



**BIOLYTIX BIOPOD
WASTEWATER
TREATMENT SYSTEM**

**OWNERS
MANUAL**



FIRST THINGS FIRST

Congratulations on choosing a Biolytix BioPod wastewater treatment system. The BioPod uses patented biological filtration technology relying on a diverse ecosystem of micro- and macro-organisms such as earthworms to provide energy-efficient treatment of household wastewater to a high standard.

Please take your time to read this Manual carefully. It is your responsibility to operate your BioPod as set out in this Manual. Not doing so may void your warranty. If you have questions or would like further information, please contact our Customer Support on 0800 700 818.

This Manual applies to the BF6 BioPod model. Its most recent version can be downloaded from www.biolytix.com. If you prefer, you can order a hardcopy instead, when you next arrange annual servicing of your system.

IMPORTANT

If your alarm activates or if you have any concerns about your Biolytix system check that the power to the tank is switched on and call your local Biolytix representative (see contact details on last page)

If you are letting your home, you must ensure that your tenants receive and read a copy of this Manual.

Biolytix recommend that you make this an explicit condition in the tenancy agreement.

COMPLIANCE

The Biolytix has been tested and certified as being compliant with the Australia & New Zealand Standard AS/NZS 1546.3:2008. The Biolytix has also on two separate occasions partaken in the On-site Effluent Treatment (OSET) trial run by Environment Bay of Plenty at the Rotorua Wastewater Treatment Plant. In both of the trials the BF6 produced treated effluent of better than a secondary treatment level which is the standard required by most New Zealand Councils for on-site wastewater treatment and disposal.

To ensure continued compliance after commissioning, it is important that you operate and maintain your system as described in this Manual.

OPERATION

Your BioPod is designed to treat domestic household wastewater. To ensure ongoing compliance with regulations and to avoid costly repairs, a couple of simple rules need to be followed. This section explains how to use your BioPod and what may and may not go into it.

MAXIMUM WASTEWATER VOLUME

Your BioPod is connected to some form of soil dispersal system. Usually, this is a subsurface drip irrigation system, but other systems, such as soil absorption trenches, may also be used. The maximum volume of wastewater your BioPod can treat is limited by both the capacity of your dispersal system and the capacity of the Bio-Pod (1600 litres per day) whichever is the lesser. The capacity of your dispersal system is normally stated in your Geotechnical or Wastewater Engineer's report and in your Consent. If you cannot find this information, please contact the consultant who compiled this report or the Council who issued your Consent.

OPERATION

You must avoid overloading your treatment system at any time. Peak wastewater volumes must not exceed 600 L per hour. If you operate your system close to its capacity limit, or there is a risk you may be exceeding this limit, we recommend the following measures:

- Installation of water-conservation fittings and dual-flush toilets.
- Taking showers instead of baths.
- Only washing clothes when there is a full load; and spreading out your washing over the week instead of doing all in one day.
- Only using the dishwasher when there is a full load.
- Minimising or avoiding use of kitchen sink waste disposal units

It is important to avoid the following:

- Frequent large gatherings and parties: Large numbers of visitors can significantly increase the volume of wastewater. After your visitors have left, please give your BioPod a few days to recover. Ensure that you do not exceed the capacity of your dispersal system.
- Taps left running: One tap left running overnight can waste over 10,000 litres. Please ensure this does not occur. Consider installing water-saving taps. They only use about 20% of the water of conventional taps.
- Leaking taps and toilet flush mechanisms: These can waste thousands of litres of water every day and easily overload your BioPod. Please check for leaks frequently and arrange for repairs to be done promptly.
- Large volumes of water from spa or bath tubs should be drained in stages. For example, a large spa could be drained over three days, discharging a third of its volume each day. Give your BioPod a few days to recover after discharging large volumes of water into it.
- Emptying or backwashing of swimming or spa pools: Your BioPod is not designed to cope with the resulting large

volumes of water. Also, the disinfectants contained in the water of pools can negatively affect the biological treatment process of the BioPod.

