XTREMEPOWER US

SALT WATER SYSTEM CHLORINATOR
ITEM: 90151 / 90152 / 90153

OWNER'S MANUAL AND SAFETY INSTRUCTIONS

SAVE THIS MANUAL: KEEP THIS MANUAL FOR SAFETY WARNINGS, PRECAUTIONS, ASSEMBLY, OPERATING, INSPECTION, MAINTENANCE AND CLEANING PROCEDURES. WRITE THE PRODUCT'S SERIAL NUMBER ON THE BACK OF THE MANUAL NEAR THE ASSEMBLY DIAGRAM (OR MONTH AND YEAR OF PURCHASE IF PRODUCT HAS NO NUMBER)

WARNING

GENERAL SAFETY WARNINGS

Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

SAFETY

The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator. Read carefully and understand all **ASSEMBLY AND OPERATION INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

- Disconnect all AC power during installation.

- **DO NOT** permit children to use this product.

- A green colored screw is located inside the wiring compartment, against the back panel. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying the equipment.

- One bonding lug for US models (two for Canadian models) is provided on the external surface. To reduce the risk of electric shock, connect the local common bonding grid in the area of the swimming pool, spa, or hot tub to these terminals with an insulated or bare copper conductor not smaller than 8 AWG US/6 AWG Canada.

- All field-installed metal components such as rails, ladders, drains, or other similar hardware located within 10 feet (3 meters) of the pool, spa or hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than 8 AWG US/ 6 AWG Canada.

The SPS is an automatic chlorine generation system for pool & spa sanitation. The operation requires a low concentration of salt (sodium chloride) in the pool water at levels low enough that it normally cannot be tasted. SPS automatically sanitizes your pool by converting the salt into free chlorine, which kills bacteria and algae in the pool through a process called electrolysis.

SPS is designed to handle the purification needs of the average residential swimming pool up to 40,000 gallons (150,000 liters). The actual amount of chlorination required to properly sanitize a pool varies depending upon bather load, rainfall, air temperature, water temperature, pool's exposure to sunlight, pool's surface, and cleanliness.

NOTE: It is not recommended using the SPS to generate Bromine. If your pool has natural stone as coping or decking, please check with a stone installation specialist for the maintenance of the stone before installing the SPS.

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GENERAL INSTRUCTION

The chlorine generator is an automatic chlorine generation system for pool sanitation. The operation requires a low concentration of salt (sodium chloride) in the pool water. The chlorine generator automatically sanitizes your pool by converting the salt into free chlorine which kills bacteria and algae in the water. Chlorine will revert back to sodium chloride after killing bacteria. These reactions will continuously recycle virtually eliminating the need to add sanitizing chemicals to your pool.

To extend the service life, please ensure that the equipment operates in the following status

Temperature Range:

The chlorine generator normally works in the pool temperature range of 11℃~ 45℃. Once it's exceeded, the chlorine generator will alarm and stop until the water temperature returns to the normal range (see TROUBLESHOOTING description for details).

Water Flow Range:

Different salt chlorinators have different requests for the water flow. Make sure that the water flows through the salt cell in the correct direction and install the pipe on the back of chlorine generator, to ensure that the titanium kits completely soaked in water. Please refer to Installation Instructions on how to install chlorine generator.

Please read the following table for the flow required for different chlorinators.

