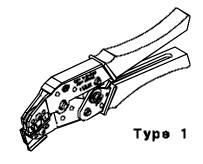


TOOLING SPECIFICATION SHEET HAND CRIMP TOOL Part No. 63811-2200



SCOPE

Terminal Series No	Wire Size		Insulation	n Diameter	Strip Length		
	Awg	mm ²	mm	in	mm	in	
2477	18-24	0.80-0.20	1.39-2.79	.055110	2.54-3.17	.100125	
2478	18-24	0.80-0.20	1.39-2.79	.055110	2.54-3.17	.100125	
2878	18-20	0.80-0.50	1.52-2.79	.060110	2.54-3.17	.100125	
4838	18-22	0.80-0.35	1.52-2.41	.060095	2.54-3.17	.100125	
5167	18-24	0.80-0.20	1.39-2.48	.055098	2.54-3.17	.100125	
6438	18-20	0.80-0.50	1.52-2.41	.060095	2.54-3.17	.100125	
6838	18-20	0.80-0.50	1.52-2.79	.060110	2.54-3.17	.100125	
8993	18-24	0.80-0.20	1.39-2.79	.055110	2.54-3.17	.100125	

CONDITIONS:

After crimping, the conductor profile should measure the following: (see notes)

Terminal	Wir	re Size	Crimp He	eight (Ref.)	Pull Fo	orce Min.	Punch	Width	Pr	ofile
Series No.	Awg	mm^2	mm	in	N	Lbs.	Ref	. mm	A	В
							Cond	Ins.		
2477	18	0.80	1.01-1.11	.040044	89.0	20.00	2.00	2.50	X	
2477	20	0.50	1.01-1.11	.040044	58.0	13.00	2.00	2.50	X	
2477	22	0.35	0.86-0.96	.034038	35.0	8.00	2.00	2.50		X
2477	24	0.20	0.86-0.96	.034038	22.0	5.00	2.00	2.50		X
2478	18	0.80	1.01-1.11	.040044	89.0	20.00	2.00	2.50	X	
2478	20	0.50	1.01-1.11	.040044	58.0	13.00	2.00	2.50	X	
2478	22	0.35	0.86-0.96	.034038	35.0	8.00	2.00	2.50		X
2478	24	0.20	0.86-0.96	.034038	22.0	5.00	2.00	2.50		X
2878	18	0.80	1.01-1.11	.040044	89.0	20.00	2.00	2.50	X	
2878	20	0.50	1.01-1.11	.040044	58.0	13.00	2.00	2.50	X	
4838	18	0.80	1.01-1.11	.040044	89.0	20.00	2.00	2.50	X	
4838	20	0.50	1.01-1.11	.040044	58.0	13.00	2.00	2.50	X	
4838	22	0.35	0.86-0.96	.034038	35.0	8.00	2.00	2.50		X

Doc. No. 638112200 Document Release date: 01-04-09

Document Revision Level: D Revision Date: 01-09-13 UAT2002-0057

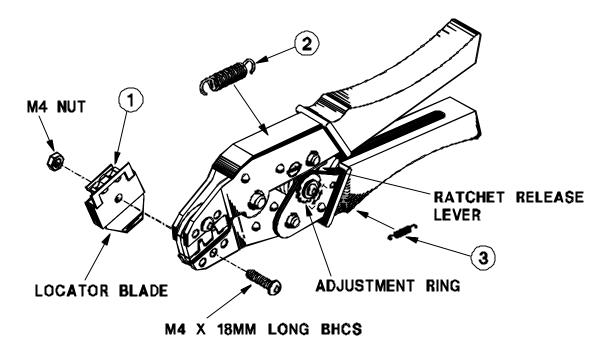
Uncontrolled Copy

Page 1 of 5

5167 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 5167 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 5167 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50 5167 24 0.20 0.86-0.96 .034038 22.0 5.00 2.00 2.50 6438 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 18 0.80 1.01-1.11 .040044 <th>Terminal</th> <th>Wire</th> <th>e Size</th> <th>Crimp He</th> <th>ight (Ref.)</th> <th>Pull Fo</th> <th>rce Min.</th> <th>Punch</th> <th>Width</th> <th>Pro</th> <th>ofile</th>	Terminal	Wire	e Size	Crimp He	ight (Ref.)	Pull Fo	rce Min.	Punch	Width	Pro	ofile
5167 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 5167 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 5167 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50 5167 24 0.20 0.86-0.96 .034038 22.0 5.00 2.00 2.50 6438 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 20 0.50 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 20 0.50 1.01-1.11 .040044 <th>Series No.</th> <th>Awg</th> <th>mm²</th> <th>mm</th> <th>in</th> <th>N</th> <th>Lbs.</th> <th></th> <th></th> <th>A</th> <th>В</th>	Series No.	Awg	mm²	mm	in	N	Lbs.			A	В
5167 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 5167 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50 5167 24 0.20 0.86-0.96 .034038 22.0 5.00 2.00 2.50 6438 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 20 0.50 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 22 0.35 0.86-0.96 .034038 <th></th> <th></th> <th>I</th> <th>1</th> <th>1</th> <th></th> <th>1</th> <th></th> <th>1</th> <th></th> <th></th>			I	1	1		1		1		
5167 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50 5167 24 0.20 0.86-0.96 .034038 22.0 5.00 2.00 2.50 6438 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6438 20 0.50 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50 X											
5167 24 0.20 0.86-0.96 .034038 22.0 5.00 2.00 2.50 6438 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6438 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 6838 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50 2.50										X	
6438 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6438 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 6838 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50 X											X
6438 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 6838 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50	5167	24	0.20	0.86-0.96	.034038	22.0	5.00	2.00	2.50		X
6838 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 6838 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50	6438	18	0.80	1.01-1.11	.040044	89.0	20.00	2.00	2.50	X	
6838 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50	6438	20	0.50	1.01-1.11	.040044	58.0	13.00	2.00	2.50	X	
6838 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 18 0.80 1.01-1.11 .040044 89.0 20.00 2.00 2.50 X 8993 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50	6838	18	0.80	1.01-1.11	040-044	89.0	20.00	2.00	2.50	X	
8993 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50											
8993 20 0.50 1.01-1.11 .040044 58.0 13.00 2.00 2.50 X 8993 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50	8993	18	0.80	1 01-1 11	040-044	89.0	20.00	2.00	2.50	X	
8993 22 0.35 0.86-0.96 .034038 35.0 8.00 2.00 2.50											
										71	X
											X

