



**AI85090-01**

## **Assembly Instruction**

# **EL OCHITO BLUE CONTACTS**

**SuperSpeed USB**

**TYPE I: PIN 858-028-02/SKT 858-029-02**

**CABLE: 963-110**

### **Revision History**

<b>Rev</b>	<b>Date</b>	<b>Initiated By</b>	<b>Approved</b>
1	08/10/18	WLL	GH

### **1.0 Tools**

Tools are to be suitable for the purpose intended and shall not cause damage to the parts. Examine all elements of tools and equipment.

## 1.1 Related Tool and Equipment

- M22520/2-01 AFM8 Crimper & Positioner or Equivalent.
- GS206 Round Crimp Tool



*Figure 1*



*Figure 2*

- Depth Positioner 859-184-1
- Depth Positioner 859-184-2



*Figure 3*



*Figure 4*

- Depth Positioner 859-184-3



*Figure 5*

- 600-235 & 600-236 Alignment Tools



*Figure 6*

- 600-242 Insert Tool



*Figure 7*

- Cable Cutter, Exacto Knife, Tweezer, Wire Cutter, Caliper



*Figure 8*

- Hot Tweezers



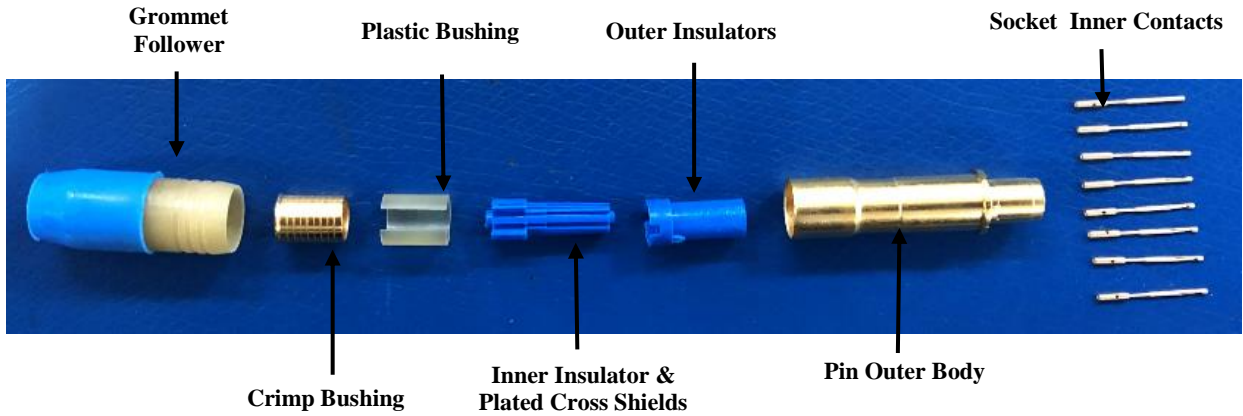
*Figure 9*

- **Twisted Pair Color Orientation of Cable**



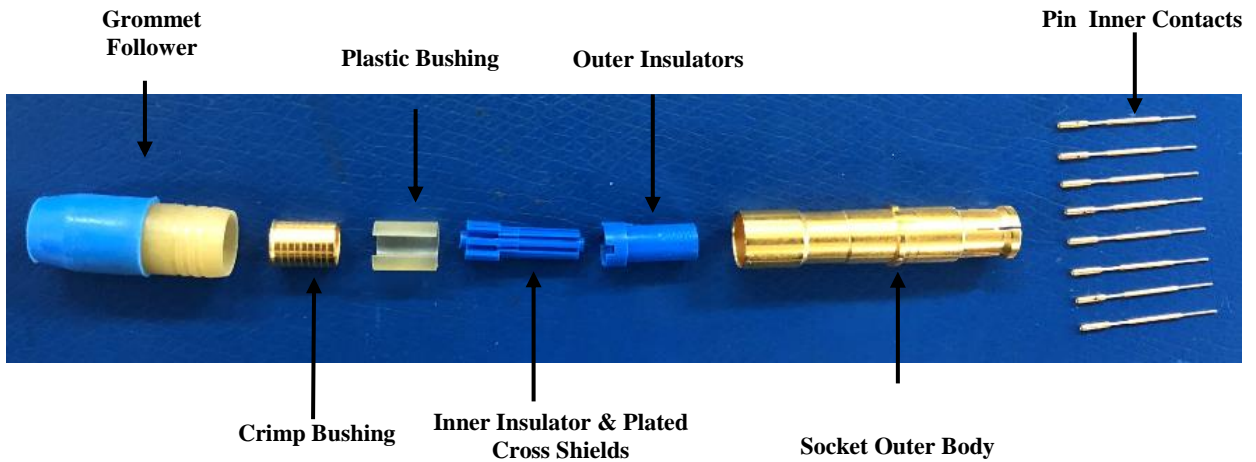
*Figure 10*

- **Pin Contact with Part Number 858-028-02**



*Figure 11*

- **Socket Contact Part Number 858-029-02**



*Figure 12*

## 2.0 Procedure

### Step 1: Remove Cable Jacket

Cut cable end cleanly at right angle to the cable axis with circular cable cutter. Remove cable jacket (1.00") to expose the braid shield.