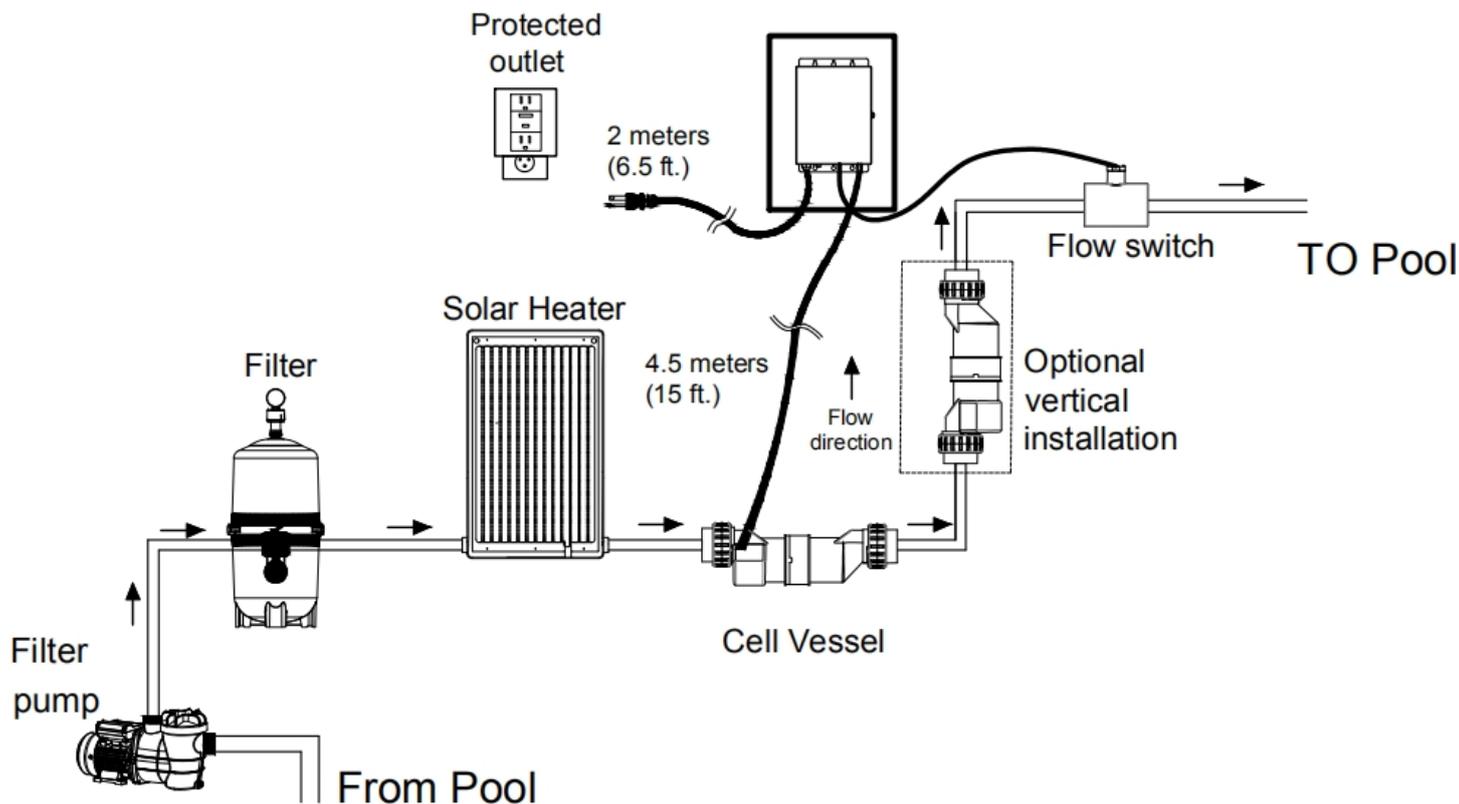| Types	Installation Direction	Min.water flow to start (m3/h)	Water flow will stop the machine (m3/h)
External flow switch	Horizontal	2	1.2
	Vertical	2	1.2

Salinity Range:

The chlorine generator normally works at a salinity of 1700PPM~4500PPM. Once it's exceeded, the chlorine generator will stop until the pool water is back within this range.

WARNING AND SAFETY INSTRUCTIONS

- **WARNING –** Electrical Hazard. Failure to follow instructions can result in serious injury or death.

- **WARNING –** Disconnect this product from the main power supply completely before servicing the swimming pool equipment.

- **WARNING –** Be certain the product is only plugged into a protected outlet that is protected from short-circuits.

- **WARNING –** To reduce the risk of electric shock, do not use extension cord to connect unit to electric supply; provide a properly located outlet.

- **WARNING –** Children should be supervised to ensure that they do not play with the appliance. Keep fingers and foreign objects away from openings and moving parts.

- **WARNING –** Use Only Genuine Replacement Parts.

