

### Installation and user manual





#### **Essential Safety Guidelines for Use and Maintenance**

#### For Users:

<u>Follow Manufacturer's Instructions</u>: Always adhere to the specific guidelines provided by your composting toilet's manual regarding use, maintenance, and compost removal.

<u>Do Not Dispose of Inappropriate Items</u>: Only human waste and toilet paper should be added to the composting toilet. Avoid disposing of items like sanitary products, chemicals, and non-biodegradable materials, as they can disrupt the composting process or damage the system.

<u>Maintain Adequate Ventilation</u>: Ensure the ventilation system is always functioning correctly to prevent odors and promote aerobic decomposition. This is crucial for the composting process and for keeping the environment safe and pleasant.

<u>Use Composting Additives as Recommended</u>: Some composting toilet systems require bulking agents like sawdust, hemp, or peat moss to help balance moisture levels and carbon-tonitrogen ratios. Follow the specific guidelines provided by your composting toilet's manual regarding use of additives.

<u>Monitor Moisture Levels</u>: The compost should be moist but not wet. Excess moisture can lead to odor issues and improper composting, so adjust as necessary according to your system's instructions. Trust your instincts when monitoring moisture levels; if the compost looks and feels too wet, it likely is, and conversely, if it appears too dry, you may want to decrease the amount of used dry material.

<u>Practice Good Hygiene</u>: After using the composting toilet, wash your hands thoroughly with soap and water to prevent the spread of pathogens.

#### For Service and Maintenance:

<u>Wear Protective Gear</u>: When servicing the waterless toilet, always wear gloves, and suitable clothing that protects your skin to avoid direct contact with waste material.

<u>Regular Inspection and Maintenance</u>: Regularly inspect the system for signs of wear or malfunction, including the ventilation system, and perform any recommended maintenance tasks according to the product manual.

<u>Handle Compost Properly</u>: Mature compost should be handled according to local regulations regarding human waste compost. It often needs to be cured outside the toilet for several months before it can be safely used in non-food gardens or disposed of.

<u>Avoid Using Harsh Chemicals</u>: Do not use chemical cleaners or pesticides in or around the composting toilet, as these can kill the beneficial bacteria responsible for decomposition.

<u>Report and Address Issues Promptly</u>: If you notice odors, leaks, or any malfunctioning parts, address these issues immediately to prevent health hazards or damage to the system.

#### **Emergency Situations:**

In case of a spill or accidental exposure to raw waste, clean the area thoroughly with a disinfectant suitable for biological waste and follow local health guidelines for such exposures.

If the system becomes damaged or malfunctions in a way that poses a health risk, cease use immediately and contact the manufacturer or a professional for repair or advice.

In case of a life-threatening situation, prioritize safety by calling 911 immediately to get professional assistance.

Following these safety instructions can help ensure that your composting toilet operates effectively, promoting environmental sustainability while minimizing health risks.

#### Dear Friend,

Thank you very much for choosing our waterless toilet!

We hope that you enjoy many years of fruitful, waterless and trouble-free use. Please don't hesitate to contact us with any questions or suggestions, we are here to help. Feedback is always welcome and is an invaluable part of providing an excellent product and service!

Finally, thank you for being an integral part of the environmental solution. The Earth will thank you too!

#### Sincerely on behalf of the whole Waterless Toilet Shop team



Eemeli Palo Dry Toilet Expert at the Waterless Toilet Shop 2041 Pabco Road Henderson, NV 89011 United States of America

## Waterless Toilet Shop

#### INSTALLATION PLANNING

It's all in the planning!

For proper operation of the toilet you should consider a number of issues.

The design of the site and building needs to allow for:

- An elevated starting point for liquid to flow by gravity from the toilet down into a liquid absorption trench which is to be dug outside the toilet. The whole toilet needs to sit on level ground, IF ANYTHING SLOPING SLIGHTLY BACKWARDS.
- Space for the toilet and a firm, dry and sheltered base for it to sit.
- Adequate access to service and maintain the toilet, i.e. remove the full container and replace it with an empty one.
- Good ventilation to provide oxygen and evaporate liquids

• Electrical supply (240Vor 12V) to the fan location

The TINY-POD is supplied as a kit containing most of the components required and can be installed using basic building tools and materials available at plumbing suppliers or hardware shops

Installation of the TINY-POD involves:

- 1. Preparing a flat, level and firm base for the composting container to sit
- 2. Installing the ventilation pipe-work, including fan and vent cowl
- 3. Connecting the ventilation pipe work, electrical connection and excess liquids pipe
- 4. Preparing the excess liquids dispersal trench
- 5. Final checks before use

#### **Space Required**

There is no ideal set of measurements which will suit all applications, but you do need to provide enough space to locate and install the toilet, enough space to fit and maintain the air vent piping and fan and enough space to access and exchange the containers, so allow space to remove and store the bins.

