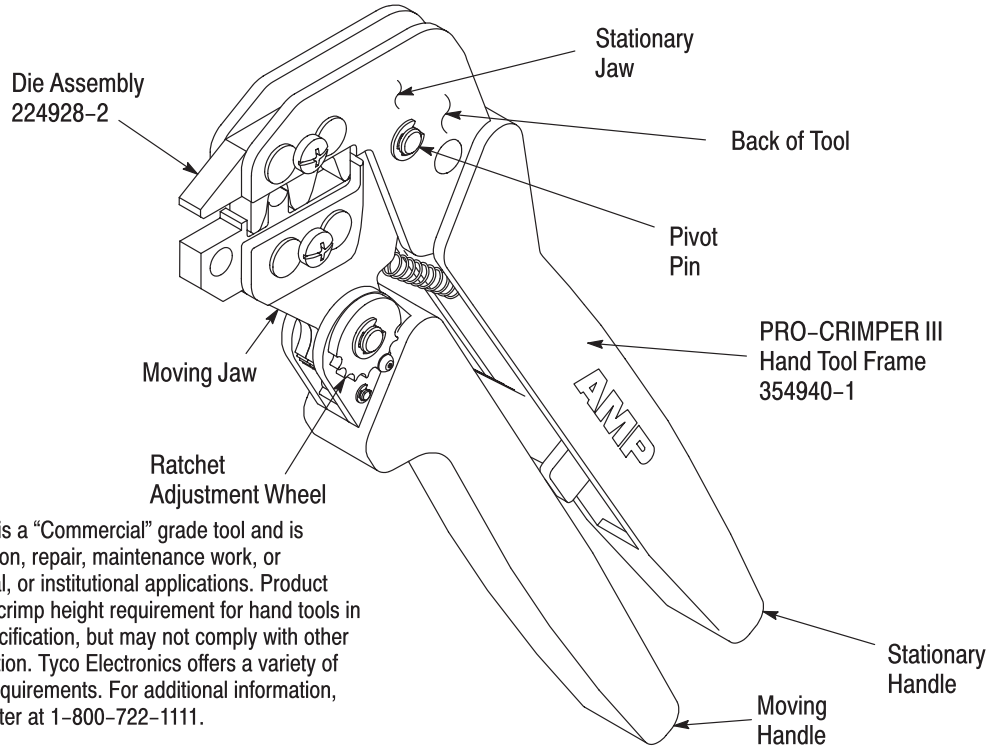


PROPER USE GUIDELINES

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 PRO-CRIMPER III 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	CONNECTOR FAMILY‡	CABLE	
		TYPE	INSUL DIA (mm [in.])
224928-2	Modular Plug Connectors (External Strain Relief Application)	Stranded or Solid, Unshielded or Shielded Round Jacket	4.70-5.46 [.185-.215]

‡ Contact the Tooling Assistance Center (see below) for specific connector part numbers.

Figure 1

1. INTRODUCTION

PRO-CRIMPER III Hand Tool Assembly 224928-1 consists of Die Assembly 224928-2 and PRO-CRIMPER III Hand Tool Frame 354940-1. The die assembly consists of two crimping dies. Read these instructions thoroughly before crimping any connectors.

Reason for revision is provided in Section 9, REVISION SUMMARY.

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 external strain relief crimping. The tool frame holds a die assembly with a seating chamber and two crimping chambers.

The die assembly features an indenter die and an anvil die.

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



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.

