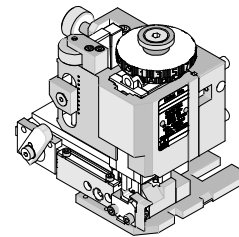


**FineAdjust  
Applicator**



**Application Tooling  
Specification Sheet**



**Order No. 63903-1000**

**FEATURES THIS APPLICATOR IS FOR AUTOMATIC WIRE PROCESSOR USE ONLY.**

- Quick punch removal with the push of a button for fast and easy tooling change
- Applicator designed to industry standard mounting and shut height 135.80mm (5.346")
- Quick set-up 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 .063mm (.0025") 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**

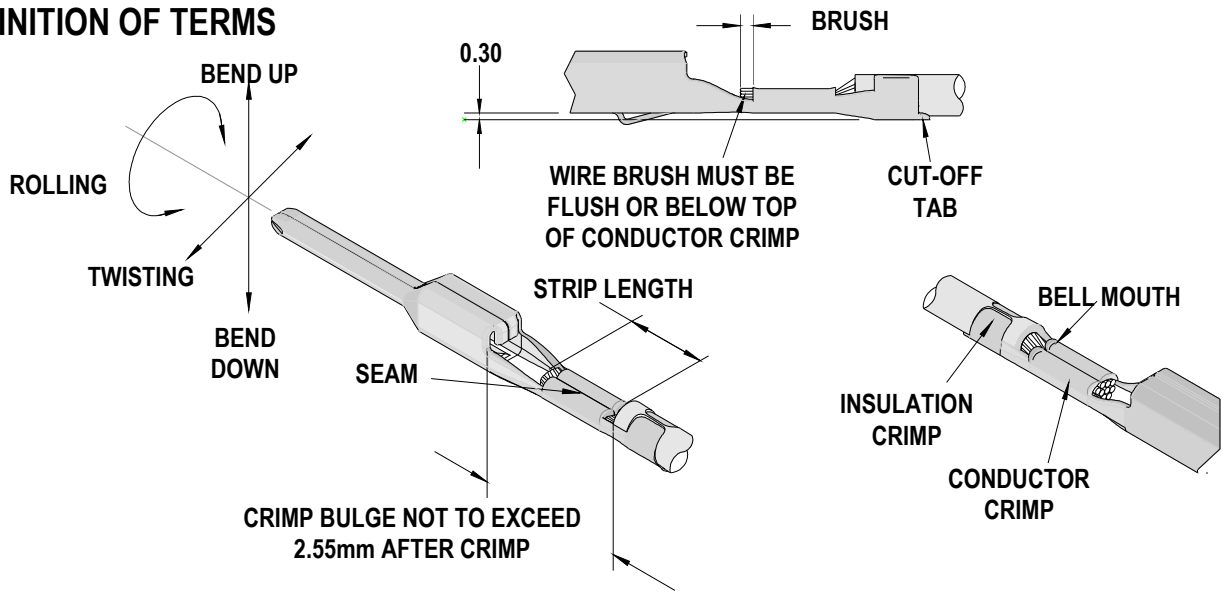
Products: MX150™ Blade Terminals.

Terminal Series No.	Terminal Order No.	Wire			Insulation Diameter		Strip Length	
		Wire Type	AWG	mm <sup>2</sup>	mm	In.	mm	In.
33000	33000-1001	TXL	14	NA	2.10-2.70	.083-.106	4.70-5.60	.185-.220
		UTX	14	NA				
		ISO	NA	1.50				
		FLR91X-A-XLPO	NA	1.50				
		AVSS	NA	2.00				
33011	33011-0002 33011-3003	TXL	14	NA	2.10-2.70	.083-.106	4.70-5.60	.185-.220
		UTX	14	NA				
		ISO	NA	1.50				
		FLR91X-A-XLPO	NA	1.50				
		AVSS	NA	2.00				
34782	34782-1001	TXL	14	NA	2.10-2.70	.083-.106	4.70-5.60	.185-.220
		UTX	14	NA				
		ISO	NA	1.50				
		FLR91X-A-XLPO	NA	1.50				
		AVSS	NA	2.00				

Terminals were validated per USCAR-21 using the following wire specifications:  
M1L-123A4 (TXL), M1L-135A1 (UTX), JASO D611 (AVSS) and M1L-126A1(ISO)  
Customers are required to complete validation testing if tooling purchased outside Molex Inc.  
and / or wire specifications are different than above.

