



Clean Water Made Easy

www.cleanwaterstore.com

WonderLight UV Sterilizer


Installation Guide

Thank you for purchasing a Clean Water System!

With proper installation and a little routine maintenance your UV sterilizer will last for many years.



Questions?

 **Call us toll-free:** 1-888-600-5426 or 1-831-462-8500

 **Email us:** support@cleanwaterstore.com

 **See more information on our website:** www.cleanwaterstore.com/resources

WonderLight UV Sterilizer Installation Guide

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Pre-Installation

1. Note that for UV to be effective the water should be low:
 - a. Less than 7 grains per gallon of hardness, or less than 120 PPM)
 - b. Free of color and crystal clear.
 - c. Iron should be less than 0.3 mg/L.
 - d. Manganese should be less than 0.05 mg/L
 - e. pH range should be 6.5 to 9.5
2. If you are going to be turning off the water to the house and you have an electric water heater, shut off the power to the water heater before beginning installation in case water heater is accidentally drained.
3. Pick a suitable location for your UV Sterilizer. It is best to mount on a wall, where you can be sure to remove one end of the UV with enough space to completely remove and install the UV lamp (bulb). Choose a location where it won't be exposed to freezing temperatures. A minimum of 10 PSI is required. Maximum pressure is 100 PSI.
4. Get all of your plumbing parts together before beginning installation. Installation typically takes 1 to 4 hours. Review your packing list and make sure you have received all the parts before beginning installation.

Best Practices for Piping & Drain Installation

1. See typical installation on page 4, **Figure 1**
2. Install UV with stainless steel flexible lines, or use a pipe union so UV can be easily removed later if needed.
3. If you will be using copper piping, do not sweat the copper pipe directly on the UV.
4. If you are going to be using PVC pipe, do not connect PVC fittings direct to UV sterilizer, as the UV rays can degrade the PVC pipe. Use a stainless steel line to isolate the PVC from the UV sterilizer is the best practice.
5. Install a series of 3 ball valves to create a by-pass around the UV as shown in **Figure 1** if desired.
6. Install a 5 micron pre-filter prior to UV sterilizer (optional) to remove very fine particles that might block the transmission of UV rays into the water.

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Typical Ultraviolet Sterilizer Flow Diagram

