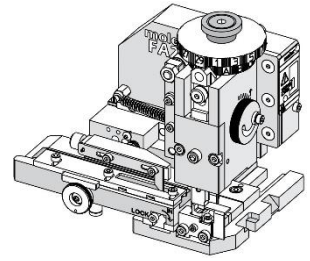


**Order Number**  
**63808-3100**

**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 .015mm (.0006") for conductor crimp height and .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**

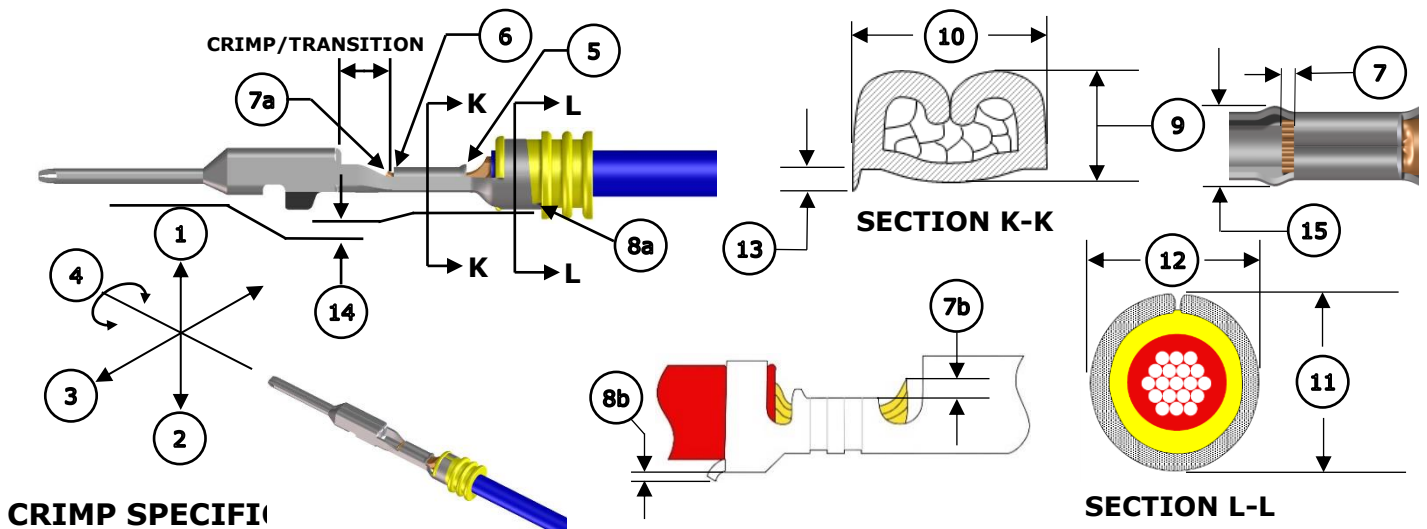
**Products:** MX150 22 Grip Blade Wire Seal Terminals: 22 AWG, 0.35mm<sup>2</sup> and 0.50mm<sup>2</sup> Wire.

Terminal Series No.	Terminal Order No.	Wire		Insulation Diameter		Strip Length	
		Wire Type	Size	mm	In.	mm	In.
34080 34783	34080-1003 34080-1106 34080-1206 34783-1003	TXL	22 AWG	1.20-1.70	.047-.067	4.70-5.60	.185-.220
		AVSS	0.50mm <sup>2</sup>				
		M1L-126A1	0.50mm <sup>2</sup>				
		FLR91X-A XLPO	0.50mm <sup>2</sup>				
		FLR2XA3ZH	0.35mm <sup>2</sup>				
FLR91X-A XLPO	0.35mm <sup>2</sup>						

**CAUTION:** This applicator was designed for use in a wire processor only.

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

**DEFINITION OF TERMS**



The following crimp specifications are based on document AS-34080-001 Rev. B2:

Feature	Requirement					
<b>1. Bend Up</b>	3° Max					
<b>2. Bend Down</b>	3° Max					
<b>3. Twist</b>	3° Max					
<b>4. Roll</b>	3° Max					
<b>5. Bell Mouth Rear</b>	0.30-0.70mm (.012-.028")					
<b>6. Bell Mouth Front</b>	Not Applicable					
<b>7. Conductor Brush</b>	a. 0.40mm (.016") Max	b. 0.40mm (.016") Max above conductor crimp				
<b>8. Cut-Off Tab</b>	a. 0.50mm (.020") Max	b. 0.30mm (.012") Max curl				
<b>Conductor Crimp</b>	<b>Wire Type</b>	<b>Wire Size</b>	<b>9. Crimp Height</b>		<b>10. Crimp Width</b>	
	TXL	22 AWG	0.95-1.05mm	.037-.041 in.	1.50-1.70mm	.059-.067 in.
	AVSS	0.50mm <sup>2</sup>	1.05-1.15mm	.041-.045 in.	1.50-1.70mm	.059-.067 in.
	M1L-126A1	0.50mm <sup>2</sup>	1.05-1.15mm	.041-.045 in.	1.50-1.70mm	.059-.067 in.
	FLR91X-A XLPO	0.50mm <sup>2</sup>	1.05-1.15mm	.041-.045 in.	1.50-1.70mm	.059-.067 in.
	FLR2XA3ZH	0.35mm <sup>2</sup>	1.01-1.07mm	.040-.042 in.	1.50-1.70mm	.059-.067 in.
<b>Insulation Crimp</b>	<b>Wire Type</b>	<b>Wire Size</b>	<b>11. Crimp Height</b>		<b>12. Crimp Width</b>	
	TXL	22 AWG	3.40-3.60mm	.134-.142 in.	3.35-3.55mm	.132-.140 in.
	AVSS	0.50mm <sup>2</sup>				
	M1L-126A1	0.50mm <sup>2</sup>				
	FLR91X-A XLPO	0.50mm <sup>2</sup>				
	FLR2XA3ZH	0.35mm <sup>2</sup>				
FLR91X-A XLPO	0.35mm <sup>2</sup>					
<b>Pull Force</b>	<b>Wire Type</b>	<b>Wire Size</b>	<b>Minimum Force</b>		To be measured with no influence from the insulation crimp.	
	TXL	22 AWG	50 N	11.3 lb.		
	AVSS	0.50mm <sup>2</sup>	75 N	16.9 lb.		
	M1L-126A1	0.50mm <sup>2</sup>	75 N	16.9 lb.		
	FLR91X-A XLPO	0.50mm <sup>2</sup>	75 N	16.9 lb.		
	FLR2XA3ZH	0.35mm <sup>2</sup>	50 N	11.3 lb.		
FLR91X-A XLPO	0.35mm <sup>2</sup>	50 N	11.3 lb.			

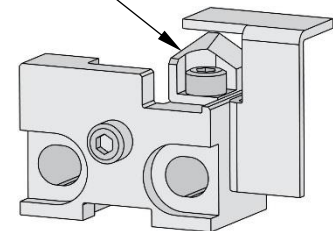
<b>13. Conductor Anvil Flash</b>	0.10mm (.004") Max and must not extend below lowest point of conductor crimp							
<b>14. Insulation Grip Step</b>	0.45-0.65mm (.018-.026")							
<b>15. Crimp Bulge</b>	2.65mm (.104") Max within crimp/transition area							
<b>Misc.</b>	<b>Wire Type</b>	<b>Wire Size</b>	<b>Wire Seal Position on Terminal (Min)</b>		<b>Wire Seal Position on Wire (Ref)</b>		<b>Wire Seal Color</b>	<b>Wire Seal No.</b>
	TXL	22 AWG	1.10mm	.043 in.	0.20-0.40mm	.008-.016 in.	Pink	E-1644-01
	AVSS	0.50mm <sup>2</sup>						
	M1L-126A1	0.50mm <sup>2</sup>						
	FLR91X-A XLPO	0.50mm <sup>2</sup>						
	FLR2XA3ZH	0.35mm <sup>2</sup>						
FLR91X-A XLPO	0.35mm <sup>2</sup>							

**NOTES**

**Applicator Notes**

- This applicator is for automatic wire processor use only.
- This applicator does not include a cutting insert.
- Installing a cutting insert will cause jamming in this applicator.

