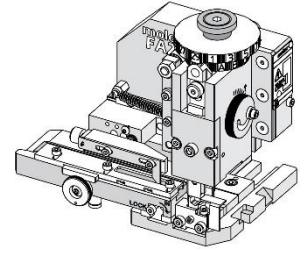


**Order Number**  
**213069-5600**

# 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

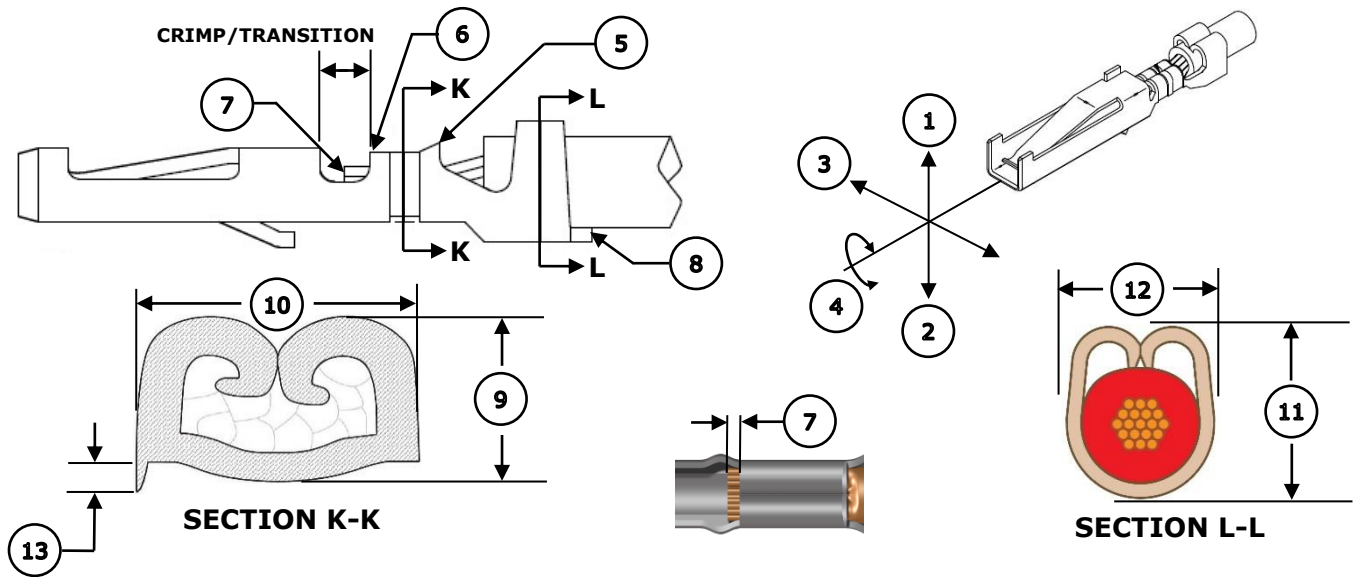
### SCOPE

**Products:** PanelMate Receptacle Crimp Terminals, 26-30 AWG UL1571 Wire.

Terminal Series No.	Terminal Order No.	Wire		Insulation Diameter		Strip Length	
		Wire Type	Wire Size	mm	In.	mm	In.
50641	50641-8041 50641-8099	UL1571	26-30 AWG	0.50-0.98	.020-.039	1.30-1.70	.050-.070

**CAUTION:** Lubrication must be used to prevent terminals from sticking in the conductor punch. Use 63801-7240 oiler or equivalent.

