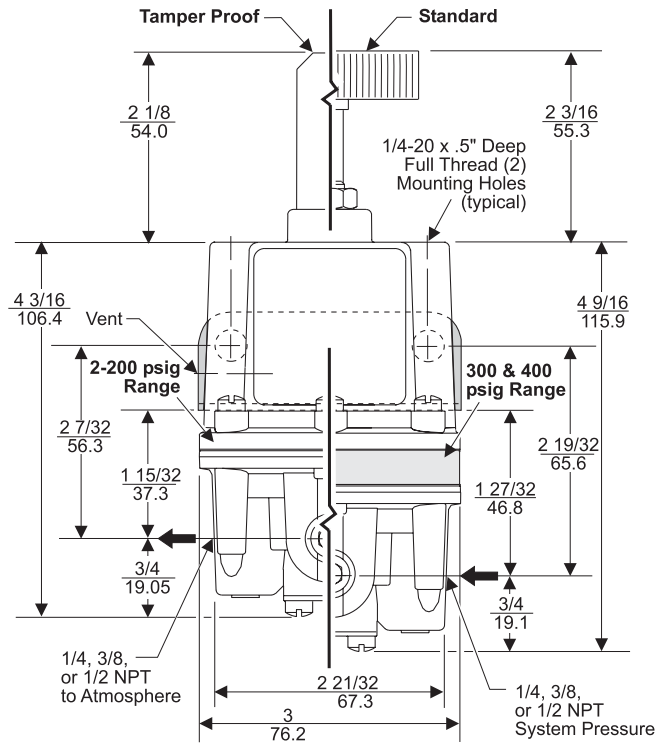


# FAIRCHILD MODEL 10BP BACK PRESSURE REGULATOR

## Installation, Operation and Maintenance Instructions



**Figure 1.** Model 10BP Outline Dimensions

## INSTALLATION

You can mount the Model 10BP regulator in any position without affecting its operation.

Clean all pipelines to remove dirt and scale before installation.

Apply a minimum amount of pipe compound to the male threads of the fitting only. **Do Not use teflon tape as a sealant.** Start with the third thread back and work away from the end of the fitting to avoid contaminating the regulator. Install the regulator in the air line.

The Inlet and Outlet ports are labeled "In" and "Out". Tighten all connections securely. Avoid undersized fittings that limit the flow through the regulator. For more information, see Figure 1.

**NOTES:** Oil free air must be applied to the regulator. Use a filter to remove dirt and entrained liquid in the air line ahead of the regulator. If an air line lubricator is used, it **MUST** be located downstream of the regulator to avoid interference with performance.

## OPERATION

The Model 10BP regulator ships from the factory set at approximately midrange. When you install the regulator, use the Knob Assembly to set the required relief pressure, approximately. Full range setting requires about 13 to 16 turns depending on the range of the unit. Turn the Knob Assembly slowly in a clockwise direction to increase the setpoint or back pressure. Turn the knob in a counterclockwise direction to decrease the setting. For more information, see Figure 1.

# MAINTENANCE

To clean the Model 10BP, use the following steps:

1. Shut off system pressure to the regulator to prevent air from escaping. It is not necessary to remove the regulator from the air line.
2. Turn the Knob Assembly counterclockwise to relieve the compression on the Range Spring.
3. Remove the six Screws from the Bonnet Assembly. For more information, see **Figure 2**.
4. Remove the Bonnet, Spring and Diaphragm Assembly. For more information, see **Figure 2**.
5. Wash the Diaphragm Assembly with a solvent. Exercise care to prevent damage to diaphragms and valve facings. **Avoid solvents such as acetone, carbon tetrachloride and trichlorethylene.**
6. Carefully reassemble the unit. Ensure that the Vent in the Bonnet is clear. For more information, see **Figure 2**.

## Troubleshooting

Problem	Source	Solution
Leakage	<ul style="list-style-type: none"> <li>• Body Screws</li> <li>• Diaphragm</li> </ul>	Tighten the screws.
Difficult to adjust	<ul style="list-style-type: none"> <li>• Adjusting Screw and Ball</li> <li>• Seal ring lubrication</li> </ul>	<ul style="list-style-type: none"> <li>• Adjust the screw and ball.</li> <li>• Check the lubrication.</li> </ul>

## NOTE:

If the standard maintenance procedure does not correct the problem, install the appropriate service kit.

