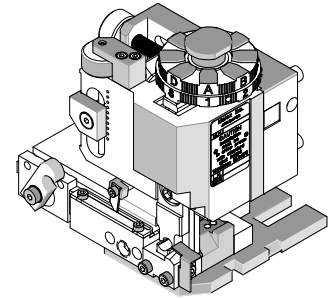




# Mini-Mac Applicator Specification Sheet Order No. 63830-0100



## FEATURES

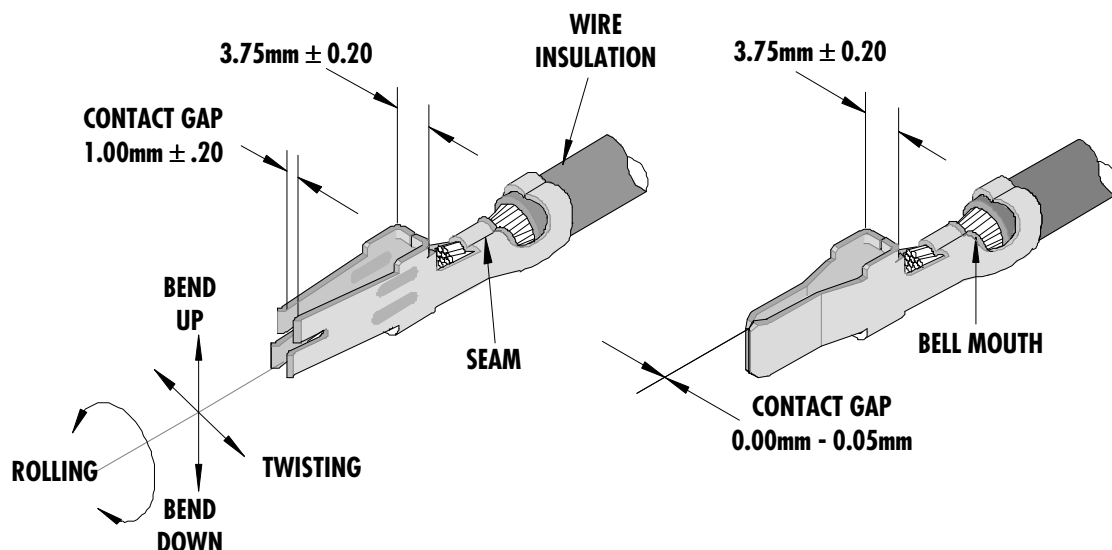
- Quick set-up time; plus the crimp height, track and feed adjustments can be preset in applicator
- Conductor and insulation rings allow quick adjustment for conductor and insulation diameter change
- Applicator designed to industry standard mounting and shut height 135.80mm (5.346")
- Directly adapts to most automatic wire processing machines. Optimum terminal feed/indexing can be obtained with the optional terminal guide assembly, Order No. 63830-0120. See page 5.

## SCOPE

Mini-Fit Sr.™ Male and Female Crimp Terminals, 10 to 12 AWG

| Terminal Series No. | Terminal Order No. |            | Wire Size |                 | Insulation Diameter |           | Strip Length |          |
|---------------------|--------------------|------------|-----------|-----------------|---------------------|-----------|--------------|----------|
|                     |                    |            | AWG       | mm <sup>2</sup> | mm                  | In.       | mm           | In.      |
| 42815               | 42815-0010         | 42815-0012 | 10-12     | 3.30 - 5.00     | 3.50-5.30           | .138-.209 | 7.50-8.50.   | 295-.335 |
|                     | 42815-0011         | 42815-0019 |           |                 |                     |           |              |          |
| 42817               | 42817-0010         | 42817-0110 | 10-12     | 3.30 - 5.00     | 3.50-5.30           | .138-.209 | 7.50-8.50.   | 295-.335 |
|                     | 42817-0011         | 42817-0111 |           |                 |                     |           |              |          |
|                     | 42817-0012         | 42817-0112 |           |                 |                     |           |              |          |
|                     | 42817-0019         |            |           |                 |                     |           |              |          |

## DEFINITION OF TERMS



## CRIMP SPECIFICATIONS

| Terminal Series No. | Wire Size |                 | Bell mouth |           | Cut-off Tab Max. |           | Conductor Brush |           |
|---------------------|-----------|-----------------|------------|-----------|------------------|-----------|-----------------|-----------|
|                     | AWG       | mm <sup>2</sup> | mm         | In.       | mm               | In.       | mm              | In.       |
| 42815               | 10-12     | 3.30 - 5.00     | .20-.50    | .008-.020 | .30-.50 Max.     | .012-.020 | 3.50-4.50       | .138-.177 |
| 42817               | 10-12     | 3.30 - 5.00     | .20-.50    | .008-.020 | .30-.50 Max.     | .012-.020 | 3.50-4.50       | .138-.177 |

