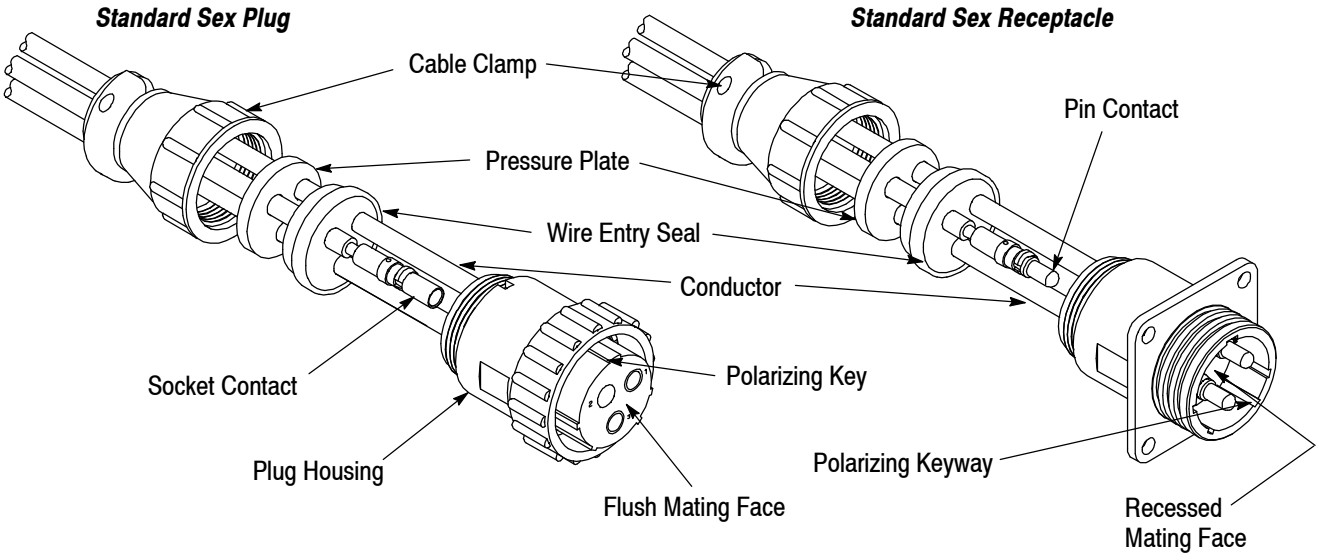

Figure 1

1. INTRODUCTION

This instruction sheet covers the assembly procedures of Sealed Circular Plastic Connectors (CPC). Typical connector configurations are shown in Figure 1.

Since the previous revision, this document was updated to corporate requirements.

2. DESCRIPTION

The receptacle and plug assemblies are shown in Figure 1. The connector type indicates connector size and number of contact positions. For example, the type 17-10 means a size 17 connector with 10 contact positions (the number of contact cavities in the connector). Connector size is the outside diameter in 16ths of an inch, as measured across the coupling threads on the receptacle.

The Sealed CPC is available in reverse sex in Series 5 and Series 6, and in standard sex in Series 1. Reverse sex plug assemblies have a recessed mating face and the reverse sex receptacle assemblies have a flush mating face. Pin contacts must be installed in the reverse sex plugs (recessed mating face) and socket contacts must be installed in the reverse sex receptacle (flush mating face). The standard sex plugs have a flush mating face and the standard sex receptacle assemblies have a recessed mating face (refer to Figure 1). Socket contacts must be installed in the standard sex plug (flush mating face), and the pin contacts must be installed in the standard sex receptacle (recessed mating face).

The connectors are polarized to ensure proper mating (plugs have polarizing keys and receptacles have keyways). To provide circuit identification, contact cavities are numbered on the front and on the back of each connector. Receptacle connectors are available with a square mounting flange for front or rear panel mount applications, or without a flange for in-line applications.

3. CONNECTOR/CONTACT SELECTION

Figure 2 shows the recommended contacts for each connector assembly. The Series 1 connector uses the Size 16, Type II screw machined, or Type III+ precision formed contact. The Series 5 connector uses the 3.18 mm [.125 in.] dia POWERBAND* screw machined power contact, or the 3.18 mm [.125 in.] dia POWERBAND precision formed power contacts. The Series 6 connector uses a combination of the Size 16 contacts and the power contacts. The Size 16 contacts are for use on 22-14 AWG wire and the power contacts are for use on 14-8 AWG wire.

Strip-form contacts are to be crimped with a semi-automatic or automatic machine. Loose piece contacts are designed to be crimped with crimp tooling (hand tools or die assemblies). Contacts should be crimped according to the appropriate crimp instruction sheet.

