

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.

All cycles should be programmed to Start or Finish 60-90 minutes prior to turning your light on or off.

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. Pump must stay submersed at all times.
- 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.

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.
- If you have used any new product that seems to have an adverse affect on your system, flush the system.

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.



If the pump stops working:

- 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 or find the closest Hydrofarm dealer near you at www.hydrofarm.com.

TEMPERATURE AND AIR CIRCULATION

Most plants prefer temperatures between 65 and 90 degrees Fahrenheit. 70-80 degrees is closer to the optimum. Humidity should not be below 45 percent or above 80 percent. Using an oscillating 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.



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.

MEGAGARDEN PARTS LIST:

- | | | |
|--|---|---|
| 1 - Megagarden Reservoir
MGRES | Nutrient Pack | 1 - Platform Support Column
MGSC |
| 1 - Megagarden Insert Tray
with holes
MGINTR | 2 - Drain Hole Filters (1/2")
HGFLDH | 24- Rockwool Starter Cubes |
| 15 - Grow Containers
EFGROW | Standpipe
HGINS | 1 - pH Test Kit
HGPROTK |
| Aggregate Growing Medium - 25 L.bag
GM90025 | Standpipe Cap with Holes
HGCPINWH | 1 - Pump with Inflow Tubing
PU160/MGTBIF |
| 1 - View Drain Holder Clip
HGSINC | Grommet
HGGR | 1 - Timer
TM01015 |
| | 1 - View/Drain Tube Assembly
HGELVM | 1 - Red Cap with Holes
MGCAP |
| | 1 - Inflow Assembly
AH30206 | 15- Moisture Mats
EMMAT |
| | | Instructions |

ASSEMBLY

1) View Tube Installation:

- Remove grommet from view tube assembly, see Fig. A.
 - Install grommet into lower hole on reservoir as shown in Fig. B.
 - Insert view tube drain elbow into grommet, insert clip into top hole on reservoir, and attach view tube as shown in Fig. C.
- Install support column over boss in bottom center of reservoir, Fig. D.
 - Install insert tray onto bottom reservoir and support column as shown in Fig. E.
 - Install drain hole filters into insert tray at locations shown in Fig. F.
 - Install stand pipe grommet into insert tray and insert stand pipe into grommet, Fig. G.
NOTE: The stand pipe is adjustable to ensure that water level is at desired point. Water level can change given a single stand pipe location, should you choose to turn the pump flow rate up or down. Please adjust your water level using the stand pipe the first time you fill the insert tray at the desired pumping level.
 - Remove nut from inflow assembly, insert threaded end through center hole in red cap. Hand tighten the nut snug to secure the inflow assembly to cap. Finished product will look like Fig. H.
 - Attach the two inch piece of black tubing to the bottom of the inflow/cap assembly.
 - Remove pump from box and remove small fitting from pump outlet. This fitting is not used on the Mega Garden. Install larger fitting (either direction) into pump outlet. See Fig. I. Pump flow rate is adjustable using slider on end of pump.
 - Slide black tubing and inflow/cap assembly onto pump outlet. Slide pump cord into slit on red cap. Finished product will look like Fig. J.
 - Drop pump, cap and tube assembly into hole on insert tray as shown. Press red cap into place, so that it is securely in place. Fig. K.

