

Modular Crimp Head
Order No. 200218-1370

Application Tooling Specification Sheet

Hand Crimp Tool
Order No. 200218-1300

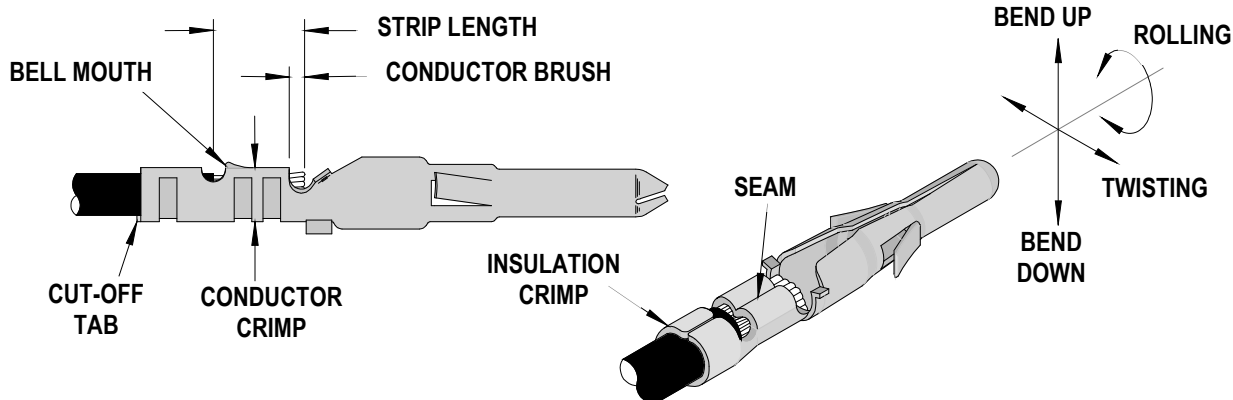
FEATURES

- % A full cycle ratcheting hand tool ensures complete crimps
- % Ergonomically designed soft handles
- % Precisely designed crimping profiles with simple contact positioning
- % Easy handling due to outstanding force ratio
- % A-620 Class 2 compliant as indicated and RoHS compliant
- % Modular Crimp Head is removable and can be used in the Air Powered Tool Order No. 63816-0100, accompanied by Air Powered Crimp Adapter (Order No. 63816-0700)
- % Can also be used in the Battery Powered Tool Order No. 63816-0200 (110 V) or 63816-0250 (220 V), accompanied by Battery Powered Crimp Adapter (Order No. 63816-0600)

Products: ValuSeal Terminals, 16 AWG UL1007/UL1569 wire

| Terminal Series No. | Terminal Order No. | Wire Size | | Insulation Diameter | | Strip Length | |
|---------------------|--------------------|-----------|-----------------|---------------------|-----------|--------------|------------|
| | | AWG | mm ² | mm | In. | mm | In. |
| 173041 | 173041-0003 | 16 | — | 2.0-2.4 | .080-.095 | 3.18-3.80 | .125-0.150 |
| 173042 | 173042-0003 | 16 | — | 2.0-2.4 | .080-.095 | 3.18-3.80 | .125-0.150 |

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

| Terminal Part No. | Bell Mouth | | Cut-Off Tab Maximum (Contact Side) | | ◆ Conductor Brush | |
|-------------------|------------|-----------|---------------------------------------|------|-------------------|-----------|
| | mm | In. | mm | In. | mm | In. |
| 173041-0003 | 0.10-0.60 | .004-.024 | 0.30 | .012 | 0.25-0.50 | .010-.020 |
| 173042-0003 | 0.10-0.60 | .004-.024 | 0.30 | .012 | 0.25-0.50 | .010-.020 |

◆ To achieve the conductor brush specification, special care must be taken; light pressure must be maintained while holding wire against the wire stop.

| Terminal Part No. | Bend Up | Bend Down | Twist | Roll | Seam |
|-------------------|--------------|-----------|--------------|------|---|
| | Degree (Max) | | Degree (Max) | | |
| 173041-0003 | 3 | 3 | 5 | 10 | Seam shall not be open and no wire allowed out of the crimping area |
| 173042-0003 | 3 | 3 | 5 | 10 | |

