

HOME OWNERS MANUAL



Taylex™ Domestic Membrane System (DMS)

An Advanced Secondary with Nutrient Removal
Home Sewage Treatment Plant
(HSTP)

TABLE OF CONTENTS

1. About Taylex
2. What is a Home Sewage Treatment Plant (HSTP)
3. About The Domestic Membrane System
4. What is a Membrane
5. How does the Membrane System Work
6. What does the System need?
7. What upsets the balance?
8. How to look after your Taylex DMS?
9. Servicing your Taylex DMS
10. Membrane Exchange Program
11. Warranty
12. Operating Instructions for your Taylex DMS Controller
13. Alarm Conditions, Recognition & Solutions
14. Who to contact for help

Please ensure that you read the Warranty and Exchange Membrane sections of this manual. Talk to Taylex or our Authorised Distributor about what they mean, as the ongoing operation and maintenance of the Taylex DMS depends upon observing all the conditions set out.

1. ABOUT TAYLEX™

Taylex is an Australian Company which commenced business in 1969 manufacturing the first purpose designed Home Sewage Treatment Plant in Australia. It now has two manufacturing works, the Northern Head Office in Ormeau, Southern Queensland and the Southern Head Office in Seymour, Central Victoria.

Taylex has a national group of Authorised Distributors who market, install and service the range of Taylex tanks throughout Australia. They are all privately owned and operated small business enterprises in your local area. They are issued with Certificates of Competency by Taylex verifying their successful training in the installation and maintenance of Taylex equipment.

Taylex has an ongoing commitment to the industry and is a member of the Wastewater Practitioners Association. It has ISO:9000 Certification and its products are approved by all State Authorities and comply with all relevant Australian Standards.

Taylex also has a commitment to continually developing the best products by way of its Research & Development activities. The Taylex ABS is a product of this research.

Most importantly, Taylex has a continuing commitment to its clients, the end user of its products. This is honoured by only appointing the best tradespeople as its Authorised Distributors, generously honouring any valid Warranty claim that a Distributor presents on an owner's behalf, providing spare parts back-up, in-service training at our manufacturing works and assistance, when necessary, in the field.

Taylex is now operated by the second generation of the founding families and we are determined to be here for at least the next 40 years.

Please refer to our website for additional information

www.taylex.com.au

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

Also known as an Aerated Wastewater Treatment System (AWTS).

A HSTP is a tank that contains and treats all of the waste water generated from your home.

This means you can have all the advantages of mains sewerage, even when there is none – full flush toilets, installation of a washing machine and dishwasher, multiple baths and showers, hand basins, en-suite to the master bedroom, a family bathroom as well as a guests toilet and hand basin – and ALL THE WATER YOU USE IN THE HOME IS AUTOMATICALLY RE-USED IN YOUR GARDEN.

It is your own mini sewage treatment plant.

3. ABOUT THE DOMESTIC MEMBRANE SYSTEM

The Taylex Membrane System is the most advanced Home Sewage Treatment System on the Australian Market. It uses aeration, re-cycling and membrane filtration to produce a very high quality filtrate. The micro filters are so fine they prevent even bacteria passing through. With the help of the Taylex system, they turn your wastewater into the cleanest water that is produced from a Home Sewage Treatment Plant.

It looks just like the water that comes from the tap - it's that good!!

4. WHAT IS A MEMBRANE?

A Membrane is basically a super filter. It does not treat effluent (chemically or biologically) but it strains the water through extremely fine pores. The pore sizes are one thirty-five thousandths of a millimetre (0.000035mm). To demonstrate how small that is, the E-Coli bacteria is approximately one thousandth of a millimetre (0.001mm) So basically nothing except water can get through the pores. Taylex have partnered with a German manufacturer who designs membranes that are used in treatment systems on ships, homes and municipal works who provide the membrane. SiClaro (the membrane manufacturer) have been operating in Germany for the past ten years perfecting this membrane filter system. The art of keeping the filter pores from blocking is one of the items that SiClaro have achieved.

