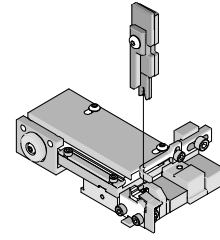


## T2 Terminator Tooling

# molex

## Application Tooling Specification Sheet


**Order No. 63910-9900**

### FEATURES

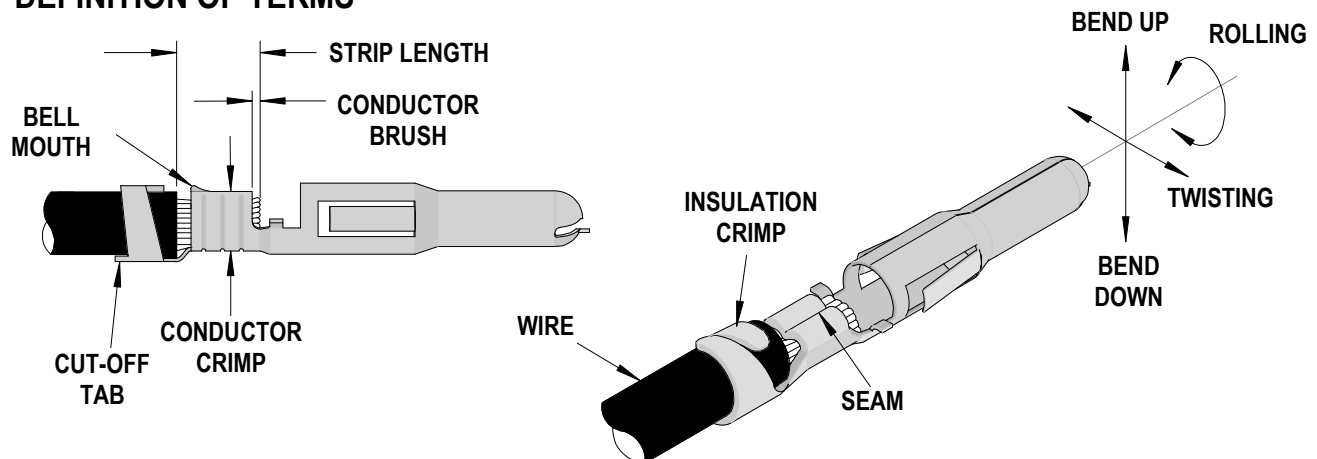
- It is ideally suited for mid-volume bench operations
- This terminator can be installed in the TM42 and the TM40 press or Base Unit adapter for 3BF press
- Quick punch removal with the push of a button for fast and easy tooling change
- Track adjustment capabilities in the T2 Terminators for improved control of the bell mouth size and cutoff tab length
- T2 Terminator has standardized tooling with the Molex FineAdjust Applicator which will reduce your inventory requirements

### SCOPE

Products: MLX™ Crimp Terminals, 14-20 AWG.

