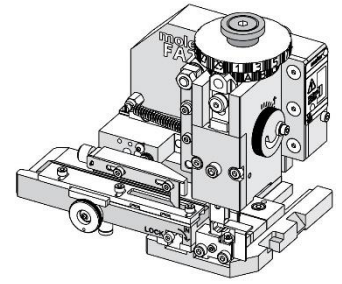


Order Number
63808-8000

molex[®]

Application Tooling Specification



FEATURES

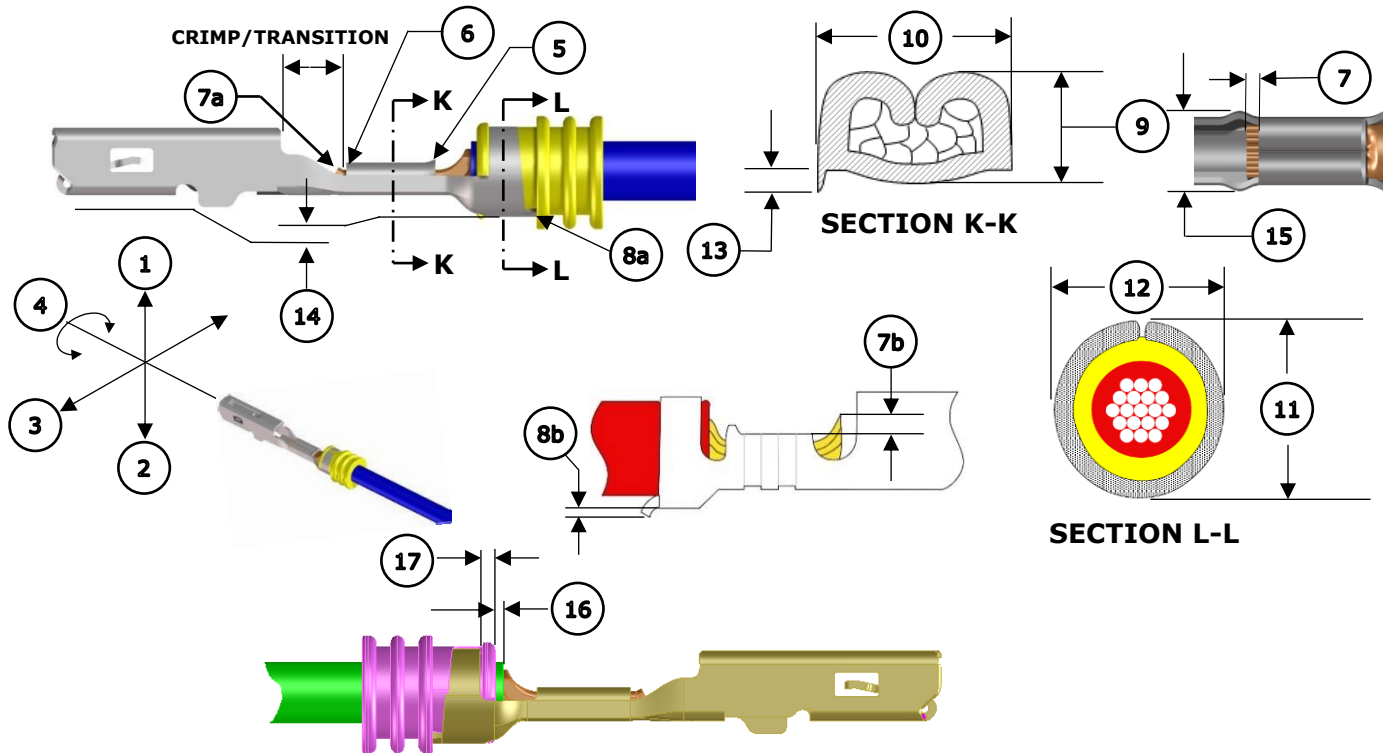
- Applicator designed to industry-standard mounting and 135.80mm (5.346") shut height
- Quick setup time; plus, the crimp height, track and feed adjustments can be set without removing the applicator from the press
- Fine adjustment allows users to achieve target with little effort by adjusting in increments of .015mm (.0006") for conductor crimp height and .025mm (.001") for insulation height
- Fine adjustment of the bend is achieved using the bend control 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: MX150 22 Grip Receptacle Wire Seal Terminals; 22 AWG and 0.50mm² wires.

