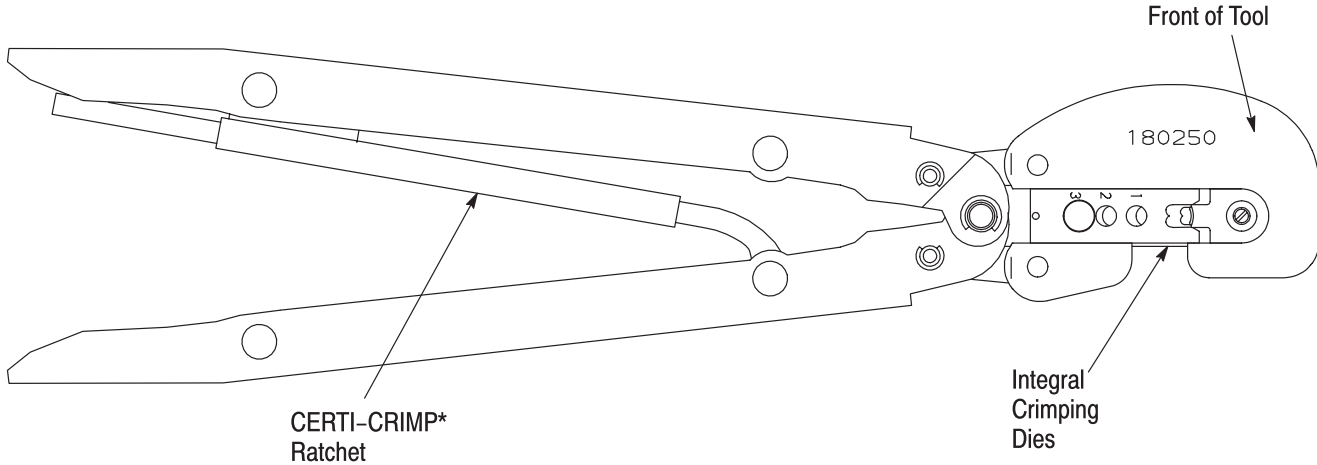


PROPER USE GUIDELINES

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.



CONTACT TYPE	CONTACT SIZE (SERIES)	CONTACT PART NUMBER	INSULATION DIAMETER RANGE	WIRE SIZE RANGE (mm ²)
FASTON*	250	1-160305-3 1-160305-4 1-160305-6 1-160305-8 1-160305-9	3.8-5.0 [.150-.197]	4.0-6.0
		180367-2	3.8-5.1 [.150-.201]	
	375	5-160550-1 5-160550-2 5-160550-3	3.8-5.0 [.150-.197]	
FASTIN-FASTON*	375	182490-1 182490-2 182490-3	3.8-5.1 [.150-.201]	
POSITIVE LOCK	250	737015-5	3.4-5.1 [.134-.201]	

Figure 1

1. INTRODUCTION

This instruction sheet covers the application and maintenance procedures for the Heavy Head Hand Crimping Tool 180250. See Figure 1. The hand tool is used to crimp a variety of receptacle contacts listed in the table in Figure 1. Read all instructions thoroughly before proceeding.

NOTE Dimensions in this instruction sheet are in millimeters [with inches in brackets]. Figures and illustrations are for reference only and are not drawn to scale.

Reasons for reissue of this instruction sheet are provided in Section 6, REVISION SUMMARY.

2. DESCRIPTION

The tool features an integral die set for crimping and a CERTI-CRIMP Ratchet to ensure full contact crimping. The FRONT of the tool is marked with the tool part number.

3. CRIMPING PROCEDURE

NOTE The crimp height should be verified as specified in Figure 3. Refer to Section 4, MAINTENANCE and INSPECTION PROCEDURE, Paragraph 4.2.C, CERTI-CRIMP Ratchet Inspection.

Refer to the table in Figure 1 and select the correct insulation diameter and wire size for the specified receptacle contact.

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

2. Holding the receptacle contact by the mating end, insert it through the tool and into the crimp section.



The contact must be inserted with the open side of the insulation and wire barrel positioned toward the movable crimping jaw.

3. The contact insulation and wire barrels must be positioned in the crimp section as shown in Figure 2.



Make sure both sides of the insulation barrel are started evenly into the crimper jaws. Do NOT attempt to crimp an improperly positioned contact.

