

VILLA 9215

by *Sepparett*[®]



Separett Inc.

www.separett.us
contact.us@separett.com
1(800) 975-6740

Your new Separett® 9215!

Dear Customer

Thank you for purchasing the Villa 9215 waterless toilet from Separett®! At Separett® we strive to produce the most advanced alternative toilets allowing our customers toileting solutions without traditional water based sanitation systems. Our toilets are used in cottages and tiny homes along with mobile living both on land and water. We appreciate your support. Should you have any questions regarding the installation or use of your Separett – please call or email our office for help.

Warranty

This product has a 5 year warranty for manufacturing and/or material faults. Should there be an issue – we cover parts, but cannot cover the labor. Most all parts of the Separett® Villa are easily installed. The warranty does not cover normal wear and tear, incorrect use and if the customer has caused any damage or modification to the product. If you have any questions about spare parts or the warranty, please contact your retailer or our Separett-USA office.

US contact

Separett Inc.
www.separett.us
contact.us@separett.com
1(800) 975-6740

Supplies and parts

Supplies for your Separett toilets can be acquired at our web store www.SeparettStore.com or through approved resellers. From our store - orders are shipped promptly via priority mail for quick service.

Care to share

If you'd like to share a photo or a story about your Separett, please email them to us at: community@separett-usa.com. We'll thank you by sending you a package of Separett Compostable Bags.

Photos and stories may be used for our social media or promotion. We can use anonymously or crediting you.



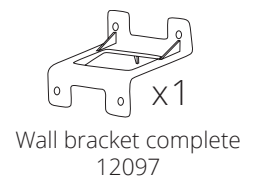
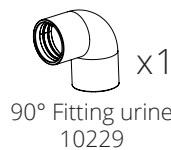
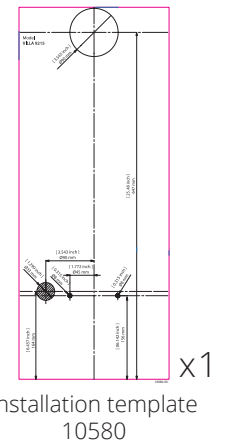
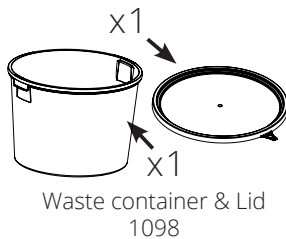
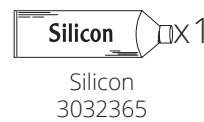
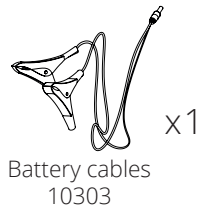
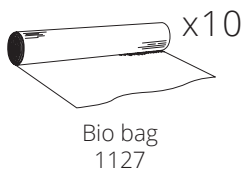
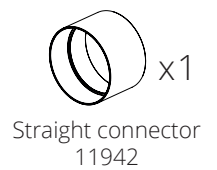
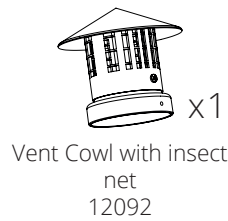
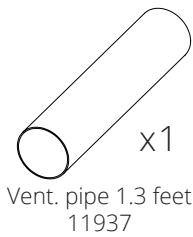
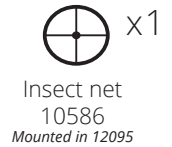
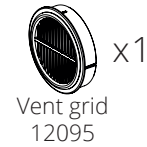
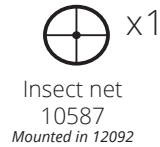
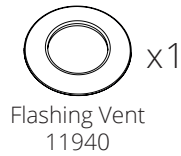
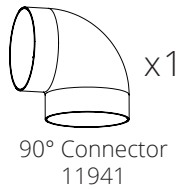
Important safety instructions

IMPORTANT SAFETY NOTICE

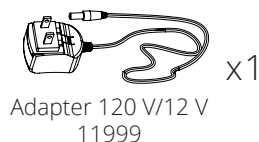
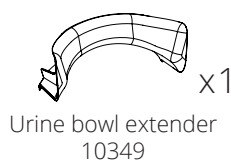
READ THE INSTRUCTIONS CAREFULLY BEFORE USE.
THE MANUFACTURER IS NOT LIABLE FOR ANY DAMAGE TO PERSON OR
PROPERTY CAUSED BY IMPROPER USE OR INSTALLATION OF THE TOILET.
SAVE THE USER MANUAL FOR FUTURE REFERENCE!

Unpacking & Parts included

Please unpack your Villa 9215 and check all against the parts list seen below. There is a packing block below the blue rotation tray in the bottom of the toilet that must be removed for the tray to rotate.



Parts already mounted on toilet





Important safety instructions

IMPORTANT SAFETY NOTICE

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Safety

This appliance can be used by young children and disabled people, as well as people with lack of experience and knowledge, as long as they are supervised or have been given proper instructions concerning the use of the appliance in a safe and correct manner and they understand the risk involved if the instructions are not followed.

- None of the toilets packaging materials are toys. Keep all packaging material out of reach of children and dispose of the material properly.

Warning! Never use the toilet if it is damaged or if it is not working properly. Make sure to check the following on a regular basis to ensure good functionality:

1. Power cable: ensure that the cable and plug are not damaged in any way.
2. Air flow: Check that there is no material in the ventilation pipe that obstructs the airflow.

Maintenance

Regular maintenance is important to ensure the toilet's functionality. Lack of maintenance can lead to impaired functionality, which may lead to a damaged toilet. When performing maintenance, check the following:

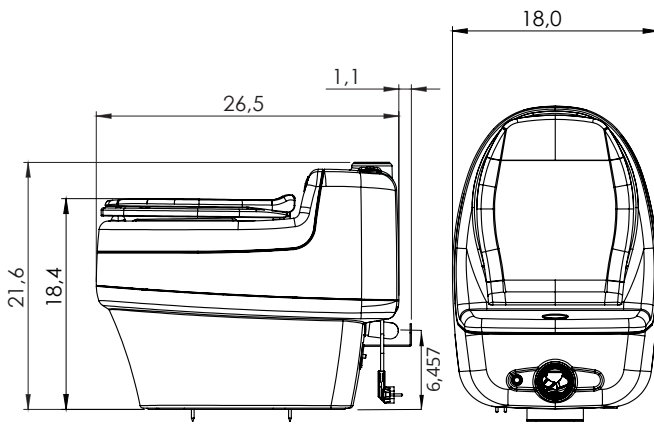
- Check the ventilation pipe for foreign material such as leaves and clean when needed to guarantee a good airflow.
- Ensure that the yellow ventilation net is cleaned on a regular basis to ensure a good airflow.
- Always disconnect the product from the electrical outlet before performing any maintenance.
- Never use a damaged cable or plug and never let the cable run over hot or sharp surfaces.

Installation

The toilet shall not be used without being installed in accordance with instructions in this user manual.

