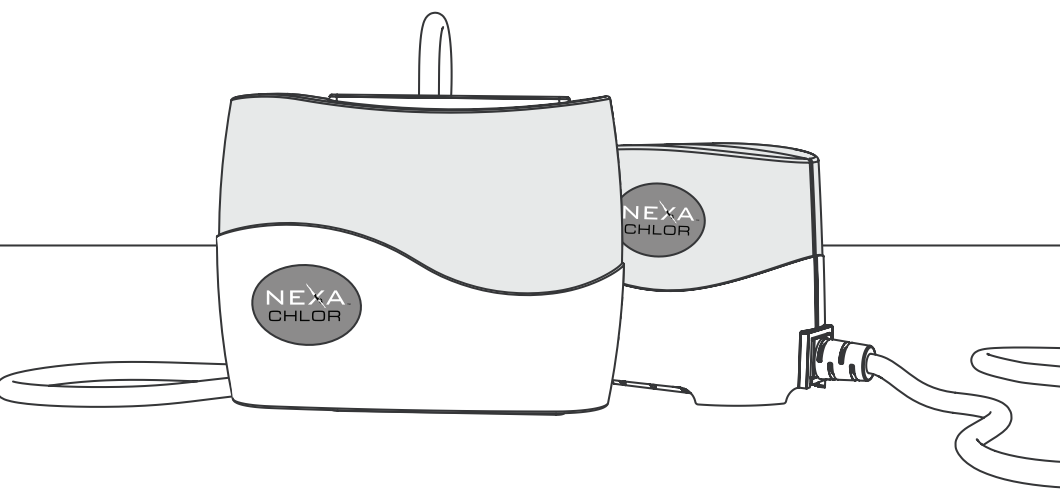
NEXA™
CHLOR

The Natural Chlorine Generator
for
Spas & Above Ground Pools

Model: NC1

User's Guide
May 2008



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Dear Customer

Thank you for purchasing the Nexa Chlor Natural Chlorine Generator. Please read the **Safety Precautions** below before the installation and operation tasks.

Safety Precautions

A **Warning** that is not strictly observed could result in I**NJURY, DEATH OR LONG TERM HEALTH HAZARDS**.

A **Caution** that is not strictly observed could result in **damage or destruction of equipment.**

⚠ Warning:

- **Do not connect the unit to an AC power source until installation is completed.**
- **DO NOT USE EXTENSION CORDS.**
- **Make sure that the power line to unit is protected by a ground fault circuit interrupter (GFCI).**
- **Do not use the unit if it is damaged in any way.**
- **Do not operate the unit with a damaged power cord, power pack or cell.**
- **Do not place the power pack in water or any other liquid.**
- **Place the power pack vertically on a flat surface at a distance of at least 10 ft. from the pool.**
- **Make sure that the unit is unplugged from its power supply before performing any maintenance task.**
- **Nexa Chlor is a chlorine generator that must not be touched or handled by children.**
- **The unit should be removed from the pool before a wall climbing robotic cleaner is in use.**

⚠ Caution:

- Do not open the cell or power supply. All repairs must be performed by the manufacturer.
- To prevent damage to the cord or power pack, never carry the power pack by the cord or pull the cord to disconnect the power pack. Instead, pull the plug from the power outlet to disconnect. Do not pull the cord around sharp corners or edges.
- In temperatures of 40°C (104°F) or higher, shade the power pack from direct sunlight.
- Ensure that equipment and materials used in or around the pool and spa are compatible with salt-based sanitization systems.

General

Nexa Chlor is an automatic Natural Chlorine Generator for pool sanitization. It uses a very low concentration of sodium chloride (mineral salt), and converts it into free chlorine that treats algae and bacteriae in your pool. After this treatment, the chlorine reverts back into mineral salt. This purification process continues with virtually no need to add extra sanitizing chemicals so long as chemistry balance is regularly tested and maintained.

Chemistry Balance Table

The following table shows the recommended chemistry levels. Keeping these levels maximizes the sanitizing effect of the free chlorine and the pleasure of the pool users. The pool water must be tested weekly to verify that these levels are maintained.

Chemistry	Ideal Level
Salinity	2500-3000 ppm (2.5- 3.0 gr/lit)
Free Chlorine	1 to 3 ppm
pH	7.2 to 7.6
Total Alkalinity	80 to 120 ppm
Stabilizer (Cyanuric Acid)	40 ppm
Phosphates	0 ppm
Nitrates	0 ppm
Metals	0 ppm
Calcium Hardness	See pool manufacturer recommendations (usually 100-300 ppm)

Adding Salt

Be sure to use only pure “pool salt” with no additives such as YPS or iron.
Proceed as follows to add the required amount of pool salt to the water:
Evaluate the pool volume:

- Rectangular pool - Measure and multiply lengthxwidthxdepth (in m).
- Rounded/oval pool - Measure and multiply 3.14 x diameter x diameter x depth (in m).

