

Roof Panel - Regular Cab

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
Knife

Materials

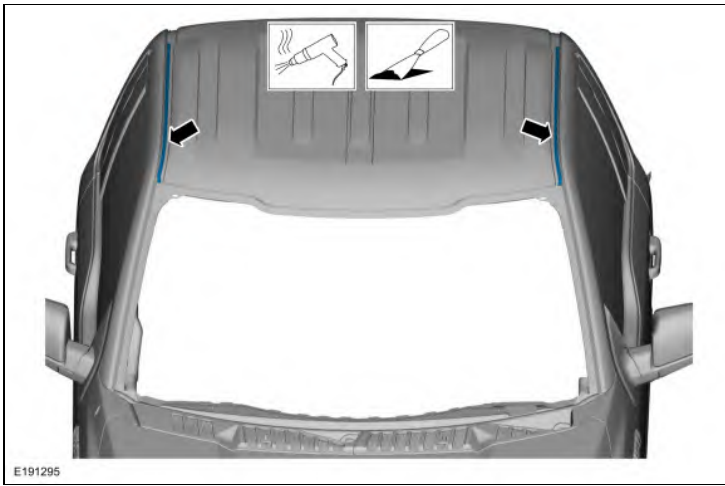
Name	Specification
Metal Bonding Adhesive TA-1, TA-1-B, 3M [®] , 08115, LORD Fusor [®] 108B	-
Roof Ditch Sealer 3M [®] , 08307, LORD Fusor [®] 122EZ	-

Removal

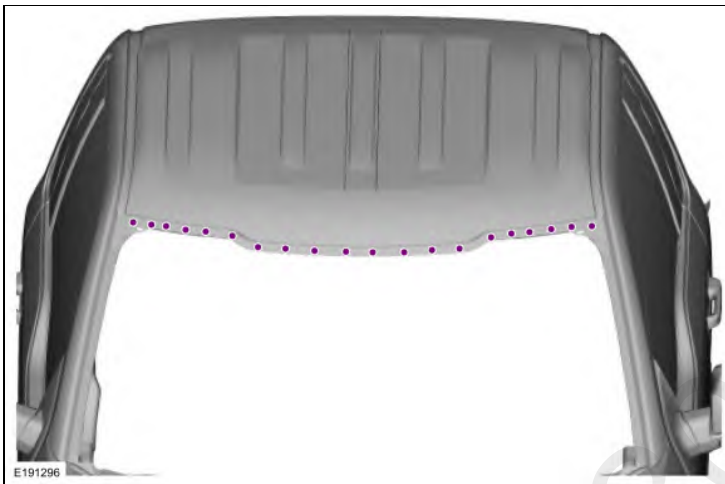
NOTICE: Adequately protect all glass, exterior finish and interior trim from contamination during entire repair procedure.

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.

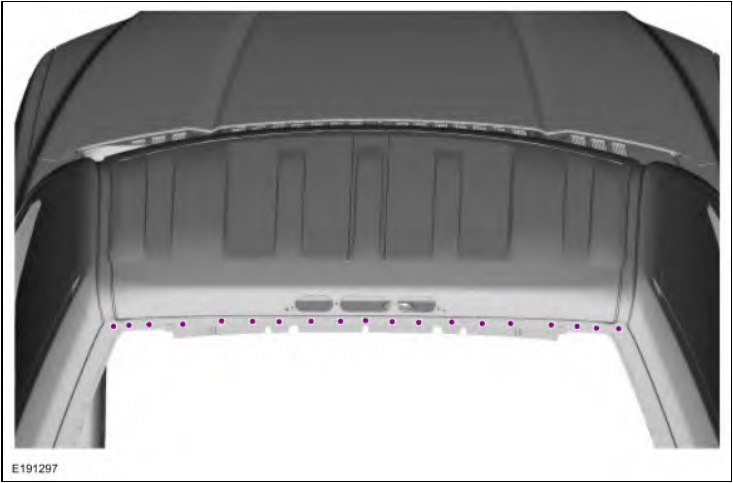
1. Depower the SRS.
Refer to: Supplemental Restraint System (SRS) Depowering (501-20B Supplemental Restraint System, General Procedures).
2. Remove the headliner.
Refer to: Headliner - Regular Cab (501-05 Interior Trim and Ornamentation, Removal and Installation).
3. Remove the windshield and rear window glass.
Refer to: Fixed Glass (501-11 Glass, Frames and Mechanisms, General Procedures).
4. If Equipped: Remove the roof marker lamps and position aside the wiring harness.
5. Remove the CHMSL (center high mount stop lamp).
Refer to: High Mounted Stoplamp (417-01 Exterior Lighting, Removal and Installation).
6. Remove the roof mouldings.
Refer to: Roof Moulding (501-08 Exterior Trim and Ornamentation, Removal and Installation).
7. Remove the side curtain air bag.
Refer to: Side Curtain Airbag - Regular Cab (501-20B Supplemental Restraint System, Removal and Installation).
8. If Equipped:
Remove the satellite radio antenna.
Refer to: Satellite Radio Antenna (415-00 Information and Entertainment System - General Information, Removal and Installation).
9. Remove the roof ditch sealer.
Use the General Equipment: Hot Air Gun
Use the General Equipment: Scraper for Straight Edges



