

Installation, Operation, and Maintenance



pside-kick®

Constant Pressure Pump Control Kit



Model PK1A



Manufactured by Cycle Stop Valves, Inc.
www.CycleStopValves.com
Help Line 800-652-0207

Limited Warranty

Products covered under 5 Year warranty: include the 4.4 Gallon Pressure tank and the CSV1A Cycle Stop Valve.

Products covered under 1 Year warranty include all the other fittings and parts.

Liability under this warranty is limited to repairing, replacing, or issuing credit at CSV's option, for any product returned during these periods, provided that any such defect has not been caused by misuse, neglect, improper installation, alteration, or unauthorized repair. CSV will not be liable and specifically disclaims any responsibility to any party for loss, direct or indirect, for costs, expenses, freight, labor, or for consequential damage of any nature.

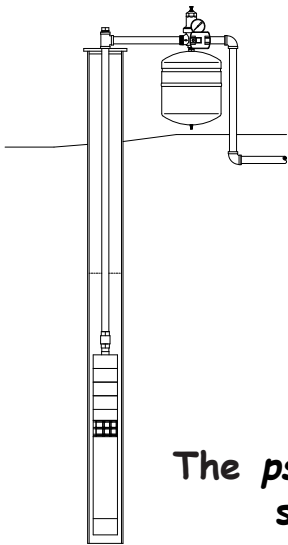
To obtain service under this warranty, the defective product must be returned to the distributor or dealer of CYCLE STOP VALVES from which it was purchased together with proof of purchase and installation date, failure date, and installation information. Any defective product to be returned must be sent freight prepaid with a Return Goods Authorization (RGA) from Cycle Stop Valves included.

Maintenance:

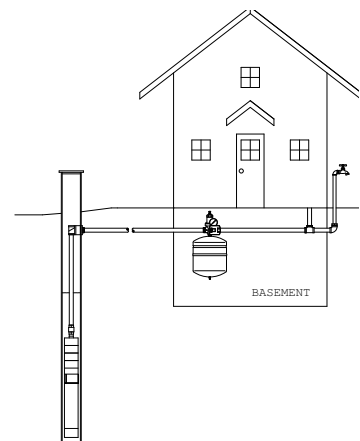
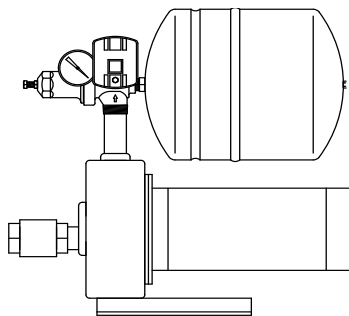
This product does not require any scheduled maintenance but does need to be drained if it is not insulated against freezing temperatures. Repair parts are available for the CSV1A when they need to be replaced due to wear and tear. Please call Cycle Stop Valves, Inc. at 800-652-0207 or email us at info@cyclestopvalves.com.

Typical Applications

Submersible Pump



Jet Pump



The *pside-kick*® controls many different pumps set at various depths and pressures.

The table on the following page is the majority of standard domestic pump model sizes that are available and the minimum/maximum water levels (or depth to water) in your well that are required for those models to work with this *pside-kick*®. It has been preset to work best within these parameters. (Although preset, this is an adjustable product. If your system does not fall exactly within these ranges, please contact manufacturer for adjustment suggestions to fit your specific needs.)

To use the table on the following page, choose your GPM series pump and find the depth or distance from the surface to water information that applies. As long as the water level in your well is not less than the minimum level and not more than the maximum level shown in the table, the *pside-kick*® will work as designed.

Optional: If you have leaks or extended water usage of less than 1 gpm, adding an additional pressure tank anywhere in your system is recommended.

Note: Pressure rating of pipe installed before the *pside-kick*® must be rated to handle the maximum head or pressure that your pump can build.