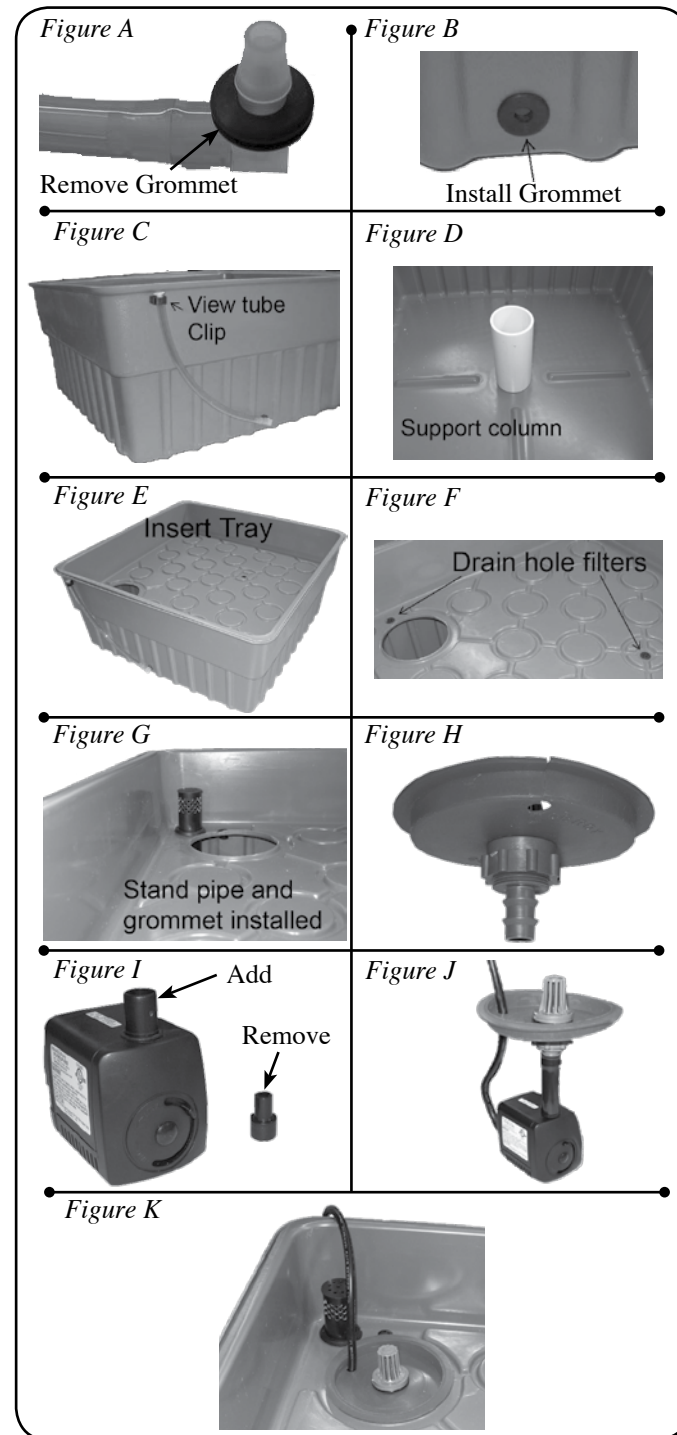
NOTE: Do not plug pump in prior to filling the reservoir. Running the pump dry will damage and possibly destroy the pump, while voiding your Hydrofarm warranty

HANDLING ROCKWOOL

NOTE: 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.

TO PREPARE ROCKWOOL FOR SEEDS AND CUTTINGS:

- Mix 1/2 tsp. of high phosphoric nutrient (Hydrofarm 7-4-10) per gallon of water.
- Balance pH to 5.2
- Soak Rockwool overnight



- Take Rockwool out of soaking solution and rinse with warm water.
- Gently squeeze excess water. Cubes are ready for seeds or cuttings.
- Prepare a nutrient solution with a pH of 6.0 to 6.5 to mist the cubes, they should not be dry.
- When seedling and cuttings are about 2-3 inches long or roots appear at bottom of cubes, they are ready to be transferred into growing system.
- For more information on Rockwool, go to www.hydroponics101.com

RINSING THE AGGREGATE IN THE PLANTERS

- With pretreated Rockwool starter cubes, poke a small hole in the top of the Rockwool cube and insert one seedling per cube.
- Keep them moist, not soaked, in a seedling starter tray with a humidity dome, underneath an Agrosun Fluorescent tube until you see fresh, white roots pushing through the sides or bottom of the Rockwool cube and the seedlings are at least an inch tall. Once the seeds begin to show signs of growth, begin weaning the humidity dome from tray. Start at small increments until seedlings can stand strong on their own.
- Rinse the rock outside prior to planting.
- Distribute the aggregate into the planter halfway full.
- Insert the moisture mat strip down into the rock, to the base of the planter.
- Holding the moisture mat up in the middle, fill planter the rest of the way up. The base of the cube should be in contact with the moisture mat, then fill in around the cube with aggregate.
- Set the planter into the Megagarden system.

MIXING IN THE NUTRIENTS AND THE pH

Filling your reservoir should be done according to the instructions on your nutrients.

pH is a measure of acidity or alkalinity of nutrient solution. Nutrients are more available to your plants when the pH is between 5.0 and 6.5. 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.*

The pH of your solution should be checked weekly and kept between 5.0 and 6.5 for most plants. 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 Pro 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.

* For a more precise reading, ask your local Hydrofarm dealer about digital nutrient testers.

STARTING SEEDS AND CUTTINGS

If you want to insert cuttings into blocks, wait until they have developed white, healthy roots out of their small cubes. 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 purchased plants from a local nursery, gently wash off loose dirt and plant in planter. 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

Your nutrient solution should be changed once a month.

- Unplug unit.
- 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.
- Clip tube and refill the reservoir with new nutrient solution. Pour the new nutrient solution down through the planters when refilling.
- 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.