L'eau D'or

Swimming Pool Products

ClearWise™

SALT CHLORINATOR CLEARWISE40

OWNER'S MANUAL

INSTALLATION AND WARRANTY INFORMATION

CONTENTS

Congratulations on choosing the ClearWise Salt Chlorinator! This is a great investment that will deliver reliable water treatment for many years ahead.

Please review the owner's manual thoroughly before use. Retain your owner's manual, as it contains essential warranty information.

The ClearWise Salt Chlorinator system is designed to control bacteria and algae in swimming pool water, with a maximum daily hypochlorous acid output equivalent to specified levels of free chlorine.

WARNING: Operating the ClearWise Salt Chlorinator without water flowing through the cell can lead to the build-up of flammable gases, posing a risk of FIRE OR EXPLOSION. KEEP OUT OF REACH OF CHILDREN.

Please retain this manual for future reference.

Take a moment to read the entire manual before installation. Ensure that your chlorinator is installed and operated according to the instructions provided for optimal performance and safety.

SAFETY INSTRUCTIONS

Important Safety Information: Read and Follow All Instructions

- Electrical Hazard: To minimize the risk of electric shock, ensure all power to the pool equipment is off before any installation or maintenance of the ClearWise chlorinator. Use only copper conductors, and avoid burying the cord. Place the power pack at least 10 feet (3.05 meters) from the pool walls to prevent accidental contact with water.
- Grounding and Bonding: A ground terminal is provided inside the wiring compartment. Connect this terminal to the grounding means in your power service panel with a continuous copper wire. Bond all metal components, such as rails and ladders within 3 meters of the pool, to the equipment grounding bus.
- Water Flow Requirement: The chlorinator has an electronic flow switch that automatically shuts off chlorine production if water flow stops. Do not bypass or alter this safety feature, as it protects against gas buildup, which can lead to fire or explosion.
- Children and Safety: Do not permit children to operate or maintain this chlorinator. Ensure that all equipment is located at least 3 feet (1 meter) from the pool to prevent children from using it to gain access to the water.
- Water Pressure Caution: Always turn the pump off before installing or removing any chlorinator components. Release system pressure according to your pump's manual. Ensure that water pressure in the cell does not exceed 29 psi (200 kPa).
- Temperature Limit: Do not allow water above 104°F (40°C) to flow through the chlorinator cell, as this may damage the unit.
- Maintenance and Chemical Safety: Avoid contact with pool chemicals, and wear protective gloves and eyewear when handling them. Only use recommended chemicals and adhere to proper chlorine levels to prevent injuries and maintain effective pool sanitation.

FAILURE TO FOLLOW THESE SAFETY INSTRUCTIONS COULD RESULT IN PERSONAL INJURY, EQUIPMENT DAMAGE, OR EVEN LIFE-THREATENING SITUATIONS.

ALWAYS SAVE THIS MANUAL FOR FUTURE REFERENCE AND ENSURE ALL SAFETY GUIDELINES ARE OBSERVED.

TECHNICAL SPECIFICATIONS

Feature	Description
Chlorine Output	40 g / hour
Salt Level	2800 ppm -- 4000 ppm
Input	220V, 60 Hz AC 2 Amp or 110V Hz AC 4 Amp.
Output	18.5- 29.0V 3-8 Amp DC
Power Consumption	300W 220/110 AC Supply
Minimum Flow Rate	42 Litres/minute (11 gallons/minute)
Weight	5.5 kg (12 lbs)
Dimensions	Cell: 31.7 cm x 13 cm x 11 cm (13" x 5 1/8" x 4 3/8") Power pack: 30 cm x 20 cm x 17 cm (12" x 7 7/8" x 6 3/4")
Plumbing	3.8 cm (1 1/2")
Max. Operating Temp	40°C (104°F)
Max. Operating Pressure	200 kPa (40 psi)

INSTALLATION INSTRUCTIONS

The ClearWise CLEARWISE40 Salt Chlorinator is suitable for pools of any size, up to a maximum capacity of 40,000 gallons. When used in medium or small pools, the product's lifespan may be extended accordingly.
IMPORTANT! Installation must be performed in accordance with Local and NEC codes. Please read these instructions completely before installing or operating the ClearWise LDC15 Salt Chlorinator.
RETAIN THIS MANUAL FOR FUTURE REFERENCE.

Water Preparing

Water Chemistry

Ensure the pool's water chemistry is balanced before activating the ClearWise chlorinator system.
Note: If using existing (not new) water, add 1 quart (1 liter) of metal remover and 1 quart (1 liter) of a non-copper-based algaecide, following the manufacturer's instructions. This step will facilitate a smooth transition to the ClearWise chlorinator system.

Salt Selection

Use refined, pure salt (sodium chloride) without additives (e.g., iodine) to prevent interference with the chlorinator's performance.

Salt Quantity and Application Rate

- For new pools, add salt at a rate of 4 kg per 1,000 liters of water to increase the salt - concentration from 0 to 4,000 ppm.
- For existing pools with residual sodium chloride (from previous chlorine use), measure the current salt level, then add enough salt to bring the total to 4,000 ppm.
- Reference: Adding 1 gram per liter (or 1 kg per 1,000 liters) will increase the salt concentration by 1,000 ppm. Refer to the 'Salt Chart' for additional details.