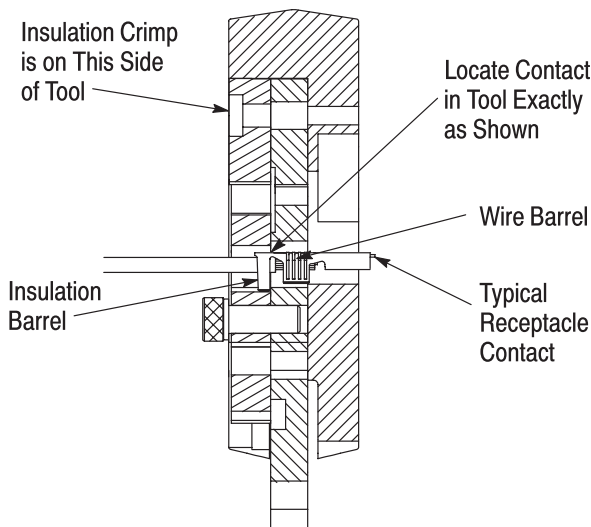


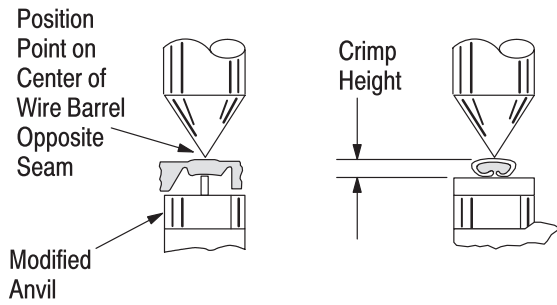
Figure 2

4. Squeeze the tool handles together until the ratchet engages sufficiently to hold the contact in position. Do NOT deform the insulation barrel or wire barrel.

5. Insert the stripped wire into the contact insulation barrel and wire barrel.

6. Holding the wire in place, squeeze the tool handles together until the ratchet releases. Allow the tool handles to open, and remove the contact.

7. After crimping the contact, the crimp height must be within the crimp range as provided in Figure 3.



CONTACTS	WIRE SIZE RANGE (mm ²)	CRIMP HEIGHT RANGE
See Figure 1	4-6	2.54-2.44 [.100-.096]

Figure 3



Damaged contacts should not be used. If a damaged contact is evident, it should be cut from the wire and replaced with a new one. Contacts may NOT be reterminated.

4. MAINTENANCE AND INSPECTION PROCEDURE

Tyco Electronics recommends that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations. Though recommendations call for at least one inspection a month, frequency of inspection depends on:

1. The care, amount of use, and handling of the hand tool.
2. The presence of abnormal amounts of dust and dirt.
3. The degree of operator skill.
4. Your own established standards.

The hand tool is inspected before being shipped; however, Tyco Electronics recommends that the tool be inspected immediately upon arrival to ensure that the tool has not been damaged during shipment.

4.1. Daily Maintenance

1. Hand tool should be immersed (handles partially closed) in a reliable commercial degreasing compound to remove accumulated dirt, grease, and foreign matter. When degreasing compound is not available, tool may be wiped clean with a soft, lint-free cloth. Do NOT use hard or abrasive objects that could damage the tool.
2. Make certain that the retaining pins are in place and that they are secured with retaining rings.
3. All pins, pivot points, and bearing surfaces should be protected with a THIN coat of any good SAE 20 motor oil. Do not oil excessively.
4. When the tool is not in use, keep handles closed to prevent objects from becoming lodged in the crimping jaws. Store the tool in a clean, dry area.

4.2. Periodic Inspection

A. Lubrication

Lubricate all pins, pivot points, and bearing surfaces with SAE 20 motor oil as follows:

- Tool used in daily production – lubricate daily
- Tool used daily (occasional) – lubricate weekly
- Tool used weekly – lubricate monthly

Wipe excess oil from tool, particularly from crimping area. Oil transferred from the crimping area onto certain terminations may affect the electrical characteristics of an application.

B. Visual Inspection

1. Close tool handles until ratchet releases and then allow them to open freely. If they do not open quickly and fully, the spring is defective and must be replaced. See Section 5, REPLACEMENT AND REPAIR.
2. Inspect head assembly for worn, cracked, or broken jaws. If damage is evident, return the tool to Tyco Electronics for evaluation and repair. See Section 5, REPLACEMENT AND REPAIR.

