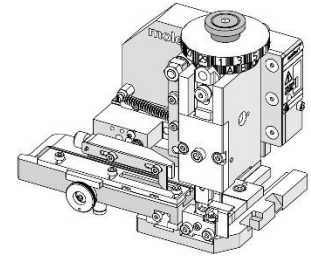


Order Number
63808-4500

molex[®]

Application Tooling Specification



FEATURES

- Applicator designed to industry-standard mounting and 135.80mm (5.346") shut height
- Quick setup 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 .025mm (.001") for insulation height
- Fine adjustment of the bend is achieved using the bend adjust dial
- 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

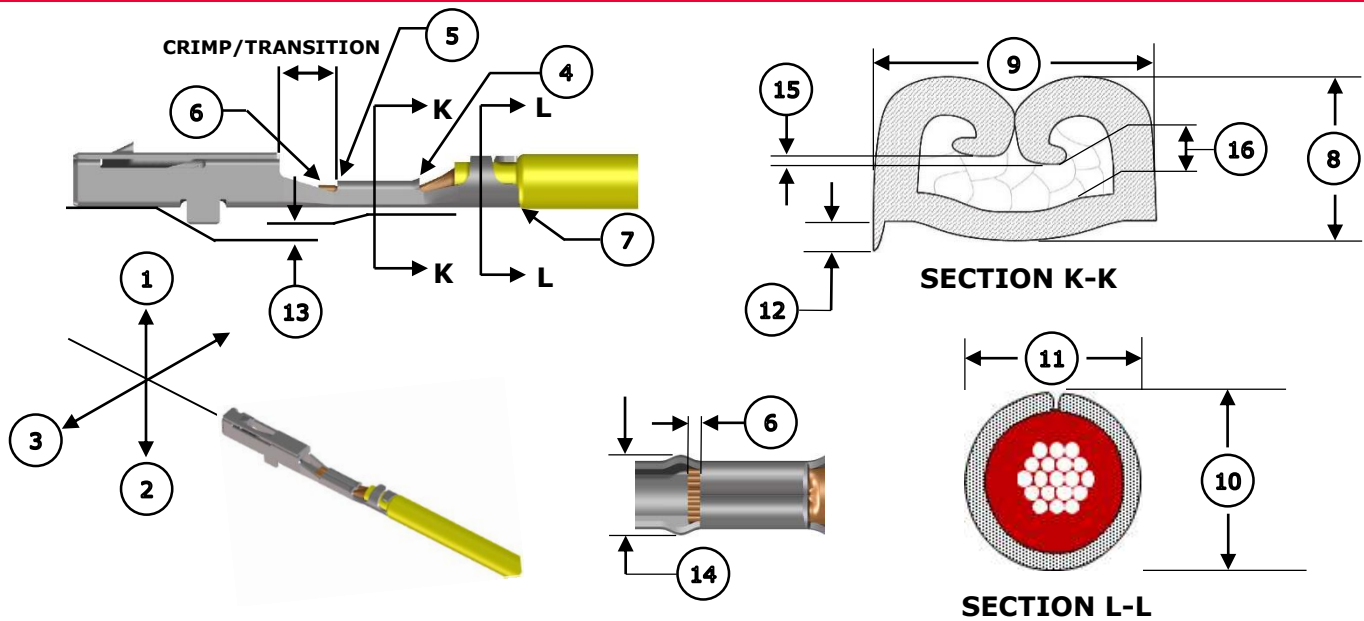
SCOPE

Products: CTX50 Receptacle Terminal Unsealed, 0.35mm².

