

maytronics ecoSwim[®]

ECO SWIM 100, 200 & 300

USER MANUAL

Important Safety Information

This manual contains important information about the operation and safe use of this product.

READ AND FOLLOW ALL INSTRUCTIONS. IMPORTANT SAFETY INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

WARNING

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety. Children should be supervised to ensure they do not play with the appliance.

WARNING

Do not open the Electronic Control Unit. There is no user-serviceable part in the control box. Repairs are only to be made by an Eco Swim qualified technician. If the supply cord is damaged, it shall only be replaced by the manufacturer or its service agent or a similarly qualified person to avoid a hazard.

WARNING

Do not operate the electrolytic cell without proper flow or water circulation as this may cause damage to the unit.

CAUTION

This unit is not intended for use with temporary or fold-able/storable pools. All pipe-work associated with this system is intended to be fixed and should remain intact following installation by qualified personnel.



Eco Swim Exceptional Pool Sanitation

Congratulations on your choice of an Eco Swim pool sanitation system for your swimming pool. Eco Swim is designed for easy and simplistic operation and maintenance.

Please take the time to read these instructions thoroughly before attempting to operate your unit. Should you require additional information or further assistance, do not hesitate to contact your local Eco Swim representative or visit our website www.maytronics.com.au.

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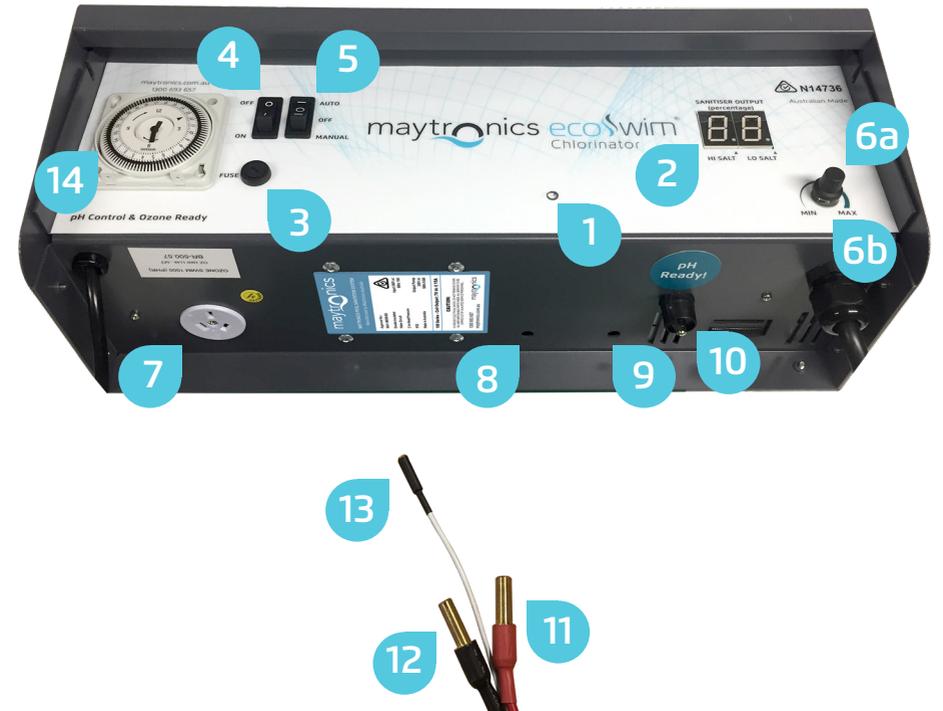
Not for use in commercial pools. Use in commercial pools may result in warranty being invalidated. For use in commercial applications, please contact Maytronics Australia on 1300 693 657.