After crimping, the conductor profile should measure the following:

| Terminal Part No. | Wire Size | | Conductor Crimp | | | | Insulation Crimp | | | | Pull Force Minimum | | Profile | |
|-------------------|-----------|-----------------|-----------------|-----------|--------------|------|------------------|------|--------------|------|--------------------|-----|---------|--------|
| | AWG | mm ² | Height | | Width (Ref.) | | Height (Max.) | | Width (Max.) | | N | Lb. | Male | Female |
| | | | mm | In. | mm | In. | mm | In. | mm | In. | | | | |
| 173041-0003 | 16 | — | 1.15-1.25 | .045-.049 | 2.20 | .087 | 2.60 | .102 | 2.70 | .106 | 133.5 | 30 | X | |
| 173042-0003 | 16 | — | 1.15-1.25 | .045-.049 | 2.20 | .087 | 2.60 | .102 | 2.70 | .106 | 133.5 | 30 | | X |

OPERATION

Open the tool by squeezing the handles together. At the end of the closing stroke, the ratchet mechanism will release the handles, and the hand tool will spring open.

1. Select the desired terminal listed in the preceding chart.
2. Swing the terminal locator away from the crimp tool.
3. Press down on the wire stop on the locator. Insert the terminal into the nest opening as shown in Figure 1.

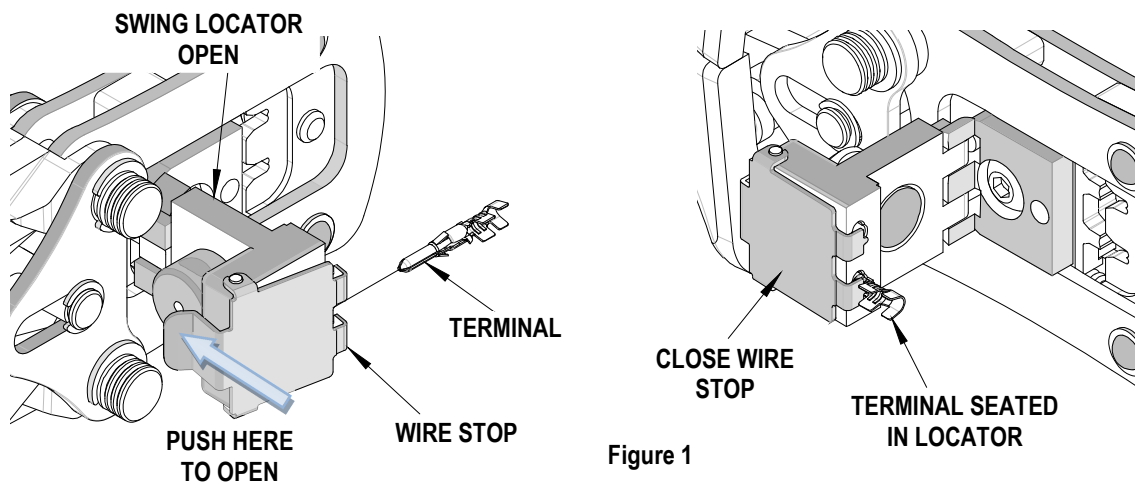
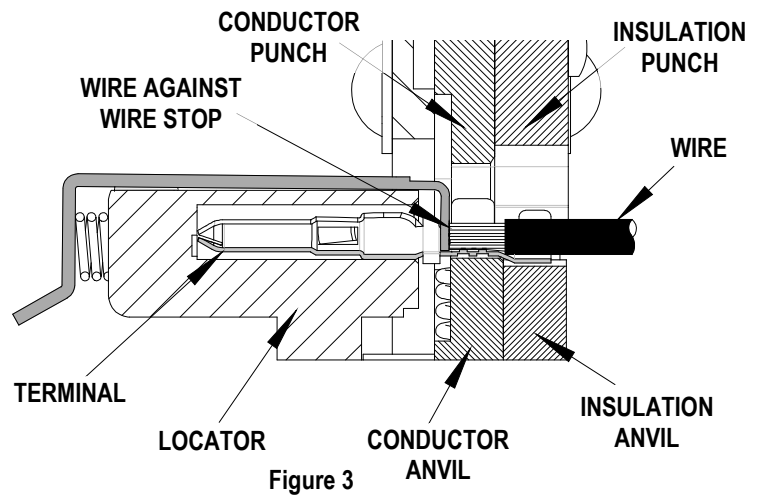
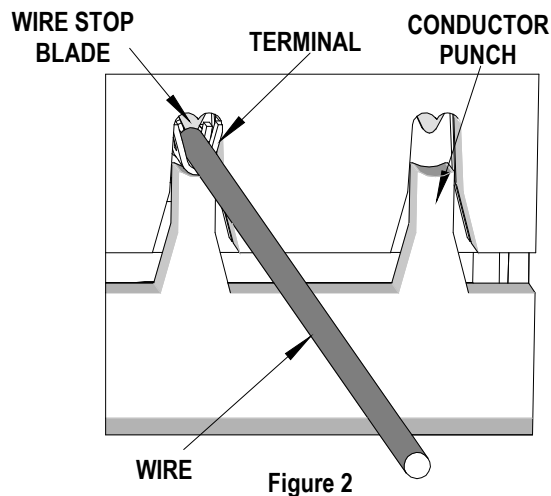


