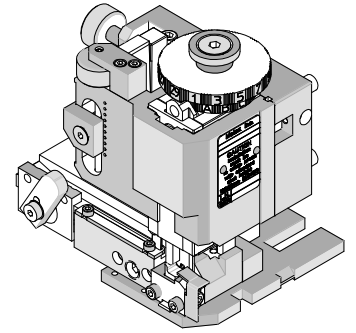




## FineAdjust Applicator Applicator Tooling Specification Order No. 63901-8100



### 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

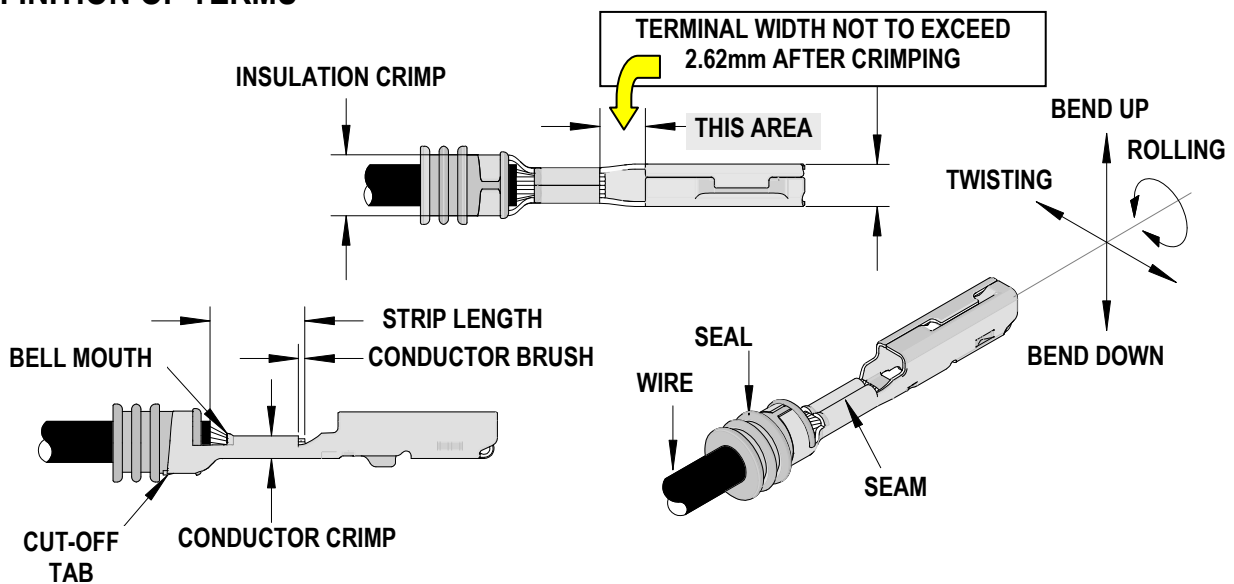
### SCOPE

Products: MX150™ Cable Seal Receptacle Crimp Terminals, 18-20 AWG and 0.75 – 1.00 mm<sup>2</sup> wires.

| Terminal Series No. | Terminal Order No.       | Wire Size and Type | ✗ Insulation Diameter |                 | Strip Length |           |           |           |
|---------------------|--------------------------|--------------------|-----------------------|-----------------|--------------|-----------|-----------|-----------|
|                     |                          |                    | AWG                   | mm <sup>2</sup> | mm           | In.       | mm        | In.       |
| 34081<br>34083      | 34081-3004<br>34081-5002 | 34083-3002         | TXL-18                |                 | 1.91-2.06    | .075-.081 | 4.70-5.60 | .185-.220 |
|                     |                          |                    | TXL-20                |                 | 1.70-1.85    | .067-.073 |           |           |
|                     |                          | ISO 1.00           | 1.90-2.10             | .075-.083       |              |           |           |           |
|                     |                          | ISO 0.75           | 1.70-1.90             | .067-.075       |              |           |           |           |

✗ See crimp specification for the individual Insulation Diameter.  
 Terminals were validated per USCAR-21 using the following wire specifications:  
 M1L-123A (TXL) and M1L-126A1 (metric).  
 Customers are required to complete validation testing based on their own tooling practices.