| Terminal Series No. | Terminal Order No. | Wire | | Insulation Diameter | | Strip Length | |
|-------------------------|--------------------|------------------|---------------------|---------------------|-----------|--------------|-----------|
| | | Wire Type | Size | mm | In. | mm | In. |
| 34081 34083 34751 | 34081-3005 | M1L-123A4 (TXL) | 22 AWG | 1.20-1.70 | .047-.067 | 4.70-5.60 | .185-.220 |
| | 34081-5003 | M1L-126A1 | 0.50mm ² | | | | |
| | 34083-3003 | JASO D611 (AVSS) | | | | | |
| | 34751-1003 | FLR91X-A-XLPO | | | | | |

DEFINITION OF TERMS



CRIMP SPECIFICATIONS

The following crimp specifications are based on document AS-34083-002 Rev. B2:

| Feature | Requirement | | | | | |
|----------------------------------|---|---------------------|-------------------------|---|--|---------------|
| 1. Bend Up | 3° Max | | | | | |
| 2. Bend Down | 3° Max | | | | | |
| 3. Twist | 3° Max | | | | | |
| 4. Roll | 3° Max | | | | | |
| 5. Bell Mouth Rear | 0.30-0.70mm (.012-.028") | | | | | |
| 6. Bell Mouth Front | Not Applicable | | | | | |
| 7. Conductor Brush | a. 0.40mm (.016") Max | | | b. 0.40mm (.016") Max above conductor crimp | | |
| 8. Cut-Off Tab | a. 0.50mm (.020") Max | | | b. 0.30mm (.012") Max curl | | |
| Conductor Crimp | Wire Type | Wire Size | 9. Crimp Height | | 10. Crimp Width | |
| | M1L-123A4 | 22 AWG | 0.95-1.05mm | .037-.041 in. | 1.50-1.70mm | .059-.067 in. |
| | M1L-126A1 | 0.50mm ² | 1.05-1.15mm | .041-.045 in. | | |
| | JASO D611 | | | | | |
| FLR91X-A-XLPO | | | | | | |
| Wire Seal Crimp | Wire Type | Wire Size | 11. Crimp Height | | 12. Crimp Width | |
| | ALL | 22 AWG | 3.40-3.60mm | .134-.142 in. | 3.35-3.55mm | .132-.140 in. |
| | | 0.50mm ² | | | | |
| Pull Force | Wire Type | Wire Size | Minimum Force | | | |
| | M1L-123A4 | 22 AWG | 50 N | 11.3 lb. | To be measured with no influence from the wire seal crimp. | |
| | ALL | 0.50mm ² | 75 N | 16.9 lb. | | |
| 13. Conductor Anvil Flash | 0.10mm (.004") Max; Not to extend below lowest point of conductor crimp | | | | | |

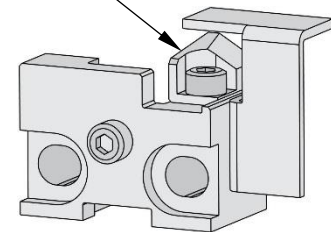
| | | | | | | | | |
|---------------------------|---|---------------------|---|---------------|---|--------------|------------------------|----------------------|
| 14. Seal Grip Step | 0.45-0.65mm (.018-.026") | | | | | | | |
| 15. Crimp Bulge | 2.62mm (.103") Max within crimp/transition area | | | | | | | |
| Misc. | Wire Type | Wire Size | 16. Wire Seal Position on Wire (Ref) | | 17. Wire Seal Position on Terminal | | Wire Seal Color | Wire Seal No. |
| | M1L-123A4 | 22 AWG | 0.20-0.40mm | .008-.016 in. | 1.10mm Min | .043 in. Min | Pink | E-1644-01 |
| | ALL | 0.50mm ² | | | | | | |