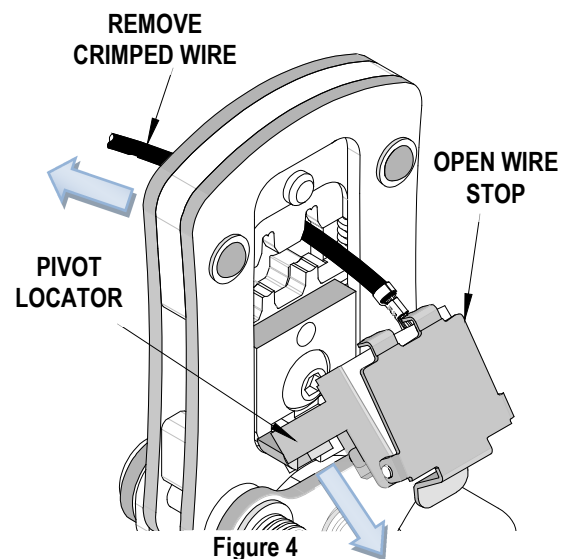
Figure 1

4. Return the locator to its original position.
5. While holding the locator against the hand tool, insert the proper wire size into the terminal. See Figure 2.



6. Push the wire until it stops. See Figure 3.
Note: Do not push the wire with excessive force. This will result in the locator being rotated out of position, and the crimp will be damaged.
7. Close the tool until the ratchet releases. The tool handles will then spring open.
8. Before removing the crimped wire, pivot the terminal locator out. See Figure 4.
9. While holding the locator out, lift up on the wire stop at the same time, and carefully remove the crimped terminal.

Note: The tamper-proof ratchet action will not release the tool until it has been fully closed.



Maintenance

It is recommended that each operator of the tool be made aware of and responsible for the following maintenance steps:

1. Remove dust, moisture and other contaminants with a clean brush or a soft, lint-free cloth.
2. Do not use any abrasive materials that could damage the tool.
3. Make certain all pins, pivot points and bearing surfaces are protected with a thin coat of high-quality machine oil. Do not oil excessively. The tool was engineered for durability, but like any other equipment, it needs cleaning and lubrication for a maximum service life of trouble-free crimping. Light oil (such as 30 weight automotive oil) used at the oil points every 5,000 crimps or 3 months will significantly enhance the tool life.
4. Wipe excess oil from the hand tool, particularly from the crimping area. Oil transferred from the crimping area onto certain terminations may affect the electrical characteristics of an application.
5. When the tool is not in use, keep the handles closed to prevent objects from becoming lodged in the crimping dies, and store the tool in a clean, dry area.

Miscrimps or Jams

Should this tool ever become stuck or jammed in a partially closed position, **Do Not force the handles open or closed.** The tool will open easily by lifting the ratchet release lever. See Figure 8.

Warranty

This tool is for electrical terminal crimping purposes only. This tool is made of the best quality materials. All vital components are long life tested. All tools are warranted to be free of manufacturing defects for a period of 30 days. Should such a defect occur, Molex will repair or exchange the tool free of charge. This repair or exchange will not be applicable to altered, misused or damaged tools. This tool is designed for hand use only. Any clamping, fixturing or use of handle extensions voids this warranty.

CAUTION: Repetitive use of this tool should be avoided.

CAUTIONS:

1. Manually powered hand tools are intended for low-volume use or field repair. This tool is **NOT** intended for production use. Repetitive use of this tool should be avoided.
2. Insulated rubber handles are not protection against electrical shock.
3. Wear eye protection at all times.
4. Use only the Molex terminals specified for crimping with this tool.

