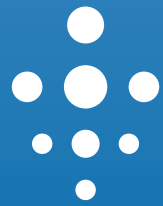


# Instruction Manual



AirCube

ACTIVE OXIGEN GROW SYSTEM



AirCube

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DISTRIBUTED BY

**GROWACE**<sub>USA</sub>

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# Instruction Manual



Congratulations on the purchase of the [AirCube Active Oxygen Grow System](#). The AirCube system is the one and only Ebb & Flow grow system on the market that combines the benefits of air pruning with a fully automated Ebb+Flow system!

With the AirCube's proprietary fabric pot in bucket design, this system is guaranteed to outgrow any other Ebb + Flow system on the market. The results speak for themselves - grow MASSIVE roots that result in MASSIVE fruits!

## INSTRUCTION MANUAL

### Table of Contents:

- Parts and Components List
- System Expandability Options
- Set-up of AirCube Active Oxygen Grow System
- Suggested Watering Schedule
- Additional Information
- Frequently Asked Questions

## WHAT'S INCLUDED 6 BUCKETS STARTER SYSTEM



**AirCube Advanced Brain Controller Module**  
1 x 7-Gallon Controller Brain Module



**7 x 3/4 Straight Connector**



**4 x 3/4 Stopper**



**8 x 3/4 Rubber Grommet**



**1 x 15' Length Tubing**



**1 x Vacuum Break Barbed Elbow**

## WHAT'S INCLUDED 6 BUCKETS STARTER SYSTEM



1 x Tubing Puncture Tool



2 x 317 GPH Water Pump



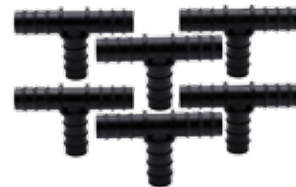
**AirCube Active Oxygen  
6 Bucket System**  
6 x 5-Gallon Active Oxygen Grow Buckets



