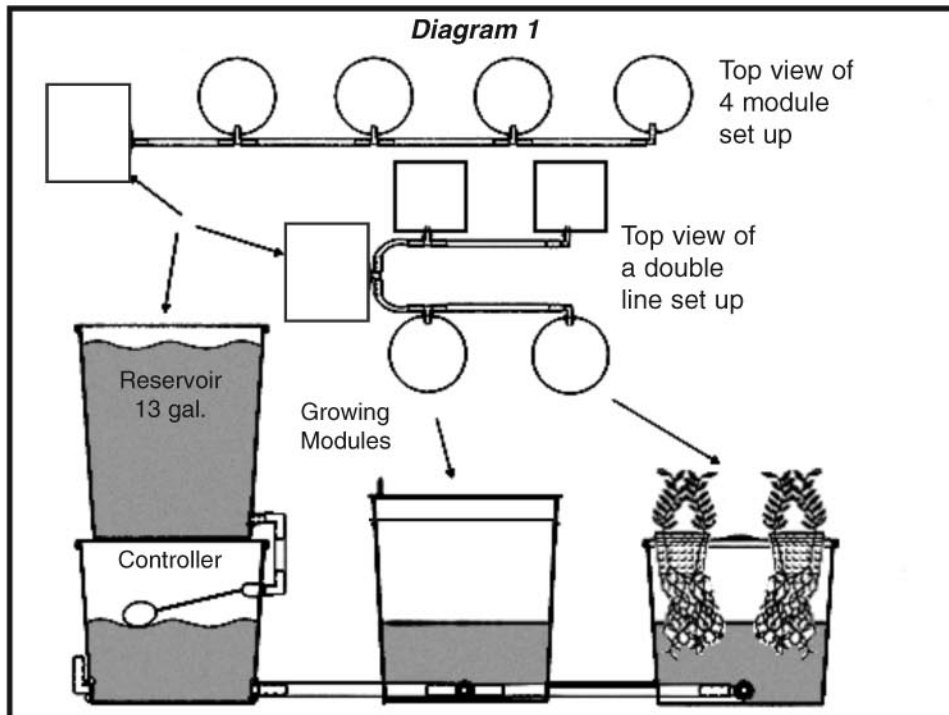


# Controller Instructions

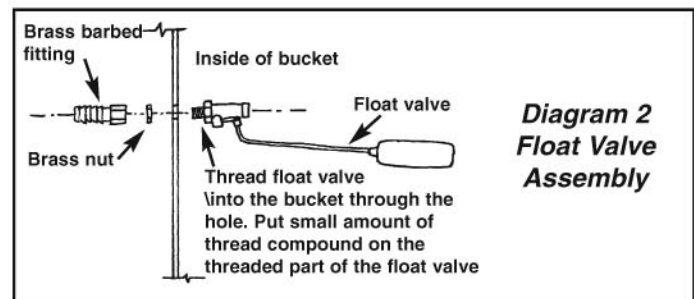


## Controller Components

Each controller system consists of:

- **1 Controller Container**  
(8 gallon with float valve, 2 grommets and lid)
- **1 Reservoir Container**  
(13 gallon with grommet and lid)
- **20 Fittings**  
(7 Barbed 1/2 inch tees, 2 Elbow fittings and 2 straight fittings, 1 drain valve & 1 clip)  
*These fittings are appropriate for an 8 place set up, either in a straight row, or you may place the controller in the center and have two rows*
- **1/2" blue vinyl tubing**  
(2 10 ft. sections of tubing)

The General Hydroponics controller/reservoir system automatically maintains the proper fluid level in multiple growing units. It is compatible with the WaterFarm and PowerGrower modules. By feeding all your plants from a single source, you don't need to monitor the fluid depth, pH and PPM of each individual module, but only of a single reservoir. The large reservoir also lets you forget about tending your garden if you go away for a few days.



## ASSEMBLY

Arrange the growing modules in either a single or double row (see diagram 1) on a level surface. The Controller can accommodate up to 8 modules.

Insert the straight fitting into the grommet near the bottom of the controller. Insert a tee fitting into the grommet near the bottom of each module. Place the elbow fitting in the last module(s). Connect the modules and controller container together using the blue vinyl tubing. Insert the drain level tube into the grommet on the opposite side of the controller.

Insert the float valve (see diagram 2) into the controller and attach the brass barb fitting. Add the nutrient solution to the controller container until all of the modules are filled to the proper level and the float valve shuts off the flow. Adjust the float valve rod by bending up or down to adjust the level in the modules. Place the lid onto the controller and sit the reservoir on top of controller container. Insert the straight fitting into the grommet near the bottom of the reservoir and attach the blue vinyl tubing to the fitting and the controller's barbed brass fitting. Fill the reservoir with the nutrient solution.

## ACCESSORIES

General Hydroponics provides many fine products to assist your cultivation. These include:

**WaterFarms • RainForests • Nutrients  
pH Test Kits • pH Control Solutions  
Calibration Solutions • Growing Cups**



**GENERAL  
HYDROPONICS**

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# “General” Troubleshooting Guides

## **If white salt deposits form on the GROROX:**

1. Try using a milder nutrient solution and topping off with plain water only.
2. Occasionally drain your system, refill with plain water and run the pump overnight. After the overnight rinse, empty reservoir and refill with fresh nutrient.

## **If plants are not growing well and you suspect “hard” water:**

1. Try distilled or purified water. You should see a significant improvement in plant health and growth within one week
2. Collect rainwater for use in your system.

## **If nutrient solution stops flowing from the drip ring:**

1. Check to ensure that pump is plugged in and reservoir is filled with nutrient solution.
2. Disconnect air line from the air inlet and check whether the air is coming through (put end under water and look for bubbles). No air flow could mean that the pump is broken and must be replaced or that the air line is loose or blocked. Try cutting an inch off each end of the line to provide a tighter fit.
3. Blow into the air inlet to check whether it is clogged. Rinse the pumping column in hot water. This type of clogging is usually an indication that you have hard water or too strong a nutrient solution.
4. Check whether emitter holes in the drip ring are clogged. To clear, disassemble drip ring by pulling it apart at the tee, rinse drip ring and tee in hot water and clear the holes with a toothpick.

## **How often should the reservoir be drained and the nutrient solution changed?**

The reservoir should be drained and cleaned every 7-10 days. Definitely drain and clean whenever you change the nutrient ratio formula. Also, it is a good idea to rinse off the growing media each time the reservoir is cleaned. Plant waste will tend to accumulate on the growing media.

## **When reservoir levels begin to drop, should it be topped off with fresh water or nutrient solution?**

Generally nutrient strength should run between 800 to 1200 parts per million (PPM). To measure PPM you will need to purchase a nutrient testing device and start monitoring your nutrient solution. We use meters with a “sodium chloride” scale.

When in doubt, remember that it is always better to apply too little nutrient than too much, and unless you know the specific PPM tolerance level for the plant you are growing, it is best to keep the nutrient solution between 800 and 1200 PPM.



Thank you for selecting this General Hydroponics system. Please send any comments or suggestions to:

**PO Box 1576, Sebastopol, CA 95472 • [www.genhydro.com](http://www.genhydro.com)**

Or, if you choose, call and talk to our knowledgeable staff at 707-824-9376 - mon.-fri. 9 to 5 pm PST