CLARATHON™

OWNER'S GUIDE

SpaDepot.com

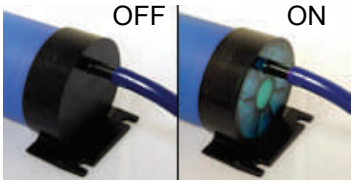
XL UV OZONATOR

Important Safety Instructions -- Read and Follow All Instructions

- Read this manual completely before attempting installation.
- UV light is harmful to eyes and exposed skin.
- All permanent electrical connections should be made by a qualified electrician.
- If the Clarathon XL UV Ozone Generator is connected to an independent electrical supply, a Class A Ground Fault Circuit Interrupter (GFCI) must be installed between it and the electrical supply.
- Warning – To reduce the risk of electrical shock, replace a damaged cord immediately.
- Install the Clarathon XL UV Ozone Generator as high as possible to prevent water from contacting electrical equipment. Install in accordance with the installation instructions.
- Follow all applicable electrical codes.
- Electric shock hazard. Be sure to turn power OFF and disconnect from power source before any service work is performed. Failure to do so could result in serious injury or death.
- Warning – Short term inhalation of high concentrations of ozone and long term inhalation of low concentrations of ozone can cause serious harmful physiological effects. DO NOT inhale ozone gas directly from this device.

General Information

The Clarathon XL UV Ozone Generator described in this manual is designed to provide the benefits of ozonated water in an environmentally safe and effective manner. The high quality of specially engineered components ensures efficient ozone output and reliable performance. Operating your Clarathon XL UV Ozone Generator on the low speed cycle will help clean the spa water and extend lamp life.



Check for a blue light visible from the translucent end cap of the Clarathon XL Ozonator (the end with a hose fitting) when the spa pump is running on the low speed filter, heating cycle. This is the only time ozone will enter the spa. Cycle the spa pack through its high speed and off cycles to ensure the ozonator is off when the pump is off. If your spa is designed to have the ozonator running full time, check that your unit lights up when it should, and that a fine bubble mist is entering the spa water.

Performance

With proper installation, setup and steady bather use, we guarantee that your Clarathon XL UV Ozone Generator will give you the following benefits:

- Decrease in chemical use - compliments all standard sanitizer systems.
- Reduction of: scum rings, eye and skin irritations, combined-chlorine odor, discolored hair and bathing suits.
- Crystal clear, odor free, soft-to-the-touch water and easier-to-clean filters.
- Easy to manage spa water chemistry and balancing.

Ozone acts as a primary oxidizer, not as a disinfectant or biocide. Oxidation is the breakdown of non-living compounds such as organics and nitrogen-containing compounds. A Clarathon ozonator pays for itself by delivering a bottled water like bathing experience. Run it 4-6 hours minimum per day for best results.

Parts List

- **Clarathon XL UV Ozone Generator**
- **1/4" ozone tubing**
- **1/4" x 1/4" check valve**
- **Mounting screws (2)**
- **Instruction guide**

Specifications

Volume (USG)	Ozone Output (gm/hr)	Air Draw (scfh)	Electrical Power (volts/amps)	Size	Weight (lbs.)	Lamp Life
200 - 600	0.035	1 to 4	120V 0.3A, 240V 0.15A	14"L x 2.75"D	1	9000 Hours

INSTALLATION

Location

Mount the Clarathon XL UV Ozonator underneath the spa skirt, in a location as high as possible. It may be necessary to install the unit on the wall of the spa room or in a dry place under your deck. The unit should be mounted on a solid surface with the provided screws in your parts package. Good air flow around the ozonator is important and it should be mounted firmly. Mount the unit either horizontally -or- vertically with the end with the air-intake opening (corded end) pointing downward to help prevent the possibility of water from entering the opening.

Important Note: Located on the end cap of the ozonator's power cord side are air intake holes to be left open to allow air to pass through. We strongly suggest mounting your ozonator as high as possible (above the water level if practical) and pull the clear ozone tubing into a double Hartford loop, which simply means to loop the ozone tubing up as high as you can before you connect it to the ozonator. This helps to prevent water flooding, should the check valve ever fail.

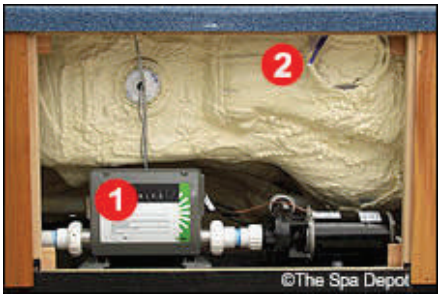
Electrical

Many spa manufacturers make the electrical connection very easy by pre-wiring an outlet for your ozonator on or inside the equipment pack (1). Ensure your Clarathon XL UV Ozone Generator voltage matches the voltage stated on the spa pack or in the manual, for that outlet. The electrical service must be GFCI protected, as described earlier in this document. Be sure to confirm that the ozonator's plug matches the receptacle and requirements of your control system.

SPA INSTALLATION OPTIONS

Installing a spa ozone generator is not difficult. Most spa manufacturers sell their spas *Ozone Ready* from the factory. This means your spa manufacturer has done most of the work for you. Even if your spa is not ozone ready, reading through this instructional guide will simplify the installation. If you are replacing an existing ozonator, you can simply connect to the existing ozone tubing, and the replacement should only take a few minutes!

