

DEVICE LABEL

VX7T Salt Chlorine Generator

**Controls Bacteria and Algae in Swimming Pool and Spa Water
For Domestic Use.**

A maximum of 96 000 L of water can be treated with one VX7T Salt Chlorine Generator.

Maximum daily output of hypochlorous acid equivalent to 0.48 kg/day output of free available chlorine.
For swimming pools, a range of 1-3 ppm of free available chlorine must be maintained. For spas, a range of 3-5 ppm of free available chlorine must be maintained.

READ THE LABEL AND OPERATING MANUAL BEFORE USING

KEEP OUT OF REACH OF CHILDREN

REGISTRATION NO. 31187 PEST CONTROL PRODUCT ACT

WARNING: Operating the VX7T Salt Chlorine Generator without water flow through the cell can cause a build-up of flammable gas which can result in **FIRE OR EXPLOSION.**

WARNING: Do not use this device with bromide products.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offense under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

Fluidra Group Australia PTY LTD
219 Woodpark Road
Smithfield, NSW 2164
Australia

Public Enquiries:
RBF International Ltée
780, Rue Nobel
Saint-Jérôme (Québec) Canada J7Z 7A3
450 438-4416

REPLACEMENT CELL LABEL

Astral VX7T Electrolysis Cell

Replacement cell for the VX7T Salt Chlorine Generator

REGISTRATION NUMBER 31187 *PEST CONTROL PRODUCTS ACT.*

This cell must only be used on this model of chlorine generating device.

Read the Label and the Installation and Operation Manual for the VX7T Salt Chlorine Generator before using.

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**Controls Bacteria and Algae in Swimming Pool and Spa Water
DOMESTIC**

**INSTALLATION/OPERATION MANUAL
REGISTRATION NO. 31187 PEST CONTROL PRODUCTS ACT**

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL AND OPERATING MANUAL BEFORE USING

SAVE THESE INSTRUCTIONS



*Listed to UL 1081 Standard for Safety for Swimming Pool
Pumps, Filters, and Chlorinators; and CSA C22.2 No 218.1
Standard for Spas, Hot Tubs, and Associated Equipment*

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VX7T Salt Chlorine Generator

It is said that all life evolved from the sea and that salt water makes up 70% of our bodies, so it's little wonder we find salt water the most natural medium to swim in.

It's one reason why salt chlorinators are now the accepted standard for pool sanitizing.

However, it's not the only reason. With AstralPool's VX7T Salt Chlorine Generator you also get a benchmark on control, convenience and reliability.

To be accurate, salt or minerals don't sanitize the pool, chlorine does. Salt or minerals in the form of Magnesium Chloride, Potassium Chloride or Sodium Chloride when dissolved into your pool water is converted by the VX7T Salt Chlorine Generator into chlorine which sanitizes your pool. The salts or minerals, in roughly the same solution as a tear drop, passes through the electrolytic plates in the VX7T Salt Chlorine Generator cell to form chlorine which prevents bacteria and algae from forming. What a nice solution-particularly when some of these minerals and salts can be good for your family just by being in your pool water. The result is soft feeling water and happy swimmers.

Control

Manual dosing with liquid or granular chlorine can be more hazardous. Over-dosing can cause eye irritation, itchy skin and a strong chlorine odour. The VX7T Salt Chlorine Generator continually generates chlorine at the level you require.

Convenience

The easy to use touch pad enables complete control of your pump and sanitizer system. Although the VX7T Salt Chlorine Generator is easy to use, it's packed full of features making your swimming pool a pleasure to own and use. Chlorine output, Pool or Spa selection, filter cleaning, time of operation, and additional run times are all selected and information is provided on the large liquid crystal display.

Intelligent Self Cleaning

During operation, the anode in the electrolytic cell attracts a build-up of calcium and other debris which requires periodic cleaning. Most chlorinators reverse the polarity to the cell, which in turn releases

the residue of calcium and debris on the anode.

The intelligent VX7T Salt Chlorine Generator analyses the output setting to optimise the polarity of the electrolytic cell. By minimising the number of reversals ensures the cell is clean and significantly extends the life of your chlorinator.

Pool or Spa Selection

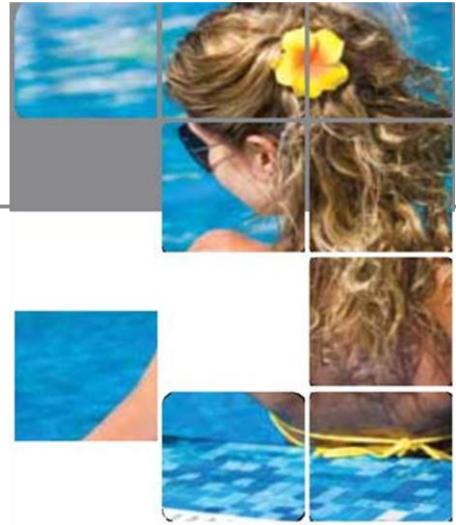
When isolating your spa from the swimming pool, demand for sanitizer is greatly reduced. It's simple really, while spa water is warm and requires sanitizer to kill and prevent the growth of bacteria and algae, it's comparatively small volume means it only needs a fraction of the sanitizer that your pool requires. One touch of the "Spa" button on the VX7T Salt Chlorine Generator and your sanitizer output is automatically reduced to suit the demands of your spa. Why is this important? Excessive sanitizer is unpleasant, causing itching skin, bleached swimwear and damaging heaters, pumps and interior finishes in your spa or pool. Just another way the VX7T Salt Chlorine Generator looks after your family.