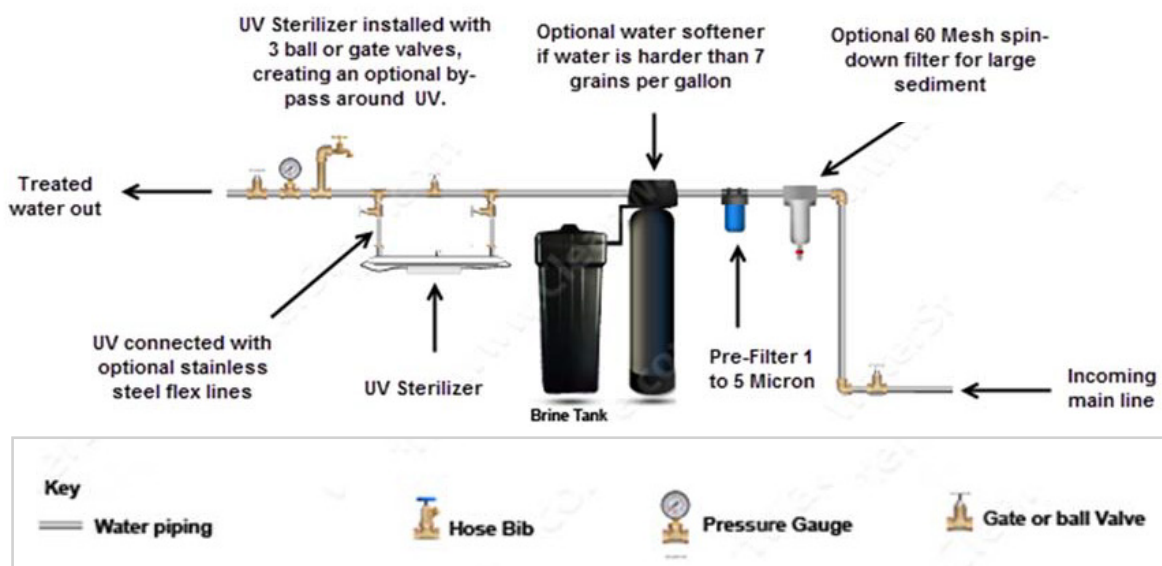


Fig. 1

Installation

1. Install UV sterilizer in piping.
2. Add ½ to 1 cup of bleach to pre-filter to UV, or shock well or add directly to piping if possible.
3. Flush piping in home after UV with chlorinated water to sanitize pipes in the home.
4. For badly contaminated piping or piping with sediment or scale, this procedure may need to be repeated to kill all bacteria after UV upon start-up.
5. Turn on UV lamp and note GREEN light on ballast. This means the UV lamp ('lamp' is what the UV light bulb is often referred to) is operating normal, and water flowing through UV is sterilized.
6. If ballast RED light is lit, this means the lamp is not operating.
7. **NOTE:** IF LAMP IS BURNED OUT, ALARM WILL SOUND AND RED LIGHT WILL BE LIT ON THE BALLAST.

Maintenance

Change UV lamp and clean quartz sleeve with a damp cloth once every 12 months.

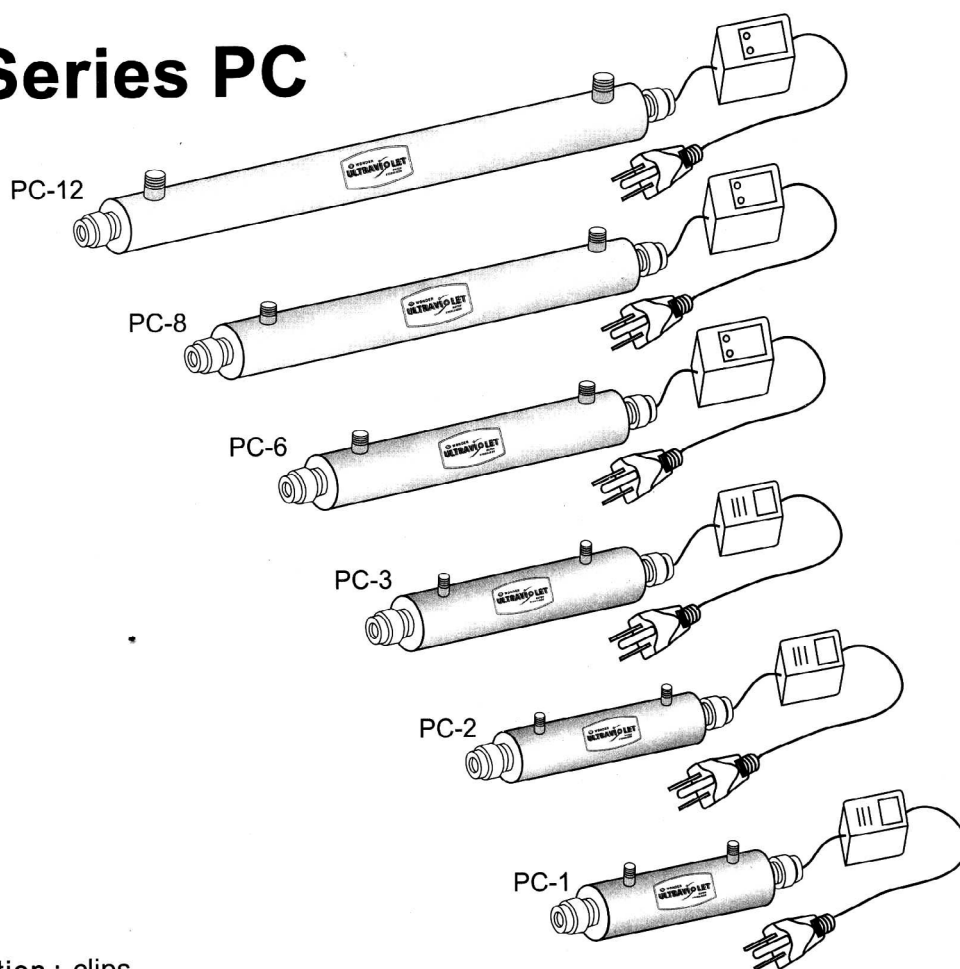
When changing UV lamp, we recommend the household piping is sanitized with chlorine or hydrogen peroxide.

