Installing the Drinking Water Add-On Kit

Congratulations on your purchase of a Buckeye Drinking Water Add-on Kit. You'll soon be enjoying pure drinking water at a fraction of the cost of bottled water. To begin, open and inspect your kit, identifying each part. Read through these instructions in their entirety before you begin installing the kit. These instructions were prepared assuming the kit was being installed in an RO/DI system. Your kit includes:

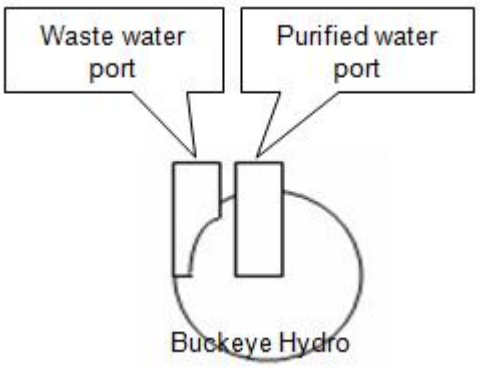
- pressure tank
- pressure tank stand
- pressure tank valve
- faucet
- inline GAC
- straight quick connect fitting
- swivel tee quick connect fitting
- two mounting clips
- two check valves
- auto shut off valve
- one quick connect tee
- 10 feet of tubing

1. Place the pressure tank on the tank stand. Identify the threaded fitting at the top of the pressure tank. Wrap this steel fitting with Teflon tape, and screw the tank valve onto the fitting. Set this assembly aside for now.

2. Turn off the water supply to your system.

3. The automatic shut off valve works to stop the flow of waste water through the system when the flow of purified water is stopped. For ease of discussion, let's call the four ports in the automatic shutoff valve:

High pressure-in (marked "in")
High pressure-out (marked "out")
Low pressure-in (on the same side as HP-in)
Low pressure-out (on the same side as HP-out).



In general, water should flow from your sediment housing to the carbon block to (see attached diagram):

HP-in port, to
HP-out port, to
RO housing in port, to
RO exit ports. Note that the RO housing has two exit ports; the permeate (purified water) port is near the center of the end of the housing. The waste water port is near the edge of the same end of the RO membrane housing.

Tubing should be installed to go from the permeate port to
a check valve, (with water allowed to flow only towards the ASO valve, to
the LP-in port on the ASOV, to
LP-out port, to
DI housing (if you have one), to
your final use.

4. Next, install a tee in the low pressure out tube (See attached diagram). One side of this tee should feed the DI housing, and the other side should extend into a check valve (Check Valve No. 2 in attached diagram).

5. Place seven wraps of Teflon tape around the threads of the swivel tee, and screw the fitting into the “in” port of the inline GAC filter.

6. Run tubing from this check valve to the swivel tee in the input end of the inline GAC cartridge (find the arrow on the cartridge indicating the correct direction of flow). Run tubing from the open side of the tee to your pressure tank, and open the pressure tank valve by placing the valve handle parallel to the tubing.

Buckeye Hydro is not responsible for any damage caused by leaks. *The user bears full responsibility to assure the system is not leaking.*

7. Place seven wraps of Teflon tape around the threads of a straight quick connect fitting, and screw the fitting into the “out” port on the inline GAC filter.

8. Install the faucet using directions supplied with the faucet.

9. Run tubing from the GAC filter to the faucet. Utilize the two clips to mount the GAC filter atop the RO membrane housing.

10. Turn the water supply to the RO/DI system on, and check and recheck the system for leaks.

11. Allow the system to fill the pressure tank, monitoring the system to check the operation of the automatic shut off valve. After the tank is full (holds approximately 2 gallons of water), the shut off valve should stop the flow of waste water from the system.

12. Turn the water supply to the system off, and open the faucet to flush the pressure tank bladder by discarding the first tank full of water.

13. Close the faucet, turn the water supply to the system on and allow the pressure tank to refill.

Additional Notes

Your reverse osmosis membrane capacity (in gallons of permeate produced per day, or gpd) was rated with supply water at 250 ppm total dissolved solids (TDS) at 77°F and 50 to 65 psi pressure. Colder water and/or lower pressure will reduce the permeate your system produces. When your sediment filter(s) and carbon block filter(s) are new, note the water pressure reaching your membrane with a pressure gauge. If you see this pressure drop over time, one or more of the prefilters (a “prefilter” is any filter that treats the feedwater before it reaches the RO membrane) is clogged and should be replaced.

Cut tubing to length using a sharp razor blade. Cut tubing at a 90 degree angle.

Don’t run your system with supply water exceeding 100°F.

Don’t run your system with a waste:permeate ratio lower than 3:1. Ratios higher than 5:1 needlessly waste water.

Consider installing a booster pump or a permeate pump to improve the performance of your RO or RODI system.

Drinking Water Add-On Kit Configuration

Parts included in the kit are shown in blue