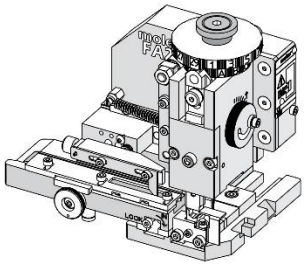
Order Number
215786-1900

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

SCOPE

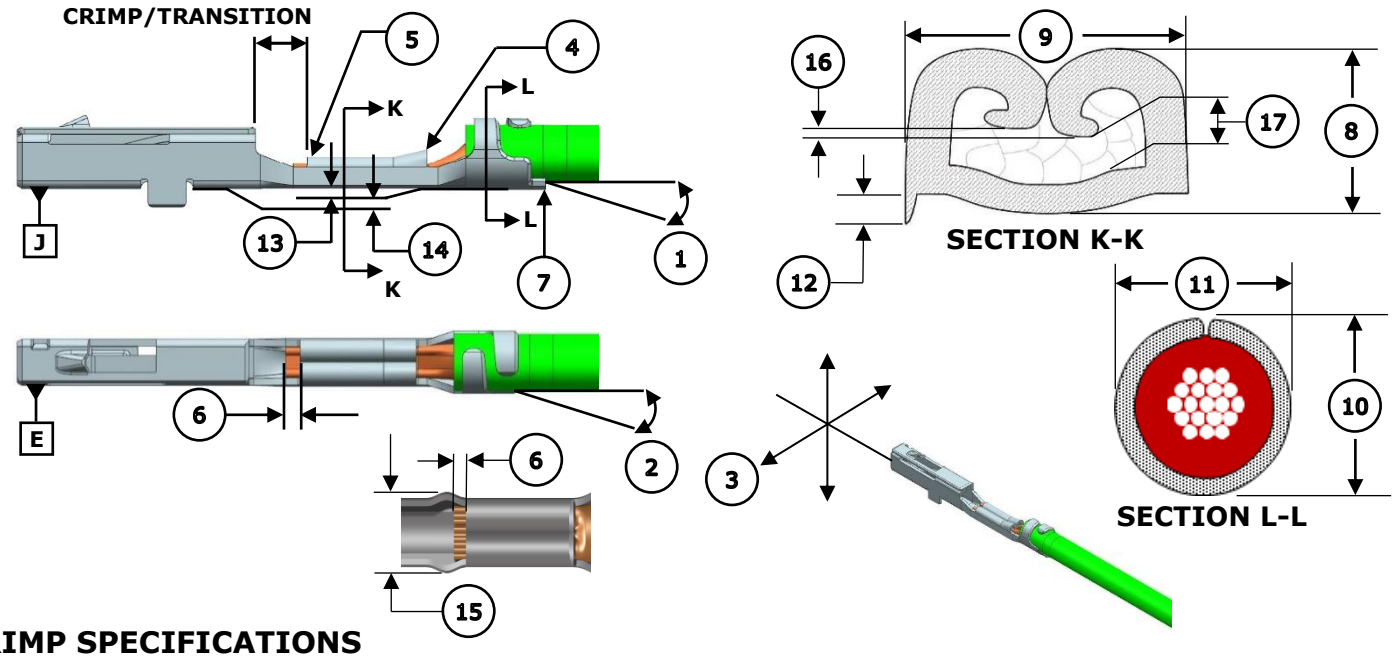
Products: CTX50 Receptacle Terminal Unsealed, 0.35mm² and 22 AWG Wire (♦See note below).

