

Warranty Card

Poolrite Equipment Pty. Ltd.
415 Creek Road,
P.O. Box 520,
Mt. Gravatt. QLD. 4122 Australia
Telephone: (07) 3323 6555
Facsimile: (07) 3323 6500

Poolrite Equipment Pty. Ltd.
15 Yiannis Court,
Springvale. VIC. 3171 Australia
Telephone: (03) 9547 4188
Facsimile: (03) 9547 1023

Poolrite Equipment Pty. Ltd.
36 Hugh Ryan Street,
Garbutt. QLD. 4814 Australia
Telephone (07) 4779 4880
Facsimile (07) 4779 6714

Poolrite Equipment Pty. Ltd.
6 Forsyth Close,
P.O. Box 7055,
Wetherill Park. N.S.W. 2164 Australia
Telephone: (02) 9729 0166
Facsimile: (02) 9729 2759

Poolrite Equipment Pty. Ltd.
Unit 10/16 Ledger Road,
Balcatta. W.A. 6021 Australia
Telephone: (08) 9344 3871
Facsimile: (08) 9345 3923

Poolrite Equipment Pty. Ltd.
Unit 22, 761 Great South Road,
Penrose. Auckland
New Zealand.
Telephone: (09) 571 0210
Facsimile: 0800 766 574

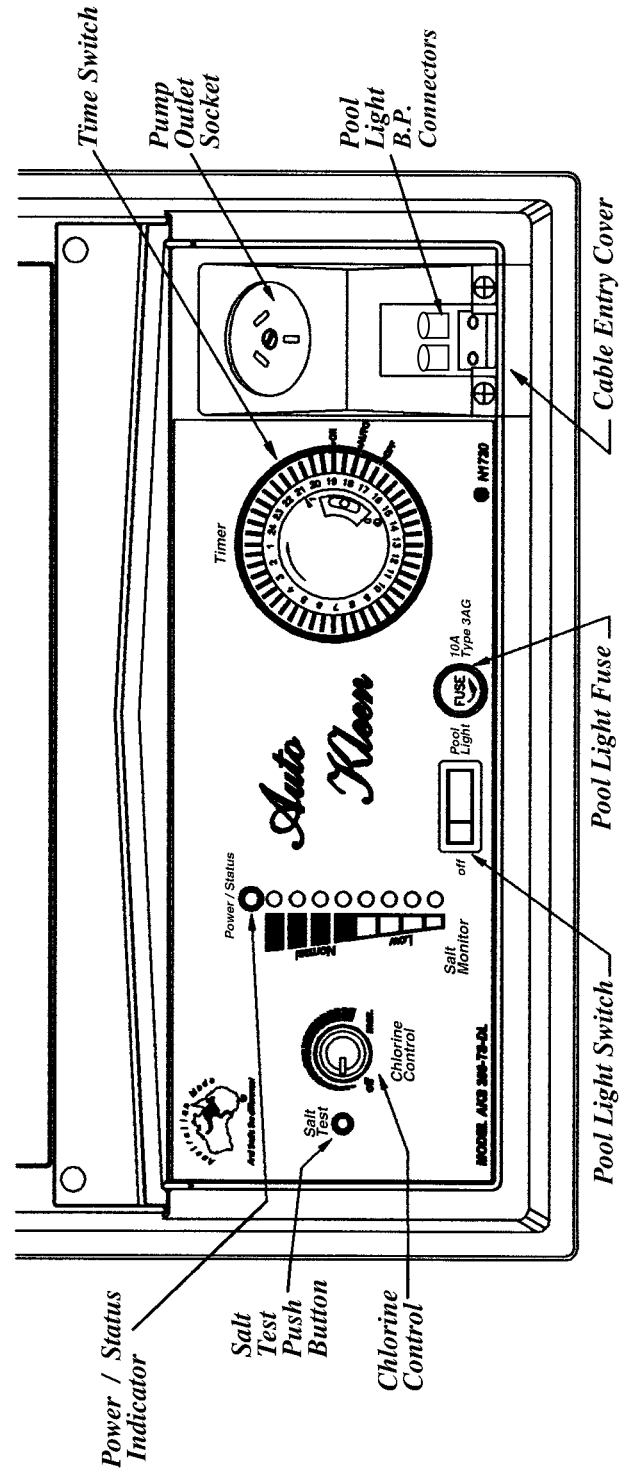
SURECHLOR 3000
Salt Water Chlorinator

Models: NSC160S/TS/TSDL
NSC210S/TS/TSDL
NSC310S/TS/TSDL
NSC620S/TS
AKS150S/TS/TSDL
AKS250S/TS/TSDL
AKS350S/TS/TSDL
AKS700S/TS



owners manual

Poolrite Surechlor 3000 Auto Kleen AKS Power Pak Controls and Connections



WARRANTY CARD

Surechlor 3000 Salt Water Chlorinator

Poolrite Equipment Pty. Ltd.

Your Poolrite Surechlor 3000 is manufactured to the highest possible standards and most up-to-date technology.

Accordingly the equipment carries the following Warranty, should a fault occur due to faulty manufacture or materials.

