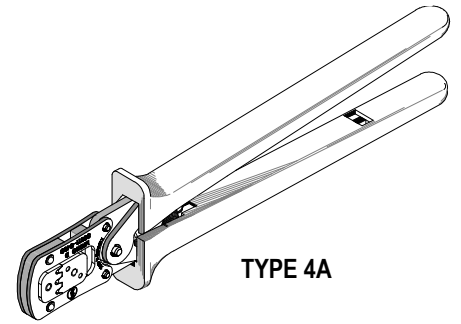**molex**®

**HAND CRIMP TOOL
Specification Sheet
Order No. 63819-3900**

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 2 compliant
% RoHS compliant although not required

SCOPE
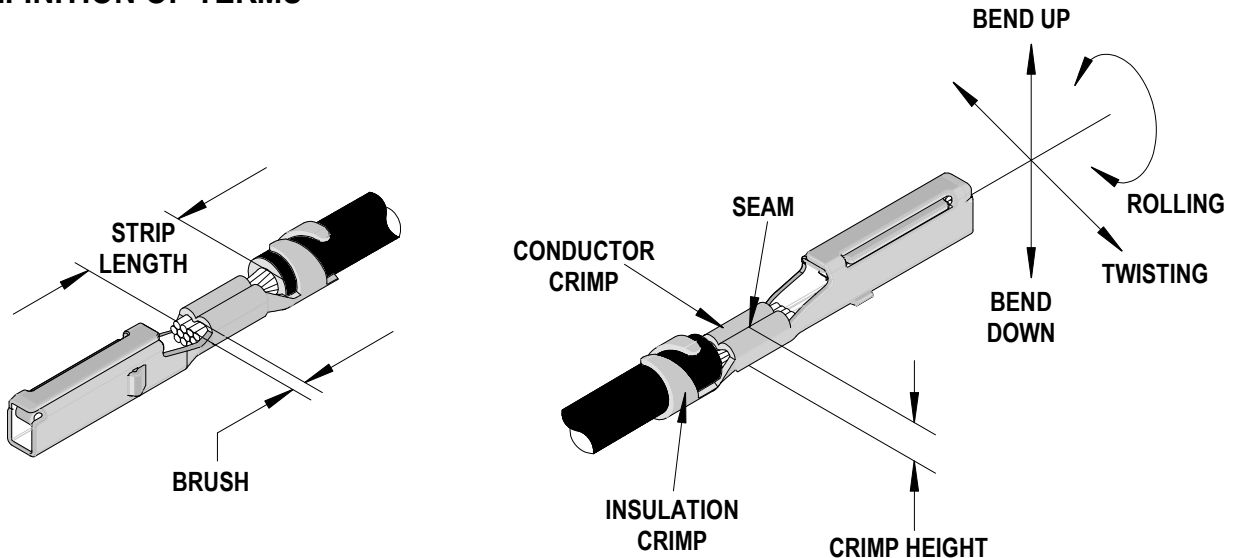
Products: CTX 1.50mm Receptacle Crimp Terminal for 0.30, 0.35, and 0.50mm^2 wires.

Terminal Series	Terminal Order No. ＊Reel Form only		Wire Size		Insulation Diameter		Wire Strip Length	
			Wire Style	mm^2 / AWG	mm	In.	mm	In.
502307	502307-0111 502307-1111 502307-2111	502307-0121 502307-1121 502307-2121	AVSS	0.30	1.40-1.70	.055-.067	4.50-5.00	.177-.197
			ISO	0.35				
			AVSS	0.50				
			ISO	0.50				
＊Customer to cut off terminal from reel: 0.30mm (.012") maximum Cut-off Tab.								

DEFINITION OF TERMS

BEND UP

ROLLING

SEAM

TWISTING

CONDUCTOR
CRIMP

BEND
DOWN

STRIP
LENGTH

BRUSH

INSULATION
CRIMP

CRIMP HEIGHT

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

CONDITIONS:

Terminal Series	Bell mouth		Conductor Brush		Bend up	Bend Down	Twist	Roll
	mm	In.	mm	In.	Degree		Degree	
502307	0.20-0.55	.008-.022	0.20-0.70	.008-.028	1.5	1.5	4	6

After crimping, the crimp profiles should measure the following (See notes on page 4).

