



**PREMIUM SALT CHLORINATOR
INSTALLATION AND
OPERATING INSTRUCTIONS**



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GENERAL OVERVIEW

Congratulations! You have purchased a quality Filtrite CX series salt chlorinator. Please read the instructions carefully and your purchase will provide you with years of trouble free use.

Your Filtrite chlorinator works by converting some of the salt in your pool into chlorine which starts to destroy algae, bacteria and viruses in your pool water thereby sanitising your pool. As part of the process, the chlorine is converted back into salt and hence salt is not consumed.

Your chlorinator 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.

Your Filtrite chlorinator 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. In-built is a battery backup which is designed only to maintain timer setting memory in the event of an infrequent and short power interruption.

Note: This chlorinator is not intended for use by young children or infirm persons without supervision. Please ensure that young children are supervised to ensure that they do not play with the chlorinator.

CHLORINATOR CONTROL INSTALLATION

The Filtrite chlorinator control has a rating of IP24 enabling it to be installed outdoors. Regulations require that the control is not allowed to be located within 2 metres of the pool water.

The control 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 is two green masonry plugs and screws. When installing on a brick or concrete wall, use a 7mm masonry drill. Mounting Screws should be 180mm apart and located at least 1500mm above ground level.

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

Plug the 3 pin plug into a suitable weatherproof outlet and then plug your filtration pump into the 3 pin socket in the base of the chlorinator control box.

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

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 and the pool outlet, it is essential that they cannot deadhead the pump. If the pressure in the cell exceeds 150kPa and/or the water temperature exceeds 40 degrees C, the cell may fail.

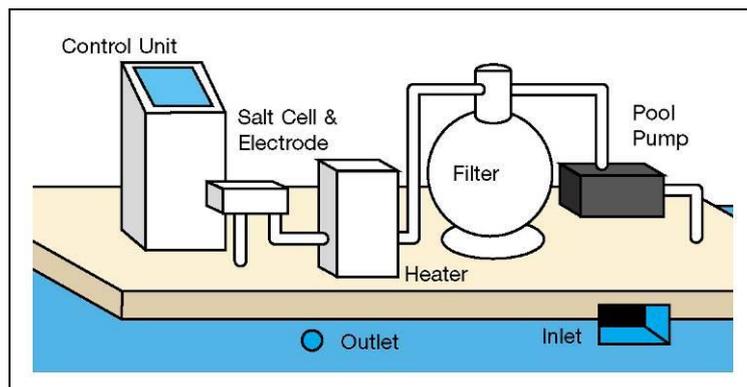
WARNING: Never install the cell before the pump or heater.

The cell **must** be installed with the barrel unions underneath and the cell should be horizontal. Both 40mm and 50mm 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 collect and build up.



Once the cell is located, connect the black multi-core cable to the cell. The blue wire must be connected to the blue terminal. The cable is designed to come from below the cell. Make sure all connections are tight to ensure good contact.

POOL PREPARATION

The chlorinator requires a minimum 3,000ppm of salt but the recommended level is 4,000ppm therefore add 4kg's of salt for every 1000 litres of water (a typical pool of around 50,000 litres requires 200kg 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. You can also use your broom to brush the salt around the floor to speed the 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.