| Terminal Series No.                                                                                                                                                                                                                                                                                                                                                            | Terminal Order No. |            | Wire Size |                 | Insulation Diameter |           |              |           | Strip Length |           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------|-----------|-----------------|---------------------|-----------|--------------|-----------|--------------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                |                    |            |           |                 | IPC/WHMA-A620 (1)   |           | Terminal (2) |           |              |           |
|                                                                                                                                                                                                                                                                                                                                                                                |                    |            | AWG       | mm <sup>2</sup> | mm                  | In.       | mm           | In.       | mm           | In.       |
| 42023                                                                                                                                                                                                                                                                                                                                                                          | 02-08-2003         | 02-08-2009 | 14-20     | 2.00-0.50       | 2.41-2.95           | .095-.116 | 1.52-3.30    | .060-.130 | 3.96-5.54    | .156-.218 |
|                                                                                                                                                                                                                                                                                                                                                                                | 02-08-2005         | 02-08-2011 |           |                 |                     |           |              |           |              |           |
|                                                                                                                                                                                                                                                                                                                                                                                | 02-08-2007         | 02-08-2012 |           |                 |                     |           |              |           |              |           |
| 42024                                                                                                                                                                                                                                                                                                                                                                          | 02-08-1001         | 02-08-1005 | 14-20     | 2.00-0.50       | 2.41-2.95           | .095-.116 | 1.52-3.30    | .060-.130 | 3.96-5.54    | .156-.218 |
|                                                                                                                                                                                                                                                                                                                                                                                | 02-08-1003         | 02-08-1007 |           |                 |                     |           |              |           |              |           |
| 1) To achieve optimum IPC-A620 insulation crimps, use this insulation OD range.<br>(2) Overall insulation OD specification for terminal.<br>To achieve optimum IPC-A620 insulation crimps for 2.08-2.50mm (.082-.098") diameter, use Terminator 63910-7500.<br>To achieve optimum IPC-A620 insulation crimps for 2.65-3.30mm (.104-.130") diameter, use Terminator 63910-9800. |                    |            |           |                 |                     |           |              |           |              |           |

### DEFINITION OF TERMS



**CRIMP SPECIFICATION**

| Terminal Series No. | Bell mouth |           | Cut-off Tab Maximum |      | Conductor Brush |           |
|---------------------|------------|-----------|---------------------|------|-----------------|-----------|
|                     | mm         | In.       | mm                  | In.  | mm              | In.       |
| 42023               | 0.25-0.51  | .010-.020 | 0.13                | .005 | 0.38-.70        | .015-.027 |
| 42024               | 0.25-0.51  | .010-.020 | 0.13                | .005 | 0.38-.70        | .015-.027 |

| Terminal<br>Series No. | Bend up   Bend down |   | Twist   Roll |   | Punch Width mm (Ref) |      |            |      | Seam<br>Seam shall not be open<br>and no wire allowed out<br>of the crimping area |
|------------------------|---------------------|---|--------------|---|----------------------|------|------------|------|-----------------------------------------------------------------------------------|
|                        | Degree              |   | Degree       |   | Conductor            |      | Insulation |      |                                                                                   |
|                        |                     |   |              |   | mm                   | In   | mm         | In   |                                                                                   |
| 42023                  | 3                   | 3 | 4            | 8 | 2.30                 | .090 | 3.20       | .126 |                                                                                   |
| 42024                  | 3                   | 3 | 4            | 8 | 2.30                 | .090 | 3.20       | .126 |                                                                                   |

After crimping, the conductor profile should measure the following.

| Terminal Series No. | Wire Size |      | Conductor Crimp |           |           |           | Pull Force Minimum |      |
|---------------------|-----------|------|-----------------|-----------|-----------|-----------|--------------------|------|
|                     |           |      | Height          |           | Width     |           |                    |      |
|                     | AWG       | mm²  | mm              | In        | mm        | In        | N                  | Lb.  |
| 42023               | 14        | 2.00 | 1.70-1.80       | .067-.071 | 2.33-2.53 | .092-.100 | 222.4              | 50.0 |
|                     | 16        | 1.30 | 1.45-1.55       | .057-.061 | 2.31-2.51 | .091-.099 | 200.2              | 45.0 |
|                     | 18        | 0.80 | 1.27-1.37       | .050-.054 | 2.28-2.48 | .090-.098 | 133.4              | 30.0 |
|                     | 20        | 0.50 | 1.14-1.24       | .045-.049 | 2.24-2.44 | .088-.096 | 62.3               | 14.0 |
| 42024               | 14        | 2.00 | 1.70-1.80       | .067-.071 | 2.33-2.53 | .092-.100 | 222.4              | 50.0 |
|                     | 16        | 1.30 | 1.45-1.55       | .057-.061 | 2.31-2.51 | .091-.099 | 200.2              | 45.0 |
|                     | 18        | 0.80 | 1.27-1.37       | .050-.054 | 2.28-2.48 | .090-.098 | 133.4              | 30.0 |
|                     | 20        | 0.50 | 1.14-1.24       | .045-.049 | 2.24-2.44 | .088-.096 | 62.3               | 14.0 |