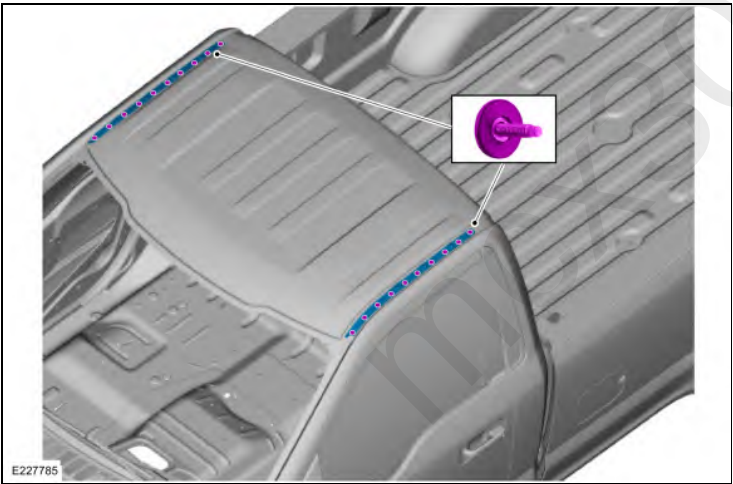
10. Remove the front header SPR fasteners.
Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer
Use the General Equipment: Belt Sander



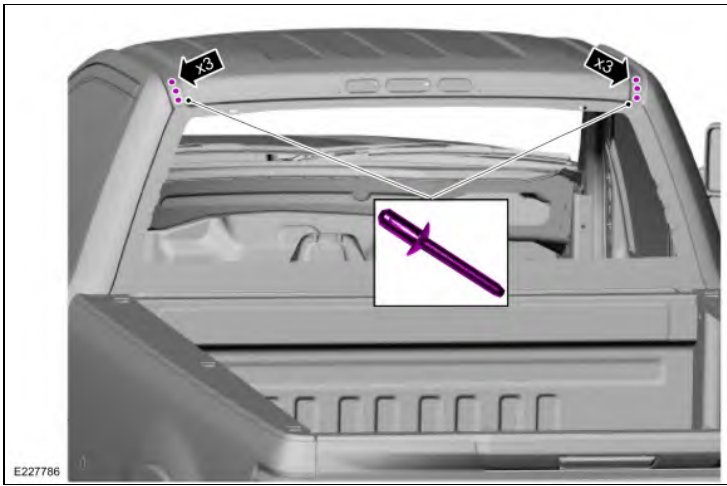
11. Remove the rear header SPR fasteners.
Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer
Use the General Equipment: Belt Sander



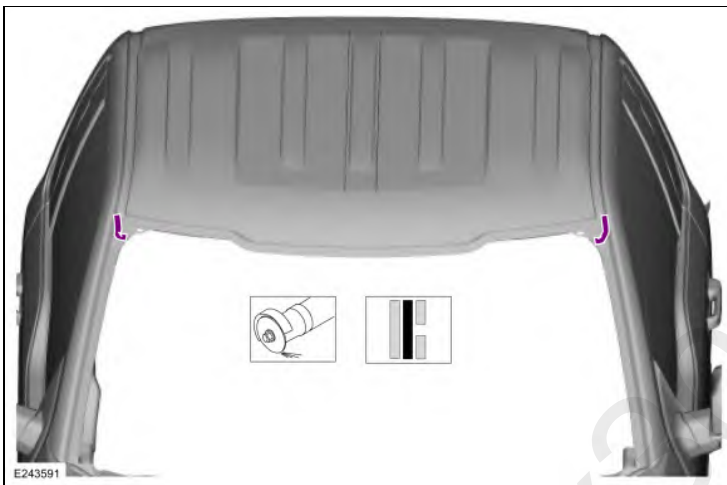
12. Remove the roof to body side fasteners and reinforcements.



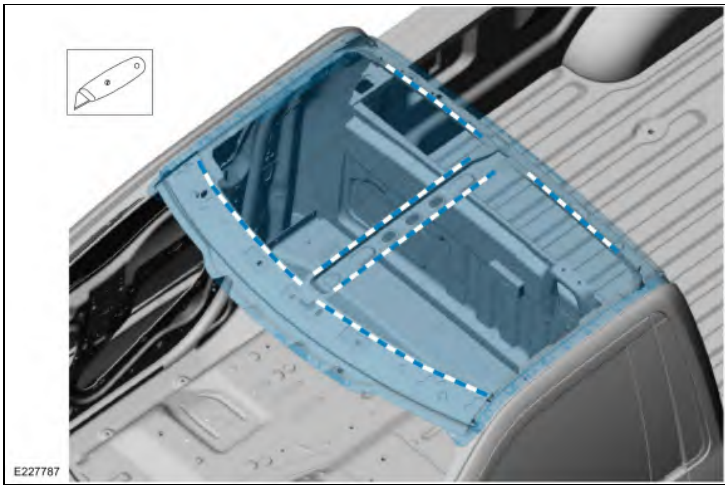
13. Remove the rivets.
Use the General Equipment: Belt Sander



