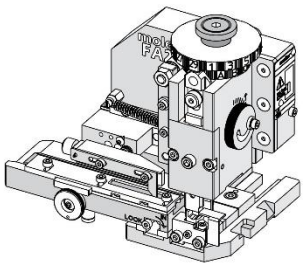
Order Number
213069-7900

molex

Application Tooling Specification



FEATURES

- 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 0.025mm (.001”) 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

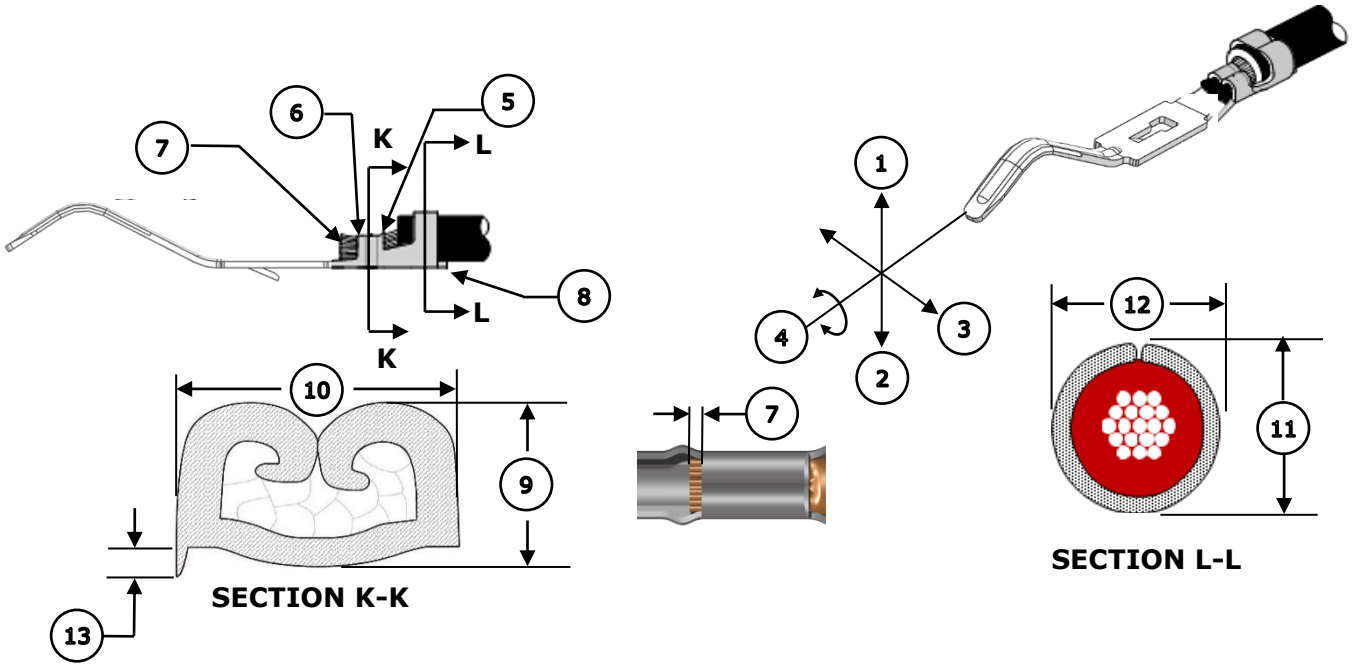
SCOPE

Products: EdgeLock Crimp Terminals, 22-24 AWG UL10368 Wires.

Terminal Series	Terminal Order No.	Wire Size		Insulation Diameter IPC/WHMA-A-620 (2)		Strip Length	
		AWG	Wire Style (1)	mm	In.	mm	In.
200449	200449-6001	22-24	UL10368	1.13-1.43	.044-.056	2.0-2.5	.079-.098
	200449-6002						
	200449-6003						
	200449-6103						

(1) Wire style shown was used to validate the crimp tooling. It is the responsibility of the end user to choose the wire style that is appropriate for their needs. Other wire styles may not meet the same range for IPC/WHMA-A-620.
(2) To achieve IPC/WHMA-A-620 insulation crimps, use this Insulation Diameter range.

