

# HOME OWNERS MANUAL



**Taylex™ Compact System - 2000Lt/day**  
**Taylex™ Deluxe System - 3000Lt/day**

Secondary Home Sewage Treatment System

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## **1. ABOUT TAYLEX**

Taylex is an Australian owned company that supplies Home Sewage Treatment Plants to the domestic market. Taylex were the pioneers of HSTP's in Australia in 1969 and since then we have been continually developing our product to help care for our environment. Taylex systems are sold throughout Australia by a network of factory trained licensed Distributors. We manufacture and produce all of our own concrete products and components for our system. We have 2 head offices one located on the Gold Coast and one in Seymour (Victoria).

## **2. WHAT IS A HOME SEWAGE TREATMENT PLANT (HSTP)?**

*Also know as an Aerated Waste Water Treatment System (AWTS).*

A HSTP is a purpose built system used for the treatment of sewage and liquid wastes from a single household or multiple dwellings.

A Home Sewage Treatment plant is your contribution to our environment. It is your means of ensuring that your waste does not become someone else's problem.

A HSTP is basically a miniature version of a city sewage treatment plant.

Taylex are leaders in the HSTP field because we use the same materials that city treatment plants use: concrete, stainless steel and brass – all the proven products that better withstand the ravages of raw sewage.

### **3. HOW DO THEY WORK**

A HSTP is a living organism. There are trillions of living bacteria that make the system operate effectively. The HSTP imitates nature by using the naturally occurring bacteria that you and your household provide as part of your daily lifestyle. We provide them with oxygen and a happy home environment to breed and work properly.

### **4. WHAT DO THEY NEED**

#### ***A FOOD SOURCE***

Which is your natural household waste. That is everything you use in your house that goes into your drains, kitchen, laundry, toilet, shower etc. Too much food will kill the bacteria in the same manner that over fertilizing a plant will kill it. So garbage disposal, home brew kits etc are not good for them.

#### ***AIR***

Your HSTP requires an air source. Air is injected into your HSTP to keep the bacteria populated, much in the same way an air pump works in a fish tank. If you were to have 10 fish in a small tank with an air pump operating in it, the system would have enough oxygen to support the tank life and keep it healthy. Turn off the air pump and there would not be enough oxygen in the water and the fish and plants would slowly die. Your HSTP works on the same principal. It requires air, food and a happy home environment to work at its maximum potential.

When working properly, your HSTP will work efficiently with no odours or problems. It needs a happy balance.

## **5. WHAT UPSETS THE BALANCE**

The greatest cause of problems with your treatment plant are **cleaning products** and the **washing machine**.

### **CLEANING PRODUCTS**

*Unfortunately what we call cleaning products, your HSTP may class as poisons. Like humans some poisons kill us while others will just make us sick and the same will happen to the bacteria in your HSTP. You must use environmentally friendly products.*

Your treatment system relies on bacteria for your system to work effectively. Any product used that kills bacteria is harmful to your system. If you wish to use some of the harsher cleaning products, it is suggested that you use a bucket and discard the contents in the garden. This also applies to disinfectant, surface sprays and wipes.

### **WASHING MACHINES**

Try to evenly spread your washing over a period of a week. Avoid where possible to wash everything in one day. It puts too much water in the system and your HSTP will struggle to cope. Liquid soaps breakdown easier than granulate styles do. Try not to be heavy handed with the amount of soaps you use.

## **6. HOW DO YOU LOOK AFTER YOUR HSTP**

**THINGS TO ABSOLUTELY AVOID:** Chlorine, disinfectant, bleaches, caustics and heavy chemical products, nappy san, antibacterial products, fat, oil, grease, milk, etc are some of the types of products that will cause the bacteria to die off in your HSTP.

**BE KIND TO YOUR BACTERIA.** Give them a good home environment and they will work harder for you.

**DON'T:** Do not allow foreign objects, (eg. Nappy liners, disposable nappies, tampons, pads, condoms etc) to enter the system.