Notes:

1. This tool should only be used for the terminals and wire gauges specified on this sheet.
2. This tool is not adjustable for crimp height; however, crimp force is adjustable (See instructions above). Variations in tools, terminals, wire stranding and insulation types may affect crimp height.
3. This tool is intended for standard conductor sizes. It may not give a good insulation crimp support for all insulation sizes.
4. Molex does not repair hand tools (see warranty above). The replacement parts listed are the only parts available for repair. If the handles or crimp tooling are damaged or worn, a new tool must be purchased.
5. Pull force should be used as the final criterion for an acceptable crimp. Pull force is measured with no influence from the insulation crimp. The insulation should be stripped long (1/2 in.) so the insulation grips on the terminal do not grip the wire insulation or the conductor. Refer to Molex Quality Crimping Handbook 63800-0029 for additional information on crimping and crimp testing.
6. Molex does not certify crimp hand tools.

CAUTION: Molex crimp specifications are valid only when used with Molex terminals and tooling.

Applications for the Modular Crimp Head

WARNING: NEVER operate, service, install or adjust this modular crimp head without proper instruction and without first reading and understanding the instructions in the proper manual or specification sheet. See chart below for the correct manual or specification sheet.

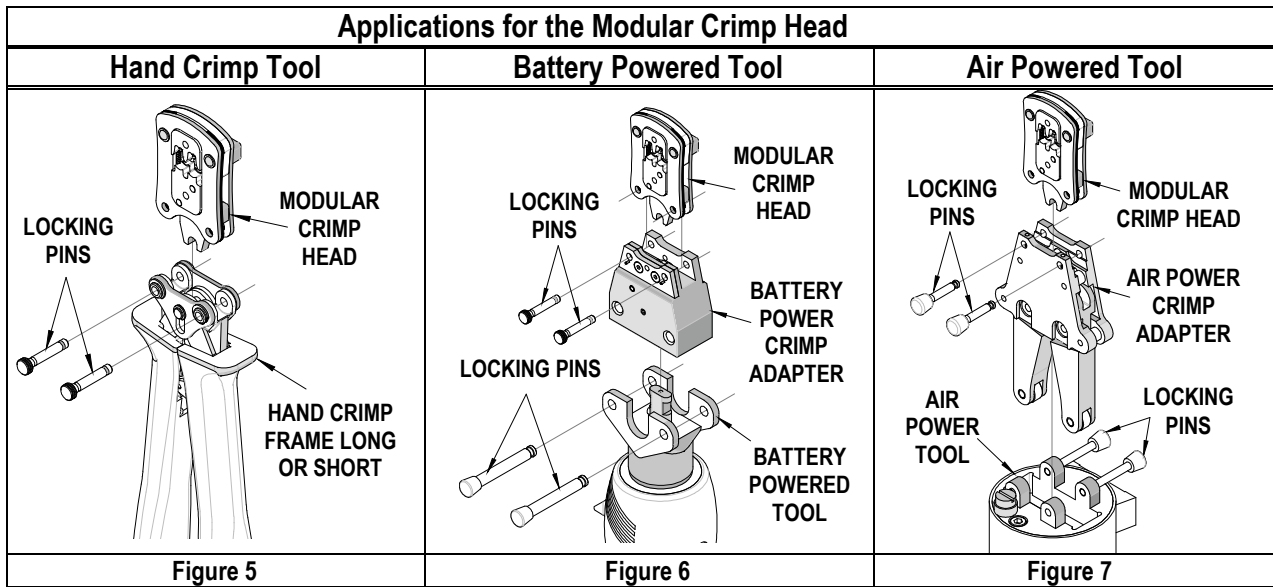
WARNING: NEVER install tooling or service this tool while it is into any power source. Disconnect the power by unplugging, or turn off the actuator from its power source.

CAUTION: Keep fingers away from the crimping area when operating this tool. Pinch hazard.

CAUTION: Wear safety glasses when operating or servicing this tool.

