

**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.

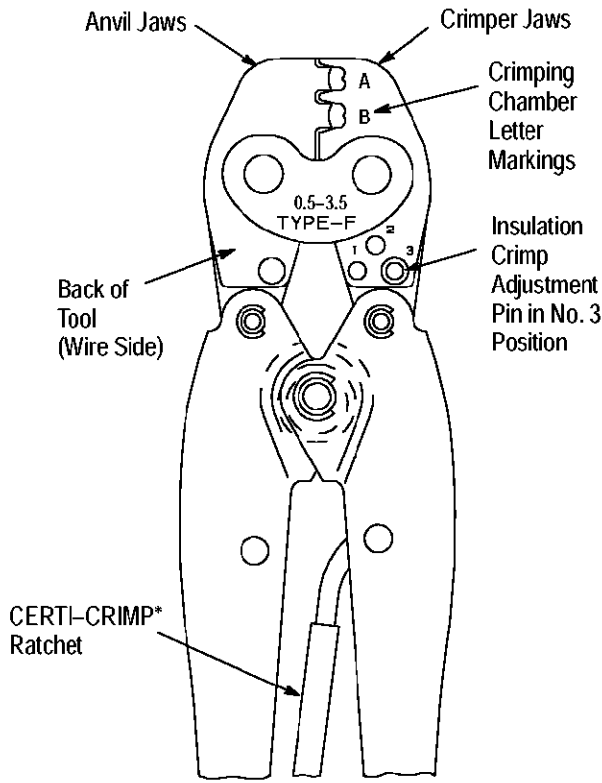


Figure 1

**1. INTRODUCTION**

AMP\* Double Action Hand Crimping Tool 576808 is designed to crimp 3mm Lanced Pin and Socket Terminals listed in Figure 2 to stranded wire. Read these instructions thoroughly before crimping any product.

**NOTE** Dimensions on this sheet are in metric units [followed by inches in brackets]. Figures and illustrations are for identification only and are not drawn to scale.

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

**2. DESCRIPTION**

The hand tool features two crimping jaws, each consisting of an anvil and a crimper. When closed, the jaws form two crimping chambers, each marked on the BACK side of the tool with the letters A and B.

The CERTI-CRIMP ratchet ensures full crimping of the terminals. Once engaged, the ratchet will not

release until the tool handles have been FULLY closed.

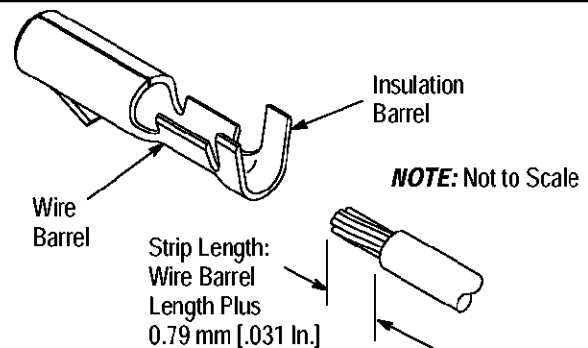
**CAUTION** The crimping jaws bottom before the CERTI-CRIMP ratchet releases. This is a design feature that ensures maximum electrical and tensile performance of the crimp. Do NOT re-adjust the ratchet.

**3. CRIMPING PROCEDURE**

Select the appropriate terminal and wire size, making sure they are compatible.

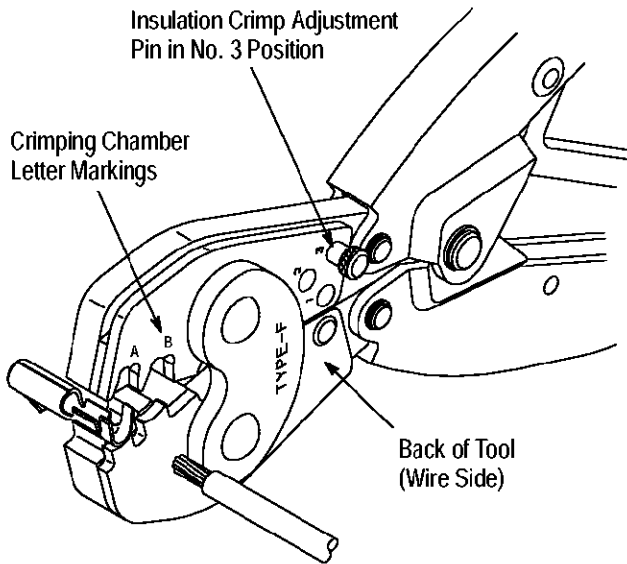
The wire size and insulation diameter must be within the specified range for the terminal. Strip the wire to the length shown in Figure 2. Do NOT nick or cut the wire strands. Then, proceed as follows:

1. Hold tool so that the BACK side is facing you.
2. Make certain that the ratchet is released by squeezing the tool handles and allowing them to open fully.
3. Looking straight into the back of appropriate crimp section, insert terminal (insulation barrel first) into the front of the crimp section. Position terminal in crimpers so the center of the terminal wire barrel is in-line with the center of the wire barrel crimping jaw.



TERMINAL NUMBER	WIRE SIZE		CRIMP LETTER	INSUL. DIA. RANGE
	mm <sup>2</sup>	AWG		
153210-[ ] (Pin)	0.5-1.5	20-16	A	2.03 - 3.05 [.080 - .120]
153211-[ ] (Pin)				
153226-[ ] (Socket)	2.0-3.5	14-12	B	3.07 - 4.06 [.121 - .160]
153227-[ ] (Socket)				

Figure 2



*Figure 3*

4. Hold terminal in this position and squeeze tool handles together until jaws close just enough to retain terminal. Do not deform wire barrel or insulation barrel.
5. Insert a properly stripped wire through wire slot and into wire barrel of terminal.
6. Hold the wire in place and squeeze the tool handles until the ratchet releases.

