Termination Instructions for PIC 1501XX Series Connectors

(for UH44193 Ultralight Coax Cable)

Recommended Hand Tools : X-acto Knife, Sharp Razor, Cuticle Scissors or Wire Cutters, Tweezers, Heat Gun, Soldering Iron (optional)						
Connector P/N	Connector Type	Required Tooling				
		M22520/1-01 Contact Crimp Tool *			M22520/ 5-01 (Ferrule) Hex Crimp Tool	
		Tool Dial #	Recommended Positioner	Alternative Positioner	Die Set	Hex Size
150101	ARINC 600 Size 1 Socket	7	M22520/1-09		/5-11, cav. A	0.213"
150102	ARINC 600 Mod Size 1 Socket					
150103	ARINC 600 Size 5 Socket			M22520/1-12 Green		
150106	C Straight Plug					
150107	C 90° Plug					
150108	TNC Straight Plug					
150109	TNC 90° Plug					
150110	N Straight Plug		M22520/1-13	M22520/1-03 Green		
150111	N 90° Plug		M22520/1-09			
150112	BNC Straight Plug					
150113	BNC 90° Plug					
150113-L	BNC 90° Plug, extended length					
150114	SMA Straight Plug			M22520/1-12 Green		
150115	SMA 90° Plug					
150121	TNC Bulkhead Jack					
150122	N Bulkhead Jack					
150128	BNC Bulkhead Jack					
150129	ARINC 600 Size 8 Socket			M22520/1-12 Green		
150138	M39029 Size 8 Pin	4	M22520/1-16			
150139	M39029 Size 8 Socket	7	M22520/1-09			

**** not required if soldering the center contact***

Note : When stripping Aluminum conductors (and all conductors as a standard practice) take extra care to avoid nicking or cutting into center conductor or braids during cable stripping. For best results, the use of automatic or laser stripping equipment is recommended.

1) Straighten the end of cable, and re-shape the cut end to concentric, to assist in accurate stripping. Install the ATUM 12/3 dual-wall shrink tubing and crimp ferrule onto cable (Fig. 1). Make Cut A @ .260" from the end of the cable, through cable jacket and all cable shields, down to the dielectric (Fig. 1). Avoid cutting into the dielectric. Remove jacket and shields from Cut A (Fig. 1).

2) Make Cut B @ .830" from the end of the cable, scoring the cable jacket. Use caution: Do Not nick or cut into aluminum wire braid shields (Fig. 1). Do not remove jacket yet, leave in place (Fig. 1).

3) Make Cut C @ .210" from the end of the cable, through the dielectric, down to the center conductor (Fig. 1). Do Not nick or cut into the center conductor. Remove dielectric from Cut C (Fig.1). Remove the layer of plastic covering the silver-plated copper-clad center conductor (Fig. 2); for safe removal, it can be scraped off with opposing fingernails, to avoid damage to plating (Fig. 2).

4) Install center contact onto the cable center conductor, until contact is fully seated on the center conductor (Fig. 3). Conductor should be visible in inspection hole. Solder or crimp the center contact onto the center conductor (solder is preferred for better performance) (Fig. 3).
Refer to table above for specified tooling, if crimping.

5) Remove the cable jacket at Cut B. Flare braids slightly (Fig. 4), maintaining braid weave as much as feasible. Unwrap helical inner shield all the way down to the bottom (Cut B) without twisting it (Fig. 4), tweezers may be used to grip and unwind helical strip. The helical strip can be positioned straight along the inside of the flared braids (Fig. 4). The dielectric must be exposed for the full strip length (to Cut B). Clean dielectric and center contact as needed, using clean, dry, low-pressure compressed air, avoid disturbing flared shields.

6) Inspect and clean connector body as needed. Install the connector body over the dielectric and under the shields until the center contact is fully seated (Fig. 5). Verify that the center contact is captivated. For non-captivated center contacts (150103, 150129, 150138, 150139), confirm the center contact is fully seated.

7) Smooth all braids and helical strip down over the rear of the connector body covering the knurl, maintain braid weave as much as possible (Fig. 5). Trim off stray braids at the shoulder (Fig. 5).

8) Position crimp ferrule over braids, up to connector body shoulder (Fig. 6). Secure the body while locating ferrule, to avoid shifting the center contact. Trim any stray braids at the shoulder prior to seating the ferrule against the connector body.

9) Verify center contact position prior to crimping. Crimp ferrule with M22520/5 - 01 hex crimp tool and M22520/5-11 crimp die set, cavity A (.213" hex). Apply secondary crimp (aligned with the first) to achieve a crimp over the full length of the ferrule (Fig. 6).

10) Shrink the ATUM dual-wall shrink tubing (Fig 7) over the connector body and cable, start behind the coupling nut ~ .100" to ensure no interference with coupling nut function (Fig. 7).

Dimensions in Inches (Not To Scale)

Figure 1 *Cut A* .260"

Cut B .830"

Cut C .210"

Figure 2

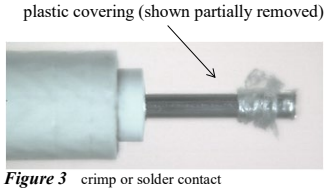

Figure 3 crimp or solder contact

Figure 4

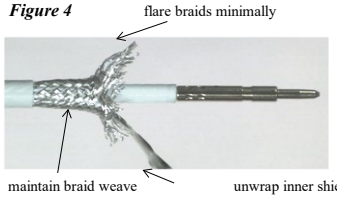

Figure 5

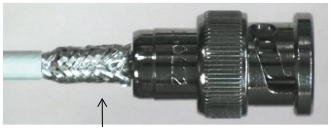

Figure 6

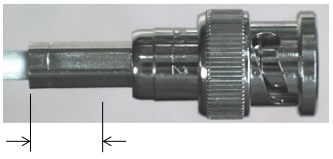

Figure 7