



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

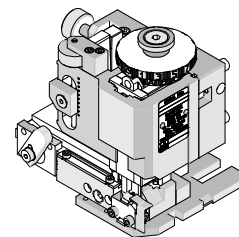
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



**FineAdjust
Applicator**



**Application Tooling
Specification Sheet**



Order No. 63903-0800

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™Receptacle Terminals.

| Terminal Series No. | Terminal Order No. | | Wire | | | Insulation Diameter | | Strip Length | |
|---------------------|--------------------------|--------------------------|-----------|-----|-----------------|---------------------|-----------|--------------|-----------|
| | | | Wire Type | AWG | mm ² | mm | In. | mm | In. |
| 33001 | 33001-3003 33001-5001 | 33001-3021 33001-5021 | TXL | 14 | NA | 2.10-2.70 | .083-.106 | 4.70-5.60 | .185-.220 |
| | | | AVS | NA | 1.25 | | | | |
| | | | AVSS | NA | 2.00 | | | | |
| 33012 | 33012-3001 | 33012-3021 | TXL | 14 | NA | 2.10-2.70 | .083-.106 | 4.70-5.60 | .185-.220 |
| | | | AVS | NA | 1.25 | | | | |
| | | | AVSS | NA | 2.00 | | | | |
| 34750 | 34750-1001 | | TXL | 14 | NA | 2.10-2.70 | .083-.106 | 4.70-5.60 | .185-.220 |
| | | | AVS | NA | 1.25 | | | | |
| | | | AVSS | NA | 2.00 | | | | |

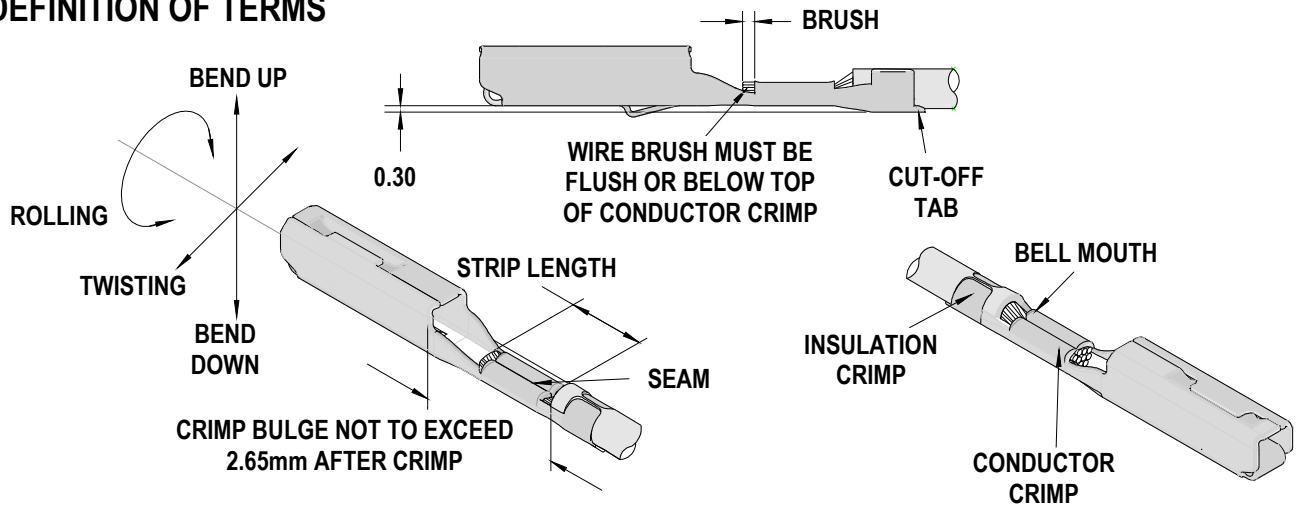
Terminals were validated per USCAR-21 using the following wire specifications:

M1L-123A4 (TXL), and JASO D611 (AVSS, AVS)

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. |
| 33001 | 0.30-0.70 | .012-.028 | 0.50 | .020 | 0.40 | .016 |
| 33012 | | | | | | |
| 34750 | | | | | | |

* 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 | |
| 33001 | 3 | 3 | 3 | 3 | 2.39 | .094 | 2.60 | .102 | |
| 33012 | | | | | | | | | |
| 34750 | | | | | | | | | |

