

# Separett Model Villa 9210

## IMPORTANT SAFEGUARDS

- READ ALL INSTRUCTIONS BEFORE USING -

When using electrical products, especially when children are present, basic safety precautions should always be followed. Warning to reduce the risk of burns, electrocution, fire or injury to persons:

1. Never put cigarette butts or other burning or hot objects in the toilet.
2. Use only attachments recommended by the manufacturer.
3. Close supervision is necessary when this product is being used by or near children or invalids.
4. Use this product only for its intended use as described in this manual.
5. Never block the air openings of the product or place it on a soft surface, such as a bed or couch, where the air openings may be blocked. Keep the air openings free of lint, hair, and the like.
6. Never drop or insert any objects into ventilation openings.
7. Unplug this product before cleaning.
8. Never operate this product if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or if it has been dropped into water. Return the part to a service center for examination and repair.
9. Keep the cord away from heated surfaces.
10. Connect this product to a properly grounded outlet only. See Grounding Instructions below.

## - INSTALLATION INSTRUCTIONS -

### **Key installation considerations include:**

1. A suitable outlet for the venting pipe & urine waste pipe. The preferred venting is through the wall, but it can also go through the roof or up through the attic & out the gable.
2. A suitable outlet for the urine waste. These include in-ground options are existing septic system, grey water pit or class 3 gravel leach bed (cesspool). Tank options include Ejektortank, pump-out tank or portable tank.
3. Contact local authorities to find out which building and environmental regulations apply in your region.
4. A 12V or 120V power supply is necessary for the Villa 9210. However, if no power is available, the vent pipe can be run above the roof line and a wind turbine vent can be added to create the draft required to vent the toilet.
5. Please be aware that the fans are sensitive to voltage spikes. If you are using a 12V system, an inverter from 12V to 120V is recommended and then using the adaptor reduces the chance of the voltage spiking the fan motor
6. A good quality voltage regulator is highly recommended if you are running 12V directly to the fan,

### **Mounting the toilet:**

1. Place the toilet where it is to be installed and determine desired mounting.
2. Measure and make holes for the urine waste pipe and venting pipe.
3. Install the rubber gasket on the bottom of the toilet.
4. Attach the toilet to the floor using three (3) screws through holes in the rotation disc, or to the wall using angle brackets or directly into a wall beam in lieu of the bracket.
5. If mounting to the floor, punch out the plugs in the screw holes with a screwdriver first.
6. If using the wall brackets, mark the location while the bracket is attached to the toilet, then remove the bracket from the inside of the toilet. Mount the bracket to the wall and then mount the toilet to the bracket.

### **Running the urine hose:**

1. Run the flexible urine waste hose to the leach bed or tank. The waste pipe must have an adequate drop through its entire length, so that the normal flow will prevent the build-up of salt deposits inside this drain.

2. Two self-sealing urine hose connectors are included in the installation kit and are pushed on the end of the urine pipe coming out the back of the toilet. Use straight connector if you are running the urine hose out the back wall. Use the 90 degree connector if you need to run the urine hose left, right or down through the floor.
3. If using a tank, it must be positioned at a lower level than the toilet to ensure an adequate flow throughout the length of the hose.
4. The urine can be used as an excellent plant fertilizer.
5. If the urine hose is joined to the waste pipe below a wash basin, make sure that the water from the basin flows out properly and does not block the urine waste pipe.
6. A water seal (trap) will only need to be required if an unpleasant odour from the greywater system are emanating from the toilet or the venting pipe outside the house. As this very seldom happens, it is best to wait until the problem occurs before adding a water seal. If a water seal is installed, it is important to rinse the toilet every time it has been used in order to prevent the build-up of salt deposits in the trap.
7. If the toilet is to be used below -6°C (21.2°F), the temperature when urine begins to freeze, the hose will need to be insulated and on steep grade. In very harsh winter climates some form of heating device for the pipe may be needed to prevent ice from forming and blocking the pipe.
8. If the urine hose needs to be routed close to radiators or through insulated floors or walls, we recommend using standard plastic pipes (Ø 1-inch/32 mm) instead of the hose supplied.

