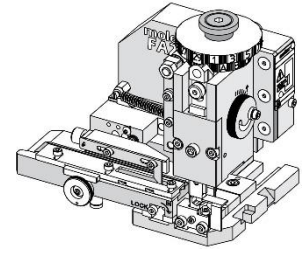**Order Number
63808-4300**

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
- This applicator was designed for use in a wire processor only
- Fine adjustment of the bend is achieved using the bend adjust dial
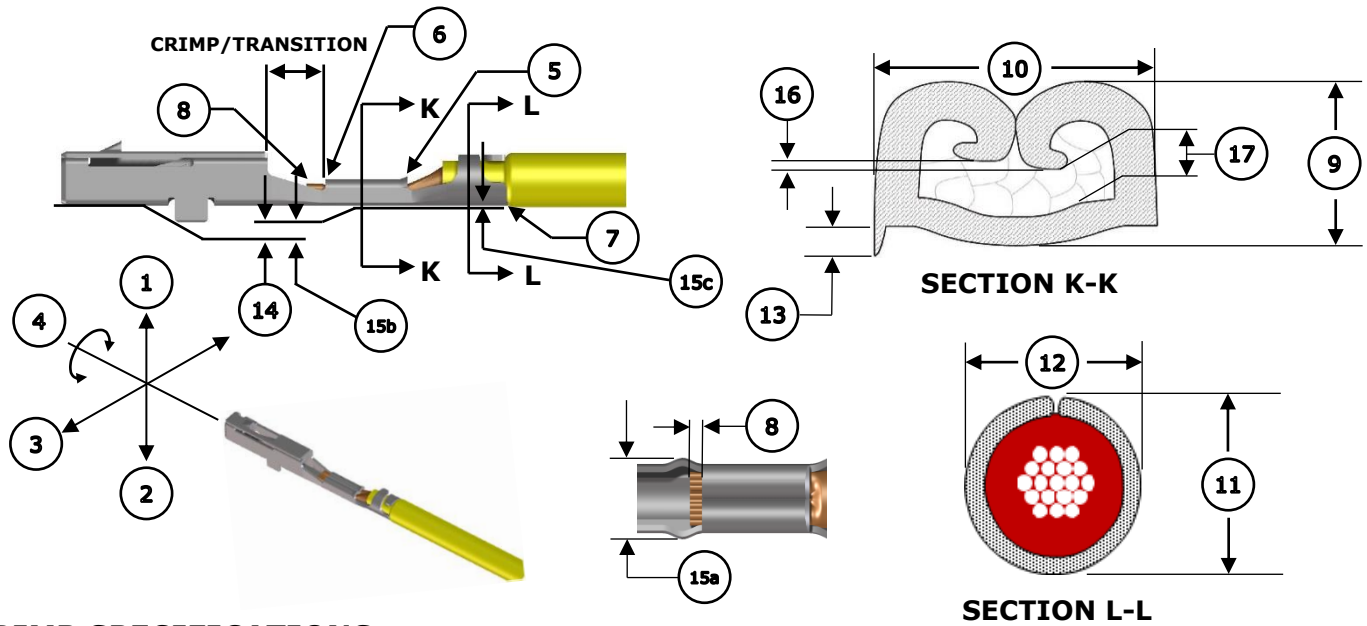
SCOPE

Products: CTX50 New Small Grip, 0.13mm^2 wire.

Terminal Series No.	Terminal Order No.	Wire		Insulation Diameter		Strip Length (Ref)	
		Wire Type	Size	mm	In.	mm	In.
560023	560023-0444 560023-0544	FLCUSN03RY	0.13mm²	0.75-1.05	.030-.041	3.60	.142

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

DEFINITION OF TERMS

SECTION K-K

SECTION L-L

CRIMP SPECIFICATIONS

The following crimp specifications are based on document AS-560023-001 Rev. J:

Feature	Requirement				
1. Bend Up	1° Max				
2. Bend Down	1° Max				
3. Twist	2° Max				
4. Roll	N/A° Max				
5. Bell Mouth Rear	0.12-0.32mm (.005-.013")				
6. Bell Mouth Front	0.00-0.00mm (.000-.000")				
7. Cut-Off Tab	0.30mm (.012") Max				
8. Conductor Brush	0.55mm (.022")				
Conductor Crimp	**Wire Type**	**Wire Size**	**9. Crimp Height**		**10. Crimp Width**	
	FLCUSN03RY	0.13mm²	0.50-0.56mm	.020-.022 in.	0.80-0.86mm	.031-.034 in.
Insulation Crimp	**Wire Type**	**Wire Size**	**11. Crimp Height**		**12. Crimp Width**	
	FLCUSN03RY	0.13mm²	1.15-1.25mm	.045-.049 in.	1.05-1.15mm	.041-.045 in.
Pull Force	**Wire Type**	**Wire Size**	**Minimum Force**			
	FLCUSN03RY	0.13mm²	50 N	11.3 lb.	To be measured with no influence from the insulation crimp.	
13. Conductor Anvil Flash	0.10mm (.004") Max				
14. Insulation Grip Step	-0.05-0.05mm (-.002-.002")				
Crimp Bulge	**15a.** 1.07mm (.042") Max within crimp/transition area				
	15b. 0.10mm (.004")				
	15c. -0.05-0.15mm (-.002-.006")				
Misc.	**Wire Type**	**Wire Size**	**Conductor Crimp Angle Horizontal Length**		**Conductor Crimp Angle**	
	FLCUSN03RY	0.13mm²	1.00-2.00mm	.039-.079 in.	5-10°	
	Wire Type	**Wire Size**	**16. Wing Dissymmetry**		**17. Wing Tips to Crimp Bottom**	
	FLCUSN03RY	0.13mm²	0.00-0.20mm	.000-.008 in.	0.10-1.00mm	.004-.039 in.

NOTES

Applicator Notes

CUTTING INSERT

- 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.
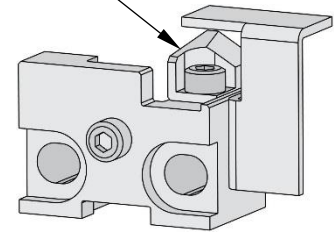
Specification Notes

- 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.

Terminal Notes

- This terminal may have anvil impressions along the bottom of the insulation crimp and beyond the bottom of the conductor crimp into the transition area when successfully crimped.
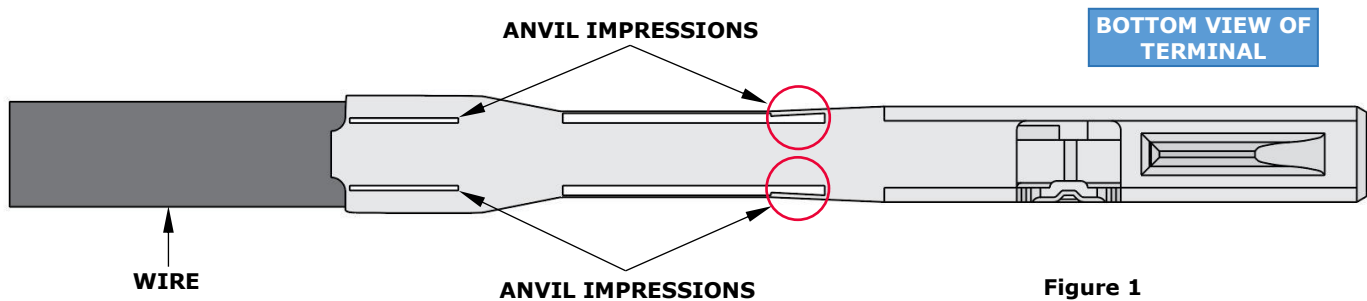- This is an expected condition. See Figure 1.