Important

In the event of a fault covered by Warranty occurring, the Purchaser must, in the first instance, contact Poolrite Equipment Pty. Ltd. or the closest authorised Poolrite Distributor. Poolrite warrant the **original** purchaser of the Power Pak and Electrolytic Cell for a period of 24 months from the Date of Purchase by the **original** Owner, should examination disclose to it's satisfaction that the Cell or Power Pak has failed due to faulty manufacture or materials. In addition for a further period of 36 months the Electrolytic Cell will be repaired or replaced at Pro Rata cost from Date of purchase by the **original** Owner.

The Warranty is void if the following occur:

1. Damage resulting from matters beyond Poolrite's control.
2. The Cell or Power Pak has been installed incorrectly and not in accordance with these instructions.
3. The Power Pak has been connected to a power supply other than 240 volt 50 Hz.
4. The Cell or Power Pak has been used for any purpose other than swimming pool or spa sterilisation.
5. Water above the temperature of 45°C has been permitted to flow through the Cell.
6. Water has not been permitted to flow freely through the Cell when turned on.
7. The safety flow detector or connections have been tampered with.
8. The Power Pak has been serviced by a person other than a person authorised to do so by Poolrite or it's agent.
9. The Cell power terminals have been submersed in acid solution when cleaning.
10. Non-swimming pool grade salt has been used in the pool.

This Warranty is applicable to workmanship and materials. Poolrite will repair or replace at no charge, all parts returned freight paid, which display faulty workmanship or materials.

Poolrite Equipment Pty. Ltd. accepts no responsibility for loss, damage or injury to person or property arising from Warranty failure of equipment, or installation of that equipment. Unless with the express prior authority of Poolrite, any repair or replacement shall be provided only by Poolrite or it's authorised distributors and this Warranty shall not extend to any expenditure otherwise incurred.

Warranty Card

Name of Purchaser

Address

Purchased From

Date

Equipment and Model

IMPORTANT: This card must be filled in and returned to Poolrite Equipment Pty. Limited within 14 days of purchase to render the Warranty effective.

**Queensland Head Office
Sales & Export Brisbane**
415 Creek Road,
P.O. Box 520,
Mt. Gravatt, QLD 4122
Telephone: (07) 3323 6555
Facsimile: (07) 3323 6500

Poolrite Equipment Pty. Ltd.
Unit 22, 761 Great South Road,
Penrose, Auckland
New Zealand.
Telephone: (09) 571 0210
Facsimile: 0800 766 574

INDEX

INSTALLATION INSTRUCTIONS	1
Surechlor 3000 Cell	1
Surechlor 3000 Power Pak	2
Connecting The Pool Pump	3
Underwater Pool Light Models	3
Off-Peak Installations	4
Adding Salt To The Pool	5
Marble Plaster Surface Pools	5
Calculating Pool Capacity	5
Calculating Salt To Be Added	6
Salt Calculation Chart	7
Adding Salt and Stabiliser	7
Dissolving The Salt	8
When The Salt Has Dissolved	8
SETTING AND CONTROLS	9
POWER PAK OPERATION	9
Power/Status Indicator — All Models	9
Chlorine Control — All Models	9
Led Salt Monitor — All Models	10
Models Coded NSC/AKS.-S	10
Models Coded NSC/AKS.-S	11
Automatic Time Switch	11
Setting The Time Switch	11
Synchronising The Time Switch	11
Automatic Operation Switch Setting	12
Underwater Pool Light Models	12
HOW YOUR SURECHLOR 3000 WORKS	13
MAINTENANCE OF POOL CHEMISTRY	14
Chlorine Level	14
pH Control	14
Adding Acid	15
Total Alkalinity	15
Cyanuric Acid Stabiliser	15
Calcium Hardness	15
Maintaining Salt Levels	16
MAINTENANCE OF YOUR SURECHLOR	16 & 17
Cell Cleaning	17
Overload Protection	18
How Long Should Your Cell Last	18
Common Causes of Cell Failure	19
Customer Responsibilities	19
Operational Check List	20
ELECTRICAL SPECIFICATIONS	21
WARRANTY	

INSTALLATION INSTRUCTIONS

OWNERS MANUAL

Please hand this Owner's Manual to the pool owner after installation is completed as it contains the Warranty Card and vital information for correctly maintaining the pool and this product!