| Terminal Series No. | Wire Size |                 | Bend up    Bend down |   | Twist    Roll |   | Seam<br>Seam shall not be open<br>and no wire allowed out of the<br>crimping area. |
|---------------------|-----------|-----------------|----------------------|---|---------------|---|------------------------------------------------------------------------------------|
|                     | AWG       | mm <sup>2</sup> | Degree               |   | Degree        |   |                                                                                    |
| 42815               | 10-12     | 3.30 - 5.00     | 3                    | 3 | 4             | 8 |                                                                                    |
| 42817               | 10-12     | 3.30 - 5.00     | 3                    | 3 | 4             | 8 |                                                                                    |

After crimping, the conductor profile should measure the following.

| Terminal Series No. | Wire Size |                 | Conductor    |           |             |      | Pull Force Min. |      |
|---------------------|-----------|-----------------|--------------|-----------|-------------|------|-----------------|------|
|                     |           |                 | Crimp Height |           | Crimp Width |      |                 |      |
|                     | AWG       | mm <sup>2</sup> | mm           | In.       | mm          | In.  | N               | Lb.  |
| 42815               | 10        | 5.00            | 2.69-2.79    | .106-.110 | 3.60        | .142 | 355.0           | 80.0 |
|                     | 12        | 3.30            | 2.39-2.49    | .094-.098 | 3.60        | .142 | 311.0           | 70.0 |
|                     |           |                 |              |           |             |      |                 |      |
| 42817               | 10        | 5.00            | 2.69-2.79    | .106-.110 | 3.60        | .142 | 355.0           | 80.0 |
|                     | 12        | 3.30            | 2.39-2.49    | .094-.098 | 3.60        | .142 | 311.0           | 70.0 |

Pull Force should be measured with no influence from the insulation crimp.  
The above specifications are guidelines to an optimum crimp.

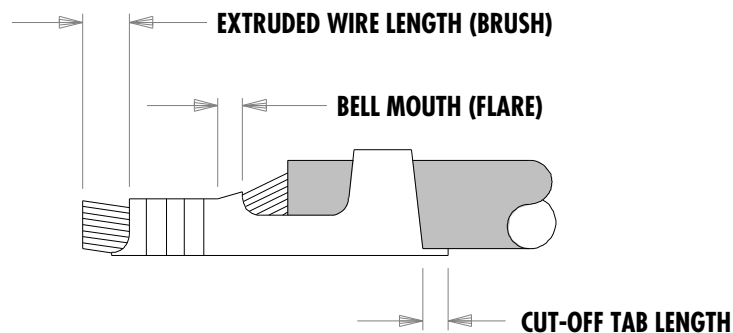


Figure 1

### Special Note:

Cut-off Tab length below 0.30mm may cause the box dimension to be under recommendation. See Figure 1