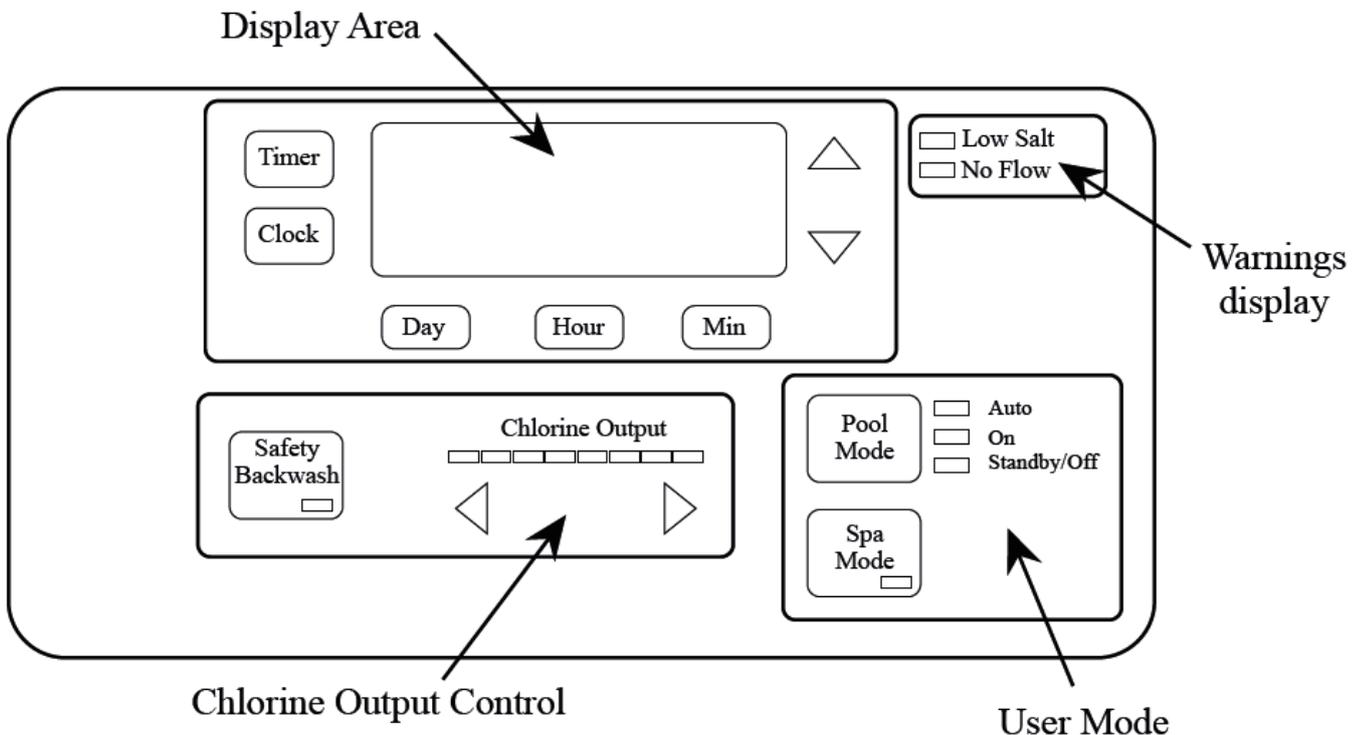
When the salt is dissolved, connect the pump to the chlorinator and run it on maximum chlorine output. Check that the low salt light is not on. If it is, check again in 24 hours.

USER PANEL FUNCTIONS

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

- **Programming area** for setting the clock and on periods(on T models)
- **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.

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



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:

- (a) Select POOL MODE Standby/Off
- (b) Press the TIMER button to step to the timer you want to set
- (c) Press DAY button to step from Mon-Fri to Sat-Sun and vice versa
- (d) 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.
- (e) 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.
- (f) 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.
- (g) Select POOL MODE Auto

Programming Recommendations

It is recommended 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.

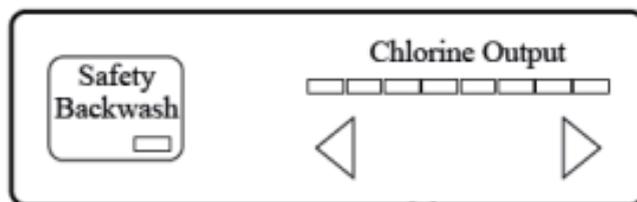
NOTE: Due to different time clock settings for weekday and weekends, the timer periods cannot be set to run past midnight (24:00 hours). If you cannot adjust the start time for a timer period, it is likely the period of run time is set to go beyond 24:00 hours. To correct this, reduce the period run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

CHLORINE OUTPUT

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

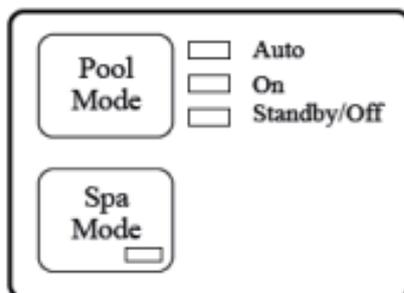
- (a) Increase/Decrease arrows for setting the chlorine output level of the chlorinator. The chlorinator output can be set from levels 0 through to 8. This level only applies to Pool Mode. When the chlorinator is in Spa mode, the chlorine output will be at level 1
- (b) Chlorine Output display shows the level set
- (c) The LCD display will also show a output level from 0 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 4,000 ppm and output more than 2 settings less than LED display, you cell may need replacing.



