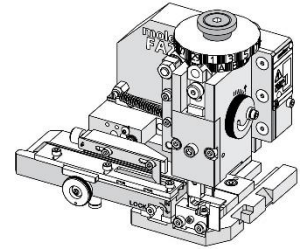


Order Number
213069-0900

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 0.015mm (.0006") for conductor crimp height and 0.025mm (.001") 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

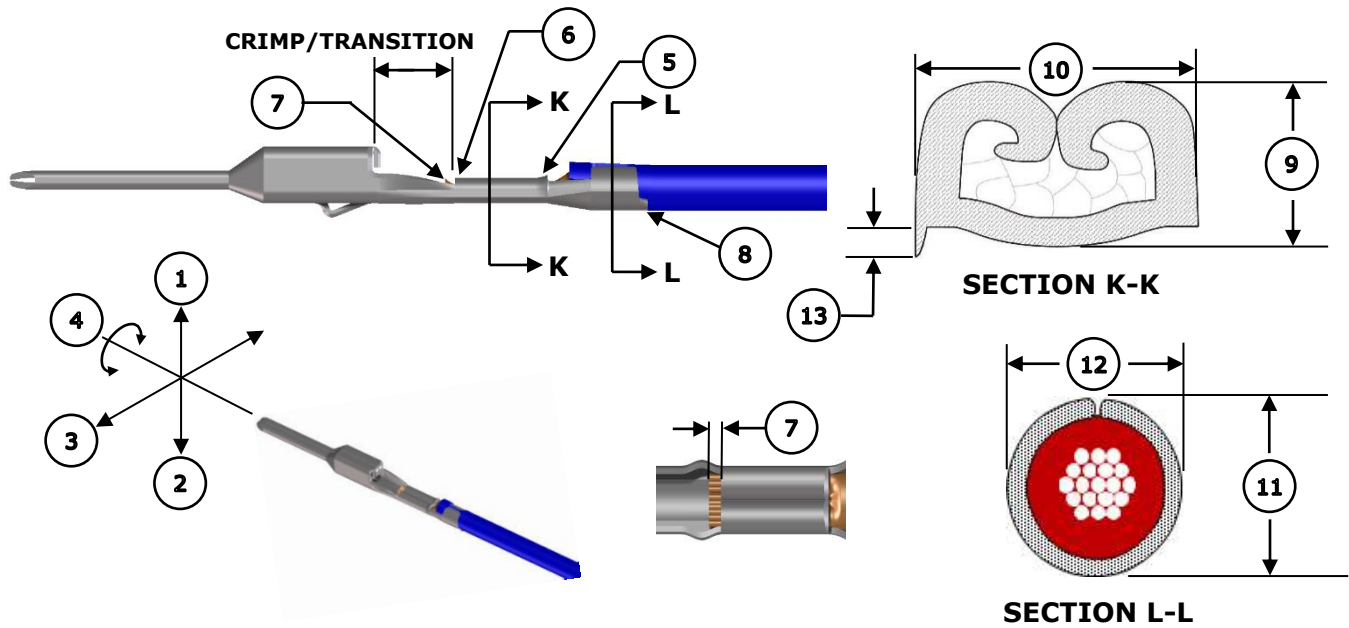
SCOPE

Products: Squba 3.6 Med Blade, 18-20 AWG Wire.

| Terminal Series No. | Terminal Order No. | Wire | | Insulation Diameter | | Strip Length | |
|---------------------|--------------------|-----------|--------|---------------------|----------|--------------|-----------|
| | | Wire Type | Size | mm | In. | mm | In. |
| 207776 | 207776-0002 | UL1007 | 18 AWG | 2.10 max | .083 max | 4.00-4.50 | .157-.177 |
| | | UL1061 | 18 AWG | 1.46 min | .057 min | 4.00-4.50 | .157-.177 |
| | | UL1007 | 20 AWG | 2.10 max | .083 max | 4.00-4.50 | .157-.177 |
| | | UL1061 | 20 AWG | 1.46 min | .057 min | 4.00-4.50 | .157-.177 |

CAUTION: Lubrication must be used to prevent terminals from sticking in the conductor punch. Use 63801-7240 oiler or equivalent.

DEFINITION OF TERMS



The above terminal drawing is a generic terminal representation. It is not an image of a terminal listed in the scope.

