

Magnatrol Valve Corporation

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SOLENOID VALVE REPAIR GUIDE

Magnatrol Valve offers factory repair of our valves. However, valves can easily be repaired by the end user. The two most common repairs are coil replacement and piston assembly replacement.

Before beginning repair examine the valve to determine the type of fasteners used. Every Magnatrol valve has upper fasteners for coil replacement and lower fasteners for piston assembly replacement as follows:

<u>Coil replacement:</u> Note that valve will retain pressure during this repair.

- 1. Disconnect power to the valve.
- 2. Looking from the top down you will see one of the following:
- A screw located on the top of the solenoid cover. Unscrew to remove the cover.
- A series of set screws around the bottom of the solenoid cover. Loosen these screws to remove the cover.
- A set of four bolts at the top of the solenoid cover. Remove the bolts and remove the cover. For
 this type of cover, you will remove a stop (cylindrical in shape), a spring, and a laminated frame
 along with the coil. As you remove these parts, <u>pay particular attention to how they fit together</u>.
 The stop is particularly important. When reassembling you must be sure this stop is inserted
 properly or <u>damage to the valve bonnet can occur</u>.
- A set of four bolts at the bottom of the solenoid cover. Remove the bolts and remove the cover.
- 3. Remove and replace the coil. Reinstall the cover and fastener(s) and then restore power.

<u>Piston assembly replacement:</u> NOTE: Wiring does not have to be disconnected if attached with a flexible connector. <u>Do not apply power to coil</u> while valve is disassembled.

- 1. Shut off fluid pressure to the valve.
- 2. Looking from the bottom up you will see one of the following:
- A bronze bonnet ring (which looks like a large hex nut) at the top of the valve body (under the solenoid housing). Unscrew this ring and remove the solenoid assembly.
- Four bolts attaching a square valve body flange to the solenoid assembly. Remove the bolts and lift off the solenoid assembly.
- Six nuts or bolts attaching a circular valve body flange to the solenoid assembly. Remove the bolts and lift off the solenoid assembly.
- 3. Remove and replace the piston assembly. Check to be sure that the piston moves freely in the bore. Reinstall the solenoid assembly and the fasteners.
- 4. Restore the fluid pressure.

NOTE: <u>Do not over-tighten</u> the bolts or nuts as this can distort the piston bore causing the piston to stick and not operate.