Distribution and Dissolving

Evenly distribute the salt around various points in the pool, avoiding direct addition into the skimmer box. The pool pump may be activated to circulate water, aiding in the salt's dissolution.
Important: Do not operate the chlorinator until all salt has completely dissolved, as premature operation may damage the unit.

Output Setting and Verification

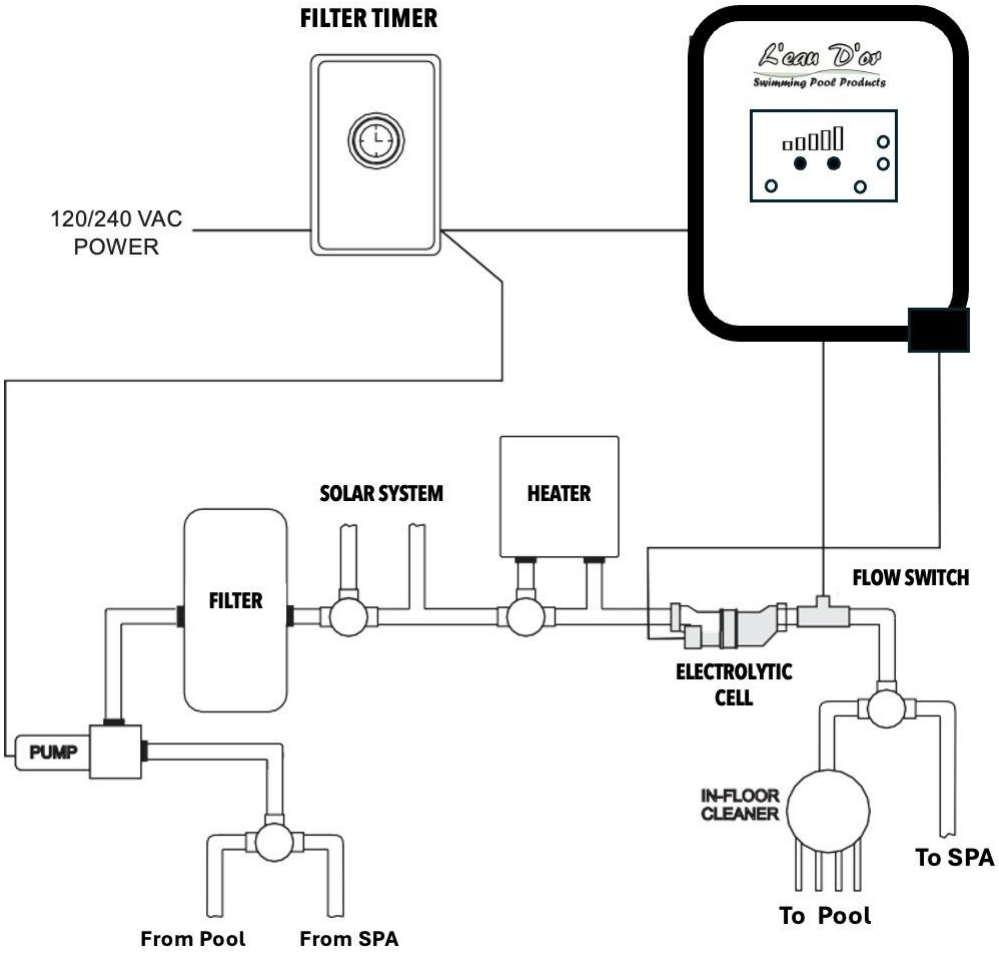
Once dissolved, set the chlorine output control to the maximum setting. If the output light reaches the highest level, the salt concentration is correct. The chlorinator's output will depend on:

- Salt concentration (ideal: 2800 - 3400 ppm)
- Water temperature (ideal: 27°C or 80°F)
- Mains power voltage

