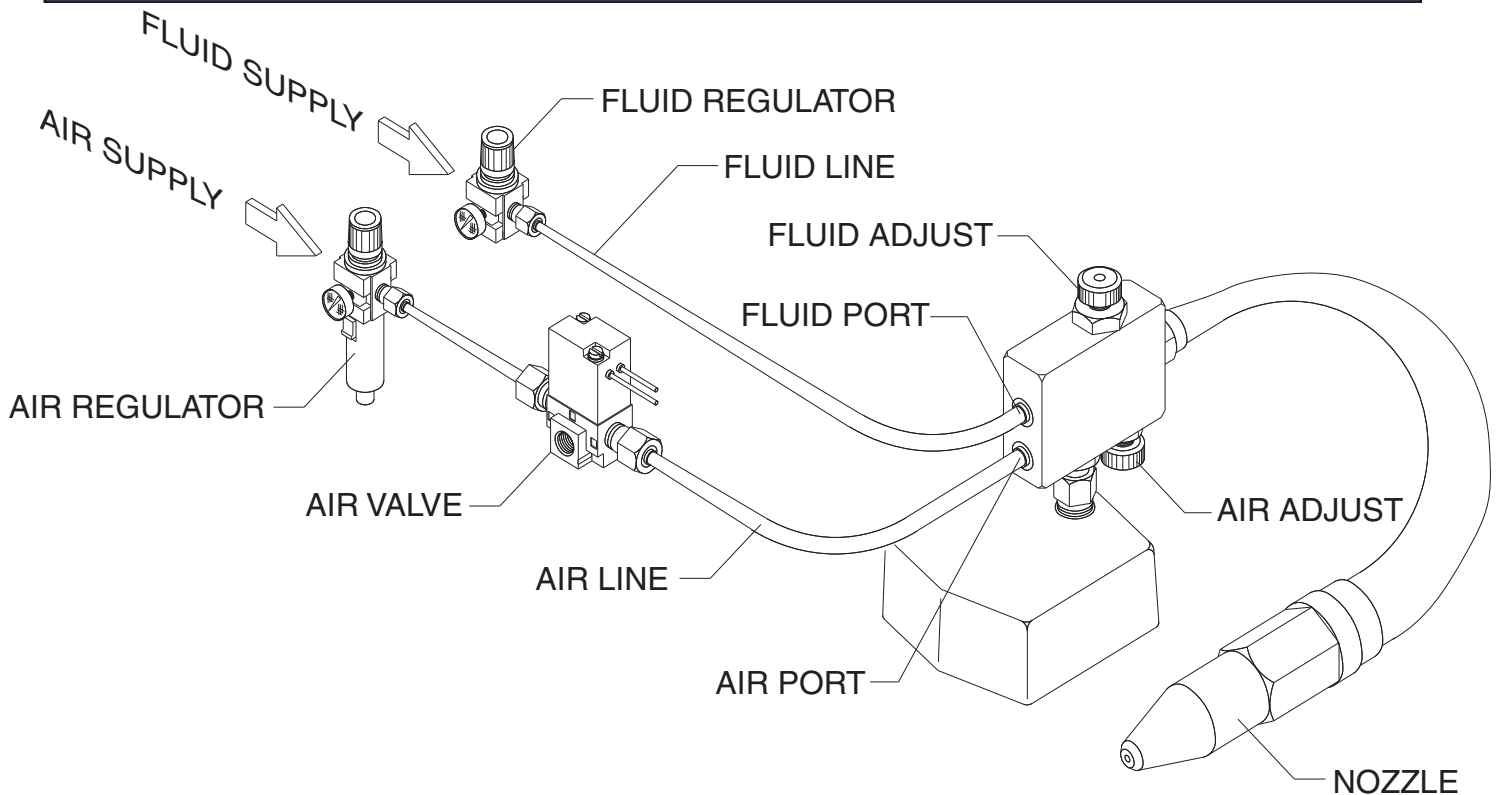


# INSTALLATION, OPERATION, and TROUBLESHOOTING INSTRUCTIONS with REPLACEMENT PARTS LISTINGS for the BasicMist Models M-432 & M-433 MagnaMist Models M-442, & M-443



## INSTALLATION INSTRUCTIONS

### A. Mount the PowerMist.

1. The PowerMist will operate in any position, therefore may be mounted any way desired.

### B. Bringing Air to the PowerMist.

1. The Air Supply must be regulated to a constant pressure, and should be filtered to prevent contamination of the Unit. Air pressures between 60 to 120 PSI may be used.
2. Air must be supplied through a 3-way Air Valve, with this valve being used to turn the PowerMist on and off.
3. The Air Line between the Air Valve and the PowerMist must be 3/16" O.D. in order to fit the built-in fittings on the unit. A length of this size tubing is supplied with the Unit; however, the Air Valve should be close enough so that no more than four feet is used for this Air Line.
4. Attach the Air Line by inserting it into the Air Port as shown at Fig. 1. See Fig. 2 for details on connections.

