



HY•CLOR

SC25
SELF CLEANING
SALT WATER
CHLORINATOR

INSTALLATION AND OPERATION MANUAL

MODEL SC - 25



professional
series

Congratulations on purchasing your HY-CLOR SC 25 salt chlorinator

Please read the instructions carefully and your HY-CLOR salt chlorinator will provide you with years of trouble free use.

The HY-CLOR salt chlorinator has reverse polarity self-cleaning cell electrode technology that ensures low maintenance. The salt chlorinator can be installed into both new and existing swimming pool filtration systems with ease and has been designed to be simple to operate.

The control unit has in-built timer functions to give you full control of your pump and chlorination settings in one easy interface.

Before installing the salt chlorinator please consult with your swimming pool manufacturer to determine if it is suitable for your swimming pool type. Alternately contact us on our 7 DAY HELP LINE for advice. Our friendly expert pool professionals will answer all your installation and technical questions.

The HY-CLOR TEAM



HY-CLOR

7 DAY HELP DESK

HY-CLOR provides a 7 day technical information service.

- POOL PROBLEMS
- ACCESSORY ADVICE
- PUMP & FILTER GUIDANCE
- POOL CLEANER SELECTION
- SALT CHLORINATOR ADVICE

FREE CALL
1800 625 123

Before installing your salt chlorinator

- Take into account all local, state and federal laws and regulations governing the installation and use of this product as it requires 240 volt AC power to operate.
- Ensure that your swimming pool type is suitable for salt water operation. Some above ground pool types are not suitable for salt water operation.
- Consider your pool size and environment before installing this product, this chlorinator will comfortably operate a swimming pool of up to 80,000 litres with standard bather loads.
- Ensure that any pumping and filtration equipment is compatible with salt water operation.
- Ensure that this product can be installed out of direct sunlight and will not be exposed to wind, rainy conditions and is well-ventilated.

Salt Chlorinator overview

Your salt chlorinator works by converting salt in in your swimming pool into chlorine which starts to destroy algae and bacteria and sanitises your pool. The salt chlorinator is designed to produce the vast majority of your swimming pool chlorine sanitisation needs; this does not mean that you don't have to use other forms of chlorine at times in your swimming pool.

At times especially after periods of rain or heavy bather load/ usage it may become necessary to use additional chlorine to supplement the chlorinator.

For this we recommend that you use HY-CLOR 3 in 1 Chlorine Concentrate. It is a compatible chlorine type for salt water pool applications as it is derived from salt and is 100% soluble in water. Liquid chlorine can also be used to supplement chlorine levels as it is derived from salt, however it has a relatively short self-life and a relatively low chlorine content

We do not recommend the use of Calcium based chlorine sanitisers as a supplement as it can affect the salt chlorinator cell electrodes ability to remain deposit free (can form calcium on the electrode).

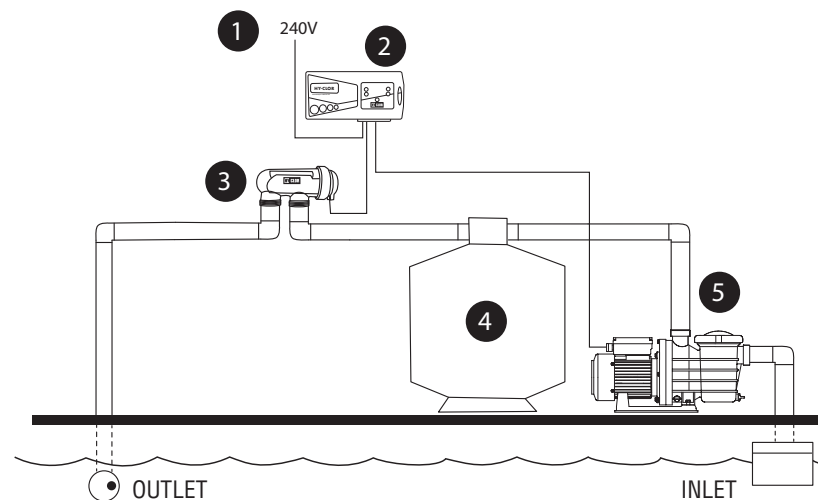
Water balance should be checked weekly during the summer months. Correctly maintained pool water chemistry will greatly extend the life of your swimming pool filtration equipment as well as your salt chlorinator.