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 63808-8000 | | | | |
|---|------------------|------------------------|----------------------------|-----------------|
| Item | Order No. | Engineering No. | Description | Quantity |
| Perishable Tooling | | | | |
| | 63808-8070 | 63808-8070 | Tool Kit (All "Y" Items) | Ref |
| 1 | 63454-0161 | 63454-0161 | Insulation Punch | 1 Y |
| 2 | 63457-0110 | 63457-0110 | Conductor Punch | 1 Y |
| 3 | 63456-3305 | 63456-3305 | Insulation Anvil | 1 Y |
| 4 | 63455-0172 | 63455-0172 | Conductor Anvil | 1 Y |
| 5 | 63443-0034 | 63443-0034 | Front Plunger | 1 Y |
| Non-Perishable Components | | | | |
| 6 | 63443-0128 | 63443-0128 | Front Plunger Retainer | 1 |
| 7 | 63700-0539 | 63700-0539 | Cut-Off Plunger Spring | 1 |
| 8 | 63443-0117 | 63443-0117 | Front Scrap Chute | 1 |
| 9 | 63443-7532 | 63443-7532 | Anvil Mount | 1 |
| 10 | 63443-0090 | 63443-0090 | Wire Stop | 1 |
| 11 | 63890-0008 | 63890-0008 | Front Plunger Striker | 1 |
| 12 | 63600-5776 | 63600-5776 | Nose Hold Down | 1 |
| 13 | 63600-5775 | 63600-5775 | Nose Hold Down Shank | 1 |
| 14 | 63443-4759 | 63443-4759 | Terminal Guide | 1 |
| 15 | 63443-7403 | 63443-7403 | Hold Down Block | 1 |
| 16 | 63808-0229 | 63808-0229 | Bend Adjust Dial | 1 |
| 17 | 63443-3203 | 63443-3203 | Wire Pusher | 1 |
| 18 | 63600-5016 | 63600-5016 | Compression Spring | 1 |
| 19 | 63443-4412 | 63443-4412 | Feed Cam | 1 |
| Frame | | | | |
| 20 | 63808-0200 | 63808-0200 | Applicator Core | 1 |
| 21 | 63443-4601 | 63443-4601 | Track | 1 |
| 22 | 63443-4602 | 63443-4602 | Carrier Cover | 1 |
| 23 | 63443-4801 | 63443-4801 | Drag Pad | 1 |
| 24 | 63808-0197 | 63808-0197 | Mechanical Feed Assembly | 1 |
| Hardware | | | | |
| 25 | — | — | M2.5 x 4 SHCS | 1* |
| 26 | — | — | M3 Flat Washer Hard | 1* |
| 27 | — | — | M3 Inner Tooth Lock Washer | 1* |
| 28 | — | — | M3 x 6 BHCS | 2* |
| 29 | — | — | M3 x 12 SHCS | 4* |
| 30 | — | — | M4 x 6 SHCS | 1* |
| 31 | — | — | M4 x 6 SSS | 1* |
| 32 | — | — | M4 x 8 SHCS | 2* |
| 33 | — | — | M4 x 40 SHCS | 2* |
| 34 | — | — | M5 x 12 SHCS | 1* |
| 35 | — | — | #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

