

ENVIROLET®: USE & CARE

Envirolet® Composting Toilet System use & care including system start-up, power controls and normal operation instructions.

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PLEASE READ THIS SECTION CAREFULLY BEFORE USING SYSTEM.

WARNING

Please follow all safety guidelines when using your Envirolet® Composting Toilet System.

IMPORTANT

Complete entire system installation before system start-up and use is initiated.

Do Not Add!

- Your Envirolet® is designed only for "blackwater" (waste water) and other additives (peat moss, soil, etc.) that are to be added only as directed.
- This is a list of items that **should not be added** to your Envirolet® Composting Toilet System for safety, operation and performance. The addition of any of these items may be a safety hazard and will void System warranty.

Do Not Add the Following:

1. Flammable materials (cigarettes, matches, gasoline, hot ashes, etc.).
 2. Chemicals (bleach, toilet bowl cleaner, detergents, septic tank chemicals, anti-freeze, etc.).
 3. Oils or Greases (cooking oil, motor oil, grease, cooking fats, etc.).
 4. Meat or meat bi-products.
 5. Female sanitary products (tampons, pads, etc.).
 6. Grey water (sink water, shower water, dishwasher water, etc.).
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Inform All Guests

It is essential that this list be followed. Be sure to inform all guests of these rules. Printing this page and posting in bathroom near toilet is suggested.



WARNING!

Do not add glowing or burning materials to composting toilet system (cigarettes, matches, ashes, etc.) as this is a fire hazard.



VARNING!

Kast ikke glødende eller brennende materiale i kompostsystemet, da dette kan utgjøre en brannfare.



VARNING!

Kasta ej ej glödande eller brinnande material såsom cigaretterfimpar och aska i Komposttoalett-systemet. Detta kan utgöra en brandfara.



VAROITUS!

Älä heitä palavaa tai hehkuvaa materiaalia (tuhkaa, tupakantumpeja, yms.) kompostointijärjestelmään, koska tämä voi aiheuttaa palovaaran.

Rated Capacity

- Your Envirolet® Composting Toilet System has a maximum rated capacity.
- **Do not use above these rated capacities.**
- Refer to Rated Capacity section for list of models and capacities.

Operation is Easy

- Your Envirolet® Composting Toilet System is easy to operate
- Please follow all directions for proper performance.
- Be sure to follow all safety precautions listed in this manual. Refer to Safety Guidelines section for more information.
- Familiarize yourself with basic operation steps before use.

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1. System Use & Care Overview

This chart is an overview of proper system operation. Specific details follow this section.

System Use & Care Chart

#	Task	Start of Season	Daily	Weekly	Mid-Season	Pre-Winter Season	End of Season
1	Add Starter Mix						
2	Add Daily Mix						
3	Add Weekly Mix						

4	Add Compost Accelerator						
5	Use Aerator Bar						
6	Clean drain line and filters						
7	Check electric components						
8	Empty System						
9	Check all air and liquid seals						
10	Winterize system						

1. Start of Season refers to the starting point for your Envirolet®. Typically for cottage-type use this is in the spring.
2. Daily refers to any day when the system is in use.
3. Mid-Season refers to the approximate half-way point of system use. For typical cottage use this will often be mid-summer.
4. Other additives can be substituted for Daily Mix when required. Acceptable additives include dark soil, peat moss, coffee grounds, cocoa shells, coconut husks, wood shavings (not cedar) and sawdust.
5. Any winterizing precautions that are required should be completed well before winter season begins (Pre-Winter Season), i.e., fall season.

2. Start of Season: System Start-Up

Complete all installation, including venting, draining, etc., **before** beginning Initial System Start-Up.

1. **SYSTEMS THAT REQUIRE EMPTYING START HERE**

Empty System

- Ignore this step and begin at step 4 if the system is new and has not yet been used.
- Typically, you will empty your system at the start of the season. For full-time use or heavier use emptying periods will vary.
- Refer to **Emptying Instructions** section for instructions.

2.

Clean drain line and filters

- After emptying and before replacing bottom panel, be sure to inspect your drain line and filters (trap and drain) in systems with excess liquid drains installed.
- Ensure that drain and filter cloths are free of debris. Replace if required.

