AT-200 AIR-POWERED CRIMPING TOOL
Operating and Maintenance Instructions with
Optional Bench Adapter and Foot Switch
Order No. 19279-0001

- Description
- Operation
- Maintenance
WARNING

NEVER USE THIS TOOL WITHOUT GUARDS OR SAFETY DEVICES THAT ARE INTENDED TO PREVENT HANDS FROM REMAINING IN THE DIE SPACE.

NEVER OPERATE, SERVICE, INSTALL OR ADJUST THIS TOOL WITHOUT PROPER INSTRUCTION AND WITHOUT FIRST READING AND UNDERSTANDING THE INSTRUCTIONS IN THIS MANUAL AND ALL APPLICABLE AIR POWERED CRIMPING TOOL MANUALS.

NEVER INSTALL OR SERVICE THIS MACHINE WHILE CONNECTED TO THE COMPRESSED AIR SOURCE.

CAUTION THE MOLEX AT-200 AIR POWERED CRIMPING TOOL IS DESIGNED TO BE USED WITH AIR POWERED CRIMP TOOLS HEADS AND TOOLING SUPPLIED BY MOLEX. USE OF TOOL HEADS OR TOOLING FROM ANY OTHER SOURCE MAY RESULT IN DAMAGE OR INJURY. MOLEX WILL NOT BE LIABLE FOR ANY DAMAGE OR INJURY FROM USE OF NON-MOLEX COMPONENTS IN THIS TOOL.

WORK SAFELY AT ALL TIMES

For Service, Contact Your Local Molex Sales Office

Molex Application Tooling Group
2200 Wellington Court
Lisle, Illinois 60532
Tel: 630-969-4550
Fax: 630-505-0049
Table of Contents

1. General Description and Operation
2. Changing Crimping Heads
3. Parts List, Assembly Drawings

Appendix

A Options
General Description

Description

The AT-200 Air-Powered Crimping Tool is a hand held pneumatic tool weighting less than two pounds. It is designed to crimp high quality and consistent crimped terminals. This tool operates on standard shop air (85 to 95 PSI) and crimps wire ranges from 26 to 8AWG.

Features

- Crimping dies are easily and quickly interchanged to reduce production down time.
- Complete portable system that allows tool to be moved and stored easily.
- Tool may be used as a Potable tool, suspended over head or bench mounted.
- Higher volume output with less operator fatigue.

Technical Specification

Pneumatic:

Supply Pressure: 100 PSI (6.9 Bars) max

Cycle Time:

15 seconds

Weight

0.9kg (2lbs)

Delivery Check

Carefully remove the AT-200 Air-Powered Crimping Tool from its shipping container and determine that the following items are included in the package.

- 19279-0001 Air-Powered Crimping Tool
- 19279-0140 Air Hose 1/8 NPT Male
- TM-192790001 Instruction Manual

Tools

The following tools are recommended for setup and adjustments to this tool.

1. Metric standard hex wrench set
2. Inch standard hex wrench set
3. Adjustable wrench
4. Wire stripper / cutter
5. Screw driver

Can Also Be Used With:

19078-0307 Bench Adapter Assembly with Foot Switch
64001-4000 Electrical Control Box

Specification Sheets

Molex ships specification sheets with every Air Crimp Tool Head. These Tool Heads are not included with the AT-200 Air-Powered Crimp Tool. They are ordered separately. The specification sheet contains the following:

- Terminal numbers
- Wire AWG ranges
- Insulation diameter ranges
- Strip lengths
- Pull Force
- Crimp heights
- Bell mouth
- Bend, twist and roll limits
- Tooling parts list and assembly

These are available on the Molex website (www.molex.com).
Operation

1. Read the following instructions before attempting to operate tool.
2. Connect the air hose to the tool and to the air supply 85 to 95 PSI. Do not exceed 100 PSI. **May cause injury or damage to the tool.** Air supply must be equipped with a 1/4NPT air filter/regulator which is not supplied by Molex. See Figure 1. (Available from any Industrial supply co.)

If changing to the Optional bench adapter (Order No. 19078-0307) remove the air hose (Order No. 19279-0140) from the Air-Powered Crimp Tool and connect the tubing from the footswitch. See Figure 2. If using the Optional Electrical Controls (Order No. 64001-4000), see Appendix A.
3. Lock the trigger by engaging the red aluminum safety. Pull the safety outward from the end of the trigger and rotate it until the next detent position engages. See Figure 3.

