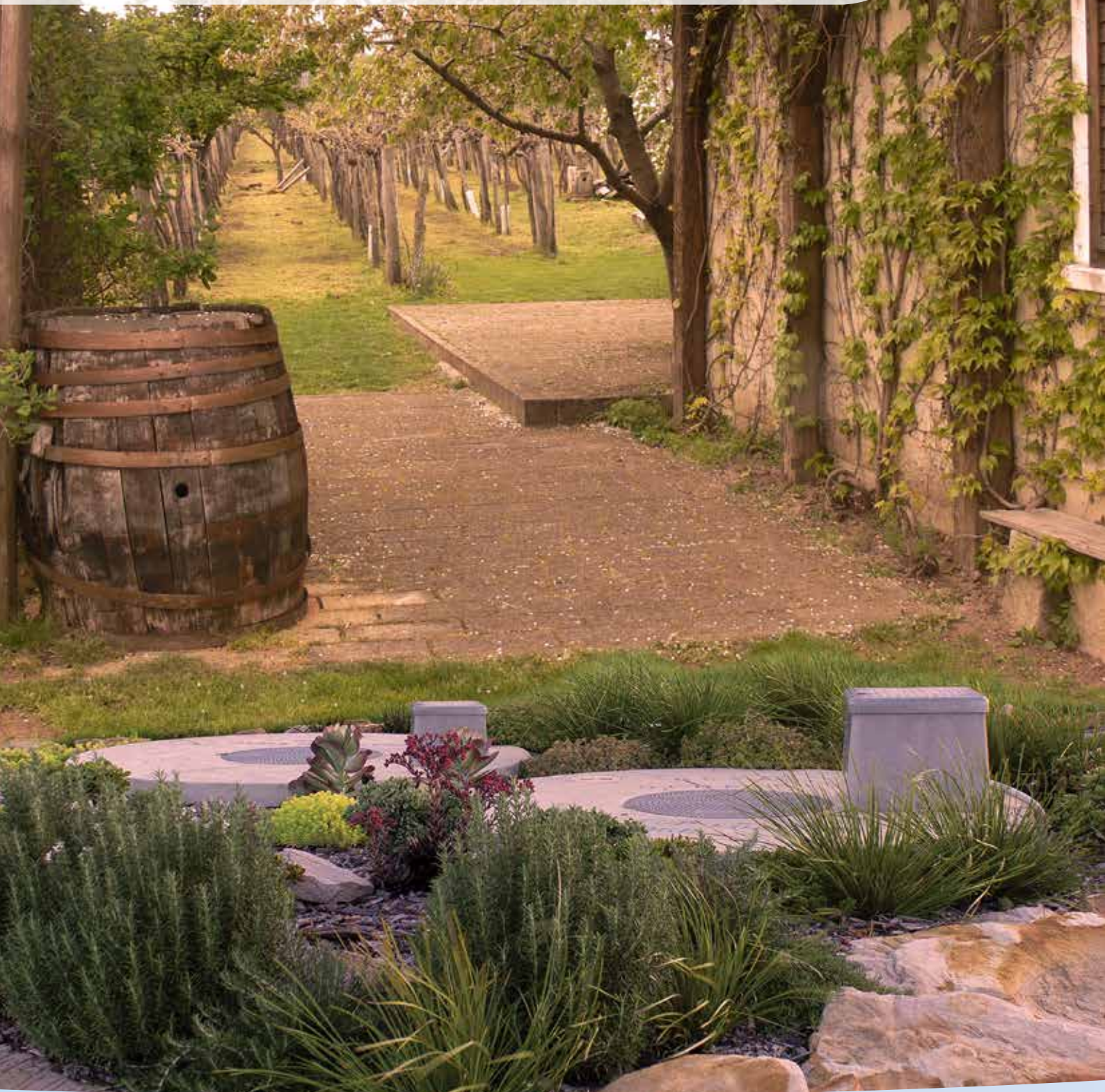


## BIOSEPTIC S-5000 NR STS AWTS 2022 Owners Guide



# NOTICE OF OCCUPANCY

Name ..... Builder's Name .....

Moving-in date .....

House number ..... House name .....

Street name .....

Town .....

Postal address .....

Home tel ..... Mobile ..... Email .....

Council approval number ..... Date .....

*We are required by Council to service your BioSeptic AWTS, and we need free access to carry out the service. If you own a dog that may pose a problem to our service personnel, please advise us so that suitable arrangements for access may be made.*

## Position of the alarm panel:

laundry  kitchen  garage  other .....

## Please nominate option 1 OR option 2 below

### Option 1:

I hereby certify that free and clear access is available for the BioSeptic field staff to service my system.

Full Name

Date

I enclose a gate key  (please tick if applicable) Gate code provided .....

### Option 2:

Due to the presence of (please tick one or more of the following):

aggressive animals

security system

locked gates

other ..... I require notification before each service visit

Full Name

Date

**Complete this Notice of Occupancy and submit to [service@bioseptic.com.au](mailto:service@bioseptic.com.au)**

**SUBMIT**

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## AN INTRODUCTION TO THE BIOSEPTIC S-5000 NR

### ***Congratulations on your purchase of a BioSeptic Aerated Wastewater Treatment System (AWTS) - the S-5000 NR.***

This Owner's Guide explains how the system works and it will assist you in obtaining the best results from your BioSeptic AWTS. We urge you to read it and then keep it for future reference.

Your BioSeptic AWTS has been quietly operating from the day the power was switched on. Wastewater from the kitchen, bathroom, laundry and toilets is processed and recycled as clear, odourless water and pumped to the disposal area.

We ask you to complete and return the Notice of Occupation sheet in this folder as soon as possible or within six weeks after the system is first used. This will ensure we have your current details (such as the change from a lot number to a street number, your new contact telephone numbers, and preferred postal address) to arrange your subsequent quarterly service visits, if they are to be undertaken by BioSeptic.

If you are at home when one of our service technicians arrives to service the system, he will be able to answer any questions you may have. If you are normally not at home during the day, please call the **Service Department on (02) 4629 6633** and they will be happy to answer any questions you may have.

