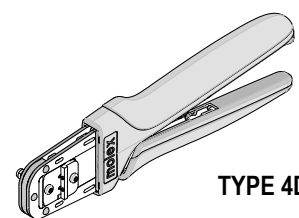


**HAND CRIMP
TOOL****molex****Application Tooling
Specification Sheet****TYPE 4D****Order No. 63823-6100****FEATURES**

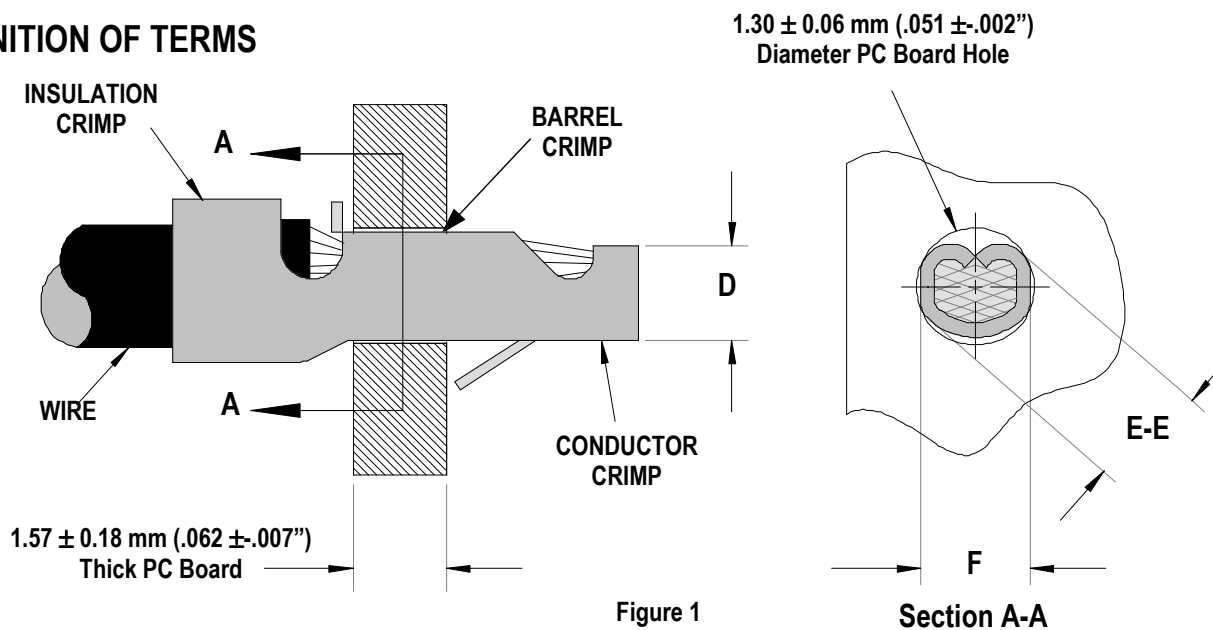
- A full cycle ratcheting hand tool ensures complete crimps
- Ergonomic soft grip handles for comfortable crimping
- A terminal locator and wire stop hold terminals in the proper crimping position
- Right or left handed operation
- This tool is IPC/WHMA A-620 Class 2 compliant

SCOPE

Products: Board-In Crimp Terminal, 22-26 AWG.

Terminal Series No.	Terminal Order No.			Wire Size		Insulation Diameter		Strip Length	
	Loose Piece	Reel		AWG	mm ²	mm	In.	mm	In.
4811	not available	16-02-0034	16-02-0047	22-26	0.12-0.35	1.30-1.52	.051-.060	5.97-6.35	.235-.250
		16-02-0120	40-08-0631						
41817	not available	16-02-0118		22-26	0.12-0.35	1.30-1.52	.051-.060	5.97-6.35	.235-.250
42001	not available	40-01-0610	40-08-0605	22-26	0.12-0.35	1.30-1.52	.051-.060	4.70-5.00	.185-.197
		40-02-0601	40-08-0606						

♦ To achieve optimum IPC-A620 Class 2 insulation crimps, use this insulation OD range.
Terminals will accommodate the UL1007 wires.

