

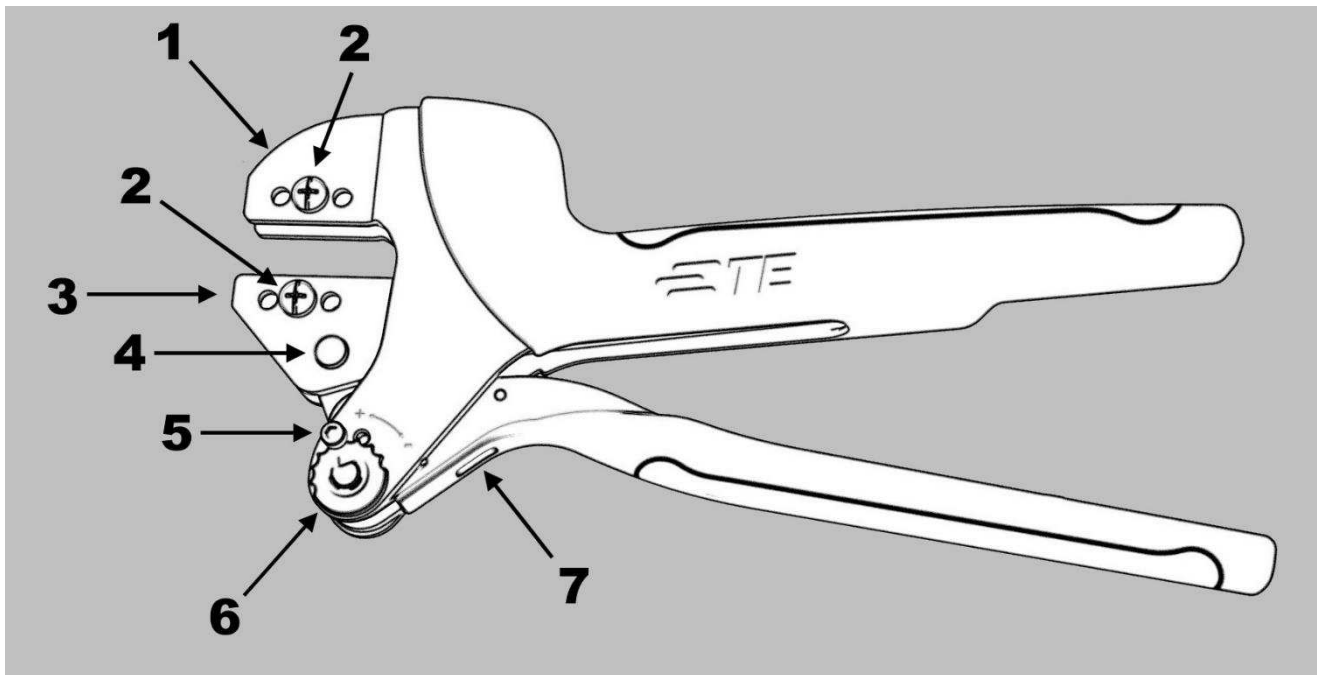
PROPER USE GUIDELINES

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 is available for extended-use production operations.

The Commercial Hand Crimping Tool is a commercial-grade tool, and is designed primarily for field installation, repair, maintenance work, or prototyping in industrial, commercial, or institutional applications. Product crimped with this tool meets the crimp height requirement for hand tools in the appropriate Application Specification (114-series), but may not comply with other feature parameters of the specification.

TE Connectivity offers a variety of tools to satisfy your performance requirements. For additional information, contact Product Information at 800-522-6752.

Figure 1: Commercial hand crimping tool



- | | |
|------------------------|-----------------------------|
| 1 Stationary jaw | 5 Ratchet adjustment screw |
| 2 Die retention screws | 6 Ratchet adjustment wheel |
| 3 Movable jaw | 7 Emergency ratchet release |
| 4 Pivot pin | |



NOTE

All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters [and inches]. Unless otherwise specified, dimensions have a tolerance of $\pm 0.13 \text{ mm}$ [$\pm 0.005 \text{ in.}$] and angles have a tolerance of $\pm 2^\circ$. Figures and illustrations are for reference only and are not drawn to scale.

1. INTRODUCTION

This instruction sheet provides application and maintenance procedures for the Commercial Hand Crimping Tool Frame Assembly 2362810-1, shown in Figure 1. The tool is designed to accept interchangeable die assemblies for crimping various types of products.

**NOTE**

In most cases, the tool frame assembly is provided with a specific set of dies and is considered a component part of a crimping assembly. Refer to the instruction sheet packaged with the hand tool and die assembly or with the separate die assembly for information regarding crimping procedures, crimp height inspection, and die gaging.

Read these instructions thoroughly before installing dies and using the tool frame.

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

2. DESCRIPTION

The tool frame consists of two crimping jaws, an adjustable ratchet, spring-actuated handles, two die retaining screws, and an emergency ratchet release. The slotted design of the tool jaws permits easy installation and removal of dies. The adjustable ratchet allows handle pressure to be set for optimum die performance.

3. DIE INSTALLATION AND REMOVAL

Select a die assembly, remove the die retention screws from the tool jaws, and proceed as follows:

3.1. Shouldered dies

1. Place the upper die in the stationary jaw of the tool frame (Figure 2).
2. Insert a die retention screw through the jaw and die.
3. Tighten the screw so that the die is held in place, but that the screw is not completely tighten at this point.



NOTE

Install die assemblies with center contact crimping chamber with the center contact crimp chamber toward the front of the tool jaws as shown in Figure 2. If indicated otherwise in another document, follow the specific die requirements demonstrated in that document.

4. Place the lower die in the moving jaw of the tool frame.
5. Install a die retention screw through the jaw and die.
6. Tighten the screw so that the die is held in place. Do not tighten the screw completely.
7. Slowly close the tool handles, allowing the dies to mate or align, until the ratchet makes the seventh click.
8. Tighten both die retention screws until snug.

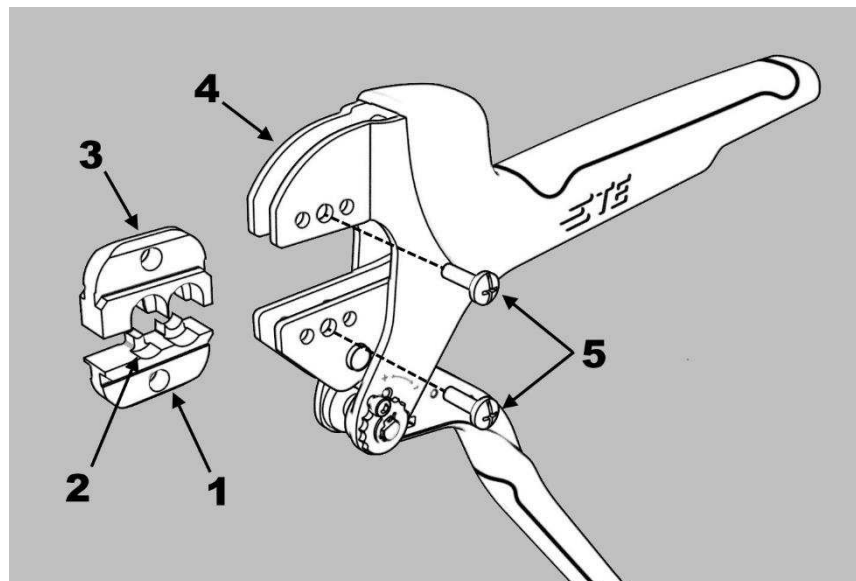


NOTE

The tool ratchet has detents that click eight times as the handles are closed. The ratchet releases on the eighth click.

To remove the die assembly, close the tool handles until the ratchet releases and allow the handles to open fully. Loosen and remove the die retention screws and slide the dies out of the tool jaws.