- Illegal connections: Do not connect downpipes, drainage pipes etc. to your BioPod. This is illegal and will result in overloading.
- Stormwater ingress: Avoid landscaping around your BioPod that results in stormwater runoff flowing over its lid or the system getting inundated. The periphery of your BioPod must always be well drained. Problems with your BioPod resulting from unsuitable landscaping and insufficient drainage are not covered by the Biolytix warranty.
- Power turned off: Ensure that power to your BioPod is always on. If power is turned off, wastewater will not get pumped out. This can result in environmental hazards and costly repairs.

IMPORTANT

Do not exceed 1600 litres of water use per day.

INTERMITTENT USE

The Biolytix is quite tolerant of the intermittent loadings expected from holiday homes where nobody is living in the home for up to several months and will operate without any decline in performance. However we recommend that if your BioPod is not used for more than 12 months you organise for a maintenance inspection by your local Biolytix technician during which the level of worm activity can be assessed and additional tiger worms added if required. This could of course be done as part of the standard annual service.

OPERATION

WASTEWATER CONSTITUENTS

Your BioPod uses a highly effective biological process to treat normal household wastewater, which includes wastewater from toilets, bathrooms, the laundry, kitchen, and the dishwasher. The organisms living in it are resilient and can cope with conventional detergents and other household chemicals, if they are used reasonably and according to manufacturer instructions.

Pharmaceuticals do not usually pose a problem, as long as they are not disposed of directly into the system (e.g. do not flush unused drugs down the toilet, or pour them down the sink etc.). To ensure a long life of your system, we recommend the following simple rules:

- Use standard domestic cleaning products as sold by major retailers. Eco-friendly products are preferable.
- Choose detergents low in phosphorus and sodium. The Lanfax Laboratories investigated the phosphorus and sodium content of a wide range of laundry detergents. Their findings are published at www.lanfaxlabs.com.au
- Use biodegradable soaps.
- Wipe and bin your fats and frying oils rather than rinsing them down the drain.

Harsh chemicals and non-biodegradable materials can negatively affect your BioPod and result in expensive repairs. Specifically, you must ensure that none of the following pollutants enter your BioPod:

Chemicals:

- Bleach (small quantities for laundering and products similar to Napisan are acceptable)
- Chlorine and other harsh disinfectants
- Caustic soda (NaOH) and other highly alkaline (pH > 9.5) or acidic (pH < 4) chemicals
- Drano and other drain cleaners
- Commercial cleaning products
- Paints and solvents
- Chemicals that are not typically used in a household
- Pesticides and herbicides
- Other toxic substances
- Fats, oils and grease (except from normal domestic kitchen use)

Non-biodegradable materials:

- Disposable nappies and nappy liners
- Baby wipes and other wipes
- Condoms
- Rags
- Other sanitary products that are not biodegradable
- Large amounts of animal hair (this could, for example, be a problem, if you are breeding pets)

Also, you must not dump any waste, including food scraps and grass clippings, directly into your BioPod via its access hatch.

IMPORTANT

Never switch off the power to your Biolytix tank.

IMPORTANT

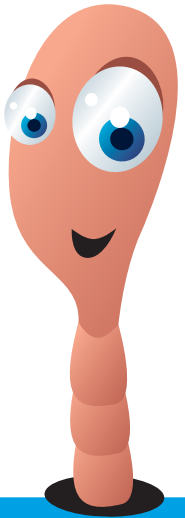
Please ensure that all members of your household and/or any tenants are aware of what may and may not be disposed of into your BioPod.

OPERATION

WE ARE THE WORMS INSIDE YOUR BIOLYTIX THAT PROTECT YOUR ENVIRONMENT BUT YOU NEED TO LOOK AFTER OUR ENVIRONMENT SO WE CAN LOOK AFTER YOURS.

- **PLEASE DON'T FEED US:** Wipes, plastics, tampons etc. Anything non-biodegradable won't decompose and turns our home into a landfill
- We hate coffee grinds, onions and citrus
- Fat suffocates us and it blocks your irrigation pump wasting power
- We are not very good swimmers so please conserve water and don't drown us
- Go easy on the food scraps – we're trying to watch our waistlines
- Please don't nuke us with bleach or disinfectant. Use eco-friendly products
- Please don't switch our power off – we need air to breathe
- Please don't forget our regular service.