**CUTTING INSERT**



**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 stranded copper wire only.
7. Lubrication must be used to prevent terminals 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**

<b>FA2 Applicator 63808-3100</b>				
<b>Item</b>	<b>Order No.</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63808-3170	63808-3170	Tool Kit (All "Y" Items)	Ref
1	63454-3301	63454-3301	Insulation Punch	1 Y
2	63457-1605	63457-1605	Conductor Punch	1 Y
3	63456-3305	63456-3305	Insulation Anvil	1 Y
4	63455-1603	63455-1603	Conductor Anvil	1 Y
5	63443-0034	63443-0034	Front Plunger	1 Y
<b>Non-Perishable Components</b>				
6	63443-0128	63443-0128	Front Plunger Retainer	1
7	63700-0539	63700-0539	Cut-Off Plunger Spring	1
8	63443-0117	63443-0117	Front Scrap Chute	1
9	63443-7507	63443-7507	Anvil Mount	1
10	63443-0090	63443-0090	Wire Stop	1
11	63890-0009	63890-0009	Front Plunger Striker	1
12	63600-5776	63600-5776	Nose Hold Down	1
13	63600-5775	63600-5775	Nose Hold Down Shank	1
14	63443-4759	63443-4759	Terminal Guide	1
15	63443-7403	63443-7403	Hold Down Block	1
16	63808-0229	63808-0229	Bend Adjust Dial	1
17	63443-4412	63443-4412	Feed Cam	1
<b>Frame</b>				
18	63808-0200	63808-0200	Applicator Core	1
19	63808-0190	63808-0190	Track Assembly	1
20	63808-0197	63808-0197	Mechanical Feed Assembly	1
<b>Hardware</b>				
21	—	—	M2.5 x 4 SHCS	1*
22	—	—	M3 Flat Washer Hard	1*
23	—	—	M3 Inner Tooth Lock Washer	1*
24	—	—	M3 Hex Nut	1*
25	—	—	M3 x 6 BHCS	2*
26	—	—	M3 x 12 SHCS	4*
27	—	—	M4 x 4 SSS	1*
28	—	—	M4 x 6 SHCS	1*
29	—	—	M4 x 8 SHCS	2*
30	—	—	M4 x 50 SHCS	2*
31	—	—	M5 x 12 SHCS	1*
32	—	—	M5 x 10 Long Cup Point SSS	1*
33	—	—	M5 Hex Jam Nut	1*
*Fastener parts can be purchased through most industrial suppliers by using the description in the table above.				

