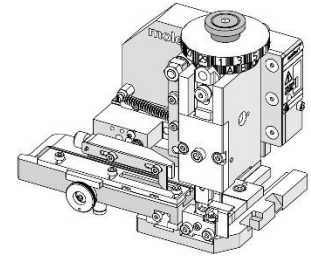# molex®

**Order Number
63808-4500**

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 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: CTX50 Receptacle Terminal Unsealed, 0.35mm^2.

Terminal Series No.	Terminal Order No.	Wire Type	Wire Size		Insulation Diameter		Strip Length (Ref)	
			AWG	mm^2	mm	In.	mm	In.
560023	560023-0548	FLR2X A3ZH	—	0.35	1.10-1.40	.043-.055	3.10	.122
		UL10086	22	—	1.10-1.40	.043-.055	3.10	.122
		UL10316			1.10-1.30	.043-.051	3.10	.122
		UL10588			1.10-1.27	.043-.050	3.10	.122
	560023-0448 560023-0648	FLR2X A3ZH	—	0.35	1.10-1.40	.043-.055	3.10	.122
		A3Z						
		FTP: 00949_10_00766						
		FLR13Y-A						
		UL10086	22	—	1.10-1.40	.043-.055	3.10	.122
		UL10316			1.10-1.30	.043-.051	3.10	.122
		UL10588			1.10-1.27	.043-.050	3.10	.122

