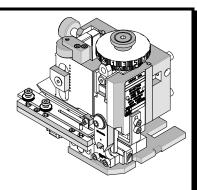


# Mini-Mac Applicator Application Tooling Specification Mechanical Feed - Continuous Molded Strip Order No. 63883-0600



#### **FEATURES**

- Directly adapts to most crimp presses and automatic wire processors
- Applicator designed to industry-standard mounting and shut height of 135.80mm (5.346")
- Conductor and insulation rings allow quick adjustment for conductor and cut-off tooling height change
- Quick set-up time; plus the crimp height, track and feed adjustments can be set without removing the applicator from the crimp press

#### **SCOPE**

<u>Products</u>: InsulKrimp™ Quick Disconnect, Female (FIQD's) Terminal for 24-26 AWG.

#### Testing Mechanical

The tensile test, or pull test, is a means of evaluating the mechanical properties of the crimped connections. The following charts show the UL and government specifications (MIL-T-7928) for various wire sizes. The tensile strength is shown in pounds. It indicates the minimum acceptable force to break or separate the terminal from the conductor.

Color Code	Wire Size (AWG)	*UL - 486 A	*UL – 486 C	*UL – 310	*Military Class 2
Yellow	26	3	N/A	N/A	7
Yellow	24	5	N/A	N/A	10
Red	22	8	8	8	15
Red	20	13	10	13	19
Red	18	20	10	20	38
Blue	16	30	15	30	50
Blue	14	50	25	50	70
Yellow	12	70	35	70	110
Yellow	10	80	40	80	150
Red	8	90	45	N/A	225
Blue	6	100	50	N/A	300

<sup>\*&</sup>lt;u>UL - 486 A</u> - Terminals (Copper conductors only)

Doc No: ATS-638830600 Release Date: 12-07-04 **UNCONTROLLED COPY** Page 1 of 6 Revision: C Revision Date: 12-04-08

<sup>\*</sup>UL - 486 C - Butt Splices, Parallel Splices, Closed End Connectors, and Wire Nuts

<sup>\*&</sup>lt;u>UL - 310</u> - Quick Disconnects, Flag and Couplers

<sup>\*</sup>Military Class 2- Military Approved Terminals only as listed

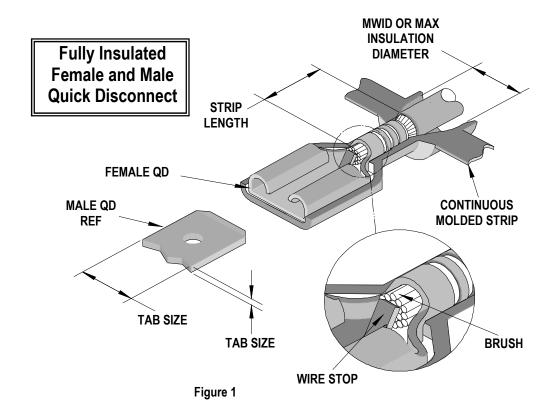
#### **Product List**

The following is a partial list of the product order numbers and their specifications that this tool is designed to run. Updates to this list are available on <a href="https://www.molex.com">www.molex.com</a>.

Terminal No.	Terminal Eng. No.	Wire Size		Insulation Diameter Maximum		Strip Length	
		AWG	mm²	mm	ln.	mm	ln.
19003-0103	M-2210C	24-26	0.20-0.12	1.90	.075	6.35	.250
19003-0104	M-2211C	24-26	0.20-0.12	1.90	.075	6.35	.250
19003-0106	M-2212C	24-26	0.20-0.12	1.90	.075	6.35	.250
19003-0140	M-2210VC	24-26	0.20-0.12	1.90	.075	6.35	.250
19003-0143	M-2211VC	24-26	0.20-0.12	1.90	.075	6.35	.250

## **DEFINITION OF TERMS**

The following illustration is a generic terminal representation and not an exact image of any terminal listed in the scope.



Doc No: ATS-638830600 Release Date: 12-07-04 **UNCONTROLLED COPY** Page 2 of 6 Revision: C Revision Date: 12-04-08

#### **Tool Calibration**

To recalibrate this applicator, make sure the power is completely shut off on the press.

