REINVENT YOUR POOL

revolutionary ultraviolet pool system

SPECTRA LIGHT™
ULTRAVIOLET

REDUCE
CHEMICAL DEMAND
UP TO 85%

energy smart
ENERGY SMART PRODUCT

salt water pool
compatible

Revolutionary Light

Meet SpectraLight — the ultraviolet pool system for less chemicals and a healthier pool. SpectraLight was built on a vision that harnesses the power of ultraviolet light to shift away from chemicals. As a truly clean technology, UV is forever changing the way pools are sanitized.

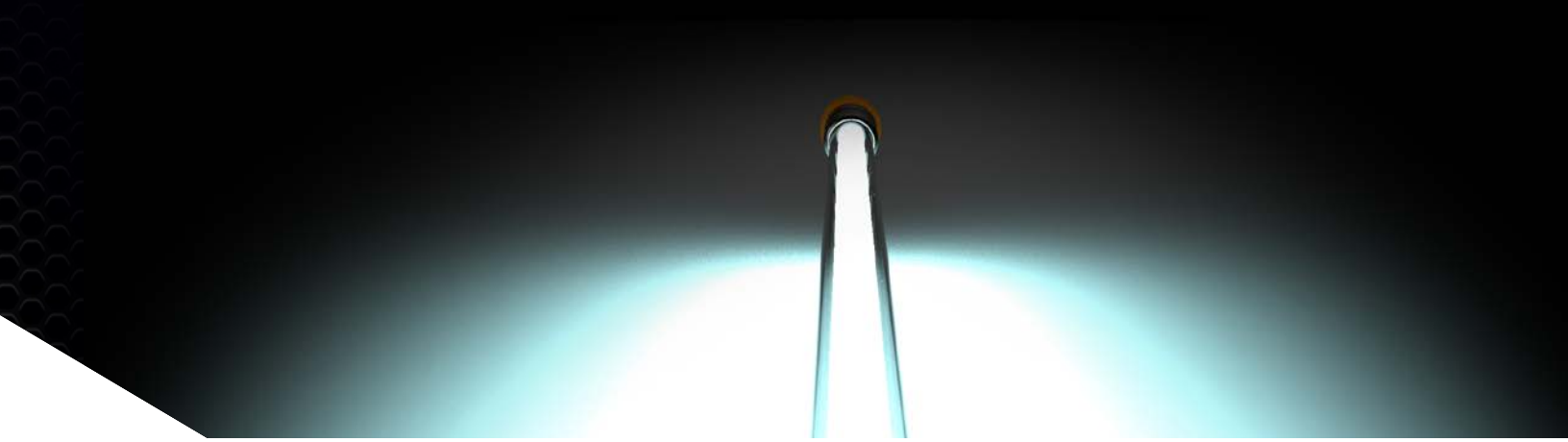
Revolutionary results

SpectraLight was built on a visionary model inspired by drinking water treatment where chlorine levels are reduced to just 0.5 parts per million — a level safe for consumption. The high organic load in regular pools would quickly use up such a low level of chlorine. The secret to SpectraLight's success is its unique ability to destroy 99% of the organic matter.

As the water flows through the sterilization chamber, SpectraLight emits a high intensity UV-C germicidal light ray that targets the DNA and RNA of all types of microorganisms, many of which were previously untouchable. Bacteria, viruses, algae, protozoan cysts, giardia, parasites, and spores are all destroyed instantly.

> "UV disinfection is now recommended by the Center for Disease Control."

UV destroys over 99% of the organic matter and pathogens found in pools. As a result, chlorine levels can be lowered to those found in tap water — to just 0.5 ppm. That's only one drop of chlorine for every 26 gallons of water.



The Impact of Pool Chemicals

Research has confirmed what we've suspected for years — a low chemical pool is better for our health and the environment. One leading scientist was recently quoted as saying, **"The impact of pool chemicals to our children is five times greater than second hand smoke."** It turns out that our skin is like a sponge — capable of absorbing hundreds of chemicals found in pool water.

> " Lower free chlorine concentrations may be health protective when UV is used."
>
> World Health Organization

Both regular pools and saltwater pools require a chlorine level of 2-4 ppm free chlorine. We've known for years that chlorine may burn the eyes and irritate the skin.

Recent studies have linked repeat exposure to common chlorine levels to allergies, asthma and damage to the heart and immune system. In further testing, scientists found when chlorine levels were lowered to 0.5 ppm, the risks disappeared. These studies along with others led to widespread support for UV.

WATCH THE VIDEO AT
SpectraLightUV.com/video

“ UV systems are the strongest oxidizers available to pool operators.”