Terminal Series No.	Terminal Order No.	Wire Type	Wire Size		Insulation Diameter		Strip Length (Ref)	
			AWG	mm²	mm	In.	mm	In.
560023	560023-0548	ISO 6722-1	—	0.35	1.20-1.40	.047-.055	3.10	.122
		UL10086	22	—	1.30-1.40	.051-.055		
		UL10588			1.17-1.27	.046-.050		
		UL10316			1.10-1.30	.043-.051		
	560023-0448 560023-0648	ISO 6722-1	—	0.35	1.20-1.40	.047-.055	3.10	.122
		LV 112-1			1.20-1.30	.047-.051		
		FTP: 00949_10_00766			1.25-1.35	.049-.053		
		A3Z			1.25-1.35	.049-.053		
		FLRY-A			1.20-1.30	.047-.051		
		FLRYW-A			1.20-1.30	.047-.051		
		FLR13Y-A			1.20-1.40	.047-.055		
		UL10086	22	—	1.30-1.40	.051-.055	3.10	.122
		UL10588			1.17-1.27	.046-.050		
		UL10316			1.10-1.30	.043-.051		

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

♦**Note:** See Molex document AS-560023-001 Rev L for specific wire validation information.

DEFINITION OF TERMS



CRIMP SPECIFICATIONS

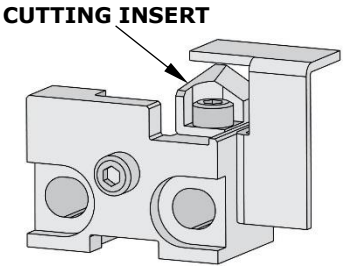
The following crimp specifications are based on document AS-560023-001 Rev L:

Feature	Requirement					
1. Wire Straightness Up/Down from Datum J	3° Max					
2. Wire Straightness Left/Right from Datum E	3° Max					
3. Twist	2° Max					
4. Bell Mouth Rear	0.60-0.80mm (.024-.031")					
5. Bell Mouth Front	None					
6. Conductor Brush	0.55mm (.022") Max Not to extend above conductor crimp/transition height					
7. Cut-Off Tab	0.30mm (.012") Max					
Conductor Crimp	**Wire Type**	**Wire Size**	**8. Crimp Height**		**9. Crimp Width**	
	ISO 6722-1	0.35mm²	0.65-0.69mm	.026-.027 in.	1.01-1.07mm	.040-.042 in.
	LV 112-1		0.65-0.69mm	.026-.027 in.		
	FTP: 00949_10_00766		0.65-0.69mm	.026-.027 in.		
	A3Z		0.59-0.63mm	.023-.025 in.		
	FLRY-A		0.65-0.69mm	.026-.027 in.		
	FLRYW-A		0.65-0.69mm	.026-.027 in.		
	FLR13Y-A		0.65-0.69mm	.026-.027 in.		
	UL10086	22 AWG	0.63-0.67mm	.025-.026 in.		
	UL10588		0.69-0.73mm	.027-.028 in.		
	UL10316		0.63-0.67mm	.025-.026 in.		
Insulation Crimp	**Wire Type**	**Wire Size**	**10. Crimp Height**		**11. Crimp Width**	
	ISO 6722-1	0.35mm²	1.48-1.58mm	.058-.062 in.	1.33-1.43mm	.052-.056 in.
	LV 112-1					
	FTP: 00949_10_00766					
	A3Z					
	FLRY-A					
	FLRYW-A					
	FLR13Y-A					
	UL10086	22 AWG				
	UL10588					
	UL10316					

	Wire Type	Wire Size	Minimum Force		
Pull Force	ISO 6722-1	0.35mm²	50 N	11.3 lb.	To be measured with no influence from the insulation crimp.
	LV 112-1				
	FTP: 00949_10_00766				
	A3Z				
	FLRY-A				
	FLRYW-A				
	FLR13Y-A				
	UL10086	22 AWG			
	UL10588				
	UL10316				
12. Conductor Anvil Flash	0.10mm (.004”) Max				
13. Conductor Grip Step	-0.05-0.05mm (-.002-.002”)				
14. Insulation Grip Step	-0.13-0.07mm (-.005-.003”)				
15. Crimp Bulge	1.07mm (.042”) Max				
16. Wing Dissymmetry	0.20mm (.008”) Max				
17. Space Between Wing Tips and Crimp Bottom	0.10mm (.004”) Min				

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.

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 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.