Biolytix
Wastewater Naturally



MAINTENANCE

A malfunctioning treatment system can lead to serious problems with the dispersal system and vice versa. Therefore, to ensure compliant and reliable performance, both your BioPod and your dispersal system must be maintained correctly.

SERVICING

Biolytix requires you to have your BioPod serviced at least annually by a Biolytix-accredited technician. This is very important to ensure its ongoing optimum performance and compliance with regulations. Insufficient maintenance can result in severe damage to the BioPod and to the dispersal system, which may require expensive repairs. Note that some Regulatory Authorities require service intervals shorter than 12 months.

Using a Biolytix-accredited technician ensures that your BioPod is maintained correctly and in accordance with our Service Manual. This includes checking and flushing your dispersal system which is a critical maintenance task. Note that repairs of your Biolytix tank or dispersal system if outside of warranty are not included in a typical service fee and if required will be at an additional cost.

While Biolytix encourages best practice and carefully selects its service agents, mistakes and omissions can happen. We therefore recommend that, after your system has been serviced, you check the following:

- Is the power to your BioPod turned on? You can check this by simply placing your hand on the lid of your BioPod near the control box. When you do so, you should be able to distinctly feel the vibration of the air pump.
- Has the service technician replaced the tank access and control box lids and fastened all screws?
- Are there any other indications of unsatisfactory workmanship?

You must never attempt to maintain or repair your BioPod or

MAINTENANCE

its dispersal system yourself or otherwise tamper with them. Not only would this void its warranty, tampering with your system could also result in environmental and health risks.

DAILY UP-KEEP

The following recommendations will ensure that your BioPod stays in good condition and provides safe treatment of your wastewater:

- Protect both the BioPod and the dispersal system from vehicle traffic, including livestock. Do not drive over your BioPod with ride-on mowers.
- Avoid digging where your dispersal system is located. Doing so may damage its pipes.
- The dispersal area is not a suitable play area for children and access should be restricted. It should be designed to deter frequent pedestrian traffic.
- Deep-rooting trees or shrubs should not be grown in or near your BioPod and dispersal area. Contact your local council for advice on suitable plants.
- Where installed, surface water diversion drains and mounds upslope of and around the BioPod and the dispersal system must be kept clean. They protect your system from stormwater runoff and must not be altered or removed.
- Landscaping must not result in stormwater pooling on or around the BioPod or the dispersal system.
- A thin layer of coarse mulch spread over the tank lid helps your BioPod blend into your landscaping and keeps it cool in hot weather. However, you must not cover the access hatch in the tank lid, and the mulch must not be deeper than 100 mm around the edge of the lid. Also, it must not impair drainage of stormwater runoff away from the tank.
- The tank must not be buried. The access hatch and control box must remain accessible
- Dispersal areas should be mowed and plants maintained regularly

- Landscaping near or around the BioPod must not impair access.

You are responsible for keeping your BioPod in good working order. If you encounter any of the following scenarios, please call Biolytix Customer Support as soon as possible:

- The dispersal area is wet or soggy with wastewater ponding on the surface.
- You notice a strong or unusual odours coming from the BioPod.
- Your toilets drain slowly.
- There are loud and unusual noises from the BioPod.
- If you have any other reason to believe your system is malfunctioning.

ALARMS

Your system is equipped as standard with an audible and visual alarm both located on the Biolytix tank. The visual alarm is a flashing red bulb which should be located on the tank in a position that can be viewed from the house. If this is not the case please contact your installer to discuss relocating the alarm light or other alarm options.

The audible alarm has a mute switch located on the control box. If you mute the alarm you must contact your Biolytix service technician to resolve the alarm condition.

There is also an option to have an alarm panel installed inside the house. This alarm panel has a mute switch and a 24 hour reset function on the mute switch. If the alarm is muted but not resolved the alarm will sound 24 hours later.

BIOLYTIX BIOPOD PRODUCT WARRANTY

When you buy a Biolytix BioPod from an accredited Biolytix installer, you automatically receive our standard BioPod Warranty (detailed below).

Biolytix Limited (NZ Company No.3265414) ("Biolytix") warrants the following components of your Biolytix Biopod will be free from defects in material and workmanship for the following periods of time, commencing on the date of installation, subject to the conditions set out below.

