AI85048-03P

Revision History

Rev	Date	Initiated By	Approved
A	12/20/22	WLL	GH

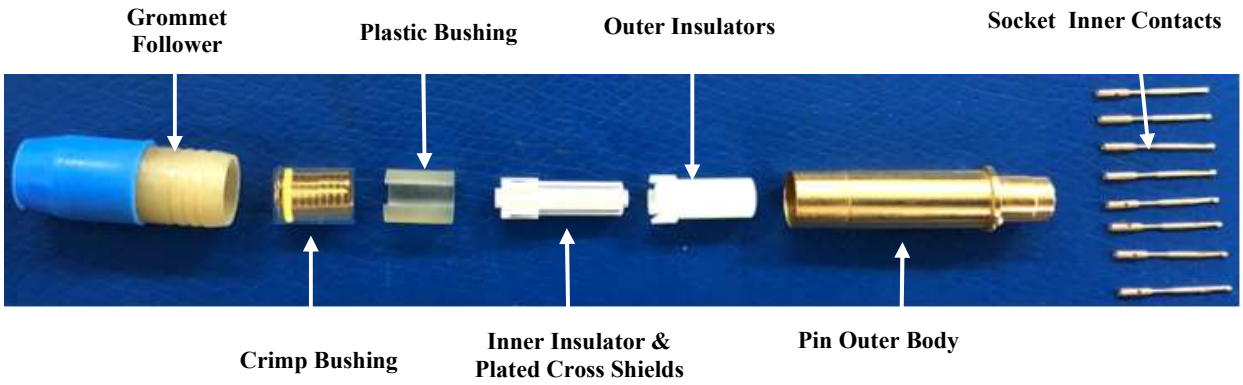
Tools needed:

- **M22520/2-01 AFM8 w/K1906 Crimper & Positioner**
- **M22520/5-01 Hex Crimp Tool w/Y143**
- **600-236 Alignment Tool**
- **600-242 Insert Tool**

Twisted Pair Color Orientation of Cable

Figure 1

Cable Layout for Pin Contact 858-003-03



Procedure

Step 1:

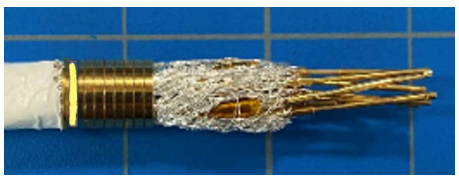
Slide grommet follower onto cable. Cable ends must be cut cleanly and at right angle to the cable axis with circular cable cutter.

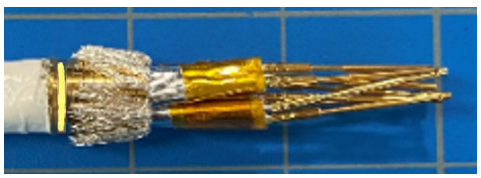
Step 2:
Remove cable jacket **(0.720")** to expose the braid shield.

Step 3:
Flare cable braid to expose the twisted pair wires with aluminum foil shields. Flare wire bundle with aluminum foil shields and trim the middle filler as close to the jacket as possible.

Step 4:
Identify cable twisted pair color orientation to match **Figure 1**. Unwrap foil around one pair. Remove insulation of the conductors to **(0.115")**. Install inner contacts 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 **#2** for **28 AWG**. Re-wrap foil tightly around the wire pair. Use Kapton tape to hold the foil in place. Trim excess tape and foil to expose wire insulator. No more than **(0.050")** of wire insulation should be exposed. Ensure foil does not cover base of contact.

Step 5:
Slide crimp bushing over the cable braid until it bottoms out on the cable jacket. Comb braid out and fold back. Trim braid just short of the crimp bushing.





Step 6:
Identify the wire colors. 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.

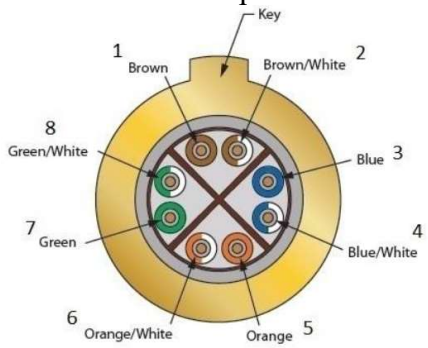


Figure 4

Step 7:
Slide outer insulator over inner insulator. Place the outer insulator such as its key is in orientation with color code as shown in **Figure 4**. Push the outer insulator in until outer and inner tabs nest together.

Step 8:
Slide plastic bushing over outer insulator. Squeeze the plastic bushing down below the 4 tabs of inner insulator. Push the crimp bushing forward such that the plastic bushing has a very tight space against the inner insulator and crimp bushing.

Inspection Step: the gap between the plastic bushing and the adjacent component shall be less than 0.010".

Step 9:
Install outer shell body in tool **600-236**. Ensure the male polarization key of the shell is engaged into the female key locator on the tool. Mate tool into cable assembly. Ensure the polarization key of the outer insulator is lined up with the polarization key of the shell body per **Figure 5**. Use insert tool **600-242** to slide cable assembly into shell body using **600-236** as a guide per **Figure 6**. Ensure crimp bushing is fully seated and the red stripe is **no longer visible**.

Figure 5

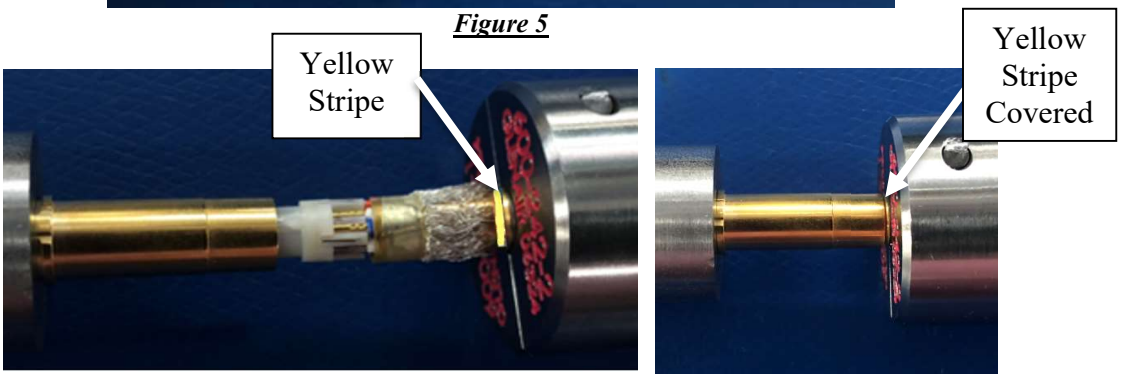


Figure 6

Step 10:
Use crimp tool **Daniels HX4 M22520/5-01** with die **Y143.** Load contact assembly into side A. Locate the step at the back of the contact. Ensure the step is flush with the top face of the die, crimp contact.