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## Assembly and Maintenance Guide

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### Assembly Guide



## Welcome!

Congratulations on purchasing a Nutritower indoor hydroponic garden! This guide is here to help you every step along the way as you start to explore the joys of indoor gardening.

## 02

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## Nutritower Assembly

Welcome to the Nutritower family and the exciting new world of indoor hydroponic gardening!

Contrary to popular belief, you don't need a green thumb to be a good gardener. This guide will help you get the most out of your plants. Once you get your seeds started and transplanted into the Nutritower, you'll find it's easy to maintain, and it won't be long until you are regularly enjoying the nutritious and delicious food you have grown.

Our [YouTube channel](#) offers a fully guided set of instructions. They also offer a wealth of additional videos to help you grow your own food in your tower.

We are all here to help you and we can be reached Monday - Friday, 8am to 5pm EST [800-721-8419](tel:800-721-8419) or [info@nutritower.com](mailto:info@nutritower.com)

You can also ask questions online on our support page and directly from our website [www.nutritower.com](http://www.nutritower.com)



## THESE WARNINGS SHOULD BE STUDIED BEFORE ANY ELECTRICAL CONNECTIONS ARE MADE.

Indoor use only, this product is not designed for outdoor use.

Installation of the Nutritower ideally requires the collaboration of 2 people.

Do not touch any wire or electrical components with wet hands.

**DO NOT PLUG The tower into a GFCI OUTLET (three-prong outlet with a reset button) - It can cause permanent damage to the lighting system.**

Children should not use the Nutritower without adult supervision.

If any smell, noise, or smoke is emitted from the system at any time, immediately unplug and contact customer service at 1-800-721-8419 or email us at: [info@nutritower.com](mailto:info@nutritower.com)

To reduce the risk of water damage, we recommend that the Nutritower be placed on a floor mat.

**ALWAYS UNPLUG the Nutritower before performing any maintenance to avoid the risk of a shock or potential injury.**

Misuse of the Nutritower can result in serious injury.

**DO NOT PULL ON or HANG FROM any part of this product.**

**WARNING – RISK OF INJURY – it is recommended to wear gloves and safety glasses at all times when removing the product from its carton, installing, servicing, or performing maintenance.**

**WARNING – RISK OF ELECTRICAL SHOCK**  
**Disconnect or turn off the power before assembly and servicing.**

Make all electrical and grounded connections in accordance with the National Electrical Code (NEC) and any applicable local code requirements.

**WARNING-RISK OF BURN**  
**Allow lamp/fixture to cool before handling. Do not touch the enclosure or light source.**

# Box Contents

## List of contents box A

- Base Structure
- Top Assembly
- Reservoir
- Pump
- Seedling Starter Kit
- Clay Pellets
- Timers (2)
- Dolly (if ordered)

## List of contents box B

- Central Column
- 32 x White Feeder Pots
- 32 x Netting pot
- Nutrient A + B
- 4 x T5HO Bulbs
- 32 x Retainer Clips
- Roll of Feeder Tube
- 16 x Suspension Cable
- Hardware Kit (8 screws + 2 Allen Keys + Washers)

**\*All replacement parts are available at [nutritower.com](https://nutritower.com)**

# Assembling Your Nutritower

## Part 1: The Top

**\*Before you begin your assembly, lay out all of the parts included in the packaging**

1.1 - Lay the top upside-down on the floor.

1.2 - Rest the column top on the edge of the top. (Figure 1)

**Figure 1:**



**Figure 2:**



1.3 - Attach all the power connectors by colour (blue, yellow, and green) for the lighting system (male pins into female receptor and twist to tighten). (Figure 2)

1.4 - Squeeze the watering tube onto the manifold fitting in the center of the top. The tube must be fully inserted to ensure a tight seal. (Figure 3)

**\*Make sure that all the connectors are hand-tightened as much as possible.**

1.5 - Insert all wiring and tubing into the column. (Figure 3)

1.6 - Raise the column vertically and insert the metal guides on the top into the column.