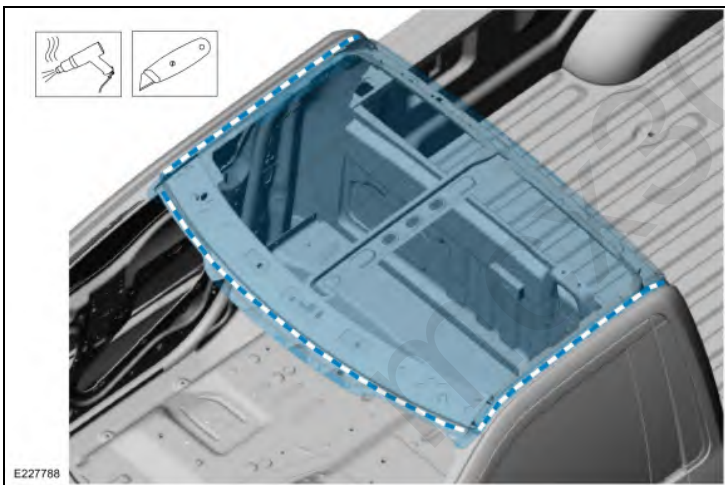
14. Remove the welds.
Use the General Equipment: Spherical Cutter



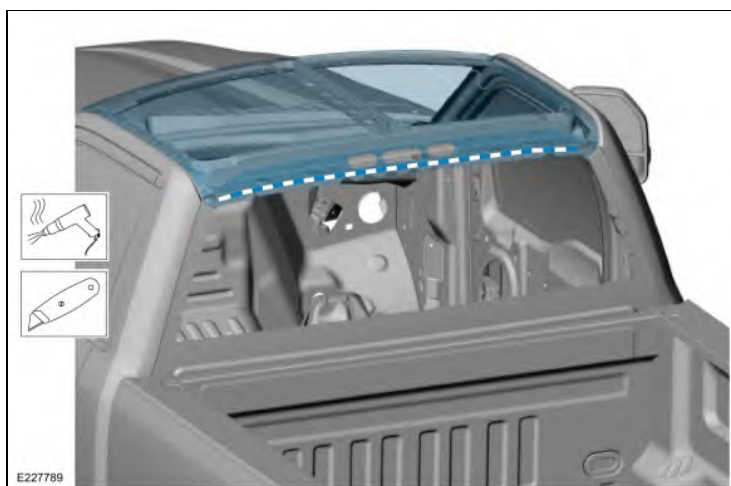
15. **NOTE:** Leave as much foam as possible intact on the roof bows.
Carefully cut the bond between the roof panel and the NVH foam on the roof bow.
Use the General Equipment: Knife



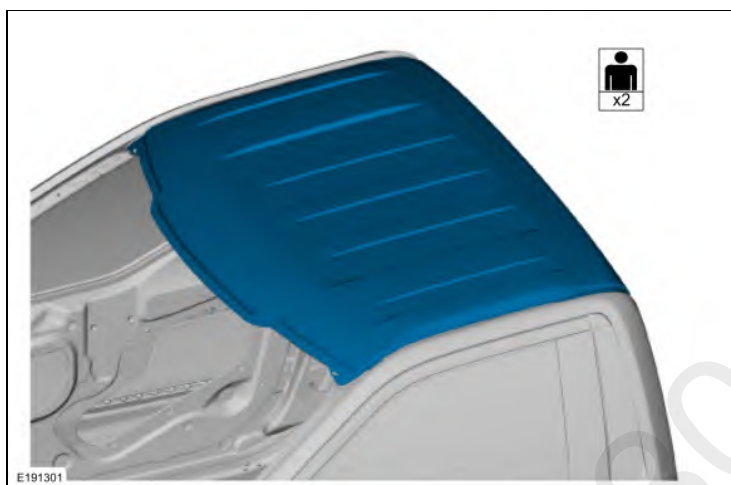
16. Break the adhesive bond along the sides and front header panel.
 Use the General Equipment: Hot Air Gun
 Use the General Equipment: Knife



17. Break the adhesive bond along the rear header panel.
 Use the General Equipment: Hot Air Gun
 Use the General Equipment: Knife



