FineAdjust Applicator	**molex®** **Application Tooling Specification Sheet**	
		Order No. 63904-4600
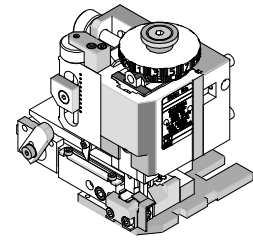
FEATURES

- 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: 3.96mm (.156") Pitch SPOX Crimp Terminal, 18-24 AWG, UL1007 wires.

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.
5194	08-70-1031	39-00-0416	18-24	N/A	1.70-2.10	.067-.083	1.30-3.00	.051-.118	3.00-3.50	.118-.138
	39-00-0409	39-00-0021								

(1) To achieve optimum IPC-A620 insulations crimps, use this insulation OD range.
(2) Overall insulation OD specification for terminal.
(3) Other applicators may be available for insulation diameters outside the optimum range (1) described above. Enter the Terminal Order Number on the Molex website for the latest applicator information.

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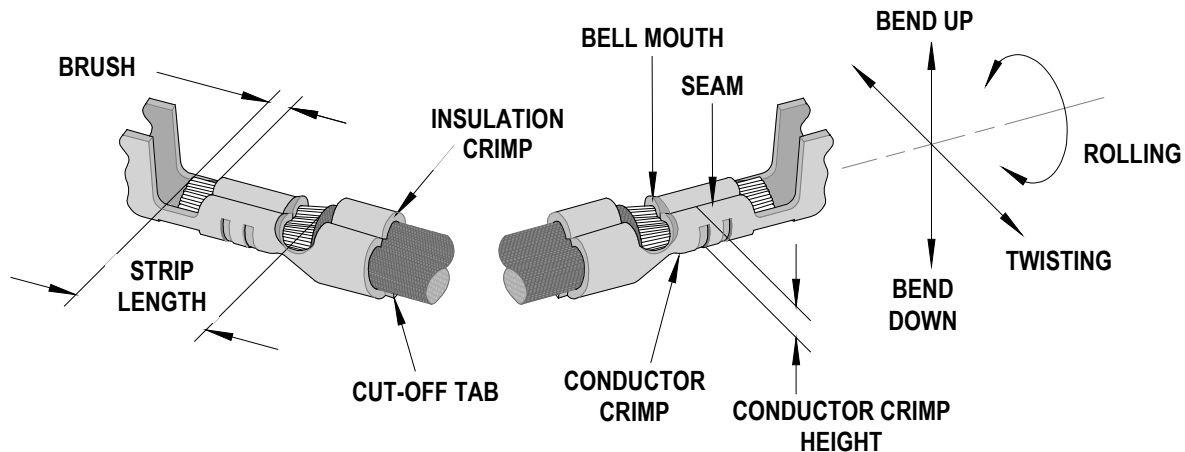
The above terminal drawing is a generic terminal representation. It is not an image of a terminal listed in the scope.

CRIMP SPECIFICATION

Terminal Series No.	Bell Mouth		Cut-Off Tab Maximum		Conductor Brush	
	mm	In.	mm	In.	mm	In.
5194	0.20-0.70	.008-.028	0.40	.016	0.00-1.00	.000-.039

Terminal Series No.	Bend Up	Bend Down	Twist	Roll	Punch Width mm (Ref)				Seam
	Degree		Degree		Conductor		Insulation		
					mm	In	mm	In	
5194	6	0	3	8	1.60	.063	2.50	.098	Seam shall not be open and no wire allowed out of the crimping area

After crimping, the conductor profile should measure the following:

Terminal Series No.	Wire Size		Conductor Crimp				Pull Force Minimum	
			Height		Width (Ref.)			
	AWG	mm²	mm	In.	mm	In.	N	Lb.
5194	18	N/A	1.10-1.20	.043-.047	1.60	.063	88.1	19.80
	20	N/A	1.07-1.17	.042-.046	1.60	.063	58.7	13.20
	22	N/A	0.96-1.06	.038-.042	1.60	.063	39.1	8.80
	24	N/A	0.90-1.00	.035-.039	1.60	.063	29.4	6.60

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.
3. Insulation crimp heights (Ref.) can be adjusted accordingly based on the actual wire OD used to achieve optimum IPC-A620 insulation crimps.

Insulation Crimp Note:

Due to the terminal's insulation grip design and/or insulation diameter range, this applicator uses "overlap" form geometry in the insulation punch. This produces an overlap insulation crimp (A620-compliant). While the insulation punch profile may appear "lopsided," this is a normal condition. See figure to the right.