**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>	4° Max					
<b>4. Roll</b>	8° Max					
<b>5. Bell Mouth Rear</b>	0.05-0.30mm (.002-.012")					
<b>6. Bell Mouth Front</b>	Not Applicable					
<b>7. Conductor Brush</b>	0.00-0.50mm (.000-.020")					
<b>8. Cut-Off Tab</b>	0.15mm (.006") Max					
<b>Conductor Crimp</b>	<b>Wire Type</b>	<b>Wire Size</b>	<b>9. Crimp Height</b>		<b>10. Crimp Width</b>	
	UL1571	26 AWG	0.62-0.67mm	.024-.026 in.	0.80-0.90mm	.031-.035 in.
	UL1571	28 AWG	0.58-0.63mm	.023-.025 in.	0.80-0.90mm	.031-.035 in.
	UL1571	30 AWG	0.55-0.60mm	.022-.024 in.	0.80-0.90mm	.031-.035 in.
<b>Insulation Crimp</b>	<b>Wire Type</b>	<b>Wire Size</b>	<b>11. Crimp Height</b>		<b>12. Crimp Width</b>	
	UL1571	26 AWG	1.10-1.20mm	.043-.047 in.	0.80-0.90mm	.031-.035 in.
	UL1571	28 AWG	1.00-1.10mm	.039-.043 in.	0.80-0.90mm	.031-.035 in.
	UL1571	30 AWG	1.00-1.10mm	.039-.043 in.	0.80-0.90mm	.031-.035 in.
<b>Pull Force</b>	<b>Wire Type</b>	<b>Wire Size</b>	<b>Minimum Pull Force</b>		<b>Conditions</b> To be measured with no influence from the insulation crimp.	
	UL1571	26 AWG	9.8 N	2.2 lb.		
	UL1571	28 AWG	9.8 N	2.2 lb.		
	UL1571	30 AWG	4.9 N	1.1 lb.		
<b>13. Conductor Anvil Flash</b>	0.08mm (0.003") Max					

## 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 at all times.
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.

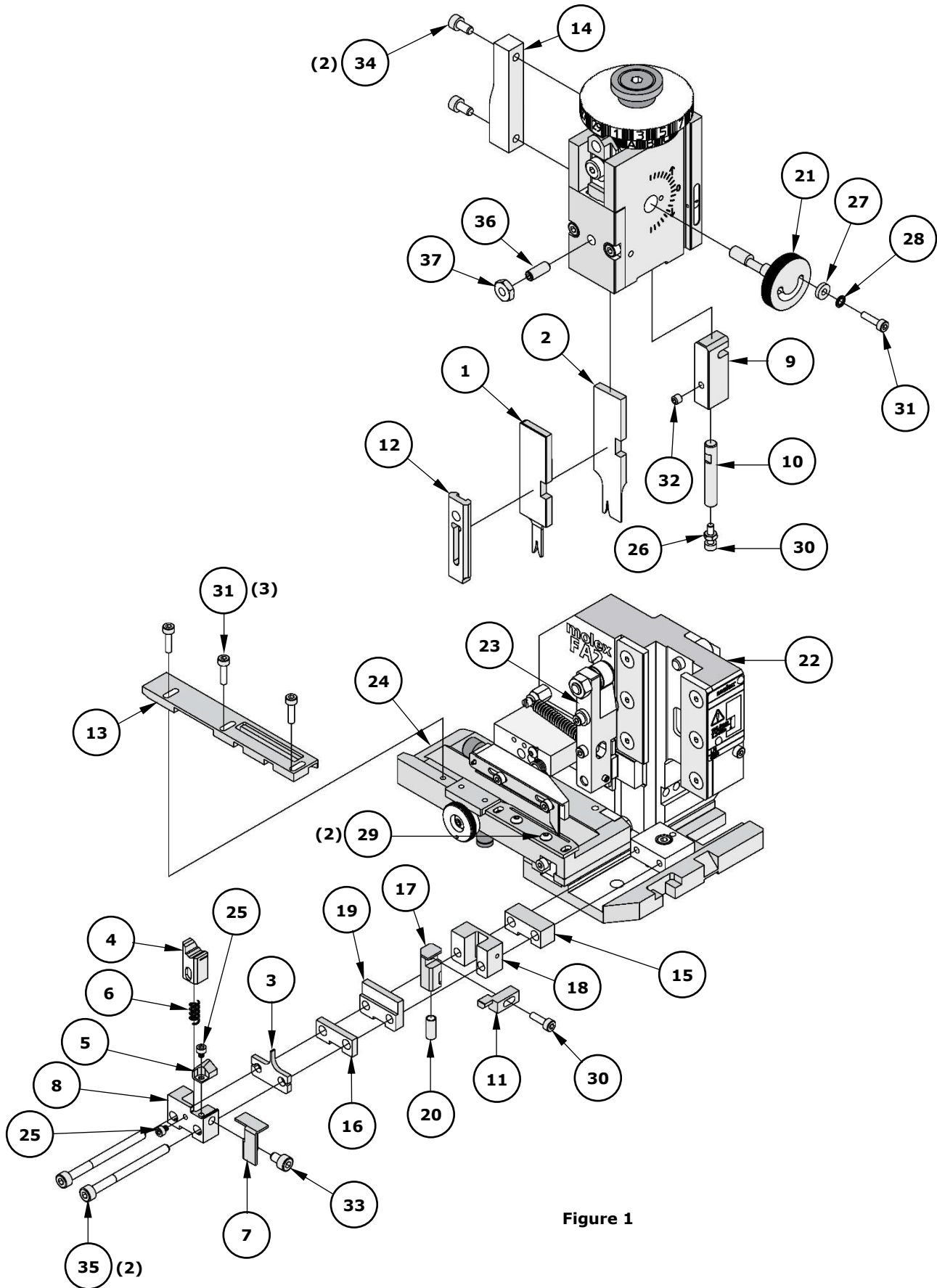
**CAUTION:** To prevent injury, never operate this applicator without the guards supplied with the press or wire-processing machine in place. Reference the press or wire processing manufacturer's instruction manual.

