

JUST VERTICAL USER MANUAL

# The ECO Living Green Wall



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[WWW.JUSTVERTICAL.COM](http://WWW.JUSTVERTICAL.COM)

# The Ultimate Grower's Guide

Welcome to the food revolution! You are embarking on a journey towards a healthier and happier home. We are so glad that you could join us.

The important changes the world needs only happen because of people like you. This guide has everything you need to successfully grow with the ECO Living Green Wall.

We believe in our product and have backed it with a 2-year warranty. For your safety, read and understand all instructions prior to installing or turning on your garden. Failure to follow setup instructions or maintenance could lead to damages, injury, or fire.

If there are any missing parts, send us an email at [support@justvertical.com](mailto:support@justvertical.com) and let us know which parts are missing so we can get you growing. We are always available if you have any questions, or concerns. You can also access our live chat on the web at: [www.justvertical.com](http://www.justvertical.com).



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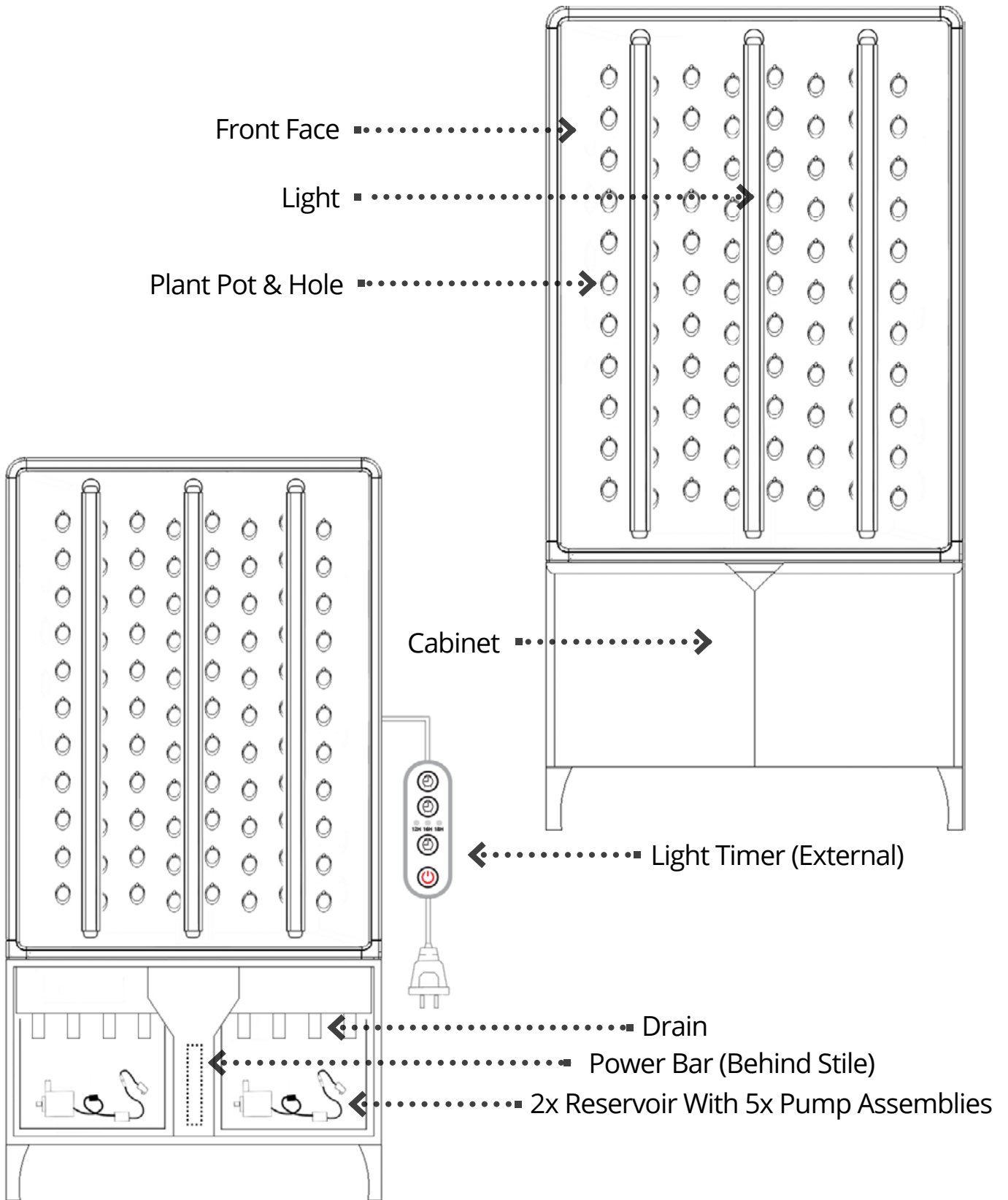
41 - PH Levels

# Getting Started

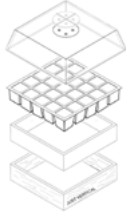
Setting up the ECO Living Green Wall is very simple and, thanks to a little bit of work on our end, you'll need just a few minutes once it arrives to get growing. We've kept it quick for you because you have better things to do (like tasting our variety of different kinds of kale!).



# Get To Know Your ECO Living Green Wall

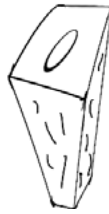


# What's Included With Your ECO Wall



x3

Seed Starting Kit



x420

Peat Moss Grow Plugs



x30

Starter Seed Packs



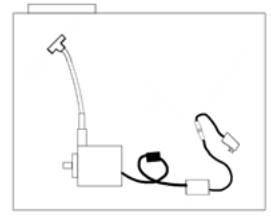
x2

Nutrient Bottles



x1

Wall Mount



x5

Pump Assemblies



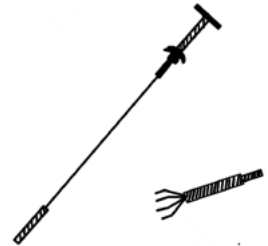
x88

Plant Pots



x1

Power Bar



x1

Drain Clog Remover



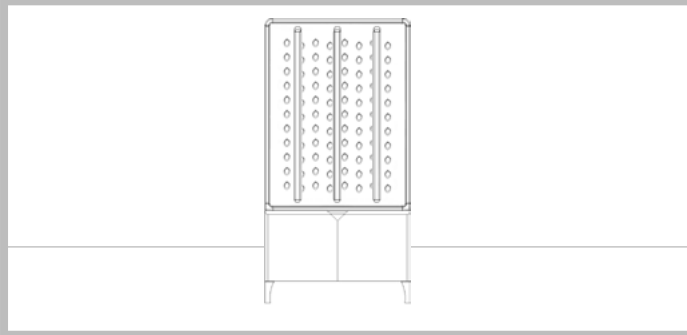
x2

Mechanical Light Timer



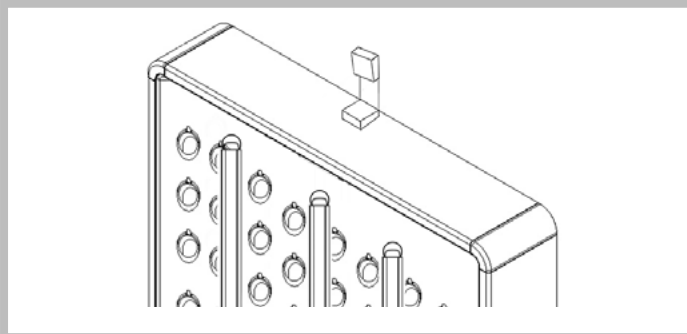


# Mounting Your ECO Wall To The Wall



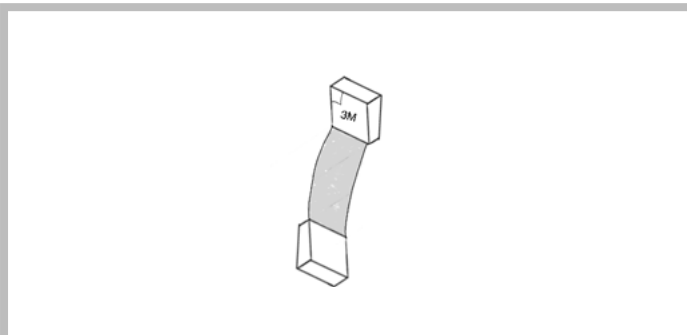
## 1 Find A Wall

Locate a place within your house where you think the Wall will stand out!



