

POOLPOWER OWNER MANUAL



IMPORTANT

Read this manual carefully before operating your Poolpower Chlorinator

Congratulations and thank you for purchasing this quality Australian Product

**Manufactured by Poolpower Salt Chlorinators
Fact 1b, 39-45 Susan Street
ELTHAM, VICTORIA, AUSTRALIA 3095**

**Tel: 1300 656 455
Fax: (03) 9439 7207**

KEEP IN A SAFE PLACE

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POOLPOWER WARRANTY

Please complete on day of installation and return to Poolpower salt chlorinators.

Date of purchase ____/____/____

Name _____

Address _____

Telephone _____

Supplied by _____

Telephone _____

Fax/e-mail _____

Model :

SC12

☐☐

Standard cell

SC15

☐☐

Heavy duty cell

SC18

☐

SC21

☐☐

SC30

SC26

☐☐

SC36

SC52

☐

RP23

☐☐

RP30

RPHD12

☐☐

RPHD15

RPHD18

☐☐

RPHD23

RPHD30

☐☐

RPHD40

RPHD60

☐☐

Domestic application

☐

Commercial application

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INTRODUCTION

Congratulations, you have wisely purchased the most technologically advanced salt water chlorinator in the world. The benefits of doing so will be evident for many years to come.

Poolpower's research and development team is committed to producing the finest chlorination systems and being recognised world wide as the leaders in salt chlorination technology.

Maximum customer satisfaction is achieved if the purchaser knows they have installed the very best product for their pool and family. We recognise this and therefore manufacture only the highest quality chlorine generating systems possible using the most innovative and unique technology.

Thank-you once again for choosing Poolpower, we trust you will be very happy.

Your Poolpower chlorinator will eliminate the need to store dangerous quantities of chlorine, daily manual chlorine dosing and the risks associated with these practices. It is automatic, clean, safe and economical and for these reasons, salt chlorination as a method for treating pool water is increasing world-wide.

Mild salt water is gentle on eyes and skin and is said to benefit asthma sufferers and those people who find conventional chlorinated pools irritating.

The salinity of seawater is approx. 35,000ppm or 3.5%, while Poolpower chlorinators require only 2,250ppm to 4500ppm, depending on the model. The human body has a salinity of approx. 4500ppm and fresh water is zero. It is the similarity between the salinity of the human body and that of a salt pool that make for a silky luxurious swimming experience.

The chlorinator comprises two basic components, the power supply and cell. It is within the cell that the electrolytic reactions occur. Chloride ions in the water are converted into chlorine gas, this dissolves immediately into the water to ultimately form sodium hypochlorite, (liquid chlorine). The chlorine oxidises bacteria, algae and other harmful matter in the pool water and through this process reverts back into available chloride ions. The major by-product of the reaction in the cell is the liberation of Hydrogen gas at the cathode. This explains the small bubbles often seen passing out of the pool returns.

No salt is lost through this process or as a result of evaporation. The necessity to top up the salt level approx. twice per year is because of dilution through events such as backwashing and splashing out etc.

All Poolpower models contain digital time clocks, the four ON/OFF periods available are easily programmed for fully automatic operation of your pump & chlorinator.

All models have a built in back up power system that will hold all your programmed information for at least seven days. This suits applications where the mains power is switched off every day for a number of hours.

Our units do not contain batteries.

BASIC OPERATING HINTS

1. Ensure water is balanced with respect to pH, total Alkalinity and calcium hardness otherwise corrosive or scaly conditions may result. These conditions may lead to equipment inefficiencies or damage and the resultant water may cause staining and mineral deposits. Chlorine effectiveness may be compromised along with bather comfort.
2. Regular testing of pool water is imperative. A free chlorine level of 1.5ppm to 3.0ppm should be maintained with periodic manual shock dosing to effectively remove contaminants. A correctly sized chlorinator will meet the normal demand requirements of your pool. Your Poolpower chlorinator displays % chlorine output only, not the actual residual chlorine level in the pool.
3. The use of Cyanuric acid (chlorine stabiliser) will ensure environmental chlorine loss due to the action of the sun's U.V. light is kept to a minimum. The breakdown of chlorine by U.V. light is so significant that we insist on its use.
4. **SC models only:** Check cell for deposits regularly and clean when necessary. Never allow deposits, primarily calcium carbonate to bridge across the electrodes or damage to the electrode may result. Clean cell as per instructions on cell body. Cleaning solution should never be stronger than 10 parts water to 1 part hydrochloric acid.

RP models only: Although regular acid cleaning is not required, it is good practice to periodically inspect the cell for entrapped debris and remove if necessary. If a mineral deposit appears to build on the electrode, contact Poolpower for advice.
5. Always disconnect automatic pool cleaners when adding salt and only reconnect when salt has fully dissolved.
6. **DO NOT USE COPPER OR BROMINE BASED PRODUCTS IN POOL.** Usage of these may void warranty. Consult your local pool professional for advice.
(Some copper based products available are acceptable for use – consult with your pool professional or Poolpower)
Bromine must never be used in conjunction with our systems.
7. Generally the pool pump and chlorinator should operate from 4 to 12 hrs per day depending on the demand placed on the residual chlorine level by the environment or bather numbers.
8. Take note of the diagnostic display, it will inform you of the chlorinator's activity and any abnormal conditions that may exist.
9. Read the entire owner's manual and seek advice from a pool professional. It is important to understand not only the operation of your Poolpower salt chlorinator, but indeed some basic water chemistry to ensure the pool, the equipment and you and your friends and family enjoy healthy swimming pleasure.

