DO THE JOB RIGHT.

Item #31102

NO-WELD PANEL REPAIR KIT

INSTRUCTIONS

The **EASTWOOD NO-WELD PANEL REPAIR KIT** is designed to make permanent patch panel repairs in steel and aluminum when a welder is not available. Repairs with patch panels or custom fabricated panels utilizing our panel adhesive can be done with structural integrity far superior to rivets themselves. Repair fenders, quarter panels, trunk floors, firewalls, doors or floor pans quickly and permanently without welding. ***Panel Adhesive will withstand temperatures up to 250°F. Any welding should be at least 4" away to prevent failure of the cured panel adhesive.***

INCLUDES

- (1) 5/8" Panel Flanger
- (1) Dimpling Pliers
- (1) Compression Pliers
- (20) 1-8" Blind Holders
- (3) Side Grips
- (1) Panel Adhesive with Caulk Gun Adapter (fits standard caulk guns)

SAFETY INFORMATION

READ INSTRUCTIONS!

Thoroughly read and understand this instruction manual before use. Save manual for future reference to safety warnings, maintenance and operating procedures. Failure to follow all warnings can result in tool damage or serious physical injury.

OPERATIONAL HAZARDS!

- Wear approved eye protection at all times.
- Wear gloves to prevent contact with adhesive and sharp edges of cut metal.
- Use in a well ventilated area.

INSTRUCTIONS

- Remove all paint from damaged area to expose bare metal. Keep removing paint to expose 1-2" of corrosion free metal around damage. Scribe cut lines at least 2" from damage or near panel edges or parting lines (Figs A & B).

  TECH TIP: Cut lines can also be made under wide side molding or trim, if available.

- Feather paint 2-3" around cut lines for later blending. Cut out on scribe lines using a nibbler or shear (Fig C).

- Begin using the panel flanger to neatly and accurately flange around the opening of the cutout section. Adjust the vise grip to produce a deep enough flange for a flush repair. Check flange with a piece of scrap metal of the same gauge to make sure the flange is correct and both pieces form a level surface (Fig D).

- Lay out the dimensions of your cutout area on a heavy-duty piece of paper, cut to exact shape and transfer to your patch panel, measuring from the outside of your flange. Cut to shape and check for correct fit, using a straight edge, as shown above. Adjust patch panel by carefully trimming to fit level and flush all around flange area (Figs E & F).
  NOTE: PATCH PANEL SHOULD BE SAME GAUGE AS ORIGINAL PANEL.

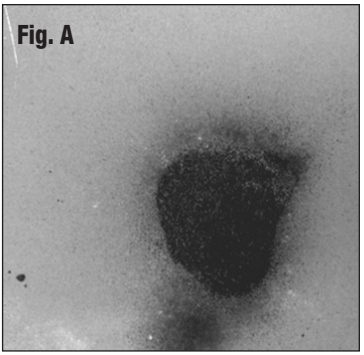
Fig. A

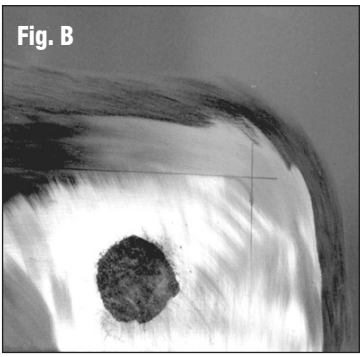
Fig. B

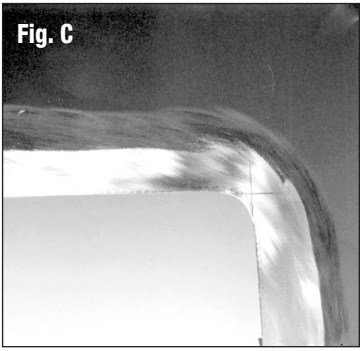
Fig. C

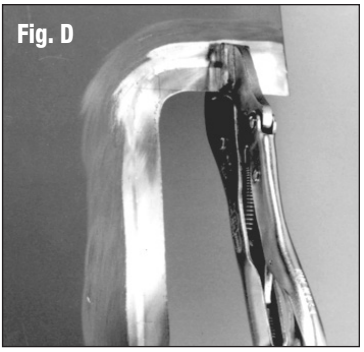
Fig. D

- Now lay out the rivet pattern on patch panel, keeping rivet holes centered in overlap area; this kit is setup to utilize #4 flush rivets. You should start the rivet layout at a corner to assure it lays flat when completed, space rivets about 3/4" - 1" apart. This depends on the area of the patch. If the patch is only 5" long by 3" high then use a spacing of 3/4", if the patch is larger then use the 1" spacing. You will have to use your judgment on rivet placement when nearing edges or opposite corners (Fig G).