**ASSEMBLY DRAWING**

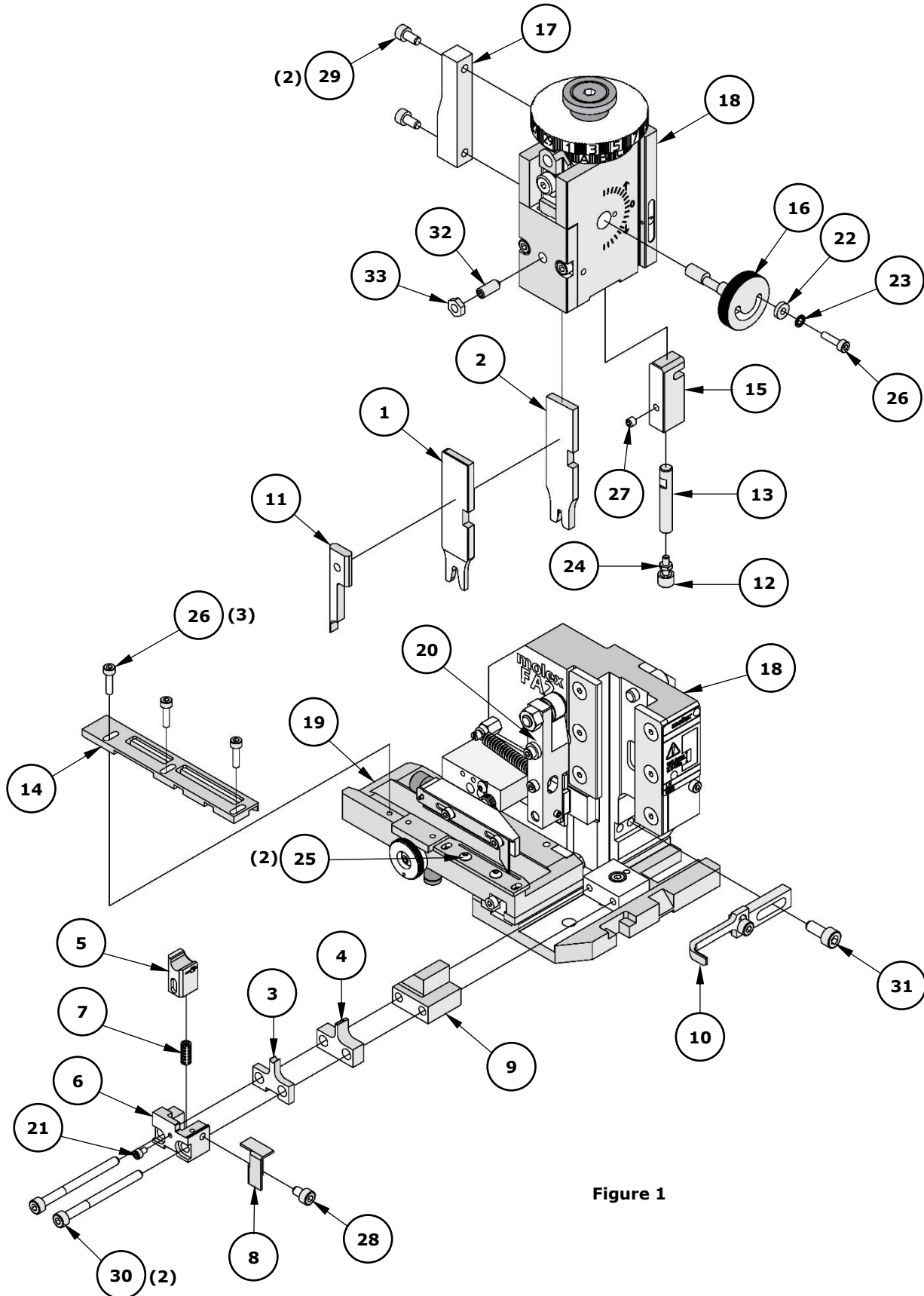


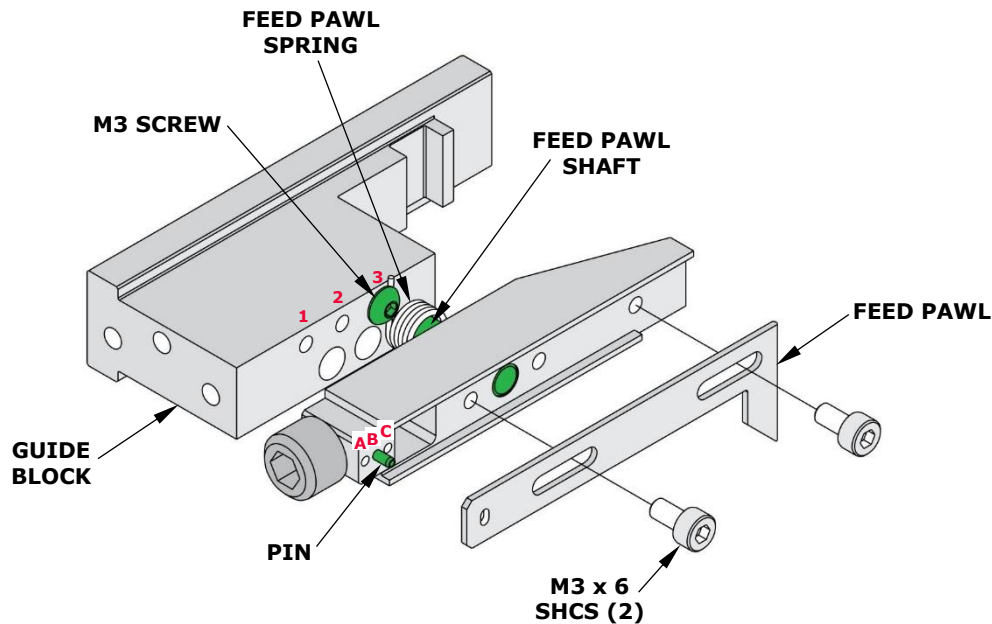
Figure 1

## FACTORY SETTINGS

### Feed Pawl Assembly

The FA2 applicator number 63808-3100 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.



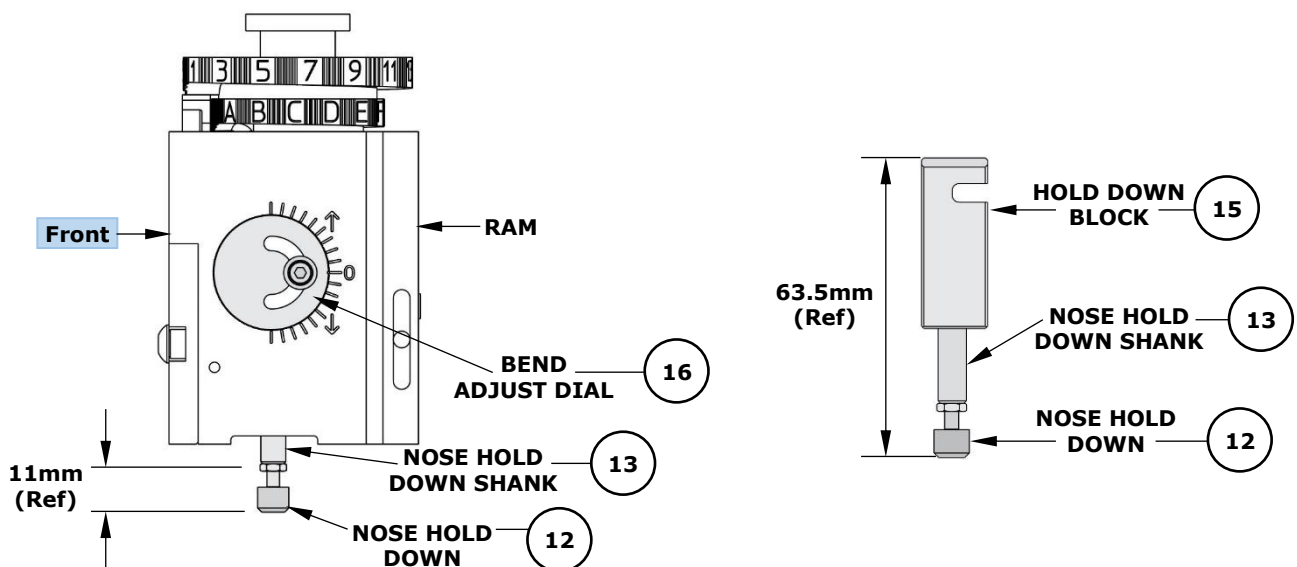
**Note**

Figure 2

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



**Application Tooling Support**

**Phone:** (402) 458-TOOL (8665)

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

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

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