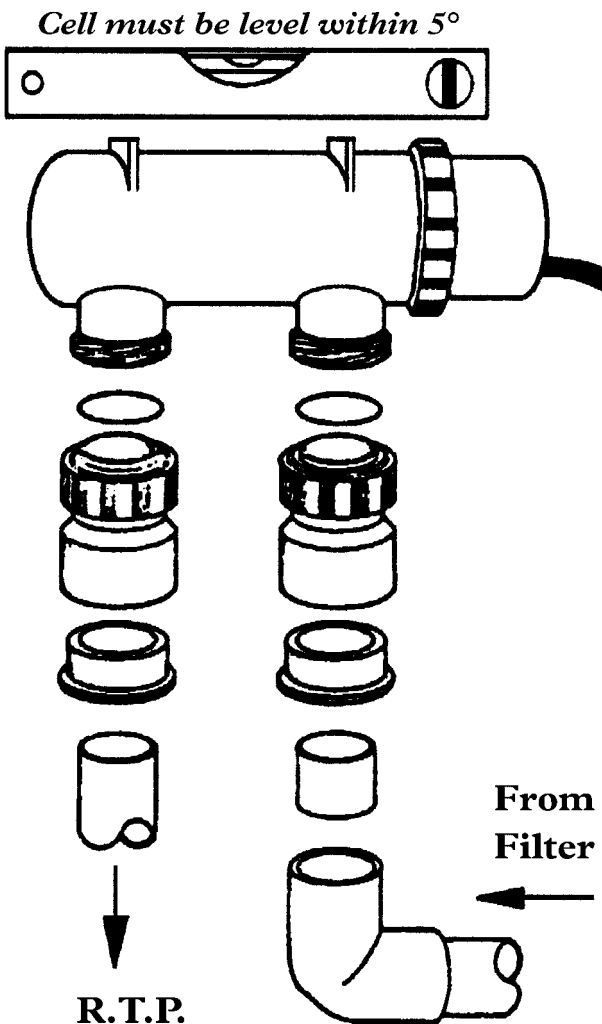
SURECHLOR CELL

Ideally, the electrolytic cell should be installed in a position with 1.5 metres of a vertical wall or fence to allow the Power Pak to be easily mounted without the need to provide an additional post.

The cell must be installed horizontally (level) within 5°, in the return to pool line, with the two plumbing ports and arrow on label pointing down.

The water can flow in either direction through the cell.

Heaters and other equipment in the return to pool line must be before the cell i.e. between the cell and filter.

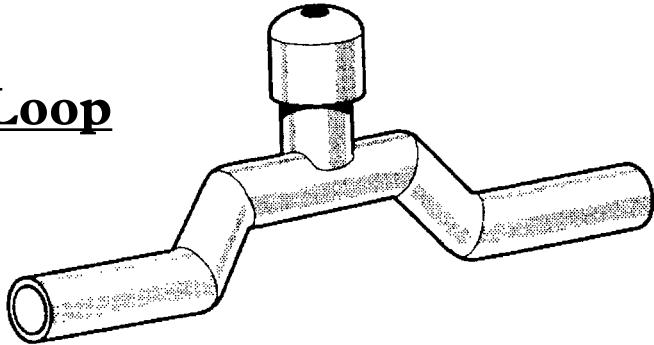


If an **air blower** is fitted to an air inlet for venturi jets, precautions must be taken to prevent gases generated in the Surechlor cell from accumulating in the blower and associated pipework.

The recommended way of achieving this is to install an inverted loop in the air line with a 3mm (max.) diameter hole in the top venting to atmosphere.

The diagram below shows the general arrangement for this loop.

Vented Loop



Warning: The Warranty will be void if the cell is not installed exactly as specified.

SURECHLOR POWER PAK

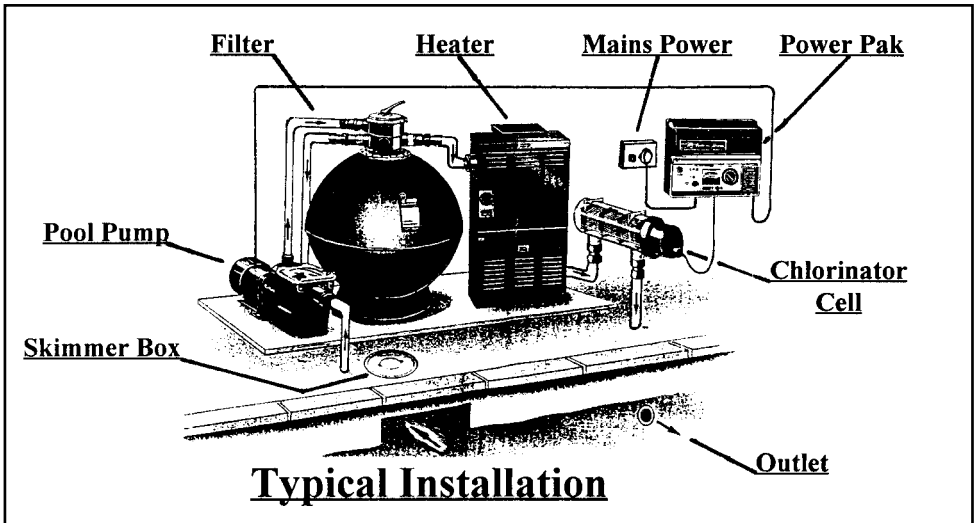
The Power Pak Enclosure is approved and rated to **Degree Of Protection IP24** and therefore can legally be installed in the **Pool Zone** as defined in the AS/NZS 3000 - 2000 Wiring Rules. It **must** be mounted on a vertical wall or fence within 1.5 metres of the cell and at least 1 metre above the ground. Also, it **must** be in a position to allow its supply lead to be plugged into a 10 amp 240 volt power point.

Remember the filter pump must be plugged into this Power Pak.

Start by selecting a suitable place to attach the Mounting Bracket using the two screws provided. The Mounting Bracket must be fixed with the screws horizontal and the vent louvres above the screws facing upwards.

If no suitable wall is available, then install a 100mm x 100mm hardwood post with a vertical mounting board 400mm wide x 300mm high x 18mm thick attached.

Hook the Power Pak onto the Mounting Bracket by the top edge at the rear of the box. When secure, plug the power lead into a suitable 240 volt power point but do not switch on.



