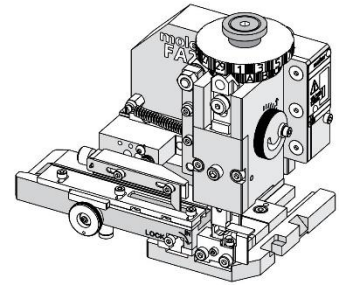


**Order Number**  
**213069-2700**

**molex**<sup>®</sup>

## Application Tooling Specification



### FEATURES

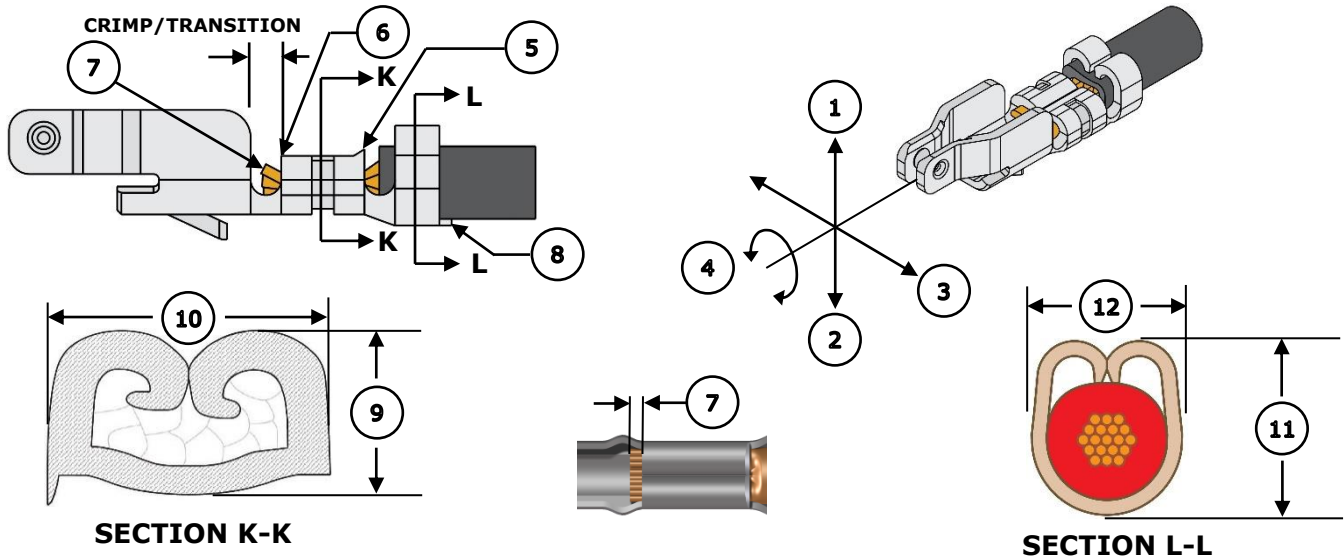
- Applicator designed to industry-standard mounting and 135.80mm (5.346") shut height
- Quick setup time; plus, the crimp height, track and feed adjustments can be set without removing the applicator from the press
- Fine adjustment allows users to achieve target with little effort by adjusting in increments of 0.015mm (.0006") for conductor crimp height and 0.025mm (.001") for insulation height
- Fine adjustment of the bend is achieved using the bend adjust dial
- 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:** 1.20mm Pitch Pico-EZmate Slim Female Crimp Terminals, 28-30 AWG Wire.