18. With the help of an assistant, remove the roof outer panel.

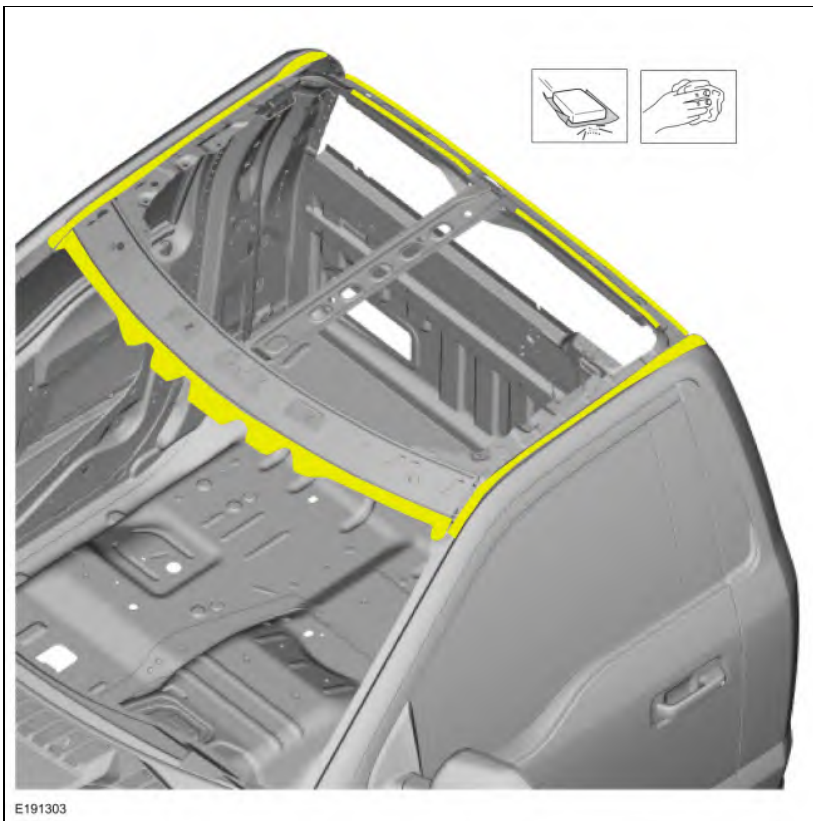


Installation

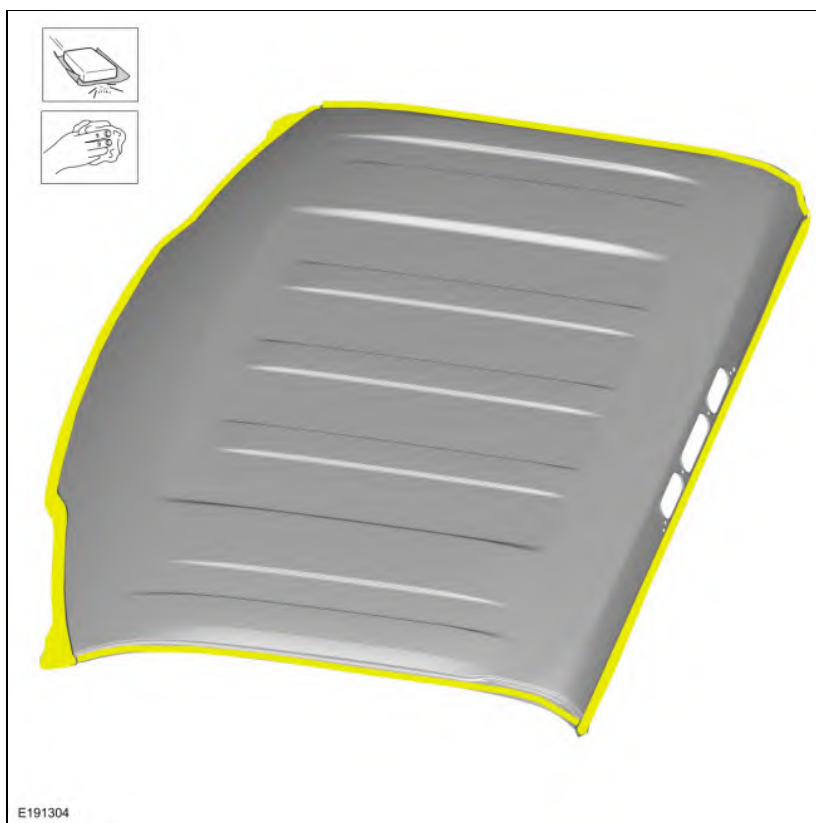
NOTICE: Adequately protect all glass, exterior finish and interior trim from contamination during entire repair procedure.

NOTE: A template is available for vehicles equipped with roof mounted clearance lights and/or a roof mounted antenna. This can be accessed through the PTS (Professional Technician Society) web site under Service Tips for this vehicle.

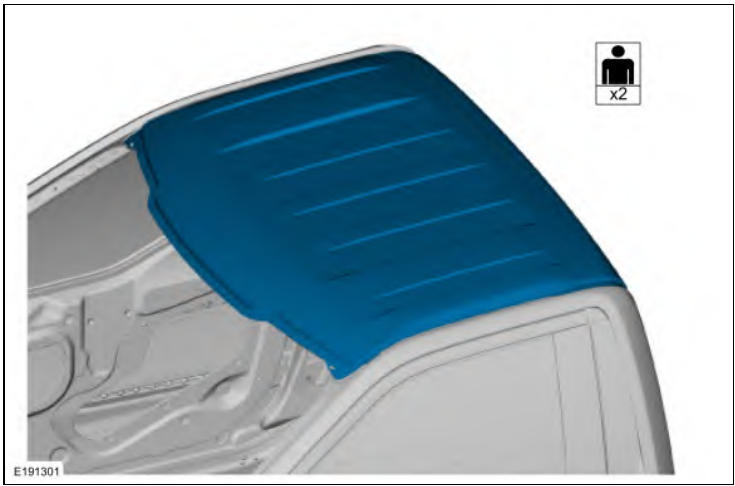
1. Use a hammer and dolly dedicated to aluminum repair to repair any damage to the body side flange to roof mating surfaces.
Refer to: Special Repair Considerations for Aluminum Repairs (501-25 Body Repairs - General Information, Description and Operation).
2. 80-120 grit sand paper.
Sand to remove old adhesive and clean the roof mating surfaces.