Filter Backwash Timing

Sand Filters require regular backwashing to release the entrapped dirt and debris. The VX7T Salt Chlorine Generator has a very smart button that operates the pump

for one, two or three minutes, ensuring your filter is backwashed for the correct period and turns off the electrolytic cell, preventing excessive build-up of sanitizer and by-products during the backwash process. This feature also ensures that the pump cannot accidentally be left running and empty the pool, requiring expensive top-up water.





Extended Operation

Use menu function to select extended operation and your VX7T Salt Chlorine Generator will automatically extend its operating hours to allow for additional filtration and sanitation during

hot weather and heavy bather load periods. At an automatically determined time, the VX7T Salt Chlorine Generator will then revert to normal time clock operating hours saving you the inconvenience of manually changing operating modes.

Mineral Salts

The VX7T Salt Chlorine Generator is suitable for use with pool salt or AstralPool's unique AcquaTherape Minerals which give the pool water a softer feel and help prevent staining and calcification.

Integration

The VX7T Salt Chlorine Generator can be integrated with the AstralPool Viron Connect Pool and Spa Automation System. You've heard of home automation? When installed with the (optional) Viron Connect you gain total control of all your pool equipment, chlorinator, heater, spa jets, waterfalls and pool lighting from inside your home. Program your favourite setting into the Viron Connect to make pool and spa ownership easy and pleasurable for the whole family.

Warranty

The VX series salt chlorine generators are available in 4 different sizes with built-in time clock (select models) which can be disabled when connecting to an external time clock system. Each chlorinator is covered by a 5 year warranty on the cell and 5 year pro rata on the power pack.

To find out more visit fluidrausa.com

Model	Chlorine Output /hour	Pool Volume (litres) Temperate Climate	Max Pump Size	Max Current Including Pump
VX7T Salt Chlorine Generator	20g/h	96,000	8 amps	10 amps

*Temperate Climate Water Temperatures are lower and therefore inhibit algae and bacteria.

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Listed and Manufactured to comply with UL 1081 Standard for Safety for Swimming Pool Pumps, Filters, and Chlorinators; and CSA C22.2 No 218.1 Standard for Spas, Hot Tubs, and Associated Equipment

0.0 IMPORTANT SAFETY WARNINGS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

WARNING

- READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL.

WARNING

- To reduce the risk of injury, do not permit children to use this product.

WARNING

- Risk of Electric Shock. Connect only to a branch circuit protected by a ground-fault circuit-interrupter (GFCI). Contact a qualified electrician if you cannot verify that the circuit is protected by a GFCI". "CAUTION: CONNECT ONLY TO A CIRCUIT PROTECTED BY A CLASS A GROUND FAULT CIRCUIT INTERRUPTER".

WARNING

- The unit must be connected only to a supply circuit that is protected by a ground-fault circuit-interrupter (GFCI). Such a GFCI should be provided by the installer and should be tested on a routine basis. To test the GFCI, push the test button. The GFCI should interrupt power. Push the reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the pump without the test button being pushed, a ground current is flowing, indicating the possibility of an electric shock. Do not use this chlorinator. Disconnect the chlorinator and have the problem corrected by a qualified service representative before using.

WARNING

- To reduce the risk of electric shock, replace damaged cord immediately (where line cord is permissible by local codes). The installation must conform to all applicable provisions of the Canadian Electric Code, CSA C22.1.

WARNING

- High Voltage is present in some chlorinator circuits making it mandatory that any electrical maintenance and repairs be attempted only by properly qualified personnel.

0.0 IMPORTANT SAFETY WARNINGS

WARNING

-If additional chlorine is required due to heavy bather loads, use chlorine to maintain an appropriate chlorine residual in the water. Do not add directly to skimmer as this may damage the cell.

WARNING

-Maintaining high salt and chlorine levels above recommended range contributes to accelerated corrosion of pool and spa equipment.

WARNING

- NOTE: For outdoor pools, chlorine residuals can be protected from destruction by sunlight by addition of stabilizer (cyanuric acid).

WARNING

-Heavy pool (or spa) usage, and higher temperatures may require higher chlorine output to maintain proper free available chlorine residuals.

WARNING

- Check the expiry date of the test kit as test results may be inaccurate if used after that date.

WARNING

-The life expectancy of the electrolytic cell is 15 000 hours under normal use conditions.

WARNING

-Operating the VX7T Salt Chlorine Generator without water flow through the cell can cause a build-up of flammable gas which can result in **FIRE OR EXPLOSION**.