Compatible pump types and sizes

Pump Type / Size	Depth to water Minimum level	Depth to water Maximum level
(Note...These are water levels...not pump depth settings)		
Submersible Pumps		
5 GPM Series		
1/2 HP	0'	210'
3/4 HP	130'	350'
1 HP	275'	460'
1.5 HP	500'	690'
2 HP	675'	870'
7 GPM Series		
1/2 HP	0'	115'
3/4 HP	0'	215'
1 HP	125'	344'
1.5 HP	275'	495'
2 HP	550'	780'
3 HP	800'	1015'
10 GPM Series		
1/2 HP	0'	40'
3/4 HP	0'	130'
1 HP	0'	205'
1.5 HP	150'	380'
2 HP	250'	475'
3 HP	475'	700'
13 GPM Series		
1/2 HP	0'	10'
3/4 HP	0'	60'
1 HP	0'	160'
1.5 HP	0'	220'
2 HP	135'	380'
3 HP	350'	600'
15 GPM Series		
1/2 HP	0'	10'
3/4 HP	0'	40'
1 HP	0'	140'
1.5 HP	0'	200'
2 HP	175'	360'
3 HP	355'	580'
16 GPM Series		
3/4 HP	0'	60'
1 HP	0'	120'
1.5 HP	0'	220'
2 HP	140'	360'
3 HP	315'	540'

Pump Type / Size	Depth to water Minimum level	Depth to water Maximum level
Submersible Pumps		
18 GPM Series		
3/4 HP	0'	10'
1 HP	0'	70'
1.5 HP	0'	170'
2 HP	50'	260'
3 HP	200'	400'
20 GPM Series		
3/4 HP	0'	10'
1 HP	0'	70'
1.5 HP	0'	140'
2 HP	10'	240'
3 HP	200'	420'
22 GPM Series		
1 HP	0'	20'
1.5 HP	0'	110'
2 HP	0'	180'
25 GPM Series		
1 HP	0'	30'
1.5 HP	0'	100'
2 HP	0'	160'
3 HP	60'	280'
30 GPM Series		
1 HP	0'	10'
1.5 HP	0'	20'
2 HP	0'	90'
3 HP	10'	240'
Jet Pump		
1/2 HP	10 + PSI	5'
3/4 HP	0 + PSI	15'
1 HP	0 + PSI	20'
1.5 HP	0 + PSI	25'
2 HP	0 + PSI	25'
Replaces controllers on most variable speed pumps		
Contact the factory if your pump, depth, or pressure is not listed above.		

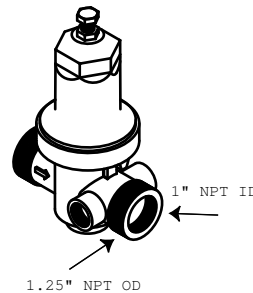


pside-kick®

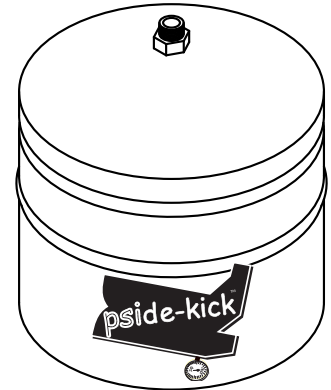
kits include the following parts:

Model PK1A

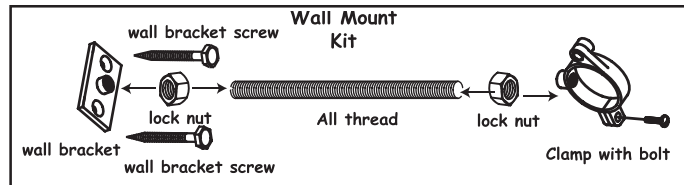
- 1) Cycle Stop Valve model CSV1A preset to 50 PSI
- 1) 4.4 gallon pressure tank
- 1) wall mount kit
- 1) 1/2" SS PRV
- 1) 1/2" X 1/4" SS hex reducer
- 1) 1/4" X 1/4" SS snubber
- 1) 1/4" SS Tee
- 2) 1/4" X Close SS nipple
- 1) 0-100 pressure gauge
- 1) 40/60 pressure switch
- 1) roll teflon tape



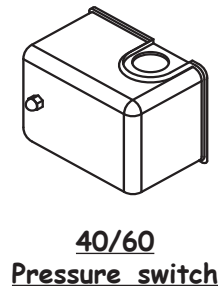
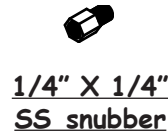
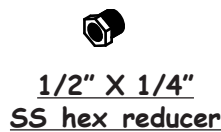
CSV1A