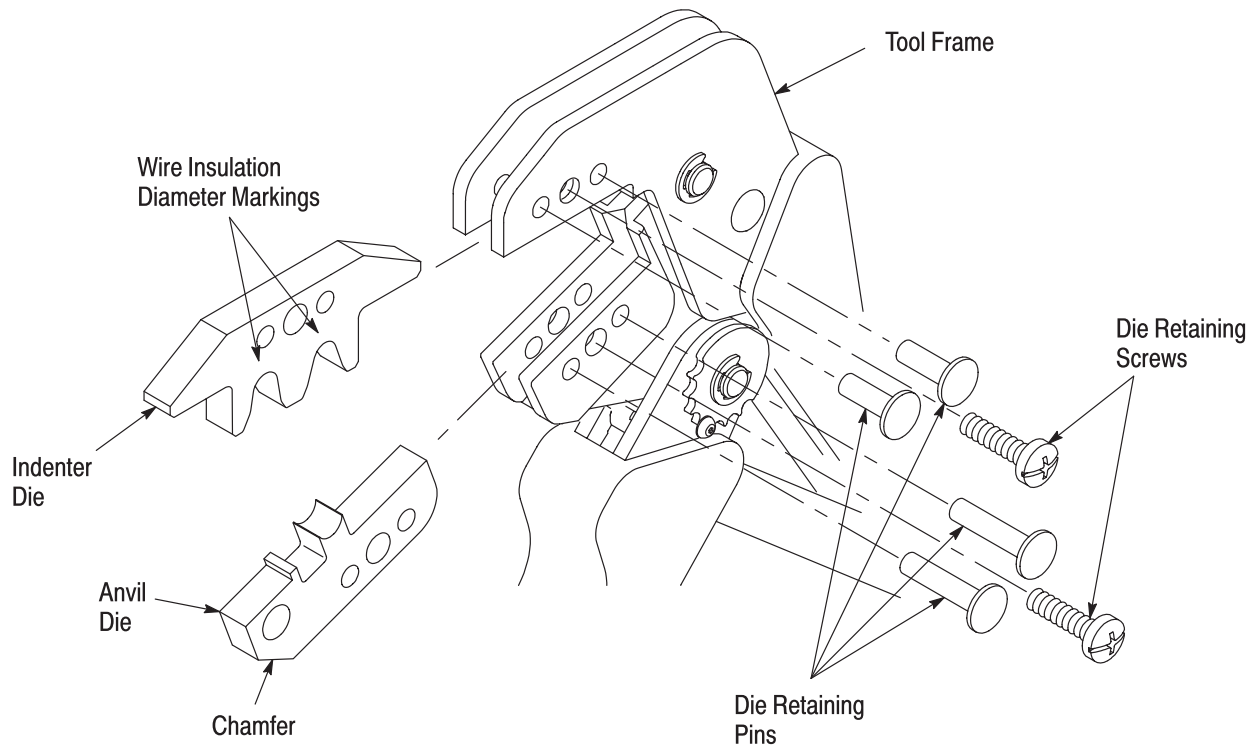


Figure 2

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

1. Open the tool handles and remove the two die retaining screws from the tool jaws.
2. Place the anvil die so that the chamfered side faces outward when mounted in the moving jaw of the tool frame.
3. Insert the two die retaining pins.
4. Insert the die retaining screw through the jaw and through the anvil die, and tighten the screw just enough to hold the die in place. Do *not* tighten the screw completely at this time.
5. Observe the wire insulation diameter markings on the indenter die. Place the indenter die so that the crimping chamber to be used is facing outward when mounted in the stationary jaw of the tool frame.
6. Insert the two die retaining pins.
7. Insert the die retaining screw through the jaw and the indenter die, and tighten the screw just enough to hold the die in place. Do *not* tighten the screw completely at this time.
8. Carefully close the tool handles, making sure that the anvil and indenter align properly. Continue closing the tool handles until the ratchet in the tool frame has engaged sufficiently to hold the anvil

and indenter 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 anvil and indenter out of the tool jaws.

4. CRIMPING PROCEDURE

Assemble the modular plug connector according to Application Specification 114-6016. Insert the external strain relief into the modular plug as shown in Figure 3, Detail A, and proceed as follows:

1. Squeeze tool handles together and allow them to open fully.
2. Position the modular plug assembly in the seating chamber on the anvil die as shown in Figure 3, Detail B. Make sure that the external strain relief faces the indenter die and that the support barrel does not enter the seating chamber.
3. Hold the modular plug assembly in position and squeeze the tool handles together until ratchet releases. Allow tool handles to open and remove the modular jack assembly.
4. Position the modular plug assembly in the crimping chamber on the anvil die so that the opening in the external strain relief support barrel faces the indenter die. Make sure the back of the modular plug butts against the edge of the die. See Figure 3, Detail C.



CAUTION Make sure that both sides of the support barrel are started evenly into the crimping chamber. Do NOT attempt to crimp an improperly positioned modular plug assembly.

5. Holding the modular plug assembly in place, squeeze tool handles together until ratchet

releases. Allow tool handles to open and remove crimped modular plug assembly.

6. Check the external strain relief for a proper crimp as shown in Figure 4. If necessary, adjust the crimp height as described in Section 5, CRIMP HEIGHT ADJUSTMENT.

