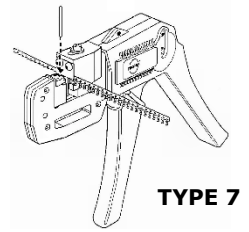


**Order Number  
63811-0000**



**Application Tooling Specification**

**FEATURES**

- This tool is designed to be used with reeled product because of the small size of the terminal
- This tool is designed for prototype work only and is not intended for production
- The reeled product must be cut into strips to be processed in this hand tool

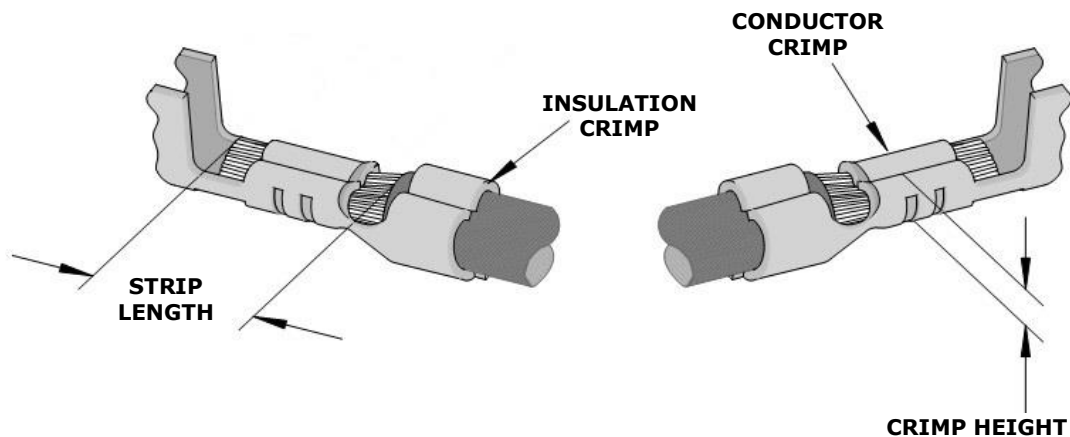
**SCOPE**

**Products:** 1.25mm (.049") Pitch Wire-To-Board Crimp Receptacle Terminal, 26-32 AWG.

Terminal Series No.	Terminal Order No.		Wire Size		Insulation Diameter		Strip Length	
	Reel Only		AWG	mm <sup>2</sup>	mm	In.	mm	In.
50058	50058-8000	50058-8300	28-32	0.08-0.03	0.67-1.00	.027-.039	1.40-1.90	.055-.075
	50058-8099	50058-8500						
♦ 50079	50079-8000	39-00-0413	26-28	0.12-0.08	0.67-1.00	.027-.039	1.40-1.90	.055-.075
	50079-8053	39-00-0414						
	50079-8099							

♦ Requires Optional Tool Kit. See Page 4.

**DEFINITION OF TERMS**



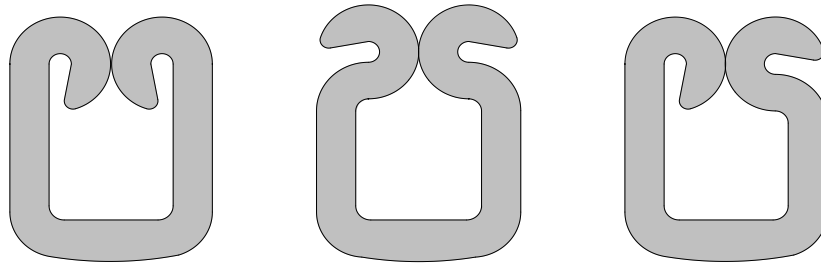
The above terminal drawing is a generic terminal representation. It is not an image of a terminal listed in the scope.

## INSULATION CRIMP FORM

This crimp terminal is designed for miniaturization; therefore, each dimension of the insulation crimp portion appears small compared to the terminal material thickness. To avoid insulation piercing the crimp forms by the insulation barrel, coining is provided inside the insulation barrel. For this reason, various crimp forms will occur at the tip of the insulation crimp barrel as shown below.

These crimp forms may differ completely because of a small change in the wire, insulation punch or terminal.

These crimp forms are satisfactory for the original function of the insulation crimp portion, and it is confirmed that all of the following forms are acceptable insulation crimps.