Pouring large quantities (1/2 litre or more) of beer, wine, milk or fruit juice into the system should be avoided.

## **7. SUITABLE PRODUCTS**

**All products should be used in moderation**

### **DISWASHING LIQUIDS**

Adds	Morning Fresh	Bushlands	rix
Palmolive	Sunlight	Greenapple	Kit

Finish for Dishwashers (limit quantity)

### **SURFACE CLEANERS**

Jiff Cream Cleaner	Spray & Wipe (limit quantity)
Nifty	Swipe
Shower Power	Windex

### **TOILET CLEANERS**

Jiff Cream Cleaner or any cream cleaner – Toilet fresheners are not recommended.

### **FLOOR CLEANERS**

Use hot water and detergent

### **LAUNDRY POWDERS AND LIQUIDS**

Please look at the Independant Laundry Product Research which is on the next couple of pages.

Please Note:

The above list is not intended to promote or discredit the product of any Company. It is provided to assist in ensuring the satisfactory on-going operation of your system.

## **8. AVOIDABLE PRODUCTS**

### **ANTIBACTERIAL SOLUTIONS**

Antibiotics	Nappy Plus	Pineoclean	Blue Loo
Napisan	Preen Soaker	Bio-Ad	Nappy Soft
Tri-zyme	Bio Jo	Nappy Fresh	Toilet Duck
Milton Tablets	Nursil	Toilet Cleaners	

### **BLEACHES**

Domestos	Lemon Bleach	White King	Budget Lemon
Zixo	Fiesta	Marvolinn	

### **OTHER CLEANERS**

Ajax	ESP Herbal	Metho or Kero	Swipol
Aussa	Exit Mould	Flea, Tick Wash	
Handy Andy	Bubble Baths	Floor Cleaners	
Spirits/Alcohol	Draino	Caustic Oven Cleaners	
Green Choice	Down to Earth		

Please Note:

The above list is not intended to promote or discredit the product of any Company. It is provided to assist in ensuring the satisfactory on-going operation of your system.



## **9. SERVICING OF HOME SEWAGE TREATMENT PLANTS**

Home sewage treatment plants are required by state law to be serviced on a quarterly basis. Your local Council also enforces these laws. Systems may only be serviced by registered licensed wastewater service personnel.

### **HSTP'S SHOULD BE SERVICED FOR MORE IMPORTANT REASONS THAN STATE LAW.**

HSTP's are living organisms. There are trillions of living organisms that make up this complete ecology system. They need monitoring and periodic attention for the well being of your colony. Replacing a dead colony is not as simple as going to a pet store and buying a new gold fish. So your service person will tend and monitor your HSTP to give your system the best chances of supplying the environment with the cleanest and best quality water (effluent) that your system can produce.

Please ensure that you

1. Do not cover tanks with earth, cement, paver or any material
2. Do not prevent quick and easy access to any inspection openings.
3. Do not allow roof or surface water to enter any part of the system.

# INDEPENDENT LAUNDRY PRODUCT RESEARCH

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# Lanfax Laboratories

Performance certified by Aust. Soil & Plant Analysis Council

## LAUNDRY PRODUCTS RESEARCH

Laundry products were purchased by Lanfax Labs from supermarkets in Armidale, NSW and a number of boutique products were provided by manufacturers. A total of 41 liquids and 54 powders were tested by mixing each product at the manufacturer's recommended dose for either front loading or top loading automatic washing machines. The dose was calculated at the full cycle load, that is 75 L for front loaders and 150 L for top loaders. The full cycle accounts for the water used in the wash, spin, rinse, deep rinse and spin rinse cycle. The quantities of 75 L for front loaders and 150 L for top loaders were taken from averaged rates for those machines (Patterson, 2004).

Each sample was mixed with cold (20°C) deionised water (to replicate good quality rainwater). Where town water supplies are used, the values reported for sodium concentrations may increase because of sodium in the reticulated water—that will vary from location to location, usually higher in inland than coastal towns. Each sample was shaken for 30 minutes to replicate the washing action.

