

Article No. 96-20-11 SHEET METAL-ROOF CRACKS-REPAIR PROCEDURE

LIGHT TRUCK: 1980-96 BRONCO

This TSB is being republished in its entirety to include Bronco through the current model year of 1996.

ISSUE: Cracks may appear on the roof panel or on the corner panel sheet metal near the end of the drip rail at the B-pillar.

ACTION: Repair roof sheet metal cracks by using the Roof Repair Kit (F5TZ-9850223-A). Refer to Instruction Sheet #6661, included in the kit, for service details.

NOTE: BE SURE TO REPAIR BOTH SIDES AT THE SAME TIME. IF ONLY ONE SIDE IS CRACKED, ALSO REPAIR THE SIDE THAT IS NOT CRACKED.

The Roof Repair Kit (F5TZ-9850223-A) contains the following:

- One (1) Reinforcement -Body Side RH
- One (1) Reinforcement -Body Side LH
- One (1) Reinforcement -Roof Inner Panel RH .One (1) Reinforcement -Roof Inner Panel LH .Two (2) Plates - Roof Side Rail Enforcement .One (1) Epoxy -2 Part
- Fourteen (14) Rivets
- One (1) Instruction Sheet (I.S. #6661)

\$152.73

PART NUMBER
F5TZ-9850223-A

PART NAME
Roof Repair Kit

OTHER APPLICABLE ARTICLES: NONE

SUPERSEDES: 95-14-9

WARRANTY STATUS: Eligible Under The Provisions Of Bumper-to-Bumper Warranty Coverage For 1992-96 Vehicles, Basic Coverage For All Others

OPERATION 962011A

DESCRIPTION Repair Roof Cracks (Includes Installation of New Headliner If Necessary)

TIME 3.5 Hrs.

DEALER CODING

CONDITION CODE 01

BASIC PART NO. 7050202

OASIS CODES: 106000, 110000

ROOF REPAIR SERVICE PROCEDURE – BRONCO

Kit Contents – F5TB-9850223-AA		
Part Number	Description	Quantity
372820	Rivet (2 Extra Supplied)	14
F5TB-9827946-AA	Reinforcement – Body Side Inner Panel RH (Sail)	1
F5TB-9827947-AA	Reinforcement – Body Side Inner Panel LH (Sail)	1
F5TB-98500A54-AA	Reinforcement – Roof Inner Panel RH	1
F5TB-98500A55-AA	Reinforcement – Roof Inner Panel LH	1
F5TB-98514B12-AA	Plate Roof Side Rail Reinforcement	2
10581 (Kent Ind.)	Epoxy (2 Part) with Mixing Nozzle	1
I.S. 6661	Instruction Sheet	1

NOTE: This kit contains parts to repair both sides of vehicle. Always repair both sides, even if only one side is cracked, otherwise the repair may not be effective.

REMOVAL:

1. Remove dome light fuse or equivalent to prevent battery from draining during the repair.
2. Move both seats forward and place protective cover of the interior of the vehicle including the carpets, front seats, rear seat, and B-pillar trim. It is not necessary to remove the seats.
3. Remove header and side fiberglass roof molding. For removal, refer to Service Manual Section 45-16 (before 1991) or 01-05 (after 1990).
4. Remove fiberglass roof bolts and slide roof back about one foot. For removal, refer to Service Manual Section 46-51 (before 1991) or 01-08 (after 1990).
5. Remove A-pillar and windshield garnish moldings. For removal, refer to Service Manual Section 45-16 (before 1991) or 01-05 (after 1990).
6. Remove sun visors and dome lamp. For removal, refer to Service Manual Section 45-41 and 32-61 (before 1991) or 01-05 and 17-02 (after 1990).
7. Remove roof console if equipped. For removal, refer to Service Manual Section 13-07 (1994-1996).
8. Remove B-pillar trim panels. For removal, refer to Service Manual Section 45-11 (before 1991) or 01-05 (after 1990).
9. Remove the headliner (if equipped). For removal, refer to Service Manual Section 45-41 (before 1991) or 01-05 (after 1990).
10. Remove seat belt anchor bolts in B-pillars. For removal, refer to Service Manual Section 41-50 (before 1991) or 01-20 (after 1990).

CUTTING THE 3.5" X 5" ACCESS HOLE

11. Use the template which locates off the seat belt anchor in the B-pillar and the scribed line to orient the template. Then mark the rectangular hole using a grease pencil (refer to Figures 1A and 1B). Center punch hole location for 1/4" hole using template.
12. Use a 3/4" hole saw at the four corners of the rectangle and drill 1/4" hole (refer to Figure 2).
13. Use a nibbler saw or equivalent between the drilled holes to make the access hole.

NOTE: On the driver's side of the vehicle, there is a wire for the high-mount stop lamp, which runs down the pillar along the inner roof. Cut away the rear portion of the access hole first and bend it out of the way. Then use a wire hook to grab the wire and pull it out the way before cutting the rear of the access hole (refer to Figure 3).

If the wire is accidentally cut, then splice using butt splice or equivalent, and wrap with electrical tape. Check and replace fuse No.8 if it has been blown.

14. Use a pair of pliers or vice-grips to bend the curled down portion of the left hand drip rail straight for better access to the sail panel underneath it (refer to Figure 4).

NOTE: The remainder of this repair must be performed with all four wheels in the same plane. If repair is performed with the body twisted, then the braces will be stressed when the vehicle is level.