DEFINITION OF TERMS

CRIMP SPECIFICATIONS

After crimping, the conductor profiles should measure the following (See Figure 1).

Terminal Series No.	Wire Size		Dimensions (Figure 1)						♦ Pull Force Minimum		Profile	
			D (Conductor) Max.		E-E (Barrel)		F Max.					
	AWG	mm²	mm	In.	mm	In.	mm	In.	N	Lb.	A	B
4811	22	0.35	0.97	.038	1.19-1.24	.047-.049	0.97	.038	13.30	3.0		X
	24	0.20	0.97	.038	1.19-1.24	.047-.049	0.97	.038	13.30	3.0		X
	26	0.12	0.97	.038	1.19-1.24	.047-.049	0.97	.038	13.30	3.0		X
41817	22	0.35	0.97	.038	1.19-1.24	.047-.049	0.97	.038	13.30	3.0		X
	24	0.20	0.97	.038	1.19-1.24	.047-.049	0.97	.038	13.30	3.0		X
	26	0.12	0.97	.038	1.19-1.24	.047-.049	0.97	.038	13.30	3.0		X
42001	22	0.35	0.97	.038	1.19-1.24	.047-.049	0.97	.038	13.30	3.0	X	
	24	0.20	0.97	.038	1.19-1.24	.047-.049	0.97	.038	13.30	3.0	X	
	26	0.12	0.97	.038	1.19-1.24	.047-.049	0.97	.038	13.30	3.0	X	

- ♦ The crimp on this terminal is not an electrical crimp; the final soldering operation is the electrical connection. This minimum force is what should be expected when pulling the terminal with both insulation and conductor crimped.

Terminal Series No.	Wire Size		Insulation Crimp Height (Ref.)		Insulation Crimp Width (Ref.)	
	AWG	mm ²	mm	In.	mm	In.
4811	22	0.35	1.70	.067	1.70	.067
	24	0.20	1.65	.065	1.70	.067
	26	0.12	1.60	.063	1.70	.067
41817	22	0.35	1.70	.067	1.70	.067
	24	0.20	1.65	.065	1.70	.067
	26	0.12	1.60	.063	1.70	.067
42001	22	0.35	1.70	.067	1.70	.067
	24	0.20	1.65	.065	1.70	.067
	26	0.12	1.60	.063	1.70	.067

OPERATION

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

PREPARING TERMINALS FOR CRIMPING

The terminals must be cut from the reel as shown. See Figure 2. The carrier strip hole is used to assist in loading the terminal in position over the crimp anvils. The carrier strip will help maintain terminal position during crimping and can be broken off after the crimp is complete.

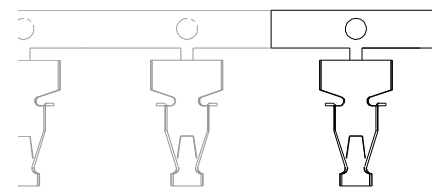


Figure 2

NOTE: The 41817 and 42001 series terminals must have the front (nose) carrier strip cut away; otherwise the terminal will not properly fit into the hand tool.

Crimping Terminals

1. Load the terminal with carrier strip into the proper crimp profile. Make sure the carrier strip pilot hole fits over the positioning pin.
2. Place the properly stripped wire into the open terminal barrel. Push the wire into the tool until the end of the wire contacts the wire stop, making sure that all wire strands are inside of the conductor barrel. See Figure 3 and 4.
3. While holding the wire with one hand, slowly squeeze the tool handles together to close the tool jaws until the ratchet mechanism releases. At this point the handles can be released and will spring open.
4. Remove the crimp and inspect for acceptable crimp attributes.