CONNECTING THE POOL PUMP

- Raise the clear Control Panel Cover on the front of the Power Pak and loosen the two retaining screws in the bottom right hand corner and remove the Cable Entry Cover by pulling downwards.
- Plug the pool pump into the pump socket on the front panel (see **Note:** on page 4 about the use of large or 3 phase pumps).
- **SURECHLOR MODELS NSC/AKS....TS-DL** are provided with a separate, dedicated power supply to operate a 12v 100 watt underwater pool light. This is controlled by a rocker switch and protected by a 10A type 3AG fuse labelled POOL LIGHT located at the bottom of the control panel. If this model Surechlor is being installed and a 12 volt pool light is installed, its cable should now be connected into the special B.P. Connectors provided.
- Refit the Cable Entry Cover making sure all cables pass through the tunnel behind it to ensure they do not interfere with the proper closing of the Control Panel Cover.
- Tighten retaining screws.

Off-Peak Installations

When connection to off-peak tariff is being considered, we suggest that you contact your Poolrite State Office for advice prior to installation.

Warning: The Warranty will be void if the Power Pak is installed or operated

- a) on, or less than 1 metre from the ground.
- b) in a position where flooding from ground water could occur.
- c) where the airflow is obstructed, i.e. within an unvented auxiliary enclosure.
- d) with the weatherproof Control Panel Cover permanently open or removed if installed outdoors.
- e) with a load (pump) connected to the 240 volt pump outlet socket greater than 1.5kw (continuous).
- f) from an electrical supply socket which is not rated to supply 10 amps at 240 volts 50Hz and is not adequately protected by the correct size fuse or circuit breakers.

Note: If a pump load greater than 1.5Kw or the use of a 3 phase pump is required, an interface relay must be installed.

If double adaptors or stackable plugs are employed to operate more than one pump directly from this Pump Outlet Socket the Warranty will be void.

Please refer to your Poolrite State Office for details.

All Models Coded NSC/AKS.....TS

These models are fitted with an automatic time switch which must be set up properly during installation.

Please refer to heading "Time Switch" in the SETTINGS AND CONTROLS section on page 11 for details.

ADDING SALT TO THE POOL

Start up procedure for marble surface pools

For new concrete pools with marble plaster (marblesheen) finishes we recommend that the salt not be added to the pool until the excess calcium compounds in the plaster have leached out and the pH of the water has stabilised.

The recommended stabilising period is:

- For hand mixed/applied plaster 12 weeks.
- For machine mixed/applied plaster 24 weeks.

During this period the pool should be sterilised with liquid chlorine.

Calculating Pool Capacity

Swimming pool grade salt (low mineral content Sodium Chloride) must be added to the pool and allowed to completely dissolve before operating the chlorinator cell.

The amount of salt to be added cannot be calculated until the volume of water contained in the pool is determined.

This water volume can be obtained by:

- (a) Referring to the pool manufacturer's data (if pre-moulded fibreglass).
- (b) Reading the difference on the water meter before and after filling.
- (c) By mathematical calculation.

Formula For Calculating Water Volume

Water Volume (m³) = [Surface Area (m²) x Average Depth (m)] minus [Volume occupied by steps, swim-outs, etc.]

Calculating Salt To Be Added

The amount of salt to be added to the calculated volume of water in the pool depends on the salt concentration selected.

$$\text{Salt Quantity (kg)} = \frac{\text{Water Volume (m}^3\text{)} \times \text{Salt Concentration (mg/l)}}{1000}$$

For example, if the calculated volume of water in your pool is 60.0 cubic metres (as per previous example) and the minimum salt level of 5000 mg/l is required (for cool climates), the amount of salt needed will be:

$$\begin{aligned} \text{Salt Quantity} &= \frac{60 \times 5000}{1000} \\ &= 300 \text{ kg} \end{aligned}$$

What Salt Concentration To Use

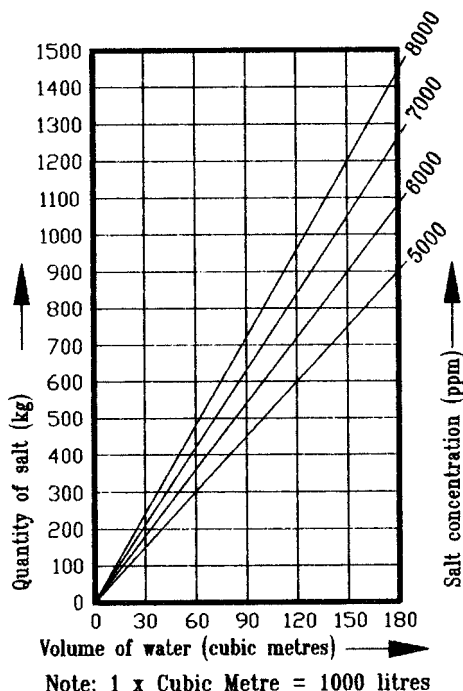
Although your Surechlor 3000 has been designed to operate with a wide range of salt concentrations, the minimum recommended level is 5000 mg/l (P.P.M.). However with heated and outdoor pools in tropical and sub-tropical climates, salt levels between 7000 and 8000 mg/l can be maintained in order to gain the benefits of increased chlorine output, reduced cell maintenance and extended cell life.

The Chlorine Control Knob can be turned fully clockwise if higher salt levels are used without the risk of damage occurring, due to the incorporation of electronic output limiting on all of these model chlorinators.

To make the calculation easier, we have provided the chart on the following page.

