

## FEATURES

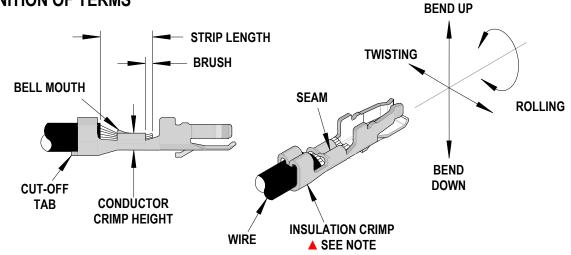
- Directly adapts to most automatic wire processing machines
- Quick punch removal with the push of a button for fast and easy tooling change
- Applicator designed to industry standard mounting and shut height 135.80mm (5.346")
- Quick set-up time; plus the crimp height, track and feed adjustments can 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: PicoLock 1.00mm (.039") Wire to Board Crimp Terminal, 28-30 AWG.

Terminal Series No.	Terminal Order No.	Wire Size	Insulation Diameter Terminal (1)		Strip Length		
		AWG	mm	In.	mm	ln.	
503765	503765-0098	28	0.50-0.70	.020028	0.90-1.30	.035051	
505705		30					
(1) Overall insulation OD specification for terminal.							

# **DEFINITION OF TERMS**



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

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#### **INSULATION CRIMP FORM**

This crimp terminal is designed for miniaturization; therefore, each dimension of insulation crimp portion appears small as compared to the terminal material thickness. In order to avoid insulation piercing the crimp

forms by the insulation barrel, coining is provided inside of the insulation barrel. For this reason, various crimp forms will occur at the tip of the insulation crimp barrel shown in the figure below.

These crimp forms maybe changed completely by a small change in the wire, insulation punch, or terminal.

These crimp forms are satisfactory for original function of the insulation crimp portion and it is confirmed that all of these forms below are acceptable insulation crimps.

### **CRIMP SPECIFICATION**

	Terminal Series No.	Bell n	Bell mouth		o Maximum	Conductor Brush	
		mm	In.	mm	In.	mm	In.
	503765	0.05-0.15	.002006	0.05	.002	0.10-0.40	.004016

	Bend up Bend down		Twist Roll		Punch Width mm (Ref)				Seam
Terminal Series No.					Conductor		Insulation		
	Degree		Degree		mm	In	mm	In	Seam shall not be open
503765	3	2	2	3	0.70	.028	0.70	.028	and no wire allowed out of the crimping area

After crimping, the conductor profile should measure the following.

Terminal Series No.	Wire Size	Conductor C	Crimp Height	Pull Force Minimum	
Terminal Series No.	AWG	mm	In.	N	Lb.
503765	28	0.42-0.46	.017018	9.8	2.20
	30	0.38-0.42	.015017	4.9	1.10

	Wire Size	Insulation					
Terminal Series No.	AWG	Crimp Hei	ght (Max.)	Crimp Width (Ref.)			
	AWG	mm	In.	mm	ln.		
503765	28	0.90	.035	0.70	.028		
503705	30	0.90	.035	0.70	.020		