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 Hurlcon 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 Filtrite by Hurlcon equipment (if fitted) to go to Spa mode and turns the pump on



WARNINGS DISPLAY

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

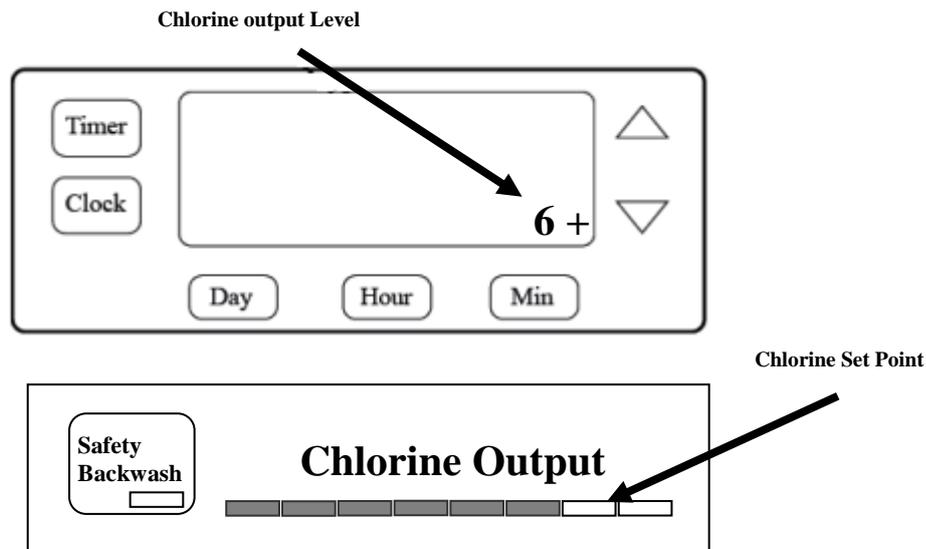
- (a) **LOW SALT:** This indicates that the concentration of salt has reduced within you pool. To rectify, visit your local Clark Rubber Pool & Spa shop with a water test and they will guide you on the correct amount of salt to add.
- (b) **NO FLOW:** This indicates that the chlorinator thinks that there is no flow to the cells. Potential problems/solutions are described in the diagnostics section.

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 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, output set point is at 8. If only 6 light are illuminated, the set point is 6



Your Filtrite salt chlorinator 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 Clark Rubber. Alternatively, you may have a low voltage supply to the chlorinator (less than 240Volts) or the water may be colder than usual.

Maximum efficiency will be achieved from you chlorinator at the following levels

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

SAFETY BACKWASH

When backwashing your sand filter, the pool water does not pass through the cell. During the backwash and rinse process, many chlorinators might 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 a 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 chlorinator will operate on time clock settings.

RUN DRY SAFETY FEATURE

Your Filtrite chlorinator incorporates a run dry safety cut out. When the chlorinator turns the filter pump on, it will check for water flow through the cell. If insufficient 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 11 FOR THE RECOMMENDED METHOD OF CELL CLEANING.

Setting the right chlorine output and filtration time

Your Filtrite chlorinator must be run every day to ensure that your pool is correctly sanitised. As the sun dissipates chlorine, running times are higher in the summer compared to the winter. It is recommended that you initially run your chlorinator at maximum output

Summer Operation

You should set your chlorinator to operate for 8 to 10 hours per day. Ideally, run it for 4-5 hours in the morning (say 8-12pm) and 4-5 hours in the evening (say 6.00-11pm).

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 Operation

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 1 and 3 part per million. 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. **Note: During extreme temperature periods, it may be necessary to provide additional chlorine to assist your salt chlorinator. Always use Filtrite Stabilised Dichlor Pool Chlorine when supplementing chlorine in your pool.**

Stabiliser

As previously mentioned, sunlight rapidly dissipates the amount of free chlorine in your pool. Chlorine stabiliser (also known as Cyanuric Acid or Sunscreen) greatly reduces this effect.

Without stabiliser, you may need to run your chlorinator and filtration system up to 16 hours per day or longer!!!

Keep the Stabiliser reading between 30 and 60ppm.

pH Level

You should keep your pH level between 7.0 and 7.4 for fibreglass pools and 7.2 to 7.6 for other pools.

