



# Sunshine Pool Products, LLC

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## **ECONOMY POOL SUNSHINE IONIZER MODEL SPE INSTALLATION INSTRUCTIONS**

Thank you for purchasing the Economy Sunshine Ionizer. Carefully and completely read these instructions before installing. Note: This model may also be installed in a spa.

1. Before installing the Sunshine Ionizer the pool should be clean, sanitized, pH balanced, free of algae, and the filter cleaned.
2. Turn off the power to the pool equipment.
3. Install the cell after the filter. If this is not possible then before the filter is OK. See FIG. 1. The electrode cell must be at the bottom or side so that no air will be trapped in the cell. The black line on the cell must always be inline with the water flow. See FIG. 2. Cut a 2 <sup>3</sup>/<sub>4</sub>" section of pipe out where the electrode cell will be installed if your existing pipe is 2" PVC. Cut a 3 <sup>1</sup>/<sub>2</sub>" section out if your existing pipe if it is 1 <sup>1</sup>/<sub>2</sub>" PVC. Glue the 1 <sup>1</sup>/<sub>2</sub>" x 2" bushings into the 2" tee using PVC glue if your existing pipe is 1 <sup>1</sup>/<sub>2</sub>". Do not use the bushings if your existing pipe is 2" PVC. Glue the tee in place using PVC glue making sure it is installed so no air will be trapped in the cell. See FIG. 3. If you are not sure how to install the cell you should have a swimming pool contractor do it for you.
4. Plug the power supply into a 120-volt AC outlet in a dry location that has power only when the pool filter pump is running. If you do not have an outlet that is on only when the pump is on you will need one installed.
5. For 240 volt operation the switch on the back of the power supply must be switched to 240 volts and plugged into a 240 volt power source.
6. The power supply in for indoor use only. To use outdoors use a weatherproof outlet cover over the power supply, available at most hardware stores.