Mounting the ClearWise chlorinator Control

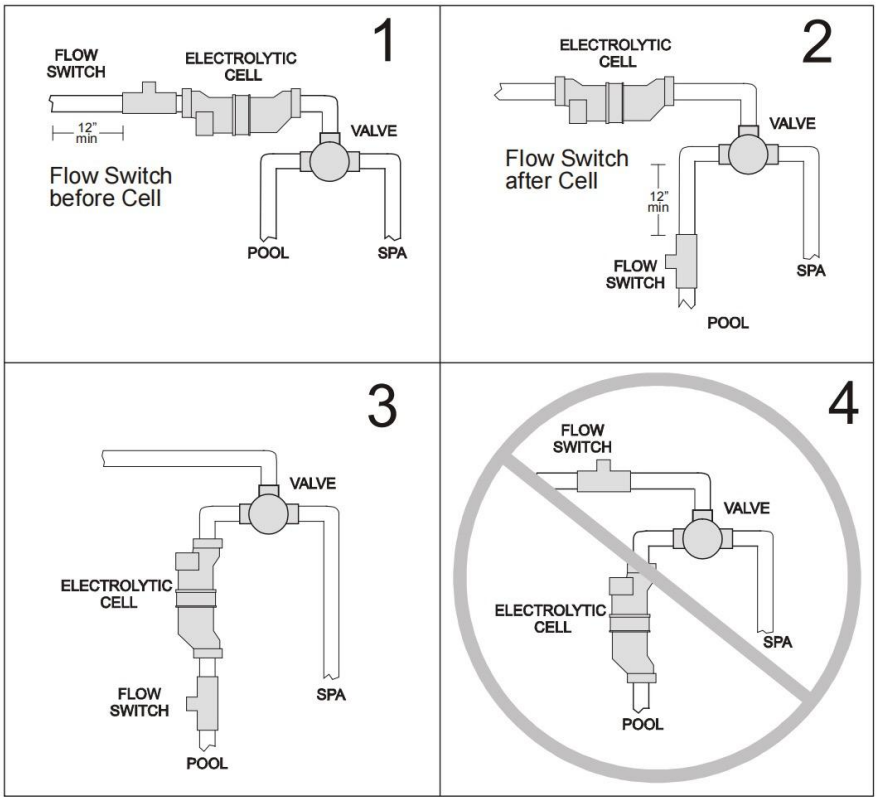
The ClearWise chlorinator is contained in a raintight enclosure that is suitable for outdoor mounting. The control must be mounted a minimum of 5 ft. (2 meters) horizontal distance

(or more, if local codes require) from the pool/spa.
The control is designed to mount vertically on a flat surface with the knockouts facing downward. Do not mount ClearWise chlorinator inside a panel or tight enclosed area.



Plumbing

Ensure that the ClearWise chlorinator installation does not constitute a cross connection with the local potable water supply. Consult local plumbing codes.
The ClearWise chlorinator is packaged with a LD-SC-40 cell, flow switch and cell unions. The flow switch and cell should be plumbed in the return line to the pool/spa. The preferred installation is after (downstream) all the pool equipment (filter, heater, solar, etc.). The electrolytic cell and flow switch tee fitting are designed to be plumbed into 2" (51mm) PVC pipe. Adapters (not included) can be used for systems with 1½" (38 mm) plumbing.
For proper plumbing, refer to the overview diagram on page 6. Below, alternate configuration #1 shows the flow switch can also be in front of the cell. Configurations #2 and #3 allow for chlorination of both the pool and spa during spa spillover operation, but prevent overchlorination of the spa during "spa only" operation. Never use configuration #4.



Flow Switch

IMPORTANT: There must be at least a 12" (25cm) straight pipe run before (upstream) the flow switch. If the switch is plumbed after the cell, the cell can by counted as the 12" (25cm) of straight pipe. To ensure proper operation, verify that the arrow on the flow switch (located on top of gray hex) points in the direction of water flow.

Electrolytic Cell

Install using the unions provided. Tighten unions BY HAND for a watertight seal. For pool/spa combination systems with spillover, use configurations #2 or #3 above to allow chlorination of both the pool and spa during spillover but preventing overchlorination when operating the spa only.

Wiring

Power must be shut off at the circuit breaker before performing any wiring. Be sure to follow Local and NEC electrical codes. To provide safe operation, the ClearWise chlorinator must be properly grounded and bonded.

Input power for stand alone operation:

This guide provides instructions for setting up input power for both 115V (factory default), and 230V configurations. Please follow these steps carefully to ensure safe and correct installation.

For 115V Power Supply:

Default Configuration: No modifications are necessary if using a 115V power supply, as

the unit is preconfigured for 115V operation. Simply plug the unit directly into a standard wall outlet. Once connected, mount the unit on the wall as needed, and it is ready for operation. The unit comes factory-set for 115V operation.

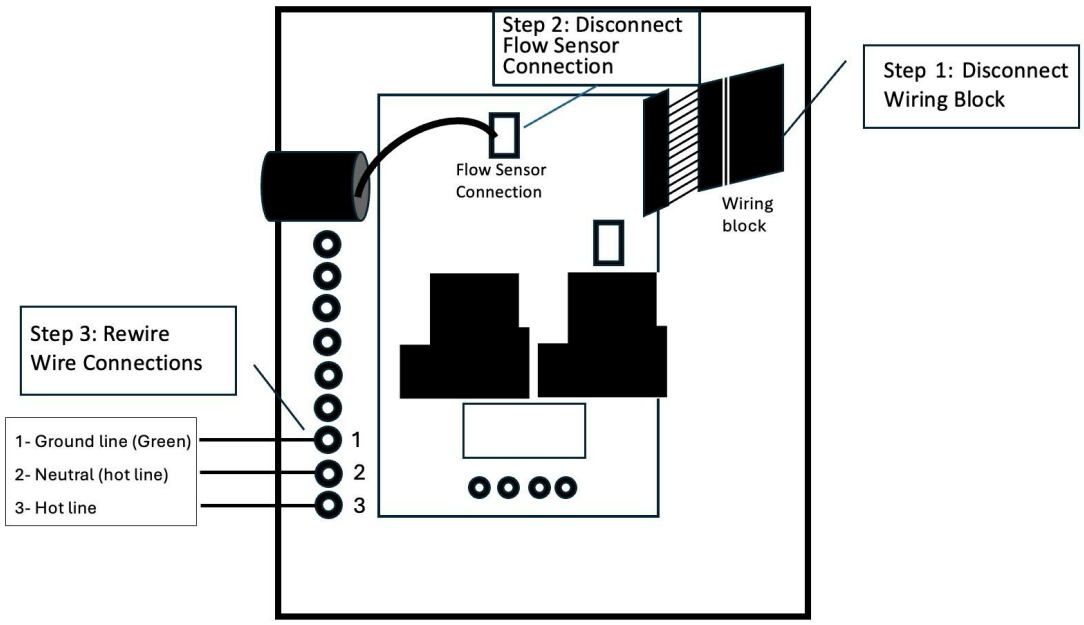
For 230V Power Supply:

To configure the unit for 230V input, follow the steps below:

Step 1: Disconnect Wiring Block: Begin by locating the wiring block and carefully unplugging it. This disconnects the power supply to allow for safe handling of the wiring.

Step 2: Flow Sensor Connection Adjustment: locate the flow sensor wire connected to the main connector and gently detach it.

Step 3: Rewire Hot line Connections: Remove the three pre-installed 115V wires set at the factory and get ready to connect the 230V wires. Attach the ground wire (green) to the Ground terminal. Attach the two hot wires (230V) to the Neutral and Hot terminals. The two hot wires can be connected in any order. **IMPORTANT:** When wiring the two hot lines for a 230V configuration, ensure the strip wire length does not exceed 1/2 inch (12.7mm). This length restriction is necessary due to the limited space in the connection area. After loosening the screws on the connection terminals, insert the wires (not exceeding 1/2 inch) securely into the terminals, then tighten the screws to secure the wires in place.



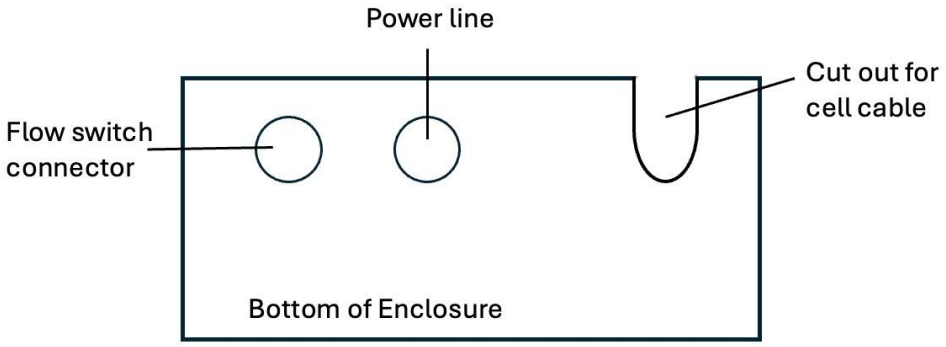
Step 4: Adjust the Voltage Selector: The voltage adjustment switch is located on the right side of the product housing. Remove the rubber plug, then switch the selector to the 230V position. **IMPORTANT: Failure to set the selector to the 230V position may result in product damage or burning.**

Step 5: Reconnect Flow Sensor and Wiring Block: reconnect the flow sensor wire to its original connector; reattach the wiring block to the unit.

Step 6: Final Power Connection: Plug the unit back into the power source. The unit is now correctly configured for 230V operation.

Electrolytic Cell and Flow Switch

The electrolytic cell and flow switch cables are terminated with connectors which plug into the ClearWise chlorinator, for easy attachment and removal. The door of the ClearWise chlorinator must be open to access the cell cable connector. The flow switch plugs into a connector (similar to a telephone jack) located outside, on the bottom of the enclosure. Refer to the diagram below for the location of these connections.



OPERATION

The ClearWise chlorinator is designed to efficiently maintain clean and balanced pool water by automatically generating chlorine through electrolysis. Using saltwater electrolysis, it converts dissolved salt in the pool into chlorine, which then sanitizes and purifies the water, effectively combating bacteria, algae, and other contaminants. Once the chlorine has eliminated these impurities, it reverts back to sodium chloride, enabling a continuous and natural sanitizing cycle. The only time you may need to add more salt to the pool is when water is replenished due to backwashing, draining, or splashing (not evaporation).

The ClearWise chlorinator continuously adjusts chlorine production to maintain ideal levels, offering an eco-friendly, user-friendly approach to pool care that reduces the need for adding additional sanitizing chemicals. The mild salt concentration also provides a softer feel on swimmers' skin compared to traditionally chlorinated pools, making the ClearWise chlorinator a convenient, low-maintenance solution for effective and consistent pool sanitation.

IMPORTANT: to ensure your ClearWise chlorinator works at maximum efficiency, regularly check and maintain the chemistry of your pool.

