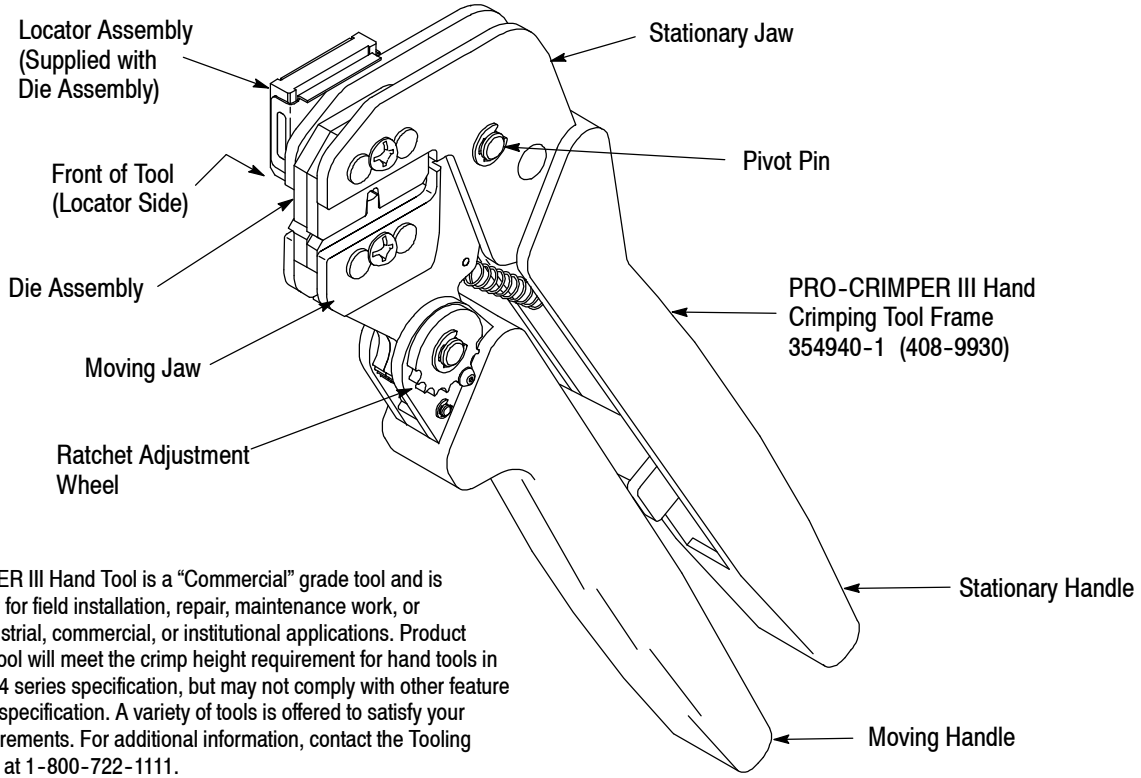
PROPER USE GUIDELINES

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 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 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. A variety of tools is offered to satisfy your performance requirements. For additional information, contact the Tooling Assistance Center at 1-800-722-1111.

TE Die Assembly	Locator Assembly†	Product Family‡	Wire		
			Size (AWG)	Insulation Diameter (Max.)	Strip Length
91342-2	58515-1	Size 16 Contacts	20	3.33 [.131]	3.81 [.150]

† Supplied with die assembly. Also available separately.

‡ Contact the Tooling Assistance Center or Product Information (at the numbers listed below) for specific contact part numbers.

Figure 1

1. INTRODUCTION

The PRO-CRIMPER III Hand Crimping Tool Assembly 91342-1 consists of Die Assembly 91342-2 and PRO-CRIMPER III Hand Tool Frame 354940-1. The die assembly consists of crimping dies and a locator assembly.

Read these instructions thoroughly before crimping any contacts.

NOTE

Dimensions on this document are in millimeters [with inches in brackets]. Figures are not drawn to scale.

