

ecogator

GREY WATER SYSTEM

The ecogator Grey Water System
Installation & training manual

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1. Introduction

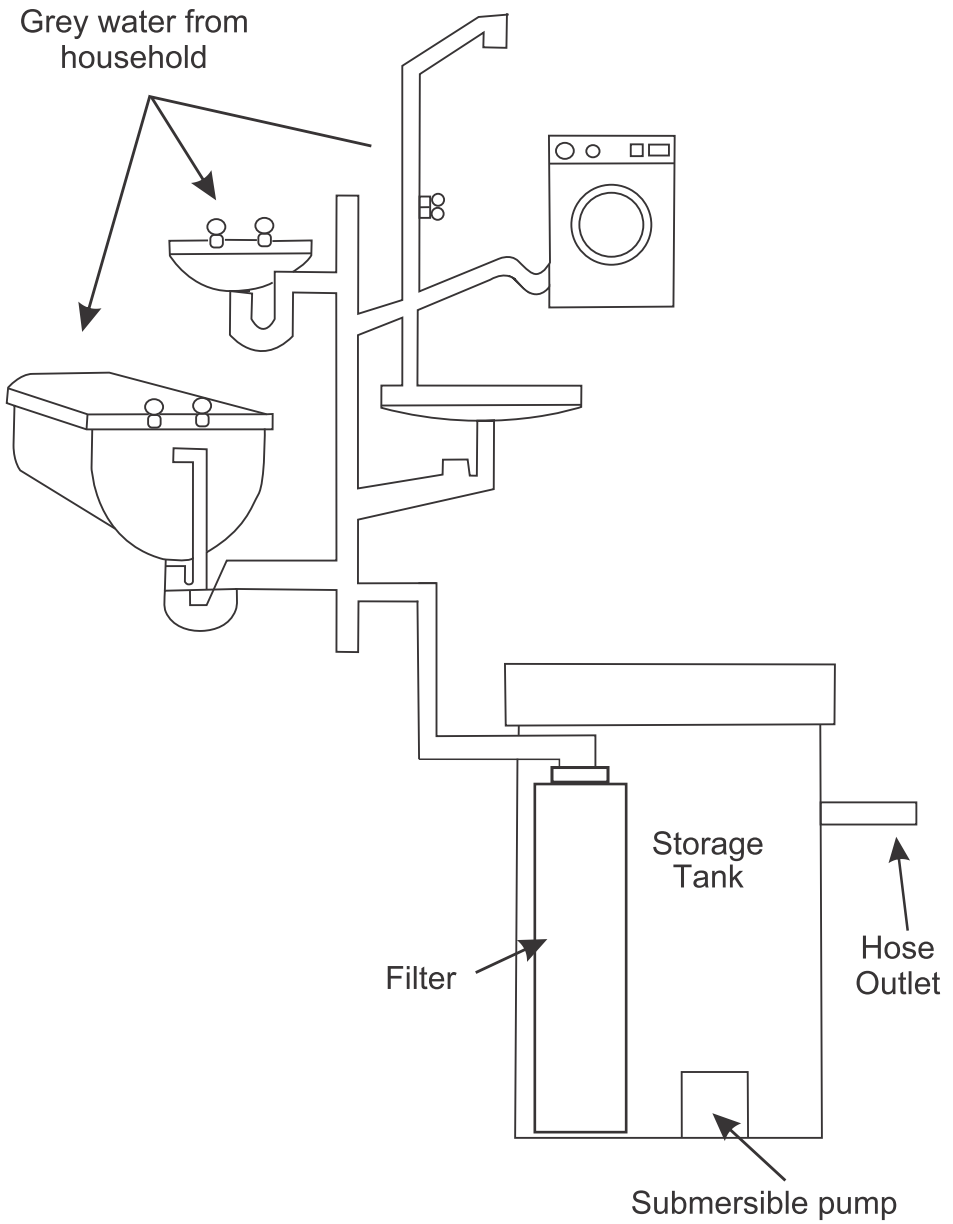
Thank you for purchasing the **ecogator** Grey Water System. By doing so, you are contributing to preserving and effectively utilising a precious natural resource AND save money in the process.