DEFINITION OF TERMS



CRIMP SPECIFICATIONS

Feature	Requirement					
1. Bend Up	6° Max					
2. Bend Down	2° Max					
3. Twist	2° Max					
4. Roll	3° Max					
5. Bell Mouth Rear	0.20-0.40mm (.008-.016”)					
6. Bell Mouth Front	Not Applicable					
7. Conductor Brush	0.10-0.50mm (.004-.019”)					
8. Cut-Off Tab	0.30mm (.012”) Max					
Conductor Crimp	**Wire Type**	**Wire Size**	**9. Crimp Height**		**10. Crimp Width**	
	UL10368	22 AWG	0.95-1.05mm	.037-.041”	1.50-1.60mm	.059-.063”
		24 AWG	0.85-0.95mm	.033-.037”	1.50-1.60mm	.059-.063”
Insulation Crimp	**Wire Type**	**Wire Size**	**11. Crimp Height**		**12. Crimp Width**	
	UL10368	22 AWG	1.70-1.80mm	.067-.071”	1.70-1.80mm	.067-.071”
		24 AWG	1.60-1.70mm	.063-.067”	1.70-1.80mm	.067-.071”
Pull Force	**Wire Type**	**Wire Size**	**Minimum Force**			
	UL10368	22 AWG	35.6 N	8 lbs.	To be measured with no influence from the insulation crimp.	
		24 AWG	22.3 N	5 lbs.		
13. Conductor Anvil Flash	0.15mm (.006”) Max					

NOTES

General Notes

1. Molex recommends that an extra perishable tooling kit be maintained at your facility.
2. Verify tooling alignment by hand 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 FA2 manual (TM-638080200).
6. Molex recommends crimping stranded copper wire only.

WARNINGS

CAUTION: This applicator must be installed in a press with a standard 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 tooling crimp specifications are valid only when used with Molex terminals and tooling manufactured by Molex and sold by Molex or authorized distributors (“Molex Tooling”). When using tooling other than Molex Tooling with Molex-specific connector systems listed in our ATS documents, the Molex Tooling qualification does not apply, and the responsibility for full qualification of the connector system is that of the customer. Molex accepts no liability for connector performance or tooling support where tooling other than Molex Tooling is used or where Molex Tooling is modified.

PARTS LIST

FA2 Applicator 213069-7900				
Item	**Order No.**	**Engineering No.**	**Description**	**Quantity**
Perishable Tooling				
	213069-7970	213069-7970	Tool Kit (All "Y" Items)	Ref
1	200220-1708	200220-1708	Insulation Punch	1 Y
2	200216-1504	200216-1504	Conductor Punch	1 Y
3	200221-1704	200221-1704	Insulation Anvil	1 Y
4	63445-1521	63445-1521	Conductor Anvil	1 Y
5	63443-0136	63443-0136	Cut-Off Plunger	1 Y
6	63443-0119	63443-0119	Cutting Insert	1 Y
Non-Perishable Components				
7	63443-0118	63443-0118	Front Plunger Retainer	1
8	11-24-1067	4996-4	Cut-Off Plunger Spring	1
9	63443-0117	63443-0117	Front Scrap Chute	1
10	200213-7587	200213-7587	Anvil Mount	1
11	63443-2806	63443-2806	Front Plunger Striker	1
12	63443-2912	63443-2912	Wire Hold Down Plunger	1
13	63600-0021	63600-0021	Wire Hold Down Spring	1
14	63443-4720	63443-4720	Terminal Guide	1
15	63443-0090	63443-0090	Wire Stop	1
16	63600-5614	63600-5614	Spring	
17	63808-0227	63808-0227	Shank	1
18	63808-0226	63808-0226	Hold Down Block	1
19	63808-0224	63808-0224	Stop Plate	1
20	63443-7157	63443-7157	Terminal Hold Down	1
21	63443-4410	63443-4410	Feed Cam	1
Frame				
22	63808-0200	63808-0200	Applicator Core	1
23	63808-0197	63808-0197	Mechanical Feed Assembly	1
24	63808-0191	63808-0191	Track Assembly	1
Hardware				
25	—	—	M2.5 x 3 SHCS	2*
26	—	—	M3 x 6 BHCS	2*
27	—	—	M4 x 8 FHCS	1*
28	—	—	M3 x 8 SHCS	1*
29	—	—	M3 x 12 SHCS	3*
30	—	—	M4 x 6 SSS	1*
31	—	—	M4 x 6 SHCS	1*
32	—	—	M4 x 8 SHCS	2*
33	—	—	M4 x 50 SHCS	2*
34	—	—	M5 Hex Jam Nut	1*
35	—	—	M5 x 10 Long Cup Point SSS	1*