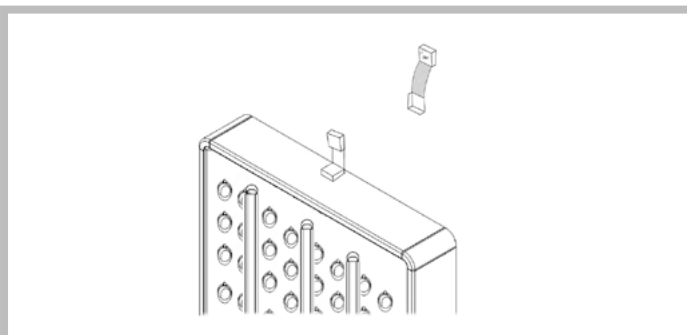
## 2 Attach Mount To Unit

Attach the 3M unit attachment to the top of your garden.



## 3 Attach Mount To Wall

Attach the 3M wall attachment to your desired location on the wall.



## 4 Connect

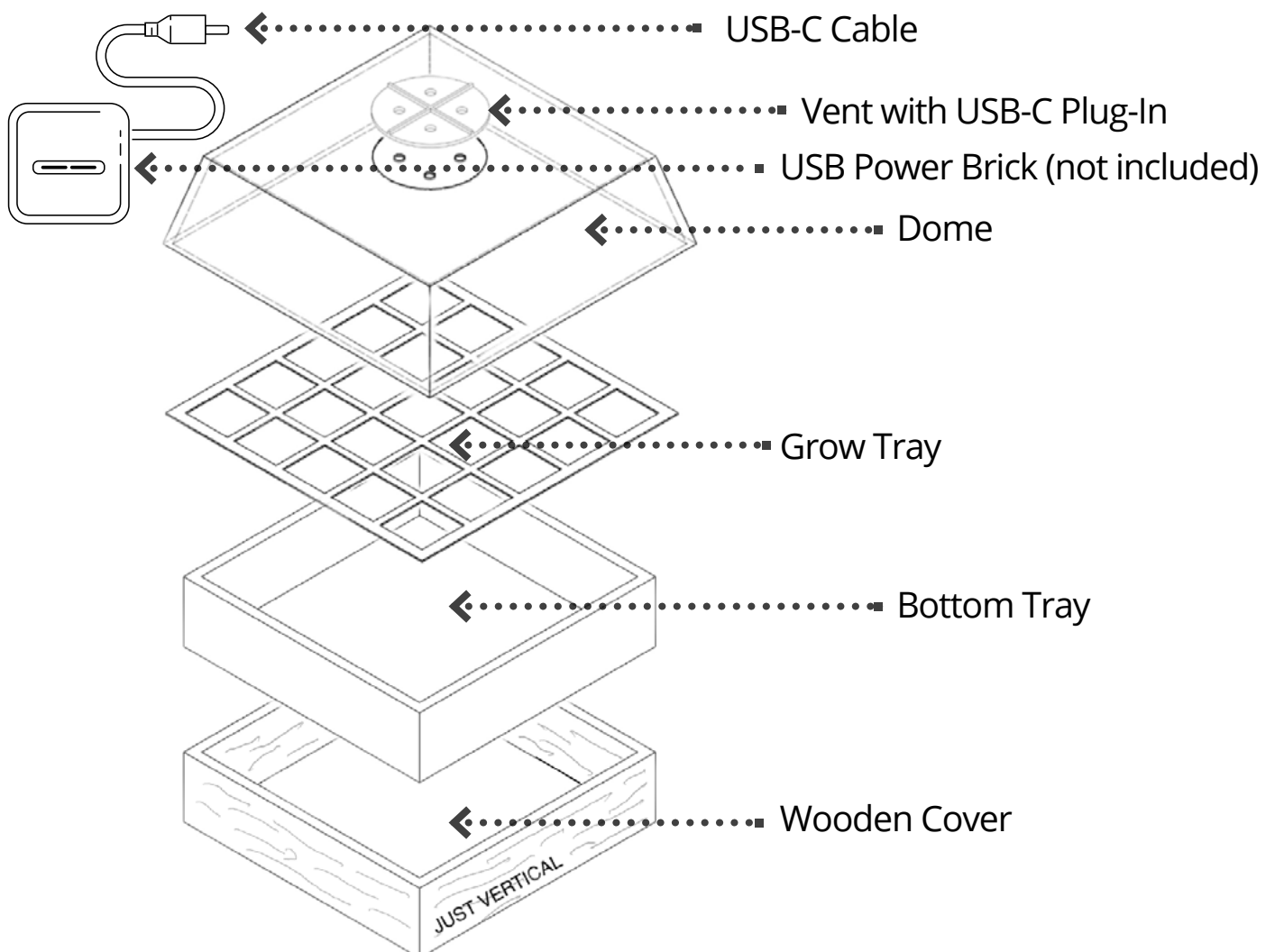
Connect the wall mounts to ensure your garden doesn't move in place.



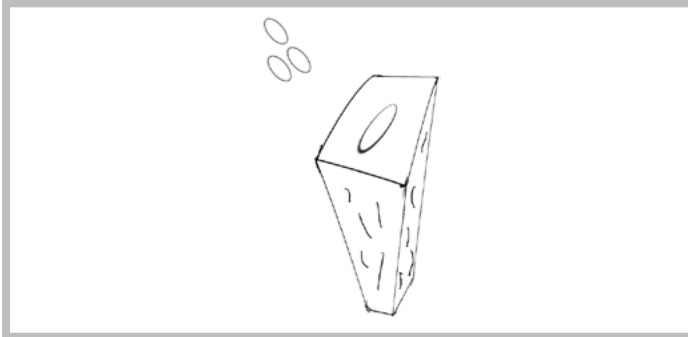
# Planting Seeds

When you order seeds from Just Vertical you are getting the guarantee of seeds that we have tested ourselves. If any of our seeds don't germinate within 21 days, we will provide you a refund on the seeds that don't germinate! Seeds are a living thing and sometimes they just don't germinate, so don't worry if a few don't come out right away. We always recommend you plant a few extra plugs so you can choose the strongest for your garden.

You will use your seed starting kit to start your seeds.

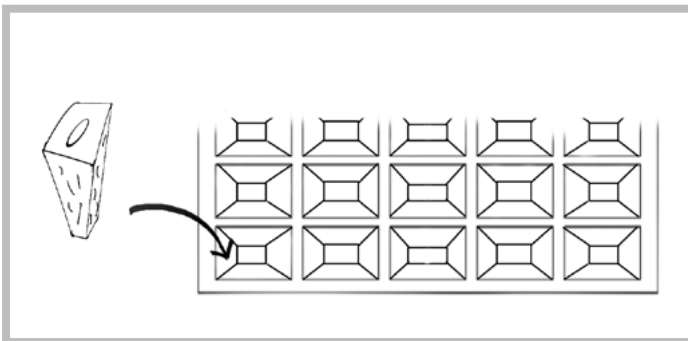


# How To Use Your Seed Starting Kit



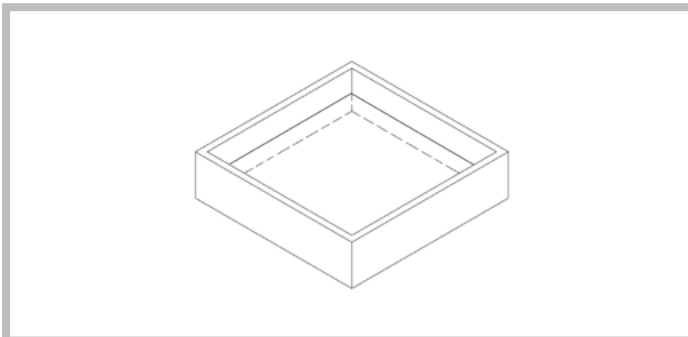
## 1 Insert Seeds

Take 90 peat moss plugs. Place in 1-2 seeds per peat moss plug.