HY-CLOR chlorine stabiliser (sunscreen/cyanuric acid) added to your pool water will extend the life of the chlorine produced by your salt chlorinator. Running the chlorinator out of the heat of the day will help maintain good concentrations of chlorine in your pool ensuring you have a low maintenance swimming pool that is a pleasure to own.

Specifications

Chlorine output	25grm/hr
Pool chlorine requirements	Typically a 50,000L pool requires 200g of chlorine per day
Maximum recommended pool size	80,000 litres climate dependent
Plumbing capacity	40mm or 50mm (fittings provided)
Control unit dimensions (HWD)	202mm x 357mm x 135mm
Cell dimensions (HWD)	300mm x 130mm x 205mm
Cable length – Control unit to cell	1.6m
Cable length - Control unit to plug	2.8m
Voltage	240V
Amps	10A
Cell output	20A DC
Frequency	50Hz
Rating	IP23
Maximum pump output	8.9A
Maximum cell pressure	150KPA
Maximum water temperature	40°C
Minimum salt level	4,000ppm
Recommended salt level	6,000ppm
Salt required per 1000L (new install)	6kg (for 6,000ppm)
Salt required for 50,000L pool (new install)	12 bags x 25kg (for 6,000ppm)

Installation overview



1. Mains power supply
2. Salt Chlorinator control unit - controls pool pump operation, salt conversion rate and function modes
3. Self-cleaning Salt Cell with low salt and no water-flow sensors
4. Swimming pool filter
5. Swimming pool pump

Regulations require that the control is not allowed to be located within 3.5 metres of the pool water edge.

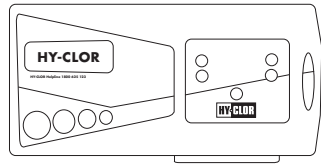
The control should be installed in a well-ventilated position away from direct sunlight. Ensure the unit is not located near pool chemicals as fumes may damage the control.

Plug the 3 pin plug into a suitable weatherproof outlet and then plug the swimming pool pump into the 3 pin socket in the chlorinator control unit. Note: the pump current rating must not exceed 8 amps.

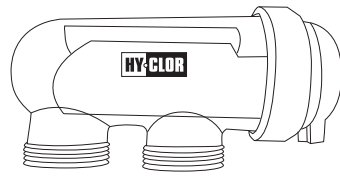
40mm and 50mm UPVC pipe fittings are supplied and should be used to suit your filtration system configuration.

When installing the HY-CLOR salt chlorinator it is important that you follow the outlined instructions set out below. Failure to follow the instructions may void warranty.

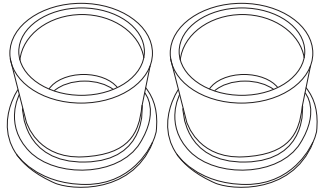
What's included



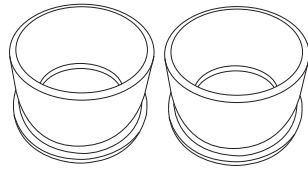
One control unit with cable



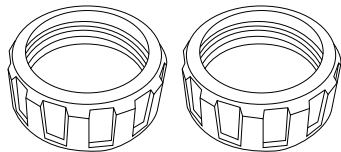
One electrode and cell assembly with cable



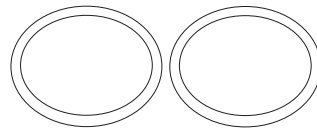
2 x 40mm UPVC pipe adaptors



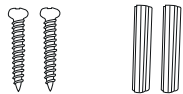
2 x 50mm UPVC pipe adaptors



2 x UPVC cell couplings



2 x rubber O-rings



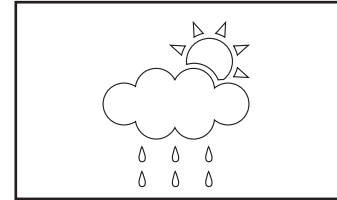
2 x wall lugs and hanging screws



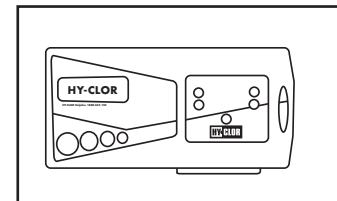
1 x wall mount bracket

Chlorinator Control unit installation

The chlorinator is supplied with a mounting bracket, two wall lugs and two mounting screws for you to attach it securely on a wall.



The unit does allow for it to be installed outdoors; however it should be securely mounted out of the weather and direct sunlight. Use only a suitably compliant weather proof power point.



Before selecting your control unit mounting position ensure you have allowed sufficient cable to connect to the salt cell electrode.