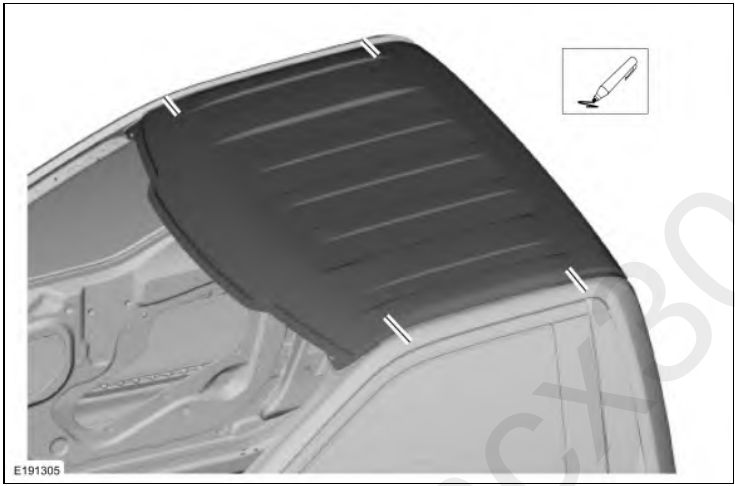
3. 80-120 grit sand paper.
Sand to remove the e-coat and clean the roof panel mating surface.



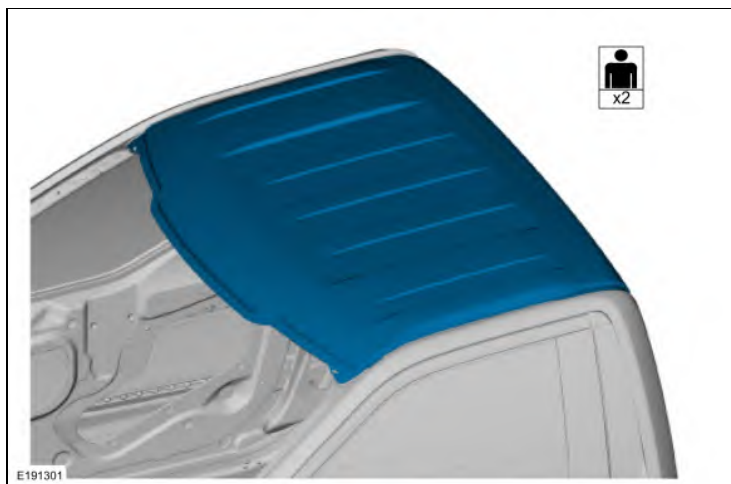
4. With the help of an assistant, install the roof outer panel.



5. Properly align and index mark the roof panel to the vehicle.

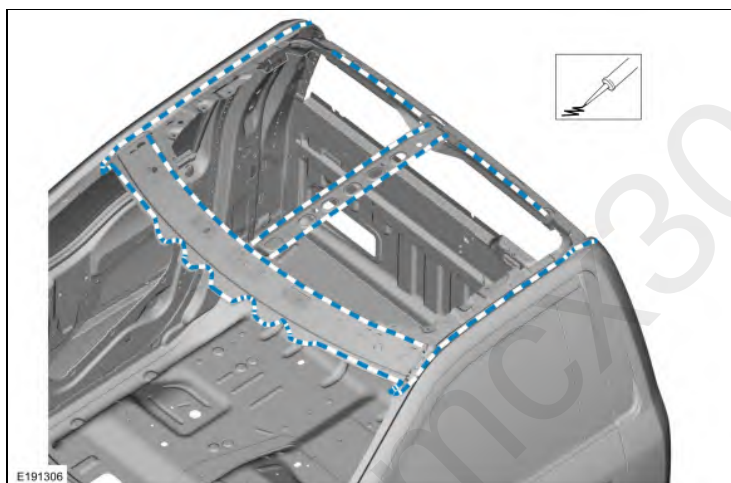


6. With the help of an assistant, remove the roof outer panel.



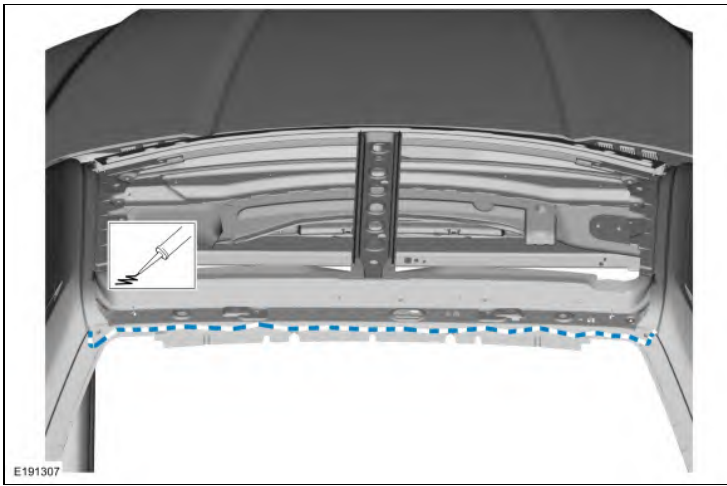
7. Apply adhesive.

