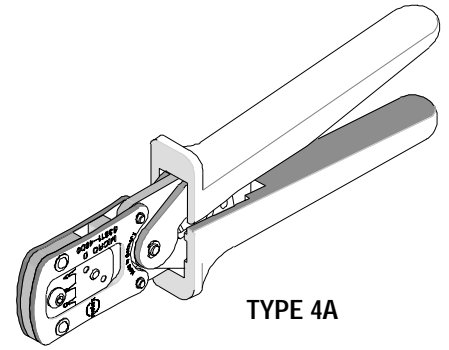




**HAND CRIMP TOOL**  
**Specification Sheet**  
**Order No. 63811-9300**



TYPE 4A

**FEATURES**

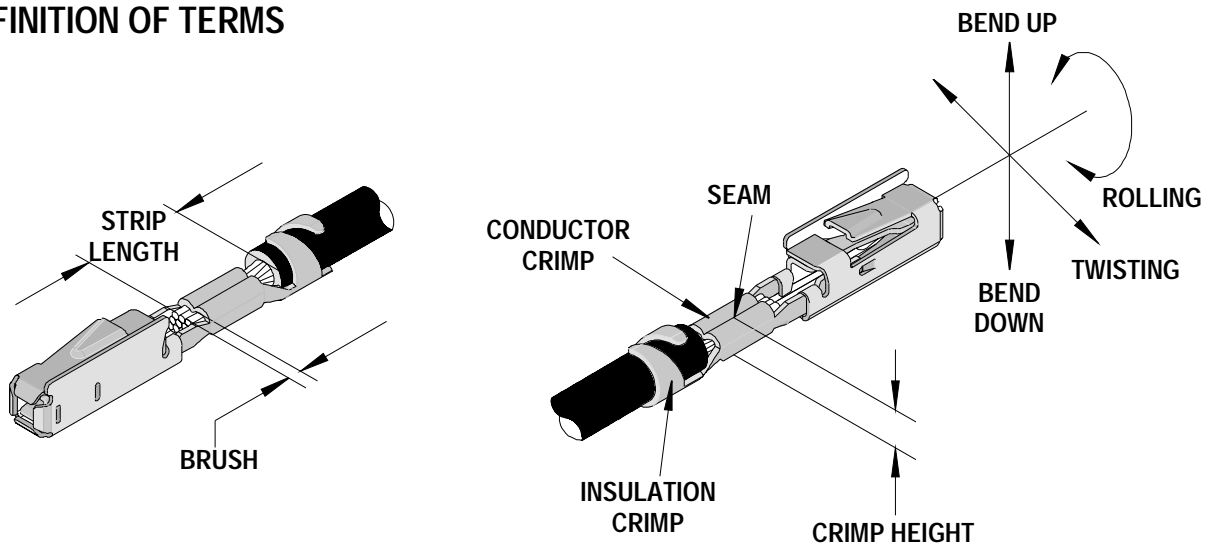
- | A full cycle ratcheting hand tool ensures complete crimps
- | Ergonomically designed soft handles
- | Precisely designed crimping profiles with simple contact positioning
- | Easy handling due to outstanding force ratio
- | A-620 Class 3 compliant
- | RoHS compliant although not required

**SCOPE**

Products: MOX 0.635mm (.025") Receptacle Crimp Terminal, 0.22-0.75mm<sup>2</sup> and 20-22 AWG.