### C. Bringing Fluid to the PowerMist.

1. The Fluid Supply must be regulated to a constant pressure, and the fluid should be kept free of contamination. Fluid pressures from 30 to 60 PSI may be used, but must be set at least 20 PSI less than the Air Supply pressure set above.
2. The Fluid Line from the Fluid Supply to the PowerMist must end with a 3/16" O.D. in order to fit the built-in fittings on the Unit. A length of this size tubing is supplied with the Unit; however, no more than eight feet of it should be used for this Fluid Line.
3. There is no need for a valve on the Fluid Line. On/off valving for the fluid will be handled by the PowerMist.
4. Attach the Fluid Line by inserting it into the Fluid Port as shown at Fig. 1. See Fig. 2 for details on connections.

## OPERATING INSTRUCTIONS

### A. Set Fluid Pressure at 40 PSI.

This pressure will suffice for most applications and should be used initially. Lower or higher pressures may be used later to enhance performance for certain applications.

### B. Close all PowerMist Controls.

Turn the Fluid Control and Air Control valves on the PowerMist "off" (clockwise until bottomed).

### C. Supply Air to the PowerMist.

Open the 3-way Air Valve to supply the PowerMist with air.

### D. Open the Fluid Control.

Turn Fluid Control counter-clockwise until a stream of fluid issues from the Nozzles of the PowerMist.

### E. Adjust the Air Control.

Turn the Air Control counter-clockwise. As this is done a "mist" will be generated. Continue "opening" this valve until the "mist" fades to just a bit MORE than desired for operation. If more fluid is required, open the Fluid Control further (see D. above).

### F. Adjust the Fluid Control.

Turn the Fluid Control clockwise until the desired spray is achieved.

NOTE: It is IMPORTANT that before this adjustment is made the spray is MORE than desired (from step E.); however, it will be found that the closer the spray is set to the desired amount at step E., the finer it can be adjusted to in step F.

## TROUBLESHOOTING INSTRUCTIONS

PROBLEM	SOLUTION
<p>I. No air is emitted at the Nozzle when Unit is on.</p>	<p>A. Air Control valve may be closed. 1. Open Air Control and check operation.</p> <p>B. There may be no air getting to the Unit. 1. Disconnect Air Line at the Air Port on the Unit and check operation. a. If little or no air is emitted from Air Line, check Air Supply. b. If air is emitted from Air Line, check for contamination clogging the Unit (see PROBLEM IX. below).</p>
<p>II. No fluid is emitted at the Nozzle when the Unit is on.</p>	<p>A. Operating air pressure may be too low. 1. Air pressure must be at least 20 PSI above fluid pressure.</p> <p>B. Fluid Control Valve may be closed. 1. Open Fluid Control all the way and check operation.</p> <p>C. Unit may be improperly setup. 1. Turn the Air Control valve "off" and check operation. a. If fluid is emitted now, it should be in a heavy stream. If so, see OPERATING INSTRUCTIONS for proper setup. b. If little or no fluid is emitted, check for contamination clogging the Unit (see PROBLEM IX. below).</p>
<p>III. Fluid does not shut off when Unit is shut down.</p>	<p>A. Fluid pressure may be too low for shut-off. 1. Fluid pressure must be at least 30 PSI, possibly more if the fluid being used has little lubricity.</p> <p>B. Fluid may be leaking past seal. 1. Check "O" Ring (#12 on Parts List) on the Piston in the Unit for wear, damage, of contamination (see PROBLEM IX. below).</p>
<p>IV. Fluid drips continuously from Nozzle after Unit is shut down.</p>	<p>A. Fluid may be leaking past seal. 1. See PROBLEM III above, check SOLUTION B. 1.</p>
<p>V. Fluid drips from the Nozzle for a short period after Unit is shut down and then stops.</p>	<p>A. Air may not be exhausting, or not exhausting quick enough. 1. Check if valve used for on/off control is a 3-WAY type air valve. 2. Check if the Air Line between the Air Valve and Unit is excessively long. Should be no more than four feet, shorter if possible.</p> <p>B. Air may be getting into the fluid. 1. See PROBLEM VIII. below.</p>
<p>VI. Spray is erratic and hard to set or control.</p>	<p>A. Seal at the Fluid Control may be bad. 1. Check "O" Ring (#8 on Parts List) at the Fluid Control in the Unit for wear or damage (see PROBLEM IX. below).</p> <p>B. Air may be getting into the fluid. 1. See PROBLEM VIII. below.</p>
<p>VII. Spray fades or dies out over a period of time.</p>	<p>A. Fluid on air pressure may be varying. 1. Insure that fluid and air pressures are regulated, and that they are set where they will not vary from outside influences. Example: If shop air pressure can drop 80 PSI, make sure the Unit's Air Supply is set at or below this pressure.</p> <p>B. Air Control may be opened to far. 1. Turn the Air Control clockwise a bit and check operation.</p> <p>C. Air may be getting into the fluid. 1. See PROBLEM VIII. below.</p>
<p>VIII. Air is getting into the fluid.</p>	<p>A. Air may be being introduced from the fluid source. 1. Insure that the fluid coming into the Unit is completely air free.</p> <p>B. Air may be leaking past seals. 1. Check "O" Ring (#13 on Parts List) on the Piston in the Unit for wear or damage (see PROBLEM IX. below). 2. Check Rubber Sleeve (#4 on Parts List) at end of Tube Assy for deformation or damage (see PROBLEM IX. below).</p>

