

Operation Guidelines

Thank you for choosing the Garden ResQ Grey Water Diverter. Both the Maxi and Mini units are designed and manufactured in South Africa for both the local and export markets. The Garden ResQ Mini unit has been granted WaterMark certification and as such Australian homeowners are entitled to a generous Government rebate once installed and commissioned by a licensed plumber.

Both the Maxi and Mini units are designed to automatically pump waste water from your bathroom directly onto your garden and lawns. This no mess solution removes the need for unsightly and cumbersome diversion hoses sprawling from laundry windows and doors and replaces the hard work of bucketing out your bath and shower water. Unhealthy storage tanks are now also a thing of the past

The performance of the units are determined by the way in which they are installed and maintained and it is important that that both you and your plumber refer to all sections of this document prior to the installation and operation of the Garden ResQ units.

Mandatory Requirements:

- ALL ELECTRICAL INSTALLATIONS THAT WILL SUPPLY POWER TO THE GARDEN RESQ UNIT MUST BE INSTALLED BY A LICENCED ELECTRICIAN.
- BOTH THE MAXI AND MINI GARDEN RESQ UNITS HAVE BEEN FITTED WITH A WATERPROOF 220V VOLT PUMP FOR YOUR PERSONAL SAFTEY, HOWEVER FOR ADDED PROTECTION PLEASE ENSURE THE ELECTRICAL OUTLET TO WHICH THE UNIT IS CONNECTED IS ALSO PROTECTED BY AN RCD (RESIDUAL CURRENT DEVICE).
- PLEASE CHECK WITH YOUR LOCAL COUNCIL OR WATER AUTHORITY FOR GREY WATER UTILISATION REQUIREMENTS IN YOUR AREA.
- GARDEN RESQ RECOMMENDS THE USE OF SUB SURFACE IRRIGATION, HOWEVER IN SOME AREAS THIS MAY NOT BE A MANDATORY REQUIREMENT. BOTH THE MINI AND MAXI UNITS WILL OPERATE A SINGLE 'PYRAMID' TYPE SRINKLER IF ALLOWED IN YOUR AREA .PLEASE CHECK WITH YOUR LOCAL AUTHORITIES.
- SOME MUNICIPALITIES HAVE SPECIFIC MINIMUM SET BACK GUIDELINES FOR GREY WATER IRRIGATION. PLEASE OBSERVE THESE QUIDELINES
- GREY WATER MUST NEVER BE STORED FOR LONGER THAN 24 HOURS. THE GARDEN RESQ MINI UNIT IS DESIGNED TO EVACUATE ALL GREY WATER WHEN IN USE AND WILL AUTOMATICALLY ACTIVATE THE PUMP TO EXPELL ANY RESIDUAL GREY WATER ONCE EVERY 24 HOURS. THIS FUNCTION IS NOT AVAILABLE ON THE MAXI UNIT

Installation of the Garden ResQ Grey Water Diversion Unit:

- Your licensed plumber will be able to advise on the best location for the unit based on the most appropriate access to your plumbing. The position will also need to be easily accessible to facilitate the cleaning and maintenance of the units filter system.
- Ideally the unit should be placed on a well drained level surface, such as a large paver or single layer of bricks
- An external weatherproof power point will need to be accessible to the unit
- Detailed installation instructions are available on our website

Installation of Irrigation:

Your Garden ResQ unit has the facility on the side of the unit to enable the direct connection of a 20mm Polyprop pipe. (black irrigation pipe).

In the case of the Mini unit, should your irrigation zone be located above the Garden ResQ Mini unit, it will be necessary to install a swing check non return valve close to the unit to prevent water returning back into the unit and reactivating the pump. This is not required on the Maxi unit

The exact output from your Garden ResQ unit will vary depending on the length and height of the irrigation pipes above the unit, including the number of elbow connections connected to the length of irrigation pipe. It will be important to ensure the output volume is equal to or marginally less than the input to ensure minimal grey water is returned to the sewer via the overflow outlet.

When considering where to place your sprinkler/s in your garden, Garden ResQ recommends the following set backs be adhered to as these either meet or exceed most authority's requirements.

- 0.5 metres from closed fence boundaries
- 0.5 metres from paths, driveways and carports
- 1.2 metres from open boundaries
- 1.0 metres from buildings
- 6.0 metres from subsoil drains connected to storm water
- 50 metres from bore holes intended for human consumption
- 100 metres from potential public water supplies – dams, rivers etc
- 100 metres from wetlands and other water dependant ecosystems

System Operation:

After installation of both the unit and the connection of your irrigation pipe, you unit should now be ready for fully automated operation.

To ensure all components have been installed and configured correctly please complete the following procedure;

- Turn the Garden ResQ unit on at the power point
- Ensure that all plumbing is securely connected in order to direct the flow of grey water into the unit
- Turn the water on in one of the fixtures (bath or shower) connected to the Garden ResQ device to enable a flow of water into the unit
- Unscrew the lid on the Mini or lift the lid on the Maxi and observe the water entering the unit.
- Observe the functioning of the float switch. The float switch will trigger the pump. The pump is configured to continue operating until the float switch passes the horizontal/vertical position and hangs downward. The unit will deactivate when a predetermined amount of water still remains in the unit. This is to allow for very hot water that may enter the unit to cool. Hot water will damage the pump, float switch and housing.
- Congratulations. If the unit operates as indicated above, you are now ready to fully automate the irrigation of your garden with grey water.
- This unit was designed for use with a subsurface irrigation system or the 'pyramid' type garden sprayer. Please do not connect this unit to a micro mist or pop-up type irrigation systems as you may damage the pump.