The concentrations of sodium and phosphorus (and other elements) were measured on the samples using Inductively Coupled Plasma (ICP) technology in accordance with current Good Laboratory Practices at Lanfax Labs.

Only sodium (g/wash) and phosphorus (mg/L) are reported in the graphs presented here. Additional information on this unique research may be obtained at: [www.lanfaxlabs.com.au/laundry.htm](http://www.lanfaxlabs.com.au/laundry.htm)

Other papers on laundry detergents can be found at: [www.lanfaxlabs.com.au/publications.html](http://www.lanfaxlabs.com.au/publications.html)

## HOW TO READ THE GRAPHS

Each product is represented by two bars: the top bar (if present) shows the phosphorus concentration (mg/L); while the lower bar shows the sodium load (g/wash). The graph is arranged in ranked order of sodium load. Figure F1 is for 54 detergents at the front loader rate, Figure T1 is for 89 detergents at the top loader rate.

### Sodium Load

For all on-site systems that apply the effluent by surface or subsurface application, the levels of sodium in the discharge are critical to long term absorption. Choose the product with the lowest sodium load (g/wash). Levels above 20 g/wash are likely to be detrimental to plants and the soil although plant tolerance and soil types will vary. The shorter the bar, the lower the load. When in doubt, choose the lower sodium load.

The detergents with long sodium bars (greater than 20 g/wash) should not be thrown onto your favourite garden as the sodium may be detrimental to the plants. High pH (see the website for pH data) is also detrimental to plants and soil. The pH of liquids (average pH 8) is generally lower than pH of powder detergents (average pH 10.5).

### Phosphorus Concentration

The choice of a suitable level of phosphorus in the greywater (laundry water discharge) will depend upon the soil type and the use of the effluent. In some soils, phosphorus is not a real concern because of the natural ability of the soil to immobilize the phosphorus and limit its leaching from the disposal site. In other soils, phosphorus is likely to build up to high levels and leach from the soil. It is preferable to choose the lower phosphorus values as well as the low sodium values. The load of phosphorus for each product is available in the website data.