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 ² | mm | In. | mm | In. | mm | In. | mm | In. | N | Lb. |
| 33001 | TXL | 14 | NA | 1.60-1.70 | .063-.067 | 2.35-2.55 | .093-.100 | 2.90-3.00 | .114-.118 | 2.65-2.75 | .104-.108 | 180 | 40.5 |
| | AVS | NA | 1.25 | 1.30-1.40 | .051-.055 | 2.35-2.55 | .093-.100 | 2.90-3.00 | .114-.118 | 2.65-2.75 | .104-.108 | 176.5 | 39.7 |
| | AVSS | NA | 2.00 | 1.55-1.65 | .061-.065 | 2.35-2.55 | .093-.100 | 2.80-3.00 | .110-.118 | 2.65-2.75 | .104-.108 | 180 | 40.5 |
| 33012 | TXL | 14 | NA | 1.60-1.70 | .063-.067 | 2.35-2.55 | .093-.100 | 2.90-3.00 | .114-.118 | 2.65-2.75 | .104-.108 | 180 | 40.5 |
| | AVS | NA | 1.25 | 1.30-1.40 | .051-.055 | 2.35-2.55 | .093-.100 | 2.90-3.00 | .114-.118 | 2.65-2.75 | .104-.108 | 176.5 | 39.7 |
| | AVSS | NA | 2.00 | 1.55-1.65 | .061-.065 | 2.35-2.55 | .093-.100 | 2.80-3.00 | .110-.118 | 2.65-2.75 | .104-.108 | 180 | 40.5 |
| 34750 | TXL | 14 | NA | 1.60-1.70 | .063-.067 | 2.35-2.55 | .093-.100 | 2.90-3.00 | .114-.118 | 2.65-2.75 | .104-.108 | 180 | 40.5 |
| | AVS | NA | 1.25 | 1.30-1.40 | .051-.055 | 2.35-2.55 | .093-.100 | 2.90-3.00 | .114-.118 | 2.65-2.75 | .104-.108 | 176.5 | 39.7 |
| | AVSS | NA | 2.00 | 1.55-1.65 | .061-.065 | 2.35-2.55 | .093-.100 | 2.80-3.00 | .110-.118 | 2.65-2.75 | .104-.108 | 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.

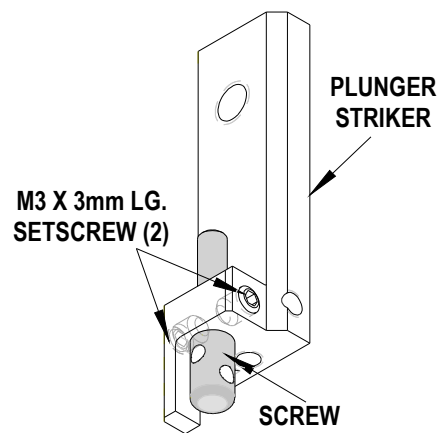


Figure 1

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.