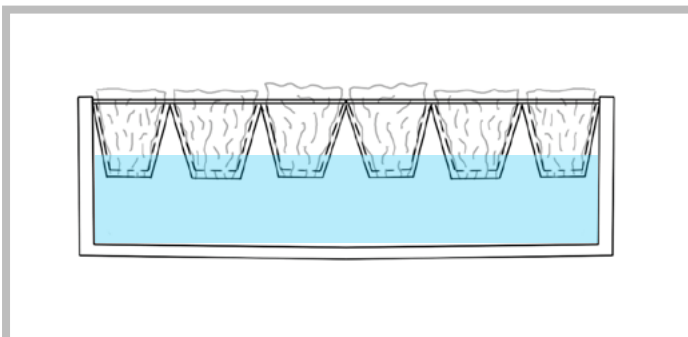
## 2 Place Plugs

Put the peat moss plugs into the black grow trays.



## 3 Fill Tray

Fill bottom tray halfway with cold water.

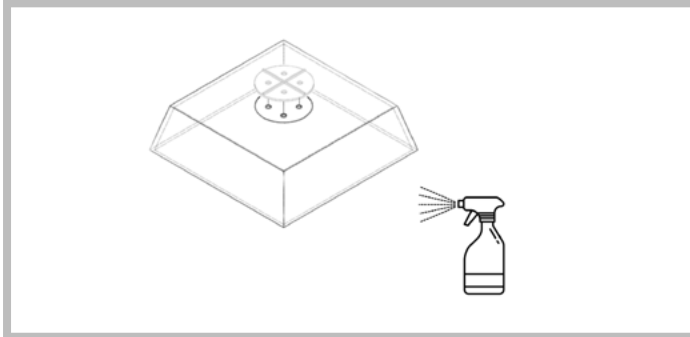


## 4 Insert Grow Tray

Place the black grow tray with the peat moss plugs inserted into the water.

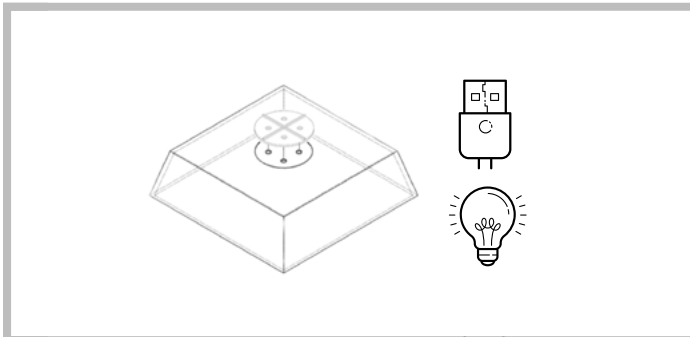


# How To Use Your Seed Starting Kit (continued)



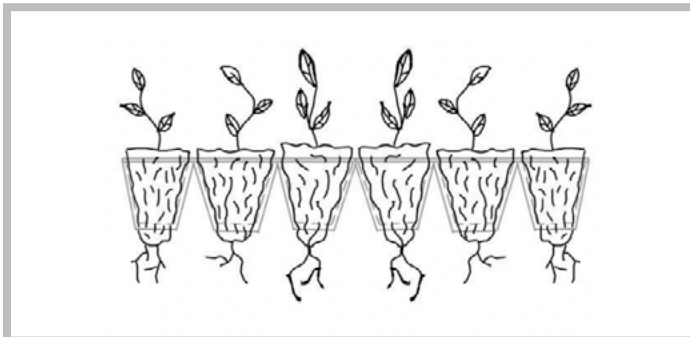
## 5 Spray Dome

Spray the inside of the dome with warm water and place on top. Keep vents open.



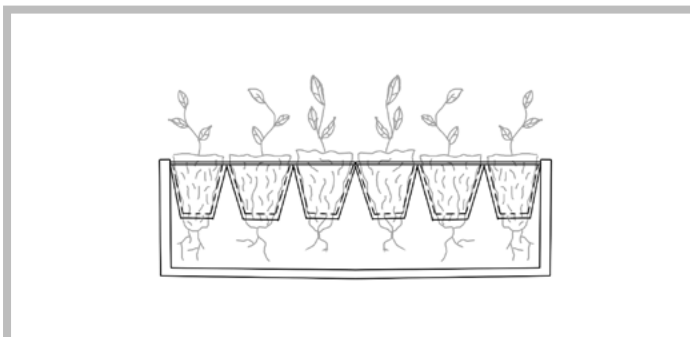
## 6 Turn On The Light

Insert smaller end of USB-C cord onto top of dome and larger end into a USB Power Brick. Plug into wall and keep on 24/7.



## 7 Wait & Grow

Soak plugs with water for 15 minutes each day. Move plugs around tray regularly to avoid plants leaning towards the light.



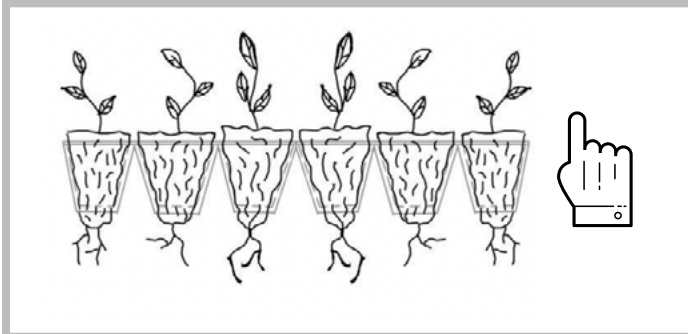
## 8 Start Transplanting

Once plants are touching the top of the dome, they are ready to be transplanted.





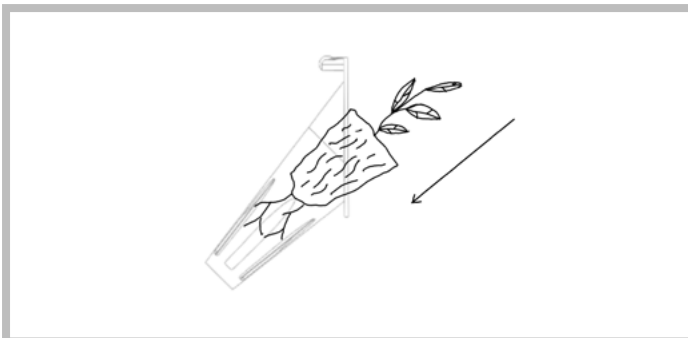
# How To Use Your Seed Starting Kit (continued)



9

## Remove Seedlings

Push out seedlings from bottom opening in the grow grid with a sharp object (like a chopstick or pencil).



10

## Place Into Unit

Place seedlings into the plant pot in your garden.

