SIMPL•CHLOR™

Chlorine Generator

Installation, Use and Care Manual

IMPORTANT SAFETY INSTRUCTIONS

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

1) READ AND FOLLOW ALL INSTRUCTIONS
2) (For all units) WARNING – To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
3) (For cord- and plug-connected units) WARNING – Risk of Electric Shock. Connect only to grounding type receptacle protected by a ground-fault circuit-interrupter (GFCI). Contact qualified electrician if you cannot verify that the receptacle is protected by a GFCI.
4) (For cord- and plug-connected units) Do not bury cord. Locate cord to minimize abuse from lawn mowers, hedge trimmers, and other equipment.
5) (For cord- and plug-connected units) WARNING – To reduce the risk of electric shock, replace damaged cord immediately.
6) (For cord- and plug-connected units) WARNING – To reduce the risk of electric shock, do not use extension cord to connect unit to electric supply; provide a properly located outlet MARCH 19, 1997 SWIMMING POOL PUMPS, FILTERS, AND CHLORINATORS - UL 1081 61
7) [For swimming pool pumps with a minimum 25-foot (7.6-m) cord] CAUTION – This pump is for use with storable pools only. Do not use with permanently-installed pools. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity. A permanently-installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage.
8) SAVE THESE INSTRUCTIONS.

Table of Contents

Congratulations on the purchase of your new Simpl·Chlor™ Chlorine Generator!

Your revolutionary Simpl•Chlor™ Unit (SCU) works by using electricity to convert salt into chlorine. The chlorine made by your SCU sanitizes your pool water in the exact same manner as the chlorine you purchase from your local retailer. As the chlorine is used up, it is converted back into salt until your SCU converts it to chlorine again.

In order for your SCU to work properly, you will need to maintain a salt level of about 3500 ppm (parts per million). At 10% the salt content of ocean water (35,000 ppm), the water generated by your SCU feels more refreshing and smoother on your skin than water treated with conventional chlorine. In addition, since your SCU is constantly producing chlorine, it allows for lower amounts of free chlorine in your pool water. This low level of free available chlorine (3 to 5 ppm) means no eye or skin irritation and no detectable taste or smell of chlorine in your pool.

To set your SCU's chlorine production level, use the water balancing instructions found in this manual. The chlorine production level will vary according to the season, weather conditions and usage. Be sure to test the free chlorine levels in your pool weekly and adjust to appropriately (3 to 5 ppm). See your dealer for proper testing products.

Maintenance of your SCU involves periodic examination of your SCU's cell. The cell should be free of debris and the plates should be black or metallic in appearance. If the plates have a white crusty film or flaky build-up, then clean the cell according to the instructions found in this manual. The crust indicates a calcium build-up in the pool, which should be avoided to prevent ongoing problems. Your SCU has built-in self-diagnostics. If the green light located on the hosing is flashing, you may need to clean or replace your cell (see P. 6-7). If your cell needs to be replaced, see your dealer.

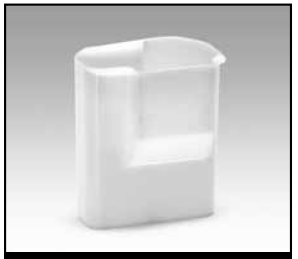
Parts List

Control Head 7006P

Chlorinator Housing 7008P

Cell 7007P

Union 7009P



Cleaning Container 7005P

Transformer 7001P

Power Cable 7003P

Wrench 7004P

Mounting Screws 7002P

Getting Started

Easy Installation Instructions

CAUTION:
Before you begin make sure the power supply to your filter is in the OFF position and/or your filter system is unplugged.

STEP 1
Use a screwdriver and the mounting bracket found at the top of the power supply to mount the transformer to a post. *See fig. 1.*

fig. 1.

STEP 2
Locate the ON/OFF switch in the lower right corner of the transformer. Make sure the bottom button is depressed and transformer is in the OFF position.


fig. 2.

STEP 3
Carefully remove the cell from the chlorinator housing by turning the union counterclockwise. *See fig. 2.*

STEP 4
Close the chlorinator's built-in slice valve by pressing it upwards from the bottom. *See fig. 3.*


fig. 3.

STEP 5
Inside your pool, remove the eyeball from your return fitting and plug the return fitting to prevent water flow. (Plug not provided.) Or block the water flow by inserting a small rag or towel into the fitting.

STEP 6
Loosen the hose clamp and remove the connection hose from the return fitting. *See fig. 4.*


fig. 4.

STEP 7
Remove the return-fitting adapter by turning it counterclockwise. *See fig. 5.*

STEP 8
IMPORTANT: Do not remove the Teflon® tape located on the threaded portion of the chlorinator housing that comes installed from the factory. Install the chlorinator housing onto the return fitting by turning it clockwise. *See fig. 6.*


fig. 5.


fig. 6.

STEP 9
Make sure the slice valve is at closed (up) position. *See fig. 6.*

STEP 10
Inside your pool, remove plug or rag/towel from return fitting and replace eyeball.

