

Excelight

UV Disinfection by
Waterite Technologies
www.waterite.com

RESIDENTIAL UV WATER DISINFECTION SYSTEMS OWNER'S MANUAL[®]



R5

*For Excelight UV system models
EL411AK, EL720AK and EL1129AK*



IMPORTANT!

READ AND UNDERSTAND TERMS OF THE MANUFACTURER'S WARRANTY ON PAGE 15 OF THIS MANUAL. FILL OUT THE WARRANTY REGISTRATION CARD WITH THE CSA NUMBER FOUND ON THE BALLAST



Congratulations!

Your new Excelight UV disinfection system is made from the highest quality components available and is designed to provide many years of reliable service. Please take the time to read this manual completely so that you may provide the correct installation and maintenance, ensuring optimal system safety, performance and life.

WARNING!

WHERE MICROBIOLOGICALLY ACTIVE WATER IS KNOWN TO EXIST IT IS HIGHLY RECOMMENDED THAT AT LEAST ONE ADDITIONAL DISINFECTION BARRIER SUCH AS CHLORINATION OR ABSOLUTE FILTRATION IS USED TO TREAT DRINKING WATER, IN ADDITION TO UV TREATMENT. CAREFULLY MAINTAIN ALL WATER TREATMENT EQUIPMENT AND HAVE DRINKING WATER TESTED REGULARLY.



UV RADIATION HAZARD

NEVER OPERATE A UV LAMP OUTSIDE THE DISINFECTION CHAMBER. EXPOSURE TO UV LIGHT CAN RESULT IN SERIOUS INJURY AND EXTREME BURNING OF THE SKIN AND EYES



Excelight UV disinfection systems are equipped with both visual and audible lamp failure alarms. For your safety, it is necessary that you determine that the audible alarm can be heard where you use the water treated by the unit.

In order to optimize the disinfection performance, you must only use the unit with water that meets or exceeds the minimum standard and replace the UV lamp at recommended intervals. Failure to follow these guidelines will result in reduced disinfection performance.

Excelight UV ballasts can be ordered with an optional output on the power source that connects to a solenoid valve. This valve when activated will shut off the flow of water when an alarm condition is present, or the UV power source loses power for any reason, preventing you from using any untreated water.

SAFETY INSTRUCTIONS

1. Do not plug in unit if any of the external surfaces or electrical components are wet.
2. To avoid possible electric shock, special care should be taken since water may be present near electrical equipment. Unless referred to in these instructions, do not attempt repairs to the unit yourself. Contact the manufacture for service advice.
3. Do not operate this system if it has a damaged electrical cord or plug is malfunctioning, or has been dropped or damaged in any way.
4. Do not use this unit for anything other than its intended potable water application. The use of attachments not recommended, approved, or sold by the manufacturer/distributor may result in an unsafe condition.
5. Before doing any cleaning or maintenance, always unplug the unit.
6. Protect your unit from freezing. Drain all water from unit if freezing temperatures exist.

RAW WATER QUALITY

It is strongly recommended that you have your raw water professionally tested for dissolved mineral content, turbidity and microbiological activity. Your UV disinfection system requires clean, clear water for optimum performance. You should only operate your unit if the source water meets the following minimum standards:

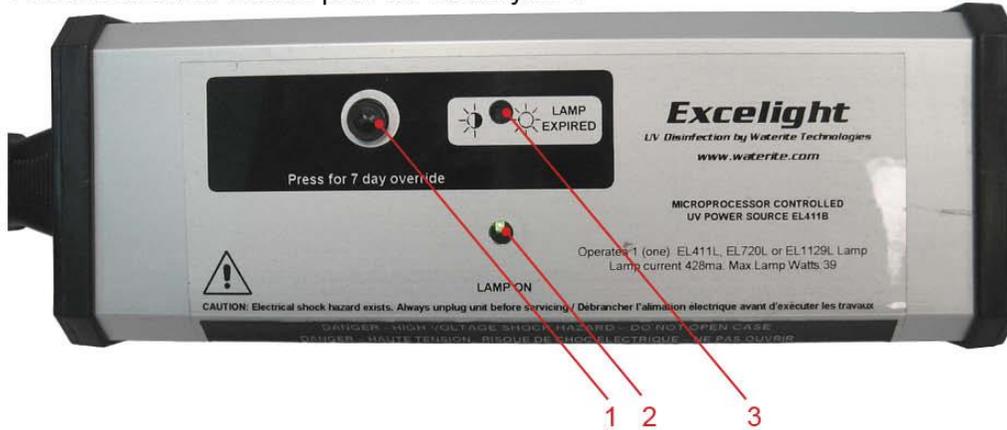
| | |
|-------------------|-----------|
| Turbidity | <1 NTU |
| Suspended Solids | <10mg/L |
| Colour | None |
| Total Iron | <0.3mg/L |
| Manganese | <0.5 mg/L |
| Hydrogen Sulphide | <0.5 mg/L |
| Hardness | <7 gpg |

