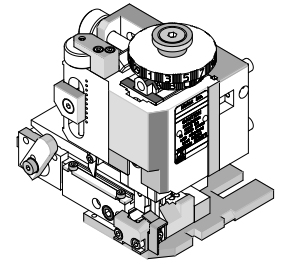


**Order Number
203702-4400**



Application Tooling Specification

FEATURES

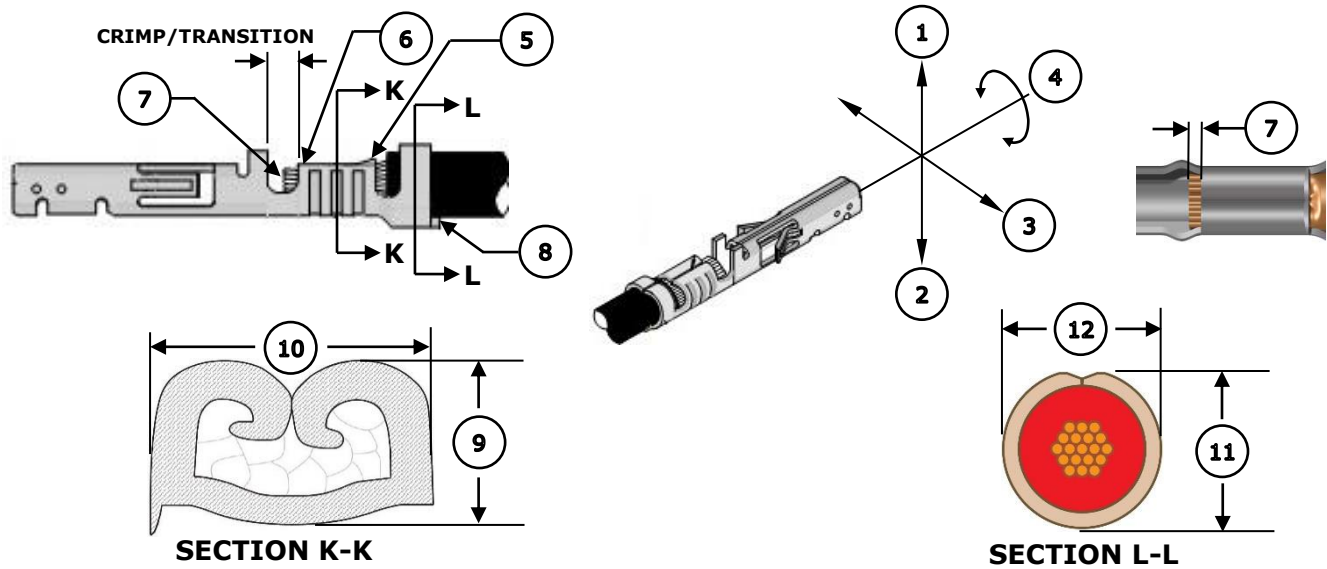
- Quick punch removal with the push of a button for fast and easy tooling change
- Applicator designed to industry-standard mounting and 135.80mm (5.346") shut height
- Quick setup time; plus, the crimp height, track and feed adjustments can be set without removing the applicator from the press
- Fine adjustment allows users to achieve target with little effort by adjusting in increments of 0.015mm (.0006") for conductor crimp height and 0.063mm (.0025") for insulation height
- Independent adjustment rings allow users to quickly adjust the conductor or insulation crimp height without affecting each other
- This tool is IPC/WHMA-A-620 Class 2 Compliant, as indicated below
- Directly adapts to most automatic wire processing machines
- For 16-18 AWG terminals, use FineAdjust applicator 203702-4300

SCOPE

Products: Ultra-Fit Tang-less Plug Crimp Terminals, 20-22 AWG (UL1061) wire.

| Terminal Series No. | Terminal Order No. | Wire Size | | Insulation Diameter | | | | Strip Length | |
|--|---|-----------|-----------|---------------------|-----------|--------------|-----------|--------------|---------|
| | | | | IPC/WHMA-A-620 (1) | | Terminal (2) | | | |
| | | AWG | Wire Type | mm | In. | mm | In. | mm | In. |
| 216946 | 216946-5111 216946-5112 216946-5113 | 20-22 | UL1061 | 1.25-1.55 | .049-.061 | 1.30-1.50 | .051-.059 | 3.5-4.0 | .14-.16 |
| <p>(1) To achieve optimum IPC/WHMA-A-620 class 2 insulation crimps, use this insulation OD range. (2) Overall insulation OD specification for terminal.</p> | | | | | | | | | |

DEFINITION OF TERMS



Note: Image above is a generic terminal representation. The actual terminals of the scope may look different.