0.0 IMPORTANT SAFETY WARNINGS

WARNING

-For proper sanitation, spas must be completely drained periodically. The number of days between COMPLETE SPA DRAINAGE is equal to the volume of spa water in litres, divided by 10 times the maximum number of daily spa users. Refill spa with water and repeat DIRECTIONS FOR USE of the chlorinator.

WARNING

-People with a medical condition should consult a physician before entering pool or spa water. RISK OF HYPERTHERMIA.

WARNING

-Maximum spa water usage temperature is 40°C. Bathing in spa water at 40°C should not exceed 15 minutes. RISK OF HYPERTHERMIA.

WARNING

-When replacing the cell, only use replacement cells having a label that clearly states that it is a replacement cell for the VX7T Salt Chlorine Generator, matching specific chlorinator model.

REGISTRATION NUMBER 3 1 1 8 7 , *PEST CONTROL PRODUCTS A C T*

WARNING: Do not use this device with bromide products.

VX7T SALT CHLORINE GENERATOR

1.0 GENERAL OVERVIEW

Congratulations! You have purchased a VX7T Salt Chlorine Generator. Please read the instructions carefully and your purchase will provide you with years of trouble free use.

Your VX7T Salt Chlorine Generator works by converting some of the salt in your pool into chlorine which starts to destroy algae and bacteria in your pool water thereby sanitizing your pool. As part of the process, the chlorine is converted back into salt and hence salt is not consumed.

Your VX7T Salt Chlorine Generator control has many features to ensure simple operation of your chlorinator and filtration system. It has a clever Spa mode to ensure that the right level of chlorine is produced whilst you are enjoying a spa.

The VX7T Salt Chlorine Generator has an internal electronic time clock designed to operate the filtration pump up to 4 time periods Monday to Friday and 4 time periods Saturday/Sunday. This model should not be connected to an external time clock where power is disconnected on a regular basis. The VX7T Salt Chlorine Generator has a battery backup which is designed only to maintain timer setting memory in the event of an infrequent and short power interruption.

TO REDUCE THE RISK OF INJURY, DO NOT PERMIT CHILDREN TO USE THIS PRODUCT.

1.1 CHLORINATOR CONTROL UNIT INSTALLATION

The VX7T Salt Chlorine Generator control has a Rating of IP24 enabling it to be installed outdoors. Regulations state that the chlorinator control unit is not allowed to be located within 3 m (10 ft) of the pool water.

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

Included in the kit are two green masonry plugs and screws. When installing on a brick or concrete wall, use a 7 mm (9/32) masonry drill. Mounting Screws should be 180 mm (7.1 in) apart and located at least 1.5 m (5 ft) above ground level.

When installing the chlorinator control unit on a post, first attach a flat waterproof panel at least 300 mm wide by 500 mm long (12 in wide by 20 in long). Make sure the unit is located centrally on the panel and sits flat.

Have a qualified electrician install a weatherproof junction box with a GFCI protected outlet. Plug the chlorinator control unit power cable to the GFCI protected outlet. Then plug the power cable from the cell into to the chlorinator control unit. Finally, plug the power cable from the pump into the chlorinator control unit.

Note: The pump current rating must not exceed 8 amps.

WARNING

The VX7T Salt Chlorine Generator must have the circulating pump connected to the pump outlet on the bottom of the chlorinator control unit.

1.2 CELL INSTALLATION

The chlorinator cell must be located last in the pipe work just prior to the return to the pool. If valves are installed between the chlorinator control unit and the pool outlet, it is essential that they cannot deadhead the pump. If the pressure in the cell exceeds 150kPa (22 psi) and/or the water temperature exceeds 40°C (104°F), the cell may fail.

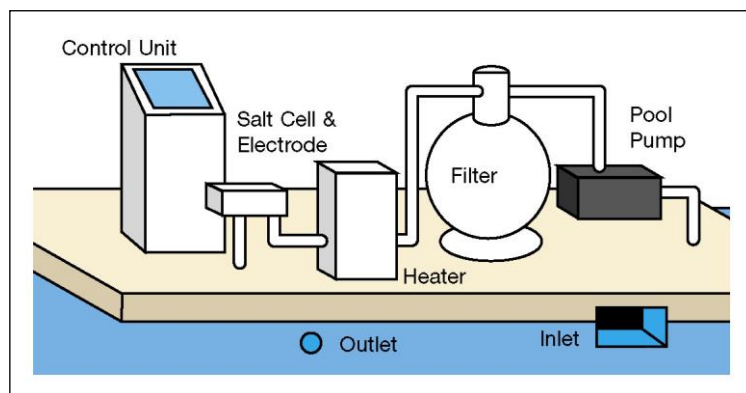
WARNING: Never install the cell before the pump or heater

The cell **must** be installed with the barrel unions underneath and the cell should be horizontal. 50 mm (2 in) fittings have been provided. Make sure that the O-rings are correctly fitted and the unions are done up tightly.

Direction of flow through the cell is critical – unit must be plumbed with the water entering the cell at the end closest to the terminal connections (as indicated by flow direction label mounted on cell).



WARNING: It is essential that pipe work and equipment do not allow gases generated from the cell to build-up in the cell.



