

Owners Manual

A reference guide



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OWNERS MANUAL & DETAILS

 Name
 Address

 Model.....
 Installation Date

Thank you for purchasing the system, which we believe, is the best available. The local environment will also show its appreciation.

Your Econocycle Wastewater Treatment System is designed to treat domestic wastewater to a very high standard. All that is needed are some common sense household approaches. It is not only hygienically safe but also ideal to discharge above ground with no offensive odours.

It saves water usage (and water rates) by recycling through an automatic irrigation system, water that would under normal circumstances go to waste, adds value to your property and promotes garden growth. The system does all this quietly and is fully automatic.

The Econocycle system is a biological filtration treatment system and does not rely on strainer type filters to process household water.

IRRIGATION REQUIREMENTS

Irrigation requirements differ from council to council so please ensure that you refer to your site assessment report and/or council approval.

If your requirements are greater than the standard irrigation package supplied by us (ie. 50m poly pipe laid above ground and 4 sprinklers), please contact your Econocycle representative or local irrigation specialist. This may avoid potential hold ups of your final council inspection.

INSTALLATION INSTRUCTIONS (Plumbing)

The following instructions are to enable the proper installation of the ECONOCYCLE unit. It is necessary to follow these instructions so you don't void any warranties. Please ensure you have council permits / approvals before installation of tank.

Please give a minimum of one weeks notice for delivery of your ECONOCYCLE unit, more notice is appreciated to ensure truck availability.

Risers, if required, should be ordered with ECONOCYCLE before delivery of the unit. If ordered separately, delays and additional delivery charges will be incurred. (Risers raise top of tank if there are drainage issues.

All deliveries are C.O.D. payments and are to be given to the driver before unloading, unless other arrangements have been made.

When excavating the hole for the tank/s please ensure that the excavation size is correct (if you have any doubt please contact your ECONOCYCLE representative). Absolutely free access to the excavation for the delivery truck is critical. The truck must be able to get within 1 metre of the tank excavation and the area for the truck to unload must be firm ground and less than 5% grade. The driver's judgment of the safe unloading and accessibility is final. Failure to comply will incur additional installation costs at your expense.

Ensure that the excavation has a level base. The base of the hole is determined by the height of the inlet pipe (this will also determine the overall height of the tank/s). The base must be firm and be on a 50mm bed of sand or similar material. Failure to do so will void any tank warranty.

Backfill the tank/s with clean backfill free of large rocks, sharp objects and rubbish, then fill tank/s with clean water immediately. This is best done with a hose. For plastic tanks fill pump out chamber first.

All plumbing and electrical connections must be carried out by licensed contractors in accordance with any government guidelines or council requirements.

Model ENP10-2 (plastic twin tank system) must also follow additional instructions supplied with the unit on delivery. These additional instructions include "ground anchors".



INSTALLATION INSTRUCTIONS (CONT)

CANCELLATION

If you wish to cancel a delivery, you must do so by 1:00 pm the day preceding the delivery.

CANCELLATION DUE TO OVERNIGHT RAIN

If a site contact person and phone number has been provided by you we will try to contact that person/s between 5:30 - 8:00 am to ensure the delivery is still required. ECONOCYCLE cannot accept any responsibility for failure to contact your site person/s nominated. Late notice of cancellation will incur an UNLOADING FEE or return to site cost or crane costs to your account.