4.4 Gallon Pressure Tank



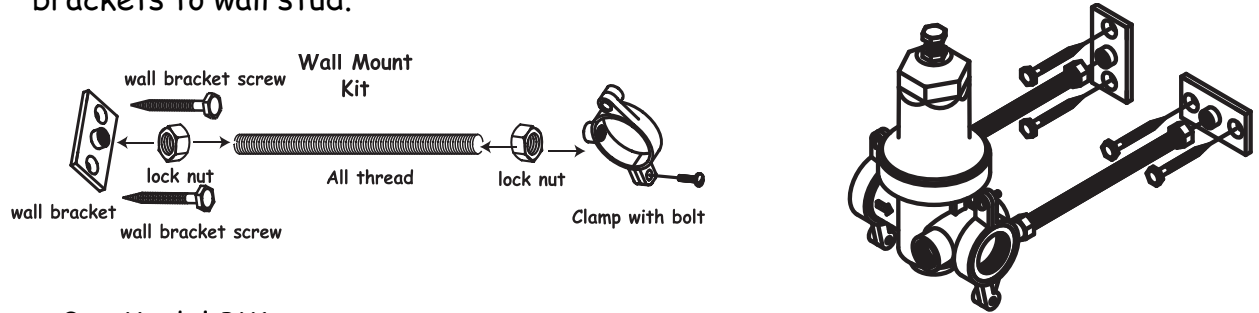
- 2) wall brackets, 2) all thread 3/8" X 6" bolts,
- 4) 3/8" lock nuts, 2) clamps, 2) clamp bolts, 4) wall screws



Installation Instructions:

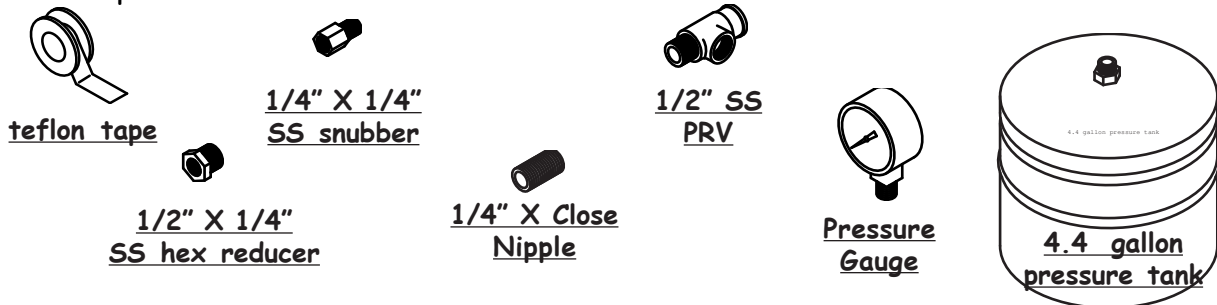
Step 1: The *pside-kick*[®] can be installed vertically, horizontally, wall stud mount, or pipe mount. Mount to Wall (If not mounting to the wall, skip to step 2.)

- A) Thread two lock nuts on each all thread bolt about 2" in. Thread the wall bracket on one end of 3/8" X 6" all thread bolt and thread clamp to other end of it.
- B) Attach the clamps to the CSV1A with the bolts but do not tighten. Hold manifold to wall over a stud and mark the holes.
- C) Remove clamps from CSV1A and use wall screws to mount wall brackets to wall stud.



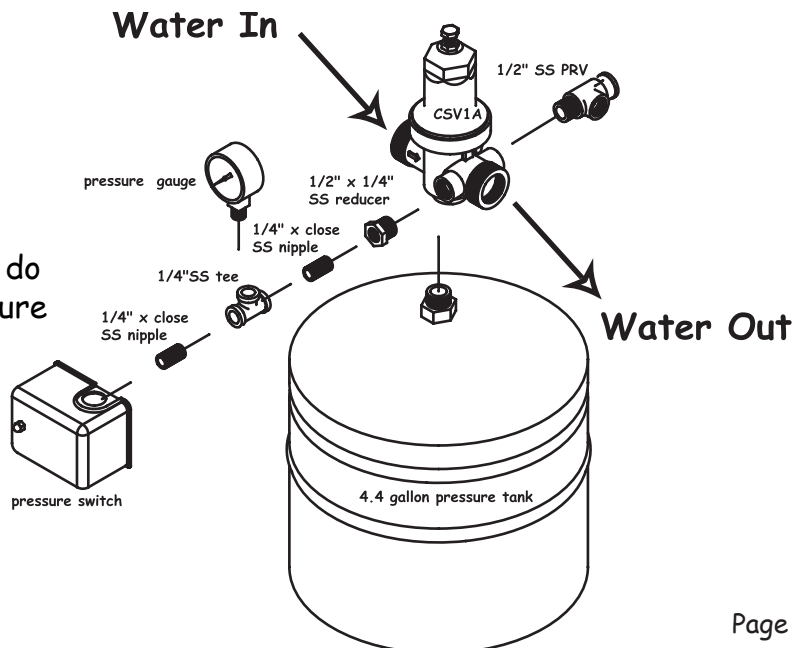
Step 2: Model PK1A

Wrap threads on all male fittings (1/4" x close nipples, 1/2" X 1/4" reducer bushing, 1/4" X 1/4" snubber, 1/2" PRV, pressure gauge, and pressure tank) with 5-7 layers of teflon tape.