To find the correct amount of salt using this chart:

Chart For Calculating Quantity Of Salt For Various Size Pools



1. Mark the point along the bottom edge which corresponds with the calculated volume of water in the pool.
2. Draw a vertical line from this point which intersects the inclined lines showing salt concentrations.
3. From the point where this vertical line intersects the inclined line showing the chosen salt concentration, draw a horizontal line across to the left. Where this line crosses the left side of the graph, the quantity of salt in kilograms will be indicated.

Adding Salt And Stabiliser To The Pool.

If you are quite sure of your calculations then add the calculated amount of salt directly to your pool.

Warning:

Only swimming pool grade salt (Sodium Chloride) should be used. Inferior grades may lead to problems with the chlorinator cell.

Do not attempt to add salt via the surface skimmer as this can cause damage to the filtration system.

Any suction type pool cleaners should also be disconnected before adding salt.

At the same time add the recommended quantity of **cyanuric acid stabiliser**. This is most important as your Surechlor will not operate efficiently during summer months without the correct level of stabiliser in the pool. Recommended level for maximum efficiency is between 30 and 60 mg/l (ppm). pH buffer can also be added now if required.

Dissolving The Salt

Before attempting to operate the Surechlor 3000 cell, the salt must be allowed to fully dissolve in the pool water. This is the best achieved (after allowing sufficient time for the glue on the pipe fittings to set properly) by running the filter pump without the cell operating (i.e. with CHLORINE CONTROL turned to the "OFF" position) for 24 hours to circulate the water.

To assist the dissolving of the salt, regularly brush the floor of the pool with a pool broom until the salt has dissolved.

When The Salt Has Dissolved

With the pump still operating, rotate the Chlorine Control knob fully in a clockwise direction. The Monitor should read in the NORMAL range i.e. green leds on.

Your Surechlor is now generating chlorine!

Should the Led Salt Monitor read in the yellow region with the Chlorine Control knob fully advanced, do not be concerned, just allow the system to run for another 24-48 hours. If the display continues to give a low reading after this period, press the Salt Test Button (with the system running) and note which led operates on the display.

If the water temperature is around 25°C and the cell is relatively clean, this reading will indicate salt concentration. If it confirms the salt level is low (i.e. yellow leds) then add more salt gradually over a period of days until the display reads high in the Normal band (i.e. green leds). Continue brushing floor of pool until the additional salt has dissolved.

SETTINGS AND CONTROLS

POWER PAK OPERATION

POWER/STATUS INDICATOR — all models

This is illuminated when power is applied to the Power Pak. The power/status led changes colour from red to green depending on the output polarity. It flashes orange to indicate a water detection fault.

If there is a time switch fitted and it is in the the OFF or AUTO condition the lamp will be off.

CHLORINE CONTROL — all models

Because your Surechlor 3000 has been designed to operate over a wide range of salt levels, water temperature, running time, etc., a Chlorine Control has been provided to compensate for these variations.

When first starting the unit and where maximum chlorine production is needed the control knob should be rotated fully clockwise so the Led Salt Monitor is indicating maximum on the Chlorine Output scale or as high as prevailing conditions will allow.

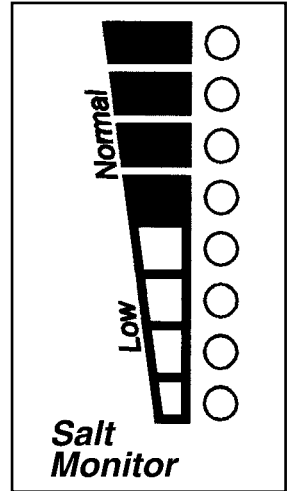
The Chlorine Control knob on all Surechlor 3000 models can be turned fully clockwise if higher salt levels are used without the risk of damage occurring, due to the incorporation of electronic output limiting on all NSC & AKS 3000 model chlorinators.

To operate the filter pump only without the cell, simply turn the Chlorine Control Knob fully anti-clockwise to the OFF position.

LED SALT MONITOR

This multi-function Led Salt Monitor has been provided to allow monitoring of the current passing through the electrolytic cell to allow you to gauge the operation of the cell and the chlorine production. This assists in determining the condition of the electrolytic cell.

It also provides a simple means of indicating the salt level of the pool water when the Salt Test Button is pressed.



With the cell operating correctly the led bar graph should be within the Normal green band. Should the leds drop below the green band into the yellow the salt level may be too low. This should be checked and adjusted if found necessary.

All Models Coded NSC/AKS...-S

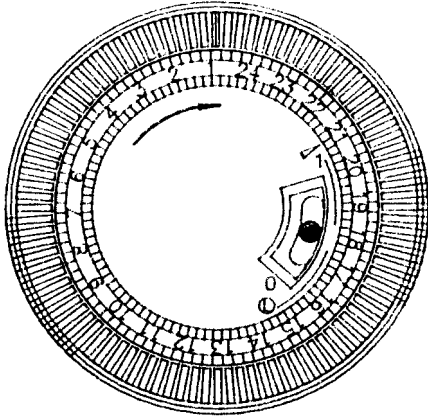
These models are designed to operate by manually switching power on and off to the Power Pak (and pool pump) via the standard 240 volt power point.

If required, an external time switch can be used to control the daily operation of the filter systems associated with these models by plugging the Surechlor 3000 supply lead into the output of a suitable time switch after setting the Led Salt Monitor correctly with the Chlorine Control.

