

Badger Meter

RESEARCH CONTROL® Valve
6116 E. 15th St.
Tulsa, OK 74112



Servicing The BLRA Positioner

The BLRA [Bottom Loading Reverse Acting] positioner is a very durable and accurate positioning device that will provide years of dependable service. However, as with any fine instrument, if not installed and maintained properly, malfunctions can occur. The main cause for non-functioning positioners is a stuck pilot spool. The clearance between the spool and the brass positioner sleeve is very close to reduce bleed. The close clearance is, however, susceptible to plugging. Most instances of stuck pilots can be traced to debris in the air line or shreds of TFE tape, frequently used on air line fittings.

If your positioner does not respond to an increase in instrument signal, take the following steps:

- Make sure both the supply and instrument signals feeding the positioner are functioning properly.
- Make sure the port marked "Valve" is plugged with a pipe plug or gauge.
- Make sure the ports marked "Load" and "Aux Load" are vented to atmosphere. The unit is shipped with vented pipe plugs. Do Not use these ports unless directed by specific instructions.

If the unit does not respond to an increasing instrument signal, take the following steps:

- With the supply pressure at 22 psi [not more than 60] and a mid-range instrument signal of approximately 9 psi, place your finger over the exhaust port on the side of the upper portion of the positioner housing.

If the valve moves, more than likely the pilot is stuck and the cleaning instructions on the reverse side of this sheet should be followed.

If the valve does not move, chances are that the problem is elsewhere, either within the positioner diaphragm assembly or the valve body/bonnet assembly. If this occurs, consult the factory for assistance.

If the valve strokes to the full open position upon the introduction of supply air and will not respond to a decreasing signal, it is likely that the spool is stuck. The same cleaning instructions should solve the problem.

If you do not wish to attempt cleaning of the positioner or if cleaning the spool does not solve the problem, it can be returned to the factory for servicing. In an emergency, it can be turned around in 24-48 hours.

If we can be of service, you may contact the valve sales department by telephone at [918] 836-8411 or by FAX at [918] 832-9962.

Cleaning the Pilot Spool of the BLRA [or 73B Moore] Positioner

Step 1: Shut off the air supply to positioner.

Step 2: Remove protector cap from the top of the positioner.

Step 3: Remove the brass hex plug.

Step 4: Using a small stiff wire about the size of a paper clip, bend the wire at a 45 degree angle about 1/16" from its end.

Note: A pair of small snap ring pliers can also be used. However, DO NOT clamp onto the spool on its O.D. Any scratches on the spool will damage it.

Step 5: Insert the wire into one of the three holes in the top of the spool and pull straight up. The pilot should slide out of the brass sleeve without a great deal of force.

Step 6: Using a piece of cloth wetted with solvent, swab out the brass sleeve. Check inside the sleeve for foreign matter and blow out with clean air.

Step 7: Inspect the spool for burrs or scratches. If there are none, clean the spool with solvent and dry. If there are burrs, gently rotate the spool on a piece of emery cloth until the burrs are gone. DO NOT use sand paper.

Step 8: Gently slip the spool back into the brass sleeve without forcing or cocking it.

NOTE: Both ends of the spool are the same. It is designed to work regardless of orientation.

Step 9: Replace the brass hex plug [just snug].

Step 10: Reconnect air lines and make any zero adjustments.

Step 11: Replace protector cap.

Do NOT attempt to disassemble the positioner unless you are familiar with its design. Consult the factory if this procedure does not correct the problem.