### DEFINITION OF TERMS



### CRIMP SPECIFICATION

| Terminal Series No.                               |       | Bell mouth |           | Cut-off Tab Maximum |      | ▶ Conductor Brush Maximum |      |
|---|-------|------------|-----------|---------------------|------|---------------------------|------|
|   |       | mm         | In.       | mm                  | In.  | mm                        | In.  |
| 34081   | 34083 | 0.30-0.70  | .012-.028 | 0.50                | .020 | 0.40                      | .016 |
| ▶ Not to exceed above the conductor crimp height. |       |            |           |                     |      |                           |      |

| Terminal Series No. |       | Bend up | Bend down | Twist  | Roll | Punch Width (Ref) |      |            |      | Seam<br>Seam shall not be open and no wire allowed out of the crimping area |
|---------------------|-------|---------|-----------|--------|------|-------------------|------|------------|------|---|
|                     |       | Degree  |           | Degree |      | Conductor         |      | Insulation |      |   |
|                     |       | mm      | In.       | mm     | In.  | mm                | In.  | mm         | In.  |   |
| 34081               | 34083 | 3       | 3         | 3      | 3    | 2.073             | .082 | 3.501      | .138 |   |

After crimping, the crimp profiles should measure the following:

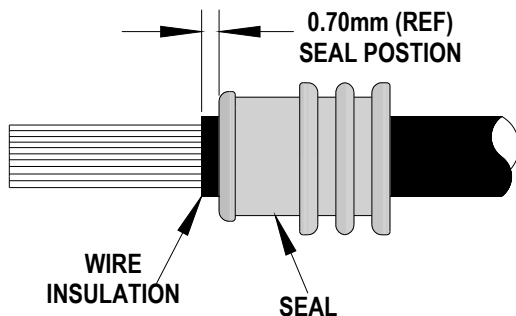
| Terminal Series No. | Wire Size and Type |          | Conductor    |           |             |           | Pull Force Minimum |      |
|---------------------|--------------------|----------|--------------|-----------|-------------|-----------|--------------------|------|
|                     |                    |          | Crimp Height |           | Crimp Width |           |                    |      |
|                     | AWG                | mm²      | mm           | In.       | mm          | In.       | N                  | Lb.  |
| 34081<br>34083      | TXL-18             |          | 1.20-1.30    | .047-.051 | 2.05-2.25   | .081-.089 | 90                 | 20.2 |
|                     | TXL-20             |          | 1.10-1.20    | .043-.047 | 2.05-2.25   | .081-.089 | 75                 | 16.9 |
|                     |                    | ISO 1.00 | 1.25-1.35    | .049-.053 | 2.05-2.25   | .081-.089 | 120                | 27.0 |
|                     |                    | ISO 0.75 | 1.20-1.30    | .047-.051 | 2.05-2.25   | .081-.089 | 90                 | 20.2 |

| Terminal Series No. | Wire Size and Type |          | ✗ Insulation Diameter |           | Insulation   |           |             |           |
|---------------------|--------------------|----------|-----------------------|-----------|--------------|-----------|-------------|-----------|
|                     |                    |          | mm                    | In.       | Crimp Height |           | Crimp Width |           |
|                     | AWG                | mm²      | mm                    | In.       | mm           | In.       | mm          | In.       |
| 34081<br>34083      | TXL-18             |          | 1.91-2.06             | .075-.081 | 3.60-3.80    | .142-.150 | 3.45-3.65   | .136-.144 |
|                     | TXL-20             |          | 1.70-1.85             | .067-.073 | 3.50-3.70    | .138-.146 | 3.45-3.65   | .136-.144 |
|                     |                    | ISO 1.00 | 1.90-2.10             | .075-.083 | 3.60-3.80    | .142-.150 | 3.45-3.65   | .136-.144 |
|                     |                    | ISO 0.75 | 1.70-1.90             | .067-.075 | 3.50-3.70    | .138-.146 | 3.45-3.65   | .136-.144 |

| Terminal Series No. | Wire Size and Type |          | * Cable Seal              |           |       |
|---------------------|--------------------|----------|---------------------------|-----------|-------|
|                     | AWG                | mm²      | Manufacturer and Part No. |           | Color |
| 34081<br>34083      | TXL-18             |          | QSR                       | E-1644-00 | Green |
|                     | TXL-20             |          | QSR                       | E-1644-00 | Green |
|                     |                    | ISO 1.00 | QSR                       | E-1644-00 | Green |
|                     |                    | ISO 0.75 | QSR                       | E-1644-00 | Green |

