molex

HAND CRIMP TOOL	**Application Tooling Specification Sheet**	TYPE 4D
		Order No. 63819-0200
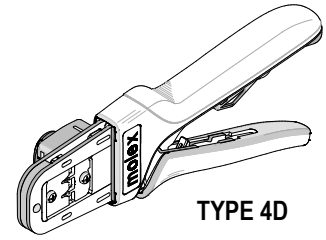
FEATURES

- A full cycle ratcheting hand tool ensures complete crimps
- Ergonomic soft grip handles for comfortable crimping
- A precision user-friendly terminal locator wire stop holds terminals in the proper crimping position
- Right and Left handed applications
- This tool is IPC/WHMA A-620 Class 2 compliant as indicated.
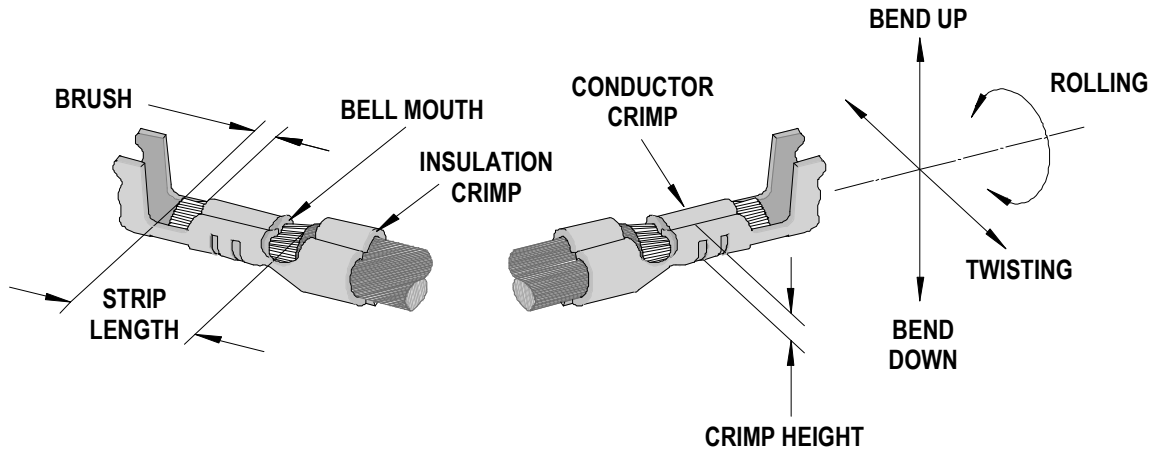- This tool is RoHS compliant, however RoHS compliant is not required

SCOPE

Products: C-Grid III™ Female Crimp Terminals, 22-28 AWG

Terminal Series No.	Terminal Order No.		Wire Size		✦Insulation Diameter		Strip Length	
	Loose Piece	✳Reel	AWG	mm²	mm	In.	mm	In.
90119	90119-2109 90119-2110 90119-2111	90119-0109 90119-0110 90119-0111	22-24	0.35-0.20	1.02-1.47	.040-.058	2.80-3.30	.110-.130
	90119-2120 90119-2121 90119-2122	90119-0120 90119-0121 90119-0122	26-28	0.12-0.08	0.76-1.22	.030-.048	2.80-3.30	.110-.130
✳Customer to cut off terminal from reel: 0.15mm (.006") maximum Cut-off Tab.								
✦See Conditions on page 2.								

DEFINITION OF TERMS

BRUSH
BELL MOUTH
INSULATION CRIMP
STRIP LENGTH
CONDUCTOR CRIMP
CRIMP HEIGHT
BEND UP
ROLLING
TWISTING
BEND DOWN

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 profiles should measure the following.