OUTER SKIN CRACK REPAIR

15. Remove the weather strip on the aft end of the roof for the fiberglass cap. For removal, refer to Service Manual Section 46-51 (before 1991) or 01-08 (after 1990).
16. Sand the localized area to bare metal.
17. Drill out the ends of the cracks with a 1/8" bit (refer to Figure 5).
18. MIG weld the crack using ER70S-6 wire.
19. Metal finish and prepare for prime coat.

PREPARING THE METAL, APPLYING THE METAL REINFORCEMENTS AND EPOXY

NOTE: To dispense epoxy, use Kent Ind. Dual Syringe Gun (Part No. 90375). If needed, order from Kent Ind., 1-800-554-6333, the cost is \$49.95.

20. Use a grinding stone, sandpaper, or wire brush on a drill to remove surface rust on the inside of the roof and sail panels and to clean the surface where the two-part epoxy will be applied (refer to Figure 6).
21. Use a grinding stone, sandpaper, or wire brush on a drill to score the periphery of the access hole for better adhesion of the two-part epoxy for the cover plate (refer to Figure 6).
22. Prepare the surfaces for the two-part epoxy by wiping them with a solvent using a clean cloth. Ensure that there is no residue left on the surfaces. All surfaces should be scored and cleaned (refer to Figure 7).
23. Score the surfaces of the metal reinforcements. Use a solvent and clean cloth to wipe the surfaces clean for better adhesion with the two-part epoxy (refer to Figure 8).
24. If the unit is equipped with a brace (refer to Figure 9), then pump the two-part epoxy between the brace, the outer sheet metal roof, and the sail panel. Use a blunt chisel and hammer to bend the forward standing flange on the brace as close to the outboard side of the roof and sail panels as possible, without contacting the roof and sail panels (refer to Figure 9).
25. To prevent loss of reinforcement down the B-pillar, stuff it with cloth towels or block by other means. Practice inserting and removing the reinforcements to get used to handling the parts in the confined space. Determine if the reinforcement for the sail panel fits snug; if not, bend the reinforcement so that it does (refer to Figure 10B).
26. Apply the two-part epoxy to the sail panel and the sail panel reinforcement, and place into position (refer to Figures 10A and 10B). The reinforcement should fit snug and should not require clamping. If the unit is not equipped with a brace from the factory, then ensure that the offset is filled with two-part epoxy material.
27. Apply the two-part epoxy to the roof panel and the roof panel reinforcement, and place into position (refer to Figures 11A and 11B). The reinforcement should rest in place on top of the drip molding and should not require clamping.
28. Apply 10 degree F direct heat for five minutes using a heat gun. Hold the heat gun 8-10 inches from the inside surface of roof and sail panels and apply heat through the 3.5" x 5" access hole.

COVERING THE ACCESS HOLE

29. Shape cover plate by hand, to conform to contour of inner roof (refer to Figure 12).
30. Secure upper rear attachment with standard part sheet metal screw (refer to Figure 13).
31. Align cover plate over access hole and drill. Secure attachment holes in sequence (refer to Figure 14). Install each screw right after drilling hole. Do not drill several holes at once, otherwise holes may not match perfectly.
32. Remove sheet metal screws (refer to Figure 15).
33. Score the periphery of the plate and wipe clean (refer to Figure 16).
34. Apply two-part epoxy around the perimeter of the cover plate (refer to Figure 17).
35. Secure the cover plate in the inner roof with 6 rivets (refer to Figure 18).

PRIME, PAINT, AND HOLD UNIT

36. Sand and clean the roof for priming.
37. Mix and apply (2.0 mils) urethane primer surfacer per manufacturer's label.
38. Mix and apply (2.0 mils) topcoat material per manufacturer's label instructions.
39. Re-install the fiberglass roof and all trim panels.

NOTE: If the vehicle was not equipped with a headliner, install one for the customer.

