



BY JUICE PLUS+®



GROWING
GUIDE

IMPORTANT SAFETY INFORMATION

1. The Tower Garden® is an aeroponic growing system. Do not stand on the Tower Garden® and take care to keep children from playing on the Tower Garden®.
2. Follow the safety instructions included with the Tower Garden® pump. Do not attempt to plug or unplug the pump in rainy or damp conditions.
3. When draining the Tower Garden®, do not allow the drain pipe to drain over an electrical outlet or extension cord. Do not overfill the Tower Garden®, which would allow water to run out of the electrical cord opening in the reservoir.
4. Do not place the Tower Garden® where there is the potential for high winds, such as high rise balconies.
5. Wear rubber gloves when mixing pH+Base, pH-Acid, Tower Tonic A, and Tower Tonic B, in order to protect your hands.
6. Use a large stirring paddle or spoon to mix the nutrients and pH adjusting chemicals in the reservoir. **DO NOT USE YOUR HANDS.** The solution may be alkaline or acidic and may cause skin irritation.
7. Read and follow all safety instructions on the pH and Tower Tonic labels.



WELCOME

to the exciting new world
of vertical aeroponic gardening.

Your Tower Garden® by Juice Plus+® sits inside this box. After some quick and easy assembly, you'll be ready to start growing your own fresh vegetables, fruits, herbs, and more.*

This simple *Growing Guide* is designed to help you get started.

You don't need a green thumb – just a relatively sunny place anywhere outside, such as a porch, patio, balcony, terrace, or deck. Once you get the enclosed seeds started and transplanted to your new Tower Garden®, you'll find it's easy to maintain – and quick to grow healthy, delicious food.

Your Tower Garden® purchase also gives you **password-protected access** to the **Resource Center** of www.TowerGarden.com, which includes:

- more detailed aeroponic **gardening advice**, including specific suggestions for many of the more popular plants grown in the Tower Garden®.
- an **Ask the Experts** feature that lets you submit questions directly to me and other members of our Tower Garden® staff.
- **Tower Talk**, a place where you can share growing tips and ideas with other members of the Tower Garden® community.

If you purchased your Tower Garden® directly online, you should already have set up your user name and password for the Tower Garden® Resource Center and received a verifying email. If your Juice Plus+® representative processed your order, he or she has set up your user name and password and you should have received a verifying email.

If you can't find what you need through the Resource Center – or if you'd like to order additional Tower Gardens or Tower Garden® accessories – we offer live Customer Care Monday through Friday from 8:00 a.m. to 5:00 p.m. Central time at 866-235-0414.

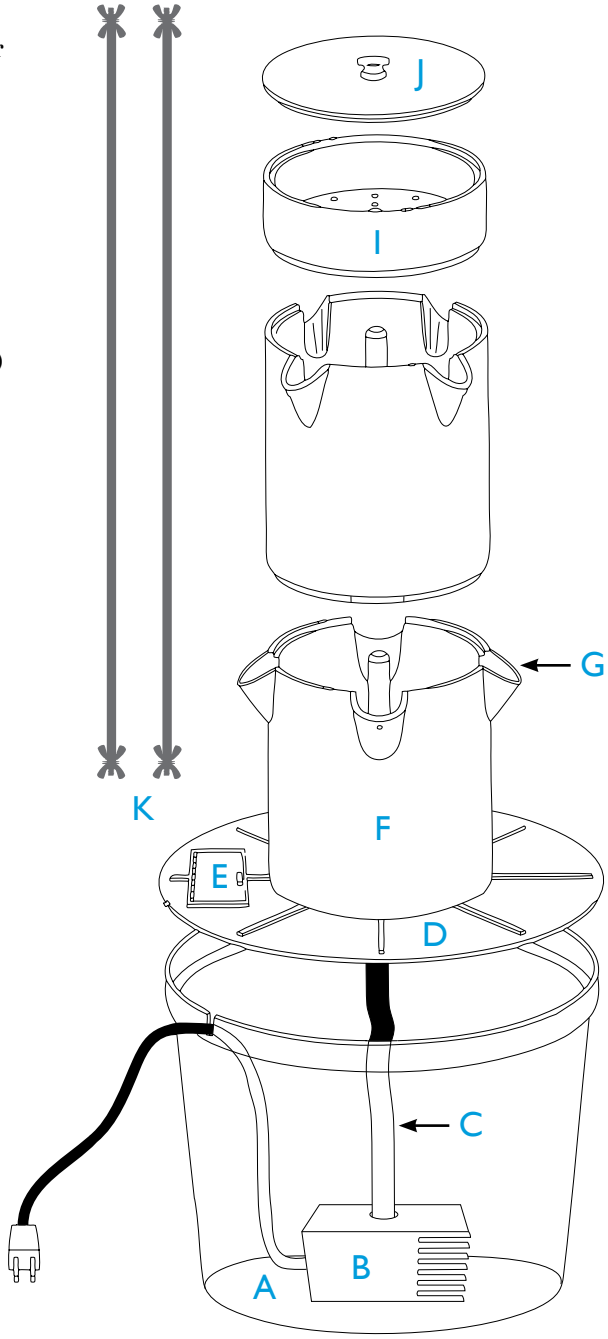
Thank you for purchasing the Tower Garden® by Juice Plus+®.

