

**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.

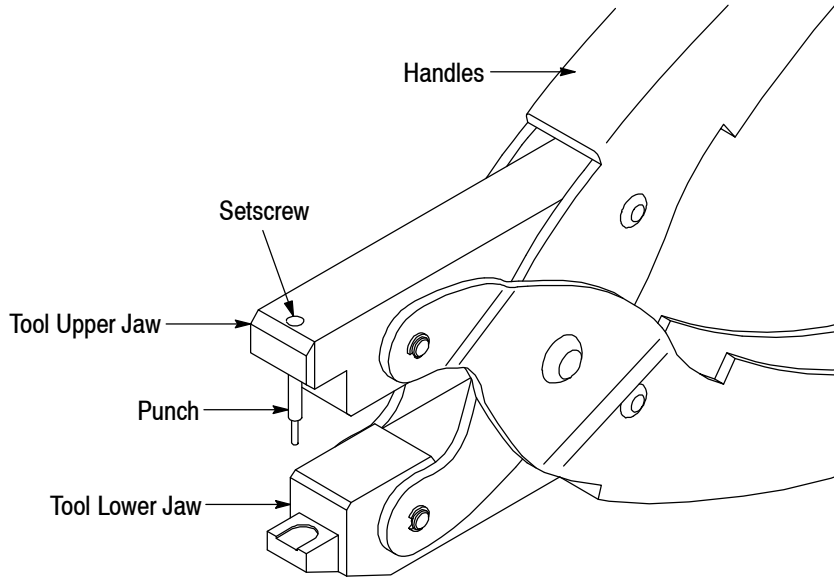
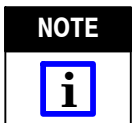


Figure 1

**1. INTRODUCTION**

Clinching Tool 91117-6 is designed to install external keys into Mini-Box pin headers to provide polarization of mating connectors. Read these instructions thoroughly before using the tool.



*Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale.*

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

**2. DESCRIPTION** (Figure 1)

The clinching tool features an upper jaw and a lower jaw. The upper jaw contains a replaceable punch which clinches the key in the pin header. The lower jaw supports the rivet and header when the tool handles are closed.

**3. CLINCHING PROCEDURE**

Before starting, be sure that the pin header and external key are compatible. Also, close the tool

handles and measure the distance between the punch tip and the lower jaw. If necessary, adjust the setscrew to obtain a clearance of 0.508 mm [.020 in.]. See Figure 2.

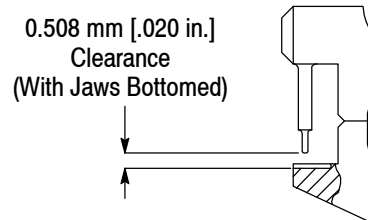


Figure 2

Refer to Figure 3, and proceed as follows:

1. Determine the keying position required.
2. Place key into cavity at desired position.



*The clinching tool can be used for simultaneous installation of key and rivet into brown pin headers. However, for black or gray pin headers, the key must be inserted using Clinching Tool 91117-2 (see 408-7894), before securing key with rivet using this clinching tool.*

