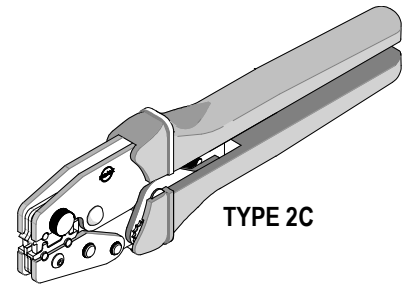




## HAND CRIMP TOOL SPECIFICATION SHEET Order No. 63819-8400



### FEATURES

- A full cycle ratcheting hand tool ensures complete crimps
- Ergonomic soft grip handles for comfortable crimping
- This tool is WHMA-IPCA620 Class 2 and RoHS compliant

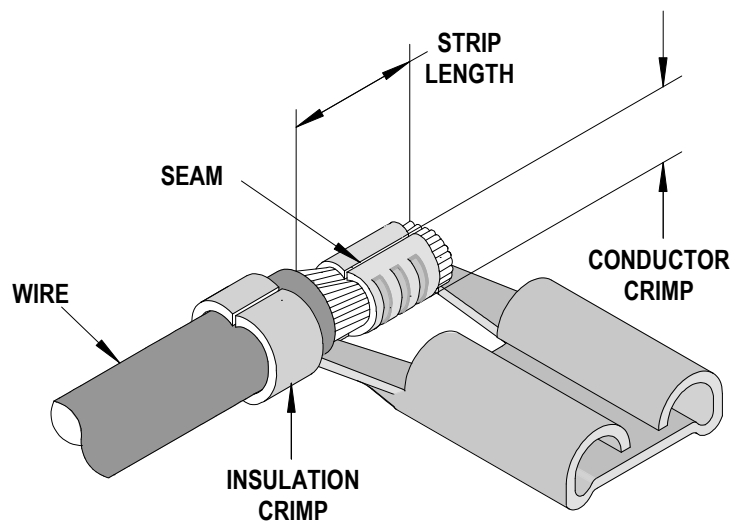
### SCOPE

Products: Quick Disconnect, Female, Flag, for 0.80 - 1.00mm<sup>2</sup> and 18 AWG wires.

Terminal Series No.	Terminal Order No.		Wire Size		Insulation Diameter		Strip Length	
	Loose	* Reel	AWG	mm <sup>2</sup>	mm	In.	mm	In.
94030		94030-5000	18	0.80	2.10-2.60	.083-.102	6.0-7.0	.236-.276
		94030-5001		(0.82)				
				1.00				

\*Customer to cut off terminal from reel. Cut tab flush with terminal on both ends.

### DEFINITION OF TERMS



The above terminal drawing is a generic terminal representation. It is not an image of any terminal listed in the scope.

### CONDITIONS:

After crimping, the conductor profiles should measure the following (see notes on page 4).

Terminal Series No.	Wire Size		Conductor Crimp				Profile	
			Height (Ref.)		Width (Ref.)			
	AWG	mm <sup>2</sup>	mm	In.	mm	In.	A	B
94030		0.80	1.50 – 1.60	.059 - .063	2.35	.093		X
	18	(0.82)	1.50 – 1.60	.059 - .063	2.35	.093		X
		1.00	1.60 – 1.70	.063 - .067	2.35	.093	X	

Terminal Series No.	Wire Size		Insulation Crimp				Pull Force Minimum	
			Height (Ref.)		Width (Ref.)			
	AWG	mm <sup>2</sup>	mm	In.	mm	In.	N	Lb.
94030		0.80	2.90 – 3.00	.114 - .118	3.45 max	.136 max	117.7	26.4
	18	(0.82)	2.90 – 3.00	.114 - .118	3.45 max	.136 max	117.7	26.4
		1.00	3.00 – 3.10	.118 - .122	3.45 max	.136 max	157.0	35.3

