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 may be available.

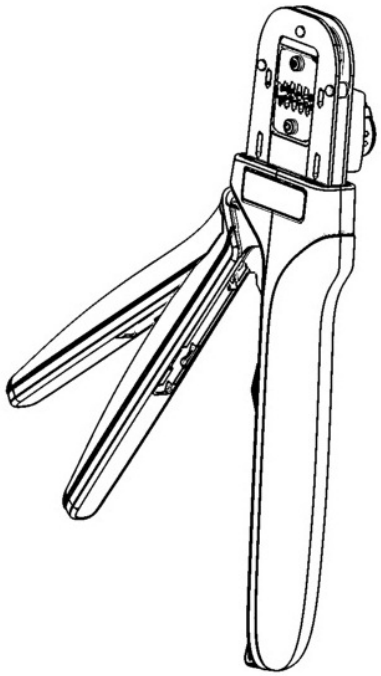


Figure 1

1. INTRODUCTION

Straight Action Hand Tool CAT-HT-281-2430-13 (Figure 1) was designed to crimp CC81 Series contacts for the S2SD, S2SDT, & MPCC as well as T1M82-R & T1M82-L Series contacts for the T2SD and T2SDT Tiger Eye Series.

CAUTION

The wire crimper bottoms against the anvil before the ratchet releases. This is a design feature that assures maximum electrical and tensile performance of the crimp. Do NOT re-adjust the ratchet.

NOTE

Dimensions in these instructions are in metric units [with inches in brackets]. Figures are for reference only and are not drawn to scale.

For conversions to left handed tools, recalibrations, or locator replacements please contact Samtec Application Tooling Group.

2. DESCRIPTION

The front of the tool is marked with the tool part number.

The tool features a fixed die (crimper), a movable die (anvil), a locator, and a ratchet. The locator positions the contact and limits the insertion distance of the stripped wire into the contact. The ratchet assures full crimping of the contact. Once engaged, the ratchet will not release until the dies have been fully closed.

3. CRIMPING PROCEDURE

CAUTION

Do NOT cut or nick the wire strands during wire stripping.

1. Select the desired terminal listed in the Figure 3.

2. Make sure the center of the locator is in the down position. With the locator attached, push the locator button on the back of the hand tool to bring the locator forward through the tooling.

3. While holding the locator button in, load the terminal into the proper nest opening in the locator based on the wire gauge or terminal type markings on the hand tooling.

4. Release the locator button, allowing the locator to return to the crimping position.

5. Close the tool handle until the first ratchet position engages.

6. Insert the properly stripped wire through the terminal and against the wire stop. See Figure 2.

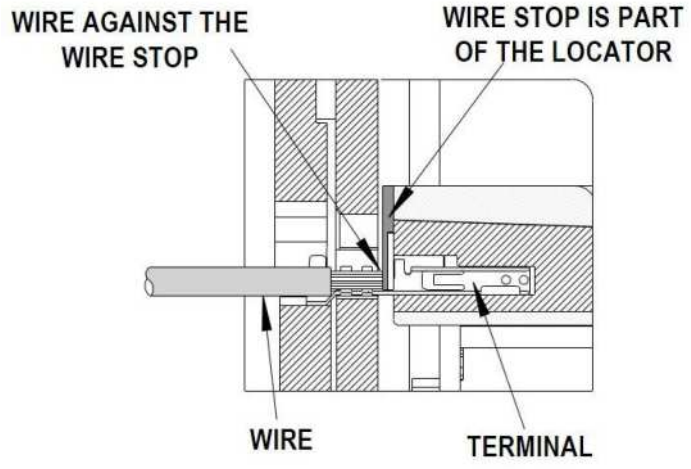


Figure 2

Contact Number	Wire Size mm^2 [AWG]	Insulation Diameter	Strip Length	Crimp Height
CC81 T1M82-R T1M82-L	0.05 [30]	0.74 [.029] - 0.89 [.035]	See Application Tooling Section of Samtec Website	See Application Tooling Section of Samtec Website
	0.08 [28]	0.81 [.032] - 0.97 [.038]		
	0.12 [26]	1.22 [.048] - 1.37 [.054]		
	0.20 [24]	1.35 [.053] - 1.50 [.059]		

Figure 3

7. Crimp the terminal by squeezing the tool handles until the ratchet mechanism cycle has been completed. Release the handles to open the jaws.