Terminal Series No.	Terminal Order No.	Wire Size	Actual mm <sup>2</sup>	Wire Type	Insulation Diameter		Strip Length	
					mm	In.	mm	In.
98658	98658-1211 98658-1221 98658-1231	0.22mm <sup>2</sup>	0.22	ID	1.10-1.25	.043-.049	2.60-3.30	.102-.130
		0.35mm <sup>2</sup>	0.34	IR	1.25-1.40	.049-.055	2.60-3.30	.102-.130
		22 AWG	0.35	TXL	1.40-1.60	.055-.063	2.60-3.30	.102-.130
		0.50mm <sup>2</sup>	0.495	ID	1.40-1.50	.055-.059	2.60-3.30	.102-.130
		0.50mm <sup>2</sup>	0.495	IR	1.40-1.60	.055-.063	2.60-3.30	.102-.130
		20 AWG	0.562	TXL	1.75-1.90	.069-.075	2.60-3.30	.102-.130
		0.60mm <sup>2</sup>	0.59	IR	1.75-1.90	.069-.075	2.60-3.30	.102-.130
	98658-1212 98658-1222 98658-1232	0.75 mm <sup>2</sup>	0.79	ID	1.60-1.80	.063-.071	3.35-3.65	.132-.144
	98658-1213 98658-1223 98658-1233	0.22mm <sup>2</sup>	0.22	ID	1.15-1.25	.045-.049	2.60-3.30	.102-.130
		0.35mm <sup>2</sup>	0.34	IR	1.25-1.40	.049-.055	2.60-3.30	.102-.130
		22 AWG	0.35	TXL	1.40-1.60	.055-.063	2.60-3.30	.102-.130
		0.50mm <sup>2</sup>	0.495	ID	1.40-1.50	.055-.059	2.60-3.30	.102-.130
		0.50mm <sup>2</sup>	0.495	IR	1.40-1.60	.043-.049	2.60-3.30	.102-.130

### DEFINITION OF TERMS



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

### CONDITIONS:

After crimping, the conductor profile should measure the following.

Terminal Series No.	Wire Size	Actual mm <sup>2</sup>	Wire Type	Conductor				Profile AWG		
				Crimp Height (Ref)		Crimp Width (Ref)		0.22-0.35mm <sup>2</sup>	0.6-0.75mm <sup>2</sup>	0.5mm <sup>2</sup>
				mm	In.	mm	In.	22 AWG	20 AWG	
98658	22 AWG	0.35	TXL	0.68-0.78	.027-.031-	1.40	.055	X		
	0.22mm <sup>2</sup>	0.22	ID	0.68-0.78	.027-.031-	1.40	.055	X		
	0.35mm <sup>2</sup>	0.34	IR	0.68-0.78	.027-.031-	1.40	.055	X		
	20 AWG	0.50	TXL	0.90-1.00	.039-.043	1.40	.055		X	
	0.60mm <sup>2</sup>	0.59	IR	1.00-1.10	.039-.043	1.40	.055		X	
	0.75mm <sup>2</sup>	0.79	ID	1.00-1.10	.039-.043	1.40	.055		X	
	0.50mm <sup>2</sup>	0.50	ID	0.83-0.93	.033-.037	1.40	.055			X
0.50mm <sup>2</sup>	0.50	IR	0.83-0.93	.033-.037	1.40	.055			X	

Terminal Series No.	Wire Size	Actual mm <sup>2</sup>	Wire Type	Insulation				Pull Force Minimum	
				Crimp Height (Ref)		Crimp Width (Ref)		N	Lb.
				mm	In.	mm	In.		
98658	22 AWG	0.35	TXL	1.75	.069	1.90	.075	60.0	13.50
	0.22mm <sup>2</sup>	0.22	ID	1.75	.069	1.90	.075	50.0	11.24
	0.35mm <sup>2</sup>	0.34	IR	1.75	.069	1.90	.075	60.0	13.50
	20 AWG	0.50	TXL	1.80	.071	2.00	.079	80.0	17.99
	0.60mm <sup>2</sup>	0.59	IR	2.15	.085	2.15	.085	80.0	17.99
	0.75mm <sup>2</sup>	0.79	ID	2.15	.085	2.15	.085	100.0	22.50
	0.50mm <sup>2</sup>	0.50	ID	1.70	.067	1.90	.075	80.0	17.99
0.50mm <sup>2</sup>	0.50	IR	1.70	.067	1.90	.075	80.0	17.99	

Pull Force should be measured with no influence from the insulation crimp.  
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. With the hand tool in the open position, pivot the terminal locator open. See Figure 1.
2. Insert the terminal fully into the correct profile until the terminal is fully seated and stops.
3. Gently pivot the locator closed.

