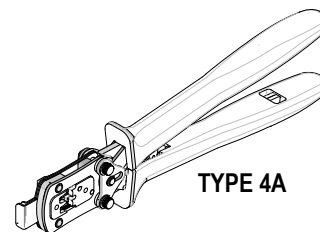


Modular Crimp Head
Order No. 63811-6170

molex

Application Tooling Specification Sheet



Hand Crimp Tool
Order No. 63811-6100

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).

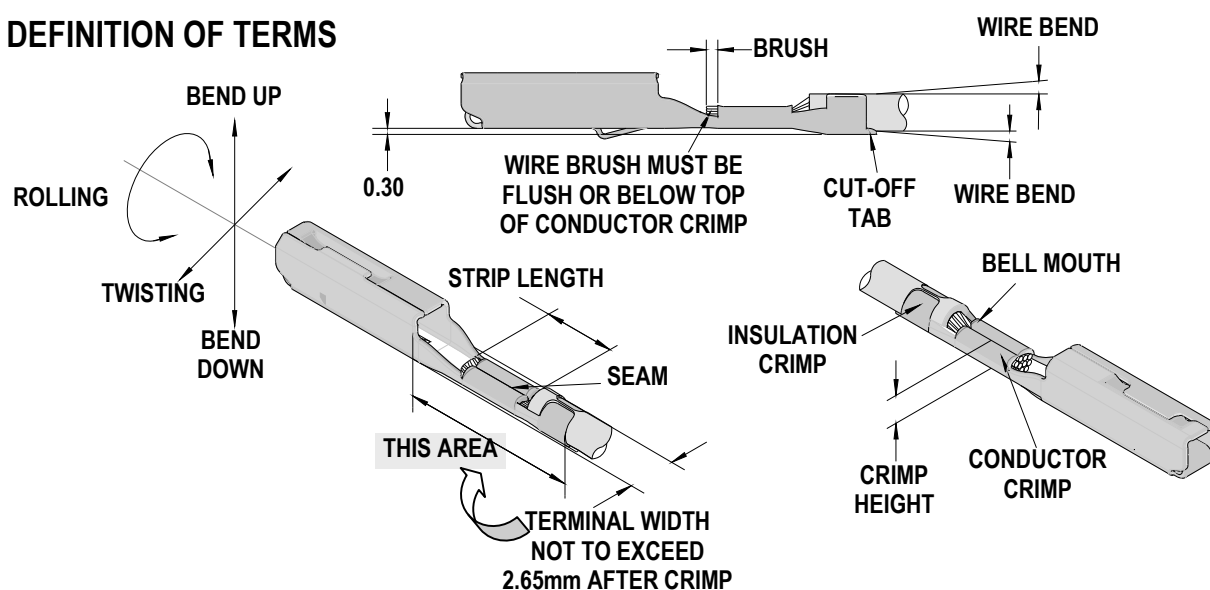
SCOPE

Products: MX150™ 1.50mm (.591") Pitch, MX150™ Receptacle Female Crimp Terminals, 1.00 and 1.50 Metric wires.

Terminal Series No.	Terminal Order No.				Wire Size		Insulation Diameter		Strip Length	
	●Reel				AWG	mm ²	mm	In.	mm	In.
33001	33001-2004	33001-2022	33001-3004	33001-3022	Metric Only	1.00	1.90-2.10	.075-.083	4.70-5.60	.185-.220
	33001-4002	33001-4022	33001-5002	33001-5022						
	33001-2003	33001-2021	33001-3003	33001-3021	Metric Only	1.50	2.20-2.40	.087-.094	4.70-5.60	.185-.220
	33001-4001	33001-4021	33001-5001	33001-5021						
33012	33012-2002	33012-2022	33012-3002	33012-3022	Metric Only	1.00	1.90-2.10	.075-.083	4.70-5.60	.185-.220
	33012-2001	33012-2021	33012-3001	33012-3021	Metric Only	1.50	2.20-2.40	.087-.094	4.70-5.60	.185-.220
34750	34750-0002		34750-1002		Metric Only	1.00	1.90-2.10	.075-.083	4.70-5.60	.185-.220
	34750-0001		34750-1001		Metric Only	1.50	2.20-2.40	.087-.094	4.70-5.60	.185-.220

●Customer to cut off terminal from reel: 0.25mm (.010") maximum Cut-off Tab.
 Terminals were validated per USCAR-21 using the following wire specifications:
 M1L-123A (TXL), M1L-135A1 (UTX), and M1L-126A1 (metric-TXL).
 Customers are required to complete validation testing if tooling purchased outside Molex Inc.
 and/or wire specifications are different than above.