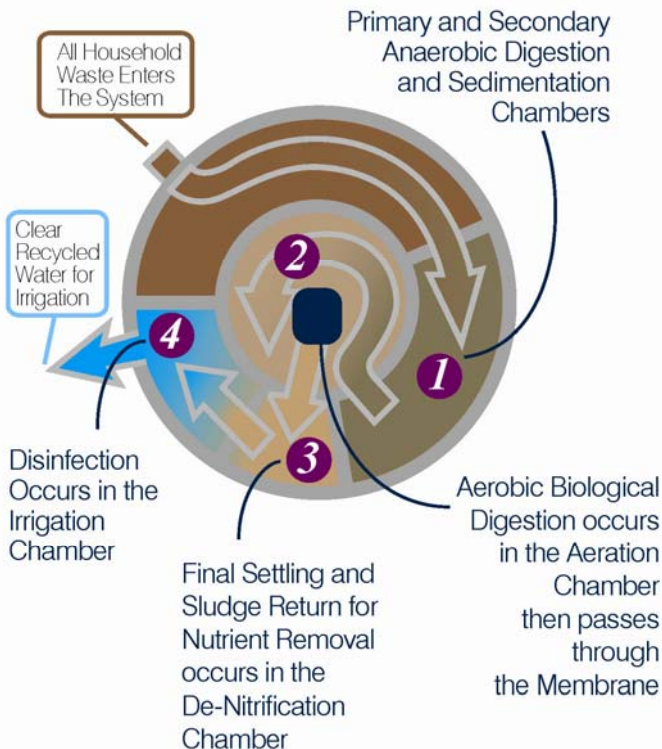
5. HOW DOES THE MEMBRANE SYSTEM WORK?

The water in a Taylex DMS is a living organism. There are trillions of living bacteria that make the system operate effectively. A Home Sewage Treatment Plant 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. The membrane filter strains the water leaving all of the solids, bacteria, etc. in the tank.

The membrane system works best if your system is healthy. An unhealthy system will cause dead bacteria to block the membrane filter and this may cause an unscheduled cleaning of the filter.

AN EXPLANATION OF HOW YOUR TAYLEX DMS OPERATES

The Four Stages to a Taylex DMS Treatment System



6. WHAT DOES THE SYSTEM NEED?

- a) FOOD**
- b) AIR**
- c) A GOOD ENVIRONMENT**

FOOD

This is supplied in the water we discharge into the tank. It comes from the toilets, hand basins, sink, showers, washing machine, in fact anything that we put down the sink or flush down the toilet.

AIR

The Taylex tank is fitted with an air blower that takes fresh air and introduces it to the water through an aerator disc. Some of the gaseous oxygen in the air dissolves in the water as it bubbles up to the top and this gives the water a higher than normal dissolved oxygen content. This is how the bacteria breathe, live and multiply: they can access the dissolved oxygen.

A GOOD ENVIRONMENT

This is where you have a major influence.

- Too much FOOD will kill the bacteria.
- Too little AIR will kill the bacteria.
- Heavy Pollutants will degrade A GOOD ENVIRONMENT and kill the bacteria.

7. 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.

If you kill the bacteria in your system, you may need an unscheduled membrane clean which is not covered by our Service Contract or Exchange Membrane Program.

Use environmentally friendly products only in the quantities recommended.

WASHING MACHINES

Try to evenly spread your washing over a period of a week. Avoid, where possible, washing 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.**

When working properly, your HSTP will work efficiently with no odours or problems.

It needs a happy balance.

8. HOW TO LOOK AFTER YOUR TAYLEX DMS

Things to absolutely avoid:

Do not discharge any of the following into the system:

Chlorine, disinfectant, bleach, caustics, acids, heavy metals, chemicals, “nappy san”, antibacterial products, fat, oil, grease, paint, etc. Dispose of these items in accordance with the requirements relevant to the substance. Do not empty unused medicines into the toilet or sinks. Return these to your Dispensing Pharmacy.

All these products will kill the bacteria in your HSTP and also may block and permanently damage the membrane filter.

Be kind to your bacteria:

Give them a good home environment and they will work harder for you.

Don't:

Do not discharge items into the system that will not biologically break down e.g. nappy liners, disposable nappies, tampons, panty shields, pads, condoms, cotton buds, needles, razor blades etc.

Avoid:

Pouring a quantity of ½ litre or more of beer, wine, milk or fruit juice into the system should also be avoided.

All these items must be disposed of in your garbage (solid waste) collection.

WARNING

UNDER NO CIRCUMSTANCES ARE YOU TO PUT OILS INTO YOUR SYSTEM!

This means any type of oil - cooking or otherwise - or paints, water based or oil based.

If you put these down the drain - even in small quantities - they will block the Membrane and it may not be able to be cleaned. A new Membrane pack will need to be installed which may cost more than \$2,000.00!

Under Taylex' Membrane Exchange Program, HOWEVER, our Authorised Distributor will exchange your membrane pack on the second six monthly service (or third four monthly service in NSW) as part of your Service Contract. If your system requires an additional membrane clean, this will incur additional cost.

