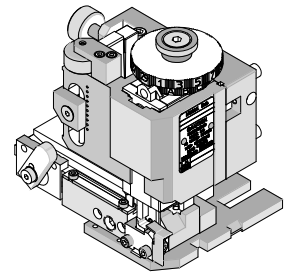


**Order Number  
63904-8000**



**Application Tooling Specification**

**FEATURES**

- Directly adapts to most automatic wire processing machines
- Quick punch removal with the push of a button for fast and easy tooling change
- Applicator designed to industry-standard mounting and 135.80mm (5.346") shut height
- Quick setup 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

**SCOPE**

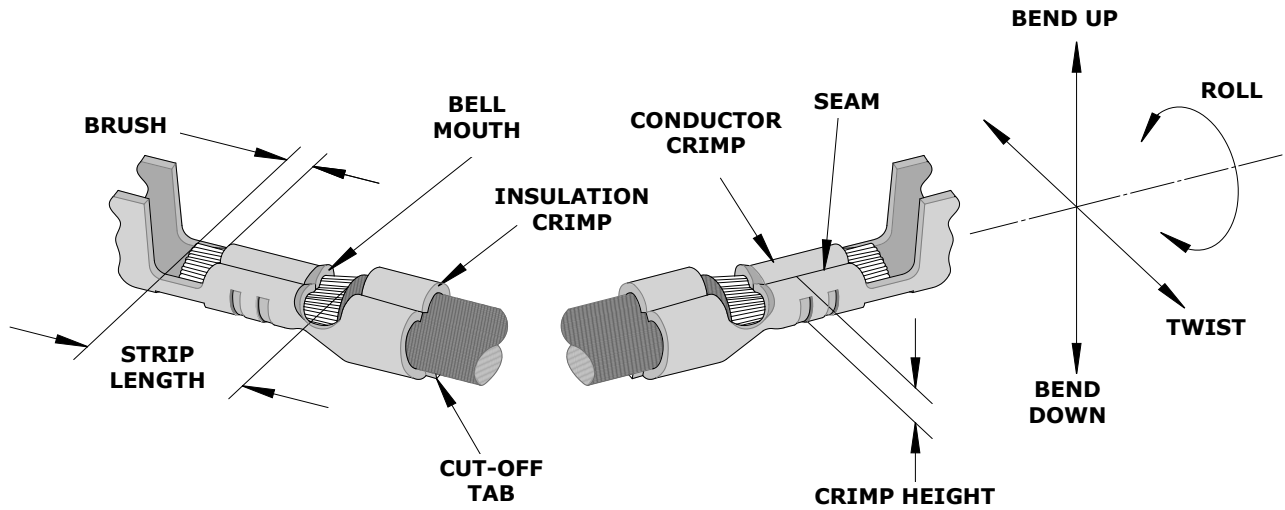
**Products:** Mini-Fit Jr., Mini-Fit HCS and Mini-Fit Plus HCS Crimp Terminals, 18-24 AWG with smaller insulation ODs.

Terminal Series No.	Terminal Order No.		Wire Size		Insulation Diameter				Strip Length	
					IPC/WHMA-A-620 (1)		Terminal (2)			
					mm	In.	mm	In.		
5556	39-00-0038	39-00-0055	18-24	0.80-0.20	1.65-2.05	.065-.085	1.30-3.10	.051-.122	3.00-3.50	.118-.138
	39-00-0059	39-00-0073								
	39-00-0108	39-00-0114								
	39-00-0153	39-00-0163								
	39-00-0169	39-00-0175								
	39-00-0181	39-00-0194								
	39-00-0200	39-00-0207								
	39-00-0213	39-00-0405								
	39-00-0407	39-00-0410								
	39-00-0419	39-00-0425								
	39-00-0428	39-00-0436								
	39-00-0440	40-13-0851								
5558	39-00-0040	39-00-0053	18-24	0.80-0.20	1.65-2.05	.065-.085	1.30-3.10	.051-.122	3.00-3.50	.118-.138
	39-00-0061	39-00-0075								
	39-00-0120	39-00-0121								
	39-00-0126	39-00-0219								
	39-00-0411	39-00-0420								
	39-00-0426	39-00-0427								
	39-00-0430	39-00-0437								
	40-01-0853	40-13-0853								
98-00-0174										
30490	30490-0002 30490-1002	30490-2002	18-24	0.80-0.20	1.65-2.05	.065-.085	1.30-3.10	.051-.122	3.00-3.50	.118-.138
44476	44476-1111	44476-1211	18-20	0.80-0.50	1.65-2.05	.065-.085	1.30-3.10	.051-.122	3.00-3.50	.118-.138
44478	44478-1111	44478-1211	18-20	0.80-0.50	1.65-2.05	.065-.085	1.30-3.10	.051-.122	3.00-3.50	.118-.138
44485	44485-1211	44485-1311	18-24	0.80-0.20	1.65-2.05	.065-.085	1.30-3.10	.051-.122	3.00-3.50	.118-.138
	44485-1411									
45750	45750-1111	45750-1211	18-20	0.80-0.50	1.65-2.05	.065-.085	1.65-2.95	.065-.116	3.00-3.50	.118-.138
46012	46012-1111	46012-1141	18-20	0.80-0.50	1.65-2.05	.065-.085	1.65-2.95	.065-.116	3.00-3.50	.118-.138
	46012-1211	46012-1241								
46018	46018-1541		18-20	0.80-0.50	1.65-2.05	.065-.085	1.65-2.95	.065-.116	3.00-3.50	.118-.138
46083	46083-1111	46083-1121	18-20	0.80-0.50	1.65-2.05	.065-.085	1.65-2.95	.065-.116	3.00-3.50	.118-.138
	46083-1211	46083-1221								

