



Sunshine Pool Products, LLC

Manufacturer of Quality Pool & Spa Products

902 West 2010 South, Syracuse, Utah 84075

Voice: 801-825-4523

Fax: 801-825-5428

Website: www.sunshinepool.com

Email: info@sunshinepool.com

DELUXE SPA SUNSHINE IONIZER MODELS SSDL and SSD INSTALLATION INSTRUCTIONS

1. Before installing the Sunshine Ionizer the spa should be clean, pH balanced, sanitized, and the filter cleaned.
2. Turn off the power to the spa equipment.
3. If you have a drop in cell go to step 4. Install the cell after the equipment pack if possible. If this is not possible then before the equipment pack is OK. The electrode cell must be at the bottom or side so that no air will be trapped in the cell. Cut a section of pipe out where the electrode cell will be installed. Glue the tee in place using PVC glue making sure it is installed so no air will be trapped in the cell. If you are not sure how to install the cell you should have a swimming pool or spa contractor do it for you. NOTE: If you are gluing your TEE into flexible PVC, DO NOT USE PRIMER to prepare the joint. Flex pipe is softer than rigid PVC and the aggressive primer will eat through it. Instead, use a CLEANER designed for flex pipe.
4. Mount the Controller on a wall or spa cabinet. Fasten the controller to a wall or spa cabinet with the 4 #6 x 3/4" screws provided, so that the cord to the cell and the power cord will reach. It is best to install the controller where it is protected from the sun and weather.
5. If drop in cell, insert the cell in the water as deep as possible in an out of the way place and support the cord with the cord strap and the brass screw supplied.
6. Plug the power cord into a 120-volt AC plug on the equipment pack so that it has power all the time. If plugged into an outlet outside the spa cabinet it must be at least 5 ft from the spa and you will need to provide a longer cord from the power supply to the controller. If an outlet is not provided you will have to have one installed by a licensed spa contractor.
7. For model SSDL if the power supply is installed in the spa cabinet, drill a 1/2" hole 1 1/2" below the power jack on the controller. Feed the power supply output cord into the hole from the inside and plug it into the power jack on the controller.

SUNSHINE IONIZER OPERATION

1. Turn on the spa pump.
2. Test the pool water and make sure the water is properly balanced and sanitized. Test the pool water with the copper test kit to see if there is copper already present in the pool. If copper is already present it may be from a copper based algaecide or from a previous pH problem.
3. Warning: If your spa has been using Bacquacil or any similar sanitizer make sure your spa water has been properly changed back to a chlorine spa before proceeding.
4. Turn the controller output to MAX. The CURRENT Light and the OUTPUT light will come on. The OUTPUT light will change color equally every five minutes as the polarity to the cell is reversed to indicate the cleaning circuit is operating properly. The OUTPUT light will stay off for 5 seconds each time the polarity is reversed while changing the color of the light. Turning the control towards MAX increases the on time to the cell. For example, if the control is set at 5 the output power to the cell will be on 50% of the time and the OUTPUT light will be on only while the output is on.

5. The CURRENT light will flash to indicate the current to the electrodes. Low Current = 3 rapid Flashes. Normal Current = 1 Flash per 100 ma. 1 Amp = On. High Current = 10 Rapid Flashes. Output off = 1 flash every 5 seconds. The CURRENT light only indicates the current while the OUTPUT light is on.
6. Now you can stop using heavy sanitizer levels! All you need to do is maintain a constant chlorine level as low as .2 ppm with chlorine tabs or other chlorine. It has been proven that maintaining .2 ppm chlorine and .2 ppm copper is more effective sanitation than using just chlorine at 2 ppm.
7. Test the copper level at least once a week until you have found the proper setting for your spa. Now you should only need to test the copper level once or twice a month because the copper level does not dissipate like sanitizers.
8. Do not over ionize your spa. When the level reaches .3 ppm turn the control down and adjust as necessary to maintain .3 ppm. If the copper level reaches .5 ppm turn the ionizer to MIN until the level drops to .3 ppm. If algae are ever present in the pool, shock the pool to 5 to 10 ppm, add a non-copper algacide, and maintain 3 ppm of chlorine until all algae are gone.
9. Maintain the pH at 7.2 to 7.6. Failure to maintain your pH could result in staining if the pH is allowed to drift above 8.0.
10. If you have an inline cell, at least once a year remove the electrodes and inspect them. It is normal for the electrodes to have a bluish green coating on them but they should not be clogged with a buildup between the electrodes.
11. Keep these instructions in a safe place.