**\*Be careful not to pinch any of the wires from the top assembly between the top and the column's edge.**

1.7 - Fasten 4 of the included screws to secure the top to the column. (Figure 4)

**\*Hand-tighten the 4 top screws with the Allen key a 1/4 turn. Align the column and tighten all screws.**

**Figure 3:**



**Figure 4:**



## Part 2: Column Assembly

1. Open the removable door on the base and remove all the contents.
2. Rest the bottom of the column on the top of the base.
3. Attach the power cord connector from the column to the connector at the top of the base. Insert the watering tube in the opening at the top of the base. (Figure 5)
4. With a partner, lift the top and column into position with the bottom above the guides on the base.
5. Guide the column onto the support guides on the base.
6. Tighten the 4 support screws to attach the column to the base. (Figure 6)

**\*When attaching the power cord to the lighting power cable inside the base, make sure to check that the connector is tightly fastened - it may have loosened during transport.**

## Leveling the Column

As part of the assembly of your Nutritower, you may need to level the column portion of the tower. Here are the steps to follow if you have a leaning tower:

1. Loosen all four screws that hold the column to the base by a half-turn, or enough that the column can move with a slight resistance against the screws.
2. Level the column. This is made easier with a second person to hold the column straight while you evaluate that it is level from a few feet away.
3. Start by tightening the screws opposite to the direction of the lean until tight.
4. Follow with the opposite side screw and continue until all screws are secured.



Figure 5:



Figure 6:



## Part 3: Light Bulb Installation

3.1 - Insert the waterproof end caps on each extremity off the lamp with one facing up and the other facing down. (Figure 8)

3.2 - Insert the lamp pins into the sockets on the tower at both extremities (top and bottom). The bulb will click into position. (Figure 9)

**\*You should hear the bulbs click into place when properly inserted. Please refer to our [youtube video](#) for more information.**

3.3 - Fasten the waterproof end caps back onto the sockets. (Figure 10)

**\*Be careful to keep the bulb pins in the right position in the tube holders as you tighten the waterproof end caps.**

3.4 - Once all 4 lamps are properly installed, plug in the lead cord for the lights to test that all the lamps turn on.

**\*It is important to make sure the caps are screwed tightly on to prevent water from penetrating into the lighting fixtures.**

**\*If any of the lamps don't light up, start by verifying all of the connection points - The most common culprit is that the lamp isn't inserted far enough into the socket! Please contact customer support if the problem persists.**

Figure 7:



Figure 8:

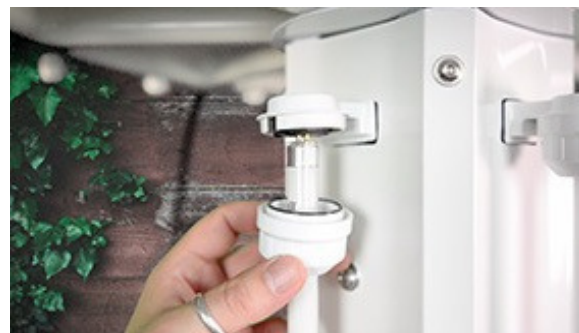


Figure 9:

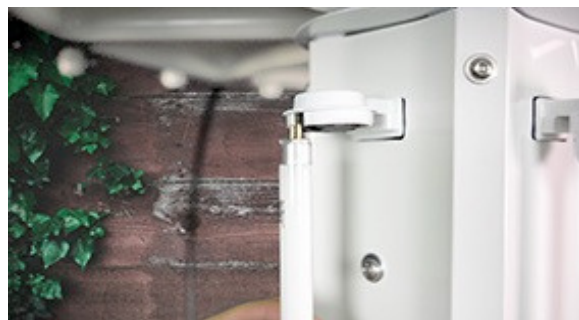


Figure 10:



## Part 4: Hanging the Pots

4.1 - Lay out the 16 suspension cables.

4.2 - Insert the top clinch nut of each cable into the keyholes on the underside of the top housing. (Figure 11)

*\*Make sure that the end with the short span between clinch nuts is at the top! This is the end identified as 'top'*

4.3 - Suspend each pot by inserting the cables into the cable guides and seating them onto the cable clamps. (Figure 12)

4.4 - Place the retention clip on either side of the pot to secure it in place.