Tim Blank
Creator of the Tower Garden®
Chief Technical Officer of Tower Garden, LLC

* Your Tower Garden® will grow just about anything, except root vegetables, grapevines, bushes, and trees.

TOWER GARDEN® GROWING SYSTEM

- A Nutrient Reservoir
- B Pump
- C Swivel Hose
- D Reservoir Lid
- E Access Port Lid
- F Tower Sections (5)
- G Growing Ports (20)
- H Net Pots (20)
- I Shower Cap
- J Shower Cap Lid
- K Rods (2)



No tools required.

Also included:

- Tower Tonic
- pH Supplies
- Seed Starter Kit (with seeds)
- Timer
- Drain Pipe

WHERE TO LOCATE YOUR TOWER GARDEN®

Extremely important for a productive Tower Garden®

1. Full sun or high light level for a minimum of 5-6 hours is a requirement if you desire highly productive food crops. If you live in a location with intense summer heat, it can be helpful to have some shade, starting mid-afternoon into the evening. Choose a location for your Tower Garden® that meets these requirements. Vegetable crops can grow at lower light levels; however, they are less productive as the percentage of shade increases. Many flowers and ornamental crops do fine under shade all day. Read seed labels to determine proper light levels.
2. Be sure a clean water source is nearby.
3. An electrical outlet nearby is preferred over a long extension cord. ALWAYS select a waterproof connection when using outdoor extension cords.
4. Place a Tower Garden® dolly, doormat, or similar product under the reservoir if you are placing the Tower Garden® on a deck or patio. This will reduce the heat transferred into the reservoir from the deck or patio during hot weather.
5. Always select a site for the Tower Garden® that is level.
NOTE: Your Tower Garden® MUST be level to work properly.

HOW TO ASSEMBLE IT

1. In order for the Tower Garden® to operate properly, make sure the nutrient reservoir is level.
2. Attach the blue swivel hose on the pump to the bottom of the reservoir lid by hand-screwing it into the $\frac{1}{2}$ " threaded hole until it is snug. (Fig. 1)
3. Place the pump in the reservoir and slide the electrical cord through the hole in the side of the reservoir. CAUTION: DO NOT plug the pump in until you have filled the reservoir with the nutrient solution and water. To avoid electrical shock, form a loop with the cord on the outside of the reservoir near the outlet, preventing water from flowing down the cord and reaching the outlet.
4. Place the pump towards the side of the reservoir. Push down firmly to seat. (Fig. 2)
5. Locate the two 37-inch stainless steel rods. Remove end wing nut and 1st washer from end containing 2 of each. Leave one wing nut and washer on the end of each rod. (Fig. 3)
6. Locate a pair of holes marked "A" inside the first tower section. Insert the end of one rod into one of the holes marked "A" inside the section that is connected to the reservoir lid. (Fig. 4)
7. Reinstall a washer, then a wing nut, onto the rod and hand tighten. Turn the two wing nuts (one above and one below) toward each other. When completed there should be about $\frac{1}{4}$ " of thread showing beyond the wing nut. Repeat steps 5-7 for the second rod, installing it in hole "A", opposite the first rod. Once the second rod is installed, seat the reservoir lid with attached rods on the nutrient reservoir. (Fig. 5)
8. Remove wing nut and washer from top end of the rods. Choose any tower section to become your second section, and locate a pair of holes marked "B" inside the section.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

9. Thread the rods through these two holes. Slide the tower section down the rods to first section. (Fig. 6) Push down firmly on center stem to properly seat with the first tower section.