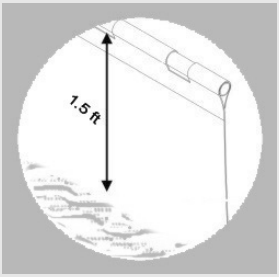
Keep the pump operating for continuous water circulation.
Distribute salt evenly in the pool water. Refer to the table below for the required amount of salt to be added.
Wait for about 8 hours until the salt dissolves evenly in the water.
Once the salt is fully dissolved, connect the unit to its power source.

		Current Salt Level (in ppm)			
		0	**500**	**1000**	**1500**
		Salt Quantity to be Added (in Lbs.)			
Pool Water Volume (Gallons)	**1250**	33	27.5	22	16.5
	2500	66	55	44	33
	5000	132	110	88	66
	7500	198	165	132	99
	10000	264	220	176	132
	12500	330	275	220	165

Installation Instructions

1

Decrease the water level by 1.5 ft. (drain if necessary or install the cell before filling water). Make sure that the pool wall where the dual-lock stickers are to be attached is **dry and clean**.

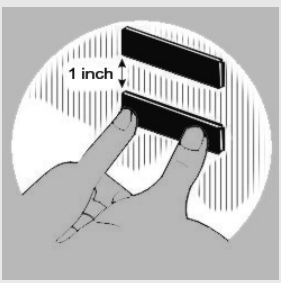


2

Remove the backings from the dual-lock stickers.

3

Attach the dual-lock stickers horizontally to the wall, near the water inlet (for maximum water circulation around the cell), and press firmly for 30 seconds to ensure maximum sticker contact.



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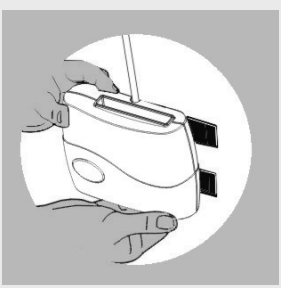
Let the dual-lock stickers cure for 60 minutes, and attach the cell firmly for maximum contact with the dual-lock stickers.



Installation Instructions Cntd.

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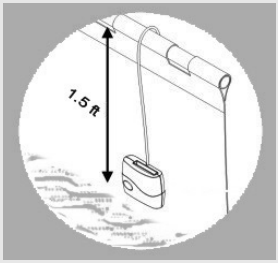
Gently pull the cell cable upwards without tightening, and refill water to its original level (at least 1.5 ft. above the cell).



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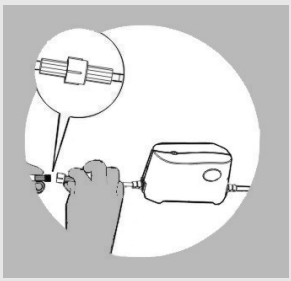
Connect the cell cable to the power supply.



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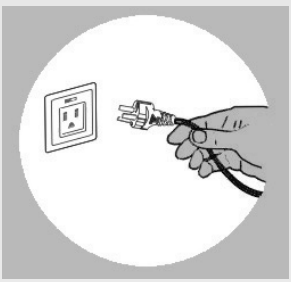
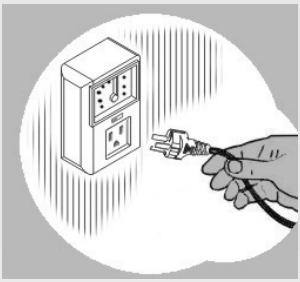
Connect the power plug only into a GFCI outlet. Do NOT use an extension cord.
To operate the unit for less than 24 hours a day, use a plug-in timer to control the operating hours necessary for free chlorine levels between 1-3 ppm.





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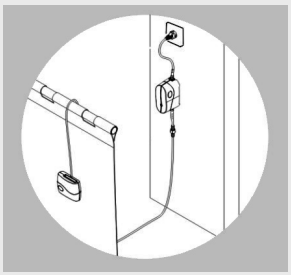
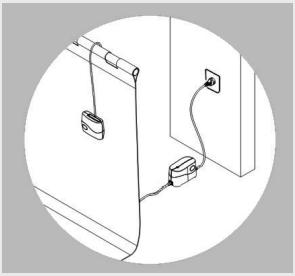
Install the power supply vertically near a wall socket with the provided bracket, or place horizontally on an elevated surface that does not get flooded. The power supply must remain at least 10 ft. away from the pool water at all times.





Option

Operation Instructions

To achieve maximum water disinfection, operate the unit so the free chlorine level is maintained between 1.0 and 3.0 ppm. Test the water, and if chlorine levels are low, operate the unit longer. If chlorine levels are high, operate the unit for fewer hours per day. After a few days of testing and adjusting operating times, you will find the ideal operating times for the season for your pool and water balance tests can be decreased to once per week. A plug-in timer may be used to automatically control the daily operating time of the unit.

