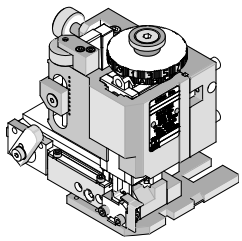
FineAdjust Applicator

molex

Application Tooling Specification Sheet



Order No. 63903-6300

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

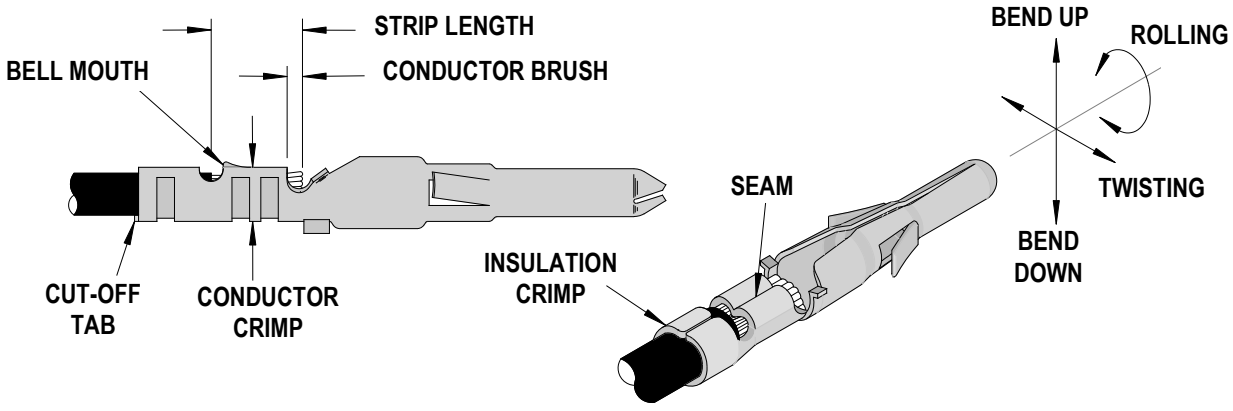
SCOPE

Products: EconoLatch Crimp Terminals 20-22 AWG.

Terminal Series No.	Terminal Order No.	Wire Size	Insulation Diameter				Strip Length	
			IPC/WHMA-A620 (1)		Terminal (2)			
		AWG	mm	In.	mm	In.	mm	In.
150180	150180-1020	20-22	1.55-1.80	.061-.071	1.20-1.80	.047-.071	3.18-3.96	.125-.156
150181	150181-1020	20-22	1.55-1.80	.061-.071	1.20-1.80	.047-.071	3.18-3.96	.125-.156

(1) To achieve optimum IPC-A620 insulation crimps, use this insulation OD range (example UL1007).
(2) Overall insulation OD specification for terminal.

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.
150180 150181	0.10-0.60	.004-.024	0.13	.0005	0.25-1.00	.010-.039

Terminal Series No.	Bend up	Bend down	Twist	Roll	Punch Width (Ref)				Seam
					Conductor		Insulation		
	Degree		Degree		mm	In.	mm	In.	
150180 150181	3	3	5	10	1.50	.059	2.10	.082	Seam shall not be open And no wire allowed out of the crimping area

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	In.	mm	In.	N	Lb.
150180	20	0.88-0.98	.035-.039	1.50	.059	66.7	15.0
	22	0.79-0.87	.031-.034	1.50	.059	44.5	10.0
150181	20	0.88-0.98	.035-.039	1.50	.059	66.7	15.0
	22	0.79-0.87	.031-.034	1.50	.059	44.5	10.0

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 63903-6300				
Item	**Order No**	**Engineering No.**	**Description**	**Quantity**
Perishable Tooling				
	63903-6370	63903-6370	Tool Kit (All "Y" Items)	REF
1	63444-1512	63444-1512	Conductor Punch	1 Y
2	63445-1521	63445-1521	Conductor Anvil	1 Y
3	63454-2101	63454-2101	Insulation Punch	1 Y
4	63445-2023	63445-2023	Insulation Anvil	1 Y
5	63443-0002	63443-0002	Cut-Off Plunger Front	1 Y
6	63443-0012	63443-0012	Plunger Retainer Front	1 Y
Other Components				
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	Scrap Chute Front	1
11	63443-0024	63443-0024	Lower Tooling Key	1
12	63443-0090	63443-0090	Wire Stop	1
13	63443-0093	63443-0093	Shank	1
14	63443-1719	63443-1719	Height Spacer	1
15	63443-2215	63443-2215	Coarse Spacer (15.0mm)	1
16	63443-2319	63443-2319	Fine Spacer (3.95mm)	1
17	63443-2802	63443-2802	Plunger Striker Front	1
18	63443-2909	63443-2909	Wire Hold-Down Plunger	1
19	63443-6110	63443-6110	Rear Cover	1
20	63443-7134	63443-7134	Terminal Hold-Down	1
21	63600-0021	63600-0021	Wire Hold-Down Spring	1
Frame				
22	63800-4901	63800-4901	Top	1
23	63801-3281	63801-3281	Base	1
24	63801-4650	63801-4650	Track	1
Hardware				
25	N/A	N/A	M3 by 6 Long FHCS	1**
26	N/A	N/A	M3 by 6 Long SHCS	2**
27	N/A	N/A	M3 by 8 Long SHCS	1**
28	N/A	N/A	M4 by 6 Long SHCS	2**
29	N/A	N/A	M4 by 12 Long BHCS	2**
30	N/A	N/A	M4 by 50 Long SHCS	2**
31	N/A	N/A	M5 by 12 Long SHCS	1**
32	N/A	N/A	#10-32 by 3/8"Long Flat Point SSS	1**
33	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