Fig. 6

10. Continue stacking tower sections until all have been installed. (Fig. 7) Firmly seat each section by pushing on the center stem before proceeding to the next section. Alternate between holes “A” and “B” as you continue to stack each section. Section 3 utilizes holes marked “A”
Section 4 utilizes holes marked “B”
Section 5 utilizes holes marked “A”



Fig. 7

11. Once all of your tower sections are in place, install the shower cap. Push down firmly on the center stem to set with top tower section. (Fig. 8)



Fig. 8

12. Reinstall the washers and wing nuts. HAND TIGHTEN ONLY. (Fig. 9)



Fig. 9

13. Fit a net pot into each planting port with the large lip of the net pot resting on the outside rim of each planting port. With your fingers, firmly push down on the bottom of each net pot until the small lip snaps into place. (Fig. 10)
NOTE: If the net pot is not pushed all the way in, the new seedling will not get watered.



Fig. 10

14. Once your reservoir is filled with Tower Tonic and cold water, the access port lid (Fig. 11) and shower cap lid can both be firmly pushed into place. (See page 10 for instructions on filling the reservoir and adding nutrients.)

NOTE: This step prevents algae and debris from contaminating the reservoir.



Fig. 11

STARTING YOUR SEEDS

1. Using the seed starter tray provided, thoroughly wet the rock wool starter cubes for 30 minutes. When you're ready to seed, remember that each variety of seed requires a different amount of seeds per hole.
 - For gourmet lettuce varieties, place 6–12 seeds per hole.
 - For herbs, place up to 6 seeds per hole.
 - For vegetables with larger seeds, like tomatoes, cucumbers, peppers and beans, place 1–2 seeds per hole.
 - For other varieties of seeds, please refer to the instructions on the seed packet or visit the Resource Center at www.TowerGarden.com.
2. Lightly fill each seed hole with dry, coarse-grade vermiculite included. For smaller seeds, like lettuce, only fill the hole half full with vermiculite. This will keep just enough moisture around the seed for good germination. Gently sprinkle a little water over each hole to wet the vermiculite.
3. When you're done seeding, put a little water into the bottom of the container, serving as extra humidity for germination. If possible, use filtered water without chlorine. **DO NOT CLOSE THE LID.**
4. If it's a warmer time of year, place your seeding tray outside in a semi-shaded area. If it's a colder time of year, place your seeding tray inside by a sunny window. Each morning be sure there is about ¼" of fresh water in the bottom of the tray. After the seeds have sprouted through the vermiculite, **IMMEDIATELY** move them to a full sun area outside once all danger of frost has passed. You can add the diluted Tower Tonic solution from your nutrient reservoir **EVERY OTHER MORNING** in place of fresh water.

NOTE: Different seeds germinate at different rates. Refer to your seed packet or visit the Resource Center at www.TowerGarden.com to determine how long your particular variety of seed will take to germinate.
5. After 1–3 weeks, you should have healthy seedlings with a good root system growing from your rockwool cubes. At this point, your seedlings are ready for transplanting in your Tower Garden®. Place one seedling cube inside each net pot on the Tower Garden®, gently pressing the seedling cube in until it touches the base of the net pot.

WARNING: If the rockwool cube is not touching the base of the net pot, the seedlings will not get watered.

6. If you don't have time to start your own crops, it's possible to use seedlings purchased from a local garden center. This is also a great option for plants that take longer to germinate. Visit the Resource Center at www.TowerGarden.com for step-by-step instructions on how to prepare seedlings to grow in your Tower Garden®.

