Termination Instructions for PIC 190XXX Series Coaxial Connectors

Excluding 190303, 1905XXA, 1907XX, and 1908XX Connectors

Note : PIC Die set or M22520 Die set can be used. Only PIC Die sets 190XXX (not M22520 die sets) will crimp weather-proofing seal/s on end/s of ferrule. (Using the ATUM adhesive heat shrink provided will also weather-proof connector and provide strain relief)

Recommended Tooling :	X-acto Knife, Cuticle Scissors, Cable Cutter, Heat Gun	
Required Tooling :	M22520/5-01 Hex Crimp Tool (Daniels HX4)	
Connector Series	**PIC Die Sets*	*Alternate (M22520/5-xx) Die Sets Ferrule / Contact*
1901XX	190118	*5-57
1902XX	190218	*5-25
1903XX	190318	*5-29
1904XX	190418	5-27 (Hex) / 5-04 (A Hex)
1905XX	190518A**	5-43 (A Hex) / 5-57 (B Hex)
1906XX	190618	5-47 (Hex) / 5-57 (B Hex)

* Die set for contact & ferrule. ** Use 0.98 dia Hex for center contact.

1) Slide ATUM heat shrink (if provided) onto cable. Cut the cable end square. Install the Crimp Ferrule over the cable Jacket, small end first (if applicable). *SCORE* the jacket at Cut A and Cut B, using the Strip Dimensions (Fig. 1) without cutting into cable Shields.

2) Complete Cut A, through shields and Dielectric, down to Center Conductor (Fig. 2). Do Not nick or cut into the Center Conductor. Remove jacket, shields and dielectric. Clean the face of the exposed dielectric of debris or stray braids.

3) Install Center Contact onto the cable center conductor, until end of contact is flush with dielectric (Fig. 3). Do Not force the center contact into the dielectric. Solder or crimp the center contact to the center conductor. Refer to above table for correct Crimp Die set.

4) Complete Cut B, through the Jacket (Fig. 4). DO NOT nick or cut into the wire braids. Slit lengthwise and remove the jacket.

5) Flare out the wire braids, to approximately 45° (Fig. 5). Slit the Foil lengthwise in three or four places, and flare out to expose the Strip Braid. Carefully flare the Strip Braid out, away from the dielectric (w/ *X-acto knife*), all the way down to the bottom. Avoid disturbing the dielectric. The dielectric must be exposed for full length of the strip dimension (near Cut C).

6) Clean the dielectric and center contact as needed. Dry compressed air may be used if necessary (carefully). Inspect and clean Connector Body as needed.

7) Install the connector body over the dielectric and under the shields (Fig. 6), until the center contact captivation groove is engaged. Avoid disturbing or deforming the dielectric. *For 90° Connectors*, use caution to avoid damage to female center contact. Rotating the connector back and forth while installing the body can help assure the center contact is centered in the connector. Push until the center contact captivation groove is engaged. Verify captivation with a light tug.

8) Smooth all braids down over the rear of the connector body, covering the knurl. Trim off the braids (Fig. 6) at the shoulder *(w/ Cuticle Scissors)*.

9) Pull the crimp ferrule up onto the connector body. Secure the body while positioning the ferrule, to avoid shifting the captivated center contact. Trim any stray braids at the shoulder prior to seating the ferrule against the connector body (Fig. 6).

10) Verify Center Contact position; visually on straight connectors, and by verifying captivation on 90° connectors. Crimp the ferrule with M22520/5-01 Crimp Tool and crimp die set as specified in table above. When using PIC die set, ensure that each step or diameter of the ferrule fits into the corresponding cavity of the hex crimp die before crimping. When using a MIL spec die set, crimp only the smaller diameter part of the ferrule, not the larger bell on the end (or each end if applicable).

11) Shrink the ATUM dual wall shrink tube onto the connector and cable, starting behind the coupling nut or connector interface (straight connectors) as shown (Fig. 7), or behind cube body (90° connectors).
Note: For ARINC connectors, cover ferrule and cable only.

Figure 1

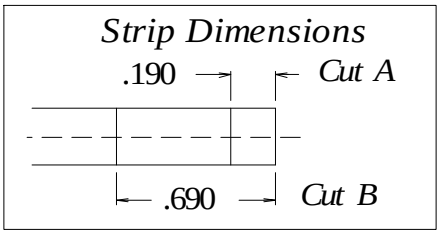

Figure 2

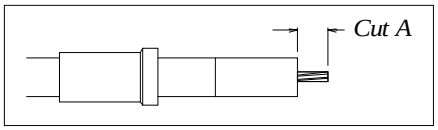

Figure 3

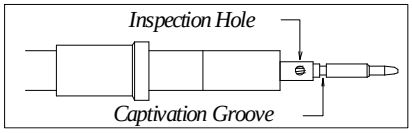

Figure 4

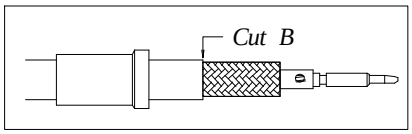

Figure 5

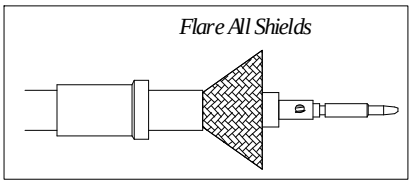

Figure 6

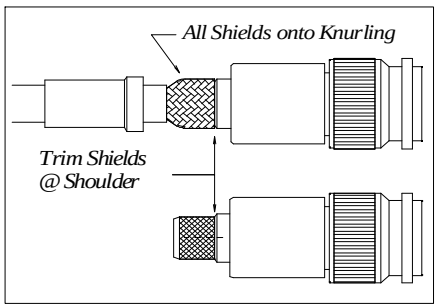

Figure 7