

Tyco Electronics Part Number	Previous Part Number	Description	Cable
1051933-1	2034 5005 00	SMA Bulkhead Feedthrough Cable Jack Connector	RG174/U, 179, 187, 188, 316
1051934-1	2034 5005 02	SMA Bulkhead Feedthrough Cable Jack Connector	

Figure 1

## 1. INTRODUCTION

This instruction sheet contains the assembly procedure for the SMA Bulkhead Feedthrough Cable Jack Connectors listed in Figure 1. These are crimp-type attachment connectors that attach to the cable listed in Figure 1.

The table in Figure 2 represents tool numbers applicable to this instruction sheet.

**NOTE**

Unless otherwise stated, dimensions on this instruction sheet are in millimeters [with inches in brackets]. Figures are not drawn to scale.

Tool Description	Tyco Electronics Part Number	Previous Part Number
Center Contact Holder	1055454-1	2098 5221 10
Crimp Tool	1055236-1	2098 0105 54 (Die No. C)

Figure 2

Reasons for revision can be found in Section 4, Revision Summary.

## 2. DESCRIPTION

Each connector assembly consists of a mounting nut, a lockwasher, the housing subassembly, a dielectric, the center contact, backup bushing, inner sleeve, ferrule, retaining nut, and heat-shrink tubing. See Figure 1.

## 3. ASSEMBLY PROCEDURES

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

1. Place the heat-shrink tubing and ferrule on the cable.
2. Remove the end portion of the cable jacket to expose the cable braid (outer conductor).
3. Trim the cable braid to length.
4. Flare the cable braid.

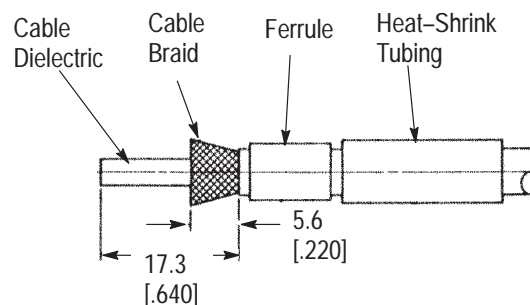


Figure 3

### 3.2. Crimping the Cable to the Inner Sleeve (Figure 4)

1. Insert the inner sleeve into the retaining nut.
2. Position the loose unit on the dielectric as shown in Figure 4.
3. Slide the ferrule over the flared portion of the cable braid.

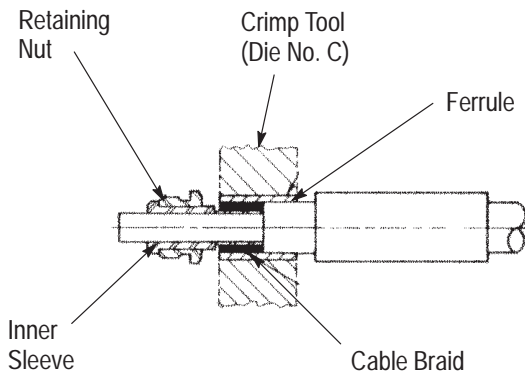


Figure 4

4. Hold the retaining nut (seated) and crimp the ferrule in place.
5. Trim and remove the excess braid strands.

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

1. Trim the cable dielectric flush with the end of the inner sleeve to expose the inner conductor.
2. Place the back-up bushing on the inner conductor.

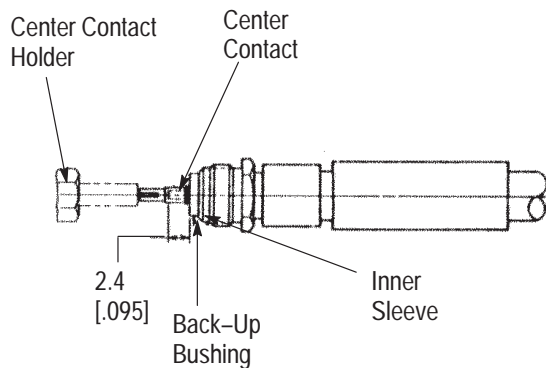


Figure 5

3. Trim and de-burr the inner conductor projection to length, as shown in Figure 5.
4. Tin the inner conductor.
5. Place the center contact in the holder.
6. Heat the center contact with a soldering iron and carefully push it over the center conductor until it rests firmly against the bushing.
7. Remove the excess solder or spatter.

### 3.4. Securing the Housing to the Inner Sleeve Sub-Assembly and Shrink Tubing (Figure 6)

1. Assemble the dielectric over the center contact.

2. Engage the threads of the inner sleeve sub-assembly to the housing and tighten to approximately 12–15 in.-lbs.
3. Position the shrink tubing over the ferrule as shown in Figure 6.
4. Apply indirect heat to shrink the tubing.

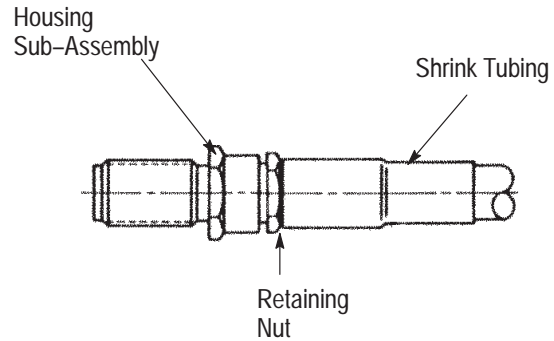


Figure 6

### 3.5. Inspecting the Completed Assembly

Adherence to the procedures above should yield the tolerances shown in Figure 7.

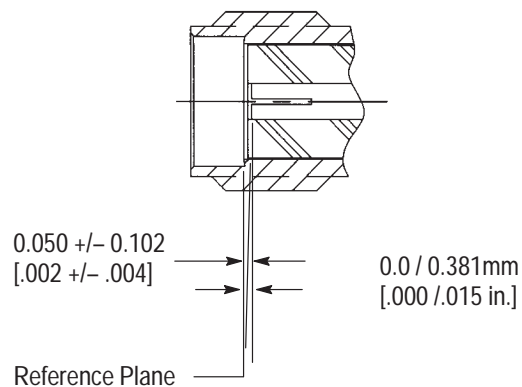


Figure 7

### 4. REVISION SUMMARY

Per EC 0990-0966-03, this document was revised to clarify text and images; to remove part number 1312415-1; and to update the format according to the current corporate requirements.