CELL (HOOK-UP) WIRING

Once the cell is installed, connect the black multi-core cable from the chlorinator control unit to the cell. The blue wire must be connected to the blue terminal. The (multi-core) 4-wire cable wires are color coded to match their corresponding connection points

in the cell—the posts fit into the corresponding color keyed sockets on the connector end of the cell housing. The cable is designed to come from below the cell. Make sure wing nuts are correctly tightened to ensure good contact.

1.3 POOL PREPARATION

The chlorinator requires a minimum 3000 ppm of salt but the recommended level is 4000 ppm therefore add 4 kg (8.8 lbs) of salt for every 1000 L (265 gal) of water (a typical pool of around 50 000 L (13,210 gal) requires 200 kg (441 lbs) of salt).

Salt should always be added at the shallow end of the pool and allowed to dissolve. Running the pump will mix the water and speed the dissolving process.

WARNING: Never add salt to the skimmer box!

NOTE : Plug the pump directly into a power outlet (bypass the Chlorinator) and run for 8-10 hours to ensure the salt is dissolved prior to running the chlorinator.

When the salt is dissolved, connect the pump to the chlorinator and run it on maximum chlorine output. Check that the low salt light is not on. If it is, check again in 24 hours.

RECOMMENDED SALT TO USE

Pure salt ,such as table salt or granulated water softener salt is better for the life and performance of the electrolytic cell. Use a salt that is at least 99.8% pure NaCl. Do not use rock salt .The preferred salt is an evaporated, granulated, food quality, non-iodized salt. Consult your local pool store.

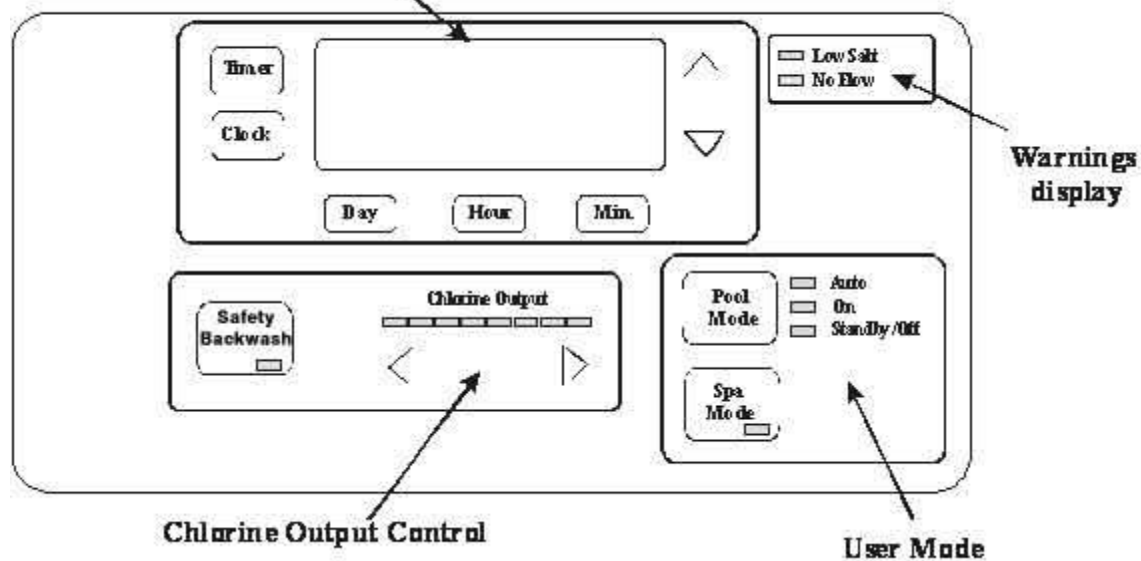
2.1 USER PANEL

The user panel can be broken down into 4 separate areas:

- **Programming area** for setting the clock and on periods.
- **Chlorine Output Controls** for setting the chlorine output level and to activate the Safety Backwash feature.
- **Warnings display** to indicate that there is no flow to the cell or there is insufficient salt in the pool.
- **User Mode** for manual control of the pump/Chlorinator or to select Spa mode.
- **Chlorine Production Level** indicates the amount of chlorine being produced.

Once programmed, you will generally only use the User Mode and Chlorine Output control.

Programming Area



2.2 Programming

Setting Current Time/Day

Select **POOL MODE Standby/Off**

- (a) Press the CLOCK button.
- (b) Press DAY to change the current day.
- (c) Press HOUR to move the Display cursor to the hour digits and then use the Up and Down arrows to the right of the display to change the current hour.
- (d) Press MIN to move the Display cursor to the min digits and then use the up and down arrows to the right of the display to change the current minutes.
- (e) Press the CLOCK button to exit the clock setting mode.