IF YOU HAVE ANY PROBLEMS, PLEASE REED THE THROUBLESHOOTING GUIDE BELOW

TROUBLESHOOTING GUIDE

Please read this guide before calling your dealer or the manufacturer.

PROBLEM	CAUSE	SOLUTION
1. Low Copper Level	Output Control setting to low Insufficient Chlorine Shocks Worn Out Electrodes Equipment Failure	Increase Output Control setting Shock water with chlorine and test for at least 5 ppm after 30 minutes Check electrodes for wear. If they have worn to small stubs, they need replaced. Check CELL POWER light. It should always be on.
2. High copper level	Output Control setting to high	Set control to MIN until copper level is below .3 ppm. This may take a few weeks.
3. Cloudy Water	Insufficient Chlorine Shocks Dirty filter Low copper level	Shock water with chlorine and test for at least 5 ppm after 30 minutes. Shock whenever the water just begins to cloud. Check and clean filter See # 1
4. Algae in water or on pool surfaces	Low copper level Insufficient Chlorine Shocks	See # 1 See # 3

	Need to treat water for algae	Treat water with a non-copper based algaecide, and shock water with chlorine daily until all algae are gone.
6. OUTPUT light not illuminated	No AC power DC Plug not making contact Can not see light in direct sunlight Shorted Electrodes Controller Failure	Check incoming AC power Check for 5 VDC before and after the DC Plug and Receptical Check in low light Clean and check electrodes for a short Contact Dealer for repair
9. Scale Build-up on Electrodes	Controller cleaning cycle failure Electrodes need manual cleaning	Observe OUTPUT light to see that the color is changing from red to green equally every five minutes. Control may need to be set at MAX temporarily to observe light. A blue scale on electrodes is normal. If there is a heavy scale build-up between the electrodes, then clean electrodes.
10. Blue or copper colored stains on spa surface Note: With proper operation and proper pool chemistry your ionizer will not stain your spa.	Copper level to high pH to high Insufficient Chlorine Shocks Improper application of granular chlorine Other high mineral levels in water such as iron	Set control to MIN until copper level is below .3 ppm. This may take a few weeks. Add acid to lower pH. The pH should always be tested weekly and maintained at 7.2 to 7.6 Shock water with chlorine and test for at least 5 ppm after 30 minutes Granular chlorine should be pre-dissolved before adding to spa water. Never use Calcium Hypo-chlorite as it adds scale and hardens to water. See # 11
11. Black or brown stains on pool surface	Insufficient Chlorine Shocks Other high mineral levels in water such as iron	Shock water with chlorine and test after 30 minutes for at least 5 ppm. Because of the low level of chlorine in an ionized pool a few stains may occur from minerals or dirt in the water. This is not from the ionizer minerals. Treat water with a stain remover. Your ionizer will need to be turned off for at least a week and Instant Ions may need to be added to the water after treatment. Maintain 3 ppm of chlorine during treatment.

Do not call your Ionizer Dealer or Sunshine Pool Products with pool chemistry problems.

SUNSHINE IONIZER LIFETIME WARRANTY

Sunshine Pool Products, LLC warrants SUNSHINE IONIZER for life from date of purchase with the following limitations. Labor and parts are fully covered for one year. Parts are covered at 50% off of suggested retail for year two. Parts are covered at 20% off of suggested retail for all years after year two. For warranty service return SUNSHINE IONIZER with a copy of your sales receipt, transportation prepaid, to the dealer you purchased it from, if available, or to Sunshine Pool Products, LLC. Return shipping is free the first year for USA shipping only.

Warranty Exclusions

This warranty does not apply to damage resulting from tampering, accident, abuse, negligence, fire, flood, freezing, improper operation, maintenance, or storage. This warranty does not apply to normal wear to the ionizer electrodes, which are designed to erode over time.

Total Obligations

The forgoing constitutes the entire liability of Sunshine Pool Products to the original purchaser of SUNSHINE IONIZER. Sunshine Pool Products makes no other warranty of any kind, whatsoever, expressed or implied. In no event will Sunshine Pool Products be liable to the owner for direct, indirect, incidental or consequential loss, damage or economic injury to any person or property arising out of or relating to the use of SUNSHINE IONIZER except as expressly set forth herein.

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