Untimely blockage of the membrane will only occur if your system has been mistreated.

Whatever the product, always ensure that it is marked as **Bio-degradable** and **Safe for Use in septic/onsite systems**. Refer to the LANFAX LABORATORIES INDEPENDENT LAUNDRY PRODUCT RESEARCH website for more unbiased information. www.lanfaxlabs.com.au

9. SERVICING YOUR TAYLEX DMS

This system is the most advanced home sewage treatment system available in Australia today. Membranes are a major step in the evolution of water purification from sewage and sullage in Home Sewage Treatment Plants.

Only an Authorized Distributor or person from the Taylex Group is authorised to service the Taylex DMS. This is because Taylex have an exclusive Membrane Exchange Program as part of the Service Contract devised so that our customers will never have to buy a Membrane Pack. (Please see 9 BELOW - Membrane Exchange Policy for more details.

If, for whatever reason, your Taylex DMS is not serviced by an Authorised Distributor or the service contract is allowed to expire and is not renewed within a reasonable time, all warranties will be void and the system will not be covered by the Membrane Exchange Program.

To participate in the benefits of the Membrane Exchange Program you must always have a current Service Contract with an Authorised Taylex Distributor. If you elect to use another service provider to service your system and at some future time request Taylex to again provide a Service Contract for your system, Taylex will require you to buy a new Membrane Pack to allow you to re-enter the Membrane Exchange Program. *This policy will be strictly enforced.*

Taylex' Approval for the Taylex DMS is issued by the relevant State Governments. The terms of the Approval require the Taylex DMS to be serviced every six months (4 months in NSW). It is your local municipal council that enforces these State Government requirements.

Using unauthorised service contractors, or not having a current Service Contract with an Authorised Taylex Distributor voids the Membrane Exchange Program.

To locate an Authorised Taylex Distributor, please visit www.taylex.com.au.

• HOW CAN YOU ASSIST IN SERVICING YOUR TAYLEX HSTP?

1. Do not cover the top of the tank with earth, gravel, tanbark, concrete, pavers, pot plants, barbecue, swing set, seat etc.
2. Provide clear access to the plant and the inspection openings.
3. If you have a locked yard, provide your service person with a key.
4. **Make sure surface water does not pool and can never enter the plant, even during torrential rain events.**

10. MEMBRANE EXCHANGE PROGRAM

The Taylex DMS (Domestic Membrane System) incorporates a Membrane Pack as an essential part of its treatment process. The Membrane Pack requires special care to ensure they are not damaged, causing the system to fail.

The Taylex DMS must be serviced by an Authorised Taylex Distributor twice per year (three times in NSW). At the completion of the yearly Service Contract, the Membrane Pack will be removed, a fresh exchange Membrane Pack will be installed and the contaminated unit taken offsite to be inspected and chemically cleaned. As the packs are supplied on a rotating basis, your original pack will not be installed back into your system. This exchange and replacement policy will always be included in your Taylex Service Contract. All regular service costs are included in your yearly Service Contract, including the Membrane Pack exchange.

11. WARRANTY

Every Taylex Advanced Blower 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. **This extended Warranty covers all parts but excludes labour and travelling costs, when the Warranty replacement is carried out other than at the time of the 4 or 6 monthly services. NOTE: The Warranty period commences from the date of Commissioning or 3 months after delivery, whichever is the earlier. If the Membrane Pack requires exchanging between services or at the four or six monthly service, this will incur additional cost.**

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 which the consumer has under the Trade Practices Act and other legislations.

The Membrane Pack is not covered by the original 1 year Warranty or the extended Warranty if any of the following are discharged into the system:

Hydrocarbons in the form of paints, oils, petrol, turpentine etc

Sharp objects, such as needles, razor blades, cotton buds etc

Water based paints, vegetable oils, toxic chemicals, herbicides, etc

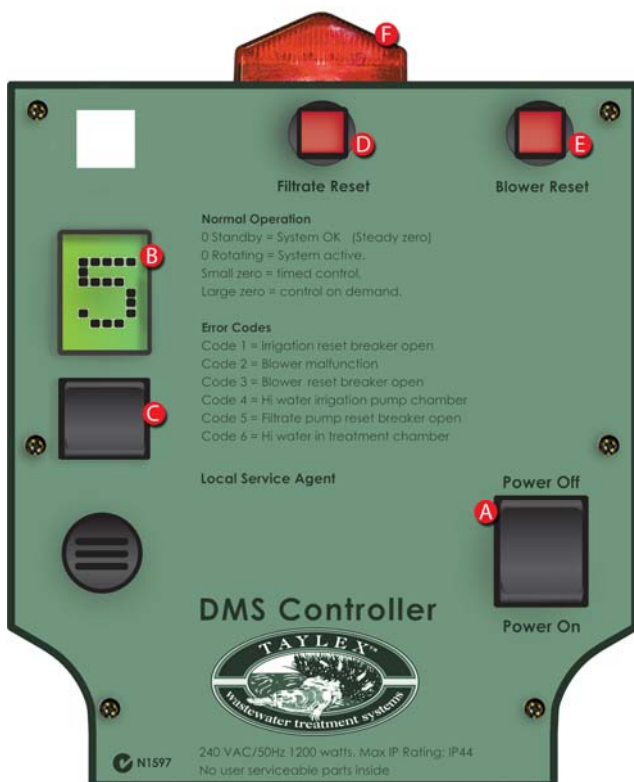
Failure to renew the Service Contract with our Authorised Distributor within a reasonable period of time or the Service Contract on the system having lapsed for any reason, will mean the Membrane Pack will no longer be covered by the Membrane Exchange Policy. To re-enter the program and enjoy its benefits, you will be required to purchase a Membrane Pack, which will be installed on the first scheduled service, at the time that you pay for the new Service Contract.

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 a Taylex Authorised Distributor has been notified of pending occupancy of the property and has subsequently commissioned (activated) the system.
- **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 unless instructed to do so by your Service Agent

12. OPERATING INSTRUCTIONS FOR THE DMS CONTROLLER

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



The following is a description of the functions of your Taylex™ DMS Controller.

- 1 **Power Off /On. (A)** After your Taylex DMS 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 a power failure alarm (continuous beeping) will occur. When required this can be muted by pressing the mute alarm.
- 2 **Display (B)** is an 8 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, E)** are resettable protection for your devices. They 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 (F)** 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 DMS Controller you will see the display (1) 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 (2) to indicate the aeration system is working normally. Under normal circumstances this is all you will need to be concerned with. This figure zero will be either large or small depending in the operation (Standby or on demand)

Standby mode

After initial start up the controller will diagnose the status of the system. If nothing immediate is required the system will run for a preset time in minutes per half hour in a maintenance dosing mode. This is indicated by a small zero on the display (rotating when active, steady in standby)

Filtrate mode

When the system detects preset levels the filtrate mode will begin operating air injection, UV sterilization and fine particle filtration. This is indicated by a large rotating zero on the display.

13. 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.

ALARM	MEANING	ACTION
Code 1	Not in use	
Code 2	No or low air flow	Consult with service agent *
Code 3	Blower/UV reset breaker has tripped	Reset the circuit breaker *
Code 4	High water in irrigation pump chamber.	If this alarm persists contact your Service agent
Code 5	Filtrate pump circuit breaker has tripped	Reset the circuit breaker *
Code 6	The water level is high.	See below

This may occur if a large quantity of water is released suddenly. (e.g. 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.

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

14. WHO TO CONTACT FOR HELP

Before you call for help and to avoid unnecessary call out fees, check these items before you call for assistance:

1. Is the power turned ON at the plant?
2. Are there lights ON in the panel face?
3. Has a Safety Switch, not related to the plant, tripped in your switchboard?
4. Has the outlet hose become kinked, preventing the plant pumping out?
5. If you have removable "Turf Keys" on your sprinklers, make sure they are engaged properly, PUSH DOWN HARD.
6. Is the outlet dripper filter blocked?

If you have an issue, you can try to reset your system with the following sequence:

- a. Turn the system OFF using the control panel ON/OFF switch on the front of the panel. This will reset the program.
- b. Turn the system "ON" using the ON/OFF switch.
- c. If the system starts and operates correctly, observe the system over the next few days for another ALARM event and discuss it with your Service Agent.
- d. **If the system goes back into the ALARM mode, call your Service Agent. Limit your water usage until the fault is rectified.**

You can find your closest Agent on our website

www.taylex.com.au

or call the numbers on the back cover of this manual.

For Assistance Please Call

Your Authorised Distributor



Or check our website
www.taylex.com.au
for your nearest service agent

Call Head Office on 1800 642 342

If the office is closed, a recorded message will give you a
24 Hour Assistance Hotline for your area.
(If no answer please leave your name and number on the messagebank)