**PARTS LIST**

| <b>Mini-Mac Applicator 63830-0100</b>                                        |                 |                        |                                  |                 |
|------------------------------------------------------------------------------|-----------------|------------------------|----------------------------------|-----------------|
| <b>Item</b>                                                                  | <b>Order No</b> | <b>Engineering No.</b> | <b>Description</b>               | <b>Quantity</b> |
| <b>Perishable Tooling</b>                                                    |                 |                        |                                  |                 |
|                                                                              | 63830-0170      | 63830-0170             | Tool Kit (All "Y" Items)         | REF             |
| 1                                                                            | 11-18-5244      | 60827A106              | Conductor Punch                  | 1 Y             |
| 2                                                                            | 63821-0002      | 63821-0002             | Conductor Anvil                  | 1 Y             |
| 3                                                                            | 11-18-5246      | 60827A108              | Insulation Punch                 | 1 Y             |
| 4                                                                            | 63821-0004      | 63821-0004             | Insulation Anvil                 | 1 Y             |
| 5                                                                            | 63443-0045      | 63443-0045             | Front Cut-off Plunger            | 1 Y             |
| 6                                                                            | 63443-0046      | 63443-0046             | Front Cut-off Plunger Retainer   | 1 Y             |
| <b>Other Components</b>                                                      |                 |                        |                                  |                 |
| 7                                                                            | 11-18-5248      | 60827A115              | Tooling Washer                   | 1               |
| 8                                                                            | 63443-0009      | 63443-0009             | Scrap Chute Front                | 1               |
| 9                                                                            | 63443-0021      | 63443-0021             | Lower Tooling Key                | 1               |
| 10                                                                           | 63443-2401      | 63443-2401             | Anvil Mount                      | 1               |
| 11                                                                           | 63700-0539      | 63700-0539             | Cut-Off Plunger Spring           | 1               |
| 12                                                                           | 63821-0012      | 63821-0012             | Front Cover                      | 1               |
| 13                                                                           | 63821-0015      | 63821-0015             | Wire Stop                        | 1               |
| 14                                                                           | 63830-0008      | 63830-0008             | Front Plunger Striker            | 1               |
| 15                                                                           | 63830-0113      | 63830-0113             | Rear Cover                       | 1               |
| 15A                                                                          | 63830-0120      | 63830-0120             | Optional Terminal Guide Assembly | 0               |
| <b>Frame</b>                                                                 |                 |                        |                                  |                 |
| 16                                                                           | 63800-4300      | 63800-4300             | Mini-Mac Applicator Frame        | 1               |
| 17                                                                           | 69028-0806      | 69028-0806             | Conductor Adjusting Cam          | 1               |
| <b>Hardware</b>                                                              |                 |                        |                                  |                 |
| 18                                                                           | N/A             | N/A                    | M3 by 6 Long SHCS                | 2**             |
| 19                                                                           | N/A             | N/A                    | M4 by 6 Long SHCS                | 1**             |
| 20                                                                           | N/A             | N/A                    | M4 by 12 Long BHCS               | 2**             |
| 21                                                                           | N/A             | N/A                    | M4 by 30 Long SHCS               | 1**             |
| 22                                                                           | N/A             | N/A                    | M4 by 50 Long SHCS               | 1**             |
| 23                                                                           | N/A             | N/A                    | M5 by 12 Long SHCS               | 1**             |
| 24                                                                           | N/A             | N/A                    | M8 by 20 Long BHCS               | 1**             |
| 25                                                                           | N/A             | N/A                    | 2mm by 8 Long Roll Pin           | 1**             |
| 26                                                                           | N/A             | N/A                    | 3mm by 6 Long Roll Pin           | 1**             |
| ** Available from an industrial supply company such as MSC (1-800-645-7270). |                 |                        |                                  |                 |

# Assembly Drawing

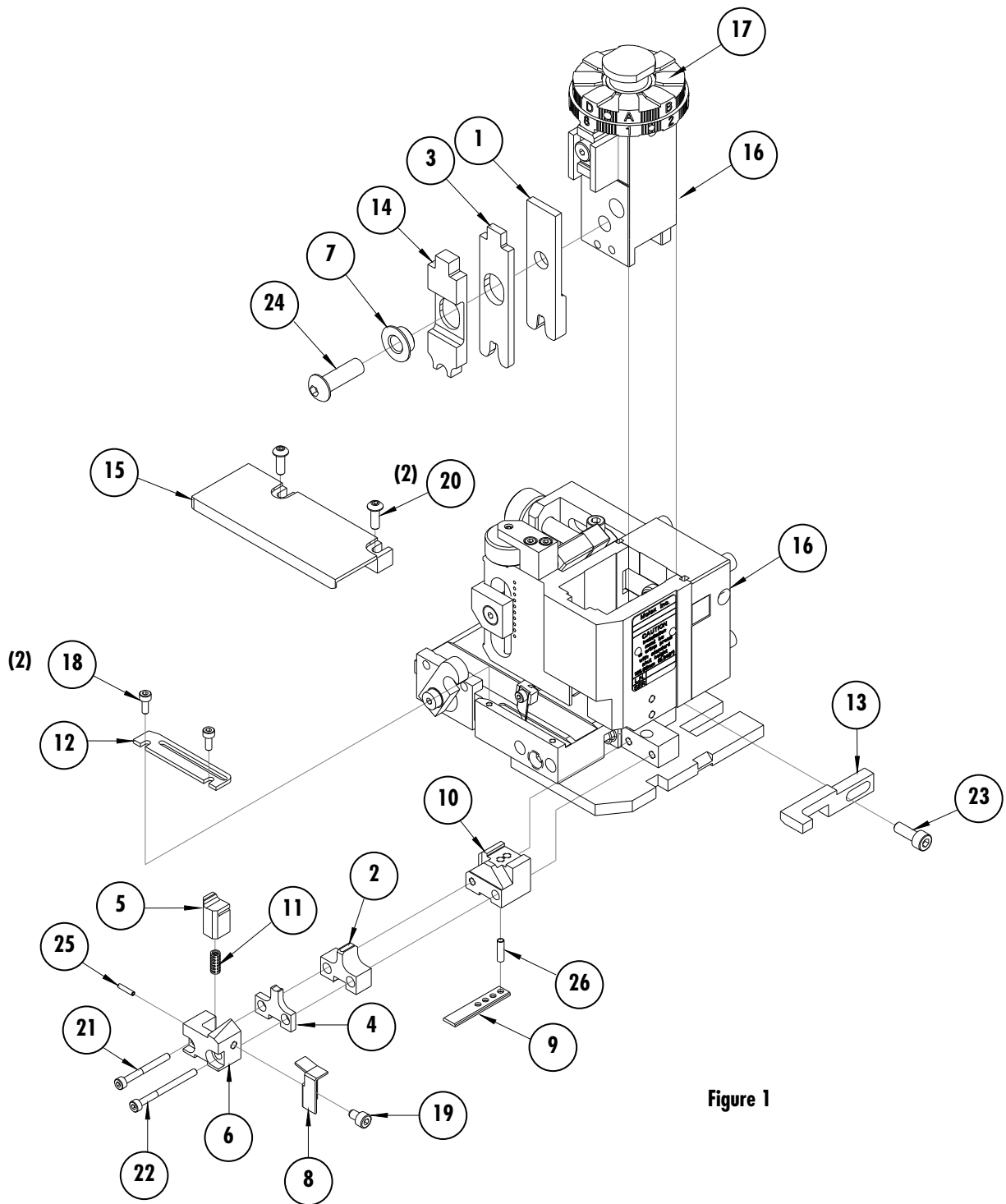
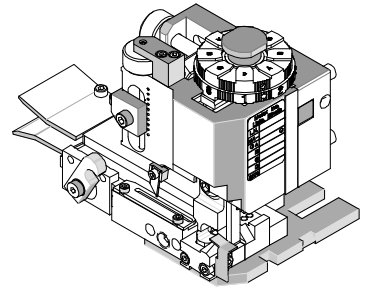