- **WARNING –** Do not operate the product if the power cord is damaged. This can cause an electric damaged power cord must be replaced by a service agent or a similarly qualified person immediately in order to avoid a hazard. shock. A

FUNCTION AND OPERATION
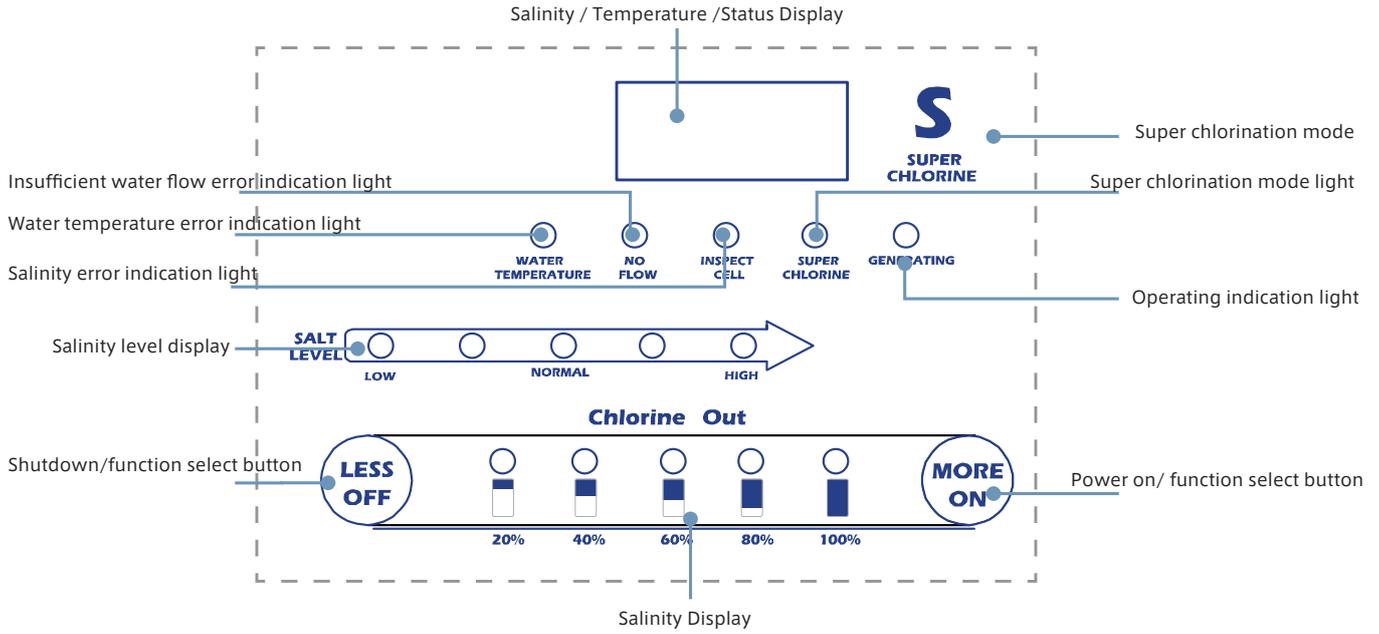
INSTRUCTIONS Operation Mode

1. Super chlorination mode: In any mode, press "S" button to enter, the super chlorination mode will automatically return to the original chlorination mode after running for 24 hours, and press "S" button again to exit the super chlorination mode.

2. The original chlorination mode: In standby mode, press the "MORE/ON" button to enter the chlorination mode. And adjust to a certain amount of chlorination by pressing "MORE" button, the indication light of chlorination output will change accordingly. According to the setting of chlorination intensity, the chlorine generator alternates between chlorination producing and suspension, and takes one hour as a cycle. For example, when it is 60%, there are 36 minutes in chlorination producing status, and the rest 24 minutes are in suspension.

