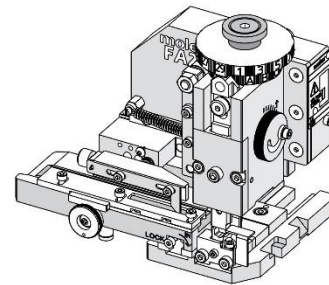


Order Number
213069-1000

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
- 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
- For 26-30 AWG Pico-SPOX terminals, use FA2 Crimp Applicator 213069-1100

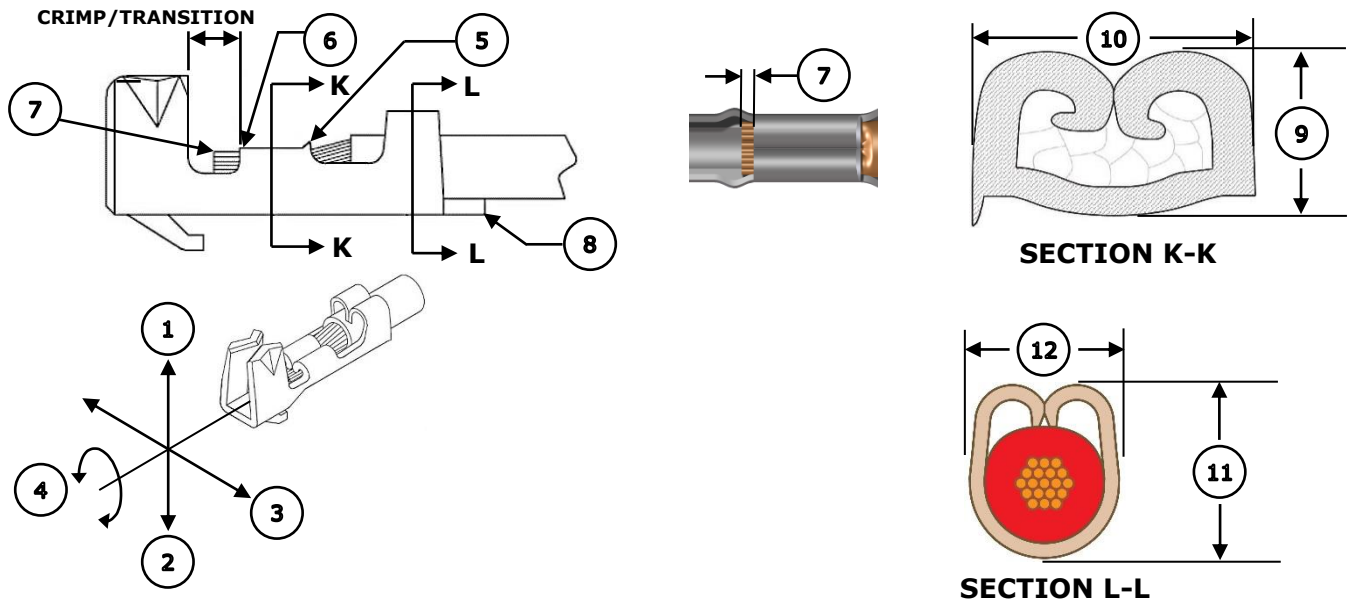
SCOPE

Products: Pico-SPOX 1.5mm Pitch Receptacle Crimp Terminals, 24-26 AWG, UL1061 Wire.

Terminal Series No.	Terminal Order No.	Wire Size	Insulation Diameter†		Strip Length	
		AWG	mm	In.	mm	In.
87421	87421-0000	24-26	0.95-1.20	.035-.047	1.05-1.54	.041-.060

† **Insulation Diameter Note:** Due to the size of the connector housing cavity, this terminal's insulation crimp may not meet IPC-A620 requirements.