- This product is intended for use only in households with a limited number of people who are all familiar with the proper use of the toilet. We do not recommend Villa for use in public facilities.
- Do not make any modifications to the product that may change the products specifications.
- If used in a wet bath environment, the Villa should be protected from directly getting wet as it contains an electric fan and high humidity will inhibit the drying of solid waste.

Technical data



All measures in inches

Material

Upper/lower sections:
high impact, high gloss
polypropylene

Seat

High gloss polypropylene

Inner bucket/cover

Polypropylene - all materi-
als can be recycled

Weight

30lb

Dimensions

Ventilation pipe:
Ø 2.95 inch
Urine drain:
Ø 1.26in

Voltage/Wattage

12 DC/2.5 W/210 mA

Electrical connection

Battery cable, 6 1/2 feet

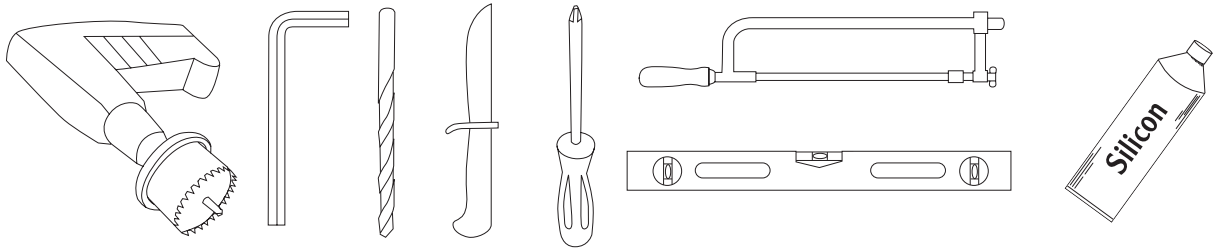
Energy consumption

0.06kWh/24 hrs

Installation

The Villa 9215 can be installed in both heated and non-heated locations.

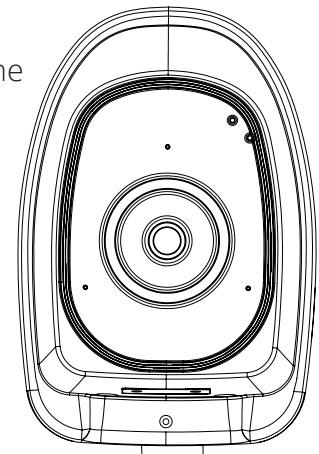
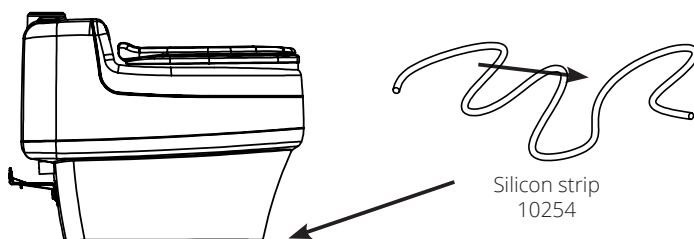
Useful tools when installing



Hole sizes: 3 1/2 inch (Ventilation)
1 3/8 inch (Urine outlet)

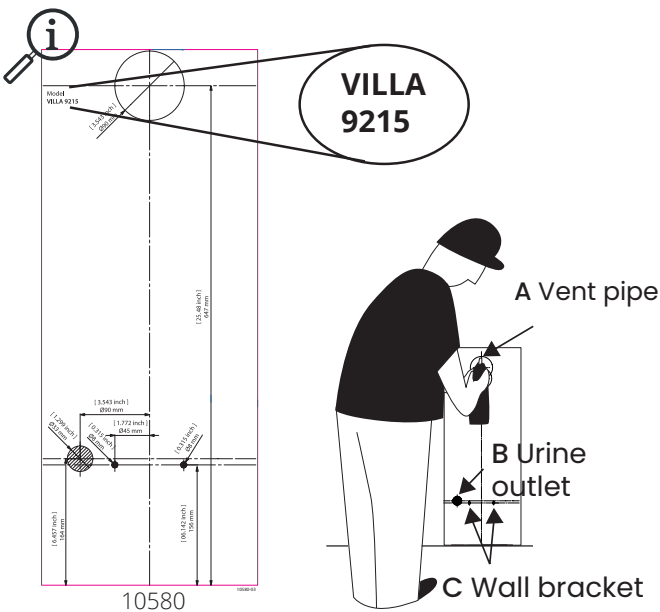
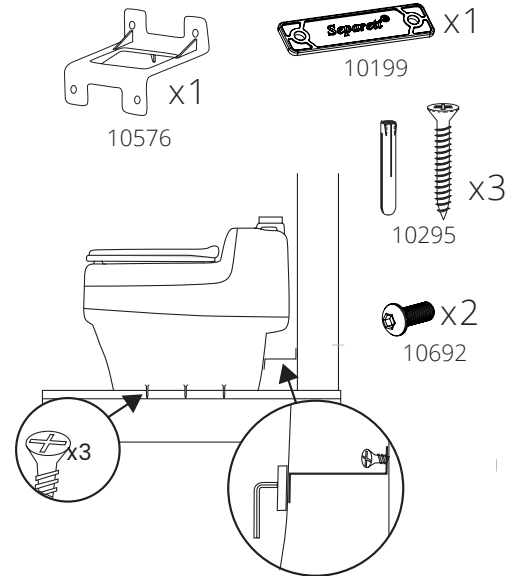
Installation - Preparing the toilet

First - install the supplied silicon strip to the base of the toilet. This will clip into place -no adhesive is required. The strip reduces frictions as well as it ensures that no water will rinse down beneath the toilet



Installation - Preparing the toilet

For wall mounting - first connect the mounting bracket to the rear of the toilet. Remove the solid waste holding container and remove the two plastic plugs from the rear of the toilet. Secure the bracket by placing the blue rectangular support #10199 to the interior wall of the toilet and matching the wall bracket #10576 to the location on the exterior wall of the toilet. Use the supplied screws from the interior out and secure to the rear bracket using the supplied wrench. Use the supplied cardboard templates for the positioning of the screws to the wall (be sure to use the 9215 side of the template)- or push the toilet toward the wall and mark through the bracket. Use the supplied screws or others of required size for mounting to the wall.



If floor mounting – take the black solid waste holding container out of the toilet. Rotate the blue platform in a clockwise direction to where the three holes in the base line up with the mounting locations in the floor of the toilet. Pre-drill the toilet base in these location with a 1/4 inch drill to pilot for the screws. Secure with the supplied screws. Rotate the blue platform to assure it is clearing the screw heads.

Installation - Venting the toilet

The Villa 9215 requires a hole to the exterior of the building for the air vent. The fan within the toilet draws air over the solid waste holding area, venting out through the rear of the toilet. This vent must remain clear for proper, odor free operation of the toilet. The vent tube is compatible with standard 3 inch schedule 40 pvc piping. The supplied venting material is adequate for running the vent tube out directly behind the toilet – and the position for such is noted on the installation template.

