

Model CSV3R Pump Control Valve

INSTALLATION INSTRUCTIONS

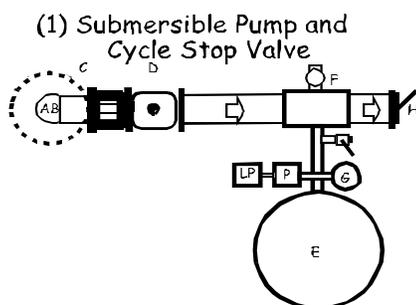
NOTE: Submersible motor manufacturers recommend using a flow inducer sleeve to be sure the motor is sufficiently cooled at low flows. There can be no more than 125 PSI pressure differential across the valve.

Please read all instructions before installation.

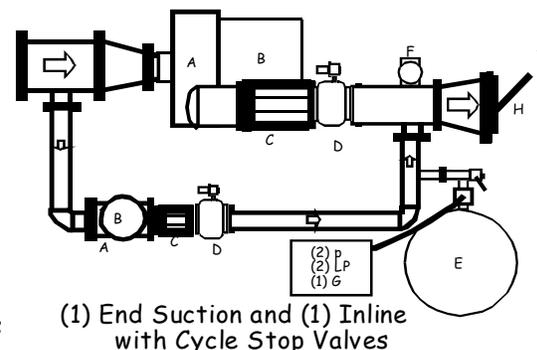
- 1) Be sure that the well has been pumped clean before any valve installations. It is also important that all lines including the pump, be flushed clean of debris. Turn off power to pump and drain system.
- 2) When installed horizontally, the valve should be positioned with the "loading" port facing up. If installed vertically, the flow direction arrow must be facing up. The CSV3R should be installed on the pump side of the pressure tank/pressure switch with all water outlets downstream of the valve. Flow direction is indicated with the arrow on the side of the valve. (Note: There cannot be any water outlets between the pump and the valve. If outlet lines exist between the well and the tank, the valve must be installed at the well head.)
- 3) Pressure tank should be installed on a tee at a 90° angle to the main discharge line immediately downstream of the CSV3R. (There should be no elbows between the Cycle Stop and the pressure tank or the pressure tank and the pressure switch.) Pressure tank pre-charge should be 5-10 psi lower than the pressure switch start point. A water line at least 8" and no larger than tank discharge size (1 1/4" at the largest) should be used to connect tank. 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.
- 4) For start up, loosen lock nut on adjusting stem of pilot valve. Make sure adjusting stem is loosened completely. (It does not hurt to remove adjusting stem.) Set your pressure switch to desired pressure settings. Shut off pressure must be at least 5 PSI higher than valve set pressure. (ie..pressure switch cut on 60 psi, valve set at 60 psi, pressure switch shut off at 65 psi or higher) Open a small water outlet. Turn pump on. It is critical that you allow no more than 6-10 GPM past the valve during the setting procedure (approximately 1 standard 3/4" water hose). Adjust the CSV3R to desired pressure by turning the adjusting stem on the pilot clockwise to increase pressure, and counterclockwise to decrease pressure. When pressure steadies at the desired system pressure, tighten the lock nut on adjusting stem on the pilot.
- 5) Close off the water outlet, making sure no water is being released to the system. The pressure tank will begin to fill. As pressure tank fills, pressure in the system will slowly increase. When the cut off pressure is reached, the pump will be shut off. (Pressure switch shut off point must always be at least 5 PSI higher than the pressure regulated by the CSV3R. Actual pressure switch settings depend on the size of the tank used and run time needed. We recommend a minimum 2 minute fill rate.)

MAINTENANCE

Although the main valve body is not screened, it is possible for small rocks and debris to catch between the diaphragm or liner and the grill. In most cases, you can remove the grill and clean out the debris. If the debris has worked in behind the liner, you must remove the liner and clean out the debris and reseal the liner. The possibility of leakage exists with any product water flows through. We recommend outdoor installation with protection from freezing. The pilot controls on the side of the Cycle Stop Valve must be allowed to vent air to the atmosphere. Do not submerge, bury, or wrap air tight.



- A) Pump
- B) Motor
- C) Check valve
- D) Cycle Stop Valve
- E) Pressure tank
- F) Pressure relief valve
- G) Pressure gauge
- H) Isolation valve
- P) Pressure switch
- LP) Low Pressure Cut off



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.)

(1) End Suction and (1) Inline
with Cycle Stop Valves



CSV3R Troubleshooting

Symptom

Cause

Remedy

Pump is Cycling off and on

Pilot screen is stopped up

Clean y strainer screen (not all models have these)

Liner is not seated correctly or debri or sand caught between liner and seat

Remove liner and check for debri, reinstall liner

Pressure switch or valve not set correctly

Cut off pressure must be higher than valve pressure. Reset pressure switch or valve.

Liner not seated correctly or worn out or debris caught between liner and seat

Remove liner, remove any debris. Suction test by placing liner on flat surface and pressing on the center. Liner should hold suction. Reseat liner or replace if worn.

Waterlogged pressure tank

Replace tank

Bad or torn diaphragm in pilot valve

Replace pilot diaphragm

Low pressure

Valve is not set correctly

Reset valve

Check red shoulder fitting on pilot for enlarged or missing orifice

Replace worn orifice

Demand is more than pump can provide at desired pressure

Reduce demand so it is within pump capabilities to maintain desired pressure.

Chattering valve

Pressure tank is located too far away from the valve

Relocate valve or tank to bring them closer together or add a second smaller tank to the system close to the valve.

Too much air pressure in tank

Reduce air pressure in tank to 5-10 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 5 PSI higher than CSV setting

Air pressure in tank too high

Reduce air pressure in tank to 5-10 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