Figure 11:

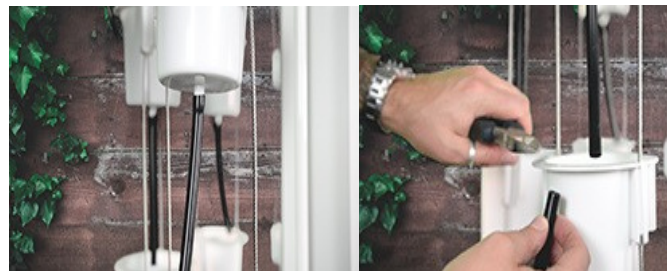


Figure 12:



4.5 - Attach the feeder tubes to the bottom of each pot and cut the length of the tube even with the top of the pot beneath it (a half-inch below the retention clip). (Figure 14, 15)

Figure 14, 15:



4.6 - Attach the feeder tubes to the retention clips on each pot. (Figure 16)

\* Do not pre-cut all the tubes as the length may vary from pot to pot and the bottom row requires a longer length of tubing.

Figure 16:



4.6 - Cut the bottom feeder tubes to approximately 35cm (14 inches) in length and attach the bottom pots.

4.7 - Insert the tubes in the openings on the top of the base. (Figure 17, 18)

**\*If these tubes are cut too long they can cause an airlock and subsequent overflow of the bottom pot.**

Figure 17:



Figure 18:



## Part 5 - Connecting the Pump

5.1 - Connect the main watering tube inside the base to the pump. (Figure 19)

**\*If the tube is difficult to insert, you can place it in a cup of hot water for a few seconds.**

5.2 - Fill the reservoir with water and place it inside the base. Submerge the pump in the water and position it in the center of the reservoir.

5.3 - Place all 8 Feeder tubes into the reservoir. (Figure 20)

**\*Always check that all 8 of the feeder tubes are reinserted into the reservoir to avoid water overflows.**

Figure 19:



Figure 20:



**Figure 21:**



5.4 - Double check that all the feeder tubes between the pots are properly inserted.

5.5 - Plug in the pump and let run for a few minutes keeping an eye on the tower checking for any overflows. (Figure 21)

5.6 - Plug in the lights and let them run for a few minutes.

**Congratulations! You've completed your Nutritower set up! You are now ready to start transferring seedlings to the pots!**

**Happy Growing :-)**



# 02

## Maintenance Guide

A well maintained Nutritower will provide a bounty of produce for you and your family. Check your Nutritower on a daily basis so you will always know what is ready to be harvested.

This section will explain the basic tasks of growing and maintaining a healthy and vibrant hydroponic indoor garden.



## Quick Maintenance Guide

### Daily

- Check the water level in your reservoir. As plants mature water will need to be topped up on a more regular basis.
- Check the water flow. If water flow isn't consistent there may be a blockage.
- Check timer to ensure that everything is running smoothly.
- Trim any dead or wilted foliage.

### Weekly

- Change the water. Clean all residue from the reservoir using mild soap and water. Rinse thoroughly. Fill the reservoir 7cm (3 inches) from the top. Add the nutrients to the water.
- Rotate the plants. If the foliage is approaching the lights, rotate the plants 180 degrees.
- Harvest as needed or trim foliage.

### Monthly

- Remove the netting pots to check the roots. This is a common cause of leakage.
- Rinse all sediment that has been collected on the screen.
- Trim back the roots by up to 1/3 of the current length to prevent clogging and stimulate continued growth.
- Quickly rinse the foliage under light water flow.

# Watering Schedule

## Watering your plants does not need to be complicated!

The Nutritower is unique because it allows you to grow various plants at various stages. Many different methods work but here are that a few simple guidelines can be followed to guarantee success.

Recommended settings are 15 minutes every 2 hours while the lights are on.

