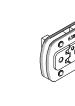


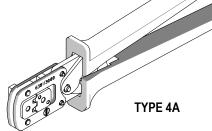
# Hand Crimp Tool Specification Sheet Order No. 63811-6000

# Order No. 638

#### **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





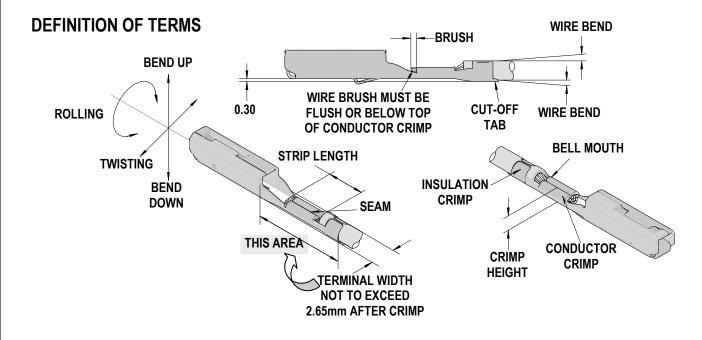
#### SCOPE

<u>Products:</u> 1.50mm (.591") Pitch, MX150™ Receptacle Female Crimp Terminals, 18-22 AWG.

Terminal	Terminal Order No.					Size	Insulation Diameter		Strip Length	
Series No.		•R	AWG	mm²	mm	ln.	mm	ln.		
33001	33001-2004	33001-2022	33001-4002	33001-5002	18	0.83	1.91-2.06	.075081	4.70-5.60	.185220
	33001-3004	33001-3022	33001-4022	33001-5022	20	0.58	1.70-1.85	.067073	4.70-5.60	.185220
	33001-2005	33001-2023	33001-3005	33001-3023	22	0.36	1.50-1.65	.059065	4.70-5.60	.185220
	33001-4003	33001-4023	33001-5003	33001-5023	22					.103220
33012	33012-2002	33012-2022	33012-3002	33012-3022	18	0.83	1.91-2.06	.075081	4.70-5.60	.185220
					20	0.58	1.70-1.85	.067073	4.70-5.60	.185220
	33012-2003	33012-2023	33012-3003	33012-3023	22	0.36	1.50-1.65	.059065	4.70-5.60	.185220
34750	34750-0002	02 34750-1002			18	0.83	1.91-2.06	.075081	4.70-5.60	.185220
	34730-0002   34730-10				20	0.58	1.70-1.85	.067073	4.70-5.60	.185220
	34750-0003	34750-1003			22	0.36	1.50-1.65	.059065	4.70-5.60	.185220

Customer to cut off terminal from reel: 0.50mm (.020") 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.



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# **CRIMP SPECIFICATION**

Terminal Series No.	Bell n	nouth	◆Conductor Brush				
Terminal Series No.	mm	ln.	mm	ln.			
33001	0.25-1.25	.010049	0.15-0.40	.006016			
33012	0.25-1.25	.010049	0.15-0.40	.006016			
34750	0.25-1.25	.010049	0.15-0.40	.006016			
→ Wire brush to be below top of conductor crimp.							

Terminal Series No.	Bend up Bend down	Twist Roll	Seam		
oches no.	Degree	Degree	Seam shall not be		
33001	Crimped terminals and up to 5mm of wire	pact the inculator	open and no wire allowed		
33012	cutoff tab must freely fit in the Checking Aid,		out of the crimping area		
34750	cuton tab must neery lit in the checking Alu,	r art No. 03000-2000			

**X**Order Separately

After crimping, the crimp profiles should measure the following:

	Wire Size		Conductor					Profile	
Terminal Series No.			Crimp Height		Crimp Width		AWG		
	AWG	mm <sup>2</sup>	mm	ln.	mm	ln.	18	20	22
	18	0.83	1.20-1.30	.047051	2.05-2.25	.081089	Χ		
33001	20	0.58	1.10-1.20	.043047	2.05-2.25	.081089		Χ	
	22	0.36	0.95-1.05	.037041	1.50-1.70	.059067			Χ
	18	0.83	1.20-1.30	.047051	2.05-2.25	.081089	Χ		
33012	20	0.58	1.10-1.20	.043047	2.05-2.25	.081089		Χ	
	22	0.36	0.95-1.05	.037041	1.50-1.70	.059067			Χ
	18	0.83	1.20-1.30	.047051	2.05-2.25	.081089	Χ		
34750	20	0.58	1.10-1.20	.043047	2.05-2.25	.081089		Χ	
	22	0.36	0.95-1.05	.037041	1.50-1.70	.059067			Χ

