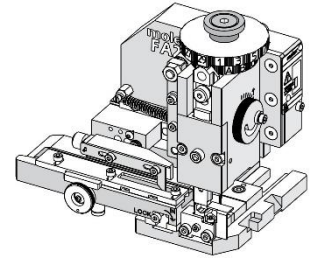


Order Number
63808-7900

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

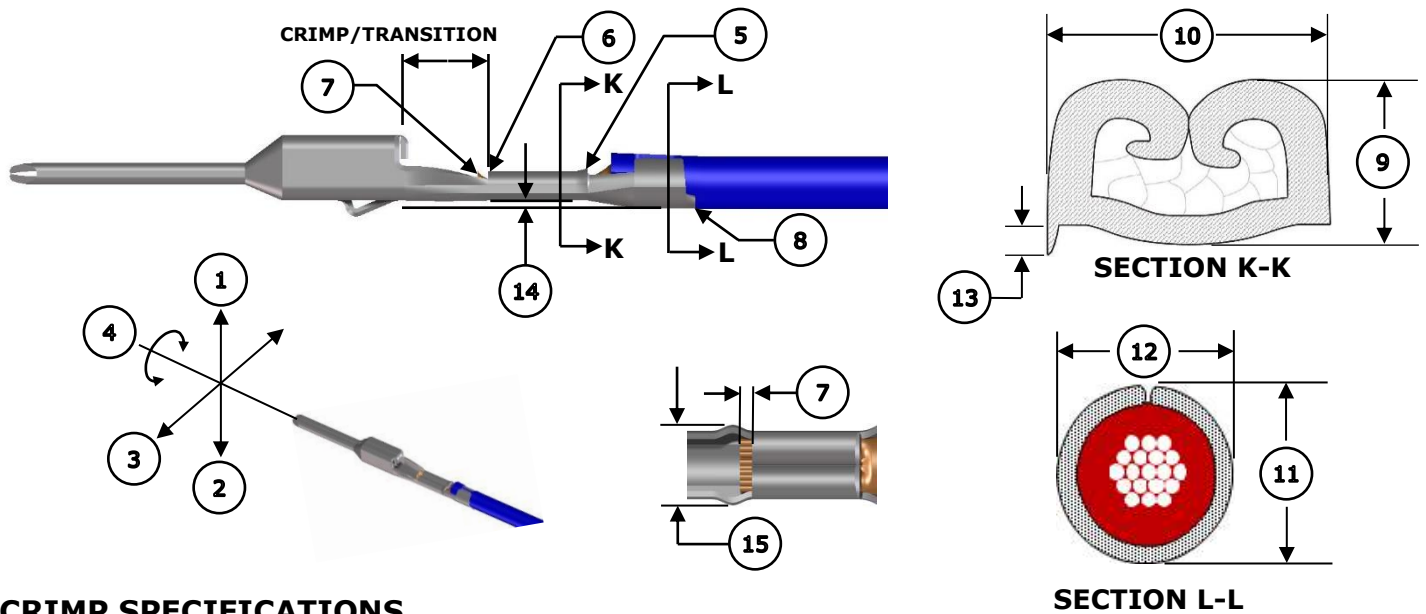
Products: MX150 Blade Crimp Terminals, 14 AWG and 1.50mm² and 2.00mm² Wire.

Terminal Series No.	Terminal Order No.	Wire			Insulation Diameter		Strip Length	
		Wire Type	Size		mm	In.	mm	In.
			AWG	mm ²				
33000	33000-1001	TXL	14	—	2.10-2.70	.083-.106	4.70-5.60	.185-.220
		UTX	14	—				
		ISO	—	1.50				
		FLR91X-A-XPLO	—	1.50				
		AVSS	—	2.00				
33011	33011-0002 33011-3003	TXL	14	—	2.10-2.70	.083-.106	4.70-5.60	.185-.220
		UTX	14	—				
		ISO	—	1.50				
		FLR91X-A-XPLO	—	1.50				
		AVSS	—	2.00				
		PSA FTP 00949_10_00770	—	1.50				
		PSA FTP 00949_10_00771	—	2.00				
34782	34782-1001	TXL	14	—	2.10-2.70	.083-.106	4.70-5.60	.185-.220
		UTX	14	—				
		ISO	—	1.50				
		FLR91X-A-XPLO	—	1.50				
		AVSS	—	2.00				
		PSA FTP 00949_10_00770	—	1.50				
		PSA FTP 00949_10_00771	—	2.00				

CAUTION: To consistently achieve the conductor brush length, it is recommended to run this applicator on a wire processor.

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

DEFINITION OF TERMS



CRIMP SPECIFICATIONS

The following crimp specifications are based on document AS-33000-001 Rev. F:

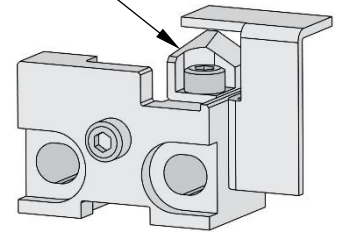
Feature	Requirement																																				
1. Bend Up	3° Max																																				
2. Bend Down	3° Max																																				
3. Twist	3° Max																																				
4. Roll	3° Max																																				
5. Bell Mouth Rear	0.30-0.70mm (.012-.028")																																				
6. Bell Mouth Front	Not Applicable																																				
7. Conductor Brush	0.40mm Max (.016") Not to extend above the crimp/ transition height																																				
8. Cut-Off Tab	0.50mm (.020") Max																																				
Conductor Crimp	<table border="1"> <thead> <tr> <th>Wire Type</th> <th>Wire Size</th> <th colspan="2">9. Crimp Height</th> <th colspan="2">10. Crimp Width</th> </tr> </thead> <tbody> <tr> <td>TXL</td> <td>14 AWG</td> <td>1.60-1.70mm</td> <td>.063-.067 in.</td> <td rowspan="7">2.35-2.55mm</td> <td rowspan="7">.093-.100 in.</td> </tr> <tr> <td>UTX</td> <td>14 AWG</td> <td>1.60-1.70mm</td> <td>.063-.067 in.</td> </tr> <tr> <td>ISO</td> <td>1.50mm²</td> <td>1.35-1.45mm</td> <td>.053-.057 in.</td> </tr> <tr> <td>FLR91X-A-XPLO</td> <td>1.50mm²</td> <td>1.35-1.45mm</td> <td>.053-.057 in.</td> </tr> <tr> <td>AVSS</td> <td>2.00mm²</td> <td>1.55-1.65mm</td> <td>.061-.065 in.</td> </tr> <tr> <td>PSA FTP 00949_10_00770</td> <td>1.50mm²</td> <td>1.40-1.50mm</td> <td>.055-.059 in.</td> </tr> <tr> <td>PSA FTP 00949_10_00771</td> <td>2.00mm²</td> <td>1.50-1.60mm</td> <td>.059-.063 in.</td> </tr> </tbody> </table>	Wire Type	Wire Size	9. Crimp Height		10. Crimp Width		TXL	14 AWG	1.60-1.70mm	.063-.067 in.	2.35-2.55mm	.093-.100 in.	UTX	14 AWG	1.60-1.70mm	.063-.067 in.	ISO	1.50mm ²	1.35-1.45mm	.053-.057 in.	FLR91X-A-XPLO	1.50mm ²	1.35-1.45mm	.053-.057 in.	AVSS	2.00mm ²	1.55-1.65mm	.061-.065 in.	PSA FTP 00949_10_00770	1.50mm ²	1.40-1.50mm	.055-.059 in.	PSA FTP 00949_10_00771	2.00mm ²	1.50-1.60mm	.059-.063 in.
	Wire Type	Wire Size	9. Crimp Height		10. Crimp Width																																
	TXL	14 AWG	1.60-1.70mm	.063-.067 in.	2.35-2.55mm	.093-.100 in.																															
	UTX	14 AWG	1.60-1.70mm	.063-.067 in.																																	
	ISO	1.50mm ²	1.35-1.45mm	.053-.057 in.																																	
	FLR91X-A-XPLO	1.50mm ²	1.35-1.45mm	.053-.057 in.																																	
	AVSS	2.00mm ²	1.55-1.65mm	.061-.065 in.																																	
PSA FTP 00949_10_00770	1.50mm ²	1.40-1.50mm	.055-.059 in.																																		
PSA FTP 00949_10_00771	2.00mm ²	1.50-1.60mm	.059-.063 in.																																		
Insulation Crimp	<table border="1"> <thead> <tr> <th>Wire Type</th> <th>Wire Size</th> <th colspan="2">11. Crimp Height</th> <th colspan="2">12. Crimp Width</th> </tr> </thead> <tbody> <tr> <td>TXL</td> <td>14 AWG</td> <td>2.80-2.90mm</td> <td>.110-.114 in.</td> <td rowspan="7">2.60-2.70mm</td> <td rowspan="7">.102-.106 in.</td> </tr> <tr> <td>UTX</td> <td>14 AWG</td> <td>2.70-2.90mm</td> <td>.106-.114 in.</td> </tr> <tr> <td>ISO</td> <td>1.50mm²</td> <td>2.70-2.80mm</td> <td>.106-.110 in.</td> </tr> <tr> <td>FLR91X-A-XPLO</td> <td>1.50mm²</td> <td>2.70-2.80mm</td> <td>.106-.110 in.</td> </tr> <tr> <td>AVSS</td> <td>2.00mm²</td> <td>2.80-2.90mm</td> <td>.110-.114 in.</td> </tr> <tr> <td>PSA FTP 00949_10_00770</td> <td>1.50mm²</td> <td>2.55-2.65mm</td> <td>.100-.104 in.</td> </tr> <tr> <td>PSA FTP 00949_10_00771</td> <td>2.00mm²</td> <td>2.65-2.75mm</td> <td>.104-.108 in.</td> </tr> </tbody> </table>	Wire Type	Wire Size	11. Crimp Height		12. Crimp Width		TXL	14 AWG	2.80-2.90mm	.110-.114 in.	2.60-2.70mm	.102-.106 in.	UTX	14 AWG	2.70-2.90mm	.106-.114 in.	ISO	1.50mm ²	2.70-2.80mm	.106-.110 in.	FLR91X-A-XPLO	1.50mm ²	2.70-2.80mm	.106-.110 in.	AVSS	2.00mm ²	2.80-2.90mm	.110-.114 in.	PSA FTP 00949_10_00770	1.50mm ²	2.55-2.65mm	.100-.104 in.	PSA FTP 00949_10_00771	2.00mm ²	2.65-2.75mm	.104-.108 in.
	Wire Type	Wire Size	11. Crimp Height		12. Crimp Width																																
	TXL	14 AWG	2.80-2.90mm	.110-.114 in.	2.60-2.70mm	.102-.106 in.																															
	UTX	14 AWG	2.70-2.90mm	.106-.114 in.																																	
	ISO	1.50mm ²	2.70-2.80mm	.106-.110 in.																																	
	FLR91X-A-XPLO	1.50mm ²	2.70-2.80mm	.106-.110 in.																																	
	AVSS	2.00mm ²	2.80-2.90mm	.110-.114 in.																																	
PSA FTP 00949_10_00770	1.50mm ²	2.55-2.65mm	.100-.104 in.																																		
PSA FTP 00949_10_00771	2.00mm ²	2.65-2.75mm	.104-.108 in.																																		
Pull Force	<table border="1"> <thead> <tr> <th>Wire Type</th> <th>Wire Size</th> <th colspan="2">Minimum Force</th> </tr> </thead> <tbody> <tr> <td>TXL</td> <td>14 AWG</td> <td>180 N</td> <td>40.5 lb.</td> </tr> <tr> <td>UTX</td> <td>14 AWG</td> <td>180 N</td> <td>40.5 lb.</td> </tr> <tr> <td>ISO</td> <td>1.50mm²</td> <td>150 N</td> <td>33.7 lb.</td> </tr> <tr> <td>FLR91X-A-XPLO</td> <td>1.50mm²</td> <td>150 N</td> <td>33.7 lb.</td> </tr> <tr> <td>AVSS</td> <td>2.00mm²</td> <td>180 N</td> <td>40.5 lb.</td> </tr> <tr> <td>PSA FTP 00949_10_00770</td> <td>1.50mm²</td> <td>155 N</td> <td>34.8 lb.</td> </tr> <tr> <td>PSA FTP 00949_10_00771</td> <td>2.00mm²</td> <td>195 N</td> <td>43.8 lb.</td> </tr> </tbody> </table>	Wire Type	Wire Size	Minimum Force		TXL	14 AWG	180 N	40.5 lb.	UTX	14 AWG	180 N	40.5 lb.	ISO	1.50mm ²	150 N	33.7 lb.	FLR91X-A-XPLO	1.50mm ²	150 N	33.7 lb.	AVSS	2.00mm ²	180 N	40.5 lb.	PSA FTP 00949_10_00770	1.50mm ²	155 N	34.8 lb.	PSA FTP 00949_10_00771	2.00mm ²	195 N	43.8 lb.	To be measured with no influence from the insulation crimp.			
	Wire Type	Wire Size	Minimum Force																																		
	TXL	14 AWG	180 N	40.5 lb.																																	
	UTX	14 AWG	180 N	40.5 lb.																																	
	ISO	1.50mm ²	150 N	33.7 lb.																																	
	FLR91X-A-XPLO	1.50mm ²	150 N	33.7 lb.																																	
	AVSS	2.00mm ²	180 N	40.5 lb.																																	
PSA FTP 00949_10_00770	1.50mm ²	155 N	34.8 lb.																																		
PSA FTP 00949_10_00771	2.00mm ²	195 N	43.8 lb.																																		
13. Conductor Anvil Flash	0.10mm (.004") Max																																				
14. Insulation Grip Step	0.20-0.40mm (.008-.016")																																				
15. Crimp Bulge	2.55mm (.100") Max within crimp/transition area																																				