Reason for revision will be listed in Section 10, REVISION SUMMARY.

2. DESCRIPTION

The tool features a tool frame with a stationary jaw and handle, moving jaw, moving handle, and adjustable ratchet that ensures full contact crimping. The tool frame holds a die assembly with one crimping chamber. See Figure 1.

The die assembly features a wire anvil, insulation anvil, wire crimper, and insulation crimper.

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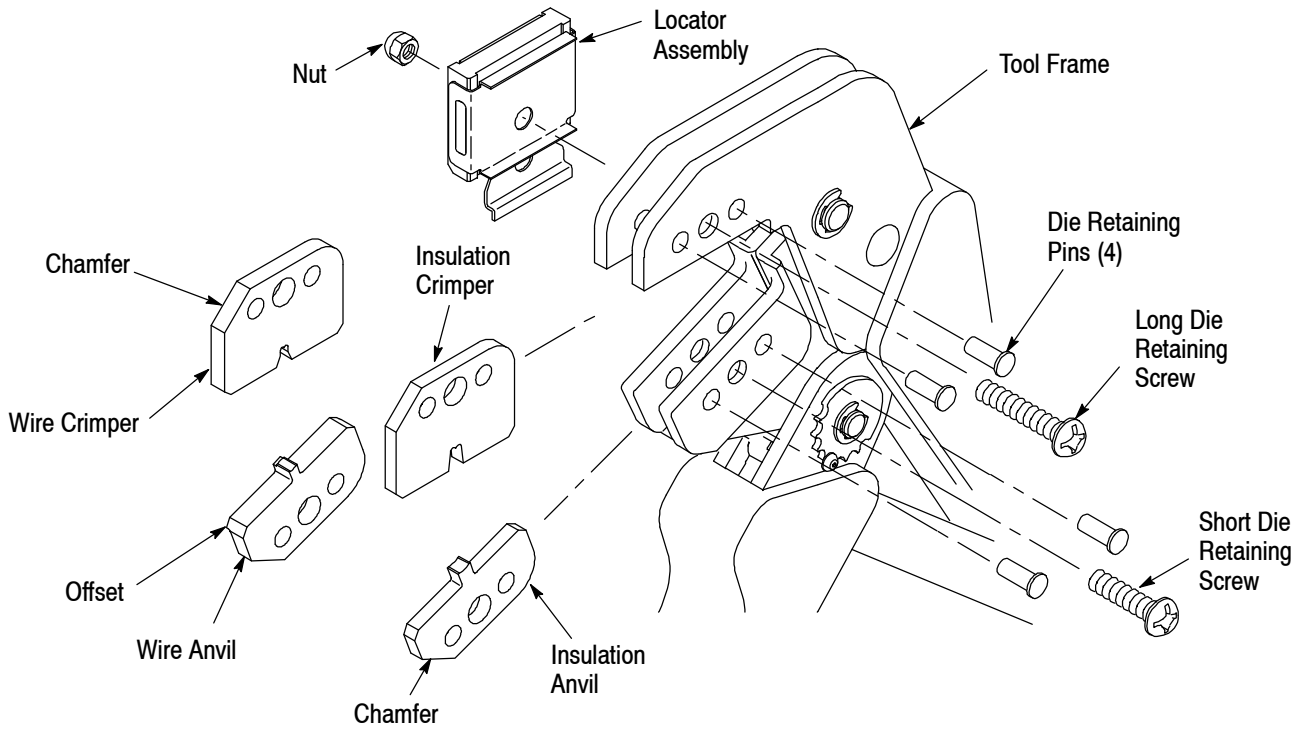


Figure 2

Attached to the outside of the frame is a locator assembly, which contains a locator and contact retainer. A nut is used on the upper die retaining screw to hold the locator assembly in place.

Die retaining pins and die retaining screws are used to position and secure the dies in the tool frame.

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

1. Open the tool handles, and remove the two die retaining screws from the tool jaws.

2. Place the wire anvil and insulation anvil so that the chamfered sides and marked surfaces face outward, when mounted in the moving jaw of the tool frame.