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

DEFINITION OF TERMS

CRIMP/TRANSITION

SECTION K-K

SECTION L-L
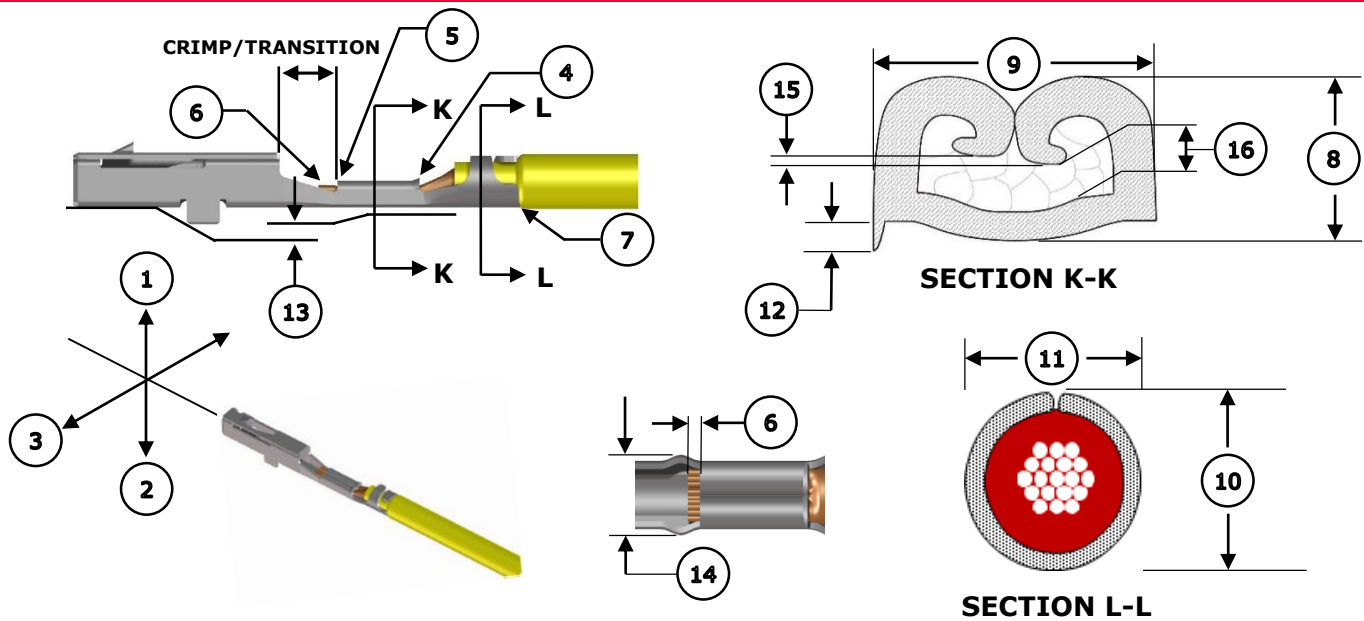
CRIMP SPECIFICATIONS

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. 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	
	FLR2X A3ZH	0.35 mm²	0.65-0.69mm	.026-.027 in.	1.01-1.07mm	.040-.042 in.
	A3Z					
	FTP: 00949_10_00766					
	FLR13Y-A					
	UL10086	22 AWG	0.63-0.67mm	.025-.026 in.		
	UL10316		0.69-0.73mm	.027-.028 in.		
	UL10588		0.63-0.67mm	.025-.026 in.		

Insulation Crimp	Wire Type	Wire Size	10. Crimp Height		11. Crimp Width	
	FLR2X A3ZH	0.35 mm²	1.48-1.58mm	.058-.062 in.	1.33-1.43mm	.052-.056 in.
	A3Z					
	FTP: 00949_10_00766					
	FLR13Y-A					
	UL10086	22 AWG				
	UL10316					
	UL10588					

	Wire Type	Wire Size	Minimum Force		
Pull Force	FLR2X A3ZH	0.35 mm²	50 N	11.3 lb.	To be measured with no influence from the insulation crimp.
	A3Z				
	FTP: 00949_10_00766				
	FLR13Y-A				
	UL10086	22 AWG			
	UL10316				
	UL10588				
12. Conductor Anvil Flash	0.10mm (.004") Max				
13. Insulation Grip Step	0.00-0.08mm (.000-.003")				
14. Crimp Bulge	1.07mm (.042") Max				

	Wire Type	Wire Size	15. Wing Dissymmetry		16. Space Between Wing Tips and Crimp Bottom	
Misc.	FLR2X A3ZH	0.35 mm²	0.20mm Max	.008 in. Max	0.10mm Min	.004 in. Min
	A3Z					
	FTP: 00949_10_00766					
	FLR13Y-A					

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
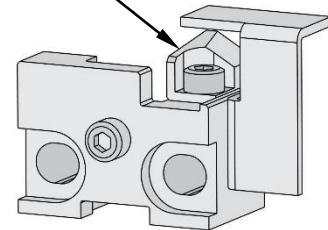
Specification Notes

- 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 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

Item	Order No.	Engineering No.	Description	Quantity
FA2 Applicator 63808-4500				
Perishable Tooling				
	63808-4570	63808-4570	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	63443-0136	63443-0136	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	63443-0090	63443-0090	Wire Stop	1
11	63443-2806	63443-2806	Front Plunger Striker	1
12	63443-2921	63443-2921	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	63443-4701	63443-4701	Terminal Guide	1†
17	63443-7403	63443-7403	Hold Down Block	1
18	63808-0229	63808-0229	Bend Adjust Dial	1
19	63600-4387	63600-4387	Dial Indicator Plate	1
20	63443-4409	63443-4409	Feed Cam	1
21	63808-0249	63808-0249	Feed Pawl	1
Frame				
22	63808-0200	63808-0200	Applicator Core	1
23	63808-0197	63808-0197	Mechanical Feed Assembly	1
Hardware				
24	—	—	M2.5 x 3 SHCS	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 6 SHCS	1*
30	—	—	M4 x 4 SSS	1*
31	—	—	M4 x 8 SHCS	2*
32	—	—	M4 x 50 SHCS	2*
33	—	—	M5 x 12 SHCS	1*
34	—	—	#10-32UNF x .25" SHCS	1*
*Fastener parts can be purchased through most industrial suppliers by using the description in the table above.				

