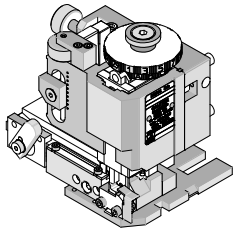
FineAdjust Applicator

Application Tooling Specification Sheet



Order No. 63902-3900

FEATURES

- Quick punch removal with the push of a button for fast and easy tooling change
- 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
- Directly adapts to most automatic wire processing machines

SCOPE

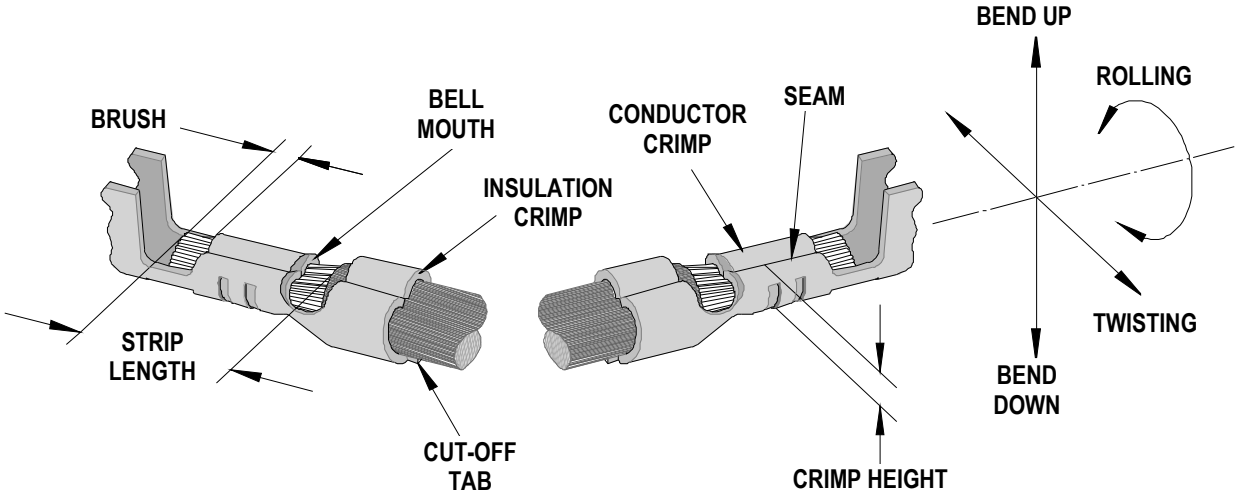
Products: Mini-Fit Jr. ™, Mini-Fit HCS™, and Mini-Fit Plus HCS™ Crimp Terminal 18-24 AWG with smaller insulation OD's.

Terminal Series No.	Terminal Order No.		Wire Size		Insulation Diameter				Strip Length	
					IPC/WHMA-A620 (1)		Terminal (2)			
			AWG	mm²	mm	In.	mm	In.	mm	In.
5556	39-00-0038	39-00-0055	18-24	0.80-0.20	1.40-1.70	.055-.067	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	1.40-1.70	.055-.067	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	18-24	0.80-0.20	1.40-1.70	.055-.067	1.30-3.10	.051-.122	3.00-3.50	.118-.138
	30490-2002									