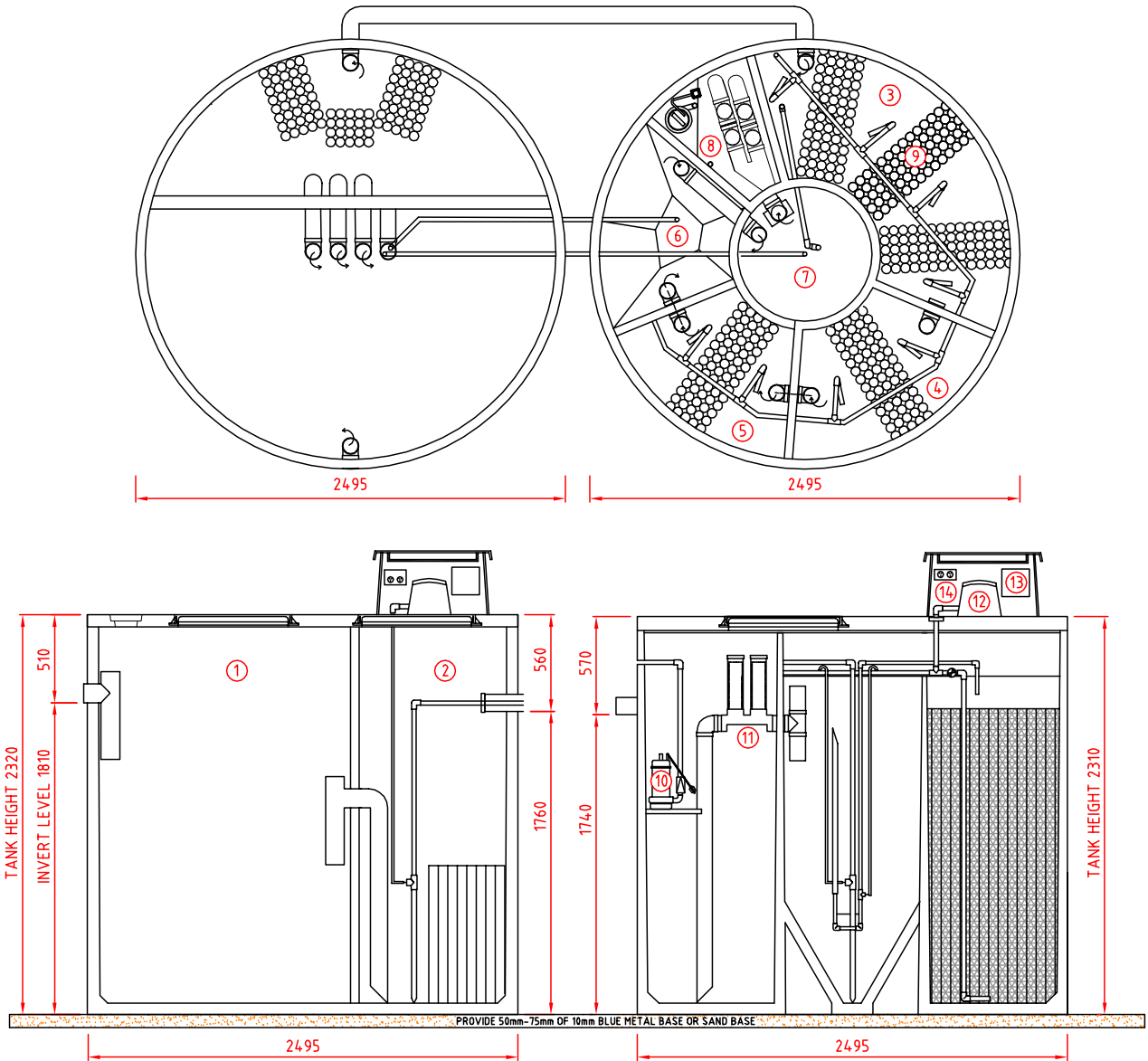
If the alarm sounds, please refer to the Trouble Shooting section of this Owner's Guide for a few simple checks that you should make before calling the service number printed on the alarm plate. Always remember that the BioSeptic AWTS will not damage itself if it is still operating with the alarm on. Should the alarm sound, **DO NOT TURN OFF THE POWER** unless instructed by our Service Department.

We at BioSeptic like to make sure that our systems are working correctly and our customers are happy with their systems. Your BioSeptic AWTS will provide you with many years of reliable wastewater treatment. The BioSeptic team assures you that we will continue to give you the best possible service.



# BIOSEPTIC S5000 NR SEWAGE SYSTEM

## CHAMBERS AND COMPONENTS



### Legend

1	Septic Chamber	8	Pump Chamber
2	Equalisation Chamber	9	Bacterial Support Media
3	Aeration Chamber 1	10	Water Pump
4	Aeration Chamber 2	11	Chlorinator
5	Aeration Chamber 3	12	Air Blowers
6	Primary Clarifier	13	Control Box
7	Secondary Clarifier	14	Power Point

## THE BIOSEPTIC PROCESS

The BioSeptic AWTS is a compact sewage treatment plant that safely processes all household wastewater and recycles it as clear odourless water; to be disposed of in evapotranspiration beds (ETA beds), sub surface or surface irrigation.

For the environmentally responsible person this means that the waste is treated and disposed of on the property where it is produced rather than moving the waste problem to another location, such as a town sewage treatment plant.

The BioSeptic process begins when all household wastewater from the kitchen, toilets, bathroom and laundry flows into the first tank. The solid waste settles in the primary chamber, where naturally occurring anaerobic bacteria slowly break it down.

The settled wastewater flows by gravity through the concrete baffle via three gross pollutant filters into the equalization chamber. An air lift pump doses the wastewater at a prescribed rate into the treatment tank.

The treatment process begins in three aeration chambers, containing bacterial support media. Air is diffused into the chambers to create aerobic bacteria. These quick acting bacteria reduce the organic matter to carbon dioxide and water. Because aerobic bacteria breathe oxygen, there is little odour.

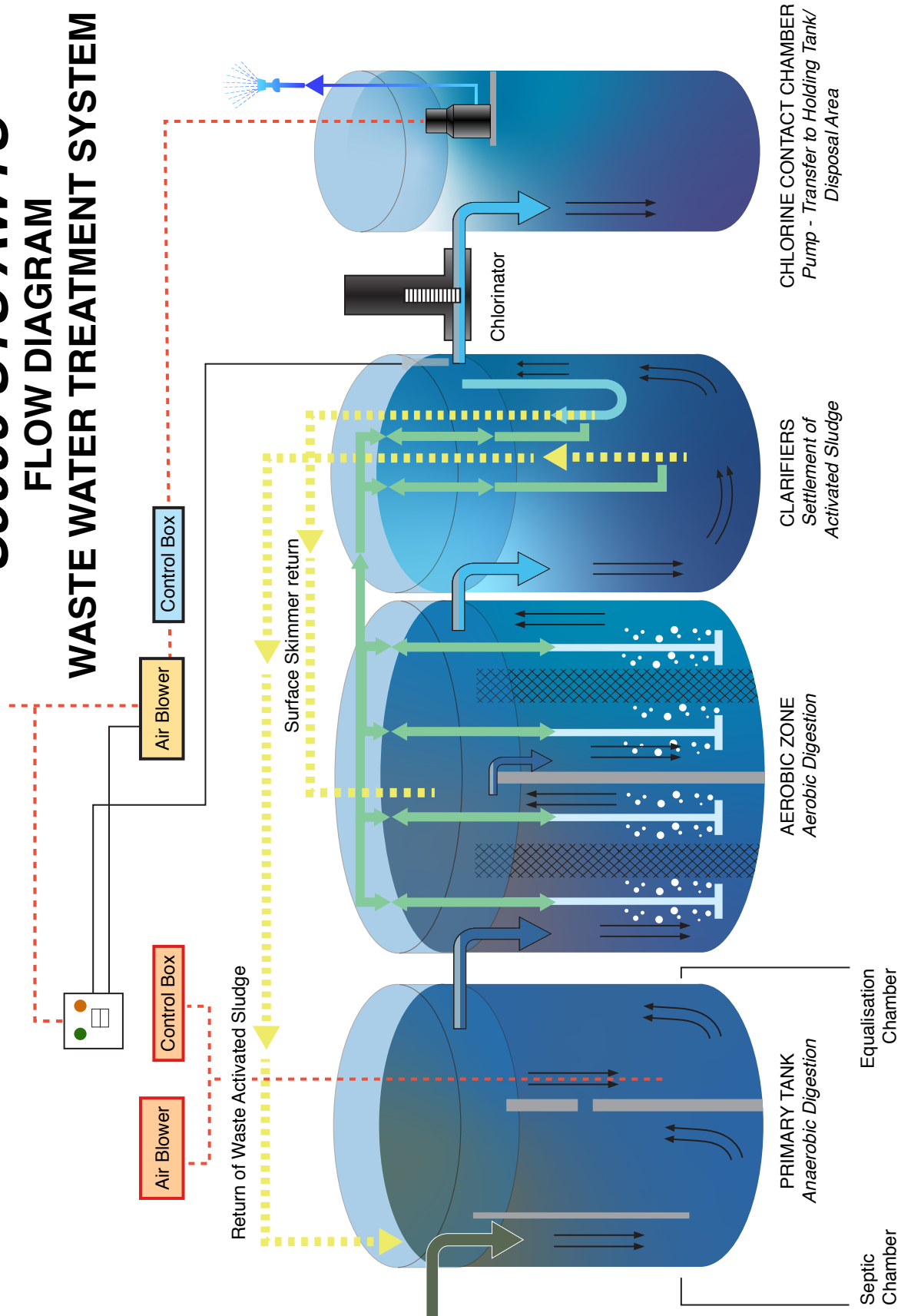
The three reducing capacity aeration chambers are in series to provide a positive surge control to slow down and ensure correct treatment of surge wastewater flows from baths or washing machines.

