

PROBLEMS AND TROUBLESHOOTING

The most likely causes of problems are overwatering, over-feeding or insufficient lighting. Recheck your procedures and conditions to make sure you have followed all the directions correctly.

- If the plants show signs of tip burning, flush system with fresh water, and cut back the strength of the nutrients.
- If the inflow tube is not flowing freely, check the intake on the pump.
- Inspect carefully for any insects, fungus or mold. If you discover signs of these, consult your indoor garden supply store for pest control methods.
- Any fungicides or insecticides should be used at 10% - 15% the normal rate.
- Flush the system thoroughly and add new nutrient solution after using any additives.

If the pump stops working, follow these troubleshooting procedures step by step:

- 1) Check your timer, plug pump directly into an outlet.
- 2) Make sure pump is underwater. If pump runs dry, this will result in motor burnout.
- 3) Make sure tubing has no kinks in it.
- 4) With pump unplugged, remove filter from pump, take off intake and move the impeller around manually two to three times and reassemble. Submerge and plug pump in again. This should free impeller if stuck. If these troubleshooting procedures don't help, please call the place of purchase for further assistance.

TEMPERATURE AND AIR CIRCULATION

Most plants prefer temperatures between 65°F and 90°F, with between 70° and 80° being closer to the optimum. Using a fan will help keep temperatures down when it's too hot, strengthen the plants, and bring in fresh air if you're growing in an enclosed area. Don't blow them over, but give them a gentle breeze for part of the day. Make sure you also have plenty of air circulation.

HARVEST

Harvest time is very near when the herbs or vegetables are almost fully ripened and are changing color. Harvest the crop by cutting off the ripened produce.

REUSING YOUR HYDROFARM SYSTEM

After you've finished your crop you need to clean your system with a weak chlorine bleach solution (1 tablespoon to a gallon). For replacement parts contact your local authorized Hydrofarm retailer. Eventually you may need Hydrofarm nutrients, rockwool, etc.

GUARANTEE

Your Hydrofarm Megagarden components are guaranteed to work for the original owner for a full year. This includes the pump, reservoir and irrigation parts. Nutrient and Rockwool are not covered. Misuse, abuse or failure to follow instructions are not covered. If you have a problem, please contact the place of purchase for return authorization and replacement. Save your receipt/invoice. A copy is required for all warranty work.



Megagarden™

Congratulations on the purchase of a Hydrofarm Megagarden system —

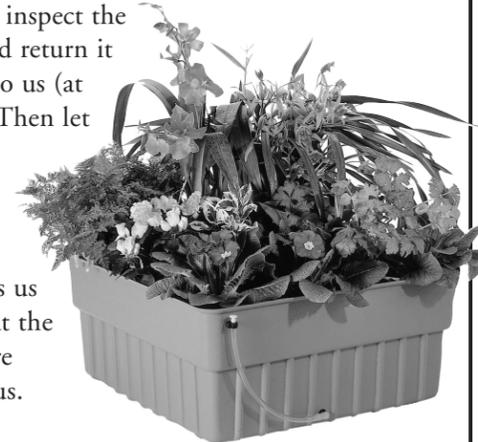
one of the highest performance growing systems available to the home gardener. Please read all instructions carefully before starting your garden.

HYDROPONICS: SIMPLE, QUICK AND EASY

Hydroponics is simply a more efficient way to provide food and water to your plants. In a soil garden food and water are randomly scattered about and plants have to expend a lot of energy growing roots to find them. In a hydroponic garden the food and water are delivered directly to your plants' roots by pumping solution on timed cycles. Your plants will grow quicker and can be harvested sooner because they are putting their energy into growing above the surface, not under it.

CHECK FOR SHIPPING DAMAGE

Upon delivery of your equipment, note any dented, deformed, or opened boxes to the delivery company (usually UPS). If any part of your order is broken or damaged, immediately notify the carrier. They will send someone to inspect the damaged part and return it with the carton to us (at no cost to you). Then let us know what is being returned. We can send replacements as soon as UPS calls us and confirms that the damaged parts are coming back to us.



MEGAGARDEN PARTS LIST:

- 1 - Megagarden Reservoir
MGRES
- 1 - Megagarden Insert Tray
with Holes
MGINTR
- 15 - Grow Containers
EFGROW
- Aggregate Growing Medium - 25 L.bag
GEO25

COMPONENT BOX:

- Agro All Purpose Nutrient
NU575PT
- 2 - Drain Hole Filters (1/2")
HGFLDH
- Standpipe
HGINSF
- Standpipe Cap with Holes
HGCPINWH
- Grommet
HGGR
- 1 - View/Drain Tube Assembly
HGELVM
- 1 - Inflow Assembly
HGIFKT
- 1 - Platform Support Column
MGSC
- 24- Rockwool Starter Cubes
- 1 - pH Test Kit
HGPROTK
- 1 - Pump with Inflow Tubing
PU250/MGTBIF
- 1 - Timer
TM01015
- 1 - Red Cap with Holes
MGCAP
- 15- Moisture Mats
EMMAT
- Instructions

ASSEMBLY

- 1) Insert view tube grommet into lower hole in reservoir.
- 2) Insert view tube clip into hole located at top of reservoir.
- 3) Insert view tube drain elbow into lower hole in reservoir.
- 4) Attach view tube to view tube clip at top of reservoir.
- 5) Insert support column into center of reservoir.