6 x Air Pruning Fabric Pots



6 x 3/4 Rubber Grommets



6 x 3/4 T Connectors

## WHAT'S INCLUDED 6 BUCKETS STARTER SYSTEM



2 x 3/4 Elbow Connectors



1 x 25' Length Tubing

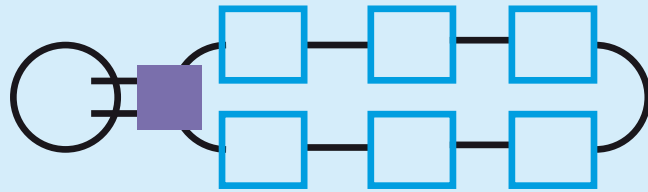


**1 x AirCube Poptank Collapsible  
Reservoir 25 Gallon**  
(Optional: 60 Gallon and 105 Gallon Reservoir Upgrade)

## SYSTEM EXPANDABILITY OPTIONS:

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### 6-Bucket System

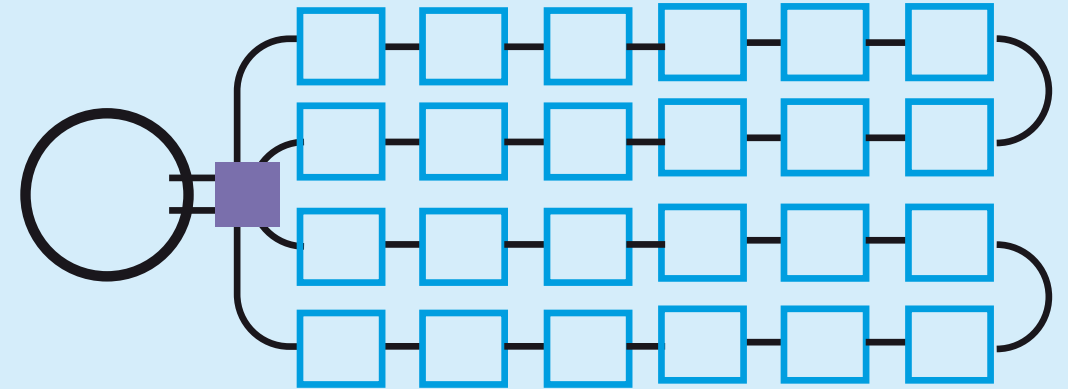


25 Gallon Reservoir

## SYSTEM EXPANDABILITY OPTIONS:

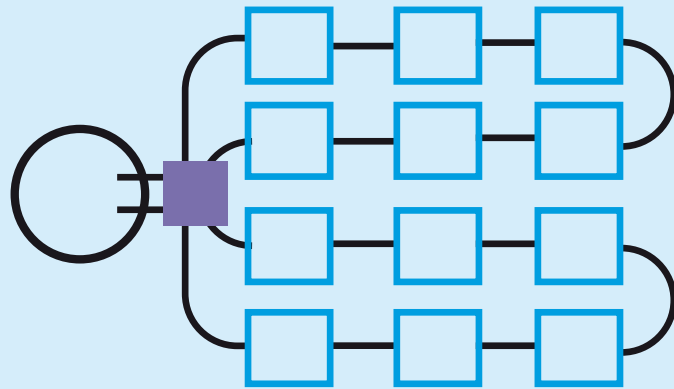
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### 24-Bucket System



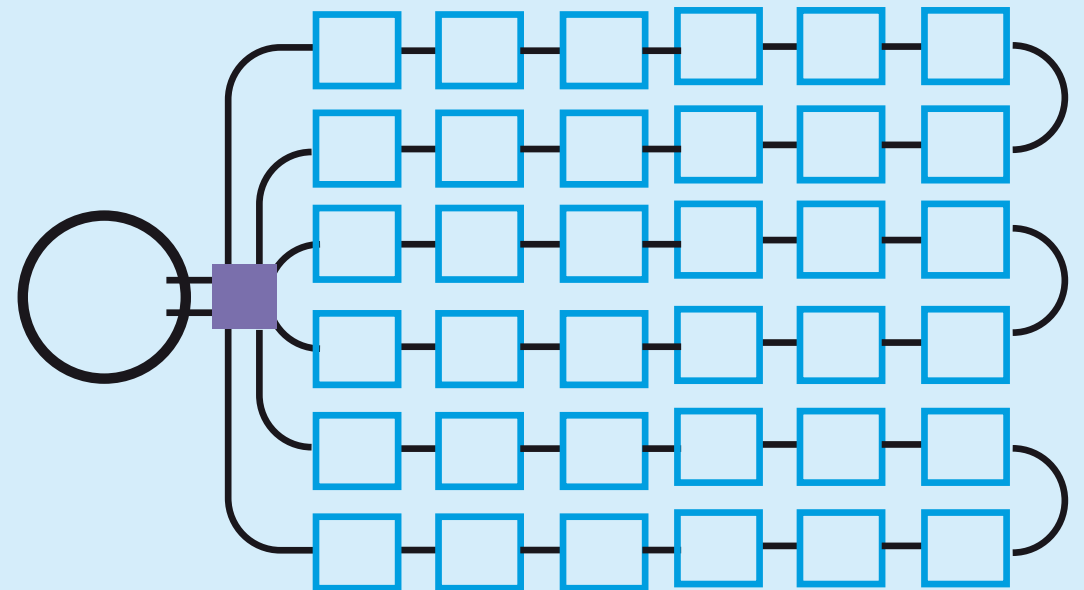
105 Gallon Reservoir

### 12-Bucket System



60 Gallon Reservoir

### 36-Bucket System



105 Gallon Reservoir

## SETTING UP THE GROW SYSTEM

### Step 1: Set up Reservoir



Place the Brain Controller in front of the reservoir with a timer facing away from the reservoir.

Measure and cut tubing to reach from the top of the Brain Controller to the bottom of the inside of the reservoir.



Assign a water pump as "Fill Pump", and place it at the bottom of the reservoir. Connect one end of the tubing to the Fill Pump.