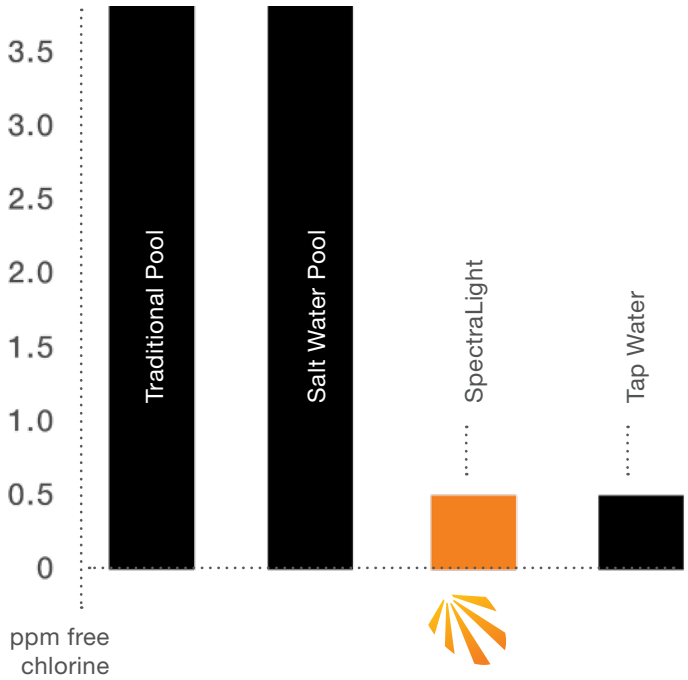
Professional Pool Operators of America

What are the savings?

SpectraLight breaks the vicious cycle of chemicals once and for all. SpectraLight users report saving $400 - $600 per year in chemicals, depending on pool size. And with high water quality, pumps, filters, heaters, and pool surfaces will all last significantly longer. SpectraLight also eliminates the need to purchase expensive specialty chemicals like algaecide.

What about saltwater pools?

Since saltwater pools still maintain the same chlorine level as regular pools, they generate the same unhealthy disinfection by-products. The good news is that SpectraLight is fully compatible with salt-based chlorinators. With SpectraLight on the job, salt pool owners can dial down the chlorine generator and enjoy safe low chlorine water.



	typical treatment	with SpectraLight	% reduction
residual chlorine	3 - 4 ppm	0.5 ppm	83 - 87%
chlorine shock	every 1 - 2 weeks	every 2 - 3 months	80 - 92%
stabilizer	30 - 50 ppm	3 - 8 ppm	77 - 94%
pH up/down	frequent adjustments	adjustments are rarely needed	75 - 90%
algaecide	varies	never	100%

US Navy selects SpectraLight

SpectraLight has been selected by the US Navy to provide UV equipment for the Marine Mammal Program. This formerly classified Navy program trains marine mammals like bottlenose dolphins and sea lions to perform important underwater jobs such as equipment recovery and protection of ships and harbors. It doesn't get any better than having the trust and confidence of the US Navy placed with your organization.

NAVY

"About 80% of new water parks and aquatic facilities feature ultraviolet."

National Swimming Pool Foundation

UV Chosen by World's Top Aquatic Centers

The world's major aquatic centers rely on UV disinfection for professional grade non-chemical disinfection. The most iconic aquatic center ever built is no exception. All pools at the 2012 Games relied on ultraviolet to reduce the free chlorine level to just 0.5 ppm — the same concentration as in our drinking water. Spectators felt as though they were in the pool as they watched each and every stroke through perfectly clear water.

IntelliVolt™ Electronic Ballasts

Solid-state ballasts are engineered for maximum efficiency — reducing energy use up to 30%. Fuse-protected and switched, each solid-state electronic ballast is weather protected by a NEMA enclosure powder-coated in stone gray.

Easy Installation

SpectraLight connects between your existing filter and the water line returning to the pool. SmartConnex™ allows for 360 degree port rotation, so installation is quick and easy for both new and existing pools.

Aerospace Developed Double Seal

Invented to meet the demanding needs of the aerospace industry, fluoroelastomers and a double stainless steel seal deliver outstanding reliability and a long service life.

SpectraLight's double stainless steel seal is CNC machined to exacting specfications.

Energy Smart

SpectraLight uses the power of a regular light bulb and requires very little maintenance. Just set it, forget it, and sleep secure.

Industrial Graphite Housing

The high-impact, non-corrosive polymer housing features Titanium Dioxide for maximum UV resistance. The optimized chamber insures high flow rates and maximum UV dosage.

Intelligent Design

Modular construction allows SpectraLight to be assembled and disassembled in less than three minutes. Quick-release means the protective sleeve can be removed and reinstalled in less than 60 seconds without using a single tool.

Ultra High-Output Lamps

Charged with a proprietary blend of xenon, neon & argon, ultra high-output lamps deliver four times the UV power of first generation lamps while lowering power usage by 30%.