3. Automatic cleaning mode: Keep pressing "MORE"/" ON " for a while in any working mode, the chlorine generator enters the automatic cleaning mode setting. The automatic cleaning cycle is set as every 1-6 hours, and the default setting is "CL 3 " which means automatically cleaning every 3 hours (the number means frequent intervals). Press "MORE" to increase the interval time, and "LESS" to decrease the interval time.
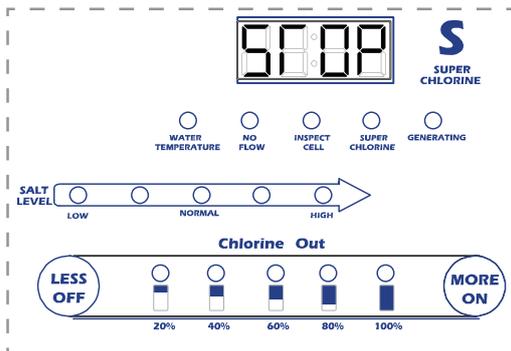
CONTROL PANEL

Salinity / Temperature /Status Display

Super chlorination mode

Insufficient water flow error indication light

Super chlorination mode light

Water temperature error indication light

Salinity error indication light

WATER TEMPERATURE   NO FLOW   INSPECT CELL   SUPER CHLORINE   GENERATING

Operating indication light

Salinity level display

SALT LEVEL   LOW   NORMAL   HIGH

Chlorine Out

Shutdown/function select button

LESS OFF   20%   40%   60%   80%   100%   MORE ON

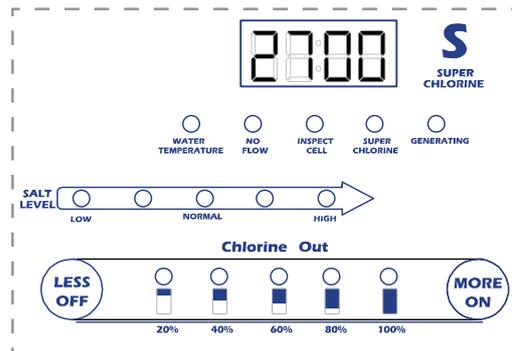Power on/ function select button

Salinity Display

Button Instructions:
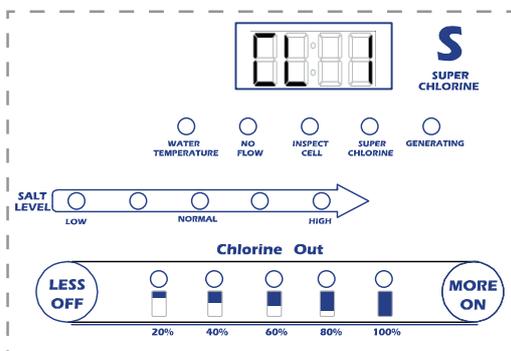
Power on/ off

In standby status, press "MORE/ON" for the first time to turn on the generator, and press "LESS/OFF" for the first time to turn off the generator, and it will show as "STOP".
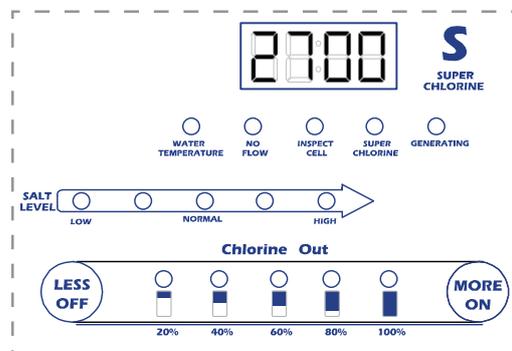
Function selecting

Salt producing time increase: press "MORE/ON" button when machine is on Salt producing time decrease: press "LESS/OFF" for first time, the machine will be off, and press again
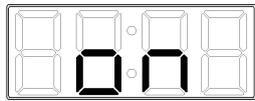
Automatic cleaning mode
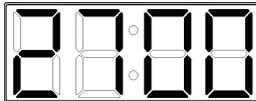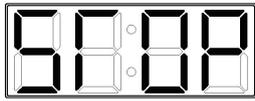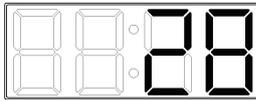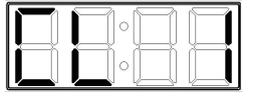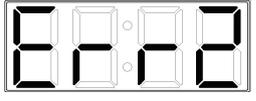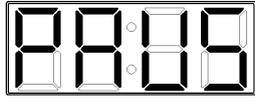