40. Hold the vehicle for 24 hours to ensure sufficient curing time for the two-part epoxy material.

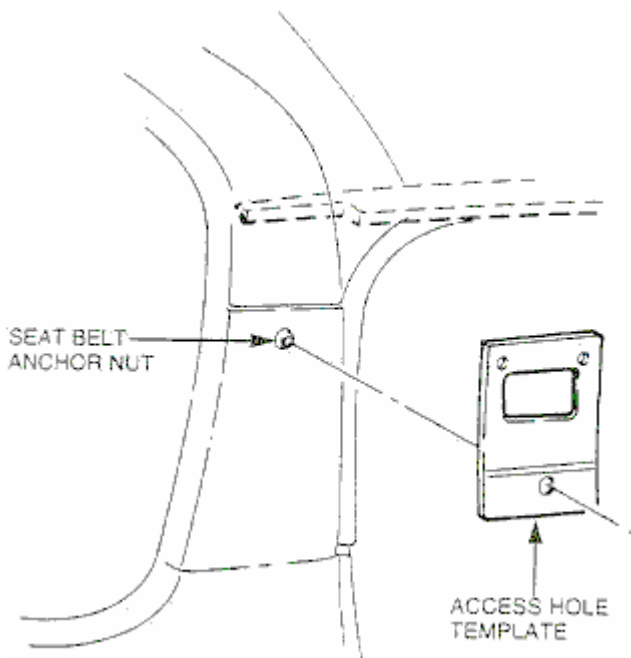


FIGURE 1A

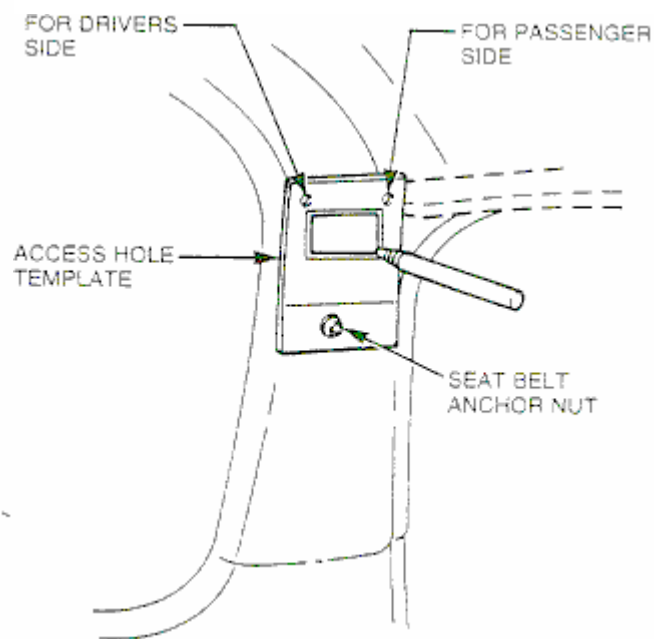


FIGURE 1B