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

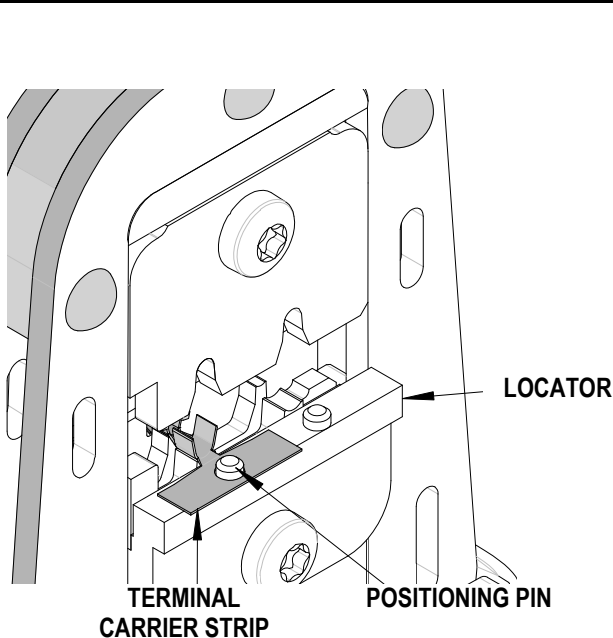


Figure 3

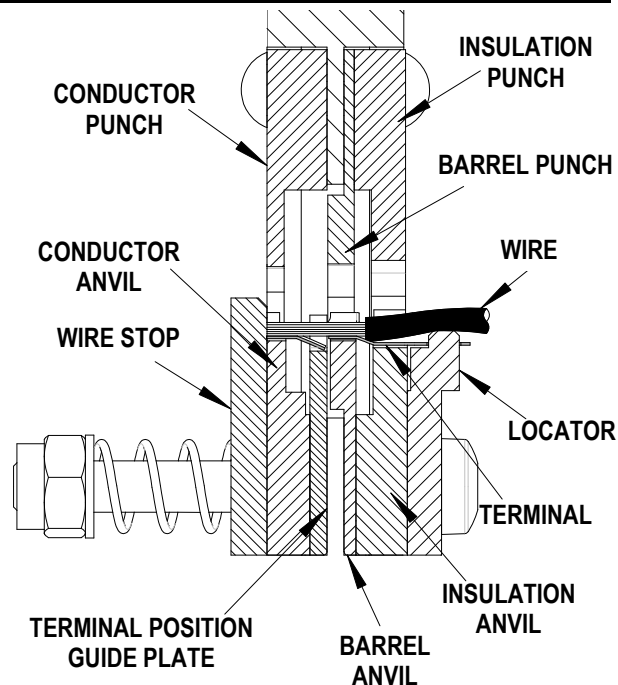


Figure 4

Right or Left Hand Operation

This hand tool has an added feature that can be converted from a right hand application to a left hand application. It is necessary to reverse the tooling if using the left handed application along with the locator. Follow the steps below:

1. Open the tool by squeezing the handles together before reversing the tooling for right or left hand application.
2. Remove the M3 BHCS that is holding the upper tooling. See Figure 6A.
3. Flip the upper tooling to the opposite side and reinstall the M3 BHCS. Make sure all tooling are in the correct orientation and the small markings on the front and back of the hand tool frame match up and are on the outside of the hand tool frame. See Figure 5 and 6B.