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FEATURES

Control Unit Features

ES100, ES200, ES300 units



1	Ozone Run Indicator *Ozone upgraded model only	8	Air Filter *Ozone upgraded model only
2	Chlorine Cell Output Display	9	Ozone Output *Ozone upgraded model only
3	Fuse	10	pH Drive Socket (12V plug)
4	Sanitation Switch	11	Positive Cell Lead (Red)
5	Master Switch	12	Negative Cell Lead (Black)
6a	Chlorine Cell Output Control (0-99)	13	Gas Sensor Connector (White)
6b	Push menu for e-Series - Dosage menu (d0-d9 & Pr- Prime)	14	Timer
7	Pump Outlet Socket		

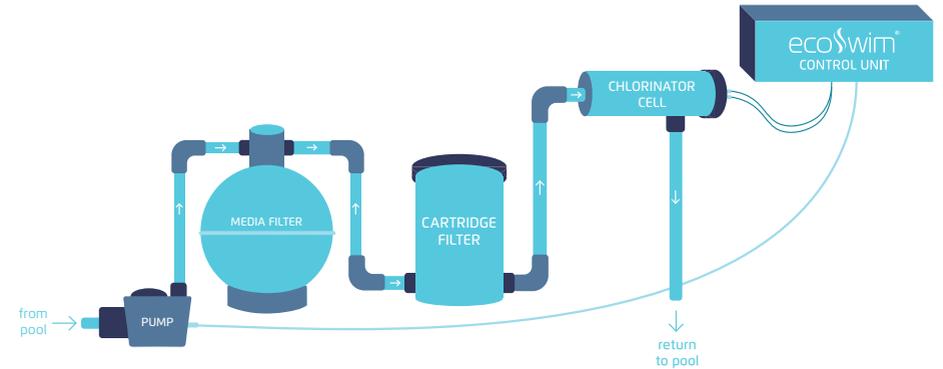
* ES100, 200, 300 units can be upgraded with Ozone and pH control.

INSTALLATION

Installation Guide

ES100, ES200, ES300 control units

These products must be installed by a qualified installer



Step 1:

Mount Eco Swim control unit a maximum of 1.5 meters from the filter and chlorine cell. Fit two screws 380mm apart (screws supplied for control unit). Install the Eco Swim control unit a minimum of 900mm above ground level in an area protected from the elements to eliminate possible damage from severe weather conditions.

Step 2:

Plumb chlorine cell onto return pipe after filter, ensuring there is a gas trap. Please ensure correctly rated PVC pressure glue is used.

Step 3:

Connect the chlorine cell cable to the three colour coded terminals located on chlorine cell. (Terminals need to be slightly crimped for snug fit).

Step 4:

Ensure pool is correctly balanced (refer to page 17). Ensure appropriate salt/mineral levels are achieved (3500 - 4500ppm) and dissolved. (Confirm with builder/supplier that chemicals can be added to the pool).

Step 5:

Leave plumbing to cure for a 24-hour period for best results.

Step 6:

Set timer on Eco Swim system to recommended run time for pool size and environment (refer to page 16).

Step 7:

Plug pump power cable into Eco Swim unit below timer. Turn unit ON to manual. Check all plumbing for visible leaks.

Step 8:

Adjust the Chlorine cell output to recommended output.

Note: We recommend running your system at maximum output for the first week of operation.

Step 9:

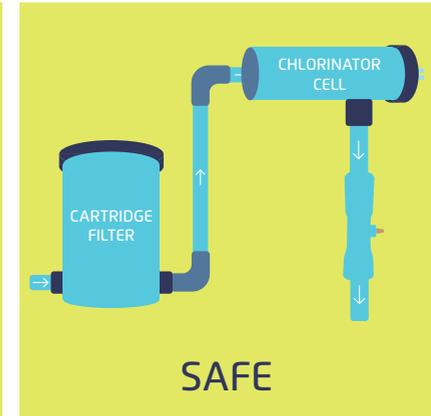
Set the sanitation switch to the Auto position. – refer to the operating instructions (refer to page 14-15).