CONTROL PANEL BUTTONS

MODE BUTTON :



Press to select ON, OFF or AUTO operation. (When AUTO mode is selected, the ON/OFF times you have set will switch both pump and chlorinator on and off on a daily basis.)

OFF MODE:



Indicated by way of the anti-clockwise rotation of the top portion of the first digit.
Neither pump or chlorinator will operate.

ON MODE:



Indicated by way of the clockwise rotation of the top portion of the first digit.
Pump and chlorinator will operate continuously.

AUTO MODE:



Indicated by way of the clockwise rotation of the lower portion of the first digit.
While in the auto mode and during an OFF time period, the display will alternate from displaying OFF to displaying the next ON time.
This feature allows for an easy visual of when the unit will next switch on.

eg  OFF ↔ 10:30

VIEW BUTTON:



Press repeatedly to display, current time, %chlorine output and all four ON/OFF periods. All values remain displayed for 30 sec, the normal real time %chlorine output is then displayed.

Current 24Hr time is displayed.

% Chlorine output, is displayed. Use UP/Down buttons to alter time

ON1 is displayed, wait to see ON1 time. Use UP/Down buttons to alter time

OFF1 is displayed, wait to see OFF1 time. Use UP/Down buttons to alter time

ON2 is displayed, wait to see ON2 time. Use UP/Down buttons to alter time

OFF2 is displayed, wait to see OFF2 time. Use UP/Down buttons to alter time

ON3 is displayed, wait to see ON3 time. Use UP/Down buttons to alter time

OFF3 is displayed, wait to see OFF3 time. Use UP/Down buttons to alter time

ON4 is displayed, wait to see ON4 time. Use UP/Down buttons to alter time

OFF4 is displayed, wait to see OFF4 time. Use UP/Down buttons to alter time

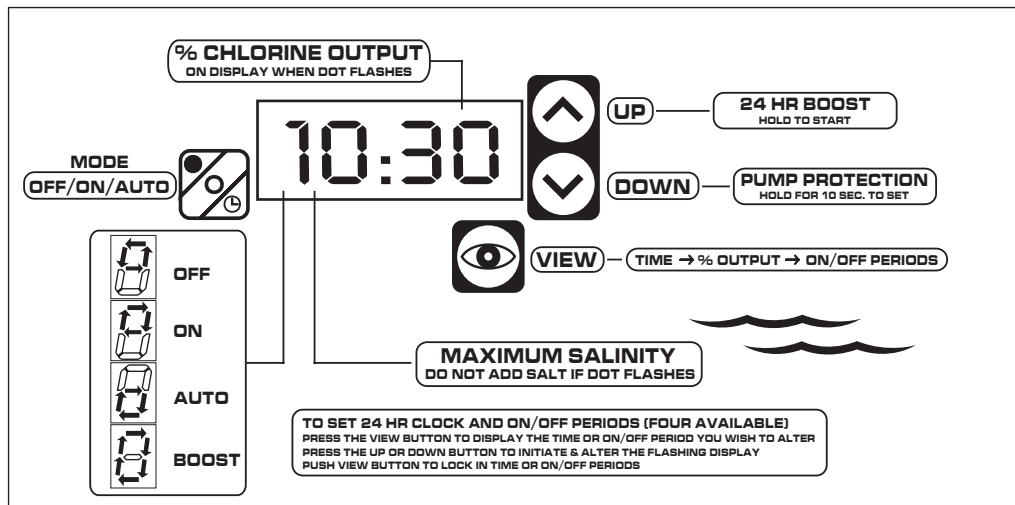
UP/DOWN BUTTONS:



These are used to adjust the %chlorine level output either during a real time display or if the view button has been used to display the programmed %chlorine output. They are also used to alter the time periods displayed by the View button.

(The initial push of an UP/DOWN button will initiate the set mode and the display will begin to flash. Further pushes will alter the display).

POWER PACK CONTROL PANEL



Operational Understanding

Both RP and SC models: On start-up, power is ramped up to the cell after a 10 sec. delay.

At the end of a time period, the cell will cease production 30 seconds before the pump switches off. This delay allows the system to flush the pipe work and prevent heavily chlorinated water diffusing through and damaging heater tube bundles.

SC models only: The chlorine output is adjusted by varying the output percentage. When 100% is set, full power is delivered to the cell for 100% of the programmed ON time.

If for example 50% chlorine output is set, full power is delivered to the cell for 50% of the ON time period. The power will in fact cycle on and off to achieve this.

RP self cleaning models only: When 100% chlorine output is set, full power is delivered to the cell as with the SC models, however not for the entire ON time period. The cell power cycles on and off to achieve the percentage chlorine output required.