Where raw water conditions do not meet these minimum standards, pre-treatment equipment such as an inline or automatic filter, ion exchange softener or an RO system must be installed. Consult with your local water treatment specialist for advice.

Where microbiological activity is indicated to be present in your water source, it is highly recommended that additional disinfection barriers be used in addition to your UV system. This could include water well chlorination using a pellet dispenser, inline chlorine injection using a dosing pump and a contact tank, <1-micron absolute filtration or ozone injection. The use of multiple barriers will assure safe drinking water in the event of the failure of any one of the disinfection methods.

BALLAST MODELS AND DISPLAYS

Power Source for models prior to February 2011



Power Source for models after February 2011



- 1- Push Button
- 2- Lamp-On LED Light
- 3- Timer LED Light
- 4- Display Screen
- 5- Red LED Light
- 6- Green LED Light

INSTALLATION CAUTIONS



1. Connect your UV light to a grounded (3-pronged) receptacle (120V/60Hz) (a **GFI and power surge protector is highly recommended**) and ensure that the lamp connector ground wire is connected to the grounding stud on the end of the reactor vessel.
2. Excelight UV disinfection devices are designed to be installed on the cold water line only.
3. Install the Excelight UV disinfection system indoors in a protected area where the temperature does not fall below 4°C (40°F) and the humidity level is low (to prevent condensation on the chamber). This unit functions optimally 9-29°C (49-85°F)
4. Use Teflon tape on all plumbing connections. **Do not use other sealants.**

INSTALLATION PROCEDURE

Your UV disinfection system should be the last component in your water treatment system, downstream from all other equipment. Choose a location for installation with easy access to a 120VAC electrical outlet. Note the direction of water flow in the supply line. Refer to figure 1 for the typical installation diagram and ensure that you have all the fittings necessary for your installation.

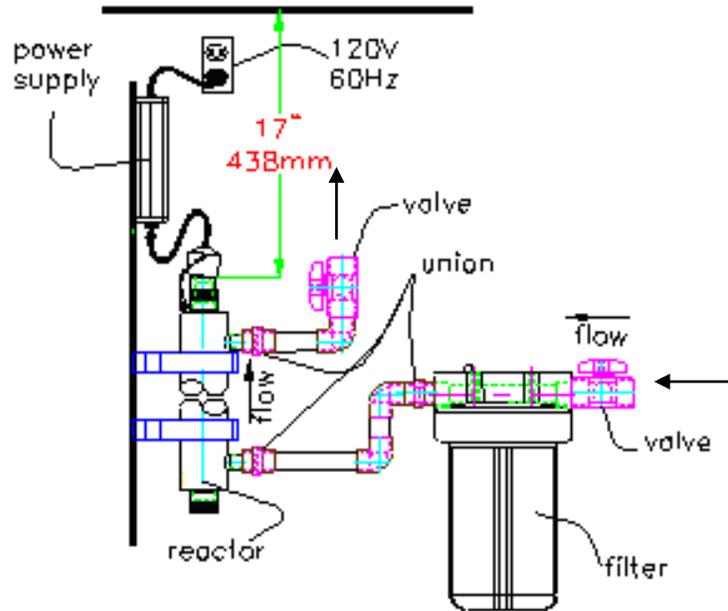


Figure 1.