**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>T2 Terminator 63910-9900</b> |                 |                        |                                    |                 |
|---------------------------------|-----------------|------------------------|------------------------------------|-----------------|
| <b>Item</b>                     | <b>Order No</b> | <b>Engineering No.</b> | <b>Description</b>                 | <b>Quantity</b> |
| <b>Perishable Tooling</b>       |                 |                        |                                    |                 |
|                                 | 63910-9970      | 63910-9970             | Tool Kit (All "Y" Items)           | REF             |
| 1                               | 63444-2313      | 63444-2313             | Conductor Punch                    | 1 Y             |
| 2                               | 63445-2343      | 63445-2343             | Conductor Anvil                    | 1 Y             |
| 3                               | 63446-3212      | 63446-3212             | Insulation Punch                   | 1 Y             |
| 4                               | 63445-3216      | 63445-3216             | 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</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                              | 63443-0024      | 63443-0024             | Key                                | 1               |
| 11                              | 63443-0085      | 63443-0085             | Wire Stop L-Bracket                | 1               |
| 12                              | 63443-0090      | 63443-0090             | Wire Stop                          | 1               |
| 13                              | 63443-1716      | 63443-1716             | Height Spacer (18.60mm)            | 1               |
| 14                              | 63443-2214      | 63443-2214             | Coarse Spacer (14.00mm)            | 1               |
| 15                              | 63443-2318      | 63443-2318             | Fine Spacer (3.90mm)               | 1               |
| 16                              | 63443-2801      | 63443-2801             | Front Plunger Striker              | 1               |
| 17                              | 63443-2908      | 63443-2908             | Wire Hold Down Plunger             | 1               |
| 18                              | 63443-6013      | 63443-6013             | Rear Cover                         | 1               |
| 19                              | 63443-7201      | 63443-7201             | Spring Cover                       | 1               |
| 20                              | 63600-1057      | 63600-1057             | Wire Hold Down Spring              | 1               |
| 21                              | 63600-2972      | 63600-2972             | Collar                             | 2               |
| <b>Frame</b>                    |                 |                        |                                    |                 |
| 22                              | 63800-8500      | 63800-8500             | T2 Terminator                      | 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 14 Long SHCS                 | 2**             |
| 28                              | N/A             | N/A                    | M4 by 30 Long SHCS                 | 2**             |
| 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 5/8" 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).