The Power of Ultraviolet

+ Reduce chemical demand up to 85%
+ Kills algae, bacteria, viruses, cysts & more
+ Eliminates red eyes, skin irritation and odors
+ Better for skin, hair & clothing
+ Extends life of pool equipment
+ Quick & easy installation

SPECTRA LIGHT™
ULTRAVIOLET

SpectraLightUV.com

SpectraLight was built on a vision that harnesses the power of ultraviolet light to shift away from chemicals. The result is a product that doesn't look like anything that has come before. And of all the conventional wisdom we've left behind in pieces, none has been shattered more fully than the belief that "less" and "more" cannot coexist.

Made in USA

VISIT
SpectraLightUV.com/reviews
FOR VIDEO REVIEWS

SPECTRA LIGHT™
ULTRAVIOLET

installation & owners manual for spas

lets protect what's important

SPECTRA LIGHT™
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NOTES:

SpectraLight Installation & Owner's Manual

Important Safety Information

This section presents important information intended to ensure safe and effective use of this product.
Read this section carefully and store it in an accessible location.

Key to Symbols

The symbols in this manual are identified by their level of importance, as defined below. Read the filloing carefully before handling, installing, or using this product.

Warning:

Warnings must be followed carefully to avoid serious bodily injury.

Caution:

Cautions must be observed to avoid minor injury to yourself or damage to your equipment.

Customer Service

Phone:	(512)686-0935
Email:	info@spectrauv.com
Fax:	(888)295-2024
Web:	www.spectralightuv.com

IMPORTANT SAFETY PRECAUTIONS

PLEASE READ ALL INSTRUCTIONS PRIOR TO ATTEMPTING TO INSTALL OR OPERATE THIS EQUIPMENT

WARNING

Ultraviolet light can damage your skin and eyes. Do not expose your skin or stare at an operating ultraviolet lamp when turned on outside of the ultraviolet sterilizer housing. Direct exposure to ultraviolet rays can cause eye injury, tissue damage and other health risks.

This UV sterilizer must be wired in conjunction with a properly grounded, ground fault interrupter circuit (GFI). Only a (3) three wire grounded cable, suitable for outdoor use, should be used to connect this device. If joining cables for outdoor use, a suitable watertight cable connector must be used. If an extension cord is necessary, a cord with a proper rating should be used. A cord rated for less amperes or watts than the uv sterilizer rating may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled. We recommend consulting a licensed electrician if you should have any questions.

Never attempt to repair this product yourself. Contact SpectraLight Ultraviolet for repairs.
Improper repair work can be dangerous.
Never attempt to modify this product.
Tampering with this product may result in injury or fire.
Connection to improper power source may cause fire.
If water enters the inside of quartz sleeve or if water leaks from housing, do not continue to use it. Turn off power and disconnect power immediately and contact your dealer or SpectraLight Ultraviolet.

WARNING

To avoid possible electric shock, special care should be taken when working with UV equipment.
If the unit falls into the water or becomes wet, do not touch it. You must first make sure it is unplugged or the power cord is removed from the power source. If electrical components such as the ballast, transformer or lamp should become wet, unplug it immediately. Contact SpectraLight for testing and repair.
If water should ever enter the inside of the quartz sleeve, immediately disconnect power by unplugging from the power source.

Carefully examine the unit after installation of the ultraviolet housing and prior to installation of the lamp and connection to the ballast. Do no connect to ballast, install lamp or plug in ballast if there is moisture or water outside of the UV chamber or on the inside of the quartz sleeve.

Do not operate the UV unit if it has been damaged, is leaking, is malfunctioning.
Close supervision is necessary when any electrical device is used around children.

Always unplug the unit from an outlet and disconnect power when not device is not being used, before servicing, cleaning or working on the unit. Never grasp the cord when disconnecting cord, but hold plug directly and pull to disconnect.

DO NOT use the uv sterilizer for anything other than its intended use. The use of lamps or attachments not recommended or sold by SpectraLight may be hazardous and may void warranty.

Getting to Know Your SpectraLight

SpectraLight units have been engineered so that the entire unit can be assembled and disassembled by hand. Please note that threaded components use EPDM and Viton O-rings and should be hand tightened only.

