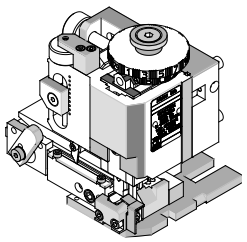
Fine Adjust Applicator

Application Tooling Specification Sheet



Order No. 63903-8900

FEATURES

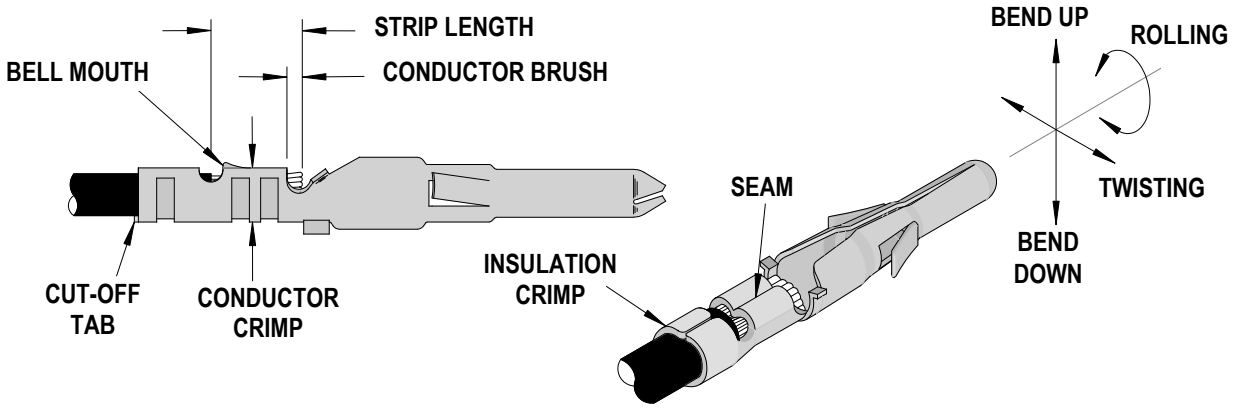
- Directly adapts to most automatic wire processing machines
- Quick punch removal with the push of a button for fast and easy tooling change
- Applicator designed to industry standard mounting and shut height 135.80mm (5.346")
- Quick set-up time; plus the crimp height, track and feed adjustments can 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: Poseidon II Terminals, 16 AWG UL1061, 18 AWG UL1007 and 18 AWG UL1095 wires.

Terminal Series No.	Terminal Order No.	Wire Size		Insulation Diameter		Strip Length	
		AWG	mm²	mm	In.	mm	In.
173041	173041-0001	16-18	---	1.90-2.05	.075-.081	3.18-3.80	.125-.150
173042	173042-0001	16-18	---	1.90-2.05	.075-.081	3.18-3.80	.125-.150

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 SPECIFICATIONS

Terminal Series No.	Bell mouth		Cut-off Tab Max. (Contact side)		Cut-off Tab Max. (Insulation side)		✦Conductor Brush	
	mm	In.	mm	In.	mm	In.	mm	In.
173041	0.10-0.60	.004-.024	0.13	.005	0.30	.012	0.25-0.50	.010-.020
173042	0.10-0.60	.004-.024	0.13	.005	0.30	.012	0.25-0.50	.010-.020

✦ To achieve the conductor brush specification, special care must be taken, or a light touch must be maintained while presenting wire against the wire stop.

Terminal Series No.	Bend up	Bend down	Twist	Roll	Punch Width (Ref)			
					Conductor		Insulation	
	Degree (Max)		Degree (Max)		mm	In	mm	In
173041	3	3	5	10	1.90	.075	2.40	.095
173042	3	3	5	10	1.90	.075	2.40	.095

Seam
Seam shall not be open and no wire allowed out of the crimping area.

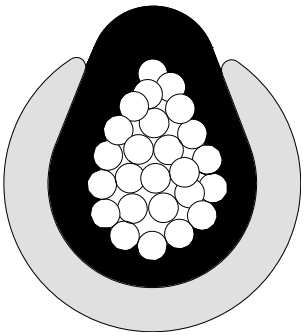
After crimping, the conductor profile should measure the following.

