

CONNECTOR			WIRE		CONTACT			TOOLING*		
CIRCUIT POSN	DESCR	PART NUMBER	SIZE (AWG)	INSUL DIA	TYPE	PART NO.		HAND CRIMPING	INSERTION	
						LP	STRIP		INDV	MULT
2	Plug	206468-2	18	.080	Pin	66509	66485	90293-1 (IS 7608)	91097-1 (IS 7693)	91096-1 (IS 7664)
	Rept	206469-2	to	to	Skt	66510	66486			
3	Plug	206468-1	16	.100	Pin	66553	66552	90310-1 (IS 7680)		
	Rept	206469-1	18 to 14	.080 to .135	Skt	66554	66551			

*TOOLING PART NO. AND REFERENCED INSTRUCTION SHEETS (IS)

FIGURE 1

1. INTRODUCTION

This instruction sheet (IS) covers the assembly of the AMP Circular Rubber Sealed Connectors listed in Figure 1. Read this sheet, and the referenced material, before starting assembly.

2. DESCRIPTION

These connectors consist of two polarized halves — a plug and a receptacle. When mated, these halves become a sealed connector. In addition to the sealing properties of the connector, sealing boots are available for use on the receptacle halves to provide splashproof protection for insulated cables. The alignment ribs, noted in Figure 1, provide a visual means of aligning the mating faces.

AMP Type VI pin and socket contacts having a wire range of 18 through 14 AWG are used with these connectors. The pins must be used in the receptacle half, and the sockets in the plug half.

3. SEALING BOOTS

Sealing boots are designed for use with receptacle halves to provide splashproof protection for insulated cable. The following installation procedure is recommended:

1. Insert the cable through the back of the sealing boot. Then strip the outer insulation approximately two-thirds the length of the sealing boot. (A sufficient length of outer insulation must remain on the cable to ensure sealing when the boot is completely installed.)

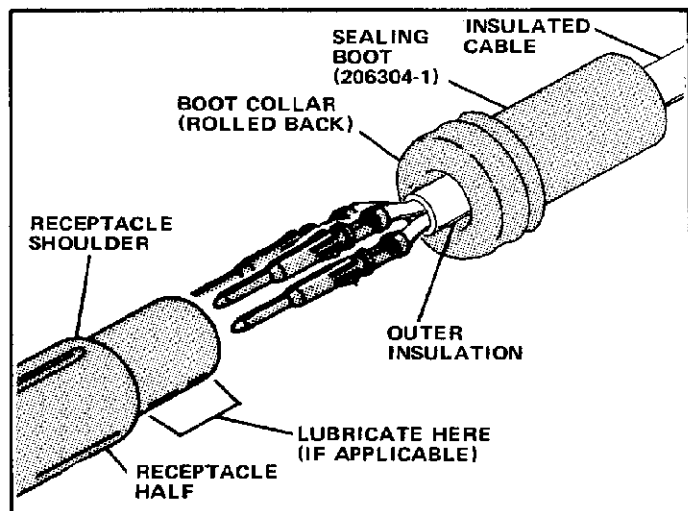


FIGURE 2

2. Crimp the pin contacts to the wires, and install them according to the instructions in Paragraph 4 (contact insertion).
3. Roll the collar back over itself, turning it inside out as shown in Figure 2.
4. Slide the boot over the cable until it butts against the back of the receptacle half.
5. Push the collar forward until it butts against the shoulder of the receptacle. See Figure 2.

4. CONTACTS

Selection — Refer to the chart in Figure 1, and then select: (1) wire within the specified size and insulation diameter for the contacts being used, or (2) compatible pin and socket contacts for the wire size and insulation diameter to be crimped.

Crimping — Strip form contacts are designed to be crimped with AMP automatic or semi-automatic machines. Consult your local AMP representative for assistance in selecting the machine that will best suit your needs.

Loose piece (LP) contacts are designed to be crimped with the AMP hand crimping tools listed in Figure 1. Read the AMP instruction sheet (IS — see Figure 1) packaged with the tool for specific crimping procedures.

Insertion — Use a suitable lubricant (LPS-1* or equivalent) when inserting contacts into these connectors. Insert PIN contacts into the RECEPTACLE half and SOCKET contacts into the PLUG half as shown in Figure 1.

AMP Insertion Tool 91097-1 is designed to insert individual contacts, and AMP Insertion Tool 91096-1 is designed to insert multiple contacts into these connectors. Read the AMP instruction sheet (IS — see Figure 1) packaged with the desired tool for specific insertion procedures.

NOTE

Once inserted, the contacts are permanently installed. Should contacts become damaged and necessitate replacement, cut the wire at the back of the connector half and replace with new connector and contacts.

5. CONNECTOR ASSEMBLY

Refer to the chart in Figure 1, and then select the applicable connector according to the number of circuit positions required. If a sealing boot is to be used, install it on the cable before crimping the contacts (see Paragraph 3).

Proceed as follows:

1. Using an insertion tool, and following the instructions packaged with the tool, insert the crimped contacts into the appropriate connector halves.
2. After all contacts are installed, roll the collar of the receptacle back over itself (inside out) as shown in Figure 3.
3. Position the connector halves so the alignment ribs align, then insert the plug straight into the receptacle until it bottoms.
4. Apply inward pressure on the plug — then roll the receptacle collar forward. Make sure the flange seats over the end of the plug as shown in Figure 3.

NOTE

The sealing boot and receptacle collar need NOT be rolled back if suitable lubricant (LPS-1 or equivalent) is available. If lubricant is used to install the sealing boot, apply a thin film to the rear portion of the receptacle. If it is used to install the receptacle, apply a thin film to the inside of the receptacle flange. See Figures 2 and 3.

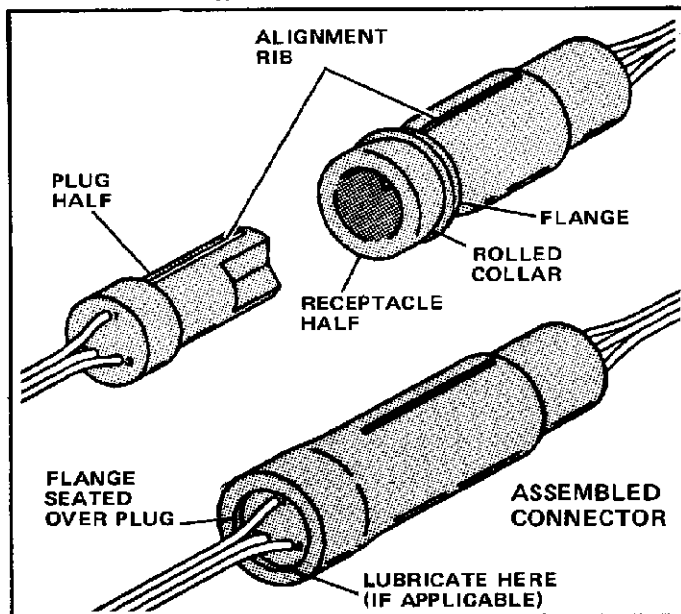


FIGURE 3

6. CONNECTOR SEPARATION

To separate the connector halves, proceed as follows:

1. Roll the collar of the receptacle half back over itself, just enough to expose the plug half.
2. Grasp the plug and receptacle and pull the connector halves apart, using a slight side-to-side motion.