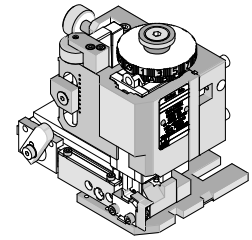




**FineAdjust  
Applicator**

**Application Tooling  
Specification Sheet**



**Order No. 63900-8400**

**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 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

**SCOPE**

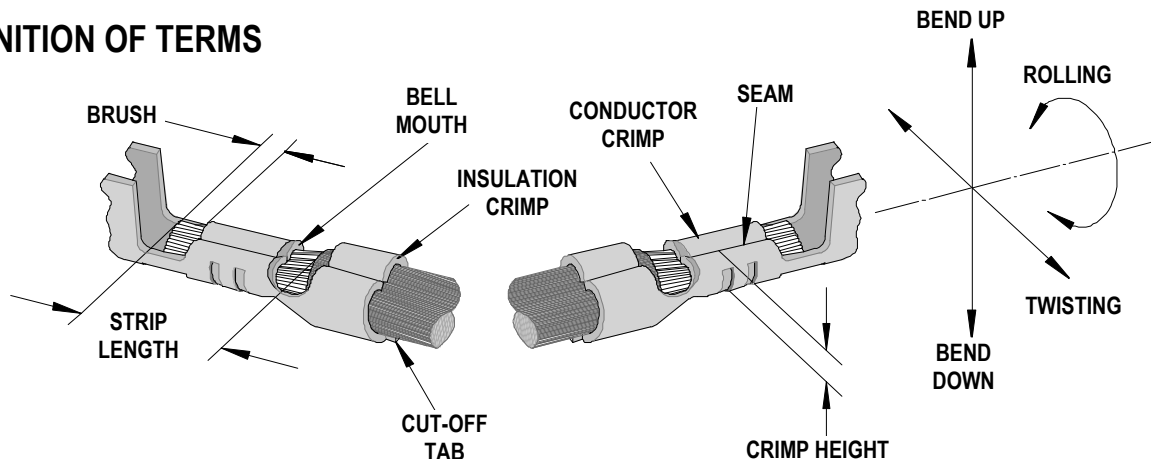
Products: MX150L™ Female Terminal for 18-24 AWG Wire.

Terminal Series No.	Terminal Order No.		Wire Size		Insulation Diameter		Strip Length	
			AWG	mm <sup>2</sup>	mm	In.	mm	In.
19420	19420-0002	Female (Tin)	18-22	0.83-0.36	2.36-2.74	.093-.108	4.20-5.00	.165-.197
	19420-0004	Female (Gold)	18-22	0.83-0.36	2.36-2.74	.093-.108	4.20-5.00	.165-.197
	19420-0002	Female (Tin)	24	0.20	1.00 Nom.	.039 Nom.	4.20-5.00	.165-.197
	19420-0004	Female (Gold)	24	0.20	1.00 Nom.	.039 Nom.	4.20-5.00	.165-.197

**Note: Terminals will accommodate the following wire specification:**

1. (18-22 AWG) UL1015 wires.
  2. (24 AWG) UL20251 wire.
- For 24 AWG wire, see Tool Qualification Notes, Item 2 on page 2.  
For TXL-style insulation, see Tool Qualification Notes, Item 3 on page 2.

**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.
19420	0.25-1.25	.010-.049	0.50	.020	0.15-0.65	.006-.026

Terminal Series No.	Bend up Bend down		Twist	Roll	Punch Width mm (Ref)				Seam Seam shall not be open and no wire allowed out of the crimping area
	Degree				Degree		Conductor		
	mm	In	mm	In					
19420	5	5	4	8	2.00	.079	3.40	.133	

After crimping, the conductor profile should measure the following.

Terminal Series No.	Wire Size		Conductor Crimp Height		Insulation Crimp Height Maximum		Pull Force Minimum	
	AWG	mm <sup>2</sup>	mm	In.	Mm (Ref)	In. (Ref)	N	Lb.
19420	18	0.83	1.15-1.25	.045-.049	3.00	.118	89.0	20.00
	20	0.58	1.10-1.20	.043-.047	3.00	.118	57.9	13.00
	22	0.36	1.05-1.15	.041-.045	3.00	.118	35.6	8.00
	24	0.20	1.00-1.10	.039-.043	3.00	.118	22.2	5.00

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

**\*Tool Qualification Notes:**

1. This Applicator was qualified to the above specifications with UL1015 wires for 18-22 AWG and UL20251 wire for 24 AWG.
2. For the 24 AWG wire, the insulation crimp has clearance around the wire and does not provide strain relief, even at the nominal reference crimp height of 2.11mm (.083”).
3. TXL-style automotive wire can be crimped but the insulation crimp will not fully contact the wire insulation.

