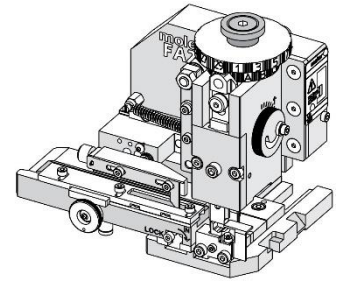**Order Number
63808-3000**

# 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 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 Receptacle Wire Seal Terminals, 0.35mm^2 Wire.

Terminal Series No.	Terminal Order No.	Wire		Insulation Diameter		Strip Length	
		Wire Type	Size	mm	In.	mm	In.
34081 34083 34751	34081-3005 34081-5003	FLR91X-A XLPO	0.35mm²	1.20-1.70	.047-.067	4.70-5.60	.185-.220
	34083-3003 34751-1003	FLR2XA3ZH	0.35mm²				

DEFINITION OF TERMS

SECTION K-K

SECTION L-L
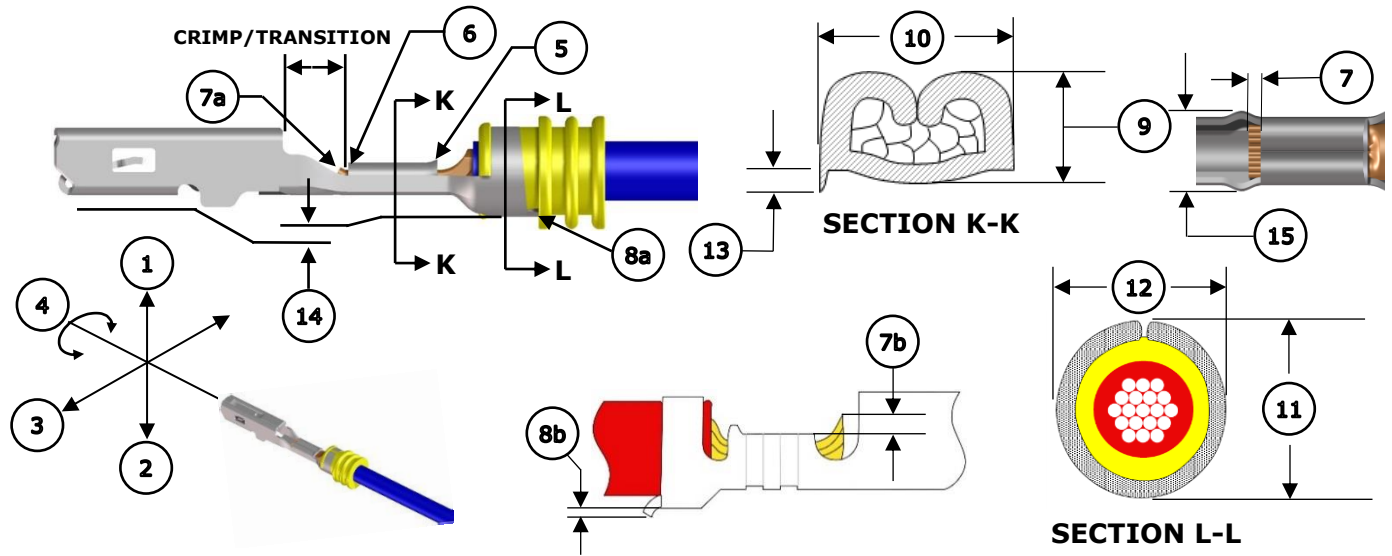
CRIMP SPECIFICATIONS

The following crimp specifications are based on document AS-34083-002 Rev. B2:

Feature	Requirement							
1. Bend Up	3° Max							
2. Bend Down	3° Max							
3. Twist	3° Max							
4. Roll	3° Max							
5. Bell Mouth Rear	0.30-0.70mm (.012-.028")							
6. Bell Mouth Front	Not Applicable							
7. Conductor Brush	**a.** 0.40mm (.016") Max		**b.** 0.40mm (.016") Max above conductor crimp					
8. Cut-Off Tab	**a.** 0.50mm (.020") Max		**b.** 0.30mm (.012") Max curl					
Conductor Crimp	**Wire Type**	**Wire Size**	**9. Crimp Height**		**10. Crimp Width**			
	FLR91X-A XLPO	0.35mm²	1.01-1.07mm	.040-.042 in.	1.50-1.70mm	.059-.067 in.		
	FLR2XA3ZH	0.35mm²						
Insulation Crimp	**Wire Type**	**Wire Size**	**11. Crimp Height**		**12. Crimp Width**			
	FLR91X-A XLPO	0.35mm²	3.40-3.60mm	.134-.142 in.	3.35-3.55mm	.132-.140 in.		
	FLR2XA3ZH	0.35mm²						
Pull Force	**Wire Type**	**Wire Size**	**Minimum Force**					
	FLR91X-A XLPO	0.35mm²	50 N	11.3 lb.	To be measured with no influence from the insulation crimp.			
	FLR2XA3ZH	0.35mm²	50 N	11.3 lb.				
13. Conductor Anvil Flash	0.10mm (.004") Max Not to extend below lowest point of conductor crimp							
14. Insulation Grip Step	0.45-0.65mm (.018-.026")							
15. Crimp Bulge	2.62mm (.103") Max within crimp/transition area							
Misc.	**Wire Type**	**Wire Size**	**Wire Seal Position on Wire (Ref)**		**Wire Seal Position on Terminal**		**Wire Seal Color**	**Wire Seal No.**
	FLR91X-A XLPO	0.35mm²	0.20-0.40mm	.008-.016 in.	1.10mm Min	.043 in. Min	Pink	E-1644-01
	FLR2XA3ZH	0.35mm²						

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NOTES

Applicator Notes

CUTTING INSERT

- This applicator does not include a cutting insert.
- Installing a cutting insert will cause jamming in this applicator.
- Manually cut the carrier scrap for benchtop press applications.
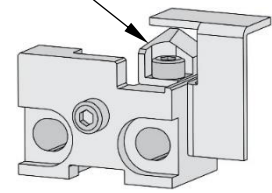
Specification Notes

- It is very important that the brush length is consistently within specification for this sealed connector system to work properly.
- This applicator can 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 when crimping gold and select gold terminals 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

FA2 Applicator 63808-3000				
Item	Order No.	Engineering No.	Description	Quantity
Perishable Tooling				
	63808-3070	63808-3070	Tool Kit (All "Y" Items)	Ref
1	63454-3301	63454-3301	Insulation Punch	1 Y
2	63457-0057	63457-0057	Conductor Punch	1 Y
3	63456-3305	63456-3305	Insulation Anvil	1 Y
4	63455-1606	63455-1606	Conductor Anvil	1 Y
5	63443-0034	63443-0034	Front Plunger	1 Y
Non-Perishable Components				
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 Shute	1
9	63443-7504	63443-7504	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	63808-0220	63808-0220	Hold Down Block	1
16	63808-0229	63808-0229	Bend Adjust Dial	1
17	63443-4407	63443-4407	Feed Cam	1
Frame				
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
Hardware				
21	—	—	M2.5 x 4 SHCS	1*
22	—	—	M3 Flat Washer Hard	1*
23	—	—	M3 Inner Tooth Lock Washer	1*
24	—	—	M3 x 6 BHCS	2*
25	—	—	M3 x 12 SHCS	4*
26	—	—	M4 x 6 SHCS	1*
27	—	—	M4 x 6 SSS	1*
28	—	—	M4 x 8 SHCS	2*
29	—	—	M4 x 50 SHCS	2*
30	—	—	M5 x 12 SHCS	1*
31	—	—	M5 x 10 Long Cup Point SSS	1*
32	—	—	M5 Hex Jam Nut	1*
*Fastener parts can be purchased through most industrial suppliers by using the description in the table above.				