TIP

## How To Grow Great Seedlings

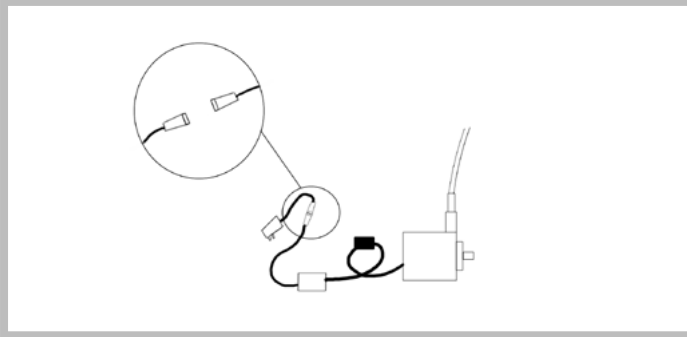
Any new plant is looking for three things: light, water, and nutrients. To give your seedlings the best chance to grow, you need to help them achieve the first two things in particular.

To optimize the amount of light each plant gets before you transplant, ensure that you rotate your seedlings with the grow tray so they don't lean towards the light.

To ensure your plants don't get too much water (and, as a result, grow leggy), remove any excess water in your grow tray once the peat moss plugs are soaked.

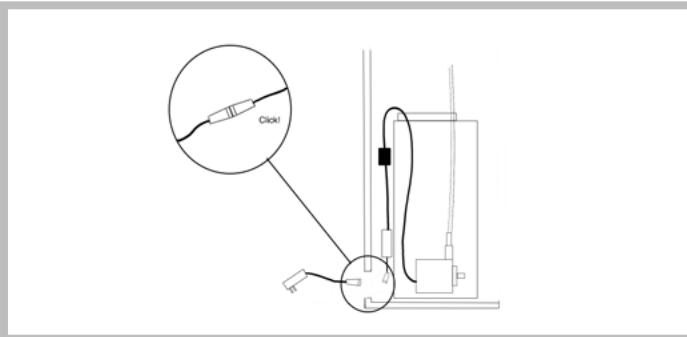


# Pump Setup & Preparing Your Reservoir



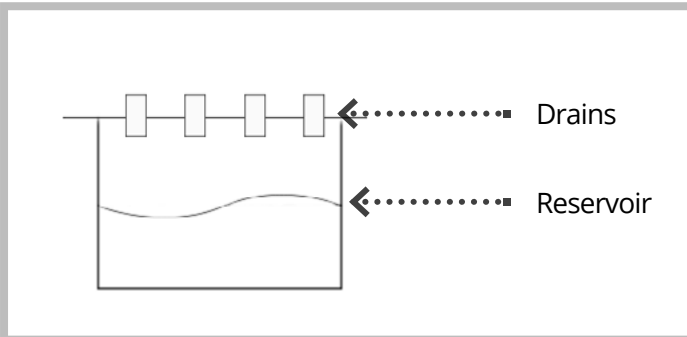
## 1 Locate Cords

Locate the quick connect cords. These will be found taped outside the cabinet.



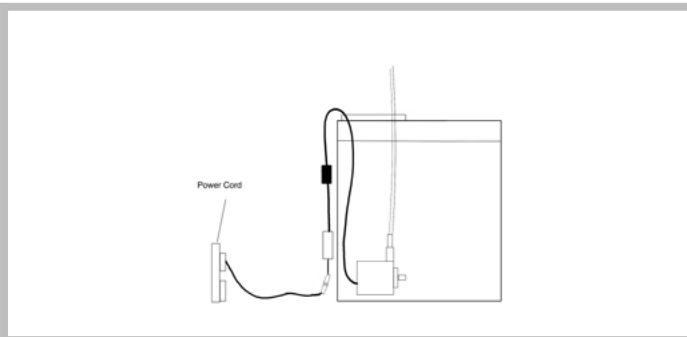
## 2 Connect Cords

Connect the quick connect cords. These should immediately snap into place.



## 3 Reservoir Check

Make sure your reservoir is placed inside under the drain.



## 4 Plug In Pump

Locate an outlet or power bar. Plug in your pump. The pump will run automatically when the entire unit is powered on.

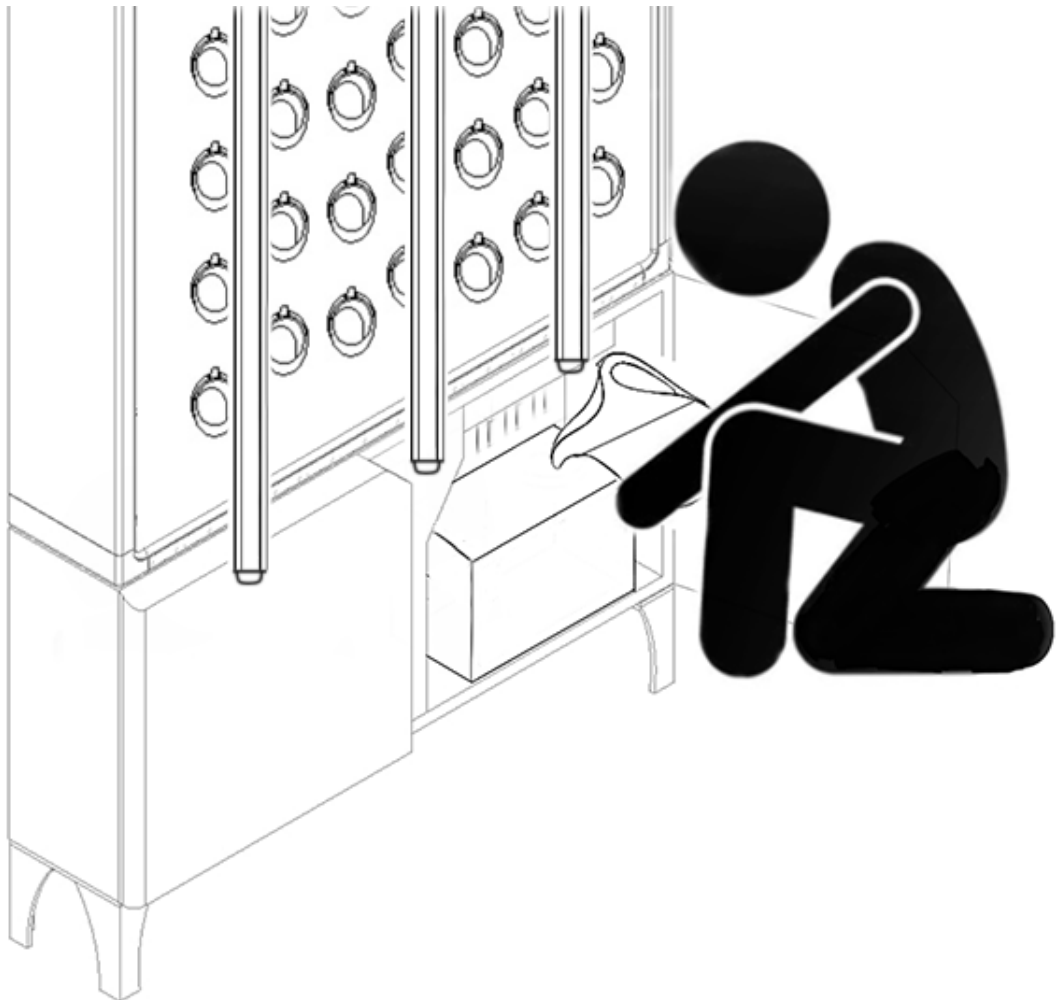


# Filling Your Reservoir & Reservoir Levels

## Filling Your Reservoir For The First Time

The reservoir is designed to stay in your unit. Avoid removing the reservoir from the cabinet when filling it with fresh water.

To fill the reservoir, simply transfer water into the tank through the open top of the reservoir while it's in the unit. The simplest way to fill up your reservoir is with a watering can.



# Reservoir Levels



## 1 Full Reservoir

Your reservoir is full. This tank of water will last up to 2 weeks, dependent on plant size. Check water levels weekly.



## 2 Half-Full Reservoir

Half-full reservoir. This tank of water will last up to 1 week, dependent on plant size.



## 3 Empty Reservoir

Reservoir is empty. This tank of water needs to be refilled to the original fill line.