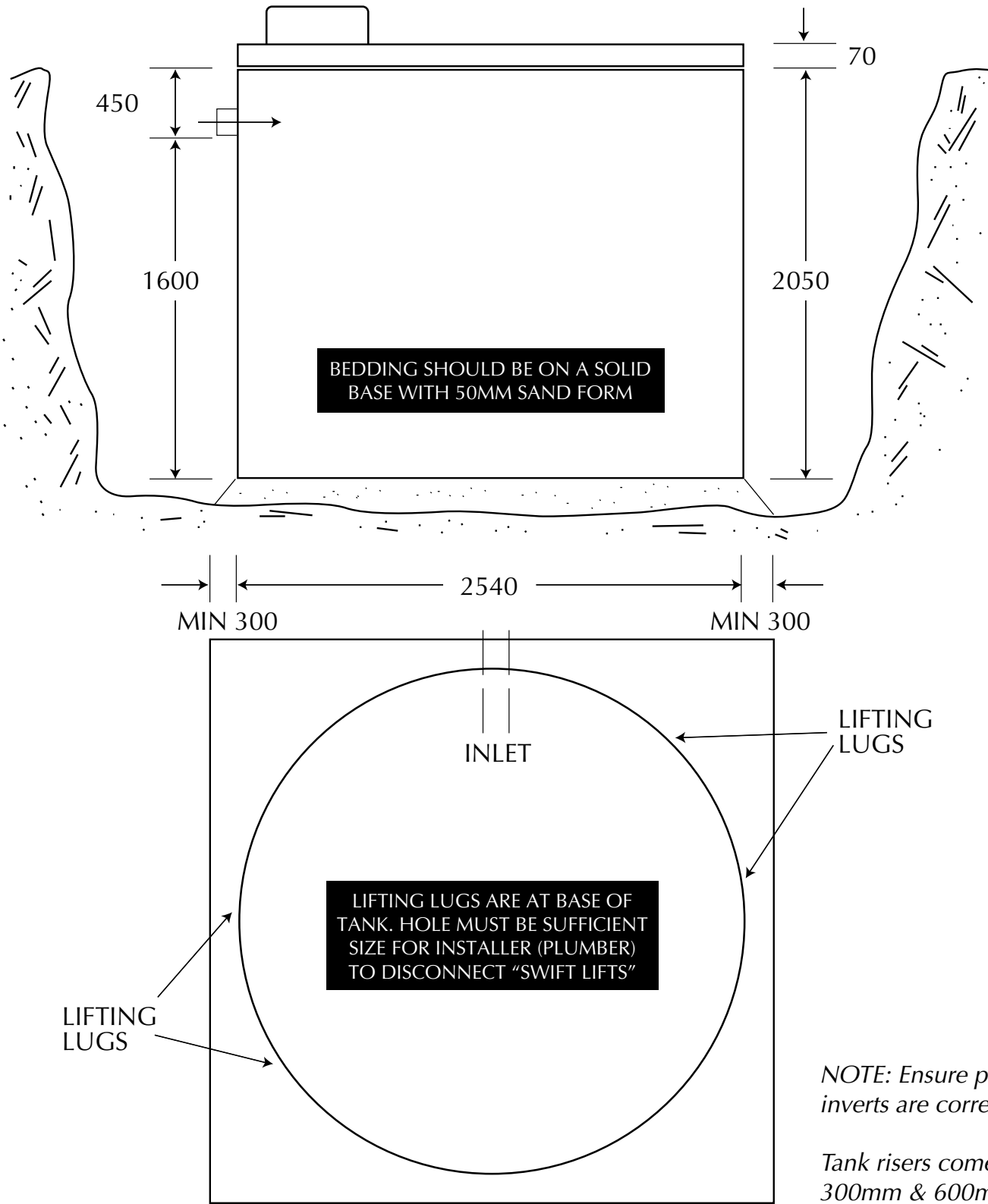
WHEN YOU ARE READY TO USE YOUR ECONOCYCLE

When the ECONOCYCLE is ready to be used, contact your representative and notify them that you are ready for the unit to be commissioned. Please give at least one weeks notice. Please ensure that the plumbing and electrical have been connected and are operational. This commissioning involves the fitting of the irrigation and aeration pumps and the laying out of the irrigation line. It is advisable that the owner / occupier is onsite at this stage to ask any questions you may have on operations of the ECONOCYCLE unit.

It is now your quarterly service will begin. These services will occur automatically from this date. If prior arrangements have to be made to gain access please notify ECONOCYCLE of all your details including work numbers.

PLEASE NOTE – Follow instructions carefully so you do not void your warranty.