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

- 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 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 63808-7900				
Item	Order No.	Engineering No.	Description	Quantity
Perishable Tooling				
	63808-7970	63808-7970	Tool Kit (All "Y" Items)	Ref
1	200220-2601	200220-2601	Insulation Punch	1 Y
2	63457-0116	63457-0116	Conductor Punch	1 Y
3	200221-2600	200221-2600	Insulation Anvil	1 Y
4	63455-0143	63455-0143	Conductor Anvil	1 Y
5	63443-0034	63443-0034	Cut-Off 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 Chute	1
9	63443-7533	63443-7533	Anvil Mount	1
10	63443-0090	63443-0090	Wire Stop Assembly	1
11	63443-2802	63443-2802	Front Plunger Striker	1
12	63443-2915	63443-2915	Wire Hold Down Plunger	1
13	63600-0021	63600-0021	Wire Hold Down Spring	1
14	63600-5776	63600-5776	Nose Hold Down	1
15	63600-5775	63600-5775	Nose Hold Down Shank	1
16	63443-4759	63443-4759	Terminal Guide	1
17	63443-7405	63443-7405	Hold Down Block	1
18	63808-0229	63808-0229	Bend Adjust Dial	1
19	63808-0297	63808-0297	Feed Cam	1
Frame				
20	63808-0200	63808-0200	Applicator Core	1
21	63808-0197	63808-0197	Mechanical Feed Assembly	1
22	63808-0190	63808-0190	Track Assembly	1
Hardware				
23	—	—	M2.5 x 4 SHCS	1*
24	—	—	M3 Hex Nut	1*
25	—	—	M3 Flat Washer Hard	1*
26	—	—	M3 Inner Tooth Lock Washer	1*
27	—	—	M3 x 6 BHCS	2*
28	—	—	M3 x 12 SHCS	4*
29	—	—	M4 x 5 SSS	1*
30	—	—	M4 x 6 SHCS	1*
31	—	—	M4 x 8 SHCS	2*
32	—	—	M4 x 40 SHCS	2*
33	—	—	M5 x 12 SHCS	1*
34	—	—	M5 Hex Jam Nut	1*
35	—	—	M5 x 12 Long Cup Point SSS	1*
*Fastener parts can be purchased through most industrial suppliers by using the description in the table above.				

ASSEMBLY DRAWING

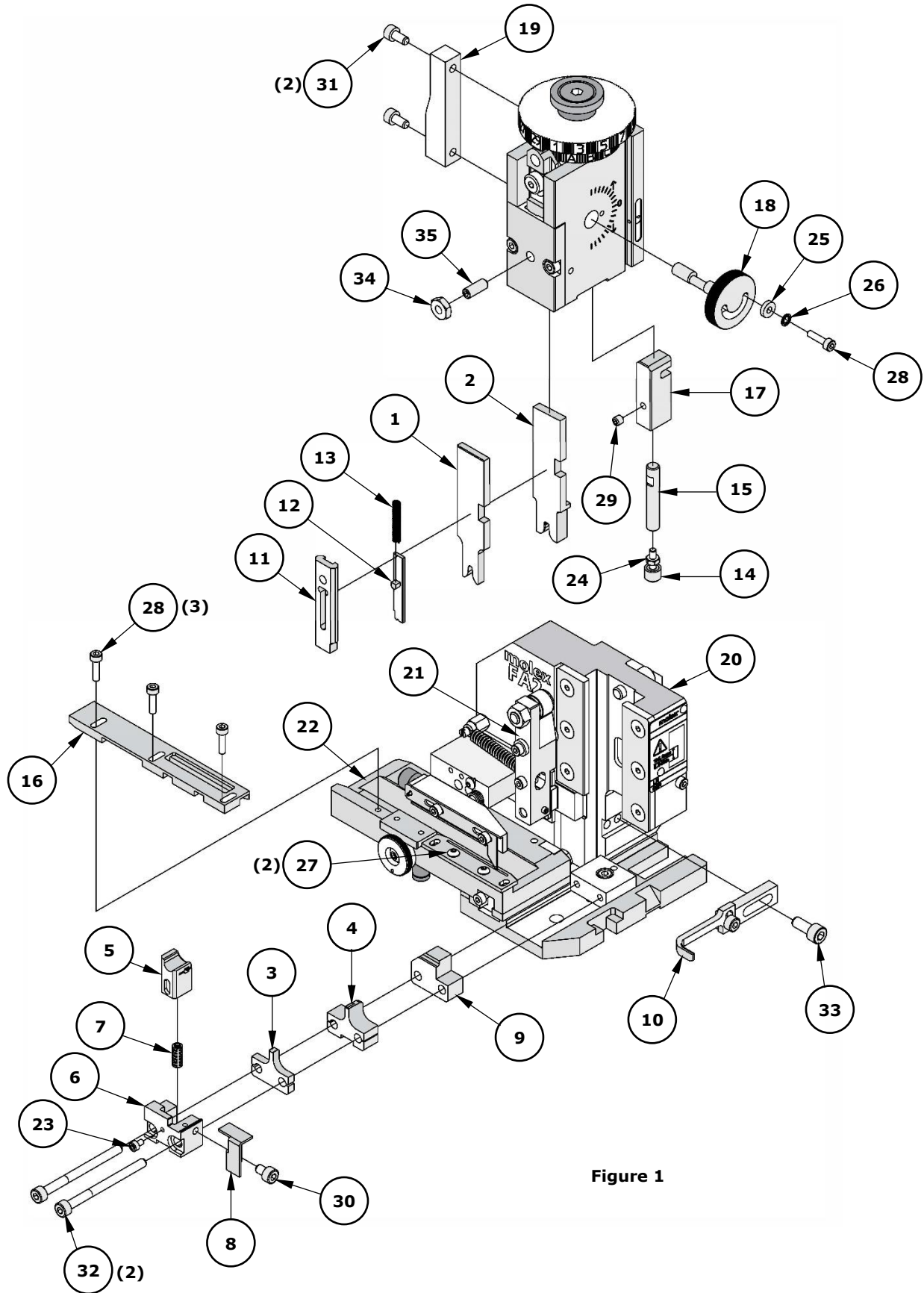


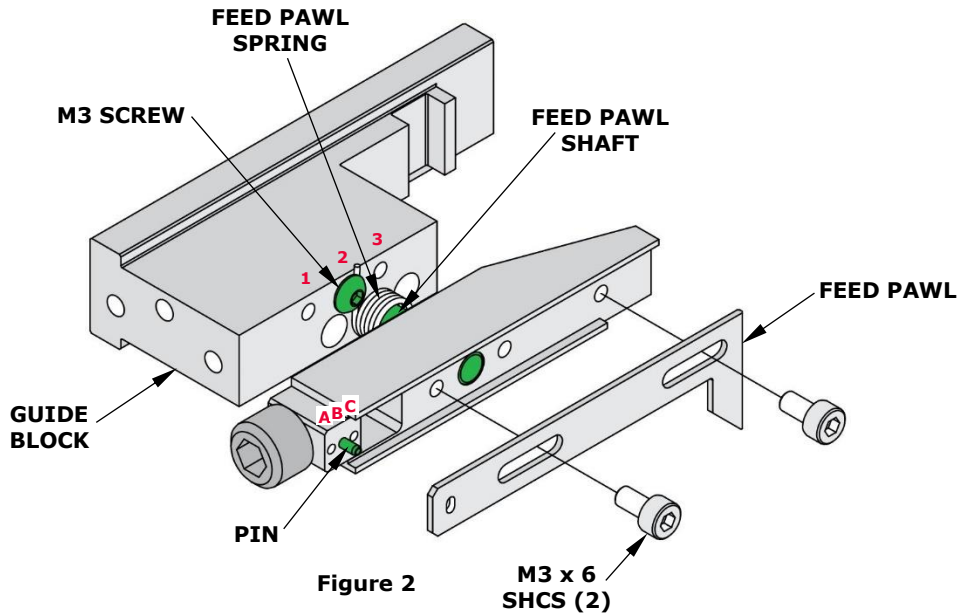
Figure 1

FACTORY SETTINGS

Feed Pawl Assembly

The FA2 applicator number 63808-7900 ships with the following factory settings. See Figure 2:

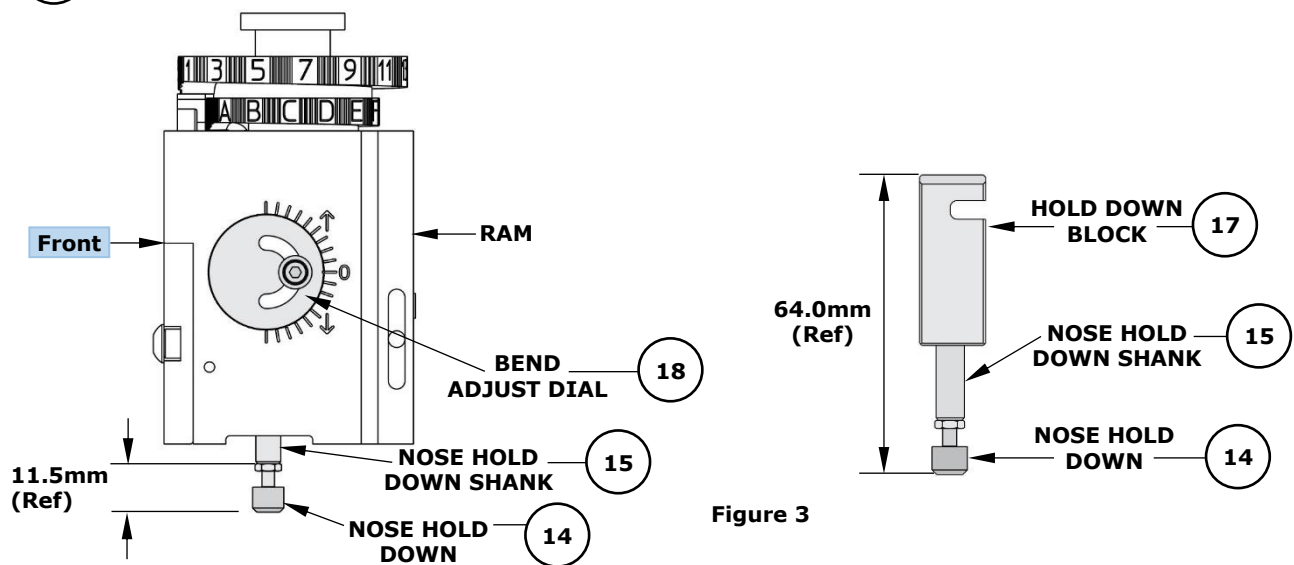
- The feed pawl shaft and M3 screw that holds the feed pawl spring are in position 2.
- The pin is in position B.



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



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.

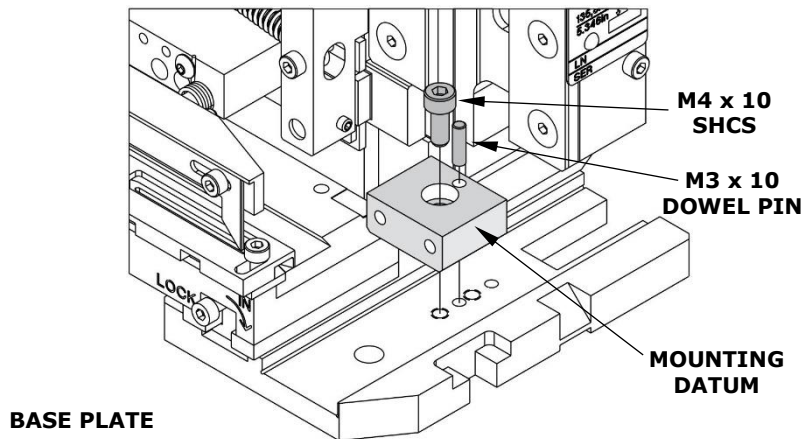


Figure 4

Application Tooling Support

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

Molex is a registered trademark of Molex, LLC in the United States of America and may be registered in other countries; all other trademarks listed herein belong to their respective owners.