STEP 11
Plug the chlorinator housing inlet hole with the plug that comes attached to the unit. *See fig. 7.*


fig. 7

STEP 12
Connect the hose from your filter pump to the fitting located at bottom of the unit and secure it with a hose clamp. Remove the hole plug.

STEP 13
Carefully put the cell back into the housing unit making sure the notch on the chlorinator cell matches the 3 ribs on the chlorinator housing. *See fig. 8.* Turn the union clockwise to tighten.


fig. 5.

STEP 14
After all parts are securely fastened, open the slice valve by pressing it down. *See fig. 9*.


fig. 9.

STEP 15
Plug the transformer in to a Ground Fault Circuit Interrupter (or GFCI) electrical outlet and reconnect the power supply to your filter.

fig. 10.

STEP 16
Turn on the power to the chlorinator by pressing the top button of the ON/OFF switch on the transformer. *See fig. 10.* This unit has a built-in flow switch. Your SCU will only generate chlorine when your pool filter pump is running..


fig. 11.

Self-Diagnostics
A solid green light located on the housing will be on when your filter is running and your SCU is working properly. *See fig. 11*. If the green light is flashing slowly, you will need to check the pH, salt level and clean the cell. If the green light is flashing rapidly, and if proper pH and salt level is maintained and cleaning the cell does not correct it, the cell has worn down to the extent that your SCU cannot generate enough chlorine to sanitize your pool. Replace the worn cell with a new one.

Cleaning the Cell

If your pool water has high calcium content, calcium may deposit on the cell plate and adversely affect the chlorine generating power of your SCU. This can be remedied by periodically cleaning the cell. Simply follow the steps below.

CAUTION:
Before you begin make sure the power supply to your filter is in the OFF position and/or your filter system is unplugged.

STEP 1
Turn off the power supply by pushing the off button on the transformer and unplug the transformer from the electrical outlet.

STEP 2
Close the slice valve to block water flow from the pool by pulling it up. *See fig. 12.*


fig. 12.

STEP 3
Loosen the cell by turning the union counterclockwise *See fig. 13*, remove the cell and quickly put the attached plug into the filter inlet hole to stop water flowing from the filter pump. *See fig. 14*. (Losing 1-2 gallons of water at this time is normal.)


fig. 13.


fig. 14.

continued

STEP 4
Fill up the cleaning container that came with the unit with white vinegar. *See fig. 15.*
DO NOT USE MURIATIC ACID!


fig. 15.

STEP 5
Insert the chlorinator cell into cleaning container. Let soak for five minutes. You may need to shake gently.

STEP 6
After the cell is cleaned, put everything back by reversing steps 1 – 3. Make sure all parts are secured, and then reconnect and turn on the transformer and filter.

Creating Saltwater for Your Simpl·Chlor™ Chlorine Generator

For your SCU to work properly, you will need to maintain a salt level between 3500 to 3700 ppm (parts per million). To achieve and maintain this level, create a salt level that is 200 to 400 ppm higher (3700 to 4000 ppm). In time this higher level will fall into the desired range.

Adding Salt to Your Pool

Important: Only use swimming pool salt that is 99.9% pure NaCl available from you pool dealer.

1. Measure the current salt level of your pool. Previously added chlorine may have caused the salinity reading to be higher.
2. Determine how much salt is needed from the Salt Level Chart on the next page.
3. Keep your filter pump running while adding salt.
4. Distribute the salt evenly around your pool. Do not add salt through the skimmer.
5. To help dissolve salt, brush the bottom of pool.

(Approximate Salt to Water Ratio: 27 lbs. of salt to 1000 gallons of water.)

Salt Level Chart

Current Salt Level in Your Pool (in PPM)

Water Volume in Thousands of Gallons	0	500	1000	1500	2000	2500	3000	3500	4500
4	117	100	83	67	50	33	17	0	OK
6	175	150	125	100	75	50	25	0	OK
8	234	200	167	133	100	67	33	0	OK
10	292	250	209	167	125	83	42	0	OK
12	350	300	250	200	150	100	50	0	OK
14	409	350	292	234	175	117	58	0	OK
16	467	400	334	267	200	133	67	0	OK
18	525	450	375	300	225	150	75	0	OK
20	584	500	417	334	250	167	83	0	OK
22	642	550	459	367	275	183	92	0	OK
24	701	600	500	400	300	200	100	0	OK
26	759	651	542	434	325	217	108	0	OK
28	817	701	584	467	350	234	117	0	OK
30	876	751	626	500	375	250	125	0	OK
32	934	801	667	534	400	267	133	0	OK
34	992	851	709	567	425	284	142	0	OK
36	1051	901	751	600	450	300	150	0	OK
38	1109	951	792	634	475	317	158	0	OK
40	1168	1001	834	667	500	334	167	0	OK
42	1226	1051	876	701	525	350	175	0	OK
44	1284	1101	917	734	550	367	183	0	OK
46	1343	1151	959	767	575	384	192	0	OK
48	1401	1201	1001	801	600	400	200	0	OK
50	1460	1251	1043	834	626	417	209	0	OK

How Many Pounds of Salt to Add

Locate the current salt concentration at the top of the chart (e.g. 1000 ppm). Then locate the volume of water in your pool. See chart below to determine your pools' water volume (e.g. 12,000 gallons). Run these figures down and across until they meet (e.g. 250). That number is the number of pounds of salt needed for your pool or 250 pounds.

Calculating Your Pool Volume in Gallons	
Rectangular	Length x Width x Average Depth x 7.5
Round	Diameter x Diameter x Average Depth x 5.9
Oval	Length x Width x Average Depth x 6.7

Keeping Your Pool Water Balanced

Cyanuric Acid (CYA) level

Also referred to as Stabilizer

Adjust the CYA level in your pool to between 70 to 80 ppm. **Never add more than 80 ppm.** A CYA level that is too low may reduce your SCU's ability to produce chlorine and not keep up with your pools needs. This can lead to a variety of problems including algae outbreaks, cloudy water, high acid demand and possibly early SCU cell failure.

Free Chlorine

The Free Chlorine level in your pool should be adjusted to between 3 to 5 ppm. To maintain this level, your filter pump will need to run a minimum of 8 hours per day. A lower filter run time may cause problems with Free Chlorine levels. If your Free Chlorine level falls to zero and your SCU appears to be running, do one of the following:

1. Test the Cyanuric Acid (CYA) level. See above.
2. Check your cell for calcium build-up and clean if necessary.
3. Shock your pool by adding chlorine manually. Your SCU should be operating during this procedure because it helps maintain free chlorine level but it does not increase the FC levels quickly enough for shocking purposes.

Alkalinity

Adjust the total alkalinity to between 80 to 120 ppm. Ask your dealer for assistance if necessary.

PH Level

Monitoring your pool's PH level is extremely important when using your SCU. Adjust the PH level to the optimum reading of 7.2 to 7.6. If your PH reaches 7.8 it will need to be lowered. If PH levels go outside the 7.2 to 7.6 range, total alkalinity should be checked.

Calcium Hardness (CH)

Vinyl pools should have a CH level of 175-250 ppm or more. Do not let the level rise beyond 400 ppm. If it does, monitor the pH to prevent scale buildup.

Frequently Asked Questions — FAQ's

How much salt do I add to my pool?

In order maintain a salt level between 3500 to 3700 ppm (parts per million) you will need to add approximately 27 lbs. of salt for every 1000 gallons of water. See chart on page 8.

Should I be concerned with saltwater corroding the metal parts of my above ground pool?

No! As long as you maintain a proper PH level (7.2 to 7.6), corrosion is not a problem. Among certain parties, there are allegations of corrosion associated with the use of salt, but the corrosion risk is slight and has never been deemed a major problem. Situations, though extremely rare, have been noted with indoor pools when free chlorine is allowed to reach high levels (above 20 ppm) or when natural stone (i.e. limestone) is used in the construction above the water line in a location that is frequently splashed.

How do I know if my SCU is working?

Your SCU is working when the green light located on the control head is on and you can see bubbles in the SCU's housing.

How do I know if I have power?

Your SCU has power when the power switch located on the transformer is in the on position and the red light is on.

How often do I clean the cell?

The cell of your SCU will need cleaning whenever you see white scales or calcium build-up on the titanium blades located inside the cell. Simply follow the cleaning instructions on pages 6 - 7.

How long should my cell last?

On average the cell of your SCU should last one to two seasons depending on usage and water quality.

continued

Frequently Asked Questions — FAQ's

What do I need to do to ensure my SCU is working properly?

Simply keep your PH balanced between 7.2 and 7.6 and your SCU will do the rest.

What does a flashing green light mean?

The self-diagnostics in your SCU will cause the green light located on the housing to flash when your SCU needs attention.

Slow Flashing Green Light:
Check the pH, salt level and clean the cell

Fast Flashing Green Light:
If proper pH and salt level is maintained and cleaning the cell does not correct it, the fast flashing green light means the cell has worn down to the extent that your SCU cannot generate enough chlorine to sanitize your pool. Replace the worn cell with a new one.

SIMPL CHLOR™
Chlorine Generator

LIMITED ONE-YEAR WARRANTY

CUPERTINO INSTRUMENTS warrants their chlorine generator to be free of defects in material and workmanship for a period of one year from the date of purchase.

DO NOT RETURN PARTS TO DEALER/RETAILER

For more information about how to return defective parts go to:

www.cupertinoinstruments.com

or contact

info@www.cupertinoinstruments.com

Cupertino Instruments reserves the right to replace or repair the unit to keep it in working order.

- Purchaser must enclose “proof-of-purchase” — receipt showing date of purchase and location of retailer.
- Please include your ADDRESS and DAYTIME PHONE NUMBER.
- You will be notified of cost to replace.

This warranty gives you specific legal rights and you may have other rights which vary from state to state.

CUPERTINO INSTRUMENTS

RBS PLANET, INC.

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