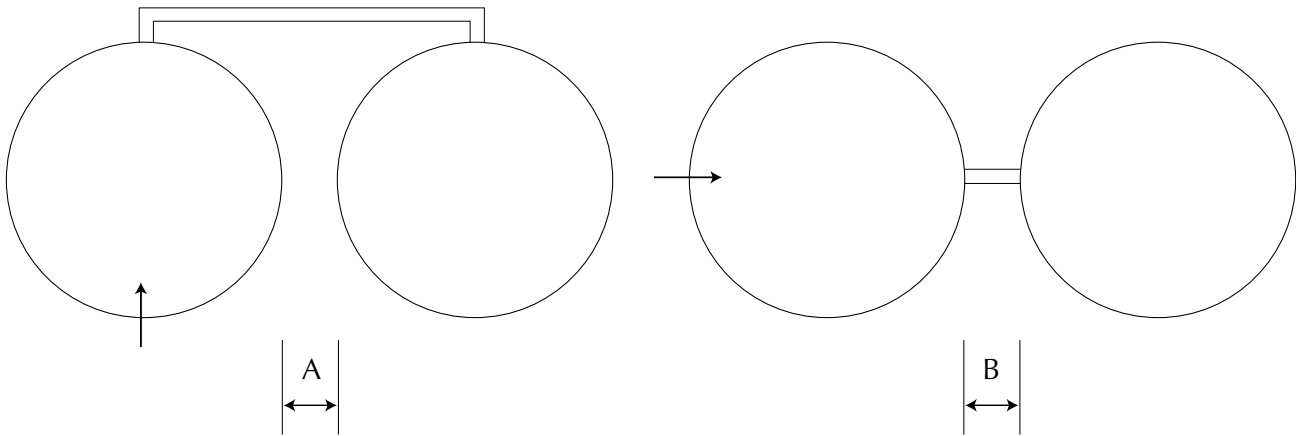
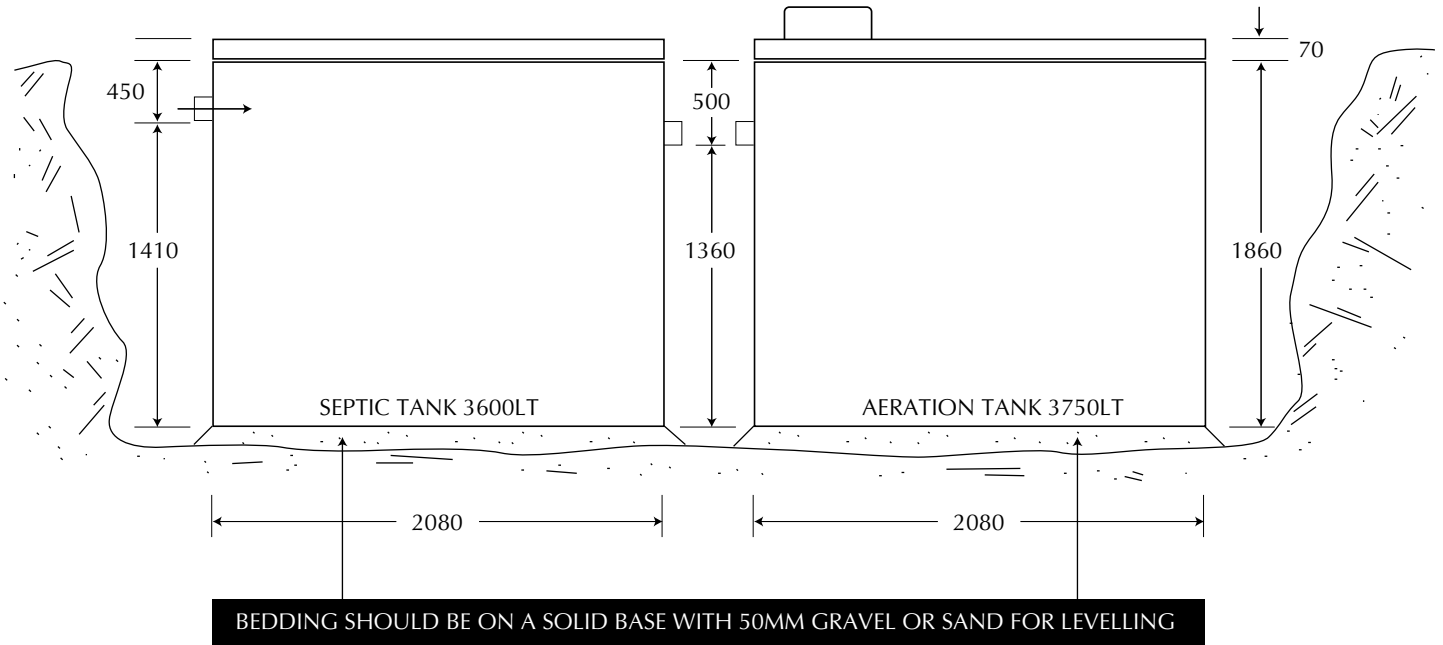
EXCAVATION DIMENSIONS SINGLE TANK CONCRETE MODEL ENC 10-1