ANVIL IMPRESSIONS

BOTTOM VIEW OF TERMINAL

WIRE

ANVIL IMPRESSIONS

Figure 1

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

Applicator 63808-4300				
Item	Order No.	Engineering No.	Description	Quantity
Perishable Tooling				
	63808-4370	63808-4370	Tool Kit (All "Y" Items)	Ref
1	63454-0164	63454-0164	Insulation Punch	1 Y
2	63457-0806	63457-0806	Conductor Punch	1 Y
3	63455-0142	63455-0142	Combination Anvil	1 Y
4	63443-0145	63443-0145	Front Plunger	1 Y
Non-Perishable Components				
5	63443-0118	63443-0118	Front Plunger Retainer	1
6	01124-1067	4996-4	Cut-Off Plunger Spring	1
7	63443-0117	63443-0117	Front Scrap Chute	1
8	63443-7510	63443-7510	Anvil Mount	1
9	63443-0090	63443-0090	Wire Stop Assembly	1
10	63443-2805	63443-2805	Front Plunger Striker	1
11	63443-2919	63443-2919	Wire Hold Down Plunger	1
12	63600-0021	63600-0021	Wire Hold Down Spring	1
13	63600-5776	63600-5776	Nose Hold Down	1
14	63600-5775	63600-5775	Nose Hold Down Shank	1
15	63443-4701	63443-4701	Terminal Guide	1
16	63443-7403	63443-7403	Hold Down Block	1
17	63808-0229	63808-0229	Bend Adjust Dial	1
18	63443-4406	63443-4406	Feed Cam	1
Frame				
19	63808-0200	63808-0200	Applicator Core	1
20	63808-0191	63808-0191	Track Assembly	1
21	63808-0197	63808-0197	Mechanical Feed Assembly	1
22	63808-0249	63808-0249	Feed Pawl	1
Hardware				
23	—	—	M2.5 x 3 SHCS	1*
24	—	—	M3 x 6 BHCS	2*
25	—	—	M3 x 12 SHCS	4*
26	—	—	M4 x 4 SSS	1*
27	—	—	M4 x 6 SHCS	1*
28	—	—	M4 x 8 SHCS	2*
29	—	—	M4 x 45 SHCS	2*
30	—	—	M5 x 12 SHCS	1*
31	—	—	#10-32UNF x .25" BHCS	1*
32	—	—	M3 Flat Washer Hard	1*
33	—	—	M3 Inner Tooth Lock Washer	1*
*Fastener parts can be purchased through most industrial suppliers by using the description in the table above.				

