

**7-PIN PLUG KITS**

PLUG KIT TYPE	PART NUMBER	DESCRIPTION
Plastic Shell	865594-1	Standard Plug Kit
Metal Shell	865656-1	Straight Shrinkable Boot
	865656-2	Right-Angle Shrinkable Boot
	865656-3	No Shrinkable Boot

Figure 1

**1. INTRODUCTION**

This instruction sheet covers the assembly procedures for the 7-Pin Plug Kit (Potted Version). This plug kit will accept a wire size range of 16-22 AWG and the insulation must be rated for at least 15kVDC with a maximum diameter of 4.70 mm [.185 in.]. Figure 1 provides connector features and terms used in this document. Use these terms when corresponding with Tyco Electronics Representatives to facilitate assistance. See the table in Figure 1 for related product part numbers and descriptions.



**NOTE**

Dimensions on this instruction sheet are in millimeters [with inches in brackets]. Figures and illustrations are for identification only and are not drawn to scale.

**2. WIRE SELECTION AND TERMINATION**

Select the correct wire size for your production requirements and refer to the following procedures.

1. Strip the wire insulation to a maximum of 3.56 mm [.140 in.].



Be careful not to nick or cut the conductors.

2. Dress the leads through the holes in the plug housing towards the end with the keyways.
3. Solder the leads to the contacts of the silicone insert. Clean soldered connector thoroughly.

**3. SILICONE APPLICATION**

Apply a thin coating of silicone adhesive (RTV-732 or equivalent) to only the shoulder of the silicone slug or insert. Insert the slug or insert into the plug housing until the interface of the silicone slug or insert is flush with the housing.

**4. PREPARING THE HOUSING**

The surface of the plug housing and the potting shell should be prepared for potting in conjunction with the manufacturers recommended procedures for the appropriate potting material.

**5. ASSEMBLY**

Refer to the following steps for assembly procedures:

1. Slip the cap over the back of the plug housing.
2. Apply epoxy adhesive to the threads of the potting shell, and attach to the plug housing.



The straight potting shell has a positive stop so the cap will rotate freely. Allow the adhesive to cure before final potting.



Kits without potting shells are filled to the top of the plug housing.

**6. POTTING**



The potting material selected must be compatible with the wire insulation and preparation procedure used, the polyester housing, the operating voltage stress levels, and the environmental conditions in which the unit will be operated.



Fill the potting area with the compound, taking proper precautions to avoid producing any voids. Allow the compound to cure fully before finishing the assembly and applying the voltage.

**7. SHIELD TERMINATION**

Refer to Figure 2 for shield termination dimensions.

**8. REVISION SUMMARY**

- Updated logo.
- This document supercedes Instruction Sheet 866109-1

Polyolefin shrink tubing (located as shown below) and formed at 90° during heating and shrinking operation. Add metal braid, protective jacket and conductive shrink boot as shown below.

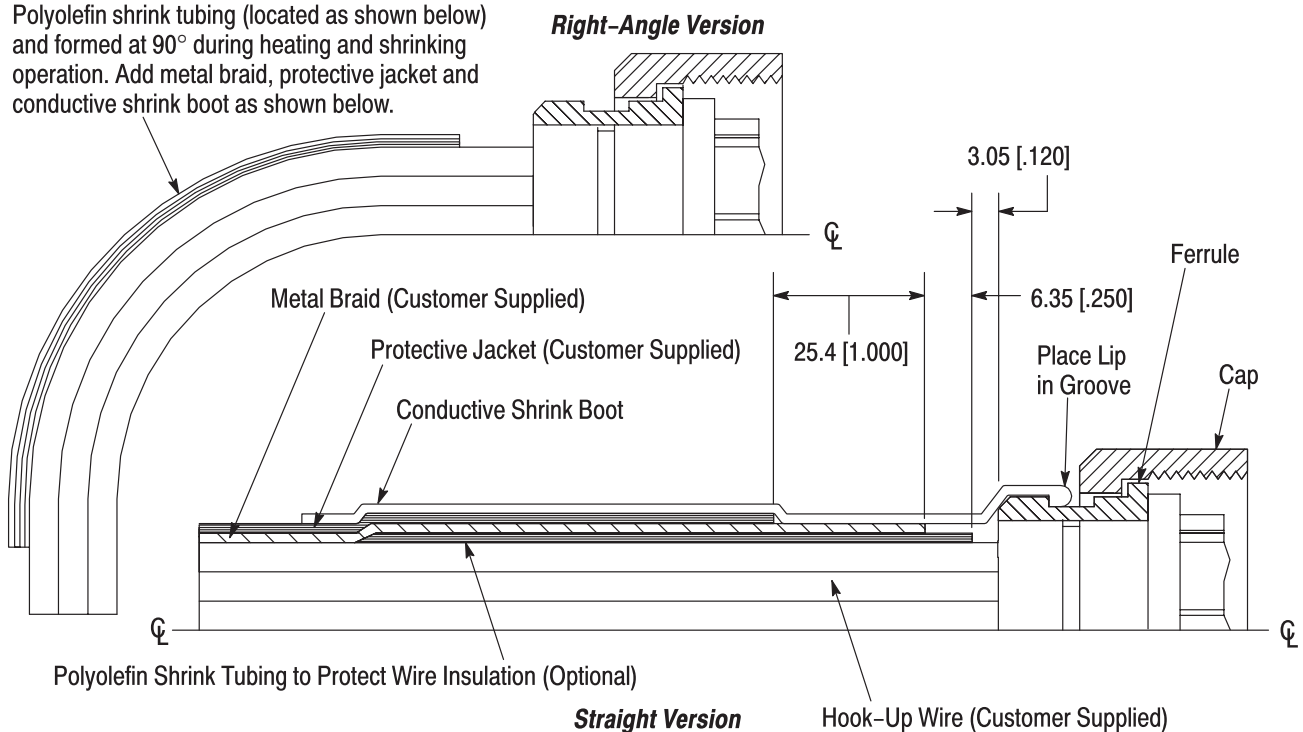


Figure 2