**PARTS LIST**

<b>FineAdjust Applicator 63900-8400</b>				
<b>Item</b>	<b>Order No</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63900-8470	63900-8470	Tool Kit (All "Y" Items)	REF
1	63444-2037	63444-2037	Conductor Punch	1 Y
2	63445-2068	63445-2068	Conductor Anvil	1 Y
3	63454-0022	63454-0022	Insulation Punch	1 Y
4	63445-3440	63445-3440	Insulation Anvil	1 Y
5	63443-0035	63443-0035	Front Cut-Off Plunger	1 Y
6	63443-0036	63443-0036	Front Plunger Retainer	1 Y
<b>Other Components</b>				
7	11-18-4083	60707-8	Feed Guide	1
8	63443-0009	63443-0009	Front Scrap Chute	1
9	63443-0024	63443-0024	Key	1
10	63443-0090	63443-0090	Wire Stop	1
11	63443-1712	63443-1712	Height Spacer	1
12	63443-2206	63443-2206	Coarse Spacer (6.00mm)	1
13	63443-2208	63443-2208	Coarse Spacer (8.00mm)	1
14	63443-2312	63443-2312	Fine Spacer (3.60mm)	1
15	63443-3160	63443-3160	Front Plunger Striker	1
16	63443-6121	63443-6121	Rear Cover	1
17	63700-0539	63700-0539	Cut-Off Plunger Spring	1
<b>Frame</b>				
18	63800-4901	63800-4901	Top	1
19	63801-3281	63801-3281	Base	1
20	63801-4650	63801-4650	Track	1
<b>Hardware</b>				
21	N/A	N/A	M3 by 6 Long SHCS	2**
22	N/A	N/A	M3 by 6 Long FHCS	1**
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	M4 by 50 Long SHCS	2**
26	N/A	N/A	M5 by 12 Long SHCS	1**
27	N/A	N/A	#10-32 by 3/8" Long Flat Point SSS	1**
28	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

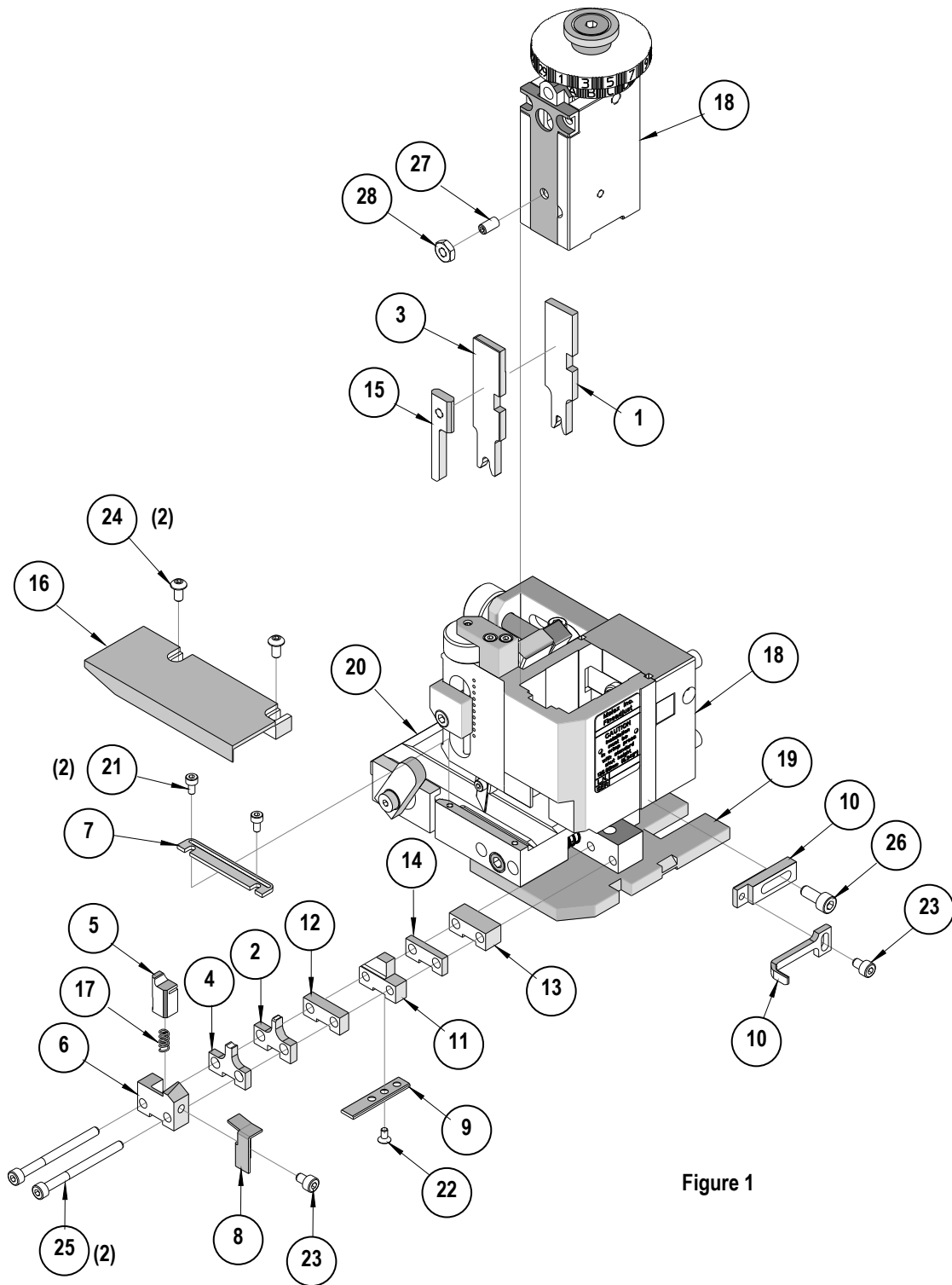


Figure 1

## 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 135.8mm (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>

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