Terminal Series No.	Terminal Order No.		Wire Size		Insulation Diameter				Strip Length	
					IPC/WHMA-A-620 (1)		Terminal (2)			
					mm	In.	mm	In.		
46098	46098-1541		18-20	0.80-0.50	1.65-2.05	.065-.085	1.65-2.95	.065-.116	3.00-3.50	.118-.138
46134	46134-1111	46134-1121	18-20	0.80-0.50	1.65-2.05	.065-.085	1.65-2.95	.065-.116	3.00-3.50	.118-.138
	46134-1211	46134-1221								

(1) To achieve optimum IPC/WHMA-A-620 insulation crimps, use this insulation OD range (example UL1007).  
 (2) Overall insulation OD specification for terminal.  
 Applicator 63904-7800 should be used for insulation OD 2.50-2.95mm (example UL1015).  
 Applicator 63901-5600 should be used for insulation OD 1.90-2.30mm.  
 Applicator 63902-3900 should be used for insulation OD 1.40-1.70mm.  
 Applicator 63902-4900 should be used for insulation OD 2.30-2.60mm.

**DEFINITION OF TERMS**



The above terminal drawing is a generic terminal representation. It is not an image of a terminal listed in the scope.

**CRIMP SPECIFICATION**

Terminal Series No.	Bell Mouth		Cut-Off Tab Maximum		Conductor Brush	
	mm	In.	mm	In.	mm	In.
5556	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
5558						
30490	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
44476	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
44478						
44485						
45750	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
46012	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
46018						
46083	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
46098						
46134	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039

Terminal Series No.	Bend Up	Bend Down	Twist	Roll	Punch Width (Ref)				Seam
					Conductor		Insulation		
	Degree	Degree	mm	In.	mm	In.			
5556 5558	5	2	5	15	1.60	.063	2.00	.079	Seam shall not be open and no wire allowed out of the crimping area
30490	5	2	5	15	1.60	.063	2.00	.079	
44476 44478 44485	5	2	5	15	1.60	.063	2.00	.079	
45750	5	2	5	15	1.60	.063	2.00	.079	
46012 46018	5	2	5	15	1.60	.063	2.00	.079	
46083 46098	5	2	5	15	1.60	.063	2.00	.079	
46134	5	2	5	15	1.60	.063	2.00	.079	

After crimping, the crimp profiles should measure the following:

Terminal Series No.	Wire Size		Conductor				Pull Force Minimum	
	AWG	mm <sup>2</sup>	Crimp Height		Crimp Width (Ref)		N	Lb.
			mm	In.	mm	In.		
5556	18	0.80	0.97-1.07	.038-.042	1.68	.066	88.0	19.8
	20	0.50	0.95-1.04	.037-.041	1.66	.065	58.7	13.2
	22	0.35	0.85-0.94	.033-.037	1.65	.065	39.1	8.8
	24	0.20	0.79-0.87	.031-.034	1.63	.064	29.3	6.6
5558	18	0.80	0.97-1.07	.038-.042	1.68	.066	88.0	19.8
	20	0.50	0.95-1.04	.037-.041	1.66	.065	58.7	13.2
	22	0.35	0.85-0.94	.033-.037	1.65	.065	39.1	8.8
	24	0.20	0.79-0.87	.031-.034	1.63	.064	29.3	6.6
30490	18	0.80	0.97-1.07	.038-.042	1.68	.066	88.0	19.8
	20	0.50	0.95-1.04	.037-.041	1.66	.065	58.7	13.2
	22	0.35	0.85-0.94	.033-.037	1.65	.065	39.1	8.8
	24	0.20	0.79-0.87	.031-.034	1.63	.064	29.3	6.6
44476	18	0.80	0.97-1.07	.038-.042	1.68	.066	68.4	15.4
	20	0.50	0.95-1.04	.037-.041	1.66	.065	58.7	13.2
44478	18	0.80	0.97-1.07	.038-.042	1.68	.066	68.4	15.4
	20	0.50	0.95-1.04	.037-.041	1.66	.065	58.7	13.2
44485	18	0.80	0.97-1.07	.038-.042	1.68	.066	88.0	19.8
	20	0.50	0.95-1.04	.037-.041	1.66	.065	58.7	13.2
	22	0.35	0.85-0.94	.033-.037	1.65	.065	39.1	8.8
	24	0.20	0.79-0.87	.031-.034	1.63	.064	29.3	6.6
45750	18	0.80	0.97-1.07	.038-.042	1.68	.066	68.4	15.4
	20	0.50	0.84-0.94	.033-.037	1.66	.065	58.7	13.2
46012	18	0.80	0.97-1.07	.038-.042	1.68	.066	68.4	15.4
	20	0.50	0.84-0.94	.033-.037	1.66	.065	58.7	13.2
46018	18	0.80	0.97-1.07	.038-.042	1.68	.066	68.4	15.4
	20	0.50	0.84-0.94	.033-.037	1.66	.065	58.7	13.2
46083	18	0.80	0.97-1.07	.038-.042	1.68	.066	68.4	15.4
	20	0.50	0.84-0.94	.033-.037	1.66	.065	58.7	13.2
46098	18	0.80	0.97-1.07	.038-.042	1.68	.066	68.4	15.4
	20	0.50	0.84-0.94	.033-.037	1.66	.065	58.7	13.2
46134	18	0.80	0.97-1.07	.038-.042	1.68	.066	68.4	15.4
	20	0.50	0.84-0.94	.033-.037	1.66	.065	58.7	13.2

**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.

**PARTS LIST**

<b>FineAdjust Applicator 63904-8000</b>				
<b>Item</b>	<b>Order No.</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63904-8070	63904-8070	Tool Kit (All "Y" Items)	REF
1	63444-1609	63444-1609	Conductor Punch	1 Y
2	63455-1607	63455-1607	Conductor Anvil	1 Y
3	63446-2001	63446-2001	Insulation Punch	1 Y
4	63456-2003	63456-2003	Insulation Anvil	1 Y
5	63443-0002	63443-0002	Front Cut-Off Plunger	1 Y
6	63443-0012	63443-0012	Front Plunger Retainer	1 Y
<b>Other Components</b>				
7	11-17-0022	1739-21	Hold Down Spring	1
8	11-18-4083	60707-8	Feed Guide	1
9	11-24-1067	4996-4	Cut-Off Plunger Spring	1
10	63443-0009	63443-0009	Front Scrap Chute	1
11	63443-0024	63443-0024	Key	1
12	63443-0090	63443-0090	Wire Stop	1
13	63443-0093	63443-0093	Hold Down Shank	1
14	63443-1717	63443-1717	Height Spacer	1
15	63443-2215	63443-2215	Coarse Spacer (15.00mm)	1
16	63443-2314	63443-2314	Fine Spacer (3.70mm)	1
17	63443-2802	63443-2802	Plunger Striker	1
18	63443-2907	63443-2907	Wire Hold Down Plunger	1
19	63443-6111	63443-6111	Rear Cover	1
20	63443-7143	63443-7143	Terminal Hold Down	1
21	63600-1057	63600-1057	Compression Spring	1
<b>Frame</b>				
22	63800-4901	63800-4901	Top	1
23	63801-3281	63801-3281	Base	1
24	63801-4650	63801-4650	Track	1
<b>Hardware</b>				
25	—	—	M3 by 6 Long SHCS	2*
26	—	—	M3 by 6 Long FHCS	1*
27	—	—	M3 by 8 Long SHCS	1*
28	—	—	M4 by 6 Long SHCS	2*
29	—	—	M4 by 12 Long BHCS	2*
30	—	—	M4 by 50 Long SHCS	2*
31	—	—	M5 by 12 Long SHCS	1*
32	—	—	#10-32 by 3/8" Long Flat Point SSS	1*
33	—	—	#10-32 Hex Jam Nut	1*

\* Available from an industrial supply company.