Keep pressing "MORE" for a while to enter the self-cleaning mode when starting up, and continue to press "MORE" or "LESS" to adjust

Super chlorination mode

Whenever in any mode, press 'S' to enter Super chlorination mode

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Contents for the LED screen

Display character	Meaning	Display character	Meaning
on	The chlorine generator is open	**2700**	Current salinity level (ppm)
StOP	The chlorine generator is closed	**28**	Current water temperature detected, the default is ℃,
CL01	Automatic cleaning mode setting, the number represents the self-cleaning interval hour	**Err2**	Error alarm and the corresponding error light is in red
PAUS	The chlorine generator is in suspension The chlorine generator alternates between chlorination producing and suspension, and takes one hour as a cycle. For example, when it is 60%, there are 36 minutes in chlorination producing status, and the rest 24 minutes are in suspension.		

DAILY USAGE AND MAINTENANCE

Salinity regulation

The salt in the pool is constantly recycled and the loss of salt is smaller than during the entire swimming season. This loss is mainly due to splashing, backwashing, or drainage (due to rain). Salt will not be lost in evaporation. Ideal salt levels range from 2.7 g/L (2700 PPM) to 3.4 g/L (3400 PPM)

High salt will probably give you a salty taste of pool (normally, at a level of 3.5g/ (3500 PPM) -4 g/L (4000 PPM) you will taste salty) when the salinity of chlorine generator is higher than 4800PPM, the chlorine generator will stop (see ERR4 fault), please replace part of the pool water. Low salt level will reduce the chlorine producing efficiency. When the salinity is lower than 1.7g/L (1700 PPM), t he chlorine generator will stop (refer to ERR2 fault). At this time, add salt according to the recommended volume given in the table below.