Use the Tubing Puncture Tool to make a small hole in the tubing inside of the reservoir near the top. Insert the Vacuum



Break Barbed Elbow into the hole with the valve facing downward to prevent water from siphoning.



Plug the Fill Pump into the outlet on the side of the Brain Controller labeled "Fill Pump."

# AirCube

### Step 2: Set up Brain Controller



There are 2 upper water level float valves that are on an adjustable mount so the Brain Controller can be used with different size pots. Adjust float valves to preferred level. Ensure that the float valve does not exceed the height of the top of any buckets.



Insert grommets into the 6 holes on the bottom of the Brain Controller.



Insert 2 straight connectors into the front 2 grommets on the bottom of the Brain Controller. Make sure they are inserted all the way into the grommet. Insert 4 Stoppers into the rear 4 grommets. These can be removed to add additional buckets.



Insert grommets into the holes on the Brain Controller lid.



Insert straight connectors into the grommets on the Brain Controller lid. [Change to insert connectors in both holes]

## Step 3: Set up Buckets



Place one water pump, " Drain Pump," on the inside bottom of the Brain Controller.

Measure, cut, and connect tubing to attach the Drain Pump to the straight connector under the Brain Controller lid. Ensure that the tubing has sufficient slack to allow Drain Pump to sit at the bottom of the Brain Controller



Plug Drain Pump into the outlet on the side of the Brain Controller labeled "Drain Pump."



Plug the tubing connected to the Fill Pump, in step 1, to the straight connector not connected to the Drain Pump, on the top of the Brain Controller lid.



Measure and cut tubing to reach from the straight connector on the Brain Controller lid to reach the bottom inside of the reservoir. Attach tubing to the straight connector on the Brain Controller lid, the one that is attached to the Drain Pump, and place the other end of the tubing into the bottom of the reservoir.



Insert grommets into the bottom of each bucket.



Insert T Connectors into the grommets on the bottom of each bucket.

Set up your bucket configuration.

Cut the tubing into 6 x 2-ft pieces and a 1 x 3-ft piece.



Connect buckets to one another using the tubing. It is recommended to create a complete loop, with the 3-ft tubing as the connector to the row ends. However, if your bucket configuration does not allow for a full loop the 90 degree Elbow Connectors can be used for each row end.



Connect the tubing ends to the first 2 straight connectors on the side of the Brain Controller.

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## Step 4. Configure Timer on Brain Controller

There are 2 settings on the Brain Controller Timer- Automatic Watering and Manual Watetring.

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### Automatic Watering

Automatic Watering is the preferred setting for most growers. Each pin equals 15 minutes of watering time.

Turn the adjustable clock to set the current time.

Determine how many 15 minute intervals you want to have the water fill the buckets.

Push the white pins outwards for periods which you would like the water to fill.

Outward pins are for fill cycles while inward pins are for drain cycles.

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### Manual Watering

The red switch is Manual Watering. Flip the switch up to turn on the Fill Pump. It will fill until it reaches the float valve then turns off. Flip the switch down to turn on the Drain Pump and flush out the water.

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## Suggested Watering Schedule

### Factors that affect fill and drain times

<b>Plant Size</b>	The larger your plants, the more times you need to fill and drain them.
<b>Light</b>	Consider the strength, proximity, and duration of light; the stronger, closer and longer the light source, the more times you need to fill and drain your plants.
<b>Temperature</b>	Seasonal variations in temperature affect the speed of water evaporation, adjust the fill and drain times accordingly.
<b>Humidity</b>	Fill and drain your plants more often when the air is drier.
<b>Grow Medium</b>	Several varieties of grow medium can be used in the grow system, however, water and retention rates may vary.
<b>Size of System</b>	The larger and deeper the buckets, the longer it takes to fill and drain, therefore, the less often you have to fill and drain.
<b>Type of Plants</b>	Some plants need to be watered more often than others, learn about your plants to suit their watering preference. If using a variety of plants, adjust the fill and drain times to suit the best for all the plants.