Figure 2: Shouldered dies



- 1 Lower die
- 2 Center contact crimping chamber
- 3 Upper die
- 4 Tool frame
- 5 Die retention screws

3.2. Pinned dies

1. Install the wire and insulation anvil dies with the chamfers facing the front of the tool and the die markings facing outward into the movable jaw of the tool frame (Figure 3).
2. Insert the die retaining pins and the short die retention screw. Do not tighten the screw completely.
3. Install the wire and insulation crimper dies with the chamfers facing the front of the tool and the die markings facing outward into the stationary jaw of the tool frame.
4. Insert the die retaining pins and the long die retention screw. Do not tighten the screw completely.
5. Slowly close the tool handles, allowing the dies to mate or align. Continue closing the tool handles until the ratchet makes the seventh click.
6. Tighten both die retention screws until snug.



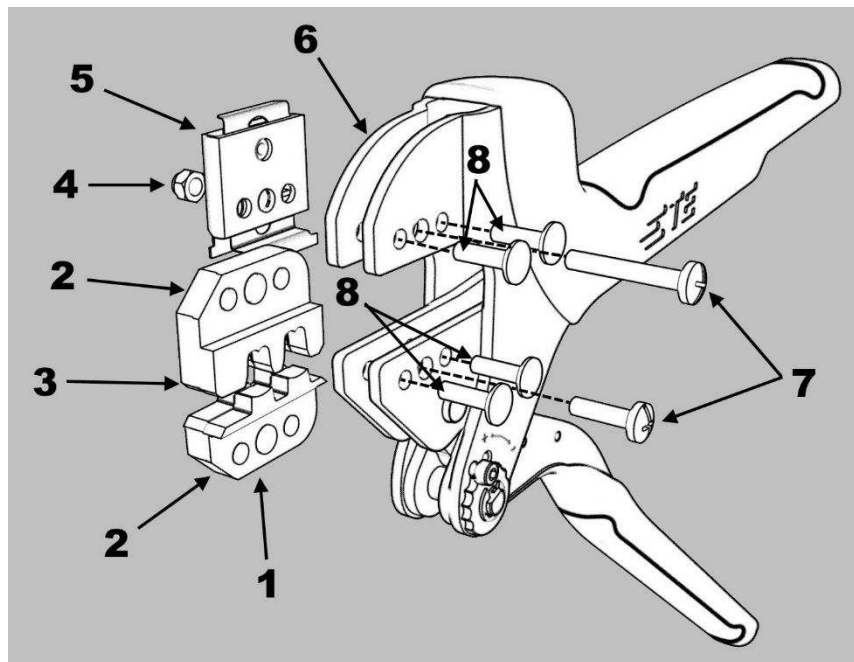
NOTE

The tool ratchet has detents that click eight times as the handles are closed. The ratchet releases on the eighth click.

7. Install the locator assembly and tighten the hex nut.

Reverse these steps to remove the die assembly.

Figure 3: Pinned dies



- | | |
|----------------|------------------------|
| 1 Anvil dies | 5 Locator |
| 2 Chamfers | 6 Tool frame |
| 3 Crimper dies | 7 Die retention screws |
| 4 Nut | 8 Die retention pins |

3.3. Flip-style locator

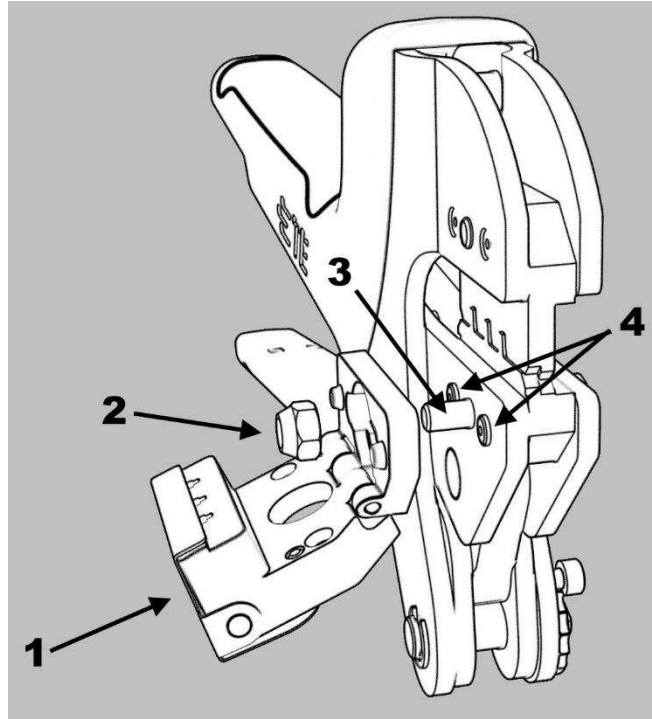
1. Make sure the die retention pins are installed and the die retention screw is secured (Figure 4).
2. Position the flip locator over the screw and locate it on the protruding die retention pins.
3. Install the locking nut and torque it to 56 N-cm.