**ASSEMBLY DRAWING**

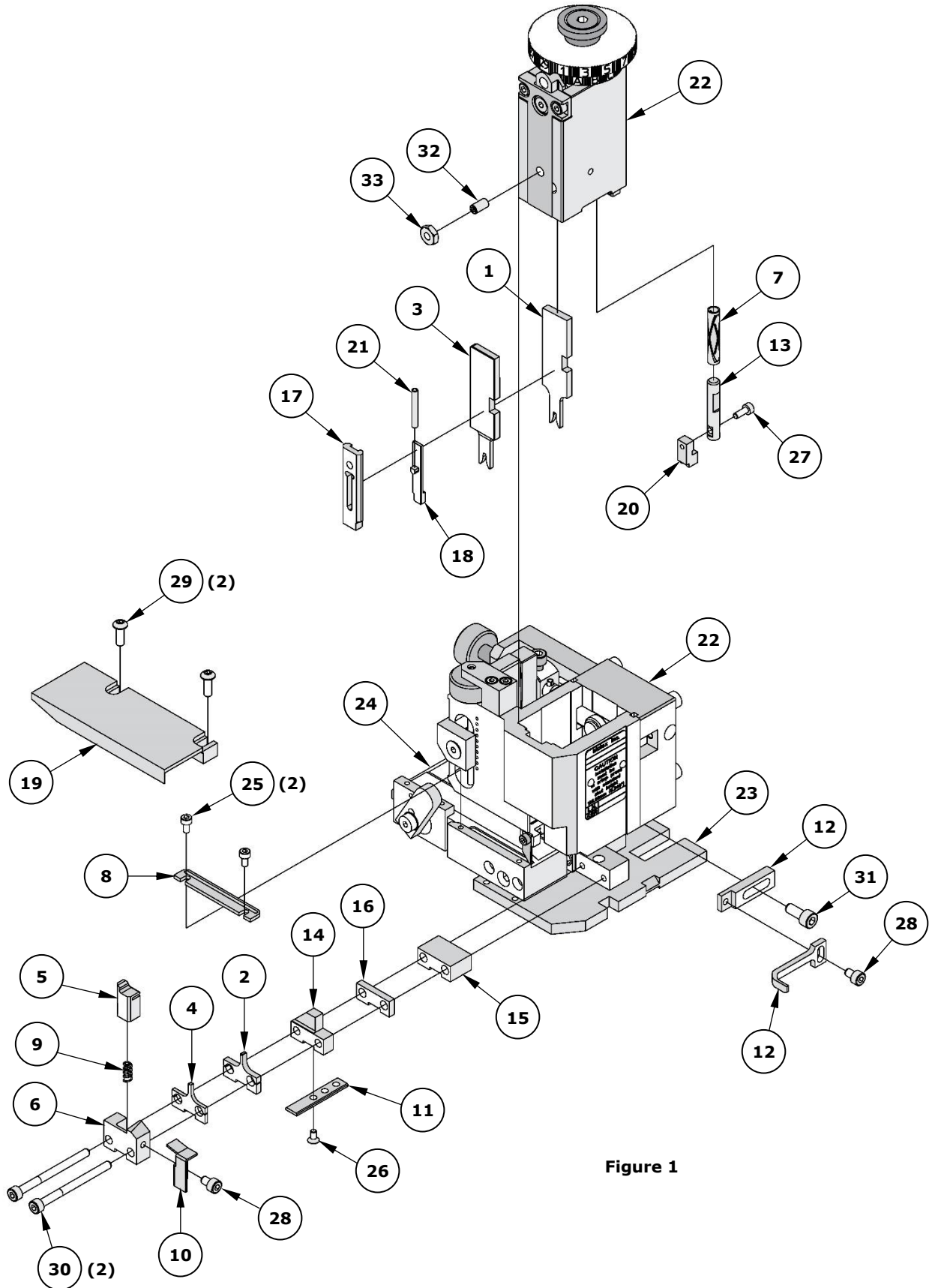


Figure 1

## NOTES

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1. Molex recommends that an extra perishable tooling kit be maintained at your facility.
2. Verify tooling alignment by hand 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 the work area.
4. Wear safety glasses at all times.
5. For recommended maintenance, refer to the FineAdjust manual.

## WARNINGS

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**CAUTION:** This applicator must be installed in a press with a standard shut height of 135.80mm (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 tooling crimp specifications are valid only when used with Molex terminals and tooling manufactured by Molex and sold by Molex or authorized distributors ("Molex Tooling"). When using tooling other than Molex Tooling with Molex-specific connector systems listed in our ATS documents, the Molex Tooling qualification does not apply, and the responsibility for full qualification of the connector system is that of the customer. Molex accepts no liability for connector performance or tooling support where tooling other than Molex Tooling is used or where Molex Tooling is modified.

### Application Tooling Support

**Phone:** (402) 458-TOOL (8665)

**E-Mail:** [applicationtooling@molex.com](mailto:applicationtooling@molex.com)

**Website:** [www.molex.com/applicationtooling](http://www.molex.com/applicationtooling)

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