Specifications

Temperature Range: 140°C
Material:
Sleeve: Gold plated beryllium copper.
Lock Nut: Passivated stainless steel.

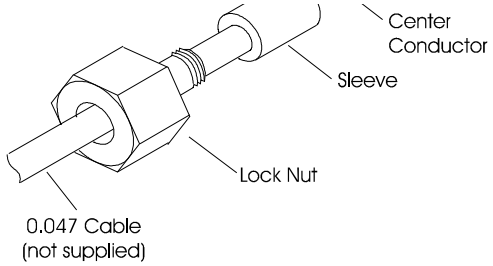

Figure 1. W105 Sleeve and Locknut Set

W Connector
W105 Sleeve and Locknut for 0.047-Inch OD Semi-Rigid Coaxial Cable

1. *Tools and Materials*

The following tools and materials are recommended to install W105 on 0.047-inch outer diameter cable. Equivalent tools may be used if recommended tools are not available.

Name	Vendor and Model/Part Number
Resistance Soldering Unit, with Tweezers	American Beauty Model 10501
Solder, 62% tin, 24 gauge, 0.015-inch diameter rosin core	SN62 Kester Co.
Cleaning Fluid	Isopropyl Alcohol
Cable Cutting Fixture	ANRITSU 01-418
Precision knife	X-Acto™
Wire cutters, flush cutting	Klein 0295-4C
File, flat, extra fine	Common tool

2. *Fabrication Instructions*

a. Cut coax cable to length desired.

NOTE
Cable must be at least 0.75 inch (2 cm) long to ensure proper support for center conductor.

b. Slide lock nut onto the cable.

c. Slide sleeve onto the cable. Place sleeve with approximately 3/16 inch (4 mm) cable protruding from the sleeve.

d. Set the resistance soldering iron to its lowest setting.

e. Heat the sleeve with the resistance soldering iron and apply solder to the back end of the sleeve and the coax.

NOTE
Do not allow solder on the outside of the sleeve. Apply minimum heat for solder to flow; This is especially important when using Teflon coax.

f. Slide the sleeve back and forth over the cable slightly to spread the solder around the coax. Allow a minimum of solder on the front face of the sleeve.

g. Allow assembly to cool, then remove the flux.

CAUTION

Do not get solvent into the inside of the coax, it will cause excessive loss. If solvent does get into the coax, heat the assembly to 125C for at least 10 minutes to drive out the solvents.

h. If using type 1 (solid Teflon dielectric) cable, allow units to sit for a minimum of 20 minutes so that the Teflon can stabilize.

i. Cut off the extruded Teflon , then push the Teflon into the outer conductor using the 01-418 assembly tool. This re-seats the Teflon and minimizes Teflon shifting after assembly.

j. Score the coax flush with the face of the sleeve using the razor blade.

k. Break the outer conductor by bending slightly back and forth. *The 01-418 Assembly Tool (Figure 5) may be used for this.* Remove the outer conductor.

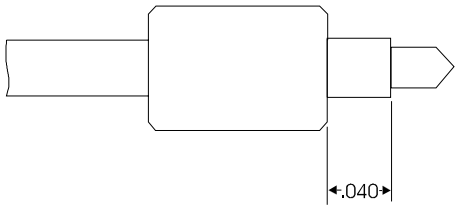

Figure 2. Cutting and Trimming

CAUTION

It is critical that the coax outer conductor is flush with the sleeve face and the dielectric and center conductor are not distorted.

l. Cut the Teflon 0.040 inch from the face of the sleeve using a sharp razor blade. The 01-418 tool may be used as a guide for this operation. Be sure not to score the center conductor.

m. Carefully remove the Teflon without bending the center conductor.

n. Cut the center conductor to the length required to launch.

o. Deburr the end of the center conductor.

p. Inspect the completed assembly for the following:

- That the female contact is centered in the outer conductor.
- That the outer conductor is flush with the sleeve.
- That there is no excess of solder.
- That the entire assembly is clean and has no burrs.

q. The cable assembly is now rfeady to insert into the module. The lock nut requires a 3/16" wrench and should be torqued to 2.5 in-lb

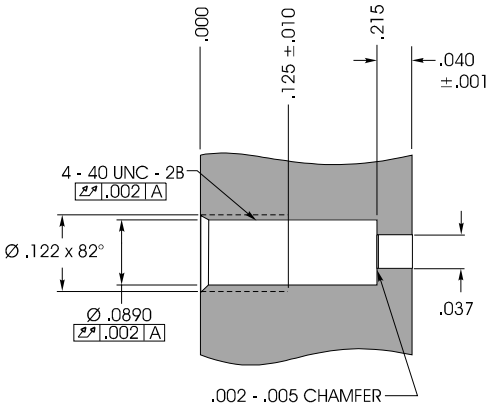

Figure 3. Module Machining Dimensions for W105 Mounting

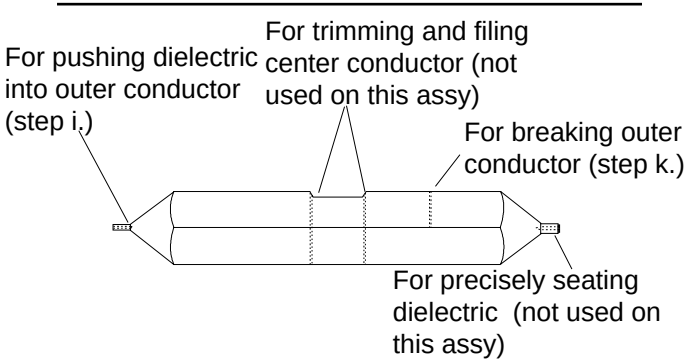

Figure 5. 01-418 Assembly Tool

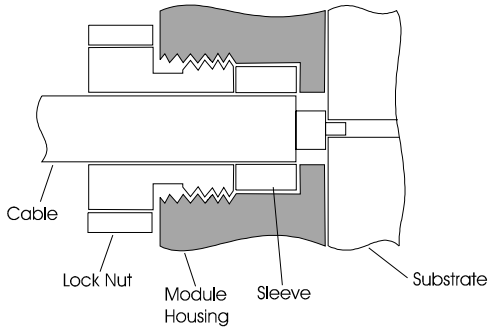

Figure 4. Typical Substrate Launch

P/N: 10305-00003
REV: C

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