## TROUBLESHOOTING INSTRUCTIONS (continued)

PROBLEM	SOLUTION
<p data-bbox="94 237 547 321">IX All or part of the PowerMist must be taken apart to check out a problem above.</p> <p data-bbox="142 352 547 493">Carefully follow the instructions given at the right to insure proper disassembly and assembly. Improper handling may cause damage to the Unit.</p>	<p data-bbox="560 233 1008 260">A. Tube Assembly (#1 to #4 on Parts List).</p> <ol data-bbox="592 262 1495 779" style="list-style-type: none"> <li>1. Removing the Tube Assy.               <ol data-bbox="625 289 1495 430" style="list-style-type: none"> <li>a. NEVER try to remove the Nozzle from the Tube until you have first removed the Tube Assy from the Housing. Unscrewing the Nozzle while the Tube is attached to the Housing can cause irreparable damage.</li> <li>b. When the Tube Assy is removed, the Rubber Sleeve (#4 on Parts List) may stick in the Housing and have to be removed separately.</li> </ol> </li> <li>2. Checking the Tube Assy.               <ol data-bbox="625 464 1495 688" style="list-style-type: none"> <li>a. Blow into the 1/8" copper tubing sticking from the end of the Tube Assy. If air passes through and out the Nozzle it indicates the fluid passage is clear.</li> <li>b. Block the same end of the copper tubing with thumb. Blow air into the Nozzle. If air passes through out the back of the Tube Assy it indicates the air passage is clear.</li> <li>c. If either the fluid or air passages are blocked, back-flushing with a high pressure stream of air into the front of the Nozzle may dislodge the contamination. Replace the Tube &amp; Housing Assy (#1 on Parts List) if necessary.</li> </ol> </li> <li>3. Installing the Tube Assy.               <ol data-bbox="625 722 1446 779" style="list-style-type: none"> <li>a. Assemble in reverse of disassembly. Make sure there is no Rubber Sleeve stuck in Housing before inserting and torquing Tube Assy.</li> </ol> </li> </ol> <p data-bbox="560 785 1045 812">B. Fluid Control Valve (#5 to #8 on Parts List).</p> <ol data-bbox="592 814 1468 1184" style="list-style-type: none"> <li>1. Removing the Fluid Control.               <ol data-bbox="625 842 1295 926" style="list-style-type: none"> <li>a. Unscrew the Valve Assy (#5 on Parts List) from the Housing.</li> <li>b. Lift the Spacer (#7 on Parts List) from the Housing.</li> <li>c. Lift the "O" Ring (#8 on Parts List) from the Housing.</li> </ol> </li> <li>2. Checking the Fluid Control.               <ol data-bbox="625 953 1468 1066" style="list-style-type: none"> <li>a. Inspect the "V" groove in the tip of the Valve Assy (#5 on Parts List) for deformation or contamination.</li> <li>b. Inspect the "O" Ring (#8 on Parts List). It should be "square" and its edges should show no sign of wear or damage.</li> </ol> </li> <li>3. Installing the Fluid Control.               <ol data-bbox="625 1094 1468 1184" style="list-style-type: none"> <li>a. Unscrew the Valve Assy so that the tip is drawn into the assembly until it bottoms before assembling.</li> <li>b. Assemble in reverse of disassembly.