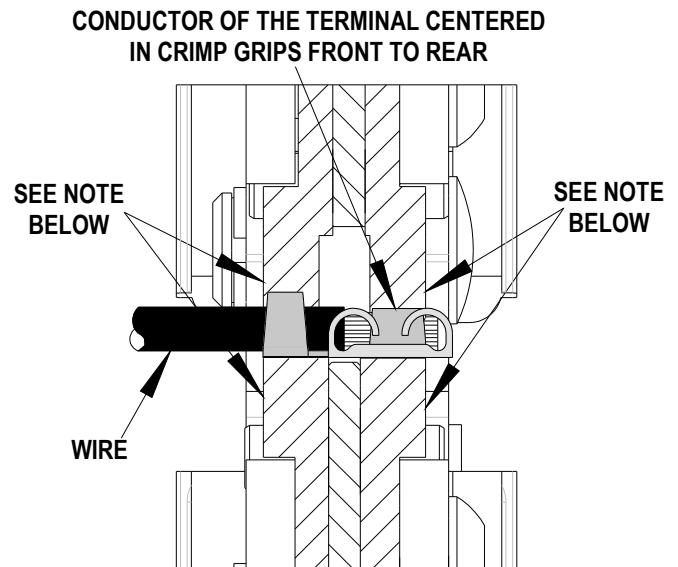
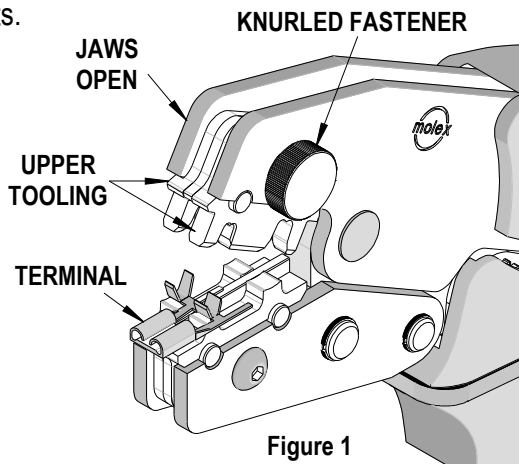
### OPERATION

**CAUTION:** Install only Molex terminals listed above with this tool. Do not crimp hardened objects as damage can occur to the tool or die.

Open the tool by squeezing the handles together, at the end of the closing stroke, the ratchet mechanism will release the handles, and the hand tool will spring open.

#### Crimping Terminals

1. Select the desired terminal listed in the preceding charts.



**Note:** The Terminal should be centered in crimp nests with the outer edges of the crimp grips flush with the jaws on both sides.

2. Before attempting to crimp any terminals, make sure all the upper tooling is correctly placed into the upper jaw. The desired nest being used for the proper wire size should be in the forward position, (The marking on the upper tooling “A” for 1.0mm<sup>2</sup> or “B” for 18 AWG and 0.8mm<sup>2</sup>). This is done by removing the knurled fastener that holds the upper tooling in place and then rotating it 180° to the correct position. Then, re-installing the fastener. See Figure 1.

3. Place the terminal into the nest profile, centered on the nest as shown, with the outer edges of the crimp grips flush with each side of the crimp die and the opening in the terminal centered below the forward leg of the right punch. See Figure 2.
4. Partially close the tool until the terminal is held in place and re-position the terminal as necessary.
5. From the **left side of the tool**, insert the pre-stripped wire into the terminal until the conductor is centered, front to rear, in the crimp grips. See Figure 2.
6. Compress the terminal by squeezing the tool handles until the ratchet mechanism cycle has been completed. Release handles to open the jaws.