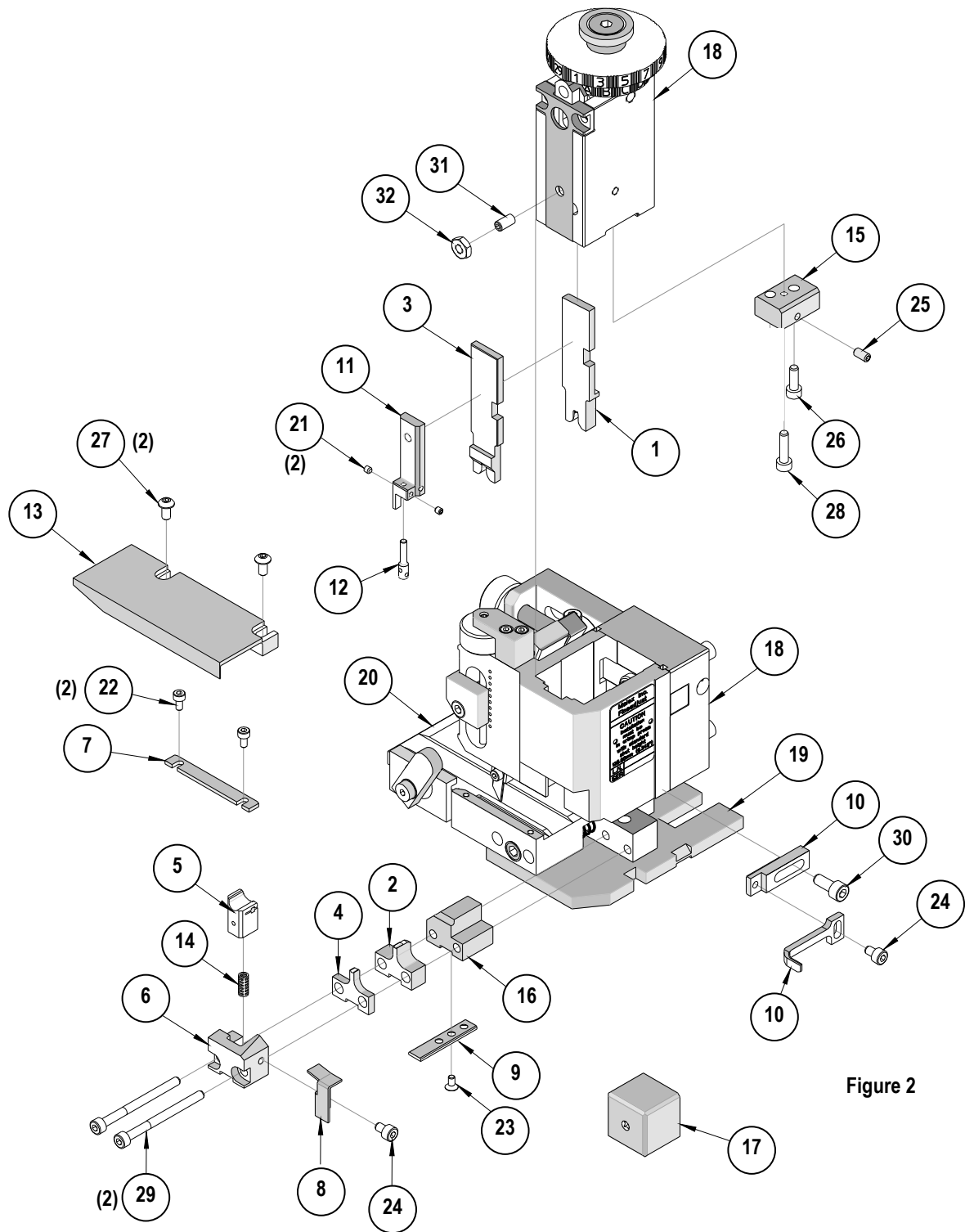
PARTS LIST

| FineAdjust Applicator 63903-0800 | | | | |
|----------------------------------|------------|-----------------|------------------------------------|----------|
| Item | Order No | Engineering No. | Description | Quantity |
| Perishable Tooling | | | | |
| | 63903-0870 | 63903-0870 | 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 |
| Other Components | | | | |
| 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 | 63903-0707 | 63903-0707 | Height Spacer | 1 |
| 17 | 63868-2008 | 63868-2008 | ★ Checking Aid | REF |
| Frame | | | | |
| 18 | 63800-4901 | 63800-4901 | Top | 1 |
| 19 | 63801-3281 | 63801-3281 | Base | 1 |
| 20 | 63801-4650 | 63801-4650 | Track | 1 |
| 20A | 63459-0001 | 63459-0001 | Terminal Track With Relief Groove | 1 |
| Hardware | | | | |
| 21 | N/A | N/A | M3 by 3 Long Flat Point SSS | 2** |
| 22 | N/A | N/A | M3 by 6 Long SHCS | 2** |
| 23 | N/A | N/A | M3 by 6 Long FHCS | 1** |
| 24 | N/A | N/A | M4 by 6 Long SHCS | 2** |
| 25 | N/A | N/A | M4 by 8 Long Brass Tip SSS | 1** |
| 26 | N/A | N/A | M4 by 12 Long SHCS | 1** |
| 27 | N/A | N/A | M4 by 12 Long BHCS | 2** |
| 28 | N/A | N/A | M4 by 16 Long SHCS | 1** |
| 29 | N/A | N/A | M4 by 50 Long SHCS | 2** |
| 30 | N/A | N/A | M5 by 12 Long SHCS | 1** |
| 31 | N/A | N/A | #10-32 by 3/8" Long Flat Point SSS | 1** |
| 32 | N/A | N/A | #10-32 Hex Jam Nut | 1** |

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

★ The Crimped Terminal 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



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.

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