DEFINITION OF TERMS



CRIMP SPECIFICATIONS

Feature	Requirement				
1. Bend Up	3° Max				
2. Bend Down	3° Max				
3. Twist	3° Max				
4. Roll	4° Max				
5. Bell Mouth Rear	0.05-0.30mm (.002-.012")				
6. Bell Mouth Front	Not Applicable				
7. Conductor Brush	0.00-0.50mm (.000-.020")				
8. Cut-Off Tab	0.15mm (.006") Max				
Conductor Crimp	Wire Size	9. Crimp Height		10. Crimp Width	
	24 AWG	0.56-0.60mm	.022-.024 in.	1.00mm	.039 in.
	26 AWG	0.52-0.58mm	.020-.023 in.	1.00mm	.039 in.
Insulation Crimp	Wire Size	11. Crimp Height (Ref)		12. Crimp Width (Ref)	
	24 AWG	1.45mm	.057 in.	1.10mm	.043 in.
	26 AWG	1.40mm	.055 in.	1.10mm	.043 in.
Pull Force	Wire Size	Minimum Force		To be measured with no influence from the insulation crimp.	
	24 AWG	29.4 N	6.6 lb.		
	26 AWG	19.6 N	4.4 lb.		

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

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.

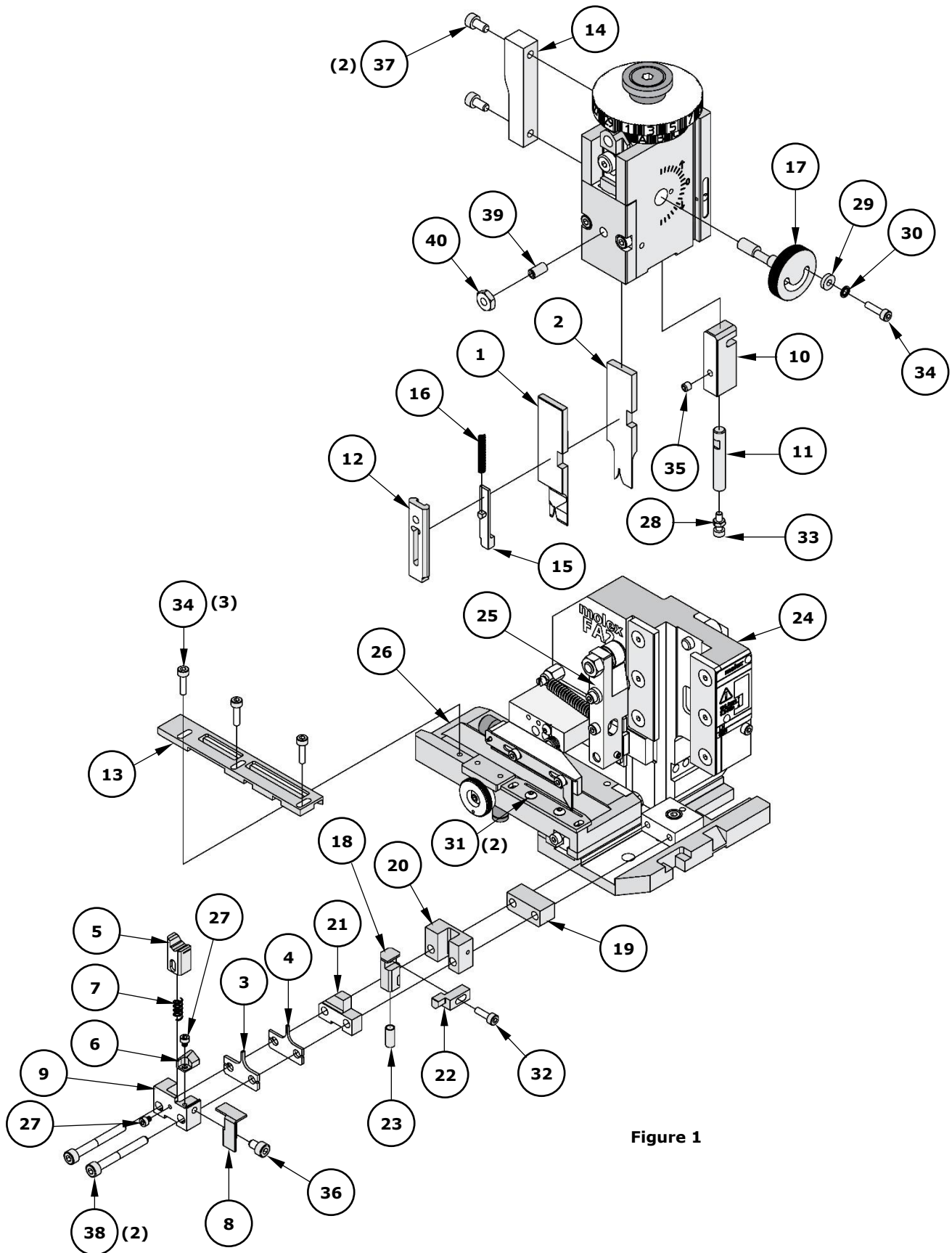
CAUTION: To prevent injury, never operate this applicator without the guards supplied with the press or wire-processing machine in place. Reference the press or wire processing manufacturer's instruction manual.

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 213069-1000				
Item	Order No.	Engineering No.	Description	Quantity
Perishable Tooling				
	213069-1070	213069-1070	Tool Kit (All "Y" Items)	Ref
1	200220-1102	200220-1102	Insulation Punch	1 Y
2	200216-1002	200216-1002	Conductor Punch	1 Y
3	200221-1102	200221-1102	Insulation Anvil	1 Y
4	200217-1003	200217-1003	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	11-24-1067	4996-4	Cut-Off Plunger Spring	1
8	63443-0117	63443-0117	Front Scrap Chute	1
9	63443-0118	63443-0118	Front Plunger Retainer	1
10	63443-7403	63443-7403	Hold Down Block	1
11	63600-5775	63600-5775	Nose Hold Down Shank	1
12	63443-2807	63443-2807	Front Plunger Striker	1
13	63443-4704	63443-4704	Terminal Guide	1
14	63443-4406	63443-4406	Feed Cam	1
15	63443-2906	63443-2906	Wire Hold Down Plunger	1
16	63600-0021	63600-0021	Compression Spring	1
17	63808-0229	63808-0229	Bend Adjust Dial	1
18	63443-7315	63443-7315	Terminal Hold Down Plunger	1
19	200213-7519	200213-7519	Anvil Mount	1
20	63443-7316	63443-7316	Terminal Hold Down Retainer	1
21	63443-1700	63443-1700	Height Spacer (17.00mm)	1
22	63443-7318	63443-7318	Terminal Hold Down	1
23	63700-0992	63700-0992	Terminal Hold Down Plunger Spring	1
Frame				
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
Hardware				
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 45 SHCS	2*
39	—	—	#10-32 by 1/2" Long Flat Point SSS	1*
40	—	—	#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

The FA2 applicator number 213069-1000 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.

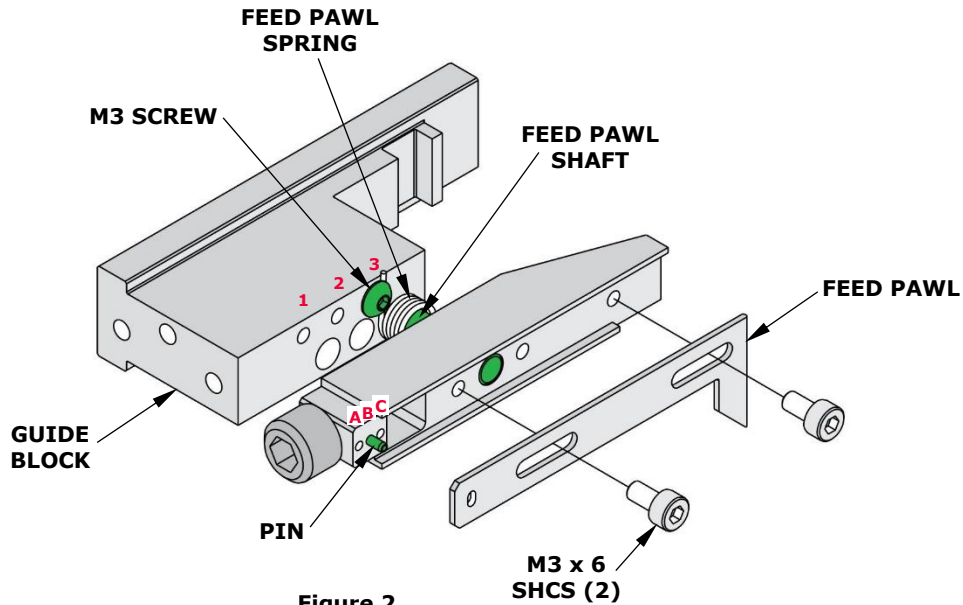


Figure 2

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

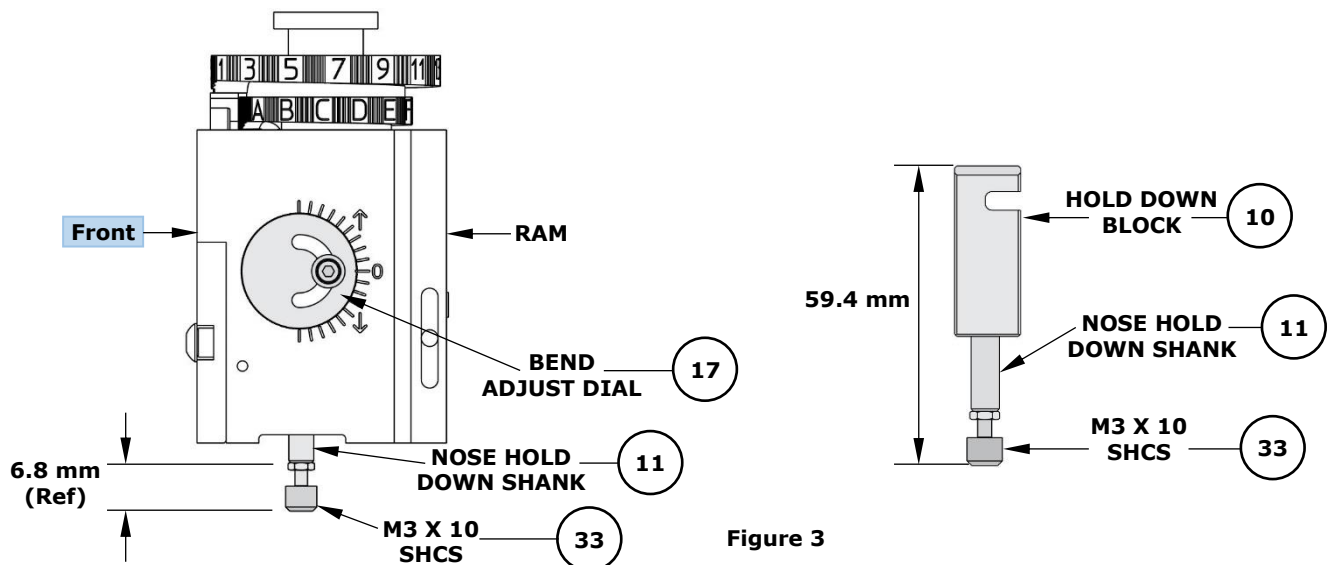


Figure 3

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.

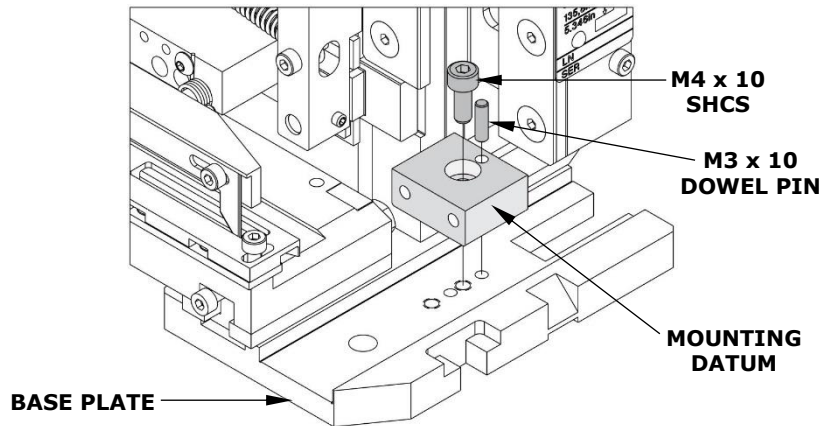


Figure 4

Application Tooling Support

Phone: (402) 458-TOOL (8665)

E-Mail: applicationtooling@molex.com

Website: www.molex.com/applicationtooling

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