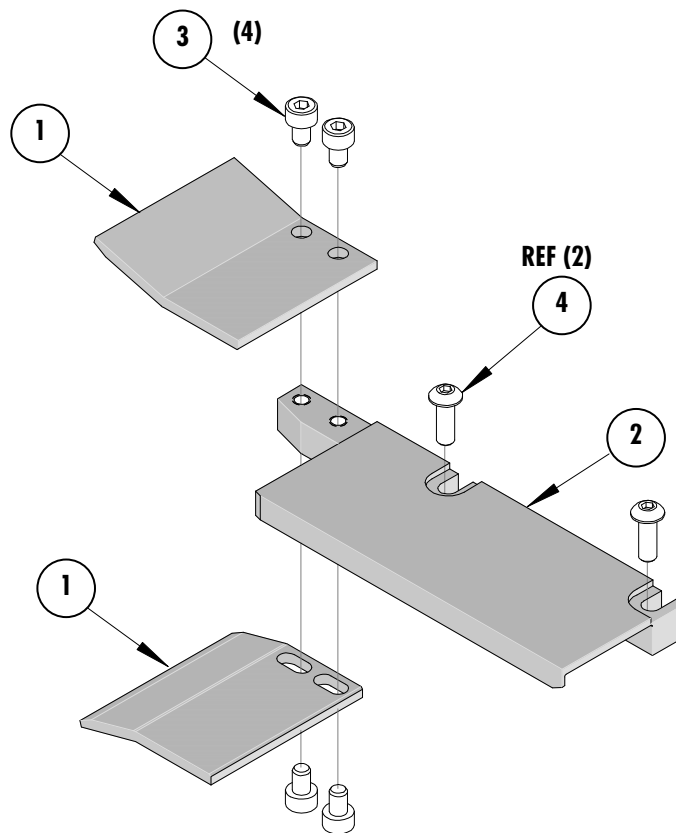
Figure 1

**OPERATION:**

The Optional Terminal Guide Assembly helps to align slightly bent up or down terminals, entering the track. Recommended for use with wire processing equipment, or roughly handled terminal reels. To install the Optional Terminal Guide assembly follow the steps below.



- 1 Remove the M4 X 12 BHCS (2) from the existing rear cover (Part No. 63830-0113) on the applicator.
- 2 Remove the 63830-0113 rear cover.
- 3 Replace it with the 63830-0120 Optional Terminal Guide Assembly.
- 4 Replace the M4 X 12 BHCS (2).



| Optional Terminal Guide Assembly 63830-0120                                  |            |                 |                    |          |
|------------------------------------------------------------------------------|------------|-----------------|--------------------|----------|
| Item                                                                         | Order No   | Engineering No. | Description        | Quantity |
| 1                                                                            | 63830-0117 | 63830-0117      | Terminal Lead-In   | 2        |
| 2                                                                            | 63830-0118 | 63830-0118      | Rear Cover         | 1        |
| Hardware                                                                     |            |                 |                    |          |
| 3                                                                            | N/A        | N/A             | M3 by 6 Long SHCS  | 4**      |
| 4                                                                            | N/A        | N/A             | M4 by 12 Long BHCS | REF**    |
| ** 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 Mini-Mac 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.

## Contact Information

For more information on Molex application tooling please contact Molex at 1-800-786-6539.

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