### TIP

## How Long Does Your Pump Run?

Once you turn your pump on, you'll notice the pump runs automatically. Our pumps are on an automatic timer that runs for 1 minute every 30 minutes.





# Nutrients

Using nutrients is an easy process. With a fresh reservoir with new water in it, add 25mL of Vega A and Vega B to each reservoir. If you have previously added nutrients to the same water within your reservoir, add 15mL of Vega A and Vega B to top up the reservoir.

## Adding Nutrients



1

### New Tank Of Water

On every new tank of water, add 25mL of Vega A and 25mL of Vega B nutrients.



2

### Used Tank Of Water

After every 2 weeks inside the Wall, add 15mL of Vega A and 15mL of Vega B.

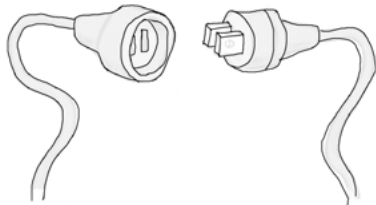
TIP

## Growing Flowering Plants?

If you are growing flowering plants such as tomatoes or strawberries, once the flowers start to bloom, you will start with a fresh reservoir and add 30ml of Flores A and 30ml of Flores B. You will then add 15ml of Flores A and 15ml of Flores B every two weeks.



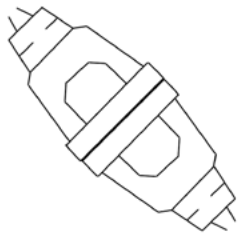
# Turning On Your ECO Wall



1

## Find A Power Outlet

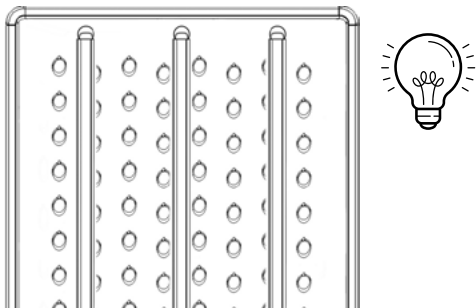
Find a standard power outlet to plug in your power bar.



2

## Connect Cords

Connect the pump cord and light cords to the plugged-in power bar.



3

## Power On

Once the cords are connected, the power is now connected.

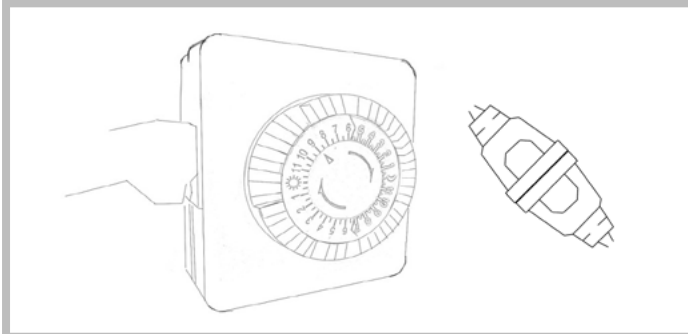
### FUN FACT

## Power Supply

To operate, the ECO Living Green Wall can use any standard 120-volt, 3 prong electrical outlet. The Wall uses \$4.27 CAD a month in electricity. This equates to 0.104 kW / per hour.

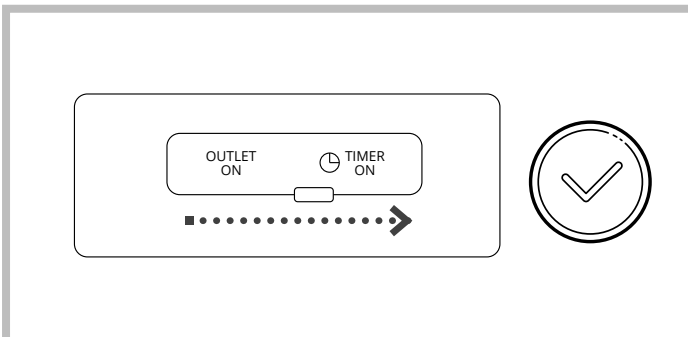


# Setting Your Mechanical Timer For Lights



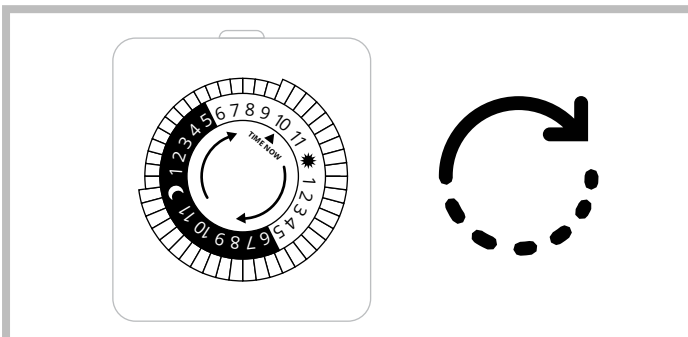
## 1 Power

Plug the power cord from your garden into the timer and plug the timer plugged into the power bar provided.



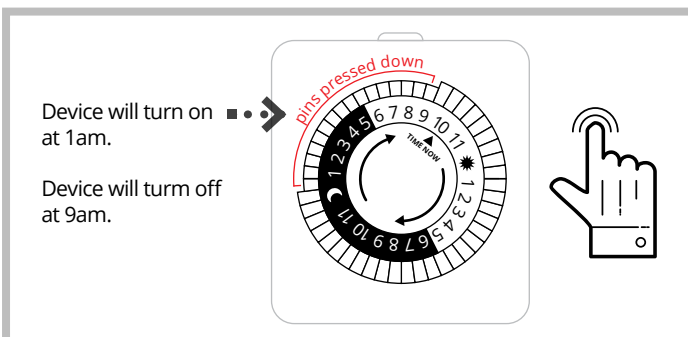
## 2 Set Timer Setting

Set the timer setting switch on the side of the timer to 'Timer ON'.



## 3 Set The Time

Rotate the main timer dial clockwise, aligning the 'Time Now' pointer with the current time.



## 4 Set Light Cycle

Push the timer pins down for when you'd like the light to be on. We recommend 16 hrs on (pins down), 8 hrs off (pins up).



# Maintenance

Maintaining your ECO Living Green Wall is extremely important. Within this section of our guide, you'll find all the tasks you need to complete throughout your growth lifecycle. With some (very minimal) easy-work, your garden will be happy, bright, and full of life across its entire growing journey.





# 8 Week Maintenance Schedule

Complete each maintenance task at the frequency stated below to ensure your unit operates at peak performance and to maximize plant health and growth. The cycle repeats every 8 weeks. Browse the following pages to find instructions on how to complete each task specifically. After every 6 months of growing, please clean the inside of your garden with our Hydrogen Peroxide Kit. Please consult the instructions in the Troubleshooting section.