**Note:** The tamper proof ratchet action will not release the tool until it has been fully closed.

7. Remove the crimped terminal. Inspect for proper crimp location, and check for insulation closure

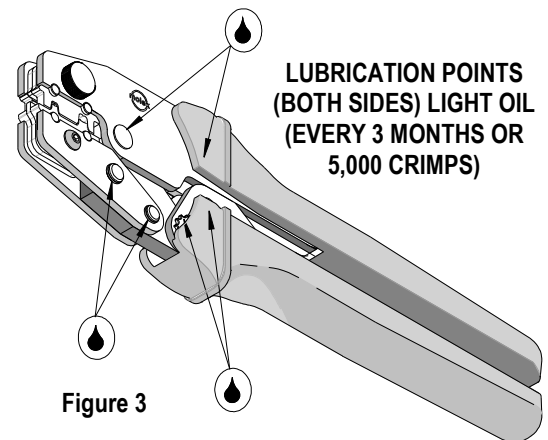
#### **Note:**

A crimp height chart is provided with this manual as Reference Only. Due to the wide range of wires, strands, insulation diameters, and durometers, actual crimp height measurements may vary slightly. An occasional, destructive, pull force test should be performed to check hand tool crimp. Pull Force value must exceed the Minimum pull force specifications listed on page 2.

#### **Maintenance**

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

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 fine piece of equipment it needs cleaning and lubrication for a maximum service life of trouble free crimping. Use light oil, such as 30 weight automotive oil, at the oil points. Every 5,000 crimps, or 3 months, to significantly enhance the tool life. See Figure 3.
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.



#### **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 the ratchet release lever. See Figure 6.

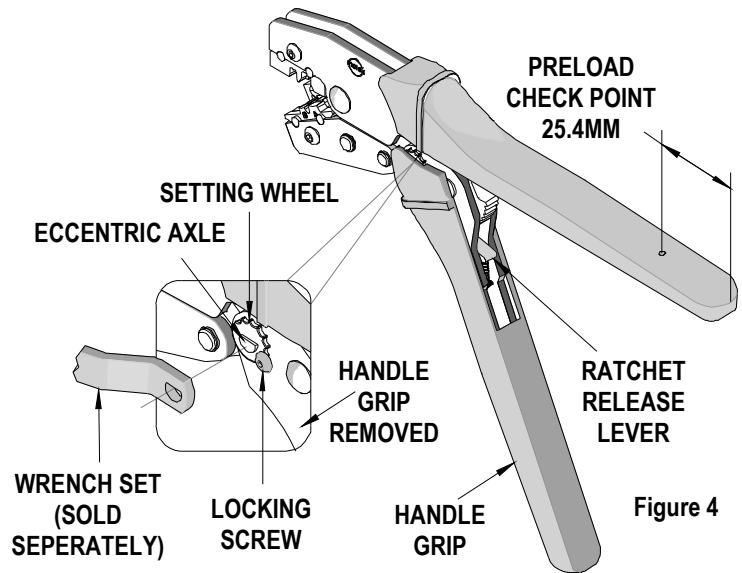
#### **How to Adjust Tool Preload (See Figure 4)**

This hand tool is factory preset to 25-45 LBS. preload. It may be necessary over the life of the tool to adjust tool handle preload force. Listed below are the steps required to adjust the crimping force of the hand tool to obtain proper crimp conditions:

1. Remove or fold back the handle grip from the handle to expose the eccentric axle and setting wheel.
2. Remove the locking screw with a 2mm hex wrench. The wrench set (63810-0101), is not supplied. It is sold separately from the hand tool.
3. Turn the eccentric axle and setting wheel with the wrench or pliers Counter-clockwise (CCW) to increase handle force.
4. Replace the locking screw, aligning the nearest notch in the setting wheel to locking screw.
5. Replace the handle grip.
6. Check the crimp specifications or conduct a pull test after tool handle preload force is adjusted.

## Warranty

This tool is for electrical terminal crimping purposes only. This tool is made of the best quality materials. All vital components are long life tested. All tools are warranted to be free of manufacturing defects for a period of 30 days. Should such a defect occur, we will repair or exchange the tool free of charge. This repair or exchange will not be applicable to altered, misused, or damaged tools. This tool is designed for hand use only. Any clamping, fixturing, or use of handle extensions voids this warranty.