A minimum distance of 17" (438mm) clearance is necessary to remove the UV lamp from the reactor. If this is not practical the reactor can be removed from the mounting clips for maintenance. Use of unions on the inlet and outlet will facilitate this removal. See figure 1.

1. Shut off the main water supply valve.
2. Mount the unit to the wall in the selected location using the brackets and screws provided.
3. Mount the power supply beside or above the reactor vessel to assure that any leaks cannot migrate to the power source. Never mount the power supply below the reactor chamber. **DO NOT PLUG IN AT THIS TIME.**
4. The unit must be installed so that the inlet and outlet ports are accessible. If mounted vertically the lamp connection must be at the highest point. This will assure that any dripping condensation or possible leaks will not migrate to the lamp harness or electrical connections. See figure 2.
5. If mounted vertically, the water inlet port must be the lowest port. This allows air to escape the housing, and ensures proper flow past the UV lamp. If the system mounted horizontally, either port can be used as the feed port. See figure 2.

- Install new plumbing as shown in figure 1. Note: If installing a pre-filter, use a 5 micron filter and ensure the direction of water flow is correct.

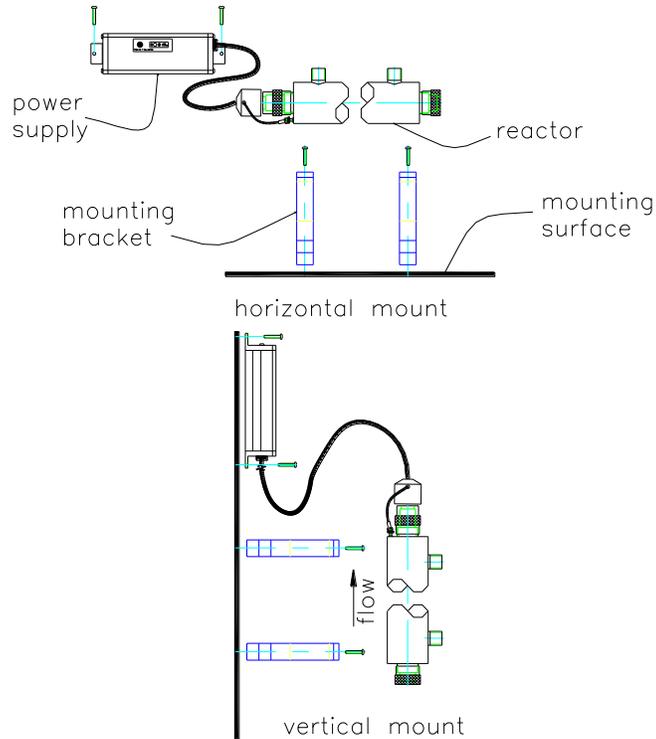


Figure 2.

WARNING:

If soldering copper pipes, do not allow heat near plastic or nylon threads or fittings.

- Remove the electrical end caps. Note that the quartz sleeve has not been factory installed.

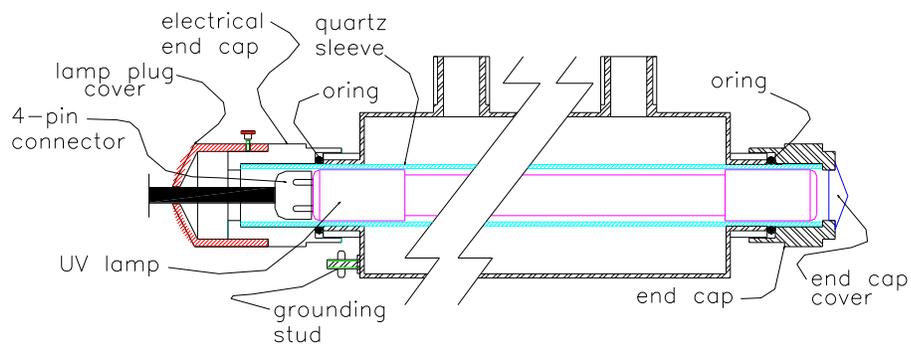


Figure 3.

