Instruction Sheet

No. 412445
Rev. D
ECO 11457

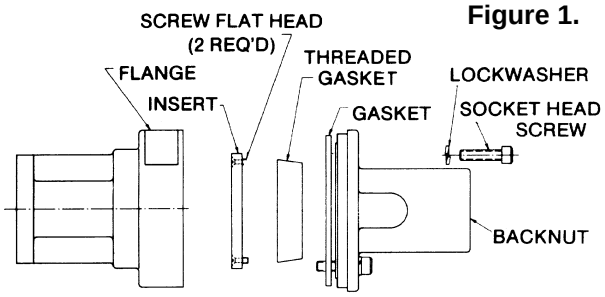
Flexwell Waveguide Flaring and Connector Assembly

Tools Required

1. Fine Toothed Hacksaw
2. Rule, 6 inch
3. Knife
4. Light Metal Snips
5. Ball Peen Hammer
6. Screwdriver, 3/16" Blade
7. Allen Wrench, 3/16"
8. Electrical Tape
9. Clean Rag
10. Heat Gun or Torch

1. Disassemble the connector and identify all parts as shown in Figure 1. A plastic trim guide (not shown) may be supplied.

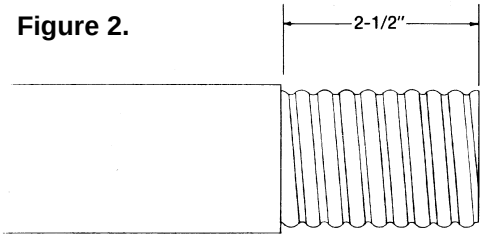
Figure 1.



2. Cut the waveguide to the required length with a hacksaw. Position the waveguide downward to prevent metal chips from entering the waveguide, or stuff a clean cloth inside the wave guide just beyond the final cut point.

3. Remove the waveguide jacket 2-1/2 inches from the end with a knife. Use caution to minimize scoring the waveguide. To insure the waveguide jacket is cut perpendicular to the waveguide axis, temporarily wrap a turn of electrical tape around the jacket to serve as a guide. See Figure 2.
4. Slide the heat shield boot onto the waveguide jacket and

Figure 2.



out of the way. Slide the backnut onto the waveguide until it bottoms against the trimmed jacket. See Figure 3.

5. Grease the outside of the threaded gasket. Slide the gasket onto the waveguide tapered end first. Position the gasket up against the backnut. Be sure threaded gasket seats into the waveguide corrugation. Use care to keep grease away from the copper waveguide. See Figure 3.

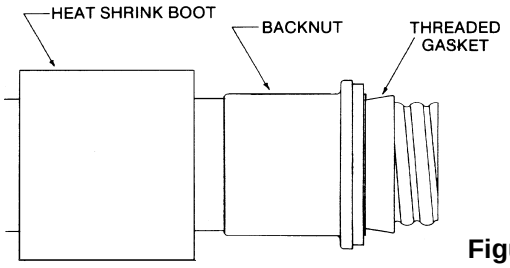


Figure 3.

6. Slide the backnut forward as far as possible over the threaded gasket. Assemble the insert plate with screws to the face of the backnut, compressing the threaded gasket. See Figure 4.

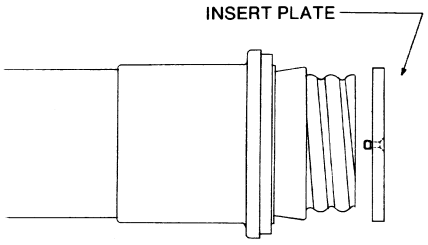


Figure 4.

7. If supplied, slide the plastic trim guide over the waveguide and snap it onto the backnut face. The trim guide must be flush to the backnut mounting flange. See Figure 5.

   Trim the waveguide with a hacksaw flush to the plastic trim guide. The resulting cut should be 3/16 inch. See Figure 6.

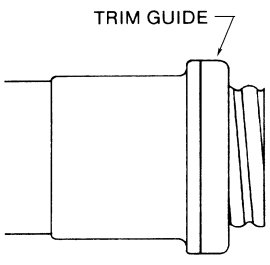


Figure 5.

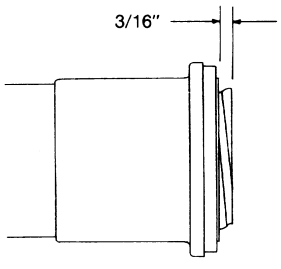


Figure 6.

