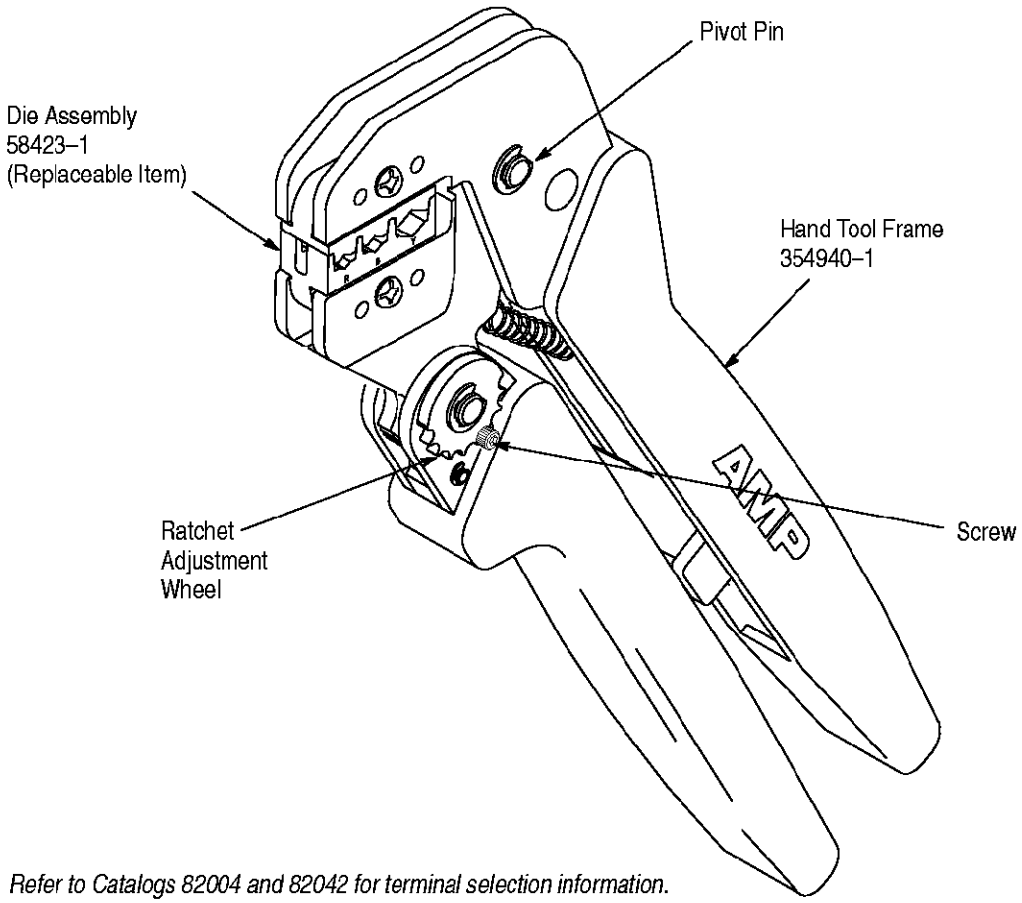
Jameco Part Number 755497

PRO–CRIMPER* Hand Crimping Tool 58433–3 for PIDG* and PLASTI–GRIP* Red / Blue / Yellow Terminals

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.



NOTE: *Refer to Catalogs 82004 and 82042 for terminal selection information.*

TERMINAL/STRIP LENGTH INFORMATION

PRODUCT LINE	WIRE SIZE RANGE, AWG	INSULATION DIAMETER (MAX.)	INSULATION COLOR	STRIP LENGTH	
				MINIMUM	MAXIMUM
PIDG or PLASTI–GRIP Terminals	22–16	3.56 [.140]	Red	5.15 [.203]	5.95 [.234]
	16–14	4.32 [.170]	Blue	5.15 [.203]	5.95 [.234]
	12–10	6.35 [.250]	Yellow	7.94 [.312]	8.73 [.344]
PIDG FASTON* Terminals	22–18 Flag	3.56 [.140]	Red	8.33 [.328]	9.14 [.360]
	16–14 Flag	4.32 [.170]	Blue	8.33 [.328]	9.14 [.360]