*Fastener parts can be purchased through most industrial suppliers by using the description in the table above.

ASSEMBLY DRAWING

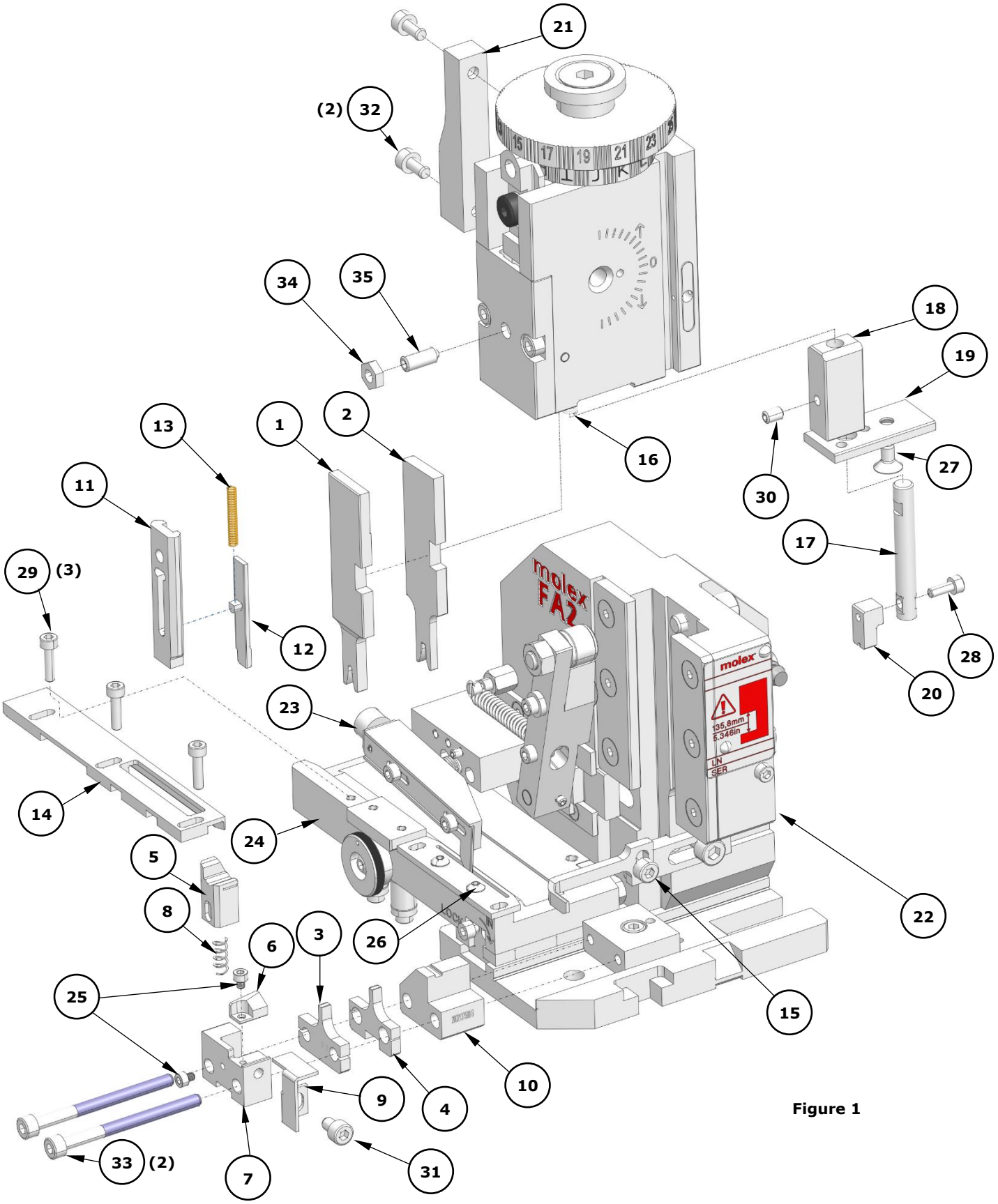


Figure 1

FACTORY SETTINGS

Feed Pawl Assembly

The FA2 applicator 213069-7900 ships with the following factory settings. See Figure 2:

- The feed pawl shaft and M3 set screw that holds the feed pawl spring are in position 2.
- The pin is in position B.

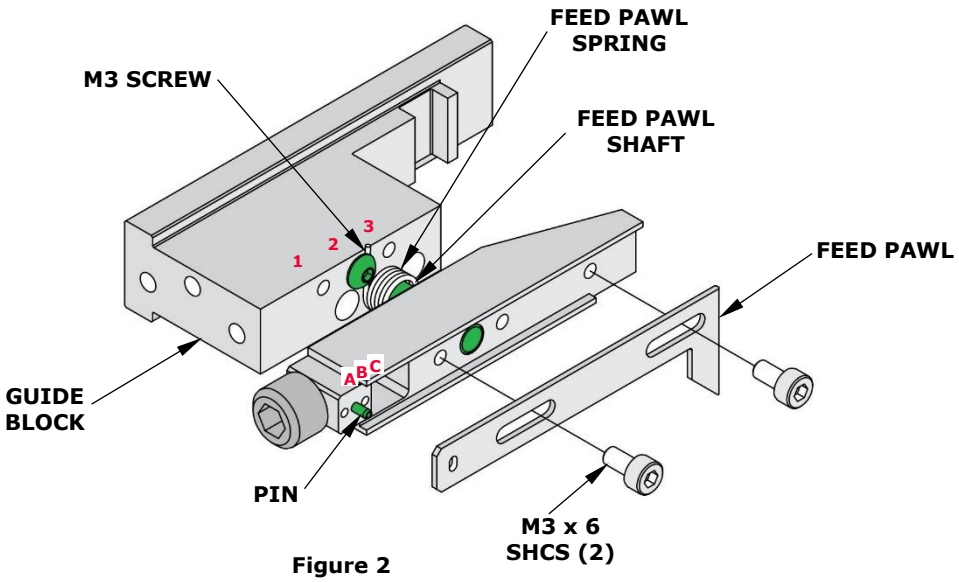


Figure 2

Note: Each applicator is configured and tested by Molex prior to shipping, and the above settings were used to produce the included sample crimps.

Mounting Datum Location

This applicator was assembled and tested by Molex with the mounting datum in the location shown in Figure 3. Do not remove the mounting datum.

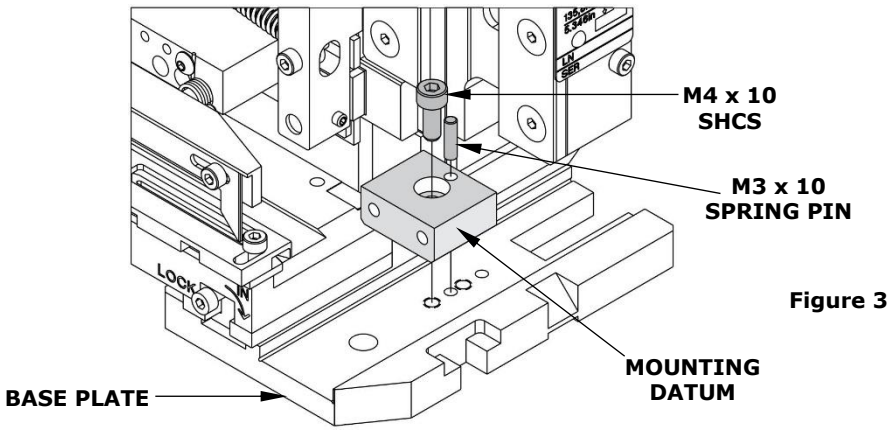


Figure 3

Application Tooling Support

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