Distributed by:

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Model CSV2W

No Lead Pump Control Valve

Installation Instructions

PREPARATION and INSTALLATION

1) It is important that the well has been pumped until clean before any valve installations. You do not want to fill the valve with debris/drilling mud/sand/ PVC shavings, etc. (Note: Multiple pump systems need a CSV for each pump). Turn off power to pump and drain system.

2) The CSV2W valve must be installed prior to any tee offs. System order being - Pump - CSV2W - all other outlets including the tank/pressure switch. The only valve allowed between the pump and CSV2W is a check valve. (Always keep in mind this is a pump control valve. All water pumped/demanded must first go through our valve for it to be able to control the pump.) Flow direction is indicated by the arrow ➜ on the valve itself.

3) The diaphragm/bladder style pressure tank should be installed downstream of the of the CSV2W. Pressure switch and other controls must be installed as close to tank as possible. Pressure switch should not be installed directly on the main line, but on the small line close to the pressure tank. Pre-charge pressure in the tank should be 2-5 psi lower than pressure switch start point.

4) Install using teflon tape on all threads. Four to seven wraps of teflon tape is usually sufficient. All connections should be water tight.

SETTING THE VALVE

1) Loosen the adjustment stem counter clockwise almost all of the way out.

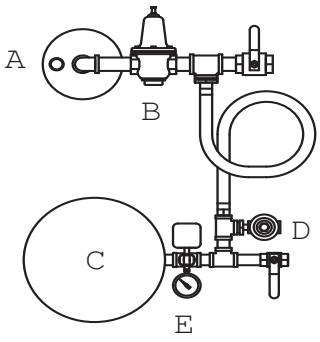
2) Turn on enough water to dump your pressure tank and cause your pump to come on.

3) Once the pump has come on, adjust your demand to 6-8 GPM. (This reduced demand is important. You do not want to set the valve with more gpm going through it than this.) With the adjustment stem loosened out, the valve is going to try to hold the low pressure in the adjustment range. (25 psi on the 25-75 model and 50 psi on the 50/120 psi model) Wait a few moments after each adjustment for the valve to react and the pressure to level off.

4) The CSV2W is adjusted by turning the adjustment stem clockwise to increase downstream pressure and counter clockwise to decrease downstream pressure. Adjust the CSV2W until the pressure steadies at your desired working pressure. Tighten the lock nut. The valve is set.

The CSV2W works with your pump sytem using pressure. The CSV2W has to be set within your existing system pressure parameters to work correctly. The pressure tank pressure needs to be 2-5 psi lower than your pressure switch cut in pressure. The pressure switch cut off pressure needs to be higher than the CSV2W working pressure. How much higher depends on your pressure tank size. See chart below for your specific tank/pressure switch recommendations/examples.

Pressure Tank Total Capacity	Air Pressure in Tank	Pressure Switch Cut in and Cut out	CSV2W set working pressure
119 Gallon Capacity	38	40/60	58 psi
86 Gallon Capacity	38	40/60	55 psi
62 Gallon Capacity	38	40/60	53 psi
44 Gallon Capacity	38	40/60	50 psi
34 Gallon Capacity	38	40/60	47 psi
20 Gallon Capacity	38	40/60	40 psi



A) Pump
B) Cycle Stop Valve
C) Pressure Tank
D) Pressure relief valve
E) Pressure gauge

CSV2W Troubleshooting

Symptom	Cause	Remedy
Pump is Cycling off and on	Disc is worn out	This is usually due to differential pressure being higher than 125 PSI. Use a second valve to reduce differential pressure to original valve. Replace disc in oringinal valve.
	Pressure switch or valve not set correctly	Cut off pressure must be higher than valve pressure. Reset pressure switch or valve.
	Waterlogged pressure tank	Replace tank
	Bad or torn diaphragm	Replace pilot diaphragm
Low pressure	Valve is not set correctly	Reset valve
	Demand is more than pump can provide at desired pressure	Reduce demand so it is within pump capabilities to maintain desired pressure.
Chattering valve	Too much air pressure in tank	Reduce air pressure in tank to 12-15 PSI below cut in pressure.
Pump rapid cycles at start up and then begins to function correctly	Pressure switch is located on the main line or closer to the main line than the pressure tank.	Move pressure switch to small line at the base of the tank on a line no larger than 1 1/4" in diameter
	CSV setting is too close to cut off pressure	Set pressure switch cut off pressure at least 10 PSI higher than CSV setting
	Air pressure in tank too high	Reduce air pressure in tank to 12-15 PSI below cut in pressure
	Multiple check valves in system working against each other	Remove all but the check valve or foot valve on the pump itself