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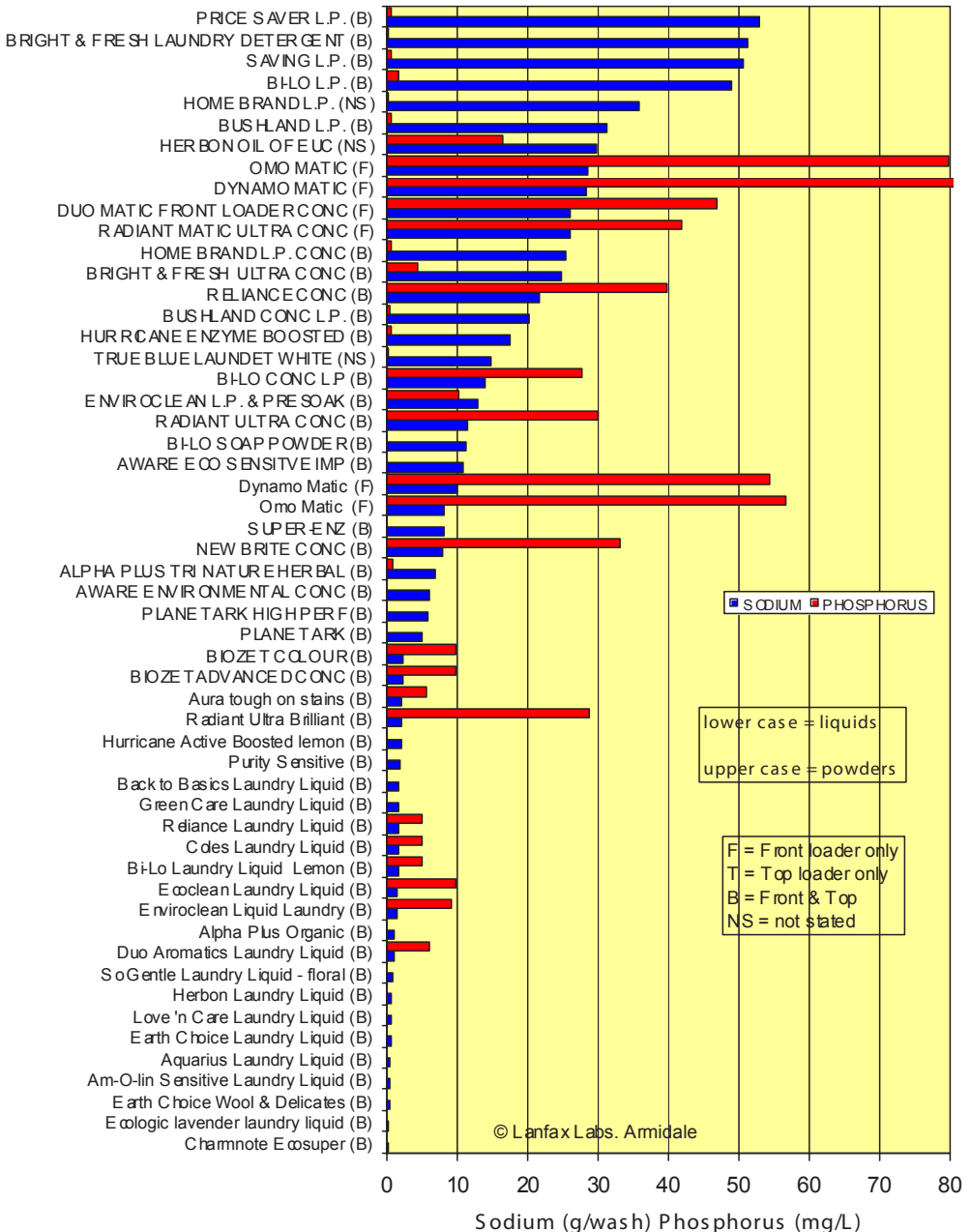
This material may only be reproduced in full (three pages) for educational purposes. None of the graphs should be construed as an endorsement of one product over another, or that one product is superior or inferior to another. The data are presented as measurements of fact, ranked in order of sodium.

This research was funded by Lanfax Labs and was independent of any manufacturer or other organisation.