| Terminal Series No. | Terminal Order No. | Wire Type | Wire Size | | Insulation Diameter | | Strip Length (Ref) | |
|---------------------|----------------------------|---------------------|-----------|-----------------|---------------------|-----------|--------------------|------|
| | | | AWG | mm ² | mm | In. | mm | In. |
| 560023 | 560023-0548 | FLR2X A3ZH | — | 0.35 | 1.10-1.40 | .043-.055 | 3.10 | .122 |
| | | UL10086 | 22 | — | 1.10-1.40 | .043-.055 | 3.10 | .122 |
| | | UL10316 | | | 1.10-1.30 | .043-.051 | 3.10 | .122 |
| | | UL10588 | | | 1.10-1.27 | .043-.050 | 3.10 | .122 |
| | 560023-0448 560023-0648 | FLR2X A3ZH | — | 0.35 | 1.10-1.40 | .043-.055 | 3.10 | .122 |
| | | A3Z | | | | | | |
| | | FTP: 00949_10_00766 | | | | | | |
| | | FLR13Y-A | 22 | — | 1.10-1.40 | .043-.055 | 3.10 | .122 |
| | | UL10086 | | | 1.10-1.30 | .043-.051 | 3.10 | .122 |
| | | UL10316 | | | 1.10-1.27 | .043-.050 | 3.10 | .122 |
| | | UL10588 | | | | | | |

CAUTION: This applicator was designed for use in a wire processor only.

DEFINITION OF TERMS



CRIMP SPECIFICATIONS

The following crimp specifications are based on document AS-560023-001 Rev J:

| Feature | Requirement | | | | | | | | | | | | | | | | | | | | | |
|---------------------|--|----------------------|------------------|------------------|-----------------|-----------------|--|------------|----------------------|-------------|---------------|-------------|---------------|-----|---------------------|----------|--------|-------------|---------------|---------|---------|---------|
| 1. Bend Up | 1° Max | | | | | | | | | | | | | | | | | | | | | |
| 2. Bend Down | 1° Max | | | | | | | | | | | | | | | | | | | | | |
| 3. Twist | 2° Max | | | | | | | | | | | | | | | | | | | | | |
| 4. Bell Mouth Rear | 0.60-0.80mm (.024-.031") | | | | | | | | | | | | | | | | | | | | | |
| 5. Bell Mouth Front | None | | | | | | | | | | | | | | | | | | | | | |
| 6. Conductor Brush | 0.55mm (.022") Max Not to extend above conductor crimp/transition height | | | | | | | | | | | | | | | | | | | | | |
| 7. Cut-Off Tab | 0.30mm (.012") Max | | | | | | | | | | | | | | | | | | | | | |
| Conductor Crimp | <table border="1"> <thead> <tr> <th>Wire Type</th> <th>Wire Size</th> <th colspan="2">8. Crimp Height</th> <th colspan="2">9. Crimp Width</th> </tr> </thead> <tbody> <tr> <td>FLR2X A3ZH</td> <td rowspan="3">0.35 mm²</td> <td rowspan="3">0.65-0.69mm</td> <td rowspan="3">.026-.027 in.</td> <td rowspan="6">1.01-1.07mm</td> <td rowspan="6">.040-.042 in.</td> </tr> <tr> <td>A3Z</td> </tr> <tr> <td>FTP: 00949_10_00766</td> </tr> <tr> <td>FLR13Y-A</td> <td rowspan="4">22 AWG</td> <td rowspan="4">0.63-0.67mm</td> <td rowspan="4">.025-.026 in.</td> </tr> <tr> <td>UL10086</td> </tr> <tr> <td>UL10316</td> </tr> <tr> <td>UL10588</td> </tr> </tbody> </table> | Wire Type | Wire Size | 8. Crimp Height | | 9. Crimp Width | | FLR2X A3ZH | 0.35 mm ² | 0.65-0.69mm | .026-.027 in. | 1.01-1.07mm | .040-.042 in. | A3Z | FTP: 00949_10_00766 | FLR13Y-A | 22 AWG | 0.63-0.67mm | .025-.026 in. | UL10086 | UL10316 | UL10588 |
| | Wire Type | Wire Size | 8. Crimp Height | | 9. Crimp Width | | | | | | | | | | | | | | | | | |
| | FLR2X A3ZH | 0.35 mm ² | 0.65-0.69mm | .026-.027 in. | 1.01-1.07mm | .040-.042 in. | | | | | | | | | | | | | | | | |
| | A3Z | | | | | | | | | | | | | | | | | | | | | |
| | FTP: 00949_10_00766 | | | | | | | | | | | | | | | | | | | | | |
| | FLR13Y-A | 22 AWG | 0.63-0.67mm | .025-.026 in. | | | | | | | | | | | | | | | | | | |
| | UL10086 | | | | | | | | | | | | | | | | | | | | | |
| UL10316 | | | | | | | | | | | | | | | | | | | | | | |
| UL10588 | | | | | | | | | | | | | | | | | | | | | | |
| Insulation Crimp | <table border="1"> <thead> <tr> <th>Wire Type</th> <th>Wire Size</th> <th colspan="2">10. Crimp Height</th> <th colspan="2">11. Crimp Width</th> </tr> </thead> <tbody> <tr> <td>FLR2X A3ZH</td> <td rowspan="3">0.35 mm²</td> <td rowspan="3">1.48-1.58mm</td> <td rowspan="3">.058-.062 in.</td> <td rowspan="6">1.33-1.43mm</td> <td rowspan="6">.052-.056 in.</td> </tr> <tr> <td>A3Z</td> </tr> <tr> <td>FTP: 00949_10_00766</td> </tr> <tr> <td>FLR13Y-A</td> <td rowspan="4">22 AWG</td> <td rowspan="4">1.48-1.58mm</td> <td rowspan="4">.058-.062 in.</td> </tr> <tr> <td>UL10086</td> </tr> <tr> <td>UL10316</td> </tr> <tr> <td>UL10588</td> </tr> </tbody> </table> | Wire Type | Wire Size | 10. Crimp Height | | 11. Crimp Width | | FLR2X A3ZH | 0.35 mm ² | 1.48-1.58mm | .058-.062 in. | 1.33-1.43mm | .052-.056 in. | A3Z | FTP: 00949_10_00766 | FLR13Y-A | 22 AWG | 1.48-1.58mm | .058-.062 in. | UL10086 | UL10316 | UL10588 |
| | Wire Type | Wire Size | 10. Crimp Height | | 11. Crimp Width | | | | | | | | | | | | | | | | | |
| | FLR2X A3ZH | 0.35 mm ² | 1.48-1.58mm | .058-.062 in. | 1.33-1.43mm | .052-.056 in. | | | | | | | | | | | | | | | | |
| | A3Z | | | | | | | | | | | | | | | | | | | | | |
| | FTP: 00949_10_00766 | | | | | | | | | | | | | | | | | | | | | |
| | FLR13Y-A | 22 AWG | 1.48-1.58mm | .058-.062 in. | | | | | | | | | | | | | | | | | | |
| | UL10086 | | | | | | | | | | | | | | | | | | | | | |
| UL10316 | | | | | | | | | | | | | | | | | | | | | | |
| UL10588 | | | | | | | | | | | | | | | | | | | | | | |