Material: Metal Bonding Adhesive / TA-1, TA-1-B, 3Mâ,ç 08115, LORD FusorÂ® 108B

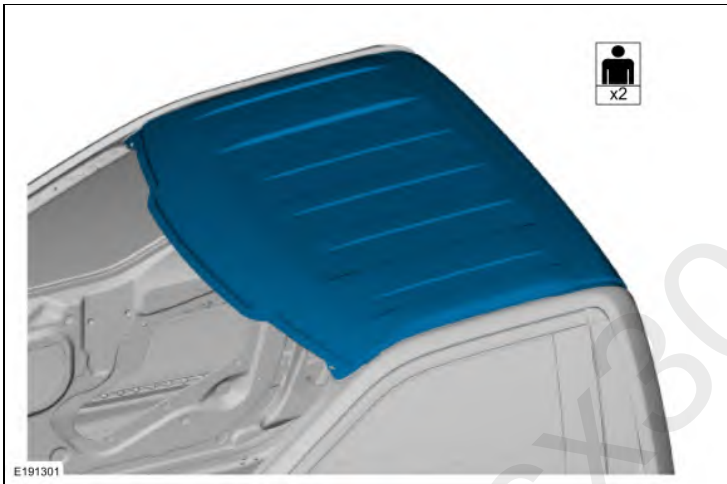


8. Apply adhesive.

Material: Metal Bonding Adhesive / TA-1, TA-1-B, 3Mâ,ç 08115, LORD FusorÂ® 108B



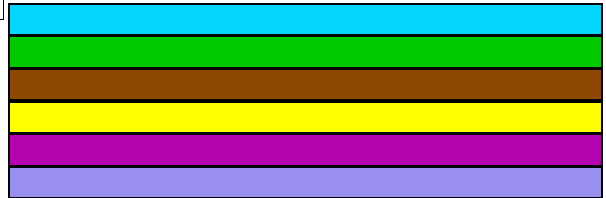
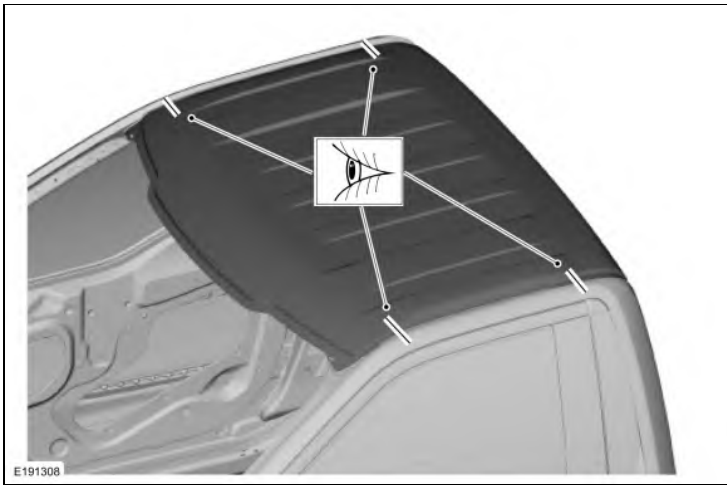
9. With the help of an assistant, install the roof panel.



10. **NOTE:** Do not lift the roof panel to align to index marks. Slide the panel in position to reduce the possibility of breaking the adhesive bond.

NOTE: Check for full adhesive contact. Add additional adhesive to contact points if necessary.

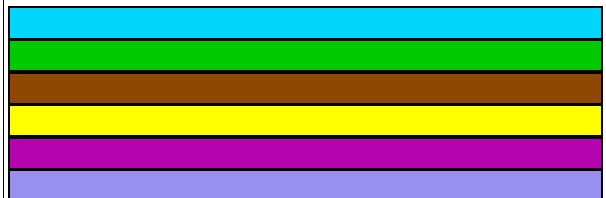
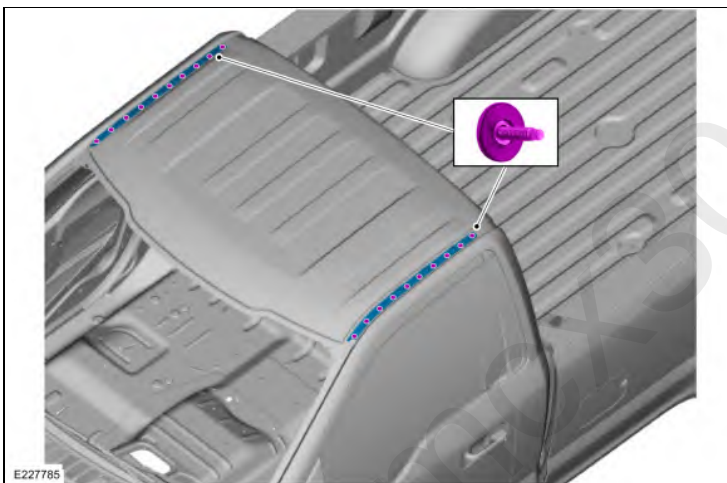
Properly align the roof panel to the index marks.



11. **NOTE:** Do not remove excess adhesive squeeze-out in the roof ditch area, smooth in to the joint to act as additional sealer.

Install the roof ditch reinforcement and fasteners.

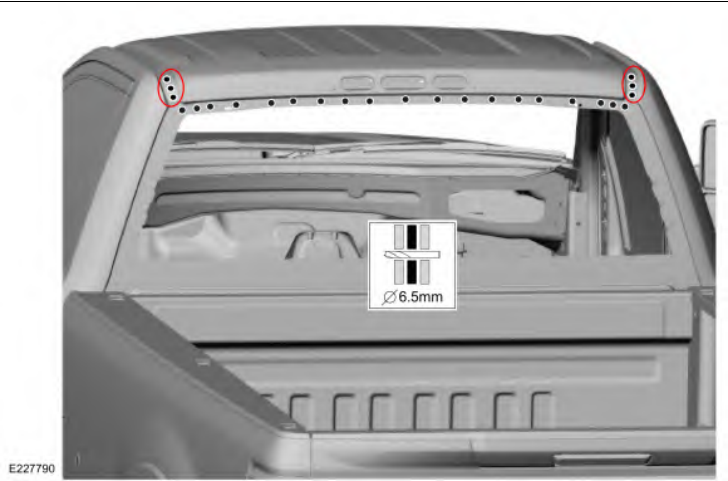
Torque: 62 lb.in (7 Nm)



12. **NOTE:** Circled holes must be drilled for fasteners. The remaining holes indicated should only be drilled if using blind or solid rivets. If using SPR fasteners, these do not require drilling.