Terminal Series No.	Wire Size		Conductor				Pull Force Minimum	
			Crimp Height		Crimp Width			
	AWG	mm2	mm	In.	mm	In.	N	Lb.
173041	16	---	1.15-1.25	.045-.049	1.90-2.00	.075-.079	133.5	30.0
	18	---	1.00-1.10	.039-.043	1.90-2.00	.075-.079	89.0	20.0
173042	16	---	1.15-1.25	.045-.049	1.90-2.00	.075-.079	133.5	30.0
	18	---	1.00-1.10	.039-.043	1.90-2.00	.075-.079	89.0	20.0

Terminal Series No.	Wire Size		Insulation			
			Crimp Height (Ref)		Crimp Width (Ref)	
	AWG	mm2	mm	In.	mm	In.
173041	16	---	2.20	.087	2.50	.098
	18	---	2.20	.087	2.50	.098
173042	16	---	2.20	.087	2.50	.098
	18	---	2.20	.087	2.50	.098

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. This terminal design will produce an insulation crimp shown in the Figure below:



16AWG INSULATION CRIMP CONDITION

Wire Stop Set-Up Positioning Procedure

In order to maintain the conductor brush within the specifications the following set-up procedure needs to be followed.

1. Manually cycle the press until the press ram with the punches is in the full down position.
2. Adjust the wire stop blade down towards the terminal as close as possible to the terminal transitional surface. See Figure 1.
3. Adjust the clearance between the wire stop blade and the conductor punch to.13mm (.005") maximum.