Terminal Series No.	Terminal Order No.	Wire Size	Insulation Diameter		Strip Length	
		AWG	mm	In.	mm	In.
202655	202655-5000	28-30	0.60-0.70	.023-.027	0.90-1.30	.035-.051

**DEFINITION OF TERMS**



**CRIMP SPECIFICATIONS**

Feature	Requirement					
<b>1. Bend Up</b>	3° Max					
<b>2. Bend Down</b>	3° Max					
<b>3. Twist</b>	2° Max					
<b>4. Roll</b>	3° Max					
<b>5. Bell Mouth Rear</b>	0.05-0.15mm (.002-.006")					
<b>6. Bell Mouth Front</b>	Not Applicable					
<b>7. Conductor Brush</b>	0.15-.70mm (.006-.027")					
<b>8. Cut-Off Tab</b>	0.05mm (.002") Max					
<b>Conductor Crimp</b>	<b>Terminal Order No.</b>	<b>Wire Size</b>	<b>9. Crimp Height</b>		<b>10. Crimp Width (Ref)</b>	
	202655-5000	28 AWG	0.44-0.48mm	.017-.019 in.	0.70mm	.028 in.
		30 AWG	0.40-0.44mm	.015-.017 in.		
<b>Insulation Crimp</b>	<b>Terminal Order No.</b>	<b>Wire Size</b>	<b>11. Crimp Height</b>		<b>12. Crimp Width (Ref)</b>	
	202655-5000	28 AWG	0.74-0.78mm	.029-.031 in.	0.85mm	.033 in.
		30 AWG	0.70-0.74mm	.027-.029 in.		
<b>Pull Force</b>	<b>Terminal Order No.</b>	<b>Wire Size</b>	<b>Minimum Pull Force</b>		To be measured with no influence from the insulation crimp.	
	202655-5000	28 AWG	10.0 N	2.2 lb.		
		30 AWG	5.0 N	1.1 lb.		

## NOTES

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### 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 when operating or maintaining the applicator.
5. For recommended maintenance, refer to the FA2 manual (TM-638080200).
6. Molex recommends crimping stranded copper wire only.
7. Lubrication must be used when crimping these terminals to prevent terminal from sticking in the conductor punch. Use 63801-7240 oiler or equivalent.

## WARNINGS

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**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**

<b>FA2 Applicator 213069-2700</b>				
<b>Item</b>	<b>Order No.</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	213069-2770	213069-2770	Tool Kit (All "Y" Items)	Ref
1	200220-1505	200220-1505	Insulation Punch	1 Y
2	200216-1401	200216-1401	Conductor Punch	1 Y
3	200217-1401	200217-1401	Combination Anvil	1 Y
4	63443-0136	63443-0136	Cut-Off Plunger	1 Y
5	63443-0119	63443-0119	Cutting Insert	1 Y
<b>Non-Perishable Components</b>				
6	11-24-1067	4996-4	Cut-Off Plunger Spring	1
7	63443-0117	63443-0117	Front Scrap Chute	1
8	63443-0118	63443-0118	Front Plunger Retainer	1
9	63443-7403	63443-7403	Hold Down Block	1
10	63600-5775	63600-5775	Terminal Hold Down Shank	1
11	63443-2807	63443-2807	Front Plunger Striker	1
12	63443-4758	63443-4758	Terminal Guide	1
13	63443-4401	63443-4401	Feed Cam	1
14	63443-2902	63443-2902	Wire Hold Down Plunger	1
15	63600-0021	63600-0021	Compression Spring	1
16	63808-0229	63808-0229	Bend Adjust Dial	1
17	63443-7315	63443-7315	Terminal Hold Down Plunger	1
18	63443-7316	63443-7316	Terminal Hold Down Retainer	1
19	63443-7332	63443-7332	Terminal Hold Down Retainer Plate	1
20	200213-0901	200213-0901	Terminal Hold Down and Wire Stop	1
21	63700-0992	63700-0992	Terminal Hold Down Plunger Spring	1
22	63808-0249	63808-0249	Feed Pawl	1
23	203045-0030	203045-0030	Feed Pawl Spring	1
<b>Frame</b>				
24	63808-0200	63808-0200	Applicator Core	1
25	63808-0197	63808-0197	Mechanical Feed Assembly	1
26	63808-0191	63808-0191	Track Assembly	1
<b>Hardware</b>				
27	—	—	M2.5 x 3 SHCS	2*
28	—	—	M3 Hex Nut	1*
29	—	—	M3 Flat Washer Hard	1*
30	—	—	M3 Inner Tooth Lock Washer	1*
31	—	—	M3 x 6 BHCS	2*
32	—	—	M3 x 8 SHCS	1*
33	—	—	M3 x 10 SHCS	1*
34	—	—	M3 x 12 SHCS	4*
35	—	—	M4 x 4 SSS	1*
36	—	—	M4 x 6 SHCS	1*
37	—	—	M4 x 8 SHCS	2*
38	—	—	M4 x 35 SHCS	2*
39	—	—	#10-32 x 1/2" Long SSS	1*
40	—	—	#10-32 Hex Nut	1*
*Fastener parts can be purchased through most industrial suppliers by using the description in the table above.				