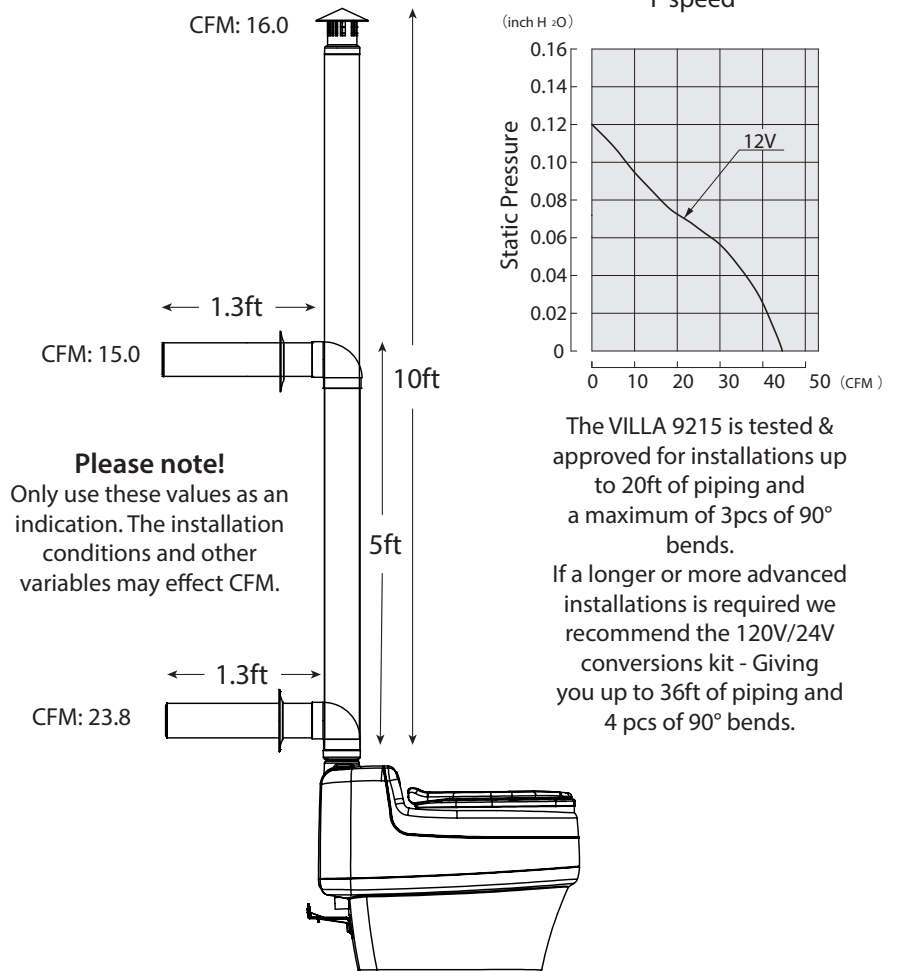
The toilet may also be vented through the ceiling, or by other paths to the exterior of the building. We supply a trim piece for the vent tubing for the interior, but not for the exterior. On the exterior – you will use a one of the supplied insect screens and either the horizontal vent cap – or the rain cap if exiting through the roof. Keep in mind to periodically inspect the insect screen and rinse clean if needed. There is also a clip in – yellow framed filter on the interior of the fan casing within the toilet. This should be inspected and cleaned if needed as part of your standard cleaning of the toilet.

Installation – Venting the toilet

We supply a tube of clear silicon for use in installation. Generally the venting tubes do not need to be glued except if required structurally for the vent run. The silicon will give ample sealing for ventilation and allow for modification if need be in the future.

The Villa 9215 uses a single speed fan with a CFM rating of approx 20. The venting of the toilet needs to be considered in the ventilation plan for your building. Keep in mind – if you have a small, very tightly constructed building, you need to consider where air can enter the building for air you are venting from the building. If you are using a kitchen exhaust fan for example – there must be available fresh air for that fan to pull from to avoid the kitchen exhaust fan pulling air in from the toilet area. Allowing available air is as simple as cracking a window when the other fans are in use – or through proper ventilation planning with a fresh air return.

Airflow chart VILLA 9215 (120V/12V)



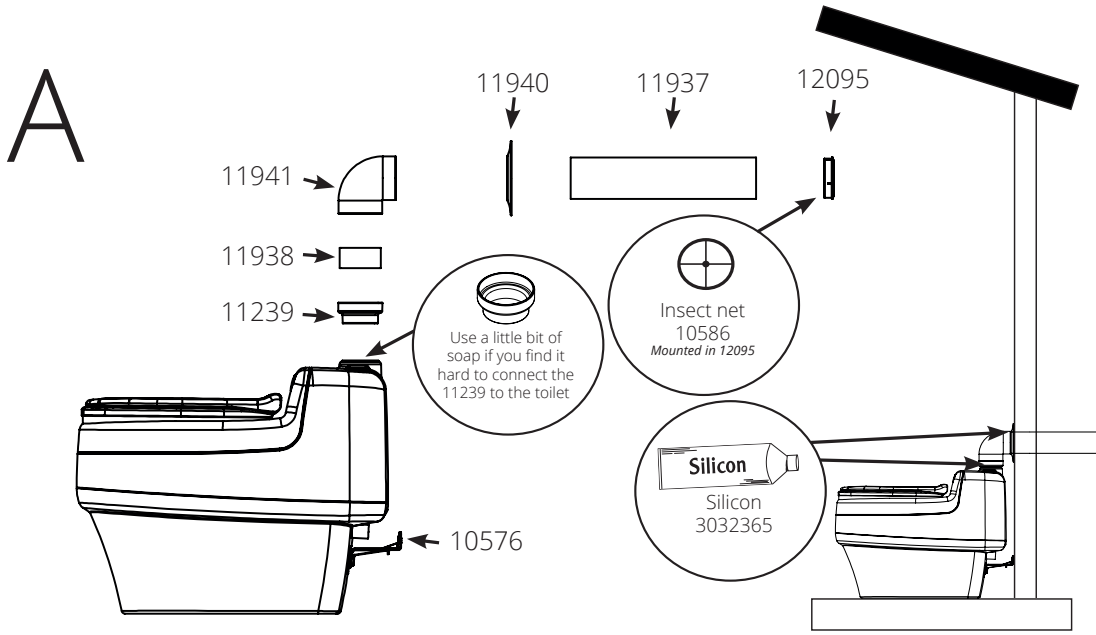
Installation – Ventilation options

If venting directly through the wall behind the toilet the supplied template may be used for location of the vent exit hole in the wall. A minimum hole diameter of 3.5 inch is required. All parts required for venting installation example A are included within the installation parts bag. Tubing 11937 should be cut to protrude approx 1/2 inch beyond the exterior siding of the building to allow you to seal around the edges of it.