Contacts are not provided with the connector assemblies. They must be purchased separately. Refer to Product Specification 108-1579 for additional information on connector and contact requirements.

CONNECTORS				ACCESSORY KITS		RECOMMENDED CONTACTS			
TYPE	RECEPTACLE		PLUG ASSEMBLY	SEAL KIT	CABLE CLAMP	SOCKET		PIN	
	FLANGE	IN-LINE				STRIP	L.P.	STRIP	L.P.
13-9	——	——	206708-1	213925-1	828859-1	66100-9	66101-4	66098-9	66099-4
	206705-3	206705-4	——	213926-1					
17-3	213889-2	213890-2	213905-1	213899-1	213902-1 213904-1	213843-2 213847-2	213843-4 213847-4	213841-2 213845-2	213841-4 213845-4
17-10	213893-2	213894-2	213906-1	213900-1	213902-1 213904-1	66100-9 213843-2 213847-2	66101-4 213843-4 213847-4	66098-9 213841-2 213845-2	66099-4 213841-4 213845-4
17-14	206043-4	206043-5	——	213919-1	213902-1 213904-1	66100-9	66101-4	66098-9	66099-4
	——	——	206044-1	213919-2					
17-16	——	——	206037-1	213920-1	213902-1 213904-1	66100-9	66101-4	66098-9	66099-4
	206036-4	206036-5	——	213920-2					

Figure 2

4. INSTALLING THE WIRE ENTRY SEAL AND THE CABLE CLAMP

Refer to Figure 2 in choosing the appropriate connector, seal, and strain relief combination. Refer to Figures 1 and 3 and proceed as follows with installation of the wire entry seal and the cable clamp:

1. Insert crimped contacts through the BACK of the cable clamp, and then through the appropriate circuit hole in the pressure plate. See Figure 3. Slide cable clamp and pressure plate “rearward” (away from the crimped contacts) in order to insert crimped contacts through the wire entry seal.

2. Insert crimped contacts through the appropriate circuit in the REAR of the wire entry seal, perforating the membrane on the FRONT of the seal.

NOTE

Normally, an insertion tool is not required or recommended for inserting contacts through the seal. However, an insertion tool may be used to insert the contacts into the housing if the wire bundle is large or if the wire is fragile.

3. Slide the pressure plate and wire entry seal forward until the seal rests on the rear of the housing. Slide the cable clamp forward and thread onto the connector housing until it bottoms.

4. Select the appropriate clamping insert from the plastic carrier. Use the large clamp for a small cable bundle and the small clamp for a large cable bundle. Place the clamping insert onto the cable clamp body and secure with the two self-tapping screws. The clamp insert should bottom on the wire bundle and not on the clamp shoulder. There should be a gap between the clamp insert and the shoulder of the clamp of .79 to 3.18 mm [1/32 to 1/8 in.]. If the clamp insert bottoms on the shoulder or if the gap is excessive, remove it and select another one.

5. Repeat Steps 1 through 4 to assemble the mating connector.

6. To remove the cable clamp and wire entry seal, reverse the installation process outlined in Steps 1 through 4.

CAUTION

Do not pull the contact back through seal. The retention springs may damage the seal.

Kit - Wire Entry Seal

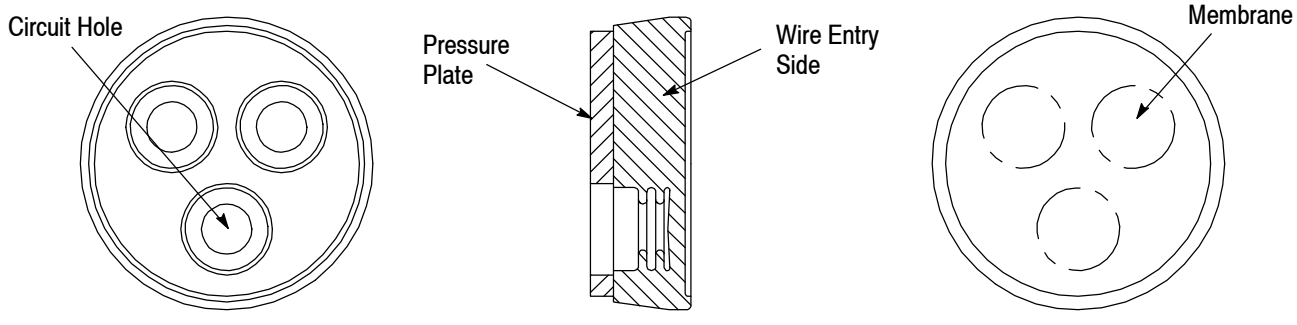

Figure 3