

BP-66 SERIES,
SEAT & PISTON O-RING
REPLACEMENT INSTRUCTIONS

These instructions assume a certain level of proficiency with the safe use of high pressure gas. If you do not feel confident with your ability to safely work with high pressure gas, or if you do not feel confident with your ability to follow written instructions, do not attempt to repair this product yourself. Please consult the factory.

- Completely read these instructions before performing any of the operations.
- 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 body 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.
- Using a 2 ¼" wrench, remove the spring housing assembly from the body.
- Remove the range spring.
- Remove the lower spring guide and piston / cylinder assembly.
- Remove the seat.
- Carefully remove cavity o-ring from regulator body and discard.
- Thoroughly blow out the inside of regulator body using clean, dry compressed air.
- Clean seal surface and o-ring groove with a cotton swab moistened with isopropyl alcohol.
- Install new lower flat seal into groove of new seat.
- Place the seat in the cavity of the regulator and start the threads by hand. Tighten the seat hand tight.
- Finish tightening seat to 25 lbf•ft (34 N•m).
- Apply o-ring lubricant, such as Krytox grease, into groove in regulator body if new cavity o-ring is dark color. Do not apply lubricant to groove if new o-ring is white color. Install new cavity o-ring into groove.
- Remove old piston assembly from cylinder.

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- Remove o-ring and back-up ring from piston assembly and discard.
- Install small o-ring over new piston assembly.
- Install back-up ring over new piston assembly. Slide it all the way against the o-ring. Make sure that the o-ring and back up ring are oriented correctly.
- Apply o-ring lubrication to small outside diameter of piston. Install piston into cylinder.
- Place piston / cylinder assembly into regulator cavity.
- Place lower spring guide onto the end of the piston.
- Place range spring onto lower spring guide.
- Place a small amount of Krytox or other lubricant on the outer threads of the body.
- Put the spring housing assembly over the regulator and engage threads by hand. Tighten hand tight.
- Finish tightening spring housing assembly to 80 lbf•ft (108 N•m).
- Attach a pressure gauge and source of pressure to the inlet port.
- Squirt a leak detecting fluid around the base of the cap where it meets the body. Agitate the fluid to form foam and apply this foam around the slot in the spring housing assembly.
- 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.
- Relieve the source of pressure while backing off on the adjusting knob. Continue backing off on adjusting knob until it is all the way out and will turn no further.
- The regulator is now ready for service.