Industrial UV Sterilizer Housing

Quartz Sleeve Assembly

Power Supply/Electronic Ballast

Twin High Output Lamp

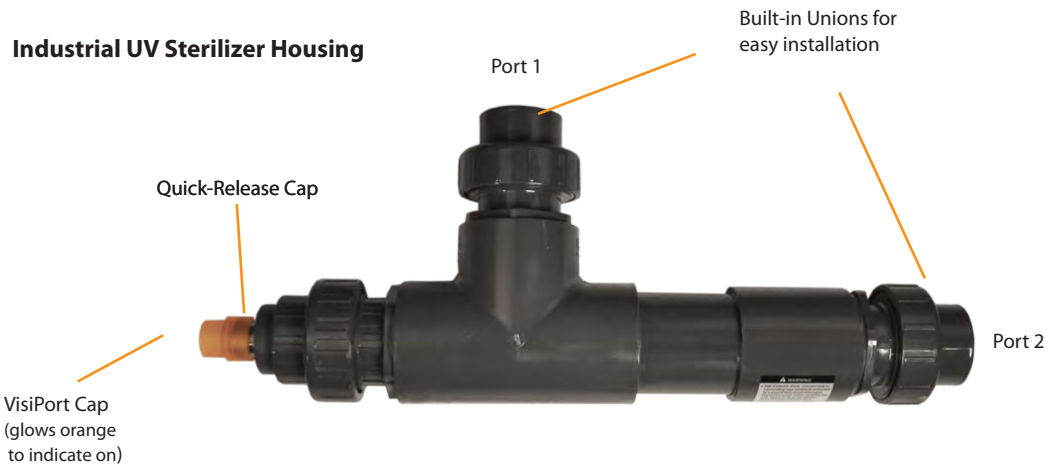
Note: Lubricate o-rings and flat seals with silicone lube or water when installing or replacing a quartz sleeve

Unpacking your Unit

The following items are included for each Spectralight Ultraviolet Sterilizer. If any item is damaged, contact SpectraLight or your dealer:

- SpectraLight Grey Housing
- Power supply NEMA enclosure (may be shipped separately due to weight)
- Lamps(s) - caution: handle lamps by the ends; do not touch lamp glass.
- Installation and Owner's Manual (this document)

Industrial UV Sterilizer Housing



Quartz Sleeve Assembly

Twin High Output Lamp

Power Supply/Electronic Ballast

Caution!

The quartz sleeve and or UV lamp in this device may have been broken or damaged during shipment. It is very important to check the quartz sleeve for damage prior to installation or connection to electrical power. If you can hear pieces moving inside the unit when rotating unit, then it is broken. Please contact SpectraLight for instructions.

Installation of Your SpectraLight Spa Unit

Caution: Units may be damaged in shipping. Safety first...water test the unit in accordance with the water testing section prior to inserting the lamp(s) and connecting the power supply.

Install SpectraLight so that water travels from the pump to the filter to the SpectraLight Unit.
Install on the spa's circulation system so that SpectraLight is turned on when the spa is in circulation mode and is heating the water.

SpectraLight **Spa Filter** **pump**

Horizontal Position
(recommended)

Vertical Position
(either port on top)

In the Horizontal position, the outlet port must face upward. Proper positioning will reduce the chance of air becoming trapped in the housing.

In the Vertical position, the outlet or inlet port may be placed on top. Make sure the housing is securely mounted before operating. Large units may be secured with plumbing strap.

Optional Bypass

Some SpectraLight owners may wish to install a simple by-pass loop. A by-pass loop allows a portion of the spa water to bypass the main circulation pipe and flow through SpectraLight. The lower the flow rate, the higher the UV dosage. A bypass is recommended if the flow rate exceeds 15 GPM.

Water Testing the SpectraLight Housing

The first step in installing your SpectraLight Spa unit is to perform water testing. Each spa unit is rated up to 50 PSI. Although all units are quality tested from the factory, it is important to verify the unit remains leak free after shipping.

Water testing should always be conducted before the lamp is installed into the quartz sleeve and prior to connection of the power supply.

If you have disassembled the unit for any reason, connect the quartz sleeve assembly to the SpectraLight housing by following step four of the assembling instructions titled: Connect Quartz Sleeve Cap to Quartz Sleeve.

Do not install the lamp, do not install the dual connectors, and do not connect to power at this time.

Using a standard household paper towel, roll up enough paper towel material to create a 3/4 inch x 12 inch "plug". Insert the paper towel log into the end of the open quartz sleeve. This is the end where the quartz sleeve exits the SpectraLight housing and where the orange cap is connected. Make sure the VisiPort cap is hand tightened. Turn on your pump and allow water to pass through the SpectraLight housing for at least 30 minutes. If you have an accessory that may increase water pressure, such as a pressure side pool cleaner, turn it on for at least 10 minutes, and test system for leaks while it is operating. Check the entire SpectraLight housing for leaks and verify there is no moisture on the paper towel plug.

If a water leak is found or if the paper towel plug has any moisture, the source of the water leak must be found and corrected. The source may be a broken or cracked quartz sleeve or a rubber o-ring failure.