#### ***Venting the toilet:***

1. All the parts for a standard, through the back wall venting application are included in the installation kit.
2. If there is already a vent pipe from a previously installed toilet, you may connect the Separett Villa to it.
3. All joints in the venting pipe must be sealed with silicone or the equivalent.
4. Only use venting pipes made of plastic.
5. Applying soap will make it easier to join the ventilation and urine waste pipes to the toilet.
6. The installation kit also includes 2 sets of reducers. One set is used with the thin wall 75mm vent pipe included with the toilet, however the 75mm pipe can be difficult to source if you require a longer length. Therefore, the other set of reducers are to be used with standard 3" PVC sewage pipe typically available at a hardware store.
7. The hole on inside of the wall must large enough to fit the reducer through. A hole cover is included to ensure a neat look.
8. The hole on the outside of the wall (sheathing or siding) should only be made to fit the small end of the reducer through.
9. After pushing the vent pipe and final reducer through the hole, the reducer should snug up against the sheathing.
10. The bug screen fits in the outside vent and the vent fits in the reducer from the outside.
11. The pipe does not need to be insulated unless you are in an extremely cold environment. Any condensation in the vent pipe will be drained back to the toilet and routed via the condensation tube to the urine waste pipe.
12. If the ventilation pipe is installed in the standard horizontal position, make sure that it slopes back slightly to allow any condensation to run back to the toilet. This is particularly important when installing the pipe in extremely cold environments.



#### ***Final set-up:***

1. The fan should be allowed to run constantly. This lessens the build-up of deposits on rotor shaft and other moving parts and also helps to divert moisture outdoors.

2. Connect the power cable to the 12V or 120V power supply. Check that the fan is operating and that the venting system is fully functional.
3. Press down on the seat to ensure that the view screen slides open and that the container rotates as intended. Your new toilet is now ready for use.

## User Instructions

The Separett Villa toilet is designed using the latest environmental technology and is built to provide excellent performance.

### Operation, Maintenance & Disposal

#### **Operation:**

1. Always sit while using the toilet! The pressure from a person sitting opens the view screen readying it for use.
2. The front receptacle diverts urine away.
3. Solids are collected in the solid waste container.
4. Avoid adding organic material to the container, as it may have insect larvae and cause insect to hatch in the container.
5. Fan The fan should be allowed to run constantly to reduce build-up of deposits on the rotor shaft & other moving parts and to divert moisture outdoors.
6. This product is for household use.
7. The toilet will function in both warm and cold environments. Make sure to make necessary adaptations if the urine outlet is exposed to temperatures below -6°C (21.2°F), the temperature when urine starts to freeze. The urine drain line should be on a steep grade to the pit and for extreme cold, the drain line can be insulated or wrapped with a heated cable.

#### **Maintenance:**

1. The capacity of a container for family four people, using the toilet on a full time daily basis, is about 3 to 6 weeks, depending on how much toilet paper is being used.
2. To increase capacity, consider putting pee paper in the garbage. However, for most vacation homes, 2 or 3 containers will suffice for the year.
3. Additional containers can be purchased if required. If the toilet is being used more frequently during a short period, solid waste bags may prove necessary.
4. Switch fan off only when container is empty, removed or has its lid in place. Otherwise, it is easy for flies to enter and lay eggs.
5. Regularly remove and clean the insect mesh on the fan intake. The mesh keeps insects out of your bathroom and protects the fan from dust.
6. Clean with non-abrasive detergents and cleaning products in order to avoid scratching the surface.
7. Separett toilets are not temperature dependent and can also be stored in cold temperatures. However, at very low temperatures you need to be extra careful, as the plastic becomes more brittle.
8. Cord should be stored in a clean, dry location.

#### **Disposal:**

1. **IMPORTANT:** You should contact the local authorities to find out which health and environmental regulations apply in your region.
2. The solid waste in the container will start to dry and decompose while in the toilet.
3. Once the container is full, open the upper body of the toilet, put the lid on the container and remove from the toilet.
4. Replace with an empty container with a new compostable bag.
5. The full container can be set aside for storage or the compostable bag can be removed for burning, composting or thrown down an old outhouse pit.
6. If storing in the container, mix some soil into the container and cover the contents with a layer of soil. Place the lid on the container but leave it slightly open to allow the air to circulate in the compost.
7. The container and its contents must be left to stand for six (6) months in order to inactivate all human pathogens (this is the storage period currently required under health and safety regulations in Sweden where Separett is manufactured).
8. Once the storage period is over, the contents of the container can be dug into the garden or compost. Traces of toilet paper and compostable bag decompose and the end product makes an excellent garden soil fertilizer.