PLEASE NOTE: Please ensure that a minimum of 50mm of tank plus lids is above ground.

EXCAVATION DIMENSIONS

TWIN TANK CONCRETE MODEL ENC 10-2



ALL PIPE WORK MUST BE SECURELY SUPPORTED

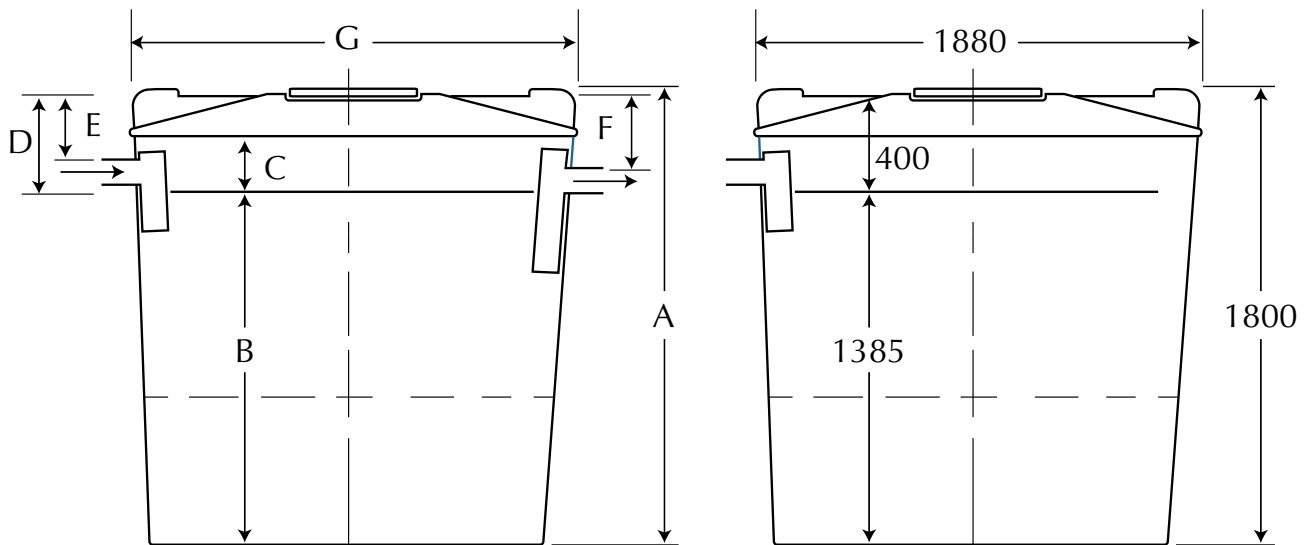
| PREFERRED MINIMUM SPACINGS | |
|----------------------------|-----------|
| A | 75mm MIN |
| B | 300mm MAX |

*NOTE: Ensure pipe inverts are correct
Tank risers come in 300mm & 600mm*

PLEASE NOTE: Please ensure that a minimum of 50mm of tank plus lids is above ground.

