Shively Labs®

Installing a Flange on 5/8" Flex Coax

Tools required:

- Hacksaw with a fine-tooth blade
- Flat file
- Knife
- Soft solder
- Flux for soft solder
- Soft silver solder (Silvabrite 100 or equivalent)
- Flux for soft silver solder (Rectorseal, Nokorode or equivalent)
- Solvent (comothene, vythene, or other non-flammable cleaning fluid)
- Garnet cloth
- Torch (MAPP, acetylene or equivalent)
- Heat gun for heat-shrink tubing

Materials provided:

- 5/8" cable, P/N 55789-03, with a 7/8" fange factory-installed on one end, quantity 1.
- Flange hardware kits, P/N 82912-G506, qty. 2.
- Follower, P/N β94095-01, qty 1.
- Inner conductor, P/N A94096-01, qty 1.
- Insulator, P/N A55789-18, qty 1.
- Tubing, heat shrink, P/N A57941, qty 4 inches.
- Follower, flange, P/N 55579-01, qty 1.
- O-ring for 7/8" flange, P/N 9068-215, qty 2.

The customer is to cut the cable to the desired length and install a second 7/8" flange on the cut end.

Step 1: Prepare the cable end (figure 1).

a. Cut the cable to length. Make sure the cut is square.

CAUTION

Be very careful not to score the outer conductor. This will cause the outer to break easily when it is formed.

b. Cut the jacket back 3-1/4" as shown, using a straight-edged piece of paper wrapped around the cable as a guide for the knife.

CAUTION

Hold the cable end pointing downward while cutting and filing, to prevent metal chips from entering the open end of the cable.



Figure 1. Cut back the jacket and the outer conductor.

- c. Cut the outer conductor back 5/16" as shown.
- d. File the cut edges of the cable to deburr and remove rough edges. Tap the cable lightly to ensure no chips are left inside.
- e. Clean the outer conductor with solvent to remove grease or dirt that might interfere with solder adhesion.

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Step 2. Install the inner conductor end (figure 2).

- a. Apply flux inside the inner conductor end to ensure a good bond.
- Slip the inner conductor end over the protruding end of the cable's inner conductor and silver-solder it in place.
- c. Clean excess solder and flux, using the solvent.

Step 3. Install the insulator (figure 3).

- a. Slide the flange follower and the flex cable follower over the cable end and push them back out of the way.
- b. Carefully spread the insulator and slip it over the inner conductor, seating it in the groove in the inner conductor.



Inner conductor

Figure 2. Install the inner conductor end.





Step 4. Install the flange (figure 4).

- a. Slip the flex cable follower out to the end of the cable until it butts against the insulator inside. Solder it in place, using the silver solder as shown.
- b. Clean excess solder and flux, using the solvent.
- c. Leave the flange follower out of the way until after the heat-shrink tubing is in place.



Soft solder here.

Figure 4. Install the flange.

Step 5. Check the cutback dimension (figure 5).

- a. The "cutback" of the inner conductor end within the flange should be 1/2" to 9/16" as shown.
- b. If the dimensions are not as shown, do not attempt to use the cable. Call the factory,



Figure 5. Check the cutback dimension.

Step 6. Install the heat-shrink tubing (figure 6).

- The heat-shrink tubing should fit over the flex cable follower and under the flange follower. Slide it into place.
- Using the heat gun, gently warm the tubing to shrink it into place over the cable and cable follower.
- c. Slide the flange back against the cable follower. You're all finished!



Figure 6. Install the heat-shrink tubing.