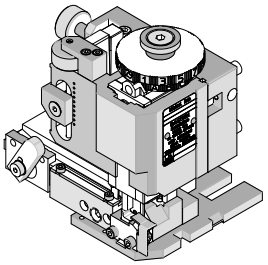
Order Number
203702-4800

molex

Application Tooling Specification



FEATURES

- 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
- Directly adapts to most automatic wire processing machines

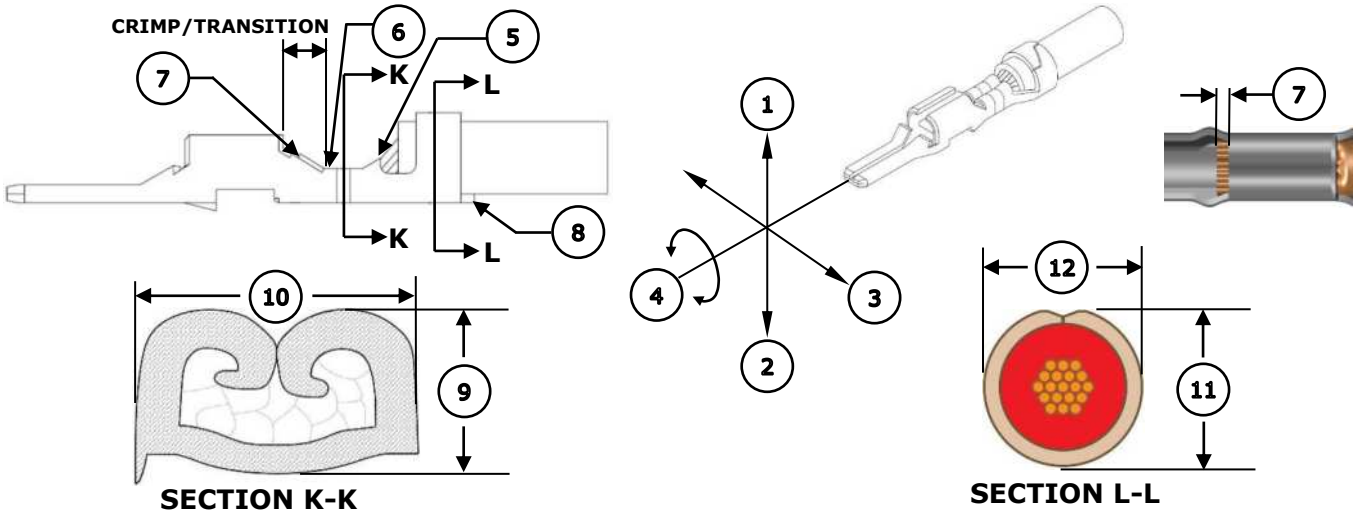
SCOPE

Products: 2.5 Mini Waterproof Wire-to-Wire Crimp Terminals, 20-22 AWG.

Terminal Series No.	Terminal Order No.	Wire Size		Insulation Diameter				Strip Length	
				Suggested (1)		Terminal (2)			
		AWG	mm²	mm	In.	mm	In.	mm	In.
50147 50148	50147-8000 50148-8000	22	—	1.40-1.60	.055-.063	1.40-1.90	.055-.075	2.00-2.50	.078-.098
		—	AVSS-0.3						
		—	CAVS-0.3						
		—	CAVUS-0.3						
		20	—						
		—	AVSS-0.5						
		—	CAVS-0.5						
		—	CAVUS-0.5						

(1) To achieve the best insulation crimps, use this insulation diameter range.
(2) Overall insulation OD specification for terminal.
(3) This applicator was tested but does not produce an insulation crimp that meets the IPC/WHMA-A-620 standard.