EXCAVATION DIMENSIONS

TWIN TANK POLY - MODEL ENP 10-2



BEDDING SHOULD BE ON A SOLID BASE WITH 50MM GRAVEL OR SAND FOR LEVELING

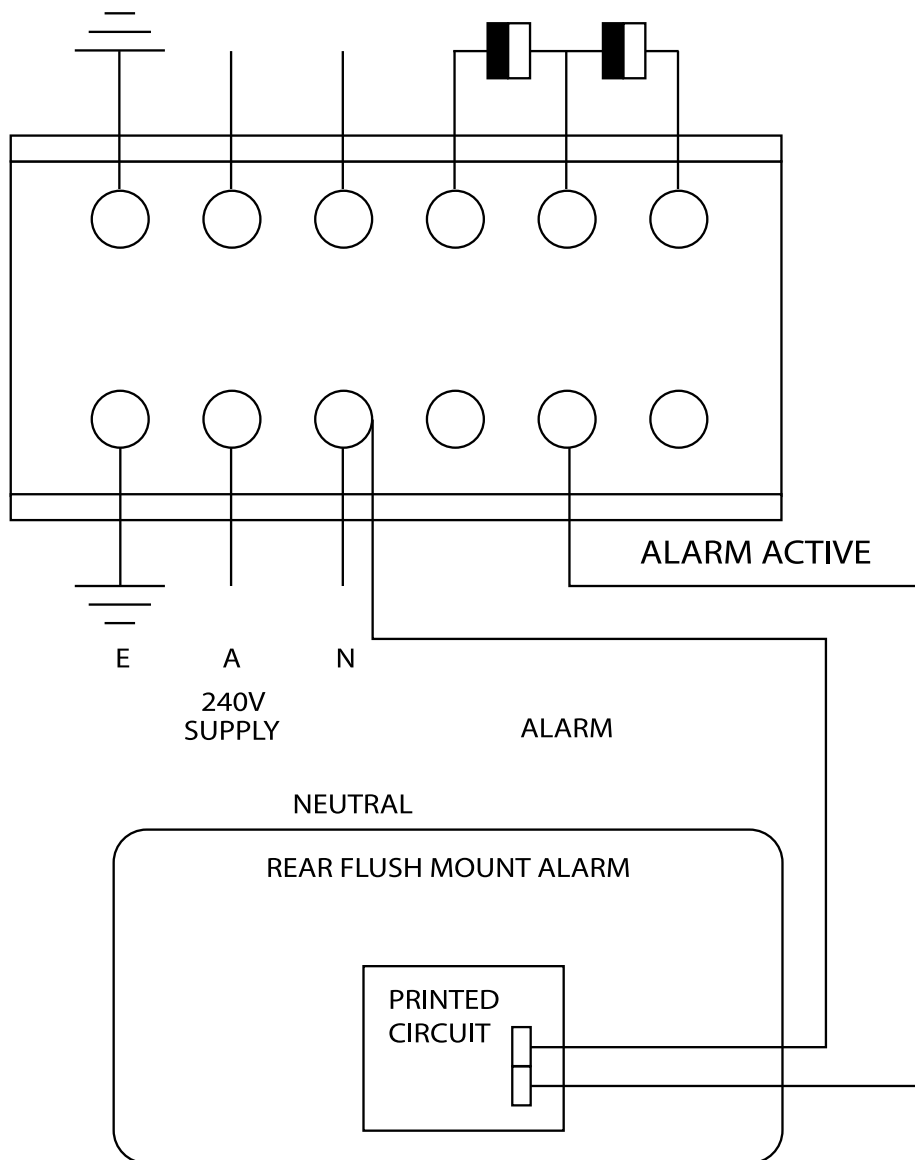
ALL PIPE WORK MUST BE SECURELY SUPPORTED

| <i>EACH ECONOCYCLE TANK</i> | <i>DIMENSIONS</i> |
|---|--|
| TANK CAPACITY | 3000l <i>(400mm air space)</i> |
| <i>A. Overall tank height</i> | 1800mm |
| <i>B. Liquid depth (base to invert of outlet)</i> | 1385mm |
| <i>C. Tank rim to invert of outlet</i> | 225mm |
| <i>D. Under roof to invert of outlet</i> | 400mm |
| <i>E. Maximum cover to inlet pipe</i> | 250mm |
| <i>F. Maximum cover to outlet pipe</i> | 300mm |
| <i>G. Diameter - Top</i> | 1880mm |
| <i>Weight inc. partition (kg) SEPTIC</i> | 132kg |
| <i>Weight inc. treatment processor</i> | 210kg |