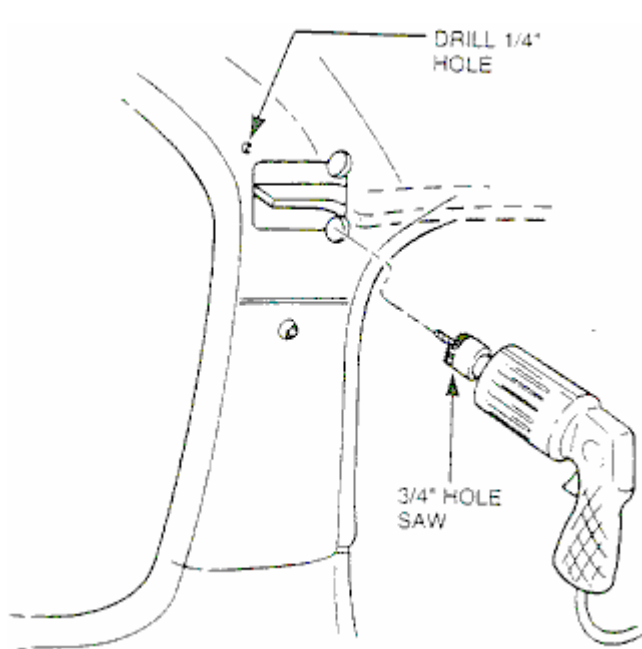


FIGURE 2

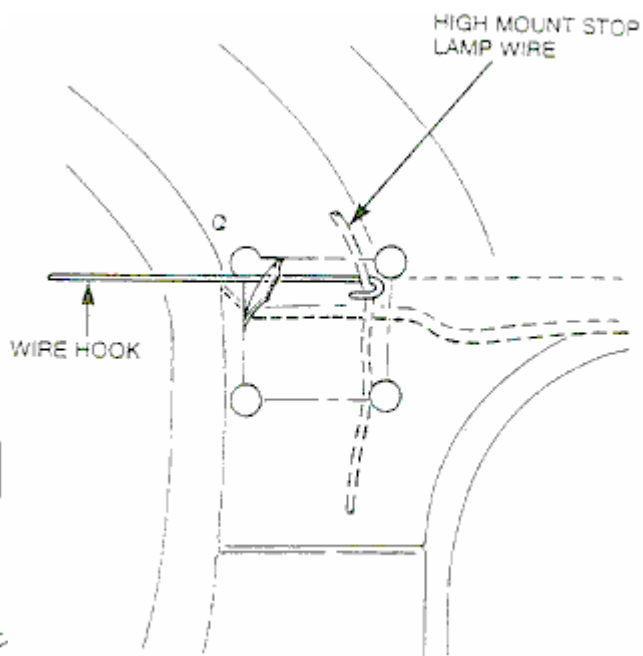


FIGURE 3

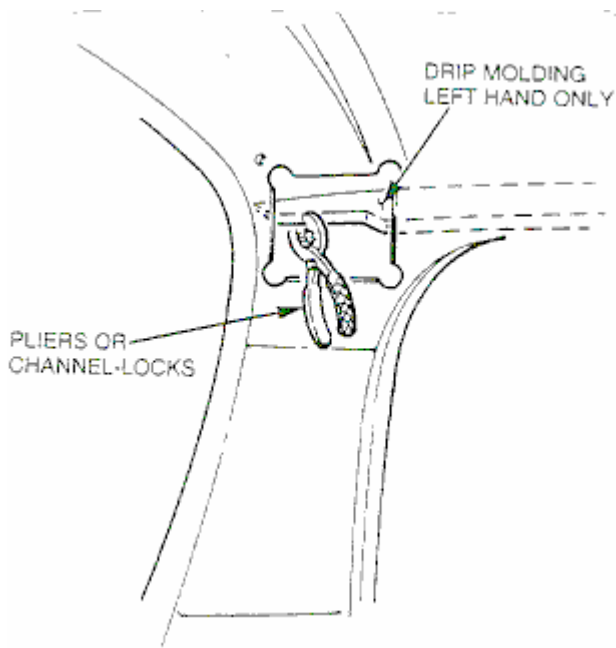


FIGURE 4

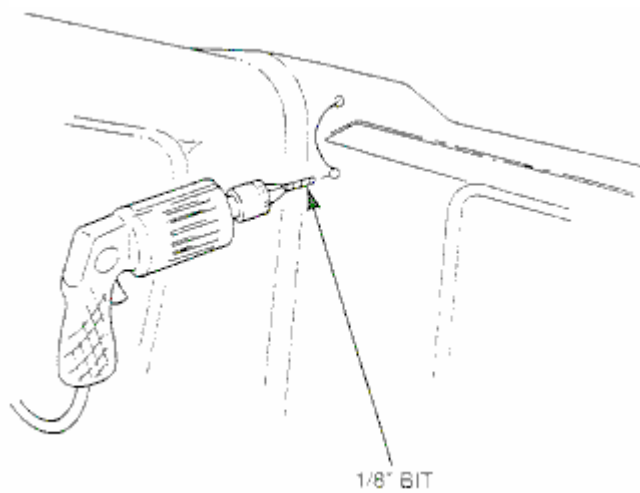


FIGURE 5