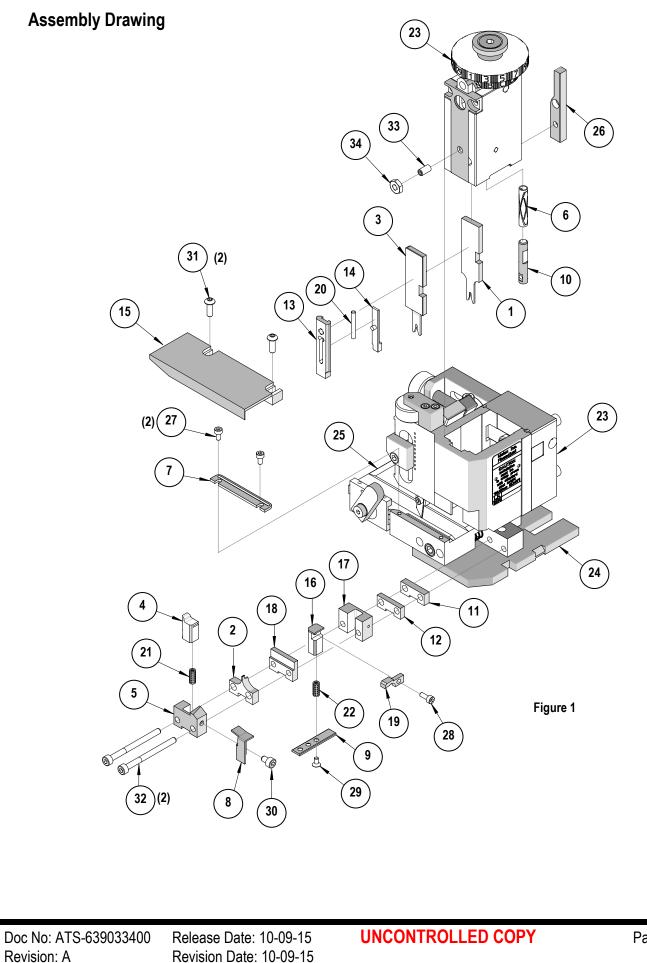
#### **Tool Qualification Notes:**

- 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 63903-3400										
ltem	n Order No Engineering No. Description									
	Perishable Tooling									
	63903-3470	63903-3470	Tool Kit (All "Y" Items)	REF						
1	63457-0701	63457-0701	Conductor Punch	1 Y						
2	63456-0020	63456-0020	Combination Anvil	1 Y						
3	63454-0702	63454-0702	Insulation Punch	1 Y						
4	63443-0005	63443-0005	Cut-Off Plunger	1 Y						
5	63443-0012	63443-0012	Front Plunger Retainer	1 Y						
Other Components										
6	11-17-0022	1739-21	Terminal Hold Down Spring	1						
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	63443-0093	63443-0093	Terminal Hold Down Shank	1						
11	63443-2205	63443-2205	Coarse Spacer (5.00mm)	1						
12	63443-2318	63443-2318	Fine Spacer (3.90mm)	1						
13	63443-2805	63443-2805	Front Plunger Striker	1						
14	63443-2904	63443-2904	Wire Hold Down Plunger	1						
15	63443-6109	63443-6109	Rear Cover	1						
16	63443-7315	63443-7315	Terminal Hold Down Plunger	1						
17	63443-7316	63443-7316	Terminal Hold Down Retainer	1						
18	63443-7317	63443-7317	Terminal Hold Down Retainer Plate	1						
19	63443-7318	63443-7318	Terminal Hold Down	1						
20	63600-0021	63600-0021	Striker Compression Spring	1						
21	63700-0539	63700-0539	Cut-Off Plunger Spring	1						
22	63700-0992	63700-0992	Terminal Hold Down Plunger Spring	1						
Frame										
23	63800-4901	63800-4901	Тор	1						
24	63801-3281	63801-3281	Base	1						
25	63801-4650	63801-4650	Track	1						
26	63820-7820	63820-7820	Feed Cam	1						
		ŀ	lardware							
27	N/A	N/A	M3 by 6 Long SHCS	2**						
28	N/A	N/A	M3 by 8 Long SHCS	1**						
29	N/A	N/A	M3 by 6 Long FHCS	1**						
30	N/A	N/A	M4 by 6 Long SHCS	1**						
31	N/A	N/A	M4 by 12 Long BHCS	2**						
32	N/A	N/A	M4 by 45 Long SHCS	2**						
33	N/A	N/A	#10-32 by 3/8"Long Flat Point SSS	1**						
34	N/A	N/A	#10-32 Hex Jam Nut	1**						
*	* Available fror	n an industrial suppl	ly company such as MSC (1-800-645-7	270).						

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### 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 wireprocessing 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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