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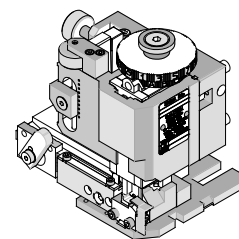
## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: [info@chipsmall.com](mailto:info@chipsmall.com) Web: [www.chipsmall.com](http://www.chipsmall.com)

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



**FineAdjust  
Applicator****molex****Application Tooling  
Specification Sheet****Order No. 63904-2000****FEATURES THIS APPLICATOR IS FOR AUTOMATIC WIRE PROCESSOR USE ONLY.**

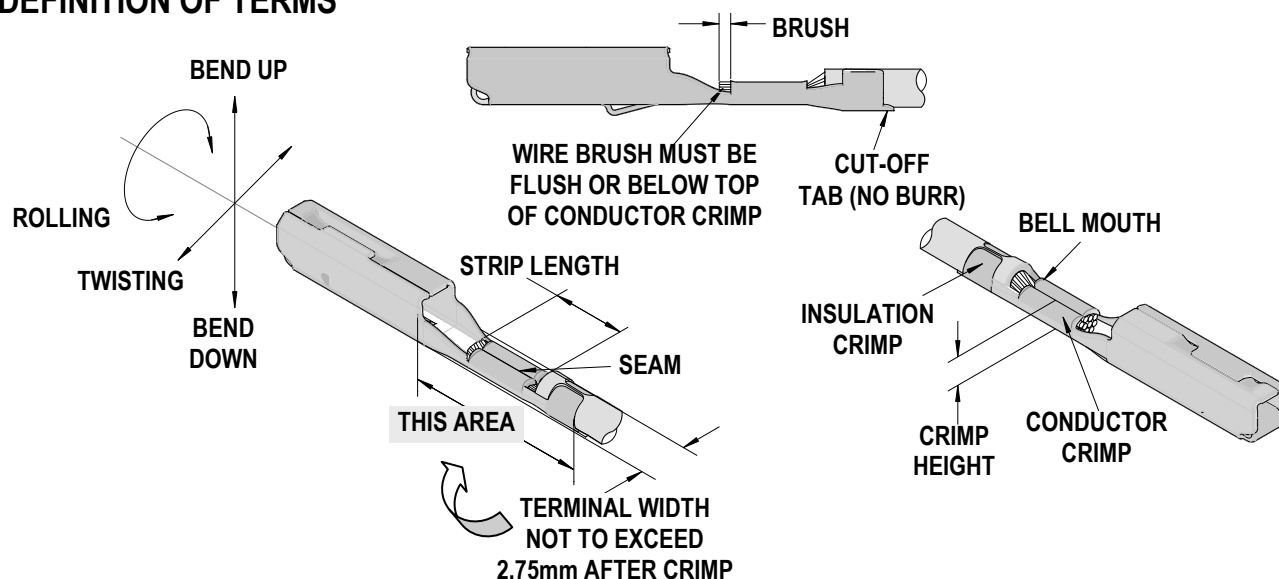
- Quick punch removal with the push of a button for fast and easy tooling change
- Applicator designed to industry standard mounting and shut height 135.80mm (5.346")
- Quick set-up time; plus the crimp height, track and feed adjustments can be set without removing the applicator from the press
- Fine 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: SRC Connector using MX150 Receptacle Terminals, 0.50mm<sup>2</sup> CHEMINAX 2021D0309 wire.

Terminal Series No.	Terminal Order No.		Wire Size		Insulation Diameter		Strip Length	
			Wire Type	mm <sup>2</sup>	mm	In.	mm	In.
33001	33001-3005	33001-3023	CHEMINAX 2021D0309	0.50	2.30-2.38	.091-.094	4.70-5.60	.185-.220
	33001-5003	33001-5023						
33012	33012-3003	33012-3023	CHEMINAX 2021D0309	0.50	2.30-2.38	.091-.094	4.70-5.60	.185-.220

Terminals were validated using the following wire specifications: SAE-J1939

**DEFINITION OF TERMS**

**CRIMP SPECIFICATION**

Terminal Series No.	Bell mouth		Cut-off Tab (Max)		◆ Conductor Brush (Max)	
	mm	In.	mm	In.	mm	In.
33001	0.30-0.70	.012-.028	0.50	.020	0.40	.016
33012	0.30-0.70	.012-.028	0.50	.020	0.40	.016

◆ 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)				Conductor Seam Seam shall not be open and no wire allowed out of the crimping area
					Conductor		Insulation		
	Degree		Degree		mm	In	mm	In	
33001	3	3	3	3	1.56	.061	1.86	.073	
33012	3	3	3	3	1.56	.061	1.86	.073	