![Figure 3](image-url)

**Note**: Always use the safety or disconnect air supply when changing crimping heads.

4. For the proper crimping head, use the order number located on the label of the terminal/connector container.

5. Strip the proper wire to the minimum length located on the label of terminal/connector container or on the air powered crimp tool head specification sheet.
Section 2

2.1 Changing Crimp Tool Heads

2.2 Insulation Support Crimp Adjustment
(Older style fixed jaw air powered crimp tools heads)

2.3 Insulation Support Crimp Adjustment
(Newer style insertion air powered crimp tools heads)

2.4 Terminal Crimping

2.5 Maintenance
2.1 Changing Crimp Tool Heads

1. Engage the trigger safety or disconnect the air supply.
2. Remove the (2) #1/4-20 slotted screws on both sides of the power unit. Pull the crimp tool head jaw assembly out of the tool. See Figure 4.

3. Before attempting to replace the dies, make sure the wedge points of the cam line up with the (2) #1/4-20 holes in the front of power unit. See Figure 5.
If the cam is not lined up, use the following procedure.

a) Disconnect the air supply with the cam in the retracted position trigger is up.

b) Grasp the center section of the cam with a long nose plier and rotate the cam clockwise (CW) until the center line of the wedge line up with (2) #1/4-20 holes in power unit. See Figure 5 for the correct alignment.

c) Replace the head before cycling the tool. Be sure both screws are in place and tightened.

4. To replace the crimp tool head, hold power unit in left hand as shown in Figure 6.

5. Grasp the crimp tool head with the right hand and with the terminal locator facing you. Slide the crimp tool head assembly into the body of the power unit until the side plates of the crimp tool head butt against the steps in the power unit. Be sure the jaw return springs clear the cam in the power unit. See Figure 6.

6. Line up the holes in the crimp tool head with the holes in the housing of the power unit.

7. Replace the (2) #1/4-20 screws and tighten securely. The tool is now ready for use.

2.2 Insulation Support Crimp Adjustment
(Older style fixed jaw air powered crimp tools heads)

1. The crimp tool heads for the insulated terminals and the connectors feature an adjustable insulation support crimp to accommodate varying wire insulation diameters (See Figure 7) for old style crimp tool head.

2. The adjustment screw on each crimp head tool is set at the factory at the M position. This setting will give the best crimp on most wires. Two other adjustment settings are available: S, the smallest configuration and L, the largest configuration.

3. Crimp a terminal or connector and inspect the insulation support sleeve crimp or configuration. A properly crimped sleeve snugly grasps the wire insulation.

4. If the crimp configuration is too loose, change the adjustment setting by removing the air powered crimp tool head from the AT-200 and setting adjustment screw to the S position. Re-insert the air powered crimp tool head into the AT-200 and crimp, and inspect the insulation support sleeve.

5. If crimp configuration is too tight, change adjustment setting by removing the air powered crimp tool head from the AT-200 and setting adjustment screw to the L position. Re-insert the air powered crimp tool head into the AT-200 and crimp, and inspect insulation support sleeve.
2.3 Insulation Support Crimp Adjustment  
(Newer style insertable jaw air powered crimp tools)

For the new style crimp head tools, if the insulation part of the crimp needs to be adjusted, first loosen the M4 screw on the bottom tool jaw, then insert a 3/32” Hex wrench (supplied) into the bottom of the lower die. See Figure 4. A clockwise (CW) rotation decreases the insulation crimp while a counter-clockwise (CCW) rotation increases the insulation crimp. After adjusting retighten the M4 screw.

2.4 Terminal Crimping

Specifications and Instructions for crimping are included with the individual air powered crimp tool heads.

2.5 Maintenance

**CAUTION:** Always disconnect air supply before all 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 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. This tool needs cleaning and lubrication for a maximum service life of trouble-free crimping. A light oil, such as 30 weight automotive oil used at the oil points shown in Figure 8, every 5,000 crimps or monthly will significantly enhance the tool life and ensure a stable calibration.
4. When tool is not in use store the tool in a clean, dry area.

**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, we would repair or exchange the tool free of charge. This repair or exchange will not be applicable to altered, misused or damaged tools.

If seals are damaged the warranty is invalid.