HANDLING ROCKWOOL

Rockwool is a fibrous mineral material and should be handled carefully to minimize breakage. Moisten your rockwool cubes before handling. Wash your hands after handling.

RINSING THE AGGREGATE IN THE PLANTERS

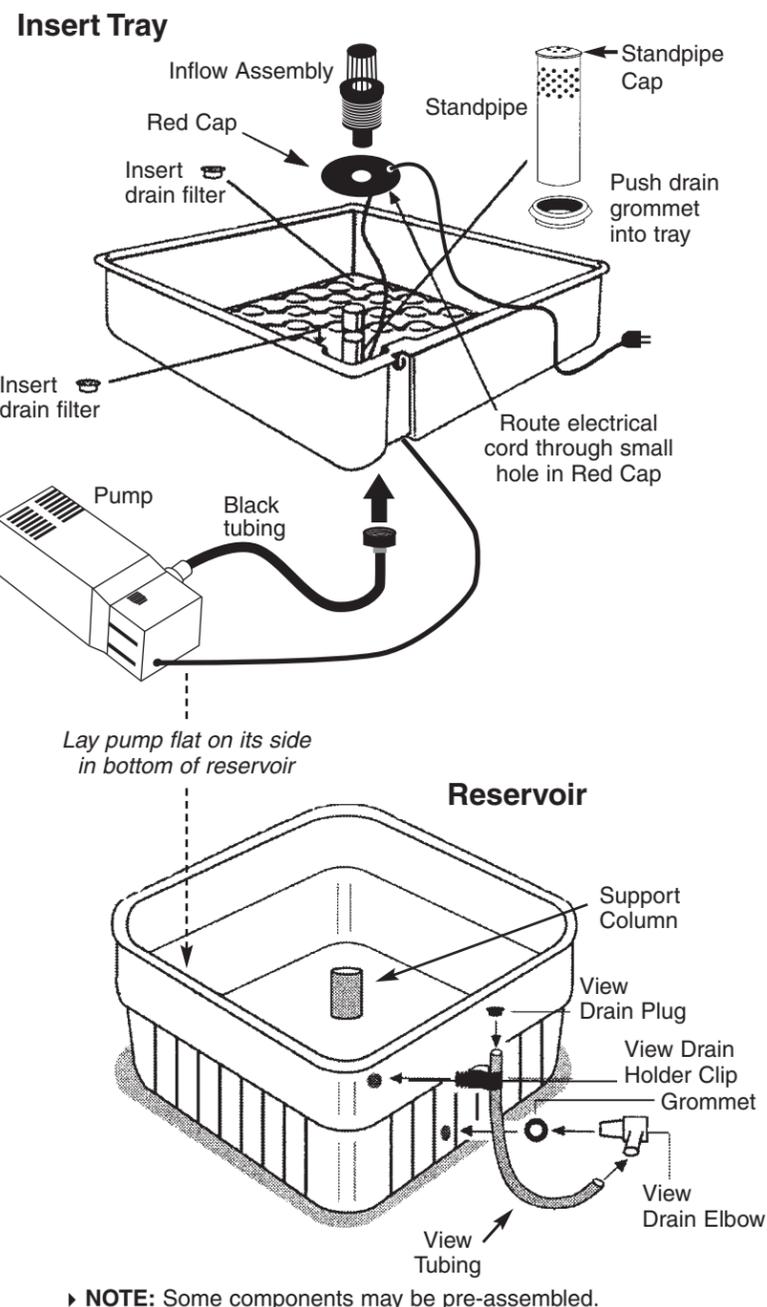
(It is a good idea to do this outside.)

- 1) Insert the moisture mat strip down into the rock, to the base of the planter.
- 2) Distribute the aggregate into the planter halfway full.
- 3) Holding the moisture mat up in the middle, fill planter the rest of the way up.
- 4) The base of the cube should be in contact with the moisture mat, then fill in around the cube with aggregate.
- 5) Rinse the rock in the planter.
- 6) Set the planter into the Megagarden system.

MIXING IN THE NUTRIENTS AND THE pH

Filling your reservoir, Agro All Purpose Nutrient should be mixed at ONE teaspoon per gallon of water. Once a month thereafter, the old solution needs to be drained and refilled with new solution mixed at ONE teaspoon per gallon.