Terminal Series No.	Wire Size		Conductor Crimp Reference				Profile		
			Height		Punch Width		0.30mm²	0.35-0.5mm²	0.50m²
	Wire Style	mm² / AWG	mm	In.	mm	In.	A	B	C
502307	AVSS	0.30	0.775-0.825	.031-.033	1.60	.063	X		
	ISO	0.35	0.80-0.85	.031-.033	1.60	.063		X	
	ISO	0.50	0.80-0.90	.031-.035	1.60	.063		X	
	AVSS	0.50	0.85-0.95	.033-.037	1.60	.063			X

Terminal Series No.	Wire Size		✖ Insulation Crimp Reference				Pull Force Minimum	
			Height Maximum		Width Maximum			
	Wire Style	mm² / AWG	mm	In.	mm	In.	N	Lb.
502307	AVSS	0.30	1.90	.075	1.95	.077	60.0	13.5
	ISO	0.35	2.00	.079	1.95	.077	60.0	13.5
	ISO	0.50	2.00	.079	1.95	.077	90.0	20.3
	AVSS	0.50	2.10	.083	1.95	.077	90.0	20.3
✖ Insulation crimp should meet IPC/WHMA-A-620 Class 2 compliance.								

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. Lift the wire stop blade up.
2. Insert the terminal fully into the correct profile until the terminal is fully seated and stops.
3. Bring down the wire stop blade.
4. Slide the pre-stripped wire into the wire stop blade. See Figure 1. Be sure to hold the wire in place until the terminal is fully crimped. See Figure 2.
5. Close the tool until the ratchet releases, the tool handles will then spring open.
6. Lift the wire stop blade up if it is still in down position.
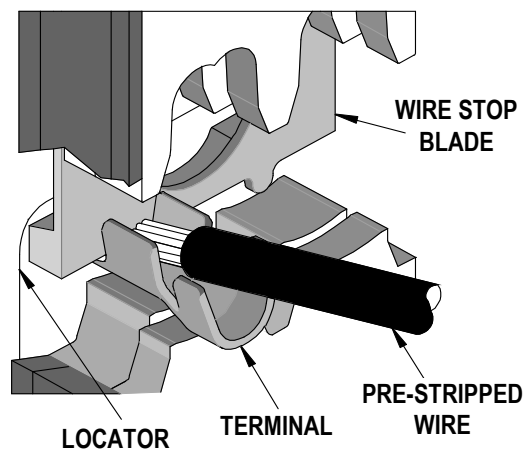7. Carefully remove the crimped terminal.

WIRE STOP BLADE

PRE-STRIPPED WIRE

LOCATOR **TERMINAL**

Figure 1

> **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.
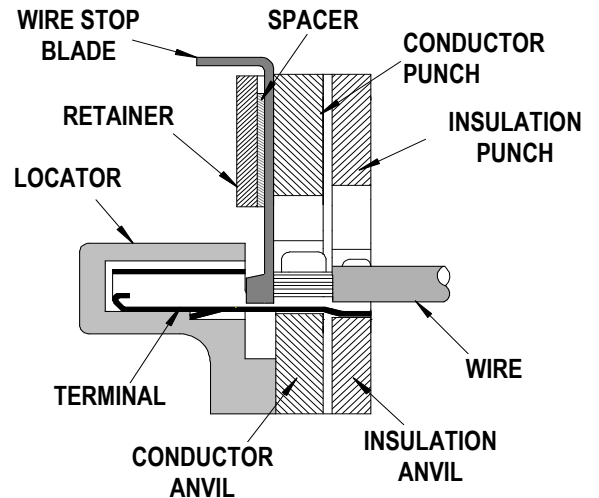

Figure 2

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.

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

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

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 only for the wire types specified. 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	63811-3975	Locator	1

M4 FLAT WASHER

M4 X 14mm LONG BHCS

3

1

CRIMPING SPRING (2)

RATCHET RELEASE LEVER

2

HANDLE SPRING

Figure3