

Frequently Asked Questions.

1. How often do I add nutrient? What is “topping-off”?

Add nutrient every time you drain your system. “Topping-off” is a term that describes adding water to the system. Remember, during hot spells plants transpire excessive amounts of water leaving behind nutrient salts. These salts can cause ppm levels to sky-rocket creating a toxic environment for your plants. Keep your ppm at a lower level during these times of extreme transpiration.

2. How often should the water be changed?

That depends upon the growth (stage and rate) of your plants. When plants are seedlings every three weeks should suffice. Once the plants start to approach maturity it is best to change the nutrient mixture completely every two weeks, or even more often for better results. Between nutrient changes it is important to “top-up” the reservoir with fresh water. Add more nutrient only if the conductivity or ppm drops. Generally the conductivity (nutrient strength) should be maintained between 800 to 1,200 ppm (parts per million).

3. Should I invest in a ppm or conductivity meter?

Yes, a conductivity meter is an essential tool for measuring nutrient strength. By knowing the conductivity level for a specific variety of plant, the grower can adjust nutrient strength to meet specific crop needs.

4. When should I adjust the overflow tubes up or down?

When plants are small and their roots are not well developed, the overflow tubes should be at the maximum height to allow nutrient rich water to reach the bottoms of the net cups. Once the roots have grown in length and are immersed within the flowing stream of nutrient, the overflow tubes can be pushed down to increase oxygen within the nutrient and growing chamber.

5. Can I turn off my system for any length of time?

Generally it's best for the system to run 24 hours per day – always on. However, many people do put their AeroFlo² systems on a timer to save electricity. The AeroFlo stays on during the light cycle and turns off for the night cycle, except for an hour of spray in the middle of the night cycle.

6. What is the optimal temperature range for the nutrient solution?

Optimal temperature is generally between 65° and 75° F.

7. At what pH level should my system be maintained and why?

pH levels should be between 5.5 and 6.5 because at this pH level, nutrients are more readily available for the plant.

Ordering parts and supplies

To order Grow Cups, nutrients, Hydroton, or parts for your AeroFlo² system, see your General Hydroponics retailer, or call General Hydroponics, Inc. for listings.

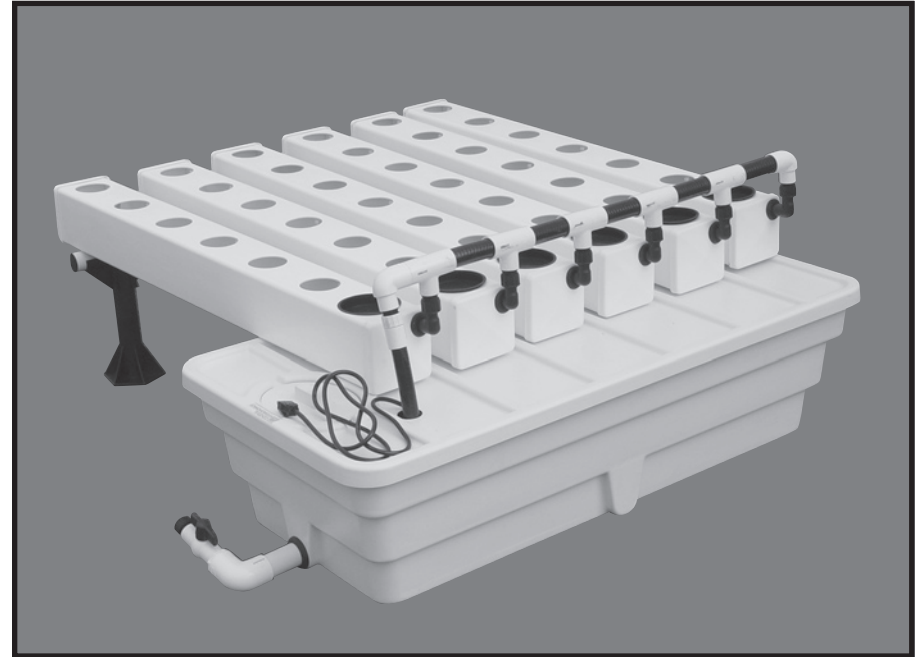
1-800-374-9376 Monday thru Friday, 9 am to 4:30 pm, PST.