ASSEMBLY DRAWING

Figure 1

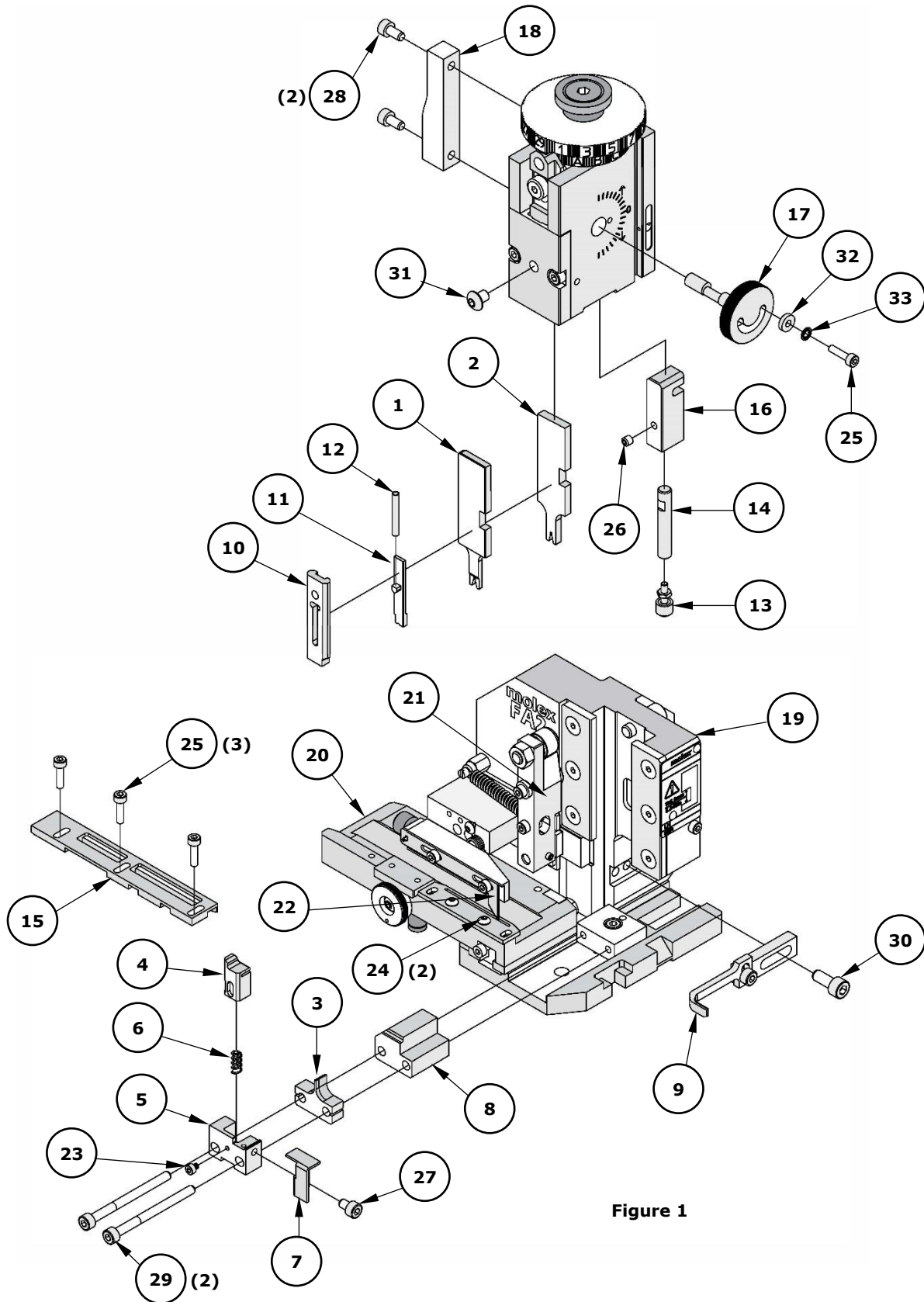## FACTORY SETTINGS

Feed Pawl Assembly

The FA2 applicator number 63808-4300 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.
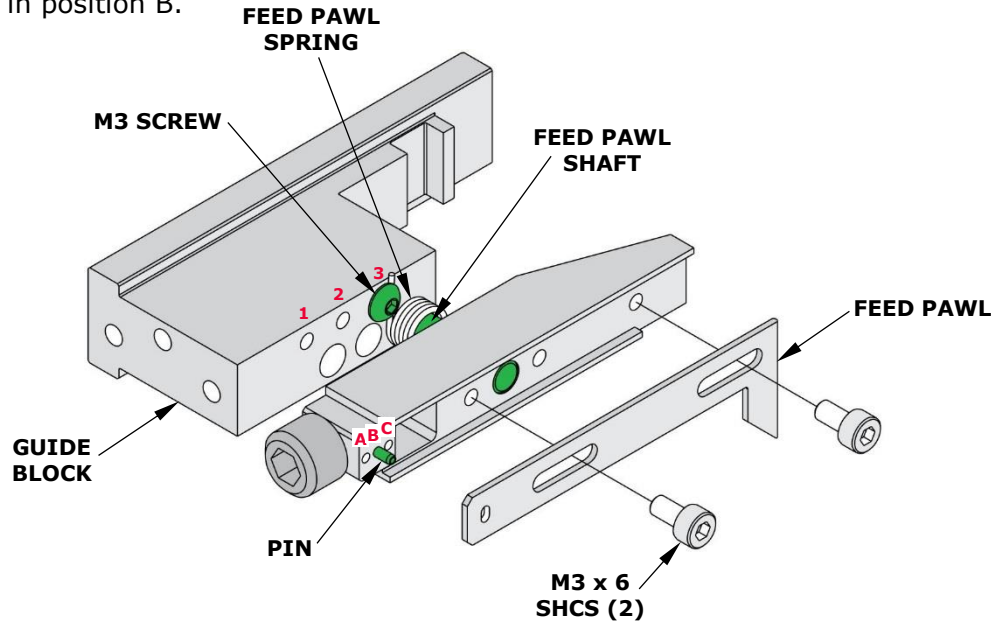- The pin is in position B.