GROWING RESOURCE

## Maintenance Calendar

Week #	1	2	3	4	5	6	7	8
Maintain Plants	■	■	■	■	■	■	■	■
Check Reservoir	■	■	■	■	■	■	■	■
Check & Trim Roots	■	■	■	■	■	■	■	■
Add Nutrients		■		■		■		■
Clean Reservoir								■



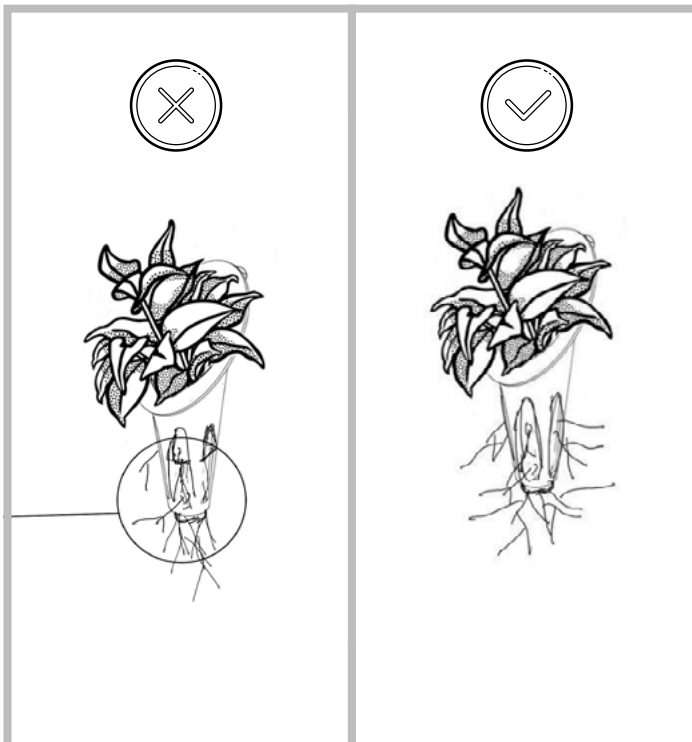
# Maintain Plants

## 1 Checking For Dying Plants

It is common for leaves on plants to die as the plant continues to grow within your garden. Each week, search and pick off any yellowing leaves from your plants.

## 2 Harvesting

Harvesting is essential for your plants' growth. Harvest consistently when your plants are ready to eat. You can find more information about harvesting in our section below titled 'Harvesting' on Page 29.



## 3 Plug Positioning

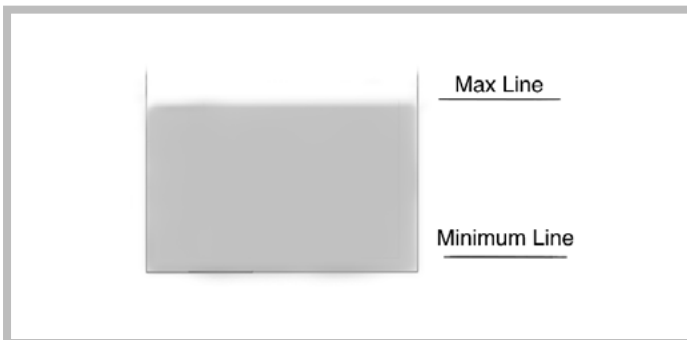
Ensuring your plants are positioned correctly in the plant pots can make the difference between small and large growth.

Make sure all the peat moss plugs are pushed all the way down into the plant pot, as shown in the images to the left.



# Checking The Reservoir

Check your water levels and top up on a weekly basis or as needed. Only add nutrients every 2 weeks (as indicated in the nutrients section of the manual) or when you fill your tank up from empty.



1

## Full Reservoir

Your reservoir is full. This tank of water will last up to 2 weeks, dependent on plant size. Check water levels weekly.



2

## Half-Full Reservoir

Half-full reservoir. This tank of water will last up to 1 week, dependent on plant size.



3

## Empty Reservoir

Reservoir is empty. This tank of water needs to be refilled to the original fill line.



# Adding Nutrients

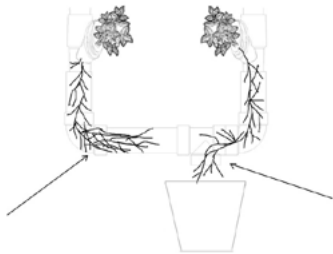
If you have a fresh reservoir with new water in it, add 25mL of Vega A and Vega B to each reservoir. If you have previously added nutrients to the same water within your reservoir, add 15mL of Vega A and Vega B to top up the reservoir.



# Trimming Roots

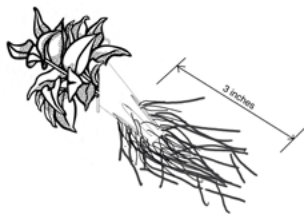
Trimming the roots in your garden is one of the most important tasks you can do. Once you get the hang of removing the plants from their plant sites, the task will only take you about 5 minutes each week.

By trimming the roots of all the plants, it allows proper water flow throughout the unit and reduces any chances of leaks.



## 1 Check Your Garden

Trim roots once they get larger than 3 inches to ensure the roots don't grow into the drain.



## 2 Check Your Plants

Ensure that you check your roots weekly. Each time the roots grow longer than 3", cut your roots back.



## 3 Trim The Sides

Remove all the roots at the sides of the pots, ideally all the way to the surface of the plant pots.



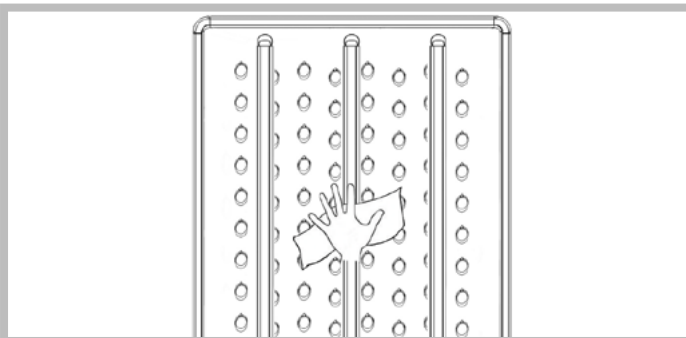


# Cleaning The Unit



## 1 Reservoir

Wipe off any accumulation of debris or salt buildup on the inside of the reservoir.



## 2 Front Face

Wipe off any debris, splashed water, or nutrient runoff weekly to maintain the visual appeal of your unit.

### TIP

## Salt Stains

If you notice there are reoccurring salt stains on the front face of your unit, check the roots of the plants. If the roots are longer than 3 inches, they will cause a small leak in your unit.



# Harvesting

Now the fun begins. Harvesting is one of the most gratifying and fulfilling activities of operating your indoor garden. Read on to find handy tips on how to harvest and some common tips on harvesting some more popular varieties of plants.





# Getting Started With Harvesting

When harvesting there are three rules to follow:

## 1 Harvest Volume

Do not take more than 1/3 of the plant at once as it can shock and kill the plant. Be careful when harvesting to not harvest too much.

## 2 Plant Stem Behaviour

If the main stem is going 'woody' then the plant is bolting and it is time to harvest the plant in full and replace it with a new plant.

## 3 Plant Flowering Behaviour

If your plant is growing flowers, the plant has come to the end of its life, so it is time to harvest and replace it with a new plant.

TIP

## How Much Can I Grow?

You can expect 35 lbs of food per month in the ECO Living Green Wall after the first month of growth. That equals to approximately 150 servings in the Wall.



# Harvesting Tips For Specific Plants

## 1 Arugula

Ready to harvest 3-4 weeks after germination. You can harvest continually by taking only a few leaves at a time from the outside, or taking the whole plant at once.

## 2 Lettuce

Ready to harvest 3-4 weeks after germination. You can harvest continually by taking only a few leaves at a time from the outside, or taking the whole plant at once.

## 3 Kale

Ready to harvest 3-4 weeks after germination. Harvest by taking individual leaves, starting with a particular focus on taking the leaves closer to the base of the plant.

## 4 Parsley

Ready to harvest 2-3 weeks after germination. Should be regularly pruned as it grows. To harvest cut the stalks from outside in and as close to the base of the plant.



# Harvesting Tips For Specific Plants (continued)

5

## Basil

Ready to harvest 2-3 weeks after germination. Harvested many times throughout its life and responds well to being trimmed. Cut basil from the top canopy of the plant to encourage fuller growth.

6

## Mint

Ready to harvest 2-3 weeks after germination. Tends to get fresher the more it is harvested. Continually harvest once it is 3 or more inches long. Trim it from the base making sure to leave it about 2 inches of growth.

7

## Cilantro

(also known as coriander) Ready to harvest when it is 6 inches tall or after 2-3 weeks after germination. To harvest just pick off what you need or cut off a bunch at once. Enjoy the fresh tacos!