- 1. The Mini-Mac applicator must be properly installed in the
- 2. Crimping dies must be properly installed in the Mini-Mac applicator.
- 3. The recommended method of measuring the crimp height of the conductor dies is the soft metal slug method, (See Figure 2).
- 4. The slug must have a diameter 0.51mm (.020") larger than the "X" No go dimension before crimping.
- 5. Place the soft metal slug (solder) into the nest of the bottom die and crimp (by hand cycling the press) similar to a terminal. The crimp height can be measured with a blade type micrometer or dial caliper, (Dimension "X").

CONDUCTOR **USE SOFT METAL CRIMP DIE SLUG METHOD E2** "X" CRIMP **HEIGHT E1 CRIMP PROFILE** 

Use soft metal slug (solder) method to measure the "X" dimension. Verify tooling crimp height calibration by referring to the Go/No Go dimensions shown in the chart below.

Figure 2

6. Adjustment of the crimp height can be accomplished by indexing the conductor cam. The letter "A" gives the loosest position and "K" gives the tightest position. A total adjustment of 0.50mm (.020") can be achieved by adjusting the conductor cam.

Note: If the crimp height is too tight on the setting "A", check the shut height of the press. See the Industrial Mini-Mac Applicator Manual Section 2.1 for adjustments.

#### **CRIMP SPECIFICATIONS**

Wire	Size	"X" Dimension Conductor Crimp						Pull Force Minimum		
AWG	mm²	Mean		G	o No G		Go	Lbs	N	
		In	mm	In	mm	In	mm	LUS	IN	
26	0.12	.075	1.91	.072	1.83	.080	2.03	3	13.3	
24	0.20	.075	1.91	.072	1.83	.080	2.03	5	22.24	

The above specifications are guidelines to an optimum crimp.

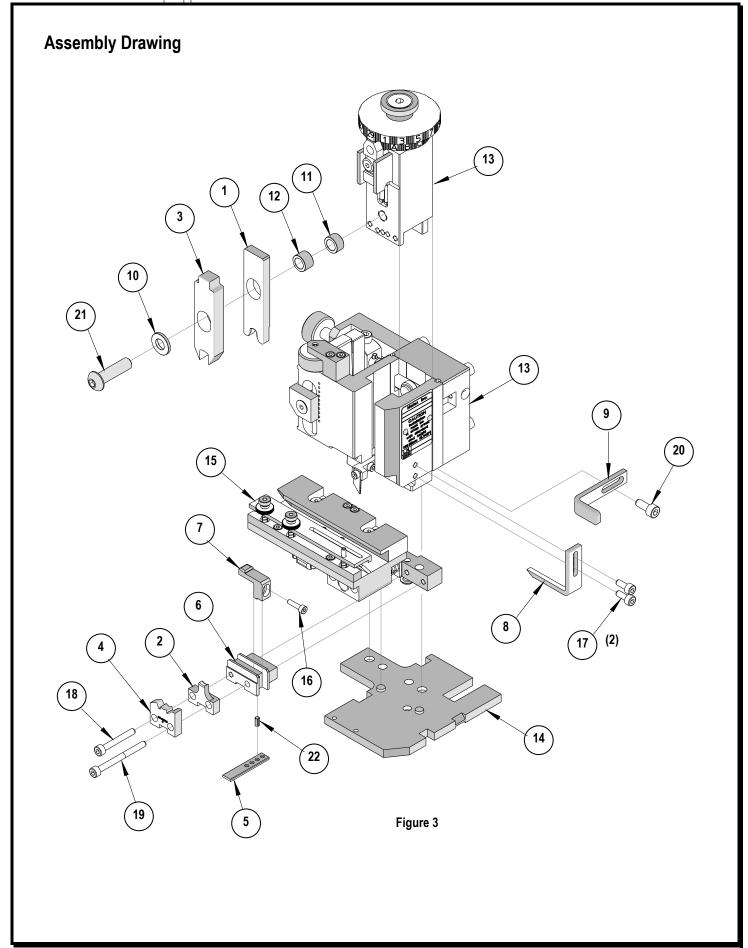
**UNCONTROLLED COPY** Doc No: ATS-638830600 Release Date: 12-07-04 Page 3 of 6 Revision Date: 12-04-08