Water Chemistry Readings

Maintain daily levels as determined by testing kit

Free available chlorine:	1.0 - 3.0 ppm
pH:	7.2 – 7.8
Total Alkalinity:	80 – 120 ppm
Calcium Hardness:	200 – 300 ppm
Stabilizer (Cyanuric acid):	30 – 100 ppm (NOTE: Indoor pools do not require chlorine stabilizer)
Salt Concentration:	2800 ppm -- 4000 ppm

ClearWise Chlrinator Controls

The chlorine production of the ClearWise chlorinator is managed by both the duration the chlorinator and filtration system are operating, and the output control setting. Power supply to the unit should be connected through the pump motor switch or an automatic timer to ensure synchronized operation. Please note, chlorinator functions can only be adjusted when the filtration system is active.

The ClearWise chlorinator includes a 'Super Chlorinate' feature which automatically super chlorinates the pool for an approximate 24-hour period of pool pump operation.

The ClearWise chlorinator is also fitted with indicator lights that monitor the operation of the chlorinator, the concentration of salt in the pool, and the water flow.

The ClearWise chlorinator is a self cleaning unit. It is designed to require minimum operator maintenance using reverse polarity technology to minimize the scaling of the cell.

Start-Up: After connecting to the power supply, press the power button to confirm the indicator light is on. When the LED indicator illuminates, it signals that the chlorinator has begun operation. Upon initial connection to the power source, the chlorinator will default to a 'zero output' state, allowing the user to set the desired output level as needed.

Output Settings: A battery backup retains the output settings in memory, ensuring that settings are saved when the unit is powered off, allowing it to resume with the same settings when turned back on. However, if the power is off for more than a week, the saved information may be lost.

Reversing Polarity: The battery backup will remember the polarity reversal time.

Control Panel Functions

Button (on/off button)

The chlorinator will operate when the pump is turned on. The ON/OFF button powers the chlorinator on or off. When the unit is on, a yellow light will appear, indicating active operation.

"+" and "-" Button (output Button)

The "+" and "-" buttons allow you to adjust the chlorine output level. Press the "+" button to increase the chlorine output and the "-" button to decrease it, letting you set the chlorination level as needed.

Button (super chlorinate Button)

The "Super Chlorinate" function is designed to quickly add a higher level of chlorine to the pool. This feature will automatically super chlorinate the pool for approximately 24 hours of pump run time, ensuring thorough sanitization. It is safe to swim during this 24-hour period.

Indicator lights: What they mean

Chlorine Output

A series of six lights indicate the chlorine output setting. More lights equals greater chlorine production. Note: This setting does not show the actual chlorine reading in the pool. Use of a test kit is required to confirm the free chlorine reading of pool water.

Super Chlorinate – Light On

This light indicates that the super chlorinate feature has been selected, it will turn off when the super chlorinate period has ended.

Super Chlorinate – Light Off

Function not selected.

Low Salt – Light On
The 'Low Salt' light will come on at any salt level lower than 3000ppm depending on mains voltage and water temperature (below 18ºC, 65ºF). This is not a fault but a precaution to ensure the salt level is never too low. (See "Salt: When and how to add it'). Note: If the salt level falls below 2700 ppm, additional salt must be added to maintain proper chlorination levels. Operating the Chlorinator at reduced salt levels may shorten the life of the cell.

Low Salt – Light Off
Indicates that the salt level in the pool is correct.

Flow – Light On (indicating "No Flow")
This indicates insufficient water flow in the cell, causing the chlorinator to stop working. The "No Flow" warning is primarily triggered by issues such as a reduced flow rate due to a clogged filter, a blocked skimmer basket, improper sealing, or leaks in the piping.

All Lights Off
All lights off indicates the chlorinator is turned off. Turn unit on. If lights are still off, check the fuse and circuit breaker.

Salt: When And How To Add It

When to add salt
Add salt when indicated on the control panel. The light marked 'Low Salt' functions automatically when salt is needed. The salt concentration should normally be around 2800 ppm to 4000 ppm, but should never be allowed to fall below 2700 ppm, as this can reduce the life of the cell electrodes.
Salt is not lost through evaporation. Salt is lost with the water splashed out of the pool or during backwash. Adding fresh water or rainfall to the pool dilutes the salt concentration. Adding salt may be needed from time to time to maintain an optimum salt level.
NOTE: The ideal salt level for optimal performance is between 2700-3400 ppm (parts per million), with 3200 ppm being the recommended level. Low salt levels reduce the chlorinator's efficiency, leading to lower chlorine production. While high salt levels won't cause the chlorinator to shut down, excessively high salt concentrations (5500 ppm or higher) may damage other pool equipment. Even if the salt concentration is around 2800 ppm - 4000 ppm, the 'Low Salt' light may switch ON if the water temperature drops below 18ºC (65ºF) or mains supply voltage is too low. With cold temperatures and low bather load it is not necessary to have the chlorinator on. A manual addition of sodium hypochlorite may be all that is needed.

How much to add
Use a salt test strip to determine salt level in pool water prior to adding any salt. Capture water from elbows depth in a container, then use a test strip in this water sample. Previous regular usage of sodium hypochlorite (liquid chlorine) creates residual salt within the pool and may bring your salt level close to the required 4000 ppm concentration. Only 99.5% pure refined salt (sodium chloride) should be used with the chlorinator. Add enough

salt to obtain a 2800 ppm to 4000 ppm concentration.
·1 gram per litre raises the salt level by 1000 ppm.
·In a NEW pool (where there is no salt residual) of approximately 80 000 litres, eight 40 kg bags of salt are required to reach a 4000 ppm concentration. Refer to 'Salt Chart'.