Drill rivet holes as indicated.

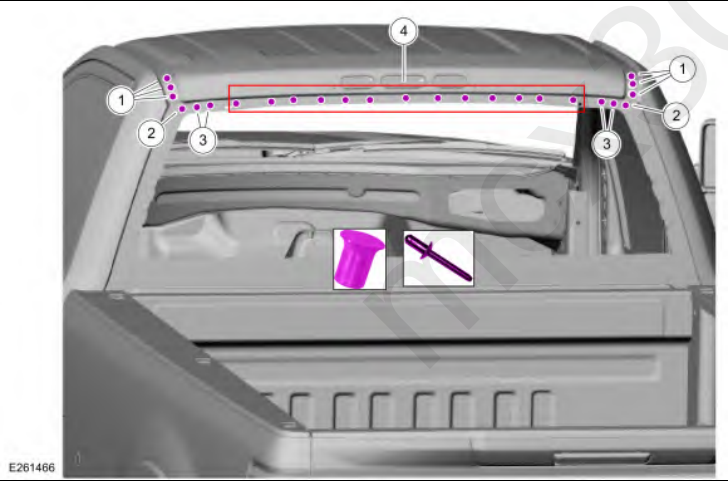
Use the General Equipment: 6.5 mm Drill Bit



13. Install fasteners.

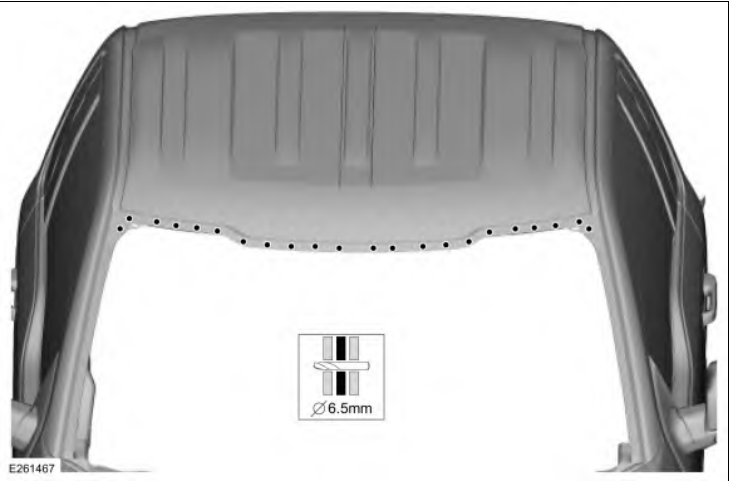
Item	SPR Number	SPR Code	Henrob® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W702512-S900C	-	-
2	W708714-S900	AT	DZ09-025/H	SA-0400/SA-0401	W707638-S900C	W790376-S900	-
3	W710246-S900	BN	DP10-200/H	SA-0400/SA-0401	W708777-S900C	W790376-S900	-
4	W718595-S900	SU	DP07-140/H	SA-0400/SA-0401	W702512-S900C	W790376-S900	-

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



14. **NOTE:** Holes only need to be drilled if using blind or solid rivet fasteners. If using SPR fasteners, these do not require drilling.

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



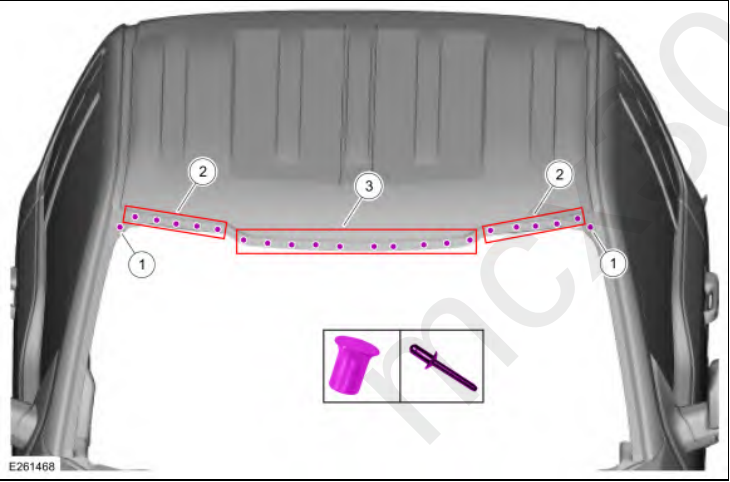
15. **NOTE:** SPR fasteners may not be placed directly over original SPR location. They must be placed adjacent to original location matching original quantity.

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

Install the fasteners.