The power modulation can be witnessed by observing the gas production at the cell.

TIME AND ON/OFF PERIODS – SETTING GUIDE

Poolpowers digital clock operates on a 24Hr system where 00:00 is 12:00 midnight.

TO SET 24 HR TIME CLOCK

- 1.** Press the view button once to display the time.
- 2.** If the time is not current and you wish to alter it, press the up or down button once, the display will begin flashing indicating it is in the set mode.
- 3.** Press the up or down button while the display is flashing and the time will alter. When you have attained the correct time, wait 30 seconds or push the view button and the unit will automatically lock the time in.

TO SET THE FOUR AVAILABLE ON/OFF PERIODS

- 1.** Push the view button until ON1 appears, wait a moment and the corresponding ON1 time will be displayed. Initially this time may read **00:00**, push the UP or DOWN button once, the display will begin to flash indicating it is in the set mode.
- 2.** Press the up button and adjust the time to that which you would like the pump and chlorinator to switch on. Wait 30 seconds or push the view button and the unit will automatically lock it in.
- 3.** You must then set an OFF1 time. Push the view button until OFF1 appears, wait a moment and the corresponding OFF1 time will be displayed. Initially this time may read 00:00, push the UP or DOWN once, the display will begin to flash indicating it is in the set mode.
- 4.** Press the UP button to adjust the time that you would like the pump and chlorinator to switch off. Wait 30 seconds or push the view button and the unit will automatically lock it in.
- **** If you would like the system to operate for two, three or four intervals during a 24Hr period, there is provision to do so by selecting, ON2, OFF2 etc and setting a time for each.

TO VIEW ALL PROGRAMMED SETTINGS

Push the view button repeatedly to scroll through all the settings.

- 1.** Current time (24Hr clock)
- 2.** %Chlorine output (Programmed value)
- 3.** **ON1** - wait 2 seconds for the corresponding time to display
- 4.** **OFF1** - wait 2 seconds for the corresponding time to display
- 5.** **ON2** - wait 2 seconds for the corresponding time to display
- 6.** Continue to view all four on/off times

NB: If your Poolpower chlorinator is unplugged, or the power is switched off, the unit will retain all you programmed settings for at least seven days.

TOO EASY

SPECIAL FUNCTIONS

TO ACTIVATE 24 HR BOOST - Automatic super-chlorination

1. The unit must be in the **AUTO** mode.
 2. Hold the **UP** button until the display flashes and the rotating boost mode indicator will begin.
(The pump & chlorinator will operate at full power for 24Hrs regardless of current settings and then switch back to the normal auto mode settings for both time & output)
- Ideal for periods where pool encounters heavy bather loads
 - Avoids the necessity to manually switch unit On and then Off after extended chlorination periods

PUMP PROTECTION MONITOR

Optional function that protects the pump from operating with little or no water. These conditions often exist and may damage the pump. The pump protection function uses the gas sensor in the cell to detect the absence of sufficient water and after a delay period, the pump is switched off.

TO SET MONITOR: Hold the **DOWN** button until the display flashes. If a zero is displayed, this indicates that the pump protection monitor is not activated. While the display is flashing, use the UP/DOWN buttons to activate the monitor and set the delay in minutes that you would allow the pump to run in a starved of water condition. Once set, the display will lock in the value and return to the live display within 30 seconds.

Eg. If a delay of 4 minutes is set, the pump will automatically switch off if the chlorinator cell detects a low water flow for a period of 4 minutes. The message **FLO FAIL-OFF** will scroll across the display indicating this condition.

If the unit is in the **AUTO** mode, the system will retest the condition at the next **ON** time period, if the condition no longer exists, the pump will continue to operate as per normal. Pushing the mode button will also cancel the condition enabling you to operate the system and determine what the problem is.

All pools have different hydraulic characteristics and risk levels with respect to the possibility of pump damage occurring due to lack of water. Pumps also have different tolerance levels to operating dry or in a starved condition.

The average delay time would be from 3 to 6 minutes but we would recommend you seek advice from the pump manufacturer or a pool professional.

To **deactivate** the pump monitor, hold the **DOWN** button until the flashing delay time is on display.

Use the **DOWN** button to reduce the time to **zero**, this disables the protection monitor.

NB: Remember, if you backwash the filter, vacuum to waste or perform any other function that by-passes water through the cell, the flow fail function will switch the pump off after it has timed out since it recognises no water flow.

Simply push the mode button to reset or de-activate pump monitor.

PLUMBING FLUSH FEATURE

This feature is automatic, no programming or adjustments are necessary. When in auto mode, the cell power will automatically switch off 30 seconds before the pump to ensure cell housing and plumbing is flushed of concentrated chlorine. This unique feature prevents high chlorine levels in the pipework diffusing through and corroding heater tube bundles and the possibility of damaging other sensitive equipment up-stream of the cell.

SALT LEVELS AND DIAGNOSTIC DISPLAY

Refer to the list below to determine the ideal salt level for your model of salt chlorinator.

