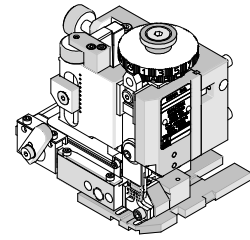


Mini-Mac  
Applicator**molex****Application Tooling  
Specification Sheet****Order No. 63888-5000****FEATURES**

- Directly adapts to most automatic wire processing machines
- Applicator designed to industry standard mounting and shut height 135.80mm (5.346")
- Quick set-up time; plus the crimp height, track and feed adjustments can be set without removing the applicator from the press
- Fine adjustment allows users to achieve target with little effort by adjusting in increments of .015mm (.0006") for conductor crimp height and .063mm (.0025") for insulation height
- Independent adjustment rings allow users to quickly adjust the conductor or insulation crimp height without affecting each other
- Pilot pin in cut-off punch produces symmetrical cut-off tabs and consistent cut-off tab length, see terminal strip adjustment on page 3

**SCOPE**

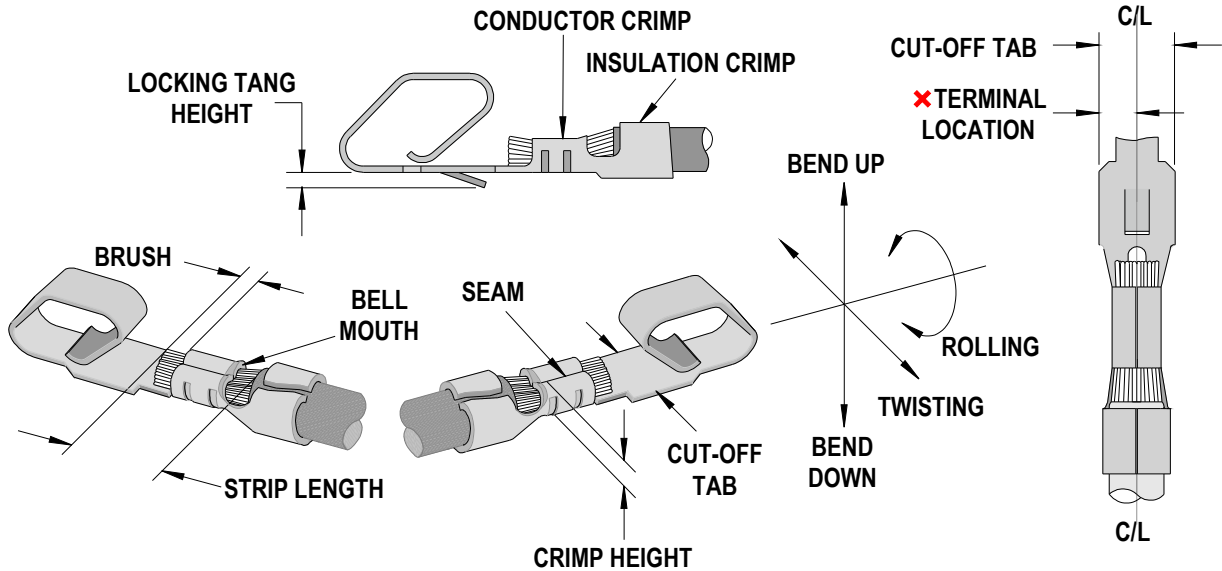
Products: KK® and Trifurcon™, 3.96mm (.156") Pitch Crimp Terminal, 18-24 AWG.

Terminal Series No.	Terminal Order No.				Wire Size		Insulation Diameter		Strip Length	
					AWG	mm <sup>2</sup>	mm	In.	mm	In.
2477	08-50-0109	08-56-0113	40-01-1179		18 - 24	0.80-0.20	*2.79	*.110	2.54-3.18	.100-.125
2478	08-50-0001	08-50-0014	08-50-0015	08-50-0047	18 - 24	0.80-0.20	*2.79	*.110	2.54-3.18	.100-.125
	08-50-0063	08-50-0073	08-50-0091	08-50-0105						
	08-50-0119	08-50-0146	08-50-0271	08-50-0281						
	08-51-0001	08-52-0023	08-52-0027	08-52-0044						
	08-52-0046	08-52-0071	08-52-0073	08-52-0114						
	08-52-0811	08-53-0004	08-53-0811	08-55-0103						
	08-55-0133	08-56-0105	08-56-0153	08-58-0103						
	08-58-0114	08-58-0121	08-65-0114	39-00-0103						
	39-00-0133	39-00-0286	39-00-0343	39-00-0345						
	39-00-0347	39-00-0349	40-01-1118	50-29-1689						
2878	08-50-0115	08-51-0109	08-52-0126	08-53-0814	18 - 20	0.80-0.50	*2.79	*.110	2.54-3.18	.100-.125
	08-58-0127	08-55-0138	08-65-0118							
4838	08-50-0131	08-55-0125	08-55-0139	08-55-0142	18 - 22	0.80-0.35	2.41	.095	2.54-3.18	.100-.125
	08-55-0144	08-55-0145	08-55-0147	08-55-0149						
6438	08-50-0164	08-51-0801	08-52-0813	05-53-0813	18 - 24	0.80-0.20	2.41	.095	2.54-3.18	.100-.125
	08-56-0135	08-56-0137								
6838	08-50-0024	08-50-0026	08-50-0028	08-50-0187	18 - 20	0.80-0.50	*2.79	*.110	2.54-3.18	.100-.125
	08-50-0275	08-51-0106	08-52-0112	08-53-1101						
	08-58-0102	08-58-0105	08-58-0108	08-58-0110						
	08-58-0118	08-58-0131	08-58-0187	08-60-0001						
8993	08-50-0011	08-50-0277			18 - 24	0.80-0.20	*2.79	*.110	2.54-3.18	.100-.125

