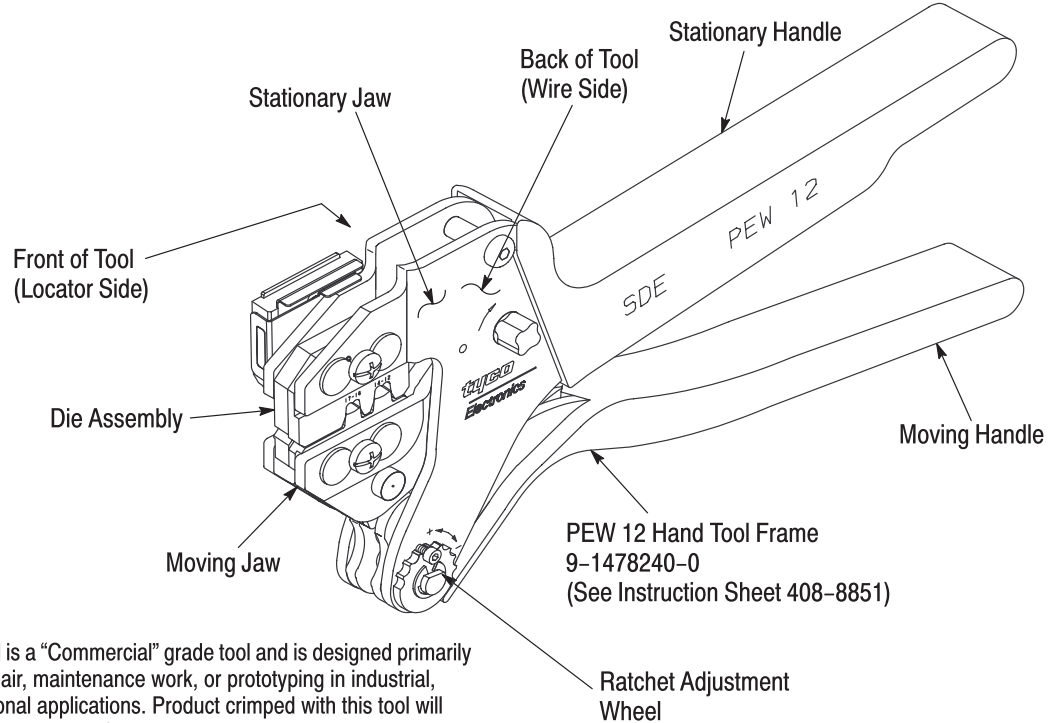


PROPER USE GUIDELINES

Cumulative Trauma Disorders can result from the prolonged use of manually powered hand tools. Hand tools are intended for occasional use and low volume applications. A wide selection of powered application equipment for extended-use, production operations is available.



The PEW 12 Hand Tool is a “Commercial” grade tool and is designed primarily for field installation, repair, maintenance work, or prototyping in industrial, commercial, or institutional applications. Product crimped with this tool will meet the crimp height requirement for hand tools in the appropriate 114 application specification, but may not comply with other feature parameters of the specification. Tyco Electronics offers a variety of tools to satisfy your performance requirements. For additional information, contact the Tooling Assistance Center at 1-800-722-1111.

DIE ASSEMBLY PART NUMBER	TERMINAL FAMILY †	WIRE		
		SIZE (mm ²)	INSUL DIA (mm [in.])	STRIP LENGTH (mm [in.])
2031243-2	.250 Series FASTON* Receptacle	1-1.4	1.91-3.30	5.1-5.9
		2-3	[.075-.130]	[.201-.232]

† Contact the Tooling Assistance Center at the bottom of this page for specific terminal part numbers.

Figure 1

1. INTRODUCTION

PEW 12 Hand Tool Assembly 2031243-1 consists of Die Assembly 2031243-2 and PEW 12 Hand Tool Frame 9-1478240-0. See Figure 1. The die assembly consists of wire and insulation crimping dies. Read these instructions thoroughly before crimping any terminals.



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

Reasons for reissue are provided in Section 10, REVISION SUMMARY.