C. CERTI-CRIMP Ratchet Inspection

The CERTI-CRIMP ratchet feature on Tyco Electronics hand tools should be checked to ensure that the ratchet does not release prematurely, allowing the jaws to open before they have fully bottomed. Obtain a 0.025 mm [.001 in.] shim that is suitable for checking the clearance between the bottoming surfaces of the crimping jaws. Proceed as follows:

1. Position the connector and wire between the crimping jaws, as described in Section 3, CRIMPING PROCEDURE.

2. Hold the wire in place and squeeze the handles until the CERTI-CRIMP ratchet releases. Hold the handles in this position, maintaining just enough tension to keep the jaws closed.

3. Check the clearance between the bottoming surfaces of the crimping jaws. If the clearance is 0.025 mm [.001 in.] or less, the ratchet is satisfactory. If clearance exceeds 0.025 mm [.001 in.], the ratchet is out of adjustment and must be repaired. Return the tool to Tyco Electronics for adjustment.

5. REPLACEMENT AND REPAIR

Heavy Head Hand Crimping Tool 180250 is inspected prior to shipment. It is recommended that it be inspected upon arrival to ensure that it has not become damaged during shipping.

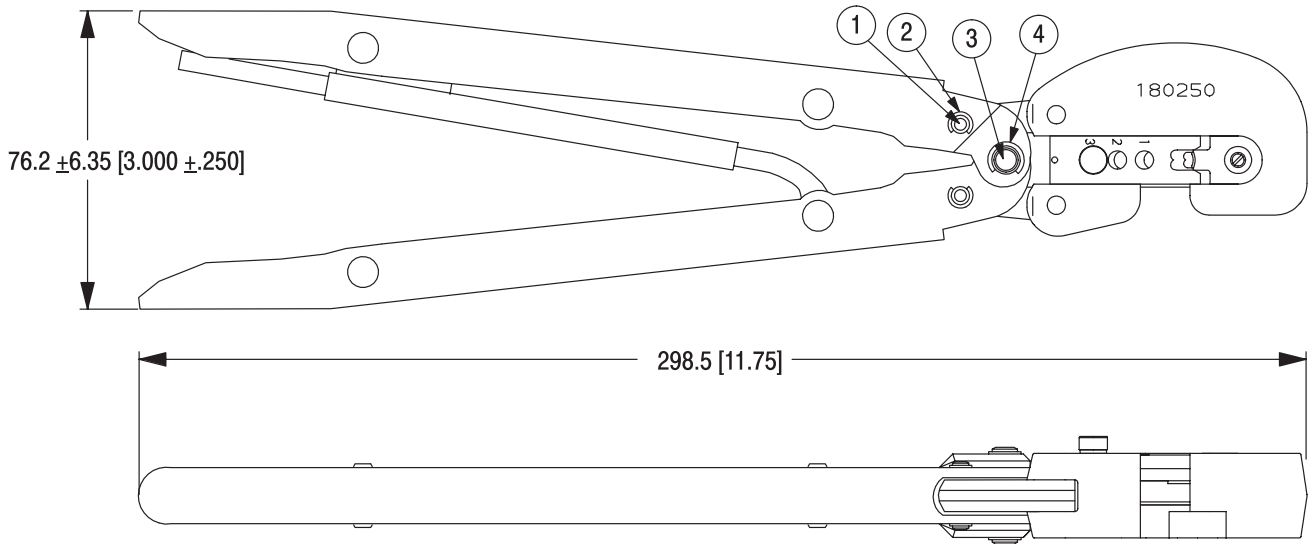
Replacement parts are listed in Figure 4. Parts other than those listed in Figure 4 should be replaced by Tyco Electronics to ensure quality and reliability of the tool. Order additional tools or replacement parts through your Tyco Electronics Representative, or call 1-800-526-5142, or send a facsimile 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

6. REVISION SUMMARY

This paragraph is reserved for a revision summary covering the most recent additions and changes made to this document which include the following:

- Updated document to corporate requirements
- Changed artwork in Figure 2



Weight: 59.5 g [2.1 lb.]

REPLACEMENT PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY PER ASSY
1	300388	PIN, Retaining	2
2	21045-3	RING, Retaining	4
3	300389	PIN, Retaining	1
4	21045-6	RING, Retaining	2

Figure 4