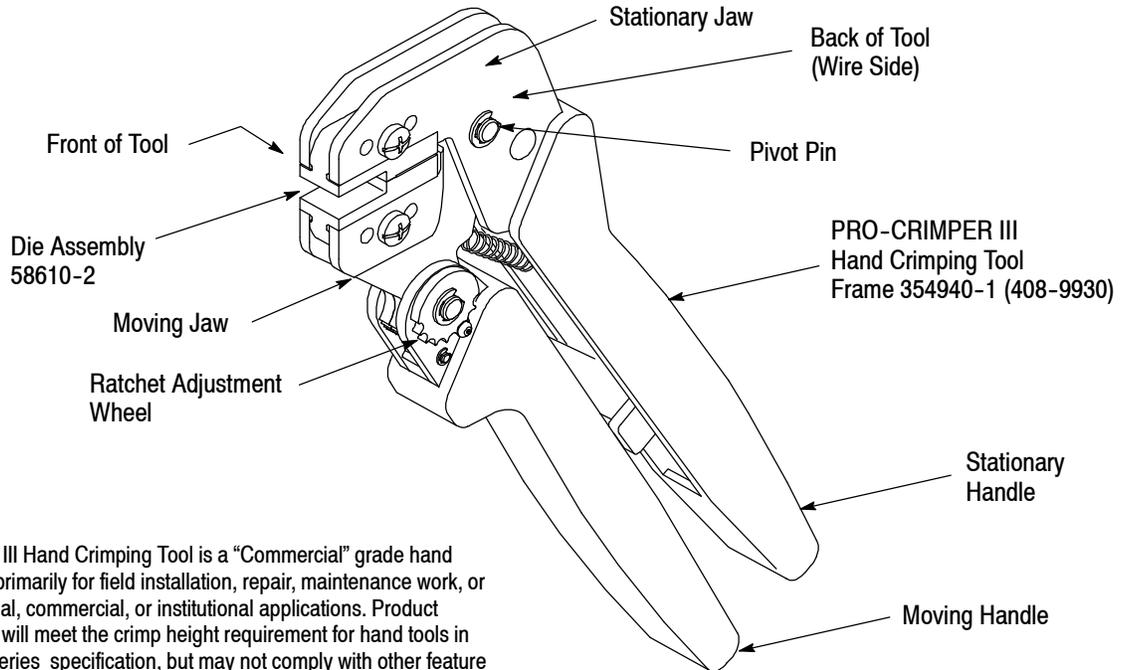


**PROPER USE GUIDELINES**

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.



The PRO-CRIMPER III Hand Crimping Tool is a “Commercial” grade hand tool and is designed primarily for field installation, repair, maintenance work, or prototyping in industrial, commercial, or institutional applications. Product crimped with this tool will meet the crimp height requirement for hand tools in the appropriate 114 series specification, but may not comply with other feature parameters of the specification. Tyco Electronics offers a variety of tools to satisfy your performance requirements. For additional information, contact the Technical Assistance Center at 1-800-722-1111.

Figure 1

**1. INTRODUCTION**

PRO-CRIMPER III Hand Crimping Tool Assembly 58610-1 consists of Die Assembly 58610-2 and PRO-CRIMPER III Hand Crimping Tool Frame 354940-1. The tool is designed to terminate Tel-Splice connectors, shown in Figure 3, onto any combination of solid copper wire sizes 19-26 AWG with a maximum insulation diameter of 2.03 mm [.080 in.]. For instructions concerning the operation of the hand tool, refer to Tyco Electronics Instruction Sheet 408-9930.



*Dimensions on this sheet are in millimeters [with inch equivalents provided in brackets]. Figures and illustrations are for identification only and are not drawn to scale.*

Reasons for revision of this instruction sheet can be found in Paragraph 10, REVISION SUMMARY.

**2. DESCRIPTION (Figures 1 and 2)**

The tool features a tool frame with a stationary jaw and handle, a moving jaw, a moving handle, and an adjustable ratchet that ensures full contact termination. The tool frame holds the die assembly.

The die assembly features identical upper and lower crimping dies. Each die is held in the hand tool by a single screw.

**3. INSTALLATION AND REMOVAL OF DIE ASSEMBLY (Figure 2)**

1. Open the tool handles and remove the two die retaining screws from the tool jaws.
2. Slide the die assembly into the partially opened tool jaws. The crimping chamber *must* be toward the front of the tool as shown in Figure 1.
3. Insert the die retaining screws and tighten the screws just enough to hold the dies in place. Do *not* tighten the screws completely at this time.

