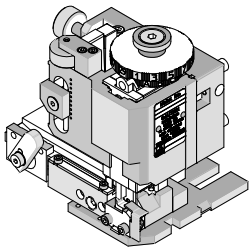
Order Number
63903-4800

molex

Application Tooling Specification



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 135.80mm (5.346”) shut height
- Quick setup 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 0.015mm (.0006”) for conductor crimp height and 0.063mm (.0025”) for insulation height
- Independent adjustment rings allow users to quickly adjust the conductor or insulation crimp height without affecting each other.

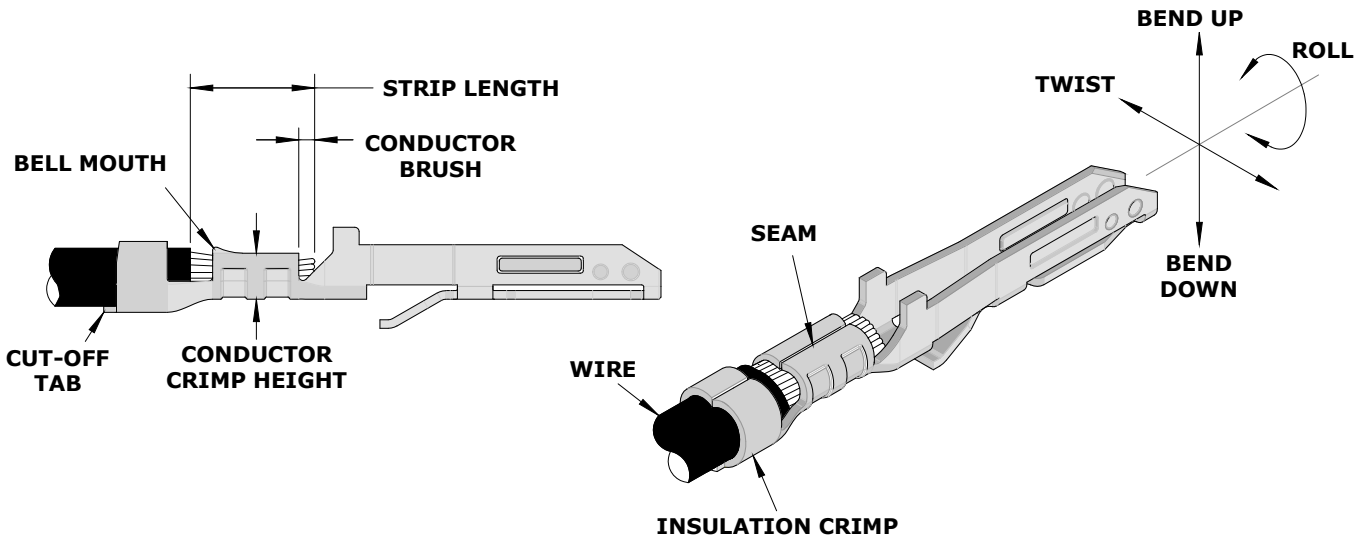
SCOPE

Products: Nano-Fit Terminals, 24-26 AWG, UL1007 Wires.

Terminal Series No.	Terminal Order No.	Wire Size		× Insulation Diameter		Strip Length	
		AWG	mm²	mm	In.	mm	In.
105300	105300-1100 105300-1200 105300-1300 105300-1400 105300-1810	24-26	—	1.20-1.45	.047-.057	2.50–3.50	.098-.138

× This applicator will crimp large wire insulation diameter UL1007 shown above.
Applicator 63903-2500 should be used for smaller insulation diameter UL1061.
Note: Oiler (63801-7240) required to crimp terminals. See 63800-4900 FineAdjust manual.

DEFINITION OF TERMS



CRIMP SPECIFICATION

Terminal Series No.	Bell Mouth		Cut-Off Tab Maximum		Conductor Brush	
	mm	In.	mm	In.	mm	In.
105300	0.15-0.30	.006-.012	0.17	.007	0.25-1.00	.010-.039

Terminal Series No.	Bend Up	Bend Down	Twist	Roll	Punch Width (Ref)				Seam
					Conductor		Insulation		
	Degree Max.		Degree Max.		mm	In.	mm	In.	
105300	3	3	4	8	1.10	.043	1.60	.063	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				Insulation				Pull Force Minimum	
			Crimp Height		Crimp Width (Ref)		Crimp Height (Ref)		Crimp Width (Ref)			
	AWG	mm^2	mm	In.	mm	In.	mm	In.	mm	In.	N	Lb.
105300	24	—	0.70-0.75	.028-.030	1.10-1.20	.043-.047	1.65-1.75	.065-.069	1.60-1.80	.063-.071	22.3	5
	26	—	0.65-0.70	.026-.028	1.10-1.20	.043-.047	1.60-1.70	.063-.067	1.60-1.80	.063-.071	13.4	3

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 can be adjusted accordingly to the wire insulation OD to meet IPC/WHMA-A-620 requirements.
4. Oiler (63801-7240) required to crimp terminals to improve tooling life. See 63800-4900 FineAdjust manual.