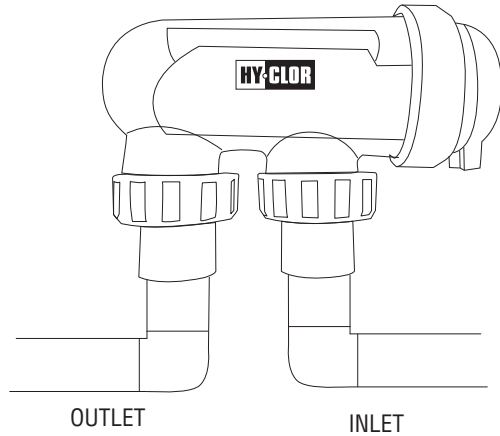
Do not install within 3.5 meters of swimming pool water edge as the unit requires 240 volt AC to operate.

Control unit to be installed in a well-ventilated area away from stored chemicals as the fumes will affect the electronic componentry and corrode metal fittings.

Required for install

- UPVC pipe either 40 mm or 50mm
- UPVC Class 18 (white) plumbing fittings
- UPVC Type P Pressure solvent cement
- UPVC Pipe priming fluid
- Hack saw

Chlorinator Cell Installation



The chlorinator cell must be located last in the pipe work just prior to the return to the swimming pool. Never install the cell before the pump or heater.

Cell must be installed with barrel unions underneath (water inlet and outlet pointing downwards) and the cell must also be horizontal.

You have been provided with both 40mm UPVC and 50mm UPVC pipe connector tails for this installation. Most swimming pools have either of these two plumbing sizes for their filtration system. Use high pressure PVC pipe and glue to connect the barrel union tails. Ensure the O-rings are correctly fitted and tightened firmly.

The direction of water flow is critical for the correct operation of the chlorinator. The unit must be plumbed into the system with the water entering the cell electrode assembly from the end closest to the terminal connections.

Warning

It is essential that the pipe work and filtration equipment do not allow gases generated from the cell to collect or build up.

Cell and electrode assembly must be installed horizontally with inlet and outlet facing downward, creating a safety gas trap. Installation in any other way may cause an explosion, injury or death

Cell and electrode assembly must be installed after all equipment including solar systems, heaters and pumps.

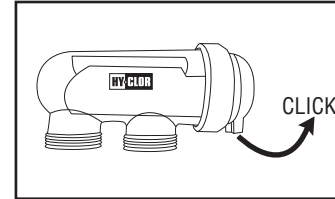
Water flow must be plumbed into the cell entering the assembly at the end closest to the terminal connections.

Do not install on /off isolation valves before or after the electrode and cell assembly.

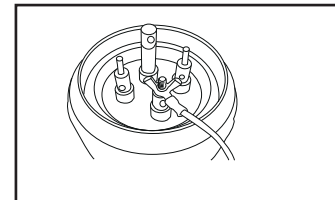
Cell electrode assembly

Once you have mounted the control unit to a wall or solid surface and plumbed in the Cell Electrode assembly you will need to connect the three core cables to the Cell terminals.

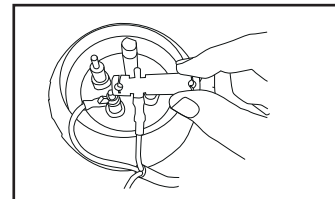
When fastening the cable wires to the terminals make sure that they are securely placed (not loose) on the terminal points. Failure to do this will prevent the chlorinator from operating or may damage the unit.



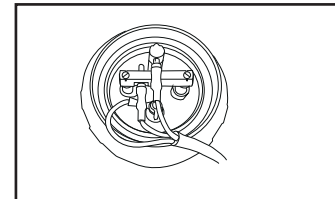
Remove the end cap to expose the terminals. Pull the tab at the base of the cap firmly outwards.



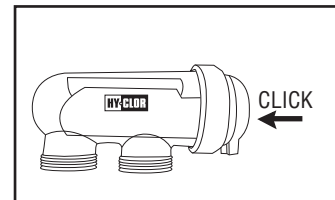
Connect the blue wire to the terminal with the wing-nut. Ensure wing-nut is firmly fastened.



Push ANY of the two remaining leads into the bridge and push the bridge onto the two matching terminals. Ensure a firm connection.



Push the remaining lead into the last (tallest) terminal. Ensure all connections are firm and tight.



Replace the end cap.