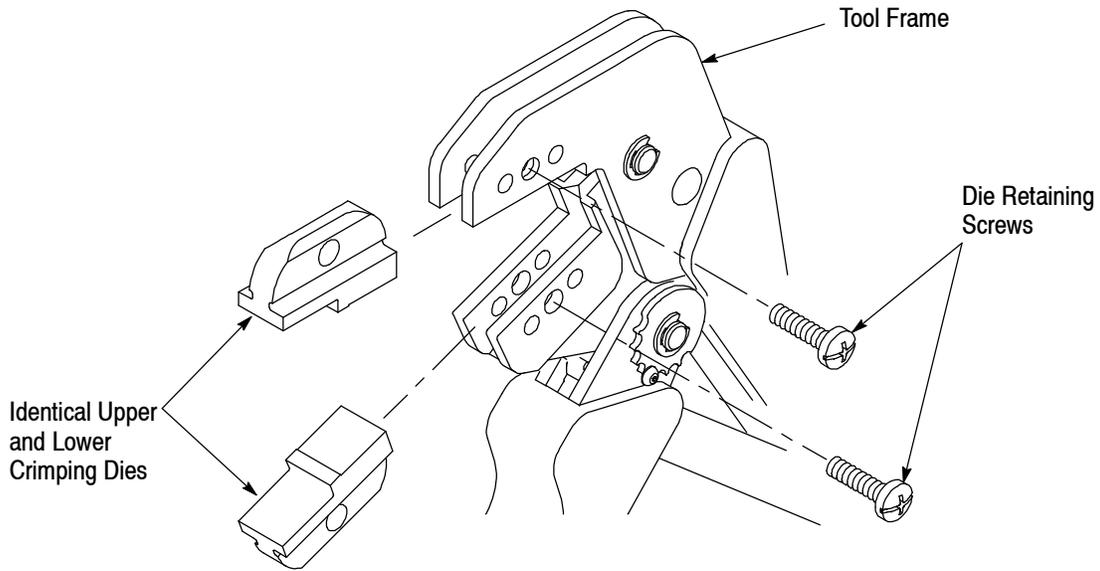


Figure 2

4. Carefully close the tool handles, making sure the dies align properly. Continue closing the tool handles until the ratchet in the tool frame has engaged sufficiently to hold the die in place, then tighten both die retaining screws.

5. To disassemble, close the tool handles until the ratchet releases, remove the two die retaining screws and slide the dies out of the tool jaws.

1. For two- or three-wire connectors, trim wire ends flush. Insert wires into holes until bottomed in wire entry housing. See Figure 3.

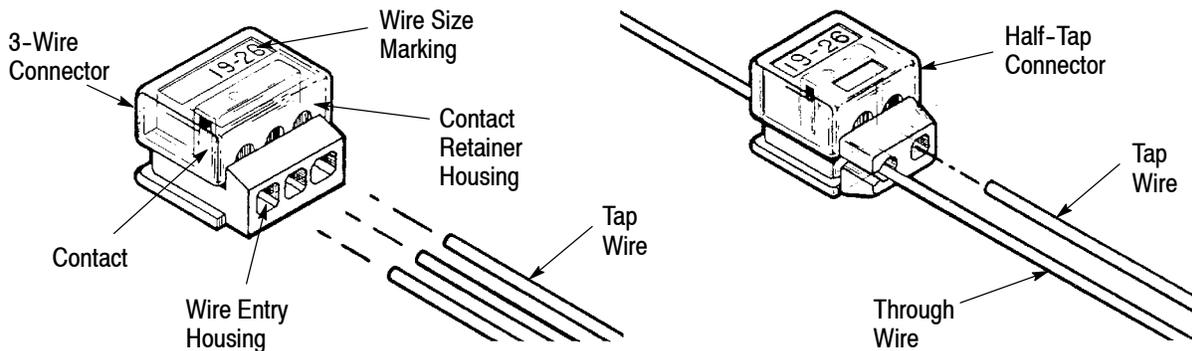
For half-tap connectors, place through wire into slot of connector at desired tap location. Make sure through wire is fully contained in slot. Insert tap wire into wire hole until bottomed in wire entry housing.

2. Press connector sections together with fingers in order to pre-crimp and hold wires in place until final termination.

3. Place the connector between tool jaws so that the connector wire size marking faces the surface of the jaws. See Figure 4.