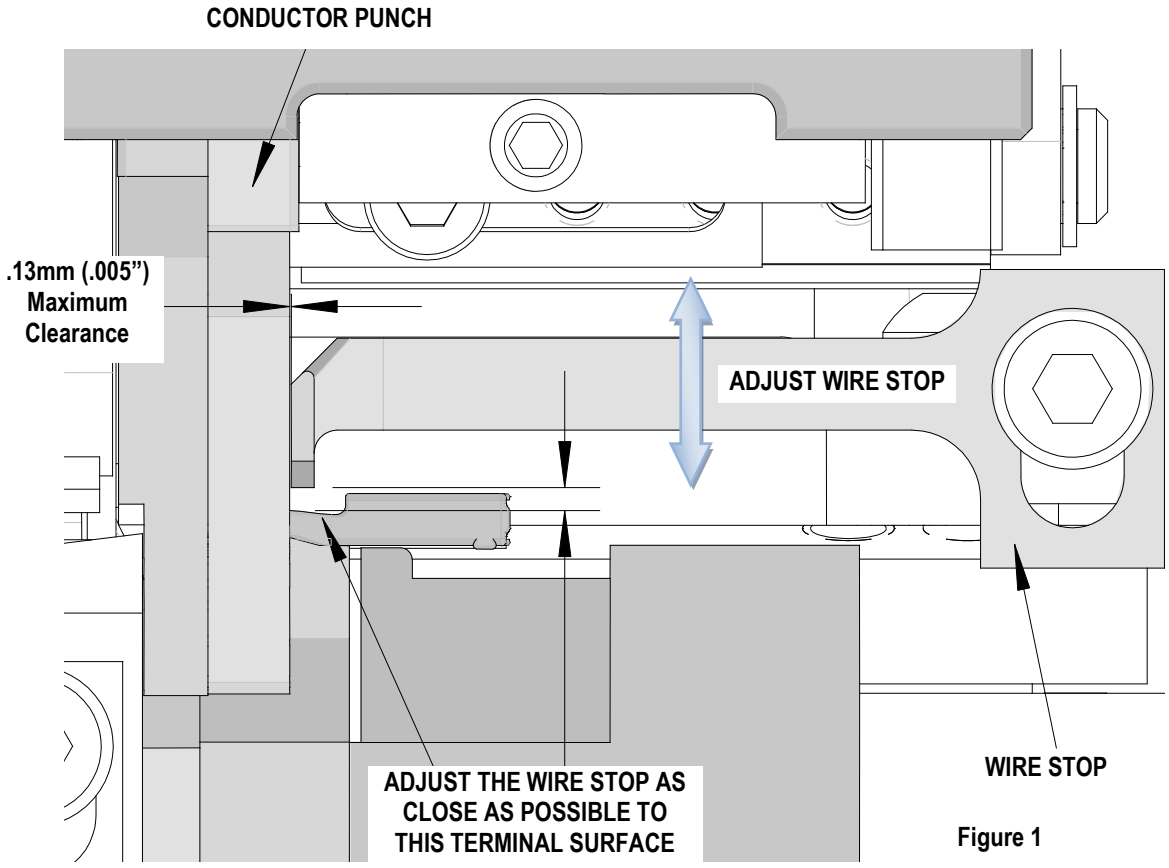


Figure 1

4. Manually cycle the press until the press ram is in the full up position.
5. Manually cycle the press again, to make sure the terminals are feeding properly.
6. Power up the press and crimp terminals without wire to make sure they are feeding properly
7. Crimp terminals with wire and check for proper feeding.

	WARNING
	Never install or service this machine while connected to any electrical power source. Disconnect power by unplugging the press from its power source. Failure to observe this warning could result In severe injury or death.
	Always hand cycle the applicator in the equipment to ensure the tooling is properly aligned. Failure to observe these precautions may result in injury or property damage.

PARTS LIST

FineAdjust Applicator 63903-8900				
Item	**Order No.**	**Engineering No.**	**Description**	**Quantity**
Perishable Tooling				
	63903-8970	63903-8970	Tool Kit (All "Y" Items)	REF
1	63457-0118	63457-0118	Conductor Punch	1 Y
2	63455-0136	63455-0136	Conductor Anvil	1 Y
3	63454-2405	63454-2405	Insulation Punch-Full R	1 Y
4	63456-2402	63456-2402	Insulation Anvil	1 Y
5	63443-0005	63443-0005	Cut-Off Plunger-Front	1 Y
6	63443-0003	63443-0003	Cut-Off Plunger-Rear	1 Y
7	63443-1402	63443-1402	Rear Cut-Off Die Blade	1 Y
8	63443-0012	63443-0012	Cut-off Plunger Retainer-Front	1 Y
9	63443-1004	63443-1004	Cut-off Plunger Retainer-Rear	1 Y
Other Components				
10	11-17-0022	1739-21	Hold Down Spring	1
11	11-18-4083	60707-8	Feed Guide	1
12	11-24-1067	4996-4	Cut-Off Plunger Spring	2
13	63443-0009	63443-0009	Scrap Chute-Front	1
14	63443-0024	63443-0024	Key	1
15	63443-0090	63443-0090	Wire Stop	1
16	63443-0093	63443-0093	Shank	1
17	63443-1718	63443-1718	Height Spacer (18.80mm)	1
18	63443-2201	63443-2201	Spacer (1.0mm)	1
19	63443-2203	63443-2203	Spacer (3.0mm)	1
20	63443-2313	63443-2313	Spacer (3.65mm)	1
21	63443-2803	63443-2803	Front Plunger Striker	1
22	63443-2908	63443-2908	Striker Plunger	1
23	63443-3060	63443-3060	Rear Plunger Striker	1
24	63443-6111	63443-6111	Rear Cover	1
25	63903-8911	63903-8911	Terminal Hold Down	1
26	63466-0101	63466-0101	Scrap Chute-Rear	1
27	63600-1057	63600-1057	Striker Plunger Spring	1
Frame				
28	63800-4901	63800-4901	Top	1
29	63801-3281	63801-3281	Base	1
30	63801-4650	63801-4650	Track	1
Hardware				
31	N/A	N/A	M3 by 6 Long SHCS	2**
32	N/A	N/A	M3 by 6 Long FHCS	1**
33	N/A	N/A	M3 by 8 Long SHCS	1**
34	N/A	N/A	M4 by 6 Long SHCS	3**
35	N/A	N/A	M4 by 10 Long BHCS	2**
36	N/A	N/A	M4 by 12 Long BHCS	2**
37	N/A	N/A	M4 by 50 Long SHCS	2**
38	N/A	N/A	M5 by 12 Long SHCS	1**
39	N/A	N/A	#10-32 by 3/8"Long Flat Point SSS	1**
40	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