Total Alkalinity

The ideal range is between 80 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 4,000ppm but should never be allowed to fall below 3,000ppm.

A typical pool of around 50,000 litres requires 200kg of salt to initially set-up the pool to 4,000ppm.

A low salt level warning is indicated on your Filtrite chlorinator if the salt level drops. If Low Salt is indicated, check again in 24 hours and then if it is still indicated, add two 25kg bags of salt to the shallow end of your pool. Run the filtration system for approx. 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 salt level is above 4000ppm 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. Adding salt in this fashion may void warranty on some manufacturers products.

CHLORINATOR MAINTENANCE AND TROUBLESHOOTING

If the supply cord is damaged, it must be replaced by a qualified person in order to avoid a hazard.

Cell Maintenance

Your Filtrite chlorinator has an automatic cleaning feature that under normal conditions, will keep the cell plates clear of deposits of salt and calcium. In certain circumstances and with unbalanced water, calcium build ups can occur which will require manual cleaning of the cell.

Filtrite chlorinator cells have a negative charge sensor that monitors the flow and salt levels of the water. This sensor is designed to be a failsafe. As it is negatively charged, deposits of calcium or other debris may build up on it and cause it to indicate a low salt or no flow condition. Should a low salt condition be indicated, have your salt level checked at your local pool shop. If the 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.

Cell Cleaning Instructions:

- (a) Close applicable valves
- (b) Disconnect the chlorinator from the mains power supply by removing the 3 pin plug
- (c) Disconnect the cell wires
- (d) Undo the barrel nuts connecting the cell to your filtration system.
- (e) Turn the cell upside down (inlet and outlet on top) and fill the cell with Filtrite Salt Cell Cleaner.
- (f) Repeat if necessary and then rinse well in clean water
- (g) Re-install the cell ensuring o-rings are correctly located and barrel nuts are tightened to prevent leaks
- (h) 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. Ensure the electrical connection is sound.
- (i) Return all valves to their normal positions, re connect power to the chlorinator and turn on at power point.

WARNING: Follow safety instructions provided with cell cleaning solution. Use of Hydrochloric Acid is not recommended for cleaning of your Filtrite chlorinator cell as it may reduce the life of the unit and is dangerous to handle.

Maintenance of your Chlorinator

Maintenance Schedule: 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.

To protect against extremes of temperature, your unit is vented to allow expensive electronics to cool. Ants and some insects are often attracted to the warmer, dry environment inside the enclosure. We recommend that, with power turned off, you spray a surface insecticide on the surfaces surrounding the control to prevent ant and insect ingress. Repeat every three months or as necessary.

Timing	Maintenance Check	Service action (if required)
Fortnightly	Check cell for calcium build up	Soak cell in mixture of Filtrite Salt Cell Cleaner. Use a soft brush only if required
	Check water chemistry	Balance pH in pool and adjust output of unit to ensure satisfactory production of chlorine.
	Check cable connections to cell	Adjust pins by separating if not held firmly in place. Ensure not water contact is occurring with pins
Three Monthly	Check cell connections for leaks	Isolate Pump, turn power off, clean and grease O rings or replace if necessary
	Check for insects/ ants	Spray a surface insecticide on the surfaces around the unit to prevent ant and insect ingress.
Six Monthly	Check chlorine level setting and pump operating hours	Adjust timer and output depending on demand for current season.
	Prevent insect ingress to controller	Turn controller off, use a insect spray and spray onto walls around controller. Do not spray directly into unit.

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 Clark Rubber store 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.: _____

TROUBLESHOOTING

Your Filtrite chlorinator has diagnostic and safety features to make it easy to maintain your system. The table below summarises potential faults and their causes.

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 page 10
	Pool water temperature is low	See page 8
	Cell has calcified	See page 11
	Cell has failed	Call a technician
Display blank	No Power to Controller	Plug in controller and ensure mains 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 stabiliser too low	Get Stabiliser between 30 and 60 ppm
Clock loses time when mains power removed	Salt level too low	Increase salt to above 4000ppm
	Battery life expired	Call a technician

WARRANTY

Fluidra Group Australia Pty Ltd (ABN 87 002 641 965) provides the following express warranty for this product.