# The Lower The Sodium & Phosphorus The Better for the Environment

Figure F1 - FRONT LOADING MACHINE CYCLE

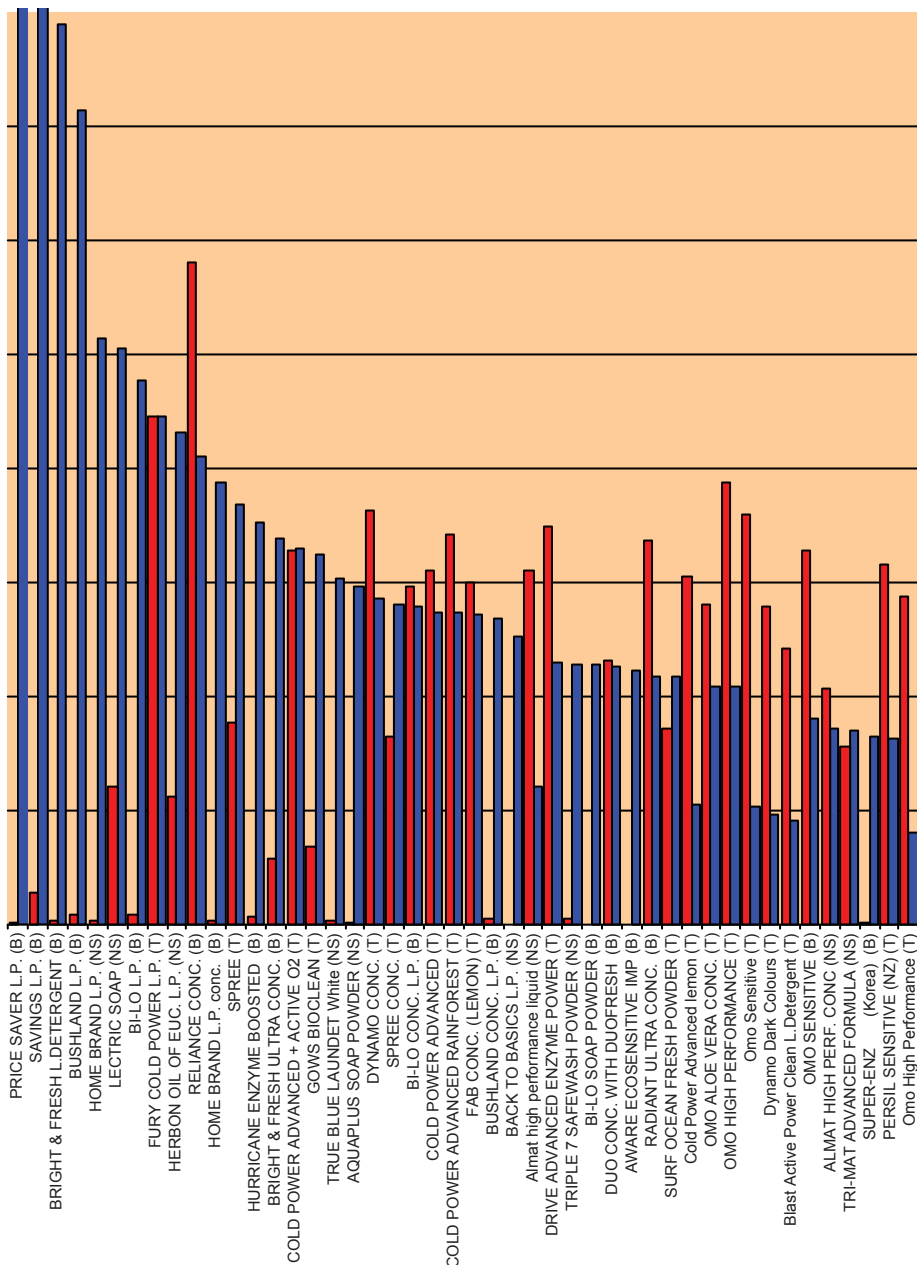
Full wash cycle: Front loader = 75 L



© Lanfax Labs. Armidale

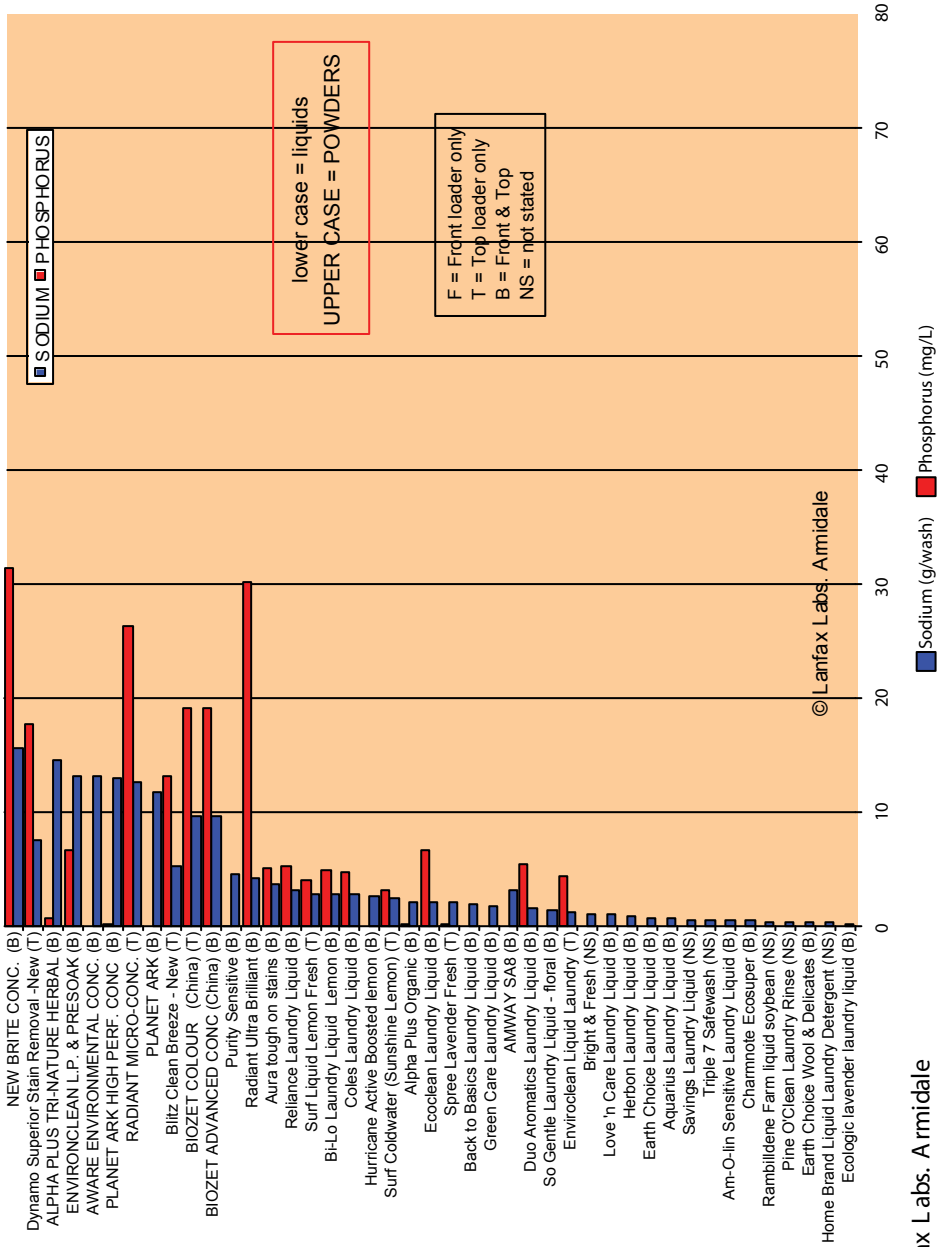
**Figure T1 - TOP LOADING**  
**Full wash cycle: Top**

**The Lower The Sodium & Phosphorus The Better for the Environment**



# MACHINE CYCLE

loader = 150 L



## 10. WHO TO CONTACT FOR HELP

Basic things to check prior to phoning for help: (call out fees can be avoided by checking)

1. Do you have power at the system? Are there lights on in the control panel?
2. If your system has an above ground sprinkler line, make sure that the hose is not kinked.  
If you have removable turf keys, make sure they are engaged properly.  
**PUSH DOWN HARD**
3. Reset your system by turning the “off button off”. This is located in the blue box on the top of the tank. “The control Panel”. Turn the button back on. If your system still goes into alarm, ring your local service agent. If you don't know who this is ring our Head Office located on the Gold Coast on 07 3441 5200 for assistance. We have a 24hr assistance mobile no. 0408 989 662 if there is no answer leave a message LEAVE YOUR NUMBER and someone will call you back.

**Never turn off the power to your HSTP. Even if you're going on holidays. The system could flood and Void your Warranty.**

Limit your water usage if your system has failed. If possible remove your aerator to avoid flooding. Contact your local agent or service provider for assistance.

## 11. WARRANTY

Every Taylex Compact System is covered by a full manufacturers warranty. There is a 15 year warranty on the pre-cast concrete tank and a 12 month warranty on all electrical and mechanical components including the irrigation pump, and a 12 month extended warranty is available. Please refer to your Taylex distributor for more information.

This guarantee does not cover damage caused by misuse, neglect, failure to keep the unit clean and functional, accident, use of incorrect power supply, or repair or attempts to repair by unauthorised personnel.