FA2 Crimp Applicator for CTX50 Receptacle Terminal Unsealed

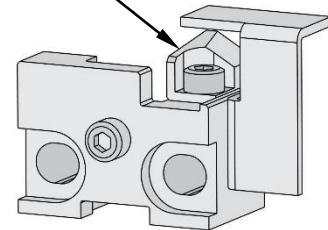
| Pull Force | Wire Type | Wire Size | Minimum Force | | To be measured with no influence from the insulation crimp. | |
|----------------------------------|--------------------------|----------------------|----------------------|--------------|---|--------------|
| | FLR2X A3ZH | 0.35 mm ² | 50 N | 11.3 lb. | | |
| | A3Z | | | | | |
| | FTP: 00949_10_00766 | | | | | |
| | FLR13Y-A | 22 AWG | 50 N | 11.3 lb. | | |
| | UL10086 | | | | | |
| | UL10316 | | | | | |
| UL10588 | | | | | | |
| 12. Conductor Anvil Flash | 0.10mm (.004") Max | | | | | |
| 13. Insulation Grip Step | 0.00-0.08mm (.000-.003") | | | | | |
| 14. Crimp Bulge | 1.07mm (.042") Max | | | | | |
| Misc. | Wire Type | Wire Size | 15. Wing Dissymmetry | | 16. Space Between Wing Tips and Crimp Bottom | |
| | FLR2X A3ZH | 0.35 mm ² | 0.20mm Max | .008 in. Max | 0.10mm Min | .004 in. Min |
| | A3Z | | | | | |
| | FTP: 00949_10_00766 | | | | | |
| | FLR13Y-A | | | | | |

NOTES

Applicator Notes

- This applicator is for automatic wire processor use only.
- This applicator does not include a cutting insert.
- Installing a cutting insert will cause jamming in this applicator.