Terminal Series No	Wire Size		Conductor Crimp				Insulation Crimp				Pull Force Minimum		◆Profile	
			Height (Ref.)		Width (Ref.)		Height (Ref.)		Width (Ref.)					
	AWG	mm²	mm	In.	mm	In.	mm	In.	mm	In.	N	Lb.	22-24	26-28
90119	22	0.35	0.71-0.81	.028-.032	1.18	.046	1.60	.063	1.60	.063	39.2	8.82	X	
	24	0.20	0.71-0.81	.028-.032	1.18	.046	1.60	.063	1.60	.063	29.4	6.61	X	
	26	0.12	0.59-0.69	.023-.027	1.16	.045	1.40	.055	1.40	.055	19.6	4.41		X
	28	0.08	0.59-0.69	.023-.027	1.16	.045	1.40	.055	1.40	.055	9.8	2.20		X
◆ To Achieve IPC-A-620 Class 2 Crimps, the following over-all wire insulation diameter ranges are recommended: Profile 22 - 24: 1.02 – 1.47mm (.040-.058 inch) Profile 26 - 28: 0.89 - 1.22mm (.035-.048 inch)														

OPERATION

CAUTION: Install only Molex terminals listed above with this tool. Do not crimp hardened objects as damage can occur to the tool or die.

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. See Figure 1.

LOCATOR IN DOWN POSTION

Crimping Terminals

1. Select the desired terminal listed in the preceding charts.
2. Make sure the center of the locator is in the down position. With the locator attached, push the locator button on the back of the hand tool to bring the locator forward through the tooling. See Figure 2.
3. While holding the locator button in, load the terminal into the proper nest opening in the locator based on the wire gauge or terminal type markings on the hand tooling. See Figure 3.
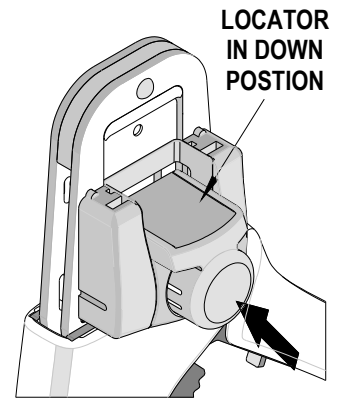
Figure 2 PUSH ON THE LOCATOR BUTTON