The benefits conferred by this warranty are in addition to all other rights and remedies in respect of the product while the consumer has under the Trade Practices Act and other legislations.

### **TO ENSURE YOUR WARRANTY IS VALID, THE FOLLOWING SHOULD BE OBSERVED:**

- **DO NOT** use system or allow waste water to enter tanks before power services are available to the System and COMPANY has been notified of the date of occupancy of the property.
- **DO NOT** cover lids with soil
- **DO NOT** position concrete paths or driveways over System
- **DO NOT** allow surface water to enter System by incorrect falls and landscaping around System.
- **NEVER** turn the power off.

## 12. HOW DOES YOUR TAYLEX SYSTEM ACTUALLY WORK?

There are four stages to a Taylex treatment system.

- 1 Primary anaerobic digestion and sedimentation
- 2 Aerobic biological oxidation of primary effluent
- 3 Chlorination to destroy pathogens (bacteria-viruses)
- 4 Nutrient removals by way of transpiration and evaporation

In the first stage the breakdown of solids is performed by a bacteria known as anaerobic bacteria which thrives without oxygen and light within the primary treatment chamber (septic tank section). In time most of the solids will decompose or break up, others will not and these collect at the bottom of the tank as sludge.



In the second stage, effluent from the primary stage still contains dangerous substances which are attached to by aerobic bacteria. Aerobic bacteria requires oxygen for there continued existence. The bacteria grow on filter media which is aerated. Bacteria in this chamber attack the dangerous substances in the liquid uniting it with the oxygen to form harmless nitrates.

Stage four is accomplished by an automatic pump that distributes the effluent to the irrigated area. Irrigation areas vary from state to state ad shire to shire.

In stage three the effluent passes through over solid chlorine tables into and effluent storage chamber where any last bacteria and/or viruses are destroyed.



**Taylex Industries Pty. Ltd**



# **HOME OWNERS INSTRUCTION**

**Compact/Deluxe Controller**

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- 1. Introduction**
- 2. Operation**
- 3. System Buttons**
- 4. System Lights and Indicators**
- 5. Controller Functions and Troubleshooting**
- 6. Who to Contact for help**

### **1. Introduction**

Your new Taylex controller has a number of features that you need to understand in order to obtain the optimum efficiency from the water treatment system. The basic purpose of the controller is to control the functioning of the treatment system's AERATOR, and to activate an alarm when a fault condition occurs in the system.

Strobe Light



## Operating Instructions for the Taylex™ Compact Controller

Operating your Taylex™ Compact System is a simple process which will normally be event free. The Taylex™ Compact Control panel is designed to give visual and audible indicators of normal and abnormal operational conditions of the system. Please refer to the photo and familiarise yourself with the switches and components on the front of your Taylex™ Compact Controller. They are depicted in the previous page with description markers (A to E) added.

### *The following is a description of the functions of your Taylex™ Compact Controller*

- 1 **Power Off /On. (A)** After your Taylex™ Compact treatment plant has been commissioned this switch should remain in the ON position (down) at all times unless advised otherwise by your Service Agent. If it is turned off, no treatment will take place and no alarms will function.
- 2 **Display (B)** is an 9 digit display that shows normal and abnormal conditions by a numbered code. These codes will be detailed later in this document.
- 3 **Mute Alarm (C)** is a soft touch key that functions to silence any audible alarms and has other functions that may be used by your service agent.
- 4 **Circuit breaker (D)** is a resetable protection for your aerator. It will protrude from the face of the panel in the event of an over current event . A tripped or open condition is indicated by the square push button protruding from its base and an audible and visual (5) alarm and code in the display (2).
- 5 **Strobe light (E)** is a flashing light located on top of the control box and is used to visually indicate alarm conditions. In the event of an alarm the strobe light will mimic the code number shown in the display (2) (e.g. if the code is 2, there will be 2 flashes , a pause and 2 flashes, and so on) and the audible alarm will sound in unison.