Plants feed throughout the day at unpredictable times. The more often the system is watering, the more likely the plants will have readily available nutrients when they need them. Plant roots need oxygen to survive as well. This is why it is possible to drown plants by overwatering. Giving them time to oxygenate between waterings helps them metabolize nutrients and is vital to good root health.

Plants generally don't feed at night. Yes, plants sleep too! It's crucial to the flowering process to have at least a part of the day spent in darkness. While the lights are off, you can also turn off your watering cycle without causing any stress to the plants. Taking all this into consideration, we've found that optimal growth is achieved when the watering cycles (on time) are between 15 and 30 minutes. This should be repeated every 2 hours (off time) throughout the day to ensure that there are sufficient nutrients available at all times.

## Vacation watering cycle

If you are going away, it is safe to leave your tower by modifying your watering cycle. If plants are getting fed less often, they will simply grow a little less quickly. You can comfortably reduce your watering time to 15 minutes every 8 hours to simply maintain your garden. This will allow your reservoir to last up to 10 days!

## Leak Troubleshooting

What to do if my tower is dripping from a pot?

- Determine where the drip is coming from and check if the feeder tube has an obstruction.
- If the feeder tube is clear, unclip the pot and lift the plant out by the black mesh pot. Check for potential water build-up in the bottom.
- Clear out or trim any excess roots or small rocks that might be causing a blockage.

What to do if there is water accumulating in the base of my tower?

- **MAKE SURE THAT ALL 8 FEEDER TUBES ARE POSITIONED IN THE BUCKET.**
- If the water is dripping from the center column, please reach out to us for immediate assistance at 800-721-8419.

## How often do I need to change the water?

Water management is a very important part of the health and functionality of any hydroponic garden - It will have a direct impact on the growth rate and health of your plants.

The Nutritower was designed to make water management easy by integrating a removable reservoir. This allows the user to quickly refresh or replace the nutrient solution which helps maximize plant health and reduce the risk of water-born illnesses and pests.

Complete a reservoir change once a month as nutrients will deplete as your plants grow. Refer to [this article](#) for instructions on changing the water and nutrients here.

Monitor your water level periodically and top up the reservoir by pouring from a pitcher directly into one of the pots. Make sure to keep an eye on the water level to not overfill. This way you do not need to remove the reservoir other than during a complete nutrient replacement.



## How to Change Out the Reservoir?

Water management is a critical part of your Nutritower maintenance. Fresh water and nutrients will help boost your plant's growth and lower the risk of waterborne disease and pests! At under 5 gallons removing, cleaning, and refilling is straightforward and only requires a few minutes of your time.

Here are the steps to follow when replacing the reservoir:

\*Unplug before performing any maintenance on the Nutritower.

- 1) Remove the door at the front of the base of your tower (Figure A)
- 2) Pull the reservoir forward from inside the base (Figure B)
- 3) Remove the pump from the reservoir
- 4) Remove the reservoir completely from the base
- 5) Discard the water from the reservoir
- 6) Clean the reservoir with hot water and mild dish soap - make sure to scrub out any residue
- 7) Rinse the reservoir thoroughly
- 8) Refill the reservoir halfway
- 9) Add 30ml of both Nutritonic A and B
- 10) Place the reservoir at the front of the base
- 11) Using a pitcher, top up the reservoir to about 5cm (2 inches) from the top (Figure C)
- 12) Replace the pump in the reservoir
- 13) Slide the reservoir back into its place at the center of the base
- 14) **\*\* VERY IMPORTANT\*\* Replace all 8 feeder tubes back into the reservoir! (Figure D)**
- 15) Plug in your tower and monitor for a few minutes

Figure A



Figure B



Figure C



Figure D



## What to do if my tower is leaking from a pot?

If you notice an accumulation of water in and around your tower and you have already checked that the tubes in the base are properly in place, chances are it's a pot that is overflowing during a watering cycle. This can be hard to catch as it will only occur during feeding periods and it may not occur at each watering cycle.