  TECH TIP: Use only aluminum rivets and patch panels on aluminum. (#31020 – 1/8" dia. aluminum countersunk rivets – box of 500). Use only steel rivets and patch panels on steel. (#31019 –1/8" dia. steel countersunk rivets – box of 500).

- After rivet pattern is laid out accurately, clamp the patch panel in place using supplied edge clamps and c-clamps if needed. Make sure to check for flush (level) positioning of panels using the straight edge as before. Start drilling the rivet holes, with a 1/8" bit, beginning in a corner using supplied blind holders in drilled holes to help secure panel. Once all holes are drilled, remove clamps and patch panels and deburr all holes; this will assure a flush repair in the end (Fig H).• Use the dimpling pliers to countersink (dimple) all holes in both the patch panel and the attachment area. If you're not familiar with the dimpling pliers drill a few 1/8" holes on a scrap piece and practice to get the feel. After dimpling holes in small panels, you may have to straighten the edges. This can be done with hammer and dolly in the original panel, and a hammer and anvil on the patch panel (Fig I).

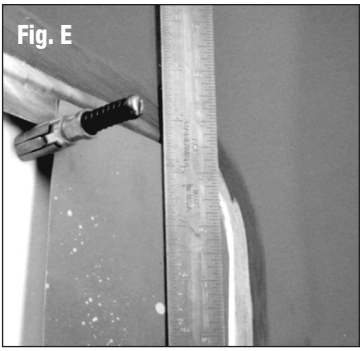
Fig. E

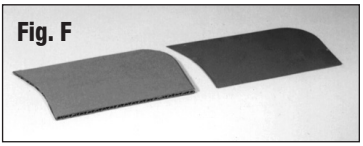
Fig. F

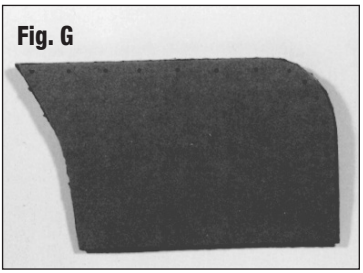
Fig. G

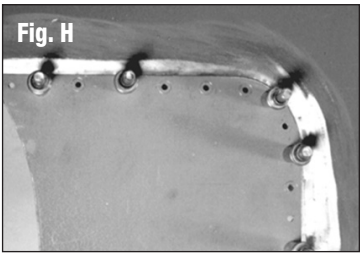
Fig. H

- Once all holes are dimpled, install patch panel using the blind holders and test fit. Panel should be flush with the surrounding area and follow any contours on the original panel. If panel does not fit flush, the edges could be deformed, or the original panel holes may not be correctly dimpled. Straighten the edges as mentioned above or increase the depth of the dimpling tool, and reform lower or original panel dimples (Fig J). **IMPORTANT NOTE:** THE SUPPLIED PANEL ADHESIVE HAS ONLY 30 MINUTES WORKING TIME AND THE MIXING TIP IS NOT REUSABLE.

- Remove the blind holders and clean flanged area on both panels with PRE (#10041Z) or Acetone, wipe panels with clean cloth or paper towels to completely dry. Remove cap from two-part panel adhesive tube and install mixing tip, slide adhesive tube into clear caulk gun adapter, and install blue adapter onto caulk gun plunger. The panel adhesive system utilizes a conventional caulk gun (Fig K).

- Squeeze a small amount onto a scrap piece of cardboard and check for an even mix, which should be a dark gray color without streaks of white.

- Apply adhesive onto original panel along center of rivet line in a 1/4" bead, as shown (Fig L).• Install patch panel using the blind holders in every hole, make sure panel is flush by using a straight edge. Adhesive will be squeezed out along flange area. This can be smoothed with a body filler spreader after all rivets are set. Remove the blind holders one at a time replacing it with a rivet. **NOTE:** SOAK THE BLIND HOLDERS IN LACQUER THINNER BEFORE ADHESIVE HAS A CHANCE TO SET UP, FAILURE TO DO THIS WILL RENDER THEM INOPERABLE.