The following are suggested watering times and meant to be used as a starting point. It is recommended that you monitor your plants to determine the optimum watering times for your grow.

Clay Pebbles drain out quickly so you will need to fill and drain your system 4 to 8 times a day. About every 2 to 4 hours.

Rockwool holds moisture efficiently so you will only need to fill and drain your system 1 to 5 times a day.

Coconut Coir retains water moderately so you will need to fill and drain your system 3 to 5 times a day. About every 3 to 5 hours.

Soil is not recommended due to its high water retention rate, if preferred, fill and drain your system once every couple of days

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### How to tell if you have your flood intervals right?

If between flood cycles, you see that your plants are wilting, you need to increase the frequency of your watering cycles.

Monitor your growing medium for signs of drying out or overly wet conditions. If you see that your grow medium is still very wet right before the next watering cycle, you are watering your plants too often. On the other hand, if between watering cycles, your grow medium is extremely dry, you need to water you plants more frequently.

If your plants appear droopy between watering cycles, but noticeably 'perk up' immediately after a watering cycle, you will need to increase the frequency of your watering.

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## Additional Information

1. DO NOT remove fabric pots during the "Fill" cycle, as flooding will occur.
2. DO NOT fill fabric pots with grow medium or add plants while the fabric pot is inside the grow bucket. Grow medium may spill into buckets and clog tubing.
3. DO NOT attempt to service the Brain Controller, there are no serviceable parts. If the Brain Controller is not working properly, call toll free at (888) 621-0062.
4. DO NOT top off water into the reservoir during the fill cycle. Overflow will occur after the water is pumped back during the drain cycle.
5. Using a small amount of soap or vegetable oil will ease tubing and grommet insertions.
6. Set up the reservoir, controller, and buckets all on the same flat surface.
7. Always place fabric pots with plants into grow buckets to prevent spilling of medium into buckets.
8. Manually soak each pot to prevent floating during the first fill cycle.
9. Make sure to check your power source for proper voltage prior to plugging in your Brain Controller.
10. Make sure all tubing is securely connected to connector tees and elbows past the barbs to prevent leaks.
11. Allow the pumps to release air built up prior to using the first time.
12. Tie cords inside the Brain Controller to prevent blocking of sensors.
13. Drain and flush system every 2 weeks for best results.
14. Change the nutrient solution in the reservoir every 7-10 days.
15. Check for obstructions in tubing if buckets are not filling all the way.

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## Frequently Asked Questions:

- Question: How long should the system stay filled?  
Answer: Allow just enough time for the buckets to fill completely before draining.
- Question: When should I fill the reservoir?  
Answer: Top off the reservoir as much as possible. The nutrients will become too concentrated if the water level falls below . Wait 30 minutes after the latest drain cycle to fill the reservoir. Overflow can occur if you fill the reservoir during the drain cycle.
- Question: When should I add nutrients?  
Answer: Add nutrients every time you fill the reservoir.

- Question: Should I check and adjust the pH level?  
Answer: Check the pH level every day. The pH should stay close to 6.3.
- Question: Should I drain and flush the system?  
Answer: Yes you should drain the system and replace the nutrients every 2 weeks. Do this by filling the reservoir half way with water, fill the buckets, then drain the water back out and discard the water in the reservoir.
- Question: Do I need a larger Brain Controller if I add more buckets?  
Answer: No the same Brain Controller can be used for up to 36 buckets.
- Question: Can I add more than 36 buckets?  
Answer: Yes but it is not recommended. It will take too long to fill and drain the buckets. The longer the plants are submerged, the less oxygen the roots get which slows down the plant's growth. Run an additional Brain Controller if you need to add more than 36 buckets.
- Question: What size plants can I grow?  
Answer: Without a support system up to 5 feet is the limit. A trellis will increase the size minimum indefinitely.
- Question: Can I grow different types of plants in the same system?  
Answer: Yes but you may have to adjust the watering times to reach a compromise to suit all the different types of plants.