DEFINITION OF TERMS



CRIMP SPECIFICATION

Feature	Requirement						
1. Bend Up	2° Max						
2. Bend Down	3° Max						
3. Twist	3° Max						
4. Roll	10° Max						
5. Bell Mouth Rear	0.00-0.30mm (.000-.012")						
6. Bell Mouth Front	Not Applicable						
7. Conductor Brush	0.10-0.90mm (.004-.035")						
8. Cut-Off Tab	0.00-0.30mm (.000-.012") Max						
Conductor Crimp	**Terminal Series No.**	**Wire Size AWG**	**Wire Size mm²**	**9. Crimp Height**		**10. Crimp Width (Ref)**	
	50147 50148	22	—	0.94-0.99mm	.037-.039 In.	1.40mm	.055 In.
		—	AVSS-0.3	0.94-0.99mm	.037-.039 In.	1.40mm	.055 In.
		—	CAVS-0.3				
		20	—	0.96-1.06mm	.038-.042 In.	1.40mm	.055 In.
		—	AVSS-0.5	0.96-1.06mm	.038-.042 In.	1.40mm	.055 In.
		—	CAVS-0.5				
		—	CAVUS-0.3	0.94-0.99mm	.037-.039 In.	1.40mm	.055 In.
		—	CAVUS-0.5	0.96-1.06mm	.038-.042 In.	1.40mm	.055 In.
Insulation Crimp	**Terminal Order No.**	**Wire Size AWG**	**Wire Size mm²**	**11. Crimp Height (Max)**		**12. Crimp Width (Ref)**	
	50147 50148	22	—	1.90mm	.075 In.	1.80mm	.071 In.
		—	AVSS-0.3	1.90mm	.075 In.	1.80mm	.071 In.
		—	CAVS-0.3				
		20	—	1.90mm	.075 In.	1.80mm	.071 In.
		—	AVSS-0.5	1.90mm	.075 In.	1.80mm	.071 In.
		—	CAVS-0.5				
		—	CAVUS-0.3	1.90mm	.075 In.	1.80mm	.071 In.
		—	CAVUS-0.5	1.90mm	.075 In.	1.80mm	.071 In.
Pull Force	**Terminal Order No.**	**Wire Size AWG**	**Wire Size mm²**	**Minimum Pull Force**			
	50147 50148	22	—	49.0 N	11.0 lb.	To be measured with no influence from the insulation crimp.	
		—	AVSS-0.3	49.0 N	11.0 lb.		
		—	CAVS-0.3				
		20	—	53.9 N	12.1 lb.		
		—	AVSS-0.5	53.9 N	12.1 lb.		
		—	CAVS-0.5				
		—	CAVUS-0.3	49.0 N	11.0 lb.		
		—	CAVUS-0.5	53.9 N	12.1 lb.		

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 203702-4800				
Item	**Order No.**	**Engineering No.**	**Description**	**Quantity**
Perishable Tooling				
	203702-4870	203702-4870	Tool Kit (All "Y" Items)	REF
1	63444-1407	63444-1407	Conductor Punch	1 Y
2	63445-1430	63445-1430	Conductor Anvil	1 Y
3	63454-0038	63454-0038	Insulation Punch	1 Y
4	63445-1805	63445-1805	Insulation Anvil	1 Y
5	63443-0005	63443-0005	Cut-Off Plunger Front	1 Y
6	63443-0012	63443-0012	Plunger Retainer Front	1 Y
Other Components				
7	11-17-0022	11-17-0022	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 Front	1
11	63443-0024	63443-0024	Key	1
12	63443-0090	63443-0090	Wire Stop	1
13	63443-0093	63443-0093	Shank	1
14	63443-2802	63443-2802	Front Plunger Striker	1
15	63443-2906	63443-2906	Wire Hold-Down Plunger	1
16	63443-6111	63443-6111	Rear Cover	1
17	63443-7146	63443-7146	Nose Hold Down	1
18	63600-1057	63600-1057	Striker Plunger Spring	1
19	200213-7556	200213-7556	Anvil Mount	1
Frame				
20	63800-4901	63800-4901	Top	1
21	63801-3281	63801-3281	Base	1
22	63801-4650	63801-4650	Track	1
Hardware				
23	—	—	M3 by 6 Long SHCS	2*
24	—	—	M3 by 6 Long FHCS	1*
25	—	—	M3 by 8 Long SHCS	1*
26	—	—	M4 by 6 Long SHCS	2*
27	—	—	M4 by 12 Long BHCS	2*
28	—	—	M4 by 45 Long SHCS	2*
29	—	—	M5 by 12 Long SHCS	1*
30	—	—	M5 by 10 Long Flat Point SSS	1*
31	—	—	M5 Hex Jam Nut	1*
*Available from an industrial supply company.				