SC models : ideal range is 4500ppm @ 20 deg C (45kg salt per 10,000 Lts)

RP models : ideal range is 3750ppm @ 20 deg C (37.5kg salt per 10,000 Lts)

RPHD models : ideal range is 2500ppm @ 20 deg C (25kg salt per 10,000 Lts)

Allowing the salt level to fall outside the recommended parameters may reduce cell life and efficiency. Poolpower has unique features that prevent the likelihood of this occurring.

VERY LOW OR NO SALT CONDITION – CRITICAL

This condition is common when a new pool is commissioned. The chlorinator & pump may be switched on days or even weeks before the salt has been added. Operating the cell under very low or no salt condition would dramatically reduce the life of the cell. The Poolpower microprocessor constantly senses the salinity and will recognise a very low or no salt condition.

It will at this point switch the power off to the cell to protect it from damage and display the condition via a scrolling message.

← Lo SALT – OFF ←

The pump will continue to operate as it should. When the condition improves i.e.; sufficient salt is added, the power to cell will automatically restore.

LOW SALT OR CELL IS IN NEED OF CLEANING CONDITION

If the salt level falls below the ideal operating level, or the cell is calcified sufficiently to reduce the output, a warning message will scroll intermittently across the display. (The power to the cell will remain on)

• Following this scrolling message, the display will show the maximum percentage output that it is able to attain.

← CLEAN CELL or Lo SALT ←

This message will cease when the salt level is topped up sufficiently or the electrode is cleaned or both.

NB: It is good practice to have your pool water tested by a pool professional on a regular basis. Despite lasting many years, chlorinator electrodes have a limited life. If an electrode begins to fail it may indicate by way of the chlorinator display, that the salt level is low when in fact it is not. It is for this reason we recommend a pool professional test the salt level every four months or if there is a suspicion that the electrode is failing.

SALT

MAXIMUM SALT LEVEL

- SC models:** The high salt level light will begin flashing as the level approaches the upper end of the ideal range. Operating the unit at higher salt levels would be of no benefit and these higher levels may affect other pool equipment.
- RP models:** As above, the salt level light will begin flashing as the level approaches the upper end of the ideal range. **Operating the unit at higher than recommended Salt levels will reduce cell life and it's ability to self clean.**

When do I need to dilute the salt content in the water?

If the maximum salt level light is flashing, have a sample of water tested by a pool professional.

If the salt level is 20% higher than the ideal recommendation, dilute the water.

- SC & SCHD models: Dilute if salt level is 5400ppm or higher.
RP models: Dilute if salt level is 4500ppm or higher
RPHD models: Dilute if salt level is 3000ppm or higher

INITIAL SALT DOSAGE

Simply use the following formula's to calculate the amount of salt required.

- SC & SCHD models: Add 4.5kg of salt for every 1,000Lts of water.
RP models: Add 37.5kg of salt for every 1,000Lts of water.
RPHD models: Add 2.5kg of salt for every 1,000Lts of water.

Example: Unit installed is an RPHD self cleaning model and the pool volume is 50,000Lts.

2.5kg of salt for every 1,000Lts water.

Multiply $2.5 \times 50 = 125$ Kg Salt.

SALT: HOW TO ADD

- Never add salt to the skimmer box, this will not harm your Poolpower salt chlorinator however coarse salt granules may seize the pump impeller.
- Always disconnect any automatic cleaners before adding salt and leave them off until the salt has fully dissolved. Cleaners too may be affected by the coarse granules and because the salt solution initially formed is denser than water, it remains at the bottom of the pool.
If an automatic cleaner operates through this dense solution, the cleaners suction hose will drop to the floor and may be damaged as a result.
- Cut open bags (normally 25Kg pool grade salt only) and pour into pool away from skimmer and suction points. Brush with a pool broom to dissolve quickly.

CELL MAINTENANCE

SC & SCHD models only

As a result of the electrolytic process occurring in the cell, a deposit will appear on the cathode only. The cathode is the silver coloured mesh or plate and the anode is the chlorine producing site which has a black coating. Normally calcium carbonate, this deposit must be removed before it builds up and bridges across the electrodes or damage may occur and void the cell warranty.

The cell must therefore be inspected regularly and cleaned when necessary.

Before removing the electrode bundle, ensure pump is off and all the necessary valves have be adjusted so that water does not flood the area.

Using a water jet from a hose may work or better still, immersing the electrode bundle only into a 10 Parts water : 1 Part hydrochloric acid solution. Use a plastic bucket and always add the acid into the water and NOT the water into the acid.

DON'T BE TEMPTED TO MAKE UP A STRONGER ACID CLEANING MIXTURE, THIS WOULD DAMAGE THE ELECTRODE AND VOID THE WARRANTY.

Always remove cell leads before cleaning the cell and make sure they are clean and dry before reconnecting.

Rinse cell after cleaning with plenty of fresh water. Do not use any implements such as knives to clean electrodes as this may damage the sensitive coating.

The cell housing has step by step instructions.

RP & RPHD Self cleaning models only

Self cleaning models generally require little or no maintenance. We do however recommend that periodic inspections are made to ensure debris is not obstructing the cell. If a calcium deposit appears to be forming on the electrodes, contact Poolpower or your local dealer for advice.