Slide the quartz sleeve into the chamber until about 1" (2.5 cm) protrudes from the ends. Slide one of the supplied O-rings over the end. Tighten the

non-electrical end cap by hand. Install the other O-ring over the open end of the sleeve on the chamber end that has the grounding screw attached – hand-tighten. Once assembled, tighten ¼-1/2 turn using a wrench or pliers, do not over-tighten.

8. Remove the lamp from its protective packaging. Clean lamp exterior with a clean cloth. Be careful not to leave fingerprints on the lamp. Connect the 4-pin electrical connector to the pins on the UV lamp. Insert the lamp through the opening at the end of the electrical end cap until the connector is inside the end cap.
9. Loosen the setscrew on the side of the lamp plug cover, and place the cover over the ledge of the electrical end cap. Tighten the setscrew.
10. Remove the nut on the grounding stud and place the grounding wire (green & yellow) onto the stud. Replace the nut and tighten.
11. Ensure the valves on either side of the disinfection unit are closed. Open the main supply valve. Open the valve on the discharge side of the disinfection unit. Open the valve slowly on the feed side of the disinfection unit. Check for leaks. If any leaks are present, close valves and repair.
12. Connect UV power source to a 120v receptacle. A green Lamp-On LED light indicates the lamp is ignited and a 365 Lamp Life Days countdown is displayed on the screen (for model before February 2011, the UV power source audible alarm will sound 3 times before igniting the lamp, Lamp Life Days countdown display is not available).
13. Your Excelight UV Disinfection System is now ready for use. **Before service begins all household plumbing lines should be disinfected.**
14. Momentarily operate the unit with the lamp disconnected to allow you to validate the adequacy of the audible alarm function in your installation. You should be able to hear it from other parts of the house, so that you will be easily alerted in the event of lamp failure.

PLUMBING SYSTEM DISINFECTION PROCEDURE



THE FOLLOWING DISINFECTION PROCEDURE IS GENERALLY ACCEPTED AS BEING SUITABLE FOR THE DISINFECTION OF PLUMBING SYSTEMS KNOWN TO BE CONTAMINATED.

IF YOU ARE UNCERTAIN ABOUT THE EFFECTIVENESS OF THIS PROCEDURE YOU ARE ADVISED TO CONTACT YOUR LOCAL HEALTH AUTHORITY RESPONSIBLE FOR WATER SAFETY.

During the UV disinfection process the only place disinfection takes place is within the reactor chamber. There is no residual disinfectant capacity. Therefore it is necessary to chemically disinfect the plumbing system prior to the initialization of the UV system.

1. Turn the UV system shut off valves to the closed position.
2. The disinfection of the plumbing system is most readily accomplished by removing the 5 micron pre-filter cartridge and adding 250-500ml (1-2 cups) of a standard 5% concentration of unscented household bleach into the empty filter housing and re-attaching.
3. Verify that the UV system is connected to the AC power voltage and operating properly.
4. Turn the valves to the open position and let the water flow.
5. Open all faucets, fixtures and appliances in turn until you can easily smell chlorine. This includes outside faucets, laundry machines, showerheads and any device or appliance attached to the plumbing system. Close the fixtures and let the system sit for 30-60 minutes. **Do not use or consume system water during this process.**
6. Close the valves on the UV system. Re-install the pre-filter. Open the valves and flush all fixtures and lines thoroughly.

The introduction of a chlorine disinfectant to a hot water heater that has been used with untreated water or water with excessive amounts of iron, manganese or other organic materials may lead to the oxidation of these particulates. If you feel that these conditions may apply to your installation, a thorough flushing of the hot water tank after the disinfection should be undertaken to eliminate the oxidized material from the system. Consider replacing an aged hot water tank at this time.

UV POWER SOURCE FEATURES

The microprocessor controlled power source supplied with your Excelight System has both visual and audible alarm enunciation to indicate lamp operation/failure and an integral annual lamp change reminder timer.