3. Insert two die retaining pins through the tool frame and into the anvils.

4. Insert the short die retaining screw through the jaw and through both anvil dies, and tighten the screw just enough to hold the dies in place. Do *not* tighten the screw completely at this time.

5. Place the wire crimper and insulation crimper so that their chamfered sides and their marked surfaces face outward, when mounted in the stationary jaw of the tool frame.

6. Insert two die retaining pins through the tool frame and into the crimpers.

7. Insert the long die retaining screw through the jaw and through both crimper dies, and tighten the screw just enough to hold the dies in place. Do *not* tighten the screw completely at this time.

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

9. Place the locator assembly over the end of the long die retaining screw. Position the locator assembly against the side of the tool jaw.

10. Place the nut onto the end of the long screw and tighten the nut enough to hold the locator assembly in place, while still allowing the locator to slide up and down.

11. To disassemble, close the tool handles until the ratchet releases, remove the nut, the locator assembly, the two die retaining screws, and the four die retaining pins, and slide the anvils and crimpers out of the tool jaws.

4. CRIMPING PROCEDURE

NOTE

This tool is provided with a crimp adjustment feature. Initially, the crimp height should be verified as specified in Section 5, CRIMP HEIGHT INSPECTION, and Section 6, RATCHET (Crimp Height) ADJUSTMENT, before using the tool to crimp desired contacts.

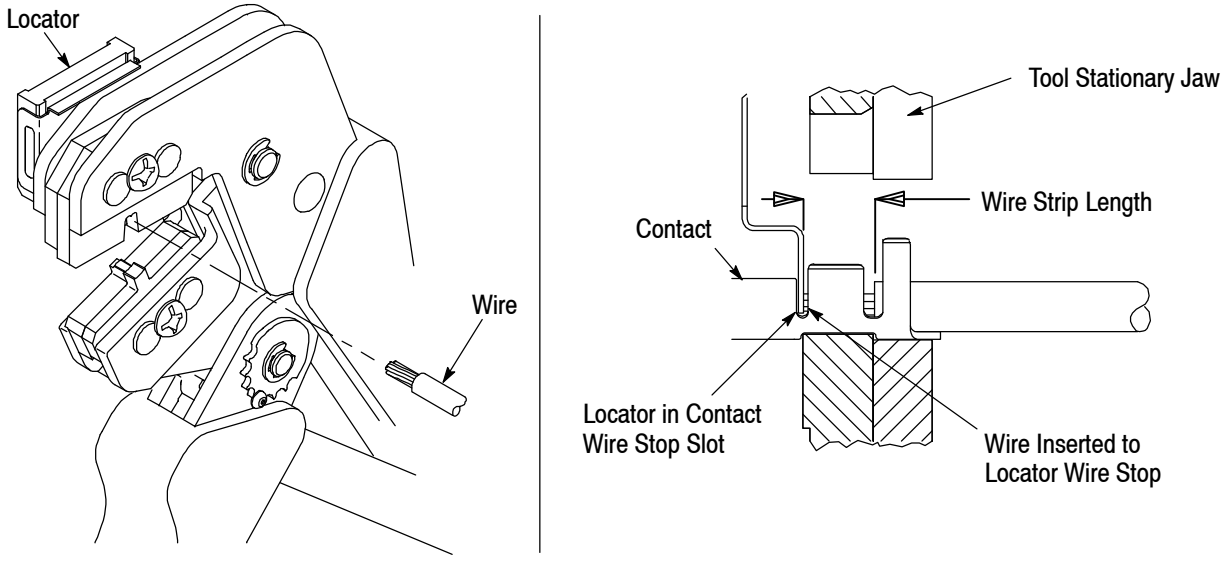


Figure 3

Refer to Figure 1, and select wire of the specified size and insulation diameter. Strip the wire to the length indicated, taking care not to nick or cut wire strands. Select an applicable contact and identify the appropriate crimping chamber according to the wire size markings on the tool.

