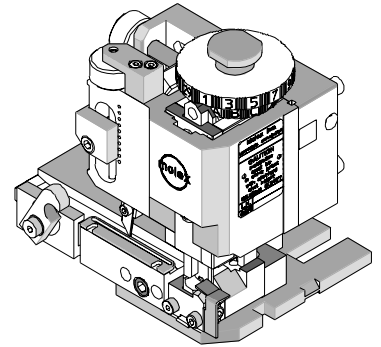




## FineAdjust Applicator Specification Sheet Part No. 63868-2100



### FEATURES

- 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

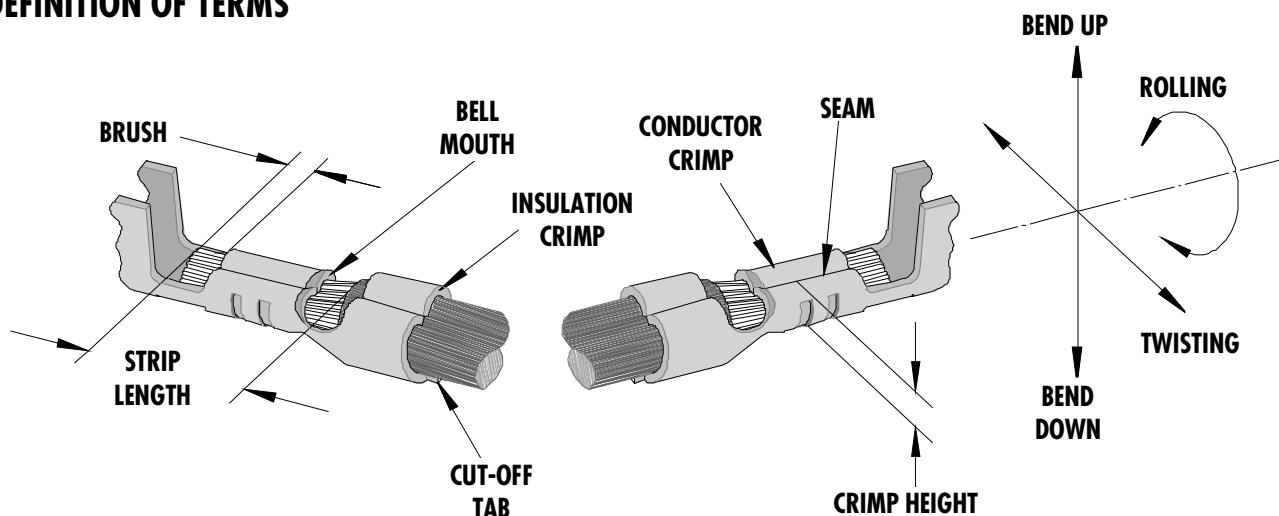
### SCOPE

Products: MX150™ Receptacle Terminals 1.00 metric and 18 AWG.

Terminal Order No.	Terminal Series No.		Wire Size		Insulation Diameter		Strip Length	
			AWG	mm <sup>2</sup>	mm	In.	mm	In.
33001	33001-3004	33001-3022	18	0.83	1.91-2.06	.075-.081	4.70-5.60	.185-.220
	33001-3004	33001-3022	Metric Only	1.00	1.90-2.10	.075-.083	4.70-5.60	.185-.220
33012	33012-3002	33012-3022	18	0.83	1.91-2.06	.075-.081	4.70-5.60	.185-.220
	33012-3002	33012-3022	Metric Only	1.00	1.90-2.10	.075-.083	4.70-5.60	.185-.220

Terminal is designed for thin wall insulation per Ford's specification M1L135-A1, M1L123-A, and M1L126-A1/A2/A3

### DEFINITION OF TERMS



The above terminal drawing is a generic terminal representation. It is not an image of any terminal listed in the scope.

## CRIMP SPECIFICATION

Terminal Series No.	Bell mouth		Cut-off Tab Max.		Conductor Brush	
	mm	In.	mm	In.	mm	In.
33001	0.25-1.25	.010-.049	0.50	.020	0.15-0.40	.006-.016
33012	0.25-1.25	.010-.049	0.50	.020	0.15-0.40	.006-.016

Wire brush to be below top of Conductor Crimp.