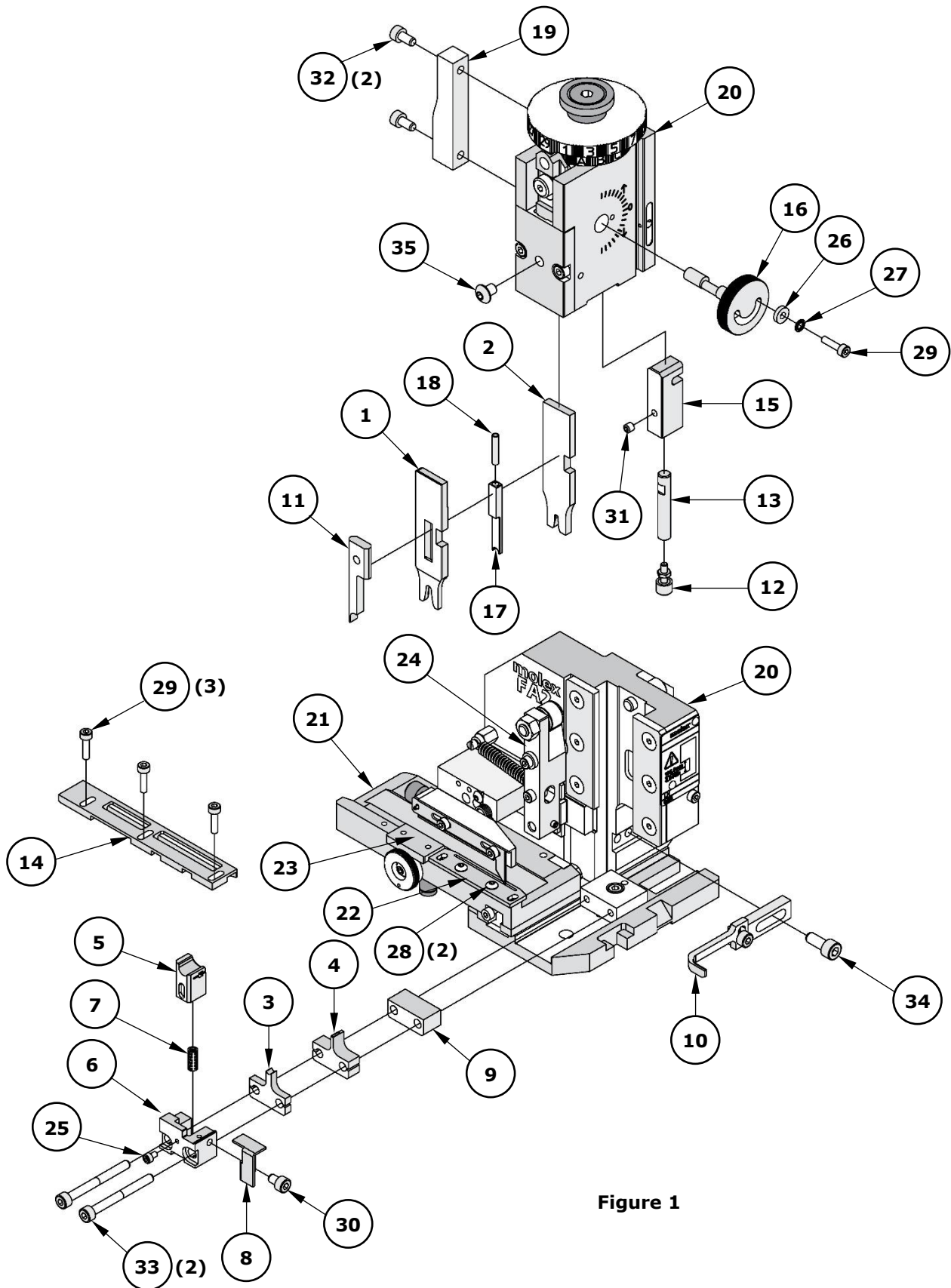


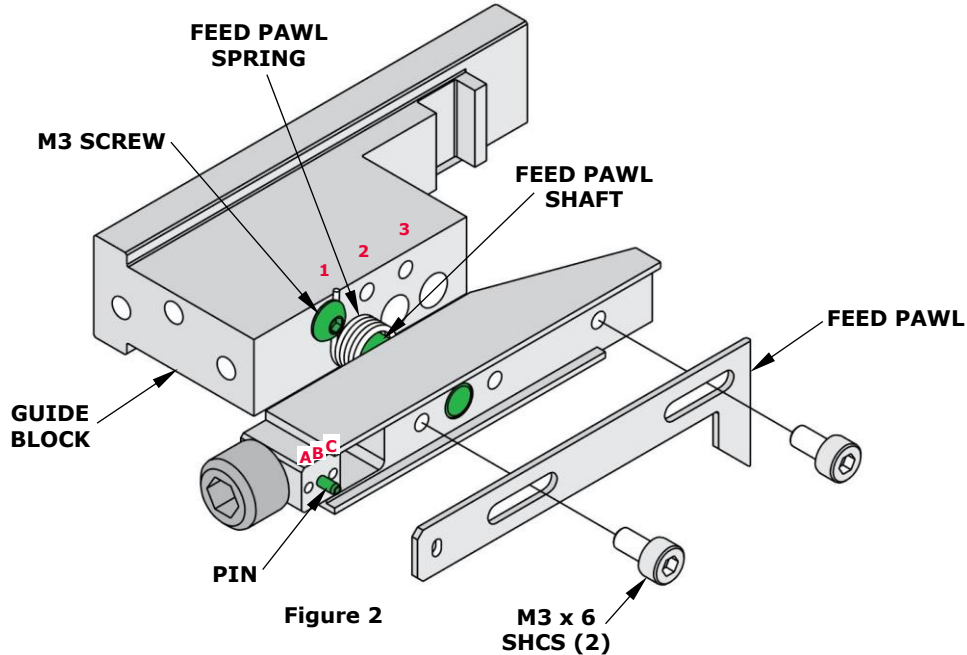
Figure 1

FACTORY SETTINGS

Feed Pawl Assembly

The FA2 applicator number 63808-8000 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 1.
- The pin is in position B.