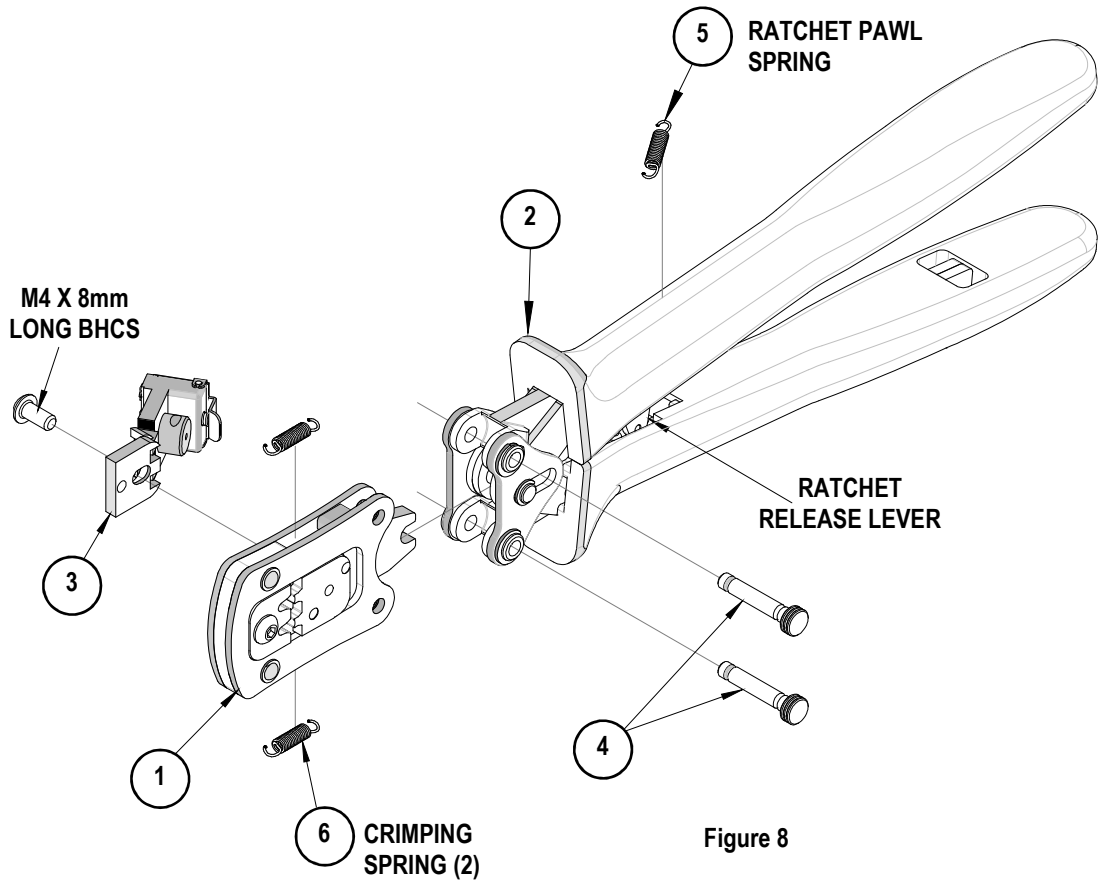
The chart below shows all applications for this Modular Crimp Head:

| Modular Crimp Head Order No. | Tool Order No. | Tool Description | Adapter Order No. | Adapter Description | Figure No. |
|------------------------------|----------------|----------------------------|-------------------|-----------------------------|------------|
| 200218-1300 | 63816-0000 | Hand Crimp Frame (Short) | N/A | N/A | 5 |
| | 63816-0050 | Hand Crimp Frame (Long) | N/A | N/A | 5 |
| | 63816-0200 | Battery Power Tool (110 V) | 63816-0600 | Battery Power Crimp Adapter | 6 |
| | 63816-0250 | Battery Power Tool (220 V) | 63816-0600 | Battery Power Crimp Adapter | 6 |
| | 63816-0100 | Air Power Tool | 63816-0700 | Air Power Crimp Adapter | 7 |



PARTS LIST

| Item | Order Number | Description | Quantity |
|------|--------------|-------------------------|----------|
| 1 | 200218-1370 | Modular Crimp Head | 1 |
| 2 | 63816-0500 | Hand Crimp Frame (Long) | 1 |
| 3 | 200218-1375 | Locator | 1 |
| 4 | 63816-0001 | Locking Pin | 2 |
| 5 | 63600-0525 | Ratchet Pawl Spring | 1 |
| 6 | 63600-0520 | Crimping Spring | 2 |



Application Tooling Support

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