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	
33001	Crimped terminals and up to 5mm of wire past the insulator cutoff tab must freely fit in the Checking Aid, Part No. 63868-2008		2.10	.083	2.26	.089	
33012			2.10	.083	2.26	.089	

Order Separately

After crimping, the crimp profiles should measure the following:

Terminal Series No.	Wire Size		Conductor				Insulation				Pull Force Min.	
			Crimp Height		Crimp Width		Crimp Height		Crimp Width			
	AWG	mm <sup>2</sup>	mm	In.	mm	In.	mm	In.	mm	In.	N	Lb.
33001	18	0.83	1.20-1.30	.047-.051	2.05-2.25	.081-.089	1.90-2.10	.075-.083	2.20-2.40	.086-.094	89.9	20.2
33001	Metric Only	1.00	1.25-1.35	.049-.053	2.05-2.25	.081-.089	1.90-2.10	.075-.083	2.20-2.40	.086-.094	121.1	27.0
33012	18	0.83	1.20-1.30	.047-.051	2.05-2.25	.081-.089	1.90-2.10	.075-.083	2.20-2.40	.086-.094	89.9	20.2
33012	Metric Only	1.00	1.25-1.35	.049-.053	2.05-2.25	.081-.089	1.90-2.10	.075-.083	2.20-2.40	.086-.094	121.1	27.0

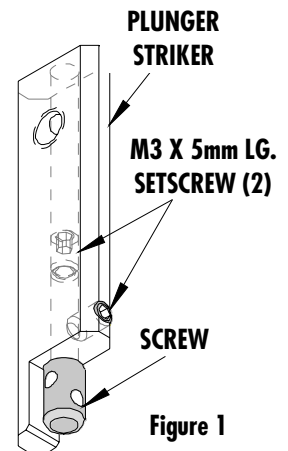
\* **Tool Qualification Notes:**

1. Pull Force should be measured with no influence from the insulation crimp.
2. The above specifications are guidelines to an optimum crimp.

**Adjusting the Wire Bend Angle (See Item 17 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 5mm 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 clockwise (CW) 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 counter clockwise (CCW) 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 5mm long setscrews, when finished adjusting the screw. Two M3 x 5mm long setscrews are provided; the top setscrew is to lock the screw after adjustments. The M3 x 5mm long setscrew on the side of plunger striker is used when making adjustments.



**PARTS LIST**

<b>FineAdjust Applicator 63868-2100</b>				
<b>Item</b>	<b>Order No</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63868-2170	63868-2170	Tool Kit (All "Y" Items)	REF
1	63457-0030	63457-0030	Conductor Punch	1 Y
2	63455-0034	63455-0034	Conductor Anvil	1 Y
3	63454-0048	63454-0048	Insulation Punch	1 Y
4	63456-0034	63456-0034	Insulation Anvil	1 Y
5	63461-0001	63461-0001	Cut-Off Plunger Front	1 Y
6	63443-0036	63443-0036	Plunger Retainer Front	1 Y
<b>Other Components</b>				
7	11-17-0022	1739-21	Compression Spring	1
8	11-18-4094	60709-A111	Front Cover	1
9	11-24-1149	4996-37	Shank	1
10	63443-0009	63443-0009	Scrap Chute Front	1
11	63443-0021	63443-0021	Lower Tooling Key	1
12	11-18-4080	60707-5	Wire Stop	1
13	63443-0069	63443-0069	Terminal Hold Down	1
14	63443-2506	63443-2506	Anvil Mount	1
15	63443-6013	63443-6013	Rear Cover	1
16	63700-0539	63700-0539	Cut-off Plunger Spring	1
17	63443-0082	63443-0082	Plunger Striker Front	1
18	63443-0083	63443-0083	Striker Screw	1
19	63868-2008	63868-2008	Checking Aid	REF
<b>Frame</b>				
20	63801-3100	63801-3100	Wide Track Fine Adjust Frame	1
21	63459-0001	63459-0001	Wide Terminal Track	1
<b>Hardware</b>				
22	N/A	N/A	M3 by 5Lg. SHSS-Brass Tip	2**
23	N/A	N/A	M3 by 6Lg. SHCS	2**
24	N/A	N/A	M3 by 8Lg. SHCS	1**
25	N/A	N/A	M4 by 6Lg. SHCS	1**
26	N/A	N/A	M4 by 12Lg. BHCS	2**
27	N/A	N/A	M4 by 50Lg. SHCS	2**
28	N/A	N/A	M5 by 12Lg. SHCS	1**
29	N/A	N/A	3MM by 6Lg. Roll Pin	1**
30	N/A	N/A	#10-32 by 1/4"Lg. BHCS	1**
** Available from an industrial supply company such as MSC (1-800-645-7270).				

