

12/22/2014 4-WAY VALVES - MANUAL OPERATION

The 4-way valves used on skyjack equipment use a simple coil operated sliding spool design to direct oil to the correct function. (See figure 1) When one of the coils is energized, the spool shifts position opening one port to the function and the opposite port to the return to tank. The flow of oil to the correct port only occurs when the spool slides to either side.



Figure 1

In some instances of a function failure, the valve coil may have power and ground signals at the correct electrical coil terminals but no function operation. In order to test that the spool is not stuck, we can use the manual override built into the valve.

To locate the override, look at the end of the electric coil. (See figure 2) The end of the metal tube has an indentation that houses a pin that connects to the valve spool. Using a small pin punch or similar tool, push on the pin and the spool will be shifted away from that end. This will simulate shifting for one function direction. By pushing on the opposite end, the spool is shifted the opposite direction.



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After operating the valve spool in both directions manually, if the spool does not move in one direction or the other, the valve is stuck and may need replacement or disassembly and cleaning. If the spool moves freely in both directions, the valve is not stuck and other tests are needed to determine the failure of the function.

If you have any questions regarding these valves or questions regarding your Skyjack equipment, please contact Skyjack Product Support at 1-800-275-9522 or email <u>service@skyjack.com</u>