TIME SWITCH

All Models Coded NSC/AKS...-TS

These models are fitted with an **Automatic Time Switch**.



For Manual Operation

Move the slide switch on the face of the Time Switch up to the position marked "On". Filter pump and cell should now be operating (if the Chlorine Control is correctly adjusted).

To turn the filter pump and cell off, move the slide switch to the centre "OFF" position.

For Automatic Operation

Before attempting to operate your Surechlor 3000 in the "Auto" mode for the first time, the integral clock must be set for the time(s) and duration required then synchronised with the present time of day as follows:

Setting The Time Switch

Using a ballpoint pen, slide the trip pins outwards on the clock dial for morning and late afternoon operation as illustrated. We suggest an initial operating period of 6-8 hours in the Summer and 2-4 hours in the Winter. This will vary depending on the relative size of the pool, filter and chlorinator.

Synchronising The Time Switch

Rotate the dial in a clockwise direction only to align the present time of day with the indicator arrow on the right hand side of the clock face.

Automatic Operation Switch Setting

Move the slide switch on the face of the Time Switch down to the position marked "AUTO". Filter pump and cell should now operate when the next ON cycle is detected (if the Chlorine Control is correctly adjusted).

To manually turn the filter pump and cell off, move the slide switch to the centre "OFF" position.

Underwater Pool Light Models

(all models coded NSC/AKS ...TS-DL)

These models are fitted with an automatic Time Switch and a separate, dedicated power supply to operate a pool light.

Special B.P. Connectors on the bottom of the recess on the right hand side of the enclosure has been provided for easy connection of a standard 12 volt underwater pool light rated at 100 watts or less, such as the Poolrite "Trimlite" unit.

Independent operation of the pool light is then controlled by the rocker switch labelled "POOL LIGHT" at the bottom of the control panel.

HOW YOUR SURECHLOR 3000 SALT WATER CHLORINATOR WORKS.

Common salt (Sodium Chloride) is made up of two elements, sodium and chlorine. When your Poolrite Surechlor 3000 is installed a measured amount of salt is dissolved in the pool water to make it slightly salty (about 15% of the salt found in sea water).

When the filter system is operating this pool water also flows through the clear Electrolytic Cell where a very low voltage electric current is passed through the salty water which causes chlorine to be produced. This chlorine instantly dissolves in the pool water.

Some ozone and other gasses are also produced as a by-product of the process.

Put very simply, this dissolved chlorine starts to destroy bacteria, viruses and algae almost instantly and in doing so reverts back to dissolved salt. This cycle continues with more new chlorine being generated from the salty water in the cell, the pool being sanitised and the chlorine reverting back to dissolved salt.

As your Surechlor 3000 is operating each day during normal operation of the filtration system, solid particles are trapped by the filter while your Surechlor 3000 sanitises the water to make it safe, clear and sparkling.

MAINTENANCE OF POOL WATER CHEMISTRY

CHLORINE LEVEL

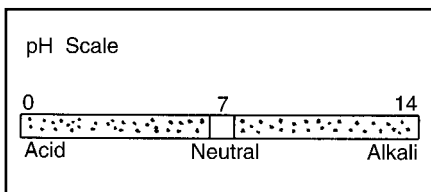
Using a 4 in 1 test kit, test the pool water daily at first then at least once a week to ensure sufficient chlorine level is being maintained. A free chlorine reading of 1.5 mg/l (ppm) and above is adequate when taken near the skimmer.

Should the level fall below 1.5 mg/l (ppm) check salt level and/or increase the daily running time of filter and Surechlor.

pH CONTROL

Check the pH of your pool at least once a week after your Surechlor is first installed.

The pH of your pool is a measure of the balance between acidic and alkaline products in the water. It is measured on a scale of 0 to 14.



A pH level of 0.0 is pure acid.

A pH level of 7.0 is neutral.

A pH level of 14.0 is pure alkali.

The recommended range for swimming pool water is 7.2 to 7.6 for concrete pools, and you should refer to your builder's recommendations for other types of pools.

Controlling the pH of your pool is vital to the correct operation of the Surechlor and the effectiveness of the chlorine produced to kill algae and bacteria and the comfort of bathers. Correct pH also effects the life of metals, cement products and plaster finishes in the pool.

If a pH test indicates a low pH then add sodium bicarbonate (pH buffer) to raise the pH. If the pH is high then add acid (hydrochloric or dry acid) to lower the pH.

Adding Acid

If the addition of acid is indicated, be careful not to add too much at one time as this may destroy total alkalinity or cause harmful effects. We suggest you turn on the filter, add the acid to water in a plastic watering can to dilute, then distribute evenly around the pool away from walls, steps, etc.

TOTAL ALKALINITY

Check the Total Alkalinity at least once a month and maintain correct level for proper pool water balance.

Total Alkalinity is a measure of the acid neutralising capacity of water which indicates its ability to buffer (resist) changes in pH.

The addition of sodium bicarbonate will increase the level and acid will reduce it. Measurements can be made with a 4 in 1 test kit.

Correct levels depend on other factors such as hardness, pH and temperature, however the following levels can be used as a guide.

Concrete Pool — 150 to 250 mg/l

Fibreglass Pools — 80 to 100 mg/l max.