Service Kit	Range
• 12127-1	2-150 psig
• 12127-2	300 psig
• 15743	400 psig

Item	Part Number	Description
1	NS	Knob Assembly
2	NS	Bonnet Assembly
3	NS	Spring Seat
4	NS	Spring
5	NS	Screw
6 <sup>1</sup>	8708	Diaphragm Assembly
6 <sup>2</sup>	10686	Diaphragm Assembly
6 <sup>3</sup>	11954	Diaphragm Assembly
7	NS	Seal Plate Assembly
8 <sup>4</sup>	6053	Seal Plate Gasket
9	NS	Screw
10	NS	Body Assembly
11 <sup>5</sup>	6070	Seat Ring Assembly
11 <sup>3</sup>	8161	Seat Ring Assembly
12 <sup>4</sup>	6017	Filter Screen
13	NS	Retainer Plate
14 <sup>5</sup>	130-112-1-70	O-ring
14 <sup>3</sup>	130-112-4-60	O-ring
15	NS	Screw
16 <sup>4</sup>	-9585	Cylinder
17	NS	Spacer Ring

<sup>1</sup>For 12127-1 Service Kit Only.

<sup>2</sup>For 12127-2 Service Kit Only.

<sup>3</sup>For 15743 Service Kit Only.

<sup>4</sup>For All Service Kits.

<sup>5</sup>For 12127-1 and 12127-2 Service Kits.

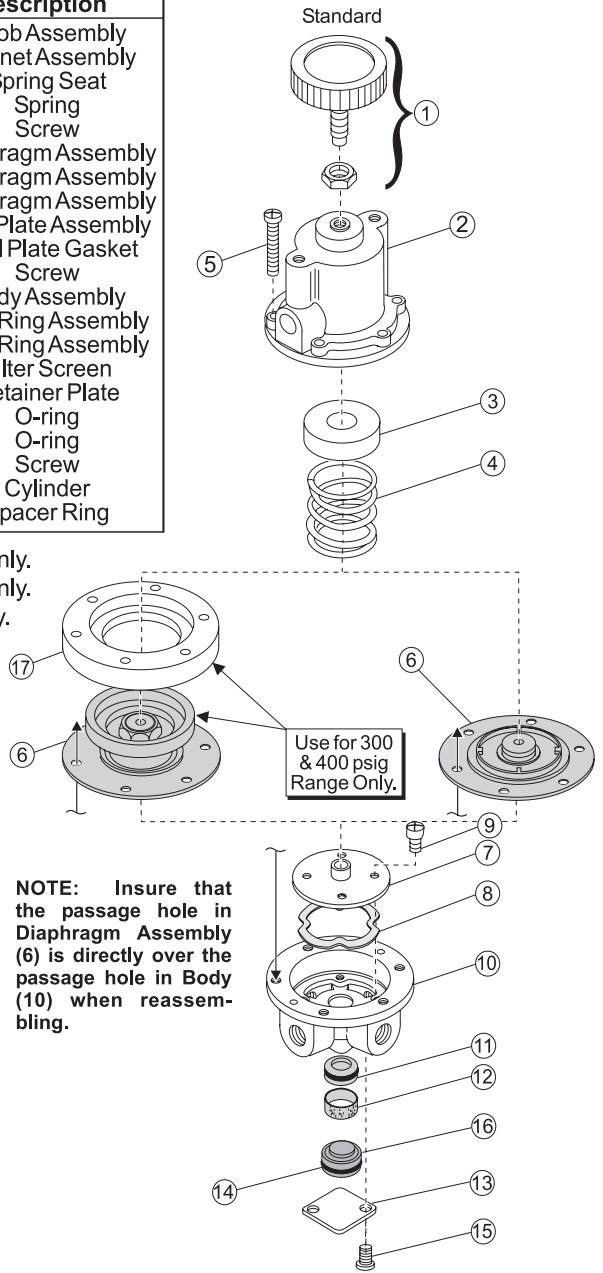


Figure 2. Model 10BP Exploded Drawing



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