CUTTING INSERT



Specification Notes

- 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 set up wire processor to consistently achieve the brush length.

General Notes

1. Molex recommends that an extra perishable tooling kit be maintained at your facility.
2. Verify tooling alignment by hand 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 the work area.
4. Wear safety glasses at all times.
5. For recommended maintenance, refer to the FA2 manual (TM-638080200).
6. Molex recommends crimping standard copper wire only.
7. Lubrication must be used when crimping gold and select gold terminals to prevent terminals from sticking in the conductor punch. Use 63801-7240 oiler or equivalent.

WARNINGS

CAUTION: This applicator must be installed in a press with a standard shut height of 135.80mm (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 tooling crimp specifications are valid only when used with Molex terminals and tooling manufactured by Molex and sold by Molex or authorized distributors ("Molex Tooling"). When using tooling other than Molex Tooling with Molex-specific connector systems listed in our ATS documents, the Molex Tooling qualification does not apply, and the responsibility for full qualification of the connector system is that of the customer. Molex accepts no liability for connector performance or tooling support where tooling other than Molex Tooling is used or where Molex Tooling is modified.

PARTS LIST

| FA2 Applicator 63808-4500 | | | | |
|---|------------------|------------------------|----------------------------|-----------------|
| Item | Order No. | Engineering No. | Description | Quantity |
| Perishable Tooling | | | | |
| | 63808-4570 | 63808-4570 | Tool Kit (All "Y" Items) | Ref |
| 1 | 63454-1302 | 63454-1302 | Insulation Punch | 1 Y |
| 2 | 63457-1004 | 63457-1004 | Conductor Punch | 1 Y |
| 3 | 63456-1302 | 63456-1302 | Insulation Anvil | 1 Y |
| 4 | 63455-1005 | 63455-1005 | Conductor Anvil | 1 Y |
| 5 | 63443-0136 | 63443-0136 | Cut-Off Plunger | 1 Y |
| Non-Perishable Components | | | | |
| 6 | 63443-0118 | 63443-0118 | Front Plunger Retainer | 1 |
| 7 | 11-24-1067 | 4996-4 | Cut-Off Plunger Spring | 1 |
| 8 | 63443-0117 | 63443-0117 | Front Scrap Chute | 1 |
| 9 | 63443-7516 | 63443-7516 | Anvil Mount | 1 |
| 10 | 63443-0090 | 63443-0090 | Wire Stop | 1 |
| 11 | 63443-2806 | 63443-2806 | Front Plunger Striker | 1 |
| 12 | 63443-2921 | 63443-2921 | Wire Hold Down Plunger | 1 |
| 13 | 63600-0021 | 63600-0021 | Wire Hold Down Spring | 1 |
| 14 | 63600-5776 | 63600-5776 | Nose Hold Down | 1 |
| 15 | 63600-5775 | 63600-5775 | Nose Hold Down Shank | 1 |
| 16 | 63443-4701 | 63443-4701 | Terminal Guide | 1† |
| 17 | 63443-7403 | 63443-7403 | Hold Down Block | 1 |
| 18 | 63808-0229 | 63808-0229 | Bend Adjust Dial | 1 |
| 19 | 63600-4387 | 63600-4387 | Dial Indicator Plate | 1 |
| 20 | 63443-4409 | 63443-4409 | Feed Cam | 1 |
| 21 | 63808-0249 | 63808-0249 | Feed Pawl | 1 |
| Frame | | | | |
| 22 | 63808-0200 | 63808-0200 | Applicator Core | 1 |
| 23 | 63808-0197 | 63808-0197 | Mechanical Feed Assembly | 1 |
| Hardware | | | | |
| 24 | — | — | M2.5 x 3 SHCS | 1* |
| 25 | — | — | M3 Flat Washer Hard | 1* |
| 26 | — | — | M3 Inner Tooth Lock Washer | 1* |
| 27 | — | — | M3 x 6 BHCS | 2* |
| 28 | — | — | M3 x 12 SHCS | 4* |
| 29 | — | — | M4 x 6 SHCS | 1* |
| 30 | — | — | M4 x 4 SSS | 1* |
| 31 | — | — | M4 x 8 SHCS | 2* |
| 32 | — | — | M4 x 50 SHCS | 2* |
| 33 | — | — | M5 x 12 SHCS | 1* |
| 34 | — | — | #10-32UNF x .25" SHCS | 1* |
| *Fastener parts can be purchased through most industrial suppliers by using the description in the table above. | | | | |