9. The solid waste can also be added to a composter along with other compostable materials, kitchen waste, grass clipping, leaves, etc.
10. A dual compartment composter is recommended so that while one side is being filled the other side stands for 6 months before the compost is placed in the environment.
11. The solid waste can also be burned using the Separett Burn incinerator or added to another intense fire.
12. Some municipalities may also provide organic waste pickup.

## **If the Toilet Is Not Working Properly**

The Separett Villa is manufactured and quality-controlled to ensure the best possible performance and reliability. If, in spite of this, it appears to be malfunctioning, please check the points in the list below before contacting your dealer or Separett AB.

### ***Experiencing strong odours:***

1. Make sure the insect mesh on the fan intake and the bug screen on the outside vent are clean.
2. Make sure all the joints in the venting pipe and urine waste pipe are completely tight.
3. If urine finds its way into the solid waste container, this will significantly increase the odour from the container, to the point where the fan is unable to extract the odour. Remove container with urine and put a fresh container in the toilet.
4. To help avoid urine in the container in the future, loosen the yellow toilet seat nuts and move the seat forward.
5. Also to avoid urine in the container, you can use the plastic urinal extension, included with the toilet, to make the front part of the bowl larger.
6. If urine is being piped into the greywater system, this can be the source of unpleasant smells. If this is the case, install a water seal in the urine waste pipe to act as a trap.
7. Using enzyme Bio Tabs will also help reduce the buildup of urine salts in the pipe and keep the toilet smelling fresh

### ***If the fan is noisy:***

1. Typically the fan is extremely quiet, however if some sounds starts to emanate from the fan, it likely has a buildup of dust on the fan blades.
2. Unplug the power cable from the left side of the fan housing.
3. Loosen the 2 black thumb screws at the base of the fan housing. Pull the bottom of the fan housing up and towards you to remove the housing.
4. Vacuum the inside of the fan housing from the top and bottom and replace in reverse order.

### ***Urine hose is plugged:***

1. Over time and heavy use urine salts can buildup in the piping and hose preventing the urine from flowing freely.
2. Using enzyme Bio Tabs will also help reduce the buildup of urine salts in the pipe.
3. Run a cup of vinegar down the urinal periodically to dissolve any salt buildup.
4. For heavier buildup, use an enzymatic drain cleaner regularly to dissolve any buildup.
5. If using a water seal (trap), flush with a little water after every use.

### ***Solid waste container filling up too fast:***

1. If urine finds its way into the solid waste container, this will significantly increase the volume of waste there.
2. If the toilet is used heavily by females, consider throwing the pee paper into the garbage rather than into the waste container.

### ***Insects are in the toilet:***

1. First, unplug the power supply!
2. If there are flies, lift out the solid waste container and put a new one in.
3. Remove and clean the insect mesh on the fan intake.
4. Spray inside the toilet and the room with a fly spray. Keep the fan off while the spray is taking effect.
5. Repeat this procedure for a few days.
6. If the fan is to be turned off for a long period, put the lid on the waste container or remove the container otherwise odour could enter the room and it could attract flies.

## Technical data

- Separett model Villa 9210, type 5000
- Recyclable materials: upper and lower main sections made of impact-resistant, high-gloss polypropylene;
- Seat is high-gloss polypropylene;
- Inner container and cover are polypropylene.
- Weight: 28.7 pounds/13 kg.
- Venting pipe: Ø ca 3 inches/75 mm.
- Urine waste pipe: Ø 1.25 inches/32 mm.
- Electrical equipment: Fan, 12V, 2.54W.
- Electrical connection: 3-foot/1-meter adaptor with 120V plug; 3-foot/1-meter 12V power cable.
- Power consumption: 61watts/24 hrs