Setting Timers

Your Chlorinator has 4 timers enabling you to set four different periods in which your chlorinator/pump will operate. Different periods can be set for the weekend compared to weekdays. Timers are set by entering a start time, and a period for how long you want to operate (i.e. Mon – Fri T1 On 14:00 and Mon – Fri T1 Period 6:15 will run the chlorinator/pump during weekdays from 14:00 for 6.25 hours). To set timers, do the following:

- (f) Select **POOL MODE Standby/Off**
- (g) Press the TIMER button to step to the timer you want to set.
- (h) Press DAY button to step from Mon-Fri to Sat-Sun and vice versa.
- (i) Press HOUR button to set the hour for the timer selected and use the Up/Down arrows to change the time. NOTE: Hour digits go from Not Used and then 0 to 23. If you don't want to use this timer, select Not Used.
- (j) Press MIN button to select the minutes for the timer selected and use the Up/Down arrows to change the time. Press the TIMER button to select the Period or another time and set as required.
- (k) When finished, press the TIMER button a number of times to scroll through the other times until you return to normal display. This saves your new settings.
- (l) Select **POOL MODE Auto**

Programming Recommendations

Astral recommends that you use two timers, one for the morning and one for the evening and typically for periods of 2-5 hours for each. Your chlorinator is most effective if running in the early morning or evening when it is cooler (strong sunlight consumes more chlorine). As a default, the control is set to come on at 08:00 and 16:00 both for periods of 4 hours.

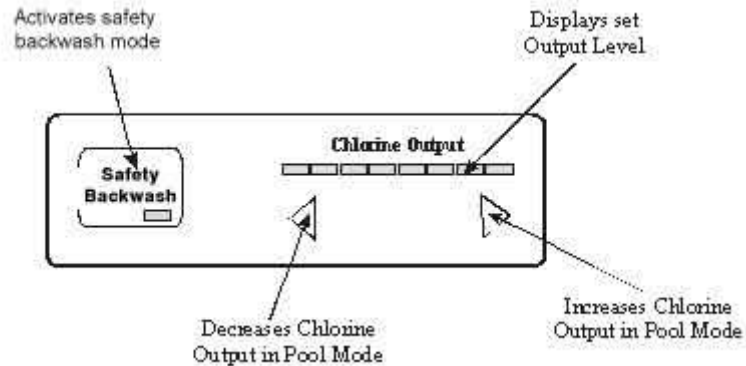
NOTE: Due to different time clock settings for weekday and weekends, the timer periods cannot be set to run past midnight (24:00 hours). If you cannot adjust the start time for a timer period, it is likely the period of run time is set to go beyond 24:00 hours. To correct this, reduce the period run time first, then return to the start time and adjust.

An example of this is if you have your timer period set to run for 4 hours, the chlorinator will not allow the start time to be set any later than 19:59. If you require the chlorinator to start at 20:00 hours, the running period must be less than 4 hours to prevent cross over to the next day.

2.3 CHLORINE OUTPUT

The Chlorine Output Control area of the user panel has three main functions:

- (a) Increase/Decrease arrows for setting the chlorine output level of the chlorinator. The chlorinator output can be set from levels 1 through to 8. This level only applies to Pool Mode. When the Chlorinator is in Spa mode, the chlorine output will be at level 1.
- (b) Chlorine Output display shows the level set.
- (c) The LCD display will also show an output level from 1 to 8 which indicates the performance of the chlorinator compared to the Chlorine Output LED's. Should the LCD output level (1 to 8) be less than the LED output, check salt level in pool. Should salt level be at 4000 ppm and output more than 2 settings less than LED display, your cell may need replacing.

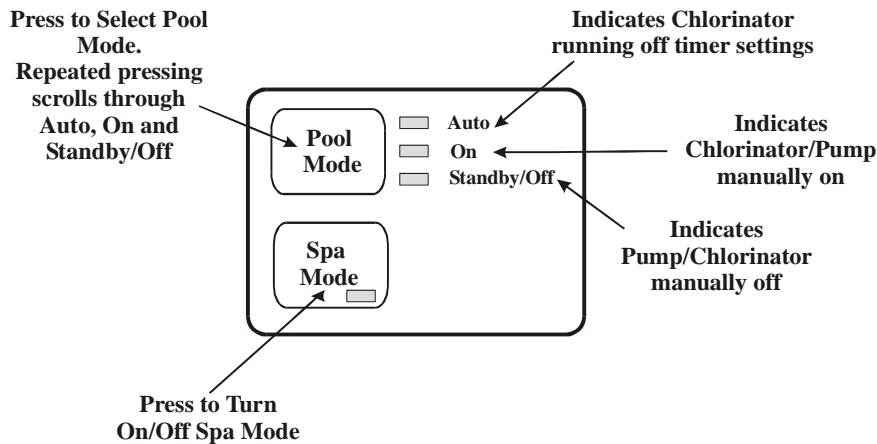


2.4 User Mode

The user mode buttons enable you to select Pool or Spa mode and to manually control the Chlorinator/Pump. Functions are as follows:

- (a) **POOL MODE:** Sends a message to other Astral equipment (if fitted) to go to Pool mode. There are 3 Pool Modes:
 - Auto The Chlorinator/Pump will run according to how you have set the timers.
 - On The Chlorinator/Pump will run continuously.
 - Standby/Off The Chlorinator/Pump will stay off continuously.

