



SSC SERIES
SALT CHLORINATOR
USER MANUAL



CONTENT

1.Working Principle.....	3
2.Product picture.....	3
3.Dimension.....	4
4.Working condition.....	4
5.Product specification.....	4-5
6.Product Features.....	5
7.Installation Guide.....	6
8.Installation.....	6
9.Operation Overview.....	7
10.Control Panel.....	8-9
11.Timer operation (For specific model only).....	9
12.Maintenance and troubleshooting.....	10

SALT CHLORINATOR

A safe and reliable way of pool Sanitization

1.Working Principle

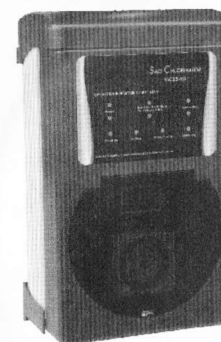
The chlorinator uses electrolysis to break down the salt (NaCl) added in the swimming pool to form Chlorine (Cl₂). The control unit of the chlorinator can regulate the chlorine production by altering the electric current flow through the titanium electrode in the cell housing. Sodium hypochlorite formed from Chlorine is an effective sanitizing agents which is commonly used in swimming pools, it can inhabit the growth of bacteria and fungi.



2.Product picture

A.Salt chlorinator control box
B.Electrolytic cell
C.1.5"/2" universal union

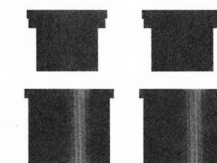
D.Cables
E.Screw and fuse
F.Manual



A.Salt chlorinator control box



B.Electrolytic cell



C.1.5"/2" universal union



D.Cables



E.Screw and fuse



F.Manual

3.Dimension

- Control Box: 360 x 220 x 135 mm
- Electrolytic cell: 380 x 118 x 130 mm

4.Working condition

- Environment Temperature : 0°C ~50°C
- Humidity: ≤ 85%
- Good ventilation
- Keep away from other heat source

5.Product specification

(1).SSC-TLT series (with underwater light transformer and time switch)

Model	Salt chlorinator voltage input/ freq	Rating (salt chlorinator and underwater light transformer)	Cell Output	Fiberglass Pool (Litre)	Concrete Pool (Litre)
SSC15-TLT	220~250VAC 50/60Hz	100VA +100VA (underwater light)	15g/hr	50000	45000
	100~120VAC 50/60Hz				
SSC25-TLT	220~250VAC 50/60Hz	100VA +160VA (underwater light)	25g/hr	75000	70000
	100~120VAC 50/60Hz				

(2).SSC-T series (with time switch)

Model	Salt chlorinator voltage input/ freq	Rating (salt chlorinator and underwater light transformer)	Cell Output	Fiberglass Pool (Litre)	Concrete Pool(Litre)
SSC15-T	220~250VAC 50/60Hz	100VA	15g/hr	50000	45000
	100~120VAC 50/60Hz				
SSC25-T	220~250VAC 50/60Hz	160VA	25g/hr	75000	70000
	100~120VAC 50/60Hz				
SSC50-T	220~250VAC 50/60Hz	300VA	45g/hr	120000	110000
	100~120VAC 50/60Hz				

(3).SSC-E series

Model	Salt chlorinator voltage input/ freq	Rating (salt chlorinator and underwater light transformer)	Cell Output	Fiberglass Pool (Litre)	Concrete Pool(Litre)
SSC15-E	220~250VAC 50/60Hz	100VA	15g/hr	50000	45000
	100~120VAC 50/60Hz				
SSC25-E	220~250VAC 50/60Hz	160VA	25g/hr	75000	70000
	100~120VAC 50/60Hz				
SSC50-E	220~250VAC 50/60Hz	300VA	45g/hr	120000	110000
	100~120VAC 50/60Hz				

Remark:

Only one pump would be connected to the salt chlorinator, the current rating of the pump shall not exceed 8Amp (applicable to SSC-TLT and SSC-T series only)

Chlorine level Calculation

Required Chlorine production rate (g/hr)= $\frac{\text{pool volume(litre)} \times \text{standard chlorine(g/litre)}}{\text{turnover rate(hr)}}$

Standard chlorine level: not less than 2mg/litre = 0.002 g/litre

Example:

Pool volume: 65m³ = 65,000litre

Turnover rate: 4hour

Required Chlorine production rate (g/hr)= $\frac{65,000 \text{ litre} \times 0.002 \text{ g/litre}}{4 \text{ hr}} = 32.5\text{g/hr}$

6.Product Features

- ✓ Convenience and the constant delivery of pure chlorine-based sanitizer.
- ✓ No more artificial chemical cleaning agent which could cause skin and eye irritation. You just need to add natural salt in the pool.
- ✓ The salt in the water is so little you do not taste or smell the salt.
- ✓ The electrode is made of titanium, which is durable and resistant to corrosion.
- ✓ Easy to install and operate.
- ✓ The water does not have the heavy smell of chlorine because chlorine is not directly added to the pool.

