

TE CONNECTIVITY PART NO.	PREVIOUS PART NO.	MIL PART NO. M39012/55-	CABLE	CRIMP TOOL	CRIMP DIE M22520/5-	DIMENSIONS				
						A	B	C	D	
1051780-1	2031-8025-92	-3025	RG178/U	M22520/5-01	-03	.56 [.022]	.56 [.022]	.94 [.037]	2.57 [.101]	
1051810-1	2031-8125-92	-3125 <sup>†</sup>	RG178/U					-33	1.70 [.067]	3.25 [.128]
1051782-1	2031-8026-92	-3026	RG174/U					-03		
1051812-1	2031-8126-92	-3126 <sup>†</sup>	RG176/U					-35		

<sup>†</sup> Indicates NO SAFETY WIRES

Figure 1

## 1. INTRODUCTION

These instructions cover the assembly of the SMA Straight Cable Plug Connectors listed in Figure 1. These connectors are crimp-attachment type connectors, that attach to the cable listed in Figure 1.

The military tooling used, including the crimp tool and the dies, is listed in Figure 1.



*Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale.*

Reasons for revision can be found in Section 4, REVISION SUMMARY.

## 2. DESCRIPTION

Each cable plug is a subassembly consisting of a housing subassembly, a center contact, a rear dielectric, an inner sleeve, a retaining nut, and an outer sleeve. Refer to the illustration in Figure 1.

## 3. ASSEMBLY PROCEDURES

### 3.1. Preparing the Coaxial Cable End

1. Place the outer sleeve on the cable.
2. Remove the end portion of the cable jacket.
3. Trim the cable braid to the dimension specified in Figure 2.

4. Trim the cable dielectric to the dimension specified in Figure 2.

5. Trim the inner conductor to the length specified in Figure 2.

6. Flare the cable braid.

### 3.2. Crimping the Cable to the Inner Sleeve

1. Tin the inner conductor.



*Be sure to follow all local and safety practices when using solder.*

2. Assemble the inner sleeve into the retaining nut.

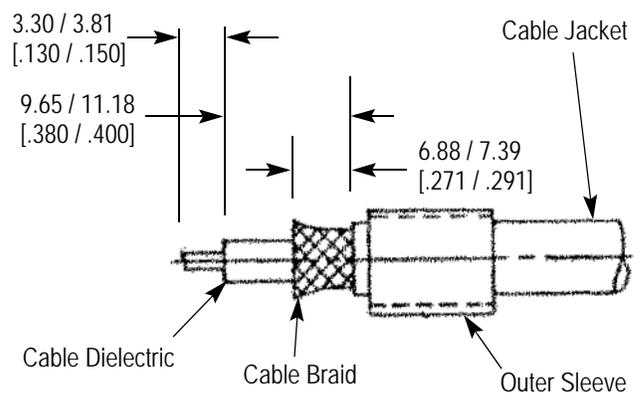


Figure 2

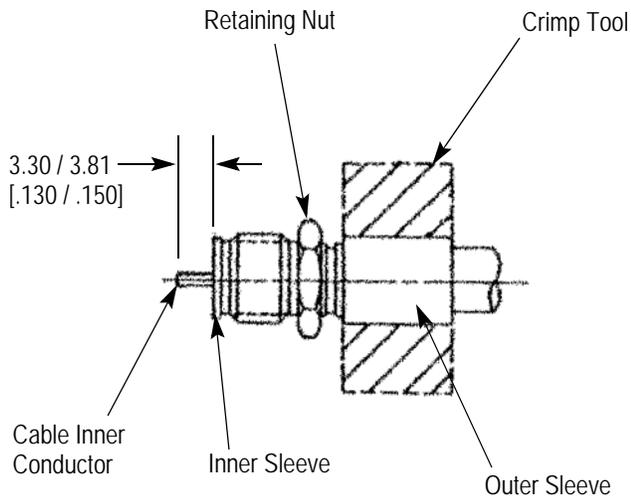


Figure 3

3. Position and secure the inner sleeve in a small bench vise.
4. Insert the cable dielectric into the inner sleeve and seat firmly.
5. Slide the outer sleeve over the flared portion of the cable braid.
6. Hold the cable firmly seated and crimp the outer sleeve in place. Refer to Figure 3.
7. Trim and remove the excess cable braid.
8. If necessary, trim the cable dielectric flush to the face of the inner sleeve.

### 3.3. Soldering the Center Contact to the Cable Inner Conductor

1. Assemble the rear dielectric onto the inner conductor of the cable and seat it against the collar.
2. Place the center contact in a center contact holder, heat the center contact and push it over the inner conductor of the cable with the large diameter of the contact resting firmly against the rear dielectric. Refer to Figure 4.



*Follow all local and safety practices while using solder and soldering equipment.*

3. Remove excess solder.

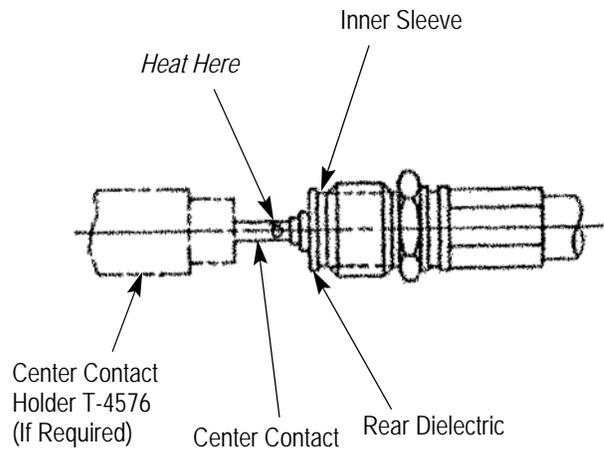


Figure 4

### 3.4. Securing the Housing to the Inner Sleeve Subassembly (Figure 5)

1. Assemble the dielectric over the center contact.
2. Engage the threads of the inner sleeve subassembly to the housing and torque to 1.36-1.69 N•m [12-15 lbf-in.].

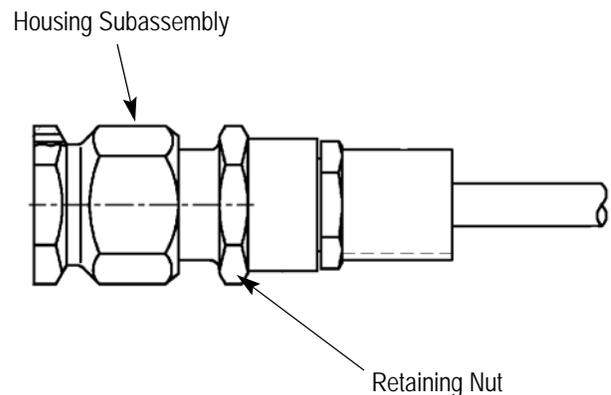


Figure 5

## 4. REVISION SUMMARY

Since the previous version of this document, the following changes were made:

- Added dual (metric/U.S.) dimensions.
- Updated document to corporate requirements.