Refer to Figure 3, and proceed as follows:

1. Hold the tool so that the front (locator side) is facing you. Squeeze tool handles together and allow them to open fully.

2. Insert the contact—mating end first—into the crimping chamber. Make sure that the open "U" of the wire barrel and insulation barrel face the stationary jaw.

3. Make sure that the wire stop enters the contact wire stop slot between the wire barrel and contact shoulder.

CAUTION

Make sure that both sides of the contact insulation barrel are started evenly into the crimping chamber. Do NOT attempt to crimp an improperly positioned contact.

4. Hold the contact in position, and squeeze the tool handles together until the ratchet engages sufficiently to hold the contact in position. Do NOT deform the insulation barrel or wire barrel.

5. Insert stripped wire into contact insulation and wire barrels until it is butted against the wire stop, as shown in Figure 3.

6. Holding the wire in place, squeeze tool handles together until ratchet releases. Allow tool handles to open and remove crimped contact.

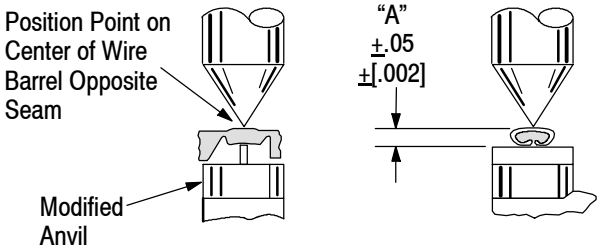
NOTE

The crimped contact may stick in the crimping area, but can be removed by pushing downward on the top of the locator (see Figure 3).

7. Check the contact crimp height as described in Section 5, CRIMP HEIGHT INSPECTION. If necessary, adjust the crimp height as described in Section 6, RATCHET (Crimp Height) ADJUSTMENT.

5. CRIMP HEIGHT INSPECTION

Crimp height inspection is performed through the use of a micrometer with a modified anvil, commonly referred to as a crimp-height comparator. Tyco Electronics does not manufacture or market crimp-height comparators. Detailed information on obtaining and using crimp-height comparators can be found in instruction sheet 408-7424.



Wire Size AWG (Max.)	Crimp Section Marking	Crimp Height Dimension "A"
20	20	1.22 [.048]

Figure 4

To measure the crimp height:

1. Refer to Figure 4 and select a wire (maximum size) for the crimp section listed in the table.

2. Crimp the contact(s) according to the procedures provided in Section 4, CRIMPING PROCEDURE.

3. Using the crimp height comparator, measure the wire barrel crimp height as shown in Figure 4. If the crimp height conforms to the dimensions provided in Figure 4, then the tool is considered dimensionally correct. If the crimp height does not conform to the dimensions provided, the tool must be adjusted. Refer to Section 6, RATCHET (Crimp Height) ADJUSTMENT.

6. RATCHET (Crimp Height) ADJUSTMENT (Figure 5)

1. Remove the lockscrew from the ratchet adjustment wheel.

2. With a screwdriver, adjust the ratchet wheel from the locator side of the tool.

3. Observe the ratchet adjustment wheel. If a tighter crimp is required, rotate the adjustment wheel *counterclockwise* to a higher-numbered setting. If a looser crimp is required, rotate the adjustment wheel *clockwise* to a lower-numbered setting.

4. Re-assemble the lockscrew.

5. Make a sample crimp and measure the crimp height. If the dimension is unacceptable, continue to adjust the ratchet, and again measure a sample crimp.