NOTE

Each flip-style locator is specific to the die, and its operation is explained in the instruction sheet for that die.

Figure 4: Flip-style locator



- 1 Flip-style locator
- 2 Locking nut
- 3 Die retention screw
- 4 Die retention pins

4. CRIMP HEIGHT ADJUSTMENT

The tool frame features a ratchet mechanism and adjustment wheel with a range of settings. The ratchet mechanism ensures that the tool has completed the cycle. The adjustment wheel controls the amount of handle pressure exerted on the jaws and dies during the crimping procedure. The ratchet is preset prior to shipment, but the crimp height must be verified.

Use and wear can also cause the tool to go out of adjustment. Quality control personnel should inspect and adjust the crimp height on a regular basis.



NOTE

This is a general explanation of the adjustment. For specific information, refer to the instruction sheet packaged with the die assembly.

1. Crimp a connector onto a properly-prepared wire of correct size.
2. Adjust the crimp height as needed.
 - If the crimp height is greater than recommended, remove the ratchet wheel adjustment screw and rotate the adjustment wheel **counter-clockwise** to a higher setting. Repeat as required.
 - If the crimp height is less than recommended, remove the ratchet wheel adjustment screw and rotate the adjustment wheel **clockwise** to a lower setting.
3. Repeat as required.

If the crimp cannot be made to conform to the dimensions provided in the applicable product application specification, the tool or dies are defective and must be replaced.

5. MAINTENANCE AND INSPECTION

5.1. Initial inspection

The hand crimping tool frame assembly is inspected prior to shipment. Inspect it on arrival to ensure that it has not been damaged during shipping.

5.2. Daily maintenance

Operators of the tool must be made aware of, and responsible for, the following daily maintenance requirements:

- Remove dust, moisture, and any other contaminants from the tool with a clean, soft brush, or a clean, soft, lint-free cloth. Do **not** use hard or abrasive objects that could damage the tool.
- Make certain that the pivot pins are in place and secured with retaining rings.
- Protect all pins, pivot points, and bearing surfaces with a thin coat of any good SAE 20 motor oil. Do not oil excessively.
- When the tool is not in use, keep the handles closed to prevent objects from becoming lodged in the jaws.
- Store the tool in a clean, dry area.

5.3. Periodic inspection

Regular inspections of the tool should be performed by quality control personnel. A record of scheduled inspections must remain with the tool or be supplied to personnel responsible for the tool. Base the inspection frequency on amount of use, working conditions, operator training and skill, and established company standards.

1. Remove all lubrication and accumulated film by immersing the tool (handles partially closed) in a suitable commercial degreaser that will not affect paint or plastic material.
2. Make certain that all pivot pins are in place and secured with retaining rings.
3. Close the tool handles until the 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.
4. Inspect the tool frame for wear or damage, paying particular attention to the jaws and pivot points.
 - If damage is evident, see section 6, REPLACEMENT AND REPAIR.
 - If the tool is acceptable, lubricate it and return it to service.

6. REPLACEMENT AND REPAIR

To obtain a new tool frame or die assembly, refer to the appropriate instruction sheet or customer manual and order parts through your TE representative. You can also order parts by any of the following methods:

- Go to TE.com and click the **Shop TE** link at the top of the page.
- Call 800-522-6752.
- Write to:

CUSTOMER SERVICE (038-035)
TE CONNECTIVITY CORPORATION
PO BOX 3608
HARRISBURG PA 17105-3608

For customer repair services, call 800-522-6752.

7. REVISION SUMMARY

Initial release

Mouser Electronics

Authorized Distributor

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