See Drawing on Next Page

Sunshine Pool Products

POOL IONIZER MODEL SPE  
INSTALLATION DIAGRAMS

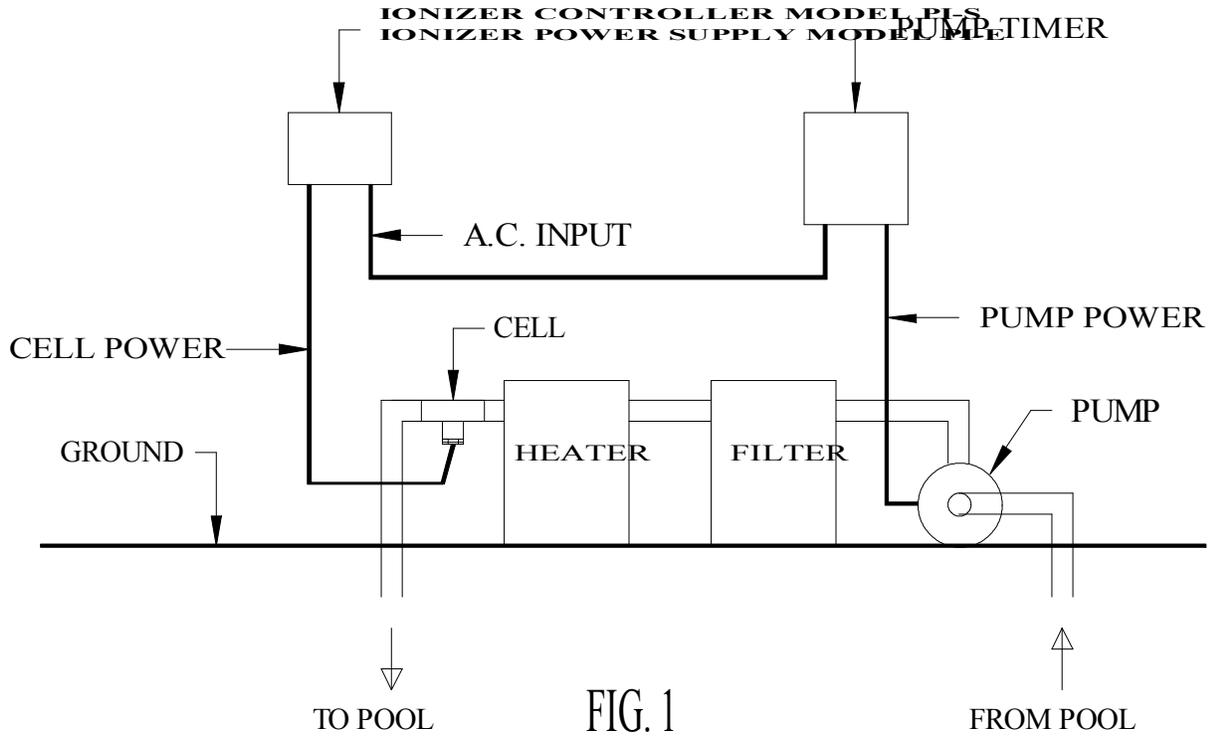


FIG. 1

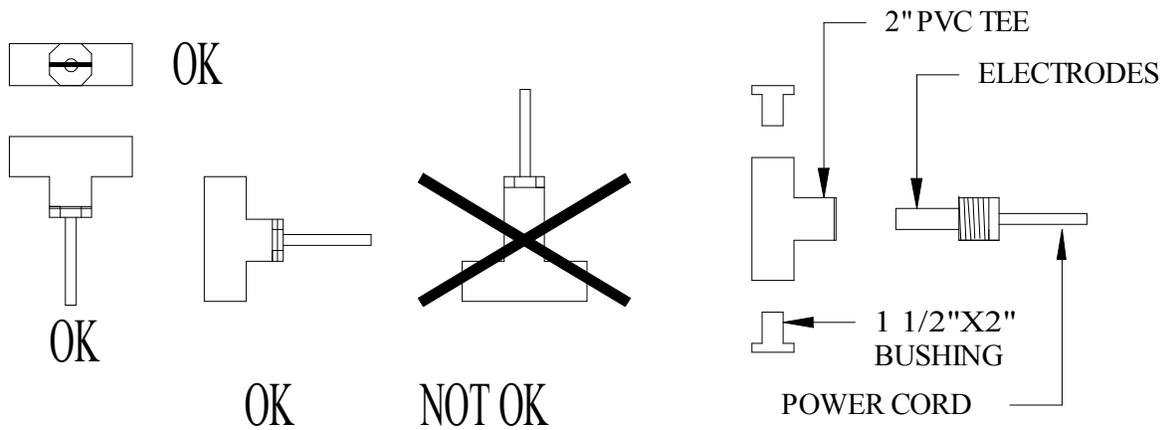


FIG. 2

FIG. 3

## SUNSHINE IONIZER OPERATION

1. Turn on the pool pump.
2. 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. Add instant ions to your pool according to directions on the label.
4. Now you can stop using heavy sanitizer levels! Maintain a constant chlorine level as low as .2 ppm with chlorine tablets or other types of chlorine. Chlorine tablets are recommended. Do NOT use Calcium Hypochlorite chlorine to shock your pool or to maintain a chlorine level as it hardens the water and will cause scaling problems. It has been proven that maintaining .2 ppm chlorine and .2 ppm copper is more effective sanitation than using only chlorine at 2 ppm. Your water will now be safe, clean, clear, and algae free with a very low level of chlorine. You can use bromine or ozone as the sanitizer if the proper levels are maintained, but we recommend chlorine. You cannot stop using chlorine or other sanitizers when using an ionizer.
5. Test the copper level at least once a week until you have found the proper setting for your pool. Now you should only need to test the copper level once or twice a month because the ion level does not dissipate like other sanitizers.
6. Set the slide switch to 12 and to a lower number as need to reduce the ionizer output. Switch the polarity switch on the ionizer power supply on a regular basis. At least once a week. Don't forget!
7. Do not over ionize your pool. When the level reaches .3 ppm turn the control down and adjust as necessary to maintain .3 ppm. If the ion level reaches .5 ppm set the ionizer to the lowest setting 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 algaecide, and maintain 3 ppm of chlorine until all algae are gone.
8. 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.
9. At least once a year unscrew the ion cell and inspect the electrodes. A blue scale on the electrodes is normal and should not be removed unless they are clugged with scale between the electrodes. If the electrodes need cleaned clean the electrodes with a stiff brush. Ensure that the electrodes are installed so that the water flows between the electrodes.
10. When operating in the winter in mild climates, or in spring or fall in cold climates, when the water is cooler than normal, you will need to set the output control to a lower setting to maintain .3 ppm copper. Continue to maintain pool chemistry until your water temperature drops to 50 degrees. When operating in freezing climates winterize your pool water and pool equipment as normal by making sure the pH and copper level are at the proper level then give the water a chlorine shock to 5 ppm. Run the pool circulating pump for at least 1 hour. Turn off power to pool equipment. Remove the cell from the tee fitting and drain all water from the cell. Clean electrodes if needed. Replace cell leaving fitting just loose enough to allow water to leak out if it gets in the cell. Tighten cell before operating pool equipment.