UV Power Source Initialization Sequence

When AC power is applied to the UV power source, the lamp is ignited as indicated by the **green** Lamp-On LED after which a self test of the annual lamp change reminder timer and lamp illumination. For model before February 2011, three buzzer beeps and three times **red** timer LED flashes from UV power source will be noticed. If a solenoid valve is connected to the UV power source, it will activate on the completion of the self test sequence.

Normal Operation:

During normal operation, the **green** Lamp-On LED is illuminated.

Lamp Failure:

When the UV power source detects a lamp failure or enters the auto shut down mode due to abnormal operating conditions, Lamp Life Days display freezes, the **red** LED light flashes and an audible alarm is activated. The system will remain in this state until a new lamp is detected. (See “Replacing the UV Lamp and Cleaning the Quartz Sleeve” in the Operating and Maintenance section)

NOTE:

The UV power source is designed to shut down if the AC input voltage is outside its operating limits. When a lamp failure alarm is activated you should unplug the unit from the AC power source, wait fifteen seconds and then reconnect the AC power source. If the failure was due to the “Out of Limits AC Power”, the unit will re-ignite the lamp and operate normally.

Lamp Life Days/Total Running Days:

The screen on the UV power source displays the countdown of system operating days remaining from 365 to 1 during normal operation. At “0” day, screen will display “A3” with a flashing **red** LED light, and an audible alarm will be activated. This indicates a UV lamp changing is required. At this state, the alarm can be deferred up to 4 times: press and hold the push button on the power source for 5 seconds till screen displays “7”. This will silence the audible alarm for another 7 days but the **red** LED light will still flash. After the final “7” days, the alarm ONLY can be terminated by replacing a new lamp and resetting the Lamp Life Days back to “365”. (See “Resetting the UV Power Source” in Operating and Maintenance section)

The UV power source also tracks total running days of the UV system. To activate, press the push button for less than 2 seconds, then the screen will display the total running days of the UV system for 10 seconds and return to its default screen display (Lamp Life Days).

Lamp Timer Operation (for models prior to February 2011 ONLY):

The annual lamp change reminder timer will run for approximately one full year. At the end of this one-year period, the lamp change timer will flash and the buzzer will sound. The flashing **red** LED indicates that the timer function has entered its 28-day grace period. Pushing the timer button during this grace period will silence the alarm buzzer for a seven-day period but the **red** LED will continue to flash. The buzzer reset can be activated a maximum of four times during the 28-day grace period. Under no circumstances does the grace period exceed 28-days. At the expiry of the grace period the UV power source indicates the lamp change alarm by illuminating the **red** timer LED continuously and sounding the buzzer. **Note:** The UV lamp is not shut down in this alarm mode and the solenoid valve drive is not disabled.

Time Remaining (for models prior to February 2011 ONLY):

When the lamp change reminder timer is not in the 28-day grace period or lamp change alarm mode, the number of months of lamp life remaining can be determined by pressing the timer push button and counting the number of times the **red** timer LED flashes. See “Resetting of Lamp Change Timer” in the Operating and Maintenance section following.

OPERATING AND MAINTENANCE

Your Excelight UV System is “ON” continuously during normal operation. After periods of not using your water supply exceeding two to three days, it is recommended to open all faucets and flush your plumbing system for one to two minutes.

WARNING!

ULTRAVIOLET LAMP REPLACEMENT

THE ULTRAVIOLET LAMP INSIDE THE REACTOR CHAMBER WILL OPERATE EFFECTIVELY ROUND THE CLOCK, FOR APPROXIMATELY ONE YEAR OR 8000 HOURS. THE LAMP WILL LIGHT LONGER THAN THAT, HOWEVER, THE UV LIGHT PENETRATION MAY FALL BELOW THE PRESCRIBED SAFETY LEVEL. THEREFORE, ANNUAL LAMP REPLACEMENT IS NECESSARY REGARDLESS OF APPARENT LAMP CONDITION.