After aeration the wastewater displaces to the primary clarifier where any remaining sediment settles out of the water to be recycled to the primary tank. It then overflows to the secondary clarifier for final polishing. A skimmer keeps the surface of the clarifiers moving to prevent mosquitoes breeding.



















In the final process the wastewater passes into the chlorine contact chamber/pump chamber, where a small amount of chlorine kills any remaining pathogens. The treated wastewater can now be safely pumped to the disposal area. Plants are nature's best method to take up the nutrients that must be prevented from flowing into streams and rivers. Depending on the disposal method trees and shrubs transpire the treated wastewater to the atmosphere.

BioSeptic owners are able to enjoy a beautiful garden that is kept green and fertile throughout the year at no extra cost. They are able to enjoy the beneficial reuse of a valuable resource rather than having to deal with an unpleasant problem.

# S5000 STS AWTS FLOW DIAGRAM WASTE WATER TREATMENT SYSTEM



## SYSTEM REQUIREMENTS

-  **DO** ensure you install a 3/6 litre dual flush cistern.
-  **DO** install AAA rated (or better) water fittings in your dwelling. Conserve water in the home to avoid overloading your AWTS.
-  **DO** leave electrical power to the BioSeptic on at all times, even when you are away on holiday.
-  **DO** check that the AIR BLOWER is running when the power supply is restored after it has been necessary to temporarily disconnect the power supply.
-  **DO** endeavour to restrict or reduce water usage as much as possible during periods of extended power interruption.
-  **DO** use only BIODEGRADABLE DETERGENTS that are labeled safe for use with septic tanks.
-  **DO** use only toilet paper, as other types of paper do not degrade as readily—newsprint may have an adverse effect on the bacterial growth.
-  **DO** use a sink strainer in the kitchen to avoid unnecessary solids entering the system.
-  **DO NOT** install or use an IN-SINK GARBAGE GRINDER as this will impose a heavy organic and hydraulic load on the system, for which it has not been designed.
-  **DO NOT** dispose of newspaper, disposable nappies, sanitary napkins, tampons, condoms, cotton buds etc in the BioSeptic AWTS—they may cause blockages in the sewer pipes. They also contain inorganic material, which will not degrade in the septic tank.
-  **DO NOT** use strong caustics, acids, alkalis or detergents in your BioSeptic AWTS—they will kill bacterial organisms that break down the household wastes. Their use would result in strong offensive odours from the BioSeptic AWTS and the production of an effluent that would constitute a serious health hazard.
-  **DO NOT** dispose of bleaches or products such as Domestos or NapiSan into the BioSeptic AWTS.
-  **DO NOT** dispose of grease, fats, cooking oils or food scraps down the kitchen sink.
-  **DO NOT** discard pesticides, herbicides, or unused medications especially antibiotics into the system. Such chemicals will kill beneficial bacteria, affecting the treatment process.
-  **DO NOT** use cleaning materials or deodorisers/fresheners that are normally suspended in the toilet bowl or cistern unless they are labeled septic safe.
-  **DO NOT** leave your washing to be done on one day, as this practice will impose a high hydraulic load on the system and the irrigation area. If possible, limit the wash to one or two loads per day, spread over several days.
-  **DO NOT** switch the power off to the system even while on holidays.
-  **DO NOT** attempt to self-service your AWTS.



## HANDY HINTS

### To ensure you get the Best Results from your BioSeptic AWTS . . .

#### Use only biodegradable and septic-safe products.

When shopping for various cleaners, detergents, toilet paper etc, check the labels to determine their safety to BioSeptic AWTSs - using septic-safe products will make your BioSeptic operate most efficiently.

BioSeptic does not endorse the particular products and product manufacturers mentioned in these pages However to the best of our knowledge they are suitable for use with a BioSeptic AWTS.

The following website has information on other laundry products which may be useful - [www.lanfaxlabs.com.au](http://www.lanfaxlabs.com.au)

#### Kitchen

- |               |             |            |
|---------------|-------------|------------|
| • Sunlight    | • Palmolive | • Kwitcare |
| • Kit         | • Trix      | • Topwash  |
| • Green Apple | • Bushland  | • Adds     |

Most dishwashing detergents are strongly alkaline and should be used in moderation, especially *Finish*.

#### Bathroom and Toilet

- |                |               |                    |
|----------------|---------------|--------------------|
| • Pine-O-Clean | • Toilet Duck | • Similar products |
|----------------|---------------|--------------------|

These products can be used in **very small** quantities, but care should be taken.

To clean the bath, *Ajax* or a *similar product* may be used in **small** quantities. *Spray and Wipe* may also be used for this purpose.

#### Laundry

- |            |               |              |
|------------|---------------|--------------|
| • Care     | • Lux         | • Cuddly     |
| • Top Wash | • Blue Sno    | • Embassy    |
| • Surf     | • Sunlight    | • Rinso      |
| • Castle   | • More        | • Dynamo     |
| • Softly   | • Fab         | • Fluffy     |
| • Omo      | • Purlite     | • Hurricane  |
| • Spree    | • Love & Care | • Cold Power |
| • Woolmix  | • Gow         | • Ease       |

Use only gentle, biodegradable products.