PLEASE NOTE: Please ensure that a minimum of 50mm of tank plus manhole lids are above ground.

ELECTRICAL CIRCUIT DETAILS

All electrical work must be performed by a licensed electrical contractor in accordance with the S.A.A. wiring rules, (A.S 3000) and the relevant local supply authority's rules.



TROUBLE SHOOTING

The Econocycle AWTS is supplied with a warning panel that alerts of malfunctions in its operation. The alarm panel must be left in the NORMAL position. Should the alarm be activated, switching to MUTE can turn off the buzzer. The alarm indicates high water level or loss of air. Each has a separate light, which will remain on until the fault has been rectified. It is most likely that the system will operate quite satisfactorily for several days even if a problem arises. However, if the warning is activated and none of the following solves the problem, please contact ECONOCYCLE as soon as possible.

| PROBLEM | WHAT TO DO |
|------------------------|--|
| Water Light | <p>Check that irrigation lines and outlets are clear and not kinked or restricted.</p> <p>Clear filter (if fitted)</p> <p>Check power supply</p> <p>Allow 30 minutes for system to catch up after power interruption</p> |
| Air Light On | <p>Check power supply</p> <p>Check that system is still making humming sound / blower working.</p> |
| Offensive Smell | <p>Check that smell is not coming from another source e.g. dry waste traps, damaged or low vents</p> <p>Check aeration pump operation</p> |
| Irrigation not Working | <p>Clear outlets & or filters (if fitted)</p> <p>Check irrigation Pipework for damage.</p> |

EQUIPMENT DESCRIPTION

The air blower is located under the cover on top of the tank. It provides fresh air to help the purifying microorganisms to carry out their job. The blower runs all the time. Although it is very quiet, a light humming noise can still be heard next to the blower.

Under the cover are the power sockets for the air blower and the submersible pump, as well as a two-pin socket for the high-level float switch.

An automatic submersible pump delivers the treated water to the irrigation system. It is located within the pump-out zone of the tank.

POWER

The power should be left on at all times. Even if you are going on holidays or vacating the premises. If you encounter a blackout or you have to switch the power off for a short period of time, always check that the blower is running again when the power is restored. If the blower does not re-start, switch the power off again for 10 minutes before turning on again.

If the power is off for an extended period of time, say 8 hours, you should keep water usage to a minimum. You can still flush toilets and wash dishes but keep showers short.

An alarm condition may occur after an extended blackout as the system may fill to high levels. It should return to normal some time after power is restored.

If the power is off for too long, the biological activity will die off and the system will need pumping out.

DO'S AND DON'TS

- Do** advise us if the system won't be used for more than a month and always leave a contact name.
- Do** use low / no-phosphorus or biodegradable products in their recommended quantities. Over use is expensive and unnecessary.
- Do** endeavor to spread the washing loads over the week to obtain maximum efficiency.
- Do** contact your accredited service agent or ECONOCYCLE head office if your warning device is activated after referring to trouble shooting manual.
- Do** move your sprinklers if ground becomes to saturated.
- Do** plant suitable flowers and shrubs in the irrigation / disposal area. (see page 16)
- Don't** turn power supply off. If a power failure occurs, limit your water usage until power returns.
- Don't** use or dispose of strong anti-bacterial products, insecticides, herbicides, pesticides or unused medicines into the system. These could damage the system or kill the bacteria that are required to purify the water and bad odours.
- Don't** dispose of disposable nappies, condoms, tampons, sanitary napkins, cotton buds, any plastics, papers, cooking oils or fatty wastes into your system.
- Don't** use any sanitizing agents other than those recommended by the manufacturer. Dangerous chemical reactions can occur.
- Don't** allow unauthorized persons to tamper with your system.