Terminal Series No.	Terminal Order No.		Wire Size		Insulation Diameter				Strip Length	
					IPC/WHMA-A620 (1)		Terminal (2)			
			AWG	mm²	mm	In.	mm	In.	mm	In.
44476	44476-1111	44476-1211	18-20	0.80-0.50	1.40-1.70	.055-.067	1.30-3.10	.051-.122	3.00-3.50	.118-.138
44478	44478-1111	44478-1211	18-20	0.80-0.50	1.40-1.70	.055-.067	1.30-3.10	.051-.122	3.00-3.50	.118-.138
44485	44485-1211	44485-1311	18-24	0.80-0.20	1.40-1.70	.055-.067	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	1.40-1.70	.055-.067	1.65-2.95	.065-.116	3.00-3.50	.118-.138
46012	46012-1111	46012-1141	18-20	0.80-0.50	1.40-1.70	.055-.067	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	1.40-1.70	.055-.067	1.65-2.95	.065-.116	3.00-3.50	.118-.138
46083	46083-1111	46083-1121	18-20	0.80-0.50	1.40-1.70	.055-.067	1.65-2.95	.065-.116	3.00-3.50	.118-.138
	46083-1211	46083-1221								
46098	46098-1541		18-20	0.80-0.50	1.40-1.70	.055-.067	1.65-2.95	.065-.116	3.00-3.50	.118-.138
46134	46134-1111	46134-1121	18-20	0.80-0.50	1.40-1.70	.055-.067	1.65-2.95	.065-.116	3.00-3.50	.118-.138
	46134-1211	46134-1221								

(1) To achieve optimum IPC-A620 insulation crimps, use this insulation OD range.
(2) Overall insulation OD specification for terminal.
Applicator 63900-2600 should be used for insulation OD 2.50-2.95mm (example UL1015).
Applicator 63900-2900 should be used for insulation OD 1.65-2.05mm (example UL1007).
Applicator 63901-5600 should be used for insulation OD 1.90-2.30mm.
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	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
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	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
44485	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
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	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
46083	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
46098	0.20-0.50	.008-.020	0.30	.012	0.00-1.00	.000-.039
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 and 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 and 44485	5	2	5	15	1.60	.063	2.00	.079	
45750	5	2	5	15	1.60	.063	2.00	.079	
46012 and 46018	5	2	5	15	1.60	.063	2.00	.079	
46083	5	2	5	15	1.60	.063	2.00	.079	
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	
			Crimp Height		Crimp Width (Ref)			
	AWG	mm^2	mm	In.	mm	In.	N	Lb.
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

Terminal Series No.	Wire Size		Conductor				Pull Force Minimum	
			Crimp Height		Crimp Width (Ref)			
	AWG	mm²	mm	In.	mm	In.	N	Lb.
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

FineAdjust Applicator 63902-3900				
Item	**Order No**	**Engineering No.**	**Description**	**Quantity**
Perishable Tooling				
	63902-3970	63902-3970	Tool Kit (All "Y" Items)	REF
1	63444-1609	63444-1609	Conductor Punch	1 Y
2	63445-1646	63445-1646	Conductor Anvil	1 Y
3	63446-1815	63446-1815	Insulation Punch	1 Y
4	63445-1819	63445-1819	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
Other Components				
7	11-18-4083	60707-8	Feed Guide	1
8	11-24-1067	4996-4	Cut-Off Plunger Spring	1
9	63443-0009	63443-0009	Front Scrap Chute	1
10	63443-0024	63443-0024	Key	1
11	63443-0090	63443-0090	Wire Stop	1
12	63443-1717	63443-1717	Height Spacer	1
13	63443-2216	63443-2216	Coarse Spacer (16.00mm)	1
14	63443-2302	63443-2302	Fine Spacer (3.10mm)	1
15	63443-2802	63443-2802	Plunger Striker	1
16	63443-2908	63443-2908	Wire Hold Down Plunger	1
17	63443-6111	63443-6111	Rear Cover	1
18	63600-1057	63600-1057	Compression Spring	1
Frame				
19	63800-4901	63800-4901	Top	1
20	63801-3281	63801-3281	Base	1
21	63801-4650	63801-4650	Track	1
Hardware				
22	N/A	N/A	M3 by 6 Long SHCS	2**
23	N/A	N/A	M3 by 6 Long FHCS	1**
24	N/A	N/A	M4 by 6 Long SHCS	2**
25	N/A	N/A	M4 by 12 Long BHCS	2**
26	N/A	N/A	M4 by 50 Long SHCS	2**
27	N/A	N/A	M5 by 12 Long SHCS	1**
28	N/A	N/A	#10-32 by 3/8"Long Flat Point SSS	1**
29	N/A	N/A	#10-32 Hex Jam Nut	1**
** Available from an industrial supply company such as MSC (1-800-645-7270).				