8. Remove the crimped terminal from the terminal locator by pulling on the wire.

9. Visually inspect the crimped terminal for proper crimp location.

CAUTION

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.

4. MAINTENANCE AND INSPECTION PROCEDURE

It is recommended that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations. Frequency of inspection depends on:

- The care, amount of use, and handling of the hand tool,
- The presence of abnormal amounts of dust and dirt,
- Your own established standards.

The hand tool is inspected before being shipped; however, it is recommended that the tool be inspected immediately upon its arrival at your facility to ensure that the tool has not been damaged during shipment.

4.1 DAILY MAINTENANCE

1. Remove dust, moisture, and other contaminants with a clean brush, or soft, lint free cloth.

2. Do not use any abrasive materials that could damage the tool.

3. Make certain all pins; pivot points and bearing surfaces are protected with a thin coat of high quality machine oil. Do not oil excessively. The tool was engineered for durability but like any other equipment it needs cleaning and lubrication for a maximum service life of trouble free crimping. Light oil (such as 30 weight automotive oil) used at the oil points, every 1,000 crimps or 3 months, will significantly enhance the tool life. See Figure 4.

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

5. When tool is not in use, keep the handles closed to prevent objects from becoming lodged in the crimping dies, and store the tool in a clean, dry area.

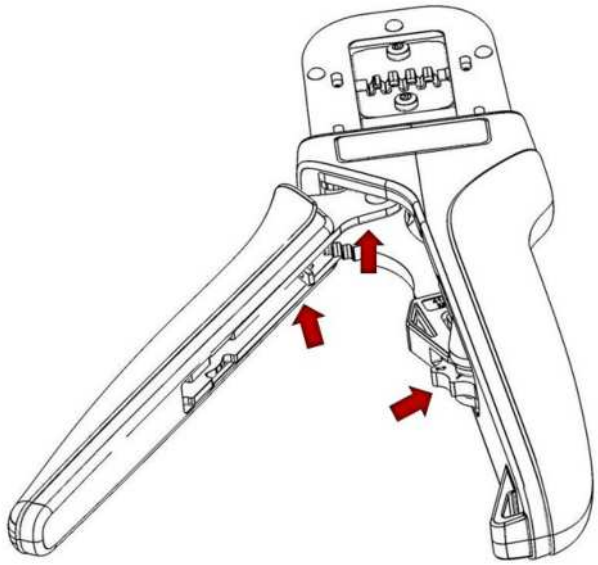


Figure 4

4.2. CRIMP HEIGHT INSPECTION

This inspection requires the use of micrometer with a modified anvil as shown in Figure 5.

Proceed as follows:

1. Select a contact and wire (maximum size) for each crimp section.

2. Refer to Section 3 and crimp the contact(s).

3. Using a crimp height comparator, measure wire barrel crimp as shown in Figure 5. If the crimp height conforms to applicable specifications, the tool is considered dimensionally correct.

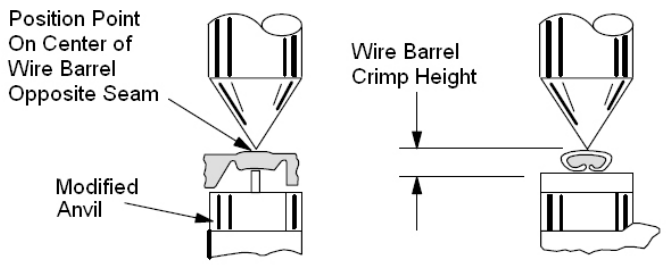


Figure 5

4.3 MISCRIMPS OR JAMS

Should this tool ever become stuck or jammed in a partially closed position, do Not force the handles open or closed. The tool will open easily by pressing up on the ratchet release lever in the movable handle. See Figure 6.