7. Installation Guide

Control Unit

1. Select a convenient well-ventilated location within one meter of filter equipment.
2. Australian Standards requires that the electric control unit shall not be located within 3 meters of the pool water.
3. Plug Power supply into a suitable weatherproof outlet and plug pump into the power outlet of the Power Supply Unit.
4. Mount the control unit vertically onto a post or wall 1.5 meters above ground level.
5. The Unit must be kept away from acid and other chemical storage areas. Acid and chemical vapors will corrode the electronics inside the Unit.
6. It must also be kept away from heat sources.

Caution:

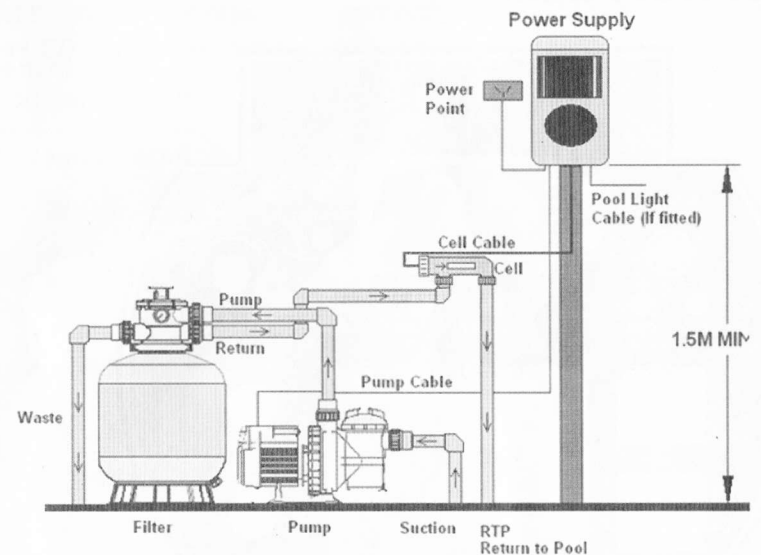
- The control unit can connect to one pump and one underwater light only, please refer to the previous pages for the product specification
- The current loading of the pumped connected must not exceed 8 Amp. (applicable to SSC-TLT and SSC-T series only)

Electrolytic cell and Electrode

1. The electrolytic cell must be installed horizontally
2. To avoid lost of chlorine, the electrolytic cell should be installed at the end of the filtration system, right before the pool water return.
3. To connect the water inlet and outlet to the electrolytic cell, note the water flow direction indicated on the electrolytic cell.

8. Installation

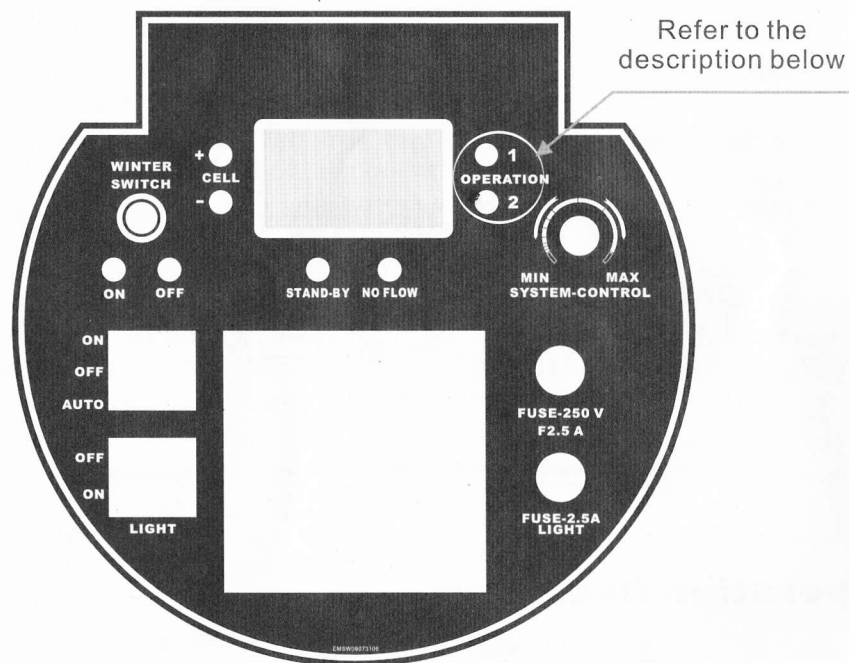
1. Three self-tapping screws and wall plugs are provided for fast and simple installation. Simply cut out Template provided for location of drill entry points. Use a 8mm masonry drill bit to drill the screw holes on the concrete wall, according to the position shown in the template. Fix the three self tapping screws on the hole you just drilled. Once screws are in position simply hang chlorinator via bracket on back of Unit.
2. Glue the electrolytic cell horizontally on the pool return pipe, allow 24 hour curing of the pipe glue.
3. Used the provided cable to connect the control unit and the electrolytic cell together,
 - ✗ The single black plug should be connected to the control unit.
 - ✗ The yellow wire shall be connected to the gas sensor of the sale cell
 - ✗ The black wires shall be connected to the electrodes, the connectors may be fitted either way.