If a leak is found during the leak test, turn off the pump to stop water flow and inspect the quartz sleeve by unthreading the Quick-release and removing the quartz sleeve. If the quartz sleeve is cracked or broken, contact SpectraLight for a replacement.

Safety First: SpectraLight housing must be water tested for leaks prior to use or anytime unit is disassembled and reassembled.

Power Supply/Ballast Installation

WARNING: Improper electrical connection of this equipment can result in electrocution. Consult with a qualified licensed electrician to ensure proper grounding with a ground fault circuit interrupter. Do not modify this product's plug or use any type of adapter with this product.

CAUTION: Do not operate SpectraLight UV Sterilizers for more than 2 minutes without water flowing through the UV housing. Dry operation will cause severe damage. The Power Supply must be wired so that the power supply/ballast on receives power when water is flowing through the SpectraLight Housing.

SAFETY FIRST: This unit must be connected to a properly grounded electrical circuit. This product requires both grounding and a ground fault circuit interrupter to reduce the risk of electrical shock.

The Power Supply Enclosure must be located near the SpectraLight housing. Approximately 6 feet of cord are provided between the Power Supply and the SpectraLight Housing. Do not attempt to lengthen this cord.

The electrical power requirement is marked on the unit's service/serial number tag. This requirement is either 120 volt 50/60 Hz or 230 volt 50/60 Hz.

The SpectraLight cord has a grounding conductor or a grounding type plug. The plug must be connected to an appropriate outlet that is properly grounded in accordance with all local codes and ordinances.

The NEMA enclosure should be securely mounted to a suitable surface prior to turning on or operation of unit.

SpectraLight recommends that our UV sterilizers are operated continuously for 24 hours per day, 7 days per week. The UV lamp can only be effective against pathogens when it is turned on. 12 hours of operation per day is considered a minimum run time for effective pathogen control.

A word about electrical power consumption. SpectraLight sterilizers will use only 15 - 25 cents per day when operated continuously (using average power rates). If you are concerned that operating your pump 24 hours per day will use too much electricity, you may want to investigate the energy efficient 2-speed and multi-speed pumps. These energy efficient pumps are designed to operate 24 hours per day while lowering power consumption up to 80% over traditional pumps.

If your SpectraLight does not operate continuously, a maximum of one on/off cycle is recommended per day. Additional on/off cycles will dramatically reduce the average life of UV lamps.

CAUTION: Lamp Installation Important Notes

CAUTION: Do not look directly at the UV lamp when turned on outside of the housing. Do not allow the UV light to contact skin or eyes. UV light exposure can cause severe sunburn and/or conjunctivitis.

Please note that the UV light does not extend beyond the walls of the housing. As long as the UV lamp is contained in the housing, it is 100% safe.

Lamps and quartz sleeves must be handled with care. Do not touch the lamp with your fingers. If you accidentally touch the lamp, use denatured alcohol and a soft cloth to clean the lamp.

Provided water testing has been successfully completed, and the Power Supply has been securely mounted, the lamp(s) may be installed. When handling and installing lamps, be very careful with the following:

1. Carefully unpack the UV lamps being careful not to touch the glass section.

2. Carefully insert the lamp(s) into the quartz sleeve by inserting the non-connector end first.

Note: If you have chosen a vertical orientation, be careful not to allow the lamps to drop inside the quartz sleeve as this may break the quartz sleeve and the lamp.

3. Connect the lamp power cords from the power supply to the lamp's electrical connector(s). Push the connectors together until they are flush and securely connected. Gently slide or lower lamp into the quartz sleeve.

Never pull the lamp connectors by the wires to remove them. Always gently pull on the connector itself.

4. Twist on grey power supply connector. Do not overtighten. Hand tighten only. This connection is not in contact with water.

5. Hand tighten both the large union nut and the quartz sleeve end cap.

Never use tools to tighten any of the components. Tools may damage the seals.

The average life expectancy of the SpectraLight UV lamp is 12 months of continuous operation. Please not that the lamp may continue to emit light, but the UV output will diminish after 12 months.

Assembling Your SpectraLight Spa Unit

STEP 1 : Inserting dual connectors through the cap

Please note that threaded components use EPDM and Viton O-rings and should be hand tightened only. Do not pull lamp connects by the wiring. Always pull by the white connector.

To minimize shipping damage, SpectraLight is shipped with the housing, ballast, and lamp individually packed. Inserting the connectors into the sleeve and installing the lamp is a 5 step process that must be completed in the following order.

Insert lamp and connect the power only after completing water testing in the previous section.

This is what the final assembly should look like,
prior to inserting the lamp into the quartz sleeve.