ASSEMBLY DRAWING

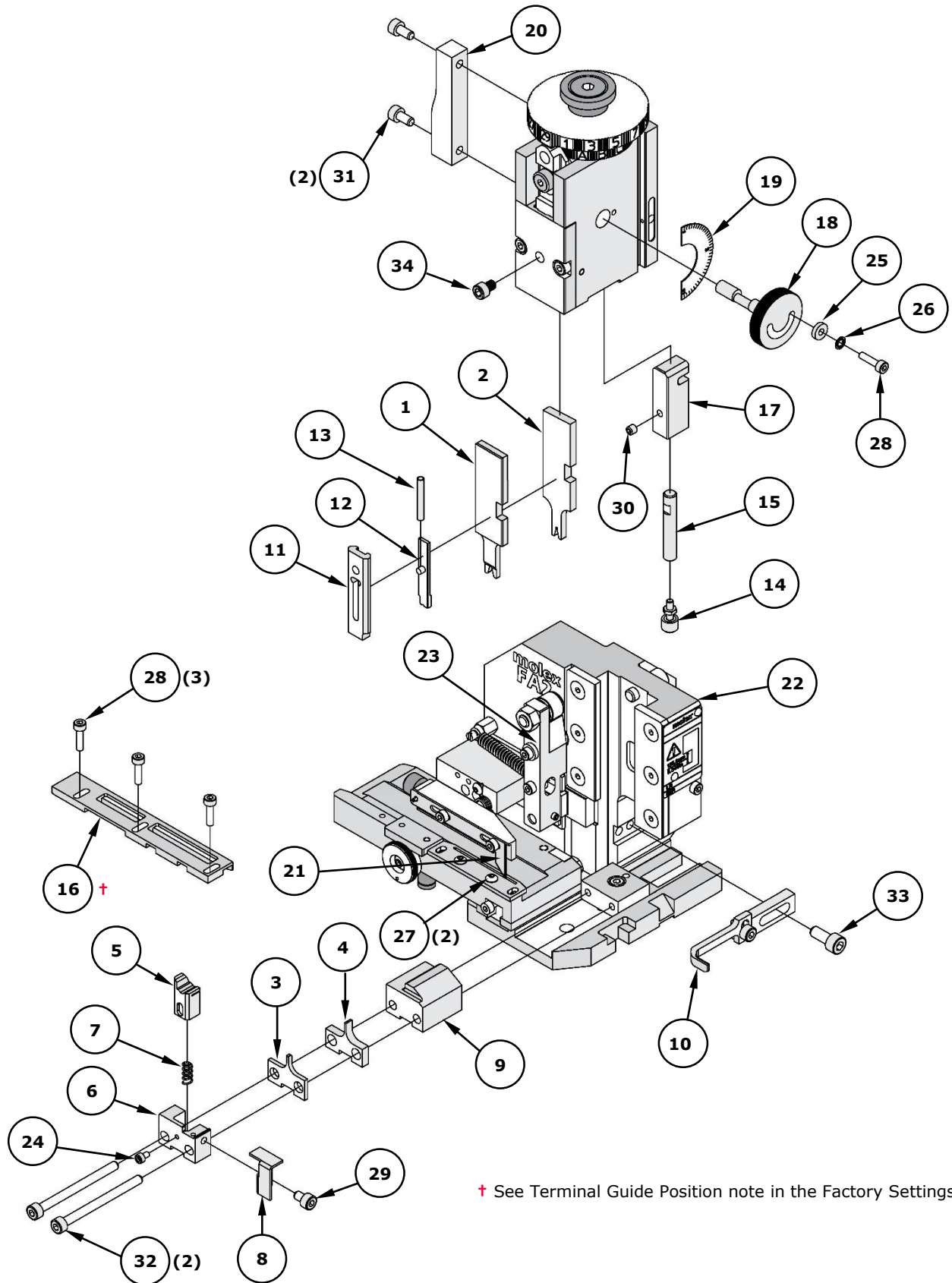


Figure 1

FACTORY SETTINGS

Feed Pawl Assembly

The FA2 applicator number 63808-4500 ships with the following factory settings. See Figure 2:

- The feed pawl shaft and M3 screw that holds the feed pawl spring are in position 3.
- The pin is in position B.