# Assembly Drawing

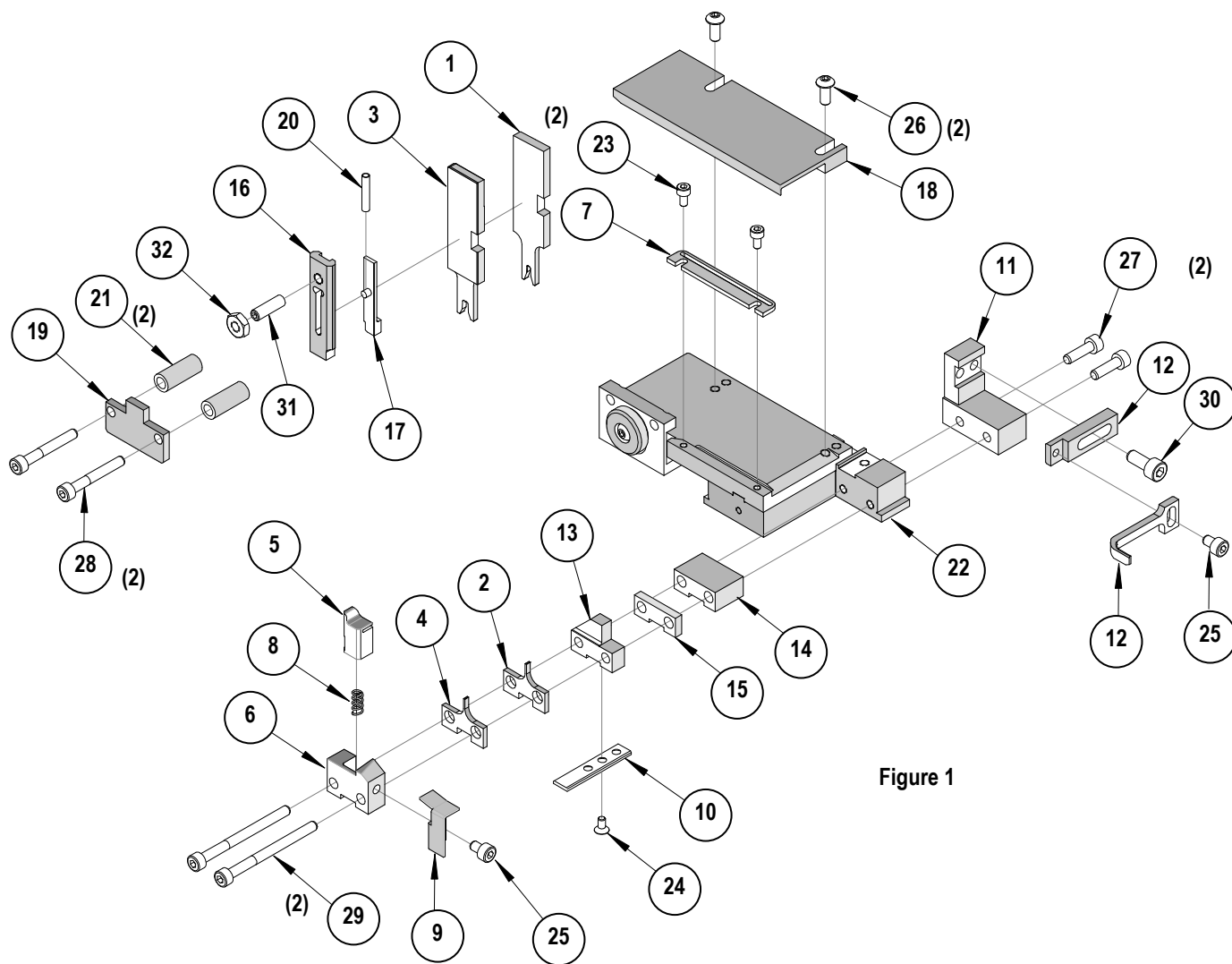


Figure 1

## NOTES

Depending on the press vintage a feed finger assembly is supplied with the T2 Terminator.

1. To remove the existing feed finger assembly loosens the M4 x 10 mm set screw in the feed lever.
2. Select T2 Feed finger assembly from Terminator box.
3. Insert a screwdriver into the slot behind the feed lever and force the feed arm spring to the right.
4. Slide the T2 feed finger shaft for TM42 (11-40-5307) or (11-40-0123) for TM40 /Base Unit into the feed lever and to the left of the feed arm spring.
5. Release the feed arm spring.
6. Position feed finger for selected product. (Refer to Figure 5.1 in the T2 Manual).