1. Dissolve the salt in the pool with the pump running and let it circulate for 8 hours. Check the salt level periodically, and adjust if necessary. See the "Adding Salt" section for more details.
2. To reach maximum output, maintain the salinity level at 3000 ppm (25 lbs. salt per 1000 gallons pool.).
3. Turn the system on when the cell is at least 1.5 ft. deep within the water.
4. Check weekly for the free chlorine level of 1-3 ppm, pH of 7.2-7.6, total alkalinity of 80-120 ppm, and stabilizer (cyanuric acid) level of 40 ppm. Adjust the levels as necessary.

Note:

When the unit is powered and the salinity level is appropriate, the cell releases bubbles that indicate its proper operation.

Winter Conditions

At low water temperatures (below 15°C/ 60°F), the unit must be unplugged. Freezing may damage the generator. Prior to freezing temperatures, remove the system from the water and store in a temperate location.

Maintenance Instructions

The maintenance of Nexa Chlor requires minimal work, and must be carried out to maximize the system performance and lifetime.

Pool Water Testing

The pool water should be tested weekly for best results.

Cell Maintenance

Visual Check:

Visually check the cell for scale 2-3 times a month and clean as necessary. Advanced self-cleaning technologies keep the cell cleaner than other self-cleaning cells, but periodic cleanings are required.

⚠ Caution:

- The plates of the cell are coated with precious metals and scratching them will void the warranty. Do not insert any object into the cell. See “Cell Cleaning” section.

⚠ Warning:

Be very careful when handling muriatic acid:

- When preparing diluted muriatic acid solution, always add acid to the water, NOT water to the acid.
- Dilute 1 part of acid in 10 parts of water (10% solution).
- Always follow the instructions of the acid manufacturer.

Cell Cleaning:

1. Take the cell out of the water.
2. Disconnect the cell cable from the power supply.
3. Pour either diluted muriatic acid (10% solution) or undiluted white distilled vinegar into a small bucket.
4. Immerse cell in the acidic solution as shown in the diagram.
5. Wait for foaming to stop (5-10 minutes when using muriatic acid, or longer for vinegar).
6. Safely dispose of the acid solution by pouring it into your pool (helps reduce the pH level) or other suitable drainage.
7. Rinse cell with water hose.
8. Attach cell to underwater stickers and reconnect cell cable to power supply. Ensure connection is free of debris.

Troubleshooting

The following table provides guidelines for detecting and solving problems that may arise when operating the generator.

No.	Problem	Possible Cause	Corrective Action
1	**Chlorine level low or zero**	The plug is not connected to the socket	Connect power plug to socket.
		Low salinity	Check the salinity level, and adjust if necessary, (see section 4 below).
		High salinity (above 5000 ppm)	Check the salinity level, and adjust if necessary, (see section 3 below).
		Cell operation time is too short	Set the plugged timer to run more hours per day.
		Low stabilizer (cyanuric acid) level	Check the water chemistry; the stabilizer level should be 40-80 ppm. If low, add stabilizer. See **Chemistry Balance Table**.
		Chemistry imbalance	Check other chemistry levels in the water and balance if necessary. See **Chemistry Balance Table**.
		Low water temperature (below 64°F)	Check water temperature, and adjust if necessary

Troubleshooting (Cntd.)

No.	Problem	Possible Cause	Corrective Action
2	**Green pool water**	Low chlorine level	Check the chlorine level, and add salt if necessary.
		Chemistry imbalance	Check the water chemistry and balance them if necessary. Pay special attention to the pH, stabilizer, and phosphate levels. See **Chemistry Balance Table**.
3	**High salinity**	Too much salt was added	Drain a significant quantity of pool water, and refill with fresh water.
4	**Low salinity**	Low salt level due to heavy rain, initial miscalculation, etc.	Add salt. See table in **Adding Salt** section. Also, have the salt level checked periodically by a professional, and adjust according to the **Chemistry Balance Table**.
5	**Scale buildup inside cell**	Frequency of scale buildup depends on quality of water, clean cell as needed	Clean cell as explained in Cell Maintenance & Cleaning
		Chemistry imbalance	Balance the water chemistry. Pay special attention to the pH level.
6	**White flakes in water**	This is normal. May occur during cell self cleaning	Keep the water well balanced to minimize this occurrence.

Our contact information appears on the front cover of this guide. For additional information, please visit our website or contact us directly with any questions or comments.

For warranty service, please contact us directly with the following information:

- Model or Serial No. of the Power Pack and Cell.
- Date of purchase.
- Complete printout of water test analysis from a pool professional showing salinity, FC, pH, TA, CYA, CH, Phosphates, Nitrates, Metals, Pool Size, and Water Temp.
- Proof of purchase (receipt, bill of sale, cancelled check, or any other appropriate payment record).

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