ASSEMBLY DRAWING

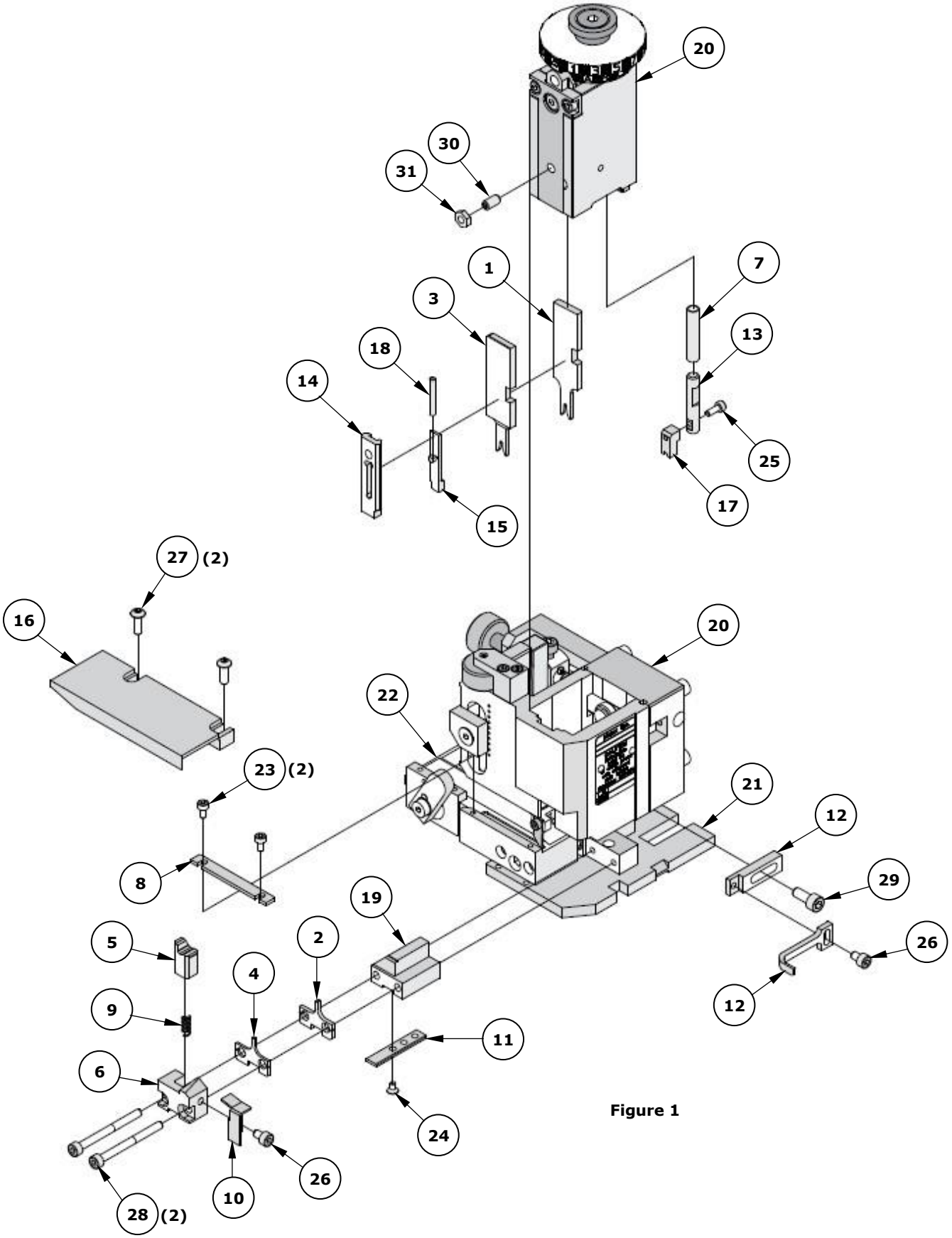


Figure 1

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 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 135.80mm (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

Phone: (402) 458-TOOL (8665)
E-Mail: toolingsupport@molex.com
Website: www.molex.com/applicationtooling

Molex is a registered trademark of Molex, LLC in the United States of America and may be registered in other countries; all other trademarks listed herein belong to their respective owners.