The first thing to do if you notice a water leak is to determine where it is coming from. The easiest way to do this is to unplug the pump from the timer and plug it directly into the electrical outlet. Let the pump flow until you recreate the leak. It will generally be one of three things:

### 1) A tube is blocked by a coir pod or clay pellet

Once you have determined which pot is overflowing, first, check the feeder tube from the pot below to make sure it is flowing properly. It may just be resting against the coco coir pod or a hydroton pellet. (Figure 1)

### 2) Roots are blocking a filter at the bottom of the pot

Pull out the netting pot and plant to check if roots have grown through the mesh filter and into the feeder tube. This happens more frequently with larger plants like cucumbers and tomatoes, but can also occur with more mature leafy greens like swiss chard and kale. If this is the case, remove excess roots and trim away up to 2/3 of the roots and replace the pot. (Figure 2,3)

### 3) Debris is slowing down water flow either on the top of the pot or on the mesh filter

Check for dead leaves on the surface of the pot first. If nothing is appearing on the top of the pot, remove the netting pot and plant and look at the mesh filter at the bottom of the white outer pot. If you notice a film or debris here, remove the outer pot and wash it with hot soapy water. Rinse thoroughly and replace it with the plant. (Figure 4)

In all cases, leave the pump running for at least 15 minutes to make sure that you have established proper flow before plugging the pump back into the timer.

Working with hydroponics is a cleaner, more efficient way of growing plants indoors, however, leaks are a possibility no matter what system you are working with. Following our recommended maintenance schedule will ensure a problem-free garden for the long haul.

**Figure 1**



**Figure 2**



**Figure 3**



**Figure 4**



## How to set the analog timers?

The Nutritower provides the user with a lot of freedom regarding what and how to grow. When it comes to setting the timers for the lights and the pump, this is no different.

Let's start with the recommendations:

### For the Lights:

We recommend that you have the lights on for 12 to 14 hours a day, preferably during daytime hours.

### For the Pump:

We recommend watching [this video](#) before setting up the timers. Recommended settings are 15 minutes every 2 hours while the lights are on.

Now here is the caveat - some people don't want to have the lights on during the day, etc. Not a problem. Set the time periods to whatever works best for your schedule and monitor the plants. In most cases, they thrive just fine!

Quick note - The plants don't need to be fed (watered) much or at all during the night, or 'down time'. this will help preserve water!



## Cucumber Pollination Guide

Pollinating cucumbers is a fun part of indoor gardening. Unlike tomatoes or peppers, you have to be 'like a bee' and physically transfer pollen from the male to female flowers to produce healthy fruits. Here are the simple steps to follow:

Step 1 - Identify the gender of the flower (Figure 1, 2)

Step 2 - With the help of a paintbrush or cotton swab place pollen from the male to female flowers (Figure 3, 4)

Repeat Step 2 daily until the flowers fall off to ensure pollination.

That's it! You have pollinated your cucumbers :)

**\*This technique applies to all fruiting plants that require pollination**

**Figure 1 - Male flower**



**Figure 2 - Female flower**



**Figure 2 - Picking up pollen**



**Figure 2 - Depositing pollen**



**Well formed pollinated cucumber:**



## What types of produce can the Nutritower grow?

The Nutritower is a very versatile indoor hydroponic garden! We've grown a long list of leafy greens, herbs, and veggies and our [Grower's Group](#) has grown many more since!

Here is a list of what we know works, but don't limit yourself to this alone. Part of the fun is trying new things! You might be surprised at what will work in this type of garden :)

### Fruits & Veggies:

- Tomato
- Cucumber
- Eggplant
- Peppers
- Fennel
- Broccoli
- Watermelon
- Squash
- Peas
- Beans

### Leafy Greens:

- Lettuce
- Kale
- Swiss Chard
- Mesclun greens
- Arugula
- Spinach
- Bok Choi
- Radicchio

### Herbs:

- Basil
- Cilantro
- Thyme
- Oregano
- Mint
- Dill
- Parsley



Our customers are growing things like passion fruit vines and starting lemon trees in their Nutritower, so don't forget to explore and have fun!!



If you have any questions along the way, reach out to us any time. We are always happy to help!

### CONTACT US:

Support Team  
[info@nutritower.com](mailto:info@nutritower.com)  
 1-800-721-8419

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