PARTS LIST

Item Number	Order Number	Description	Qty	
1	63811-2275	Locator Ass'y **	1	
2	11-11-0324	Spring (Main)	1	
3	11-11-0320	Spring (Ratchet)	1	



** Not all tools are equipped with a locator or locator blade.

Fig. 1

Notes:

- 1. This tool should only be used for the terminals and wire gauges specified on this sheet.
- 2. This tool is not adjustable for crimp height, however crimp force is adjustable (see instructions on page 5). Variations in tools, terminals, wire strandings and insulation types may effect crimp height.
- 3. This tool is intended for standard conductor sizes. It may not give a good insulation crimp support for all insulation sizes and types.
- 4. Molex does not repair handtools (see warranty on page 5). The replacment 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 handtools.
- 7. Hand held crimping tools are intended for low volume, prototyping or repair requirements only.

Caution: Repetitive use of this tool should be avoided.

Doc. No. 638112200 Document Release date: 01-04-09

Document Revision Level: D Revision Date: 01-09-13 UAT2002-0057

Page 3 of 5

Crimping Instructions

- 1. Open the tool by squeezing the handles together, at the end of the closing stroke, the ratchet mechanism will release thehandles and the tool will spring open.
- 2. Lift the locator blade and place the terminal into the correct die profile (A or B), release the locator blade. Not all tools are equipped with a locator or locator blade.
- 3. Partially close the tool until the terminal is held in place. (see Fig. 2)
- 4. Place a wire into the terminal and up against the locator blade (see Fig. 3). On tools without locators line the wire up with the conductor and insulation grips visually.
- 5. Close the tool until the ratchet releases. (see Fig. 4)
- 6. Lift the locator blade or wire stop and carefully remove the crimped terminal.



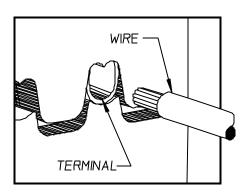


Fig. 3

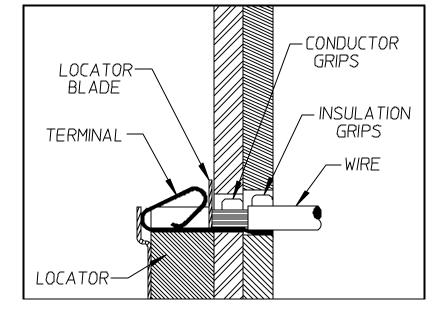
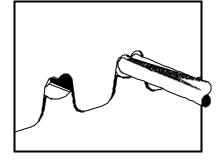


Fig. 4



Doc. No. 638112200 Document Release date: 01-04-09

Document Revision Level: D Revision Date: 01-09-13 UAT2002-0057

Page 4 of 5

Maintenance

It is recommended that each operator of the tool be made aware of , and responsible for, the following maintenancesteps:

- 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.

Miscrimps or Jams (see Fig. 1)

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 lifting the ratchet release lever.

How To Adjust Tool Crimp Force (see Fig. 1)

It may be necessary over the life of the tool to adjust tool crimping force. Listed below are the steps required to adjust the crimping force of the handtool to obtain proper crimp conditions:

- 1. Remove the screw and washer. Located over the adjustment ring.
- 2. Lift the adjusting ring slightly, off of the locating pin.
- 3. Turn the adjusting ring in the desired direction (L= less force, T= more force) to increase or decrease crimp pressure.
- 4. Press the adjusting wheel flat against the tool and engage the locking pin.
- 5. Replace the washer and screw.
- 6. Check the crimp specifications after tool crimp force is adjusted.

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 warrantied to be free of manufacturing defects for a period of **30 days**. Should such a defect occur, we will exchange the tool free of charge. This 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.

Molex Application Tooling Group 1150 E. Diehl Rd. Naperville, II. 60563

tel: 630-969-4550 fax: 630-505-0049

Doc. No. 638112200 Document Release date: 01-04-09

Document Revision Level: D Revision Date: 01-09-13 UAT2002-0057

Page 5 of 5