Figure 1

1. INTRODUCTION

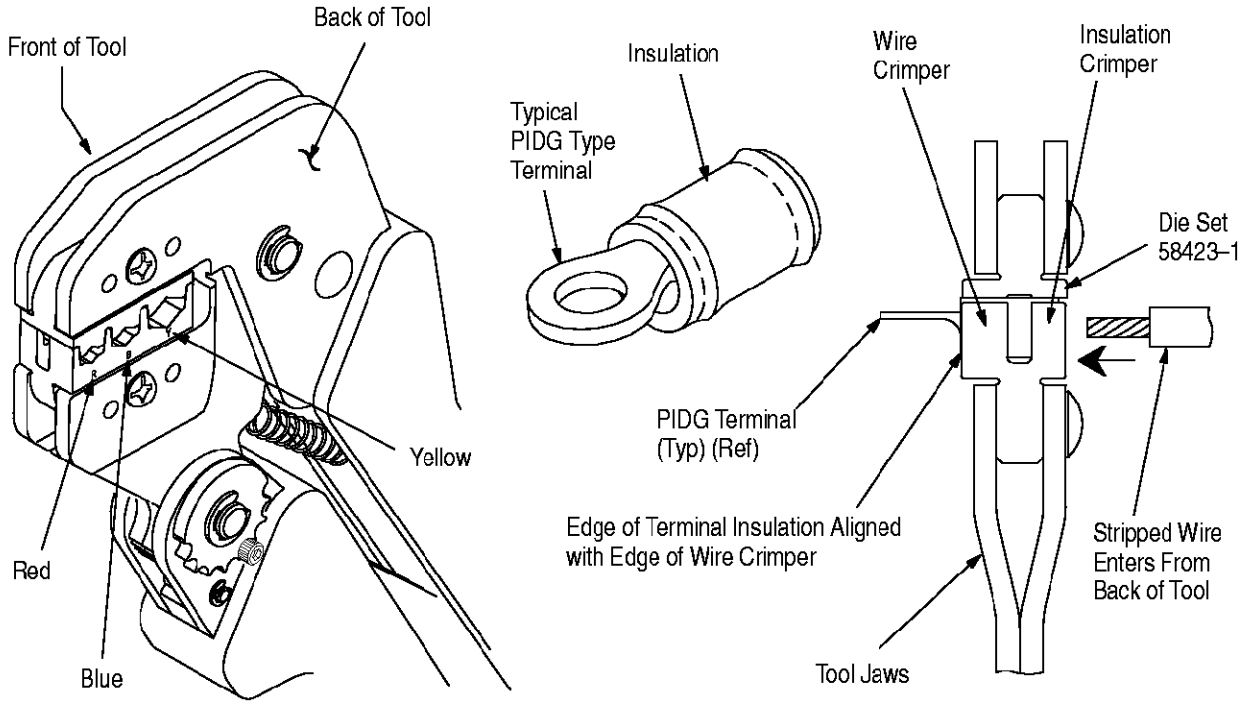
This instruction sheet provides application and maintenance procedures for PRO–CRIMPER Hand Crimping Tool 58433–3. See Figure 1.

The tool is designed to crimp PIDG and PLASTI–GRIP terminals onto pre–stripped wire

CAUTION *Terminals crimped with Hand Crimping Tool 58433–3 or with Die Assembly 58423–1 are not Listed by UL or CSA.*

NOTE *All dimensions are in millimeters [with inches in brackets].*

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



NOTE: *To determine correct crimp section – match terminal insulation color to letter.*

Figure 2

2. DESCRIPTION (Figure 1)

The tool has a replaceable die assembly with three crimping areas which are marked with the letters R,B, and Y. The letter corresponds to the insulation color of the terminal (Red, Blue, or Yellow) to be crimped in the crimping area.