STEP 1: Insert the dual lamp connectors through the orange VisiPort and grey quartz sleeve cap. The connectors must be inserted through one at a time as illustrated below.

orange VisiPort and
grey quartz sleeve cap

A.

insert first connector

B.

insert second connector

C.

both lamp connectors
are through the opening

Assembling Your SpectraLight Spa Unit

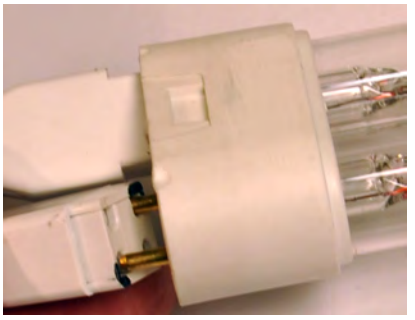
STEP 2 : Attaching the Twin High Output Lamp

Please note that threaded components use EPDM and Viton O-rings and should be hand tightened only. Do not pull lamp connects by the wiring. Always pull by the white connector.

Twin High Output Lamp

STEP 2: Carefully attach the lamp connectors to the lamp. Note that the connectors are installed so that the incoming wires match up to the lamp pins as shown below. Insert the lamp pins into connector holes marked with black dots. The final connection should match the illustration below.

Note: You may attached the lamp pins to either side of the lamp.



Note: Lubricate o-rings with silicone lube or water when installing or replacing a quartz sleeve

Assembling Your SpectraLight Spa Unit

STEP 3 : Slide on large union nut

Please note that threaded components use EPDM and Viton O-rings and should be hand tightened only. Do not pull lamp connects by the wiring. Always pull by the white connector.

STEP 3: Slide the entire assembly through the large union nut, so that the larger opening is facing the lamp connectors

large union nut

This is what the final assembly should look like, prior to inserting the lamp into the quartz sleeve.

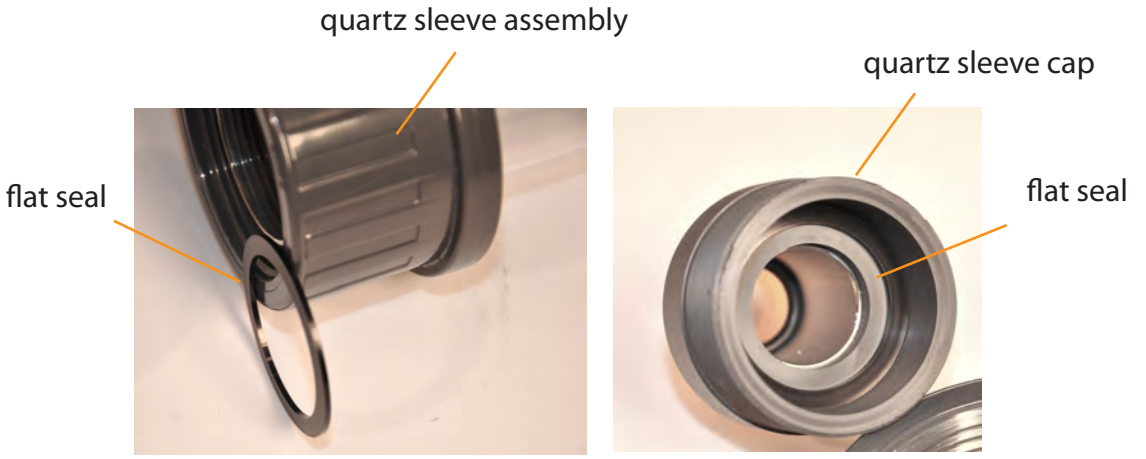
Note: Lubricate o-rings with silicone lube or water when installing or replacing a quartz sleeve

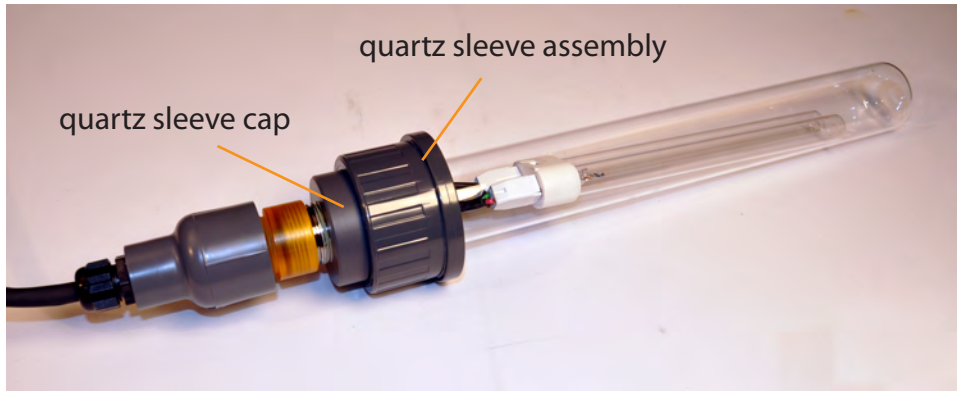
Assembling Your SpectraLight Spa Unit

STEP 4 : Connect quartz sleeve cap to quartz sleeve

Please note that threaded components use EPDM and Viton O-rings and should be hand tightened only. Do not pull lamp connects by the wiring. Always pull by the white connector.