For topping off existing nutrient solution, mix it at ONE teaspoon per gallon of water. You can vary the nutrient concentration slightly depending on the growth stage your plants are in. Nutrient concentration may also be varied slightly to affect pH. pH is a measure of acidity or alkalinity of nutrient solution. Nutrients are more available to your plants when the pH is between 6.0 and 7.0. More nutrient concentration will lower pH, less will not bring it down as much. After thoroughly mixing in the nutrient solution, check the pH of the reservoir.



▶ NOTE: Some components may be pre-assembled.

The pH of your solution should be checked weekly and kept between 6.0 and 7.0 for most crops. Normal tap water is usually from 7.0 to 8.0. The addition of the nutrients at the prescribed level usually lowers the pH into the acceptable range. If your pH varies above or below these levels, you can gradually adjust it with our Hydrofarm pH adjusters. Don't be concerned if your pH is a little off unless your plants are showing signs of nutrient deficiencies. After planting your system as described below, fill your reservoir with premixed nutrient solution by pouring it down through the planted containers. It will drain into the reservoir. Fill to just below the platform. This should be about 7 gallons.

STARTING SEEDS AND PLANTING

- 1) Saturate the rockwool starter cubes in some water.
- 2) Poke a small hole in the top of the rockwool cube and insert a couple of seeds into each hole. You can thin down to one plant after they sprout. Gently push the cube around it to secure it in place.
- 3) Keep them moist, not soaked, in a tray (DO NOT OVER WATER) underneath your lighting until you see fresh, white roots pushing through the sides of the rockwool cube and the seedlings are at least an inch tall. Thin back to one seedling per cube by cutting off the weaker of the two at the base of its stem.
- 4) Plant cube down into aggregate, just below the top of the rock.
- 5) Fill in the aggregate around the cube and seedling. The top of the cube should be covered with a single layer of aggregate.
- 6) After planting the cube or seedling, pour some nutrient solution directly over the cube to initiate the capillary action.

If you are using the rockwool blocks instead of the aggregate in planters, the blocks rest directly on the platform. Depending on your growing needs, you may add quite a number of blocks.

If you want to insert cuttings into large blocks, wait until they have developed white, healthy roots out of their small cubes.

If you buy flats of seedlings, gently wash off just enough dirt to fit the seedling in the rockwool block or plant them directly into the planters. Always check nursery plants for signs of insects. If any pests are spotted, the plants should be sprayed with something like Insecticidal Soap and quarantined for 48 hours before planting your system.

CHANGING NUTRIENT SOLUTION

Once a month your nutrient solution should be changed.

- 1) Unclip the view/drain tube, unplug and drain solution into another container. This used nutrient solution is great fertilizer for your houseplants, lawn and garden.
- 2) Clip tube and refill the reservoir with new nutrient solution (1 teaspoon/gallon). Pour the new nutrient solution down through the planters when refilling.
- 3) Replug the view tube after refilling.

LIGHTING

Line the entire growing area with a white surface or material to reflect the maximum amount of light. Metallized film or white plastic are recommended. Flat white paint is also good. A heavy duty grounded timer will make the light cycle automatic.

The more light you give your plants, the faster they'll grow. If you're growing outdoors, give them a good southern exposure during the growing season in your area. If your growing season is short with cold temperatures, it's best to give your plants an early start indoors under our Agrosun® fluorescents. For larger areas, use a combination of our Hydrofarm halides and sodiums.

IRRIGATION TIMING

The Megagarden system operates on a number of timed flood and drain cycles per day. This will require a timer to activate your pump. The tray will fill to the top of the standpipe within 30-minutes. It will then drain, when the timer shuts the pump off.

This cycle should be repeated a number of times per day depending on your growing conditions. Young new transplants may only require two cycles per day while larger plants may need more cycles per day. Temperature, lighting and humidity will affect the amount of irrigation your plants require. Do not allow the cubes to completely dry out.

Check your cubes just before the next irrigation cycle. If they are very light and pretty dry, you may want to add another cycle. If they are still dark and soaked, decrease the frequency.

If you are using multiple cycles per day, start the first one when your lights turn on and space them evenly throughout the lighted period.

EXAMPLE :

18 Hours of Light (6am - 12am)

Two cycles — on at 7am and 3pm

Three cycles — on at 7am, 1pm and 6pm

Four cycles — on at 7am, 11:30am, 3pm and 7:30pm

- Check your reservoir level as often as possible. It generally should be okay for several days before additional nutrient solution is needed.
- Do not allow the nutrient solution level to drop below 2-1/2" deep.
- When the pump is off and the platform is drained, refill the reservoir with pre-mixed nutrient solution (1 level tsp. per gallon) up to just below the platform.
- Periodically check your pump and tray irrigation systems to make sure they are filling and draining properly. Check the drain filter frequently.