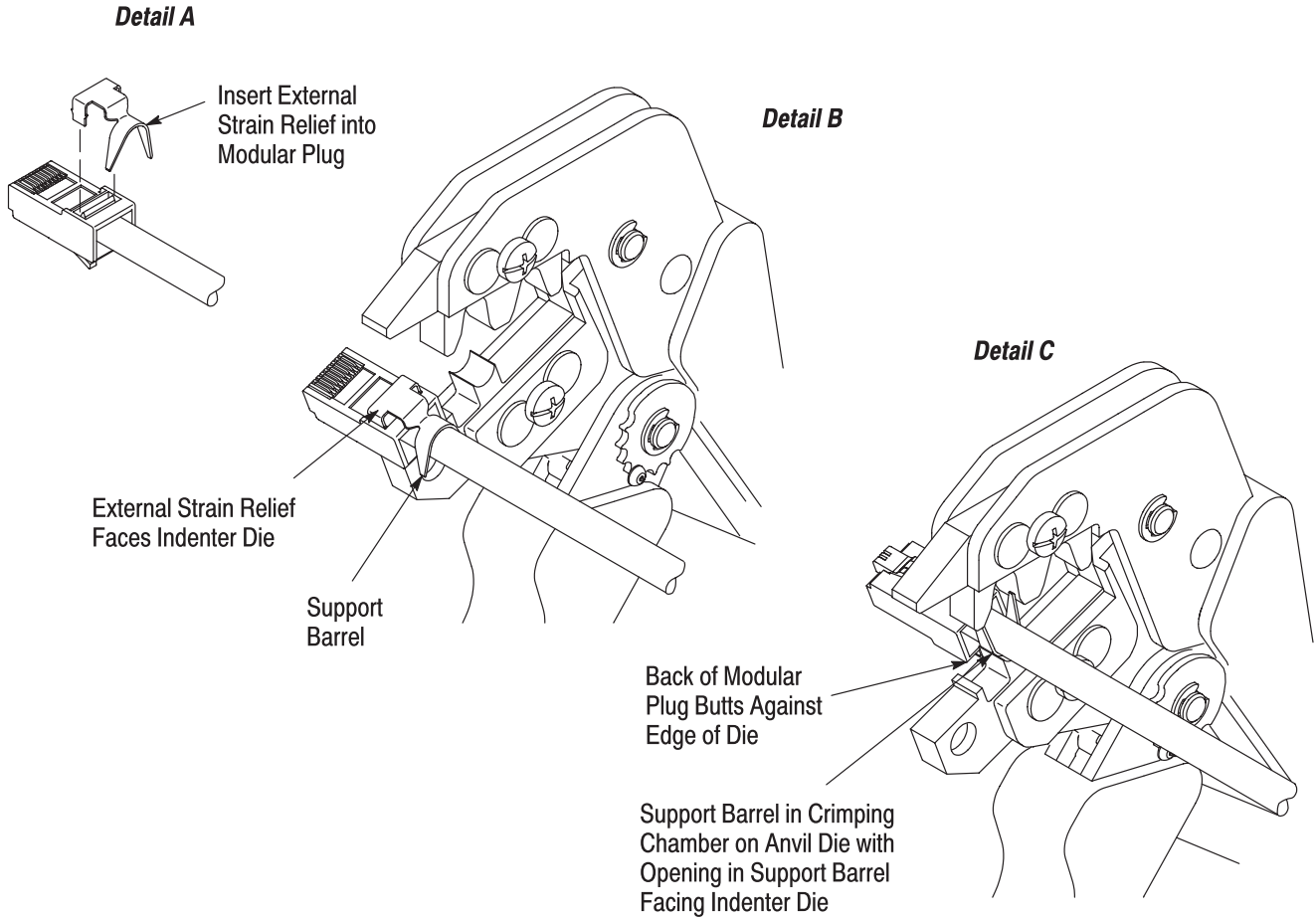


Figure 3

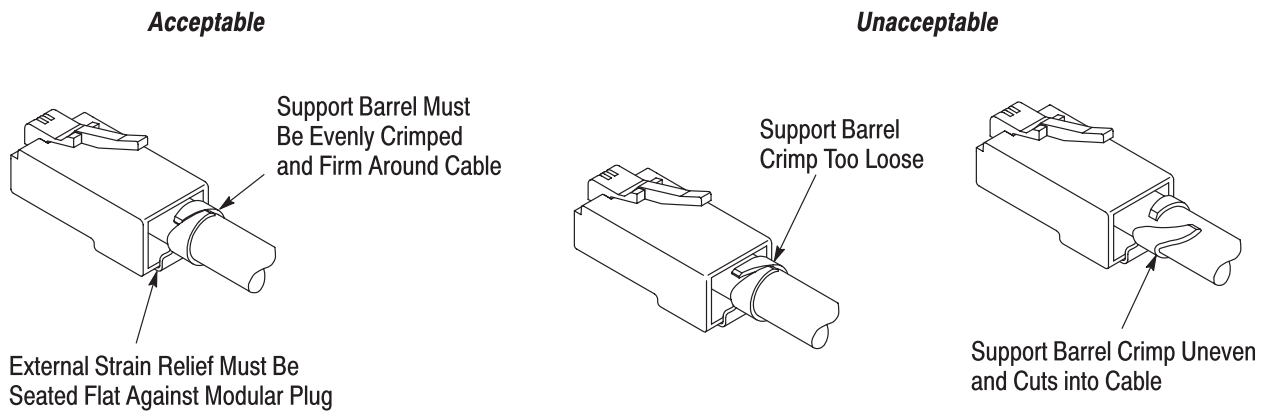
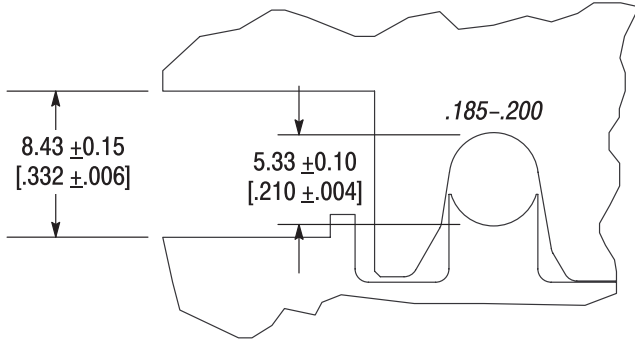


Figure 4

5. CRIMP NEST

The crimp nest may be removed and rotated 180° to accommodate two sizes of insulation. Dimensions for these wire insulation sizes are shown in Figure 5.

For 4.70–5.08 mm [.185–.200 in.] Insulation Dia.



For 5.08–5.46 mm [.200–.215 in.] Insulation Dia.

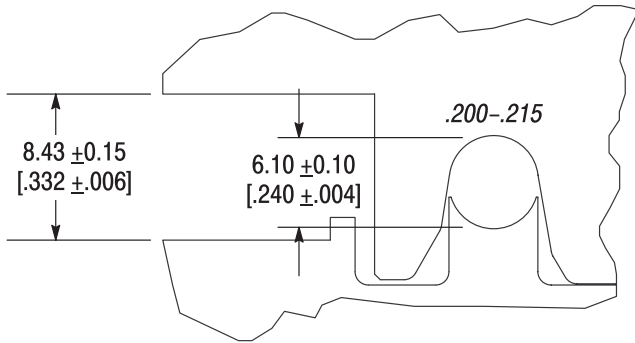


Figure 5

6. CRIMP HEIGHT ADJUSTMENT (Figure 6)

1. Remove the lock screw from the ratchet adjustment wheel.
2. With a screwdriver, adjust the ratchet wheel from the back of the tool.