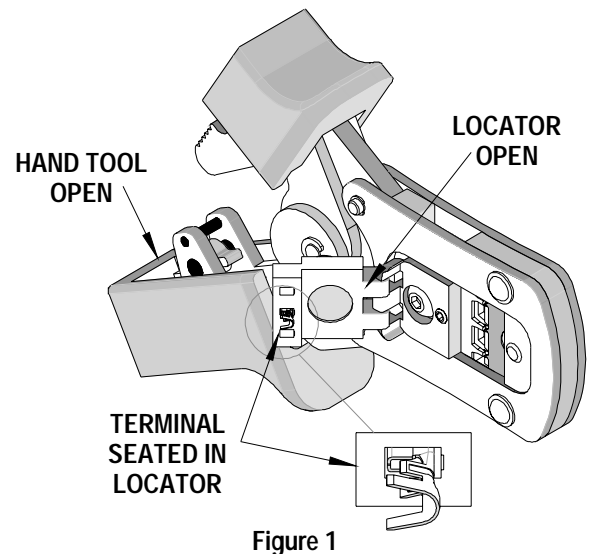


Figure 1

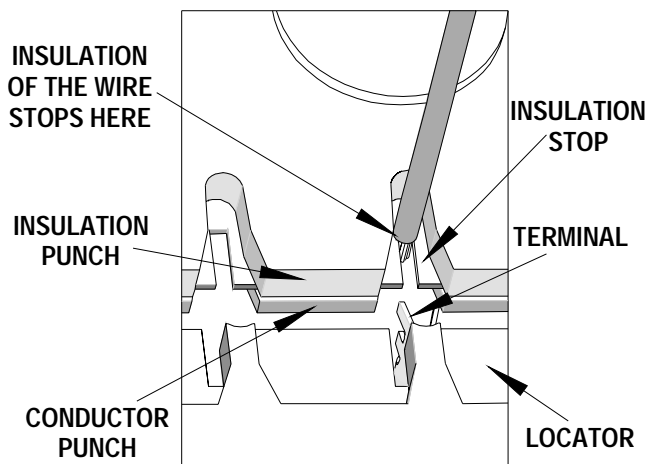


Figure 2

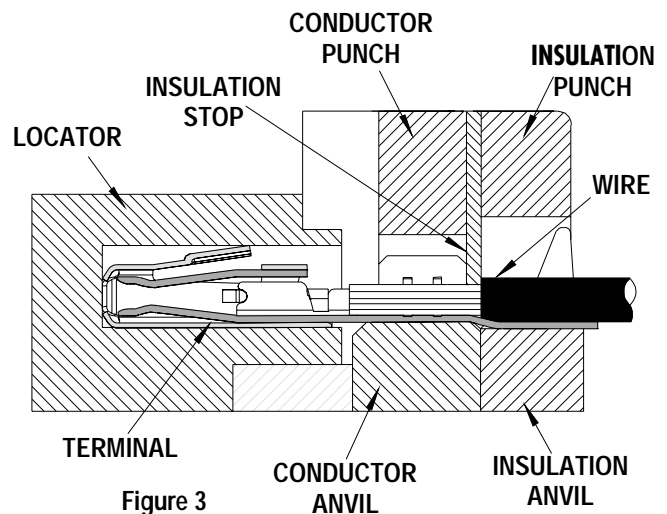


Figure 3

4. Slide the pre-stripped wire into the insulation stop. See Figure 2. The wire strands pass thru the insulation stop slot, while the end of the insulation touches the stop. Be sure to hold the wire in place until the terminal is fully crimped. See Figure 3.
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.

## Terminal Locator Replacement

### Removal

1. With the tool in the open position, pivot the terminal locator outward.
2. Remove the M4 BHCS. See Figure 4.

### Installation

1. Place the new locator, (See Chart on page 2), on the hand tool. Install the M4 BHCS. See Figure 4.
2. Tighten the screw enough to hold the locator. Make sure the locator can still float freely with hand pressure.
3. Insert the proper terminal fully into the correct profile slot until the terminal is fully seated and stops. Then gently pivot the locator closed.
4. With hand pressure, slowly slide the locator to the correct position. See Figure 5.
5. Gently pivot the locator open without disturbing the location.
6. Hold the locator firmly in place and slowly tighten the M4 BHCS.