Most *Amway* products are safe to use, **with the exception of:**

- *Dry chlorine bleach*
- *Persue Disinfectant*
- *Liquid Fabric Softener*
- *SA8 Liquid with Fabric Softener*

**Nappies** Do not use **NapiSan or similar products**, as antibacterial solutions will kill the bacteria required to make the BioSeptic work.

If nappies must be soaked, make sure the wash water does not enter the system.

**Bleach** Do not use bleach unless the water can be disposed of without entering the system.

**Wash Days** Avoid large washes where possible. Ideally you should do 1-2 loads per day over several days—this reduces the hydraulic shock loading on the system.

### With all cleaning— Do Not Use an Excess of Cleaners or Detergents

# PLEASE!

ONLY THROW



TOILET PAPER

IN THE TOILET

EVERYTHING ELSE

IN THE BIN





# Please! **DO NOT** Flush

Even though a product may be small enough to be flushed, **does not** mean it should be. Flushing items that are not meant to be flushed, including those labeled *flushable*, can lead to problems in the your BioSeptic treatment system.



Sanitary Wipes



Feminine Hygiene Products



Chemicals



Rubbish



Metals & Pastics



Medications & Supplements



Fats, Oils & Grease

## MAINTENANCE

Your BioSeptic AWTS is a compact sewage treatment plant that supports a biological process, and as such requires regular servicing and maintenance. A municipal sewage treatment plant is maintained on a daily basis - this is not necessary for your BioSeptic AWTS. When properly installed and maintained, a BioSeptic AWTS has a high level of performance and reliability.

After the local council approved the installation of your BioSeptic AWTS a Licence to Operate a Sewage Management Facility (the BioSeptic AWTS) should have been issued.

The Licence to Operate requires that the BioSeptic AWTS is serviced every three months. A condition of the Licence is that you have an annual service agreement with either BioSeptic Pty Limited, your local agent or another service provider authorised by your local council.

After each service a copy of the service report will be left in your letterbox and a copy will be sent to the council.

After the fourth quarterly service has been completed a renewal invoice will be posted for the next year's service. Payment can be made by cheque, credit card or Bpay. Direct deposit from your bank is also available provided you quote your BioSeptic site ID number. Without this number, no credits can be allocated to your site. If you do not have your site ID number, our office staff will be able to provide it.

The service telephone number is printed on the alarm panel. We recommend that you call between 8:00am and 4.00pm and your call will be answered by our Service Department.

## WATER QUALITY

The treated wastewater from your BioSeptic AWTS is of a very high quality. It should be colourless and free from visible solids and objectionable odours. The quarterly servicing also maintains the chlorine supply in your BioSeptic so that there should be no harmful bacteria in the treated wastewater. Regular servicing will ensure that the wastewater is safe for disposal in the approved land application area.

### Wastewater discharge quality

Your BioSeptic system has undergone an extensive 34 week test at an approved test plant and has been accredited as an Advanced Secondary sewage treatment system.

The treated water quality was:

Biochemical Oxygen Demand (BOD5)....<10mg/l  
Suspended solids ..... <10mg/l  
Faecal coliform ..... <10cfu/100ml

## MAINTAINING YOUR LAND APPLICATION AREA

The land application area will have been approved and inspected by an officer from the council after the completion of the BioSeptic installation. Although it will be inspected and its condition reported by our service technician at each service visit, its upkeep and maintenance are your responsibility.

Reading and implementing the following maintenance programme will ensure that you achieve the full benefit of owning and using a BioSeptic AWTS and that the land application area is effective for a long period of time.

### Homeowner maintenance requirements

Ensure the effluent warning signs are clearly visible by maintaining your land application area free from weeds and debris.

Regular visual checking of your BioSeptic AWTS's exterior and irrigation system will ensure that problems are located and fixed early.

The visual signs of the land application area failing are:

- surface ponding or run-off of treated wastewater
- soil quality deterioration
- poor vegetation growth
- unusual odours

### Volume of water

Land application areas and systems for onsite application are designed and constructed in anticipation of the volume of waste to be discharged. Uncontrolled use of water may lead to poorly treated effluent being released from the system.

If the land application area is waterlogged and soggy, the following are possible causes:

- overloading your treatment system with excessive wastewater
- your land application area has been poorly designed
- stormwater is running onto the area

### Help protect your health and the environment

Poorly maintained land application areas are a serious source of water pollution and may present health risks, cause odours and attract vermin and insects.

By looking after your sewage management system, you can do your part in helping to protect the environment and the health of you and your family

## MAINTAINING YOUR LAND APPLICATION AREA

-  **DO** construct and maintain diversion drains around the top sides of your land application area to divert surface water.
-  **DO** ensure that your land application area is kept level by filling any depressions with good quality top soil (not clay).
-  **DO** keep the grass regularly mowed and plant small trees around the perimeter to aid absorption and transpiration of the treated wastewater.
-  **DO** visually check your irrigation system regularly to ensure the sprays are operating and free from blockages.
-  **DO** ensure that any stormwater run-off from the roof, driveway and other impermeable surfaces is directed away from your land application area.
-  **DO** ensure appropriate Warning signs are visible at all times in the vicinity of a spray irrigation area.
-  **DO** maintain your disposal area. Do not alter it without the approval of your local council.
-  **DO** periodically check the sprinklers, and remove sprinkler heads to check inside for possible blockages. It may be necessary to wash the sprinkler heads in a bucket of warm soapy water to remove small particles and grit.
-  **DO** regularly move the location of surface spray irrigation systems around the designated irrigation areas, to avoid over saturation of the soil.
-  **DO** ensure that the irrigation lines are not kinked or flattened (do not drive over the irrigation lines).
-  **DO** keep irrigation lines pointing downhill (if possible) in frosty conditions to avoid water freezing in the lines.
-  **DO** ensure subsurface irrigation systems are cycled to distribute wastewater evenly to all areas, and filters are kept clean.
-  **DO NOT** erect any structures, construct paths, graze animals or drive over your land application area.
-  **DO NOT** plant large trees or shrubs that shade your land application area, as the area needs sunlight to aid in the evaporation and transpiration of the treated wastewater.
-  **DO NOT** plant trees or shrubs near or on house drains.
-  **DO NOT** allow stormwater lines to discharge into or near your land application area.
-  **DO NOT** irrigate edible fruit or vegetables with wastewater from the system.
-  **DO NOT** extract treated wastewater for potable (drinkable) use.
-  **DO NOT** flood your land application area through the use of hoses or sprinklers from potable water sources.
-  **DO NOT** intentionally divert wastewater off your property into water bodies, street gutters or the stormwater system.
-  **DO NOT** irrigate wastewater onto hard surfaces such as concrete or paving etc.
-  **DO NOT** let children or pets come into contact with treated effluent water from the system.