CRIMP SPECIFICATION

| Feature | Requirement | | | | | |
|----------------------------|---|------------------|-------------------------------|---------------|---|---------------|
| 1. Bend Up | 3° Max | | | | | |
| 2. Bend Down | 3° Max | | | | | |
| 3. Twist | 3° Max | | | | | |
| 4. Roll | 5° Max | | | | | |
| 5. Bell Mouth Rear | 0.30-0.80mm (.012-.031") | | | | | |
| 6. Bell Mouth Front | Not Applicable | | | | | |
| 7. Conductor Brush | 0.00-1.00mm (.000-.039") | | | | | |
| 8. Cut-Off Tab | 0.20mm (.008") Max | | | | | |
| Conductor Crimp | Terminal Order No. | Wire Size | 9. Crimp Height | | 10. Crimp Width (Ref) | |
| | 216946-5111 216946-5112 216946-5113 | 20 AWG | 0.82-0.92mm | .032-.036 In. | 1.60-1.70mm | .063-.067 In. |
| | | 22 AWG | 0.73-0.83mm | .029-.033 In. | 1.60-1.70mm | .063-.067 In. |
| Insulation Crimp | Terminal Order No. | Wire Size | 11. Crimp Height (Ref) | | 12. Crimp Width (Ref) | |
| | 216946-5111 216946-5112 216946-5113 | 20 AWG | 1.73mm | .068 In. | 1.78mm | .070 In. |
| | | 22 AWG | 1.53mm | .060 In. | 1.78mm | .070 In. |
| Pull Force | Terminal Order No. | Wire Size | Minimum Pull Force | | To be measured with no influence from the insulation crimp. | |
| | 216946-5111 216946-5112 216946-5113 | 20 AWG | 57.9 N | 13 lb. | | |
| | | 22 AWG | 35.6 N | 8 lb. | | |

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.
3. Terminal oiler (63801-7240) required to improve tooling life and minimize the crimp sticking in the punches. See 63800-4900 FineAdjust manual.

PARTS LIST

| FineAdjust Applicator 203702-4400 | | | | |
|--|------------------|------------------------|------------------------------|-----------------|
| Item | Order No. | Engineering No. | Description | Quantity |
| Perishable Tooling | | | | |
| | 203702-4470 | 203702-4470 | Tool Kit (All "Y" Items) | REF |
| 1 | 200216-1607 | 200216-1607 | Conductor Punch | 1 Y |
| 2 | 63445-1673 | 63445-1673 | Conductor Anvil | 1 Y |
| 3 | 63454-1802 | 63454-1802 | Insulation Punch | 1 Y |
| 4 | 63456-0132 | 63456-0132 | Insulation Anvil | 1 Y |
| 5 | 63443-0002 | 63443-0002 | Cut-Off Plunger | 1 Y |
| 6 | 63443-0012 | 63443-0012 | Front Plunger Retainer | 1 Y |
| Other Components | | | | |
| 7 | 11-17-0022 | 1739-21 | Compression Spring | 1 |
| 8 | 11-18-4083 | 60707-8 | Feed Guide | 1 |
| 9 | 11-24-1067 | 4996-4 | Cut-Off Plunger Spring | 1 |
| 10 | 63443-0009 | 63443-0009 | Front Scrap Chute | 1 |
| 11 | 63443-0024 | 63443-0024 | Key | 1 |
| 12 | 63443-0090 | 63443-0090 | Wire Stop | 1 |
| 13 | 63443-0093 | 63443-0093 | Shank | 1 |
| 14 | 200213-7502 | 200213-7502 | Anvil Mount | 1 |
| 15 | 63443-2802 | 63443-2802 | Front Plunger Striker | 1 |
| 16 | 63443-2911 | 63443-2911 | Wire Hold Down Plunger | 1 |
| 17 | 63443-7101 | 63443-7101 | Terminal Hold Down | 1 |
| 18 | 63443-6113 | 63443-6113 | Rear Cover | 1 |
| 19 | 63600-0021 | 63600-0021 | Compression Spring | 1 |
| Frame | | | | |
| 20 | 63800-4901 | 63800-4901 | Top | 1 |
| 21 | 63801-3281 | 63801-3281 | Base | 1 |
| 22 | 63801-4650 | 63801-4650 | Track | 1 |
| Hardware | | | | |
| 23 | — | — | M3 by 6 Long SHCS | 2* |
| 24 | — | — | M3 by 6 Long FHCS | 1* |
| 25 | — | — | M3 by 8 Long SHCS | 1* |
| 26 | — | — | M4 by 6 Long SHCS | 2* |
| 27 | — | — | M4 by 12 Long BHCS | 2* |
| 28 | — | — | M4 by 50 Long SHCS | 2* |
| 29 | — | — | M5 by 12 Long SHCS | 1* |
| 30 | — | — | M5 by 10 Long Flat Point SSS | 1* |
| 31 | — | — | M5 Hex Jam Nut | 1* |
| * Available from an industrial supply company. | | | | |