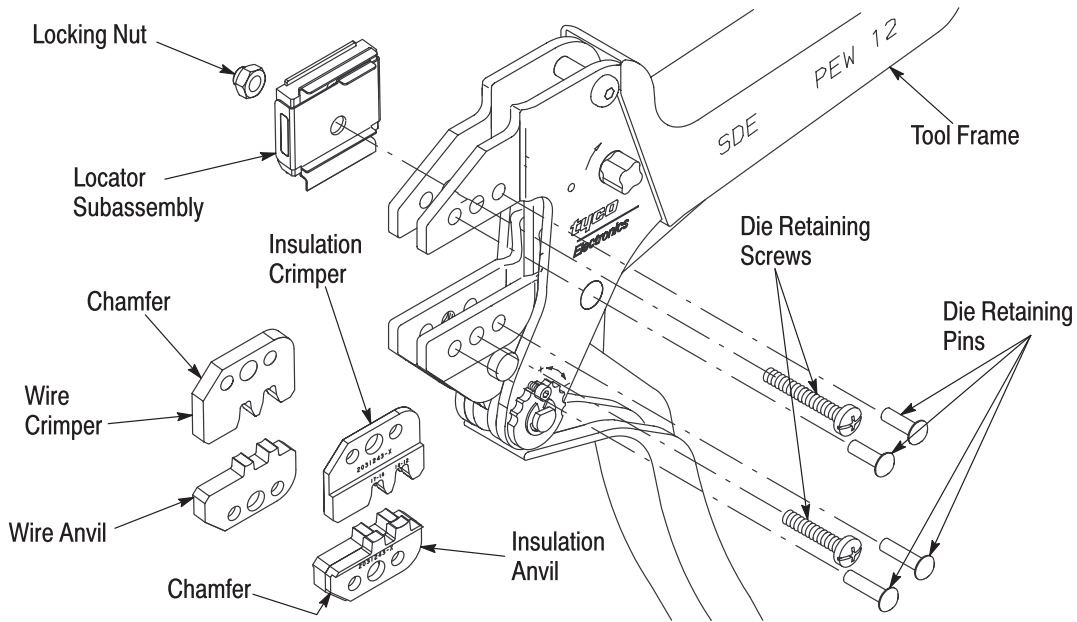


Figure 2

2. DESCRIPTION (Figures 1 and 2)

The tool features a tool frame with a stationary jaw and handle, a moving jaw, a moving handle, and an adjustable ratchet that ensures full contact crimping. The tool frame holds a die assembly with two crimping sections.

The die assembly features a wire anvil, an insulation anvil, a wire crimper, and an insulation crimper.

Die retaining pins and die retaining screws are used to position and secure the dies in the tool frame.

3. INSTALLATION AND REMOVAL OF DIE SET (Figure 2)

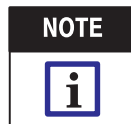
1. Open the tool handles and remove the two die retaining screws from the tool jaws.
2. Place the wire anvil and insulation anvil so that their chamfered sides and their marked surfaces face outward, when mounted in the moving jaw of the tool frame.
3. Insert the two die retaining pins.
4. Insert a die retaining screw through the jaw and through both anvil dies, and tighten the screw just enough to hold the dies in place. Do *not* tighten the screw completely at this time.
5. Place the wire crimper and insulation crimper so that their chamfered sides and their marked surfaces face outward, when mounted in the stationary jaw of the tool frame.
6. Insert the two die retaining pins.

7. Insert a die retaining screw through the jaw and through both crimper dies, and tighten the screw just enough to hold the dies in place. Do *not* tighten the screw completely at this time.

8. Carefully close the tool handles, making sure that the anvils and crimpers align properly. Continue closing the tool handles until the ratchet in the tool frame has engaged sufficiently to hold the anvils and crimpers in place, then tighten both die retaining screws.

9. To disassemble, close the tool handles until the ratchet releases, remove the two die retaining screws and the four die retaining pins, and slide the anvils and crimpers out of the tool jaws.

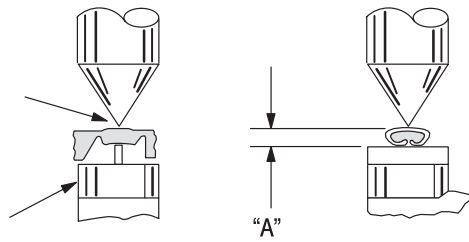
4. CRIMPING PROCEDURE



This tool is provided with a crimp adjustment feature. Initially, the crimp height should be verified as specified in Figure 4. Refer to Section 5, CRIMP HEIGHT INSPECTION, and Section 6, CRIMP HEIGHT ADJUSTMENT, to verify crimp height before using the tool to crimp desired terminals and wire sizes.