STEP 4: Connect quartz sleeve to quartz sleeve cap by hand tightening threads. Make sure that the flat seal remains in place during this step. Lubricate flat seal with water or silicone lube.
It may be easiest to hold the quartz sleeve cap in the palm of your hand with the flat seal facing up, and gently connect to quartz sleeve by threading together.





lamp installed inside the quartz sleeve assembly

Note: Lubricate o-rings and flat seals with silicone lube or water when installing or replacing a quartz sleeve

Assembling Your SpectraLight Spa Unit

STEP 5 : Connect quartz sleeve assembly to SpectraLight housing

Please note that threaded components use EPDM and Viton O-rings and should be hand tightened only. Do not pull lamp connects by the wiring. Always pull by the white connector.

STEP 5: Insert quartz sleeve assembly into SpectraLight housing by sliding the large union nut into place and hand tightening.

Note: Lubricate o-rings and flat seals with silicone lube or water when installing or replacing a quartz sleeve

Powering Up the Unit

After you have completed water testing, assembly of the unit, and installation of the ballast, it is time to power up your unit. First, turn your pump on so that water is flowing through the SpectraLight housing. Next, turn the power on going to the power supply.

The light from the UV lamp will illuminate SpectraLight's orange VisiPort. In direct sunlight, you may need to place your hands or a towel around the VisiPort cap to see the light. You may also check it at night. If no light is visible, have a qualified electrician confirm that proper input power is going to the lamp.

orange VisiPort will glow when lamp is on

SpectraLight Maintenance

CAUTION: Always disconnect and unplug the unit from electricity before servicing SpectraLight.

Inspecting and Cleaning the Quartz Sleeve

Some spas may contain a high amount of calcium. The calcium level in swimming pools should ideally be maintained at 80-200 ppm. Under certain circumstances, calcium can cause a scale formation on all spa surfaces, including the SpectraLight quartz sleeve. This condition is rare but should be occasionally checked.

SpectraLight recommends monthly inspection of the quartz sleeve for the first 3 months. If no residue or build up is found, the inspection interval may be extended to once every 3 months.

CAUTION: Always follow manufacturer's safety instructions when using any chemical to clean quartz sleeve. Use of eye protection and gloves in a well ventilated area is recommended.

The entire SpectraLight housing is designed so that the quartz sleeve can be removed in less than 2 minutes with no tools.

1. Turn off your pump and unplug the unit and spa, disconnecting all power
2. Remove the threaded grey power supply connector
3. Disconnect the lamp connector from the lamp
4. Turn the Quick-release fitting counter-clockwise and carefully remove the quartz sleeve from housing.
5. Clean the quartz sleeve with muriatic acid (can be purchased at a hardware store or pool supply store). Alternatively, you may use vinegar or Lime Away.
6. Thoroughly rinse quartz sleeve with clean water before reinstalling.

NOTE: If the quartz sleeve is damaged, replace sleeve by purchasing a new sleeve from SpectraLight.

Winterizing SpectraLight

Do not allow water to freeze inside the SpectraLight housing. When temperatures approach freezing, we recommend shutting the unit down and removing quartz sleeve and lamp. If you have installed a bypass loop, you may wish to remove the entire housing.

You may purchase a winterizing cap from SpectraLight which allows you to remove the quartz sleeve and plug the stainless steel double seal mechanism.

When returning the unit to service, we recommend replacing the o-rings.

Caution: It is important to water test the unit per our section on water testing each time you disassemble and reassemble SpectraLight.

SPECTRA LIGHT™
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NOTES:

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WARRANTY

SpectraLight Ultraviolet warrants to the original purchaser, its Ultraviolet Sterilizers to be free from defects in workmanship or materials for a period of (1) year from the date of purchase on the power supply and all o-ring seals. SpectraLight extends a lifetime limited warranty on the UV sterilizer's PVC housing due to failure of the plastic from UV light exposure.

Water leaks caused by failing to follow proper assembly & protection procedures void warranty. The UV lamp and the Quartz Sleeve are not warranted against breakage due to being made of glass. This warranty is only in effect provided that the equipment is installed in accordance with the factory instructions & recommendations & when operated within the environment and limitations for which it was designed. Should any of the integral parts of the unit become defective within their time constraints from the date of purchase, they will be repaired or replaced, if proven defective in workmanship or material in the opinion of the manufacturer, also not including damage by freezing or the reuse of gasket seals that are more than (12) months old.