Maintenance:

The Garden ResQ unit requires very little maintenance; however adherence to the following guidelines will ensure trouble free operation.

The only maintainable component of the Garden ResQ unit is the filter, all other components do not require any maintenance.

GardenResQ recommends the following maintenance regime;

- When first installed, check the filter every third day for the first week. By checking the filter regularly when first installed you will soon be able to establish the level of debris that collects on the filter brush.
- On most occasions the filter can be cleaned by simply removing the filter brush from the basket and hosing in down. The basket debris may be disposed of in your rubbish bin
- After the first week, most properties should be able to revert to a weekly clean, however the exact frequency should be able to be established within the first two weeks of operation. Please remember that additional houseguests will increase the volume of water through the unit and therefore will also increase the regularity of maintenance.
- In addition to the cleaning of the filters, you will notice a build up of general scale and soap scum on the inside of grey water sump, pump and on the float switch. On a monthly basis, the sump area should be cleaned with your fresh water hose and an adjustable sprayer. By spraying a concentrated spray within the unit and sidewalls, most grime will be removed. Let the hose run into the unit to flush it. The pump will activate and send this fine debris to your garden. Should you not wish this debris to be used in the garden, switch off the power to the unit and let the debris overflow to the sewer. This will take a few minutes but will flush your unit. To assist with the cleaning process, you may put a cup or two of white vinegar into the water a few minutes before flushing. Vinegar is an excellent ecological friendly cleaning product that will help sterilise your unit and keep it in pristine condition.
- On a monthly basis it will also be necessary to ensure that the irrigation pipes have not become clogged and blocked. Initially check that the inflow and expulsion of water from the unit is as per the original installation. Where the expulsion of water is not at the required level, a physical inspection of the irrigation pipe and sprayer will be required.
- Garden ResQ also recommends that the general appearance and external components be cleaned on an as needed basis to maximise the general appearance and life of the product.

Trouble Shooting:

Issue	Resolution
Water is not entering the GardenResQ unit	Check the plumbing into the unit. If a diverter valve is connected ensure that it is in the correct position to divert water into the unit. If it is and water is not entering the unit, contact your plumber as it is likely that you have a broken pipe.
Water is entering the unit, however the pump is not operating.	Check that the power is on, and that the unit is plugged in. Check the float switch and ensure it is clean and free from debris that may be preventing it from operating effectively. On the Maxi, you may be required to shorten the travel on the float switch. This is done by reducing the float switch cable length travel by one or two centimetres at the securing ties. DO NOT CUT THIS CABLE
The pump is working correctly, however a large volume of water is exiting the unit via the return to sewer outlet	Remove the sprayer/sprinkler connection to your irrigation and allow the water flow freely from the unit or irrigation pipe. If the water flows freely the irrigation pipe may contain blockages and should be checked. Please also ensure that your filter is clean
The Mini units pump is working correctly, however continually turns on and off whilst water is entering the unit.	This typically occurs when there is insufficient irrigation pipe connected to the unit or a small volume of water is entering the unit allowing the pump to evacuate water faster than provided. Additional irrigation pipe will be required or the fitment of a simple reduction valve placed in the irrigation pipe.

Unit Technical Specifications

Pump *	Power (Watts)	Approx Flow (l/min) @ 30cm head
Garden ResQ Mini	150	80
Garden ResQ Maxi	300	160

Common Sense Use Of Grey Water Around The home

- Ensure grey water does not contaminate any source of drinking water. Extreme care must be taken to ensure there is no cross-connection between the grey water reuse system and the drinking water supply
- Direct grey water to sewer or disconnect the unit from the main power supply during periods of wet weather.
- Do not divert kitchen wastewater which has a high concentration of contaminants not readily broken down by soil organisms.
- Only divert the lowest risk grey water, such as the shower, bath and hand basin water.
- Never divert grey water that could have gross faecal contamination – for example, water used to launder soiled nappies/diapers.
- Always wash your hands after gardening or handling the Garden ResQ grey water diversion unit
- Do not irrigate vegetable gardens supplying food crops that are eaten raw or undercooked, as this could pose a health risk.
- Never store grey water.
- Do not allow grey water to pool or stagnate, as this will attract unwanted insects (e.g. mosquitoes) and rodents, which can transmit disease.
- Never allow grey water to be discharged beyond your property boundaries. This may create environmental and public health risks.
- Never allow grey water to discharge to a storm water drain or waterway, as it may be harmful to aquatic life.
- Never drink grey water or allow pets, children or animals to drink or have access to it.
- Only irrigate with grey water if the plants in the garden are healthy.
- Use low-phosphorus soaps and cut down on the amount of bath oils, bubble bath and other bath 'additives'
- Reduce fertiliser use when irrigating with grey water.
- Do not allow the soil to become saturated. Carefully monitor the impact of the grey water on the irrigation area in order to minimise the risk of causing pollution.