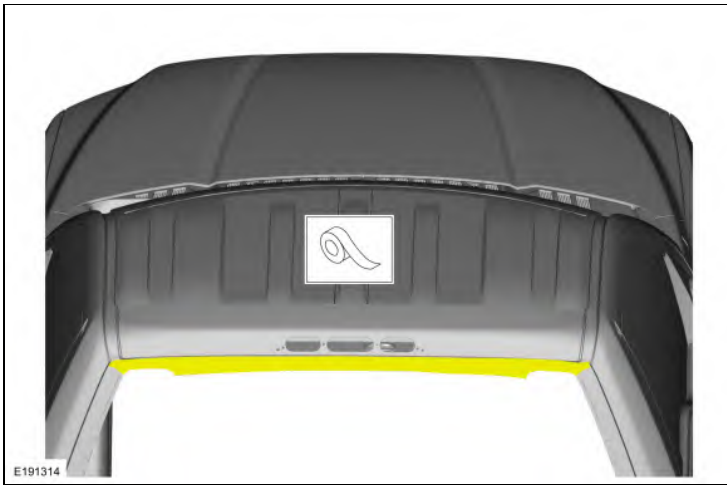
Item	SPR Number	SPR Code	Henrob® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	W708714-S900C	AT	DZ09-025/H	SA-0400/SA-0401	W708777-S900C	W790376-S900	-
2	W717186-S900	EN	DG11-220/H	SA-0400/SA-0402	W702554-S900C	W790377-S900	-
3	W708713-S900	AS	DZ09-025/H	SA-0400/SA-0401	W702512-S900C	W790376-S900	-

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



16. Sand and prime the front and rear window opening channels using a Ford approved epoxy based primer and allow to dry.

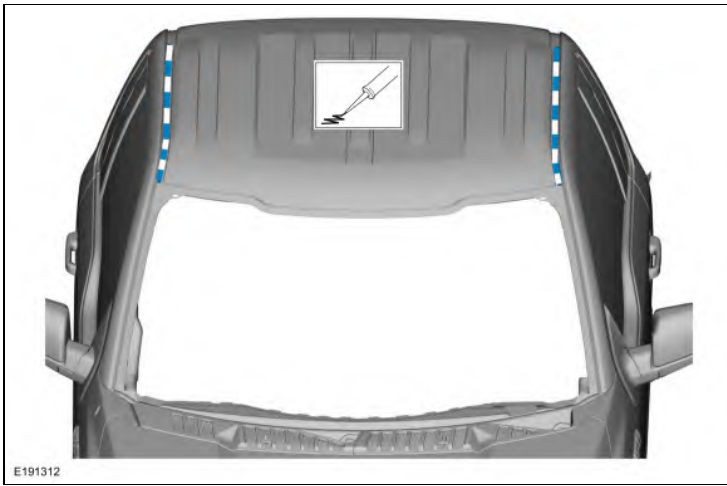
17. Mask off the rear window glass channel.



18. Mask off the front window glass channel.

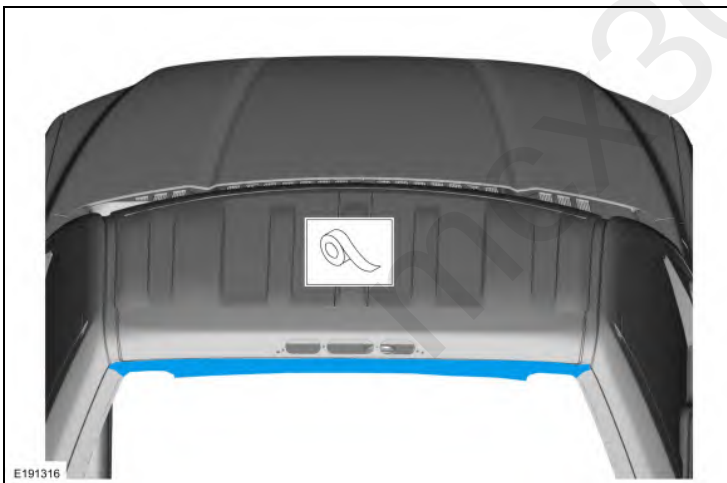


19. Apply roof ditch sealer following manufacturer's directions.
Material: Roof Ditch Sealer / 3M, 08307, LORD Fusor® 122EZ



20. Refinish the entire repair area using a Ford approved paint system and standard refinishing techniques.

21. Remove the masking in the rear window glass channel.



22. Remove the masking in the front window glass channel.



23. If Equipped:
Install the satellite radio antenna.
Refer to: Satellite Radio Antenna (415-00 Information and Entertainment System - General Information, Removal and Installation).
24. Install the windshield and rear window glass.
Refer to: Fixed Glass (501-11 Glass, Frames and Mechanisms, General Procedures).
25. Install the roof mouldings.
Refer to: Roof Moulding (501-08 Exterior Trim and Ornamentation, Removal and Installation).
26. Install the CHMSL (center high mount stop lamp).
Refer to: High Mounted Stoplamp (417-01 Exterior Lighting, Removal and Installation).
27. If Equipped: Install the roof marker lamps and position the wiring harness to original location.
28. Install the side curtain air bag.
Refer to: Side Curtain Airbag - Regular Cab (501-20B Supplemental Restraint System, Removal and Installation).
29. Install the headliner.
Refer to: Headliner - Regular Cab (501-05 Interior Trim and Ornamentation, Removal and Installation).
30. Repower the SRS.
Refer to: Supplemental Restraint System (SRS) Repowering (501-20B Supplemental Restraint System, General Procedures).