

Semi-Truck Trailer Front Panel Replacement using LORD Fusor[®] Adhesives

Materials Needed:

- LORD Fusor 108B/109B Metal Bonding Adhesive (Medium)
- LORD Fusor 301 Manual Dispensing Gun

Removal of Front Panel

Note: Trailer repair should be performed in dry environment at room temperature, 70°F (21°C).

1. Remove the bulk of the sheet metal using an air chisel.
2. Make a straight cut alongside of the center reinforcement post (**see Illustration A**). Leave the sheet metal on the center post in place.
3. Drill out upper and lower rivets. Remove two rivets past the center reinforcement post.
4. Separate bonded joints using a putty knife and heat gun on the outside of the sheet metal (**see Illustration B**). Starting at the top and working down, separate the joint removing all remaining sheet metal.
5. Remove reinforcement posts between the corner post and center post. If necessary, replace reinforcement posts.
6. Remove any remaining seam sealer.

Surface Preparation

1. Using duct tape, mask the undamaged panel along the seam of the remaining but damaged sheet metal panel. This masking assists in proper location of the new replacement panel overlap, in addition to identifying the exact surface prep area.

Note: The duct tape can be removed shortly after the adhesive has been applied to allow for a clean front panel seam surface.

2. Grind reinforcement posts to bare metal, removing all old adhesive. If reinforcement posts are being replaced, grind the mating surfaces to bare metal.
3. Temporarily hold the new front panel in place on the front of the trailer. While holding in place, mark the edges of the reinforcement posts and all overlap joints with a marker. Remove the front panel for preparation.

Illustration A

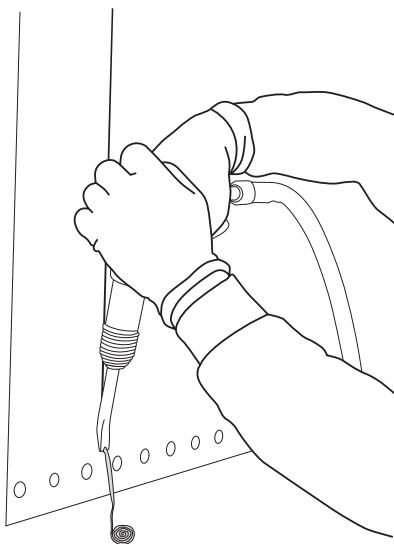
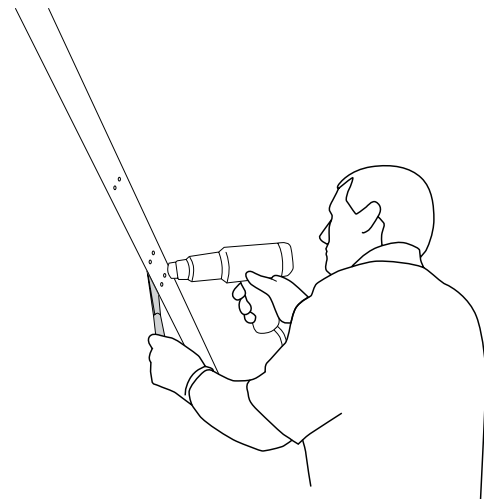


Illustration B



- Using a red Scotch-Brite® wheel or fine scuff pad, scuff all mating areas on the front panel that were marked (**see Illustration C**). Scuff all bond surfaces on the trailer.

Adhesive Preparation

- Insert the LORD Fusor® metal bonding adhesive cartridge (Stock #108B/109B) into the dispensing gun. Squeeze a small amount of product from each side of the cartridge to level the plungers.
- Attach a mixing tip and dispense a small amount of adhesive, which is about the length and width of the mixer. Dispense until the product is evenly mixed and the color is consistent.

Front Panel Installation

- Install all reinforcement posts that were removed. Leave open one bolt hole along the top and bottom.

- Using two technicians, place the front panel in position. Once the front panel is in place, install all the top rivets allowing the panel to hang.
- Apply a 3/8 inch (9.5 mm) bead of adhesive to all mating surfaces (**see Illustration D**).

Note: It is not recommended to apply adhesive when temperature is below 50°F (10°C).

- Position a 2" x 4" or 2" x 6" board on the outside of the front panel, aligned with the bond joints. Drill 1/4" holes through the board where the two bolts were left out of the reinforcement posts. Using two 1/4" #20 bolts, bolt the board in place (**see Illustration E**).
- With the board in place and bolted, push wood shims between the board and panel, applying firm pressure to the bond joints.
- Apply a 3/8 inch (9.5 mm) bead of adhesive between the corner post and front panel.