**4. TERMINATION PROCEDURE**

Refer to Figure 3 and select the proper connector. Select wire within the specified size and insulation diameter; then proceed as follows:



Product	Two-Wire Connector		Three-Wire Connector		Half-Tap Connector	
	With Sealant	Without Sealant	With Sealant	Without Sealant	With Sealant	Without Sealant
Tel-Splice Connector	552795-2	552795-4	552678-2	552678-4	553017-2	553017-4

Figure 3

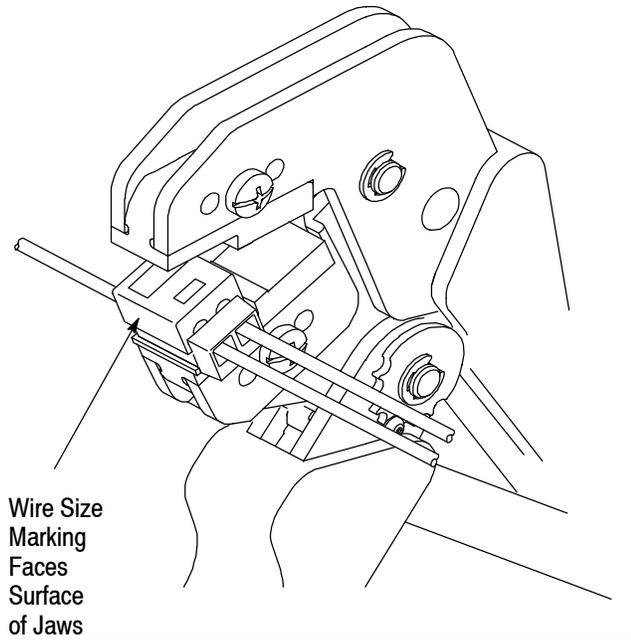


Figure 4

4. Check to be sure wires have not shifted. Hold wires in place and squeeze tool handles together until the ratchet releases.
5. Check to be sure wires have not shifted. Hold wires in place and squeeze tool handles together until the ratchet releases.
6. Allow tool handles to open FULLY and remove terminated connector.



*To disengage the ratchet before completion of a cycle, squeeze the tool handles just enough to relieve pressure on the ratchet; then depress the ratchet release lever and allow tool handles to open fully.*

7. Slide gage away from connector – it should slide off with little or no drag. Improperly terminated connectors will stick or have excessive drag.

**5. TERMINATION HEIGHT (Crimp Height) INSPECTION**

This inspection requires the use of Tel-Splice Connector Gage 230495-1 (packaged with connectors) which is designed to ensure proper wire insertion depth.

Proceed as follows:

1. Terminate several sample connectors.
2. Squeeze tool handles together until ratchet is disengaged and allow the handles to open FULLY.

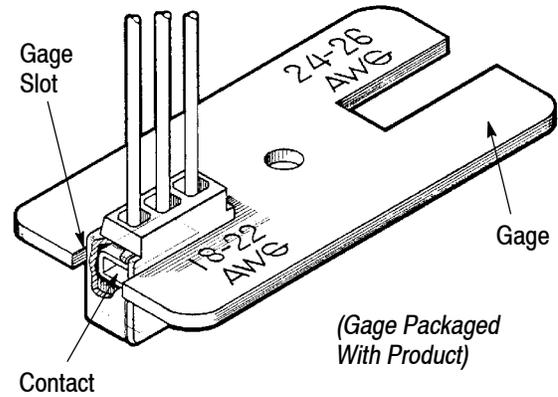


Figure 5

3. Check each connector by placing connector in gage so contact is aligned with gage slot as shown in Figure 5.

If the sample connectors do NOT gage properly, the tool must be adjusted or replaced.

**6. RATCHET (Crimp Height) ADJUSTMENT (Figure 6)**

The tool frame assembly ratchet mechanism features an adjustable wheel with numbered settings. If the termination height is not acceptable, adjust the ratchet as follows:

1. Remove the lockscrew from the ratchet adjustment wheel.
2. With a screwdriver, adjust the ratchet wheel from the opposite side of the tool.
3. Observe the ratchet adjustment wheel. If a tighter termination is required, rotate the adjustment wheel COUNTERCLOCKWISE to a higher- numbered setting. If a looser termination is required, rotate the adjustment wheel CLOCKWISE to a lower-numbered setting.
4. Replace the lockscrew.
5. Make a sample termination and measure the termination height. If the termination height is acceptable, secure the lockscrew. If the dimension is unacceptable, remove lockscrew and continue to adjust the ratchet, and again measure a sample termination.

**7. MAINTENANCE**

Ensure that the tool and dies are clean by wiping them with a clean, soft cloth. Remove any debris with a clean, soft brush. Do not use objects that could damage the tool. When not in use, keep handles closed to prevent objects from becoming lodged in the dies, and store in a clean, dry area.