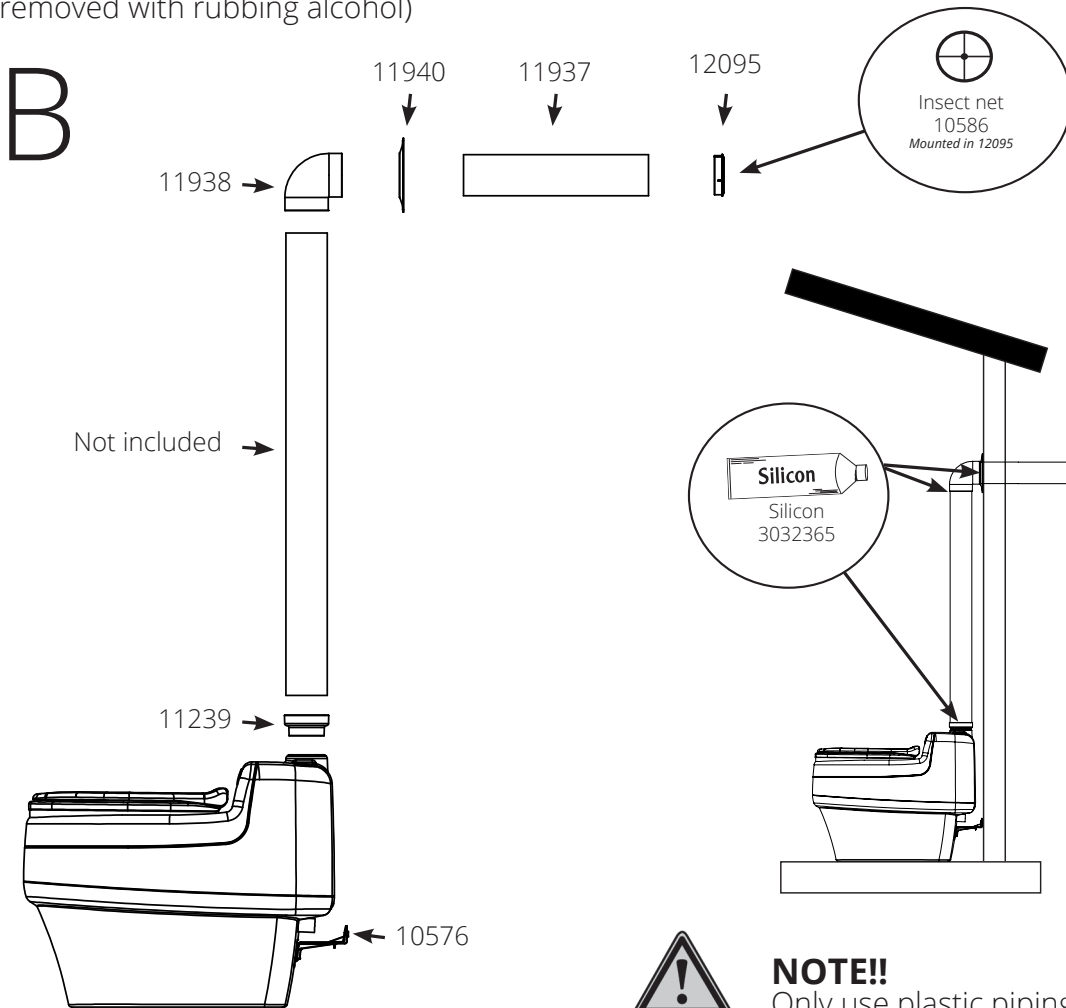
The vented end cap 12095 fits within the end of the vent tube. Make sure that the insect net 10586 is installed in the end cap. Do not seal this in place as periodically the cap needs to be removed to check that the screen is clear of debris in the same manner as you would check a dryer vent.

Should the location of the vent cap be located in an area that is difficult to access - the insect screen can be mounted on the interior of the vent tube, however this leaves the exterior of the vent run susceptible to fly or bug entry.

Installation - Ventilation options



Example B: If choosing to exit the vent farther up the wall as in example B, use 3 inch schedule 40 PVC tubing to achieve the additional lengths required. Our fittings are compatible with the exterior dimension of the schedule 40 PVC. (a note: printing on PVC tubing can generally be removed with rubbing alcohol)



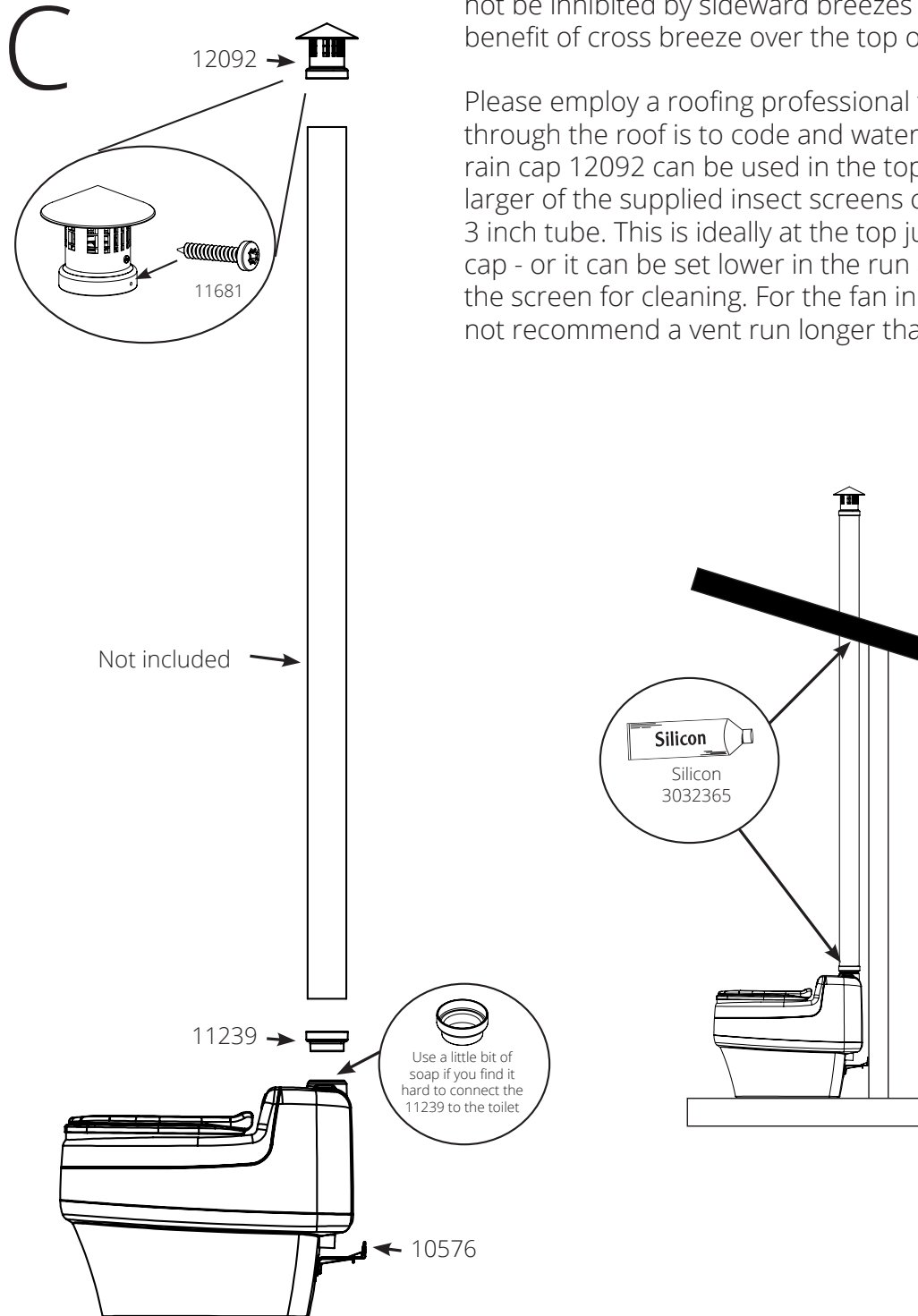
NOTE!!