- Don't plan to install a light directly over the pedestal/waste chute as this will attract flying insects.
- Don't use your toilet fan. It's suction works against the suction of the fan of the TINY-POD.

Most TINY-PODs are installed indoors and are usually screwed (drill suitable pilot holes in base) to the floor.

#### Assembling the Vent Outlet

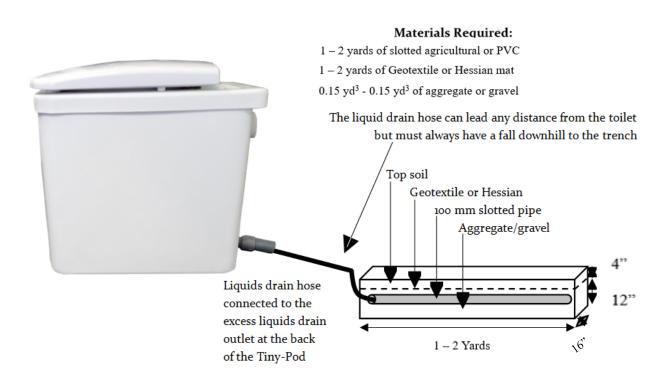
For transport safety reasons the vent outlet flange is not attached to the Tiny-Pod.

Please assemble the vent outlet flange with the 4 bolts and screws provided into the back of the Tiny Pod, flange pointing backwards – out of the Tiny-Pod.



#### **Preparing the Excess Liquid absorption Trench**

A lot of the liquid waste is used up in the composting process, as well as being evaporated through the vent system. An absorption trench is required to deal with any excess liquid. The length of the trench is 1 yard for the TINY-POD servicing 1-2 people, or 2 yards for the TINY-POD with 2 extra chambers, servicing 3-4 people. The trench is to be 16" wide, 16" deep.



#### 1. INSTALLATION

The first thing to do is to decide where in the toilet room you want to place the TINY-POD. Ensure you have an outside facing wall at the back of the TINY-POD for ventilation and the excess liquids drain.

Once you have found the right spot in the toilet room drill 4 small holes through the bottom of the TINY-POD base and into the floor – affix with suitable screws or fixings. Affix screws at the outer edge of the base (see below) – Do not screw through the liquids collection plate in the center!

Additionally you can rough up the underside of the TINY-POD and glue with polyurethane sealant



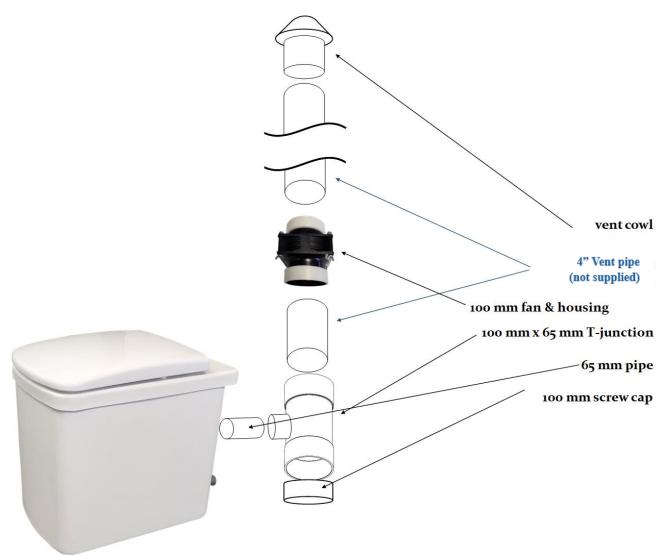
#### Vent System General Considerations

The TINY-POD airflow requirement is provided by 65mm and 100mm pipe and incorporates a continuous running fan (installed with housing). Consider how the fan will be powered (240V or 12V) and ensure the fan housing is accessible for maintenance. Ensure correct airflow of the fan **away from the toilet at all times.** 

Remember that warm air from the composting chamber (the composting process generates its own warmth) naturally rises, and that sharp bends restrict airflow – designing the vent piping correctly will improve natural operation.

