



HPR180 Installation and Maintenance

MASTER PNEUMATIC - DETROIT, INC.

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PRODUCT NUMBERS:

HPR180-6, HPR180-6W
HPR180-8, HPR180-8W
HPR180-10, HPR180-10W

THANK YOU!

You have just purchased a quality Externally Piloted Regulator from Master Pneumatic.

With care in its installation and maintenance, you can expect it to have a long and economical service life. Before you go any further, please take a few minutes to look over this information, then save it for future reference and for the useful service information it contains.

Installation & Operation Procedures

INSTALLATION:

1. Depressurize and lockout air pressure.
2. Upstream pipes must be free of dirt and liquids.
3. Filters should be installed immediately ahead of Regulators to insure a clean supply of air.
4. Install the HPR180 Regulator as near as possible to the device it is to serve.
5. The Air Supply must be connected to the "IN" Port as marked on the top. The HPR180 has 3 Outlet ports, 1 port the same size as the Inlet Port and the other two Ports are 1/2".
6. The HPR180 Regulator can be installed in any orientation.
7. The HPR180 Regulator requires a Control Regulator to operate. Available Control Regulators are R55M, R56M, R57M, R67, R100, R380, IR100, IR380, or ER Servo Valve.
8. The Control Regulator can be installed at a distance from the HPR180 Regulator for ease of adjustment. Connect the Inlet of the Control Regulator to the 1/8" Pilot Supply Port. Connect the Outlet of the Control Regulator to the Dome Port located on the side of the Dome facing the Inlet Port. See Figure 1.
9. The HPR180 Regulator has 3 Outlet ports. It is necessary to install Outlet Plumbing, Pressure Gauge or Pipe Plugs into each port before operating.

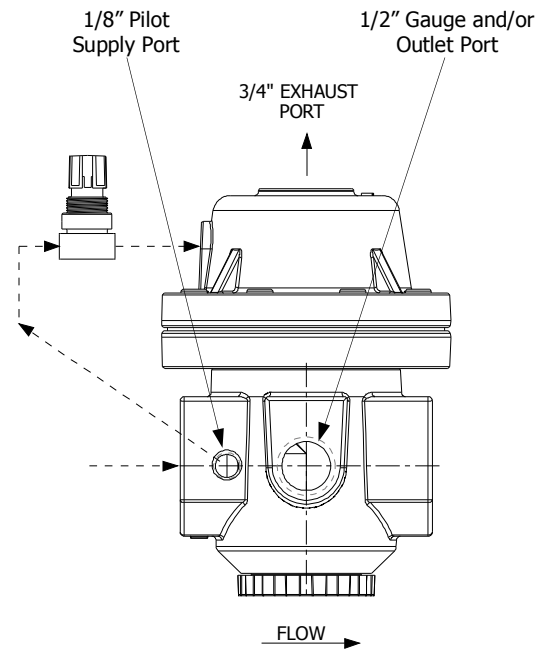


Figure 1.
HPR180 Shown with R56M Control Regulator

OPERATION:

1. Outlet pressure of HPR180 Regulator is dependent on the Control Regulator. To increase the HPR180 pressure, increase Control Regulator, or to decrease HPR180 pressure decrease Control Regulator. To adjust the Control Regulator, turn clockwise to increase pressure and counter-clockwise to decrease. For more details see specific Installation and Maintenance Sheet for chosen Control Regulator.
2. The Control Regulator pressure setting will be a minimum of 10 psi higher than the desired pressure for outlet of HPR180 Regulator.
3. If operating below 32°F - 0°C, ice must not form in Regulator

TO CLEAN OR REPAIR:

1. Depressurize and lockout air pressure.
2. Remove Diaphragm by unscrewing Qty (7) 1/4-20 X 7/8" SHCS and (1) 1/4-20 X 1 3/8" SHCS. Mark the hole that the long screw was removed from.
3. Diaphragm can now be removed.
4. Remove Cap by turning counter-clockwise.
5. Valve Spring, Valve, and Screen can now be removed.
6. If the HPR180 cannot be repaired by cleaning with soap and water, the parts should be replaced.
7. When re-assembling, be sure that all seals are correctly located. Lubricate O-rings and sliding surfaces with Lithium Grease. Replace the 1/4-20 X 1 3/8" SHCS in the same hole it was removed from. Torque Cap to 50-60 in-lbs. Torque Quantity (8) 1/4-20 SHCS to 75-90 in-lbs.



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Replacement Parts

Replacement Parts

DESCRIPTION	PART KEY #	PART NUMBER
O-Ring Kit <i>(Includes all 6)</i>	3, 4, 8, 9, 10, 16	A37-383
O-Ring Kit <i>(Includes all 6)</i> - Viton	3, 4, 8, 9, 10, 16	A37-383V
Valve Assembly Kit	2, 3, 4, 5, 6, 8	A37-386
Valve Assembly Kit - Viton	2, 3, 4, 5, 6, 8	A37-386V
Diaphragm Assembly Kit	10, 12, 16	A37-384
Diaphragm Assembly Kit - Viton	10, 12, 16	A37-384V
Mounting Bracket Kit	NOT SHOWN	A37-381

GAUGE KITS	RANGE	PORT SIZE
A200-BDD-4	0-200 PSI	1/2-NPTF
A200-BDD-4W	0-200 PSI	1/2-BSPT
A600-BDD-4	0-600 PSI	1/2-NPTF
A600-BDD-4W	0-600 PSI	1/2-BSPT

Parts Listing

KEY	DESCRIPTION
1	Cap
2	Valve Spring
3	O-Ring
4	O-Ring
5	Valve Assembly
6	Screen
7	Head
8	O-Ring
9	O-Ring
10	O-Ring
11	Intermediate Plate
12	Diaphragm Assy
13	1/4-20 SHCS 7/8" (Qty. 7)
14	1/4-20 SHCS 1 3/8" (Qty. 1)
15	Dome Assembly
16	O-Ring

