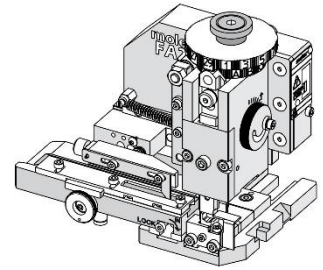


**Order Number**  
**63808-3700**



**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 control 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

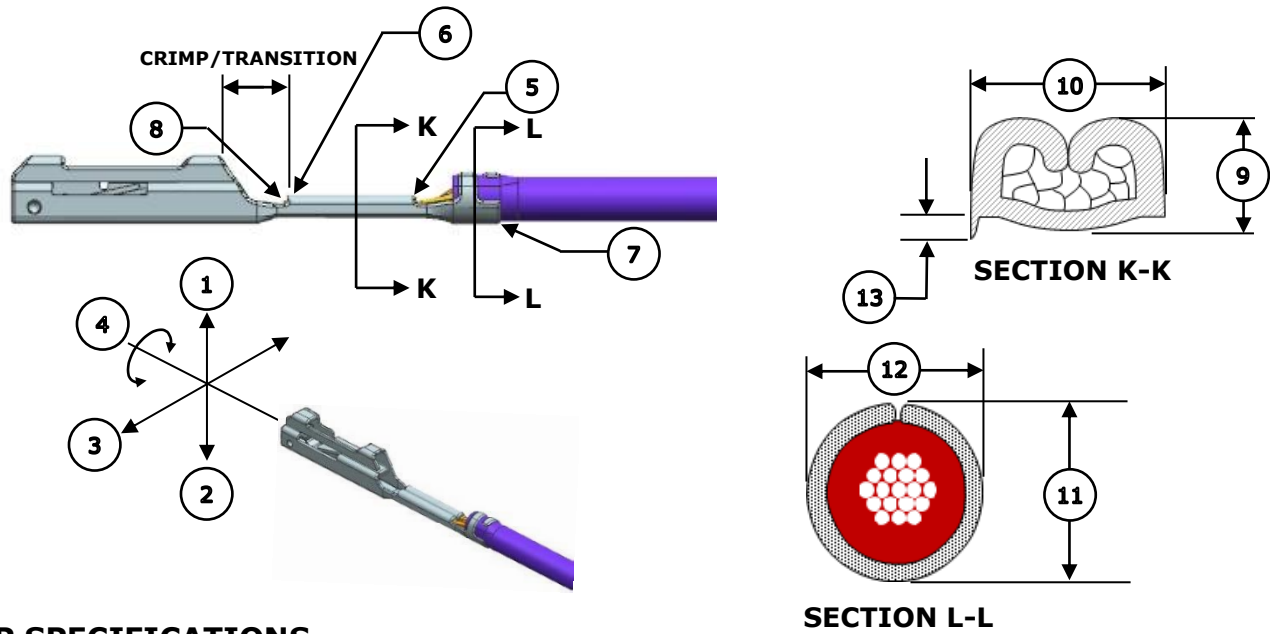
**SCOPE**

**Products:** 1.8mm SLD WTW Crimp Terminals: 22-24 AWG.

Terminal Series No.	Terminal Order No.	Wire Size		(1) Insulation Diameter		Strip Length	
		AWG	mm <sup>2</sup>	mm	In.	mm	In.
204301	204301-0001	22-24	—	0.95-1.40	.037-.055	3.50	.138
(1) See IPC/WHMA-A-620 conditions on page 2.							

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**DEFINITION OF TERMS**



**CRIMP SPECIFICATIONS**

Refer to the following crimp specifications:

Feature	Requirement					
1. Bend Up	1° Max					
2. Bend Down	1° Max					
3. Twist	2° Max					
4. Roll	3° Max					
5. Rear Bell Mouth	0.30-0.60mm (.012-.024")					
6. Front Bell Mouth	Not Applicable					
7. Cut-Off Tab	0.25mm (.010") Max					
8. Conductor Brush	0.30-0.70mm (.012-.028") Max					
9. Conductor Crimp Height	Terminal Series No.	Wire Type	Wire Size	Crimp Height		
	204301	UL1061	22 AWG	0.72-0.78mm	.028-.031 in.	
			24 AWG	0.67-0.73mm	.026-.029 in.	
10. Conductor Crimp Width	1.03-1.09mm (.041-.043")					
Pull Force	Terminal Series No.	Wire Type	Wire Size	Minimum Force		To be measured with no influence from the insulation crimp.
	204301	UL1061	22 AWG	35.6 N	8 lb.	
			24 AWG	22.9 N	5 lb.	
11. Insulation Crimp Height	Terminal Series No.	Wire Type	Wire Size	Crimp Height		
	204301	UL1061	22 AWG	1.25mm	.049 in.	
			24 AWG	1.25mm	.049 in.	
12. Insulation Crimp Width	1.30mm (.051")					
13. Conductor Anvil Flash	0.10mm (.004") Max					

**Note:** To achieve IPC/WHMA-A-620 Class 2 crimps, the recommended overall wire insulation diameter range is 1.08-1.20mm (.043-.047").

## NOTES

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### Applicator Notes

- This applicator is recommended for automatic wire processor use only.
- **Caution:** The wire stop on this applicator (Order Number 63443-0090) is to assist in removing terminals that stick into the crimp tooling and should not be readjusted.
- Lubrication must be used to prevent terminals from sticking in the conductor punch. See General Notes below.

### Specification Notes

- It is very important that the brush length is consistently within specification for this sealed connector system to work properly.
- This applicator should only be run in a properly set up wire processor to consistently achieve the brush length.

### 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 standard copper wire only.
7. Lubrication must be used to prevent terminals 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.

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**PARTS LIST**

<b>Applicator 63808-3700</b>				
<b>Item</b>	<b>Order No.</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63808-3770	63808-3770	Tool Kit (All "Y" Items)	REF
1	63454-1304	63454-1304	Insulation Punch	1 Y
2	63457-1007	63457-1007	Conductor Punch	1 Y
3	63456-1304	63456-1304	Insulation Anvil	1 Y
4	63455-1007	63455-1007	Conductor Anvil	1 Y
5	63443-0136	63443-0136	Cut-Off Plunger	1 Y
6	63443-0119	63443-0119	Cutting Insert	1 Y
<b>Non-Perishable Components</b>				
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 Shute	1
10	63443-7515	63443-7515	Anvil Mount	1
11	63443-0090	63443-0090	Wire Stop	1
12	63443-2807	63443-2807	Front Plunger Striker	1
13	63443-2917	63443-2917	Wire Hold Down Plunger	1
14	63600-0021	63600-0021	Wire Hold Down Spring	1
15	63600-5776	63600-5776	Nose Hold Down	1
16	63600-5775	63600-5775	Nose Hold Down Shank	1
17	63443-4405	63443-4405	Feed Cam	1
18	63443-4701	63443-4701	Terminal Guide	1
19	63808-0229	63808-0229	Bend Adjust Dial	1
20	63443-7403	63443-7403	Hold Down Block	1
21	63808-0249	63808-0249	Feed Pawl Narrow	1
22	63443-4603	63443-4603	Carrier Cover	1
<b>Frame</b>				
23	63808-0200	63808-0200	Applicator Core	1
24	63808-0197	63808-0197	Mechanical Feed Assembly	1
25	63808-0191	63808-0191	Track Assembly	1
<b>Hardware</b>				
26	—	—	M3 by 6 Long BHCS	2*
27	—	—	M3 by 12 Long SHCS	4*
28	—	—	M4 by 6 Long SHCS	1*
29	—	—	M4 by 8 Long SHCS	2*
30	—	—	M4 by 50 Long SHCS	2*
31	—	—	M5 by 12 Long SHCS	1*
32	—	—	M2.5 by 3 Long SHCS	1*
33	—	—	M2.5 by 4 Long SHCS	1*
34	—	—	#10-32UNF by .25" Long BHCS	1*
35	—	—	M4 by 6 Long Set Screw	1*
36	—	—	M3 Flat Washer Hard	1*
37	—	—	M3 Inner Tooth Lock Washer	1*
38	—	—	M3 Hex Nut	1*

\* Available from an industrial supply company.

**ASSEMBLY DRAWING**

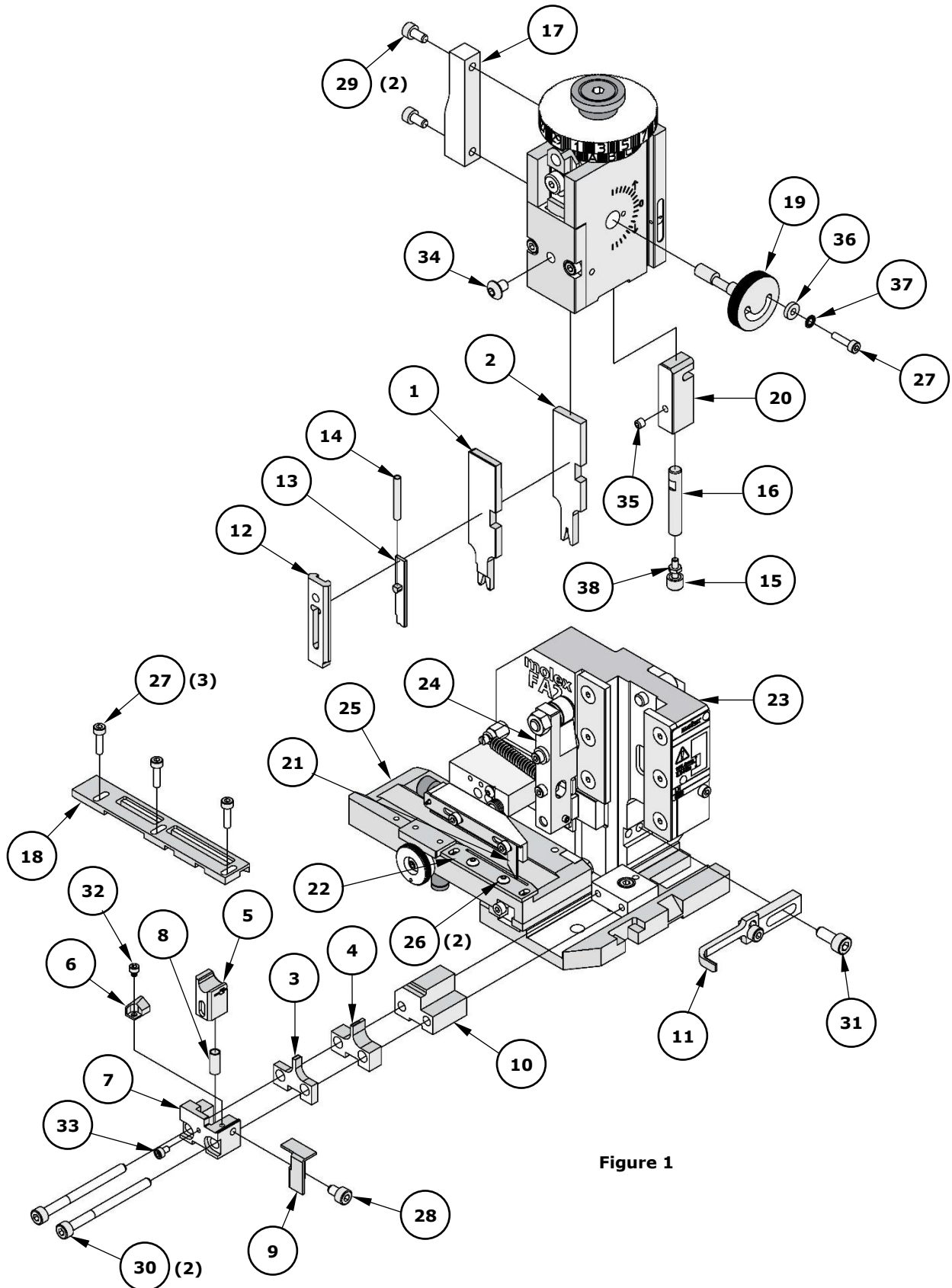


Figure 1

## FACTORY SETTINGS

### Feed Pawl Assembly

The FA2 applicator number 63808-3700 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.