NOTE

The PRO–CRIMPER tool is designed to accept other dies used in the PRO–CRIMPER tool line. Remove the retaining screws in the tool jaws and install dies with their identifying marks (color dot codes, crimp dimensions, cable types, or connector type) facing the ratchet adjustment wheel side of the tool. For details concerning die installation, refer to the instruction sheet packaged with the dies.

3. CRIMPING PROCEDURE (Figure 2)

1. Strip wire to proper length. See Figure 1.

2. Choose desired terminal and match insulation color to crimping area letter.

3. Place terminal in crimping area so that edge of terminal insulation aligns with edge of wire crimper. See Figure 2. Terminal should be positioned in tool so that wire enters from the BACK of the tool.

4. Close tool handles until terminal is held in dies without deforming wire barrel.

5. Place stripped wire in terminal wire barrel and squeeze handles until ratchet releases.

CAUTION

Damaged terminals may not be used. If a terminal has been damaged during termination, it must be cut from the wire and replaced with a new one.

4. MAINTENANCE AND INSPECTION

4.1. Daily Maintenance

It is recommended that operators of the tool be made aware of, and responsible for, the following steps of daily maintenance:

1. 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.

2. Make certain that the retaining pins are in place and that they are secured with retaining rings.

3. All pins, pivot points, and bearing surfaces should be protected with a thin coat of any good SAE 20 motor oil. Do not oil excessively.

4. When the tool is not in use, keep handles closed to prevent objects from becoming lodged in the crimping jaws. Store the tool in a clean, dry area.

4.2. Periodic Inspection

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

4.3. Visual Inspection

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 retaining pins are in place and secured with retaining rings.

3. Close tool handles until 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 Paragraph 5, PARTS REPLACEMENT.

4. Inspect the tool frame for wear or damage, paying particular attention to the tool jaws and pivot points. If damage is evident, refer to Paragraph 5, PARTS REPLACEMENT. If tool is acceptable, lubricate and return to service.

5. Check the crimping dies occasionally to make sure dies are not broken or chipped. If damage is evident, refer to Paragraph 5, PARTS REPLACEMENT.

4.4. Measuring Crimp Height (Figure 3)

Crimp height measurement requires the use of calipers or a cone micrometer. Tyco Electronics recommends a special micrometer (crimp height comparator RS–1019–5LP) which is available from:

Shearer Industrial Supply Co. 717–767–7575	or	VALCO 610–691–3205

A lead rod can be used to check crimp height. Crimping a rod in each of the crimping areas should result in the following dimensions:

COLOR DOT	CRIMP HEIGHT	LEAD ROD DIAMETER
Yellow	3.35 ± 0.15 [.132 ± .006]	4.8 [.19]
Blue	2.44 ± 0.15 [.096 ± .006]	3.2 [.12]
Red	2.08 ± 0.15 [.082 ± .006]	3.2 [.12]

Figure 3

If correct crimp height cannot be achieved, the ratchet wheel may have to be adjusted. After removing the retaining screw, use a screwdriver on the opposite side of the tool to rotate the wheel. Move the wheel to a higher number to decrease the crimp height or to a lower number to increase crimp height and then replace and tighten the retaining screw. If adjustment does not result in acceptable crimp height, the dies and/or tool may have to be replaced.

5. PARTS REPLACEMENT

Customer–replaceable parts are shown in Figure 1. Available separately, PRO–CRIMPER II Repair Kit 679221–1 includes 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 CORPORATION
P.O. BOX 3608
HARRISBURG, PA 17105–3608

For tool repair service, please contact a representative at 1–800–526–5136.

6. REVISION SUMMARY

Since the previous release of this sheet, the following changes were made per EC 0990–1784–02:

- Updated document to corporate requirements
- Added new information to table in Figure 1