3. **Check all air and liquid seals**

- After emptying and replacing bottom panel, be sure to inspect that all openings in system are completely sealed for liquid and air.
- Make sure bottom panel is properly attached and that all areas that silicone-sealed have a proper seal.

4.

NEW SYSTEMS START HERE

Add Premix Starter Mix to Envirolet® Composting System

- **For Waterless Self-Contained models:**
 - Open toilet seat, open trap and remove bowl to add.
 - Spread contents as evenly as possible over Paper Mat in system. If Paper Mat was accidentally removed, please spread single-ply toilet paper over Manifold Grid. Be careful to avoid Mulcherator cutting blades.
- **For Waterless Remote, Low Water Remote and FlushSmart VF models:**
 - Remove Service Panel on composting unit/tank to add.
 - Spread contents as evenly as possible over Paper Mat in system. If Paper Mat was accidentally removed, please spread single-ply toilet paper over Manifold Grid. Be careful to avoid Mulcherator cutting blades.
 - Low Water Remote and FlushSmart VF models will have 2 bags of Starter Mix to add. Use both.

5.

Add a small glass (8oz/235ml) of **warm water** over Starter Mix inside system.

6. Replace bowl and close toilet seat (Waterless Self-Contained models) or replace Service Panel on composting unit (Waterless Remote, Low Water Remote and FlushSmart VF models).

7. Power up system! If system is not plugged in, plug it in now. Fans will start to turn.

DC and AC Electric models:

- Turn Control Switch to Normal Mode in Position 2.
- System should be left in Position 2 for best performance. More about operation modes in



- Power Control and Daily Operation sections.
- In FlushSmart VF models, turn on the vacuum generator unit.

Non-Electric models:

- Not applicable.

Your Envirolet® Composting Toilet System is now ready to use!

Please follow all operation guidelines for proper system performance and familiarize yourself with basic operation steps (below) before use.

3. Composting Unit Power Control

Envirolet® AC Electric and 12VDC Systems are equipped with a 2-Position toggle power Control Switch that controls the electric components in the Envirolet Works-in-a-Drawer™ Box. Non-Electric models The switch is located on the Top Panel of the Compost Unit. Please familiarize yourself with the information about your system below.

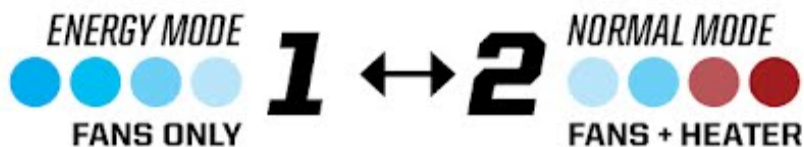
Non-Electric Systems

Not applicable. Non-Electric models do not use any power (unless an optional 12VDC or AC Electric in-line Turbo Fan has been installed).

AC Electric Systems

Envirolet® AC Electric Systems are equipped with a 2-Position toggle power Control Switch that controls the electric components in the Envirolet Works-in-a-Drawer™ Box.

1. Waterless Self-Contained AC Electric models label:



2. Waterless Remote, Low Water Remote and FlushSmart VF AC Electric models label:



AC Electric Switch Operation

POSITION 2 - SYSTEM IN USE

NORMAL OPERATING MODE

- Keep the control toggle switch to Position 2 for normal everyday use. The heater is thermostatically-controlled and will turn on and off automatically as required.
- Position 2 operates both fans (2) and a thermostatically-controlled heater.

POSITION 1 - NOT IN USE FOR 1-4 WEEKS

ENERGY MODE

- When leaving the system (e.g., from weekend-to-weekend) or if the toilet will not be in use you can move the Control Switch to Position 1.
- This mode will conserve energy while maintaining the optimum Automatic Six-Way Aeration™ performance.
- Position 1 operates the dual fans (2) only. Heater does not operate in this mode. This mode helps maximize performance (aeration & evaporation) when you are absent and is highly recommended when you are not using your system for short periods of time 1 to 4 weeks.
- **It is important to remember that your system should be left in Position 2 all or most of the time for best performance.**

OFF - NOT IN USE FOR MORE THAN 4 WEEKS

- For extended periods of non-use (more than 4 weeks) turn system off by disconnecting the power plug.
- It is not advised to use the system with the power off. Even though the Wind Turbine Ventilator will continue to draw air from the system, the static fans can create an impedance in the vent line that will slow evaporation and air flow. Turn system back on if it will be used.