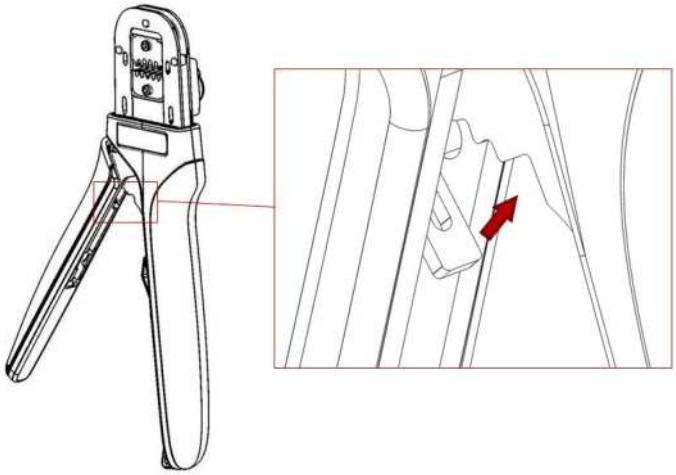


Figure 6

5. TOOL DIMENSIONS

Refer to Figure 7 for tool dimensions

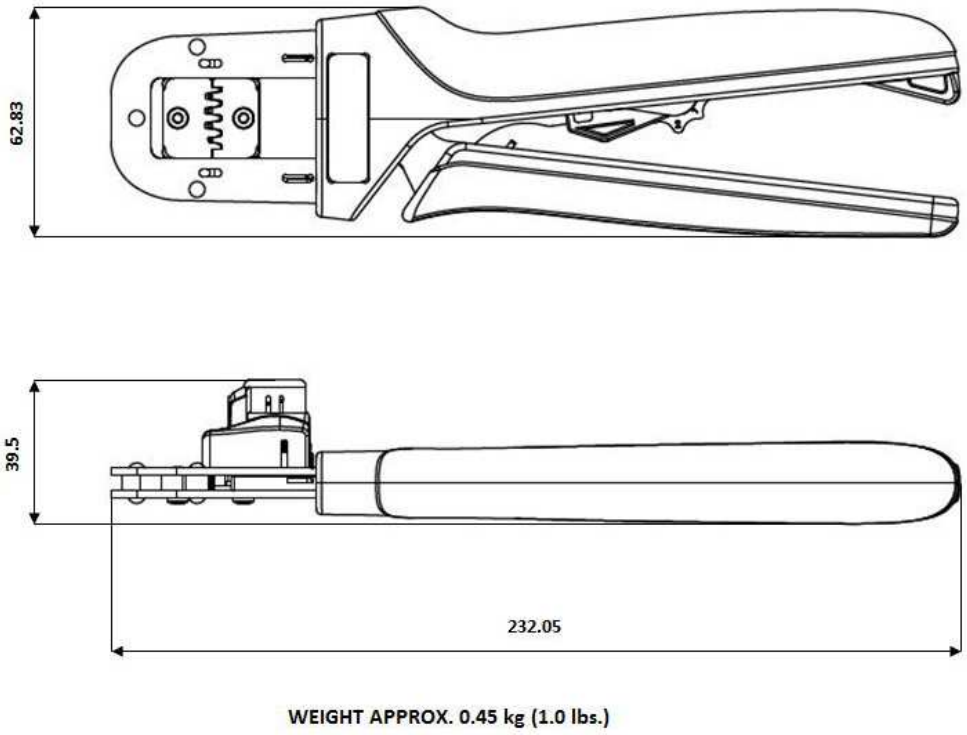


Figure 7