PARTS LIST

FineAdjust Applicator 63903-4800				
Item	**Order No.**	**Engineering No.**	**Description**	**Quantity**
Perishable Tooling				
	63903-4870	63903-4870	Tool Kit (All "Y" Items)	REF
1	63457-0107	63457-0107	Conductor Punch	1 Y
2	63455-0131	63455-0131	Conductor Anvil	1 Y
3	63454-0153	63454-0153	Insulation Punch	1 Y
4	63456-0103	63456-0103	Insulation Anvil	1 Y
5	63443-0005	63443-0005	Cut-Off Plunger	1 Y
6	63443-0012	63443-0012	Front Plunger Retainer	1 Y
Other Components				
7	11-17-0022	1739-21	Terminal 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	1
11	63443-0025	63443-0025	Key	1
12	63443-0090	63443-0090	Wire Stop	1
13	63443-0093	63443-0093	Shank, Terminal Hold-Down	1
14	63443-1720	63443-1720	Height Spacer (19.00mm)	1
15	63443-2203	63443-2203	Coarse Spacer (3mm)	1
16	63443-2213	63443-2213	Coarse Spacer (13.00mm)	1
17	63443-2306	63443-2306	Fine Spacer (3.30mm)	1
18	63443-2806	63443-2806	Front Plunger Striker	1
19	63443-2907	63443-2907	Wire Hold-Down Plunger	1
20	63443-6108	63443-6108	Rear Cover	1
21	63443-7112	63443-7112	Terminal Hold-Down	1
22	63600-1057	63600-1057	Wire Hold-Down Spring	1
Frame				
23	63800-4901	63800-4901	Top	1
24	63801-3281	63801-3281	Base	1
25	63801-4650	63801-4650	Track	1
Hardware				
26	—	—	M3 by 6 Long SHCS	2*
27	—	—	M3 by 6 Long FHCS	1*
28	—	—	M3 by 8 Long SHCS	1*
29	—	—	M4 by 6 Long SHCS	2*
30	—	—	M4 by 12 Long BHCS	2*
31	—	—	M4 by 50 Long SHCS	2*
32	—	—	M5 by 12 Long SHCS	1*
33	—	—	#10-32 by 3/8"Long Flat Point SSS	1*
34	—	—	#10-32 Hex Jam Nut	1*
* Available from an industrial supply company.				

ASSEMBLY DRAWING

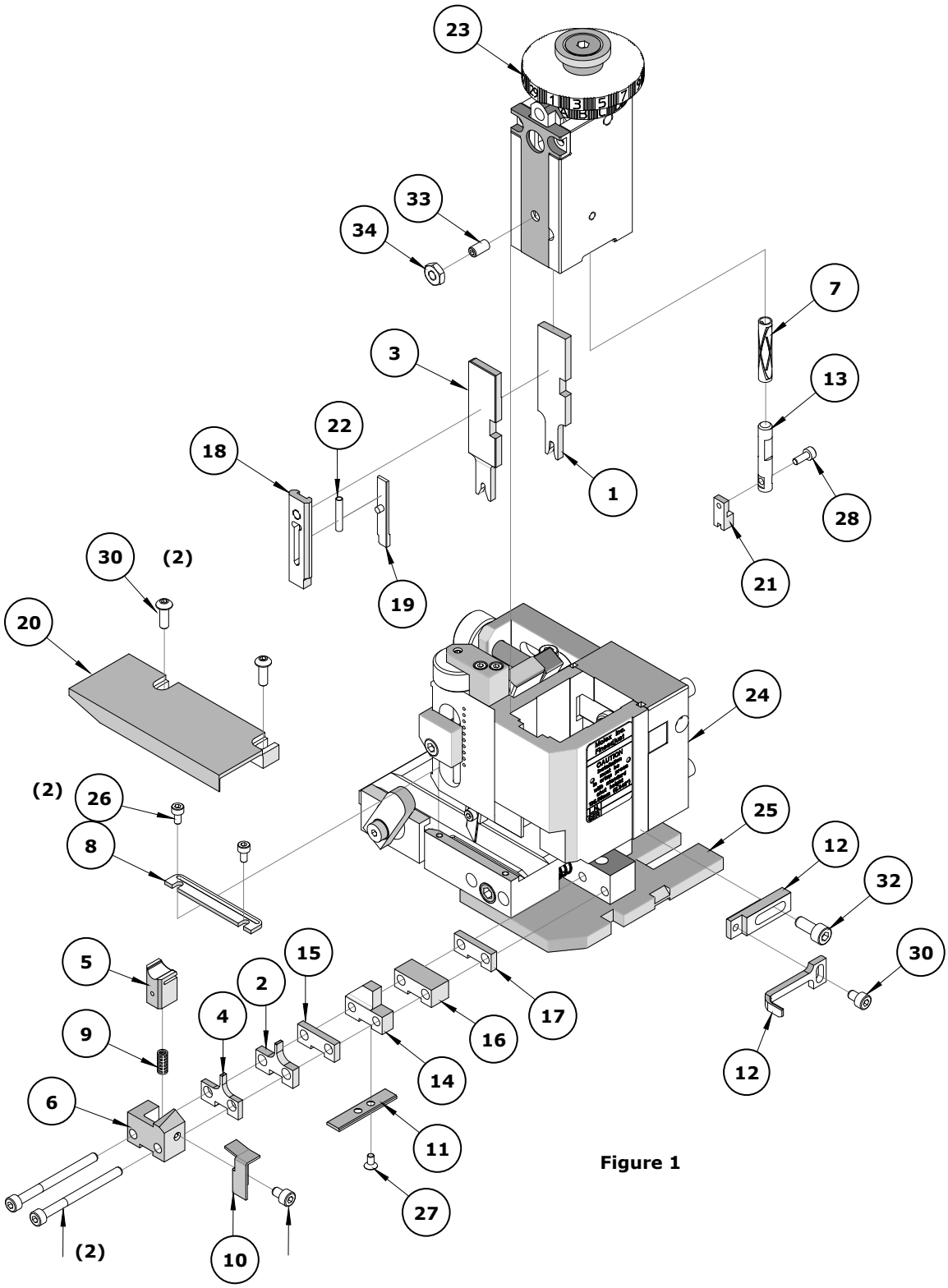


Figure 1

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 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 135.80mm (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

E-Mail: toolingsupport@molex.com
Website: www.molex.com/applicationtooling

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