**CAUTION:** Molex crimp specifications are valid only when used with Molex terminals and tooling.
Section 3

3.1 Parts Lists and Assembly Drawings
3.1 Parts List and Assembly Drawings

<table>
<thead>
<tr>
<th>Item</th>
<th>Order No.</th>
<th>Engineering No.</th>
<th>Description</th>
<th>Qty</th>
<th>Notes</th>
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<tbody>
<tr>
<td>1</td>
<td>19279-0080</td>
<td>19279-0080</td>
<td>Cam For AT-200 Air Tool</td>
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<td>2</td>
<td>19279-0135</td>
<td>19279-0135</td>
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<td>Figure 10</td>
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<td>3</td>
<td>19279-0140</td>
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<td>Air Hose 1/8 NPT Male FTG</td>
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<td>4</td>
<td>19279-0161</td>
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<td>Screw Silver Slotted</td>
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<td>5</td>
<td>N/A</td>
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<td>#1/4-1/8 Hex Bushing</td>
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<td>#1/4-28 by 3/4 Cup Point SSS</td>
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</table>

** Available from an industrial supply company such as MSC (1-800-645-7270).
### 3.1 Parts List and Assembly Drawings

<table>
<thead>
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<th>Item</th>
<th>Order No.</th>
<th>Eng. No.</th>
<th>Description</th>
<th>Qty</th>
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<td>3/8 ID by 1/2 OD by 1/16” Cross Section Buna O-Ring</td>
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<td>1/2 ID by 11/16 OD by 3/32” Cross Section Buna O-Ring</td>
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<td>.455 OD by .038 WD by .625” FL Compression Spring</td>
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<td>1/16 Diameter by .25” Long Dowel Pin</td>
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<td>1/8 Diameter by .75” Long Spring Pin</td>
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</tr>
</tbody>
</table>

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3.1 Parts List and Assembly Drawings

Figure 10
3.1 Parts List and Assembly Drawings

<table>
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<tr>
<th>Item</th>
<th>Order No.</th>
<th>Engineering No.</th>
<th>Description</th>
<th>Qty</th>
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<td>Air Foot Switch (3B – 30A2 – S)</td>
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<td>1/8” NPT – M Fitting, by 1/8 Barb</td>
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<td>1/8” Brass Coupling - 1/8 (F/F)</td>
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</tbody>
</table>

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Appendix A

Options

1. Accessories

   64001-4000 - Full Cycle/Pressure Electrical Control Box Instruction Sheet
Features

- The 64001-400 Full Cycle Electrical Control Box is an option for use on Air Power Crimp Tool (AT200) Order No. 19279-0001 equipped with Bench Adapter Order No. 19078-0307.
- This control box will assure that the air tool completes a full crimp cycle. Applying the air pressure for a long enough cycle to assure a successfully completed crimp.
- Prevents actuation if sufficient pneumatic pressure is not available to produce good crimps.
- Eliminates the operators' judgment and low line pressure as sources of variability for critical applications.

OPERATION

1. To install the control box remove the pneumatic foot switch and all of the tubing.
2. Replace with the components, fittings and the tubing. See Figures 1 and 3.
3. Make sure they are correctly connected in the right positions, which are clearly marked on the each side of the Cycle Box in Figure 1.
4. The power is on if the "Green" indicator light is on.
5. If the "Yellow" indicator light turns on, the air pressure is low (90 PSI – Min.). Check the pressure gauge and reset if necessary.
6. To change the cycle time, the timer has to be readjusted. This is done by removing the (4) screws on the top cover. Place the cover aside and locate the timer. See Figure 2. Using a Phillips screwdriver insert it in the slot on top of the timer. Turn the timer clockwise (CW) to increase time or counterclockwise (CCW) to decrease time. The dial can be turned by hand if a screwdriver is not available. Place the cover back and re-install the (4) screws.
7. Push the foot switch to start the crimp cycle.
8. When the crimp cycle is complete the circuit will release and the jaws of the air tool will open.
9. To stop the cycle before complete, push the emergency stop button. To reset, rotate the button clockwise (CW) as indicated by the arrows on the button.
### Parts List

<table>
<thead>
<tr>
<th>Item</th>
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<th>Description</th>
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<td>Electrical Controls Ref</td>
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<td>62500-1265</td>
<td>Power Supply 1</td>
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<tr>
<td>3</td>
<td>63800-8394</td>
<td>Footswitch Assembly 1</td>
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<tr>
<td>4</td>
<td>69018-6237</td>
<td>Power Cord 1</td>
<td></td>
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<td>N/A</td>
<td>1/4&quot; OD Tubing **</td>
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<td>19078-0307</td>
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<td>9</td>
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<td>Filter Regulator Ref</td>
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</table>

** Available from an industrial supply company such as MSC (1-800-645-7270).

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![Diagram](image)

**Figure 3**

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