



JORDAN VALVE

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I & M J Series

*Installation & Maintenance Instructions for
Mark J Series Pressure Regulators*

Warning: This product must only be used, installed, and repaired in accordance with these Installation & Maintenance Instructions. Observe all applicable public and company codes and regulations. In the event of leakage or other malfunction, call a qualified service person; continued operation may cause system failure or a general hazard. Before servicing any valve, disconnect, shut off, or bypass all pressurized fluid. Before disassembling a valve, be sure to release all spring tension.

Please read these instructions carefully!

Your Jordan Valve product will provide you with long, trouble-free service if it is correctly installed and maintained. Spending a few minutes now reading these instructions can save hours of trouble and downtime later. When making repairs, use only genuine Jordan Valve parts, available for immediate shipment from the factory.



Back Pressure Regulator

- Make sure the regulator is disconnected from pressure source; make sure any residual pressure is bled off from the regulator. **FAILURE TO DO THIS WILL RESULT IN SERIOUS PERSONAL INJURY. DO NOT PROCEED UNTIL PRESSURE HAS BEEN REMOVED AND/OR TERMINATED.**
- Securely clamp the regulator over the flats in a vise.
- Turn the adjustment knob counterclockwise, as looking from the top of the regulator, until it will turn no further.
- Remove the metal logo from top of knob, remove knob nut and unscrew knob from adjusting screw.
- Remove the cap and adjusting screw as a unit. The range spring will be securely held inside the cap.

The spring assembly consists of one each upper spring guide, spring clip, and range spring. If range spring is to be changed, remove old spring by pulling down on spring until spring completely off the spring housing. Remove spring clip, leave the upper spring guide in place, unless it has signs of wear, or damage. Install new range spring, and install spring clip in the same orientation prior to disassembly. The three fingers of the spring clip should be pointed towards the upper spring guide inside the spring housing.

- Remove the diaphragm assembly.
- Remove the seat.
- Thoroughly blow out the inside of regulator body using clean, dry compressed air.
- Clean seat surface with a cotton swab moistened with isopropyl alcohol.
- Place the seat in the body and start the threads by hand. Tighten the seat hand tight.
- Finish tightening seat retainer to 10 lbs/ft.
- Place new diaphragm assembly and Tefzel sealing ring onto regulator cavity.
- Place a small amount of Krytox or other lubricant on the outer threads of the body if the regulator body is steel. Do not apply lubricant to threads if regulator body is brass.
- Put the cap over the regulator and engage threads by hand. Tighten hand tight.
- Finish tightening cap to 65 lbs/ft
- Attach a pressure gauge and source of pressure to the inlet port.

Protect Valves With Line Strainer

- Squirt a leak detecting fluid around the base of the cap where it meets the body. Agitate the fluid to form foam and apply around the 0.125 leak detection port in the spring housing.
- Slowly turn the knob clockwise while applying inlet pressure. As you apply more pressure to the inlet, gas will escape from the outlet. Turning the knob more turns clockwise will stop the gas escaping from the outlet.
- Continue applying inlet pressure and turning the knob until a back pressure equal to 110% of the maximum rating for this regulator has been attained. Reapply the leak detecting fluid as needed.
- Let stand for 2 minutes. If no leaks are noticed, you may proceed to the next step.
- Spin the knob as far down as it will go on the adjusting screw.
- Tighten the knob nut against the knob, being careful not to change the position of the knob while doing this.
- Relieve the source of pressure while backing off on the adjusting knob. Continue backing off on adjustment knob until it is all the way out and will turn no further.
- Install metal logo onto top of knob.
- The regulator is now ready for service.

Pressure Reducing Regulator

- Securely clamp the regulator over the flats in a vise.
- Turn the adjustment knob counterclockwise, as looking from the top of the regulator, until it will turn no further.
- Remove the metal logo from top of knob, remove knob nut and unscrew knob from adjusting screw.
- Remove the cap and adjusting screw as a unit. The range spring will be securely held inside the cap. The spring assembly consists of one each upper spring guide, spring clip, and range spring. If range spring is to be changed, remove old spring by pulling down on spring until spring completely off the spring housing. Remove spring clip. Leave the upper spring guide in place, unless it has signs of wear, or damage. Install new range spring, and install spring clip in the same orientation prior to disassembly. The three fingers of the spring clip should be pointed towards the upper spring guide inside the spring housing.
- Remove the diaphragm assembly.
- Remove the seat retainer, poppet and poppet spring.
- Thoroughly blow out the inside of regulator body using clean, dry compressed air.
- Clean seat surface with a cotton swab moistened with isopropyl alcohol.
- Place new poppet spring into the body
- Place new poppet into poppet spring.
- Place the seat retainer over the nose of the poppet and start the threads by hand. Tighten the seat retainer hand tight.
- Finish tightening seat retainer to 10 lbs/ft.
- Attach primary pressure supply to inlet with suitable fittings.
- Apply a small amount of leak detecting fluid such as "leak detective" or soapy water, around poppet stem and seat retainer.
- Slowly apply pressure to unit, watching closely for the presence of bubbles. Continue increasing inlet pressure up to one-half the maximum rated pressure for this unit. Let stand for 30 seconds. If there is evidence of leaking, such as bubbles or frothing, immediately relieve the primary pressure. The unit must be disassembled and inspected for foreign debris. If there is no evidence of leaking, clean out the leak detecting fluid and proceed to the next step.
- Place new diaphragm assembly and Tefzel sealing ring onto regulator cavity.
- Place a small amount of Krytox or other lubricant on the outer threads of the body if the regulator body is steel. Do not apply lubricant to threads if regulator body is brass.
- Put the cap over the regulator and engage threads by hand. Tighten hand tight.
- Finish tightening cap to 65 lbs/ft
- Attach a pressure gauge and quarter-turn valve to the outlet port. Leave the valve in the open position.
- Use a flathead screw driver and slowly turn adjusting screw clockwise. When there is evidence of flow at the quarter-turn valve close it.

- Squirt a leak detecting fluid around the base of the cap where it meets the body. Agitate the fluid to form foam and apply around the 0.125 leak detection port in the spring housing.
- Slowly continue turning the adjusting screw while watching and listening for any leaks. It may be necessary to re-apply the liquid. If leaks are not noticed, immediately back off adjusting screw and repair unit as needed.
- If no leaks are noticed, adjust control pressure to a valve that is 110% of the maximum rating for this regulator. Reapply the leak detecting fluid as needed.
- Note the pressure reading on the gauge. Wait for 5 minutes. Increasing pressure indicates a leak across the seat. Decreasing pressure indicates a possible diaphragm leak. If the pressure does not remain stable, the unit must be disassembled and the cause of leakage repaired.
- Spin the knob as far down as it will go on the adjusting screw.
- Tighten the knob nut against the knob, being careful not to change the position of the knob while doing this.
- Relieve the outlet pressure while backing off on the adjusting knob. Continue backing off on adjustment knob until it is all the way out and will turn no further.
- Install metal logo onto top of knob.
- The regulator is now ready for service.



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