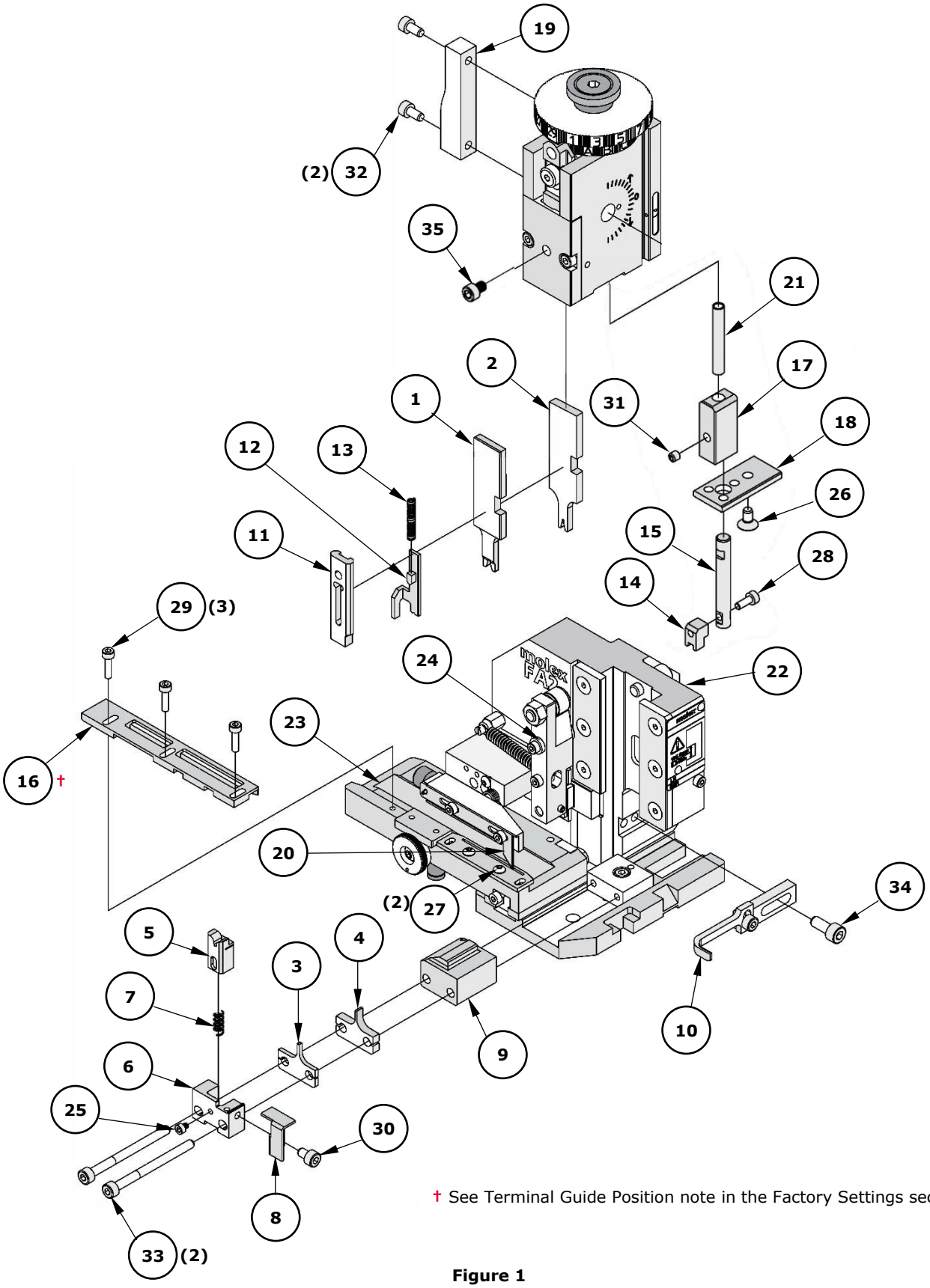
CAUTION: Molex tooling crimp specifications are valid only when used with Molex terminals and tooling manufactured by Molex and sold by Molex or authorized distributors (“Molex Tooling”). When using tooling other than Molex Tooling with Molex-specific connector systems listed in our ATS documents, the 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 215786-1900				
Item	**Order No.**	**Engineering No.**	**Description**	**Quantity**
Perishable Tooling				
	215786-1970	215786-1970	Tool Kit (All "Y" Items)	Ref
1	63454-1302	63454-1302	Insulation Punch	1 Y
2	63457-1004	63457-1004	Conductor Punch	1 Y
3	63456-1302	63456-1302	Insulation Anvil	1 Y
4	63455-1005	63455-1005	Conductor Anvil	1 Y
5	63443-0154	63443-0154	Cut-Off Plunger	1 Y
Non-Perishable Components				
6	63443-0118	63443-0118	Front Plunger Retainer	1
7	11-24-1067	4996-4	Cut-Off Plunger Spring	1
8	63443-0117	63443-0117	Front Scrap Chute	1