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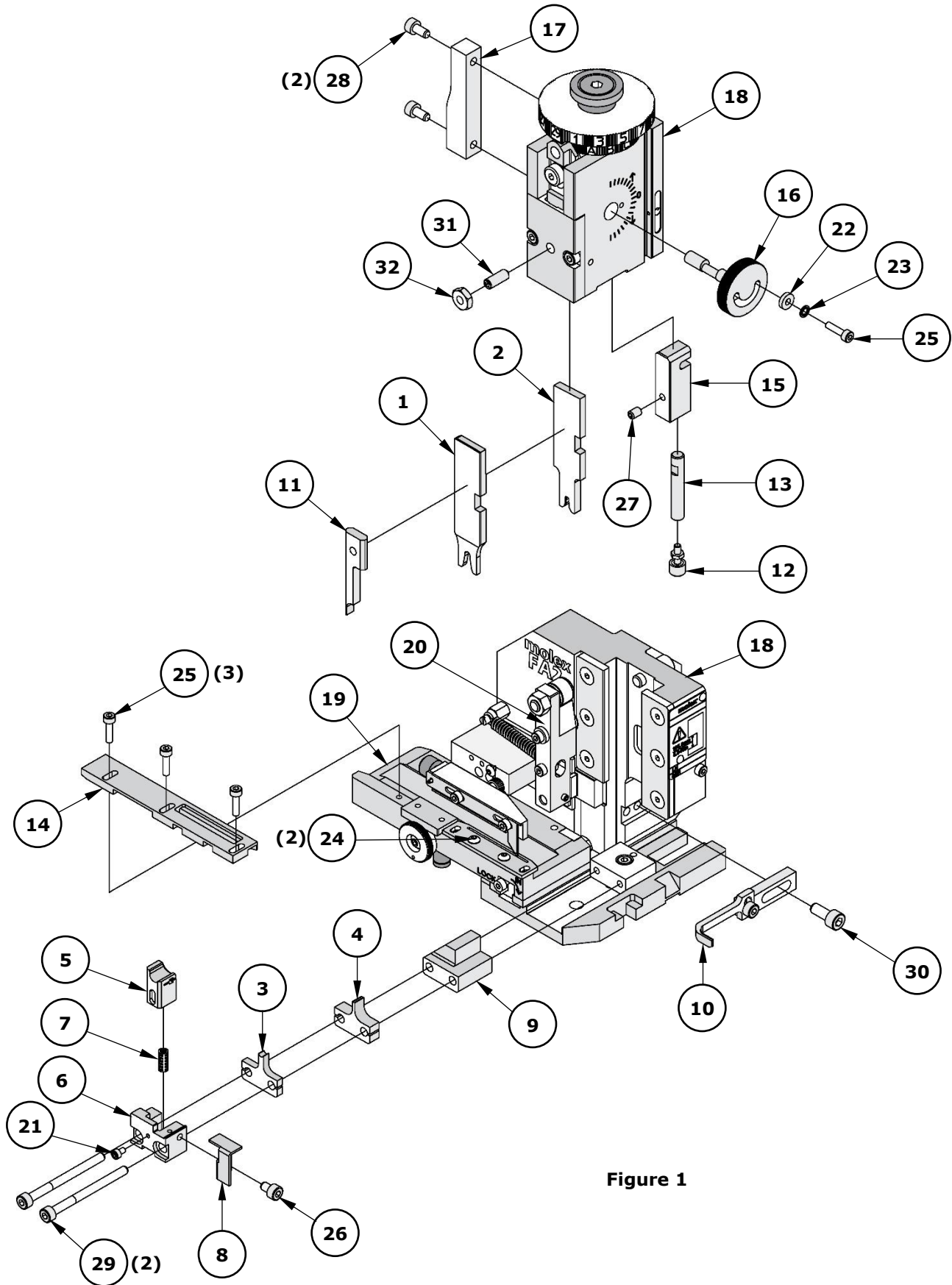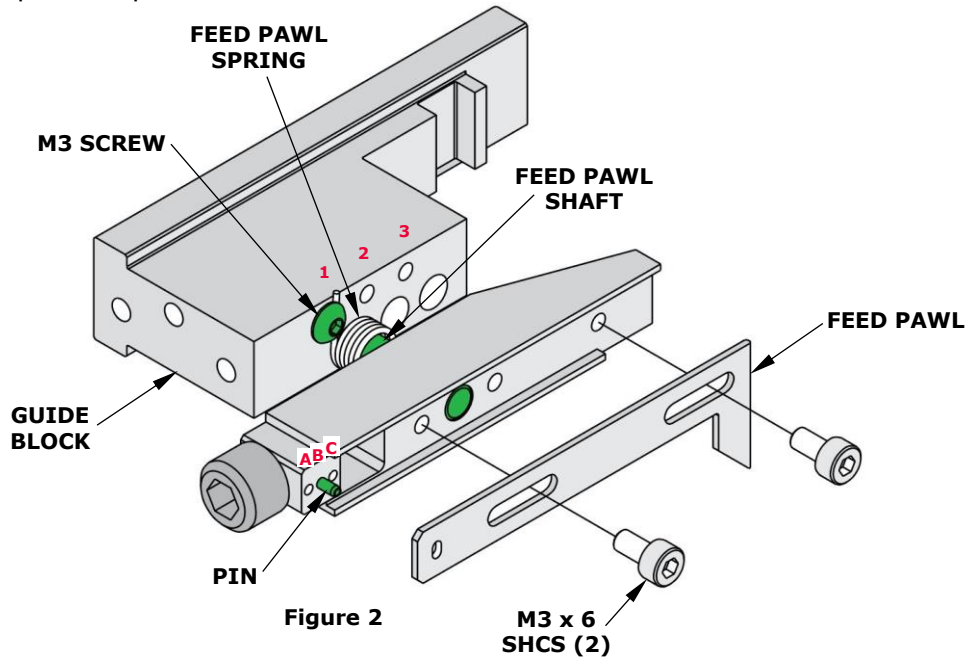Page 4 of 7