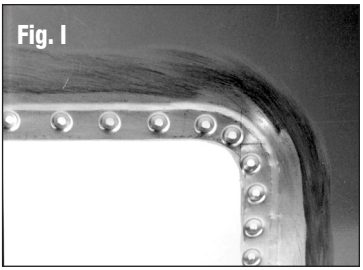
Fig. I

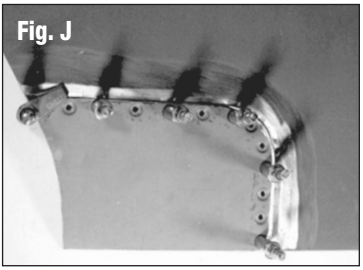
Fig. J

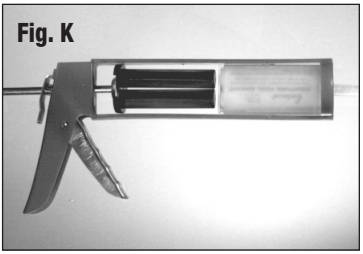
Fig. K

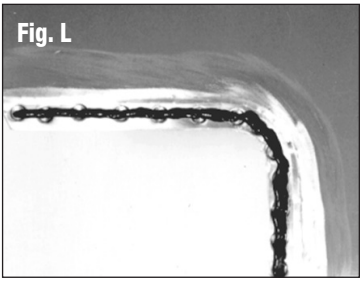
Fig. L

Begin riveting (using 1/8" flush rivets) at a corner or radius first to keep panel flush. Continue installing rivets working evenly from the start point until all rivets are set. Now use a spreader to smooth the adhesive. The entire flange area and seam are protected against rust with the adhesive, on both sides of repair (FigS M-N).

- Let the repair sit for at least 4 hours for the adhesive to set up before sanding level. After set up time, sand just as you would conventional filler (Fig O).
  NOTE: ADHESIVE SHOULD CURE FOR 24 HOURS BEFORE APPLYING FILLERS, PRIMERS OR TOPCOATS.

- Sand area smooth and apply Contour Body Filler (#13518ZP) if needed to produce a flush and professional repair. Use our Self Etch Primer (#16014Z) on the repaired area and finish as you would any spot repair.

  TECH TIP: Spray backside of patch panels with Eastwood Zinc-Rich Galvanize (#13242Z) to protect from corrosion. SMC and fiberglass can be bonded with the use of the panel adhesive alone.

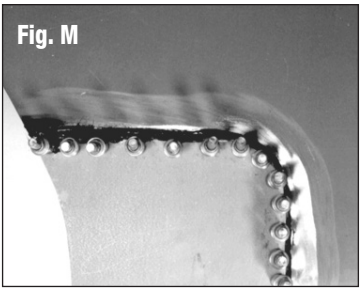
Fig. M

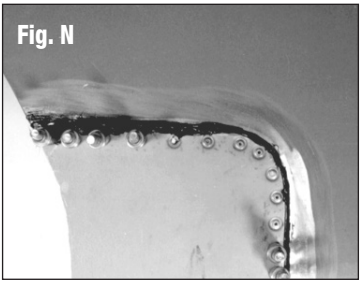
Fig. N

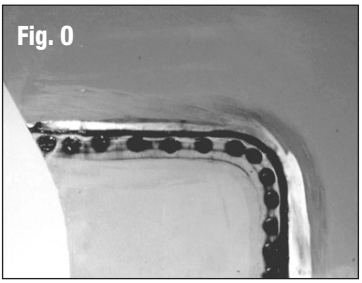
Fig. O

ADDITIONAL ITEMS

#12096	Rust Dissolver Gel Quart
#13518ZP	Contour Aluminum-Filled Compound
#31090	2” Panel Flanger
#13522ZP	Contour Polyester Primer Surfacer
#31087	No-Weld Panel Adhesive Replacement

If you have any questions about the use of this product, please contact
The Eastwood Technical Assistance Service Department: 800.544.5118 >> email: techelp@eastwood.com
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