## MAINTAINING YOUR LAND APPLICATION AREA

SOME PLANTS SUITABLE FOR USE ON IRRIGATION DISPOSAL AREAS

<b>Botanical Name</b>	<b>Common Name</b>	<b>Approx Height</b>
<b>TREES</b>		
<i>Agonis flexuosa</i>	Willow Myrtle	5-6m
<i>Acacia baileyana</i>	Cootamundra Wattle	3-5m
<i>Banksia spp.</i>		
<i>Casuarina glauca</i>	Swamp Oak	6-12m
<i>Casuarina stricta</i>	Drooping Sheoake	3-5m
<i>Casuarina cunninghamiana</i>	River Sheoake	6-10m
<i>Callistemon viminalis</i>	Red Bottlebrush	3-6m
<i>Callistemon salignus</i>	White Bottlebrush	3-6m
<i>Eucalyptus grandis</i>	Flooded Gum	10-15m
<i>Eucalyptus camaldulensis</i>	River Red Gum	15-20m
<i>Eucalyptus cosmophylla</i>	Cup Gum	5-6m
<i>Hakea spp.</i>		
<i>Hymenosporum flavum</i>	Native Frangipani	3-6m
<i>Leptosporum laevigatum</i>	Coast Tea Tree	5-6m
<i>Melaleuca armillaris</i>	Bracelet Honey Myrtle	3-4m
<i>Melaleuca quinquenervia</i>	Broad Paperbark	5-7m
<i>Melaleuca nesphila</i>	Western Tea Myrtle	2-4m
<i>Syzygium paniculatum</i>	Bush Cherry	8-10m
<i>Tristania laurina</i>	Kanuka	3-5m
<b>SHRUBS</b>		
<i>Abelia x grandiflora</i>	Abelia	2-3m
<i>Acacia floribunda</i>	Gossamer Wattle	2-4m
<i>Acacia longifolia</i>	Sallow Wattle	2-4m
<i>Acacia iteaphylla</i>		
<i>Cotoneaster spp.</i>		
<i>Cortaderia selloana</i>	Pampas Grass	2-3m
<i>Cyperus alternifolius</i>	Umbrella Grass	0.5-1m
<i>Cyperus papyrus</i>	Papyrus	
<i>Chamaelucium uncinatum</i>	Geraldton Wax	2-4m
<i>Hebe spp.</i>	Veronia	0.5-1m
<i>Iris pseudacorus</i>	Yellow Flag Iris	0.5-1m
<i>Nerium oleander</i>	Oleander	2-3m
<i>Melaleuca decussata</i>	Cross Leaved Honey Myrtle	1-2m
<i>Phormium tenax</i>	New Zealand Flax	2-2.5m

## MAINTAINING YOUR LAND APPLICATION AREA

SOME PLANTS SUITABLE FOR USE ON IRRIGATION DISPOSAL AREAS

### Botanical Name

### Common Name

#### CLIMBERS

*Bougainvillea spp.*

*Hardenbergia violacea*

*Hibbertia scandens*

*Jasminum officinate*

*Kennedia rubicunda*

*Lonicera japonica*

*Passiflora spp.*

*Vitis coignetiae*

Purple Coral Pea

Snake Vine

Common Jasmine

Dusky Coral Pea

Japanese Honeysuckle

Passion Flower

Glory Vine

#### PERENNIALS

*Aster novi-belgii*

*Canna*

*Chrysanthemum frutescens*

*Chrysanthemum maximum*

*Gazania ringens*

*Salvia uliginosa*

Perennial Aster

Gossamer Wattle

Marguerite Daisy

Shasta Daisy

Black-eyed Susan

Bog Salvia

This list is intended only as a guide to provide a small selection of trees, shrubs and other plants that may be considered suitable for irrigation disposal areas. However, because of wide climatic and soil variations, it is essential that further investigations be made with your local plant nursery before finalising your plant choice to suit your particular locality and site conditions.



## SERVICING

Your local council requires that your BioSeptic AWTS is correctly serviced every three months.

Having your BioSeptic AWTS serviced by BioSeptic, the manufacturer, or our agent means that you know it will be serviced correctly and we will only fit replacement original equipment, not after market components.



***IT IS IMPORTANT THAT YOU SEND THE NOTICE OF OCCUPANCY FOUND AT THE BEGINNING OF THIS OWNER'S GUIDE.***

We at BioSeptic are committed to maintaining our good name and excellent service record, and we will ensure that your BioSeptic AWTS is correctly and efficiently operating after every service.

The following items will be checked at each 3-monthly service:

- the efficiency of the chlorinator
- the chlorine tablets - replenishing as required

- the irrigation pump
- the operation of the blower (including cleaning the blower filter)
- the efficiency of the sludge and skimmer return system
- the condition of all pipes and hoses
- the efficiency of the irrigation sprays

The following items will be tested at each 3-monthly service:

- the high level water alarm
- the low air alarm
- the clarity of the water
- the free residual chlorine level

The following annual check/test will be performed:

- observation of sludge accumulation in the septic tank

## SERVICING YOUR BIOSEPTIC

**Each quarterly service shall include a check on all mechanical, electrical and functioning parts of the BioSeptic AWTS, including:**

- the chlorinator
- replenishment of the chlorine
- the pump
- the air blower
- the alarm system
- the effluent disposal area, including the spray irrigation outlets
- sludge accumulation in the septic tank (primary treatment tank), the aeration chambers and the clarifier
- the operation of the sludge and skimmer return system
- a field test carried out by the service contractor to measure - free residual chlorine

## WARRANTY

All mechanical and electrical components have a 1 year warranty covering parts and labour. This is extended to 2 years if a service agreement is maintained with BioSeptic Pty Limited.

If the BioSeptic system has been purchased from a BioSeptic agent any additional warranty is offered under the same conditions by the BioSeptic agent.

Warranty is conditional upon a continuous Service Agreement being maintained with BioSeptic Pty Ltd.

However, this warranty excludes failure caused by negligence, abuse, natural damage such as flooding and lightning strike, subsidence, incorrect installation, ie any cause that could be considered not to be warrantable under the laws of New South Wales.

### **BioSeptic S5000 NR Warranty**

The BioSeptic AWTS has normal Statutory warranties as noted before, however while the AWTS is being serviced by BioSeptic the following additional warranties are applicable:

1. Concrete tank and structural components - up to 15 years.
2. Internal pipe work - up to 5 years.
3. Standard irrigation system (above ground poly pipe and sprays) - up to 2 years.
4. Irrigation pump - up to 2 years from the date the tank was delivered
5. Air blower - up to 2 years from the date the tank was delivered. system delivery date

## **i** S5000 NR CONTROL SYSTEM

This operation and installation information should be provided by the purchaser to the builder and electrician, so that the control box and alarm panel can be correctly connected by the electrician. It can be downloaded from [www.bioseptic.com.au/](http://www.bioseptic.com.au/) electrical connections. The electrician is provided by the purchaser.

The BioSeptic control boxes are factory fitted inside the grey boxes on top of the tanks. Also inside the grey box is the 12v alarm panel that is to be installed

by the client's electrician in the client's nominated position. Only the electrician needs to open the control box to connect the two alarm wires. It must be unplugged from the power point before being opened.

There are no owner serviceable components inside the box, and it is best left intact and only opened by the electrician.