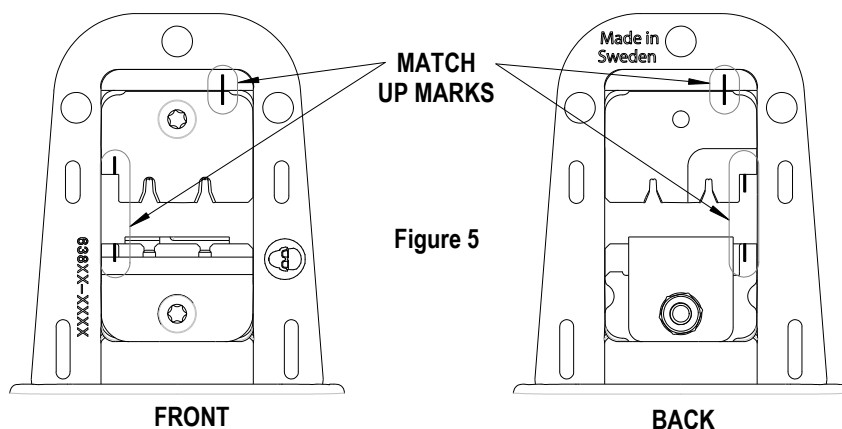
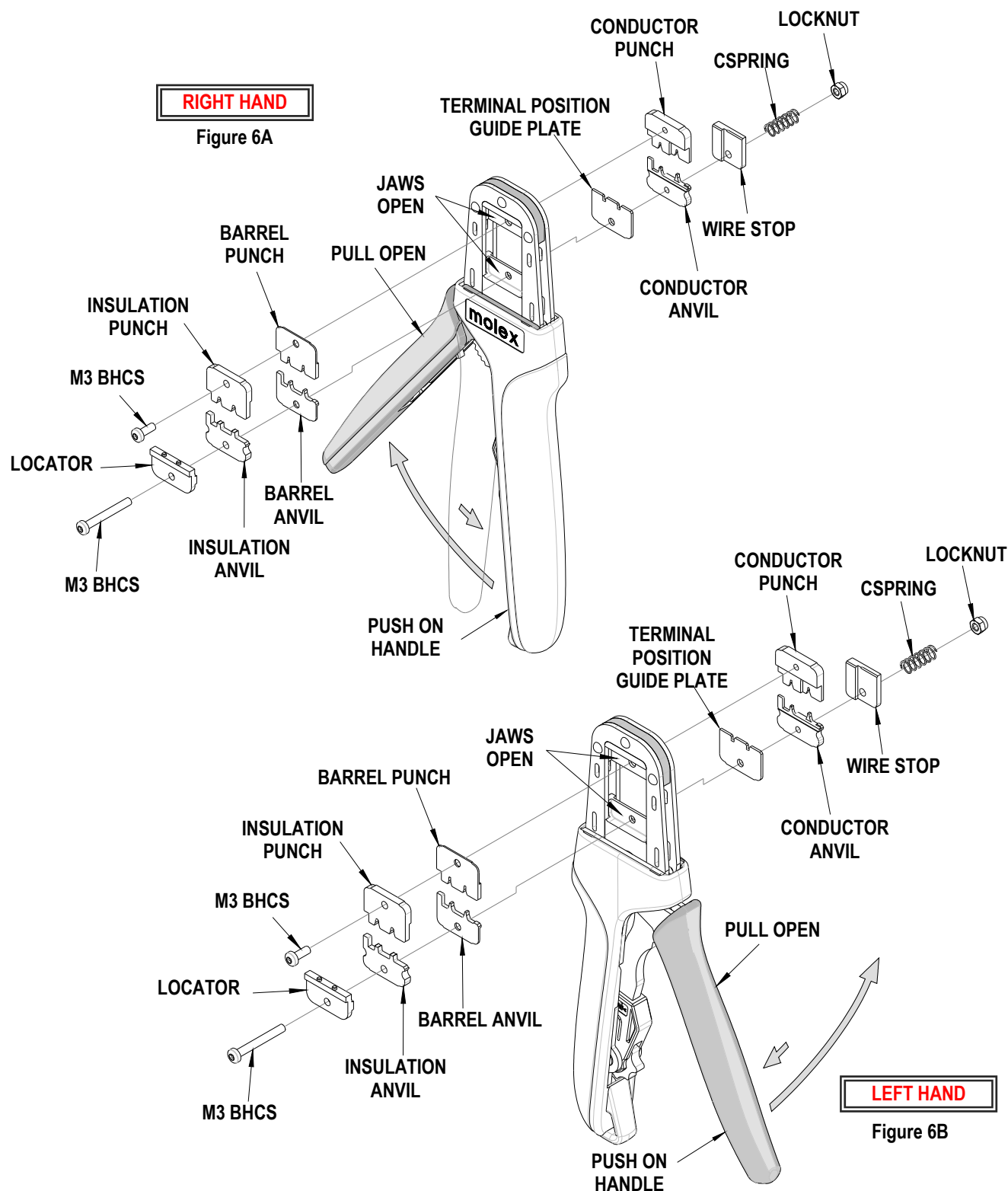