LOCATOR PUSHED THRU TOOLING
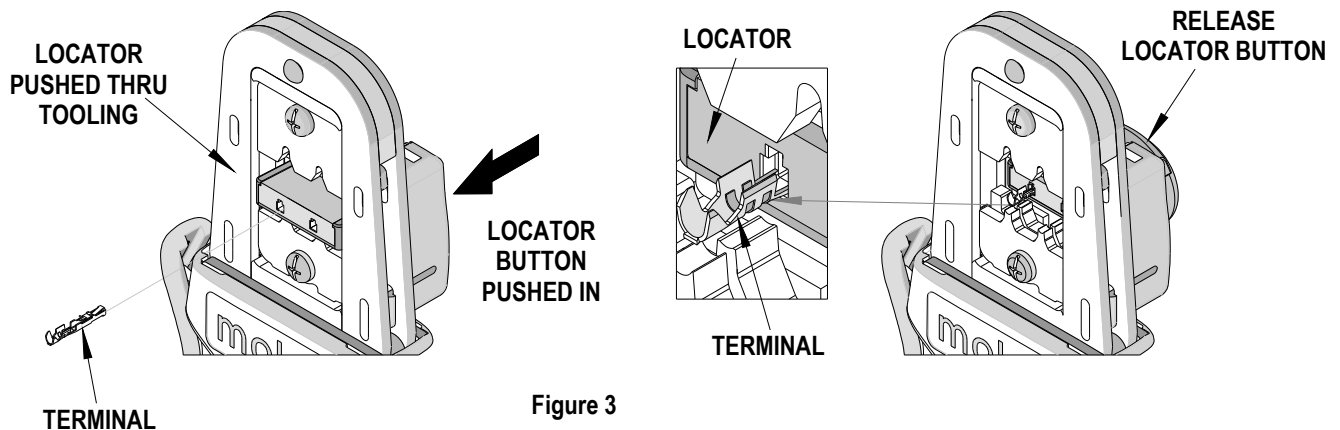
LOCATOR BUTTON PUSHED IN

TERMINAL

LOCATOR

RELEASE LOCATOR BUTTON

TERMINAL

Figure 3

4. Release the locator button, allowing the locator to return to the crimping position.
5. Close the tool handle until the first ratchet position engages. See Figure 4.
6. Insert the properly stripped wire through the terminal and against the wire stop. See Figure 5.
7. Crimp the terminal by squeezing the tool handles until the ratchet mechanism cycle has been completed. Release the handles to open the jaws.
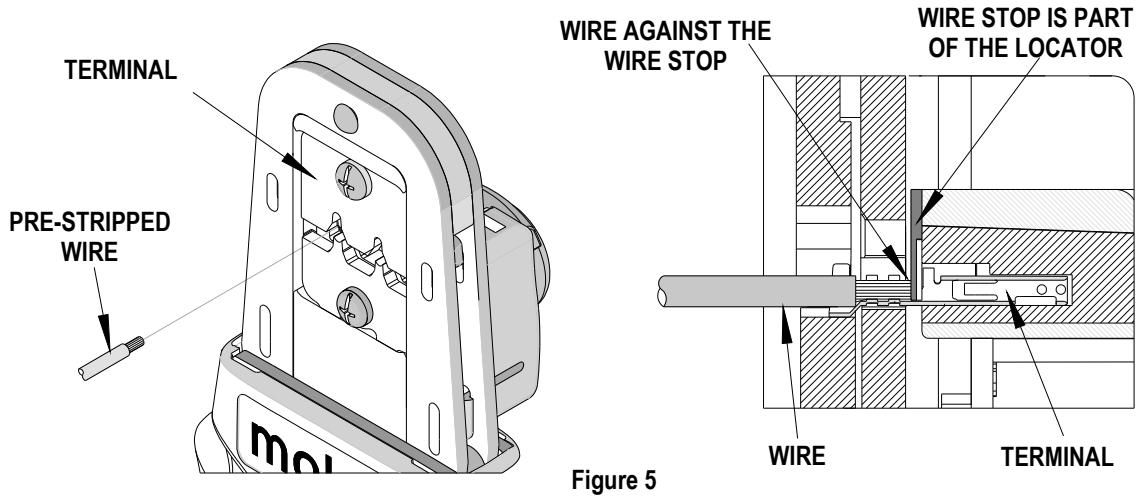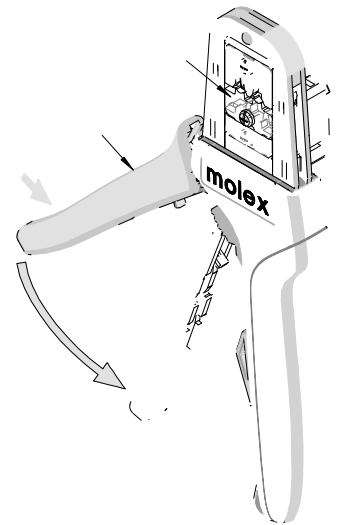
TERMINAL

PRE-STRIPPED WIRE

WIRE AGAINST THE WIRE STOP

WIRE STOP IS PART OF THE LOCATOR

WIRE

TERMINAL

Figure 5

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

8. Remove the crimped terminal from the terminal locator by pulling on the wire.
9. Visually inspect the crimped terminal for proper crimp location.
10. On some large O.D. wires, it may not be possible to insert the wire with the tool partially closed. Those wires should be inserted with the hand tool in the open position. Insert the wire above the terminal in the punch and against the wire stop then close the tool. See Figure 6.

WIRE

WIRE STOP

Figure 6

TERMINAL