Adding Salt to the Pool

The final stage of the installation is the addition of salt to the swimming pool. The HY-CLOR SC25 operates with a recommended salt level in the pool of 6,000ppm (parts per million). It will however produce chlorine with a salt content of 4,000ppm.

The minimum salt content is 4,000ppm and the maximum is 6,000ppm. During the hotter months it is recommended that you keep your salt levels at 6000ppm so your chlorinator can produce sufficient chlorine. Running a lower salt content during the hotter months may result in insufficient chlorine production and cause the pool to be under-chlorinated.

For new installations the required amount of salt to achieve 6,000ppm is 6kg per 1000L. This would mean 12 x 25kg bags of salt for a 50,000L swimming pool.



Use only recommended pool salt for swimming pool applications, other salts may contain excessive metal and mineral content which can cause staining of pool surfaces.

When adding salt to the swimming pool you should remove any automatic pool cleaners from the pool until the salt has thoroughly dissolved. Add salt directly to the swimming pool water, preferably in the shallow end and broom it into the water to help it dissolve. Running the pump will mix the water and speed up the dissolving process.

Note: The chlorinator should not be run until all the salt has completely dissolved. Run pump for 8-10 hours to ensure salt is dissolved prior to running the chlorinator.

Never add salt to the skimmer box! Adding salt to the skimmer box may affect the salt cell and damage the electronics in the control unit. Do not run any automatic pool cleaners until salt is completely dissolved as this can place a high salt concentration over the cell and cause damage.

Once all the salt has dissolved completely in the swimming pool water you may power up the chlorinator control unit.

Salt Chlorinator operation

The chlorinator is supplied with built-in factory default settings should you choose to use them. The default settings will ensure that once you have set the time of day the chlorinator will run for a period of 8 hours in two default cycles per day, enough time to adequately produce salt for a 50,000 litre pools daily requirements.

The default setting times are

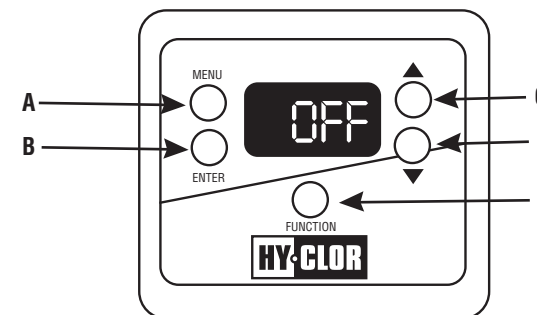
8.00 am until 12.00 midday

4.00 (16.00) pm until 8.00 (20.00)pm

These default settings are recommended operational times as the chlorinator produces chlorine most efficiently when the sun and days heat is off the pool. Should you not wish to use the default settings of the chlorinator then you can adjust and set the times to suit your personal requirements.

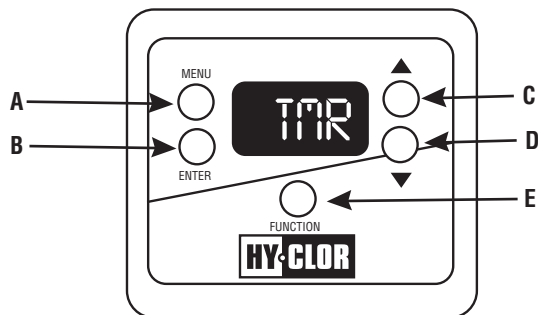
The chlorinator has two time modes so that you can set operation to suit requirements. To operate the chlorinator or swimming pool outside of your set times you can always press the on/off manual switch and place it in manual mode.

Setting the time clock



- 1) Press **E** until **OFF** is displayed.
- 2) Press **A** until **CLK** is displayed.
- 3) Press **B** and time is will be displayed.
- 4) Press **B** again and the hour will flash.
- 5) Press **C** or **D** to increase/ decrease (note am/ pm).
- 6) Press **B** and minutes will flash.
- 7) Press **C** or **D** to increase/ decrease (note am/ pm).
- 8) Press **E** to save.