## CONDITIONS

After crimping, the conductor profiles should measure the following (see notes on page 4).

Terminal Series No.	Wire Size		Conductor Crimp (Ref)				Pull Force Minimum	
			Height		Punch Width			
	AWG	mm <sup>2</sup>	mm	In.	mm	In.	N	Lb.
50058	28	0.08	0.46-0.56	.018-.022	0.80	.030	9.80	2.20
	30	0.05	0.43-0.53	.017-.021	0.80	.030	4.90	1.10
	32	0.03	0.40-0.50	.016-.020	0.80	.030	2.94	0.66
◆ 50079	26	0.12	0.53-0.58	.021-.023	0.80	.030	9.8	2.20
	28	0.08	0.53-0.58	.021-.023	0.80	.030	9.8	2.20

◆ Requires Optional Tool Kit. See Page 4.

**Note:** The 50079 terminal series requires an optional tool kit (not included with this hand crimp tool). See parts list and Figure 1 for tool kit information.

## 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 a 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 the tool is not in use, store it in a clean, dry area.

### Miscrimps or Jams

This tool has an anti-backup ratchet to assure full cycles. 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. See Figure 1.

## 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, Molex 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.

Manually powered crimping tools are intended for low volume, prototyping, or repair requirements only.

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

## NOTES

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1. This tool should only be used for the terminals and wire sizes specified in this document.
2. For consistent conductor crimp height, always release the tool handle after the last "click" of the anti-backup ratchet. Do not squeeze the handle beyond the last "click".
3. Visual aids (magnifiers, lighting, etc.) will assist in the operation of this tool.
4. This tool may not give a good insulation crimp support for all insulation sizes.
5. 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 are damaged or worn, a new tool must be purchased.
6. Pull force should be used as the final criterion for an acceptable crimp. Pull force is measured with no influence from the insulation crimp. The insulation should be stripped long (.50") 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.
7. Molex does not certify crimp hand tools.

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

## TOOL KIT CHANGEOVER

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1. Using a T8 Torx driver, remove the punch mounting screw. See Figure 1.
2. Remove the conductor punch and insulation punch.
3. Install the alternate conductor punch, then place the alternate insulation punch on top of it.
4. Install the punch mounting screw, but do not fully tighten.
5. Without terminals in the tool, close the tool completely. This will seat the punches and align them to the combination anvil.
6. While holding the tool closed, tighten the punch mounting screw.
7. Make a crimp sample and measure the conductor crimp height. If it is not within specification (see Conditions on page 2), adjust the tool preload.

## TOOL PRELOAD ADJUSTMENT

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If conductor crimp height is not within specification, some adjustment is possible by changing the tool preload.

1. Measure conductor crimp height to determine if preload is too high (low crimp height) or too low (high crimp height).
2. Note the current setting of the preload adjustment. See Figure 1.
3. Make sure the tool is fully open. Do not adjust preload on a tool that is partially or fully closed.
4. Use a T8 Torx driver to remove the preload lock screw. See Figure 1.
5. Use a regular screwdriver to make the preload adjustment. Turn the preload wheel in **small increments** (one notch at a time).
  - Turning counterclockwise increases the preload, which decreases the crimp height.
  - Turning clockwise decreases the preload, which increases the crimp height.
6. Install the preload lock screw.
7. Without terminals in the tool, verify the anti-backup ratchet operates properly. Over-adjusting the preload can interfere with the release of the ratchet pawl.
8. Make a crimp sample and measure conductor crimp height.
9. If conductor crimp height cannot meet specification using the appropriate wire and terminal, the tool is worn beyond use or is defective.

**PARTS LIST**

Item	Order No.	Description	Use with Terminal Series	Quantity
	63811-0000	Hand Crimp Tool	—	Figure 1
1	63810-0105	Spring (Ratchet)	—	1
2	63600-0479	Spring (Main)	—	1
3	63811-0003	Combination Anvil	50058 and 50079	1
4	63811-0001	Insulation Punch	50058 only	1
5	63811-0002	Conductor Punch	50058 only	1
6	63811-0070	50058 Tool Kit (Included)	Includes 1 each of Items No. 4 and 5 (Included with Hand Tool)	0
7	63811-3770	50079 Tool Kit (Optional)	Includes 1 each of Items No. 8 and 9 (Not included with Hand Tool)	0
8	63811-3701	Insulation Punch	50079 only	0
9	63811-3702	Conductor Punch	50079 only	0

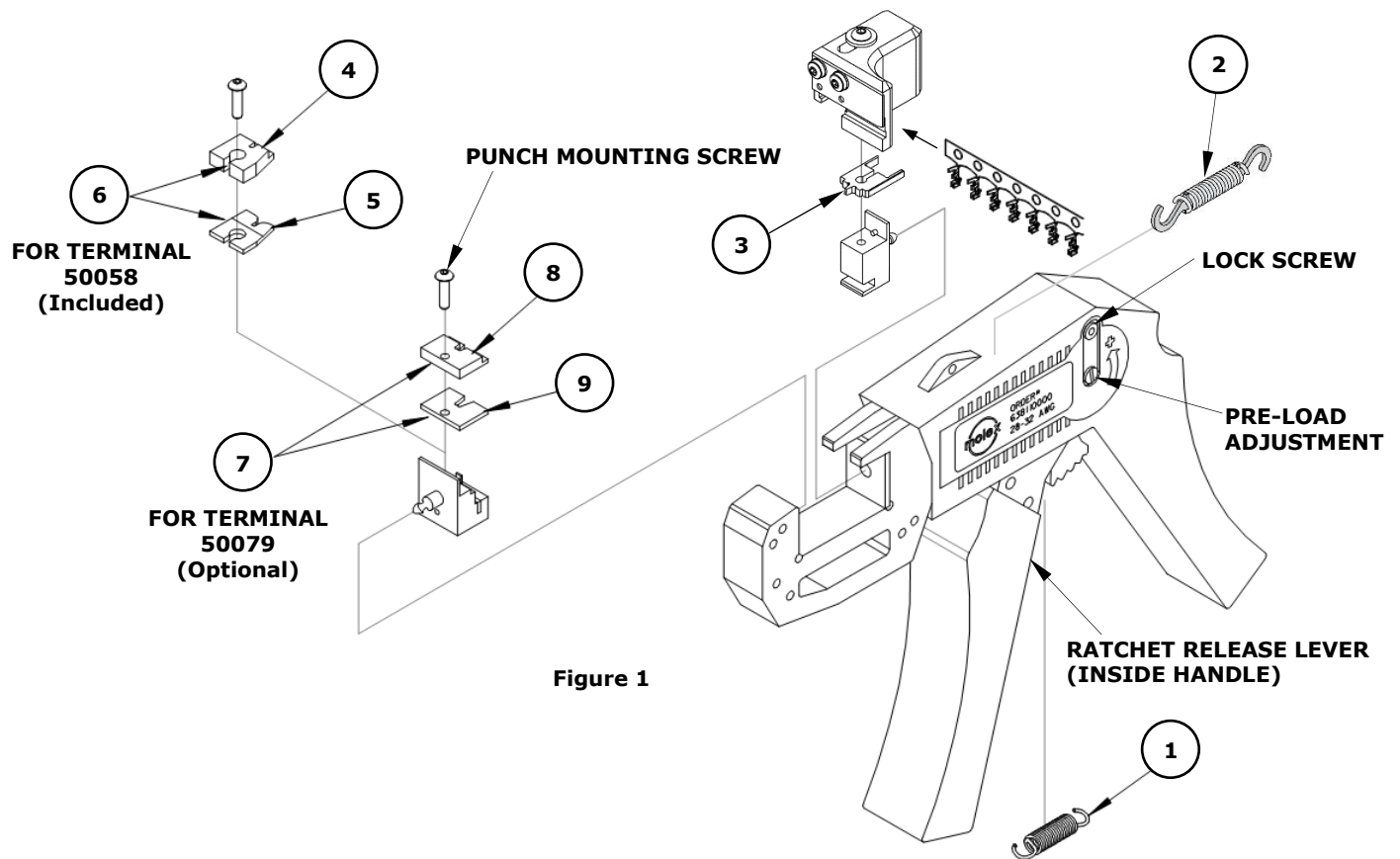


Figure 1

**Application Tooling Support**

**Phone:** (402) 458-TOOL (8665)  
**E-Mail:** applicationtooling@molex.com  
**Website:** www.molex.com/applicationtooling

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