



# \_Model\_ **CSV2W** Pump Control Valve

## Installation Instructions

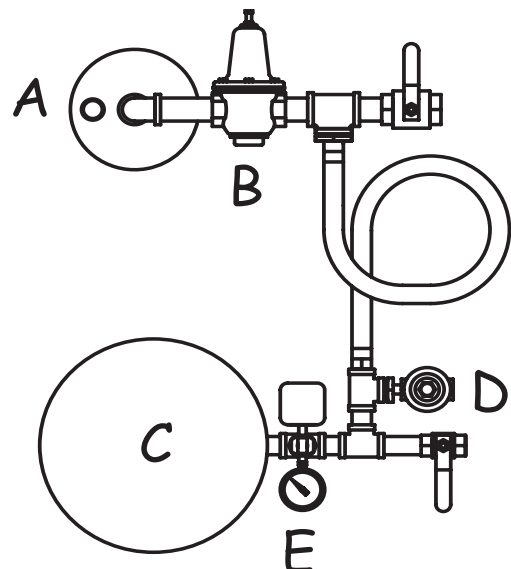
NOTE: Submersible motor manufacturers recommend using a flow inducer sleeve to be sure the motor is sufficiently cooled at low flows. Maximum pressure differential through the valve cannot be more than 125 psi.

Please read all instructions before installation.

- 1) Be sure that well has been pumped clean before any valve installations. It is also important that all lines including the pump be flushed clean of debris. Turn off power to pump and drain system.
  - 2) The valve must be installed on the pump side of the pressure tank/pressure switch and all water outlets downstream of the valve. Flow direction is indicated by the arrow  $\circ$  on the valve itself. (Note: There cannot be any water outlets between the pump and the valve itself. If outlet lines exist between the well and the tank, the valve must be installed at the well head.)
  - 3) The pressure tank should be installed on a tee at a 90° angle to the main discharge line downstream of the of the CSV2. 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 tank. Pre-charge pressure in the tank should be 5-10 psi lower than pressure switch start point. (See drawing below for set up example)
  - 4) CYCLE STOP VALVE should be tightened using teflon tape on threaded ends. Four to seven wraps of teflon tape is usually sufficient. All connections should be water tight.
  - 5) Turn stem on CSV2W counterclockwise until it is loosened all the way out. Open a line downstream and turn on pump. Slowly close lines downstream until demand is approximately 6 to 8 GPM. The **CSV2W** is adjusted by turning the top bolt clockwise to increase downstream pressure and counter clockwise to decrease downstream pressure. Adjust the CSV2W until the pressure steadies at about 10 PSI higher than the desired pressure. Close off downstream water usage. The pressure tank will fill at approximately 5 GPM. When using a small tank (10 gallons or less of drawdown), set your cut in pressure the same as the valve pressure. When working with a tank with more than 10 gallons of drawdown, adjust your pressure switch to its highest setting. Next, set your pressure switch shut off by closing off all water outlets and timing the tank filling. Wait a minimum of 2 minutes and adjust your pressure switch until the pump is turned off.
- \* Important: Pressure switch shut off point must always be higher than the pressure regulated by the CSV2W. Actual pressure switch settings depend on the size of the tank used and minimum run time needed. See reduced pressure fall off chart for specific pressure /flow information.

California Proposition 65 Warning  
This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm. (Installer: California law requires that this warning be given to consumer.)

- 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 original 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