



Plant Performance Products



VRDWC-4 DWC Hydroponic System Instructions

Parts List:



2" Air Stone

x4



x4

5 Gallon Black Bucket

(note - buckets come pre-drilled)



x4

6" Mesh Bucket Lid



pH Test Kit

x1



Viastone Grow Rocks
(10 Liters)

x1



Air Pump
(4 Outlet)

x1



3/16" Clear Air Tubing

x40ft



3/16" Check Valve

x4



x1 - 1/2" Pump Manifold



x1 - 3/4" Recirculating Manifold



x1

Master Bucket*



x1

Master Bucket lid



x1

Propagation Kit
(tray, dome and plugs)



x1

159 GPH pump



x11

x10

1/2" and 3/4" Hose clamps
(x1 extra of each included)

(*Master Bucket also has a 1/2" blue water level indicator/drain tube, 12" long piece of 1/2" black tubing inside bucket)

Assembling system:

1. Connect 3/4" recirculating manifold to the bottom of the buckets. The plastic tube screen goes inside master bucket, install washer on each side of the bucket prior to tightening connections.



2. Connect 1/2" pumping manifold to top of buckets. ****Note - use a small amount of lubricant to insert 1/2" barbed fittings into grommets.****



3. After connecting both manifolds (thin layer of liquid dish soap is acceptable) use the click clamps to secure black tubing and plastic connections. Do not over tighten as this can crack the plastic connection causing water leaks. The click clamps ensure a water tight seal.



4. Locate the submersible pump and place it in the master control bucket connecting 1/2" fitting provided in your pump box to top of your pump. You will see a notched section on top of the master bucket for cord placement.



5. Once pump is in master bucket, connect 1/2" black tubing to pump. Connect opposite end of 1/2" black tubing to the 1/2" barbed strait located inside master bucket. 1/2" line will circulate water between buckets allowing for an even pH, fertilization and a rich oxygen mixture to occur between buckets.

6. Configure bucket placement and air pump. It's recommended the air pump be placed higher or above the 5 gallon buckets to prevent water backflow to pump. If air pump is placed higher than the top of the five gallon buckets, check valves aren't needed. If air pump is placed on floor, please use check valves to prevent water backflow.



7. Make sure air pump valve is open. Air pump valve located at rear of air pump allows control of the amount of air that flows through air stone. It's recommend keeping the air valve all the way open for maximum air flow.



8. Measure and cut the clear 3/16" air tubing to accommodate each bucket placement. Make sure to account for air tubing going through pre-drilled air hole and to bottom of bucket. Connect air tubing to pump or check valve then through the hole located towards the top of each bucket. Connect air stones to tubing and ensure tight connections.



9. Fill all the buckets with water and then plug the air pump into electrical outlet. Make sure each bucket has air being delivered to it. ****Note - If there is no air coming through the air stone****

- Make sure check valves are not clogged and in the right direction. If clogged simply blow or use small paper clip to clear path
- Make sure air is coming from pump and all connections are secure



10. Before placing grow rocks in 6" mesh pots, rinse rocks so they are free of rock dust and smaller rock particles. Fill rinsed rocks into all 6" mesh pots and place them on top of grow buckets. Fill buckets with fertilizer water (fertilizer not included, be sure to check the pH with the pH test kit. Most plants enjoy 5.8 - 6.7 pH. Research your specific plants to accommodate exact pH and fertilization level. Water level should not exceed the upper 1/2" grommets in each bucket. Prior to placing plants in system, be sure to run system to ensure there are no leaks or clogs.



Germinating seedlings:

Locate the super starter plugs, place seeds 1/4" into plugs. ****Note - seedlings like 75°- 85°degree F temp and 60% to 70% humidity.**** The super starter plugs should be moist but not standing in water. Once the seedlings have at least four leaves or roots coming out the side of the super starter plugs, then transplant them into the grow buckets. Be sure to plant the seedlings so that the roots are in the water.

Cleaning you system and changing water:

Change water in between crops. When changing twater, clean buckets and lid with soap and water or with a light bleach solution, be sure to rinse thoroughly prior to use. While plants are in system, simply add water as needed. It is important to check pH, fertilizer level and water level weekly for best results. The pump has an internal sponge filter to deter clogs, it's important that this be cleaned periodically. See below:



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