P.O. Box 1576 • Sebastopol, CA 95473
Phone (707) 824-9376 • Fax (707) 824-9377
www.generalhydroponics.com

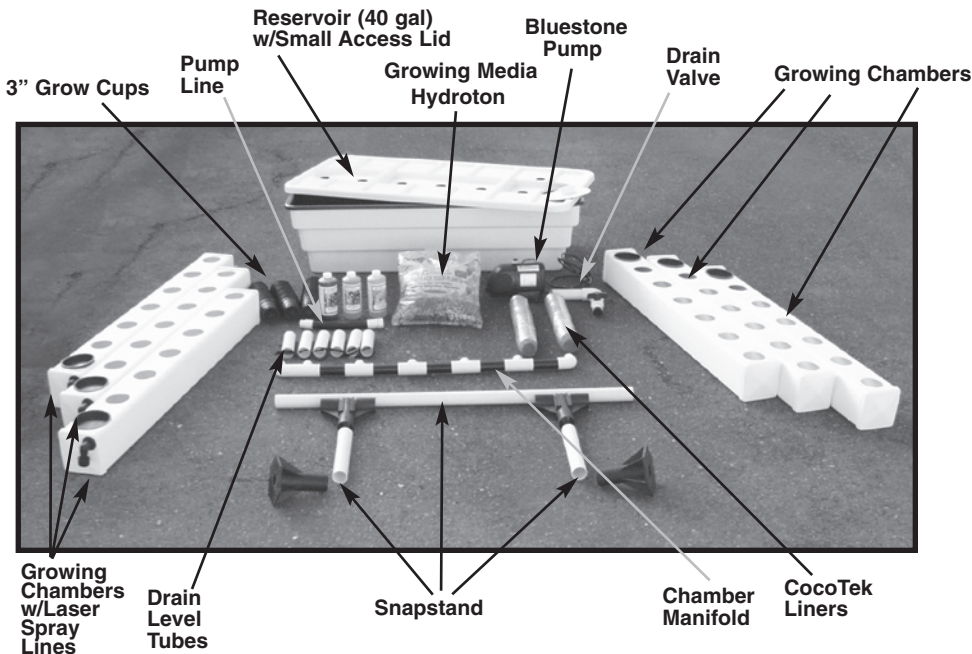
© GENERAL HYDROPONICS 2003

AeroFlo² 36™



For quite a while now, satisfied AeroFlo users have requested a compact AeroFlo² model designed expressly for indoor lighting. General Hydroponics is pleased to offer the trim line Model 36 with a large 40 Gallon reservoir. The Model 36 is designed to fit an indoor grow light.

AeroFlo² Model 36



Unpacking

See the above photograph to familiarize yourself with the parts.

Parts list:

- Reservoir (40 gal), lid, small access lid
- 6 Growing chambers with Laser Spray Lines
- 6 Drain Level tubes
- Chamber Manifold
- Packet of Lubricating Grease
- Pump Line
- Drain Valve
- Bluestone Pump with filter
- General Hydroponics™ Flora™ 3-part nutrient
- 36 three inch Grow Cups
- 36 CocoTek™ Basket Liners
- 9 Liter Hydroton™ Growing Media

Cleaning between crops

Drain the whole system, brush out the growing chambers and, if necessary, unplug the spray holes in the beige laser spray lines mounted inside the growing chambers. Sponge off all parts with bleach to disinfect. Rinse everything thoroughly to remove all traces of bleach. To be sure that the system is free of chlorine refill it with water and run it for a few hours, then drain again before introducing a new crop. Clean filters frequently. Simply unplug pump and remove reusable filter. Rinse filter under hot water to clean.

Hydroton

We have had many years of excellent results working with Hydroton clay pellets for plant support. We recommend that you rinse new Hydroton thoroughly to remove the fine sand which builds up from abrasion during shipping. Between crops it is good to wash the Hydroton well, removing all organic debris. An effective method is to boil used Hydroton in a large pot. This sterilizes and dissolves any accumulated salts. Caution: Do Not rinse Hydroton with bleach (chlorine).