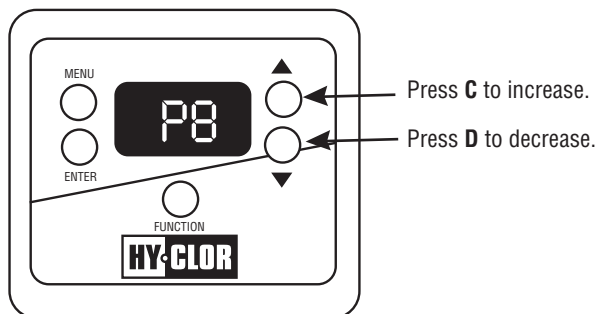
Setting the timers



- 1) Press **E** until **OFF** is displayed.
- 2) Press **A** until **TMR** is displayed.
- 3) Press **B** - **TIMER 1 START TIME** will be displayed.
- 4) Press **C** or **D** to increase/ decrease (note am/ pm).
- 5) Press **B** - **TIMER 1 FINISH TIME** will be displayed.
- 6) Press **B** - **TIMER 2 START TIME** will be displayed.
- 7) Press **C** or **D** to increase/ decrease (note am/ pm).
- 8) Press **B** - **TIMER 2 FINISH TIME** will be displayed.
- 9) Press **C** or **D** to increase/ decrease (note am/ pm).
- 10) Press **E** to save.

Chlorine output control

HY-CLOR recommends that you use two time periods daily for effective chlorination and filtration of your swimming pool. Typically a chlorinator should run for a for two 4 hour periods per day for a 50,000 litre pool. Consult your pool professional for daily chlorine requirements and run the chlorinator accordingly. This chlorinator produces approximately the equivalent of 25 grams of chlorine per hour; a 50,000 litre pool requires 200 grams daily or 8 hours run time. HY-CLOR recommends that during peak months you set the chlorine production to the highest level.



P 8 Highest chlorine production.

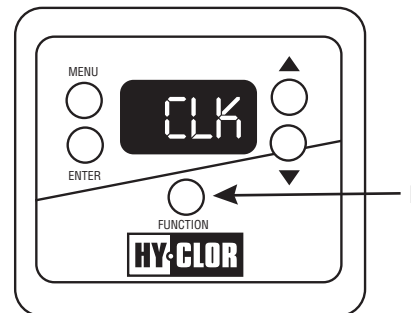


P 1 Lowest chlorine production.

Other user modes

This chlorinator has a user function (mode) button, this feature enables you to override the timers and run the chlorinator, pump and filtration system when required.

Press **E** repeatedly to scroll through modes



- 1) **AUTO RUNNING** - will place chlorinator in your programmed times.
- 2) **MANUAL RUNNING** - will make the chlorinator / pump filtration system run continuously.
- 3) **MANUAL STOPPED** - will turn off the chlorinator / pump filtration system continuously

Fault codes

NO F Indicates no water flow

LO S Indicates low salt

Refer to trouble shooting section for corrective actions if these are indicated on your screen

Warning - operating this product with a low salt level (below) 3000ppm of salt will damage this unit's cell and void warranty. Never start chlorinator until the correct salt levels are achieved.

Cleaning the cell

This chlorinator has an automatic self-cleaning feature which is achieved through reverse polarity technology. Provided that you maintain correct salt levels and have correctly balanced pool your water chemistry you will keep the electrode cell plates clean and clear of calcium deposits.

Should calcification occur follow the guideline below to clean the cell plates.

- 1) Turn off power to salt chlorinator cell and electrode assembly.
- 2) Remove the cell wires.
- 3) Loosen the barrel union nuts from the cell housing.

- 4) Lift the cell off its mounting and move it away to a suitable work area.
- 5) Turn the cell housing upside down and add a 1 part hydrochloric acid solution to 10 parts water (pre-mixed) to the cell electrode housing.
- 6) Leave the solution in the housing until the cell electrode plates are cleaned of calcium deposits.
- 7) Rinse with fresh water.
- 8) Reinstall cell and electrode housing to plumbing and ensure barrel unions and O-rings are firmly tightened and secure.
- 9) Re-connect the cell cable and wires.
- 10) Turn on all closed valves (if used).
- 11) Power the control unit on for normal operation.

Warning – always follow the manufacturer’s instructions when using hydrochloric acid or another approved cell cleaning solution. The use of eye protection and gloves is recommended. NEVER MIX CHEMICALS.

Routine maintenance

- 1) Test the pool water weekly during the summer period and adjust water chemistry as required.
- 2) Inspect your chlorinator cell and electrode assembly weekly during the summer period for possible calcium build up.
- 3) Test for salt levels fortnightly during the summer period.
- 4) Check timer weekly for any power interruptions and readjust if required.
- 5) Check cell head and terminal connections for any signs of leakage.
- 6) Check and inspect control unit for any insect and bug ingress weekly especially during summer period.

Important Note – regular maintenance is important for the longevity and trouble-free operation of your chlorinator. If you are unable to perform maintenance or are experiencing trouble with this chlorinator please contact HY-CLOR immediately on **1800 625 123**.