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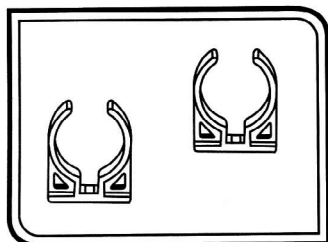


OPERATING INSTRUCTIONS

Series PC



Option : clips

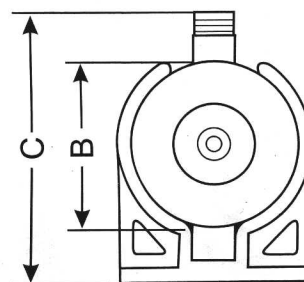
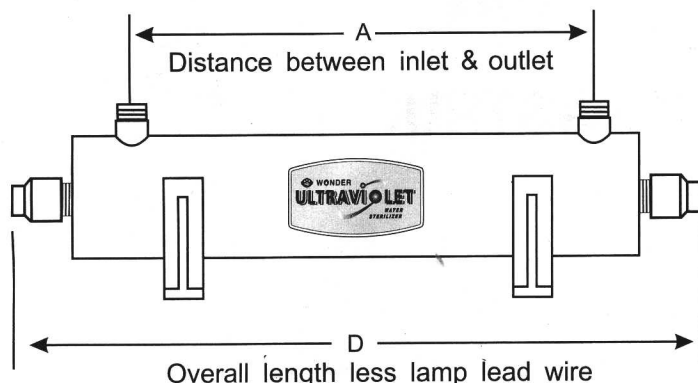


Please read these instructions completely before operating this unit and retain it for future reference.

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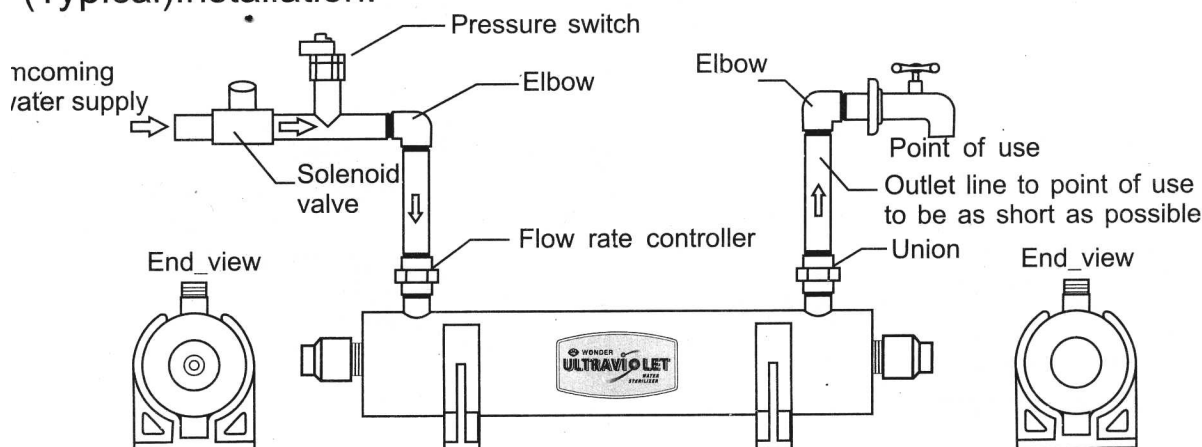
Ultraviolet Water Sterilizer



Note: Line cord and lamp lead wire omitted for clarity.