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	<p>Output Control setting to low</p> <p>Insufficient Chlorine level</p> <p>Insufficient pump run time</p> <p>Did not add Instant Ions</p> <p>Worn Out Electrodes</p> <p>Equipment Failure</p>	<p>Increase Output Control setting</p> <p>Shock water with chlorine and test for at least 5 ppm after 30 minutes</p> <p>Pump should run at least 8 hours every day</p> <p>Add Instant Ions following instructions on bottle</p> <p>Check electrodes for wear. If they have worn to small stubs, they need replaced.</p> <p>Check Power supply for proper voltage to electrodes.</p>
2. High copper level	<p>Output Control setting to high</p> <p>Too much Instant Ions added to pool</p>	<p>Set control to the lowest setting until copper level is below .3 ppm. This may take a few weeks.</p> <p>Set control to the lowest setting until copper level is below .3 ppm. This may take a few weeks.</p>
3. Cloudy Water	<p>Insufficient Chlorine Level</p> <p>Insufficient pump run time</p> <p>Dirty filter</p> <p>Low copper level</p>	<p>Shock water with chlorine and test for at least 5 ppm after 30 minutes. Shock if ever the water just begins to cloud.</p> <p>Pump should run at least 8 hours every day</p> <p>Check and clean filter</p> <p>See # 1</p>
4. Algae in water or on pool surfaces	<p>Low copper level</p> <p>Insufficient Chlorine Level</p> <p>Need to treat water for algae</p>	<p>See # 1</p> <p>See # 3</p> <p>Treat water with a non-copper based algaecide, and shock water with chlorine daily until all algae are gone.</p>
5. Low Copper Output	<p>Low TDS causing low output</p> <p>Control setting to low</p> <p>Worn out electrodes</p>	<p>Add 20 lb of rock or granular salt per 10,000 gallons of pool water</p> <p>Turn control to a higher voltage setting</p> <p>Electrodes that have eroded to small stubs will cause the service light to come on and the electrodes need to be replaced</p>
6. Scale Build-up on Electrodes	<p>Failure to manually change polarity weekly</p>	<p>Change polarity switch at least weekly</p>

	Electrodes need manual cleaning	A blue scale on electrodes is normal. If there is a heavy scale build-up between the electrodes, then clean electrodes.
7. Blue or copper colored stains on pool surface  Note: With proper operation and proper pool chemistry your ionizer will not stain your pool.	Copper level to high  pH to high  Insufficient Chlorine Level  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 pool water. Never use Calcium Hypo-chlorite as it adds scale and hardens the water.  See # 11
8. Black or brown stains on pool surface	Insufficient Chlorine Level  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.