Vinyl Lined Pools — Above 100 mg/l

CYANURIC ACID STABILISER

Have a water sample tested at least every 4 months by your pool shop to determine the level of Cyanuric Acid Stabiliser. It is most important that a level between 30 and 60 mg/l (ppm) be maintained in order for your Surechlor to work efficiently during Summer if your pool is outdoors.

CALCIUM HARDNESS

Calcium Hardness is a measure of the calcium compounds dissolved in the water.

Recommended levels should be as low as practical to minimise problems with calcium deposits forming in the cell, therefore don't add any further calcium chloride (to raise hardness) or calcium

hypochlorite (granular chlorine) to your pool once the decision has been made to install saltwater chlorination.

Warning

Water supplies from bores/rivers/dams etc., can be high in mineral contaminants resulting in poor chlorine production, therefore water may require additional chemical treatment.

ALGAECIDES

Adherence to the above water chemistry recommendations should alleviate the need to use algaecides in your pool.

MAINTAINING SALT LEVELS

Before attempting to add salt to your pool the Surechlor 3000 Cell should first be cleaned if necessary as per instructions. Then, with the filter and cell operating, the Salt Test Push Button should be pressed and the reading on the Led Salt Monitor noted.

If this reading indicates in the yellow region then the level of salt is too low and must be increased. This will normally be required about 4 times a year on average domestic pools but will vary depending on the type of filtration, climatic conditions, etc.

Note: Higher salt levels are recommended in hot weather conditions where maximum chlorine production is needed. We suggest levels as high as 8000 mg/l (ppm) in these situations.

MAINTENANCE OF YOUR SURECHLOR 3000 AKS MODEL

Your Surechlor 3000 Auto Kleen has been designed to operate for extended periods with a minimum of maintenance. The cell cleaning function is performed automatically via the inbuilt electronic control module.

In the unlikely event that your cell needs to be manually cleaned, follow the instructions under maintenance of your Surechlor 3000 NSC160, NSC210, NSC310, NSC620.

MAINTENANCE OF YOUR SURECHLOR 3000

NSC160, NSC210, NSC310, NSC620

Your Surechlor 3000 has been designed to operate for extended periods with a minimum of maintenance, however periodic cleaning of the cell electrodes is required.

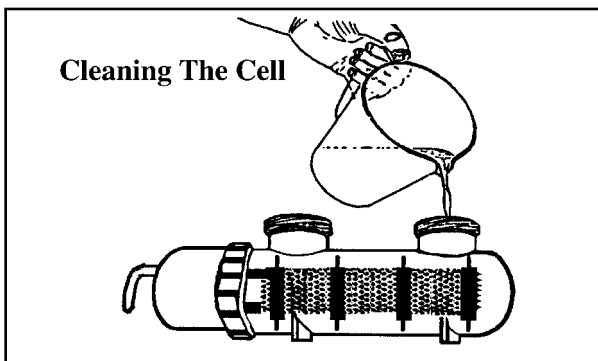
Cell Cleaning

1. Remove Surechlor Power Pak plug from 240 volt power point.
2. Remove cell from plumbing line.
3. Turn cell upside down (ports facing upwards) and place on a level non-metallic surface in a well ventilated area.

Warning: Rubber gloves and protective eyewear must be worn before proceeding to the next steps!

4. Prepare an 8:1 acid cleaning solution by firstly measuring 2 litres of water into a plastic bucket and then carefully adding 250ml of Hydrochloric Acid. Stir thoroughly with a wooden stick.
5. Carefully pour sufficient cleaning solution into upturned cell so as to fully cover metal electrodes.
6. Allow to stand for 10 minutes then flush out with clean water. Do not put used acid solution into pool.
7. If electrodes still show white deposits, repeat the above steps.

Note: It is recommended that a warm water detergent solution be used to soak the electrodes at this point if there is any evidence of body fats, oils or greases.



8. Re-fit cell to plumbing line making sure both rubber "O" ring seals are in place.
9. Re-connect plug of Power Pak to 240 volt power point and switch on.
10. Reset time switch if fitted.

OVERLOAD PROTECTION

In addition to the electronic current limiting and overload protection circuit built into the Power Pak, there is an internal Type 205/3. 15A/Slow Blow fuse fitted to further protect the power supply for the Cell.

Should this fail (as indicated by the Led Salt Monitor failing to show any reading despite the Chlorine Control knob being correctly set and the Top Indicator Led being ON), it is an indication that a fault has occurred related to the electronic circuitry.

In the unlikely event that this should occur, please call for service.

HOW LONG SHOULD YOUR CHLORINATOR CELL LAST?

When installed on a normal domestic pool, Poolrite cell electrodes have a nominal life expectancy of approximately five years if they are correctly maintained.

With operating conditions varying widely in different pools, the actual life of the cell electrodes can be quite different from the nominal life.

For example, a chlorinator cell operating for only 3 hours daily can be expected to last twice as long as the same cell operating for 6 hours daily. Likewise, the same cell operating 24 hours daily may suffer electrode failure after just one year!

Common Causes Of Premature Cell Failure

- a) Operating the cell with too little salt in the water (this can often happen after heavy rain).
- b) Excessive accumulation of calcium deposits on electrodes.
- c) Low water flow through cell (poor filter maintenance or a faulty pump are typical causes).
- d) Physical damage to electrode coating caused by scraping with a screwdriver, etc.
- e) Cleaning of electrodes in too strong an acid solution (greater than 1 part hydrochloric acid in 8 parts water).
- f) Acid washing for too long (10-15 minutes max. In contact with 1:8 acid/water should be more than sufficient).