Only use plastic piping for ventilation

Installation - Ventilation options

Example C describes using a stack vent exiting through the roof. For the extended length here you will use 3 inch schedule 40 PVC tubing as in Example B. A roof vent will provide the best ventilation for your toilet as it will not be inhibited by sideward breezes and receives the benefit of cross breeze over the top of the tube.

Please employ a roofing professional to assure your exit through the roof is to code and watertight. The supplied rain cap 12092 can be used in the top of the tubing. The larger of the supplied insect screens can be fit into the 3 inch tube. This is ideally at the top just before the rain cap - or it can be set lower in the run allowing access to the screen for cleaning. For the fan in the 9215, we do not recommend a vent run longer than 16 ft.



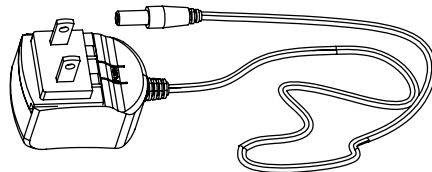
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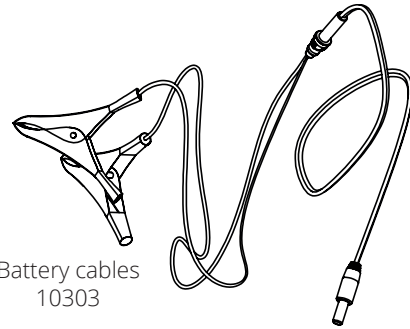
Installation – Powering the 9215 fan

The fan in your Villa 9215 will operate on either AC (standard household current) or DC (battery power) current. It is supplied with two cords; the one with battery clips on the end for the DC (10303) and a cord with a standard 2 prong plug for the AC (11999). The cords connect to the fan with a simple plug on the interior of the toilet to the left side of the fan.

The Villa 9215 comes with the adapter pre-connected



Adapter 120 V/12 V
11999



Battery cables
10303

DC (battery power) operation

Your Villa 9215 can be connected to a battery for electric power for the fan. When using DC power – consideration must be made to the positive and negative leads on the cable. There is a fuse inline within the positive lead. This fuse should not be eliminated if the cable is wired into a DC wiring system. Fans are sensitive to power spikes. Many folks are not well versed in the power systems used in mobile and off grid homes. Please confer with your electrician regarding the installation of proper power regulators especially when charging your batteries with either generator or AC charging systems to assure you are not inadvertently spiking the power to the toilet fan while charging your battery system. If you have any doubts – please disconnect the toilet from the battery when charging the system.

AC operation

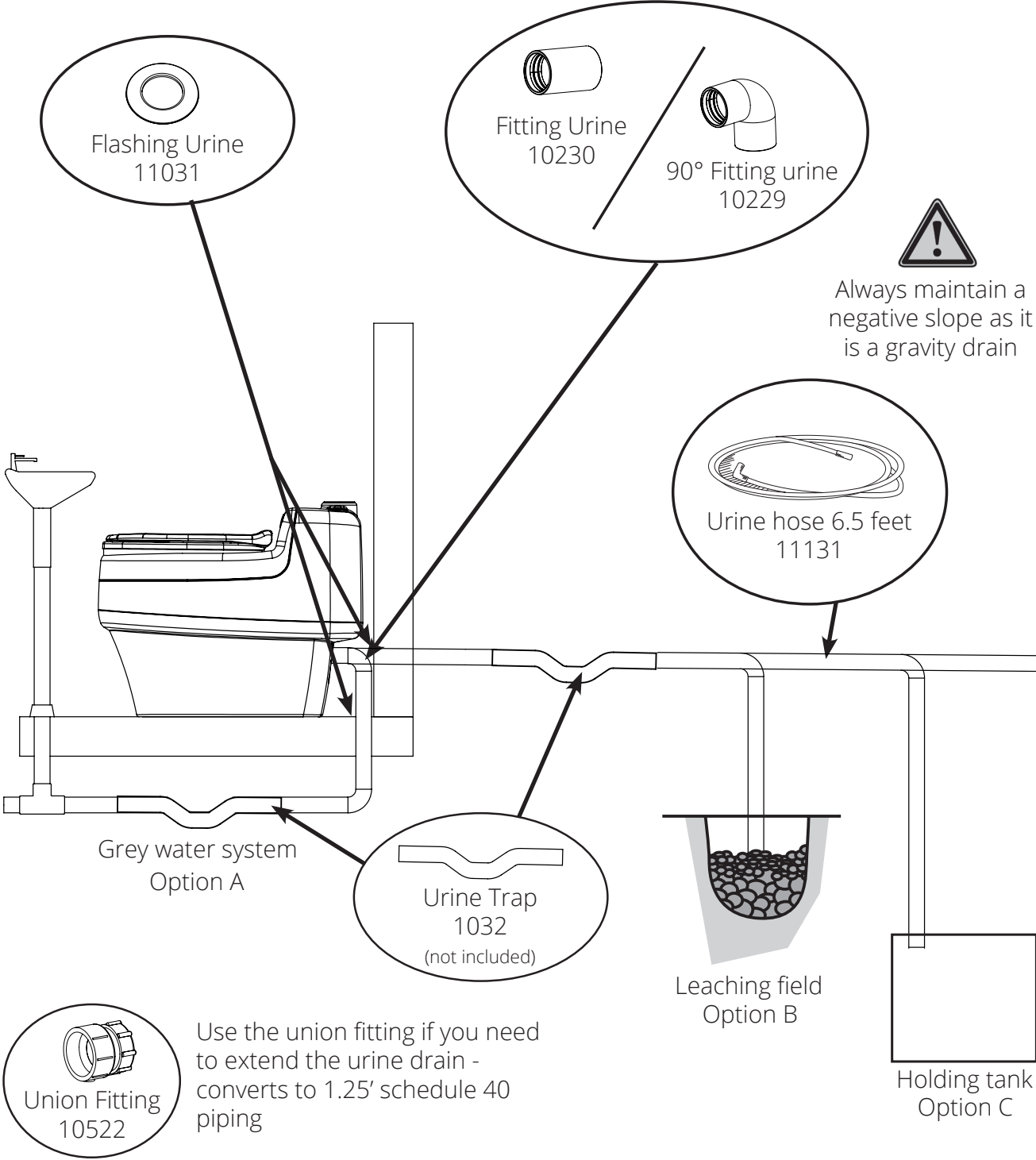
Simply plug the unit into your wall outlet for operation afterwards. If in a bathroom with running water please observe all local codes for outlet requirement.