The **ecogator** Grey Water System is designed to ensure the recycling of household water. One of the best ways to preserve water is by re-using the grey water from your household. Even when there is no rain – you still have your daily household grey water to re-use in your garden.

The **ecogator** Grey Water System is simple to use and easy to install. This underground or above-ground system is only a collection point for recycled water and not a storage tank. Household waste pipes from your shower, bath and washing machine are extended to a central point, where it passes through a filter in the water tank from where it is pumped to your garden. Kitchen water should not be used as the greasiness and fatty residue may block the irrigation pump and pipes which could pose a health risk. Black water (sewerage) should never be used.

Everything needed is included in the **ecogator** Grey Water System (tank, filter, pump and user manual). This system allows for both an external and an internal submersible pump.

The system is easy to clean and maintain and is made of durable Polyethylene which is non-corrosive and rust free. The size of the **ecogator** grey water tank is 120 litres. Regular pumping will inhibit bacteria growth and the forming of odours. The average household could save up to 50 litres of grey water per person per day to re-use in your garden.



2 **ecogator GREY WATER SYSTEM**

2.1 **DESCRIPTION**

The **ecogator** Grey Water System is designed to re-use water in your garden that would have gone to waste. It is designed to use the grey water within 24 hours to inhibit bacteria growth and prevent potential odours. Grey water is waste water from showers, baths and laundries. Grey water should never include sewerage (blackwater) from toilets, or water from washing up (dishwashers or sinks).

2.2 **COMPONENT DESCRIPTION** (bill of material):

The **ecogator** Grey Water System consists of the following:

- 2.2.1 **Filter unit** - the filter unit consists of a robust Polyethylene outer cylinder and lid; a very effective specially designed bottle brush as well as a primary canister and grid. The brush and primary canister can easily be removed for weekly cleaning (refer to maintenance). The water flows freely through the canister with the brush system preventing any hair and solids to pass through to the tank. A grid and sieve on top of the cylinder further assists in the filtering process. Please remove the filter bottle brush when the system is in "by-pass" mode as it will prolong the longevity of the brush.



Filter unit



Canister



Grid



Bottle Brush

2.2.2 **Tank**– the 120 litre tank collects all the water before pumping it into the garden. The tank is designed to allow for an internal submersible pump or an external well point pump. Inside the tank you will find ball valves which can be switched to an open or close position. This is very useful when not using the grey water from your system (winter months or with power outages). When opening the valve, the water will bypass the **ecogator** Grey Water System. This will ensure that there will be no stagnant water in the tank (when by-passing – you could remove the filter brush, to prolong its lifespan). By-passing the system in winter months may also prolong the lifespan of your pump. The system also has an overflow to the existing sewer pipes in case of a power shortage or when your pump is not operational.



120 litre tank

2.2.3 **Outlet**

The system has two possible outlet configurations:

2.2.3.1 **External well point pump** – find a pre-installed outlet pipe with a finger filter attached at the bottom. This should be used with an external pump. Just connect the pump's inlet pipe to the 32mm female outlet fitting outside the tank.

2.2.3.2 **Internal submersible pump** – Remove the pre-assembled outlet pipe and finger filter inside the tank. Place the submersible pump at the bottom of the tank and connect it to the outlet fitting in the tank.



External pump



Internal pump

2.2.4 **Float Switch (OPTIONAL)**

When using an external pump, a float switch should be installed. The tank will collect water up to a level where the float switch will turn the pump on. The tank is equipped with an adjustable moulded fitting inside for attaching the float switch.



Float switch at the bottom of the tank

3 **INSTALLATION**

It is advisable to have a registered plumber and electrician assist you with your home installation.