9. Operation Overview

1. Power input : 220-240VAC, 50/60Hz
2. Recommended pool salt lever: 4000PPM or above (no less than 40kg of pure salt dissolved in 10,000 liter of pool water)
 - Run chlorinator at the Salt Levels stated within this document and on the product to ensure optimum sanitizer output and cell life.
 - Operating this device at low salt levels will damage the cell and reduce its life.
 - The control unit displays a RED indicator when the salt levels are low.
 - If no action is taken to rectify the salt levels, damage to the cell may result which will not be covered under warranty.
3. During extreme hot weather conditions or high bather load, the pool water need to be super-chlorinated using granulated or liquid chlorine or increase the running time of the chlorinator.
4. Salt chlorinator must be switched off when the pump is servicing
5. Always turn down the system control dial to zero before adding salt, once the salt is completely dissolved, return to the set position.
6. The aluminum casing at the back acts as a heatsink of the control unit, do not touch it with bare hand.

10. Control Panel



On/Off/Auto: ON/Off Switch. In Auto mode, the chlorinate is operated by the timer setting

Light On/Off: Switch for underwater light connected to the control unit (For certain model)

System Control: Adjust the chlorine product of the chlorinator, for example, for the control unit turned on for 8 hours

Set at 100 - The electrolytic cell operated at 8 hours

Set at 50 - The electrolytic cell operated at 4 hours

Set at 25 - The electrolytic cell operated at 2 hours

Display: Show the chlorine production, Set to 100 for maximum output

Winter Switch and On/Off LED: Turn on to fix the chlorine production at 85.

Cell Polarity LED: Show the polarity of the electrodes; the polarity of the electrode will shifted every 8 hrs of operation, so as to clean the deposition on the electrode.

Timer: Used to set the program to turn on and off the control unit automatically.

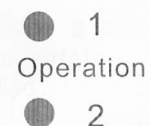
Stand-By LED: Turn on when chlorinate is in stand-by mode, When the chlorinator is turn on, the standby LED will go off after 35 sec.

No Flow LED: Turn on if there is no water flow, if there is no water flow, the pump and salt chlorinator will stop automatically.

Fuse: Used to protect the electronic components inside the control unit.

Operation LED: There are three status of the operation LED, for example

Status1: Normal Operation



Status2: Low salt lever/ Deposition on the electrode/ Low water temperature



Status3: Extremely low salt lever/ Serious deposition on the electrode/ Extremely low water temperature

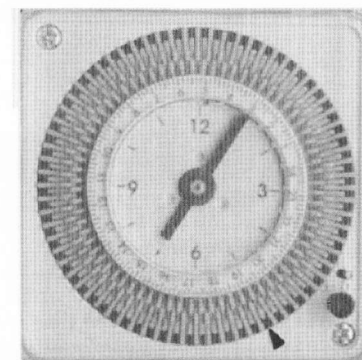


11. Timer operation (For specific model only)

1. Turn the outer clock face until the time of the day is aligned with the clock at the center of the timer

2. The 24 hour dial has 15 minutes division. The timer can be programmed by pushing the captive trippers to the outer ring position for the entire period that the load is to be turn ON.

3. The timer clock will rotate with time, the chlorinator will be turned on automatically if its captive tripper is pushed outward.



12.Maintenance and troubleshooting

Salt Water Chlorinators are a valuable piece of pool sanitizing equipment and must be cared for to get the best performance and life span from it.

- 1.Keep the water chemical balance.
- 2.Good operation environment.
- 3.Regular check of the 4.During the chlorination process a white powder Calcium scale may naturally build up on the titanium plates in the cell. Regular monitor of the cell to prevent excessive scale build up. Excessive scale build up will cause damage to your cell, and dramatically reduce its efficiency and lifespan.
- 5.Avoid any insect from entering the control box, it may damage the electrical component inside.
- 6.Regular monitor of the filter and pump.

Troubleshooting

1. Low/no chlorine production	How to handle
Check the electrical plug/control box/pump power	Connect the power properly
Setting system is too low	Turn the system control to maximum
Automatically stopped by the timer setting	Adjust the timer setting
Blown fuse	Cut the power and replace the fuse
excessive scale build up on the cell	Switch off the salt chlorinator and clean the salt cell by professional serviceman
Filter Backwashing	Once the backwash is complete, turn the filter back to normal filtration
The gas sensor is not connected	Connect the gas sensor according to this manual
Pump malfunction	Stop the filtration system and repair the pump
Water temperature too low	Turn on the winter switch
Salt lever too low	Add salt to the pool
PH valve too high	Check the water PH valve and keep it around 7.0-7.6
2. No flow	How to handle
Pump malfunction	Stop the filtration system and repair the pump
Filter Backwashing	Once the backwash is complete, turn the filter back to normal filtration
The gas sensor is not connected	Connect the gas sensor according to this manual
3. No display	How to handle
Setting system is too low	Turn the system control to maximum

Installation template

Ratio 1:1