- (b) **SPA MODE:** Sends a message to other Astral equipment (if fitted) to go to Spa mode and turns the pump on.



3.0 WARNINGS DISPLAY

Apart from messages displayed on the User display, there are two warning indicators.

- (a) **LOW SALT:** This indicates that the concentration of salt has reduced within your pool. To rectify, add salt at approx. 50 kg (110 lbs) per 50000 L (13,333 gals) of water (see Salt level under section 3.5 below).
- (b) **NO FLOW:** This indicates that the Chlorinator thinks that there is no flow to the cells. Potential problems/solutions are described in Troubleshooting section 5.0.

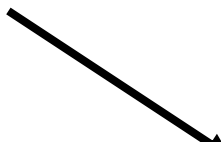
3.1 CHLORINE OUTPUT LEVEL

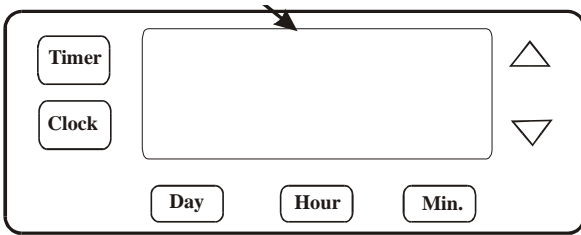
The LED lights on the user panel set the desired output level or chlorine level.

As shown below, the bottom right hand corner of the LCD display indicates the actual level as distinct from the set or desired output indicated by the LED lights.

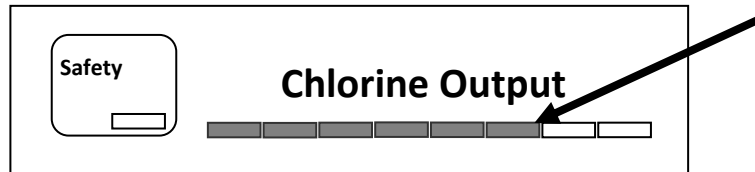
The chlorinator output, or chlorine production, will be affected by water temperature, salt levels and the input voltage of the chlorinator. When the chlorinator is operating at maximum efficiency, the Chlorine Output level should always be approximately the same level as the Set Point. The set point can be checked on the LED display which is divided into 8 sections. If all 8 LED's are illuminated, out set point is at 8. If only 6 lights are illuminated, the set point is 6.

Chlorine output Level





6 +



Your VX7T Salt Chlorine Generator will always attempt to adjust the output so that the actual output level matches set point level. At times when the Chlorine output level is lower than the set point, check the salt level in your swimming pool at your local pool shop. Alternatively, you may have a low voltage supply to the chlorinator (less than 240V) or the water may be colder than usual.

Maximum efficiency will be achieved from your chlorinator at the following levels:

Water at 27° C
Voltage at 240V
Salt Level at 4000 ppm

3.2 SAFETY BACKWASH

When backwashing your sand filter, the pool water does not pass through the cell. During the backwash and rinse process, most chlorinators will build-up potentially explosive hydrogen gas in the Chlorinator Cell.

The Safety Backwash function allows the pump to turn on without applying power to the Chlorinator Cell. This prevents the build-up of hydrogen gas during the back wash and rinse process. In addition, the Safety Backwash function has set run times after which the pump will automatically turn off. This will prevent extended backwashing and potential excessive water loss from the pool.

To Back Wash and Rinse your filter follow these steps:

1. Press the pool mode button to the "off/standby" mode
2. Turn the Multiport Valve to "Backwash" position
3. Press the Safety backwash button on the user panel – the pump will now start without applying power to the chlorinator cell
 - a. Press once for one minute pump operation

- b. Press twice for two minute pump operation
 - c. Press three times for three minute pump operation
 - d. Press four times to turn pump off
4. After pump turns off turn the filter multiport valve to Rinse
5. Press the Safety backwash button on the use panel once for a one minute rinse
6. When pump turns off, move the multiport valve back to filter position
7. Press the pool mode button to "Auto" function so that the chlorinator will operate on time clock settings.

3.3 RUN DRY SAFETY FEATURE

Your VX7T Salt Chlorine Generator incorporates a run dry safety cut out. When the Chlorinator turns the filter pump on, it will check for water flow. If no water flow is detected within 3 minutes, the chlorinator will turn the pump off. This is designed to protect the pump seal and parts from overheating if no water flow is present.

On initial start-up, you will need to prime the pump. In some cases, the pump will take more than three minutes to prime and for water flow to be detected by the chlorinator. If this should occur, simply start the pump again by pressing the Pool Mode button to "on".

If during normal operation, the chlorinator switches the pump off after three minutes, then check the position of all valves, empty skimmer basket and pump basket and clean the filter.

PLEASE SEE PAGE 20 FOR THE RECOMMENDED METHOD OF CELL CLEANING AND MAINTENANCE.