9

## Dill

Ready to harvest 2-3 weeks after germination. Takes around 8 weeks to fully develop. should be regularly pruned as it grows. To harvest cut the stalks from the outside in and as close to the base of the plant.



# Troubleshooting - Hardware

Despite our best efforts, sometimes things can still go wrong with your unit. Don't fret. Here are some frequently used troubleshooting steps that will help you get your unit back to running in no time.

If you find that our troubleshooting section will not resolve your issue, you can reach out to [support@justvertical.com](mailto:support@justvertical.com) to get your specific issues resolved.



# Water Not Being Delivered To Plants

Follow below to rectify any issues related to water not being delivered to plants.

## 1 Pump Position

Is the water in the reservoir covering the pump while it's running?

## 2 Pump Connection

Is the pump plugged into the power bar or an outlet?

## 3 Quick Connect Connection

Are the black quick connect power cables for the pump and its timer properly connected to each other?

## 4 Power

Check there is power to the outlet in your home.

## 5 Reset

Try turning the system off for 5 minutes and then turning it back on.

## 6 Supply Line

Check that the supply line is connected to the pump.



# Leaking From The Pots Onto Front Face

This can be noticed by salt stains (white streaks) on the front face of the unit. This is caused by two main things:

- Large plants
- Plants with a large root mass

To solve this problem, ensure you are regularly trimming the roots on your plants. Trimming your roots on a regular basis not only avoids the garden from leaking, but also helps you grow healthier plants with more nutritional content.

Learn more about trimming your roots in the 'Maintenance' section of this manual.



## TIP

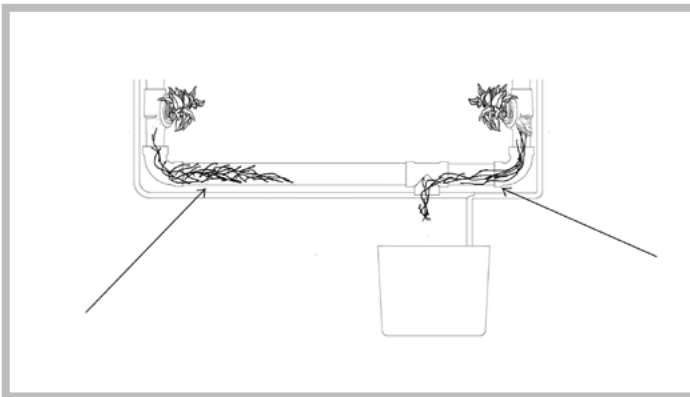
### Rapunzel Roots

Longer roots as well as “rapunzel-like” roots will cause a leak in your ECO Living Green Wall. Make sure you maintain the roots in the garden.



# Leaking From The Bottom Plant Site

This issue is caused by a very large root mass in the bottom plant sites of the unit, or any debris that may have found its way into the unit. When roots or debris block water flow back into the drain, the water will be forced out from the bottom plant pot. If after trimming the roots the drain is still blocked, proceed to the blockage in the supply line or drain troubleshooting.



1

## Root Maintenance

Do not allow the roots to grow into the drain. Trim your roots at least once a month. See our section in 'Maintenance' on root trimming.

# Water Is Leaking From An Inside Pipe

On occasion, you may notice water leaking from an unidentified pipe. Follow these steps to rectify the issue.

1

## Supply Line

Check the supply line (clear tubing) is securely in the tee.

2

## Reservoir

Check that the reservoir is directly underneath the black drain pipe.





# Plants Not Receiving Enough Water

The ECO Living Green Wall is designed to water all plants evenly. However, sometimes certain plants can get more water than others. Wondering why? Read on.

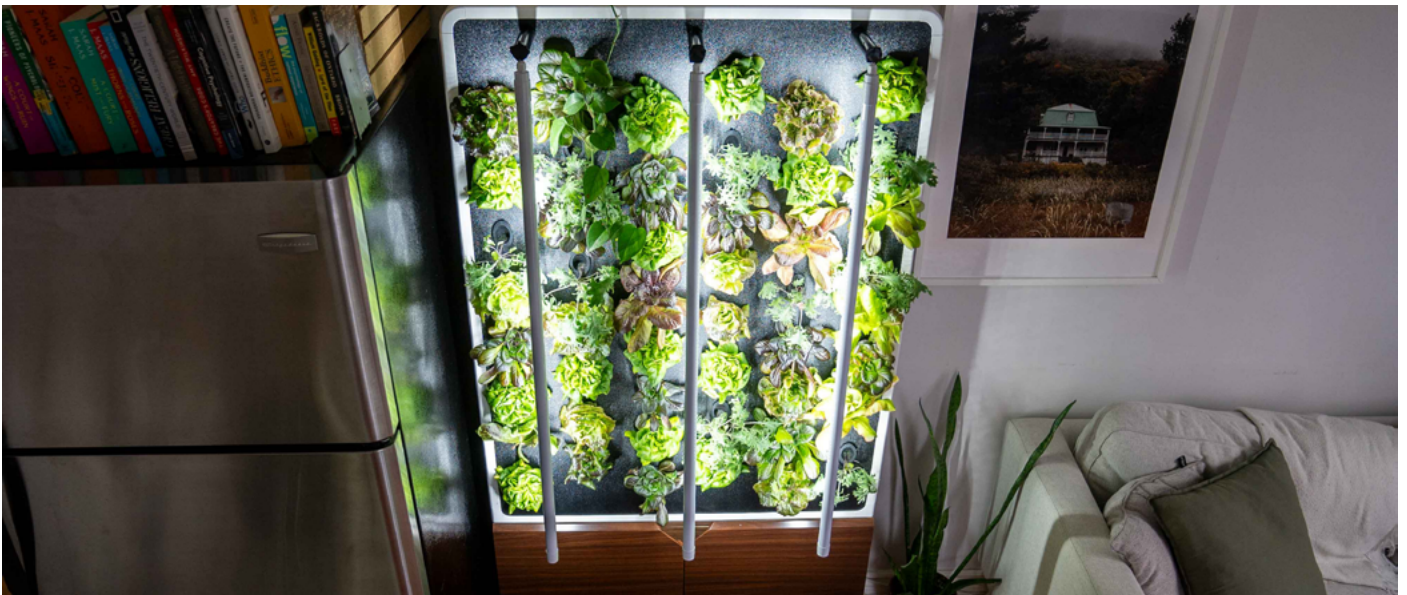
## 1 Timer

The timer is not running as long as it should.

## 2 Supply Line And/Or Drain

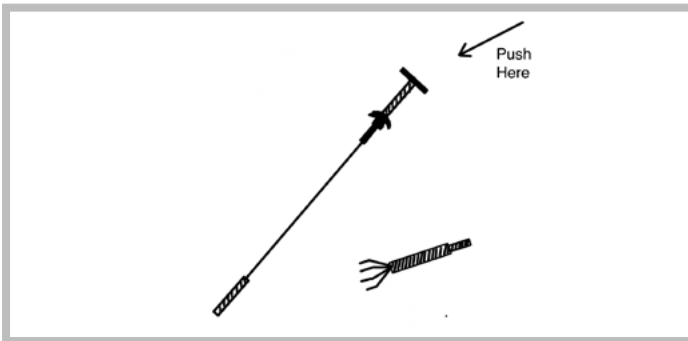
There is a blockage in the supply line or drain.

These issues can easily be resolved. The pump can be manually run by removing the timer box and plugging the pump directly into the power bar. Let the pump run for several minutes and observe whether the plants are now getting enough water in which case the timer box may be defective or there may be a blockage in the drain.