NB: If debris is collecting at the cell, it indicates a filtration problem that should immediately be repaired. (Water is by-passing the filtration medium)

If calcium deposits have formed on the cell electrodes, the reason for this may be one of the following:

- The cell life is spent and is on the way out. (Replace cell)
- The salt level is too high
- Water quality is very poor with an extremely high mineral content. Contact Poolpower.
- Poor water flow through cell

To remove mineral deposits from cell if required.

- Switch off power, close all relevant valves and remove cables from cell
- Loosen the nuts at either end of the cell and remove cell
- In a bucket, mix 10 parts water with 1 part Hydrochloric acid (Caution - wear safety glasses and suitable gloves)
- Place entire cell in this solution. Deposits should dissolve within 15 minutes.
- Rinse cell and cell terminals with plenty of fresh water and allow to dry.
- Reinstall cell, connect terminals, open valves and switch on power.

CHLORINE PRODUCTION AND CONTROL

A free chlorine residual of 1.5ppm to 3.0ppm should be maintained. This level will alter with respect to bather load, debris falling into the pool and the pools water temperature. These factors alter the demand for chlorine as will the water balance and filtration's effectiveness.

(Refer to equipment manufactures specifications with regard to maximum chlorine level permissible.)

The %chlorine output is displayed on the power supply and may be altered using the UP/DOWN buttons. This allows you to increase or decrease the chlorine production without altering the operation time.

Testing for chlorine levels is very important and should be performed regularly by pool owners and periodically cross referenced by using the services of a pool water professional. See your local pool shop or service person.

The sample of water to be tested should be taken at arms depth away from the pool returns. This avoids highly chlorinated water, which has travelled directly from the chlorinator cell and ensures the reading will be a true representation of the pools residual level.

Testing for chlorine production rather than the pools chlorine residual, is performed by taking a sample directly at the pool return. This water is directly from the cell and should indicate a higher chlorine level than that obtained in the pool residual test.

(NB: This test must be done while the unit is set to 100%)

The chlorine output may be altered in three ways:

1. Increasing or decreasing the operating time. Depending on the pool and model chosen, the daily operating time may be from 4 to 12Hrs per day. (There are exceptions to this)
2. Increasing or decreasing the output percentage. This allows for a finer control over the chlorine level.
3. Linking the unit to a Redox probe device. The probe senses the chlorine level in the pool and will switch the chlorinator on and off to maintain the recommended level. (Highly recommended for use in indoor pools and spa's)

NB: It may be necessary to periodically shock dose the pool water in high demand situations.

Consult with your pool professional regarding shock dosing.

CYANURIC ACID – CHLORINE STABILISER

The sun's ultraviolet light breaks down chlorine, with this in mind, it is essential in sunny climates to use a chlorine stabiliser.

The importance of its use is such that our range of chlorinators are sized with the express requirement that chlorine stabiliser be used as per the directions.

Cyanuric acid or chlorine stabiliser, when dissolved in the pool water to achieve levels of between 40ppm to 80ppm will effectively reduce the breakdown of chlorine by ultraviolet light.

Higher stabiliser levels may in fact be detrimental and hinder the kill rate of chlorine. Consult with your pool professional.

Maintaining a correct stabiliser level will benefit the cell in an indirect way. The operating output percentage required would be lower than with an unstabilised pool. This factor extends cell life.

WATER BALANCE

The balance of your pool water is no less critical because you have installed a salt chlorinator.

All three components, pH, Total Alkalinity and the Calcium hardness are like a three legged stool, take one leg away or cut it too short and the stool falls over.

The analogy simply emphasizes that all three must be maintained within the recommended parameters suggested for your pool finish.

pH

A high pH will reduce the effectiveness of chlorine, potentially cause scale on both the pool and the equipment, and irritate bathers.

A low pH may cause the water to become corrosive, damaging the pool interior finish, equipment (heat exchangers especially) and also irritate bathers.

Each pool finish and type has a specific range in which the pH should remain. Generally a pH of between 7.2 – 7.8 is suitable for most pool types, however those requiring a higher pH will also require a higher chlorine residual. (Consult with your pool shop)

Total alkalinity (T.A.)

The total alkalinity is a measurement of all the alkalis in your pool water, (Carbonates, Bicarbonates and Hydroxides).

When adjusted within the accepted levels, T.A. acts as a pH buffer, resisting change to the pH. The recommended T.A. level of your pool may vary from 40ppm – 180ppm depending on the pool finish, again consult with a pool water professional.

Calcium Hardness

Probably the most ignored of the three yet just as important.

The hardness of your pool water is very important in controlling scale and the corrosive effects of water.

A low calcium level may cause pool water to become corrosive even if the pH is within its recommended range. A tell tale sign of this is brown stains on the pool finish and in adjoining Spa's especially. This is metal staining, the source is usually the heater.

A high calcium level may cause pool water to deposit scale, again even if the pH is within its recommended range. Standard salt chlorinator cell will require very frequent cleaning and scale may deposit on pool finish and equipment.

Generally a level of 50ppm – 200ppm is recommended.