WARNING

When replacing the cell, only use replacement cells having a label that clearly states that it is a replacement cell for the VX7T Salt Chlorine Generator, matching specific chlorinator model. REGISTRATION NUMBER 31187, *PEST CONTROL PRODUCTS A C T*

3.4 GENERAL OPERATION/POOL CHEMISTRY (ALSO SEE CHART ON PAGE 21)

Your VX7T Salt Chlorine Generator must be run every day to ensure that your pool is correctly sanitized. As the sun dissipates chlorine, running times are higher in the summer compared to the winter. Astral recommends that you initially run your chlorinator at maximum output.

Summer

You should set your Chlorinator to operate for 8 to 10 hours per day. Ideally, run it for 4-5 hours in the morning and 4-5 hours in the evening. In extremely hot weather it may be necessary to extend the running time if you find that the free chlorine level is too low.

Winter

You should set your Chlorinator to operate for 6 to 8 hours per day. Again, running it in the morning and evening is preferable.

Checking Chlorine Level

Ideally, check your Chlorine level after the morning operating period. The free chlorine residual level should be somewhere between 1ppm and 3 ppm. Increase or decrease the output of the Chlorinator to get the right residual chlorine level. It may also be necessary to adjust the operating period if you are running at minimum or maximum output.

3.5 STABILIZER

As previously mentioned, sunlight rapidly dissipates the amount of free chlorine in your pool. Chlorine stabilizer greatly reduces this effect.

Without stabilizer, you may need to run your Chlorinator and filtration system up to 16 hours per day longer!

Keep the Stabilizer reading between 30 ppm and 100 ppm.

pH Level

You should keep your pH level between 7.2 and 7.8 for fibreglass pools and for other pools.

Total Alkalinity

The ideal range is between 100 ppm and 120 ppm.

Salt Level

Although salt is not consumed by the Chlorinator, salt is lost during backwashing, and when your pool overflows due to rain or splashing. The correct salt level is important to cell life and the effective operation of your chlorinator. Salt level should be maintained around 4000 ppm but should never be allowed to fall below 3000 ppm.

A typical pool of around 50 000 L (13,210 gals) requires 200 kg (441 lbs) of salt to initially set-up the pool to 4000 ppm.

A low salt level warning is indicated on your VX7T Salt Chlorine Generator if the salt level drops. If Low Salt is indicated, check again in 24 hours and then if it is still indicated, add two 25 kg (55 lb) bags of salt to the shallow end of your pool. Run the filtration system for approximately 6 hours to help mix the salt in the pool. It can take up to a day for the salt to fully dissolve.

If the low salt light is still on, then you should get your pool water tested. If the Salinity is above 4000 ppm then you may need to have your Chlorinator checked.

Warning: Some people recommend that you put salt directly in the skimmer box. This is a very bad practice as it allows very high concentrations of salt to be passed through your filtration and other pool equipment.

4.0 CHLORINATOR MAINTENANCE AND TROUBLESHOOTING

If the supply cord is damaged, it must be replaced by Astral or its service agent or a similarly qualified person in order to avoid a hazard.

4.1 Cell Maintenance

Your VX7T Salt Chlorine Generator has an automatic cleaning feature that under normal conditions, will keep the cell plates clear of deposits of salt and calcium.

VX7T Salt Chlorine Generator cells have a negative charge sensor that monitors the flow and salt levels of the water. This sensor is designed to be fail safe. As the cathode electrodes are negatively charged, deposits of calcium, or other (positive charged) dissolved minerals and debris, may deposit on them and cause the system to indicate a **false** low salt, or no flow condition--due to the electrodes' electrical resistance increasing. Should a low salt condition be indicated, have your salt level separately verified at your local pool shop. If the false low salt condition persists, or a no flow condition is indicated when the supply pump is operating, you may need to manually clean your chlorinator cell.



When replacing the cell, only use replacement cells having a label that clearly states that it is a replacement cell for the VX7T Salt Chlorine Generator, matching specific chlorinator model. REGISTRATION NUMBER 31187, *PEST CONTROL PRODUCTS ACT*.

Cell Cleaning Instructions:

- Close applicable valves.
- Disconnect the chlorinator control unit from the GFCI protected outlet. Disconnect the cell wires.
- Undo the barrel nuts connecting the cell to your filtration system.
- Turn the cell upside down (inlet and outlet on top) and fill the cell with a mix of 1 part hydrochloric acid to 10 parts water and leave standing for a few minutes. As an alternative, you may use an approved commercial cell cleaning solution.
- Repeat if necessary and then rinse well in clean water.
- Re-install the cell ensuring O-rings are correctly located and barrel nuts are tightened to prevent leaks.
- Re-connect cell wires with wing nuts supplied making sure the blue wire is connected to the blue terminal. Incorrect connection may damage your chlorinator control unit. Tighten wing-nuts to ensure the electrical connection is sound.
- Return all valves to their normal position, re-connect power to the chlorinator control unit and turn on at power point.

WARNING: Follow safety instructions provided with the hydrochloric acid or cleaning solution. When handling hydrochloric acid, the use of eye protection, mask and gloves are highly recommended. Extreme caution should be taken whenever handling hydrochloric acid or cell cleaning solution.