**ASSEMBLY DRAWING**

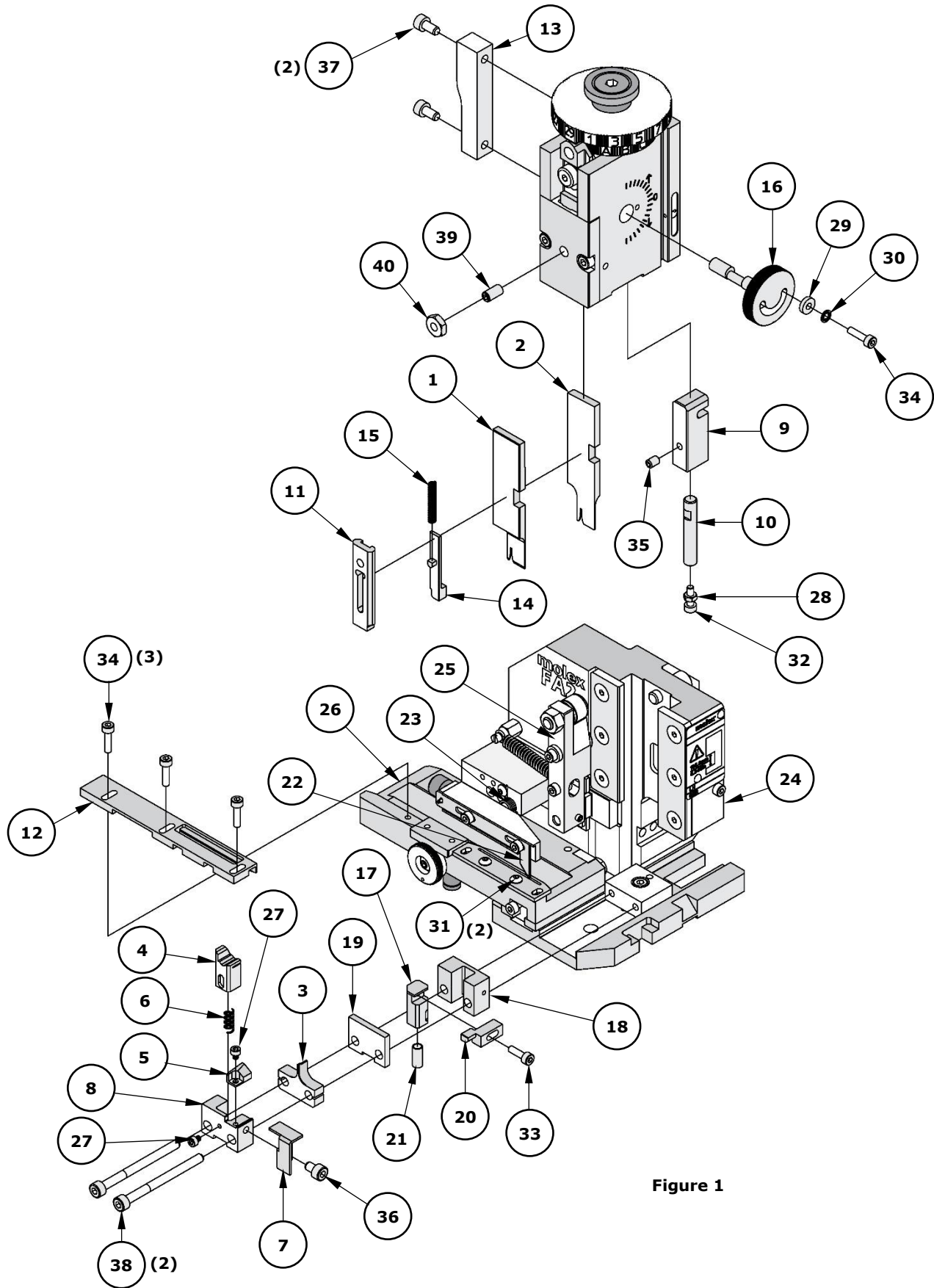


Figure 1

## FACTORY SETTINGS

### Feed Pawl Assembly

The FA2 applicator number 213069-2700 ships with the following factory settings. See Figure 2:

- The feed pawl shaft and M3 screw that holds the feed pawl spring are in position 3.
- The pin is in position B.