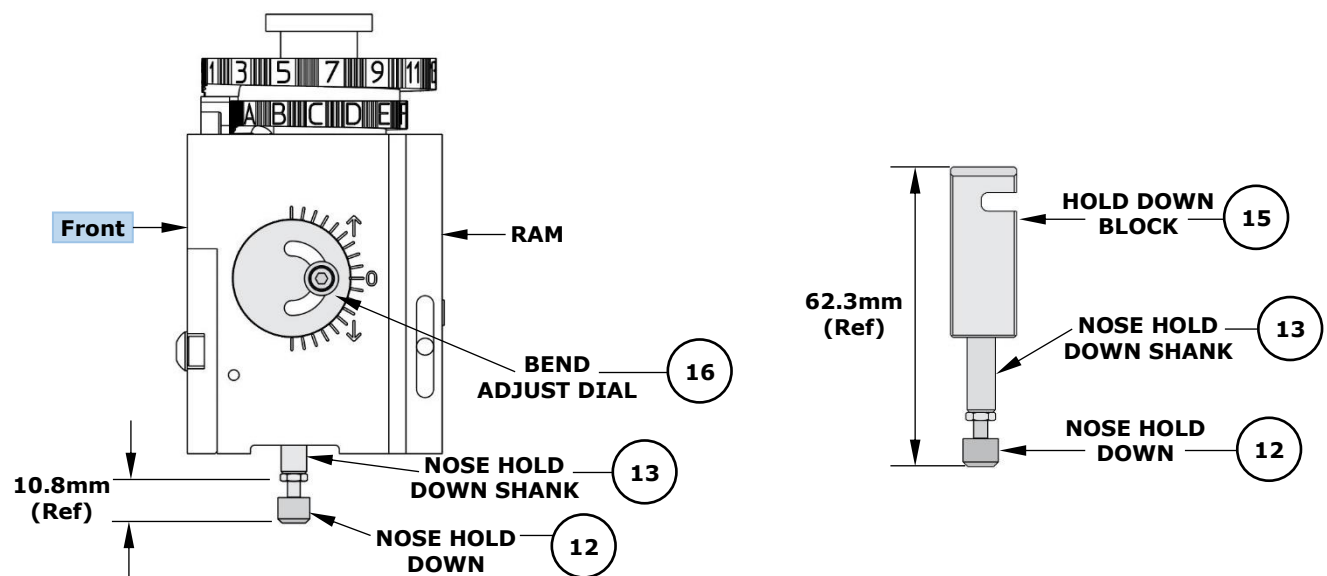


Note

This information is included as a reference only. 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



Mounting Datum Location

This applicator was assembled and tested by Molex with the mounting datum in the location shown in Figure 3. Do not remove the mounting datum.

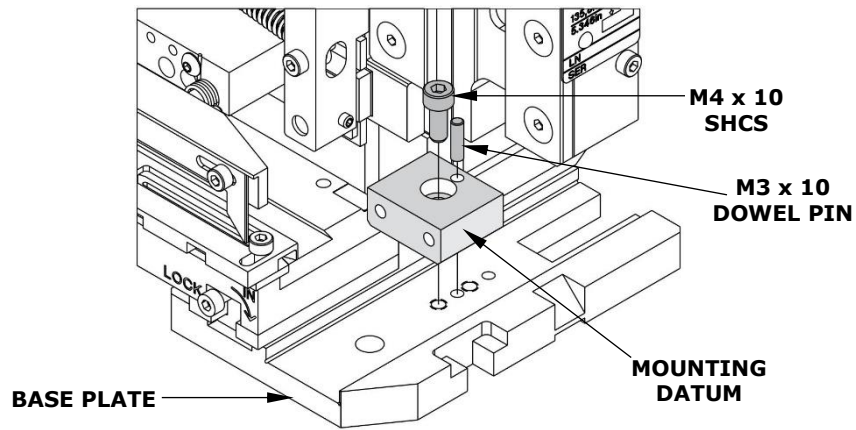


Figure 3

Application Tooling Support

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

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