ASSEMBLY DRAWING

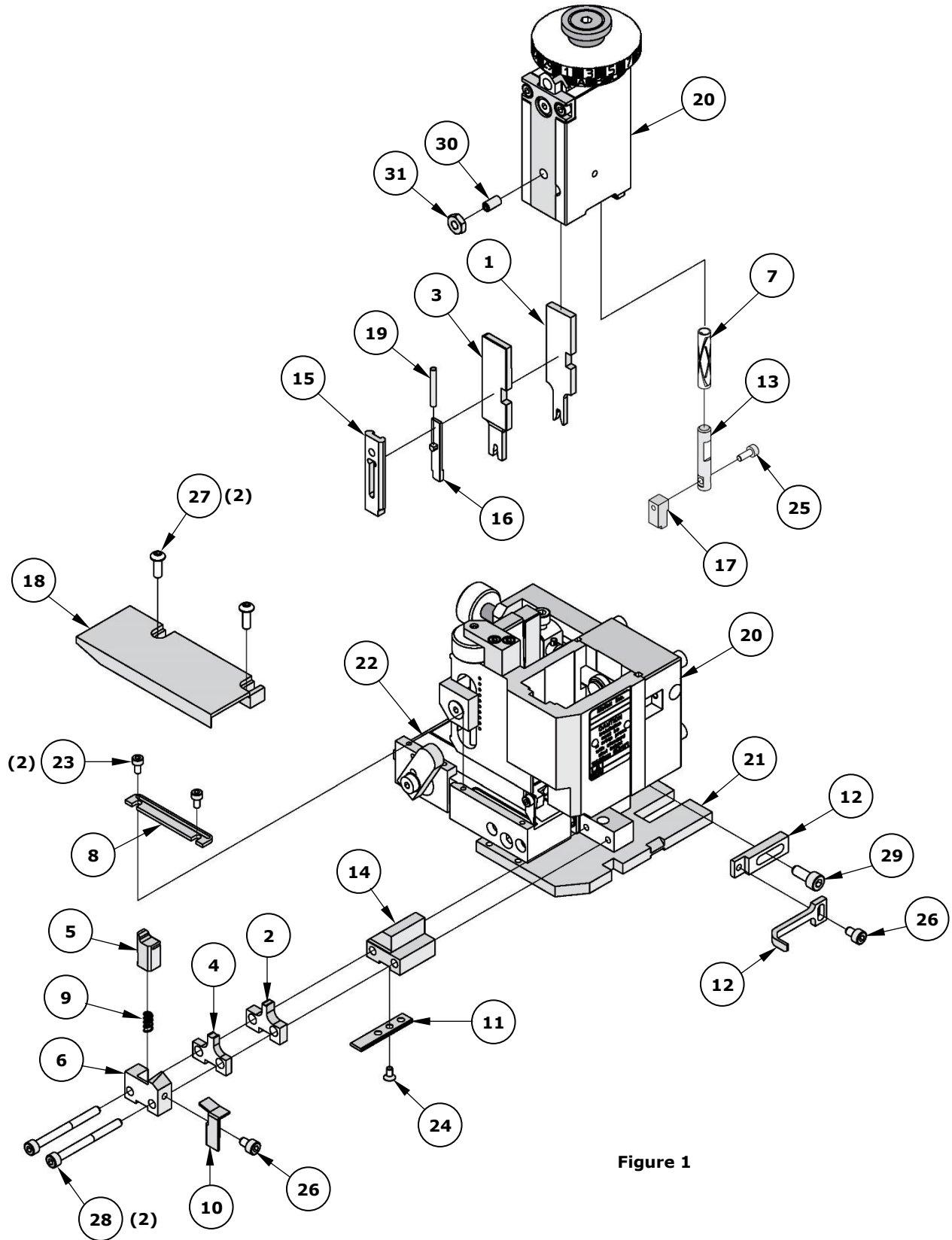


Figure 1

NOTES

1. Molex recommends that 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 the work area.
4. Wear safety glasses at all times.
5. For recommended maintenance, refer to the FineAdjust manual.

CAUTION: This applicator should only be used in a press with a shut height of 135.8mm (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.

Application Tooling Support

Phone: (402) 458-TOOL (8665)

E-Mail: toolingsupport@molex.com

Website: www.molex.com/applicationtooling

Molex is a registered trademark of Molex, LLC in the United States of America and may be registered in other countries; all other trademarks listed herein belong to their respective owners.