CRIMP SPECIFICATIONS

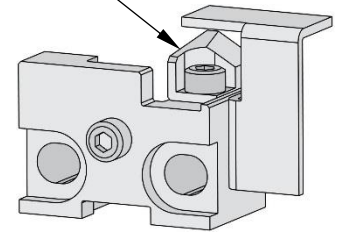
| Feature | Requirement | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|-------------|------------------|------------------|---|---|--------|--------|--------|-------------|---------------|-------------|---------------|----------|--------|-------------|---------------|-------------|---------------|--------|--------|-------------|---------------|-------------|---------------|--------|--------|-------------|---------------|-------------|---------------|
| 1. Bend Up | 3° Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Bend Down | 3° Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Twist | 3° Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. Roll | 3° Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. Bell Mouth Rear | 0.30-0.50mm (.012-.020") | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. Bell Mouth Front | Not Applicable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. Conductor Brush | 0.30-0.70mm (.012-.028") | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. Cut-Off Tab | 0.20mm (.008") Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conductor Crimp | <table border="1"> <thead> <tr> <th>Wire Type</th> <th>Wire Size</th> <th colspan="2">9. Crimp Height</th> <th colspan="2">10. Crimp Width</th> </tr> </thead> <tbody> <tr> <td>UL1007</td> <td>18 AWG</td> <td>1.10-1.20mm</td> <td>.043-.047 in.</td> <td>1.40-1.50mm</td> <td>.055-.059 in.</td> </tr> <tr> <td>UL1061</td> <td>18 AWG</td> <td>1.10-1.20mm</td> <td>.043-.047 in.</td> <td>1.40-1.50mm</td> <td>.055-.059 in.</td> </tr> <tr> <td>UL1007</td> <td>20 AWG</td> <td>0.98-1.08mm</td> <td>.039-.043 in.</td> <td>1.40-1.50mm</td> <td>.055-.059 in.</td> </tr> <tr> <td>UL1061</td> <td>20 AWG</td> <td>0.98-1.08mm</td> <td>.039-.043 in.</td> <td>1.40-1.50mm</td> <td>.055-.059 in.</td> </tr> </tbody> </table> | Wire Type | Wire Size | 9. Crimp Height | | 10. Crimp Width | | UL1007 | 18 AWG | 1.10-1.20mm | .043-.047 in. | 1.40-1.50mm | .055-.059 in. | UL1061 | 18 AWG | 1.10-1.20mm | .043-.047 in. | 1.40-1.50mm | .055-.059 in. | UL1007 | 20 AWG | 0.98-1.08mm | .039-.043 in. | 1.40-1.50mm | .055-.059 in. | UL1061 | 20 AWG | 0.98-1.08mm | .039-.043 in. | 1.40-1.50mm | .055-.059 in. |
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| | Wire Type | Wire Size | Minimum Force | | To be measured with no influence from the insulation crimp. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | UL1007 | 18 AWG | 89 N | 20.0 lb. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | UL1061 | 18 AWG | 89 N | 20.0 lb. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UL1007 | 20 AWG | 57.8 N | 13.0 lb. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UL1061 | 20 AWG | 57.8 N | 13.0 lb. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13. Conductor Anvil Flash | 0.15mm (.006") Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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.
- Lubrication must be used to prevent terminals from sticking in the conductor punch. Use 63801-7240 oiler or equivalent.

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.