Important Notes

Chlorinator Cell Housing Installation

The Eco Swim cell housing must be plumbed into the return line of the pool filter system after the filter and any diversion valves.

In situations where a heater is incorporated, the Eco Swim cell housing must be installed after the heater. Should a solar heating system be installed, the housing must be plumbed after the solar diverters and after the water exits the solar system and re-joins the main stream pool return line. Ensure there is a gas trap by always installing the chlorinator cell at a higher level than the filter (see below).



Pump Outlet Socket

A 240 volt pump output power socket is supplied and located on the left-hand underside of the Eco Swim control unit. Your pool pump power supply lead should be plugged into the socket so that when the time clock switches at the designated times both the Eco Swim and the pump will activate in unison.

The pump socket is designed to operate a single pool pump of maximum 1.5 hp (horse power) only. On rare occasions, a 2hp pump will be used as an integrated solution for in-floor and pool filtration. Do not attempt to operate any equipment other than your pool pump from this socket as damage might occur to the Eco Swim control unit that is not covered under warranty.



OPERATIONS

Operating Instructions

Salt/ Mineral Requirements

All Eco Swim units require 3,500-4,500ppm salt/mineral levels. Using only refined swimming pool salt or minerals, add the desired quantity to the swimming pool water. To assist in the rapid dissolving and mixing, sweep or brush the solids until they are fully dissolved.

Note: Undissolved salt may result in staining of your pool's interior walls.

Achieving the correct salt/mineral levels

For best results, the salt concentration in the pool water is required to be within an average range of approximately 3,500 to 4,500ppm. Check salt/mineral supplier's guide for achieving correct ppm.

Existing Pools

To establish the salt level in an existing pool, take a water sample to your local pool shop for testing, they will tell you the current salt/mineral levels (TDS) and advise the correct course of action required.

New Pools

- It is essential that the new pool is balanced correctly. Consult your pool builder on how do this or Maytronics can provide information to do this.
- You can find the water chemistry parameters on p. 21 of this manual.

Sanitation Switch

- Off** The system will not operate.
- Auto** The time clock will automatically switch your pool equipment on or off at your designated times.
- Manual** The timer is by-passed, the system will operate all functions permanently.

- Set the master switch to the “on” position.
- Set the sanitation switch to “manual” position to turn the unit on.
- Once the salt/minerals have been added and dissolved turn the cell production dial to the required position based on the season and the size of the pool (set to max output to start with and adjust down as required).
- Set the timer (see setting the timer) to run for the recommended times (4-6 hours for winter / 8-10 hours for summer), switch the system to auto and the unit will now be controlled by the timer.
- To set current time, rotate minute hand clockwise until arrow head aligns with correct time.



Note: This will need to be reset whenever the power is disconnected from the unit and for daylight saving time changes.

Note: Only rotate clockwise to set. Rotating incorrectly will damage the time clock.

- To set ON/OFF times, move required tappets to appropriate position. Inner position for OFF and outer position for ON.

Note: proper operation requires that the appropriate switch settings below are enabled.

- Each of the tappets on outer edge of the timer represents 15-minute intervals.

Note: If you require your Eco Swim to be connected to an off-peak tariff we recommend the use of an appropriate battery backup time clock for that purpose.

Checking Chlorination Output

The chlorine cell output controller regulates the amount of chlorine production relevant to the position it has been set to. By adjusting the cell output controller clockwise, you increase chlorine production and by turning anti clockwise you reduce production. Do not attempt to turn the controller beyond its stopping positions as this could cause damage to your unit that is not covered by warranty.

To ensure your Chlorinator is working correctly, follow the steps below:

- Ensure the cell production is at maximum.
- With the unit running take a sample of water from the skimmer box and conduct a chlorine test, note the result.
- Take a sample of water directly in front of the return to the pool outlet and conduct a chlorine test, note the result.
- If the latter is higher in chlorine than the first test, your Eco Swim is efficiently producing chlorine (if not please see TROUBLESHOOTING).