Step 3:

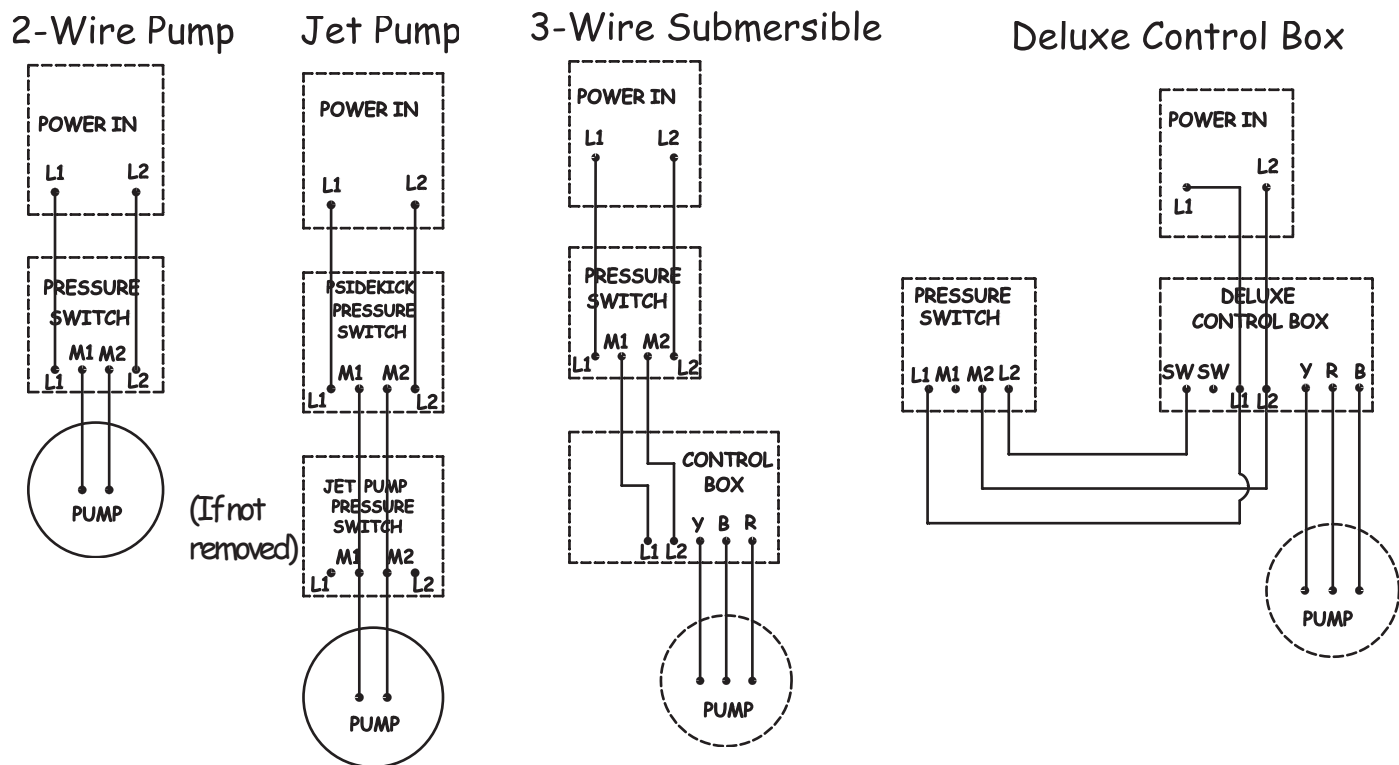
Assemble the valve/manifold as shown. Be sure to thread the manifold on to the pressure tank last. The PRV will need to be plumbed to a drain or outside. If mounting to the wall, do not install pressure tank or pressure gauge until manifold has been mounted to wall.



Testing the system:

(Important Note: Be sure all pipe and fittings between the pump and the *pside-kick*® are rated to handle the maximum pressure the pump can build at shut off or dead head.)

A) Before attaching system pipe to the *pside-kick*®, attach power wire to pressure switch and pump as per pressure switch wiring diagrams below and run pump until water is clear so that you don't fill up the kit with debris.