ASSEMBLY DRAWING

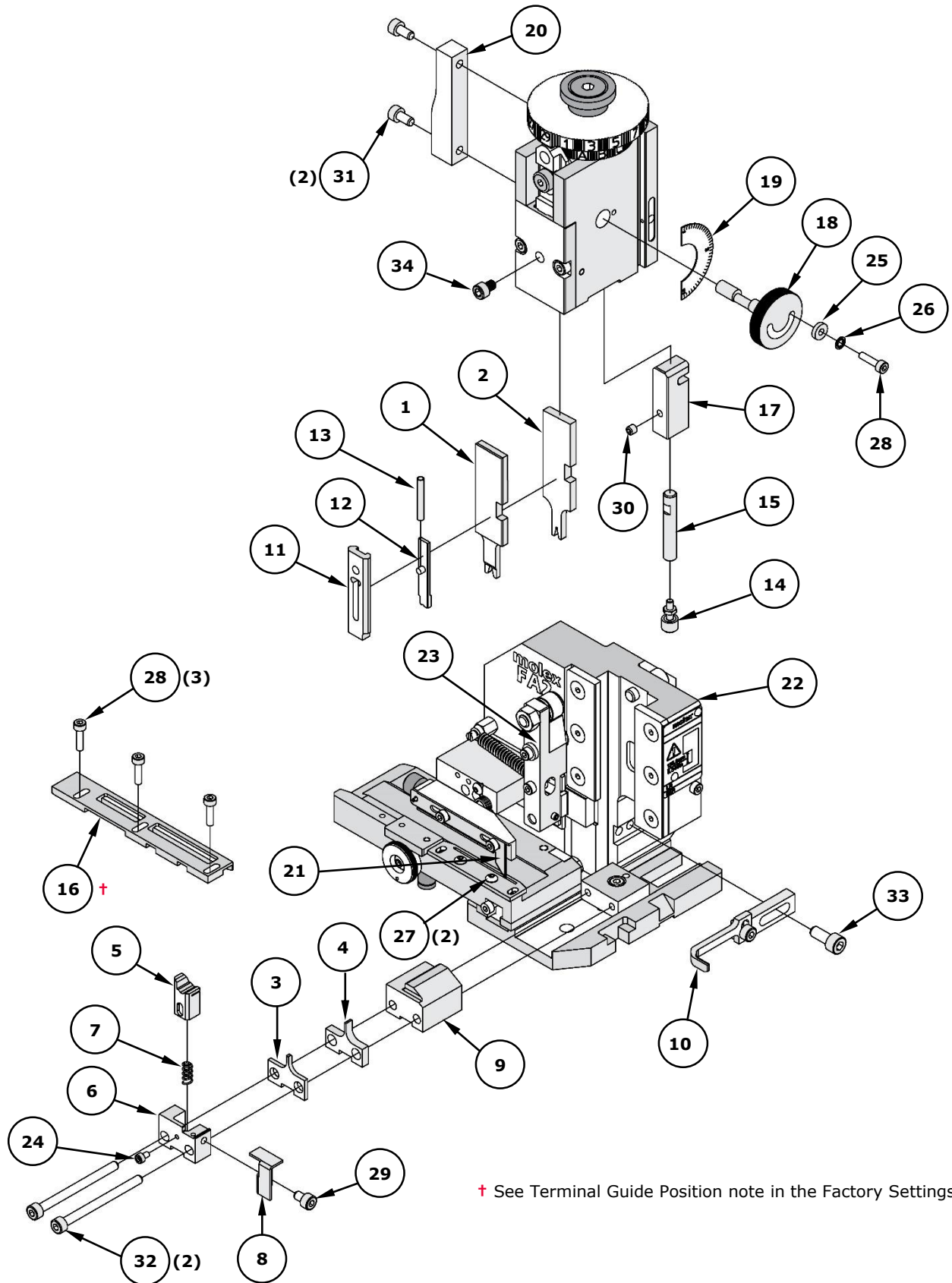† See Terminal Guide Position note in the Factory Settings section.