3.1 **Installing the 120 litre underground collection tank and filter unit.**

- 1) First determine the best location for your **ecogator** Grey Water System.
- 2) Your existing plumbing and pipe work will determine the depth level of the unit – all plumbing should slope downwards towards the **ecogator** Grey Water System.
- 3) Now dig a hole for the tank – approximately ± 850 mm in diameter and ± 750 mm deep.

The supply pipe should never slope upwards towards the tank!

- 4) Place the tank firmly in the hole and make sure it is on the desired level in order for your plumbing to slope downward to the tank inlet.
- 5) Fill the space around the tank with firmly compressed soil to support it on all sides.

3.2 **Installing the plumbing to and from the tank**

The installation and connection of the plumbing to the **ecogator** system will be different to each installation location. The following instructions serve as a guideline and should be adapted to fit each location's requirements.

Note: All piping is to be supplied by the installer.

- 1) Connect all the outlets from bathrooms and the washing machine into the final 40mm-50mm pipe at the outlet from your building.
- 2) Extend this pipe from your house/building to the tank.
- 3) Ensure that the flow from the bath/shower/washing machine outlet to the unit is at a downward slope.
- 4) It is a requirement that the system overflow is re-connected to the existing sewer line.

3.3 Installing the overflow pipe

The system needs an overflow pipe in case of power breakdowns as well as for by-passing the system in winter months.

- 1) Insert a 50mm overflow pipe into the overflow fitting on the tank.
- 2) Lead the overflow pipe back to the sewerage drain, ensuring a sufficient angle (sloping downwards) for adequate flow out of the tank.



3.4 Installing a pump

This must be done strictly according to the instruction manual supplied with your specific pump.

4. **MAINTENANCE**

4.1 **Bottle Brush Filter**

You should try and clean the bottle brush filter and canister on a weekly basis.

- 4.1.1 Remove the bottle brush filter and canister from the filter cylinder
- 4.1.2 Rinse the two items thoroughly with a hose pipe
- 4.1.3 Please ensure that you remove all hair and residue that could block your system
- 4.1.5 Gently replace the bottle brush and canister in the cylinder

4.2 **120 litre tank**

It is advisable to rinse out your 120liter tank once a month after a pumping cycle

- 4.2.1 Wait for a pumping cycle to finish
- 4.2.2 In the case of an external pump - make sure the finger filter outlet is clean (you can unscrew the filter for easy cleaning)
- 4.2.3 Using echo friendly cleaning liquid (or general household cleaning liquid) hose the inside of your tank down and use a broom to scrub the inside
- 4.2.4 Make sure the finger filter on the outlet pipe (bottom of tank) is thoroughly cleaned

4.3 **Pump**

Please follow the installation and maintenance instructions from your pump carefully to ensure its longevity and your safety. Please ensure that electrical connections be carried out by a registered and licensed electrician.

4.4 **Float Switch**

The float switch does not come with a warranty, once installed. It is a non-repairable unit and needs to be replaced when it malfunctions.

5. **When using grey water – do's and don'ts:**

- Do not use grey water as drinking water and never contaminate drinking water with grey water
- Do not use grey water on vegetable gardens or vegetables and fruit eaten raw.
- Do only use water from bath, shower, hand basins and washing machines.
- Do not ever use sewerage or water contaminated with sewerage in grey water.
- Do not use kitchen waste water as grey water.
- Do not store grey water longer than 24 hours.
- Do by-pass the grey water system in winter months and with power outages.
- Do not let grey water pool or stagnate as it could attract unwanted insects such as mosquitos.
- Do not discharge grey water into the storm water drain as it may be harmful to the environment (due to the use of detergents and soaps).
- DO TRY to switch to eco-friendly household detergents and soaps.

6. **Using grey water in your garden**

- Connect a 20mm hosepipe and pyramid sprayer to the outlet.
- Pyramid sprinklers are recommended.
- The connection should be free-flowing.
- Do not connect grey water to a micro mist or pop-up type irrigation as it could potentially block the mist sprayers.

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EGGW3