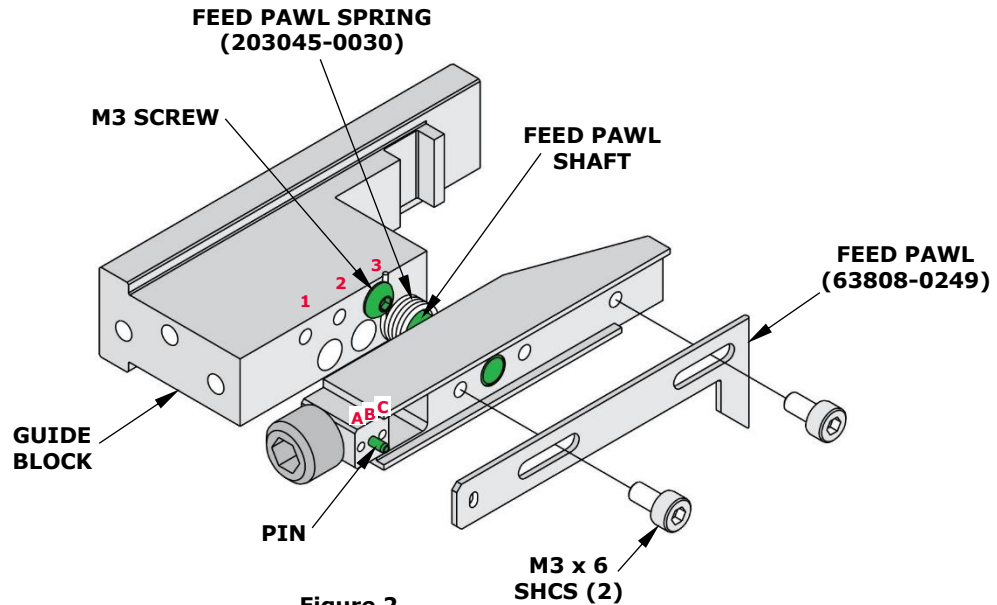


Figure 2

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

### Bend Adjust Dial/Ram Assembly

○ Indicates item number on the Parts List and Assembly Drawing

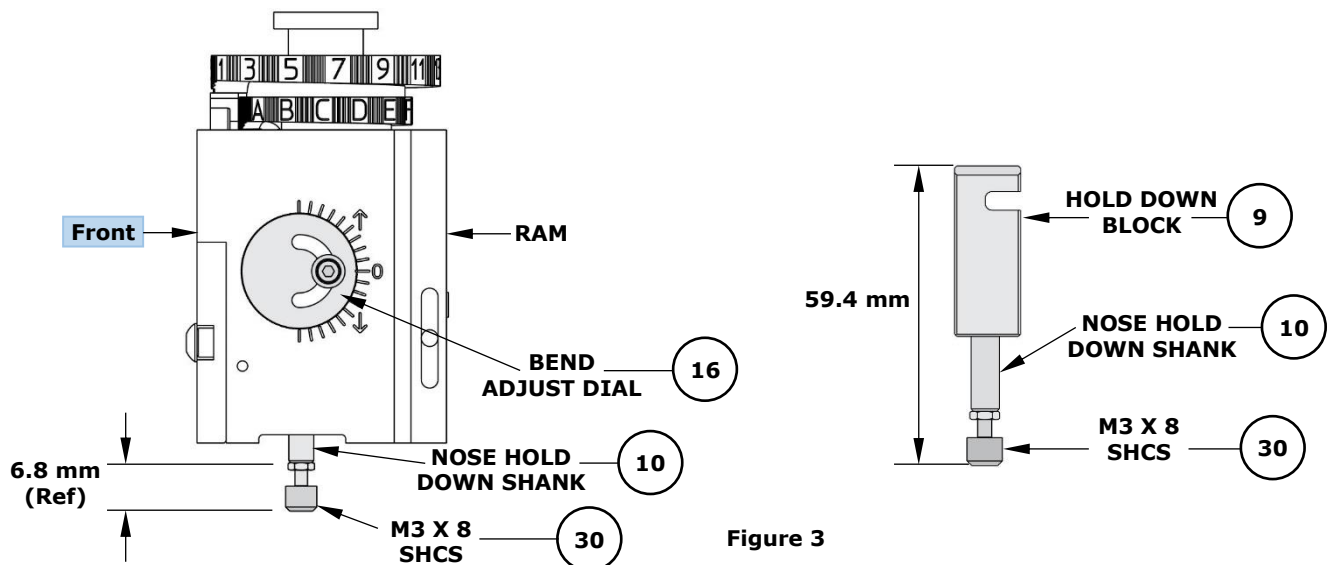


Figure 3

**Note:** The above dimensions were measured during setup and are included as a reference only. Additional adjustments may be required before crimping for production.

**CAUTION:** A tooling crash may occur if any of the following conditions exist:

- The M3 x 10 SHCS extends more than 6.8mm from the nose hold down shank