\* The Checking Aid 63868-2008 to be ordered separately if required.  
 (This item is not included with the Applicator and is shown for Reference purpose only)

### Assembly Drawing

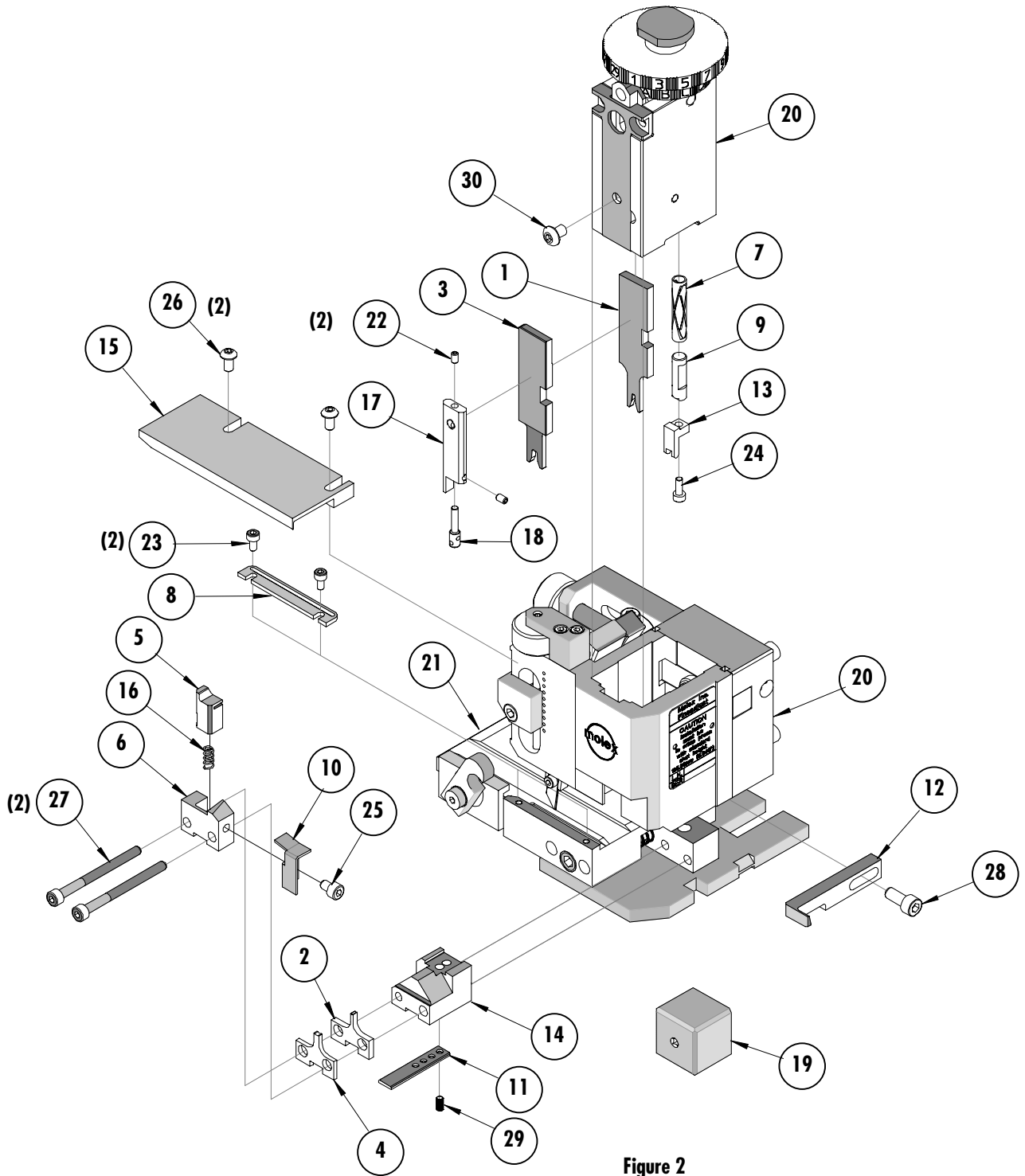


Figure 2

## 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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