Figure 1

FACTORY SETTINGS

Feed Pawl Assembly

The FA2 applicator number 63808-4500 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.
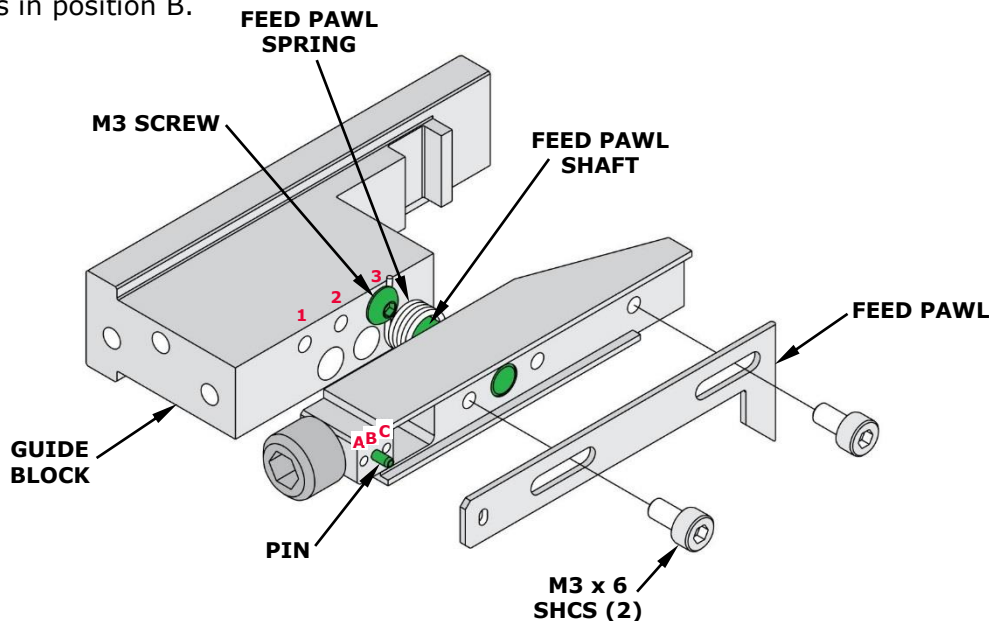- The pin is in position B.

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.