After crimping, the crimp profiles should measure the following:

Terminal Series No.	Wire Size		Conductor				Insulation				Pull Force Minimum	
	Wire Type	mm <sup>2</sup>	Crimp Height		Crimp Width		Crimp Height (Ref)		Crimp Width (Ref)		N	Lb.
			mm	In.	mm	In.	mm	In.	mm	In.		
33001	CHEMINAX 2021D0309	0.50	1.05-1.15	.041-.045	1.50-1.70	.059-.067	1.95	.076	1.95	.077	75	16.9
33012	CHEMINAX 2021D0309	0.50	1.05-1.15	.041-.045	1.50-1.70	.059-.067	1.95	.076	1.95	.077	75	16.9

**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 Brush Length**

(See Item 11 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 11, 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 63904-2000</b>				
<b>Item</b>	<b>Order No</b>	<b>Engineering No.</b>	<b>Description</b>	<b>Quantity</b>
<b>Perishable Tooling</b>				
	63904-2070	63904-2070	Tool Kit (All "Y" Items)	REF
1	63457-0057	63457-0057	Conductor Punch	1 Y
2	63455-0148	63455-0148	Conductor Anvil	1 Y
3	63454-0050	63454-0050	Insulation Punch	1 Y
4	63456-0045	63456-0045	Insulation Anvil	1 Y
5	63443-0037	63443-0037	Cut-Off Plunger	1 Y
6	63443-0038	63443-0038	Front Plunger Retainer	1 Y
<b>Other Components</b>				
7	11-17-0022	1739-21	Hold Down Spring	1
8	11-18-4094	60709A111	Feed Guide	1
9	63443-0009	63443-0009	Scrap Chute	1
10	63443-0024	63443-0024	Key	1
11	63443-0090	63443-0090	Wire Stop	1
12	63443-0093	63443-0093	Shank	1
13	63443-1709	63443-1709	Height Spacer (17.90mm)	1
14	63443-2205	63443-2205	Coarse Spacer (5.00mm)	1
15	63443-2207	63443-2207	Coarse Spacer (7.00mm)	1
16	63443-2306	63443-2306	Fine Spacer (3.30mm)	1
17	63443-2804	63443-2804	Front Plunger Striker	1
18	63443-2915	63443-2915	Wire Hold Down Plunger	1
19	63443-6115	63443-6115	Rear Cover	1
20	63443-7101	63443-7101	Terminal Hold Down	1
21	63600-0021	63600-0021	Striker Plunger Spring	1
22	63700-0539	63700-0539	Cut-off Plunger Spring	1
<b>Frame</b>				
23	63800-4901	63800-4901	Top	1
24	63801-3281	63801-3281	Base	1
25	63801-4650	63801-4650	Track	1
25A	63459-0001	63459-0001	Terminal Track	1
<b>Hardware</b>				
26	N/A	N/A	M3 by 6 Long SHCS	2**
27	N/A	N/A	M3 by 6 Long FHCS	1**
28	N/A	N/A	M3 by 8 Long SHCS	1**
29	N/A	N/A	M4 by 6 Long SHCS	2**
30	N/A	N/A	M4 by 12 Long BHCS	2**
31	N/A	N/A	M4 by 50 Long SHCS	2**
32	N/A	N/A	M5 by 12 Long SHCS	1**
33	N/A	N/A	#10-32 by 3/8" Long Flat Point SSS	1**
34	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