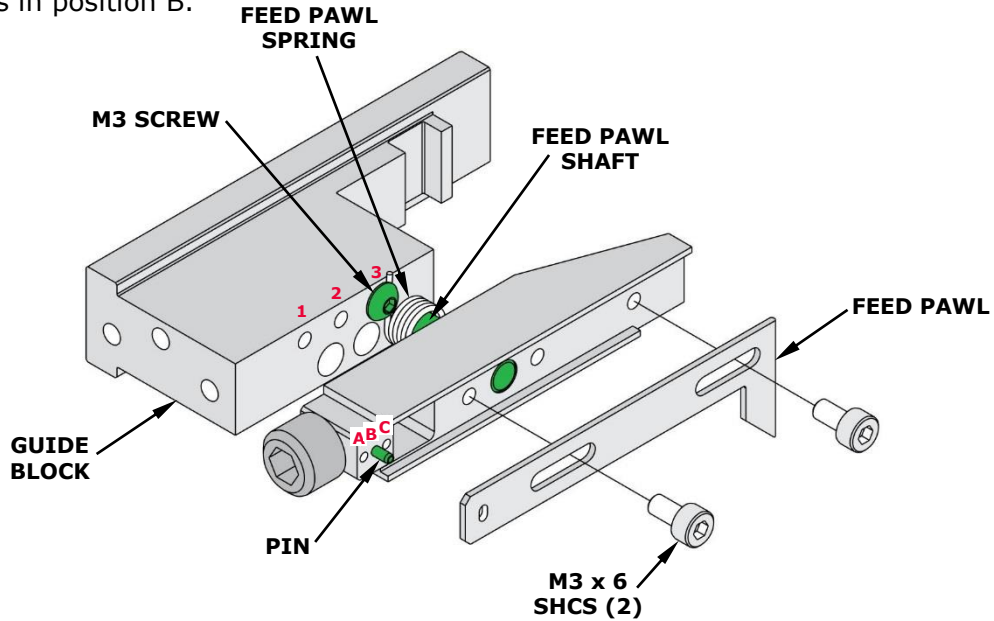


Figure 2

Note: Each applicator is configured and tested by Molex prior to shipping, and the above settings were used to produce the included sample crimps.