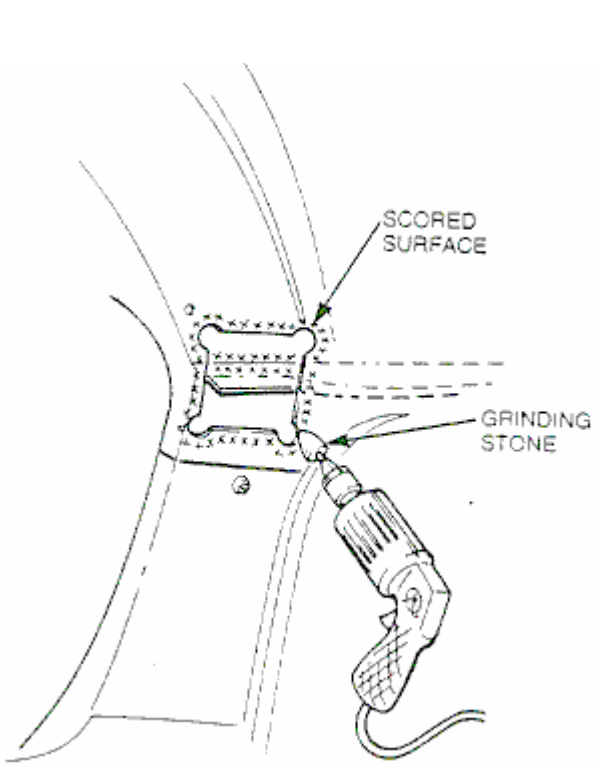


FIGURE 6

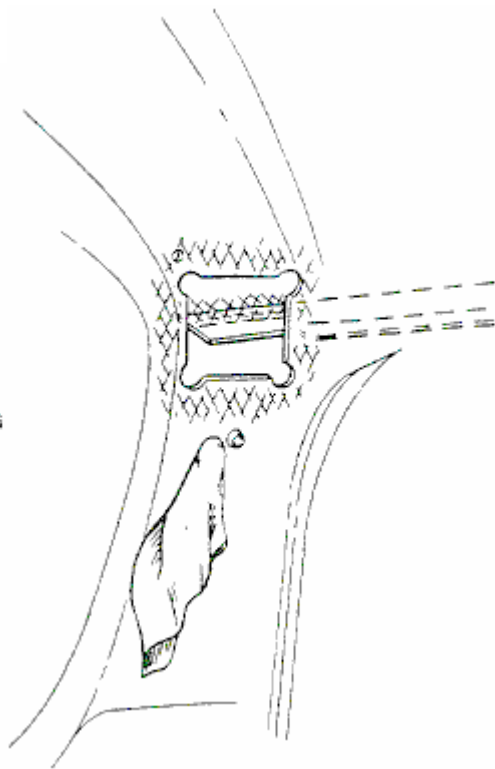


FIGURE 7

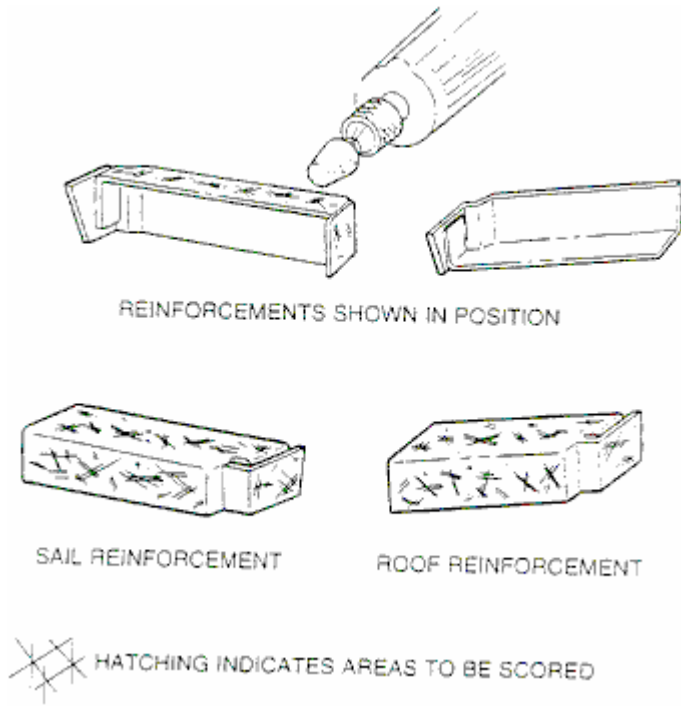


FIGURE 8

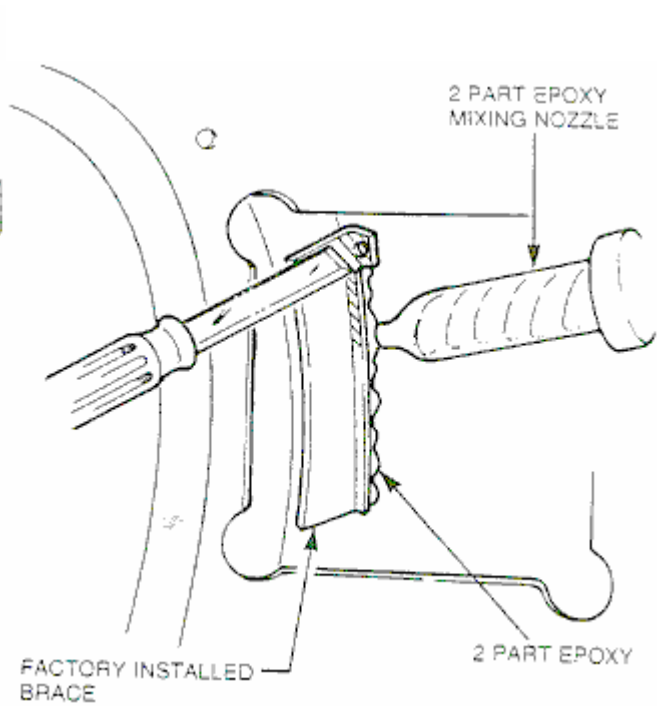


FIGURE 9

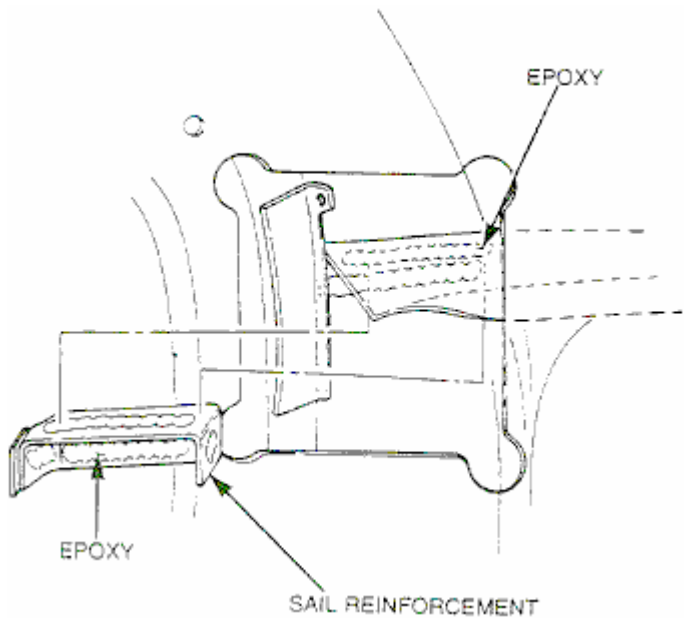