Fan operation

There is not an on/off switch on the Villa model fans. This is to avoid the unit being mistakenly turned off while there is solid waste material within the toilet. The drying and venting process requires that the fan run when the toilet is in operation. The power draw is very low, about the equivalent of a 30 watt light bulb. If the property is not in use for a period of time, then the solid waste area can be emptied, or capped with its lid, and the toilet can be unplugged until you return and begin using the toilet again.

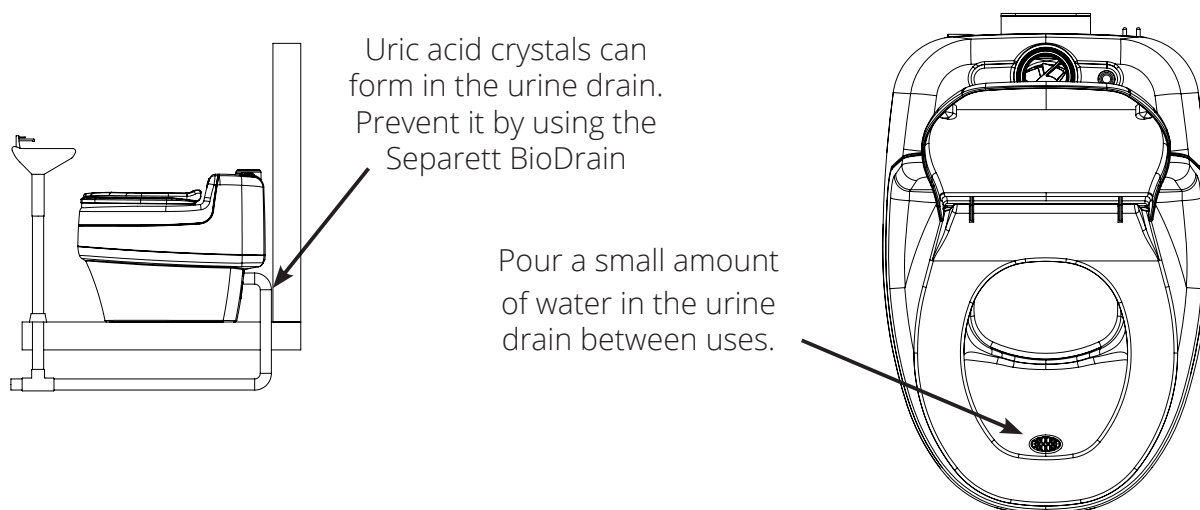
Installation - urine outlet

The urine drain can either be connected to a grey water holding system, run out to a dry well / leaching field, or collected in an exterior holding tank for use as a nitrogen rich fertilizer. The toilet is supplied with a 6 foot section of flexible drain tube (11131), along with both a straight (10230) and 90 degree fittings (10229), to connect the flexible drain to the toilet, and a union fitting (10522) to extend the drain tube to 1.25 schedule 40 piping. We always recommend installing a trap between the toilet and your system of choice regarding urine handling.



Installation – maintaining the urine drain

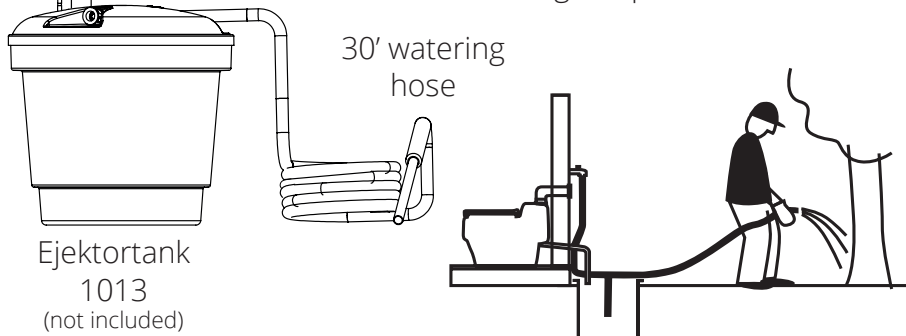
The drain should be cleaned weekly with using white vinegar to help clear the line. Between uses – a small amount of water may be put down the drain – however this should not be needed if the weekly cleaning is performed. The concern in the urine line is the possible build up of uric acid crystals. Should the vinegar rinse not keep up with any buildup, then consider occasional use of the Separett BioDrain Enzyme Tablets to keep the line clear. There is a sample of this in the parts bag. We recommend keeping it aside until you may consider the need for it.



Installation – Ejektor Tank (Accessory)

The Separett® Ejektor Tank is easy to install, has no moving parts and automatically mixes (in the ejector) 8 parts water to 1 part urine. The Ejektor Tank is only used if you desire to capture the urine for use as a fertilizer. Access to water with a minimum pressure of 35 psi is required.

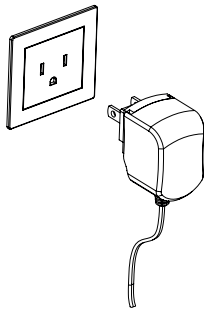
The 13.2 -gal tank is generally sufficient for homes when emptied every second or third week. A float indicates when the tank is full. The Ejektor Tank mixes urine and water and is emptied and cleaned automatically without the need for user intervention. As the Ejektor Tank is placed outside of the house, it is for growing seasons only and can not be used in freezing temperatures.



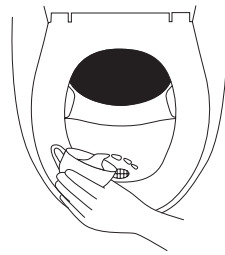
The Ejektortank connects to a 3/4" garden hose. A 30' long 3/4" emptying hose with a 50 cm nozzle is included. (The hose can be extended to 60').