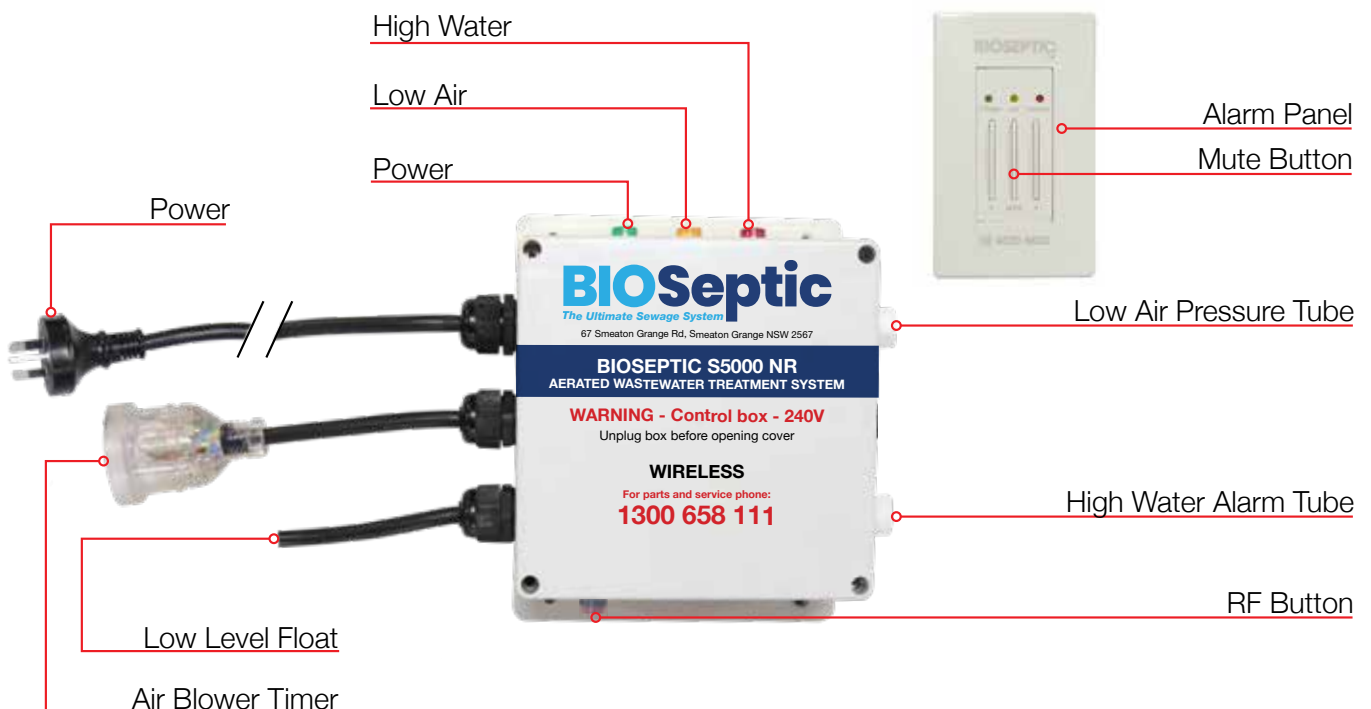
**Each of the two tanks that make up the S5000 has its own control system. They are different in operation.**



### NOTE

BioSeptic does not undertake any electrical work.

## EQUALISATION CHAMBER/DOSING SYSTEM CONTROL PROCESS



## EQUALISATION TIMER

The primary or first tank has a control box inside the grey cover box. This box controls the timer that doses the wastewater from the equalisation chamber into the treatment tank. The correct setting of this timer is important so that it transfers water over a 23 hour period each day. If there is no flow in the 24th hour then the system is being optimally dosed. If there is a large variation in the daily flow the settings must be made for the highest flow. During low flow days there may be longer periods of no flow. This will not adversely affect the operation. Not transferring all of the water on the higher flow days will build up a surplus which may eventually flood the system.

***Please phone BioSeptic if further assistance is required to set the timer.***

### HOW THE DOSING TIMER WORKS:

- Power is supplied to the equalisation control box.
- The control box supplies power to the timer.
- The timer supplies intermittent power to the air blower.
- The blower supplies air to the air lift pump water to transfer water to the treatment tank.
- The timer can be adjusted to decrease or increase the flow into the treatment tank.

### SETTING THE DOSING TIMER:

The timer is factory set to operate the dosing air blower at one minute on and three minutes off.

The timer has two concentric dials. Rotating the outer dial changes the dosing frequency and the inner dial changes the dosing period.

To increase the flow decrease the frequency (the larger outer dial), i.e from three minutes off to two minutes and forty five seconds off.

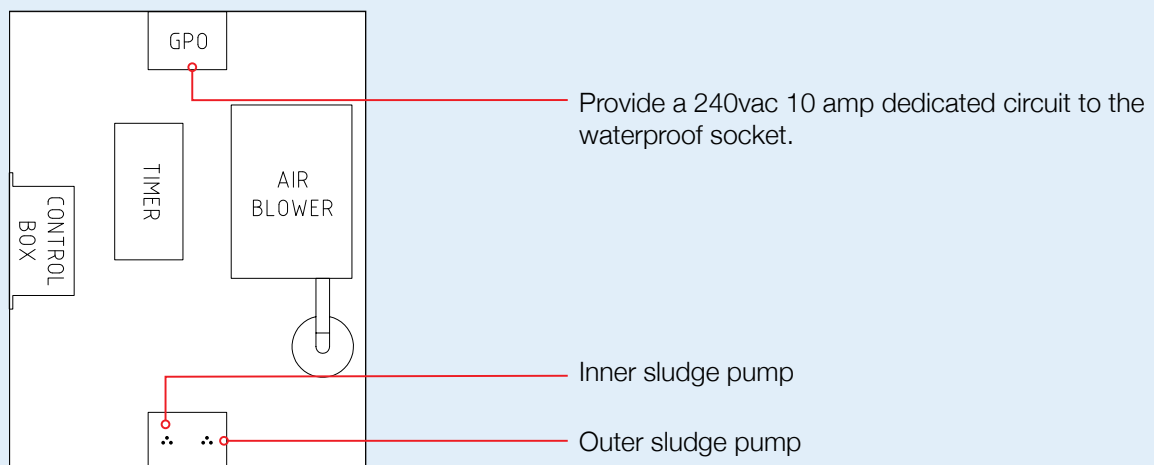
Controlling the off timer is easier than adjusting the on timer (the smaller dial)



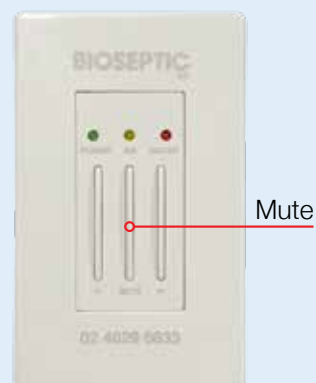
## DISPLAY LIGHTS - EQUALISATION DOSING / CONTROL PROCESS

Control Box	Alarm Panel	Condition	Possible fault condition
Green	Green	Power is on	Display light is off - check main supply.
Yellow	Yellow	Low air pressure	a) the air tube may be disconnected, b) the blower is not working or c) there may be a broken pipe inside the tank
Red	Red	High water level	If power has only recently been turned on the tanks may be overfull. The discharge pump will pump the level down.
	Mute button		Pressing the mute button for <b>2 seconds</b> silences the audio alarm – it will re alarm in 24 hours if the fault is still present. Quickly tapping the mute button will not silence the alarm

## ELECTRICAL SUPPLY



## ALARM PANEL



Install the alarm panel in the client's preferred location, usually inside the house

- Install in a clearly visible and audible position
- Do **not** install near bedrooms
- Connect the two alarm wires to the terminal block. They are not polarity sensitive.