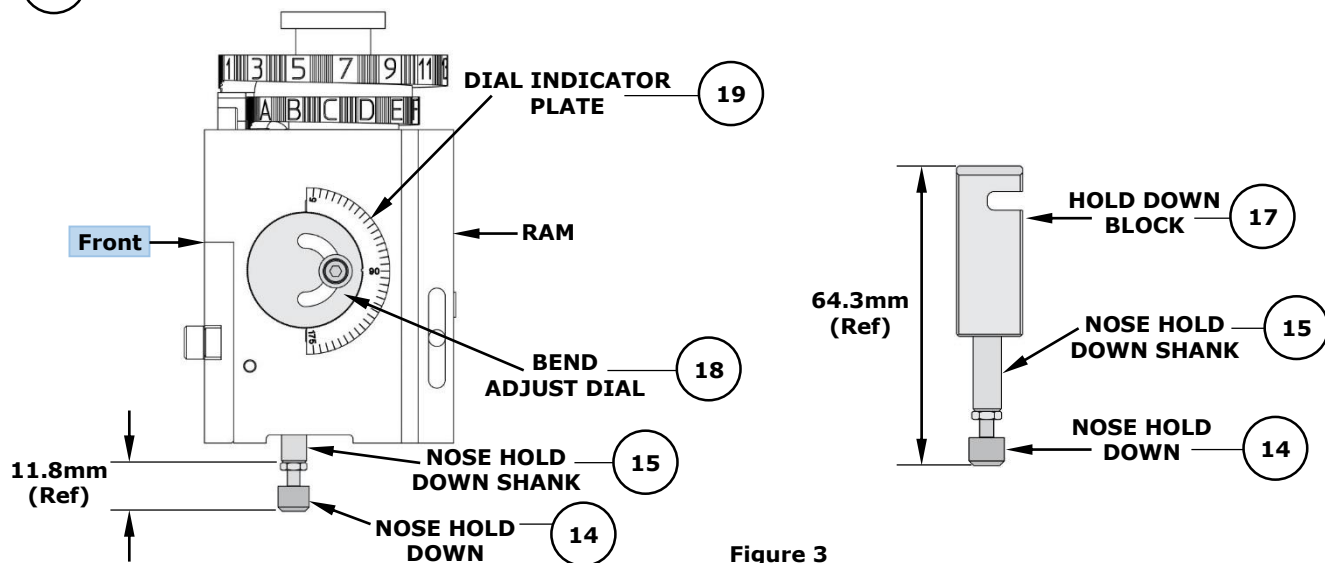## Third Dial/Ram Assembly

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.
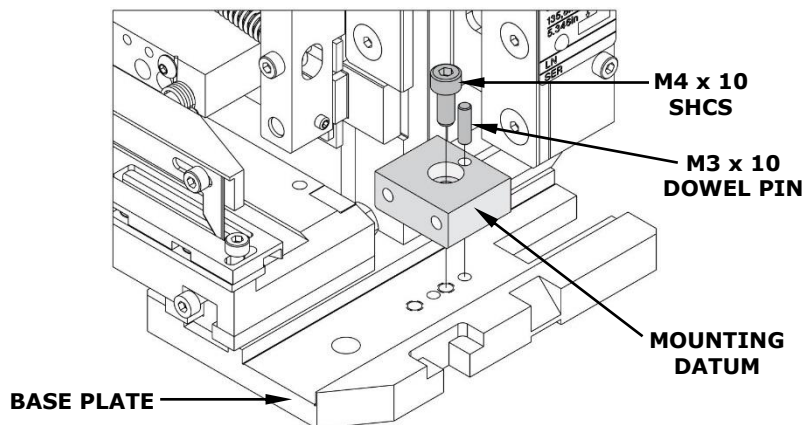

M4 x 10 SHCS

M3 x 10 DOWEL PIN

MOUNTING DATUM

BASE PLATE

Figure 4

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.
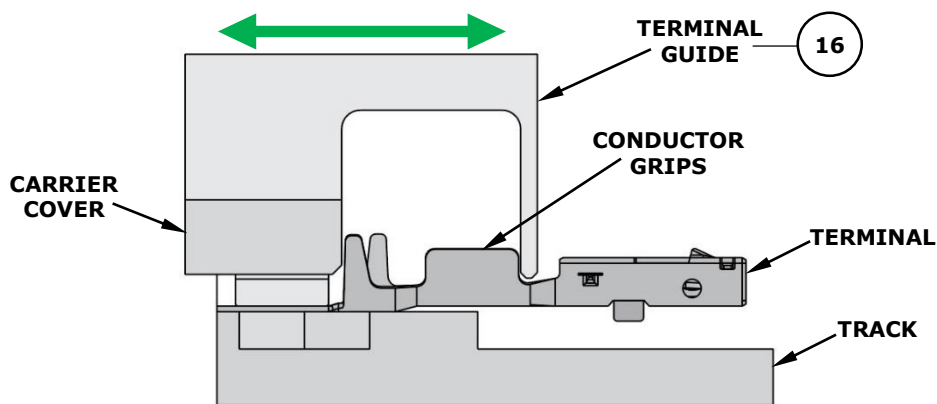

TERMINAL GUIDE 16

CONDUCTOR GRIPS

CARRIER COVER

TERMINAL

TRACK

Figure 5

Application Tooling Support

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

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