FIGURE 10A

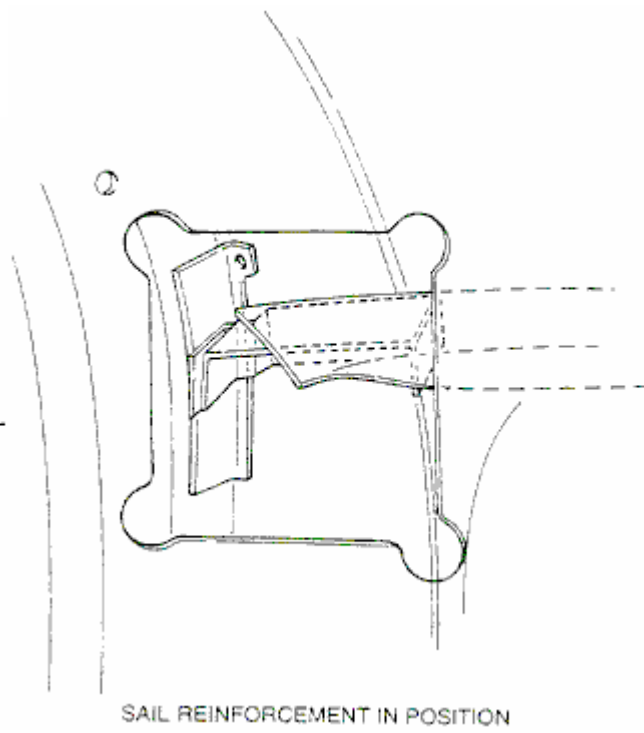


FIGURE 10B

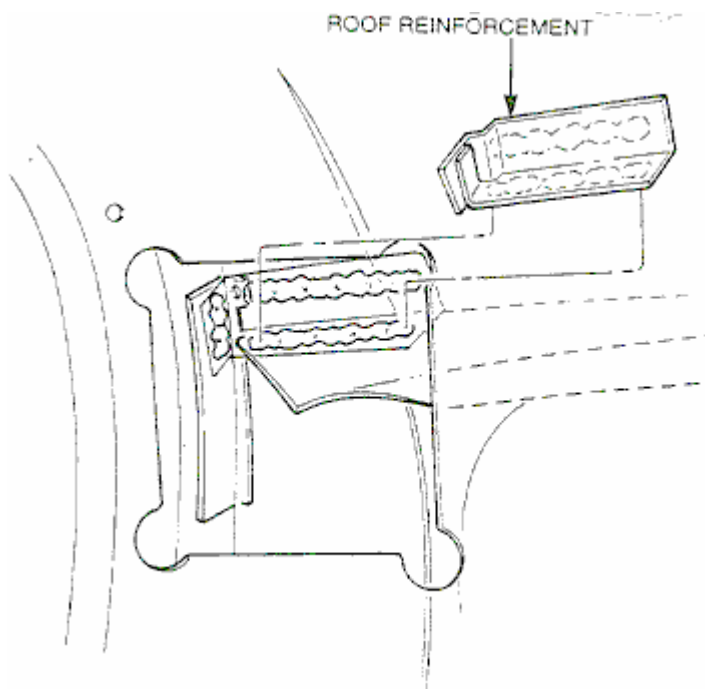


FIGURE 11A

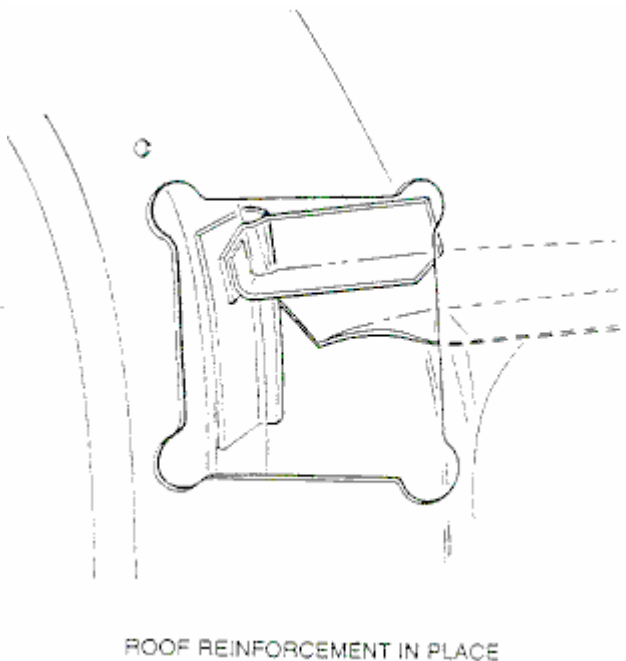
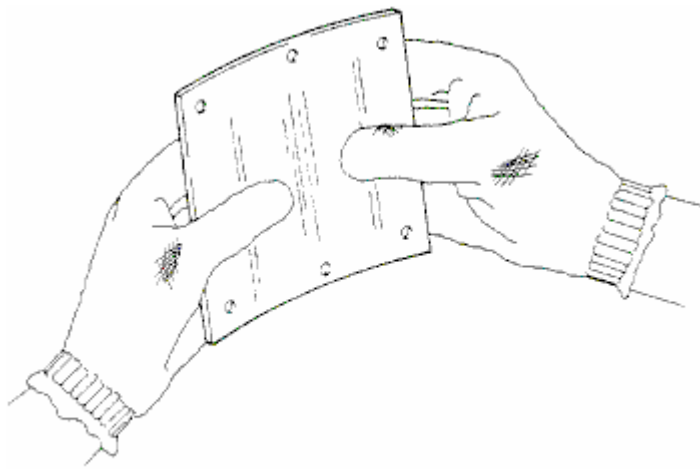