How to add salt

Evenly disperse the proper amount of salt around the perimeter of the pool. Run pump for 4-6 hours. Allow 24 hours for salt to fully dissolve. It will dissolve faster if pump is on. If the 'Low Salt' light is on after 24 hours, test salt level and add necessary salt to obtain a 4000 ppm concentration. Even if the salt level is maintained at 4000 ppm, but water temperature drops below 18º (65ºF), the 'Low Salt' light may come on. This is not cause for concern.

NOTE: DO NOT ADD SALT TO THE SKIMMER BASKET.

Do not operate the ClearWise chlorinator until all the salt has dissolved as this will cause damage to the unit

Salt Chart

The following is a chart to determine the amount of salt required to raise a pool to 4000 parts per million

Volume of Water in Litres	Current Salt Level in parts per million (ppm)							
	0	500	1000	1500	2000	2500	3000	3500
10,000	40 kg	35 kg	30 kg	25 kg	20 kg	15 kg	10 kg	5 kg
20,000	80 kg	70 kg	60 kg	50 kg	40 kg	30 kg	20 kg	10 kg
30,000	120 kg	105 kg	90 kg	75 kg	60 kg	45 kg	30 kg	15 kg
40,000	160 kg	140 kg	120 kg	100 kg	80 kg	60 kg	40 kg	20 kg
50,000	200 kg	175 kg	150 kg	125 kg	100 kg	75 kg	50 kg	25 kg
60,000	240 kg	210 kg	180 kg	150 kg	120 kg	90 kg	60 kg	30 kg
70,000	280 kg	245 kg	210 kg	175 kg	140 kg	105 kg	70 kg	35 kg
80,000	320 kg	280 kg	240 kg	200 kg	160 kg	120 kg	80 kg	40 kg
90,000	360 kg	315 kg	270 kg	225 kg	180 kg	135 kg	90 kg	45 kg
100,000	400 kg	350 kg	300 kg	250 kg	200 kg	150 kg	100 kg	50 kg
110,000	440 kg	385 kg	330 kg	275 kg	220 kg	165 kg	110 kg	55 kg
120,000	480 kg	420 kg	360 kg	300 kg	240 kg	180 kg	120 kg	60 kg
130,000	520 kg	455 kg	390 kg	325 kg	260 kg	195 kg	130 kg	65 kg

Note: There may already be some salt present in the water. Be sure to test the salt level prior to adding any. Do not operate the ClearWise until the salt has dissolved as this will cause damage to the unit. Be conservative when adding salt as it is easier to add more if needed than it is to dilute if there is too much salt.

Stabilizer (cyanuric acid) chart

The following is a chart to determine the amount of stabilizer (cyanuric acid) in kg required to raise a pool to 60 parts per million

Volume of Water in Litres	Current Stabilizer Level in Parts Per Million (ppm)					
	0	10	20	30	40	50
10,000	0.6 kg	0.5 kg	0.4 kg	0.3 kg	0.2 kg	0.1 kg
20,000	1.2 kg	1.0 kg	0.8 kg	0.6 kg	0.4 kg	0.2 kg
30,000	1.8 kg	1.5 kg	1.2 kg	0.9 kg	0.6 kg	0.3 kg
40,000	2.4 kg	2.0 kg	1.6 kg	1.2 kg	0.8 kg	0.4 kg
50,000	3.0 kg	2.5 kg	2.0 kg	1.5 kg	1.0 kg	0.5 kg
60,000	3.6 kg	3.0 kg	2.4 kg	1.8 kg	1.2 kg	0.6 kg
70,000	4.2 kg	3.5 kg	2.8 kg	2.1 kg	1.4 kg	0.7 kg
80,000	4.8 kg	4.0 kg	3.2 kg	2.4 kg	1.6 kg	0.8 kg
90,000	5.4 kg	4.5 kg	3.6 kg	2.7 kg	1.8 kg	0.9 kg
100,000	6.0 kg	5.0 kg	4.0 kg	3.0 kg	2.0 kg	1.0 kg
110,000	6.6 kg	5.5 kg	4.4 kg	3.3 kg	2.2 kg	1.1 kg
120,000	7.2 kg	6.0 kg	4.8 kg	3.6 kg	2.4 kg	1.2 kg
130,000	7.8 kg	6.5 kg	5.2 kg	3.9 kg	2.6 kg	1.3 kg

Operating Tips

A.Filtration and chlorination system operating periods
Run your filtration and chlorination system for at least 6 to 8 hours per day. During very hot weather it might be necessary to run the system for additional hours, but in winter where pools remain open, the filtration system may be run over a shorter period of time. Shorter periods will help to lengthen the life of the cell electrodes.

B.Chlorine output settings
Start operation of the ClearWise chlorinator at maximum output. Add salt to the pool if the 'Low Salt' light is showing. Add 1 gram of salt per litre to raise the salt level by 1000ppm. Refer to 'Salt: When and how to add it' and the salt chart. Do not operate the ClearWise until all the salt has dissolved as this will cause damage to the unit.