Figure 5

4. Do the same thing with the lower tooling, except the lock nut, compression spring and wire stop must be removed first. Flip the lower tooling which has the locator (in front) to the opposite side and reinstall the M3 BHCS. Align lower tooling to upper tooling by slowly squeeze the tool handles together to close the tool jaws, tighten both M3 screws for upper and lower tooling. See Figure 5 and 6B.
5. Reinstall the wire stop, compression spring and the lock nut over the M3 screw and tighten the lock nut.



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 other equipment it needs cleaning and lubrication for a maximum service life of trouble free crimping. Light oil (such as SAE 30W oil) used at the oil points, every 5,000 crimps or 3 months, will significantly enhance the tool life.
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.

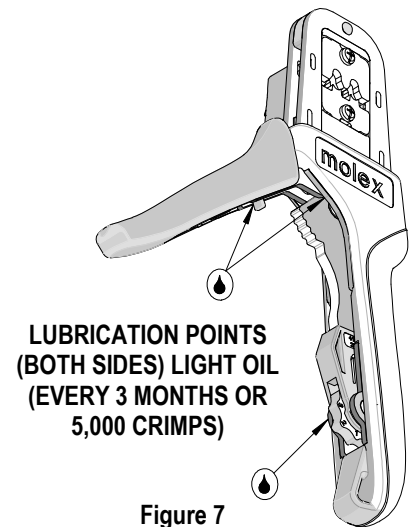


Figure 7

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 up on the ratchet release lever in the movable handle. See Figure 8.

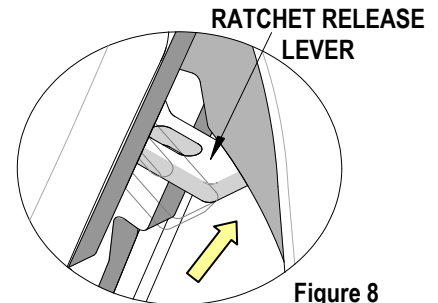


Figure 8

How to Adjust Tool Preload (See Figure 9)

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. Hold the hand tool in the palm of your hand as shown in Figure 9. Using the index finger squeeze the link towards the top of the hand tool frame. This will release the preload adjustment wheel.
2. Rotate the setting wheel counter-clockwise (CCW) to increase handle force. The numbers will display higher. To decrease handle force rotate the setting wheel clockwise (CW).
3. Release the link to lock the setting wheel in place.
4. Check the crimp specifications or conduct a pull test after tool handle preload force is adjusted.