DEFINITION OF TERMS



CRIMP SPECIFICATION

Terminal Series No.	Bell mouth		◆ Conductor Brush	
	mm	In.	mm	In.
33001	0.25-1.25	.010-.049	0.15-0.40	.006-.016
33012	0.25-1.25	.010-.049	0.15-0.40	.006-.016
34750	0.25-1.25	.010-.049	0.15-0.40	.006-.016

◆ Wire brush to be below top of conductor crimp.

Terminal Series No.	Bend up Bend down	Twist Roll	Seam Seam shall not be open and no wire allowed out of the crimping area
	Degree	Degree	
33001	✖Crimped terminals and up to 5mm of wire past the insulator cutoff tab must freely fit in the Checking Aid, Part No. 63868-2008		
33012			
34750			

✖ Order Separately

After crimping, the crimp profiles should measure the following:

Terminal Series No.	Wire Size		Conductor				Profile	
	AWG	mm ²	Crimp Height		Crimp Width		1.00	1.50
			mm	In.	mm	In.		
33001	Metric Only	1.00	1.25-1.35	.049-.053	2.05-2.25	.081-.089	X	
	Metric Only	1.50	1.35-1.45	.053-.057	2.35-2.55	.092-.100		X
33012	Metric Only	1.00	1.25-1.35	.049-.053	2.05-2.25	.081-.089	X	
	Metric Only	1.50	1.35-1.45	.053-.057	2.35-2.55	.092-.100		X
34750	Metric Only	1.00	1.25-1.35	.049-.053	2.05-2.25	.081-.089	X	
	Metric Only	1.50	1.35-1.45	.053-.057	2.35-2.55	.092-.100		X

Terminal Series No.	Wire Size		Insulation				Pull Force Minimum	
			Crimp Height		Crimp Width			
	AWG	mm ²	mm	In.	mm	In.	N	Lb.
33001	Metric Only	1.00	1.90-2.10	.075-.083	2.20-2.40	.086-.094	120.1	27.0
	Metric Only	1.50	2.50-2.70	.098-.106	2.50-2.70	.098-.106	151.2	34.0
33012	Metric Only	1.00	1.90-2.10	.075-.083	2.20-2.40	.086-.094	120.1	27.0
	Metric Only	1.50	2.50-2.70	.098-.106	2.50-2.70	.098-.106	151.2	34.0
34750	Metric Only	1.00	1.90-2.10	.075-.083	2.20-2.40	.086-.094	120.1	27.0
	Metric Only	1.50	2.50-2.70	.098-.106	2.50-2.70	.098-.106	151.2	34.0

T Tool Qualification Notes:

1. Pull Force should be measured with no influence from the insulation crimp.
2. The above specifications are guidelines to an optimum crimp.

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.

Crimping Terminals

1. Lift the wire stop blade up.
2. Insert the terminal fully into the correct die profile and the locator slot until the terminal is fully seated and stops.
3. Push down the wire stop blade. Make sure the wire stop blade is fully seated on the terminal behind the conductor grip section.
4. Slide the pre-stripped wire into the terminal; make sure to aim the wire end towards the tip point on the wire stop blade. See Figure 1. Align the wire so that it is parallel to, and sitting into the terminal. Maintain a light and constant pressure on the wire that is seated in the terminal at all times. (Do not let go of the wire.) Be sure to hold the wire and terminal in place until the terminal is fully crimped. See Figure 2.
5. Close the tool until the ratchet releases.
6. Carefully remove the crimped terminal.