C.Free (residual) chlorine reading
The free chlorine residual in the pool should be between 1- 3 ppm. Increasing the daily operating period of the system increases the free chlorine reading, and a shorter operating period reduces the chlorine reading. Likewise, operating the chlorinator at maximum output will produce a higher chlorine reading than operating the chlorinator at a lower setting.

D.Chlorine stabilizer (cyanuric acid) level
The chlorine stabilizer (cyanuric acid) reading should be between 30-100 ppm. This will vary depending on your regional climate. Chlorine stabilizer helps to keep a satisfactory free chlorine reading in hot sunny climates. Extremely hot and sunny climates will require readings at the higher end on the given range. Refer to the 'Stabilizer Chart'. Cyanuric acid prevents rapid destruction of chlorine by the sun's rays. Regulations may exist regarding the use of cyanuric acid; please consult your local authority. NOTE: Cyanuric acid is not needed for indoor pools.

E.pH readings
It is ABSOLUTELY ESSENTIAL that the pH of the pool be maintained in the range of 7.2 – 7.6. The effectiveness of chlorine as a sanitizer is significantly reduced as the pH rises. At a pH of 8.0 nearly all of the chlorine being added to the pool is ineffective, and it will be almost impos- sible to maintain a satisfactory free chlorine reading. Overchlorinating will cause an increase in pH. Maintain a chlorine level of 1-3 ppm and do not superchlorinate unless necessary.

F.Super chlorinate function
The super chlorinate button automatically boosts chlorine levels for a period of 24 hours. During this time it is safe to swim. Superchlorinating should not be part of regular maintenance. Use the function only in situations of increased bather load, or if experiencing trouble. If your chlorine levels are appropriate (1-3 ppm), superchlorinating on a regular basis is not necessary and will raise pH levels and reduce the life of the cell.

G. Regular maintenance checks.

Daily:

- ✓ Check the free chlorine.
- ✓ Check the total alkalinity. Adjust if necessary.
- ✓ Check the pH of the water. Adjust if necessary

Weekly:

- ✓ Visually check the cell electrodes. Only if necessary, remove the cell and flush with a garden hose to remove any debris that may have passed through the filter and lodged in the cell housing. Avoid inserting objects into the cell which can scratch or bend the cell plates.
- ✓ Check the pressure gauge on the filter to see if backwashing is necessary.

Monthly:

- ✓ Check the salt concentration of the pool (see 'Salt: When And How To Add It').
- ✓ Check the chlorine stabilizer reading. Adjust if necessary.

You should always test the chlorine levels of your pool before each use.

NOTE: Maintaining constantly high levels (5500 ppm or higher) of salt and chlorine above recommended range can contribute to corrosion of the pool equipment. Salt levels exceeding the recommended concentration can be reduced by diluting the pool water with fresh water.

DO NOT ADD POOL CHEMICALS DIRECTLY TO THE SKIMMER. This may damage the cell.

H.Spring start-up

The output of the cell is determined by water temperature, salt level and mains voltage. In the springtime when the water temperature of the pool may be below 18ºC (65°F) the Add Salt light may light up. The add salt light is only reliable at temperatures above 18°C (65°F) because the temperature affects the conductivity of the water. There is no need to add salt if the level is already at 4000 ppm. In cold water there is very low chlorine demand because of low bather load, therefore the chlorine output should be set to minimum or you may not need the chlorinator on at all.

I.Backwashing pool filter

When backwashing your pool filter turn off the chlorinator by pushing the on/off button.

Maintaining the ClearWise Chlorinator

To maintain maximum performance, it is recommended that you open and visually inspect the cell every 3 months or after cleaning your filter.
The ClearWise chlorinator electrolytic cell has a self cleaning feature incorporated into the electronic control's logic. In most cases this self cleaning action will keep the cell working at optimum efficiency. In areas where water is hard (high mineral content) and in pools where the water chemistry has been allowed to get "out of balance", the cell may require periodic cleaning.

Servicing and Cleaning the cell

Turn off power to the chlorinator before removing the electrolytic cell. Once removed, look inside the cell and inspect for scale formation (light colored crusty or flaky deposits) on the plates and for any debris which has passed through the filter and caught on the plates. If no deposits are visible, reinstall. If deposits are seen, use a high pressure garden hose and try to flush the scale off. If this is not successful, use a plastic or wood tool (do not use metal as this will scratch the coating off the plates) and scrape deposits off of plates. Note that a buildup on the cell indicates that there is an unusually high calcium level in the pool (old pool water is usually the cause). If this is not corrected, you may to have to periodically clean the cell. The simplest way to avoid this is to bring the pool chemistry to the recommended levels as specified.