Consult with your pool builder or pool shop.

NB: We strongly recommend you seek advice from a pool professional regarding the balancing of water for your pool.

A correctly balanced pool will protect it and the equipment from chemical damage and ensure bathers are swimming in clean clear healthy pool water.

TROUBLE SHOOTING

Display is not illuminated

Possible cause : Chlorinator power supply is not plugged into live GPO.

Solution : Plug unit into live GPO.

Possible cause : Chlorinator is switched on via an external time clock.

Solution : No action necessary. Perhaps momentarily over-ride time clock to check units operation.

Possible cause : Chlorinator is wired into a special tariff power supply that switches the power supply off for a period every day.

Solution : Wait until power is restored to check chlorinator.

Flow fail – OFF scrolls across the display and pump has switched off

Possible cause : The pump protection monitor has been set and has timed out.

Solution : Investigate flow problem by eliminating possible solutions from the Lo Flow – OFF file above. (To reset, push the mode button)

Note : Remember, any filter settings that require the pump to run and where the water is not returned through the cell, eg. backwashing, rinse, waste etc will cause the pump protection monitor to activate if the period exceeds the programmed time out period.

NB: If the cell is disconnected for any reason, always remember to disable the pump protection monitor (set to zero) or the pump will continue to switch off after the time out period.

Lo Flow – OFF scrolls across the display

- Possible cause : Flow sensor lead is not connected or poor contact is made.
Solution : Connect sensor lead to terminal marked 'sensor lead' on cell.
Possible cause : Flow sensor is detecting insufficient or no water flow through cell.
Solutions : Check pump is operating and actually pumping water.
Are skimmer and pump baskets clean?
Are valves in the correct positions?
Is the filter restricting the flow? If so, backwash filter.
Is the pool full enough?
Is the pump sucking air?
Is the skimmer weir door obstructing the water flow?
Is the inlet to the cell blocked with debris? If so, clean and investigate filter problem. Water is by-passing filtration medium.
Is the pump losing prime?
Has the solar system just powered up? On start up, the displaced air in the system may switch cell off briefly.
Were you in the process of backwashing or vacuuming to waste?

Chlorine output display reads a lower value than that which was set

- Possible cause : Salt level is too low for the unit to operate at full power but not low enough for a warning message to scroll across the display.
Solution : Add more salt.
Possible cause : Fluctuations in mains voltage.
Solution : No action required since effect on output is negligible.

No chlorine residual in swimming pool

- Possible cause : Chlorinator is not operating sufficient hours per day.
Solution : Check time clock ON/OFF periods and adjust accordingly.
Possible cause : Cell electrode is coated with a mineral or metal coating.
Solution : Clean electrode as described in this manual.
Possible cause : % Chlorine output setting is too low.
Solution : Increase % Chlorine output setting.
Possible cause : Cyanuric acid (Stabiliser) level in pool is insufficient.
Solution : Increase levels as specified.
Possible cause : Heavy usage of pool.
Solution : Use the BOOST function regularly or shock dose pool using an approved oxidising agent as per the manufacturers instructions.

POWER PACK – Installation guide

The Poolpower power pack is supplied with a mounting bracket, three screws and three masonry plugs.

The power supply has been tested and approved to attain all relevant electrical and safety authority approvals. The unit is suitable for outdoor installation and has a rating of IP23. This allows the unit to be installed either 1.2 metres higher than the highest water level or at least 3 metres from the pool edge as defined in AS3000 section 6.3. With the addition of the **optional IP24 kit**, the unit may be installed within the pool zone. That is within 3 metres of the pool edge. To comply, the unit must be mounted on a solid wall or post that covers an area no less than that of the back of the power pack and optional IP24 kit.

Always mount the power pack at least 1.2m above ground level and within 1.2 metres of the cell. Ensure the pump is close enough such that the lead will plug into the power pack base.

Air flow around the power supply must not be restricted or warmed from a heat source.

The unit must be plugged directly into an approved fixed power socket. (Do not use extension cords)

SAFETY

Your Pool power chlorinator must be installed in accordance with the installation instructions listed in this manual.

The cell, apart from producing chlorine, produces a mixture of gases, primarily hydrogen. Hydrogen is not readily dissolved into the water and under normal filtration conditions it passes through and out the pool returns, harmlessly dissipating into the atmosphere.

If however the water flow is restricted (blocked skimmer box, incorrectly closed valve, etc.) and these gases collect in the system, a potentially explosive mixture could result under certain conditions.

Your Poolpower chlorinator has eliminated this potential hazard with in-built electronic and physical safety features.

WHEN INSTALLED CORRECTLY THE CHLORINATOR WILL:

1. - switch itself off if the cell is not completely full of water. The sensor positioned at the top of the cell will detect the absence of water and switch power to the cell off. It indicates this condition by way of a scrolling message on the display.