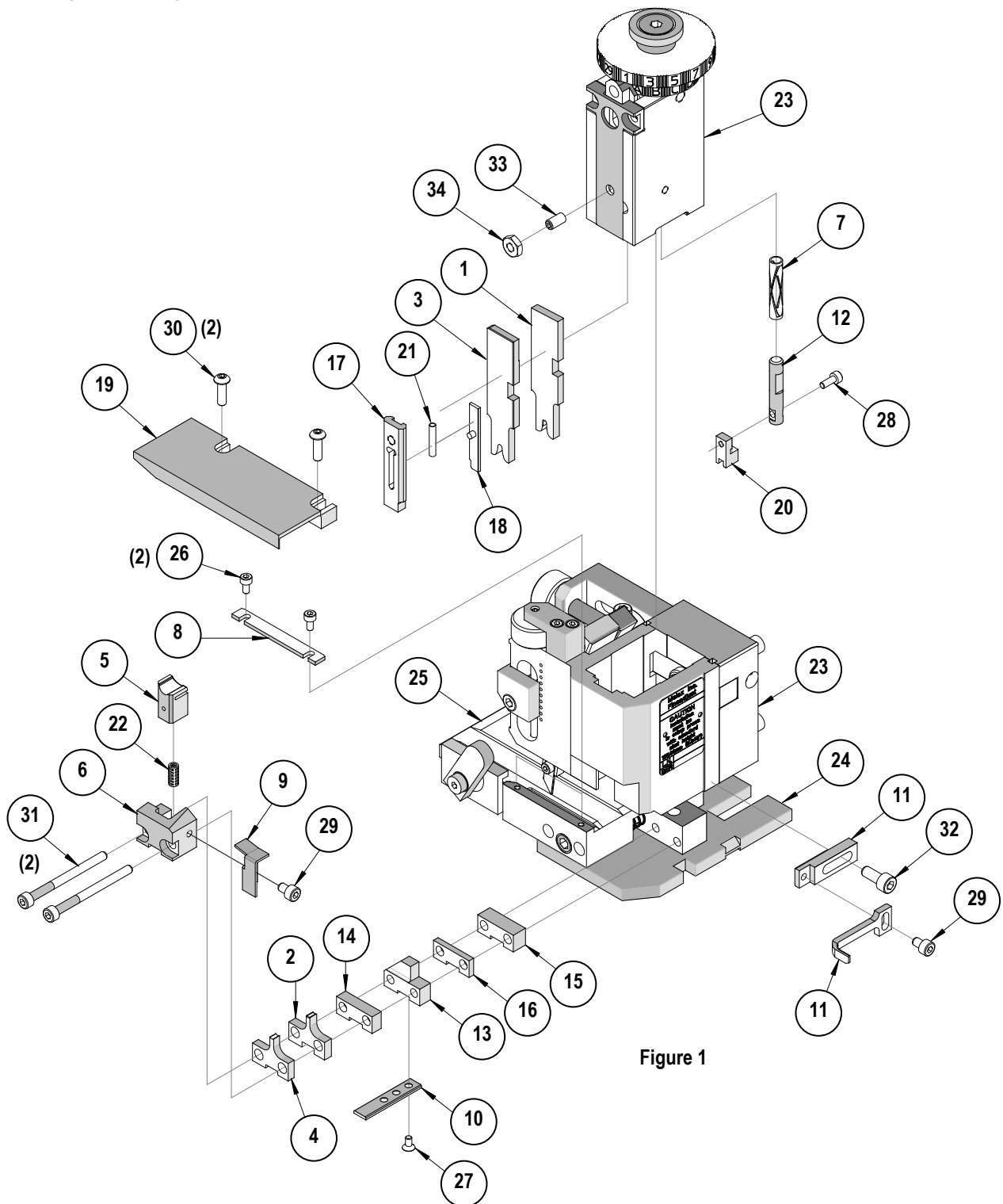


Figure 1

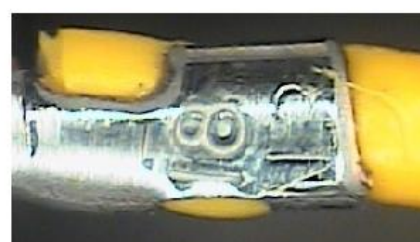
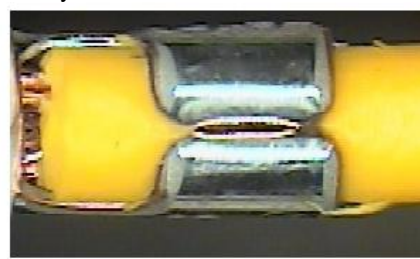
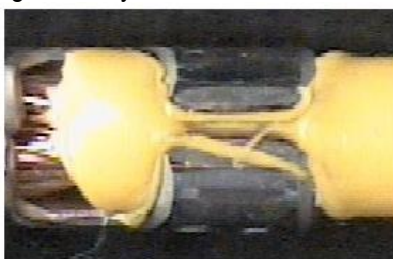
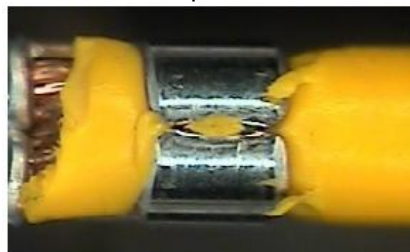
## NOTES

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.

### Insulation Attribute Notes:

In order to help ensure the integrity of the connector seal, the design intent is to partially bury the insulation grips into the wire insulation. Due to this, skiving of the insulation may occur. This skiving attribute is acceptable.

Below are examples of insulation skiving that may be seen with this connector system.



**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:** These Molex crimp specifications are valid only when used with Molex terminals, applicators and tooling qualified by Molex. When using non-Molex tooling with this specific connector system listed in this document, the Molex qualification does not apply and the responsibility for full qualification of the connector system is that of the customer. Molex accepts no liability for tooling support where non-Molex tooling is used.

Visit our Web site at <http://www.molex.com>