

# AI85097-04

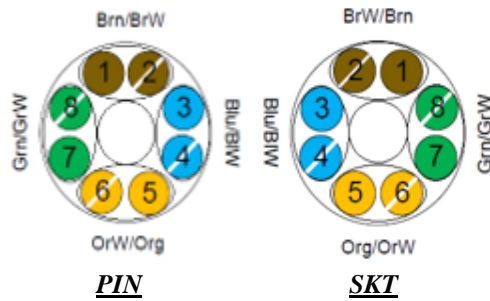
## Revision History

Rev	Date	Initiated By	Approved
3	3/9/20	WLL	GH

### Tools needed:

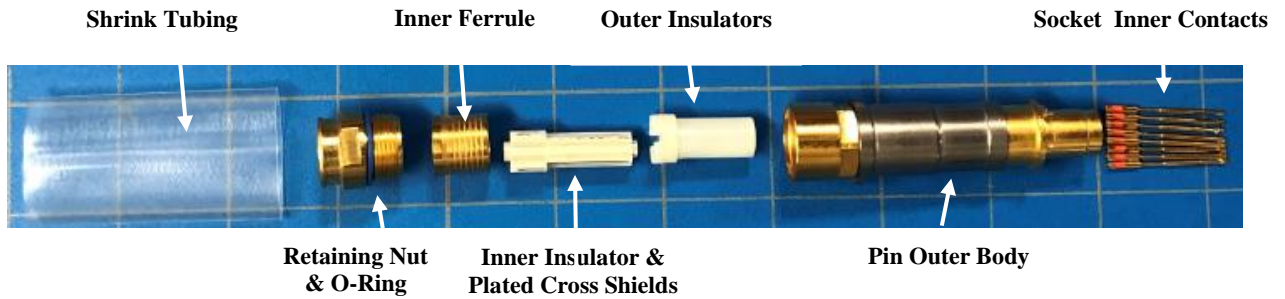
- M22520/2-01 AFM8 w/K1906 Crimper & Positioner
- 600-235 & 600-236 Alignment Tool
- 600-242 Insert Tool

### Twisted Pair Color Orientation of Cable

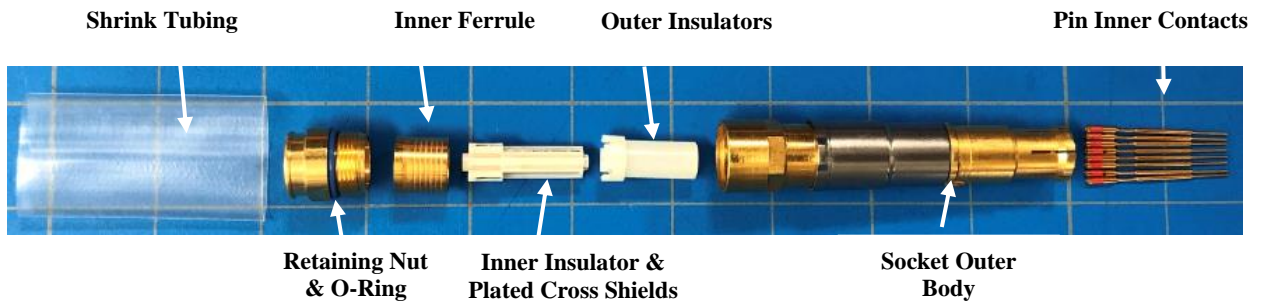


*Figure 1*

### Cable Layout for Pin Contact 858-005-04



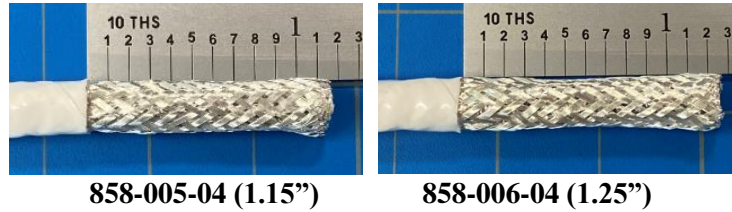
### Cable Layout for Socket Contact 858-006-04



## Procedure

### Step 1:

For **858-005-04** remove cable jacket (**1.15"**) to expose the braid shield. For **858-006-04** remove cable jacket (**1.25"**) to expose the braid shield.



### Step 2:

Slide the 'Retaining Nut' and 'Inner Ferrule' over the braid shield per **Figure 2**. For **858-005-04** leave (**0.55"**) braid exposed. For **858-006-04** leave (**0.65"**) braid exposed. Flare, fold, and comb braid straight over the ferrule and trim to length per **Figure 3**.



Figure 2



Figure 3

### Step 3:

Identify cable twisted pair color orientation to match **Figure 1** for Pin or Socket contacts. Unwrap foil and remove insulation of the conductors to (**0.115"**). Install inner contacts (8X) over conductor until fully seated. Make sure the conductor is visible through the inspection hole. Crimp the inner contacts using crimp tool **M22520/2-01** and positioner **Daniels P/N K1906**, Setting **#4** for **24 AWG** per **Figure 4**. Re-wrap foil around each pair. Trim excess foil to expose wire insulator. No more than (**0.050"**) of wire insulation should be exposed between foil and contact base. Ensure foil does not cover base of contact per **Figure 5**.