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

| Applicator 213069-0900 | | | | |
|---|------------------|------------------------|----------------------------|-----------------|
| Item | Order No. | Engineering No. | Description | Quantity |
| Perishable Tooling | | | | |
| | 213069-0970 | 213069-0970 | Tool Kit (All "Y" Items) | Ref |
| 1 | 63454-0189 | 63454-0189 | Insulation Punch | 1 Y |
| 2 | 63457-0141 | 63457-0141 | Conductor Punch | 1 Y |
| 3 | 63456-0131 | 63456-0131 | Insulation Anvil | 1 Y |
| 4 | 63455-0182 | 63455-0182 | Conductor Anvil | 1 Y |
| 5 | 63443-0122 | 63443-0122 | Cut-Off Plunger | 1 Y |
| Non-Perishable Components | | | | |
| 6 | 63443-0118 | 63443-0118 | Front Plunger Retainer | 1 |
| 7 | 63700-0992 | 63700-0992 | Cut-Off Plunger Spring | 1 |
| 8 | 63443-0117 | 63443-0117 | Front Scrap Chute | 1 |
| 9 | 63443-7545 | 63443-7545 | Anvil Mount | 1 |
| 10 | 63443-0090 | 63443-0090 | Wire Stop Assembly | 1 |
| 11 | 63443-2801 | 63443-2801 | Front Plunger Striker | 1 |
| 12 | 63443-2917 | 63443-2917 | 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 | 63443-4724 | 63443-4724 | Terminal Guide | 1 |
| 17 | 63443-7403 | 63443-7403 | Hold Down Block | 1 |
| 18 | 63808-0229 | 63808-0229 | Bend Adjust Dial | 1 |
| 19 | 63808-0297 | 63808-0297 | Feed Cam | 1 |
| Frame | | | | |
| 20 | 63808-0200 | 63808-0200 | Applicator Core | 1 |
| 21 | 63808-0197 | 63808-0197 | Mechanical Feed Assembly | 1 |
| 22 | 63808-0191 | 63808-0191 | Track Assembly | 1 |
| Hardware | | | | |
| 23 | — | — | M2.5 x 4 SHCS | 1* |
| 24 | — | — | M3 Flat Washer Hard | 1* |
| 25 | — | — | M3 Hex Nut | 1* |
| 26 | — | — | M3 Inner Tooth Lock Washer | 1* |
| 27 | — | — | M3 x 6 BHCS | 2* |
| 28 | — | — | M3 x 12 SHCS | 4* |
| 29 | — | — | M4 x 5 SSS | 1* |
| 30 | — | — | M4 x 6 SHCS | 1* |
| 31 | — | — | M4 x 8 SHCS | 2* |
| 32 | — | — | M4 x 50 SHCS | 2* |
| 33 | — | — | M5 x 12 SHCS | 1* |
| 34 | — | — | #10-32UNF x .25" BHCS | 1* |
| *Fastener parts can be purchased through most industrial suppliers by using the description in the table above. | | | | |

