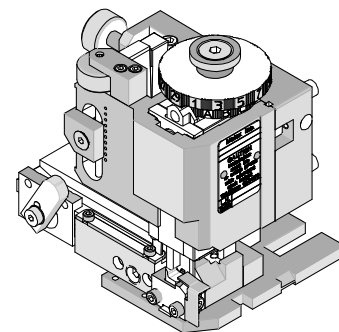




# FineAdjust Applicator Specification Sheet Order No. 63900-9700



## FEATURES

- Directly adapts to most automatic wire processing machines
- 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

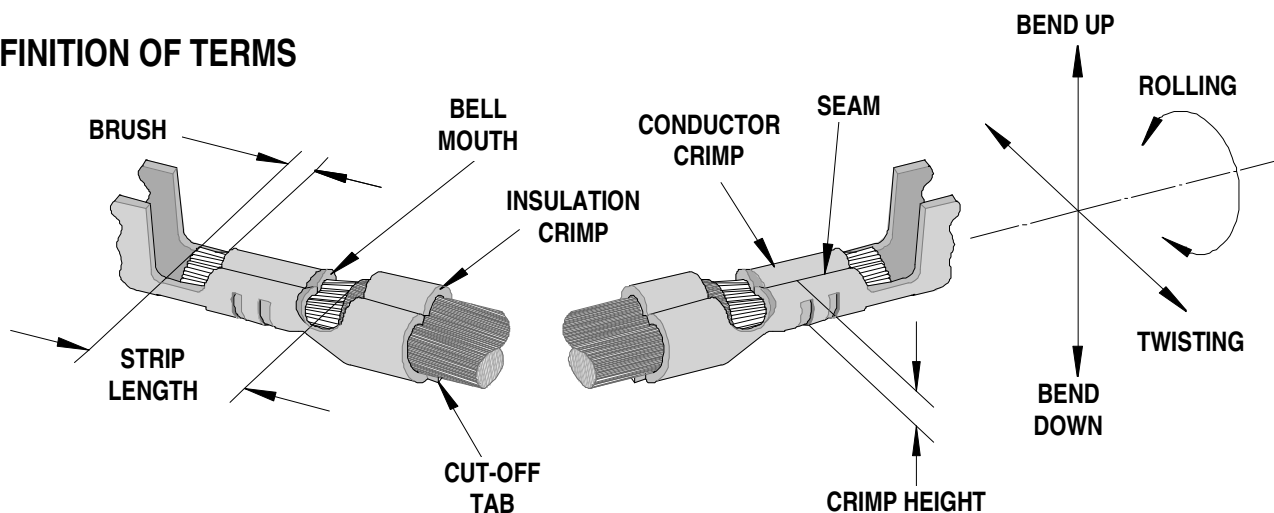
## SCOPE

Products: OBD II 4.00mm (.157") Wire-to-Wire Crimp Terminal, 0.30-0.85mm<sup>2</sup> and 18-22 AWG.

Terminal Series No.	Terminal Order No.	Wire Size	Actual mm <sup>2</sup>	Wire Type	Insulation Diameter		Strip Length	
					mm	In.	mm	In.
50420	50420-8000	AVS-0.3, AVS-0.3f	0.37	JASO	1.60-2.30	.063-.090	3.00-3.70	.118-.146
		22AWG	0.35	TXL				
		AVS-0.5, AVS-0.5f AVSS-0.5, AVSS-0.5f CAVS-0.5	0.56	JASO				
		20AWG	0.50	TXL				
		AVS-0.75f, AVSS-0.75f	0.79	JASO				
		AVS-0.85, AVSS-0.85 CAVS-0.85	0.88	JASO				
		18AWG	0.80	TXL				

◆ Note: Insulation OD: 1.75-2.30mm (.069-.091") will achieve optimum IPC-A620 class 2 insulation crimps.  
Insulation OD: 1.60-1.74mm (.063-.068") will not achieve optimum IPC-A620 class 2 insulation crimps.

## DEFINITION OF TERMS



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

### CRIMP SPECIFICATION

Terminal Series No.	Bell mouth		Cut-off Tab Maximum		Conductor Brush	
	mm	In.	mm	In.	mm	In.
50420	0.20-0.40	.008-.016	0.20	.008	0.30-1.50	.012-.059

Terminal Series No.	Bend up	Bend down	Twist	Roll	Punch Width mm (Ref)				Seam Seam shall not be open and no wire allowed out of the crimping area
					Conductor		Insulation		
	Degree (Max)		Degree (Max)		mm	In	mm	In	
50420	3	3	4	6	1.60	.063	2.30	.091	

After crimping, the conductor profile should measure the following.