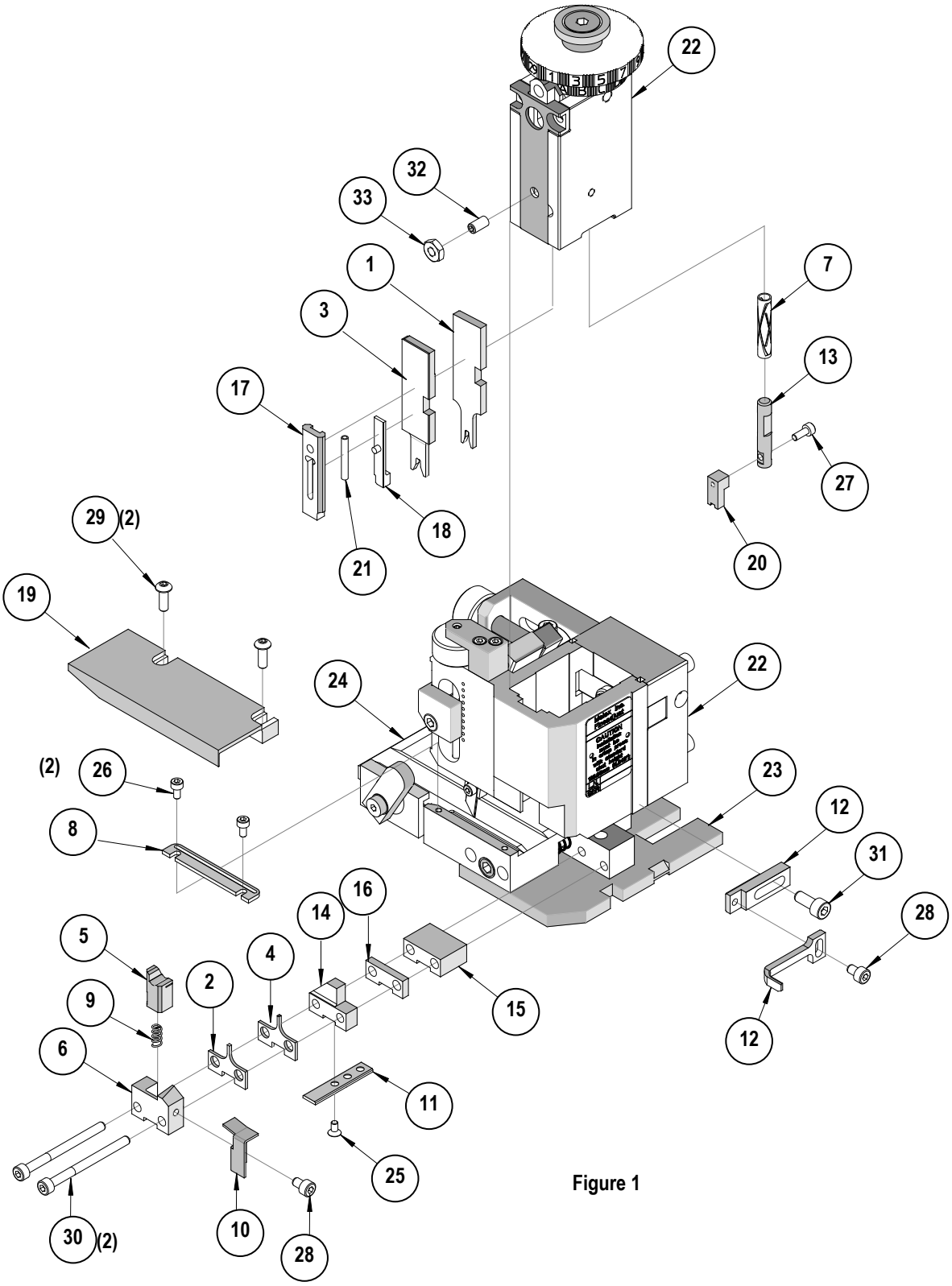


Figure 1

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.

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