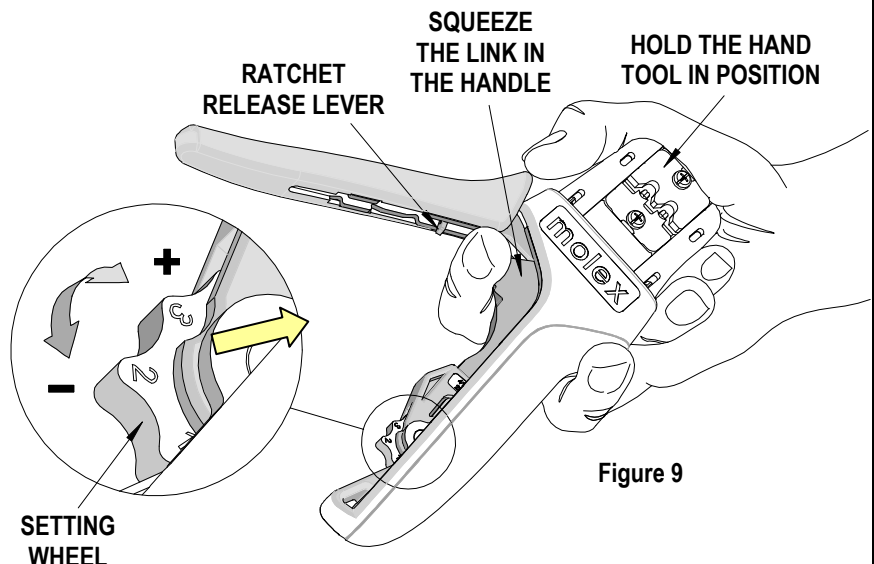


Figure 9

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.

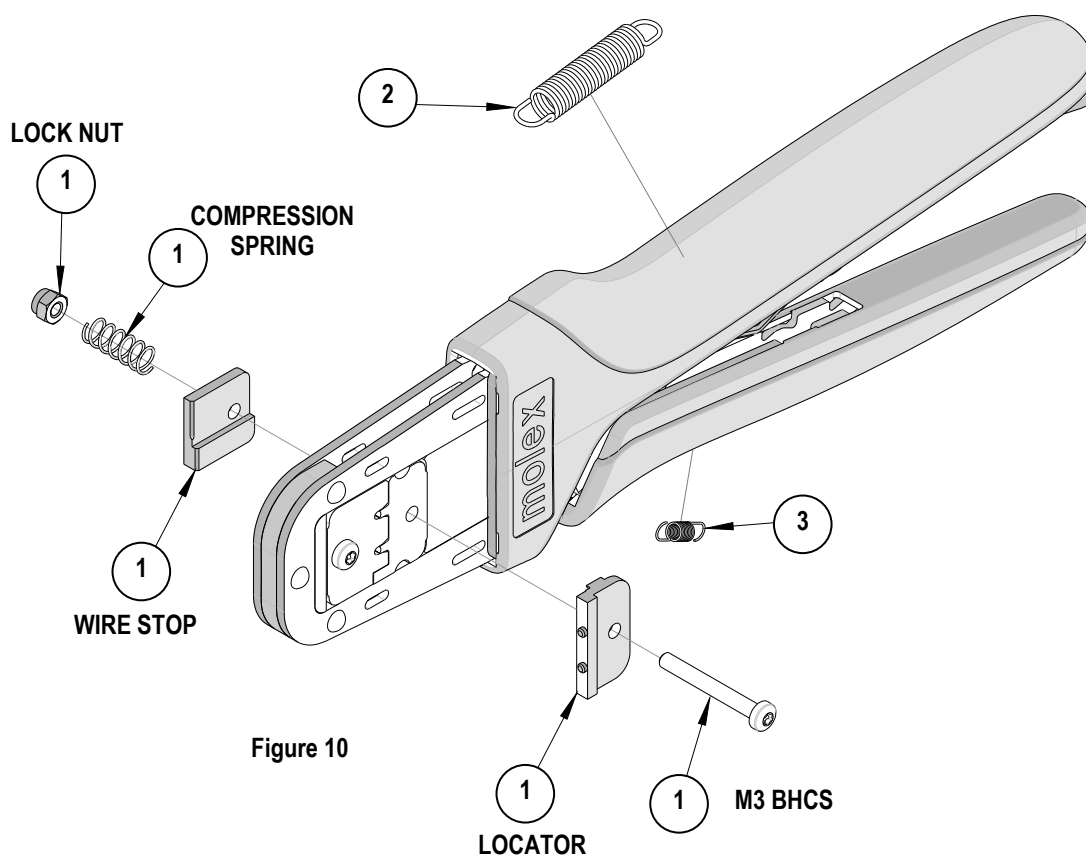
Certification

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

- % This tool is qualified to pull force only. 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	63823-6100	Hand Crimp Tool	Figure 10
1	63823-6175	Locator Assembly	1
2	63810-0104	Spring, Return	1
3	63810-0105	Spring, Ratchet	1



<http://www.molex.com>