Terminal Series No.	Wire Size	Actual mm <sup>2</sup>	Wire Type	Conductor Crimp				Pull Force Minimum	
				Crimp Height		Crimp Width (Ref.)		N	Lb.
				mm	In.	mm	In.		
50420	0.3, 0.3f	0.37	JASO	0.86-0.95	.034-.037	1.65	.065	58.8	13.2
	22AWG	0.35	TXL	0.90-0.99	.035-.038	1.65	.065	58.8	13.2
	0.5, 0.5f	0.56	JASO	0.96-1.06	.038-.041	1.65	.065	88.2	19.8
	20AWG	0.50	TXL	1.00-1.09	.039-.042	1.65	.065	88.2	19.8
	0.75f	0.79	JASO	1.07-1.17	.042-.046	1.65	.065	107.8	24.2
	18AWG	0.80	TXL	1.05-1.15	.041-.045	1.65	.065	107.8	24.2
	0.85	0.88	JASO	1.12-1.22	.044-.048	1.65	.065	117.6	26.5

Terminal Series No.	Wire Size	Actual mm <sup>2</sup>	Wire Type	Insulation			
				Crimp Height (Ref.)		Crimp Width (Ref.)	
				mm	In.	mm	In.
50420	0.3, 0.3f	0.37	JASO	2.50	.098	2.50	.098
	22AWG	0.35	TXL	2.50	.098	2.50	.098
	0.5, 0.5f	0.56	JASO	2.60	.102	2.50	.098
	20AWG	0.50	TXL	2.60	.102	2.50	.098
	0.75f	0.79	JASO	2.65	.104	2.50	.098
	18AWG	0.80	TXL	2.65	.104	2.50	.098
	0.85	0.88	JASO	2.65	.104	2.50	.098

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

The above specifications are guidelines to an optimum crimp.

**PARTS LIST**

<b>FineAdjust Applicator 63900-9700</b>				
<b>Item</b>	<b>Order No</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63900-9770	63900-9770	Tool Kit (All "Y" Items)	REF
1	63444-1609	63444-1609	Conductor Punch	1 Y
2	63445-1636	63445-1636	Conductor Anvil	1 Y
3	63446-2303	63446-2303	Insulation Punch	1 Y
4	63445-2309	63445-2309	Insulation Anvil	1 Y
5	63443-0002	63443-0002	Front Cut-Off Plunger	1 Y
6	63443-0012	63443-0012	Front Plunger Retainer	1 Y
<b>Other Components(REF 009750)</b>				
7	11-18-4083	60707-8	Feed Guide	1
8	11-24-1067	4996-4	Cut-Off Plunger Spring	1
9	63443-0009	63443-0009	Front Scrap Chute	1
10	63443-0025	63443-0025	Key	1
11	63443-0090	63443-0090	Wire Stop	1
12	63443-1717	63443-1717	18.70mm Height Spacer	1
13	63443-2203	63443-2203	3.00mm Coarse Spacer	1
14	63443-2213	63443-2213	13.00mm Coarse Spacer	1
15	63443-2306	63443-2306	3.30mm Fine Spacer	1
16	63443-2802	63443-2802	Front Plunger Striker	1
17	63443-2910	63443-2910	Wire Hold Down Plunger	1
18	63443-6117	63443-6117	Rear Cover	1
19	63600-0021	63600-0021	Wire Hold Down Spring	1
<b>Frame</b>				
20	63800-4901	63800-4901	Top	1
21	63801-3281	63801-3281	Base	1
22	63801-4650	63801-4650	Track	1
<b>Hardware</b>				
23	N/A	N/A	M3 by 6 Long SHCS	2**
24	N/A	N/A	M3 by 6 Long FHCS	1**
25	N/A	N/A	M4 by 6 Long SHCS	2**
26	N/A	N/A	M4 by 12 Long BHCS	2**
27	N/A	N/A	M4 by 50 Long SHCS	2**
28	N/A	N/A	M5 by 12 Lg SHCS	1**
29	N/A	N/A	#10-32 by 3/8" Long Flat Point SSS	1**
30	N/A	N/A	#10-32 Hex Jam Nut	1**

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



## 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 135.8mm (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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