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8. Make longitudinal cuts in the waveguide down to the backnut face with light metal snips. Space the cuts 1/8 to 1/4 of an inch apart, with the narrower spacing being on the small radii of the ellipse. See Figure 7.

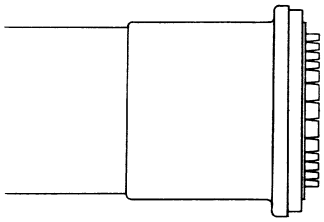


Figure 7.

9. With a ball peen hammer, flare the waveguide over the insert plate. Start the flare from the inside and work outward. Lift with a knife and snip any tab that protrudes over the gasket groove.

10. When completed, the flare should be smooth and flat and must not protrude over the gasket groove. Clean the backnut face and waveguide flare of any grease, dirt or metal chips. See Figure 8.

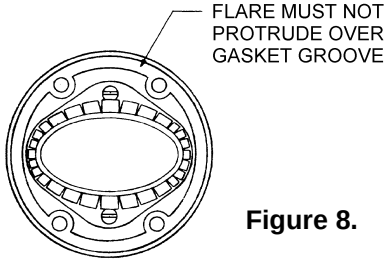


Figure 8.

11. Insert the four screws and lockwashers into the backnut's four thru-holes. Place the flat gasket over the screws and into the backnut gasket groove. Attach the connector body to the backnut and tighten the screws securely, alternating crosswise to insure the body seats even to the backnut. See Figure 9.

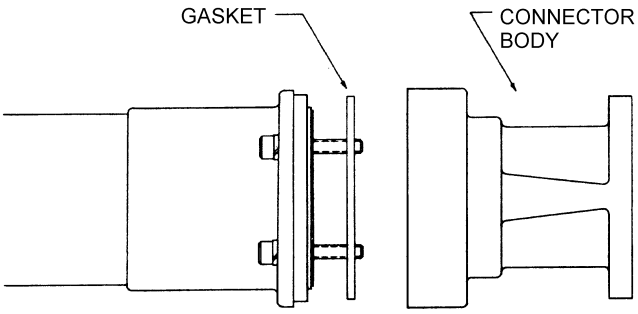
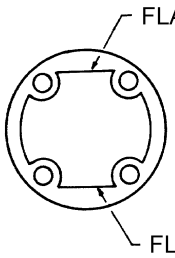


Figure 9.

NOTE: E185 gasket has two flats that must be matched to the two flats of the backnut gasket groove.



12. To complete installation, slide the heat shrink boot into place over the backnut. Use a heat gun or apply a light flame to the boot until it shrinks smoothly forming a weatherproof seal. See Figure 10.

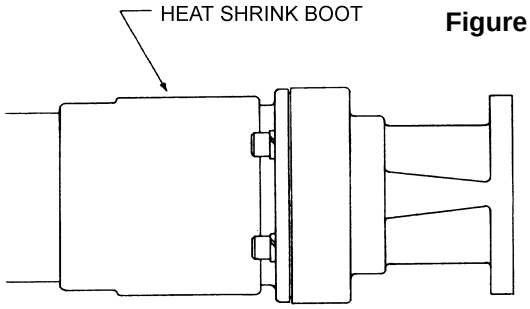


Figure 10.

NOTE: The waveguide connector is supplied with two flange gaskets, one or both of which are used depending on the type of interface the connector will be mated to. CPR series connectors are supplied with a rectangular shaped full gasket and similar but thinner half gasket. An O-ring and a round flat gasket are supplied with UG series connectors.

The following table identifies the proper gasket configuration to be used with different types of flange installations:

FLANGE COMBINATION	GASKET(S) REQUIRED
CPR (G) Contact Flange with gasket groove mated to an identical flange.	Full Gasket
CPR (G) Contact Flange with gasket groove mated to CPR (F) Contact Flange or Pressure Window without gasket groove.	Half Gasket
UG Cover Flange with gasket groove mated to an identical flange or UG Choke Flange with gasket groove.	Half Gasket + O-Ring
UG Cover Flange with gasket groove mated to a UG Cover Flange or Pressure Window without gasket groove.*	O-Ring

* UG flanges are available in rectangular or round configurations dependent on frequency.

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