	Wire Size		Insulation					Pull Force	
Terminal Series No.			Crimp Height		Crimp Width		Minimum		
	AWG	mm <sup>2</sup>	mm	ln.	mm	ln.	N	Lb.	
	18	0.83	1.90-2.10	.075083	2.20-2.40	.086094	89.9	20.2	
33001	20	0.58	1.80-2.00	.071079	2.00-2.20	.079087	75.6	17.0	
	22	0.36	1.75-1.95	.069077	1.80-2.00	.071079	49.8	11.2	
	18	0.83	1.90-2.10	.075083	2.20-2.40	.086094	89.9	20.2	
33012	20	0.58	1.80-2.00	.071079	2.00-2.20	.079087	75.6	17.0	
	22	0.36	1.75-1.95	.069077	1.80-2.00	.071079	49.8	11.2	
	18	0.83	1.90-2.10	.075083	2.20-2.40	.086094	89.9	20.2	
34750	20	0.58	1.80-2.00	.071079	2.00-2.20	.079087	75.6	17.0	
	22	0.36	1.75-1.95	.069077	1.80-2.00	.071079	49.8	11.2	

# **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.

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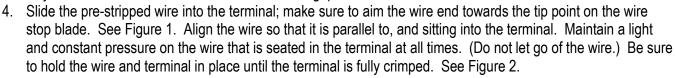
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#### **OPERATION**

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.



CAUTION: Pushing the wire against the Wire Stop Blade with too much force can cause wire strands to bend up and above the top of the conductor crimp. If this occurs, depress strands below the top of the conductor crimp to prevent matte seal damage.

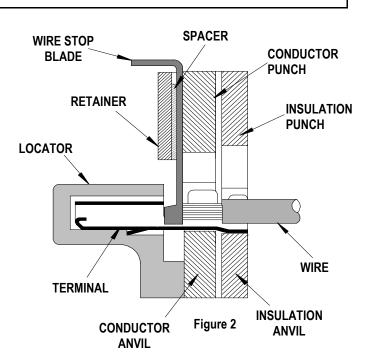
- 5. Close the tool until the ratchet releases.
- 6. Carefully remove the crimped terminal.

Note: To maintain 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.
- 4. 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.



**WIRE STOP BLADE** 

PRE-STRIPPED

WIRE

TERMINAL

Figure 1

**LOCATOR** 

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## Miscrimps or Jams (See Figure 3)

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 pushing the ratchet release lever.

### 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 would exchange the tool free of charge. This 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.

Hand held crimping tools are intended for low volume, prototyping, or repair requirements only.

**CAUTION:** Repetitive use of this tool should be avoided.

#### Notes:

- 1. This tool should only be used for the terminals and wire gauges specified on this sheet.
- 2. This tool is not adjustable. 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, applicators and tooling.

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# **PARTS LIST**

Item Number	Order Number	Description	Quantity
1	63600-0520	Crimping Spring	2
2	63811-6075	Locator	1
3	63600-0525	Handle Spring	1

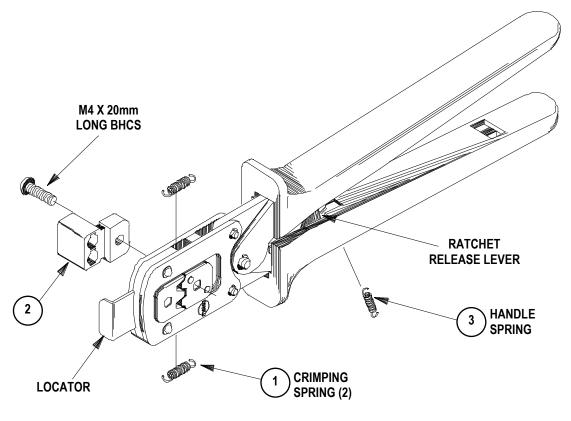


Figure 3

Americas Headquarters Lisle, Illinois 60532 U.S.A. 1-800-78MOLEX amerinfo@molex.com Far East North Headquarters Yamato, Kanagawa, Japan 81-462-65-2324 feninfo@molex.com Far East South Headquarters Jurong, Singapore 65-6-268-6868 fesinfo@molex.com European Headquarters Munich, Germany 49-89-413092-0 eurinfo@molex.com Corporate Headquarters 2222 Wellington Ct. Lisle, IL 60532 U.S.A. 630-969-4550 Fax: 630-969-1352

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