ASSEMBLY DRAWING

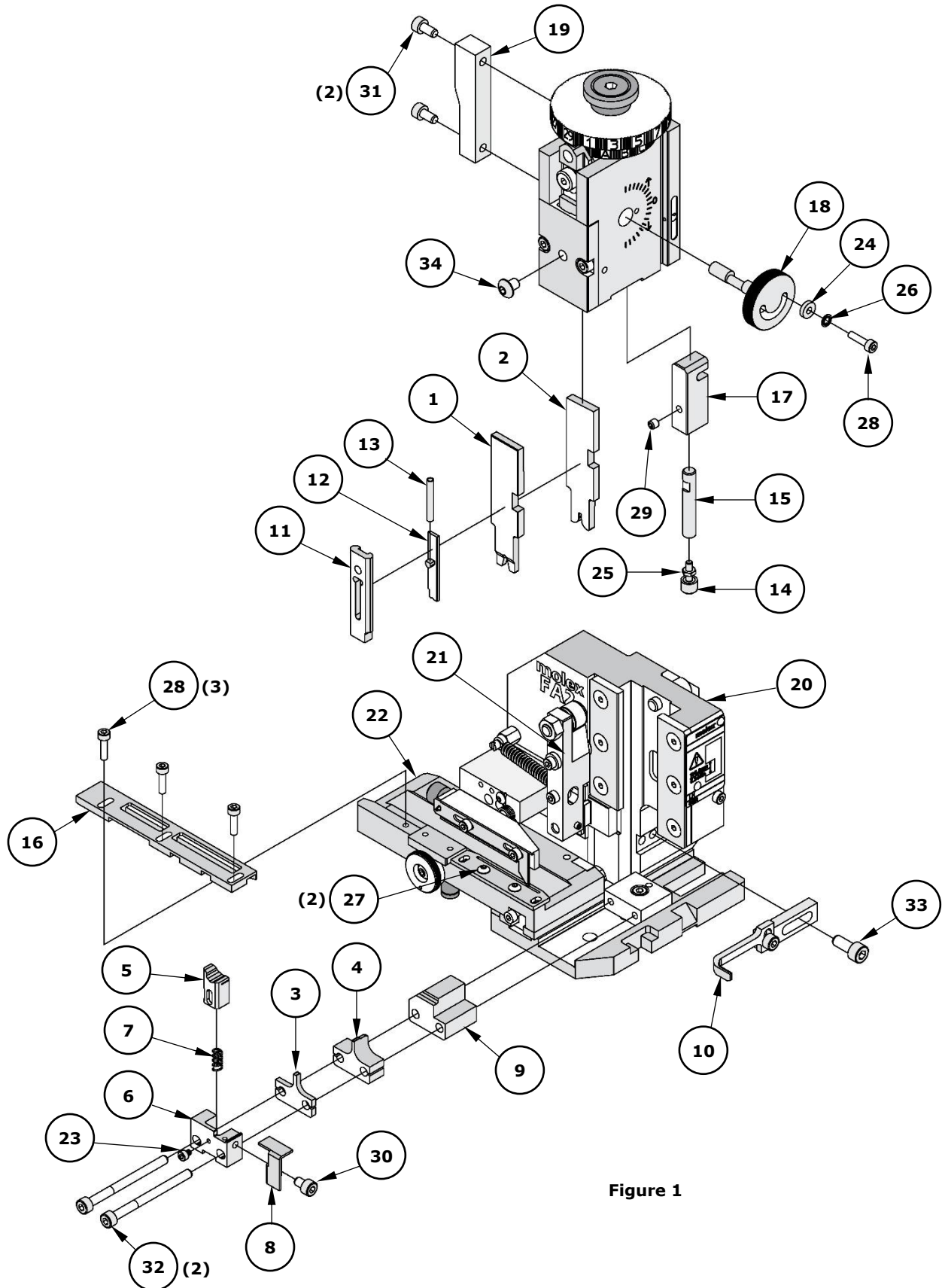


Figure 1

FACTORY SETTINGS

Feed Pawl Assembly

The FA2 applicator number 213069-0900 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.