FILLING YOUR RESERVOIR AND ADDING NUTRIENTS

1. Your Tower Garden® will hold approximately 20 gallons when filled to within 3 inches of the top lid. Use a hose to fill the reservoir with cool water. Do not overfill the reservoir. NEVER use softened water, heavily chlorinated water, or very hard water, as it may damage your plants. NOTE: Chlorine in water can be eliminated by filling a bucket with water and leaving it out in full sun for 48 hours.
2. Add the correct amount of Tower Tonic to the reservoir. See Important Safety Information before adding Tower Tonic. Follow the instructions listed on the fertilizer labels. A Tower Garden® with all new plants requires a half strength of Tower Tonic (200 ml each of Tower Tonic A and Tower Tonic B).
3. Use a spoon or some other type of utensil to stir in the nutrients thoroughly. Do not use your hands, as the solution may be slightly acidic or alkaline and can irritate the skin.
4. Use the pH tester kit to test the pH of the solution. The optimal pH is 5.0 to 7.0. If an adjustment is necessary, use a small amount (one to two tablespoons) of the pH buffering solution (included) to either raise (pH+Base) or lower (pH-Acid) the pH of the nutrient solution. Follow all safety instructions on the pH bottles. Avoid contact with the skin. Retest the solution for the correct pH. If further adjustment is necessary, continue to add a small amount of the pH buffering solution and retest the pH level until the correct range is obtained.
5. Plug in the pump and check to see that water is coming out of the top of the Tower Garden® before putting the lid on the shower cap.

6. Your Tower Garden® comes with an adjustable flow rate dial on the pump. (Fig. 12) This dial is useful, as the flow rate out of the shower cap is affected by altitude. Turning the dial counter-clockwise opens the flow rate to maximum, and turning the dial clockwise reduces the flow rate to minimum. Be sure to set your flow rate so that the nutrient solution does not touch the shower cap lid. If it does, you may have potential leakage around the shower cap area.



Fig. 12

7. A timer is included with your Tower Garden®. (Fig. 13) The Tower Garden® functions better if the watering is on a cycle, rather than a continuous flow. We recommend 15 minutes on and 15 minutes off. Cooler seasons throughout the year may allow for longer durations without water. To set the timer, follow the instructions found on the back of the timer.



Fig. 13

8. Place the access port lid on the reservoir lid.
9. Your Tower Garden® is now operational and ready to grow!

MAINTAINING YOUR TOWER GARDEN®

1. Check the water level weekly. During hot months, and also once you have large plants, check the water level at least twice a week.
2. Check the pH twice a week and follow the instructions to adjust your pH level. Yellowing leaves are an indication that your pH has drifted out of the recommended range.
3. Keep the shower cap holes clean and free from debris. You can use a toothpick to clean the holes.
4. Keep roots away from the pump. Make sure that the pump is located to the side of the reservoir and not directly underneath the tower. You can trim the roots that may be dangling in the reservoir.
5. Clean the pump filter monthly. Unplug the pump, pull the pump up through the access port and remove the pump cover. Clean with water to remove debris. Or, another technique is to turn off the pump and firmly place a garden hose at the top of the center stem in your shower cap. This will blow old root debris out of the filter into the bottom of the tank.
6. Keep cool water (85 degrees or less) in the Tower Garden®. You can help keep the water cool by utilizing the Tower Garden® dolly or placing a mat underneath the reservoir.
7. Rotate the Tower Garden® if it is placed next to a wall where the sun shines on the same part of the Tower Garden® every day. You can slide the reservoir lid clockwise or counterclockwise to rotate. For optimal plant uniformity, rotate the reservoir lid a quarter turn in the same direction each day or whenever possible.
8. Large plants, such as tomatoes, peppers, green beans, etc., should be maintained as a compact plant or trained up strings or trellises. A tomato cage that connects directly to your Tower Garden® is available online at www.TowerGarden.com.
9. Good sunlight is very important for optimal growth of each plant. Keep this in mind when pruning and training the plants in your Tower Garden®.