POUNDS and (Kg) OF SALT NEEDED FOR 3200 PPM																		
Current salt		Gallons and liters of Pool/Spa water																
Level	6000	8000	10000	12000	14000	16000	18000	20000	22000	24000	26000	28000	30000	32000	34000	36000	38000	40000
ppm	(22700)	(30000)	(37500)	(45000)	(52500)	(60000)	(67500)	(75000)	(82500)	(90000)	(97500)	(105000)	(112500)	(120000)	(127500)	(135000)	(142500)	(150000)
0	161 (73)	213 (97)	267 (121)	320 (145)	373 (170)	427 (194)	480 (218)	533 (242)	587 (267)	640 (291)	693 (315)	747 (339)	800 (364)	854 (388)	907 (412)	960 (436)	1013 (460)	1067 (484)
200	150 (68)	200 (91)	250 (114)	300 (136)	350 (159)	400 (182)	450 (205)	500 (227)	550 (250)	600 (273)	650 (295)	700 (318)	750 (341)	800 (363)	850 (385)	900 (408)	950 (430)	1000 (453)
400	141 (64)	187 (85)	233 (106)	280 (127)	327 (148)	373 (170)	420 (191)	467 (212)	513 (233)	560 (255)	607 (276)	653 (297)	700 (318)	747 (339)	793 (360)	840 (382)	887 (403)	933 (424)
600	173 (59)	173 (79)	217 (98)	260 (118)	303 (138)	347 (158)	390 (177)	433 (197)	477 (217)	520 (236)	563 (256)	607 (276)	650 (297)	693 (317)	737 (337)	780 (358)	823 (378)	867 (398)
800	119 (54)	160 (73)	200 (91)	240 (109)	280 (127)	320 (145)	360 (164)	400 (182)	440 (200)	480 (218)	520 (236)	560 (255)	600 (273)	640 (291)	680 (310)	720 (328)	760 (348)	800 (364)
1000	108 (49)	147 (67)	183 (83)	220 (100)	257 (117)	293 (133)	330 (150)	367 (167)	403 (183)	440 (200)	477 (217)	513 (233)	550 (250)	587 (267)	623 (283)	660 (300)	697 (317)	733 (333)
1200	97 (44)	133 (61)	167 (760)	200 (91)	233 (106)	267 (121)	300 (136)	333 (152)	367 (167)	400 (182)	433 (197)	467 (212)	500 (227)	533 (243)	567 (258)	600 (274)	633 (289)	667 (304)
1400	86 (39)	120 (55)	150 (68)	180 (82)	210 (95)	240 (109)	270 (123)	300 (136)	330 (150)	360 (164)	390 (177)	420 (191)	450 (205)	480 (218)	510 (232)	540 (246)	570 (259)	600 (263)
1600	75 (34)	107 (48)	133 (61)	160 (73)	187 (85)	213 (97)	240 (109)	267 (121)	293. (133)	320 (145)	347 (158)	373 (170)	400 (182)	427 (195)	453 (207)	480 (219)	507 (231)	533 (243)
1800	71 (32)	93 (42)	117 (53)	140 (64)	163 (74)	187 (85)	210 (95)	233 (106)	257 (117)	280 (127)	303 (138)	327 (148)	350 (159)	373 (169)	397 (180)	420 (190)	443 (201)	467 (211)
2000	60 (27)	80 (36)	100 (45)	120 (55)	140 (64)	160 (73)	180 (82)	200 (91)	220 (100)	240 (109)	260 (118)	280 (127)	300 (136)	320 (145)	340 (154)	360 (163)	380 (172)	400 (181)
2200	49 (22)	67 (30)	83 (38)	100 (45)	117 (53)	133 (61)	150 (68)	167 (76)	183 (83)	200 (91)	217 (98)	233 (106)	250 (114)	267 (121)	283 (129)	300 (137)	317 (144)	333 (152)
2400	40 (18)	53 (24)	67 (30)	80 (36)	93 (42)	107 (48)	120 (55)	133 (61)	147 (67)	160 (73)	173 (79)	187 (85)	200 (91)	213 (98)	227 (104)	240 (110)	253 (117)	267 (123)
2600	31 (14)	40 (18)	50 (23)	60 (27)	70 (32)	80 (36)	90 (41)	100 (45)	110 (50)	120 (55)	130 (59)	140 (64)	150 (68)	160 (73)	170 (77)	180 (81)	190 (86)	200 (90)
2800	20 (9)	27 (12)	33 (15)	40 (18)	47 (21)	53 (24)	60 (27)	67 (30)	73 (33)	80 (36)	87 (39)	93 (42)	100 (45)	107 (48)	113 (51)	120 (54)	127 (57)	133 (60)
3000	9 (4)	13 (6)	17 (8)	20 (9)	23 (11)	27 (12)	30 (14)	33 (15)	37 (17)	40 (18)	43 (20)	47 (21)	50 (23)	53 (24)	57 (26)	60 (27)	63 (29)	67 (30)
3200	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal
3400	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
3600+	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue	Dilue

2. Salt types

It is important to use only the salt of sodium chloride (NaCl), whose pure is more than 99%.In addition, it is possible to use a water-toning pill, however, this will take longer for pool to dissolve. Do not use stone salt,
salt soda, yellow blood salt or iodized salt.

3. How to add or dissolve salt

Add salt directly to the pool and start the circulation pump. Wash around the salt to speed up the dissolution. Do not allow salt to pile up at the bottom of the pool. Run the filter pump for 24 hours to distribute salt evenly throughout the pool (For the new cement pool, please ensure that the wall of the pool is completely solidified before adding salt).