### ***Normal operation at start-up.***

Each time power is applied to your Taylex™ Compact Controller you will see the display (B) count down from 9 to 1 with a beep from the audible alarm for each numeric progression. This is a self testing mode. At the end of the test the figure 0 rotates in the display (B) to indicate the aeration system is working normally. Under normal circumstances this is all you will need to be concerned with.

### ***Low occupancy mode***

Unless your service agent advises otherwise, this function should not be used. If it is required it will be activated by your service Agent. The Taylex™ Compact Controller is able to be programmed to operate the Taylex™ aerator at a reduced level when circumstances permit. When using this mode, all other circumstances, such as the demands on your system are taken into account before switching to this low occupancy mode. DO NOT use this mode unless authorized by your service Agent. Incorrect settings may result in improperly treated water being discharged with consequential damage to the environment and health hazards to you and your family.

### ***Alarm conditions, recognition and solutions***

#### **Visual Alarm**

All fault codes are indicated by the number flashing in the display (B). It is possible to have two fault codes at once (example Code 3 and Code 4). Both will be displayed in sequence. The strobe light on top of the controller will flash according to the code with a pause then it will be repeated. Example, the high water level (Code 3) will cause the lamp to flash 3 times, followed by a pause, then (three) 3 times again.

#### **Audible Alarm & Silencing the Alarm**

The audible alarm will also operate in the event of a fault and will indicate the fault number by means of a corresponding number of beeps (same number as the strobe only audible) The audible alarm can be silenced by pressing the soft touch key (C) briefly. This will silence the alarm for 24 hours and will also cause the display (B) to flash whilst showing the fault code as an indication the alarm is muted. Should another type of fault occur the alarm will restart. It will also restart after 24 hours of the alarm being muted if the fault has not been rectified. The visual alarm cannot be turned off until all faults are rectified.

<b>Alarm</b>	<b>Meaning</b>	<b>What to do</b>
<b>Code 1</b>	An irrigation fuse has opened	Call your service agent*
<b>Code 2</b>	An aerator fuse has opened	Call your service agent*
<b>Code 3</b>	The water level is high occur if a large quantity of water is released suddenly. (eg. a spa bath is emptied) OR the filter is blocked OR the irrigation pump has failed to operate correctly. If there are no other alarms, determine if your sprinklers or irrigation systems are operating and at normal pressure. If so, it may indicate a temporary overload of the tank capacity which may self correct. If the condition persists contact your service agent for advice.	This may
<b>Code 4</b>	The circuit breaker has tripped circuit breaker only after considering the following:	Reset the

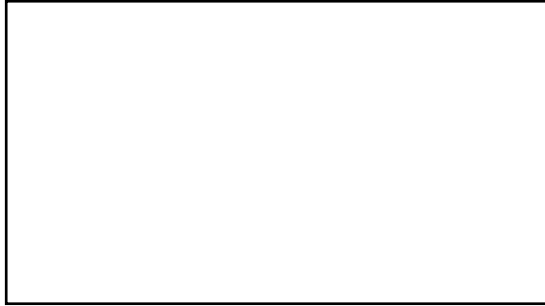
The circuit breaker may trip because the water level is too high in the aerator chamber or the aerator motor or one of its components has developed a fault. It is possible that the fuse (Code 2) will also be blown if there is a fault with the aerator motor. The circuit breaker can be reset by pushing in the protruding push button. If the circuit breaker does not reset or if it continues to trip or the alarm condition cannot be resolved, please contact your service Agent for advice.

***\*It is important to contact your service agent if you are uncertain of the reason for the alarm or if you need advice.***



## 6. Who To Contact For Help

Call Your Authorised Distributor



Or check our website  
**[www.taylex.com.au](http://www.taylex.com.au)**  
for your nearest service agent.

Call Gold Coast Head Office  
**(07) 3441 5200**  
or Call 24 Hour Assistance  
**0408 989 662**

**If no answer Leave Your Name & Number on the  
Message Bank**

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