Replacing the UV Lamp and Cleaning the Quartz Sleeve:

1. Unplug the system from the electrical outlet and turn off the water supply to the unit.
2. Carefully extract the lamp connector from the electrical end cap assembly to just expose the top of the UV lamp. While holding the lamp base firmly, disconnect the lamp 4-pin connector. Lamp base can be very hot - be careful not to drop the lamp into the quartz as both are easily broken.
3. Carefully slide the lamp out of the quartz sleeve and discard.
4. Loosen and remove both end caps. Roll back the o-rings at both ends and remove. Carefully extract the quartz sleeve from the reactor housing. **The quartz sleeve is very fragile and is easily chipped or broken - use extreme caution when installing or removing it from the reactor vessel.**

NOTE:

Do not touch the lamp or quartz sleeve with your fingers. Handle by the ends only or wear soft non-abrasive gloves.

5. Clean the quartz sleeve with vinegar or a readily available scale-removing product. (Lime Away, CLR)
6. Examine the quartz sleeve o-rings. If they look worn or cracked, replace. Re-install the quartz sleeve.
7. Install new lamp by reversing the procedure described in item #2 above.
8. Slowly open shutoff valves and purge the air from the system.
9. Ensure there are no leaks at the end caps before connecting the power to the system.

Resetting the UV Power Source:

The Lamp Life Days (lamp change reminder timer for models prior to February 2011) is reset by disconnecting the UV power source from the AC power supply, waiting for 15 seconds and then reconnecting the AC power supply with the push button depressed till screen displays "rSEt" followed by a short audible beep, the number "365" shows on the screen indicating that the reset was successful. (For models prior to February 2011 a three seconds beep indicates the successful power source reset)

SYSTEM REPLACEMENT PARTS

EXCELIGHT System Replacement UV Lamps

Standard 4-pin, 9000 rated hours

| | |
|--------------------------------------|---------|
| Excelight EL411A UV Lamp, 20W/450mm | EL411L |
| Excelight EL720A UV Lamp, 32W/645mm | EL720L |
| Excelight EL1129A UV Lamp, 39W/845mm | EL1129L |

EXCELIGHT Quartz Sleeves

DOE, silicone o-rings included

| | |
|--|---------|
| Excelight EL411A Quartz Sleeve, 535mm | EL411Q |
| Excelight EL720A Quartz Sleeve, 665mm | EL720Q |
| Excelight EL1129A Quartz Sleeve, 890mm | EL1129Q |

EXCELIGHT Ballasts

115V/60hz, grounded plug, CSA Approved

| | |
|---|---------|
| Excelight Ballast, 420mV, 110V/60hz | EL411B |
| Excelight Ballast, 420mV, 110V/60hz, w/ Solenoid Output | EL411BS |

Other EXCELIGHT Replacement Parts

| | |
|----------------------|---------|
| Excelight Sleeve Cap | EL411C |
| Mounting Clip | WP-25 |
| Sleeve o-ring kit | EL411RK |

UV DOSAGE CHART FOR 3-LOG ORGANISM INACTIVATION

Approximate ultraviolet energy levels at 254-nanometer units wavelength required for 99.9% destruction of various microorganisms UV energy in mWs/cm² (1mj/cm² = 1000 mWs/cm²):

| BACTERIA | | MOULD SPORE | |
|--|--------|--------------------------------------|---------|
| Agrobacterium tumefaciens | 8,500 | Aspergillus flavus (yellowish green) | 99,000 |
| Bacillus anthracis | 8,700 | Aspergillus glaucus (bluish green) | 88,000 |
| Bacillus mrgaterium (vegetative) | 2,500 | Aspergillus niger (black) | 330,000 |
| Bacillus mrgaterium (spore) | 52,000 | Mucor ramosissimus (white gray) | 35,200 |
| Bacillus subtilis (vegetative) | 11,000 | Penicillum digitatum (olive) | 88,000 |
| Bacillus subtilis (spore) | 58,000 | Penicillum expensum (olive) | 22,000 |
| Clostridium tetani | 22,000 | Penicillum roqueforti (green) | 26,400 |
| Corynebacterium diphtheriae | 6,500 | Rhizopus nigricans (black) | 220,000 |
| Echerichia coli | 7,000 | - | - |
| Legionella bozimanii | 3,500 | - | - |
| Legionella dumoffii | 5,500 | - | - |
| Legionella gormanii | 4,900 | ALGAE | |
| Legionella micdadei | 3,100 | Chlorella vulgaris (algae) | 22,000 |
| Legionella longbeachae | 2,900 | - | - |
| Legionella pneumophila | 3,800 | - | - |
| Legionella interrogans (infectious jaundice) | 6,000 | - | - |
| Mycobacterium tuberculosis | 10,000 | PROTOZOA | |
| Neisseria catarrhalis | 8,500 | Nematode eggs | 92,000 |
| Proteus vulgaris | 6,600 | Paramecium | 200,000 |
| Pseudomonas aeruginosa (laboratory strain) | 3,900 | | |

| BACTERIA | | | |
|---|--------|-------------------------------|---------|
| Pseudomonas aeruginosa (environmental strain) | 10,500 | | |
| Salmonella enteritidis | 7,600 | VIRUS | |
| Salmonella paratyphi (Enteric fever) | 6,100 | Bacteriophage (E.coli) | 6,600 |
| Salmonella typhimurium | 15,200 | Hepatitis virus | 8,000 |
| Salmonella typhosa (Typhoid fever) | 6,000 | Influenza virus | 6,600 |
| Sarcina lutea | 26,400 | Poliovirus | 21,000 |
| Serratia marcescens | 6,200 | Rotavirus | 24,000 |
| Shigella dysenteriae (Dysentery) | 4,200 | Tobacco mosaic virus | 440,000 |
| Shigella flexneri (Dysentery) | 3,400 | Virus of Infectious Hepatitis | 8,000 |
| Staphylococcus aureus | 7,000 | YEAST | |
| Streptococcus faecalis | 10,000 | Baker's yeast | 8,800 |
| Streptococcus hemolyticus | 5,500 | Brewer's yeast | 6,600 |
| Streptococcus lactis | 8,800 | Common yeast cake | 13,200 |
| Streptococcus viridans | 3,800 | Saccharomyces ellipsoideus | 13,200 |
| Vibrio cholerae | 6,500 | Saccharomyces sp. | 17,600 |

The approximate dosages / flow rate for Excelight units, with clear water are:

EL411AK: 11GPM@16mj/cm² 6GPM@30mj/ cm² 4GPM@40mj/ cm²

EL720AK: 15GPM@16mj/cm² 8GPM@30mj/ cm² 6GPM@40mj/ cm²

EL1129AK: 22GPM@16mj/ cm² 12GPM@30mj/ cm² 9GPM@40mj/ cm²

Disinfection chamber hydraulic performance may limit maximum flow rate. Flow restrictors may be used to limit flow rate through chamber to ensure dosage.

A 16mj/cm² dose is suitable for reducing non-pathogenic nuisance organisms only.

A 30mj/cm² Industry Standard Dose - This is the dosage produced by 2.5" diameter disinfection chambers when designed using the 1966 US Department of Health UV disinfection Policy Statement.

A 40mj/cm² dosage is now required in NSF/ANSI Standard 55.

UV DISINFECTION LIMITED WARRANTY

One-Year Limited Warranty for the UV Chamber

Waterite Technologies, Inc. warrants the UV chamber on the Excelight product to be free from defects in material and workmanship for a period of one (1) year from the date of purchase. During this time, we will repair or replace, at its option, any defective Excelight UV chamber. Please return the defective part to an Excelight dealer, who will return it to Waterite Technologies, Inc. We will either make the necessary repairs or, if it is determined that a replacement is required, we will provide a replacement part. We will then return the part to the dealer. This warranty does not include shipping and handling charges which will be collected from you by the dealer. Parts repaired or replaced under this one (1) year warranty will be covered under warranty to the end of the original one (1) year warranty period. This warranty is also subject to the conditions and limitations outlined under the heading "General Conditions and Limitations" below.

Seven-Year Limited Pro-Rated Warranty for Structural, Hardware and Electrical Components

Waterite Technologies, Inc. warrants the structural, hardware, and electrical components to be free from defects in material and workmanship for a period of seven (7) years pro-rated from the date of purchase. During this time, we will repair or replace, at its option, any defective parts covered by the warranty. Please return the defective part to an Excelight dealer, who will return it to Waterite Technologies, Inc. We will either make the necessary repairs or, if it is determined that a replacement is required, we will provide a replacement part. We will then return the part to the dealer. This warranty does not include shipping and handling charges which will be collected from you by the dealer. Parts repaired or replaced under this seven (7) years pro-rated warranty will be covered under warranty to the end of the original seven (7) years pro-rated warranty period. This warranty is also subject to the conditions and limitations outlined under the heading "General Conditions and Limitations" below.

One-Year Limited Warranty for Lamps, Sleeves and UV Sensors

Waterite Technologies, Inc. warrants original lamps, sleeves and UV sensors to be free from defects in material and workmanship for a period of one (1) year from the date of purchase. During this time, we will repair or replace, at its option, any defective parts covered by the warranty. The warranty period for lamps and sleeves may be verified using date codes in addition to purchase receipts and Waterite Technologies, Inc. database of registered owners. We will advise you whether the defective item needs to be returned to an Excelight dealer for failure analysis. Replacement lamps and sleeves provided under warranty will be sent to your Excelight dealer. If the UV sensor experiences a problem which Waterite Technologies, Inc. confirms is covered by warranty, please return the sensor to an Excelight dealer who will return it to us. We will either repair or replace the sensor and return the sensor to your dealer. This warranty on lamps, sleeves and sensors does not include shipping and handling charges which will be collected from you by the dealer. Parts replaced under this one (1) year warranty will be covered under warranty to the end of the original one (1) year warranty period. This warranty is also subject to the conditions and limitations outlined under the heading "General Conditions and Limitations" below.

Warranty for Replacement Lamps and Parts

Waterite Technologies, Inc. warrants replacement lamps, purchased for annual routine maintenance, and other parts purchased to repair product components that are no longer covered by the original warranty, to be free from defects in material and workmanship for a period of three (3) months from the date of purchase. During this time, we will repair or replace, at its option, a defective replacement lamp or part free of charge except for shipping and handling charges. The warranty period on replacement lamps and parts will be verified using date codes and/or purchase receipts. Waterite Technologies, Inc. will advise you whether the defective item needs to be returned to an Excelight dealer for failure analysis. Replacement lamps and parts provided under warranty will be sent to your Excelight dealer.

General Conditions and Limitations

None of the above warranties cover damage caused by improper use or maintenance, accidents, acts of God or minor scratches or imperfections that do not materially impair the operation of the product. The warranties also do not cover products that are not installed as outlined in the applicable Owner's Manual. The limited warranties described above are the only warranties applicable to the Excelight products listed in the "Specific Warranty Coverage" section. These limited warranties outline the exclusive remedy for all claims based on a failure of or defect in any of these products, whether the claim is based on contract, tort (including negligence), and strict liability or otherwise. These warranties are in lieu of all other warranties whether written, oral, implied or statutory. Without limitation, no warranty of merchantability or of fitness for a particular purpose shall apply to any of these products. Waterite Technologies, Inc. does not assume any liability for personal injury or property damage caused by the use or misuse of any of the above products. Waterite Technologies, Inc. shall not in any event be liable for special, incidental, indirect or consequential damages. Waterite Technologies, Inc.'s liability shall, in all instances, be limited to repair or replacement of the defective product or part and this liability will terminate upon expiration of the applicable warranty period.

Pro-Rated Warranty

The pro-rated warranty as specified in this document is applicable according to following parameters:
All the warranties are 100 % valid at the time of the sale, and effective the day of the registration of the warranty. The decrease in covered percentage occurs the day after the anniversary date of the purchase of the UV System (as long as the warranty has been registered and valid). The prorated portion of an eligible warranty repair is based on the date that the problem is communicated to the dealer in writing, or of the day when the UV System enters the dealer and/or Waterite Technologies, Inc. for repairs, or the date determined by the dealer (subject to Waterite Technologies, Inc.'s approval). If during a repair started at a higher prorated percentage, a second repair is requested or necessary and is under warranty at a lower proportion, the lower proportion will be applicable. The fact of not having registered the warranty will not prolong in whole or in part the warranty, the starting date of your warranty is always the date of purchase.

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