General (Ideal)Pool /Spa Chemistry Ranges to Maintain Daily

	Swimming Pools	Spas
Free Available Chlorine	1.0 – 3.0 ppm	3.0 – 5.0 ppm
pH	7.2 – 7.8	7.2 – 7.8
Total Alkalinity	100 – 120 ppm	100 – 120 ppm
Calcium Hardness	200 – 300 ppm	150 – 200 ppm
Stabilizer (Cyanuric Acid)	30 - 100 ppm	30 - 100 ppm
Total Dissolved Solids	< 1,200 ppm	< 1,200 ppm

4.2 Scheduled Chlorinator Maintenance

Maintenance Schedule: Your new product incorporates moving parts and withstands high velocity water with chemicals in it. Some of these parts will wear in the normal course of use and require regular checks and maintenance. Performing these checks and maintenance will identify parts that have worn and require repair/replacement before further serious damage is sustained. A small amount of regular care and attention to your pool equipment will help ensure long life and trouble free performance.

Timing	Maintenance Check	Service action (if required)
Daily	<p>Check cell for calcium build-up</p> <p>Check water chemistry</p> <p>Check cable connections to cell</p>	<p>Soak cell in mixture of 10 parts water to 1 part acid. Use a soft brush only if required. Balance pH in pool and adjust output of unit to ensure satisfactory production of chlorine.</p> <p>Adjust pins by separating if not held firmly in place. Ensure no water contact is occurring with pins.</p>
Three Monthly	<p>Check cell connections for leaks</p>	<p>Isolate Pump, turn power off, clean and grease O-rings or replace if necessary.</p>
Six Monthly	<p>Check chlorine levels and pump operating hours</p> <p>Prevent insect ingress to chlorinator control unit</p>	<p>Adjust timer and output depending on demand for current season.</p> <p>Turn chlorinator control unit off, use an insect spray and spray onto walls around chlorinator control unit. Do not spray directly into unit.</p>

Important note: Regular maintenance is important to ensure long life and trouble free performance of your pool equipment. If unable to perform the maintenance yourself, contact your local AstralPool office who will arrange a trained service technician to perform the maintenance for you.

Record your Equipment details here for quick reference:

Model No.: _____

Serial No.: _____

5.0 Troubleshooting

Fault Indication	Potential Cause	Remedy
No Flow	Pump turned off/disconnected or valves closed	Ensure valves/pump on
	Blue wire disconnected from cell	Connect Blue sense wire to cell
Low salt	Salt level in pool has dropped too low	See section 3.5 above
	Pool water temperature is low	See section 3.5 above
	Cell has calcified	See section 4.1
	Cell has failed	Call a technician
Display blank	No Power to chlorinator control unit	Plug in chlorinator control unit and ensure power available
	Fuse blown	Replace fuse (3 amp slow blow)
Low/No chlorine production	Cables not connected to cell	Connect cables
	Timer period too short	Increase timer period
	Chlorine output level too low	Increase chlorine output
	Filter needs backwashing	Backwash filter
	pH too high	Get pH level correct
	Pool stabilizer too low	Get Stabilizer between 30 and 100 ppm
Clock loses time when mains power removed	Salt level too low	Increase salt to above 4000ppm
	Battery life expired	Call a technician

6.0 WARRANTIES

ASTRAL guarantees that all products, when shipped, are free from manufacturing defects or faults when installed, applied and used according to specifications. All products are warranted for a period of one year from the date of purchase, unless specified on the individual product warranty. Defective products which fail during the warranty period, except as a result of improper installation or modifications, damages or losses, careless handling, negligence or any other abuse, may be replaced or repaired without charge within 60 days of the receipt of defective products. No claims for cartage, labor, or other consequent damages will be allowed.

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Our responsibility for any shipment ceases when the carrier signs the Bill of Lading. Thoroughly inspect each shipment immediately upon arrival. If cartons, packages, or crates are received in short or damaged condition, it is important that you notify the driver and insist on a notation of the loss or damage across the face of the freight bill; otherwise, no claim can be enforced against the carrier.

If concealed loss or damage is discovered, you must notify the carrier at once and request an inspection. It is important that you do not discard the shipping carton or container. A concealed damage report must be made within five (5) business days of delivery of the shipment. It is the carrier agent's responsibility to schedule an inspection. If you give the carrier a clear receipt for the goods that have been damaged in transit, you do so at your own risk and expense. Astral Products is willing to assist you in every possible manner to collect claims for loss or damage, but our willingness does not make us responsible for collection of claims or replacement of material.

JURISDICTION AND COMPETENCE

All transactions between ASTRAL and Buyer shall be governed in all respects by the laws of the State of Florida, without regard to any rules of conflict and choice of laws which would require the application of laws of another jurisdiction. ASTRAL and Buyer (a) agree that any suit, action or other legal proceeding between them shall be brought and heard in a court of competent jurisdiction in Jacksonville, Florida; (b) consent to the jurisdiction of any such court in any such suit, action or proceeding; and (c) waive any objection it may have to the laying of venue of any such suit, action or proceeding in any such court. The prevailing party will be entitled to costs and reasonable attorney fees.

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