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 visually check the crimp height (refer to Figure 4). If the crimp is acceptable, replace and secure the lock screw. If the crimp 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 crimping chambers for flattened, chipped, worn, or broken areas. If damage or abnormal wear is evident, the tool must be replaced. See Section 9, REPLACEMENT.

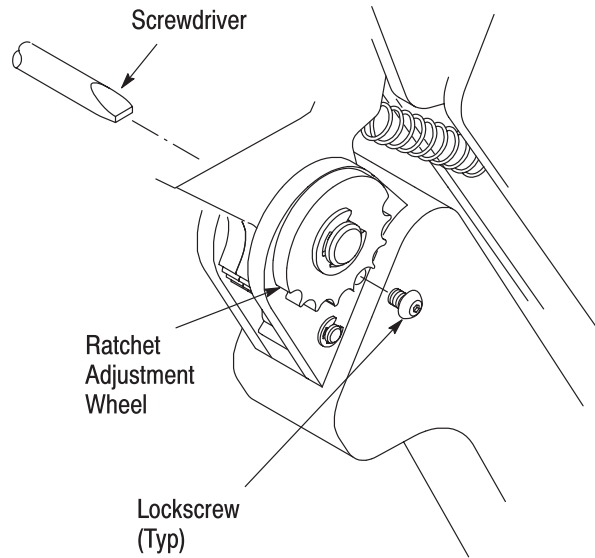


Figure 6

9. REPLACEMENT

Customer-replaceable parts are shown in Figure 1. If the dies are damaged or worn excessively, they must be replaced. Order 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
- Added new Section 5, and renumbered
- Added new Figure 5 and renumbered