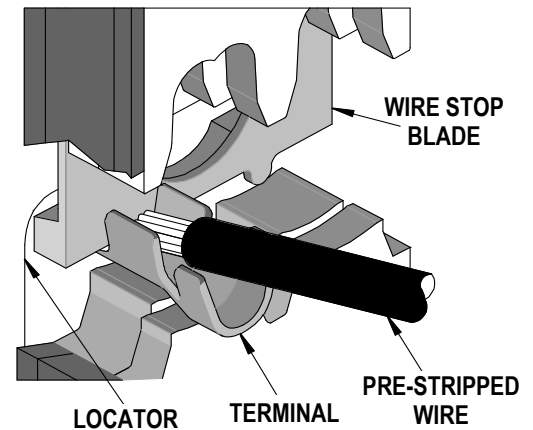


Figure 1

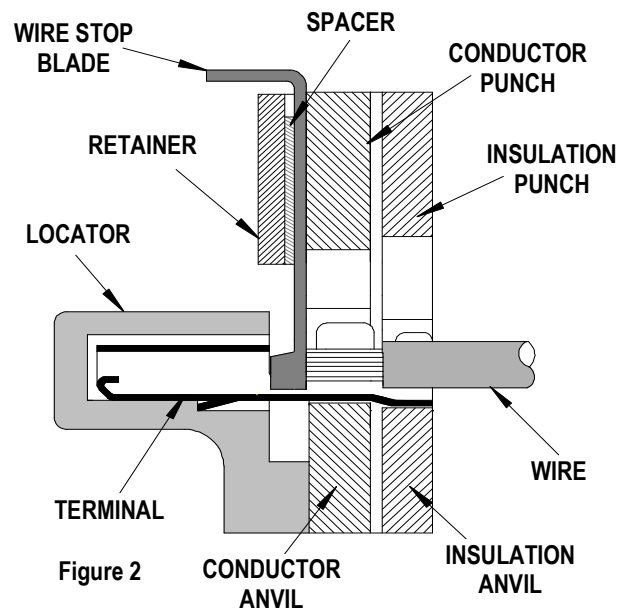


Figure 2

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

Note: To maintain a good brush control and a consistent bell mouth the crimping instructions must be followed.

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.

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 6.

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.

Notes:

1. This tool should only be used for the terminals and wire gauges specified on this sheet.
2. This tool is not adjustable for crimp height; however crimp force is adjustable (See instructions above). Variations in tools, terminals, wire stranding, and insulation types may affect crimp height.
3. This tool is intended for standard conductor sizes. It may not give a good insulation crimp support for all insulation sizes.
4. Molex does not repair hand tools (see warranty above). 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. Pull force is measured with no influence from the insulation crimp. The insulation should be stripped long (1/2 in.) so the insulation grips on the terminal do not grip the wire insulation or the conductor. Refer to Molex Quality Crimping Handbook 63800-0029 for additional information on crimping and crimp testing.
6. Molex does not certify crimp hand tools.

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.

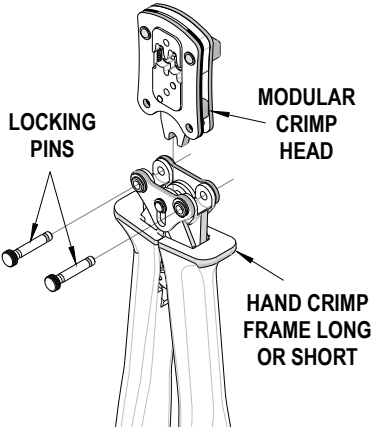
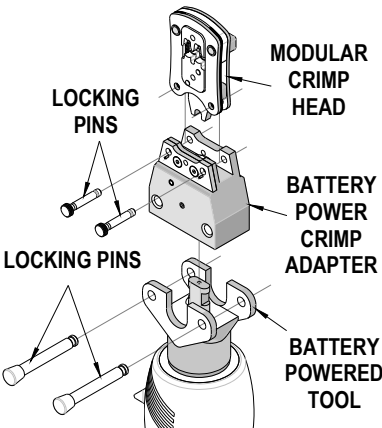
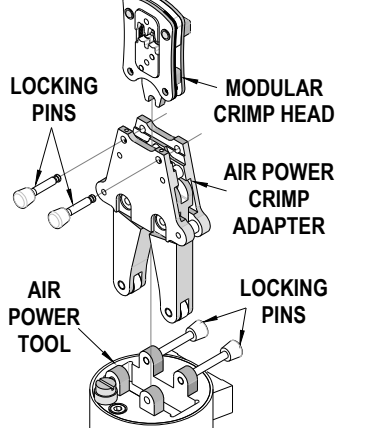
WARNING: NEVER install tooling or service this tool while it is into any power source. Disconnect the power by unplugging or turn off the Actuator from its power source.