ASSEMBLY DRAWING

Figure 1

FACTORY SETTINGS

Feed Pawl Assembly

The FA2 applicator number 63808-3000 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 1.
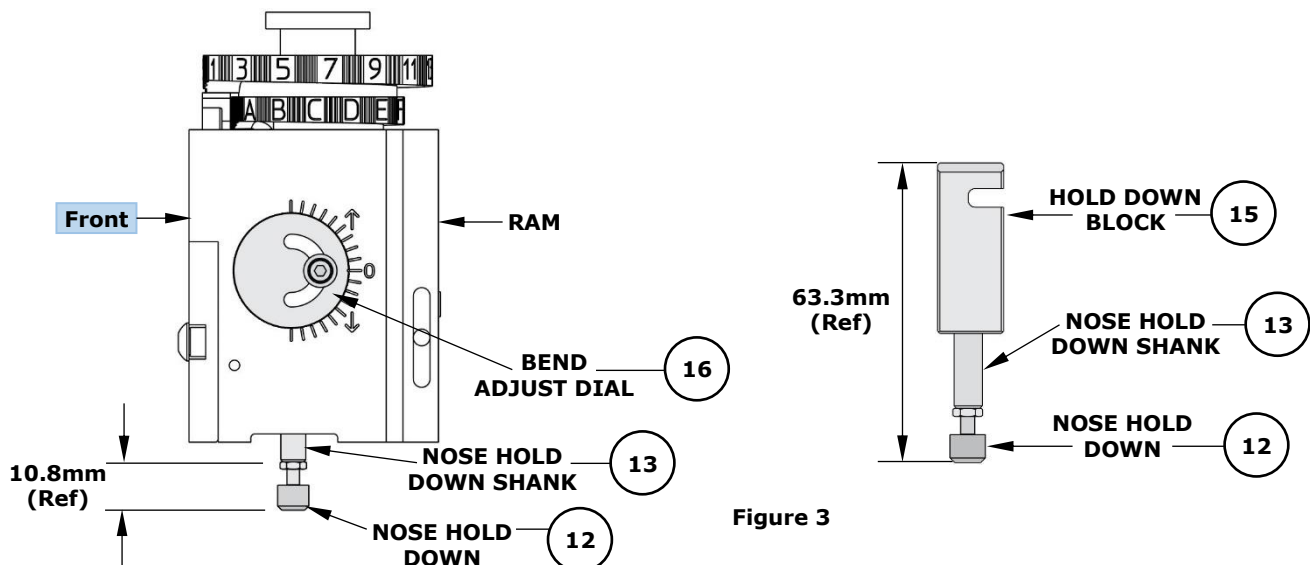- The pin is in position B.

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

Figure 3

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Application Tooling Support

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