ADDING WATER TO YOUR TOWER GARDEN®

1. Keep enough nutrient solution in your reservoir so that the submersible pump stays completely submerged.
2. During cool months, add nutrients to the water every time you fill your reservoir tank. You can mix water and the Tower Tonic in a five gallon bucket prior to adding it to the reservoir (100ml each of Tower Tonic A and Tower Tonic B for each five gallons of water). During hot months, add nutrients every other time you fill your reservoir tank.
3. Repeat the process if more nutrient solution is required.
4. Depending on the outside temperature and crop types, a full reservoir should last 2-3 weeks. During the hot months, your plants will use nutrients and water much faster. Do not let your tank drop down more than half way.

DRAINING AND REFILLING THE RESERVOIR

Drain the reservoir and refill with fresh water and Tower Tonic between fresh plantings.

1. Unplug the pump.
2. Insert the drain pipe on the tip of the shower cap nozzle. (Fig. 14)
3. Make sure the drain pipe is facing away from any electrical plugs, and pointing into a container.
4. Plug in the pump.
5. You can use the drained nutrient solution to water landscape plants around your yard.
6. Repeat the process of filling the reservoir and adding the nutrients.



Fig. 14

CLEANUP AND STORAGE

1. Remove the plants from the Tower Garden® by pulling the net pots from the planting ports.
2. Disassemble the tower sections, starting at the top. The bottom section does not need to be removed from the reservoir lid.
3. Compost or discard plant material. Clean and save net pots for future use. If net pots are damaged, you can order new ones at www.TowerGarden.com.
4. Unscrew the blue swivel hose from the reservoir lid and pump.
5. Place the tower sections, shower cap and lid, and the pump in the reservoir and fill with warm soapy water.
6. Allow the tower sections to sit in the reservoir for 30 minutes and then clean with water and a sponge.
7. You can store the parts of the Tower Garden® in the reservoir until you are ready to grow nutritious fruits and vegetables again.

TROUBLESHOOTING

Low or No Water in Shower Cap

- Make sure pump is plugged in.
- Make sure the outlet has not tripped the GFI or indoor breaker switch.
- Check for a kink in the blue swivel hose.
- Make sure blue swivel hose is firmly connected to the reservoir lid.
- Unplug and replug the pump from the electrical outlet. Magnetic pumps sometimes need to be restarted after long periods of continuous operation.

Algae Buildup in the Reservoir and Shower Cap

- Light is getting into the system. Make sure all lids are secure and tight.

Water Leaks from around Net Pot

- Tower Garden® is not level.
- With seedlings and small plants, rotate the net pot in either direction to dislodge any object that may be causing the leak.

Shower Cap is Running Over

- Shower cap holes are plugged up – use a toothpick to clean the holes.

Plants are Wilting in Full Sun

- During hot periods, plants can use a lot of water and the mineral nutrients in the reservoir can sometimes become too concentrated – drain the reservoir and add fertilizer solution as recommended.
- Watering hole is plugged over the net pot. Unstack the grow pots and check for debris in the watering holes in the bottom of the pots.

Leaves Look Yellow

- Check to see if pH is near 7 or higher.
- Nutrients have not been added to reservoir. Add nutrients as recommended.

For further information, visit the Resource Center at www.TowerGarden.com.

90 DAY LIMITED WARRANTY

NSA, LLC (“NSA”) warrants that the Tower Garden® by Juice Plus+® will be free from defects in materials or workmanship for a period of 90 days from the date of purchase by the original retail customer. Within the warranty period, NSA will, at its sole option, repair or replace any components that fail in normal use and, which upon inspection if requested by NSA, show to be defective in materials or workmanship. Such repairs or replacements will be made at no charge to the customer and NSA will arrange for the requested return of any defective components free of charge. NSA will also arrange delivery of the repaired or replacement component free of charge.

HOW TO OBTAIN WARRANTY SERVICE:

To obtain warranty service, call Tower Garden® Customer Care within the warranty period at 1-866-235-0414 for instructions and a Warranty Service Authorization number (WSA).

WARRANTY LIMITATIONS:

This limited warranty does not apply to: (i) damage caused by accident, misuse, abuse, alteration, improper assembly or installation, negligence in use, or acts of nature or other external causes; (ii) components considered to be consumable items; (iii) normal wear and tear; or (iv) products purchased for commercial or industrial use.

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IN NO EVENT SHALL NSA BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM A DEFECTIVE COMPONENT OR THE MISUSE OF THE PRODUCT. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY.

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