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.

Third Dial/Ram Assembly

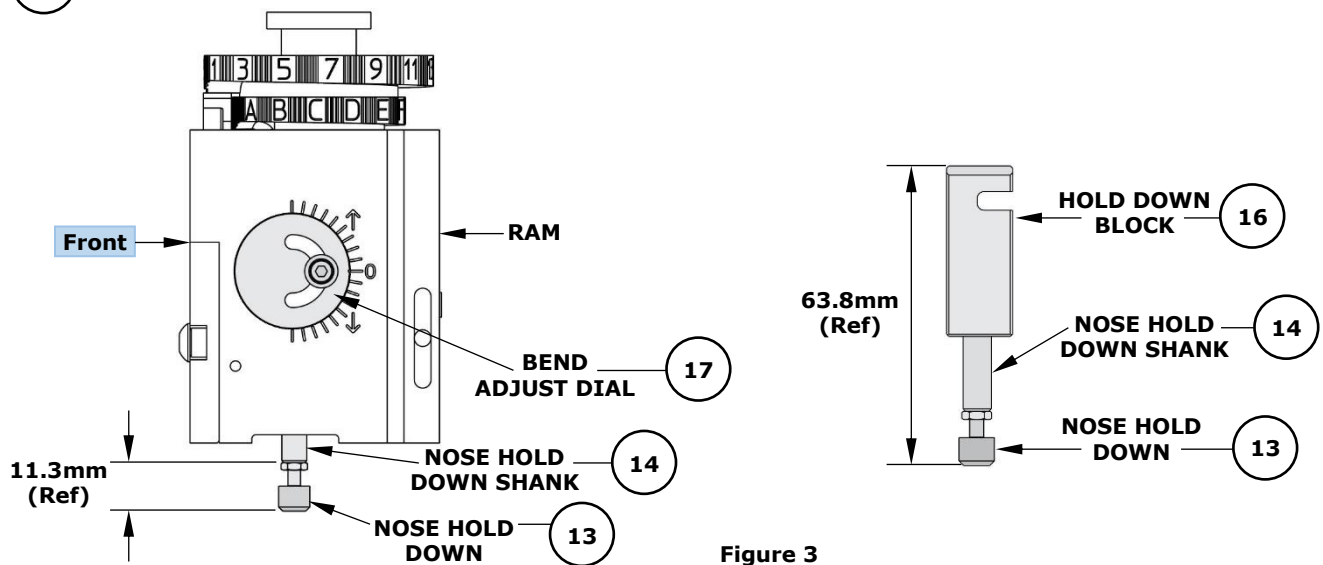Indicates item number on the Parts List and Assembly Drawing

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.

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.
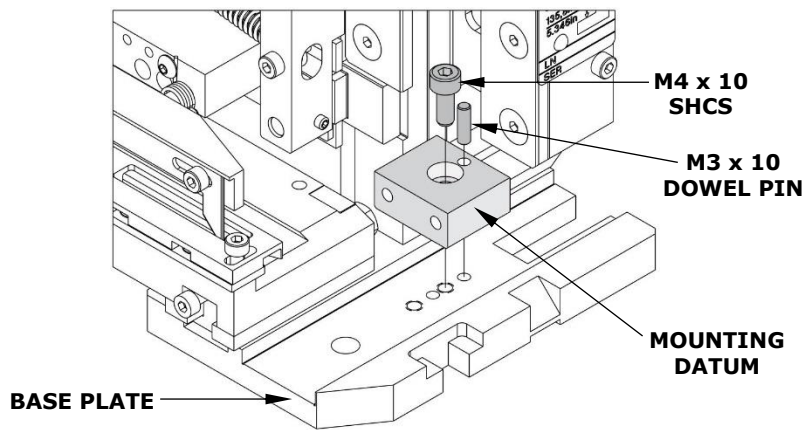

M4 x 10 SHCS

M3 x 10 DOWEL PIN

MOUNTING DATUM

BASE PLATE

Figure 4

Application Tooling Support

Phone: (402) 458-TOOL (8665)
E-Mail: applicationtooling@molex.com
Website: www.molex.com/applicationtooling