FIGURE 11B



CONTOUR PLATE BY HAND

FIGURE 12

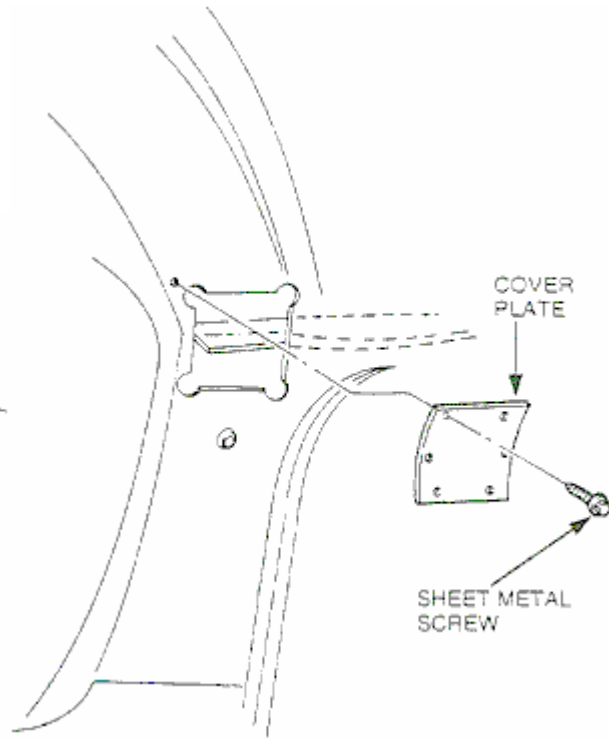


FIGURE 13

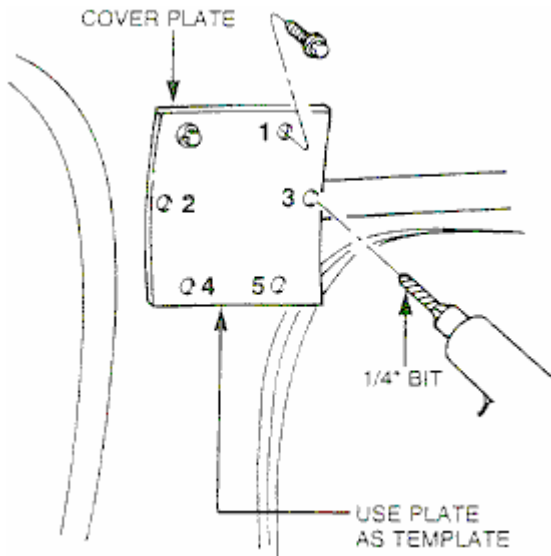


FIGURE 14

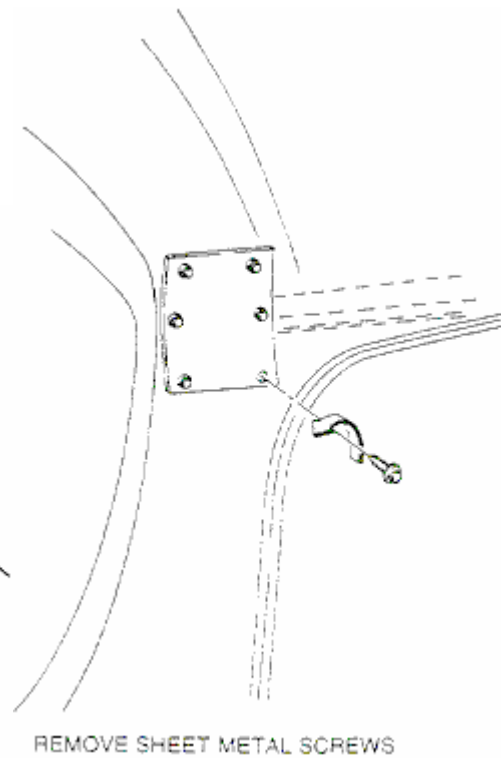


FIGURE 15

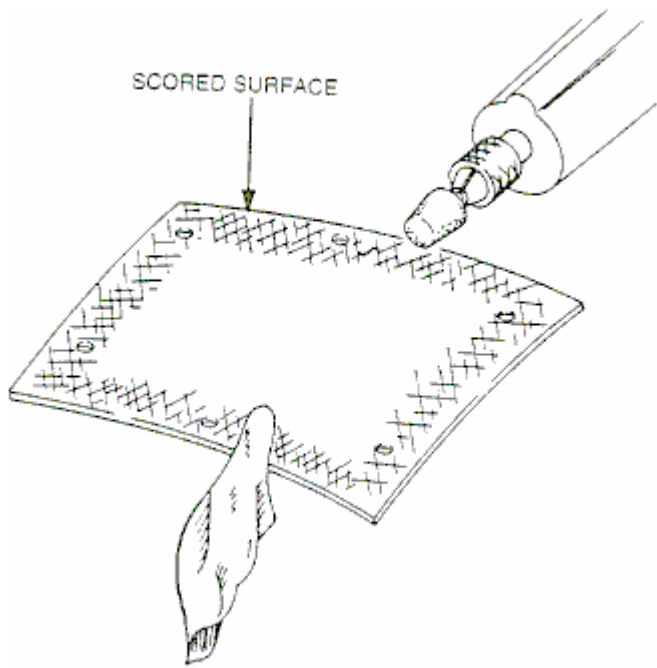


FIGURE 16

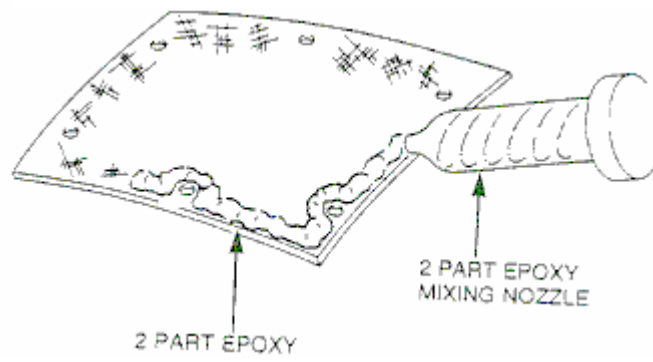


FIGURE 17

