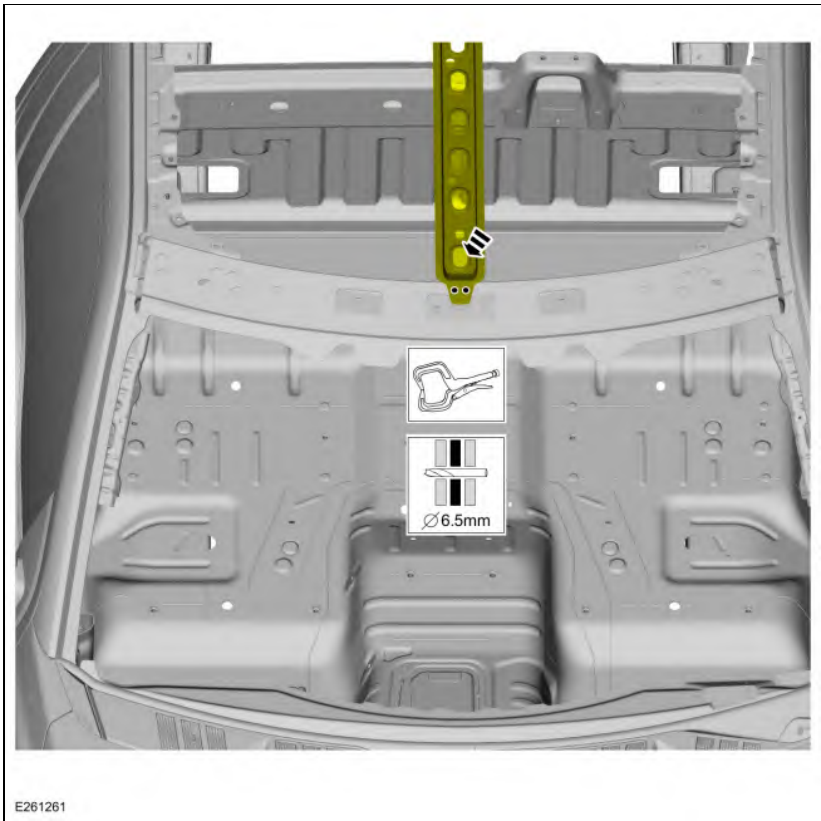
Item	SPR Number	SPR Code	Henrob® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W708777-S900C	-	-
2	W710246-S900	BN	DP10-200/H	SA-0400/SA-0402	-	W790377-S900	-
3	W717186-S900	EN	DG11-220/H	SA-0400/SA-0402	-	-	-

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



Regular Cab

7. Reposition the roof bow, clamp in position and drill for fasteners.
Use the General Equipment: Locking Pliers
Use the General Equipment: 6.5 mm Drill Bit



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8. **NOTE:** SPR fasteners may not be placed directly over original SPR location. They must be placed adjacent to original location matching original quantity.
- NOTE:** Solid rivets may be used in place of SPR fasteners in the original SPR location after enlarging hole to 6.5 mm.
- Install fasteners.

Item	SPR Number	SPR code	Henrob® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W707638-S900C	-	-

Use the General Equipment: Blind Rivet Gun



All vehicles

9. Install the roof outer panel.
 Refer to: Roof Panel - Regular Cab (501-28 Roof Sheet Metal Repairs, Removal and Installation).
 Refer to: Roof Panel - Super Cab (501-28 Roof Sheet Metal Repairs, Removal and Installation).
 Refer to: Roof Panel - Super Cab, Vehicles With: Roof Opening Panel (501-28 Roof Sheet Metal Repairs, Removal and Installation).
 Refer to: Roof Panel - Crew Cab (501-28 Roof Sheet Metal Repairs, Removal and Installation).
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