**\* Cable Seal Position on a Wire**

(Before crimping)



**▶ 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.

**PARTS LIST**

| <b>FineAdjust Applicator 63901-8100</b>                                      |                 |                        |                                    |                 |
|--|-----------------|------------------------|------------------------------------|-----------------|
| <b>Item</b>  | <b>Order No</b> | <b>Engineering No.</b> | <b>Description</b>                 | <b>Quantity</b> |
| <b>Perishable Tooling</b>  |                 |                        |                                    |                 |
|  | 63901-8170      | 63901-8170             | Tool Kit (All "Y" Items)           | REF             |
| 1  | 63457-0059      | 63457-0059             | Conductor Punch                    | 1 Y             |
| 2  | 63455-0065      | 63455-0065             | Conductor Anvil                    | 1 Y             |
| 3  | 63454-0103      | 63454-0103             | Insulation Punch                   | 1 Y             |
| 4  | 63456-0059      | 63456-0059             | Insulation Anvil                   | 1 Y             |
| 5  | 63443-0037      | 63443-0037             | Cut-Off Plunger Front              | 1 Y             |
| 6  | 63443-0038      | 63443-0038             | Plunger Retainer Front             | 1 Y             |
| <b>Other Components</b>  |                 |                        |                                    |                 |
| 7  | 11-18-4094      | 60709A111              | Feed Guide                         | 1               |
| 8  | 63443-0009      | 63443-0009             | Scrap Chute                        | 1               |
| 9  | 63443-0055      | 63443-0055             | Key                                | 1               |
| 10   | 63443-0090      | 63443-0090             | Wire Stop                          | 1               |
| 11   | 63443-0093      | 63443-0093             | Shank                              | 1               |
| 12   | 63443-1714      | 63443-1714             | 18.40mm Height Spacer              | 1               |
| 13   | 63443-2203      | 63443-2203             | 3.00mm Coarse Spacer               | 1               |
| 14   | 63443-2208      | 63443-2208             | 8.00mm Coarse Spacer               | 1               |
| 15   | 63443-2310      | 63443-2310             | 3.50mm Fine Spacer                 | 1               |
| 16   | 63443-6122      | 63443-6122             | Rear Cover                         | 1               |
| 17   | 63443-7109      | 63443-7109             | Terminal Hold Down                 | 1               |
| 18   | 63600-3378      | 63600-3378             | Hold Down Spring                   | 1               |
| 19   | 63700-0539      | 63700-0539             | Cut-off Plunger Spring             | 1               |
| 20   | 63890-0009      | 63890-0009             | Plunger Striker                    | 1               |
| <b>Frame</b>   |                 |                        |                                    |                 |
| 21   | 63800-4901      | 63800-4901             | Top                                | 1               |
| 22   | 63801-3286      | 63801-3286             | Base                               | 1               |
| 23   | 63801-4650      | 63801-4650             | Track                              | 1               |
| 24   | 63459-0001      | 63459-0001             | Terminal Track with Relief Groove  | 1               |
| 25   | 63890-0073      | 63890-0073             | Feed Cam                           | 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