Nutrients

Nutrients are the lifeline to your plants. Since you are providing the plants with all their nutritional needs we recommend you feed them the best. General Hydroponics™ offers a wide variety of plant foods. We have had great success using our Flora series 3 part system (FloraGro™, FloraBloom™ and FloraMicro™).

1 Fill the reservoir with fresh water.

If you are in an area with poor- quality water (over 200 ppm Total Dissolved Solids), we recommend that you use purified water (Reverse Osmosis and/or rain water). General Hydroponics also has **Hardwater FloraMicro™** nutrient formula available. Hardwater FloraMicro™ should be used in place of regular FloraMicro where hard water is a problem.

2 Add nutrients as per instructions on label. Add FloraMicro first then add FloraBloom, and FloraGro, stirring well each time. Never pre-mix nutrient concentrates. This may cause nutrient "lock-out".

3 Adjust the nutrient solution pH between 5.5 and 6.5 (see instructions with the General Hydroponics pH Control Kit).

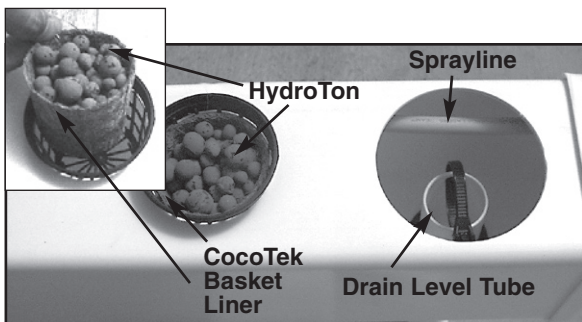
Notes

Nutrient mixes can be adjusted in both strength (conductivity) and "flavor" (ie: the ratios of Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sulfur & Microelements). To adjust these factors mix different combinations of FloraGro, FloraBloom and FloraMicro with water.

- To enhance vegetative growth, use more FloraGro and less FloraBloom.
- To enhance flower growth use less FloraGro and more FloraBloom.
- To enhance fruit production use equal amounts of FloraGro, FloraBloom and FloraMicro.
- To provide more Calcium or Iron (for green, leafy vegetables), use slightly more FloraMicro.
- Many growers follow the 3-2-1 mix: **For vegetative growth:** 3 parts FloraGro (ie, teaspoons per gallon), 2 parts FloraMicro plus 1 part FloraBloom. **For flowering:** 1 part FloraGro plus 2 parts FloraMicro plus 3 parts FloraBloom. **For fruiting:** 2 parts FloraGro plus 2 parts FloraMicro plus 2 parts FloraBloom. These units are ratios, not absolute quantities, and are only a *suggested* starting point. Use a conductivity meter to determine total nutrient strength.

Step 10

Rinse Hydroton to remove all debris. Insert the CocoTek Basket Liner and fill the growing cups with Hydroton. Insert them into the growing chambers. Your AeroFlo2 36 is now assembled. The next step will be to fill it with water and add nutrient. You're ready to plant!



CAUTION: Never run the BlueStone Pump without water present in the reservoir.

Startup

Before filling your system with water it is essential that you understand the system capacity.

Each Chamber	Low stage 0.6 gallons	Flooded stage 2.4 gallons
Reservoir capacity is 40 gallons. This means that the total system capacity is approximately 54 gallons in the flooded stage (overflow tubes set high), and 42 gallons in the low stage (overflow tubes pressed to the bottom). Fill the reservoir with water. Turn on the pump. The pump will drive water into the growing chambers.		

Note: It may be necessary to adjust the angle of the Laser Spraylines so that they are spraying at a 45° angle from the chamber bottom.

Draining the system

The reservoir should be drained first before draining the growing chambers. This will prevent over filling of the reservoir and possible flooding.

- Connect hose to Drain Valve.
- Turn valve handle to open valve.

Caution: Never run the Pump with out water present in the Reservoir.