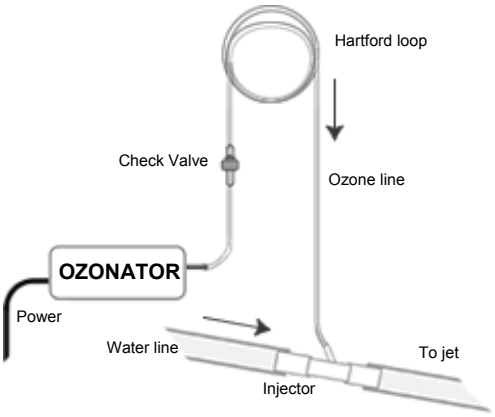
Ozone-Ready Spas



1. Locate the end of the factory installed *ozone-ready* tubing (2) under the spa cabinet skirt. This clear tubing is usually 1/4" ID and may be capped off. Snip off the cap. Insert the 1/4" x 1/4" Check Valve into the supplied 1/4" tubing as shown above, in the proper orientation. (Find the *air-in* and *air-out* ends by blowing through it). Ensure that air will only flow one direction: *toward* the spa and *away* from the Clarathon ozonator.
2. Attach the other end of the check valve to the spa's ozone tubing as shown above. Check valve must be positioned vertically, not horizontally, to prevent premature valve failure.
3. Attach the remaining end of the 1/4" ozone tubing to the barbed fitting on your Clarathon ozonator as shown in photo (above right).

Spas Not Ozone-Ready

There are a number of other ways to inject ozone into a portable spa which is not *ozone ready* from the factory. The most common is by using an ozone injector or Venturi as illustrated (right) available for purchase separately. The injector is best located (spliced) into one of the spa's 3/4" water lines, leading to a low jet or jets. Observe the proper direction of water flow, as marked on injector. The injector creates a slight vacuum, drawing ozone gas from the ozonator, and mixing it with water. Form the 1/4" ozone tubing line into a high double Hartford loop (above spa's waterline) as shown to help prevent water from reaching the ozonator in the event of check valve failure.



1. Cut a water line leading to a low jet or jets and splice in ozone injector.
2. Make sure the injector's water flow is away from the pump (observe arrow on the injector to indicate flow direction). Hose clamps may be necessary.
3. Cut about 8" of the 1/4" tubing supplied and push it over the output fitting of the Clarathon ozonator as pictured (right).
4. Insert the 1/4" x 1/4" Check Valve into this short tubing section. **Confirm *air-in* and *air-out* ends by blowing through it. Ensure that air will only flow one direction *toward* the spa and *away* from the Clarathon ozonator.** Attach the remaining 1/4" tubing to the Check Valve. Check valve must be positioned vertically, never horizontally. Form Hartford loop as shown (above).
5. Attach other end of the 1/4" ozone tubing to the injector's small output fitting.
6. Secure ozonator with supplied screws, mounting horizontally -or- vertically with open air intake holes pointing downward to discourage water intrusion.

For additional installation tips, visit The Spa Depot's SpaCyclopedia:

www.SpaDepot.com/hot-tub-spa-information.htm

Troubleshooting

Knowledge of electrical applications is required for trouble shooting. Contact a certified electrician if you are unsure of your ability to service the equipment. Improper servicing will void the ozonator warranty. If any condition persists, contact The Spa Depot for further technical assistance.

Problem: A blue glow is not visible through the end cap located on the hose fitting side of ozonator:

1. Check the cord connection and power to the source to ensure power is available. When the ozonator is plugged directly into the pack, the pump system must be running at low speed to provide power to a receptacle. If the lamp has been off and the air temperature is cold, allow time for UV bulb to warm.

Problem: No suction is being felt from the tubing:

1. Check for a bubble mist entering the spa water at the jets. Be sure the filter is clean.
2. Check for any debris in the tubing. Remove and inspect tubing, clean and/or replace spa filter.

Problem: The ozonator caused my water to go cloudy:
When the Clarathon XL UV Ozone Generator is first installed, it may cloud the water for a very short time. This is letting you know the ozonator is working in cleaning your water. If issue persists:

1. Make sure the water chemistry is properly balanced.
2. The operation time of the circulation system may have to be increased.
3. Clean or replace clogged spa filter cartridge(s).

Your Clarathon XL UV Ozone Generator is virtually maintenance free and utilizes a non-replaceable lamp. There are no user-serviceable parts inside. Replace entire unit when exhausted.

1 Year Limited Warranty

Terms and Conditions of Limited Warranty

Clarathon warrants this product to be free from defects in materials and workmanship for a period of one year from the date of purchase to the first owner.

Clarathon will provide to the original owner free of charge, at its sole option, replacement part(s) or product (if no longer available, a comparable product) to replace those which have proven defective.

This warranty does not cover labor charges incurred and or damage sustained during installation, repair or replacement. This warranty is not transferable. Warranty period: One Year conditional parts and labor warranty from the date of purchase to the first owner.

The owner of the goods may be responsible for all expenses if the returned item(s) are deemed operational, or not under warranty. Non-warranty goods will be shipped back to the customer at the customer's expense. This warranty and the remedies set forth below are exclusive and in lieu of all other warranties remedies and conditions, whether oral or written, express or implied. Clarathon specifically disclaims any and all implied warranties, including, without limitation, warranties of merchant-ability and fitness for a particular purpose. In no event shall Clarathon or any of its officers, agents, employees, representatives or associates be liable for any losses however occurring, including, but not limited to, breach warranty or condition, tort or negligence. This warranty shall be void if this product or any of its components are altered, misused, modified, not installed, used, repaired or not maintained in accordance with the instructions printed in this guide. Warranty does not extend to accident, damage, flood, fire or any other cause beyond the control of the manufacturer.

To make a warranty claim:

1. Call the dealer from which you purchased your unit to obtain a Return Merchandise Authorization (RMA) number. No claim will be accepted without an RMA.
2. Ship the unit with RMA number to the address provided, freight prepaid. Any returned item deemed faulty due to manufacturer defect will be repaired or replaced and shipped back to the customer at no charge to the customer within the United States.