## **PARTS LIST**

Mini-Mac Applicator 63883-0600									
Item	Order No	Engineering No. Description		Quantity					
Perishable Tooling									
	63883-0670	63883-0670	Tool Kit (All "Y" Items)	REF					
1	63465-0037	63465-0037	Conductor Punch	1 Y					
2	63464-0038	63464-0038	Conductor Anvil	1 Y					
3	63469-0001	63469-0001	Cut-off Punch	1 Y					
4	63462-0041	63462-0041	Cut-off Anvil	1 Y					
	Other Components (Ref. 30050)								
5	63443-0021	63443-0021	Lower Tooling Key	1					
6	63466-0912	63466-0912	Anvil Mount	1					
7	63466-0913	63466-0913	Terminal Support	1					
8	63466-0921	63466-0921	Terminal Stripping Blade	1					
9	63466-0931	63466-0931	Terminal Nose Support	1					
10	63600-1290	63600-1290	Washer	1					
11	63890-0866	63890-0866	Collar-6.4 Long	1					
12	63890-0868	63890-0868	Collar-9.5 Long	1					
	Frame								
13	63801-3201	63801-3201	Тор	1					
14	63801-3281	63801-3281	Base	1					
15	63801-4450	63801-4450	Track Assembly	1					
Hardware									
16	N/A	N/A	M3 by 12 Long SHCS	1**					
17	N/A	N/A	M4 by 10 Long SHCS	2**					
18	N/A	N/A	M4 by 20 Long SHCS	1**					
19	N/A	N/A	M4 by 45 Long SHCS	1**					
20	N/A	N/A	M5 by 12 Long SHCS	1**					
21	N/A	N/A	M8 by 30 Long BHCS	1**					
22	N/A	N/A	3mm by 6 Long Roll Pin 1						
** Available from an industrial supply company such as MSC (1-800-645-7270).									

<u>Note:</u> Crimp profiles used in 63883-0600 are equivalent to 19030-0043/MMC-M-212, 19288-0233/ATP-M-675-CC, 19028-0059/ACP-M-596, and 19028-0098.

Doc No: ATS-638830600 Release Date: 12-07-04 **UNCONTROLLED COPY** Page 4 of 6 Revision: C Revision Date: 12-04-08



Doc No: ATS-638830600 Revision: C Release Date: 12-07-04 Revision Date: 12-04-08 **UNCONTROLLED COPY** 

#### **NOTES**

- 1. Molex recommends an extra perishable tooling kit be maintained at your facility.
- 2. Verify tooling alignment by manually cycling the press with applicator before crimping under power. Check that all screws are tight.
- 3. Slugs, terminals, dirt, and oil should be kept clear of work area.
- 4. Wear safety glasses at all times.
- 5. For recommended maintenance refer to the Mini-Mac Applicator Manual (Document no. 63880-0000).

**CAUTION**: This applicator should only be used in a press with a shut height of 135.80 mm (5.346"). Tooling damage could result at a lower setting.

**CAUTION**: To prevent injury, never operate this applicator without the guards supplied with the press or wire-processing machine in place. Reference the press or wire process manufacturer's instruction manual.

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

#### **Contact Information**

For more information on Molex application tooling please contact Molex at 1-800-786-6539.

Americas Headquarters Lisle, Illinois 60532 U.S.A. 1-800-78MOLEX amerinfo@molex.com

Far East North Headquarters Yamato, Kanagawa, Japan 81-462-65-2324 feninfo@molex.com

Far East South Headquarters
Jurong, Singapore
65-6-268-6868
fesinfo@molex.com

European Headquarters Munich, Germany 49-89-413092-0 eurinfo@molex.com Corporate Headquarters 2222 Wellington Ct. Lisle, IL 60532 U.S.A. 630-969-4550 Fax: 630-969-1352

Visit our Web site at http://www.molex.com

Doc No: ATS-638830600 Release Date: 12-07-04 **UNCONTROLLED COPY** Page 6 of 6 Revision: C Revision Date: 12-04-08

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Tool Kits & Cases category:

Click to view products by Molex manufacturer:

Other Similar products are found below:

217434-1 4263 1055420-1 11-18-3023 63860-8170 856600-2 690372163 11-40-3247 63883-2870 63885-0270 63866-1070 63863-5070 63892-7370 11-18-3209 63860-4070 63881-0970 A0403641 11-18-3040 63865-2070 63910-1470 63861-5070 63850-7470 11-18-3201 63910-7570 FM 0501 146 63883-0670 63830-0070 63902-9170 11-18-3147 11-18-3079 63883-2670 63900-1770 11-18-3190 63851-1070 63912-4770 63911-5270 63895-1070 63860-1470 63850-6070 1-69411-3 63852-9270 63802-6270 63902-4870 11-18-3202 63852-9170 63850-1070 63830-0170 63910-2870 11-18-3010 63820-7070