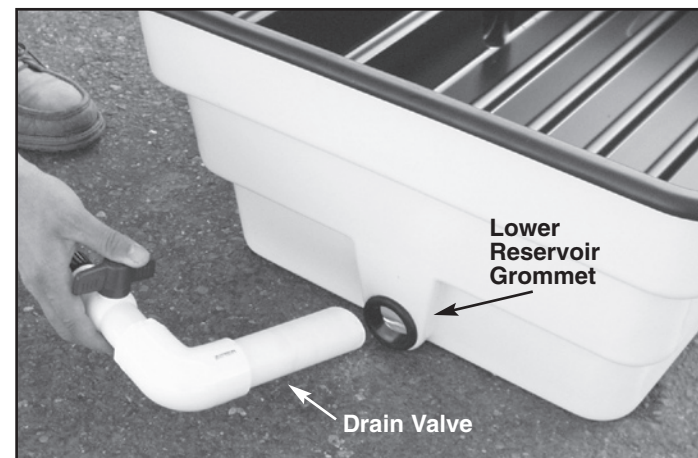
Step 1

Place the reservoir where it will be used, on a level surface.



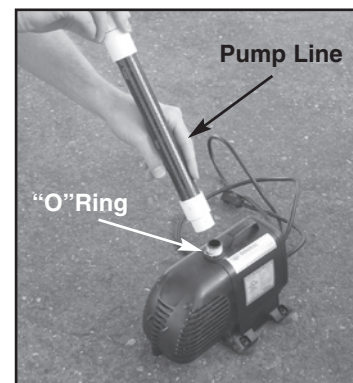
Step 2

Line the inside of the Lower reservoir Grommet with a thin coating of silicon grease (optional). Insert Drain Valve into grommet using a twisting motion.



Step 3

Attach Pump Line to BlueStone Pump. Pay careful attention that "O" Ring is fully seated against pump.





Step 4

Place pump at the bottom of the reservoir. Lower lid so that the Pump Outlet Manifold and power cord fit through hold in reservoir lid as shown.



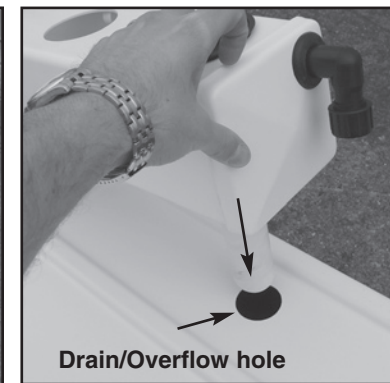
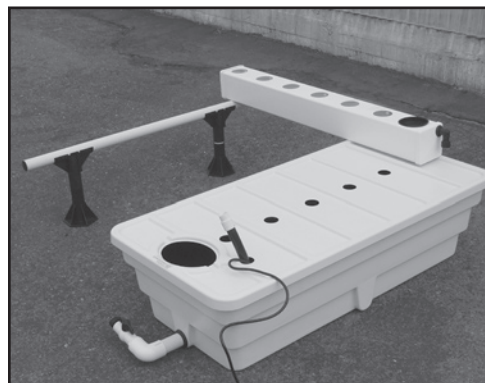
Step 5

Line the inside of the chamber grommet with a thin coating of silicon grease (optional). Insert the Drain Level Tube half way into the grommet. The overflow tubes are adjustable allowing for greater flexibility in water height. Repeat this step for the other 5 chambers.



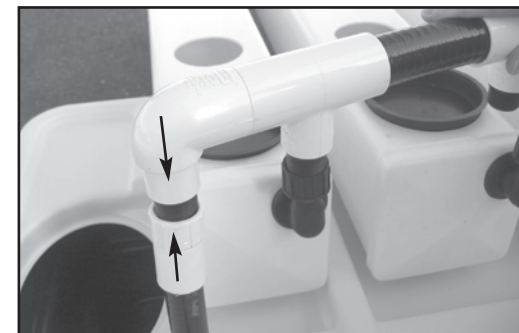
Step 6

Assemble Snapstand (see inclosed instructions). Arrange the Growing Chambers on top of reservoir with the other end resting on the Snapstand. Center the Growing Chambers Drain Fittings over the



Step 7

Screw the flexible Chamber Manifold onto the Pump Line.



Step 8

Attach Chamber Manifold to Chamber Spray Lines by tightening the thread connections. Start from one end and work across.