Chlorine Cell Output Display Definitions

Your Eco Swim unit is fitted with a digital display. During operation of your Eco Swim unit the display will illuminate relevant to the degree at which the chlorine output control has been adjusted. You can increase or decrease chlorine output to suit your pool’s requirements. As you increase the output (by turning the control knob clockwise), the display will indicate % of full production capacity reading to the cell. You have full control of chlorine production merely by adjusting the chlorine controller and illuminating the number of lights to satisfy your chlorine demand.

The Eco Swim also has on board diagnostics to indicate any issues with the system (see table below for definitions).

1-xx	A value in the range of 0-99% indicates sanitation output.
OF	Cell output control knob is turned off, the Eco Swim’s chlorination has been manually switched off.
dg	Automatic cleaning cycle beginning, the self-cleaning function is beginning. This is only displayed for a short period.
Pb	(Flashing) There is insufficient water flow through the cell to produce. if this persists, please refer to troubleshooting.
OL	(Flashing) overload condition (see troubleshooting).



MAINTENANCE

Maintenance

Electrode (Cell) Cleaning

Although you have a reverse cycle (automatic cell cleaning) system, it is recommended from time to time that the cell be checked for any accumulation of calcium or other deposits that may have built up. We recommend cleaning the cell once or twice a year subject to your pool's application and location.

Water Chemistry (Balancing Information)

Regular water testing must be performed to ensure the water is within the recommended ranges (see below):

Chlorine	1-3 ppm
pH	7.2 - 7.6
Total Alkalinity	80 - 120 ppm
Hardness	150 - 350 ppm
Cyanuric Acid (CA)	30 - 50 ppm
Phosphates	0 - 300 ppm
TDS	3500 - 4500 ppm

WARRANTY

Warranty Information

Eco Swim systems have:

- 2 year parts replacement warranty (1 YEAR IN-FIELD) on the control box.
- 5 year pro-rata warranty of chlorinator cell. (2 Year Full, year 3, 4, 5 Pro-rata).

Activate your Eco Swim warranty by registering at:
maytronics.com.au/support/registration





TROUBLESHOOTING

Troubleshooting

Fault	Potential Causes	Action Required
Cell output display flashing "Pb" continuously (no water flow)	<ul style="list-style-type: none"> Pump turned off or disconnected Valves closed Gas sensor wire at cell disconnected 	<ul style="list-style-type: none"> Ensure pump is on Ensure correct valves are open Reconnect sensor wire at cell
Low salt indicator flashing	<ul style="list-style-type: none"> Salt level in pool has dropped too low Pool water temperature is low Cell has calcified Cell has failed 	<ul style="list-style-type: none"> Take sample of water to pool shop and check salt level – add salt as recommended Add salt and turn chlorinator output down until the water is warmer Ensure cell is clean
High Salt indicator flashing	<ul style="list-style-type: none"> Too much salt has been added to the pool 	<ul style="list-style-type: none"> Take a sample to your local pool shop to confirm salt levels and remove and replace water as required
No display	<ul style="list-style-type: none"> No mains power Unit is turned off 	<ul style="list-style-type: none"> Ensure there is mains power available Check fuse condition and call technician if blown Ensure manual mode and sanitation are switched on
Low/No Chlorine	<ul style="list-style-type: none"> Insufficient run times Incorrect cell production setting Low/high salt levels Loose connections at the cell (red & black) Water chemistry 	<ul style="list-style-type: none"> Adjust run times to allow more production Increase cell production Check/adjust salt levels to be within required range Disconnect leads, then reconnect leads firmly Take water sample to pool shop
Cell output flashing "OL"	<ul style="list-style-type: none"> Possible short circuit in cell (debris) Extremely high salt levels 	<ul style="list-style-type: none"> Remove cell and check for any debris and clean Check and adjust salt levels

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