PARTS LIST
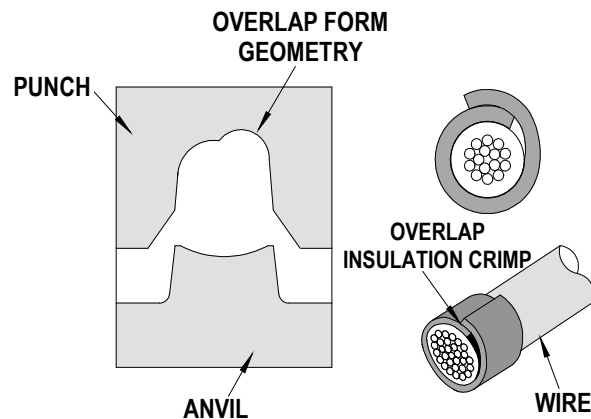
Item	Order No.	Engineering No.	Description	Quantity
**FineAdjust Applicator 63904-4600**
**Perishable Tooling**
	63904-4670	63904-4670	Tool Kit (All "Y" Items)	REF
1	63444-1605	63444-1605	Conductor Punch	1 Y
2	63445-1641	63445-1641	Conductor Anvil	1 Y
3	63454-2507	63454-2507	Insulation Punch	1 Y
4	63456-2503	63456-2503	Insulation Anvil	1 Y
5	63443-0005	63443-0005	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	11-40-4039	8302-5	Plunger Striker	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	63443-1719	63443-1719	18.90mm Height Spacer	1
14	63443-2216	63443-2216	16.00mm Coarse Spacer	1
15	63443-2302	63443-2302	3.10mm Fine Spacer	1
16	63443-6111	63443-6111	Rear Cover	1
**Frame**
17	63800-4901	63800-4901	Top	1
18	63801-3281	63801-3281	Base	1
19	63801-4650	63801-4650	Track	1
**Hardware**
20	N/A	N/A	M3 by 6 Long SHCS	2**
21	N/A	N/A	M3 by 6 Long FHCS	1**
22	N/A	N/A	M4 by 6 Long SHCS	2**
23	N/A	N/A	M4 by 12 Long BHCS	2**
24	N/A	N/A	M4 by 50 Long SHCS	2**
25	N/A	N/A	M5 by 12 Long SHCS	1**
26	N/A	N/A	#10-32 by 3/8"Long Flat Point SSS	1**
27	N/A	N/A	#10-32 Hex Jam Nut	1**

** Available from an industrial supply company such as MSC (1-800-645-7270).
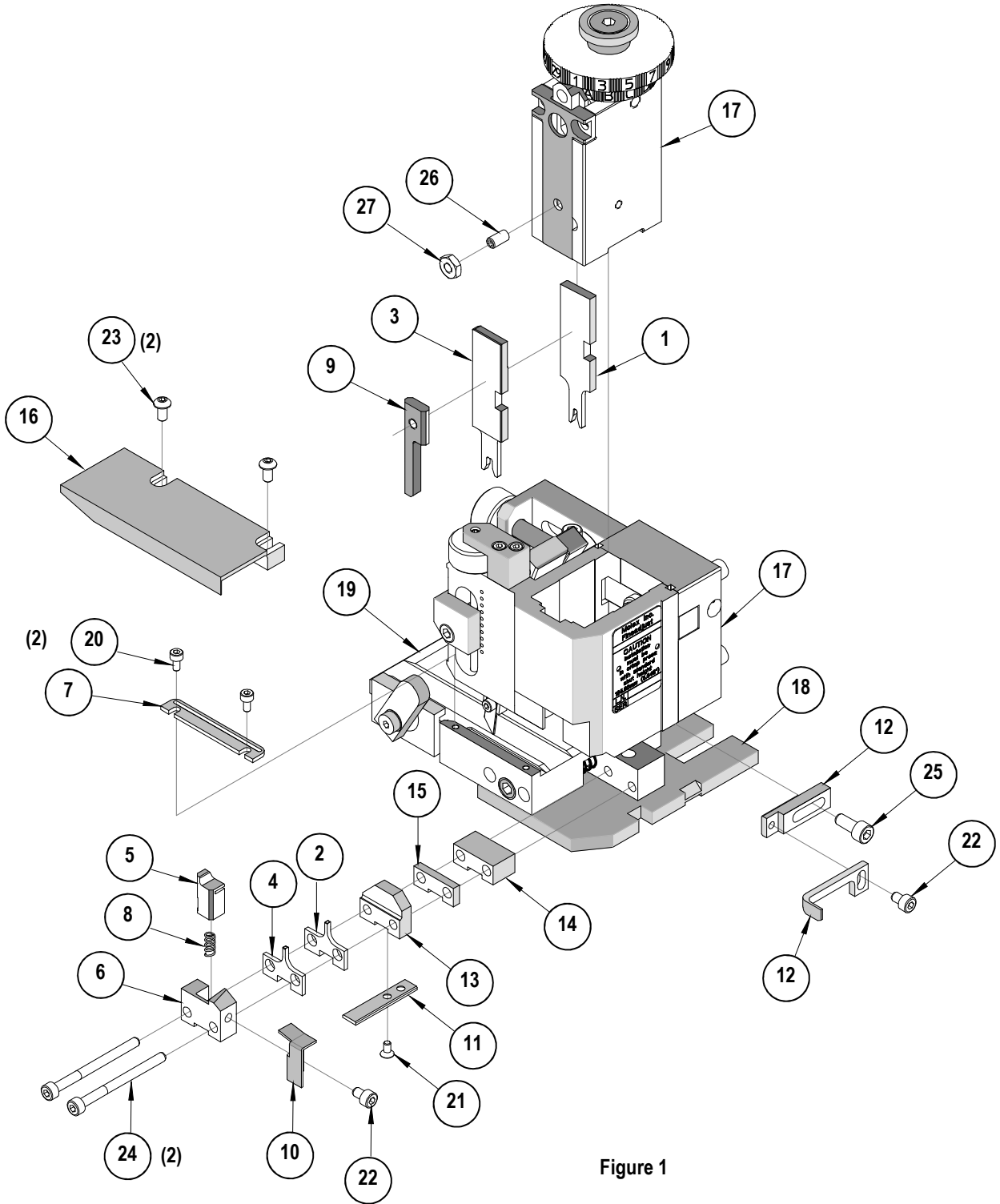
Assembly Drawing

Figure 1

NOTES

1. Molex recommends that 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 the 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.

Application Tooling Support

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