\* Oiler (63801-7240) required to crimp all terminals. See 63800-4900 FineAdjust Manual. See *Tool Qualification Notes* on page 3

### DEFINITION OF TERMS



### CRIMP SPECIFICATION

Terminal Series No.	Bell mouth		Cut-off Tab Max.		* Conductor Brush Max.	
	mm	In.	mm	In.	mm	In.
33000	0.30-0.70	.012-.028	0.50	.020	0.40	.016
33011						
34782						

\* Wire brush must be flush or below top of Conductor Crimp.  
**\* THIS APPLICATOR IS INTENDED FOR AUTOMATIC WIRE PROCESSOR USE ONLY.**  
 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 setup automatic wire processor in order to consistently achieve the brush length.  
 Any attempt to use this applicator outside a properly setup automatic wire processor will likely not meet the brush specification and cause this sealed connector system to not work properly.

Terminal Series No.	Bend up	Bend down	Twist	Roll	Punch Width (Ref)				Seam Seam shall not be open and no wire allowed out of the crimping area
					Conductor		Insulation		
	Degree	Degree	mm	In	mm	In			
33000	3	3	3	3	2.39	.094	2.60	.102	
33011									
34782									

After crimping, the crimp profiles should measure the following:

Terminal Series No.	Wire			Conductor				Insulation				Pull Force Minimum	
				Crimp Height		Crimp Width		Crimp Height		Crimp Width			
	Wire Type	AWG	mm <sup>2</sup>	mm	In.	mm	In.	mm	In.	mm	In.	N	Lb.
33000	TXL	14	NA	1.60-1.70	.063-.067	2.35-2.55	.093-.100	2.80-2.90	.110-.114	2.60-2.70	.102-.106	180	40.5
	UTX	14	NA	1.60-1.70	.063-.067	2.35-2.55	.093-.100	2.70-2.90	.106-.114	2.60-2.70	.102-.106	180	40.5
	ISO	NA	1.50	1.35-1.45	.053-.057	2.35-2.55	.093-.100	2.70-2.80	.106-.110	2.60-2.70	.102-.106	150	34.0
	FLR91X-A-XLPO	NA	1.50	1.35-1.45	.053-.057	2.35-2.55	.093-.100	2.70-2.80	.106-.110	2.60-2.70	.102-.106	150	34.0
	AVSS	NA	2.00	1.55-1.65	.061-.065	2.35-2.55	.093-.100	2.80-2.90	.110-.114	2.60-2.70	.102-.106	180	40.5
33011	TXL	14	NA	1.60-1.70	.063-.067	2.35-2.55	.093-.100	2.80-2.90	.110-.114	2.60-2.70	.102-.106	180	40.5
	UTX	14	NA	1.60-1.70	.063-.067	2.35-2.55	.093-.100	2.70-2.90	.106-.114	2.60-2.70	.102-.106	180	40.5
	ISO	NA	1.50	1.35-1.45	.053-.057	2.35-2.55	.093-.100	2.70-2.80	.106-.110	2.60-2.70	.102-.106	150	34.0
	FLR91X-A-XLPO	NA	1.50	1.35-1.45	.053-.057	2.35-2.55	.093-.100	2.70-2.80	.106-.110	2.60-2.70	.102-.106	150	34.0
	AVSS	NA	2.00	1.55-1.65	.061-.065	2.35-2.55	.093-.100	2.80-2.90	.110-.114	2.60-2.70	.102-.106	180	40.5

Terminal Series No.	Wire			Conductor				Insulation				Pull Force Minimum	
				Crimp Height		Crimp Width		Crimp Height		Crimp Width			
	Wire Type	AWG	mm <sup>2</sup>	mm	In.	mm	In.	mm	In.	mm	In.	N	Lb.
34782	TXL	14	NA	1.60-1.70	.063-.067	2.35-2.55	.093-.100	2.80-2.90	.110-.114	2.60-2.70	.102-.106	180	40.5
	UTX	14	NA	1.60-1.70	.063-.067	2.35-2.55	.093-.100	2.70-2.90	.106-.114	2.60-2.70	.102-.106	180	40.5
	ISO	NA	1.50	1.35-1.45	.053-.057	2.35-2.55	.093-.100	2.70-2.80	.106-.110	2.60-2.70	.102-.106	150	34.0
	FLR91X-A-XLPO	NA	1.50	1.35-1.45	.053-.057	2.35-2.55	.093-.100	2.70-2.80	.106-.110	2.60-2.70	.102-.106	150	34.0
	AVSS	NA	2.00	1.55-1.65	.061-.065	2.35-2.55	.093-.100	2.80-2.90	.110-.114	2.60-2.70	.102-.106	180	40.5

Tool Qualification Notes:

1. Pull Force should be measured with no influence from the insulation crimp.
2. The above specifications are guidelines to an optimum crimp.
3. **Oiler (63801-7240) required to crimp terminals to improve tooling life and also to minimize the crimp extrusions. See 63800-4900 FineAdjust Manual.**

**Adjusting the Wire Bend Angle** (See Item11 in parts list and assembly drawing.)

**Note:** If the Wire Bend is present after crimping use the following method to remove the bend. This tooling may not be necessary for all wire gauges.