Mild Acid Washing

Use only in severe cases where flushing and scraping will not remove the majority of deposits. To acid wash, turn off power to chlorinator. Remove cell from piping. In a clean plastic container, mix a 4:1 solution of water to muriatic acid (one gallon of water to one quart of muriatic acid). ALWAYS ADD ACID TO WATER - NEVER ADD WATER TO ACID. Be sure to wear rubber gloves and appropriate eye protection. The level of the solution in the container should just reach the top of the cell so that the wire harness compartment is NOT submerged. It may be helpful to coil the wiring before immersing the cell. The cell should soak for several minutes and then rinse with a high pressure garden hose. If any deposits are still visible, repeat soaking and rinsing. Replace cell and inspect again periodically.

Winterizing

The ClearWise chlorinator electrolytic cell and flow detection switch will be damaged by freezing water just as your pool plumbing would. In areas of the country which experience severe or extended periods of freezing temperatures, be sure to drain all water from the pump, filter, and supply and return lines before any freezing conditions occur. The electronic control is capable of withstanding any winter weather and should not be removed.

TROUBLESHOOTING GUIDE

This guide provides troubleshooting steps for common issues with the ClearWise chlorinator. Follow these instructions to diagnose and resolve issues, ensuring optimal performance. Note: If the chlorinator and pump are running it is normal for a cloud of small bubbles to be produced in the cell, indicating chlorine is also being produced.

A. Power Indicator Light Does Not Illuminate After Turning On

1. Check Connection: Verify the circuit breaker or outlet to ensure power is being supplied.
2. Verify Power Supply: Open the control box and check the power indicator light located on the power supply. This light should illuminate green when power is successfully supplied. If the light does not turn on, inspect the power source, circuit breakers, and other electrical connections to ensure power is reaching the unit.
3. Check Fuse: Check if the fuse is burned. A spare fuse is included in the product package.

B. Power is On, but the Fan Does Not Operate

Fan Replacement: If the power indicator light is on, but the fan is not running, the fan may need to be replaced. If the chlorinator is under warranty, contact the manufacturer for a free replacement fan.

C. “Flow” Indicator Light is On, Signifying No Flow

The “Flow” indicator light signals inadequate water flow through the cell. This may be caused by various issues:

1. Check Filter and Skimmer Basket: Inspect the pool filter and skimmer basket for blockages that may reduce flow rate. Clean as needed.
2. Inspect Seals and Piping: Verify that all seals are intact and that there are no leaks in the piping system, as leaks can also result in decreased water flow.

D. “Flow” Indicator Light Remains On Despite Normal Circulation

If the “Flow” indicator light remains illuminated even though water circulation and flow rate are normal, check the following:

1. Sensor Connection: Open the control box and ensure the flow sensor connector is securely attached to the control board. Additionally, verify that the sensor in the piping is properly connected.
2. Replace Damaged Wiring: If any sensor wiring is found to be damaged, replace it. If within the warranty period, the manufacturer will send a replacement sensor (the old sensor may need to be returned). If outside warranty, a compatible two-core cable can be obtained from an electrical shop, ensuring both ends are intact.

E. “Low Salt” Indicator Light Stays On or Scale Formation in the Cell

If the “Low Salt” indicator light remains continuously on, or if scale formation (light-colored crusty or flaky deposits) is visible in the cell, clean the cell using the Mild Acid Washing procedure. (See Maintaining the ClearWise Chlorinator: Mild Acid Washing)

LIMITED WARRANTY

Lodore warrants its chlorinator products including flow switches to be free of defects in materials and workmanship, under normal use and service, for a period of four (4) years. This warranty is applicable from the initial date of purchase for private residential swimming pools in the United States and Canada. Lodore warrants replacement parts for the above-identified chlorinator products for a period of one (1) year. Each of these warranties is non-transferable and applies only to the original owner. During the warranty period, if a replacement part is provided, the manufacturer requires the defective part to be returned to them.

Lodore shall not be responsible for cartage, removal, repair or installation labor, or any other costs incurred in obtaining warranty replacements or repair.

Warranty Service Requirements

Proof of purchase is required for warranty service. If written proof of purchase is not provided, the manufacturing date code will be the sole determinant of the date of installation of the product. To obtain warranty service or repair, please contact contact the Lodore Technical Service Center:

Lodore Technical Service Center
1215 Twinney Dr.
Newmarket, ON L3Y 9E1
(437)9876173
www.lodorepool.com

Warranty Exclusions

1. Material supplied or workmanship performed by others in the process of installation.
2. Damage resulting from improper installation, including installation on pools larger than the product rating.
3. Problems resulting from failure to install, operate, or maintain the product(s) in accordance with the recommendations contained in the owner's manual(s).
4. Problems resulting from failure to maintain pool water chemistry in accordance with the recommendations in the owner's manual(s).
5. Problems resulting from tampering, accident, abuse, negligence, unauthorized repairs or alterations, fire, flood, lightning, freezing, external water, degradation of natural stone used in or immediately adjacent to a pool or spa, war, or acts of God.
6. Use of a non-genuine Lodore replacement salt chlorination cell on any Lodore automation or chlorination product will void the warranty for that product.

The express limited warranty above constitutes the entire warranty of Lodore with respect to its products and is in lieu of all other warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose. In no event shall Lodore be responsible for any consequential, special, or incidental damages of any nature. Some states do not allow a limitation on how long an implied warranty lasts, or the exclusion of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary by jurisdiction.