Preparing the toilet and use

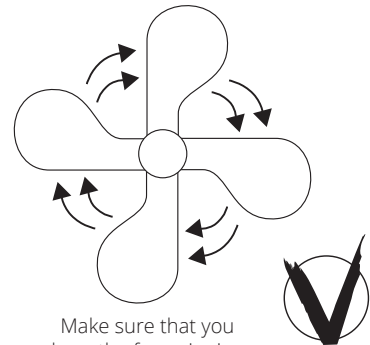
Prior to using the toilet – please check that the Villa 9215 is connected to a power source and the fan is operating. Also test the urine line by pouring some fresh water into the line to be sure there are no leaks in the connections and that you have proper drainage. Open the main compartment of the toilet – note that there are two hinges in the rear. The hinges have a lock position so please familiarize your self with how they work. Remove the solid waste container and line with a compostable bag. Fold the bag edges down the outside of the waste container. Reinsert the container.



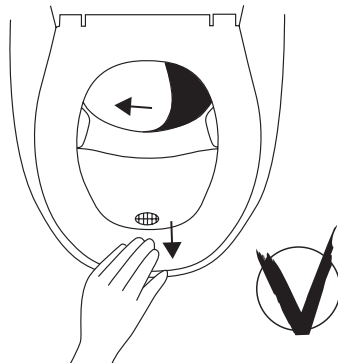
Connect the power



When you are finished, pour a cup of water in to the urine bowl.



Make sure that you hear the fan spinning



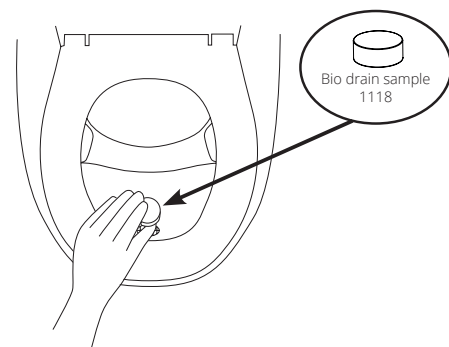
Make sure that the view screen is working by pressing the seat down.



Make sure that the waste bucket rotates by pressing the seat down.



Put a Separett compostable waste bag in the waste bucket

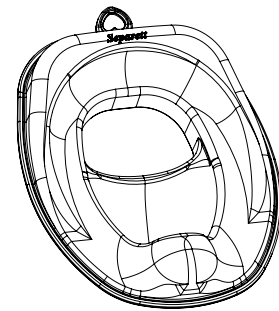


Put a Separett Bio drain cleaner in the urine bowl (optional)

Using the Villa 9215

Using the Villa 9215 is much like using a traditional toilet excepting that you do not flush. When someone sits on the seat the blue concealment screen slides to the side to allow access to the solid waste holding area. The ergonomic design of the toilet allows urine to be diverted to the front section and to drain from the toilet. Solid waste and toilet paper go in the rear section. Users will find that an upright position on the seat will give best results – as leaning forward will naturally direct the urine stream to the rear of the toilet rather than into the urine drain. It is generally recommended that everyone sits to use the toilet – although with consideration men can urinate into the urine trap while standing. There is an accessory child seat available for the Villa. It clips into the seat rim. The design of the seat (1101) allows for urine separation.

No materials other than the solid waste and toilet paper should go into the solid waste holding area. Any additional material will hinder the drying process and add unnecessary volume. Should the solid waste contain a high level of liquid – a compostable absorbent pad such as the Separrett Absorb Pad may be placed in the bottom of the compostable liner bag. There is a space of approx 1/2 inch between the blue concealment screen and the top of the toilet. This is to allow airflow into the solid waste holding area for proper venting. Please be careful to not try to push the concealment screen downward. It is designed to rotate sideways only and will be damaged if pushed down. Each time the toilet seat is depressed – the activator pin under the seat will cause the concealment screen to open and secondly cause the tray below the solid waste area to rotate a few degrees clockwise. This rotation assures even distribution of the solid waste within the holding area.

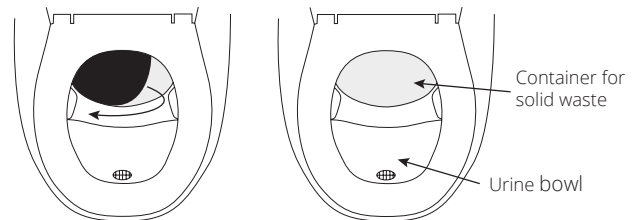


Child seat
1101
(not included)

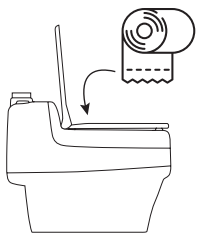


Always sit down on the toilet.

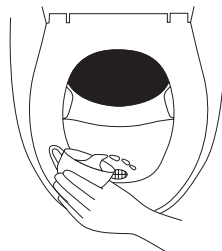
Sit a little further back than usual so that urine and solid waste gets separated.



When you sit down, the view screen turns away.



The toilet paper goes in the same container as the solid waste.



When you are finished, pour a cup of water in to the urine bowl.

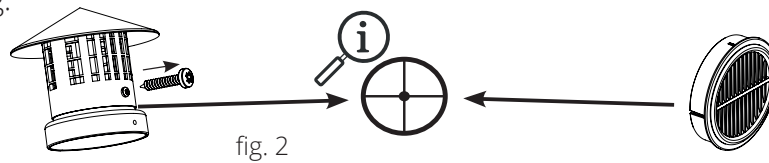


NOTE!

Don't throw any burning or glowing objects into the toilet!

Points to note

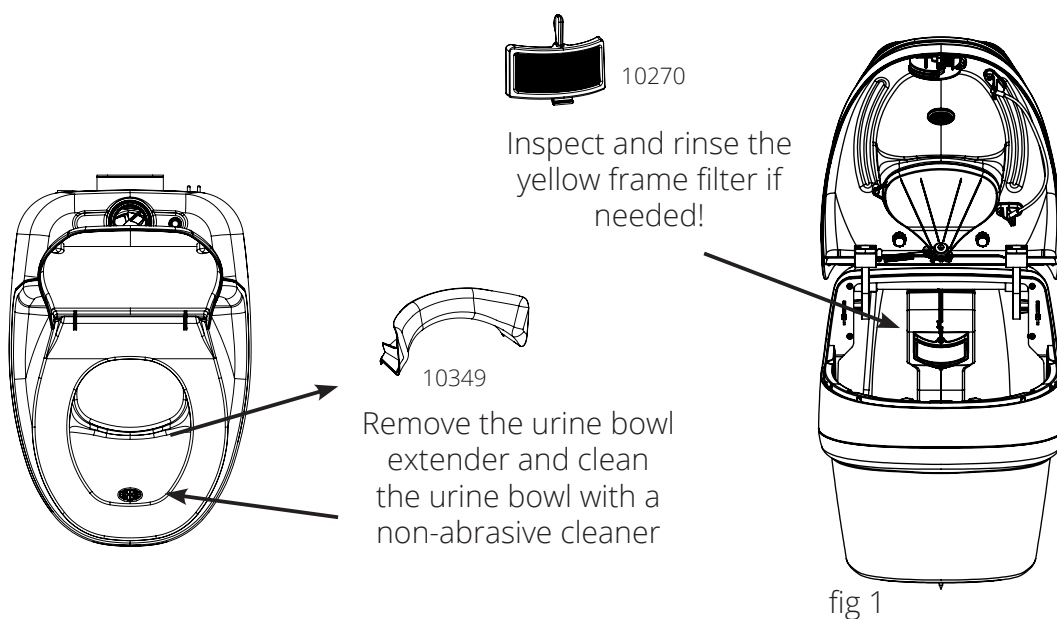
- With proper use the Villa 9215 should be completely odorless. Solid waste will continually lessen in odor as it sits, dries and is vented – as long as it is separated from urine. Urine is nitrogen rich and will act as a fertilizer for the bacteria within the solid waste and cause that bacteria to bloom and produce odor. Therefore – conscientious use of the toilet regarding urine separation is the key to no odor.
- Proper venting is required. Weekly inspection of the filter on the inside of the fan (fig. 1), and periodic inspection of the insect screen in the venting cowl or grid (fig. 2) will assure clear venting.