**CAUTION** *Squeezing the handles together too much will deform the wire barrel.*

7. Allow the tool handles to open fully and remove the crimped terminal.

#### **4. INSULATION CRIMP ADJUSTMENT**

The hand tool has three insulation crimping adjustment positions to adjust the wire insulation grip: 1–Tight, 2–Medium, and 3–Loose. To obtain the desired insulation grip, proceed as follows:

1. Insert pins into the No. 3 position, as shown in Figure 3.
2. Position terminal into crimping jaws, as described in Section 3, Steps 3 and 4.
3. Insert an unstripped wire just into the insulation barrel sleeve.
4. Crimp the terminal using the procedure described in Section 3, Steps 5 through 7. Remove

the crimped terminal from the crimping jaws and check the insulation support by bending the wire back and forth once. The insulation barrel sleeve should retain grip on the wire insulation. If the wire pulls out, move the insulation adjustment pins to the next tighter position (No. 2) and proceed to Step 5. If the wire does not pull out, the pins are properly adjusted and the tool is ready for crimping.

5. Perform another test crimp, as described in Step 4. Adjust pins, as necessary, until the desired insulation grip is obtained. *Do not* use a tighter setting than is required.

#### **5. MAINTENANCE AND INSPECTION PROCEDURE**

Tyco 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 recommends that the tool be inspected immediately upon arrival to ensure that the tool has not been damaged during shipment.

##### **5.1. 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.

## 5.2. 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 6, REPLACEMENT AND REPAIR.
2. Inspect head assembly for worn, cracked, or broken jaws. If damage is evident, return the tool to Tyco for evaluation and repair. See Section 6, REPLACEMENT AND REPAIR.

### C. CERTI-CRIMP Ratchet Inspection

The CERTI-CRIMP ratchet feature on the 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 [.001] shim that is suitable for checking the clearance between the bottoming surfaces of the crimping jaws. Proceed as follows:

1. Select a terminal and **maximum** size wire for the tool.

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

3. 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.

4. Check the clearance between the bottoming surfaces of the crimping jaws. If the clearance is 0.025 [.001] or less, the ratchet is satisfactory. If clearance exceeds 0.025 [.001], the ratchet is out of adjustment and must be repaired. See Section 6, REPLACEMENT AND REPAIR.

## 6. REPLACEMENT AND REPAIR

The parts listed in Figure 4 are customer-replaceable. A complete inventory can be stocked and controlled to prevent lost time when replacement of parts is necessary. Order 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

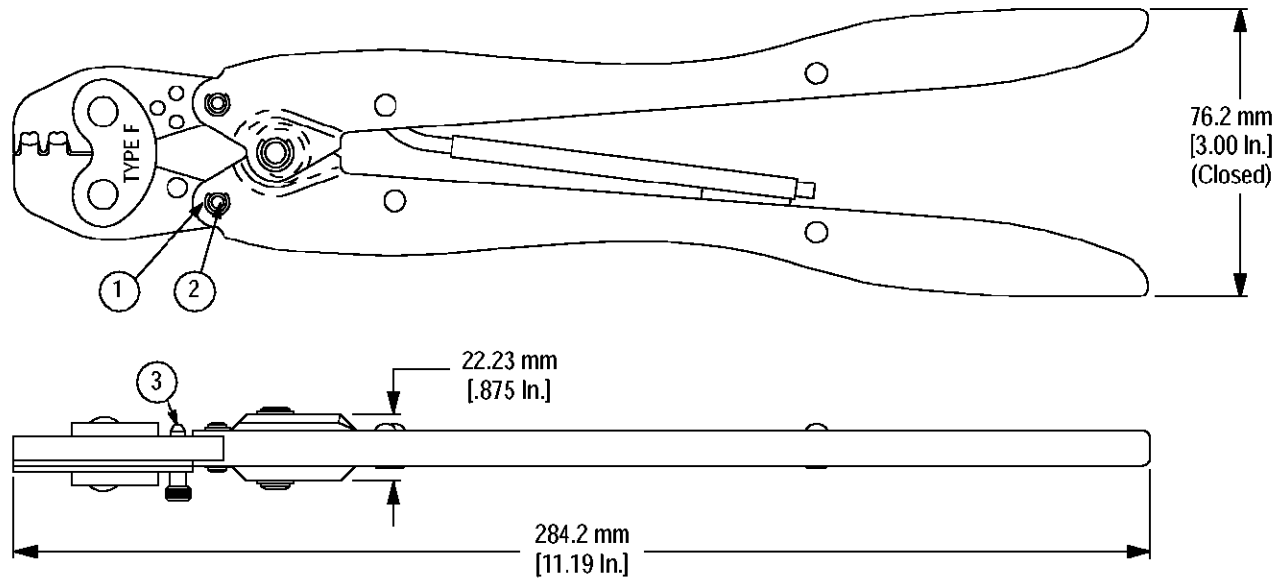
For tool repair service, contact a representative at 1-800-526-5136.

## 7. REVISION SUMMARY

Since the previous release of this document, the following changes have been made:

Per EC 0990-1238-00

- Updated document to corporate requirements



**NOTE:** Not to Scale

**Weight:** Approximately 594 g [1 lb. 5 oz.]

**REPLACEMENT PARTS**

ITEM	PART NUMBER	DESCRIPTION	QTY PER ASSY
1	21045-3	RING, Retaining	4
2	1-23619-6	PIN, Retaining	2
3	39207	PIN, Adjustment	2

Figure 4