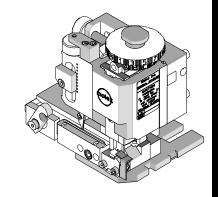


# FineAdjust Applicator **Specification Sheet** Part No. 63868-2200



## **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**

<u>Products:</u> MX150™Receptacle Terminals 0.75 metric and 20 AWG.

Terminal Series No.	Torminal	Ordor No	Wire Size		Insulation	Diameter	Strip Length			
Terminal Series No.	Terminal Order No.		AWG	mm²	mm	ln.	mm	ln.		
33001	33001-3004	33001-3022	20	0.58	1.70-1.85	.067073	4.70-5.60	.185220		
	33001-3004	33001-3022	Metric Only	0.75	1.70-1.90	.067075	4.70-5.60	.185220		
33012	33012-3002	33012-3022	20	0.58	1.70-1.85	.067073	4.70-5.60	.185220		
33012	33012-3002	33012-3022	Metric Only	0.75	1.70-1.90	.067075	4.70-5.60	.185220		
Terminal is designed for thin wall insulation per Ford's specification M1L135-A1, M1L123-A, and M1L126-A1/A2/A3										

**DEFINITION OF TERMS BEND UP ROLLING SEAM** BELL **CONDUCTOR BRUSH MOUTH CRIMP INSULATION CRIMP TWISTING STRIP** LENGTH **BEND DOWN CUT-OFF** 

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

**TAB** 

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**CRIMP HEIGHT** 

## **CRIMP SPECIFICATION**

Terminal Series No.	Bell n	nouth	Cut-off 1	Tab Max.	Conductor Brush			
Terminal Series No.	mm	ln.	mm	ln.	mm	ln.		
33001	0.25-1.25	.010049	0.50	.020	0.15-0.40	.006016		
33012	0.25-1.25	.010049	0.50	.020	0.15-0.40	.006016		
Wire brush to be below top of Conductor Crimp.								

Terminal	Bend up Bend down	Twist Roll	Punch Width (Ref)				C	
Series No.	bena up bena auwn	I WISI KUII	Conductor		Insulation		Seam Seam shall not be	
Series No.	Degree	Degree	mm	ln	mm	ln	open and no wire allowed	
33001	Crimped terminals and up to 5mm of wire past the insulator			.083	2.26	.081	out of the crimping area	
33012	cutoff tab must freely fit in the Checking Aid,	2.10	.083	2.26	.081	our or me crimping area		

**Order Separately** 

After crimping, the crimp profiles should measure the following:

Terminal Wire Size Series No.		Cond			uctor			Insulation				Pull Force	
		Crimp Height		Crimp Width		Crimp Height		Crimp Width		Min.			
Series No.	AWG	mm²	mm	ln.	mm	ln.	mm	ln.	mm	ln.	N	Lb.	
33001	20	0.58	1.10-1.20	.043047	2.05-2.25	.081089	1.80-2.00	.071079	2.00-2.20	.079087	75.6	17.0	
33001	Metric Only	0.75	1.20-1.30	.047051	2.05-2.25	.081089	1.85-2.05	.073081	2.00-2.20	.079087	89.9	20.2	
33012	20	0.58	1.10-1.20	.043047	2.05-2.25	.081089	1.80-2.00	.071079	2.00-2.20	.079087	75.6	17.0	
33012	Metric Only	0.75	1.20-1.30	.047051	2.05-2.25	.081089	1.85-2.05	.073081	2.00-2.20	.079087	89.9	20.2	

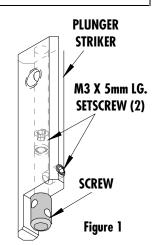
#### **Tool Qualification Notes:**

- Pull Force should be measured with no influence from the insulation crimp.
- 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.

- 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 guarter 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 guarter 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.



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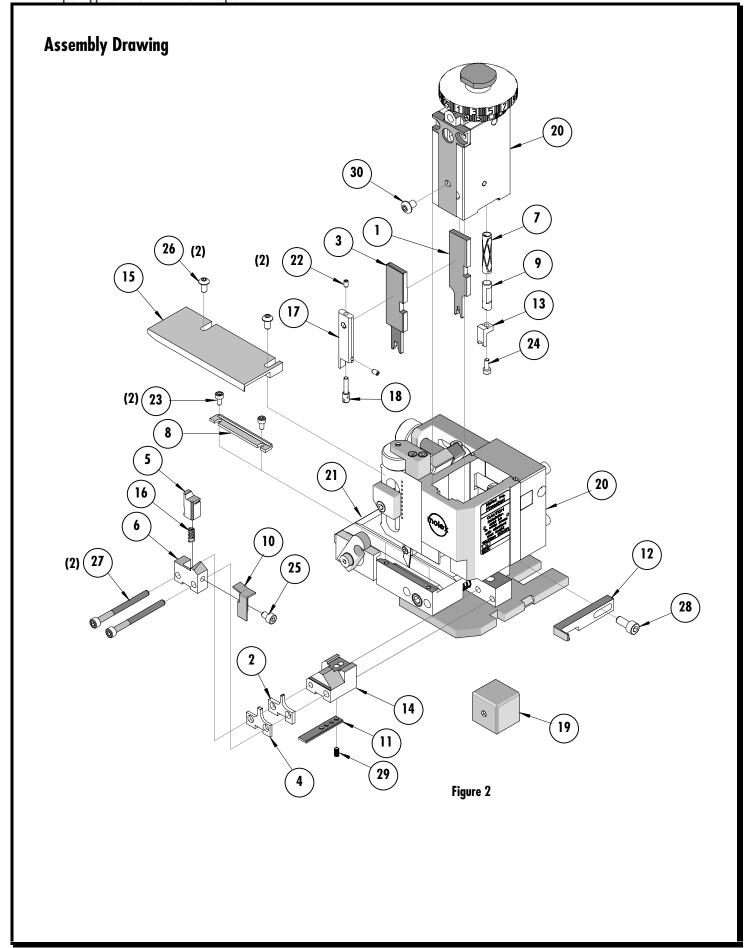
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# **PARTS LIST**

	FineAdjust Applicator 63868-2200								
ltem	Order No	Engineering No.	<u> </u>						
Perishable Tooling									
	63868-2270	63868-2270	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	63454-0049	63454-0049	Insulation Punch	1 Y					
4	63456-0035	63456-0035	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					
		Other Co	mponents						
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					
Frame									
20	63801-3100	63801-3100	Wide Track Fine Adjust Frame	1					
21	63459-0001	63459-0001	Wide Terminal Track	1					
		Hard	ware						
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	]**					
25	N/A	N/A	M4 by 6Lg. SHCS	]**					
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	]**					
29	N/A	N/A	3MM by 6Lg. Roll Pin	]**					
30	N/A	N/A	#10-32 by 1/4"Lg. BHCS	]**					
**	Available from	an industrial supply co	mpany such as MSC (1-800-645	7270).					

 $<sup>\</sup>ast$  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)

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## **NOTES**

- Molex recommends an extra perishable tooling kit be maintained at your facility.
- Verify tooling alignment by manually cycling the press and Applicator before crimping under power. Check that all screws are tight.
- Slugs, Terminals, Dirt and Oil should be kept clear of work area.
- 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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