1. The screw is provided for wire straightening. See Figure 1.
2. Loosen the (2) M3 x 3mm long setscrews; see Figure 1, before turning the screw.
3. Start by adjusting the screw so it just touches the insulation outside diameter of the wire being crimped. If wire Bend Up exists, turn the screw a quarter turn counter clockwise (CCW) to lengthen it.
4. Continue to adjust the length of the screw until the wire appears to be straight after crimping. If wire Bend Down exists, turn the screw a quarter turn clockwise (CW) to shorten it. Continue to adjust the length of the screw until the wire appears to be straight after crimping.
5. Tighten the M3 x 3mm long setscrews, when finished adjusting the screw. Two M3 x 3mm long setscrews are provided. The M3 x 3mm long setscrew on the side of plunger striker is used when making adjustments.

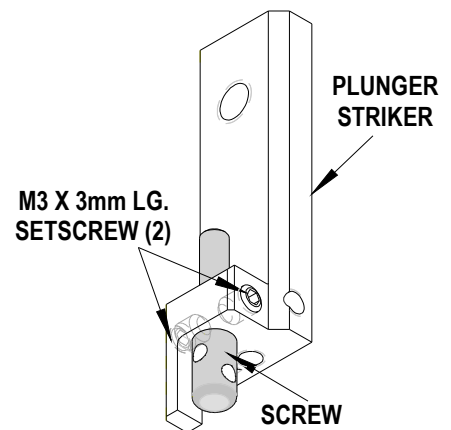


Figure 1

**Adjusting the Wire Brush Length** (See Item10 in parts list and assembly drawing.)

1. If the wire brush is too long or extends above the top of the conductor crimp, adjust the Wire Stop, Item 10, closer to the conductor punch.
2. If the wire brush is too short, adjust the Wire Stop further away from the conductor punch.

**PARTS LIST**

<b>FineAdjust Applicator 63903-1000</b>				
<b>Item</b>	<b>Order No</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63903-1070	63903-1070	Tool Kit (All "Y" Items)	REF
1	63457-0116	63457-0116	Conductor Punch	1 Y
2	63455-0143	63455-0143	Conductor Anvil	1 Y
3	63454-0166	63454-0166	Insulation Punch	1 Y
4	63456-0119	63456-0119	Insulation Anvil	1 Y
5	63443-0031	63443-0031	Cut-Off Plunger	1 Y
6	63443-0038	63443-0038	Front Plunger Retainer	1 Y
<b>Other Components</b>				
7	11-18-4094	60709A111	Feed Guide	1
8	63443-0009	63443-0009	Scrap Chute	1
9	63443-0024	63443-0024	Key	1
10	63443-0090	63443-0090	Wire Stop	1
11	63443-3601	63443-3601	Front Plunger Striker	1
12	63443-3702	63443-3702	Striker Screw	1
13	63443-6122	63443-6122	Rear Cover	1
14	63700-0539	63700-0539	Cut-off Plunger Spring	1
15	63903-1008	63903-1008	Bottom Cap	1
16	63903-1007	63903-1007	Height Spacer	1
<b>Frame</b>				
17	63800-4901	63800-4901	Top	1
18	63801-3281	63801-3281	Base	1
19	63801-4650	63801-4650	Track	1
19A	63459-0001	63459-0001	Terminal Track With Relief Groove	1
<b>Hardware</b>				
20	N/A	N/A	M3 by 3 Long Flat Point SSS	2**
21	N/A	N/A	M3 by 6 Long SHCS	2**
22	N/A	N/A	M3 by 6 Long FHCS	1**
23	N/A	N/A	M4 by 6 Long SHCS	2**
24	N/A	N/A	M4 by 8 Long Brass Tip SSS	1**
25	N/A	N/A	M4 by 12 Long SHCS	1**
26	N/A	N/A	M4 by 12 Long BHCS	2**
27	N/A	N/A	M4 by 16 Long SHCS	1**
28	N/A	N/A	M4 by 50 Long SHCS	2**
29	N/A	N/A	M5 by 12 Long SHCS	1**
30	N/A	N/A	#10-32 by 3/8" Long Flat Point SSS	1**
31	N/A	N/A	#10-32 Hex Jam Nut	1**

\*\* Available from an industrial supply company such as MSC (1-800-645-7270).

