Excellent Integrated System Limited
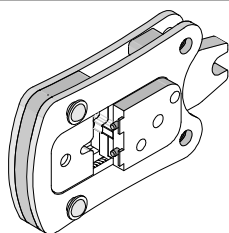
Stocking Distributor

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[Molex Connector Corporation](#)
[0638271300](#)

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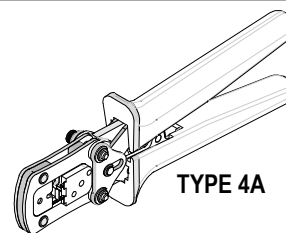
Hand Crimp Tool for Board-In Crimp Terminals

	molex	TYPE 4A
Modular Crimp Head **Order No. 63827-1370**	**Application Tooling** **Specification Sheet**	**Hand Crimp Tool** **Order No. 63827-1300**

FEATURES

% A full cycle ratcheting hand tool ensures complete crimps
% Ergonomically designed soft handles
% Precisely designed crimping profiles with simple contact positioning
% Easy handling due to outstanding force ratio
% Modular Crimp Head is removable and can be use in the Air Powered Tool Order No.63816-0100, accompanied by Air Powered Crimp Adapter (Order No. 63816-0700).
% Can also be used in the Battery Powered Tool Order No.63816-0200 (110 V) or 63816-0250 (220 V), accompanied by Battery Powered Crimp Adapter (Order No. 63816-0600).
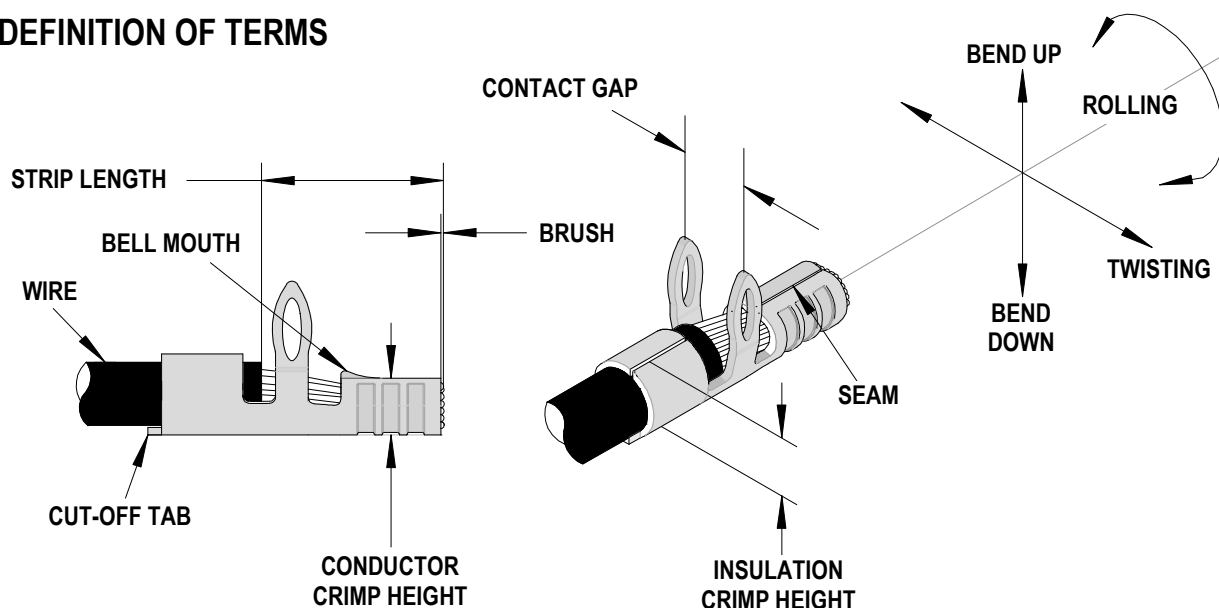
SCOPE

Products: SolderRight™ Right Angle Board-In Crimp Terminal, 16 AWG

Terminal Series No.	Terminal Order No.	Wire Size		Insulation Diameter				Strip Length	
				IPC/WHMA-A620 (1)		Terminal Max. (2)			
		AWG	mm²	mm	In.	mm	In.	mm	In.
171892	171892-0100	16	1.30	1.80-2.00	.071-.079	2.39	.094	5.40-5.70	.212-.224

(1) To achieve optimum IPC-A620 insulation crimps, use this insulation OD range.
(2) Overall insulation OD specification for terminal.