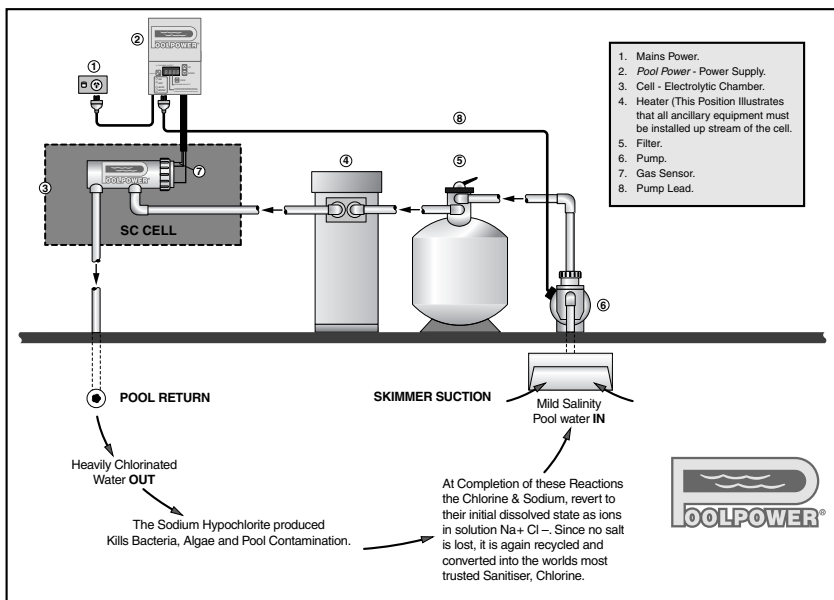


When the condition improves, a delay will follow and the scrolling message will cease. The chlorine output will reappear on the display.

2. - as a result of the cell's physical design, contain the gases produced in a non-hazardous volume. This being in the unlikely event that the electronic protection device fails. (See installation instructions)

SC MODEL CELLS – Installation guide

The cell must be installed horizontally with both the inlet & outlet sockets facing downwards.



Water may flow in either direction through the cell.

50mm to 40mm reducers are supplied for use in 40mm plumbing.

Caution: Use only standard type 'N' plumbing adhesive. Some specialised PVC types will stress and crack the cell housing. Contact Poolpower if you are unsure.

The cell must be installed on the pool return line downstream of all other equipment and or equipment take-off and return points.

That is after the pump, filter, solar system, heater or other receptacles where in excess of 2.0lts of gas could accumulate.

If an air blower is connected directly to venturi spa jets, a vented loop must be installed.

This allows any build up of hydrogen gas to escape from the blower line before it becomes in contact with the blower motor.

(Contact Poolpower for plumbing advice)

Ensure 300mm of space is kept free for removal of the electrode bundle.

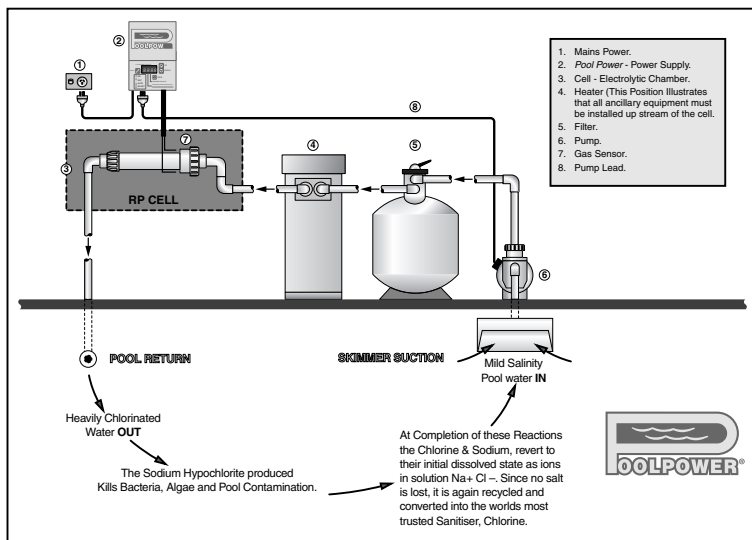
Where the cell is installed below water level, ensure the water can be isolated for flood free removal of the electrode.

Ensure the male key-way situated on the electrode cap is positioned into the female key-way situated on the clear cell body before screwing on the locking nut.

RP MODEL CELLS – Installation guide

The cell must be installed horizontally with both the inlet & outlet sockets facing downwards. This may only be achieved by plumbing 90 deg elbows on either end of the cell so that they face downwards. Refer to diagram.

Refer to diagram.



Water may flow only in the direction specified on the cell.

50mm to 40mm reducers are supplied for use in 40mm plumbing.

Caution: Use only standard type 'N' plumbing adhesive. Some specialised PVC types will stress and crack the cell housing. Contact Poolpower if you are unsure.

The cell must be installed on the pool return line downstream of all other equipment and or equipment take-off and return points.

That is after the pump, filter, solar system, heater or other receptacles where in excess of 2.0lts of gas could accumulate.

If an air blower is connected directly to venturi spa jets, a vented loop must be installed. This allows any build up of hydrogen gas to escape from the blower line before it becomes in contact with the blower motor.

