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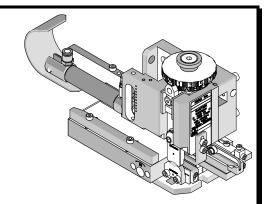








Mini-Mac Applicator Specification Sheet Air Feed-Mylar Tape Order No. 63885-8400



#### **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 insulation crimp 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**

Products: Nylon Insulated Closed-End Connectors 10-16 AWG.

### Testing

#### Mechanical

The tensile test, or pull test, is a means of evaluating the mechanical properties of the crimped connections. The following chart shows the UL specifications for various wire sizes. The tensile strength is shown in pounds and indicates the minimum acceptable force to break or separate the terminal from the conductor.

Color Code	Wire Size (AWG)	*UL – 486 C	
RED	18	10	
Blue	16	15	
Blue	14	25	
Yellow	12	35	
Yellow	10	40	

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

#### **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>.

Wire Size: 10 – 16 AWG 5.00 - 1.30 mm <sup>2</sup>								
Terminal Eng No. (DEE)	Wire Stri	p Length	Insulation Diameter Maximum					
Terminal Ling No. (INLI)	In	mm	ln	mm				
NC-1610T	Varies	Varies	See Chart 1	See Chart 1				
	Terminal Eng No. (REF)	Terminal Eng No. (REF) Wire Stri	Terminal Eng No. (REF) Wire Strip Length In mm	Terminal Eng No. (REF) Wire Strip Length Insulation Dian				

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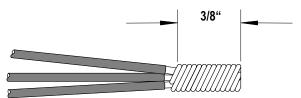
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#### **OPERATION**

#### Wire Preparation

Pre-twisted wire not required for OEM applications. For Solid Wire strip leads to 3/8 of an inch. Insert into connector and crimp (OEM only).

For stranded wire strip leads to approximately 3/4 of an inch. Twist the wire combination even and tight. Trim stripped pretwisted area to 3/8 of an inch and insert into connector and crimp. For more information follow the Quality Crimping Handbook.



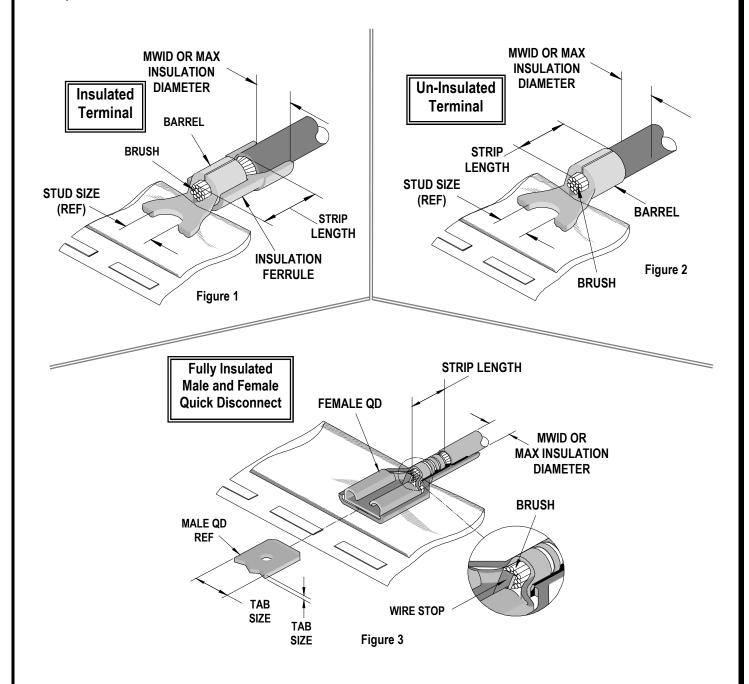
#### **CHART 1**

Wire Combinations for Nylon- Insulated Closed End Connectors Order No. 19160-0083 (NC-1610T)							
Wire Type	Gau	ge (A	WG)		Dating		
Wire Type	12	14	16	17	18	20	Rating
Stranded or Solid	1		1				UL and CSA
Stranded or Solid	1				1		UL and CSA
Stranded or Solid	1				2		UL and CSA
Stranded or Solid		2					UL and CSA
Stranded or Solid		1	2				UL and CSA
Stranded or Solid		1	1				UL and CSA
Stranded or Solid		1	1		1		UL and CSA
Stranded or Solid		1			3		UL and CSA
Stranded or Solid		1			2		UL and CSA
Stranded or Solid		1			1		UL and CSA
Stranded or Solid			3		1		UL and CSA
Stranded or Solid			3				UL and CSA
Stranded or Solid			2		3		UL and CSA
Stranded or Solid			2		2		UL and CSA
Stranded or Solid			2		1		UL and CSA
Stranded or Solid			2				UL and CSA
Stranded or Solid			1		4		UL and CSA
Stranded or Solid			1		3		UL and CSA
Stranded or Solid			1		2		UL and CSA
Stranded or Solid			1		1		UL and CSA
Stranded or Solid					6		UL and CSA
Stranded or Solid					5		UL and CSA
Stranded or Solid					4		UL and CSA
Stranded or Solid					3		UL and CSA
Stranded only				2	1		UL
Stranded only				3	2		UL
Solid only	1		3				CSA