9	63443-7516	63443-7516	Anvil Mount	1
10	63443-0091	63443-0091	Wire Stop	1
11	63443-5203	63443-5203	Front Plunger Striker	1
12	63443-5303	63443-5303	Wire Hold Down Plunger	1
13	63600-0021	63600-0021	Wire Hold Down Spring	1
14	200213-7202	200213-7202	Nose Hold Down	1
15	63808-0227	63808-0227	Shank	1
16	63443-4701	63443-4701	Terminal Guide	1†
17	63808-0226	63808-0226	Hold Down Block	1
18	63808-0224	63808-0224	Stop Plate	1
19	63443-4409	63443-4409	Feed Cam	1
20	63808-0249	63808-0249	Feed Pawl	1
21	63600-5614	63600-5614	Compression Spring	1
Frame				
22	63808-0200	63808-0200	Applicator Core	1
23	63808-0191	63808-0191	Track Assembly	1
24	63808-0197	63808-0197	Mechanical Feed Assembly	1
Hardware				
25	—	—	M2.5 x 3 SHCS	1*
26	—	—	M4 x 8 FHCS	1*
27	—	—	M3 x 6 BHCS	2*
28	—	—	M3 x 8 SHCS	1*
29	—	—	M3 x 12 SHCS	3*
30	—	—	M4 x 6 SHCS	1*
31	—	—	M4 x 6 SSS	1*
32	—	—	M4 x 8 SHCS	2*
33	—	—	M4 x 50 SHCS	2*
34	—	—	M5 x 12 SHCS	1*
35	—	—	M5 x 6 SHCS	1*

