Order Number 213069-1100





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
- 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
- For 24-26 AWG Pico-SPOX terminals, use FA2 Crimp Applicator 213069-1000

SCOPE

Products: Pico-SPOX 1.5mm Pitch Receptacle Crimp Terminals, 26-30 AWG, UL1061 Wire.

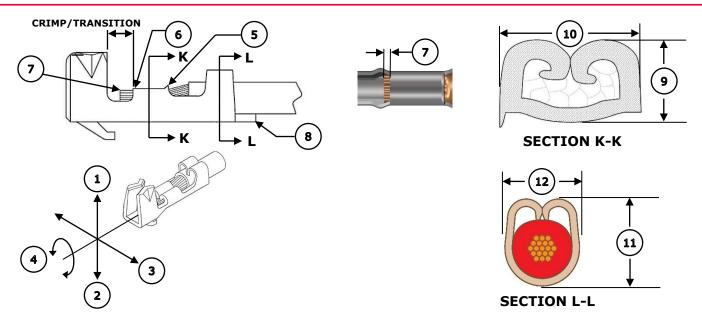
| Terminal Series No. | Terminal Order No. | Wire Size | Insulation Diameter† | | Strip Length | |
|---------------------|--------------------|-----------|----------------------|---------|--------------|---------|
| | | AWG | mm | In. | mm | In. |
| 87421 | 87421-0100 | 26-30 | 0.70-1.00 | .028039 | 1.05-1.54 | .041060 |

[†] Insulation Diameter Note: Due to the size of the connector housing cavity, this terminal's insulation crimp may not meet IPC-A620 requirements.

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DEFINITION OF TERMS



CRIMP SPECIFICATIONS

| Feature | Requirement | | | | | | |
|---------------------|------------------------|------------------------|-------------|---|----------|--|--|
| 1. Bend Up | 3° Max | 3° Max | | | | | |
| 2. Bend Down | 3° Max | | | | | | |
| 3. Twist | 3° Max | 3° Max | | | | | |
| 4. Roll | 4° Max | 4° Max | | | | | |
| 5. Bell Mouth Rear | 0.05-0.30mm (.002012") | | | | | | |
| 6. Bell Mouth Front | Not Applicable | | | | | | |
| 7. Conductor Brush | 0.00-0.50mm (.000020") | | | | | | |
| 8. Cut-Off Tab | 0.15mm (.006") Max | | | | | | |
| | Wire Size | 9. Crim | p Height | 10. Crimp | Width | | |
| Conductor Crimp | 26 AWG | 0.54-0.59mm | .021023 in. | 0.90mm | .035 in. | | |
| Conductor Crimp | 28 AWG | 0.50-0.55mm | .020022 in. | 0.90mm | .035 in. | | |
| | 30 AWG | 0.47-0.52mm | .018020 in. | 0.90mm | .035 in. | | |
| | Wire Size | 11. Crimp Height (Ref) | | 12. Crimp Width (Ref) | | | |
| Insulation Crimp | 26 AWG | 1.30mm | .051 in. | 1.10mm | .043 in. | | |
| Thisulation Crimp | 28 AWG | 1.26mm | .050 in. | 1.10mm | .043 in. | | |
| | 30 AWG | 1.14mm | .045 in. | 1.10mm | .043 in. | | |
| | Wire Size | Minimum Pull Force | | | | | |
| Pull Force | 26 AWG | 19.6 N | 4.4 lbs. | | | | |
| Pull Force | 28 AWG | 9.8 N | 2.2 lbs. | To be measured with no influence from the insulation crimp. | | | |
| | 30 AWG | 4.9 N | 1.1 lbs. | | | | |

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NOTES

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 when operating or maintaining the applicator.
- 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 this terminal to prevent terminal 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.