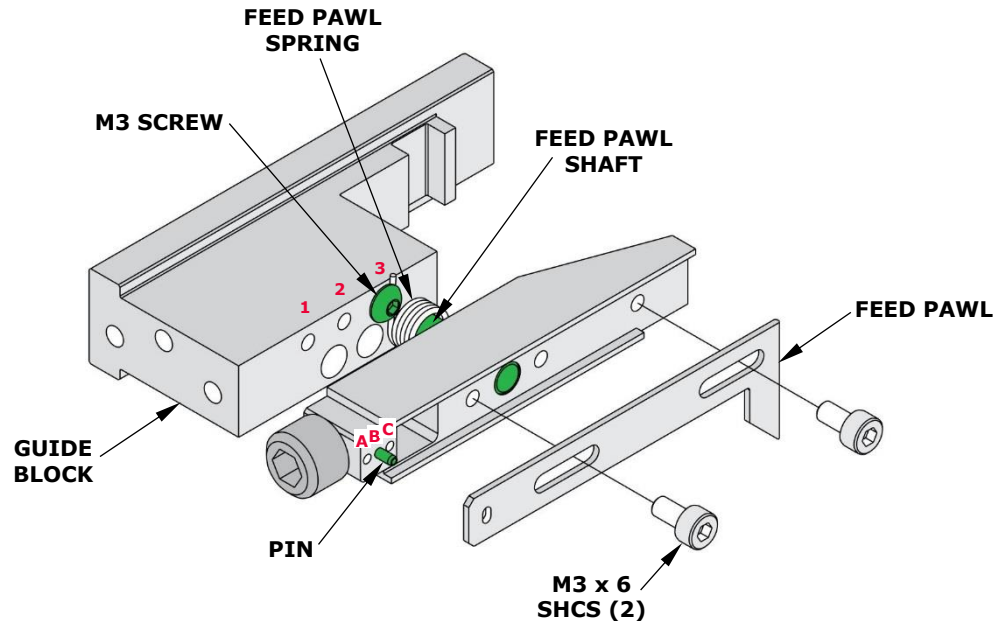


Figure 2

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

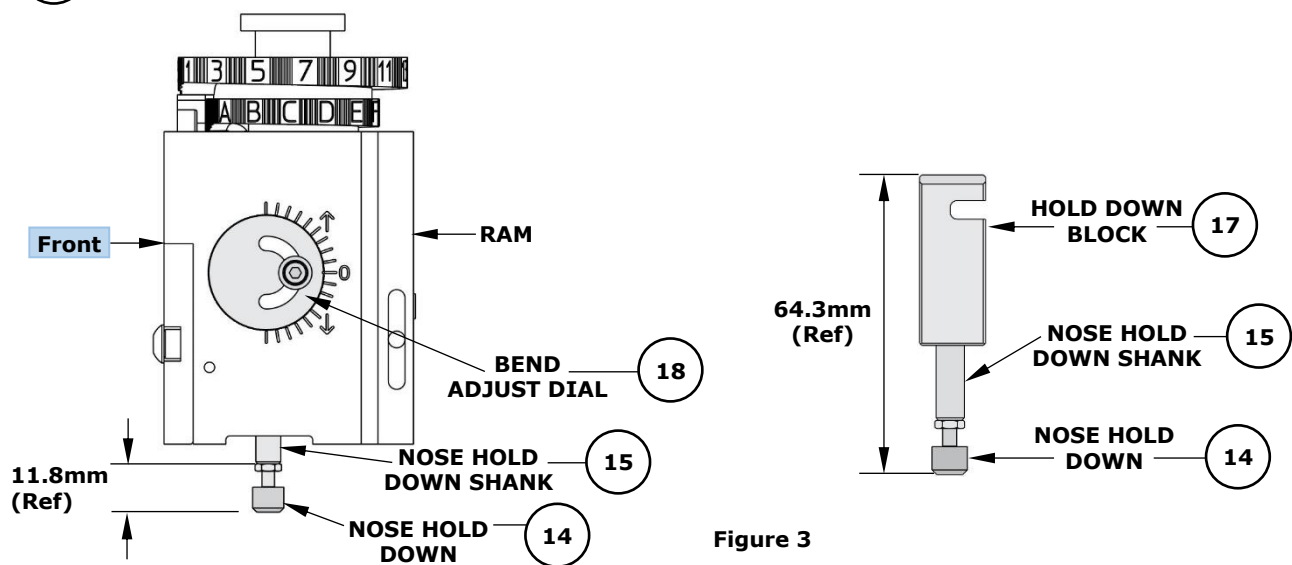


Figure 3

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.

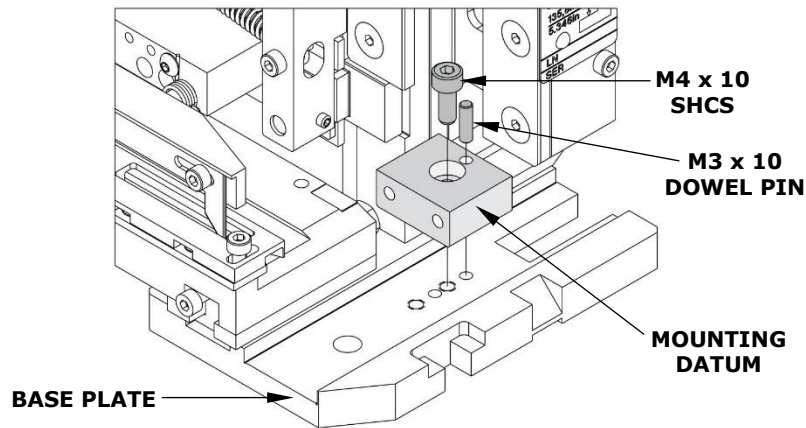


Figure 4

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.

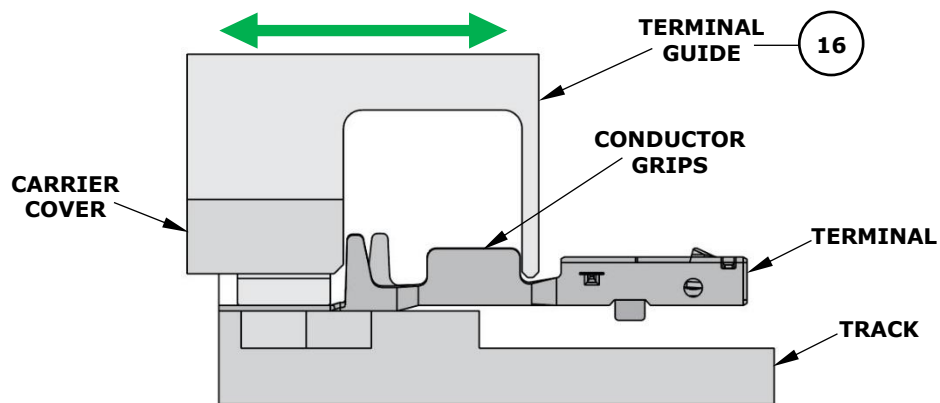


Figure 5

Application Tooling Support

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

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