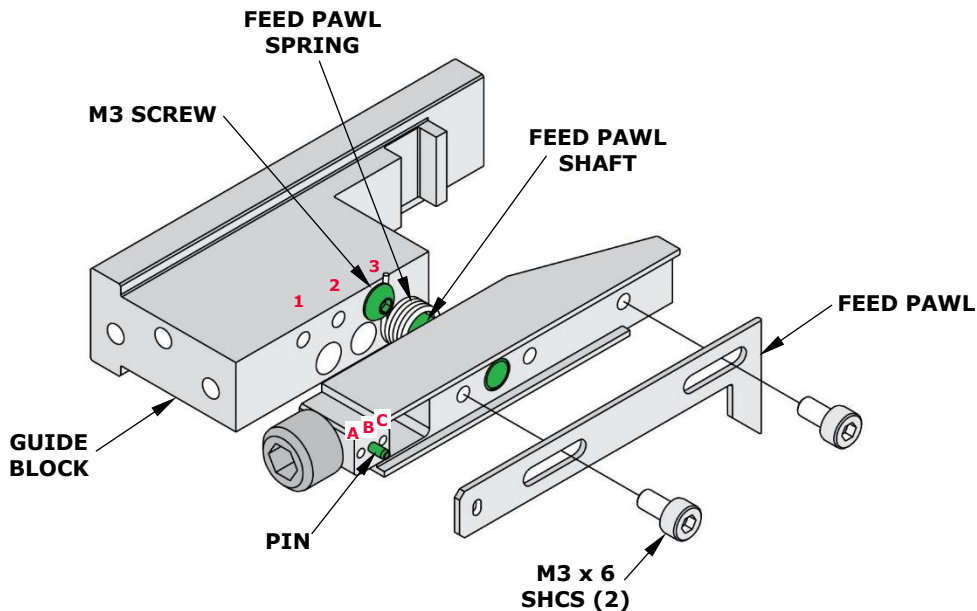


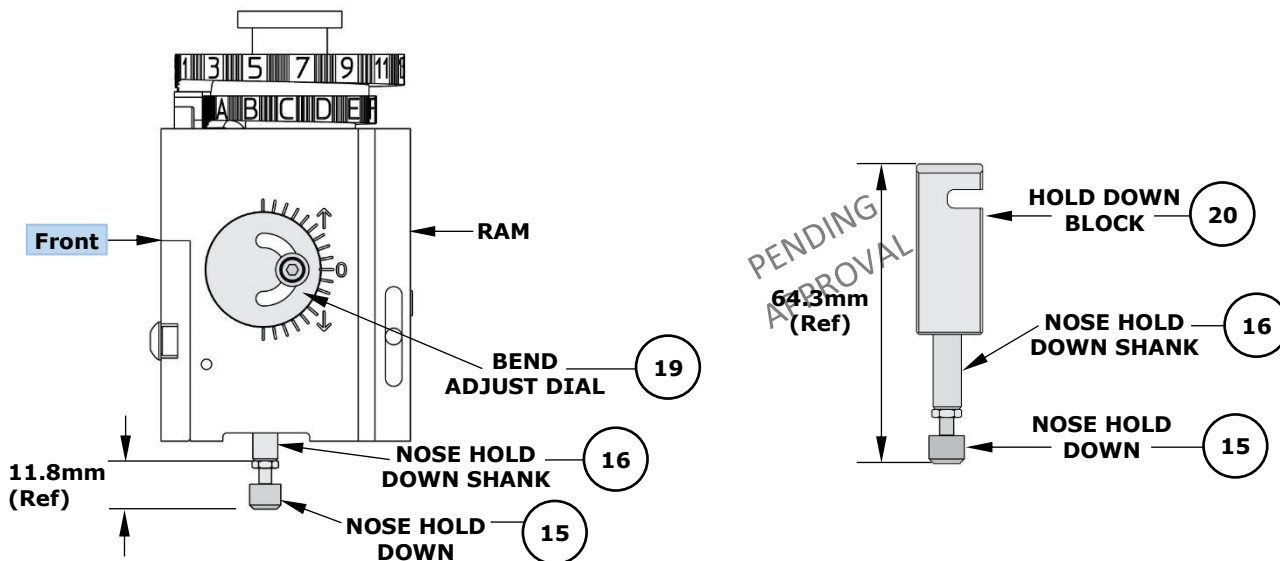
Figure 2

#### Note

This information is included as a reference only. 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



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**Application Tooling Support**

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**E-Mail:** [applicationtooling@molex.com](mailto:applicationtooling@molex.com)

**Website:** [www.molex.com/applicationtooling](http://www.molex.com/applicationtooling)

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