TECHNICAL PROCESS DESCRIPTION

The Econocycle Wastewater Unit works on the combined principles of primary settling plus aerobic and secondary treatment. The treatment process is followed by nutrient removal through the irrigation system.

All the wastewater flows first into the septic zone where solids are settled out and the anaerobic microorganisms carry out the initial part of the purification process.

Once organic impurities have been absorbed within the aerobic culture of microorganisms, the water passes to the secondary sedimentation zones.

Clear water flows over into the clarification zone and the occasional film of microorganisms are automatically transferred back to the primary zone to improve its performance. In the disinfection zone, mild controlled chlorinating is applied to complete the treatment process. The treated water is automatically pumped onto areas of your lawn or garden.

Econocycle uses a special grade of chlorine based compounds so that when pumped onto the garden, any residual chlorine breaks down rapidly and allows for excellent plant growth.

Treated water quality is better than standards set by relevant health authorities on wastewater re-use for irrigation purposes.



PUMP OUT (Septic Tank)

Depending on the individual usage of your septic system, a slow but gradual accumulation of non-biodegradable matter may lead to the need for pump-out.

This applies to any septic tank and our service man will advise you if a pump out will be required.

Econocycle will be happy to advise and assist in this matter. Pump-out of the system is not a standard service procedure, and incurs an additional cost.

PLEASE NOTE

NEVER ALLOW PUMP OUT IN WET WEATHER OR SOON AFTER DUE TO THE RISK OF TANK FLOATATION.



IRRIGATION AREA

Your irrigation / disposal area will operate more efficiently and have less wet areas if covered with vegetation. The following is a list of some of the plants and shrubs that are suitable for planting in wet conditions. Consult your local nurseryman for the particular species that will suit your area and soil conditions.

PERENNIALS

Agapanthas
Canna
Gazania
Umbrella Grass
Helleborus (Christmas rose)
Hosta (plantain lilly)
Shasta Daisy
Marguerite Daisy
Mazus

SHRUBS

Aucuba
Bauera
Callistemon
Bottlebrush
Coprosma
Cordyline
Flax
Strelitzia
Photinia
Viburnum

GROUND COVERS

Grevillea
Bougainvillea

GRASSES & CLIMBERS

Kikuyu
Buffalo
Kennedy
Hardenbergia

The treated effluent from domestic wastewater treatment systems should not be used for human consumption or to irrigate vegetables or fruit. The irrigation area should not be used for recreational purposes.

WHICH CLEANING PRODUCTS

WASH POWDERS, LIQUIDS & SOFTENERS

| | | | | | |
|----------|----------------|-----------------|-----------|----------------|------------|
| Add Soft | Blue | Blue Gum | Snow Care | Castle | Cold Power |
| Cuddly | Dynamo Embassy | Fab | Fluffy | Ease Hurricane | |
| Gows | Launda | Love & Care Lux | More | Omo | Parrys |
| Pree | Purelite | Rinso | Softly | Surf | Sunlight |
| Woolmix | Topwash | | | | |

DISHWASHING

| | | | | | |
|----------|--------|-----------|---------------|----------|------|
| Bushland | Finish | Greenaple | Kit Palmolive | Sunlight | Trix |
|----------|--------|-----------|---------------|----------|------|

SURFACE CLEANING

Jif or similar cream cleansers / Spray & Wipe

TOILET CLEANING

Hot water is an effective disinfectant and can be used with a little cream cleanser like JIF.

Bleaches and antibacterial products are a NO NO!

Avoid all products with bleach or ammonia.









NOTE: these are our recommendations and they are based on product knowledge at the time of writing. We do not intend to discredit any product or favour others, we are concerned primarily with the function of your unit

If you accidentally put the wrong products in your system, don't hesitate to call us. We will advise on ways you can remedy the situation or suggest ways to recommence the bacterial activity.