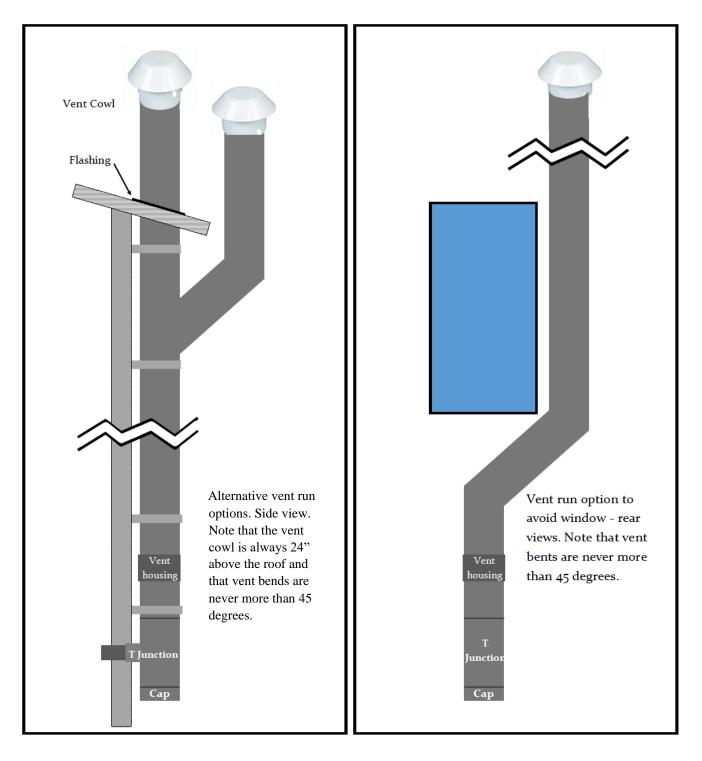
Warm air holding moisture entering a cold vent can result in condensation. Consider insulating the outlet vent piping and checking your moisture (condensate) trap regularly.

#### **VENT PIPE INSTALLATION**



The ventilation pipe should rise perpendicularly with as few curves and elbows as possible, the vent cowl placed on top.

See below different vent run options depending on roof line or needing to avoid windows or similar.



- 1. Insert the 65mm vent pipe (supplied) onto the vent outlet of your TINY-POD. Cut a hole in the wall to allow the 65 mm vent pipe to traverse the wall.
- 2. Cut off the 65mm pipe on the outside of the wall to allow for the 65mm/100mm T-Junction to attach - seal the hole when finished.
- 3. Attach the T-junction as per the picture. Finish with screwing on the cap. This is your moisture trap, which should be emptied every few weeks by undoing the cap, letting the water drain out and re-attaching the cap. (you could also drill a small hole in the cap to let it drain automatically)

- 4. Attach a short piece of 4" vent pipe. Insert the fan & housing affixing it with the back bracket facing the wall. Continue the vent pipe as below. Keep the position of your power supply in mind as you decide where to put the fan.
- 5. Attach your 4" venting pipe to the wall of the building, including vent cowl. The vent cowl should be 24" above where it traverses the roof line.
- 6. Connect your power to the jack of the vent housing, testing directional air flow away from the toilet.

#### Excess liquids Hose Installation

Drill the right size hole at floor level through an outside facing wall of the toilet to allow the excess liquids drain pipe to traverse horizontally (or slightly angled downwards).

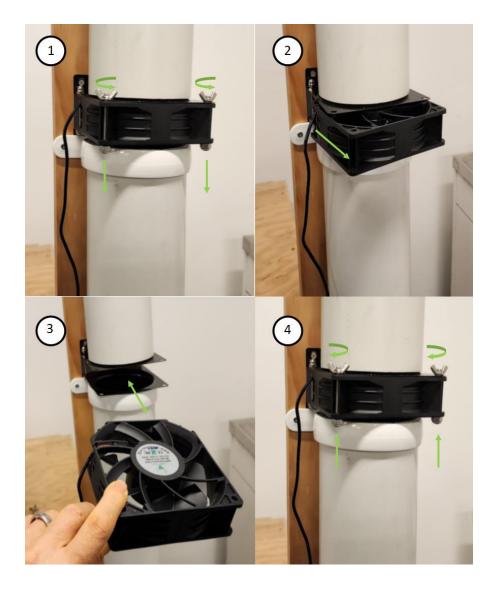
Tighten the rubber joiner with the hose clamp onto the excess liquids outlet spigot. Connect the grey ribbed hose to the rubber joiner and connect the other end of the hose to the absorption trench. Seal wall hole with silicone.

#### Ensure there is an even natural fall on the drain hose without any air traps!

Congratulations, you are done!

To exchange fans:

- 1. Disconnect fan from power source, undo the 2 front wing nuts remove bolts
- 2. Slide out fan
- 3. Slide in new fan (the cut off corners at the back, and the fan label pointing upwards).
- 4. Insert 2 front bolts and hand tighten wing nuts. Re-connect power source & check that the airflow is upwards, away from the toilet.