Third Dial/Ram Assembly

○ Indicates item number on the Parts List and Assembly Drawing

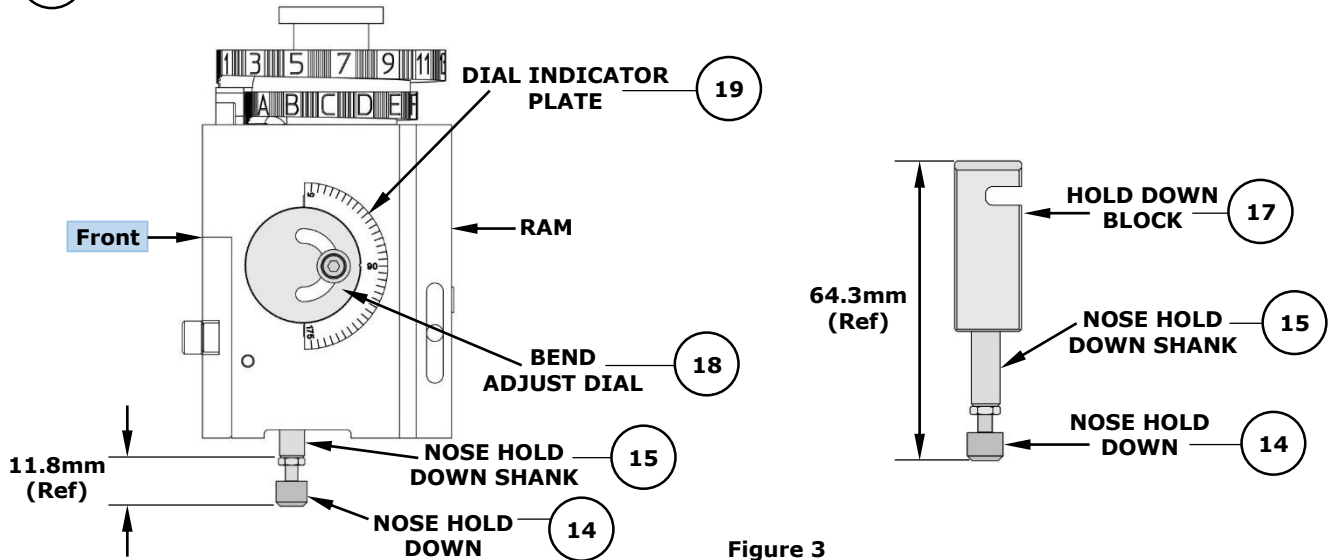


Figure 3

Note: The above dimensions were measured during setup and are included as a reference only. Additional adjustments may be required before crimping for production.

Mounting Datum Location

This applicator was assembled and tested by Molex with the mounting datum in the location shown in Figure 4. Do not remove the mounting datum.

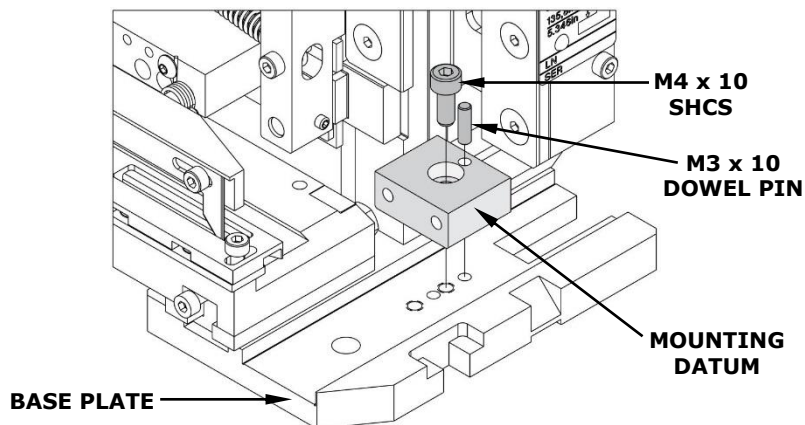


Figure 4

Terminal Guide Position

The terminal guide on this applicator should be positioned so that it is in front of the terminal conductor grips, as shown in Figure 5.

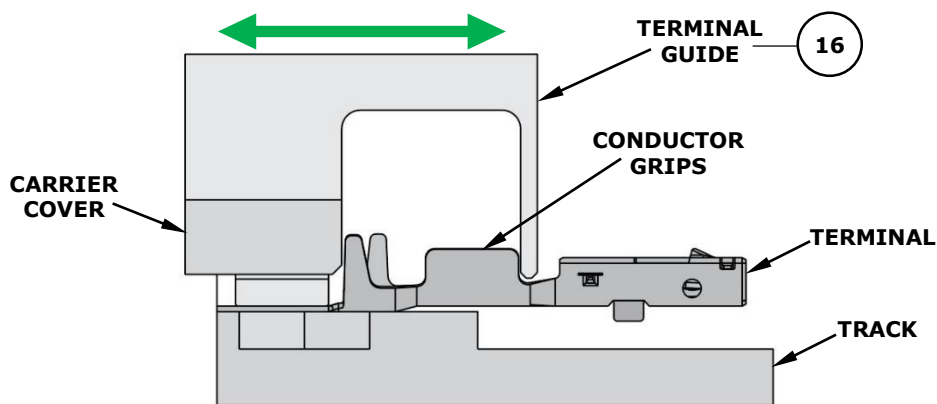


Figure 5

Application Tooling Support

Phone: (402) 458-TOOL (8665)
E-Mail: applicationtooling@molex.com
Website: www.molex.com/applicationtooling

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