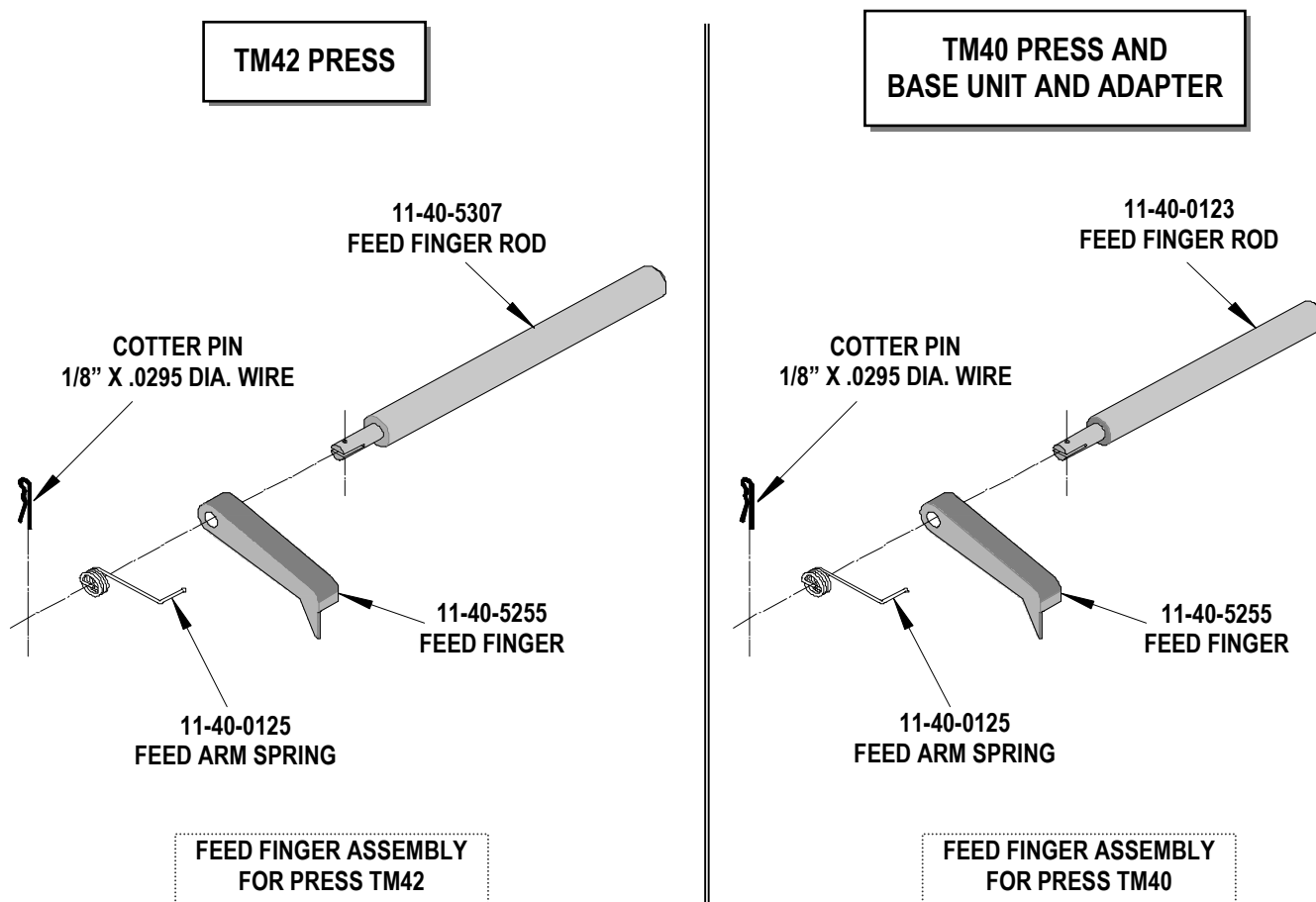


Figure 2

## NOTES

1. Molex recommends an extra perishable tooling kit be maintained at your facility.
2. Verify tooling alignment by manually cycling the press before crimping under power. Check that all screws are tight.
3. Slugs, Terminals, Dirt and Oil should be kept clear of work area.
4. This Terminator should be only used in a Molex TM42, TM40, or 3BF Press with a Base Unit adaptor.
5. Wear safety glasses at all times.
6. For recommended maintenance refer to the TM40, TM42 Manual.

**CAUTION:** To prevent injury never operate this Terminator without the guards supplied with the press or in place. Reference the TM42 press manufacturer's instruction manual.

**CAUTION:** Molex crimp specifications are valid only when used with Molex terminals, applicators and tooling.

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