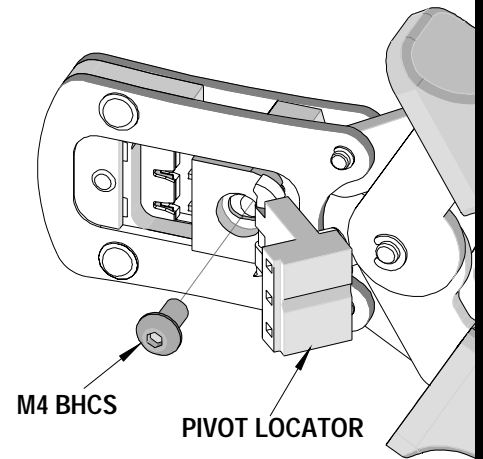


Figure 4

### 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.

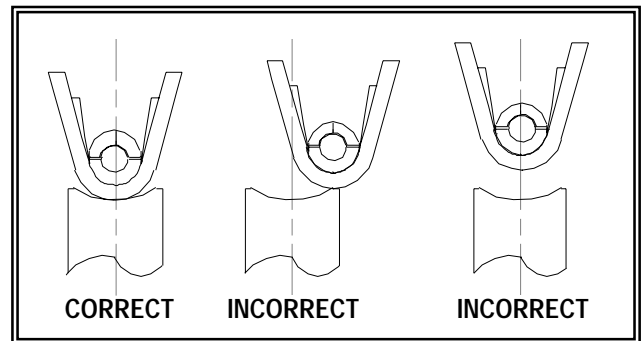


Figure 5

### Miscrimps or Jams (See Figure 6)

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.**

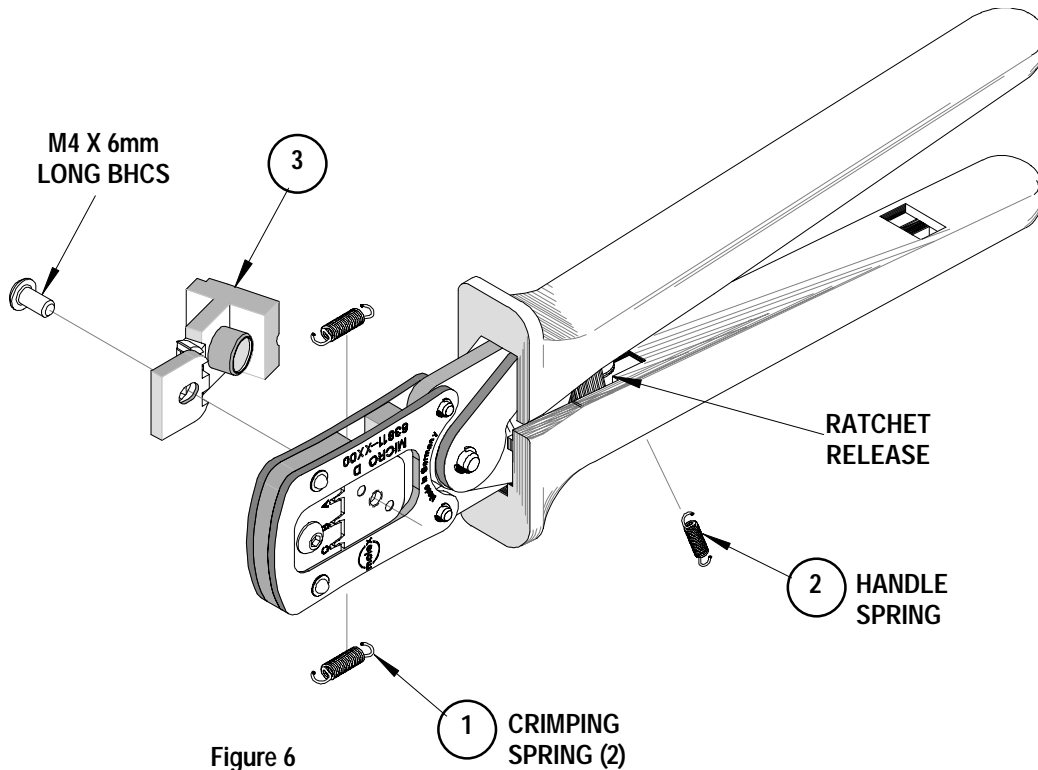
**Notes:**

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, and 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.

**PARTS LIST**

Item Number	Order Number	Description	Quantity
1	63600-0520	Crimping Spring	2
2	63600-0525	Handle Spring	1
3	63811-9375	Locator	1



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