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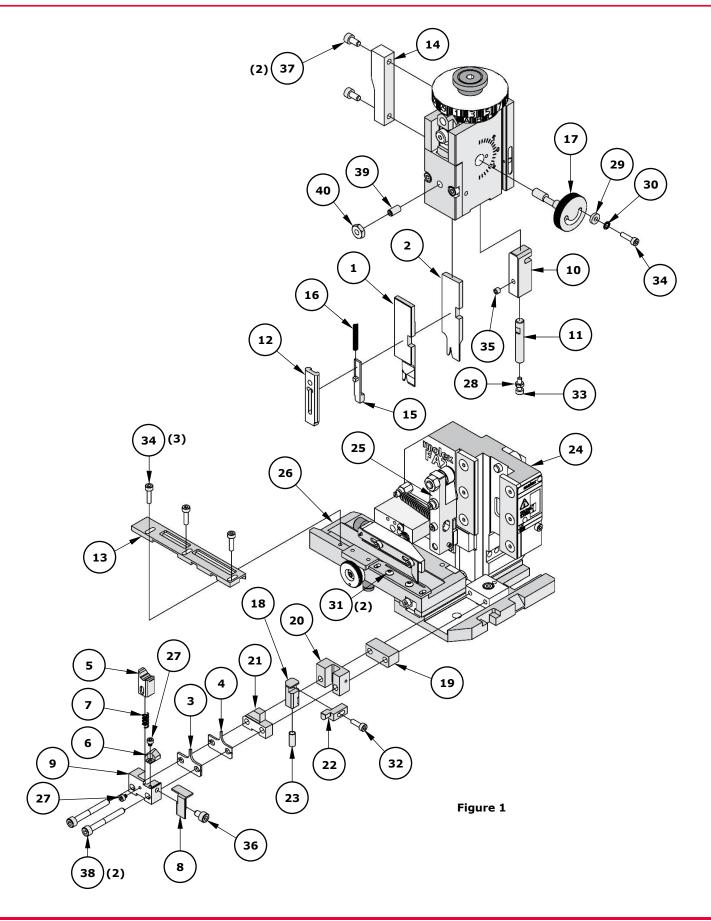
PARTS LIST

| | FA2 Applicator 213069-1100 | | | | | | | |
|---------------------------|----------------------------|-----------------|-----------------------------------|----------|--|--|--|--|
| Item | Order No. | Engineering No. | Description | Quantity | | | | |
| Perishable Tooling | | | | | | | | |
| | 213069-1170 | 213069-1170 | Tool Kit (All "Y" Items) | Ref | | | | |
| 1 | 200220-1102 | 200220-1102 | Insulation Punch | 1 Y | | | | |
| 2 | 200216-0901 | 200216-0901 | Conductor Punch | 1 Y | | | | |
| 3 | 200221-1102 | 200221-1102 | Insulation Anvil | 1 Y | | | | |
| 4 | 200217-0901 | 200217-0901 | Conductor Anvil | 1 Y | | | | |
| 5 | 63443-0136 | 63443-0136 | Cut-Off Plunger | 1 Y | | | | |
| 6 | 63443-0119 | 63443-0119 | Cutting Insert | 1 Y | | | | |
| Non-Perishable Components | | | | | | | | |
| 7 | 11-24-1067 | 4996-4 | Cut-Off Plunger Spring | 1 | | | | |
| 8 | 63443-0117 | 63443-0117 | Front Scrap Chute | 1 | | | | |
| 9 | 63443-0118 | 63443-0118 | Front Plunger Retainer | 1 | | | | |
| 10 | 63443-7403 | 63443-7403 | Hold Down Block | 1 | | | | |
| 11 | 63600-5775 | 63600-5775 | Nose Hold Down Shank | 1 | | | | |
| 12 | 63443-2807 | 63443-2807 | Front Plunger Striker | 1 | | | | |
| 13 | 63443-4704 | 63443-4704 | Terminal Guide | 1 | | | | |
| 14 | 63443-4406 | 63443-4406 | Feed Cam | 1 | | | | |
| 15 | 63443-2906 | 63443-2906 | Wire Hold Down Plunger | 1 | | | | |
| 16 | 63600-0021 | 63600-0021 | Compression Spring | 1 | | | | |
| 17 | 63808-0229 | 63808-0229 | Bend Adjust Dial | 1 | | | | |
| 18 | 63443-7315 | 63443-7315 | Terminal Hold Down Plunger | 1 | | | | |
| 19 | 200213-7519 | 200213-7519 | Anvil Mount | 1 | | | | |
| 20 | 63443-7316 | 63443-7316 | Terminal Hold Down Retainer | 1 | | | | |
| 21 | 63443-1700 | 63443-1700 | Height Spacer (17.00mm) | 1 | | | | |
| 22 | 63443-7318 | 63443-7318 | Terminal Hold Down | 1 | | | | |
| 23 | 63700-0992 | 63700-0992 | Terminal Hold Down Plunger Spring | 1 | | | | |
| 24 | 62000 0200 | | Frame Applicator Core | 1 1 | | | | |
| 24 25 | 63808-0200 | 63808-0200 | Applicator Core | 1 1 | | | | |
| | 63808-0197 63808-0191 | 63808-0197 | Mechanical Feed Assembly | 1 | | | | |
| 26 | 03000-0191 | 63808-0191 | Track Assembly ardware | | | | | |
| 27 | | | M2.5 x 3 SHCS | 2* | | | | |
| 28 | _ | | M3 Hex Nut | 1* | | | | |
| 29 | _ | | M3 Flat Washer Hard | 1* | | | | |
| 30 | _ | | M3 Inner Tooth Lock Washer | 1* | | | | |
| 31 | _ | | M3 x 6 BHCS | 2* | | | | |
| 32 | _ | | M3 x 8 SHCS | 1* | | | | |
| 33 | _ | | M3 x 10 SHCS | 1* | | | | |
| 34 | _ | | M3 x 12 SHCS | 4* | | | | |
| 35 | _ | | M4 x 4 SSS | 1* | | | | |
| 36 | | | M4 x 6 SHCS | 1* | | | | |
| 37 | | <u>_</u> | M4 x 8 SHCS | 2* | | | | |
| 38 | | <u> </u> | M4 x 45 SHCS | 2* | | | | |
| 39 | | <u> </u> | #10-32 by 1/2"Long Flat Point SSS | 1* | | | | |
| 40 | | <u> </u> | #10-32 by 1/2 Long Flat Point 555 | 1* | | | | |
| 40 | | | # 10-22 HEX Jaill Nut | Т. | | | | |