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.
63811-6170	63816-0000	Hand Crimp Frame (Short)	N/A	N/A	3
	63816-0050	Hand Crimp Frame (Long)	N/A	N/A	3
	63816-0200	Battery Power Tool (110 V)	63816-0600	Battery Power Crimp Adapter	4
	63816-0250	Battery Power Tool (220 V)	63816-0600	Battery Power Crimp Adapter	4
	63816-0100	Air Power Tool	63816-0700	Air Power Crimp Adapter	5

Applications for the Modular Crimp Head		
Hand Crimp Tool	Battery Powered Tool	Air Powered Tool
 LOCKING PINS MODULAR CRIMP HEAD HAND CRIMP FRAME LONG OR SHORT Figure 3	 LOCKING PINS MODULAR CRIMP HEAD BATTERY POWER CRIMP ADAPTER BATTERY POWERED TOOL Figure 4	 LOCKING PINS MODULAR CRIMP HEAD AIR POWER CRIMP ADAPTER AIR POWER TOOL LOCKING PINS Figure 5

PARTS LIST

Hand Crimp Tool 63811-6100			
Item	Order Number	Description	Quantity
1	63811-6170	Modular Crimp Head	1 (Ref)
2	63816-0050	Hand Crimp Frame (Long)	1 (Ref)
3	63811-6175	Locator	1
4	63816-0001	Locking Pin	2
5	63600-0525	Handle Spring	1
6	63600-0520	Crimping Spring	2

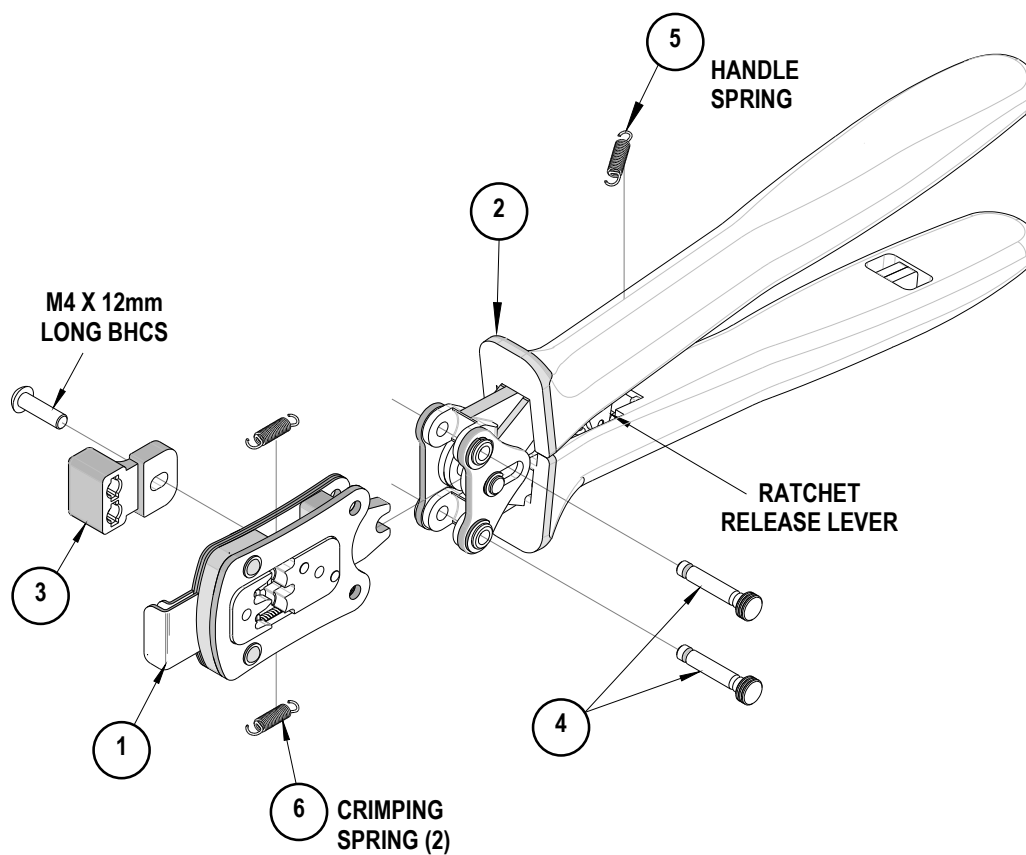


Figure 6

<http://www.molex.com>