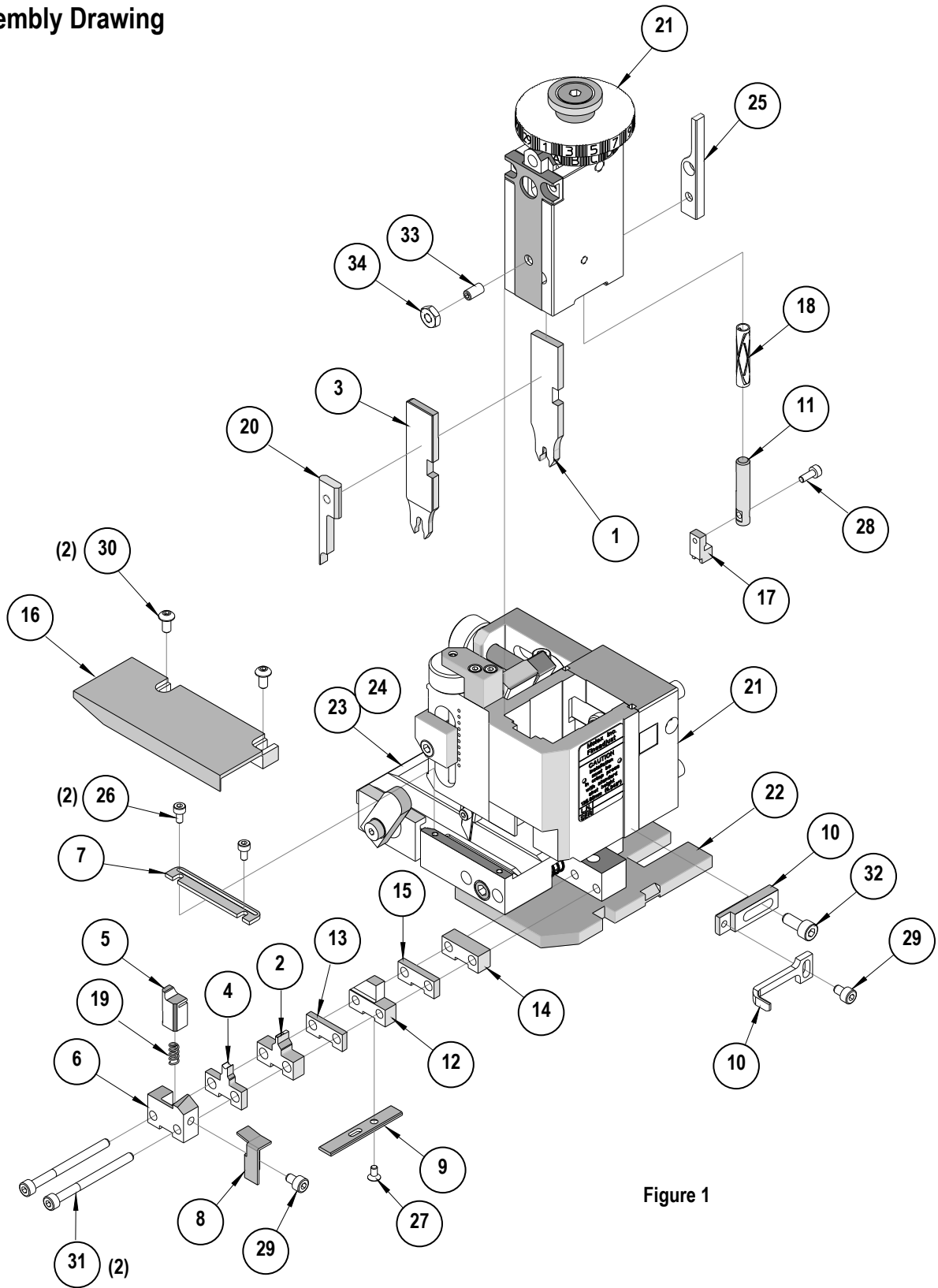


Figure 1

## 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.

**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.

**Americas Headquarters**  
Lisle, Illinois 60532 U.S.A.  
1-800-78MOLEX  
amerinfo@molex.com

**Far East North Headquarters**  
Yamato, Kanagawa, Japan  
81-462-65-2324  
feninfo@molex.com

**Far East South Headquarters**  
Jurong, Singapore  
65-6-268-6868  
fesinfo@molex.com

**European Headquarters**  
Munich, Germany  
49-89-413092-0  
eurinfo@molex.com

**Corporate Headquarters**  
2222 Wellington Ct.  
Lisle, IL 60532 U.S.A.  
630-969-4550  
Fax: 630-969-1352

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