 $[\]ensuremath{^{*}}\textsc{Fastener}$ parts can be purchased through most industrial suppliers by using the description in the table above.

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ASSEMBLY DRAWING



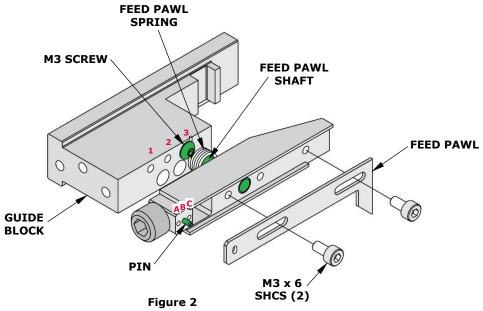
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FACTORY SETTINGS

Feed Pawl Assembly

The FA2 applicator number 213069-1100 ships with the following factory settings. See Figure 2:

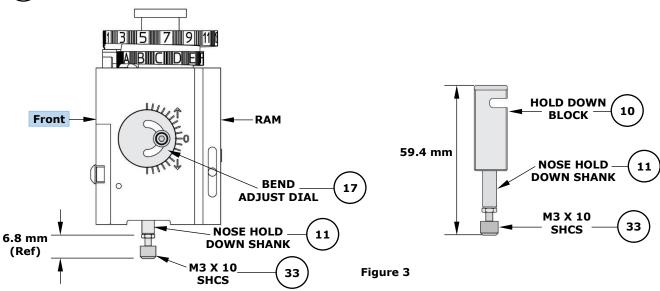
- The feed pawl shaft and M3 screw that holds the feed pawl spring are in position 3.
- The pin is in position B.



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

Bend Adjust Dial/Ram Assembly

Indicates item number on the Parts List and Assembly Drawing



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

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CAUTION: A tooling crash may occur if any of the following conditions exist:

- The M3 x 10 SHCS extends more than 6.8mm from the nose hold down shank
- The overall length of the hold down block, shank, and M3 SHCS exceeds 59.4mm
- The bend adjust dial is adjusted too far down
- The press shut height is less than 135.80mm (5.346")

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.

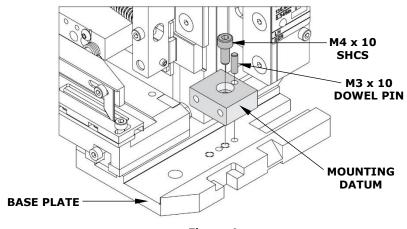


Figure 4

Application Tooling Support

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

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