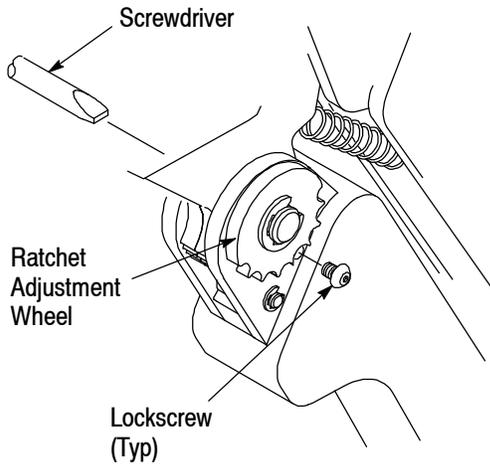


Figure 6

## 8. VISUAL INSPECTION

The dies should be inspected on a regular basis to ensure that they have not become worn or damaged. Inspect the dies for flattened, chipped, worn, or broken areas. If damage or abnormal wear is evident, the tool must be replaced. See Section 9, REPLACEMENT.

## 9. REPLACEMENT

Customer-replaceable parts are shown in Figure 1.

Available separately, PROiCRIMPER III Hand Tool Repair Kit 679221-1 includes a replacement nut and a variety of pins, rings, screws, and springs.

If the dies are damaged or worn excessively, they must be replaced.

Order the repair kit and replaceable 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  
 PO BOX 3608  
 HARRISBURG PA 17105-3608

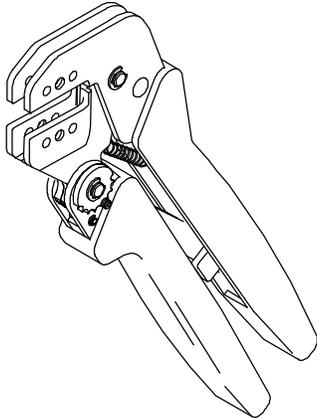
## 10. REVISION SUMMARY

Revisions to this instruction sheet include:

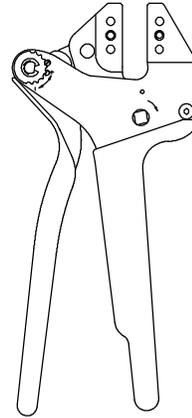
- Updated format to current corporate requirements;
- Added TE logo; and
- Added back page showing tooling available to use Crimp Die 58610-2.

**Tooling Compatible with Die Assembly 58610-2**

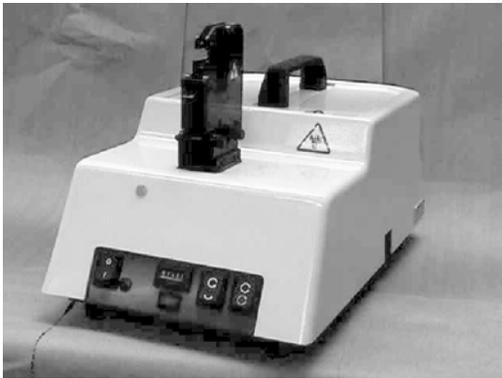
**PRO-CRIMPER III Hand Tool 354940-1**  
(Instruction Sheet 408-9930)



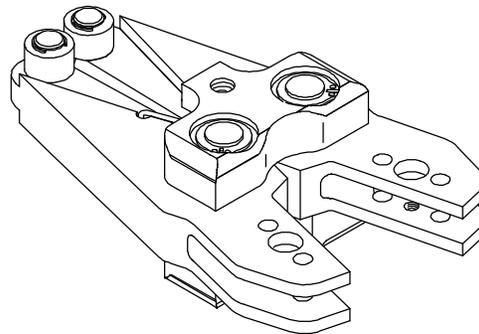
**SDE-SA Hand Tool 9-1478240-0**  
(Instruction Sheet 408-8851)



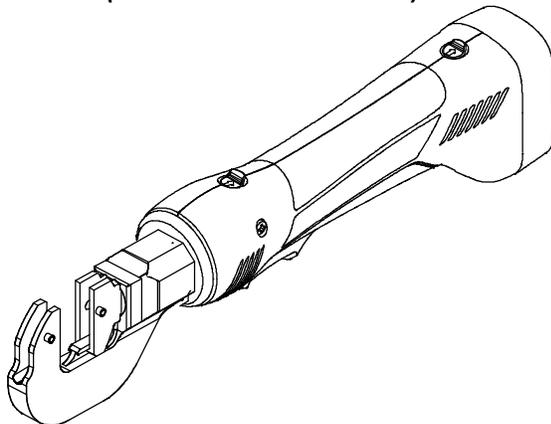
**SDE Bench Terminator 1490076-2**  
(Customer Manual 409-10052)



**626 Adapter 679304-1**  
(Instruction Sheet 408-4070)



**Battery Tool (Shouldered Die) 1725837-1, -2**  
(Customer Manual 409-10053)



**Battery Tool (Pin Die) 1213890-1, -2**  
(Customer Manual 409-10065)