### To mount the alarm:

Insert a screwdriver in the two slots at the base of the faceplate to remove the faceplate.

### ALARM SYNCHRONISATION.

Press the RF button on the underside of the control box. Press the mute button on the alarm panel until the green lights on the control box and alarm panel flash.

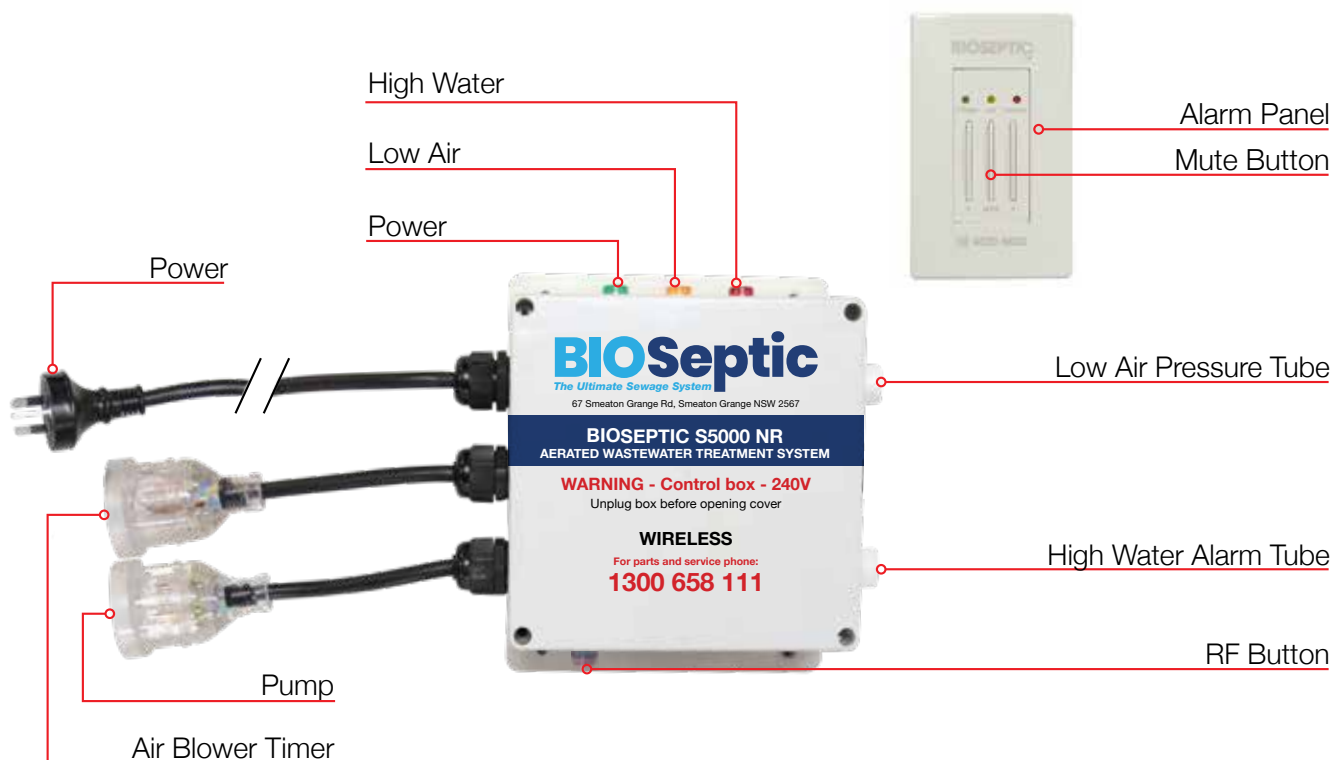
The control box and alarm are now paired.

Remove the air blower tube to test the alarm.

## TREATMENT TANK CONTROL PROCESS

Power is supplied to the control box which supplies power to the air blower, discharge water pump timer is powered directly from the power socket. The sludge pumps.

- The treatment tank air blower operates continuously to provide the best aeration to the treatment process.
- A timer operates the two sludge pumps that desludge the two clarifiers each day.
- The skimmers in each clarifier operate continuously and independently of the pump timers.



### HOW THE SLUDGE PUMP TIMERS WORKS:

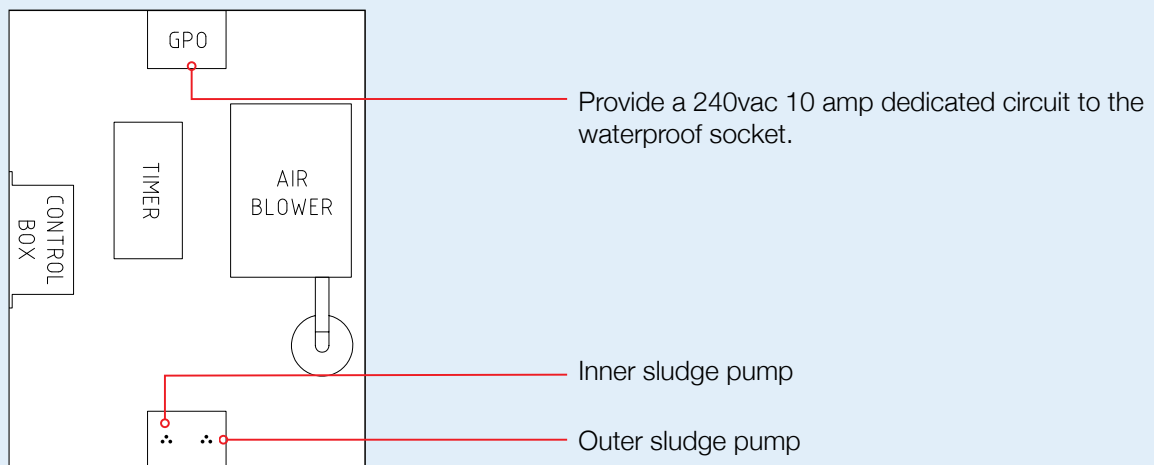
- The timer has permanent power.
- The timer supplies power to the sludge pumps for 15 seconds every 12 hours.
- When the pump operates, settled sludge in each clarifier is pumped to the septic tank for digestion by the anerobic bacteria.
- 15 seconds should be an adequate time each day to remove any sludge build up. If a longer time is required to desludge the clarifier. Connect the pump lead to power. Make sure to plug it back into the timer.