DEFINITION OF TERMS

BEND UP

ROLLING

CONTACT GAP

STRIP LENGTH

BRUSH

TWISTING

BELL MOUTH

WIRE

BEND DOWN

SEAM

CUT-OFF TAB

CONDUCTOR CRIMP HEIGHT

INSULATION CRIMP HEIGHT

Hand Crimp Tool for Board-In Crimp Terminals

CRIMP SPECIFICATION

Terminal Series No.	Bell mouth		Cut-off Tab Maximum		Conductor Brush Maximum	
	mm	In.	mm	In.	mm	In.
171892	0.20-0.50	.008-.020	0.30	.012	0.45	.018

Terminal Series No.	Bend up	Bend down	Twist	Roll	Punch Width (Ref)				Contact Gap (Center to Center)		Seam Seam shall not be open and no wire allowed out of the crimping area
					Conductor		Insulation				
	Degree		Degree		mm	In.	mm	In.	mm	In.	
171892	5	5	5	10	2.30	.090	2.30	.090	2.30-2.80	.090-.110	

After crimping, the crimp profiles should measure the following:

Terminal Series No.	Wire Size		Conductor				Insulation		Pull Force Minimum	
			Crimp Height		Crimp Width (Ref)		Crimp Height			
	AWG	mm²	mm	In.	mm	In.	mm	In.	N	Lb.
171892	16	1.30	1.48-1.52	.058-.060	2.45	.096	2.45	.096	133.5	30.0

Notes:
1. This tool should only be used for the terminals and wire gauges specified on this sheet.
2. Pull Force should be measured with no influence from the insulation crimp.
3. The above specifications are guidelines to an optimum crimp.
4. Molex does not repair hand tools (see *Warranty* on page 3). The replacement parts listed are the only parts available for repair. If the handles or crimp tooling is damaged or worn, a new tool must be purchased.
5. Pull force should be used as the final criteria for an acceptable crimp. Refer to Molex Quality Crimping Handbook 63800-0029 for additional information on crimping and crimp testing.
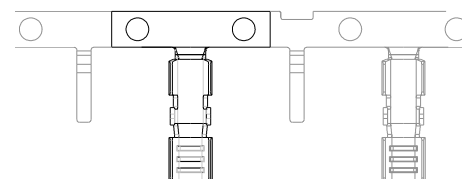6. Molex does not certify crimp hand tools.

Figure 1

OPERATION

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.

Preparing Terminals for Crimping
The terminals must be cut from the reel as shown. See Figure 1. The carrier strip holes are 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.

Crimping Terminals
1. Load the terminal with carrier strip onto the crimp anvils. Make sure the carrier strip pilot holes fit over the positioning pins.
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 Figures 2 and 3.
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.
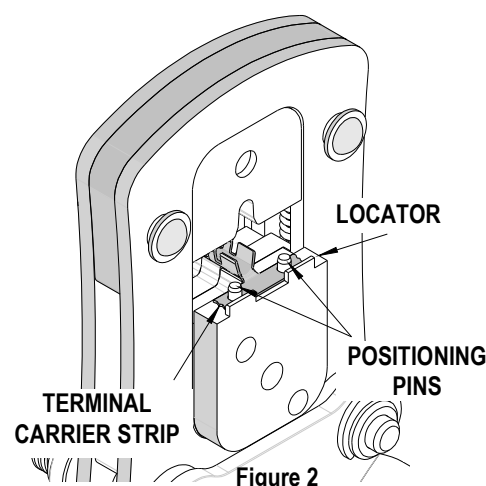

LOCATOR

POSITIONING PINS

TERMINAL CARRIER STRIP

Figure 2

Distributor of Molex Connector Corporation: Excellent Integrated System Limited
Datasheet of 0638271300 - HAND CRIMP TOOL
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Hand Crimp Tool for Board-In Crimp Terminals