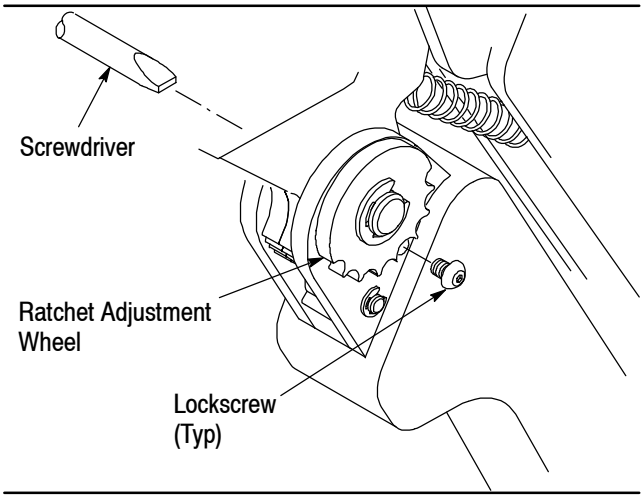


Figure 5

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 crimping dies, and store in a clean, dry area.

8. VISUAL INSPECTION

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

9. REPLACEMENT AND REPAIR

Customer-replaceable parts are shown in Figure 1.

Available separately, PRO-CRIMPER III Hand Crimping 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 repair kit and replaceable 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 (38-35)
TYCO ELECTRONICS CORPORATION
PO BOX 3608
HARRISBURG PA 17105-3608

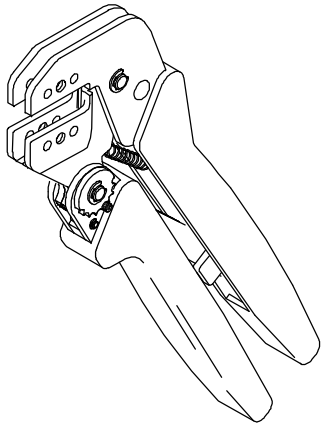
10. REVISION SUMMARY

Revisions to this instruction sheet include:

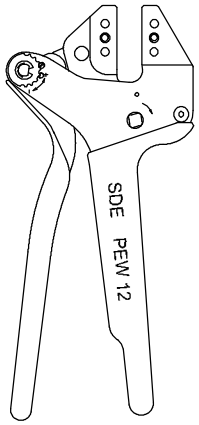
- The PRO-CRIMPER II Hand Tool became the PRO-CRIMPER III Hand Tool throughout;
- Applied the TE logo;
- Revised the crimp-height comparator information; and
- Updated the format to the current corporate requirements

Dies 91342-2 May Also Be Used with the Following Tools.

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



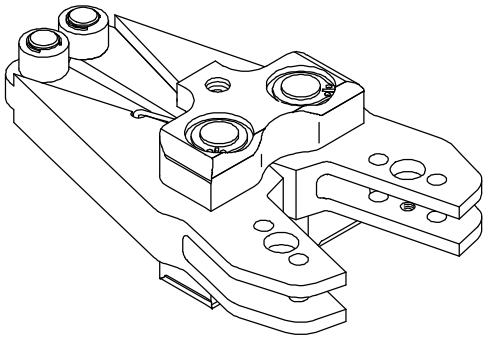
SDE PEW-12 Hand Tool 9-1478240-0
(Instruction Sheet 408-8851)



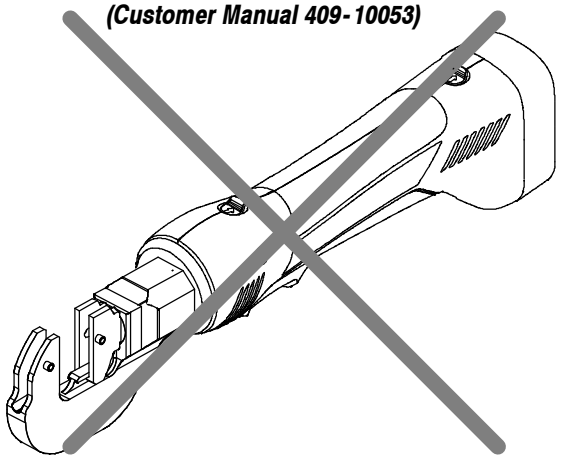
SDE Bench Terminator 1490076-2
(Customer Manual 409-10052)



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)