Refer to the table in Figure 1 and select wire of the specified size and insulation diameter. Strip the wire to the length indicated in Figure 1, taking care not to nick or cut wire strands. Select an applicable terminal and identify the appropriate crimp section according to the wire size markings on the tool. Refer to Figure 3 and proceed as follows:

1. Hold the tool so that the back (wire side) is facing you. Squeeze tool handles together and allow them to open fully.



WIRE SIZE mm ² (MAX)	CRIMP SECTION (WIRE SIZE MARKING)	CRIMP HEIGHT DIM. (A) AND TOLERANCE (±)
1.4	1-1.4	1.45 ± .05 [.057 ± .002]
3	2-3	1.73 ± .05 [.068 ± .002]

Figure 4

6. CRIMP HEIGHT ADJUSTMENT (Figure 5)

1. Remove the lock screw from the ratchet adjustment wheel.
2. With a screwdriver, adjust the ratchet wheel from the front side of the tool.

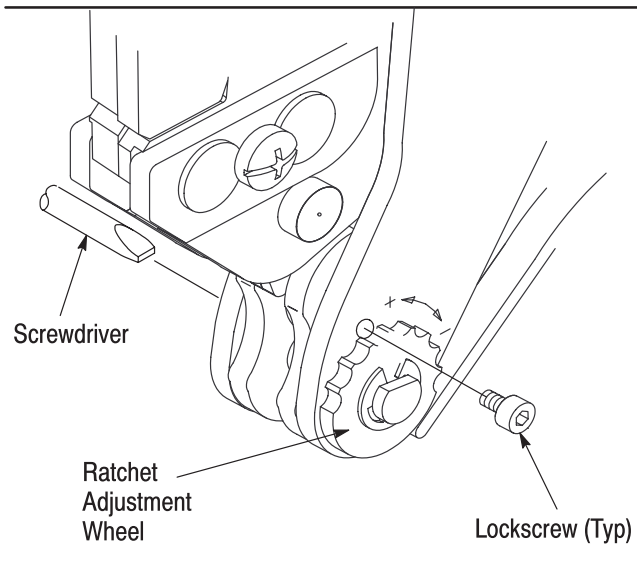


Figure 5

3. Observe the ratchet adjustment wheel. If a tighter crimp is required, rotate the adjustment wheel COUNTERCLOCKWISE to a higher-numbered setting. If a looser crimp is required, rotate the adjustment wheel CLOCKWISE to a lower-numbered setting.

4. Replace the lock screw.

5. Make a sample crimp and measure the crimp height. If the dimension is acceptable, replace and secure the lock screw. If the dimension is unacceptable, continue to adjust the ratchet, and again measure a sample crimp.

7. MAINTENANCE

Ensure that the tool and dies are clean by wiping them with a clean, soft cloth. Remove any debris with a clean, soft brush. Do not use objects that could damage the tool. When not in use, keep handles closed to prevent objects from becoming lodged in the crimping dies, and store in a clean, dry area.

8. VISUAL INSPECTION

The crimping dies should be inspected on a regular basis to ensure that they have not become worn or damaged. Inspect the crimp sections for flattened, chipped, worn, or broken areas. If damage or abnormal wear is evident, the tool must be replaced. See Section 9, REPLACEMENT.

9. REPLACEMENT

Customer-replaceable parts are shown in Figure 1. Available separately, Repair Kit 679221-1 includes a replacement nut and a variety of pins, rings, screws, and springs. If the dies are damaged or worn excessively, they must be replaced. Order the repair kit and replaceable parts through your Tyco Electronics Representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

CUSTOMER SERVICE (38-35)
 TYCO ELECTRONICS CORPORATION
 P.O. BOX 3608
 HARRISBURG, PA 17105-3608

10. REVISION SUMMARY

- Updated document to corporate requirements
- Changed PRO-CRIMPER* III artwork to PEW 12 artwork in all instances