Product Name	Warranty Period	Limitations / Enhancements
<i>FILTRITE CX CHLORINATOR</i>	<i>3 years</i>	

EXPRESS WARRANTY

Fluidra Group Australia Pty Ltd (Fluidra) warrants that its Products will be free from defects in materials and workmanship when used in domestic swimming pools. This express warranty only applies to services and products purchased within Australia from Authorised Dealers

For the purposes of this warranty, 'domestic swimming pool' means a swimming pool on a single dwelling site. Products used at other sites, including (but not limited to) hotels, swimming schools, rehabilitation and therapy centres, apartment buildings, townhouse complexes and other multiple dwelling sites, are generally operated for significantly longer periods and are subject to more wear and tear than Products used in domestic swimming pools. Consequently, for all Products used at such sites the warranty period is 1 year instead of the periods set out above. Fluidra, may, however, in its absolute discretion, consider extending the 1 year warranty period for FILTRITE CX PREMIUM CHLORINATOR used at particular sites because of actual usage patterns. Any such extension shall only be binding if Fluidra gives it expressly in writing.

CONDITIONS

1. This express warranty only applies if the Product has been purchased from a dealer authorised by Fluidra to supply it (Authorised Dealer). Purchase from an Authorised Dealer ensures that the product is a genuine A product, that it is the version designed for Asia Pacific conditions, and that the Purchaser has access to appropriate technical knowledge and advice.
2. The liability of Fluidra, under this express warranty is limited, at its option, to the repair or replacement of the Product or the payment of the cost of having the Product repaired or replaced.
3. This express warranty does not apply in the following circumstances: (a) if the Product has not been installed in accordance with the product's installation instructions; (b) if the Product has been modified other than as authorised by Fluidra or if a component part has been replaced by a part that is not a genuine Fluidra product; (c) if a defect results from use of the Product outside recommended operating conditions; or (d) if a defect results from damage (including damage to any internal electronics) caused by a power surge or lightning strike, insect or animal ingress. FILTRITE CX PREMIUM CHLORINATOR is designed and tested in accordance with International Standard EN 61000-6-1 immunity measurements. The product is designed to tolerate minor fluctuations (2000 volts) in power supply that can be reasonably expected to occur in the energy grid. They will not tolerate power surges outside these limits.
4. Without limiting 3 above, products sold by Fluidra are designed for use with swimming pool water balanced in accordance with Australian Standard AS3633-1989 with a pH range of 7.0 - 7.8. Maximum chlorine readings should not exceed 4ppm. Where pool water is not maintained within these parameters, Fluidra will not be responsible under this express warranty for any resulting damage, including damage caused by corrosion, scaling or stress loading.
5. Replacement parts supplied under this express warranty are warranted to be free from defects in materials and workmanship for the remainder of the warranty period or for 12 months from the supply of the replacement, whichever is longer.
6. **This express warranty is not transferable and applies to the original purchaser only.**
7. **How to make a warranty claim.** A proof of purchase must be received by Fluidra, prior to any warranty work being approved. Where applicable, a serial number, installation date and name of installer is required as part of this process. The Purchaser must telephone or email Fluidra Customer Service and obtain a warranty ID number for warranty claim. Contact details are: Fluidra Australia, 219 Woodpark Road, Smithfield NSW 2164, Customer Service telephone:1300MY FLUIDRA. Email address: service.au@fluidra.com
8. Fluidra, as the case may be, reserves the right to determine, in relation to each warranty claim, whether the Product should be returned to the Authorised Dealer at the address where the Purchaser purchased the

Product or whether warranty service will be provided in the field, repaired at a Fluidra workshop or at the premises of an authorized Fluidra warranty agent.

9. If it is necessary for the Purchaser to incur freight charges in making a valid claim under this warranty, Fluidra, as the case may be, will reimburse the Purchaser for charges reasonably incurred upon proof of the charges.
10. **Additional guarantees, rights and remedies Australian Purchasers** - Guarantees under the Australian Consumer Law. The benefits of this express warranty are in addition to other guarantees, rights and remedies Australian consumers have under the Australian Consumer Law. Our products come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
11. **INCONSISTENCY WITH WARRANTY STATEMENTS IN PRODUCT MANUALS OR OTHER DOCUMENTS ACCOMPANYING PRODUCTS** If any warranty statements in a Fluidra product manual or other document are inconsistent with the above Express Warranty and Guarantees, the above overrides and replaces the inconsistent statements.



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Information and specifications subject to change without notice.