#### 2. USE OF THE TINY-POD

#### **BEFORE USE**

# Before putting the system into use, line the composting chamber with our Jute liner and then fill the composting chamber with a 1" – 2" layer of hemp. Also, after every emptying, remember to line with a new jute liner and add a new layer of hemp before use.

The TINY-POD System can be used almost like any normal water toilet. Toilet paper can be thrown into the toilet, as it composts together with the waste. However, any items containing plastic, e.g. sanitary towels should be placed into a separate bin. A handful of covering material (Hemp, 1 cup) should be added after each bowel movement. Our compost starter can also be used according to instructions on the packet.

Remember that there is a balance between covering the deposit enough visually, and covering it excessively, resulting in the chamber filling up quickly and needing changing more often.

#### 3. SERVICE

- a) Check the fan 1) monthly to ensure it is working or 2) if you notice unusual odour.
- b) The average length of time until a container is ¾ full (recommended exchange level) is around 4 6 weeks at 2 people full time use.
- c) The fallow containers need to be secured to prevent tampering by young children. This can be achieved by keeping the containers in a locked area or by securing a lockable strap around the composting container that can not be undone by young children.
- d) It is not vital that the fallow container is kept in the sun, however composting is accelerated by warmth. Therefore choosing a warm spot is helpful, as long as provision c) above is observed.

To exchange or empty the TINY-POD, protective clothing, face mask, glasses and gloves must be worn at all times.

- 1) Take the top off the system.
- 2) Put the lid onto the container either while still inside the unit or outside.
- 3) Attach the 2 bungee loops onto the bungee buttons.
- 4) Put the drip tray next to the TINY-POD.
- 5) Lift the container out onto the drip tray.

- 6) Attach the drip tray to the composting container with the 2 bungee loops and buttons. You now can carry the container outside, eliminating any spillage through use of the drip tray.
- 7) Remove to its resting spot. The waste will finish composting in this container (3 months on average).
- 8) Lift the second container in place, resting the carrier handle towards the front.
- 9) Line with the Jute liner and cover with 1" 2" of Hemp covering material.
- 10) When emptying a container, move to the prepared disposal site. Gently lay the container on its side and empty. Always observe safe work methods. Clean the container by hosing if required.

#### 4. USE OF COMPOST

- a. Bury the contents of the container into a prepared area. Burial depth is a minimum of 12" in soil that is not intended for human food cultivation for six (6) months, and
- b. Burial should be a minimum of 30 yards from any water source and 6 yards from any sub-soil or open drainage system, or
- c. Disposed of as directed by the Local Government.

#### **GOING AWAY**

If you are leaving the premises for a couple of weeks or longer, it is OK to hibernate the system.

Cover the compost with a generous amount of hemp and turn the fan off.

When re-activating the system turn the fan on and possibly add some compost starter.

If going away for a prolonged period of time, turn the fan off, take the active bin outside to compost, and cover.

Start the system up as per usual on your return.

#### WARRANTY

New parts are furnished to a customer whose toilet fails within the allotted warranty period for the particular component, provided that our inspection shows such failure is due to defective material or workmanship. Any part supplied is warranted for the balance of the original warranty period. The warranty period for a part begins from the date the original product was dispatched (plus 10 working days for transportation).

#### Warranty Period:

Any electrical component including solar 1 year

Any rotomoulded component 15 years

Any porcelain component 4 years

Toilet seats 1 year

Any other component l year

This warranty does not cover:

- 1. Damage resulting from neglect, abuse, accident, or alteration; or damage caused by fire, flood, acts of God or other causality.
- 2. Damage resulting from failure of the purchaser to follow normal installation and operating procedures outlined in the manual or in any other printed instructions supplied with the system.

Items subject to a dispute, where photographic evidence is inconclusive, must be sent prepaid to Waterless Toilet Shop. The cost will be reimbursed by Waterless Toilet Shop should the claim be found valid.

In addition to the above, a fan that fails during the warranty period will only replaced under the following conditions:

- The fan has only ever been connected and powered by either a 12-volt transformer plugged into mains power or a solar system supplied by Waterless Toilet Shop. Connecting your fan directly to a power source other than one supplied or specified by Waterless Toilet Shop may result in damage to the fan and void the warranty.
- 2. The fan and transformer must not be modified/altered in any way.
- 3. The faulty fan is returned to Waterless Toilet Shop for inspection, if required.

Providing the above conditions have been met replacement fans are shipped the same or following business day free of charge by regular post.



