

CONNECTOR			CABLE TYPE	DIMENSIONS			
TYCO ELECTRONICS PART NUMBER	PREVIOUS PART NUMBER	MILITARY PART NUMBER (M39012/55)		DIM. A (I.D.)	DIM. B (I.D.)	DIM. C (I.D.)	DIM. D (I.D.)
1051757-1	2031-8006-92	-3006	RG178/U	.022 In.	.022 In.	.037 In.	.101 In.
1051789-1	2031-8106-92	-3106*	RG178/U	.022 In.	.022 In.	.037 In.	.101 In.
1051759-1	2031-8007-92	-3007	RG174/U	.022 In.	.022 In.	.067 In.	.128 In.
1051791-1	2031-8107-92	-3107*	RG316/U	.022 In.	.022 In.	.067 In.	.128 In.

(\*No Safety Wire Holes)

Figure 1

## 1. INTRODUCTION

These instructions cover the assembly of the SMA Straight Cable Plugs listed in Figure 1. Figure 1 also lists the cable types required for the various connectors, as well as the dimensions of the various connectors.

All of these connectors are used in solder type applications.

Tooling required for the application is listed in Figure 2.

TYCO ELECTRONICS PART NUMBER	PREVIOUS PART NUMBER	DESCRIPTION
1055454-1	2098-5221-10 (T-4578)	Center Contact Holder

Figure 2

### NOTE

Dimensions in this document are in metric units [with U.S. customary units in brackets], unless otherwise specified.

### NOTE

Reasons for revision can be found in SECTION 3.

## 2. ASSEMBLY

### 2.1. Preparing the Coaxial Cable End (Figure 3)

1. Place the retaining nut and the outer sleeve (ferrule) on the cable.
2. Remove the end portion of the cable jacket to expose the the cable braid.
3. Trim the outer conductor to length, as shown in Figure 3.
4. Trim the dielectric to length, as shown in Figure 3.
5. Trim the inner conductor to length, as shown in Figure 3.
6. Flare the cable braid.

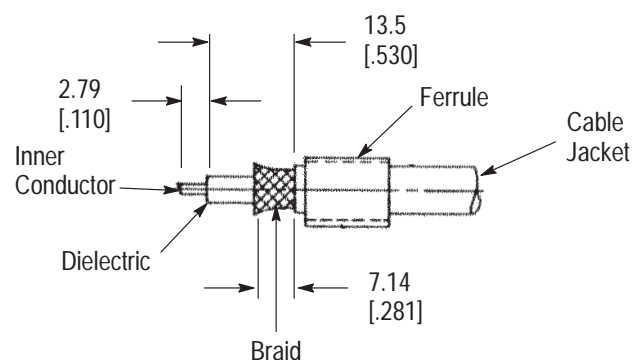


Figure 3

## 2.2. Soldering Cable to Inner Sleeve Subassembly (Figure 4)

1. Tin the inner conductor of the cable.
2. Slide the inner sleeve over the cable dielectric and under the cable braid until the sleeve is flush with face of the inner sleeve.
3. Slide the ferrule over the flared portion of the cable braid

### **DANGER**

*To avoid personal injury, be sure to exercise caution when working with hot soldering equipment. Follow all local practices.*

4. Hold the cable firmly and solder ferrule in place.
5. Trim and remove excess cable braid.

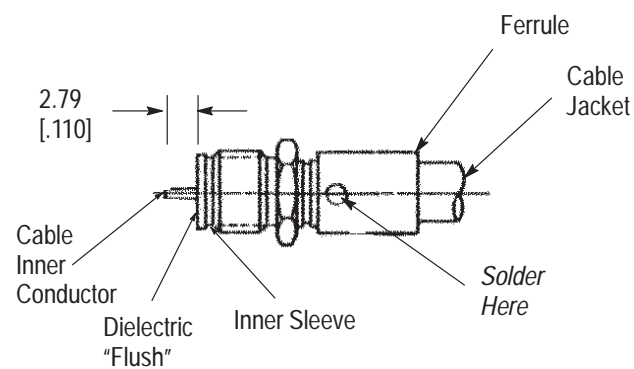


Figure 4

## 2.3. Soldering the Center Contact to Cable Inner Conductor (Figure 5)

1. Assemble the rear dielectric onto the inner conductor of the cable and seat it against the inner sleeve.
2. Place the center contact in the center contact holder (see Figure 2), heat the center contact and push it over the the inner conductor of the cable.

### **NOTE**

*The large diameter of the contact must rest firmly against the rear dielectric. See Figure 5.*

3. Remove the excess solder.

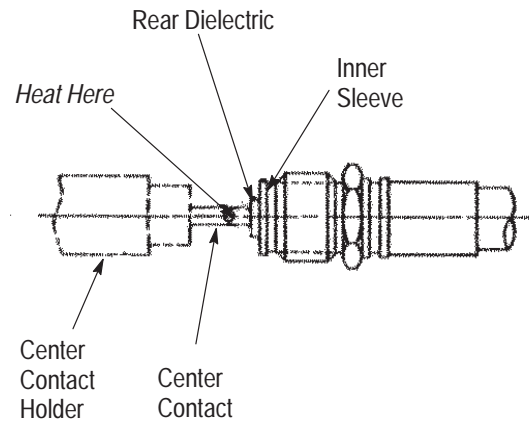


Figure 5

## 2.4. Assembling the Housing to the Inner Sleeve Subassembly

1. Assemble the dielectric over the center contact.
2. Engage the threads of the inner sleeve subassembly to the housing and tighten the retaining nut to approximately 12 to 15 inch-pounds.

Adherence to the steps in this procedure should result in a completed assembly resembling Figure 6.

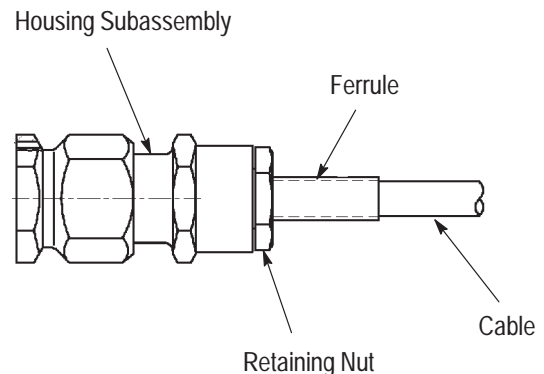


Figure 6

## 3. REVISION SUMMARY

The following changes were made to this document per EC 0990-0761-03:

- Part number 1051789-1 was included;
- A portion of the Omni-Spectra table was deleted;
- The title was changed; and
- The format was updated to the current corporate requirements.