### Assembly Drawing

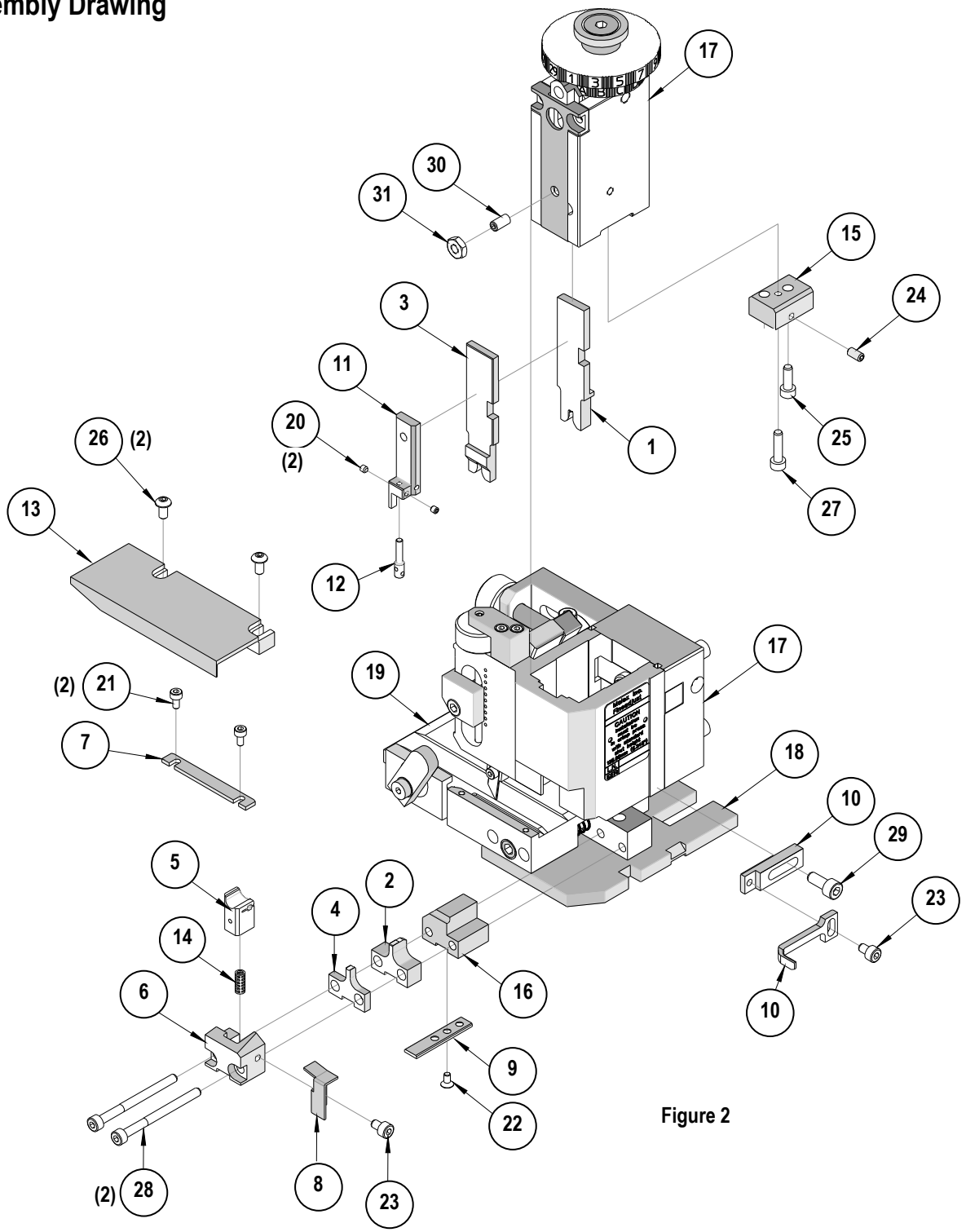


Figure 2

## NOTES

1. Molex recommends an extra perishable tooling kit be maintained at your facility.
2. Verify tooling alignment by manually 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 work area.
4. Wear safety glasses at all times.
5. For recommended maintenance refer to the FineAdjust Manual.

**CAUTION:** This applicator should only be used in a press with a shut height of 135.80 mm (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 crimp specifications are valid only when used with Molex terminals, applicators and tooling.

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