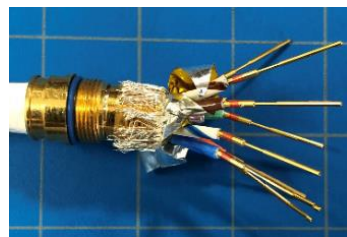


Figure 4



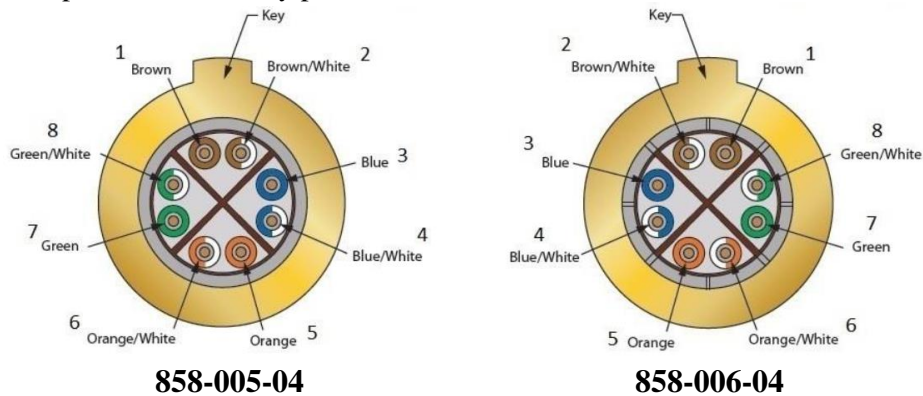
0.050" Max  
Visible Insulation

Figure 5

#### Step 4:

Slide the inner insulator (with cross shields) into middle of inner contacts. Pay attention to the orientation of the wires. Snap the contacts in place of the insulator slot cavities.

**Note:** The twisted pairs are essentially parallel to the axis of the bundle with no crossover.



#### Step 5:

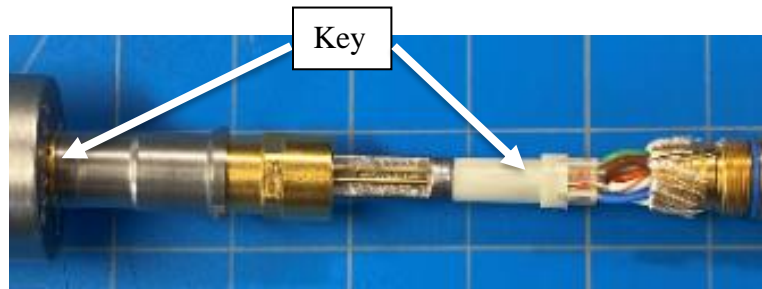
Wrap bundle with Kapton tape to keep foil in place. Slide outer insulator over inner insulator. Push the outer insulator in until outer and inner tabs nest together per **Figure 6**. The wire bundle diameter should not be over (0.230”).



**Figure 6**

#### Step 6:

Install outer shell body (858-005-04) in tool 600-236 or (858-006-04) in tool 600-235. Ensure the male polarization key of the shell is engaged into the female key locator on the tool. Ensure the polarization key of the outer insulator is lined up with the polarization key of the shell body per **Figure 7**. Use insert tool 600-242 to slide cable assembly into shell body using 600-235 or 600-236 as a guide per **Figure 8**. Ensure the assembly is fully inserted in the body. Use adjustable wrench to tighten ‘Retaining Nut’ in outer shell body per **Figure 9**. Torque shall be 20-25 inch-lbs.



**Figure 7**



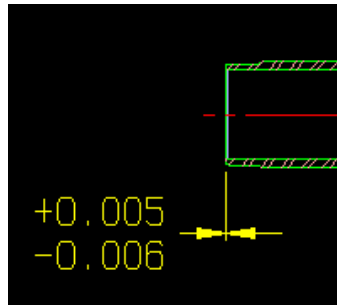
**Figure 8**



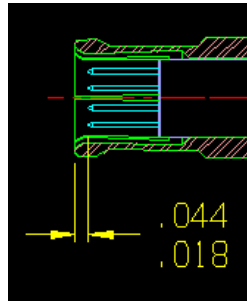
**Figure 9**

**Step 7:**

For **858-005-04** ensure insulator face is  $+0.005''/-0.006''$  away from outer contact face. For **858-006-04** ensure inner contacts are  $-0.018''/-0.044''$  away from outer contact face.



**858-005-04**



**858-006-04**

**Step 8:**

Slide heat shrink tubing over outer body contact. Ensure tubing covers retaining nut banding platform, then shrink tubing per **Figure 10**.



**Figure 10**