Model	A	B	C	D	Standard Inlet & Outlet Size	Option
PC-1	158	50.8	83	265	1/4" NPT or BSP	-
PC-2	235	63.5	103	355	1/4" NPT or BSP	1/2" NPT or BSP
PC-3	260	63.5	108	375	1/2" NPT or BSP	-
PC-6	440	63.5	108	555	1/2" NPT or BSP	-
PC-8	585	63.5	108	705	1/2" NPT or BSP	3/4" NPT or BSP
PC-12	800	63.5	110	935	3/4" NPT or BSP	1" NPT or BSP

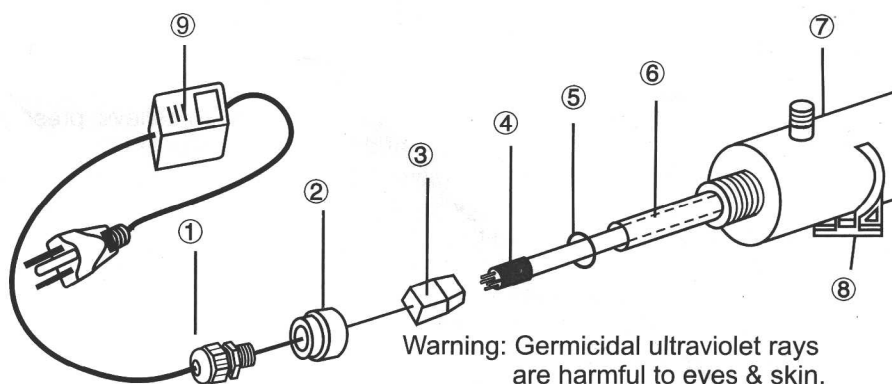
(Typical) Installation:



Notes:

1. Do not allow water sterilizer equipment to freeze.
2. Recommended ambient temperature: 2°C-40°C (36°F-104°F).
3. 120V/60Hz and 230V/50Hz units are standard.
4. Maximum recommended operating pressure is 100 Psi.
5. The system and installation shall comply with applicable state and local regulations.

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Installation:

1. Install sterilizer equipment in a readily accessible and well lit location to facilitate inspection and maintenance.
2. Inspect for hidden electrical wiring or plumbing prior to drilling holes.
3. Attach mounting clips to the wall.
4. Insert chamber through mounting clips.
5. Connect to plumbing .
6. Install quartz sleeve and lamp.

Note: Avoid touching the sides of the quartz sleeve and lamp, handle by the ends only. Ultraviolet lamp and quartz sleeve are easily damaged. Pay attention when removing or replacing lamp and quartz sleeve.

- a. Remove the aluminum nuts (2).
- b. Slide carefully the quartz sleeve (6) from one end to another end of the chamber.
- c. Slide the O-rings (5) on the open ends of quartz sleeve.
- d. Tighten the aluminum nuts (2) hand tight.
- e. Slide the lamp (4) into the quartz sleeve.
- f. Connect the lamp to the lamp socket.
- g. Screw the nuts on the chamber, then screw the water proof strainer(1)on the nut(2).
7. Turn on the water and inspect for leaks. Repair if necessary.
8. Plug the ballast into an electrical outlet. An electrical outlet protected by a Ground Fault Interrupt (GFI) circuit is recommended.
9. Run water through the chamber for 5-10 minutes prior to use.

		PC-1	PC-2	PC-3	PC-6	PC-8	PC-12
Item	Description	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
1	Water Proof Strainer	PG135	PG135	PG135	PG135	PG135	PG135
2	Aluminium Nut	A02	A02	A02	A02	A02	A02
3	Lamp Socket & Lead Wire	4P80	4P80	4P80	4P80	4P80	4P80
4	Germicidal Ultraviolet Lamp	T510	T514	T515	T521	T529	T540
5	Rubber O-Ring	21735	21735	21735	21735	21735	21735
6	Quartz Sleeve	T245250	T245330	T245350	T245530	T245680	T245910
7	Chamber	ST508245	ST635310	ST635330	ST635510	ST635660	ST635890
8	Clip	1002	1002	1002	1002	1002	1002
9	Ballast	UV-1/UV-3	UV-1/UV-3	UV-1/UV-3	UV-1/UV-6	UV-6	UV-6