

CONNECTOR ASSEMBLY KIT	CONTACT SIZE	REDUCING BUSHING	
		Part Number	Reduces to Wire Size (AWG)
647891-[]	8	—	—
647892-[]	6	647840-1	12-10
		1445762-1	8
		1445763-1	16-14
647893-[]	10-12	—	—

Figure 1

1. INTRODUCTION

These instructions cover assembly and disassembly of Power Series 50 Connector Assembly Kits 647891-[], 647892-[], and 647893-[].

NOTE
For detailed application requirements, refer to Application Specification 114-13071.

NOTE
Dimensions in this instruction sheet are in millimeters [with inches in brackets]. Figures are not drawn to scale.

Reasons for reissue of this instruction sheet are provided in Section 7, REVISION SUMMARY.

2. DESCRIPTION

Each kit consists of a hermaphroditic housing and two closed barrel contacts. The contacts accept stranded (minimum of 19 strands recommended) copper wire with a maximum insulation diameter of 11.18 [.44]. Wire size (AWG) corresponds to the contact size. A reducing bushing is available for contact size 6 to accommodate smaller wire sizes to a minimum of size 16 AWG. See Figure 1.

The housing features two contact cavities each marked on top of the housing with a plus (+) to indicate positive polarity and a minus (-) to indicate negative polarity. Each housing is color coded to provide visual reference for proper mating and a molded-in mechanical key at the mating face prevents inadvertent mating of different colored housings (housings with same position keys will only engage housings of the same color).

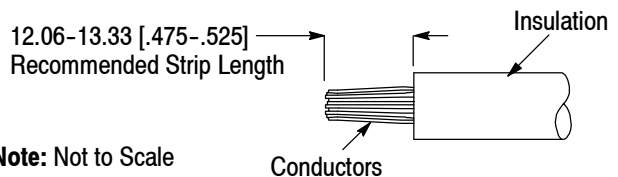
NOTE
Refer to the specific customer drawing for available colors.

3. ASSEMBLY PROCEDURE

These Kits Must Be Assembled by A Qualified Electrician in Accordance with National and Local Electrical Codes and the Following Instructions.

DANGER
To avoid risk of electric shock in applications where the connectors are used external to a device or as the primary means of disconnecting power supplies or charging equipment, care must be taken to avoid touching exposed contacts.

1. Cut the wire to length.
2. Using Cable Stripper/Slitter Tool 606700-1, strip the wire to the dimension given in Figure 2. Be careful not to nick or scrape any part of the wire.
3. Thoroughly clean tarnished copper wire using a stiff wire brush, or other suitable method, that penetrates the entire bundle and cleans every conductor. Restore the wire to a bright copper finish.



Note: Not to Scale

Figure 2

NOTE



The contact wire barrel is lined with silver plating to assure consistently high conductivity which will be reduced if tarnished wire is used.

4. If used, slide the reducing bushing onto the wire conductors to the dimension given in Figure 3. Make sure that the wire insulation DOES NOT enter the reducing bushing and the ends of the conductors are visible.

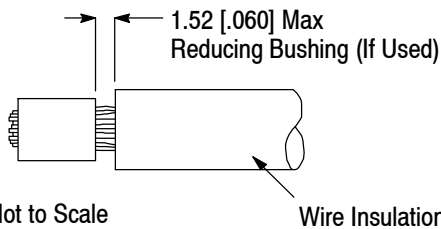


Figure 3

5. Insert the wire conductors into the contact wire barrel until it stops. If used, the reducing bushing must be flush with the contact wire barrel or can protrude from the wire barrel no more than the dimension given in Figure 4. DO NOT allow the insulation to enter the wire barrel.

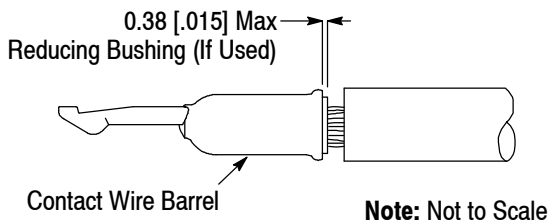


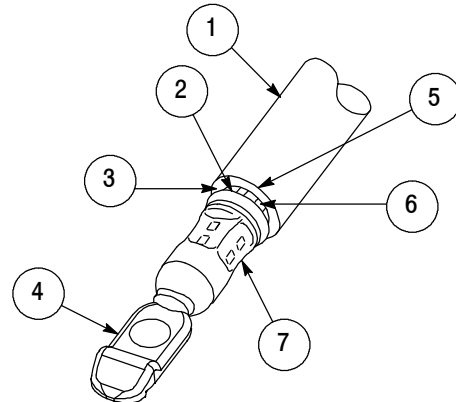
Figure 4

6. Using any of the hand tools given in Figure 5, crimp the contact according to the instructions packaged with the tooling.