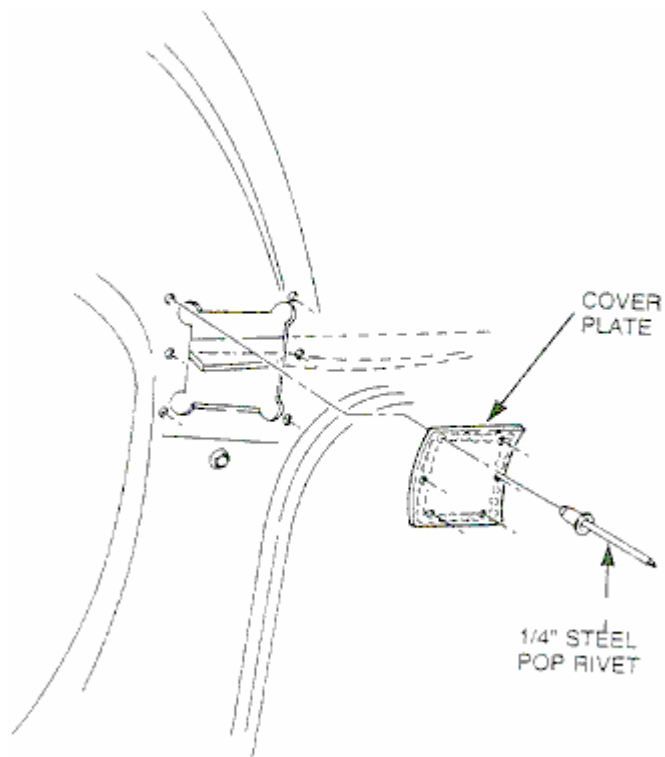
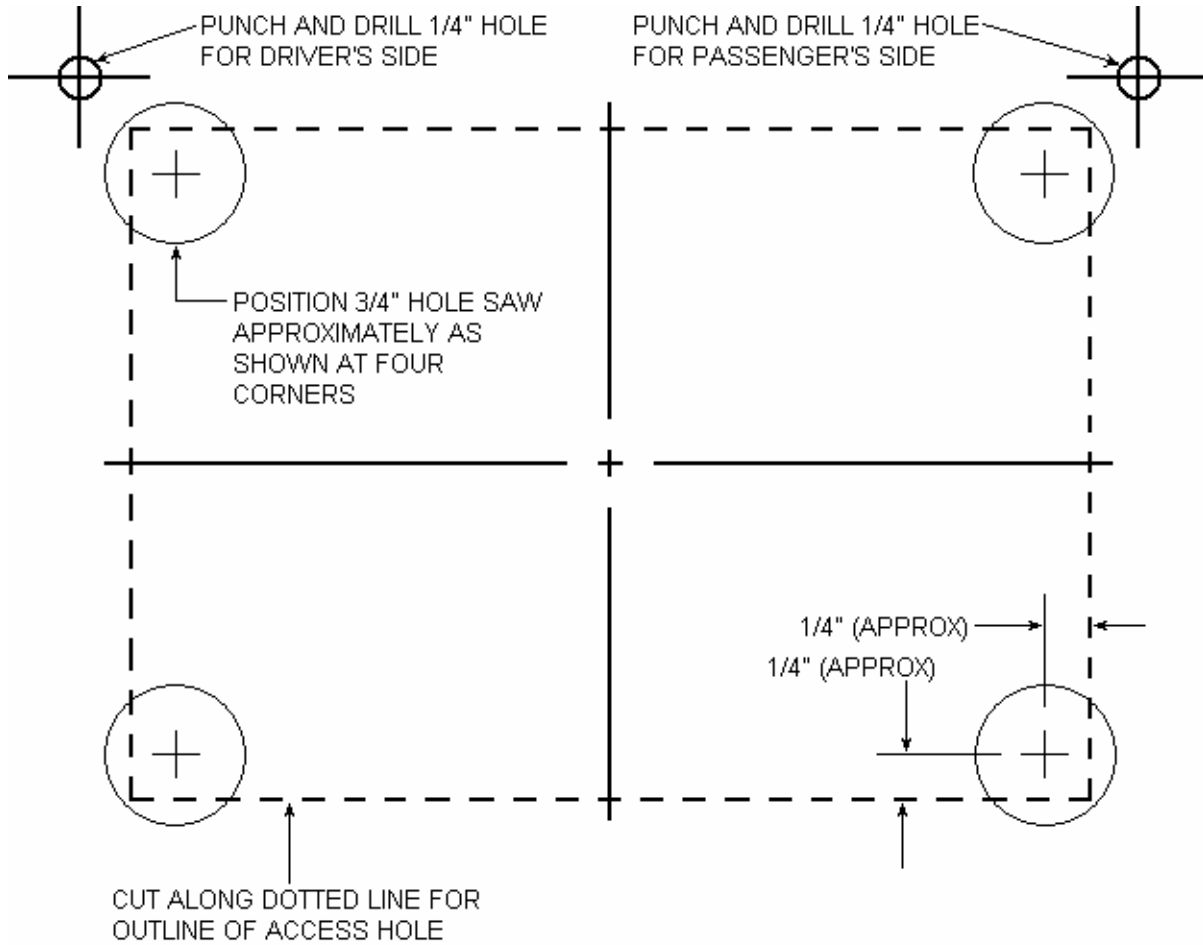


FIGURE 18

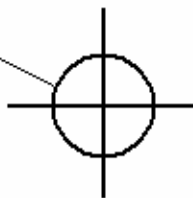
BRONCO INNER ROOF ACCESS HOLE TEMPLATE



USE THIS TEMPLATE FOR BOTH SIDES OF VEHICLE

OVERLAY THIS LINE ON EDGE OF ROOF INNER PANEL

CUT OUT HOLE AND ALIGN OVER SEAT BELT ANCHOR NUT



PRINT AT 100 dpi