(Contact Poolpower for plumbing advice)

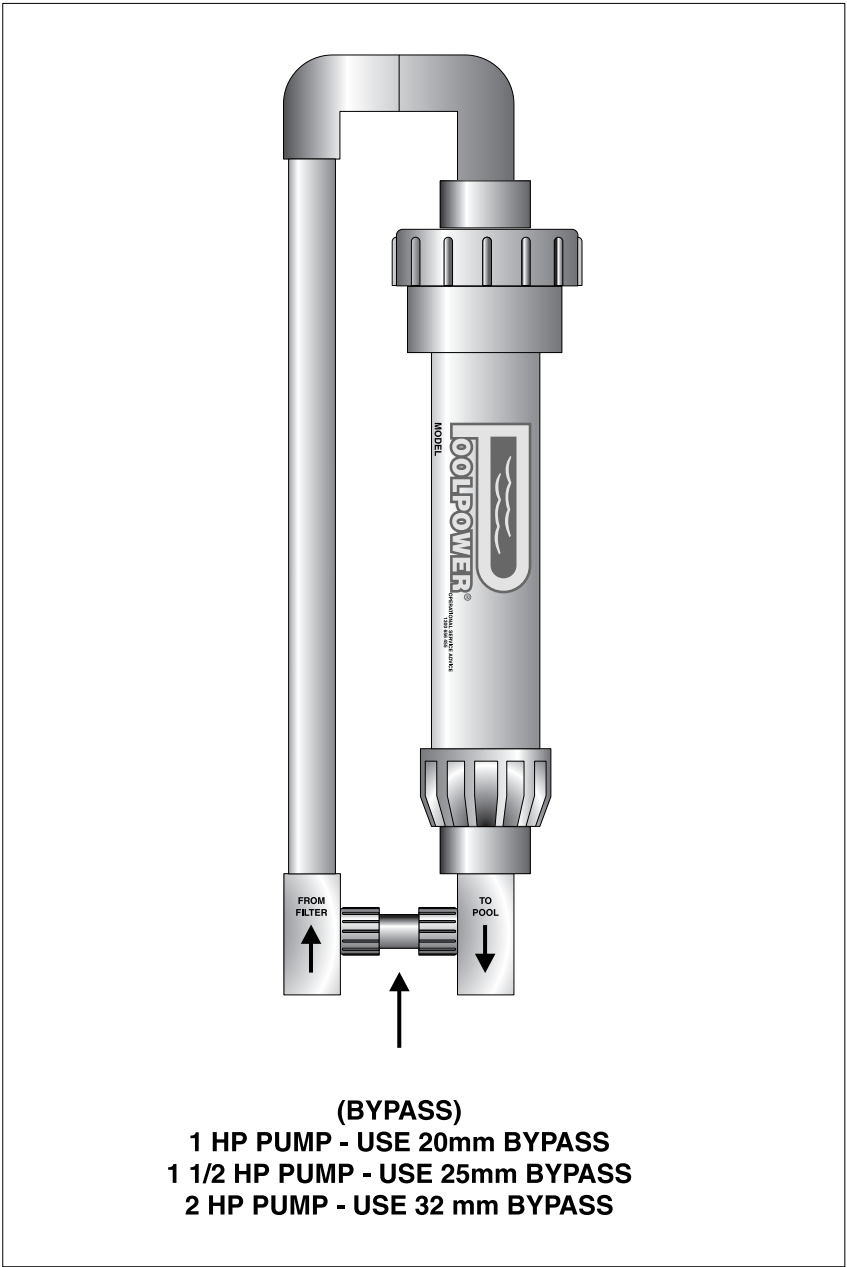
Ensure sufficient space is kept free for removal of the cell for inspection purposes.

Where the cell is installed below water level, ensure valves are installed so the water can be isolated for flood free removal of the electrode.

Ensure the male key-way situated on the electrode cap is positioned into the female key-way situated on the clear cell body before screwing on the locking nut.

For vertical cell installation refer to this diagram.

This installation may be preferred when horizontal space is a problem or the by-pass it contains is actually beneficial where high flow in-floor cleaning systems require a minimum pressure drop across the cell.



WARRANTY

Domestic applications

SC models

The power supply carries a full 2-year warranty.

Standard electrodes carry a 1 year full and 48mths pro-rata warranty.

Heavy duty electrodes carry a 3 year full and 36mths pro-rata warranty.

RP models

The power supply carries a full 2-year warranty.

RP cells - 1 year + 24 months pro-rata

Commercial applications – All models will have a 1 year warranty on power supply and electrode if installed in a commercial situation.

Special conditions

On site labour, service call or freight charges is the responsibility of the purchaser.

Under no circumstances shall the manufacturer be liable for incidental or consequential damages, inconveniences or expenses in connection with removal or replacement of equipment.

Under no circumstances shall the manufacturer be liable for damage caused to persons or property as a result of use of this equipment.

The following invalidates warranty:

- Incorrect installation
- Failure to clean cell regularly and to the specifications listed in this manual
- Misuse
- Water in excess of 45 degrees celsius passing through the cell
- Used for a purpose other than that described in this manual
- Operating pressure exceeding 200 kpa
- Operating unit at both lower and/or higher than recommended salt levels□

NOTES