SERVICE & MAINTENANCE

It is a requirement of State and Local Government Authorities that The ECONOCYCLE domestic wastewater treatment systems receive quarterly maintenance, by an authorised service contractor. The first twelve months service is covered in the initial cost of the system and is done by our sister company Septic Solution or the agent from which you brought the system. After this period the owner or tenant of the property will be obliged to enter a service contract with Septic Solutions, your agent or another authorised service company.

During the initial service period and subsequent service contract, our service technician will perform the following and the company will forward a written service report to the household and the local council authority.

-  Sample water through the system for quality testing
-  Measure residual chlorine & replenish chlorine supply
-  Record water usage.
-  Inspect the septic tank
-  Inspect the pump & blower operations
-  Make any necessary adjustments, inspect the treatment tank including scum & sludge returns, water & airflow.
-  Inspect operations and conditions if irrigation system.
-  Replenish the supply of disinfectant

Warranty



To certify that each and every Econocycle water treatment system is manufactured to strict guidelines and uses only quality components to ensure a product that is safe, reliable, effective and environmentally friendly.

Tanks 15 years from date of purchase
Pump and Electrics 2 years from date of purchase

Signed by

Date of Purchase

Econocycle guarantees to repair or replace any part of the system requiring repair or replacement due to defective manufacture.

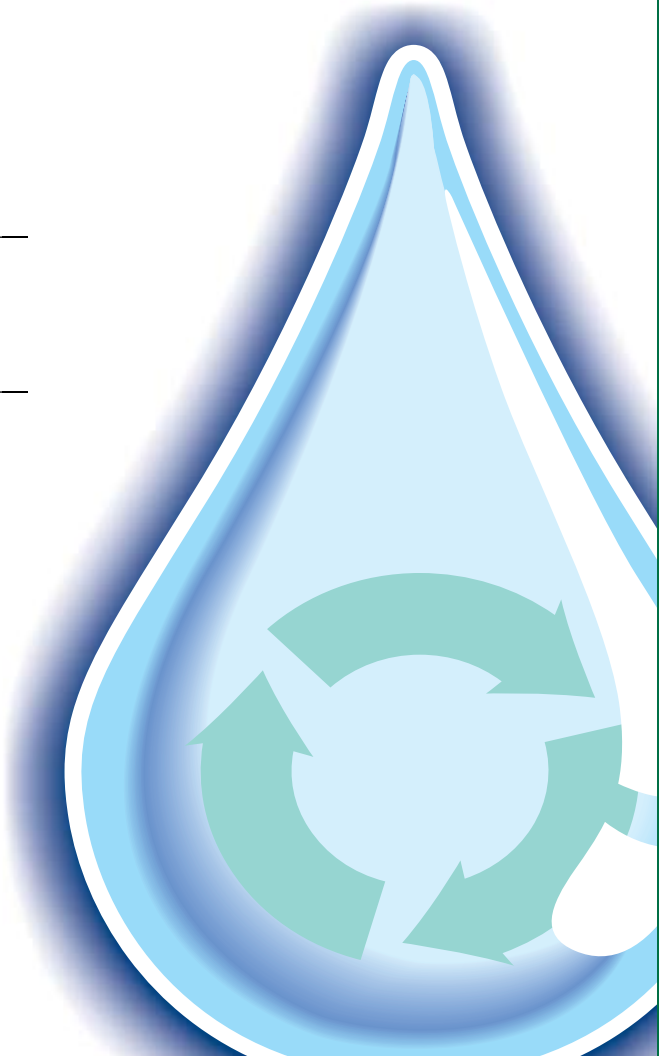
Such guarantee shall only apply to any defect of which notification is given within 24 months from the date of installation and under continuous service agreement with Econocycle or an authorised service agents.

Concrete tanks are covered by the manufacturers warranty of Fifteen (15) years.

NOTE :

Unauthorized work carried out on the ECONOCYCLE system will void all warranty.

Econocycle must be installed and operated in accordance with installation instructions.



CONTACT DETAILS

Office & Factory

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Fax: 02 4774 1318

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