

ELECTRONIC Shut-Off Kit

For use with **Merlin-Garden Pro™**

Instructions for use:



The **Electronic Shut-off** is designed to shut off the inlet water to the **Merlin-Garden Pro™** precisely and consistently. It can be installed in a variety of tanks and reservoirs. The following instructions are for a standard hydroponics reservoir. Following the basic setup guide, the kit can be used with your vessel of choice.

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Standard Reservoir Setup

The first step: (Pic 1) is to drill two holes somewhere in the lid of your reservoir, preferably away from the area that bubbles and has more turbulence. The first hole, $13/16''$, is to mount the electronic float switch. The second hole, $15/32''$, is to mount the mechanical float valve.

The electronic float switch has a $1/2''$ national pipe threaded bulkhead fitting. The bulkhead fitting holds the stem of the float switch by friction. The amount of friction can be controlled by tightening/loosing the large nut on the bulkhead fitting. Loosen the large nut and remove the fitting by pulling up. Unthread the smaller nut on top of the fitting. Push the male threaded end up through the whole you created. Then, tighten down the smaller nut on the outside of the lid. The O-ring should be on the inside. You are ready to install the float switch into the bulkhead fitting. Push it in through the fitting starting from the bottom. Then once you have your water level set, tighten down the large nut to hold the switch in place.

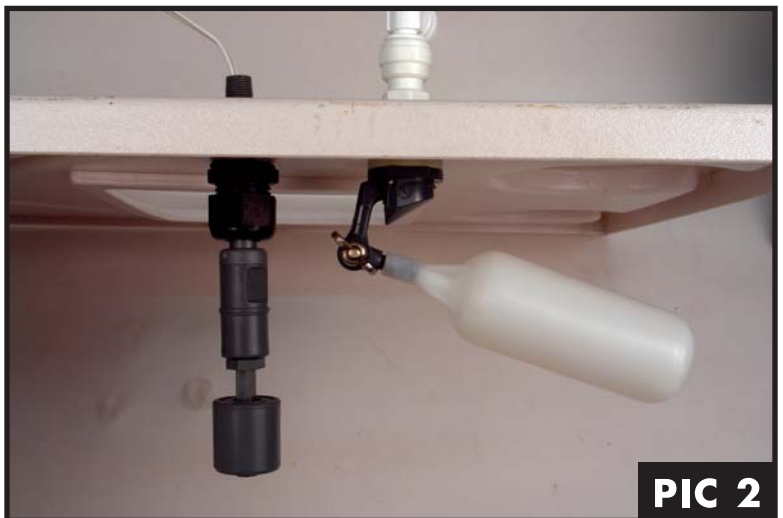


Mount the mechanical float valve using the included nut. The gasket should be on the inside of the reservoir. The mechanical float valve acts as a backup in case loss of power or failure of any of the other components. It also serves as an entry way for the water from the **Merlin-Garden Pro™** into the reservoir.

Note how the electronic float switch and mechanical float valve are mounted in the lid of the reservoir. The mechanical float valve comes in the box ready for a lid mount. You can mount it on the wall of the reservoir. Just loosen the wing nut and swing it the opposite direction to a horizontal position.

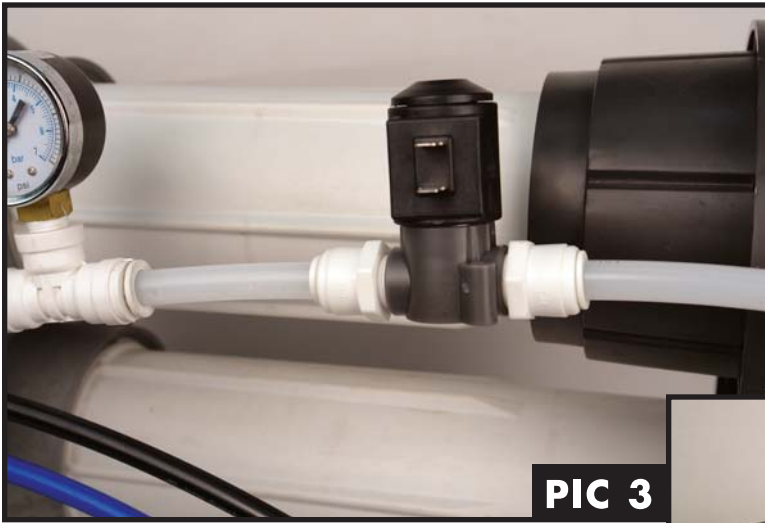
(Pic 2) is a side shot of the electronic float valve and mechanical float switch mounted under the lid. You are looking at the edge of the reservoir.

The trip level of the electronic float switch must be set lower than the trip level of the mechanical float valve. The mechanical float valve is only a backup in case the electronic float switch or some other component fails. The mechanical float switch can be mounted horizontally or vertically as long as its trip level is above that of the electronic float switch. These instructions show a vertical mount type.



Test the full movement of the mechanical float valve by blowing through the threaded end. Make sure you get full flow when the float is down and full closure when you move the float up. Use plumbers tape on the threads and hand thread the quick connect elbow fitting on.

Install the Solenoid Valve onto Feed Line of the Merlin-Garden Pro™



PIC 3

(Pic 3) Pick a spot anywhere and cut the 1/2" feed line of the **Merlin-Garden Pro™**. Make sure the cut is clean and square and the tubing is not crushed. Simply push the 1/2" line into the 2 quick connect fittings. Look for the "in" on the solenoid valve and make sure it's in the correct direction for the flow of water.

The last step (Pic 4) is making the electrical connections. The female connector on the electronic float switch's cable goes to the 1st male connector on the solenoid. The male connector on the electronic float switch's cable goes to one of the transformer's female connectors. The other female connector on the transformer goes to the 2nd male connector on the solenoid. There is an included extra 6 feet of wire if you need longer runs to the float switch. Push the **Merlin-Garden Pro™** blue product water tube into elbow quick connect fitting on mechanical float valve. Once everything is connected you can plug in the transformer to standard 120v power. The water can be turned on to the **Merlin-Garden Pro™** and the reservoir or tank will start filling. Any time you pull water out of the reservoir or tank the electronic float switch will drop and the Solenoid Valve will open. With the valve open, the **Merlin-Garden Pro™** starts producing water until the water level trips the electronic float switch, turning off the **Merlin-Garden Pro™** feed water and therefore the RO and drain lines.



PIC 4

NOTE:

If using the **Electronic Shut-off Kit** with the optional **Merlin-Garden Pro™** booster pump, you must install the kit down stream of the pump and before the **Merlin-Garden Pro™**.

Setup goes as follows:

(1) Feed water line goes into booster pump, (2) then, into the solenoid of the electronic shut-off kit, (3) then, into the **Merlin-Garden Pro™**.

Contact your dealer for assistance or call technical support at:

888-H2O-LOGIC / (888-426-5644)
support@hydrologicsystems.com

Warranty: Limited one year on all components.