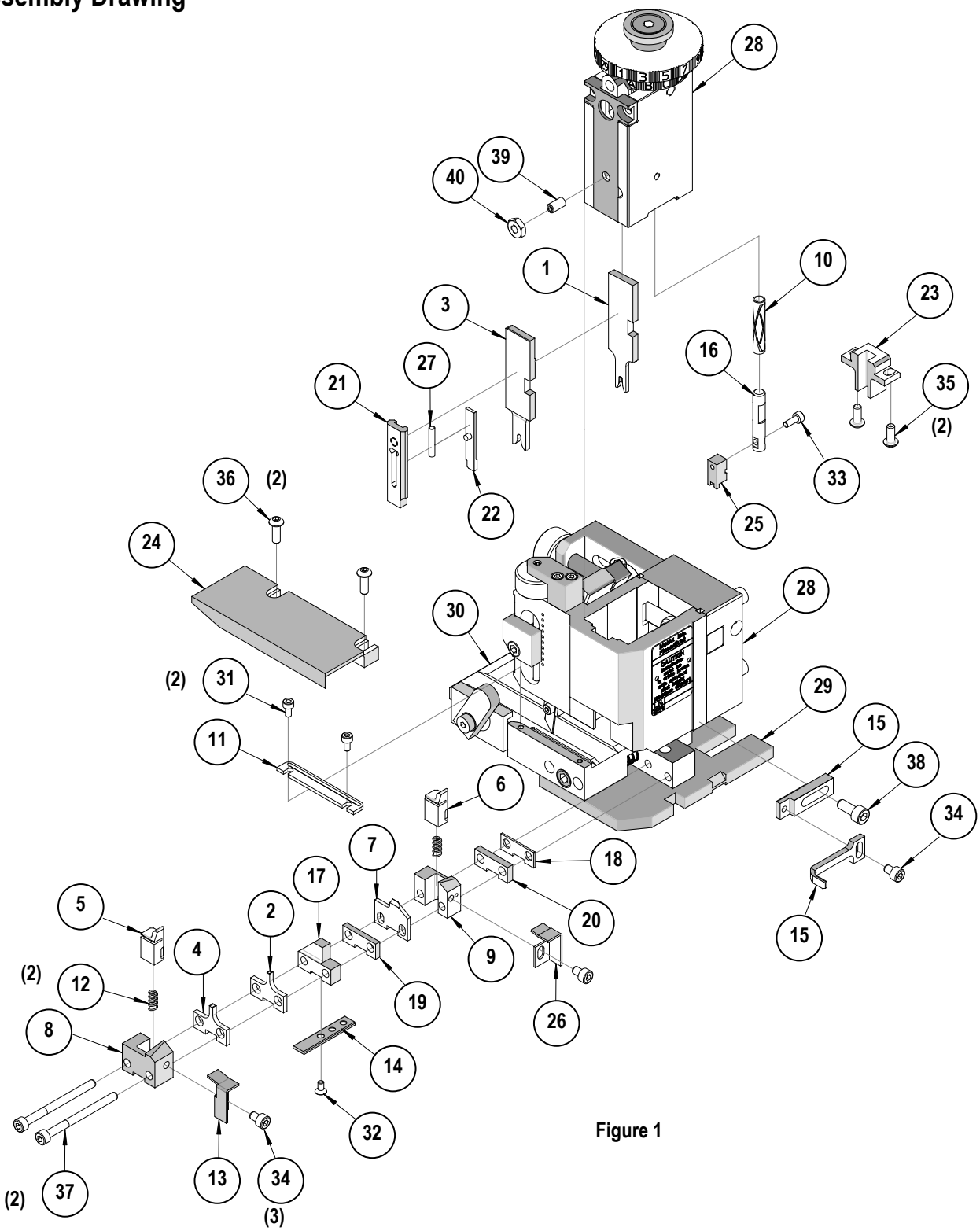


Figure 1

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 Fine Adjust 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.

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