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# **DEFINITION OF TERMS**

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

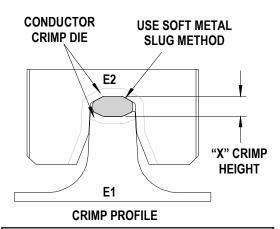


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#### **Tool Calibration**

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 4).
- 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").
- 6. Adjustment of the crimp height can be accomplished by indexing the conductor cam. The letter "A" gives the



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

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	Pango	"X" Dimension Conductor Crimp						
l	Wire Range		Me	an	Go		No Go		Crimp Inspection Marking
I	AWG	mm²	ln	mm	ln	mm	ln	mm	
	10 - 16	5.00 - 1.30	.120	3.05	.116	2.95	.125	3.18	N/A

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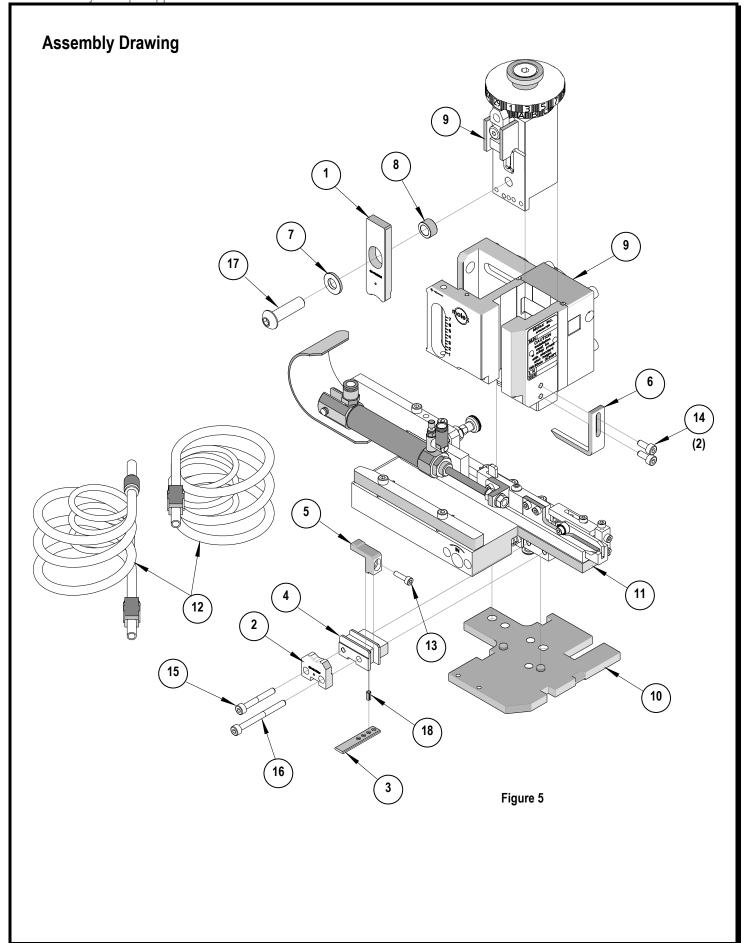
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# **PARTS LIST**

Mini-Mac Applicator 63885-8400											
Item	Order No Engineering No. Description			Quantity							
Perishable Tooling											
	63885-8470	63885-8470	Tool Kit (All "Y" Items)	REF							
1	63465-0066	63465-0066	Conductor Punch	1 Y							
2	63464-0057	63464-0057	Conductor Anvil	1 Y							
	Other Components (Ref. 858450)										
3	63443-0021	63443-0021	Lower Tooling Key	1							
4	63466-0912	63466-0912	Anvil Mount	1							
5	63466-0913	63466-0913	Terminal Support	1							
6	63466-0921	63466-0921	Terminal Stripping Blade	1							
7	63600-1290	63600-1290	Washer	1							
8	63890-0866	63890-0866	Collar-6.4mm Long	1							
		F	rame								
9	63801-3301 63801-3301 Air Feed Applicator Frame Head		REF								
10	63801-3281	63801-3281	Base	REF							
11	63801-5850 63801-5850 Track Assembly		REF								
12	63801-3390 63801-3390 Air Kit		Air Kit	REF							
		На	rdware								
13	N/A	N/A	M3 by 12 Long SHCS	1**							
14	N/A	N/A	M4 by 10 Long SHCS	2**							
15	N/A	N/A	M4 by 16 Long SHCS	1**							
16	N/A	N/A	M4 by 45 Long SHCS	1**							
17	N/A	N/A	M8 by 30 Long BHCS	1**							
18	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 63885-8400 are equivalent to 19288-0236 / ATP-NC-1610 (UL file number E32244).

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#### **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 processing 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.

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