4. Remove the crimped terminal and inspect for acceptable crimp attributes.

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

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 30 weight automotive 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.
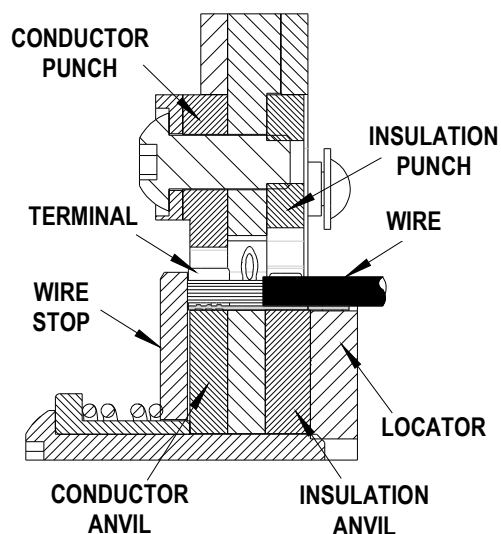

Figure 3

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 lifting the ratchet release lever. See Figure 7.

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: Repetitive use of this tool should be avoided.

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.

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

Applications for the Modular Crimp Head

WARNING: *NEVER* operate, service, install, or adjust this Modular Crimp Head without proper instruction and without first reading and understanding the instructions in the proper Manual or Specification Sheet. See Chart below for the correct Manual or Specification Sheet.
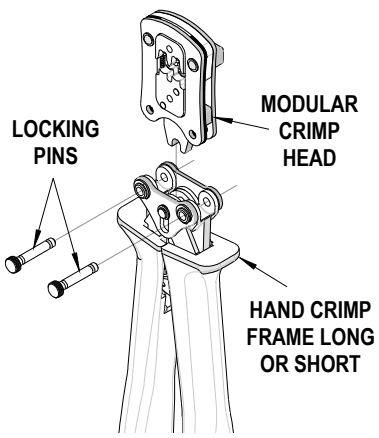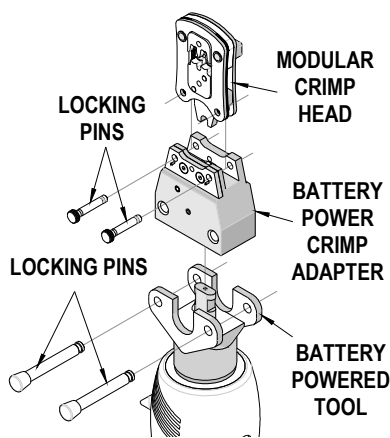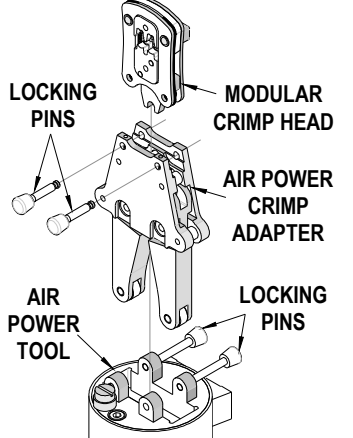
WARNING: *NEVER* install tooling or service this tool while it is into any power source. Disconnect the power by unplugging or turn off the Actuator from its power source.

CAUTION: Keep fingers away from the crimping area when operating this tool. It may cause severe injury.

CAUTION: Wear safety glasses when operating or serving this tool.