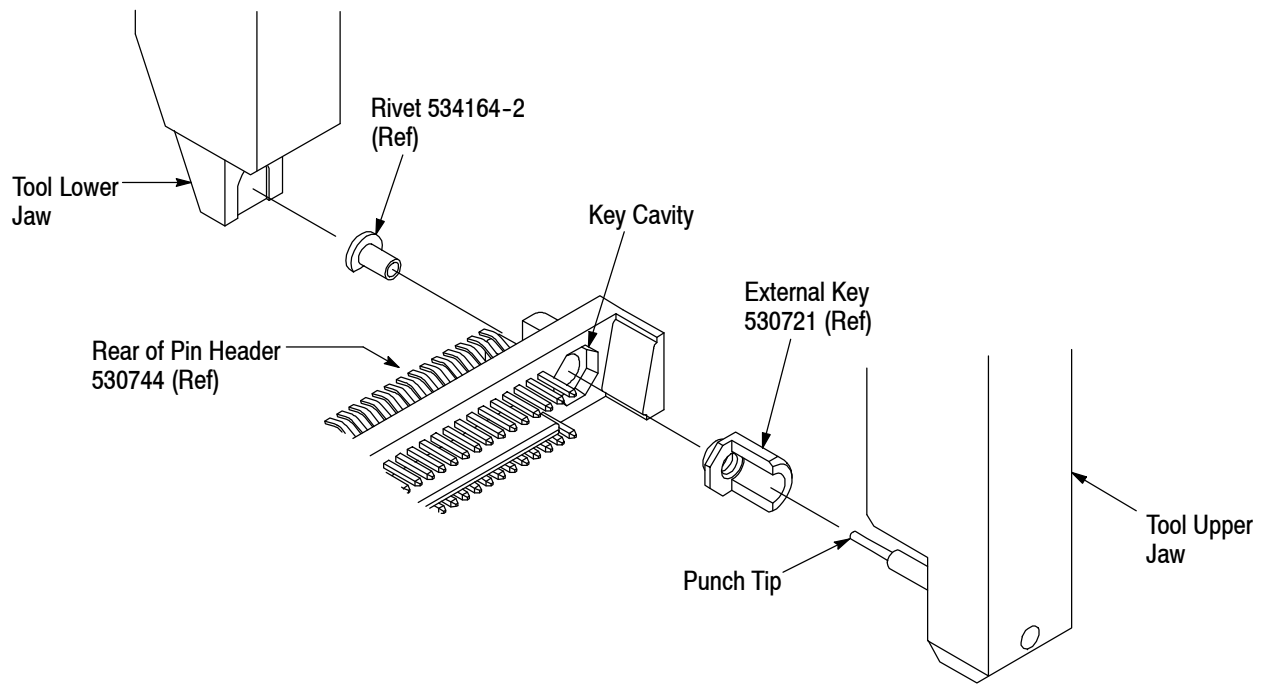


Figure 3

3. Open tool handles and position tool perpendicular to pin header.
4. Place lower jaw against rivet and rear of header, and close tool punch tip through key mounting hole.
5. Squeeze tool handles together until key presses into cavity and jaws are bottomed.
6. Remove tool and, if required, repeat these procedures on the other end of header. *Be sure that the key is properly oriented.*

#### 4. MAINTENANCE AND INSPECTION

The clinching tool should be inspected immediately upon arrival at your facility to ensure that the tool has not been damaged during handling. The tool should also be inspected at regularly scheduled intervals to ensure proper operation of the tool.

##### 4.1. Daily Maintenance

It is recommended that each operator of the tool be made aware of—and responsible for—the following steps of daily maintenance.

1. Remove dust, moisture, and other contaminants with a clean brush, or a soft lint-free cloth.
2. Make sure that the proper retaining pins are in place and secured with the proper retaining rings.

3. Be sure all pins, pivot points, and bearing surfaces are protected with a THIN coat of SAE 20 motor oil. DO NOT oil excessively.

#### 5. REPLACEMENT AND REPAIR

Customer-replaceable parts are listed in Figure 4. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary. Parts other than those listed should be replaced by Tyco Electronics to ensure quality and reliability. Order replacement parts through your representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 717-986-7605, or write to:

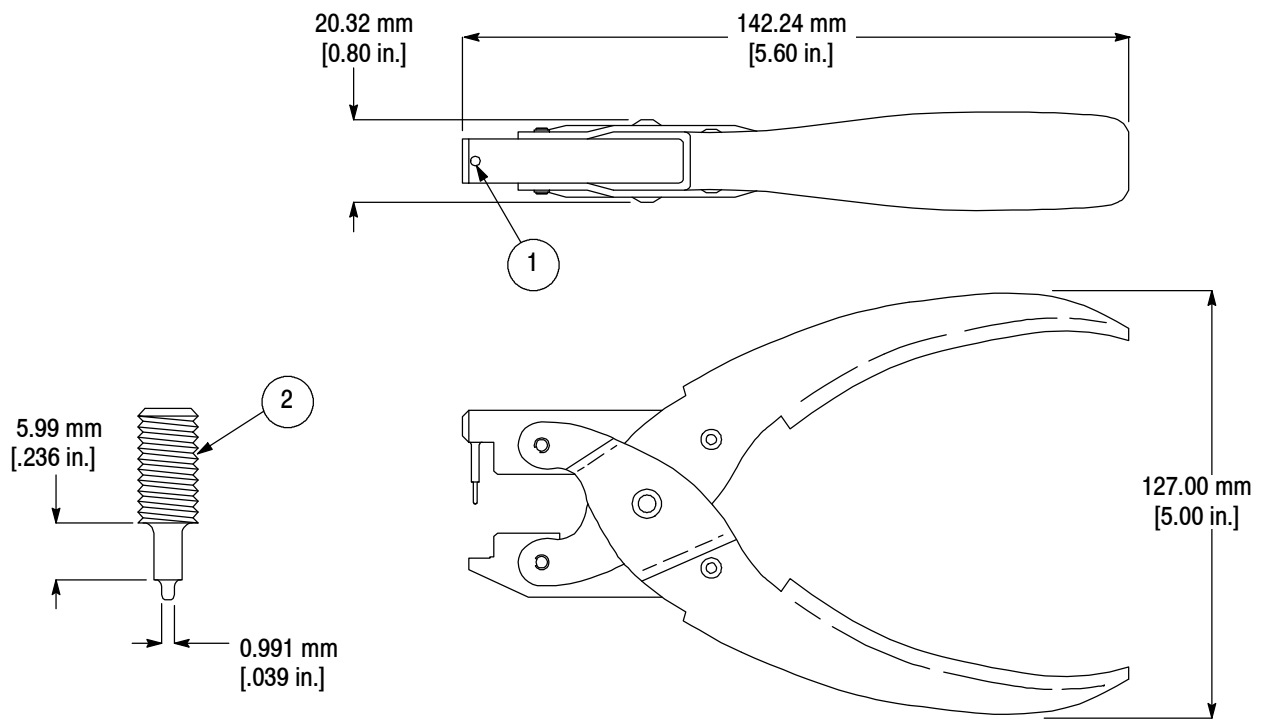
CUSTOMER SERVICE (038-035)  
 TYCO ELECTRONICS CORPORATION  
 PO BOX 3608  
 HARRISBURG PA 17105-3608

For customer repair service, call 1-800-526-5136.

#### 6. REVISION SUMMARY

Revisions to this instruction sheet include:

- Updated document to corporate requirements



**CUSTOMER-REPLACEABLE PARTS**

ITEM	PART NUMBER	DESCRIPTION	QTY PER TOOL
1	2-21006-7	SETSCREW, Socket Head, 6-32	1
2	313497-1	PUNCH	1

Figure 4