Troubleshooting

FAULT INDICATOR	POTENTIAL CAUSE	REMEDY
No flow	Pump turned off or closed valves. Blue wire disconnected.	Check pump is operating, turn on valves Connect blue wire to cell
Low salt	Salt level in pool too low. Water temperature is too low. Cell has calcified. Cell failure.	Test pool salt level and add salt as required Add salt and turn chlorinator production level down until water is warmer Clean cell as per instructions Phone HY-CLOR
Digital display screen blank	No power to controller. Fuse blown.	Plug in controller, ensure mains power is available. Call us for service.
Low or no chlorine production	Cables not connected. Not running chlorinator long enough. Output level insufficient. Need to back wash filter. Pool water ph. too high. Low salt level.	Connect cables. Increase time period, refer to manual for correct time. Increase production on chlorinator. Backwash filter and rinse. Adjust ph. to correct level. Test and increase to the required salt level.
Clock lost time when power removed	Battery life expired.	Phone HY-CLOR.

**Contact one of our friendly operators on the HY-CLOR help line 1800 625 123 for any help or advice.
Operates Monday to Friday from 8.00am until 8.00pm and on weekends from 8.00am until 4.00pm AEST.**

Warranty terms and conditions

Control unit - one year warranty.

Cell electrode - one year warranty.

Please Read:

Our goods come with guarantees that cannot be excluded under the Australian consumer law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage.

You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Full details of your consumer rights can be found at www.consumerlaw.gov.au

Warranty general conditions

All products provided by HY-CLOR AUSTRALIA PTY LIMITED (herein referred to as HY-CLOR) are warranted for defined periods of time (refer above).

All swimming pool products supplied by HY-CLOR are to be installed or used in the manner for which they were intended. Warranty may be voided if the product or products have been used for purposes other than their designed or manufactured purpose.

Where applicable, products supplied by HY-CLOR come with operation and installation manuals. All care must be taken to install and operate the products according to these instructions. Failure to install or operate these products in accordance with these instructions may void warranty.

The chemical balance of swimming pool water plays a significant part in the operational life of all swimming pool products; HY-CLOR recommends that regular water testing by an approved swimming pool product outlet is conducted. Keeping a record of such tests will assist HY-CLOR in determining the validity of a warranty claim.

To process a warranty claim proof of purchase documentation in the form of a retailers receipt or reference from the retailer will be required to proceed with any warranty claim. It is at the discretion of HY-CLOR to proceed with a warranty claim if a receipt is lost, illegible or otherwise unavailable.

Labour is covered by this warranty for twelve months from date of purchase. Within a 25 km radius of an authorised HY-CLOR service agent.

Spare parts used to affect a repair of HY-CLOR products are covered by a twelve month warranty and are not covered by the original warranty from date of purchase.

The purchaser is liable for any freight incurred where applicable.

Hy-Clor swimming pool pumps are intended for use in domestic swimming pools only. Use of Hy-Clor swimming pool pumps in any commercial enterprise, commercial swimming pool, apartment complex swimming pool or similar will void the warranty.

The chlorinator is intended for use in domestic swimming pools only. Use of the chlorinator in any commercial enterprise, commercial swimming pool, apartment complex swimming pool or similar will void the warranty.

HY-CLOR is not responsible for injury or death as a result of improper installation practices.

All electrical installations must be carried out by a competent licensed professional.

All pool equipment must be kept in a dry well-ventilated area away from direct sunlight and in an area that is free from flooding or rain.

This warranty gives the consumer specific legal rights. The consumer may have other rights depending on the jurisdiction in which the HY-CLOR product is sold.

To the extent permitted under consumer laws HY-CLOR will exclude any or all conditions relating to a warranty claim whereby the consumer:

- a) Has not made contact with HY-CLOR in the first instance to make a claim under warranty.
- b) Has undertaken to replace the alleged faulty product with a brand other than HY-CLOR product.
- c) Attempts to claim costs for a product purchased by the consumer that is not a HY-CLOR product.
- d) Whereby the consumer claims costs in excess of HY-CLOR warranty costs, both for products, freight and labour including travel time.

Under consumer law HY-CLOR has the right to:

- a) Repair or replace those goods; or paying the costs of having those goods repaired or replaced and
- b) Resupplying the service or paying the costs of having those services resupplied.

Returned faulty products to the original place of purchase for a replacement or refund that has been accepted and processed by the supplier (retailer) will be deemed by HY-CLOR as having met its obligations of warranty.