B) Once the water being pumped is clean, connect the pump discharge piping to the intake of the CSV1A. (See direction of flow arrow on valve casting)

C) Open your hose bib or faucet to a 2-3 gpm demand or flow. Turn on the pump. (If there are any leaks, tighten fittings as necessary.)

D) Run pump until air is out of the system and check to make sure the Cycle Stop Valve is holding approximately 50 PSI and the pump does not cycle off. (The pump stays running)

E) Close your hose bib/faucet. (It should take your pump approximately 30-45 seconds to turn off at 60 PSI). After the pump turns off, open your hose bib/faucet again to a 2-3 gpm flow. The pressure should begin to drop as the pressure tank empties. Once system pressure drops to 40 PSI, the pump should come back on. Once the pressure reaches 50 PSI, the CSV1A will begin to control the pump and the pressure should stop rising and hold constant as long as a demand of more than 1 gpm is being used.



pside-kick® Troubleshooting

Symptom

Cause

Remedy

Pump is cycling off and on

Pressure switch or CSV1A valve not set correctly

Cut off pressure must be higher than CSV1A pressure. Increase pressure switch cut off or decrease CSV1A valve setting.

Waterlogged pressure tank

Replace pressure tank.

Bad or torn diaphragm in CSV1A

Replace diaphragm.

Manifold not assembled correctly

Verify assembled as instructed.

Low pressure

Demand is more than pump can provide at current pressure setting

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

CSV1A is not set correctly

Reset CSV1A. (turn adjust stem clockwise to increase psi and counter clockwise to decrease psi)

Chattering

Too much air in tank

Reduce air pressure in tank to 5-7 psi below pressure switch cut in pressure.

CSV1A setting is too close to pressure switch cut off pressure

Set pressure switch cut off pressure at least 10 PSI higher than CSV1A setting.

Pump rapid cycles at start up and then begins to function correctly

Air pressure in tank too high

Reduce air pressure in tank to 5-7 psi below cut in pressure.

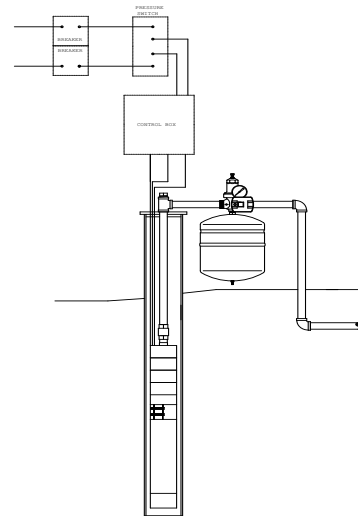
Multiple check valves in system working against each other

Remove all but the check valve or foot valve on the pump itself.

Instructions to Replace Franklin® Monodrive® and Subdrive® 3 PH

Instructions for Monodrive®

- 1) Replace Monodrive® controller with standard single Phase control box.
- 2) Remove micro switch and plug hole
- 3) Install *pside-kick*® and wire power through pressure switch as per diagram.



Instructions for Subdrive® using three phase motors, (if replacing microswitch when Subdrive® controller still works or when using other three phase converters.)

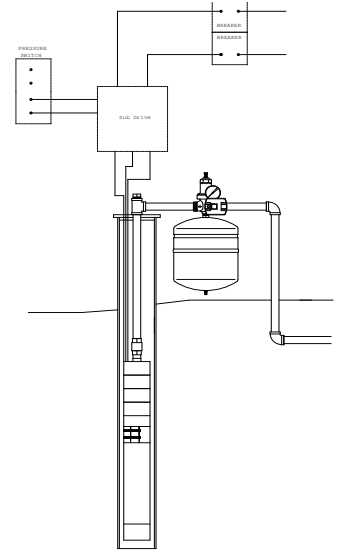
- 1) Install *pside-kick*® per instructions.
- 2) Remove micro switch and move wires to the provided 40/60 mechanical pressure switch as per diagram.
- 3) Wire controllers independent 2 wire on/off control to pressure switch as per diagram.

or

When Subdrive® controller fails

- 1) Install *pside-kick*® per instructions.
- 2) Replace three phase motor and Subdrive® controller with a standard single phase motor and control box.
- 3) Wire pressure switch as per diagram on page 7.

Note: Verify existing pump wire size will work for single phase applications.



Instructions for Grundfos® CU301

- 1) Remove CU301 controller and transducer
- 2) Install *pside-kick*®
- 3) Wire pressure switch as per instructions