7. Inspect the crimp according to the following:

- 1 wire insulation is not cut or broken
- 2 reducing bushing (if used) is flush with, or protrudes slightly from, wire barrel
- 3 wire insulation does not enter wire barrel
- 4 contact is straight and not damaged in any way
- 5 there are no loose conductors or conductors folded over wire insulation
- 6 conductors are visible between reducing bushing (if used) or wire barrel and wire insulation
- 7 crimped area is symmetrical on both sides of wire barrel

Note: Dual-Indent Crimp Shown
Same Criteria Applies to Single-Indent Crimp



TYCO ELECTRONICS (Single-Indent Crimp)		PICO CORPORATION ■ PNEUMATIC HAND TOOL (Dual-Indent Crimp)				
CRIMP TOOL 1526955-1 (408-8540)	AMERICAN ELECTRICAL TERMINAL (AET) HAND TOOL T-406	SERIES	DIE SET	LOCATOR	DIE CLOSURE FOR CONTACT SIZE	
					6 and 8	10-12
Adapter 1527508-1 (Marking A)	Adapter 5992	400	414DA-4583	4582-1	.152 in.	.134 in.
			414DA-4582			
		500	514DA-7033	7033-1		
			514DA-7034			

■ Tooling available from Pacific Industrial Components (PICO) Corporation at <http://www.picotools.com>

Figure 5

8. Refer to Figure 6, and install each contact into the housing as follows:

DANGER

To avoid risk of electric shock, DISCONNECT the electrical supply and DE-ENERGIZE the connectors (this might include disconnecting the cable from the battery) before installing the contacts into the housing.

- a. From the wire side of the housing, align the contact with the appropriate contact cavity making sure that the underside of the contact faces the housing retention spring.
- b. Insert the contact *straight* into the contact cavity until an audible “click” is heard. Slightly pull back on the wire to make sure that the contact is fully latched onto the retention spring.

CAUTION

DO NOT force the contacts into the housing.

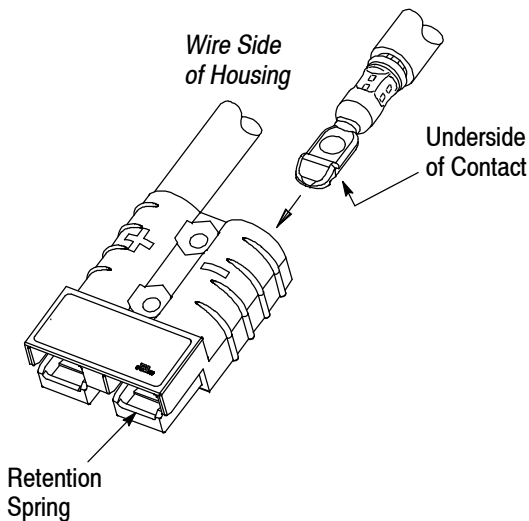


Figure 6

4. MATING (Figure 7)

DANGER

To avoid risk of electric shock, DISCONNECT the electrical supply and DE-ENERGIZE the connectors (this might include disconnecting the cable from the battery) before mating or unmating the connectors.

Align the mating faces of the housings, and push the housings together. DO NOT force the housings to mate. When fully mated, the housings must appear flush at the point of engagement.

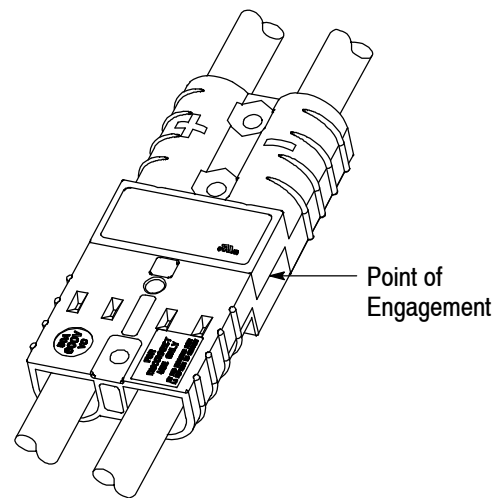


Figure 7

5. DISASSEMBLY

DANGER

To avoid risk of electric shock, DISCONNECT the electrical supply and DE-ENERGIZE the connectors (this might include disconnecting the cable from the battery) before removing the contacts into the housing.

1. Pull the housings straight apart (DO NOT force them to unmate).
2. Using Extraction Tool 68265-1 (or a standard insulated screwdriver with $\frac{1}{4}$ -in. flat blade), remove each contact from the housing as follows:
 - a. At the mating face of the housing, insert the tip of the tool between either side of the contact and the contact cavity.
 - b. Push the handle of the tool toward the bottom (flat side) of the housing so that the housing retention spring is depressed away from the underside of the contact. While holding the tool in position, push the wire in the same direction, and *gently* pull back until the contact is free from the housing.

6. REPLACEMENT AND REPAIR

The contact, housing, and reducing bushing are not repairable. DO NOT use damaged or defective contacts, housings, or reducing bushings. DO NOT re-use terminated contacts or reducing bushings by removing the wire.

7. REVISION SUMMARY

Revisions to this instruction sheet include:

- Updated instruction sheet to corporate requirements
- Changed die set part numbers for pneumatic tool in Figure 5