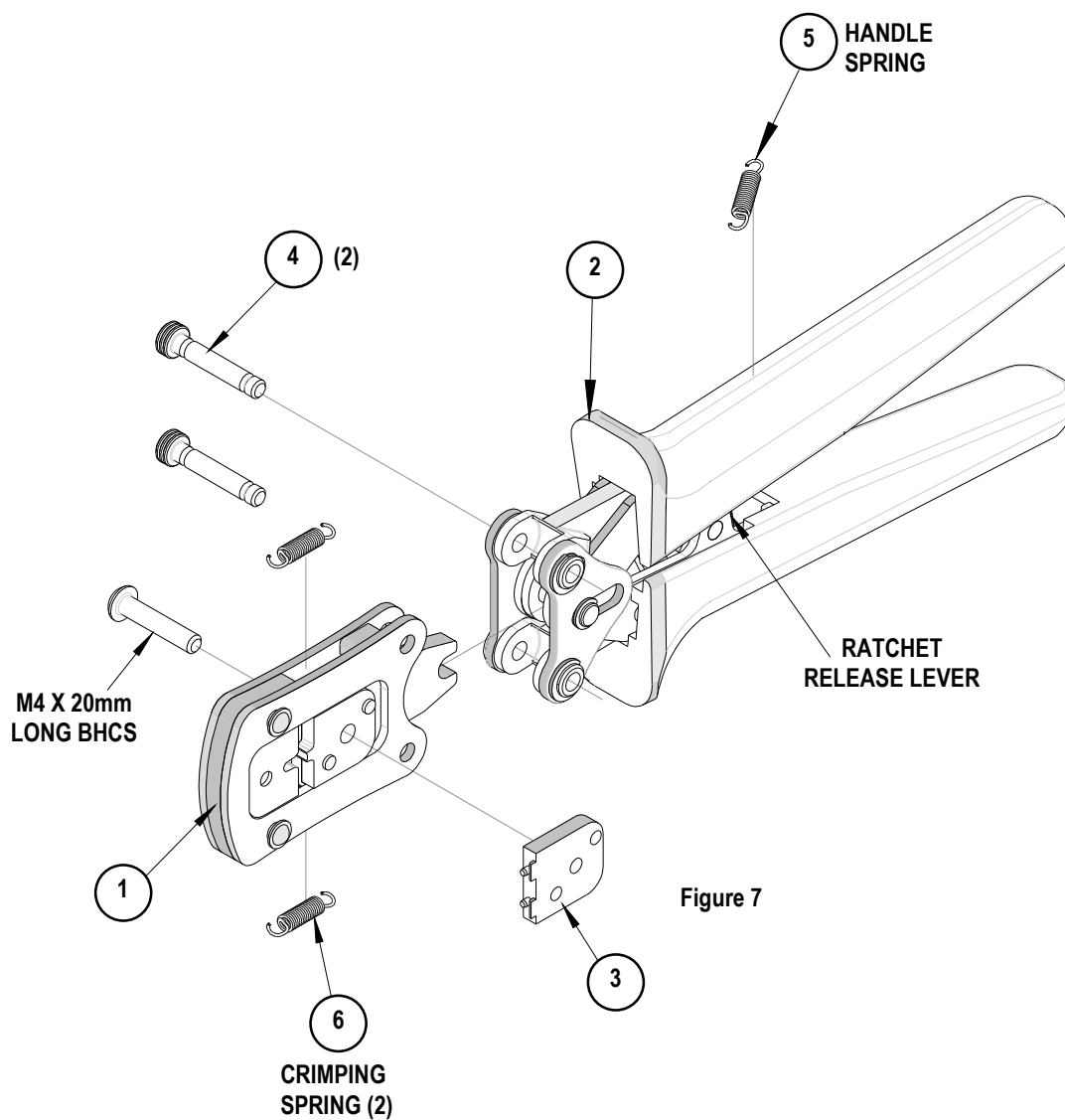The chart below shows all applications for this Modular Crimp Head.

Modular Crimp Head Order No.	Tool Order no.	Tool Description	Adapter Order No.	Adapter Description	Figure No.
63827-1370	63816-0000	Hand Crimp Frame (Short)	N/A	N/A	4
	63816-0050	Hand Crimp Frame (Long)	N/A	N/A	4
	63816-0200	Battery Power Tool (110 V)	63816-0600	Battery Power Crimp Adapter	5
	63816-0250	Battery Power Tool (220 V)	63816-0600	Battery Power Crimp Adapter	5
	63816-0100	Air Power Tool	63816-0700	Air Power Crimp Adapter	6

Applications for the Modular Crimp Head		
Hand Crimp Tool	**Battery Powered Tool**	**Air Powered Tool**
Figure 4	**Figure 5**	**Figure 6**

Hand Crimp Tool for Board-In Crimp Terminals

PARTS LIST

Item	Order Number	Description	Quantity
1	63827-1370	Modular Crimp Head	1 (Ref)
2	63816-0050	Hand Crimp Frame (Short)	1 (Ref)
3	63827-1375	Locator Plate	1
4	63816-0001	Locking Pin	2
5	63600-0525	Handle Spring	1
6	63600-0520	Crimping Spring	2

5 HANDLE SPRING

4 (2)

2

M4 X 20mm LONG BHCS

1

6 CRIMPING SPRING (2)

3

RATCHET RELEASE LEVER

Figure 7

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