**CAUTION:** Molex crimp specifications are valid only when used with Molex terminals and tooling.

## CAUTIONS:

1. Manually powered hand tools are intended for low volume or field repair. This tool is **NOT** intended for production use. Repetitive use of this tool should be avoided.
2. Insulated rubber handles are not protection against electrical shock.
3. Wear eye protection at all times.
4. Use only the Molex terminals specified for crimping with this tool.

## Certification

Molex does not certify or re-certify commercial grade hand tools but rather supplies the following guidelines for customers to re-certify hand tools.

- % This tool is qualified to pull force only. To re-certify, crimp a terminal to a wire, which has been stripped 12.7mm (1/2") long, so there is no crimping of the insulation. Pull the terminal and wire at a rate no faster than 25mm (1.00") per minute. See the Molex web site for the Quality Crimp Handbook for more information on pull testing.
- % If the tool does not meet minimum pull force values, handle preload should be increased and the pull test rerun, (See How to Adjust Preload).
- % When the hand tool is no longer capable of achieving minimum pull force, it should be taken out of service and replaced.

**PARTS LIST**

Item Number	Order Number	Description	Quantity
REF	63819-8400	Hand Crimp Tool	Figure 5
1	63810-0101	Wrench Set (Not included)	0
2	63810-0103	Repair Kit (Not included)	0

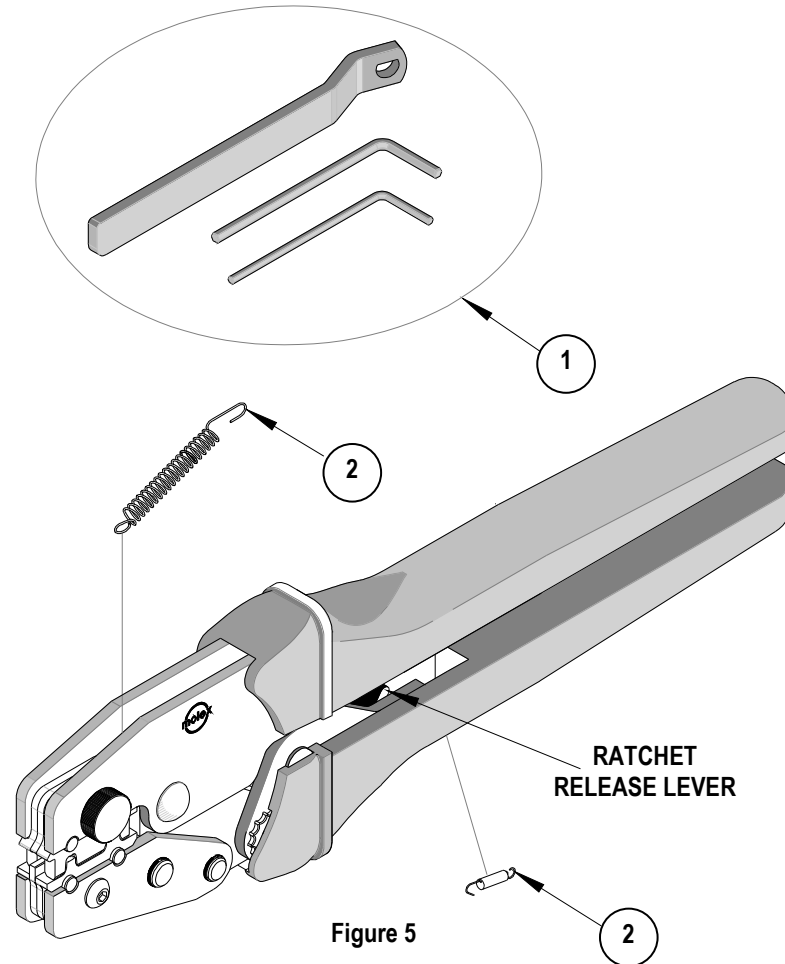


Figure 5

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