FlushSmart VF models

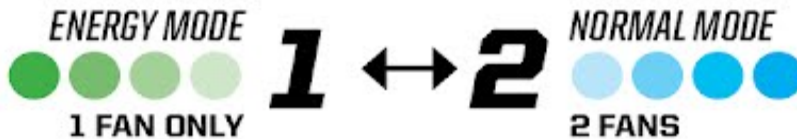
Always turn the vacuum generator off when leaving your FlushSmart VF system for extended periods (e.g., weekend-to-weekend). This prevents the vacuum generator from turning on when you are away. However, you can still continue to operate the Envirolet® FlushSmart VF Composting Unit in Energy Mode/Position 1 (fans only) during these times.

12VDC Systems

Envirolet® 12VDC Systems are equipped with a 2-Position toggle power Control Switch that controls the electric components in the Envirolet Works-in-a-Drawer™ Box.

Your 12VDC Battery System will operate in either a powerful dual fan (2) or single fan (1) mode. To conserve energy, your 12VDC Battery System does not use a heater.

1. Waterless Self-Contained AC Electric models label:



NOTE

Red "neon" light on Waterless Self-Contained Systems switch (North American models only) does not light on 12VDC models.

2. Waterless Remote, Low Water Remote and FlushSmart VF 12VDC models label:



12VDC Switch Operation

POSITION 2 - SYSTEM IN USE NORMAL OPERATING MODE

- Position 2 operates both fans (2).
- Keep the control toggle switch to Position 2 for normal everyday use.

2 Fans Battery Performance

- During optimum performance or continuous operation (2 Fans for 24 hours/day), your 12VDC Battery System will operate for up to 21 days or 10 weekends off the recommended 12VDC (220AMP) battery alone.
- Battery not included.
- Different batteries can be produce varying results.
- An attached solar power system can provide extended or continuous operation and will keep batteries recharged.

POSITION 1 - NOT IN USE FOR 1-4 WEEKS ENERGY MODE

- When leaving the system (e.g., from weekend-to-weekend) or if the toilet will not be in use you can move the Control Switch to Position 1.
- Position 1 operates only 1 fan. This mode will conserve energy while maintaining the optimum Automatic Six-Way Aeration™ performance.
- **It is important to remember that your system should be left in Position 2 all or most of the time for best performance.**

1 Fan Battery Performance

- During energy saving operation (2 Fans for 12 hours + 1 Fan for 12 hours), your 12VDC Battery System will operate for up to 28 days or 14 weekends off the recommended 12VDC (220AMP) battery system alone.
- Battery not included.
- Different batteries can be produce varying results.
- An attached solar power system can provide extended or continuous operation and will keep batteries recharged.

OFF - NOT IN USE FOR MORE THAN 4 WEEKS

- For extended periods of non-use (more than 4 weeks) turn system off by disconnecting the battery terminals.
- It is not advised to use the system with the power off. Even though the Wind Turbine Ventilator will continue to draw air from the system, the static fans can create an impedance in the vent line that will slow evaporation and air flow. Turn system back on if it will be used.



FlushSmart VF models

Always turn the vacuum generator off when leaving your FlushSmart VF system for extended periods (e.g., weekend-to-weekend). This prevents the vacuum generator from turning on when you are away. However, you can still continue to operate the Envirolet® FlushSmart VF Composting Unit in Energy Mode/Position 1 (single fan only) during these times.

Important Battery Facts

- If leaving battery(s) unattended during winter or cold weather conditions, disconnect battery power to system and remove battery(s) to warm area to protect battery(s) from damage.

4. Daily Operation

There are a few daily operating requirements to maintain a properly running system.

1. Use within Rated Capacity

- For proper system performance, be sure to use system within rated capacity.
- Refer to Rated Capacity Chart for more information.