- Tanks: 15 years
- Electrical components and Pump: 2 years
- BioPod filter beds: 2 years

1. Biolytix will, during the warranty period, repair or replace (at its option) the component or such parts as are proven to be faulty, with the same or equivalent component free of charge.
2. This warranty extends to the repair or replacement of Biolytix Biopod components only. It does not cover any labour, freight or travel costs that may be incurred in the repair or replacement of the faulty component.
3. This warranty is valid only in relation to a Biolytix Biopod used to treat domestic wastewater inflow.
4. This warranty does not cover defects due to:
 - a. the connection or deposit of any additional sources of waste (other than normal household waste) into the system either directly or indirectly, other than as approved in writing by Biolytix or in accordance with written instructions and documentation supplied by Biolytix;
 - b. modifications of the surrounding landscape, including but not limited to landscaping and drainage works, after installation of the Biolytix Biopod;
 - c. failure to use the system in accordance with the Owner's Manual or other instructions from Biolytix;
 - d. failure to maintain the system in accordance with the recommendations of Biolytix. The Biolytix BioPod needs to be serviced annually. Servicing must be undertaken by a Biolytix accredited service agent. Failure to undertake annual servicing of the system will invalidate this warranty;
 - e. a Force Majeure Event, where a Force Majeure Event means any cause outside the reasonable control of

- f. Biolytix, including but not limited to, damage resulting from earthquake, fire, flood, storm, lightning, soil subsidence, ground water table variations or electrical supply fault.
 - f. the Biolytix BioPod being overloaded by hydraulic or biological loadings greater than the design capacity;
 - g. the actions of a third party; and
 - h. any modifications or repairs being undertaken to the BioPod by anyone other than a Biolytix
 - i. accredited installer or service technician.
5. All charges incurred for labour, repairs, replacement components or parts not covered under this warranty or due to defects arising from any of the causes listed in clause 4 shall be the responsibility of the owner.
 6. Damage to your BioPod as a consequence of installation that was not carried out to our specifications or not carried out by a Biolytix accredited installer is not covered by this warranty.
 7. Damage to your Biopod that is a consequence of a failure of any irrigation system, soil absorption trenches or any other form of soil dispersal system connected to your BioPod is not covered by this warranty unless the soil dispersal system was supplied by Biolytix with your Biopod and installed by a Biolytix accredited Installer.
 8. Damage to your BioPod that is a consequence of changes made to your soil dispersal system by anyone other than a Biolytix accredited installer is not covered by this warranty.
 9. This warranty is conditional upon the full invoiced price being received for supply and delivery of the BioPod and upon the owner notifying Biolytix immediately upon becoming aware of any defects. Proof of purchase (including relevant installation documentation) must be supplied to Biolytix with any warranty claim. All warranty claims must be made before the expiry of the warranty period.
 10. This warranty does not extend to Biolytix Biopod components repaired or replaced during the warranty period.
 11. To the fullest extent permitted by law, Biolytix will not be liable to the customer or owner for any incidental or consequential loss.
 12. The rights described in this warranty certificate are in addition to the statutory rights to which you may be entitled under the Consumer Guarantees Act 1993.

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WEBSITE

www.biolytix.com

**YOUR LOCAL
BIOLYTIX
REPRESENTATIVE**

**"ONE OUTSTANDING ASPECT OF THIS
SYSTEM WAS ITS LOW ELECTRICITY
USAGE. IT USED AS LITTLE AS 5% OR LESS
OF THE ELECTRICITY OF SOME OTHER
SYSTEMS MEASURED."**

Environment Bay of Plenty Environmental Discharge
Performance Appraisal (May 2007)

**"WORMS ARE THE
INTESTINES OF
THE EARTH."**

Aristotle

**REDUCE
YOUR
CARBON
FOOTPRINT
WITH
BIOLYTIX**

Biolytix® 
Wastewater Naturally

**AUSTRALASIA'S
MOST AWARDED
WASTEWATER
SYSTEM.**

**AFTER 2.1 BILLION YEARS
OF RESEARCH AND
DEVELOPMENT...
NATURE HAS THE ANSWER**