*Figure 13*

### Step 2: Remove Filler

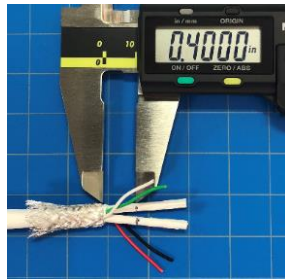
Fold cable braid back and remove outer Teflon wrap.



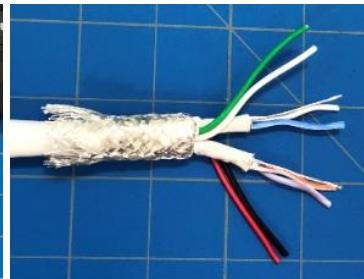
*Figure 14*

### Step 3: Prep Foil

Mark Teflon wrapped pairs (0.400") away from jacket per **Figure 15**. Trim Teflon and braid to mark per **Figure 16**. **Do not** to cut the drain wire inside of foil.



*Figure 15*



*Figure 16*

#### Step 4: Trim Conductors

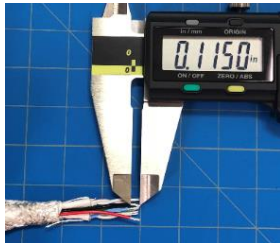
Trim conductors (**0.700"**) away from jacket per **Figure 17**. **Do not** trim drain wires from twisted pairs.



*Figure 17*

#### Step 5: Crimp Conductors

Identify cable twisted pair color orientation to match **Figure 10** for Pin or Socket contacts. Remove insulation of conductors to (**0.115"**) per **Figure 18**. **Red and black conductors are 24 awg and use the larger inner contacts.** Install larger inner contacts over the red and black conductors. Install remaining inner contacts over other conductors. Make sure the conductor is visible through the inspection hole. Crimp the red and black inner contacts using crimp tool **M22520/2-01** and positioner **Daniels P/N K1906 (Glenair P/N 859-101)**, Setting #4 for 24 AWG. Crimp the other inner contacts using crimp tool **M22520/2-01** and positioner **Daniels P/N K1906 (Glenair P/N 859-101)**, Setting #3 for 26 AWG.



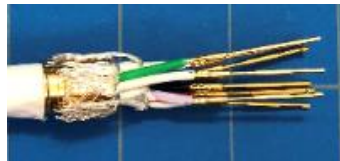
*Figure 18*



*Figure 19*

#### Step 6: Install Crimp Ferrule

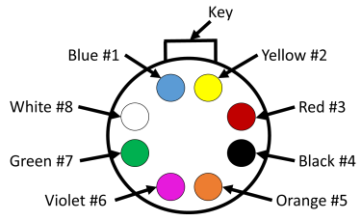
Slide crimp ferrule over all braid, conductors, and drain wires until it bottoms out on cable jacket. Fold braid and drain wires back over ferrule and trim excess per **Figure 20**.



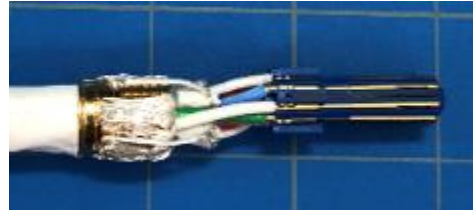
*Figure 20*

### Step 7: Loading Contacts into Insulator for Pin Contact Part Number 858-028-02

Identify the wire colors (See below for recommended color code as shown in **Figure 21**). Slide the inner insulator into middle of inner contacts. Pay attention to the orientation of the wires. Snap the contacts in place of the insulator slot cavities.



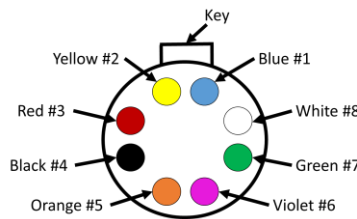
**Figure 21**



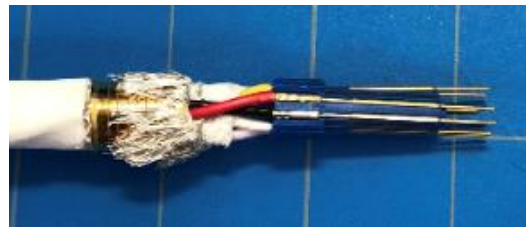
**Figure 22**

### Step 8: Loading Contacts into Insulator for Socket Contact Part Number 858-029-02

Identify the wire colors (See below for recommended color code as shown in **Figure 23**). Slide the inner insulator into middle of inner contacts. Pay attention to the orientation of the wires. Snap the contacts in place of the insulator slot cavities.



**Figure 23**



**Figure 24**

### Step 9: Install Outer Insulator

Slide outer insulator over inner insulator. Place the outer insulator such as its key is in orientation with color code as shown in **Figure 21 & Figure 23**. Push the outer insulator in until outer and inner tabs nest together.