**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 213069-5600</b>				
<b>Item</b>	<b>Order No.</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	213069-5670	213069-5670	Tool Kit (All "Y" Items)	Ref
1	63446-0808	63446-0808	Insulation Punch	1 Y
2	63457-0809	63457-0809	Conductor Punch	1 Y
3	200221-0804	200221-0804	Conductor 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	Nose Hold Down Shank	1
11	63443-7318	63443-7318	Nose Hold Down	1
12	63443-2807	63443-2807	Front Plunger Striker	1
13	63443-4704	63443-4704	Terminal Guide	1
14	63443-4402	63443-4402	Feed Cam	1
15	63443-2209	63443-2209	Coarse Spacer	1
16	63443-2310	63443-2310	Fine Spacer	1
17	63443-7315	63443-7315	Terminal Hold Down Plunger	1
18	63443-7323	63443-7323	Terminal Hold Down Retainer	1
19	63443-7317	63443-7317	Terminal Hold Down Retainer Plate	1
20	63700-0992	63700-0992	Terminal Hold Down Plunger Spring	1
21	63808-0229	63808-0229	Bend Adjust Dial	1
<b>Frame</b>				
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
<b>Hardware</b>				
25	—	—	M2.5 x 3 SHCS	2*
26	—	—	M3 Hex Nut	1*
27	—	—	M3 Flat Washer Hard	1*
28	—	—	M3 Inner Tooth Lock Washer	1*
29	—	—	M3 x 6 BHCS	2*
30	—	—	M3 x 10 SHCS	2*
31	—	—	M3 x 12 SHCS	4*
32	—	—	M4 x 6 SSS	1*
33	—	—	M4 x 6 SHCS	1*
34	—	—	M4 x 8 SHCS	2*
35	—	—	M4 x 50 SHCS	2*
36	—	—	#10-32 UNF x .25" SSS	1*
37	—	—	#10-32 Hex Jam Nut	1*
*Fastener parts can be purchased through most industrial suppliers by using the description in the table above.				

**ASSEMBLY DRAWING**

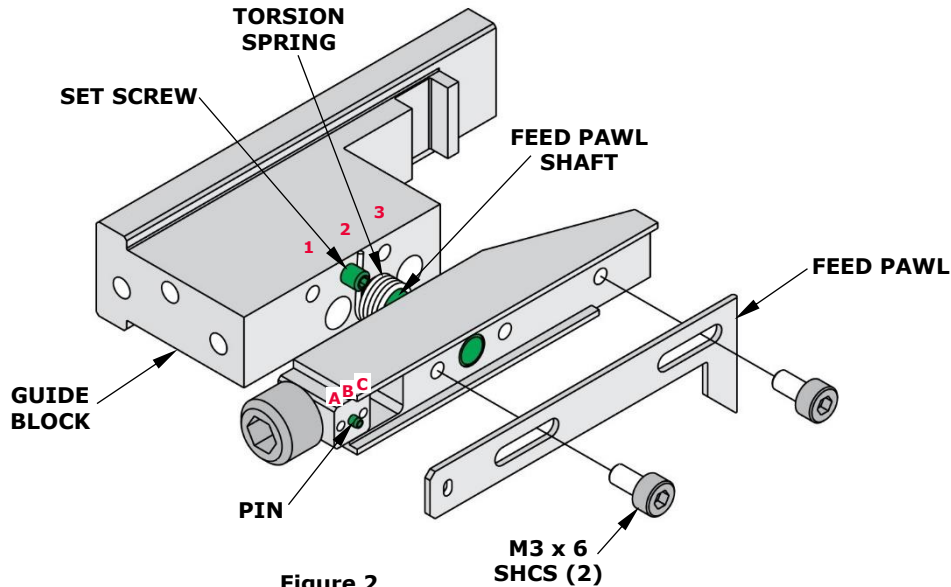


## FACTORY SETTINGS

### Feed Pawl Assembly

FA2 applicator 213069-5600 ships with the following factory settings. See Figure 2:

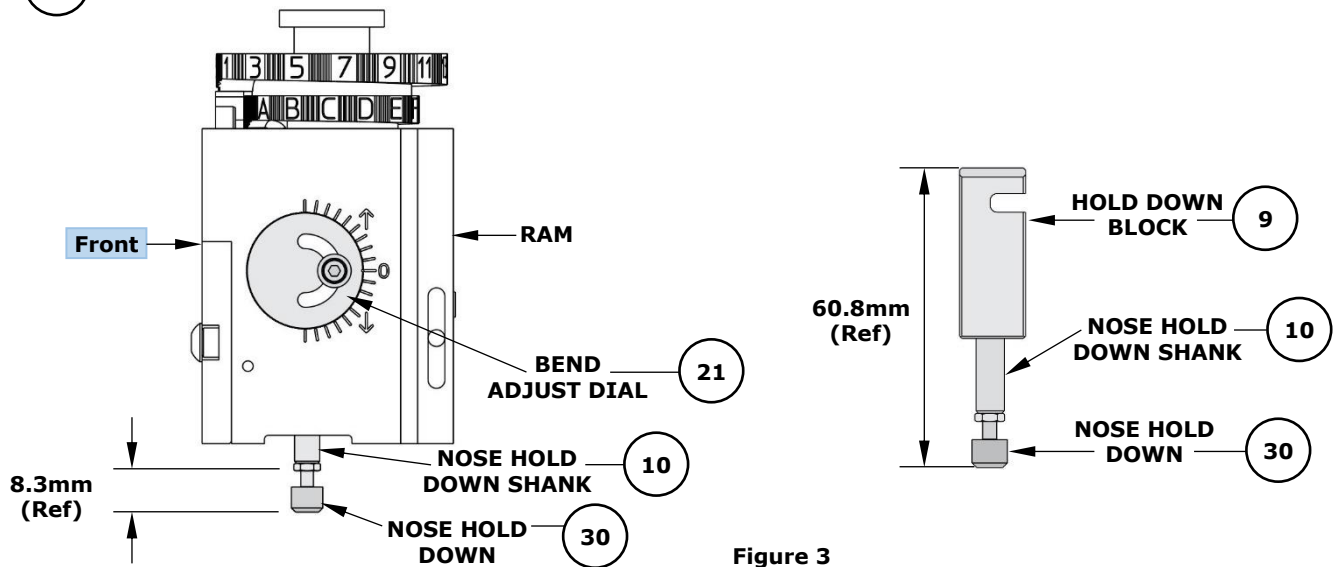
- The feed pawl shaft and set screw that holds the feed pawl spring are in position 2.
- The pin is in position B.



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

### Third Dial/Ram Assembly

○ Indicates item number on the Parts List and Assembly Drawing



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

### 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.

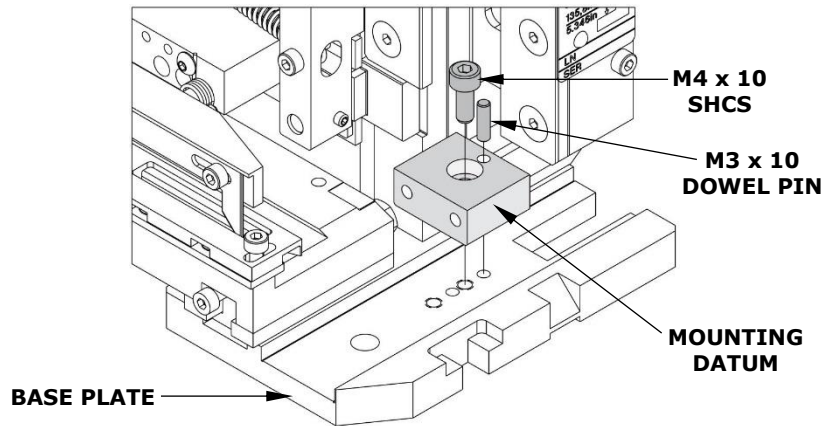


Figure 3

### Application Tooling Support

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

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