Any costs incurred for the labor of removing the unit shall be the responsibility of the original purchaser, as will be all shipping charges to and from SpectraLight Ultraviolet factory. Damage or failure of any part of the UV Sterilizer covered by this warranty, which results from causes, directly or indirectly, connected with the installation, operation, environment, use or willful abuse, including, without limitation, improper packaging and damage incurred during shipping is not covered by this warranty. Otherwise, any implied warranties, which accompany the sale of these goods, are limited to their respective time constraints from the date of purchase. The manufacturer will only be responsible for the repair or replacement of any of its products or parts thereof that are found to be defective and will not bear the cost of any incidental or consequential damages arising out of the occurrence of such a defect.

SPECTRA LIGHT™
ULTRAVIOLET

NOTES:

SPECTRA LIGHT™
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SpectraLight Spa Operating Manual

For Residential Ultraviolet Sterilizers

Save this manual.
Please read prior to use.

SAFETY INSTRUCTIONS - IMPORTANT INFORMATION
CAUTION: DO NOT VIEW BULB WHILE LAMP IS ON
DO NOT TURN LAMP ON DURING MAINTENANCE

PRECAUTIONARY STATEMENT: PROLONGUED DIRECT EYE AND SKIN EXPOSURE TO THE UV LAMP IS HARMFUL.

SPECTRA LIGHT™
ULTRAVIOLET

NOTES:

Thank you for purchasing SpectraLight for Spas.

Please read the entire manual for best results.

You have taken the first step toward more enjoyable spa or hot tub and reduced pool maintenance. UV light is part of the electro-magnetic spectrum which is produced by the sun providing a powerful natural sterilizer.

UV systems are safe, simple to use and very reliable.

UV inactivates over 60 known pathogens, including algae, Cryptosporidium and E-Coli. In addition, UV has been proven to significantly reduce chloramines, or combined chlorine, a leading cause of water chemistry problems. Pool owners who make the move from traditional chlorine levels to UV save time, money, and are helping to protect our environment with an eco-friendly alternative to chlorine.

SpectraLight Compatibility

SpectraLight does not release any chemicals into the water. SpectraLight is compatible with all current methods of treating spas and hot tubs. SpectraLight is compatible with chlorine, bromine, bromide base chemicals, salt pool systems, biguanide products and copper based algaecides.

SpectraLight and Chemicals

Please remember that SpectraLight dramatically lowers the dependence on chlorine and other residual sanitizers. SpectraLight owners may reduce the residual level of chlorine to only .5 ppm, about the level found in drinking water. If you prefer to use bromine, you may reduce the bromine residual to 1-2 ppm. SpectraLight does not eliminate the need for balancing pH, Alkalinity and Calcium Hardness. However, you will find that these parameters will become much more stable in SpectraLight pools. This means that once you achieve the desired level, the fluctuation should be minimal.

SpectraLight Startup Procedure

Step 1

- Vacuum and clean leaves and other debris from the spa.
- Thoroughly brush the walls of the spa
- Clean your pump strainer basket and spa skimmers
- Clean and backwash filters
- Consider replacing the water if your spa is due or almost due for a water change

Step 2

Balance spa water to the following parameters:

pH	7.4 - 7.8
Total alkalinity	80 - 150 ppm
Calcium hardness	200 - 400 ppm

To lower pH - add pH decreaser
To raise pH - add pH increaser
To raise calcium hardness - add a calcium hardness increaser
To decrease calcium hardness- dilute the water with fresh water
To raise total alkalinity - add an alkalinity increaser
To lower total alkalinity - add acid

Step 3

Turn on SpectraLight and operate SpectraLight and your pump for 72 hours. Maintain a chlorine residual of 2.0 ppm or a bromine residual of 3.0 ppm during this time.

Step 4

After SpectraLight has been operating for 24 hours, brush the spa walls and then shock spa (with chlorine or bromine (never mix the two)) to burn off any final contaminants that may be attached to the wall of the spa. Do not enter the spa until chlorine has fallen below 3 ppm. or bromine has fallen to below 4 ppm.

Did you Know?

UV is the most powerful method of treating spa water. In fact, UV has been called the "gold standard". However, the water must pass through the UV sterilizer chamber before it can be treated. UV does not destroy pathogens that are attached to the wall of the spa until they are dislodged so they can pass through the chamber. This is why a low residual of chlorine or other sanitizer is required with UV. UV oxidizes any organic matter that passes through the chamber and frees up bound chlorine. This is precisely why a low level of chlorine or bromine is so effective when combined with UV.

Step 5

Allow chlorine to naturally drop to 0.5 ppm (or 1 ppm for bromine). Now you may decrease the filtration/circulation time to a minimum of 12 hours.