Terminal Series No.	Terminal Order No.				Wire Size		Insulation Diameter		Strip Length	
					AWG	mm <sup>2</sup>	mm	In.	mm	In.
172160	172160-1801	172160-1802	172160-1803	172160-1804	18 - 20	0.80-0.50	*2.79	*.110	2.54-3.18	.100-.125
	172160-1805	172160-1806								

\*Insulation below 1.65mm (.065 inch) diameter may produce loose insulation crimps.

### DEFINITION OF TERMS



\* Terminal is to be centrally located between the two (2) cut-off edges, within +/- 0.08mm (+/- .003").

### CRIMP SPECIFICATIONS

Terminal Series No.				Bell mouth		*Cut-off Tab		Conductor Brush	
				mm	In.	mm	In.	mm	In.
2477	2878	6438	6838	0.20-0.50	.008-.020	2.72±.08	.107±.003	0.13-0.64	.005-.025
2478	4838	8993	172160						

Terminal Series No.	Locking Tang Height		Bend up Bend down		Twist Roll		Punch Width (Ref)				Seam Seam shall not be open and no wire allowed out of the crimping area
	mm	In	Degree		Degree		Conductor		Insulation		
							mm	In	mm	In	
2477	0.64-0.76	.025-.030	3	3	4	8	1.95	.077	2.42	.095	
2478	0.64-0.76	.025-.030	3	3	4	8	1.95	.077	2.42	.095	
2878	0.63-0.79	.025-.031	3	3	4	8	1.95	.077	2.42	.095	
4838	0.64-0.76	.025-.030	3	3	4	8	1.95	.077	2.42	.095	
6438	0.63-0.79	.025-.031	3	3	4	8	1.95	.077	2.42	.095	
6838	0.63-0.79	.025-.031	3	3	4	8	1.95	.077	2.42	.095	
8993	0.38-0.51	.015-.020	3	3	4	8	1.95	.077	2.42	.095	
172160	0.63-0.79	.025-.031	3	3	4	8	1.95	.077	2.42	.095	

After crimping, the conductor profile should measure the following.

Terminal Series No.	Wire Size		Crimp Height		Pull Force Minimum	
	AWG	mm <sup>2</sup>	mm	In.	N	Lb.
2477	18	0.80	1.09-1.14	.043-.045	110	25
	20	0.50	1.02-1.09	.040-.043	66	15
	22	0.35	0.97-1.02	.038-.040	44	10
	24	0.20	0.91-0.97	.036-.038	35	8
* 08-52-0071	18	0.81	1.07-1.17	.042-.046	110	25