4. Antifreeze

The replaceable parts in the chlorine generator can be damaged by water freezing, just as your swimming pool hose can be damaged. In countries or regions experiencing severe or prolonged freezing, ensure that all water is drained via drainage pumps, filters, and pipes to prevent freezing. The control box and the pipe connecting the electrolytic vessel shall be able to bear any freezing weather and shall not be removed.
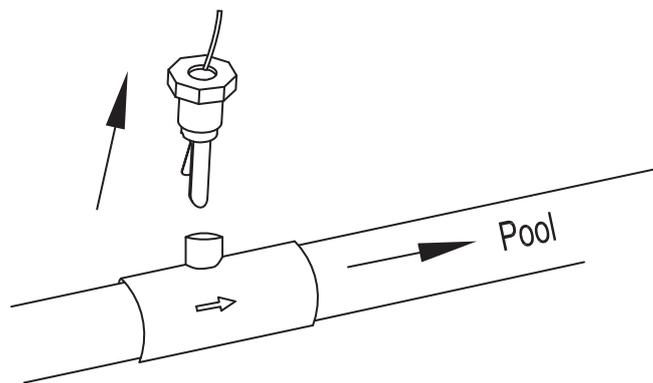
Maintain and clean chlorine generator electrolytic cell

Before taking out the electrolytic cell, disconnect the power supply of chlorine generator. After removal, check whether there is scaling (light-colored hard skin or flaky sediment) between titanium plates and some debris stuck on the electrode plate of the electrolytic cell. If there is sediment, try to rinse it off with a high-pressure water pipe. If this is not successful, the electrolytic cell may need to be replaced. Titanium scale indicates that the pool is at a high calcium level. If this cannot be corrected, it needs to clean the electrolytic cell regularly.

6. Replace the flow switch

After long-term usage, the water flow switch may be damaged. We provide accessories that can be directly replaced. Please refer to the following figures for replacement.

Unscrew the external flow switch, reinstall and connect it to the controller. Pay attention to the direction of flow switch installation when replacing

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ERROR CODES	PAUSIBLE CAUSES	TROUBLESHOOTING
Error 1 Load short circuit	A conductive metal is embedded in the titanium plates	Cut off the power supply, remove the chlorine generator and rinse the titanium plate
	There is a short circuit of water inlet at the connection of titanium plates	Check whether the wiring position of titanium plate is flooded or burnt out. If not drain out of water, re-install and start the equipment
Error 2 Load Break	Very low salinity, no current or very little current	Add a small amount of salt water to the cells and restart the chlorine generator
	The wire connecting the titanium plate fall off	Cut off the power supply, remove the chlorine generator, and check whether the titanium plate wiring is off
	The titanium plate is old	Change electrolytic cell
Error 3	Salinity is higher than the maximum limit specified	Change part of the pool water to reduce salinity
Error 4	Salinity is lower than the maximum lim it specified	- Expel air from the cells, ensuring that the water surface exceeds 2/3 of the cells - Add salt to the pool
Error 5 Water temp light on	The water temperature detected is exceeded 11℃~45℃ (51~113F) , will re-work again when the water temperature is between 13℃~43℃ (55~109F)	- Ensure the water temperature is recovered and restart the chlorine generator - Check whether the flow switch circuit is broken
No Flow	Insufficient water flow, the cavity is filled with air, and the flow switch is not turned on	- Ensure the filter pump is operating and that there are no obstructions or restrictions in the piping - Increase the flow of filter pump - Expel air from the cells, ensuring that the water surface exceeds 2/3 of the cells
	The filter is in backwash status	Adjust filter operation status
	Disconnection of the flow switch circuit or other fault	Replace the flow switch
LED display does not light up	Display screen damaged	- Check that the power cord of the control box is plugged into a protected socket - make sure that the chlorine generator is working properly - Replace the chlorine generator controller box

PARAMETER TABLE

Model	70188	70189	70190
Input Power	115V	115V	115V
Output Power	24V		
Max. Electricity current	6.5A		
Chlorine producing Amount 3400PPM,24h	87g	120g	179g
Working temperature	Air temperature 0-50℃，water temperature11℃-45℃		
Union Type	US	US	US
Flow Switch Type	External	External	External
Min. water flow to start the machine	2m³/h	2m³/h	2m³/h

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Record Product's Serial Number Here: _____

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.

⚠ SAVE THESE INSTRUCTIONS.

Questions, problems, missing parts?

Before returning to your retailer, our exceptional customer service is here to help.

Call Us: 909.628.0880
Email Us: customer@xtremepowerusa.com
Hours of Operation: 9am - 4pm (Monday - Friday)

PRODUCT MADE IN CHINA