- Consideration of the overall venting and fresh air intake plan for your building to assure other exhaust fans will not cause a reverse air flow coming back in through the toilet vent.
- Assuring there is a trap in the urine drain line if draining to a grey water tank will assure no odor is returning from the holding tank. Please keep this in mind for mobile application and connection to drains in RV or Mobile Home parks.
- As with all new concepts – having users understand a bit about them will lead to their success. Please inform your guests of the concept of how the Separett Villa operated and the urine diversion.

Cleaning the toilet

The Villa 9215 should be cleaned with a eco-friendly liquid, non-abrasive cleaner. It is constructed of a high-impact, high gloss polypropylene material which will scratch with an abrasive cleaner or scouring pad. Rinse the urine drain weekly with a small amount of white vinegar. Inspect the yellow frame filter on the fan intake and rinse clean if needed.



Emptying and solid waste holding area

With full time use a family will generally empty the solid waste holding area after approximately three weeks of use. To do so, open the main compartment of the toilet assuring that the hinges latch in place. Gather and tie the top of the compostable liner bag as you would a trash bag and remove the bag within the solid waste holding container. After removing the bag, reline the waste holding area with a new bag and you are ready to continue use.

The solid waste can be composted, bio-digested, placed in an approved solid waste disposal area or incinerated.

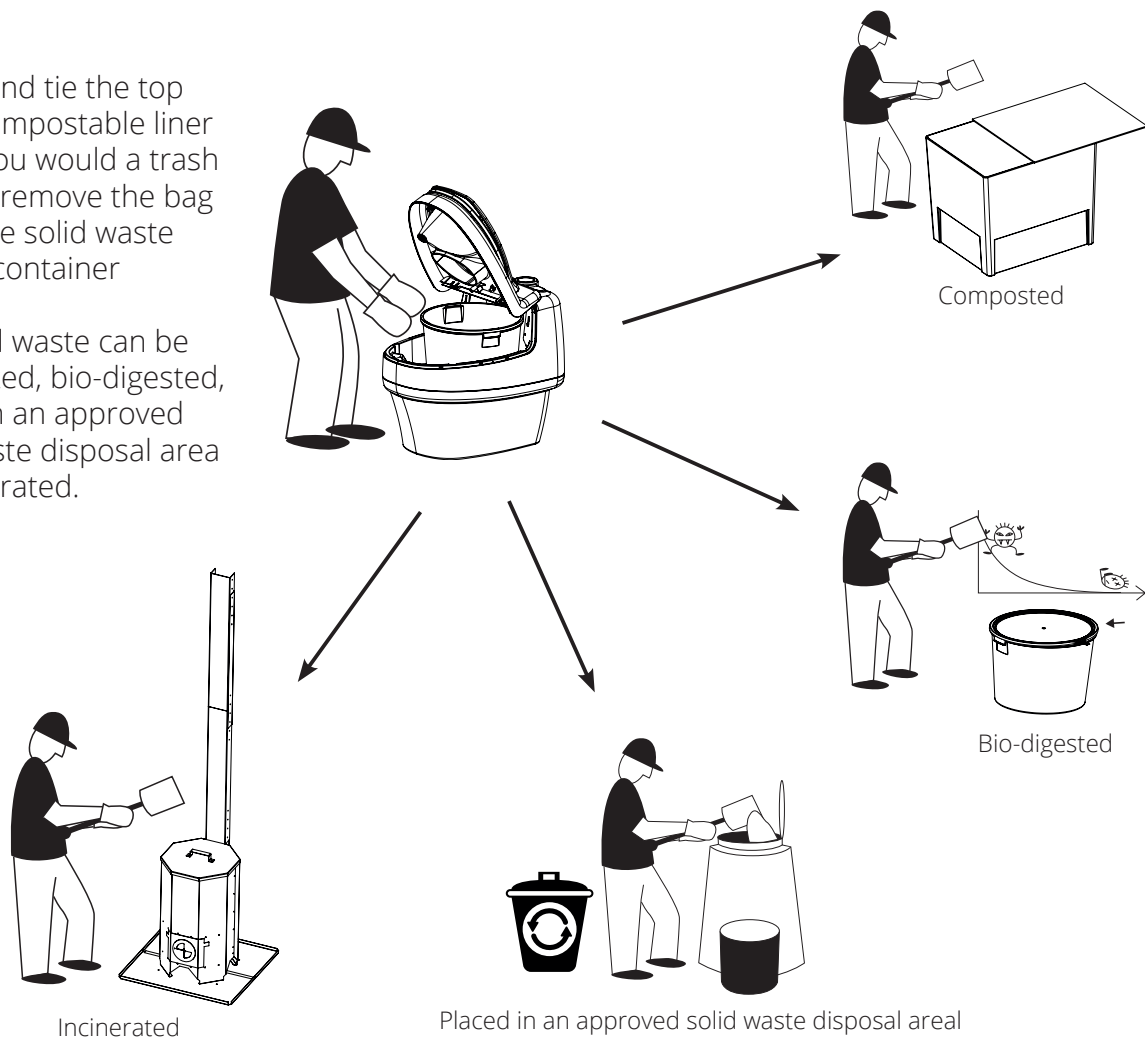
Considerations with composting the solid waste:

Human pathogens go benign in solid waste aerobically in a minimum time of six months. This process is shortened with higher heat however the temperatures required are in excess of 160 degree F, so six months is our time for consideration. If composting – the compostable liner should be added to a compost bin and covered with other composting material. It takes the microbes from the compost to break down the bags. As the bags compost the solid waste becomes exposed in the compost and will begin to break down. To aid in timing we recommend use of two compost bins. Use one the first year then switch to the second. At the end of the second year you know bin one should be ready to use. A proper mix of material is required for the solid waste to decompose.

Please review information on composting best practices for more info.

Gather and tie the top of the compostable liner bag as you would a trash bag and remove the bag within the solid waste holding container

The solid waste can be composted, bio-digested, placed in an approved solid waste disposal area or incinerated.



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Waterless toilets