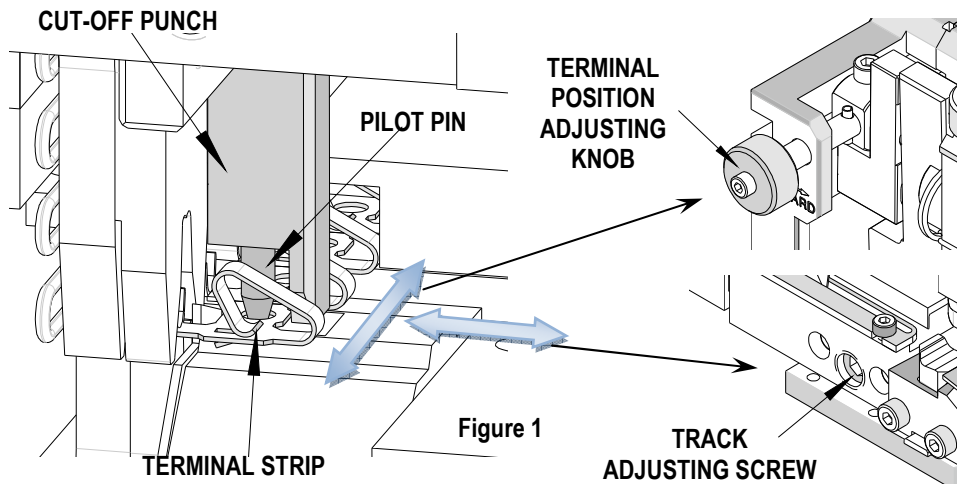
Terminal Series No.	Wire Size		Crimp Height		Pull Force Minimum	
	AWG	mm <sup>2</sup>	mm	In.	N	Lb.
2478	18	0.80	1.09-1.14	.043-.045	111.2	25.0
	20	0.50	1.02-1.09	.040-.043	66.7	15.0
	22	0.35	0.97-1.02	.038-.040	44.5	10.0
	24	0.20	0.91-0.97	.036-.038	35.6	8.0
2878	18	0.80	1.09-1.14	.043-.045	111.2	25.0
	20	0.50	1.02-1.09	.040-.043	66.7	15.0
4838	18	0.80	1.09-1.14	.043-.045	111.2	25.0
	20	0.50	1.02-1.09	.040-.043	66.7	15.0
	22	0.35	0.97-1.02	.038-.040	44.5	10.0
6438	18	0.80	1.09-1.14	.043-.045	111.2	25.0
	20	0.50	1.02-1.09	.040-.043	66.7	15.0
	22	0.35	0.97-1.02	.038-.040	44.5	10.0
	24	0.20	0.91-0.97	.036-.038	35.6	8.0
6838	18	0.80	1.09-1.14	.043-.045	111.2	25.0
	20	0.50	1.02-1.09	.040-.043	66.7	15.0
8993	18	0.80	1.09-1.14	.043-.045	111.2	25.0
	20	0.50	1.02-1.09	.040-.043	66.7	15.0
	22	0.35	0.97-1.02	.038-.040	44.5	10.0
	24	0.20	0.91-0.97	.036-.038	35.6	8.0
172160	18	0.80	1.09-1.14	.043-.045	111.2	25.0
	20	0.50	1.02-1.09	.040-.043	66.7	15.0
* Special for use with 18 AWG UL1015, 16 strand (.010") diameter wire only. 0.81mm <sup>2</sup> .254mm						

**Tool Qualification Notes:**

1. Pull Force should be measured with no influence from the insulation crimp.
2. The above specifications are guidelines to an optimum crimp.

**Terminal Strip Adjustment**

The terminal strip hole must be aligned to the pilot pin before crimping under power. Hand cycle the press several times to check the alignment of the pilot pin to the terminal strip hole before crimping under power. Use the track adjusting screw and the terminal position adjusting knob to align the terminal strip hole to the pilot pin.



**PARTS LIST**

<b>Mini-Mac Applicator 63888-5000</b>				
<b>Item</b>	<b>Order No</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63888-5070	63888-5070	Tool Kit (All "Y" Items)	REF
1	11-18-4108	60712-8	Conductor Punch	1 Y
2	11-18-4110	60712-10	Conductor Anvil	1 Y
3	11-18-4107	60712-7	Insulation Punch	1 Y
4	11-18-4111	60712-11	Insulation Anvil	1 Y
5	63820-0038	63820-0038	Cut-Off Punch	1 Y
6	11-18-4470	60712-24	Cut-Off Insert	1 Y
<b>Other Components</b>				
7	11-18-4006	60703-8	Stripper Blade Holder	1
8	11-18-4103	60712-3	Cover Plate	1
9	11-18-4332	60703-16	Stripper	1
10	11-18-4471	60712-25	Retainer Block	1
11	11-18-4631	60750A104	Insulation Punch Spacer	1
12	11-18-4848	60800A123	Spring Retainer	1
13	11-18-4849	60800A124	Wire Hold Down Spring	1
14	11-18-5015	60805A122	Front Cover	1
15	11-40-4085	8301-10	Terminal Stop and Scrape Shield	1
16	63803-5119	63803-5119	Conductor Bushing	1
17	63820-0012	63820-0012	Cover-Drag Frame	1
18	63600-4664	63600-4664	Compression Spring	2
<b>Frame</b>				
19	63801-3201	63801-3201	Top	1
20	63801-3283	63801-3283	Base	1
21	63801-6950	63801-6950	Track	1
<b>Hardware</b>				
22	N/A	N/A	M3 by 6 Long SHCS	4**
23	N/A	N/A	M4 by 6 Long SHCS	2**
24	N/A	N/A	M4 by 12 Long BHCS	2**
25	N/A	N/A	M5 by 10 Long SHCS	1**
26	N/A	N/A	M8 by 20 Long BHCS	1**
27	N/A	N/A	#4-40 by 5/8" Long SHCS	2**
28	N/A	N/A	#6-32 by 3/8" Long BHCS	2**
29	N/A	N/A	#10-32 by 1.120" Long SHCS	1**
** Available from an industrial supply company such as MSC (1-800-645-7270).				