*Fastener parts can be purchased through most industrial suppliers by using the description in the table above.

ASSEMBLY DRAWING



† See Terminal Guide Position note in the Factory Settings section.

Figure 1

FACTORY SETTINGS

Feed Pawl Assembly

The FA2 applicator number 215786-1900 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.

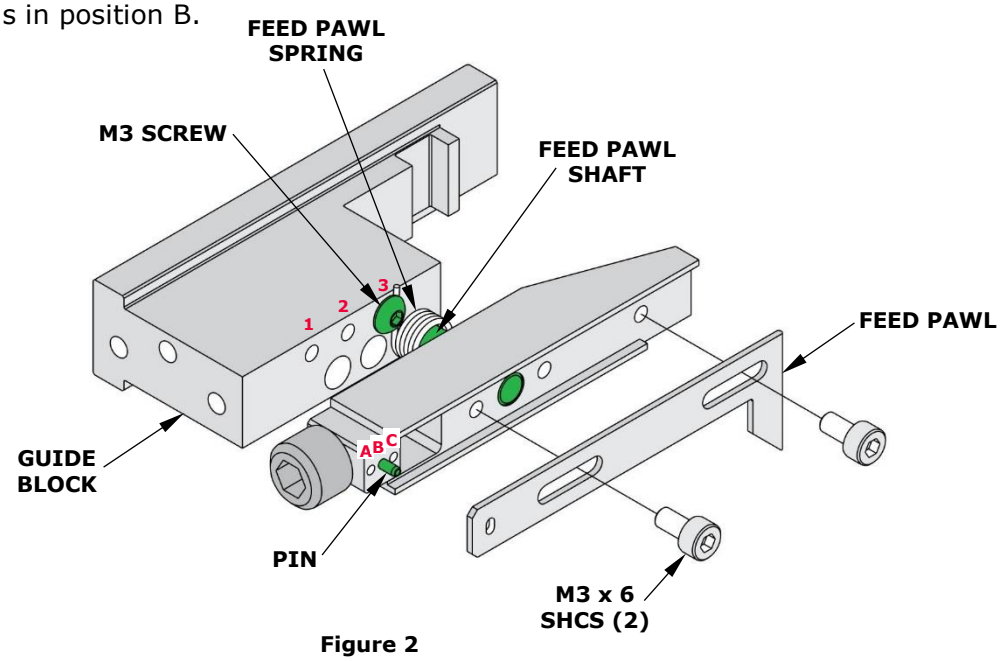


Figure 2

Note: Each applicator is configured and tested by Molex prior to shipping, and the above settings were used to produce the included sample crimps.

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.

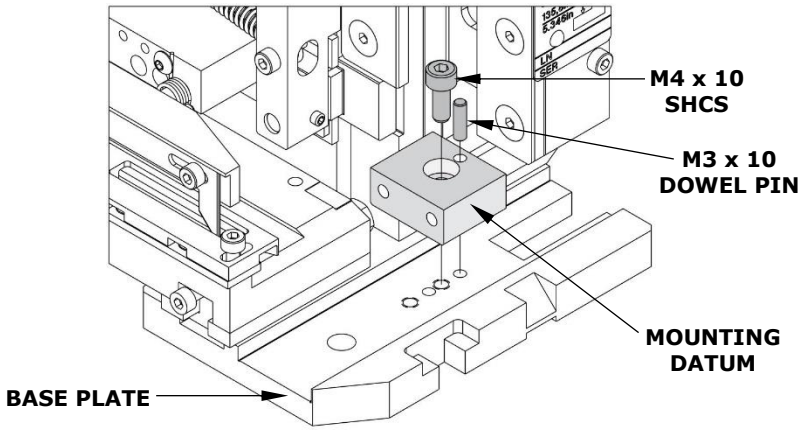


Figure 4

Terminal Guide Position

The terminal guide on this applicator should be positioned so that it is in front of the terminal conductor grips, as shown in Figure 5.

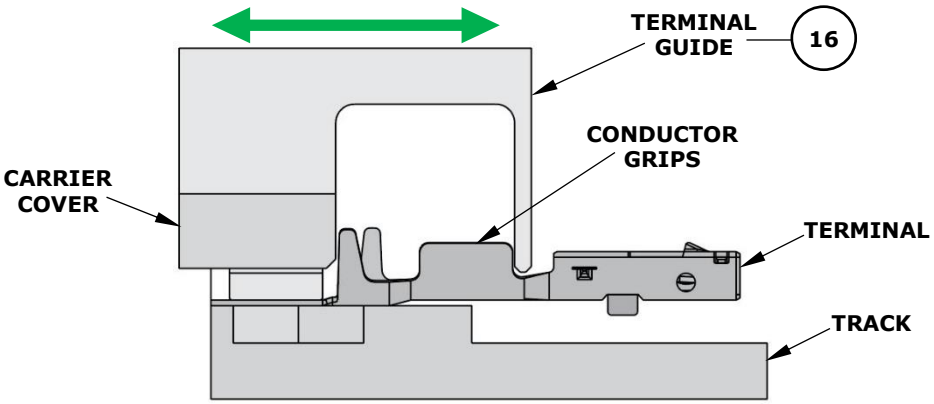


Figure 5

Application Tooling Support

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