2. Using the toilet

- Educate users to use minimal amounts of single-ply or biodegradable toilet paper.
- **Waterless Self-Contained models:**
 - Open seat and bowl trap with handle to use.
- **Waterless Remote models:**
 - Open seat to use.
- **Low Water Remote and FlushSmart VF models:**
 - Use toilet and flush using foot flush or push-button electronic flush (FlushSmart VF 700 Series model only). The bowl will refill with water automatically.
 - You can push up on the foot pedal or use the "add water" function on the switch (FlushSmart VF 700 Series model only) to add more water to the bowl. However, always try to use minimal water when possible for the best composting performance and to minimize drainage.
 - In FlushSmart VF models, the vacuum generator requires approximately 30-60 seconds to recharge between flushes.

3. Add 1/2 Cup of Daily Mix (or similar additive)

- When the system is in use, add 1/2 cup of Daily Mix* (or similar additive) **per person per day** to your Envirolet® Composting Unit.
- Daily Mix keeps waste in the system from becoming too hard, absorbs water and helps



- visually cover any exposed waste in the system.
- Most importantly, it also adds natural microbes that help convert the waste to compost.
- **Waterless Self-Contained and Waterless Remote models:**
 - Add Daily Mix through toilet seat or Service Panel (Waterless Remote only).
- **Low Water Remote and FlushSmart VF models:**
 - Be sure to add through the Service Panel on the Composting Unit and not through the toilet to keep material dry.
- Some users keep their Daily Mix beside the toilet or composting unit for easy access and add a small amount of Mix after each use (easier with Waterless models).
- Refer to Daily Additive Chart for quick reference.

Daily Additive Chart

Additive*	Number of User Per Day	Amount/User (Cups) Per Day	Total Amount (Cups) Per Day
Daily Mix	1	0.5	0.5
Daily Mix	2	0.5	1.0
Daily Mix	3	0.5	1.5
Daily Mix	4	0.5	2.0
Daily Mix	5	0.5	2.5
Daily Mix	6	0.5	3.0
Daily Mix	7	0.5	3.5
Daily Mix	8	0.5	4.0
Daily Mix	9	0.5	4.5
Daily Mix	10	0.5	5.0

*Note about Daily Mix Alternatives

- Other similar additives including dark soil, peat moss, coffee grounds, cocoa shells, coconut husks, wood shavings (not cedar) and sawdust can be added instead of or in addition to Daily Mix if it is not readily available locally.
- Be sure to use small pieces not larger than 0.75"/2cm wide.

4. Using toilet paper

- Educate users to use minimal amounts of toilet paper.
- Regular single-ply white, toilet paper can be used with your Envirolet® and will break down during the composting process.
- If toilet paper appears dry (rare in a low flush system) or “bunches up,” then just spray the

- toilet paper with water to help break it up.
- Biodegradable rapid-dissolving toilet paper will offer even better results in the system.
- Biodegradable toilet paper is available from Sancor Industries Ltd. or most retailers.

5. Weekly Operation

There are a few important things to add to your system periodically (every weeks).

1. Add Weekly Mix

- Every week add 4-6 cups of Weekly Mix to the System.
- Spread evenly across entire contents of Composting Unit.
- **Waterless Self-Contained and Waterless Remote models:**
 - Add Weekly Mix through toilet seat or Service Panel (Waterless Remote only).
- **Low Water Remote and FlushSmart VF models:**
 - Be sure to add Weekly Mix through the Service Panel on the Composting Unit and not through the toilet for best results.
- Other similar additives including dark soil, peat moss, coffee grounds, cocoa shells, coconut husks, wood shavings (not cedar) and sawdust can be added instead of or in addition to Weekly Mix if it is not readily available locally.

2.

Add Compost Accelerator

- Every week, add 1 tablespoon of Compost Accelerator with a warm glass of water to the Composting Unit.
- Compost Accelerator will accelerate the composting process and is an important maintenance requirement.
- **Waterless Self-Contained and Waterless Remote models:**
 - Add Compost Accelerator through toilet seat or Service Panel (Waterless Remote only).
- **Low Water Remote and FlushSmart VF models:**
 - Be sure to add Compost Accelerator through the Service Panel on the Composting Unit and not through the toilet for best results.

3.

Use Aerator Bar

- Pull the Aerator Bar in and out every week.
- You can use the Aerator Bar (details below) more often, but please try and use at least every week. Learn more in the Aerator & Rake Bar Operation section.

