

Double Action Hand Crimping Tools 574868, 574869, 574870, 575050, and 576798

Instruction Sheet 411–1038 05 DEC 00 Rev A

#### **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.



### **1. INTRODUCTION**

AMP\* Double Action Hand Crimping Tools 574868, 574869, 574870, 575050, and 576798 are designed to crimp a variety of Taper Pins and FASTON\* Receptacles. For product information, refer to catalog 82016 for Taper Pins and catalog 82004 for FASTON Receptacles. If further product information is needed, contact the number listed at the bottom of this page. 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 6, REVISION SUMMARY.

### 2. DESCRIPTION

The hand tool features two crimping jaws, each consisting of an anvil and a crimper. When closed, the

Figure 1

This controlled document is subject to change.

For latest revision call the AMP FAX\* number.

jaws form a crimping chamber. The wire size range is marked on the link (Figure 1).

The CERTI-CRIMP ratchet ensures full crimping of the contact. 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 contact and wire size, making sure they are compatible.

The wire size and insulation diameter must be within the specified range for the contact. 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.

**tyco** | Electronics



Figure 2

2. Open the crimping jaws by squeezing the tool handles together until the CERTI-CRIMP ratchet releases.

3. Insert contact barrel into the crimping area as shown in Figure 3. Make sure the tool locator enters the receptacle locator slot.



Figure 3

4. Squeeze tool handles together just enough to hold the contact in place.



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

5. Insert stripped wire into contact barrel from BACK side of tool. Make sure insulation does NOT enter wire barrel.

6. Holding wire in place, squeeze tool handles together FULLY. Open tool handles and remove crimped contact.

## 4. 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.

### 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 for evaluation and repair. See Section 5, 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 contact and **maximum** size wire for the tool.

2. Position the contact 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 5, REPLACEMENT AND REPAIR.

### 5. 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.

### 6. REVISION SUMMARY

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

Per EC 0990-1184-00

• Updated document to corporate requirements



Figure 4