# AI85097-04

### **Revision History**

Rev	Date	Initiated By	Approved
A	12/20/22	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**

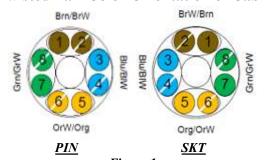


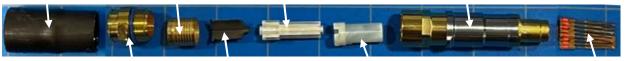
Figure 1
Cable Layout for Pin Contact 858-005-04

**Shrink Tubing** 

Inner Ferrule

Inner Insulator & Plated Cross Shields

Pin Outer Body



Retaining Nut & O-Ring

**Cross Spacer** 

**Outer Insulators** 

**Socket Inner Contacts** 

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

**Shrink Tubing** 

**Inner Ferrule** 

Inner Insulator & Plated Cross Shields

Socket Outer Body



Retaining Nut & O-Ring

**Cross Spacer** 

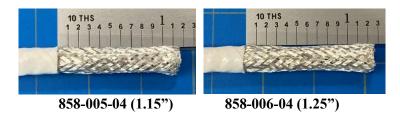
**Outer Insulators** 

**Pin Inner Contacts** 

#### 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:

Flare, fold, and comb braid straight. Remove inner filler.



#### Step 3:

Identify cable twisted pair color orientation to match Figure 1 for Pin or Socket contacts. 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.



#### Step 4:

Slide retaining nut and ferrle over bundle. Do not trim braid yet. Re-wrap foil around each pair. Trim excess foil to expose wire insulator. No more than (0.050") of insulator should be exposed. Ensure foil does not cover base of contact per Figure 5. Wrap each pair with Kapton tape to secure foil.



## **Step 5:**

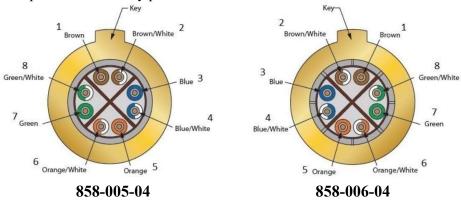
Insert cross spacer between pairs.



Step 6:

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 7:**

Slide outer insulator over inner insulator. Push the outer insulator in until outer and inner tabs nest together. Verify the key is in the right orientation per **Step 5**. Slide the 'Retaining Nut' and 'Inner Ferrule' up until the cross spacer contacts the inner insulator. Trim braid at ferrule knuckle.



#### Step 8:

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 <u>Figure 7</u>. Use insert tool 600-242 to slide cable assembly into shell body using 600-235 or 600-236 as a guide per <u>Figure 8</u>. Ensure the assembly is fully inserted in the body. Use adjustable wrench to tighten 'Retaining Nut' in outer shell body slighly more than hand tight per Figure 4. Remove body and finish torquing to 5-8 inchlbs.

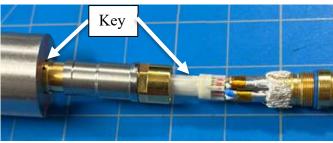
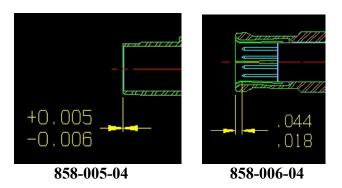


Figure 7



Step 9:

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.



Step 10: "When applicable"

Slide heat shrink tubing over outer body contact. Shrink tubing just below the retaining nut thread seam.