Scotch-Brite is a trademark of 3M.

Illustration C

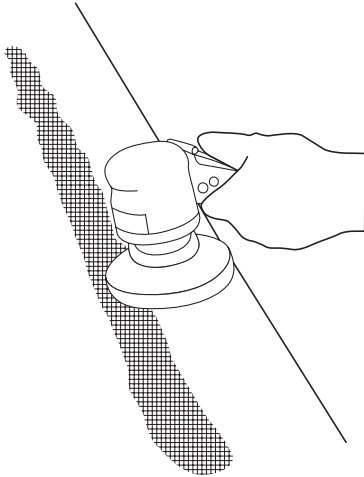


Illustration D

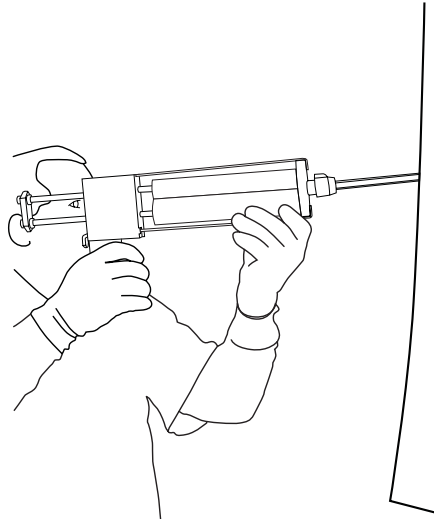
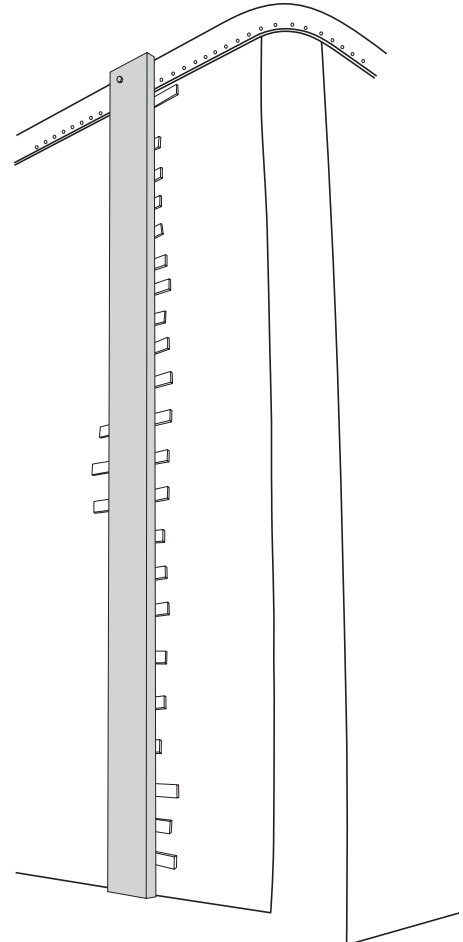
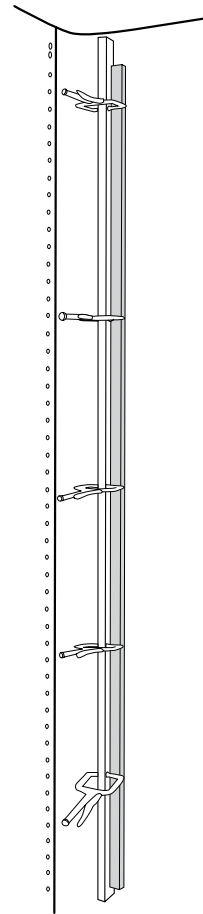


Illustration E



7. From inside the trailer, place a 1" x 2" board against the corner post seam, centered from top to bottom. Evenly place five c-clamp style vise grips to hold the board in place **(see Illustration F)**.
8. Push wood shims between the vise grips and board, applying firm pressure to the bond joint.
9. Allow adhesive to cure for two hours at a minimum of 70°F (21°C). If temperature is below 70°F (21°C), allow for a longer cure time.
10. After adhesive cures, remove all boards, vise grips and duct tape from the trailer.
11. Replace lower rivets and remaining bolts.
12. Apply gray seam sealer as necessary to match the existing sealer.

Illustration F



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