# Blockage In The Supply Line Or Drain

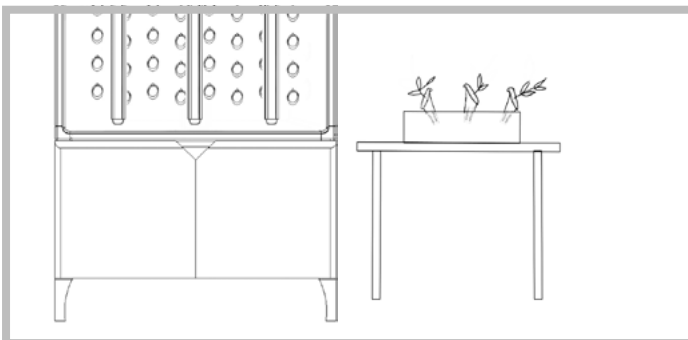
Please note that H<sub>2</sub>O<sub>2</sub> mentioned in Step 5 is sold separately. You can find it on our store here: [H<sub>2</sub>O<sub>2</sub> Cleaner](#)



1

## Quick Grab

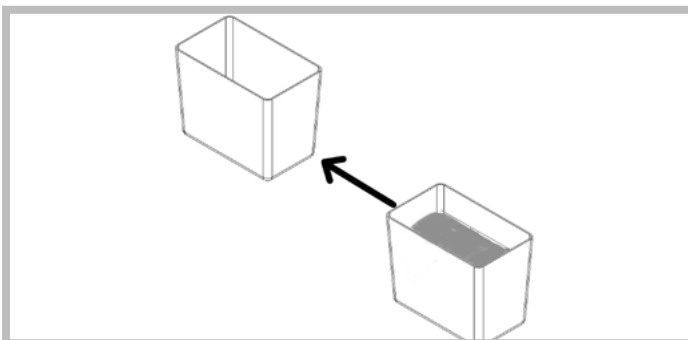
Remove the bottom plant pot and utilize the quick grab tool to grab roots that may be stuck in the drain and other debris.



2

## Plant Removal

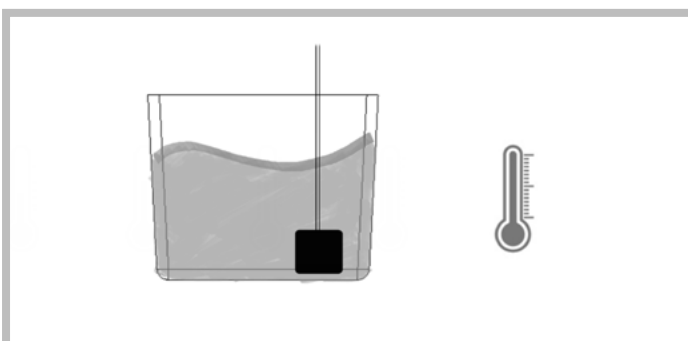
Remove ALL your plants from your unit and place the plants in a container filled with cold water.



3

## Empty Reservoir

Empty the reservoir. You can save the nutrient water in another container for re-use or pour it down the sink.



4

## Refill Reservoir

Fill the now empty reservoir with warm water.

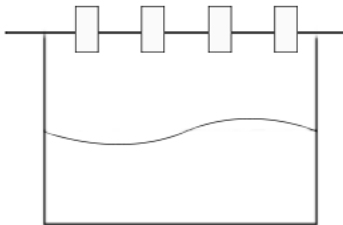


# Blockage In The Supply Line Or Drain (continued)



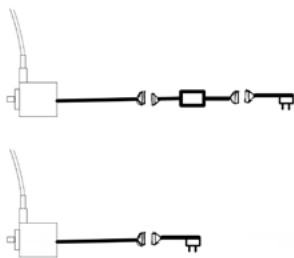
## 5 Hydrogen Peroxide

Add the amount of Hydrogen Peroxide (sold separately) recommended on the bottle to your now filled reservoir.



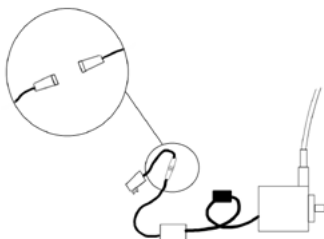
## 6 Re-Insert Reservoir

Make sure the drain is directly above the reservoir to allow your Wall to flush properly.



## 7 Run Pump

Allow the pump to run continuously for 15-20 minutes. To let the pump run, disconnect the black box from the pump.

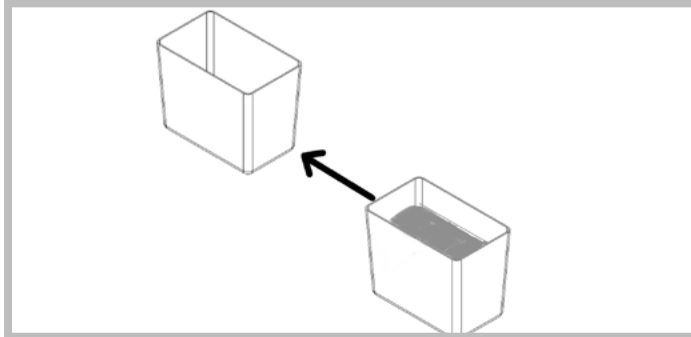


## 8 Pump & Reservoir

Unplug the pump and reconnect the black box. Rinse out reservoir and pump.

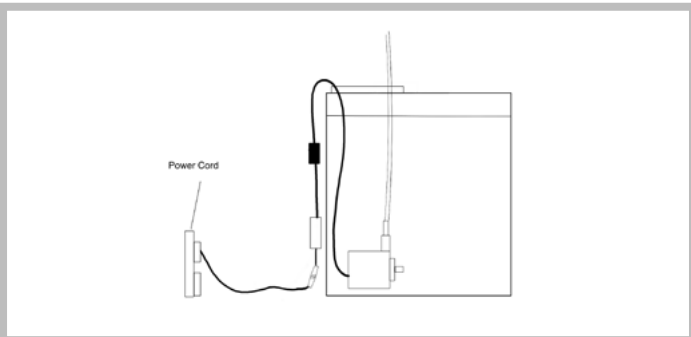


# Blockage In The Supply Line Or Drain (continued)



## 9 Replace Materials

Return the nutrient water back into the reservoir and the plant pots back in the ECO Living Green Wall.



## 10 Completion

Plug the pump back into the power cord and you have now completed the descaling process.



### FUN FACT

## What Is Hydroponics?

By definition, hydroponics means “working with water.” It is the method of growing plants both indoors and outdoors without soil, using mineral nutrient solutions in a water solvent.



# Troubleshooting – Plants

Are your plants growing slower than expected? There could be one or more issues affecting this. First make sure your expectations are reasonable and in line with what plants are capable of (our system is amazing but not a miracle worker).

In the next few pages you'll find the most common issues we find with plant care.





# Nutrient Deficiency/Saturation

Having too high a concentration of nutrients in your reservoir can cause tip burn on your plants. This is exhibited by browning or yellowing of the leaves. It could also cause wilting or weakening of the plant. If a large quantity of nutrients were accidentally added to your reservoir it is recommended that you empty your reservoir and add fresh nutrients.

Nutrient deficiencies can be indicated by poor plant health. Indicators of these could be plant wilting, yellowing of leaves, browning of leaves, etc. Please refer to the nutrient section for correct dosing.



# Temperature

If your plants are exposed to extremely hot or cold air (under heating vent or next to a door in the winter) this could be stunting plant growth.

# Air Flow

If your plants are not getting any air flow this can also stunt plant growth, ensure there is adequate air flow around your plants.

# PH Levels

If you are running your Wall on well water or otherwise irregular water test the pH level of the water source. A pH outside of the normal range could negatively affect your plant growth. Heavy metals in the water can especially can stunt plant growth.

TIP

## Speak To Support

Have you got any specific troubleshooting questions not covered in the manual?

We have a dedicated support team that you can reach to discuss any and every problem you have. Simply email [support@justvertical.com](mailto:support@justvertical.com) to contact our support team.





**Thank You!**  
We look forward to  
growing with you.