To assist you in prolonging the life of your Surechlor 3000 Cell Electrodes, we have provided this chart of Common Causes Of Premature Cell Failure based on our extensive experience in designing, manufacturing and servicing salt water chlorinators in Australia.

In order to achieve the longest possible life from your Surechlor 3000 cell, we recommend that the owner bear these important points in mind as it is sometimes difficult to determine which of the above points was responsible when inspecting a cell which has failed prematurely.

CUSTOMER RESPONSIBILITIES

BEFORE YOU CALL FOR SERVICE read the Operating Instructions carefully and check the following points which are your responsibility.

A service charge will be made for service as a result of:

Power point not turned on or faulty (check with another appliance).

Time switch incorrectly set.

Unit incorrectly installed.

Pump not plugged into Surechlor Pump Outlet Socket.

Switches and controls incorrectly set.

Poor water chemistry (Salt Level, pH, etc).

Cell not being cleaned (acid washed) properly.

Poor water flow (check filter is clean / pump operating / skimmer free of obstructions).

Unit being tampered with by unauthorised persons.

Underwater light connection not wired correctly or globe blown etc (TS-DL models only).

Operational Check List

- Led Salt Monitor Reads Low
- Low Chlorine In Pool
- Filter Pump Will Not Run
- Erratic Reading On Monitor
- Power Led Not Illuminated
- No Chlorine Output
- Underwater Light Not Working

		Probable Cause		Remedy	
●	●	Cell dirty	↑↑↑	Visually check cell and acid wash cell if dirty	
●	●	Low salt	↑↑	Use Salt Test Button and add salt if required	
●		Low water temperature	↑↑	Normal for Winter (accept lower readings)	
●	●	Poor water flow	↑↑	Filter dirty/leaves in baskets/ valves closed	
●	●	Insufficient daily running time	↑↑	Increase running time of filter and Surechlor	
●	●	Insufficient chlorine stabiliser	↑↑	Have pool checked and add stabiliser if needed	
●	●	Power point not switched on	↑↑	Check power point	
●	●	Excessive air in cell	↑↑	Pump lid/pipe connections/low pool water	
●	●	External pool light fuse blown	↑↑	Check and replace fuse if necessary	
	●	Globe in light failed	↑↑	Replace globe or call serviceman	
	●	Pool light switch not turned on	↑↑	Check and switch on if necessary	
●	●	"Chlorine Control" turned down	↑↑	Check Chlorine Control Knob setting	
●	●	Internal fuse blown	↑↑	Call serviceman	
●	●	Time switch not correctly set	↑↑	Check settings and read instructions	
●	●	Pump not running	↑↑	Check motor overload from blockage in pump	
●	●	Pump problems	↑↑	Check for locked rotor or call serviceman	
●	●	Pump not plugged into unit	↑↑	Check pump is plugged into Power Pak	

ELECTRICAL SPECIFICATIONS POOLRITE SURECHLOR 3000 SERIES SALT WATER CHLORINATORS

INPUT = 240V / 50Hz

POWER CONSUMPTION (Max.):

NSC160-S/NSC160-TS	= 180 VA	AKS150 S/TS	= 180 VA
NSC160-TS-DL	= 330 VA	AKS150 TS-DL	= 330 VA
NSC210-S/NSC210-TS	= 250 VA	AKS250 S/TS	= 250 VA
NSC210-TS-DL	= 400 VA	AKS250 TS-DL	= 400 VA
NSC310-S/NSC310-TS	= 400 VA	AKS350 S/TS	= 400 VA
NSC310-TS-DL	= 550 VA	AKS350 TS-DL	= 550 VA
NSC620-S/NSC620-TS	= 400 VA	AKS700 S/TS	= 800 VA

OUTPUT (Max.):

Pump Socket = 240V 50Hz
= 1.5Kw (2.0HP)
= 8.0A

Cell NSC160 Series	= 9.0VDC 15A	AKS150 Series	= 8.0VDC 15A
NSC210 Series	= 9.0VDC 21A	AKS250 Series	= 8.0VDC 21A
NSC310 Series	= 9.0VDC 31A	AKS350 Series	= 8.0VDC 31A
NSC620 Series	= 16VDC 31A	AKS700 Series	= 12VDC 31A

Pool Light = 12VAC 100W

OVERLOAD PROTECTION:

- Electronic current limiting on Cell output (all models).
- Replaceable fuses as follows:)

Cell Fuse (all models) = Type-205 / Slow Blow / 3.15A (Fitted Internally)

Pool Light Fuse (if fitted) = Type 3AG / 10A (Fitted Externally)

APPROVALS

- All Poolrite Surechlor 3000 Salt Water Chlorinators have been fully tested and approved by the NSW Office of Energy and have been issued with a Certificate of Approval N/14151.
- The Power Pak Enclosure is rated as complying with IP24 as per AS1939-1990 and as such can be legally installed within the designated Pool Zone as defined in section 7 of AS/NZS 3000/2000 Wiring Rules.

Poolrite Equipment Pty. Ltd. reserves the right to change these specifications without prior notification.