# Assembly Drawing

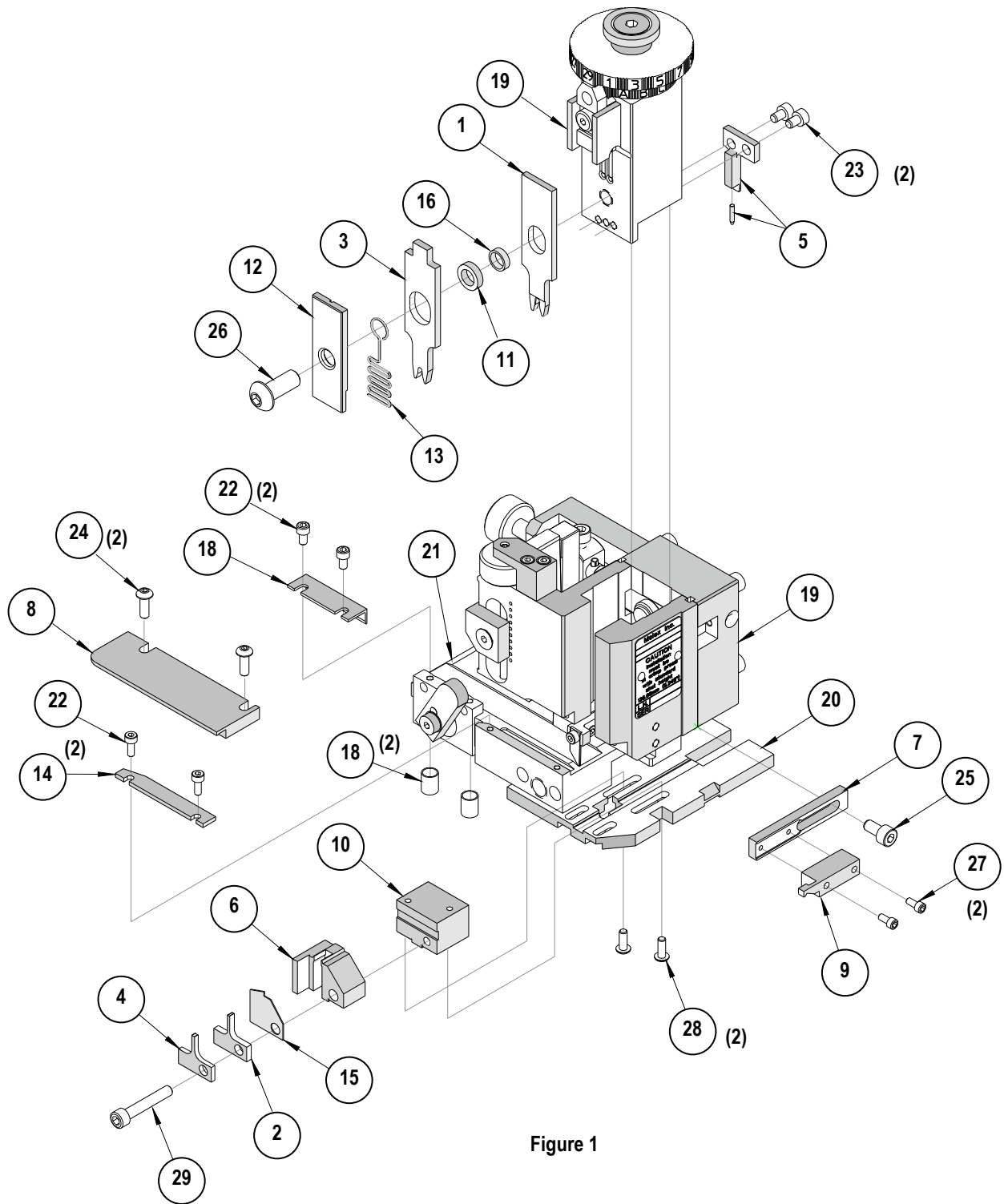


Figure 1

## NOTES

1. Molex recommends an extra perishable tooling kit be maintained at your facility.
2. Verify tooling alignment by manually cycling the press and 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 Manual.

**CAUTION:** This applicator should only be used in a press with a shut height of 135.8 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.

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