**Figure 25**

### Step 10: Plastic Bushing Installed

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.

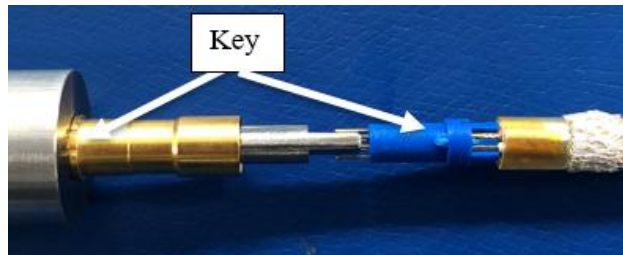


*Figure 26*

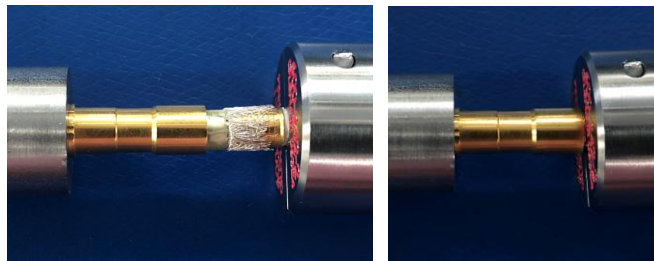
**Inspection step:** the gap between the plastic bushing and the adjacent component shall be less than 0.010”.

### Step 11: Outer Body Installed

Install outer shell body in tool **600-235** or **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 27**. Use insert tool **600-242** to slide cable assembly into shell body using **600-235** or **600-236** as a guide. Ensure crimp bushing is fully seated per **Figure 28**.



*Figure 27*

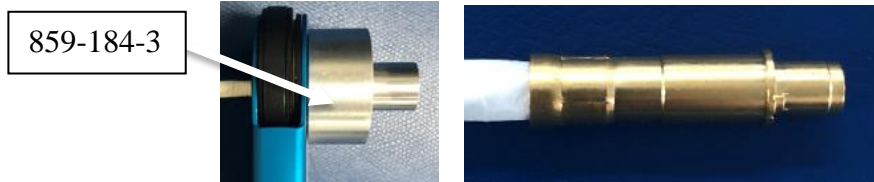


*Figure 28*



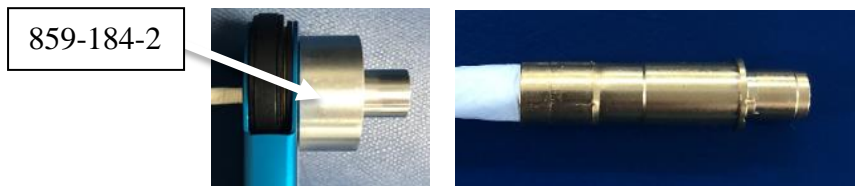
## Step 12: Crimp Pin Outer Body Contact Part Number 858-028-02

Install depth locator **859-184-3** on crimp tool **GS206**. Load the contact assembly into the crimp tool Daniels **GS206**. Crimp the end of crimp barrel first per **Figure 29 & 30**. Remove depth locator **859-184-3** and install **859-184-2**. Rotate the contact assembly 45° and repeat crimping process per **Figure 31 & 32**. After crimping, the diameter of crimped barrel must not be greater than .270”.



*Figure 29*

*Figure 30*

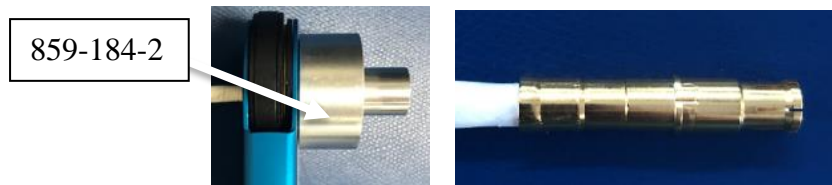


*Figure 31*

*Figure 32*

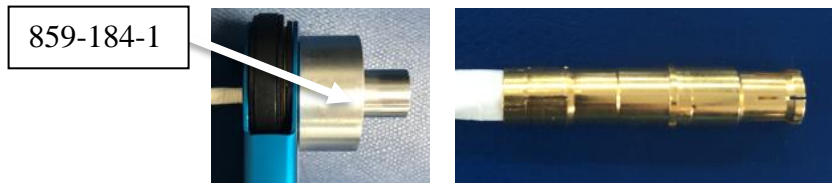
## Step 11: Crimp Socket Outer Body Contact Part Number 858-029-02

Install depth locator **859-184-2** on crimp tool **GS206**. Load the contact assembly into the crimp tool Daniels **GS206**. Crimp the end of crimp barrel first per **Figure 33 & 34**. Remove depth locator **859-184-2** and install **859-184-1**. Rotate the contact assembly 45° and repeat crimping process per **Figure 35 & 36**. After crimping, the diameter of crimped barrel must not be greater than .270”.



*Figure 33*

*Figure 34*



*Figure 35*

*Figure 36*