</li> </ol> </li> </ol> <p data-bbox="560 1190 1045 1218">C. Air Control Valve (#10 to #11 on Parts List)</p> <ol data-bbox="592 1220 1468 1415" style="list-style-type: none"> <li>1. Removing the Air Control.               <ol data-bbox="625 1247 1308 1274" style="list-style-type: none"> <li>a. Unscrew the Valve Assy (#11 on Parts List) from the Housing.</li> </ol> </li> <li>2. Checking the Air Control.               <ol data-bbox="625 1302 1352 1329" style="list-style-type: none"> <li>a. Inspect the tip of the Valve Assy for deformation or contamination.</li> </ol> </li> <li>3. Install the Air Control.               <ol data-bbox="625 1356 1468 1415" style="list-style-type: none"> <li>a. Unscrew the Valve Assy so that the tip is drawn into the assembly until it bottoms before assembling.</li> </ol> </li> </ol> <p data-bbox="560 1421 1062 1449">D. Fluid Valve Piston (#12 to #16 on Parts List).</p> <ol data-bbox="592 1451 1495 1837" style="list-style-type: none"> <li>1. Removing the Piston.               <ol data-bbox="625 1478 1495 1619" style="list-style-type: none"> <li>a. Unscrew Plug or Adapter (#15 to #16 on Parts List) from the Housing.</li> <li>b. Use a #10-24 UNC machine screw as a handle. Screw it into the threaded hole in the Piston. Gently work the Piston from the Housing by simultaneously pulling and turning on the screw. If the Piston is yanked directly out, the "O" Ring on the Piston will be damaged.</li> </ol> </li> <li>2. Checking the Piston.               <ol data-bbox="625 1646 1495 1730" style="list-style-type: none"> <li>a. Inspect both "O" Rings on the Piston for any sign of wear, damage, or contamination.</li> <li>b. Inspect the Piston's chamber in the Housing for signs of wear or contamination.</li> </ol> </li> <li>3. Installing the Piston.               <ol data-bbox="625 1757 1468 1837" style="list-style-type: none"> <li>a. Assemble in reverse of disassembly. Carefully work the Piston back into the Housing by simultaneously pushing and turning it until it passes the "O" Ring seat.</li> </ol> </li> </ol>

# REPLACEMENT PARTS LISTING

Key No.	Part Number	Description of Part
<b>The Following Parts are Common to All Models (listed at the right)</b> <b>M-432, M-433</b> <b>M-442, M-443</b>		
3	RGO-011	RING,"O" seal:
4	SLV-001	SLEEVE,Rubber:
5	145-VAL-01	VALVE ASSY:rubber
6	RGO-017	RING,"O" seal:
7	SPC-005	SPACER,"O" Ring:
8	RGO-505	RING,"O" seal:
9	145-HAS-03	HOUSING & VALVE ASSY:
10	RGO-016	RING,"O" seal:
11	112-VAL-03	VALVE ASSY:air
12	RGO-018	RING,"O" seal:
13	RGO-009	RING,"O" seal:
14	PIS-003	PISTON,Valve:
<b>The Following Parts are Common to Models with 9" FlexTubes</b> <b>M-432, M-442</b>		
1	145-TAH-02	TUBE & HSG ASSY:
2	145-TUB-02	TUBE ASSY:flex
<b>The Following Parts are Common to Models with 12" FlexTubes</b> <b>M-433, M-443</b>		
1	145-TAH-03	TUBE & HSG ASSY:
2	145-TUB-03	TUBE ASSY:
<b>The Following Parts are Common to Models with Magnetic Bases</b> <b>M-442, M-443</b>		
16	ADP-006	ADPTEr,Threaded:
17	BRK-014	BRACKET,Mounted:
18	282-BAS-06	BASE ASSY:magnetic
<b>The Following Parts are Common to the Models without Magnetic Bases</b> <b>M-432, M-433</b>		
15	PLG-013	PLUG,Threaded:

