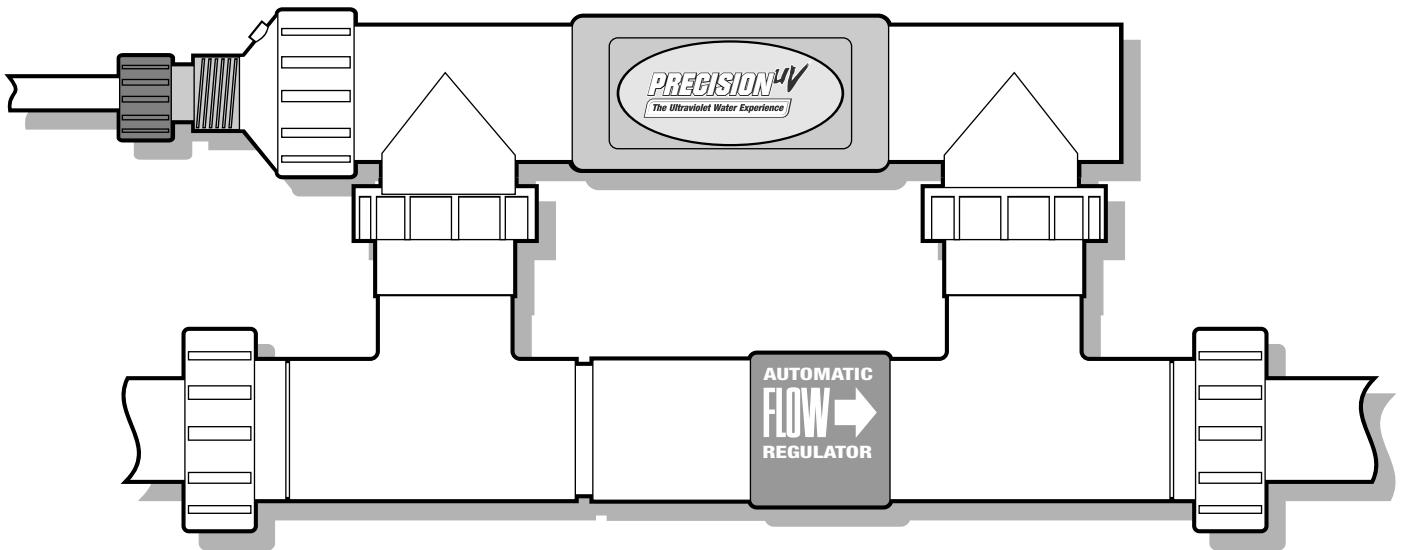


PRECISION^{UV}

The Ultraviolet Water Experience

Installation and Operating Instructions



söla^{xx}[®]

WATER TREATMENT SOLUTIONS

www.solaxx.com

SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

- ⚠ **WARNING** – Risk of Electric Shock. Connect only to a branch circuit protected by a ground-fault circuit-interrupter (GFCI). Contact a qualified electrician if you cannot verify that the circuit is protected by a GFCI.
- ⚠ The unit must be connected only to a supply circuit that is protected by a ground-fault circuit-interrupter (GFCI). Such a GFCI should be provided by the installer and should be tested on a routine basis. To test the GFCI, push the test button. The GFCI should interrupt power. Push the reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the pump without the test button being pushed, a ground current is flowing, indicating the possibility of an electric shock. Do not use this pump. Disconnect the pump and have the problem corrected by a qualified service representative before using.
- ⚠ **WARNING** - To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
- ⚠ **CAUTION** - This product should be installed by a professional service technician or similar person who is qualified in electrical equipment installation. Improper installation and/or operation could cause serious personal injury, property damage or death. Improper installation and/or operation will void the warranty.
- ⚠ **CAUTION** - To reduce the risk of personal injury the power supply must be installed on and wired to the load side of the time clock, electronically controlled switch, or relay load side, so that it will receive power only when the pool pump is on. The Power supply should never be energized when water is not flowing through the unit.
- ⚠ **WARNING** - ELECTRIC SHOCK - Disconnect all AC power during installation or performing any service work.
- ⚠ **CAUTION** - To prevent possible fire or electrical shock, use only replacement lamp specified by the manufacturer.
- ⚠ **CAUTION** - Do not use system if cord is damaged or frayed.
- ⚠ **CAUTION** - Lamps and quartz sleeves are made of glass and are extremely delicate. Care should be taken when handling or replacing these components. Wear cotton gloves when handling lamps or sleeves. Hold lamps by the ends only. Never touch the glass with bare hands. Wipe any fingerprints from lamps and sleeves with rubbing alcohol.
- ⚠ **CAUTION** - This device is for use on swimming pools less than 40,000 gallons. Do not use this device for potable (drinking) water sanitization.
- ⚠ **DANGER** - ULTRAVIOLET RADIATION. Disconnect Power Before Replacing Lamp . This device contains an ultraviolet lamp that can cause discomfort, irritation and damage to the eyes if viewing occurs while device is in operation. Prolonged exposure to the eyes can cause serious injury to the eyes, including blindness. DO NOT DIRECTLY VIEW UV LAMP WHILE THE DEVICE IS IN OPERATION. LAMP FUNCTION CAN BE VIEWED THROUGH QUARTZ VIEW CAP SAFELY.
- ⚠ **ENVIRONMENTAL NOTICE** - Hg-Lamp CONTAINS MERCURY. Manage in accordance with disposal laws. See: www.lamprecycle.org

SAVE THESE INSTRUCTIONS

Specifications:

Max Pool Size: Pools up to 40,000 Gallons

Shipping Weight: 16 pounds

Connections: Two inch pipe connections on manifold with two inch unions included

Location Requirements: Power supply is wall mounted near the manifold and wired to the same source power as the pump. Cord length between power supply and manifold is 9 Feet.

Input Power: 120/240VAC

Power Consumption: 60 Watt max.

Max Operating Pressure: 50 psi

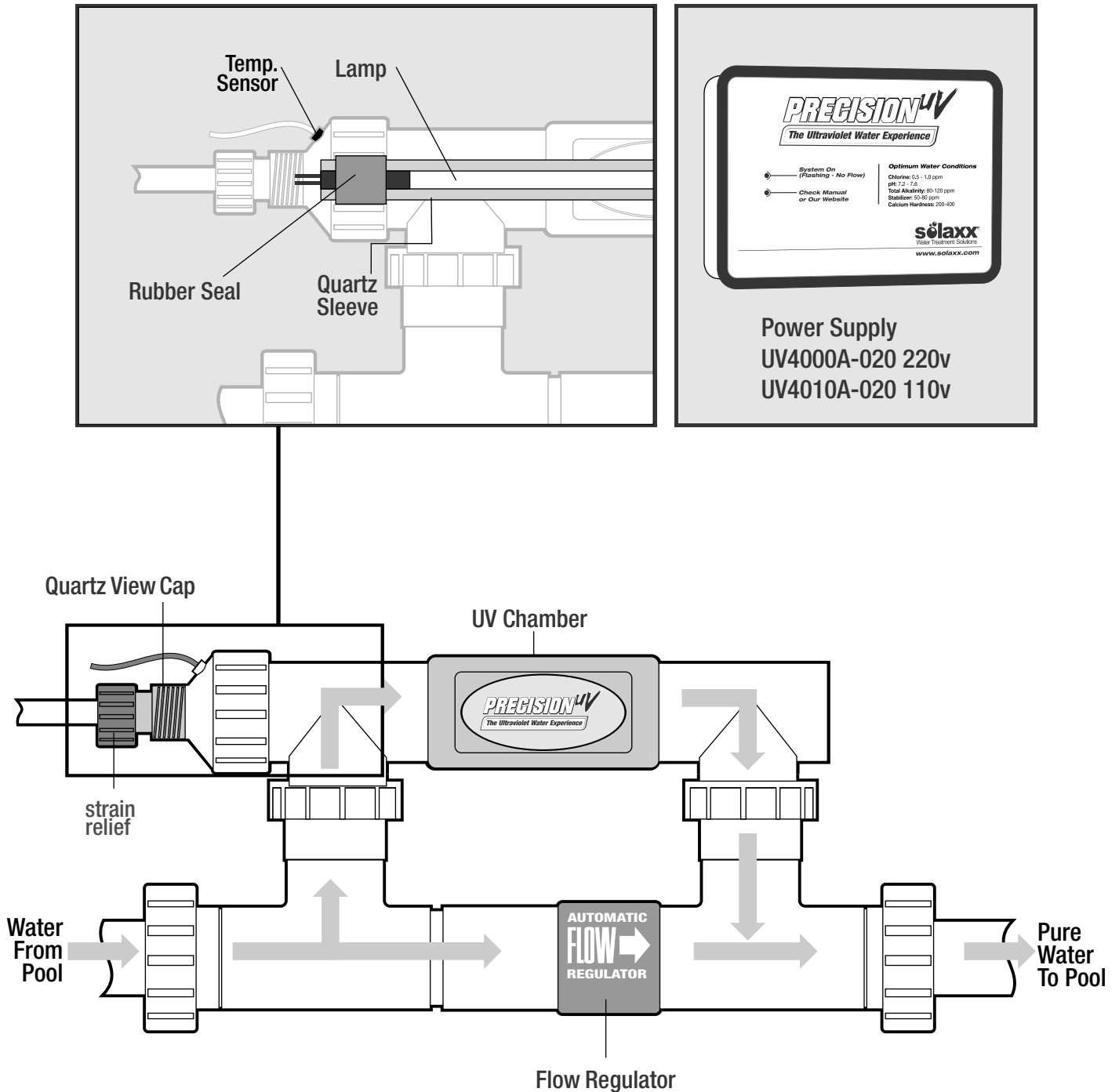
Operating Flow Range: up to 120 GPM

Lamp: 13,000 hour life expectancy

DESCRIPTION

The system utilizes an Ultraviolet Sterilization Chamber to treat your water. This powerful process eliminates contaminants in water and reduces the use of pool chemicals. No toxic chemicals are used, no metals or minerals, only pure light.

Using the existing pool pump, a specific amount of water is diverted into the UV chamber where it is sterilized to the quality of drinking water. A microscopic residual of chlorine (.5-1.0 ppm) is recommended for use with this system as a supplemental source of disinfection. For best results, the pool pump should run at least 12 hours daily, (optimally 24 hours daily) for highest savings in chemical usage and cost.



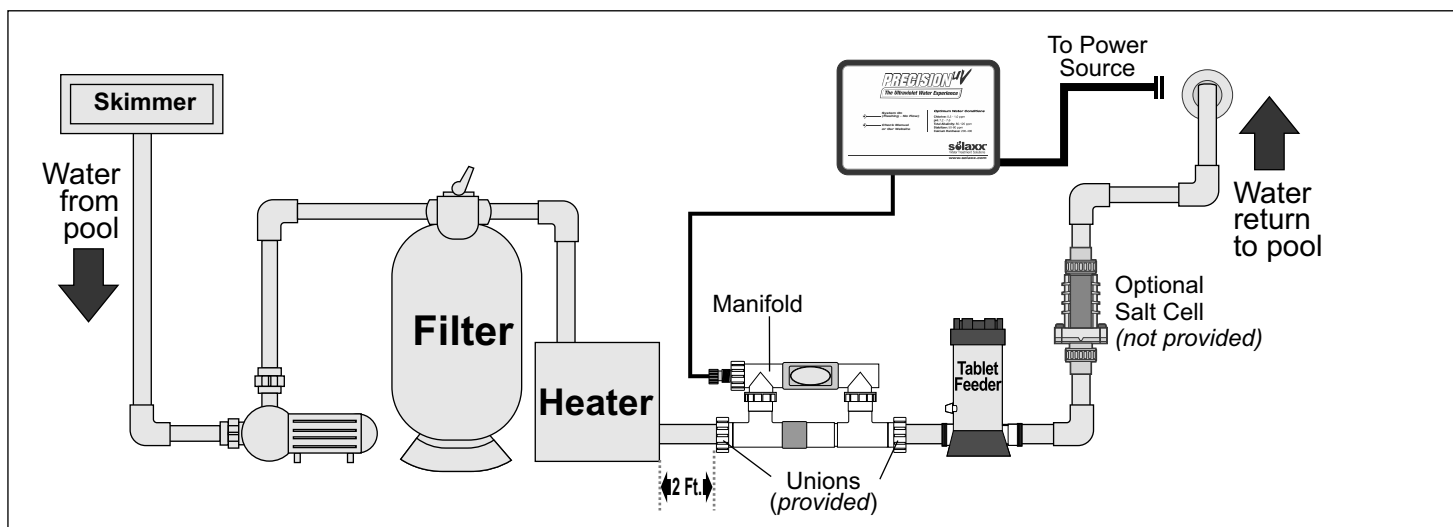
INSTALLATION



- TURN OFF ALL POWER TO EXISTING EQUIPMENT AT THE BREAKER SWITCH.
- BEFORE STARTING INSTALLATION, YOU MUST READ THIS MANUAL IN ITS ENTIRETY TO ASSURE A SAFE INSTALLATION.

• 1. PLUMBING:

Install manifold downstream of the heater and before chlorine tablet feeder. If space allows, install manifold minimum two feet away from the heater to avoid possible safety shutdown of the system due to hot water conditions in the chamber.



A) Install the Precision into a 1⁸ ½ inch opening with a union on both sides to facilitate easy removal should it become necessary. Unions are provided for easy servicing and removal.

B) Clean the ends of the PVC pipe and glue the manifold into opening in the horizontal position shown above.

C) If existing pipe is sized smaller or larger than 2 inch, use adapters to install manifold (not provided)

D) Water flow is automatically diverted into the UV chamber at the proper flow rates. Restriction to the plumbing is nominal when the manifold is inserted into the plumbing and is comparable to adding a heater to the pool. See below:

DO NOT ATTACH MANIFOLD DIRECTLY TO A 90° ELBOW. ALLOW AT LEAST 6 INCHES OF STRAIGHT PIPE ON EACH SIDE.

INSTALLATION

2. INSERT BULB INTO CHAMBER:



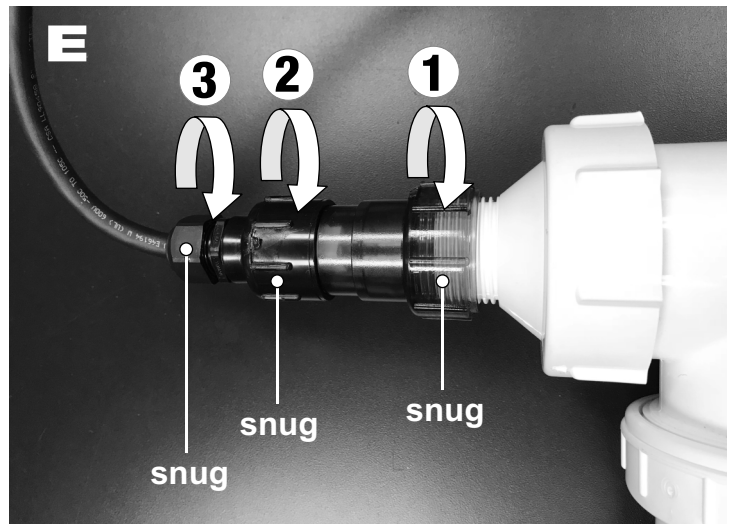
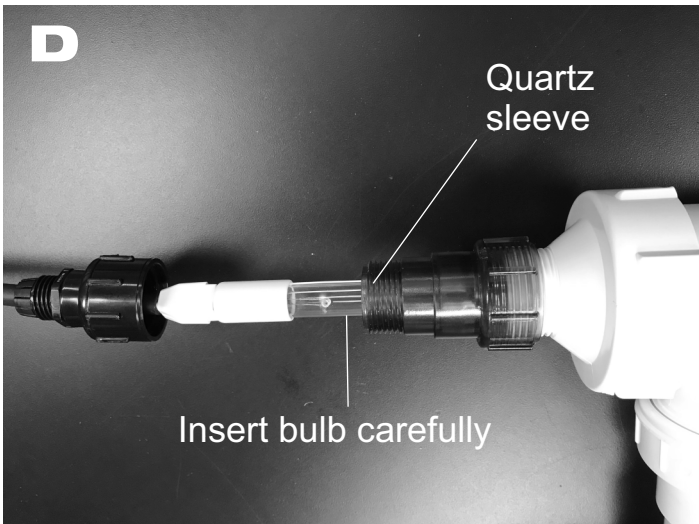
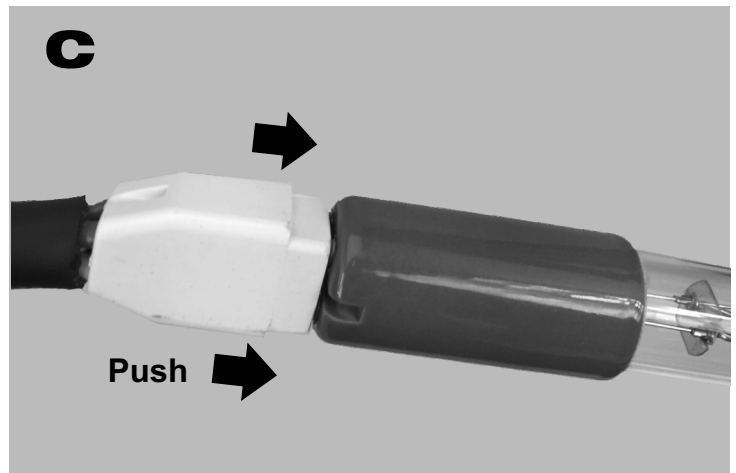
IMPORTANT:

HANDLE THE LAMP BY THE ENDS ONLY AND AVOID TOUCHING THE CLEAR GLASS OF THE LAMP. IF POSSIBLE USE COTTON GLOVES TO HANDLE LAMP TO AVOID GETTING OILS FROM HANDS ON THE LAMP. SKIN OILS ATTACH TO THE LAMP AND SHORTEN ITS EFFECTIVE LIFE. IF LAMP IS TOUCHED, WIPE CLEAN WITH A SOFT CLOTH AND RUBBING ALCOHOL.



THIS ULTRAVIOLET RADIATION APPLIANCE CONFORMS TO THE APPLICABLE PROVISIONS OF THE CODE OF FEDERAL REGULATIONS (CFR) REQUIREMENTS, INCLUDING TITLE 21, CHAPTER 1, SUBCHAPTER J, RADIOLOGICAL HEALTH

- A. Unthread and remove the end cap with the wire attached from the end of the UV chamber, by first loosening the small black plastic nut, then the larger black nut to pull out plug.
- B. Pull gently until lamp is visible and unplug from each other.
- C. Plug the 4 prong plug into the end of the UV lamp. If lamp is not fully plugged in, damage to the unit may occur.
- D. Slide lamp **straight** into chamber - **Be careful, inserting the lamp at an angle, even a slight angle can crack the quartz sleeve.**
- E. Rethread blue cap back onto chamber fitting very snug to assure tight seal. BE SURE ALL THESE CONNECTIONS ARE SNUG. **HAND TIGHTEN ONLY!**



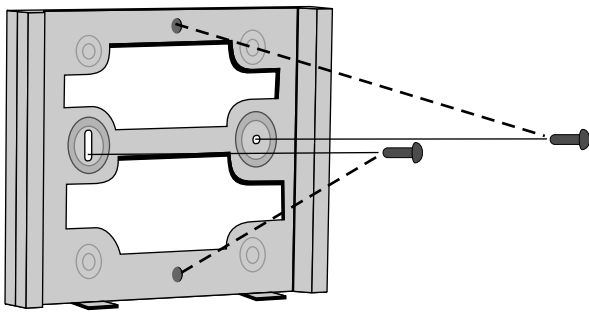
INSTALLATION

Mounting the Power Supply



CAUTION: FOLLOW ALL APPLICABLE BUILDING AND ELECTRICAL CODES

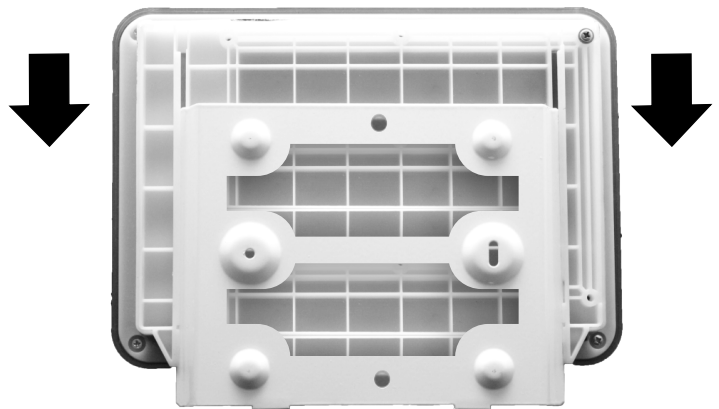
1. Before making any electrical connections, mount the power supply to a vertical surface. Since Precision is designed to turn on only when the pump is running, locate this power supply within 8 feet of the source power for the pump. The Precision power supply is wired to the same source power as the pump. See page 8 for electrical connections after mounting power supply.



2. Mount the aluminum bracket first on a vertical surface at a height of approximately five (5) feet above the ground using the screws provided with the spacers against wall to allow air flow behind bracket. Level the bracket using the oval hole for a clean installation. Dotted lines show alternate mounting holes for mounting on a post.



3. Once bracket is secured, slide the power supply down onto the bracket using slots on back of the power supply. Push down onto bracket gently until it hits the stops and is mounted securely in place.



INSTALLATION

3. ELECTRICAL CONNECTIONS:
CAUTION: TURN OFF ALL POWER TO THE POOL EQUIPMENT BEFORE CONNECTING THE POWER SUPPLY TO ANY ELECTRICAL SOURCE. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH!

USE COPPER CONDUCTORS ONLY

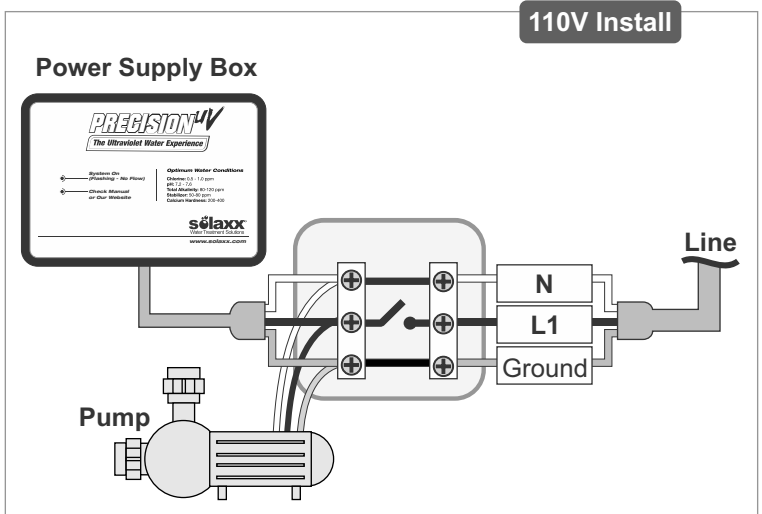
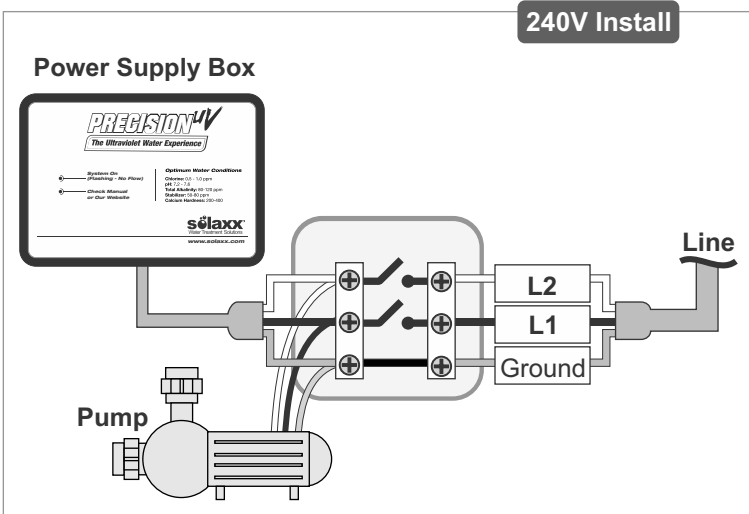
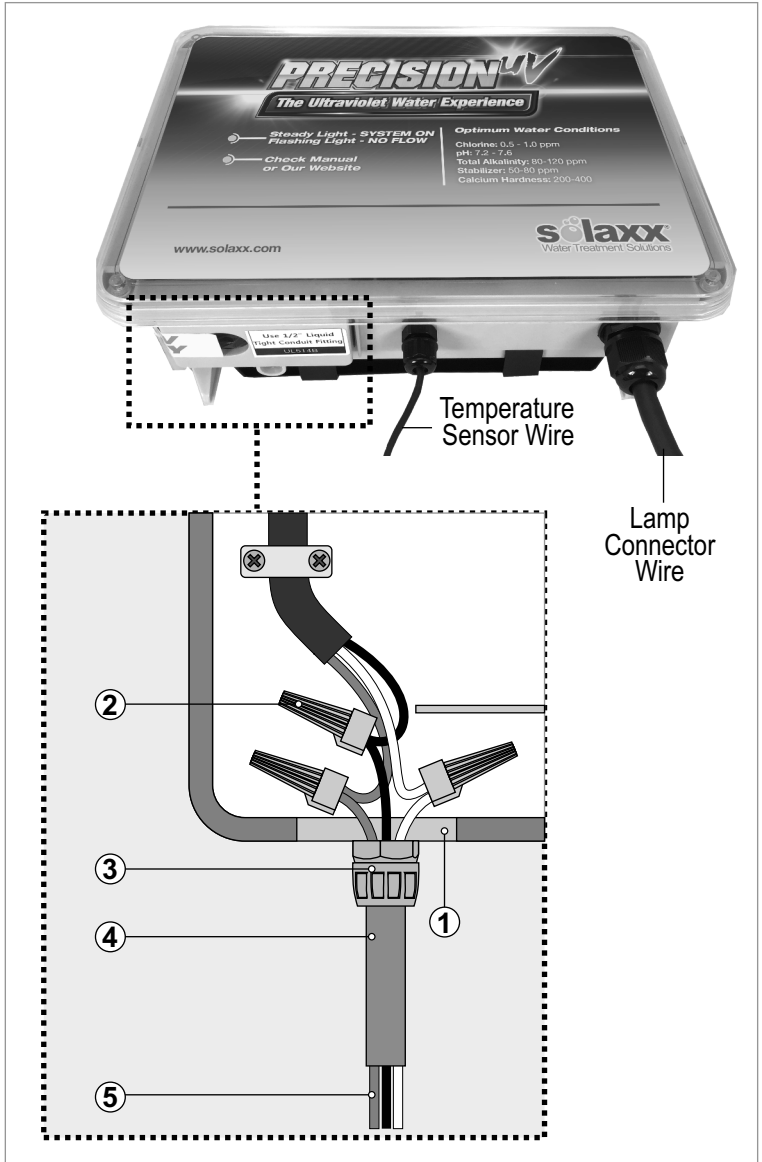
FOLLOW ALL APPLICABLE ELECTRICAL CODES.

Internal Wire Connections

1. Cover of the Junction Box
2. Wire Nut Connections
3. Liquid-Tight Conduit Fitting (1/2 inch) (UL514B)
4. Liquid-Tight Conduit (1/2 inch) (UL514B)
5. Wires
6. Items 3,4,5 Not supplied

Wires to be connected to either a circuit breaker, or automation system relay.

For variable speed pump connection see below for 240 and 110 Volt install.



POOL WATER PREPARATION

1. CHLORINE FROM CHEMICALS OR SALT SYSTEMS ARE NOT A PROBLEM AND THE SYSTEM MAY BE STARTED WHILE USING CHLORINE.
2. Test pool water and adjust pH, total alkalinity and calcium hardness levels before starting system. See Table below.



Optimum Water Conditions

Chlorine: 0.5 - 1.0 ppm

pH: 7.2 - 7.6

Total Alkalinity: 80-120 ppm

Stabilizer: 50-80 ppm

Calcium Hardness: 200-400

OPERATION

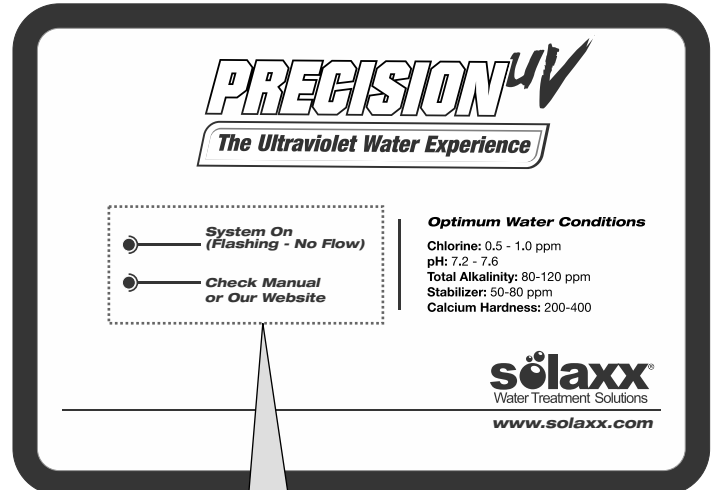


WARNING: DO NOT ATTEMPT TO OPEN THE POWER SUPPLY FOR ANY REASON. IT IS SEALED AND NOT DESIGNED TO BE REPAIRED IN THE FIELD. A DEFECTIVE OR NON FUNCTIONING POWER SUPPLY IS REPLACED WITH A NEW UNIT ONLY.

- Steady Blue LED = system has power and is operating normally
- Flashing Blue LED = no flow to chamber. This could be caused by the pool pump losing its prime or from blockage in the plumbing. Check water flow through system.

Note: The flow is determined using a temperature sensor. Therefore, it may take a few minutes to recognize that flow has stopped when the system turns off. This is not harmful to the Precision chamber.

- Steady Red LED = system error. This means an error has occurred in the power supply. Please go to www.solaxx.com to create an RMA form which will be answered within 24 hours or next business day to resolve this issue.



System On (Flashing - No Flow)

Check Manual or Our Website

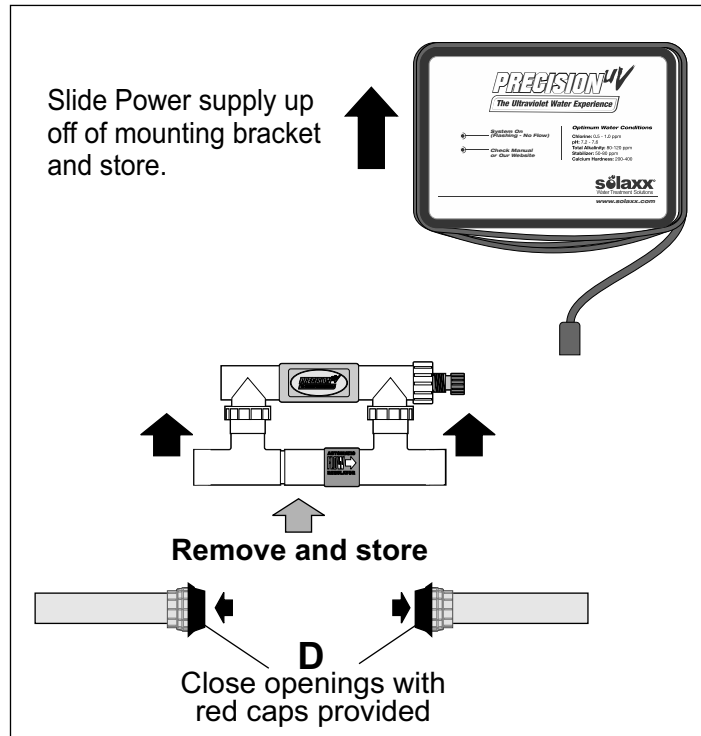
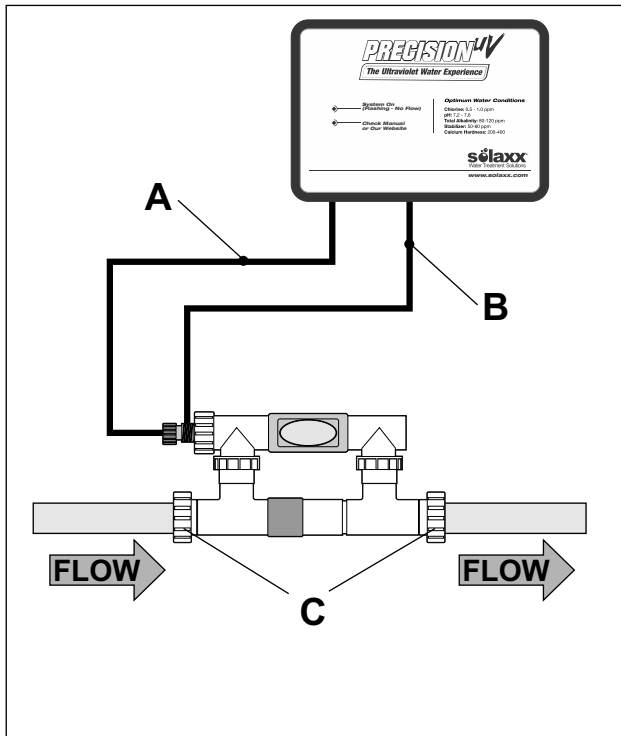
MAINTENANCE

WINTERIZING

In areas where the pool and the equipment is winterized (equipment drained and pool covered), Precision should be winterized also. This is done by removing the entire Precision manifold from the plumbing and storing in a warm, dry place.

First, blow out all pipes with air while the Precision is still installed on the pipe. Then:

- A. Unplug the lamp in reverse order of inserting it as shown on page 6.
- B. Coil the wire around the power supply which is mounted to the wall and slide up off of mounting bracket.
- C. Unthread the union nuts and remove the entire manifold from the pipe and store safely inside.
- D. Cover opening in pipes with red caps provided. Secure caps with a little duct tape.



MAINTENANCE

LAMP REPLACEMENT

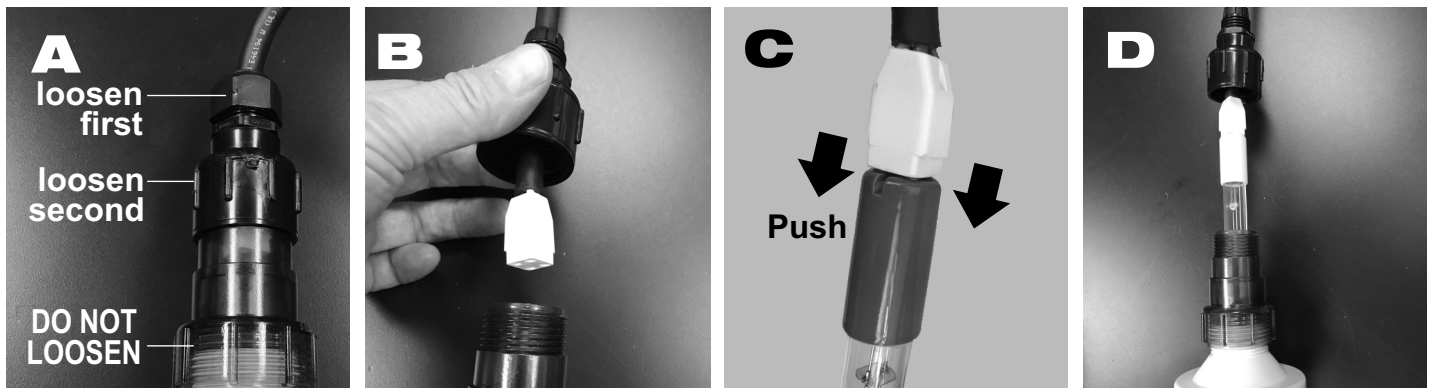
The UV lamp is rated for 13,000 hours of service and can be monitored through the blue viewing caps at the end of the chamber. **DO NOT VIEW LAMP DIRECTLY - ALWAYS USE VIEWING CAP.** When the lamp requires replacement, follow this simple procedure:

-  **Shut off AC power before performing maintenance**
- Allow lamp to cool for 10 minutes before handling**

- Unthread and remove the end cap with the wire attached from the end of the UV chamber, by first loosening the small black plastic nut, then the larger black nut to remove lamp.
- Plug the 4 prong plug into the end of the UV lamp. If lamp is not fully plugged in, damage to the unit may occur.
- Slide lamp **straight** into chamber - **Be careful, inserting the lamp at an angle, even a slight angle can crack the quartz sleeve.**
- Rethread black cap back onto chamber fitting by hand to assure tight seal.

IMPORTANT:

HANDLE THE LAMP BY THE ENDS ONLY AND AVOID TOUCHING THE CLEAR GLASS OF THE LAMP. IF POSSIBLE USE COTTON GLOVES TO HANDLE LAMP TO AVOID GETTING OILS FROM HANDS ON THE LAMP. SKIN OILS ATTACH TO THE LAMP AND SHORTEN ITS EFFECTIVE LIFE. IF LAMP IS TOUCHED, WIPE CLEAN WITH A SOFT CLOTH AND RUBBING ALCOHOL.



CLEANING THE QUARTZ SLEEVE

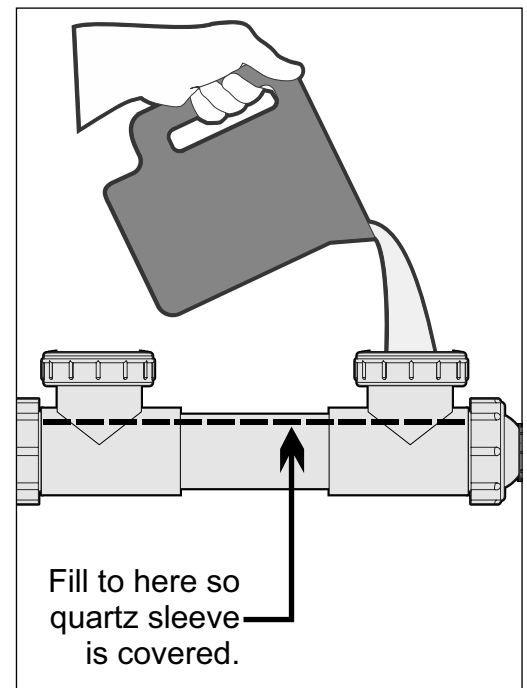
The quartz sleeve inside the UV chamber encases the UV lamp and should be cleaned while winterizing the system, or annually if system is installed on a pool running 12 months. The quartz sleeve is brittle and can be cracked, chipped or broken if it is not handled with care. Do not remove the sleeve or attempt to scrape or scrub the sleeve as it could crack or break it.

-After removing the manifold as shown in WINTERIZING section, unthread the top chamber and turn the chamber over so the openings face up.

-Using CLR or Lime Away or a comparable cleaning product (available at grocery stores or home centers), pour into the chamber to cover the quartz sleeve with the liquid and allow to soak for 30 minutes. Dispose of cleaning solution by following instruction on the cleaning solution container.

-Rinse the quartz sleeve with isopropyl alcohol to remove any remaining residue from the sleeve.

-Rinse the sleeve again with water.



WARRANTY

1. Introduction

This limited warranty is applicable to certain UV/Ozone systems installed for pools up to 40,000 gallons. This warranty is transferable to subsequent owners of the system during the warranty period provided the location of the system is unchanged from the original installed location.

2. Two Year Limited Warranty

This warranty applies to this UV/Ozone System and their factory-supplied components (the "System") when purchased from an authorized dealer and used for residential pools up to 40,000 gallons. The System is warranted to be free from defects in material and workmanship manufacturing process for a period of Two (2) years from the original purchase date. Should the System exhibit a manufacturing defect within two years of installation, when properly installed and operated in accordance with the relevant manuals, the manufacturer will supply comparable replacement parts for the System according to its judgment without charge for parts. This warranty is applicable only if the System is installed, operated and maintained in accordance with the procedures outlined in the Owner's Manual. Failure to do so will void this limited warranty. Warranty work should be performed by the authorized dealer who made initial installation. Pool water must be tested regularly in order to properly maintain its chemical balance. Problems or equipment failure resulting from the failure to maintain pool water chemistry in accordance with guidelines set forth in the Operation manual will void the warranty. Customer releases and holds the manufacturer harmless from any and all claims attributable in whole or part to their failure to comply with the foregoing guidelines concerning maintenance of pool chemistry.

3. Exceptions & Liability Limitations

The manufacturer, and their suppliers, dealers, and distributors SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES; DAMAGE OF ANY SORT OR NATURE RESULTING FROM ABUSE, MISUSE, NEGLIGENCE, LIGHTNING, ABNORMAL WEATHER CONDITIONS, OR ACT OF GOD; OR DAMAGE CAUSED BY IMPROPER OR UNAUTHORIZED USE, INSTALLATION OR REPAIR. This warranty applies only to components supplied by the factory and only where such components have been installed and maintained in compliance with the respective installation and operation manuals and instructions and applicable ordinances and codes. In no event shall the liability exceed the purchase price of the product. THE CONSUMER SHALL BE LIABLE AT STANDARD RATES FOR ANY SERVICE VISIT WHERE NO MANUFACTURING DEFECT WAS PRESENT AND FOR ALL SERVICE REQUESTED. This warranty shall be void if Customer modifies the Unit in any respect including, but not limited to the use of parts other than genuine manufacturer parts. If this System is installed for use on non residential pools or pools bigger than 35,000 gallons, this warrant is void. The UV bulb and quartz sleeve are excluded from the System warranty and are warranted for a period of one year when properly installed and operated in accordance with the relevant manuals.

4. How To Make A Claim

An authorized representative will repair or replace, at its option, a system or part proved to be defective within the warranty periods and under the conditions of this limited warranty. This limited warranty is void if the Control Center has been tampered with (there are no user serviceable parts inside). The Customer must arrange prepaid shipping for servicing of the warranted items after proper authorization (call 561-455-0252 ext 2). You may also make a warranty claim online by going to: www.solaxx.com to create an RMA. No packages will be accepted without a manufacturer issued Returned Merchandise Authorization (RMA).

5. Entire Warranty

The express warranty above constitutes the sole and complete warranty and takes precedence over all other warranties, whether expressed or implied, including a warranty for fitness for a particular purpose. No sales representative, dealer, distributor, or other person is authorized to give any warranty on behalf of the manufacturer. Some states do not allow limitations on how long an implied warranty lasts, prohibit the exclusion or limitation of incidental or consequential damages, or impose limitations on the scope of implied or express warranties (and the waivers therein) that may be inconsistent with the express limitations set forth in this warranty. In such states, the above limitations may not apply to you, or their application to you may be limited. This limited warranty shall be enforceable to the fullest extent permitted by applicable federal, state and local law. This limited warranty is valid only in the United States of America and Canada. You may have other rights depending on the state in which you live.

6. Proof of Purchase

The consumer is responsible for establishing the original purchase date and the purchaser's identity for warranty purposes. The consumer is responsible for filling out the Warranty form and to send it to the manufacturer or completing the warranty registration form on www.solaxx.com. We recommend that a bill of sale or some other appropriate payment record be kept for that purpose.

7. Warranty Registration

It is not necessary to register your product in order to activate your warranty. If a warranty claim is made, proof of purchase will be required in order to process the claim. **SAVE ANY RECEIPTS AND PROOF OF PURCHASE ASSOCIATED WITH THIS PRODUCT.**

Chamber and Manifold

2 yrs

Power Supply and Sensor

2 yrs

UV Lamp and Quartz Sleeve

1 yr.

PRECISION^{UV}

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WATER TREATMENT SOLUTIONS

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