- The overall length of the hold down block, shank, and M3 SHCS exceeds 59.4mm
- The bend adjust dial is adjusted too far down
- The press shut height is less than 135.80mm (5.346")

**Mounting Datum Location**

This applicator was assembled and tested by Molex with the mounting datum in the location shown in Figure 4. Do not remove the mounting datum.

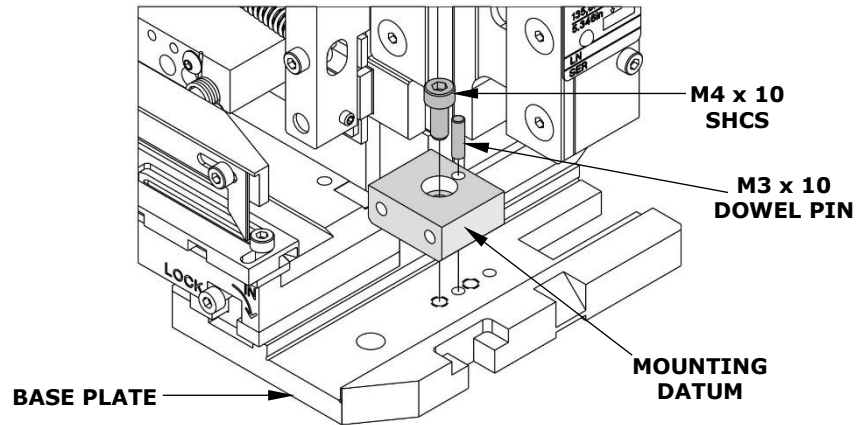


Figure 4

**Application Tooling Support**

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

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