Assembly Drawing

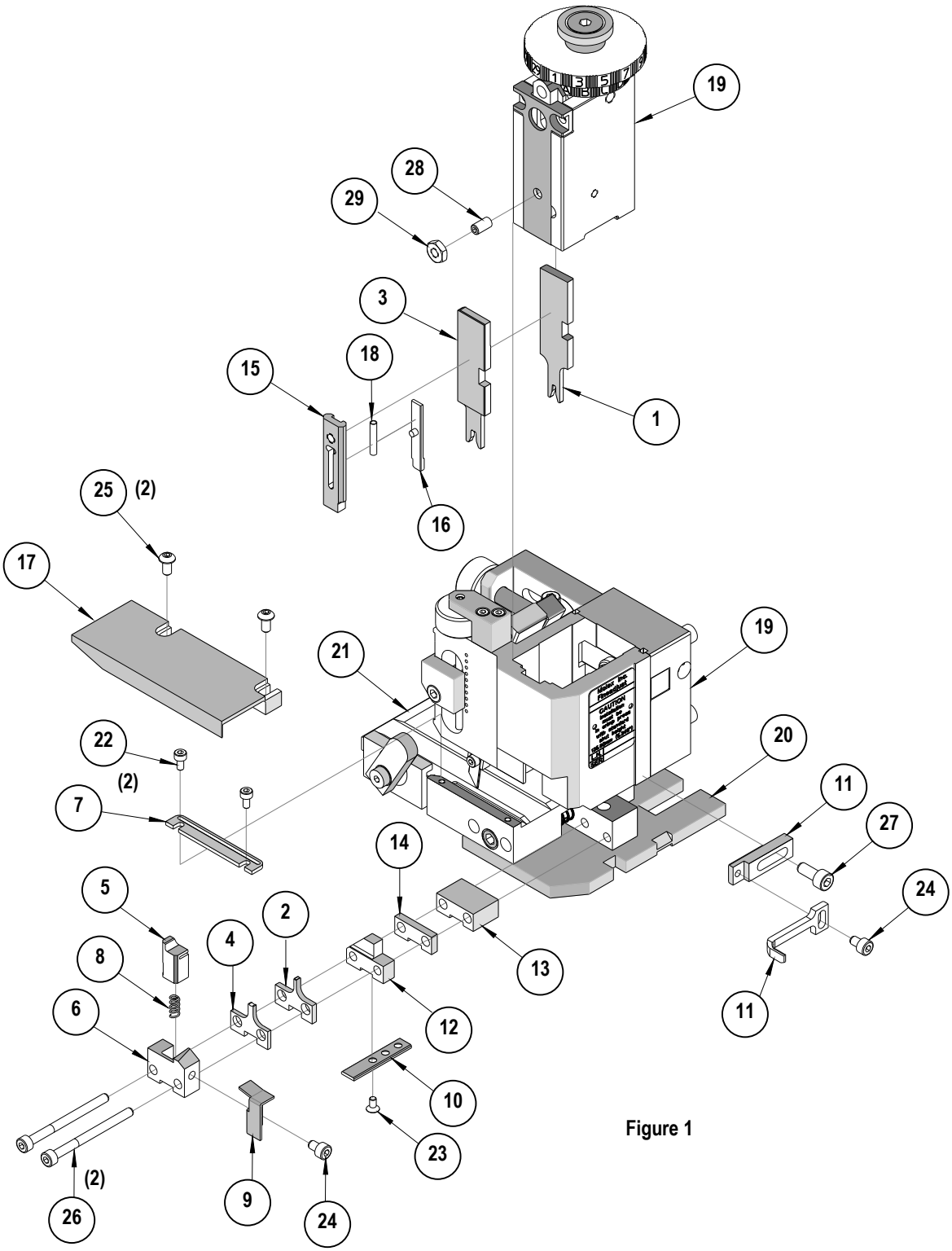


Figure 1

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 FineAdjust Manual.

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.

http://www.molex.com