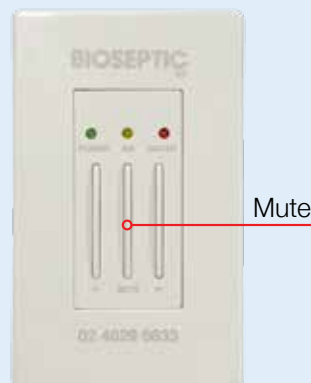
## DISPLAY LIGHTS - TREATMENT TANK CONTROL BOX

Control Box	Alarm Panel	Condition	Possible fault condition
Green	Green	Power is on	Display light is off - check main supply.
Yellow	Yellow	Low air pressure	a) the air tube may be disconnected, b) the blower is not working or c) there may be a broken pipe inside the tank
Red	Red	High water level	If power has only recently been turned on the tanks may be overfull. The discharge pump will pump the level down.
	Mute button		Pressing the mute button for <b>2 seconds</b> silences the audio alarm – it will re alarm in 24 hours if the fault is still present. Quickly tapping the mute button will not silence the alarm

## ELECTRICAL SUPPLY



## ALARM PANEL



Install the alarm panel in the client's preferred location, usually inside the house

- Install in a clearly visible and audible position
- Do **not** install near bedrooms
- Connect the two alarm wires to the terminal block. They are not polarity sensitive.

### To mount the alarm:

Insert a screwdriver in the two slots at the base of the faceplate to remove the faceplate.

### ALARM SYNCHRONISATION.

Press the RF button on the underside of the control box. Press the mute button on the alarm panel until the green lights on the control box and alarm panel flash. The control box and alarm are now paired. Remove the air blower tube to test the alarm.

## TROUBLE SHOOTING

Your BioSeptic Aerated Wastewater Treatment System is designed to operate quietly and efficiently, and requires only a 3-monthly service to provide you with the best possible onsite effluent disposal system.

### CHECK POWER SOURCE

If the green light on the alarm panel is not illuminated check if the green light is illuminated on the control box located inside the cover box on top of the treatment tank. If the control box green light is illuminated and the panel light is not, then there is a fault in the panel. If the control box green light is not illuminated, nothing should be operating. Check the circuit breaker in the power box. If it is turned off, try and re set it once or twice. If it does not re set call an electrician. BioSeptic cannot undertake any licensed electrical work.

Otherwise, if all appears to be in order, telephone our **Service Department on 4629 6633** (the number is located on the alarm panel).

*In both circumstances reduce the water flowing into the system by restricting baths, limiting laundry and dishwasher use, etc until the fault has been rectified.*

**Remember—the alarm is designed to come on early, so don't panic.**



# SERVICE SHEET

Date: .....

Tech: .....

Customer: .....

Site ID #: .....

Address: .....

Suburb/Town: .....

Chlorine mg/L	<input type="text"/>	Tablets Remaining	<input type="text"/>	Tablets Added	<input type="text"/>
		Clarity	<input type="text"/> mm	Total Tablets	<input type="text"/>

	Working	Not working	Not Applicable
<b>Irrigation Pump:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> .....
<b>Air Blower:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> .....
<b>Recirculation Pump:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> .....
	Cleaned	Changed	
<b>Blower Filter:</b>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Transfer Cap:</b>	<input type="checkbox"/>	<input type="checkbox"/>	

<b>Alarms Operation:</b>	<b>Visual</b>			<b>Audio</b>	
	Yes	No	Unable to check	Yes	No
Pump Alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> .....
Blower Alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> .....

<b>Sludge Build-up:</b>	<i>Satisfactory</i>	<i>Unsatisfactory</i>
in Septic Tank	<input type="checkbox"/>	<input type="checkbox"/> .....
in Aeration Chambers	<input type="checkbox"/>	<input type="checkbox"/> .....
in Clarification Chamber	<input type="checkbox"/>	<input type="checkbox"/> .....

<b>Outlet Filter:</b>	Present <input type="checkbox"/>	Cleaned <input type="checkbox"/>
<b>Sludge Return Operation:</b>	Checked <input type="checkbox"/>	Adj <input type="checkbox"/> .....
<b>Skimmer Operation:</b>	Checked <input type="checkbox"/>	Adj <input type="checkbox"/> .....
Pump Out Required	Yes <input type="checkbox"/>	No <input type="checkbox"/> .....
Scum Depth	OK <input type="checkbox"/>	Not OK <input type="checkbox"/> .....

<b>Irrigation Area:</b>	Area satisfactory <input type="checkbox"/>	Area Requires Attention <input type="checkbox"/>
.....	Number of sprays	.....

**Blower Make:** ..... **Model:** ..... **Serial No.:** .....

<b>Operation:</b>	Fair <input type="checkbox"/>	OK <input type="checkbox"/>	Good <input type="checkbox"/>	<b>Odour:</b>	Nil <input type="checkbox"/>	Slight <input type="checkbox"/>	Strong <input type="checkbox"/>
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Comments .....

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# LOCAL COUNCIL SERVICE REPORT



Local Council STS (DGTS) Service Report: (Version 5: August 2017)		
Owner's Name:	Local Council:	
Installation Address:		
System Brand & Model:	<input type="checkbox"/> Domestic	<input type="checkbox"/> Commercial
Date of this service: / /	Date of last Service: / /	Next service due: / /
Has the STS/DGTS been <b>serviced</b> in accordance with the manufacturer's / supplier's requirements and using the service sheet? <input type="checkbox"/> Yes <input type="checkbox"/> No If "No" why?		
STS/DGTS <b>functioning</b> correctly? <input type="checkbox"/> Yes <input type="checkbox"/> No If "No" why?		
<b>According to sludge-judge or other methodology is de-sludging needed?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" what action is recommended?		
<b>Offensive odours?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" what action is recommended?		
<b>Alarms</b> tested and functional? <input type="checkbox"/> Yes <input type="checkbox"/> No If not "functional" what action is recommended?		
<b>Final Effluent Quality</b> Tested? <input type="checkbox"/> Yes <input type="checkbox"/> No Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No Chlorine tablets remaining? <input type="checkbox"/> Yes <input type="checkbox"/> No Quality? <input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory On what evidence is this judgment made? If "Unsatisfactory" what action was recommended?		
<b>Land Application Area</b> Surface ponding? <input type="checkbox"/> Yes <input type="checkbox"/> No Run off? <input type="checkbox"/> Yes <input type="checkbox"/> No Excess plant growth? <input type="checkbox"/> Yes <input type="checkbox"/> No Effluent leaving premises? <input type="checkbox"/> Yes <input type="checkbox"/> No High risk areas contaminated?* <input type="checkbox"/> Yes <input type="checkbox"/> No * Patio, play areas, BBQ, etc Operating satisfactorily? <input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>Overall Condition of STS?</b> <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor Comments / Action Recommended / Repairs Needed / Repairs Performed:		
Has the owner / occupier taken recommended actions? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Service Agent:	Contact Details:	
Signature:	Date:	

Source: Adapted from "Checklist 4.2: Operational AWTS inspection report for use by service providers and Council inspectors" in *Designing and Installing On-Site Wastewater Systems*, Sydney Catchment Authority, May 2012