TIP: WET OR DRY



- If compost appears too wet (or "soupy") then add and mix more dry additives until compost is dry.
 - If compost appears too dry (or "clay-like") then spray small amounts of water evenly over compost to moisten.
 - Refer to Troubleshooting section for more tips.
-

6. Mid-Season

It is recommended to try and do a few preventative maintenance steps mid-season to prevent any possible issues. These steps should not take more than a few minutes each.

1. Check all air and liquid seals
 - Visually inspect that all openings in system are completely sealed for liquid and air.
 - Make sure bottom panel is properly attached and that all areas that silicone-sealed have a proper seal.
-

7. Pre-Winter

- If you plan your system in the winter then proper winterizing precautions must be followed well before the start of the winter season.
 - Refer to system-specific **Winter Use** section for complete details.
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8. End of Season

Similar to the mid-season point, It is recommended to try and do a few preventative maintenance steps at the end of the season (leaving the system for an extended period) to prevent any possible issues. These steps should not take more than a few minutes each.

1. Check all air and liquid seals
 - Visually inspect that all openings in system are completely sealed for liquid and air.
 - Make sure bottom panel is properly attached and that all areas that silicone-sealed have a proper seal.
 2. Check electric components
 - Listen to fans. It is not always possible to know if both are working (i.e., you may hear one fan and not know if other is functioning) but this is a good initial test.
 - Test if both fans (DC and AC models) are working with paper or bag test:
 - Place thin piece of paper or plastic bag over toilet seat area (Waterless models) or Service Panel louvered vent (Low Water Remote and FlushSmart VF models).
 - With proper vent fan operation the paper or bag will be drawn in.
 - Turn heater on (AC models). Wait about 5-10 minutes and feel middle of top panel. If heater is functioning it should be slightly warm to the touch.
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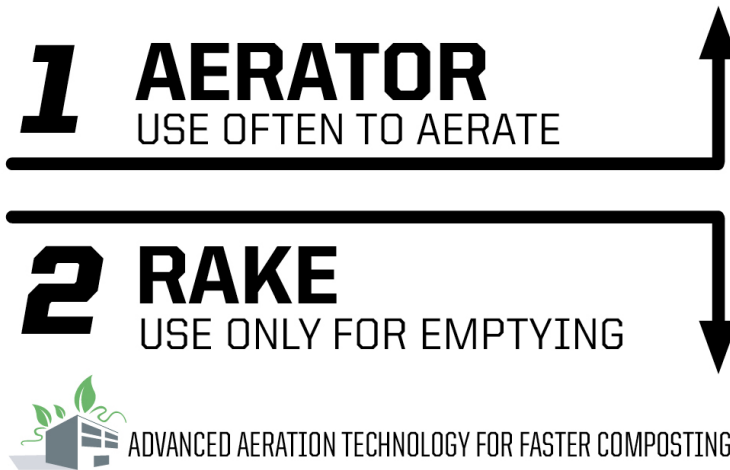


- The electrical box in systems older than 5 years should be inspected annually.
 - Refer to Troubleshooting section or contact us for more information if you believe any electric component is not functioning.
3. Check all air and liquid seals
- Inspect that all openings in system are completely sealed for liquid and air.
 - Make sure bottom panel is properly attached and that all areas that silicone-sealed have a proper seal.

9. Aerator & Rake Bar Operation

Envirolet® Composting Systems are equipped with an **Aerator Bar** (top) and a **Rake Bar** (bottom). Each has a handle located on the front of your system to operate.

Aerator/Rake label on front of Composting Unit:



Aerator Bar

- The Aerator is a series of blade-like and serrated cutters that will help break up & mix the compost in the system.
- The Aerator helps to aerate the compost as well as assist in the distribution of the waste evenly across the system.
- Simply pull the Aerator Bar "in & out" several times to operate. You can move the Aerator back and forth as many times as you wish.

Rake Bar

- The Rake Bar is a series of cutters with tiny rakes attached.
 - The Rake Bar (bottom) is used to rake composted material down into the soil collecting tray when emptying. See Emptying section for more details.
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10. Use the System!

Once you have set-up the system and are familiar with its operation you are ready to use the toilet!

Need Help?

if you have any questions, please be sure to contact Sancor for additional information or support.

ENVDOC-ENVSTARTOPER

