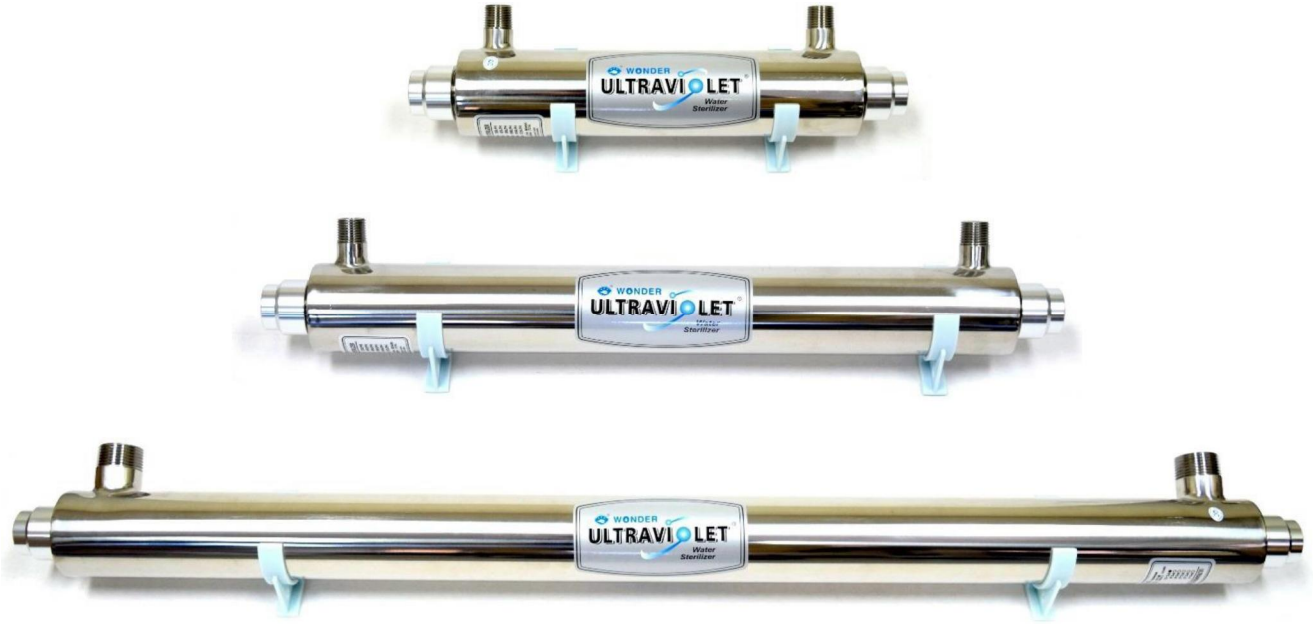
Wonder Light UV Sterilizer
Installation & Start-Up Guide



Thank you for purchasing a Clean Water System! With proper installation and a little routine maintenance your system will be providing sterilized water for many years.

Please review this start-up guide entirely before beginning to install your system, and follow the steps outlined for best results.

Pre-Installation

1. Note that for UV to be effective, the water should be clear and relatively low in minerals and contain:

    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.

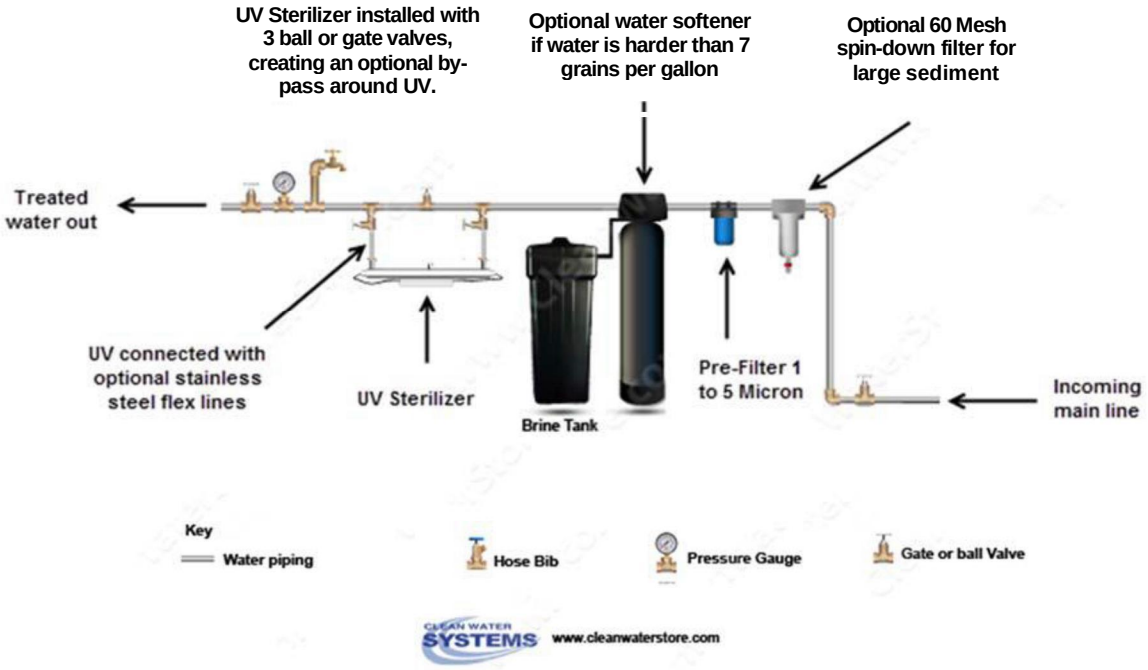
3. Pick a suitable location for your UV Sterilizer. It is best to mount on a wall, where you can be sure to remove one end of the UV with enough space to completely remove and install the UV lamp (bulb). Choose a location where it won't be exposed to freezing temperatures. A minimum of 10 PSI is required. 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 2, Figure 1
2. To avoid leaks from the expansion-contraction factor of plastic, we recommend using metal connections instead of plastic. 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.
7. Do not allow water sterilizer equipment to freeze. The recommended ambient temperature is 36*F – 104*F
8. It is recommended to sanitize the downstream piping by adding some chlorine to the pipes after the UV.

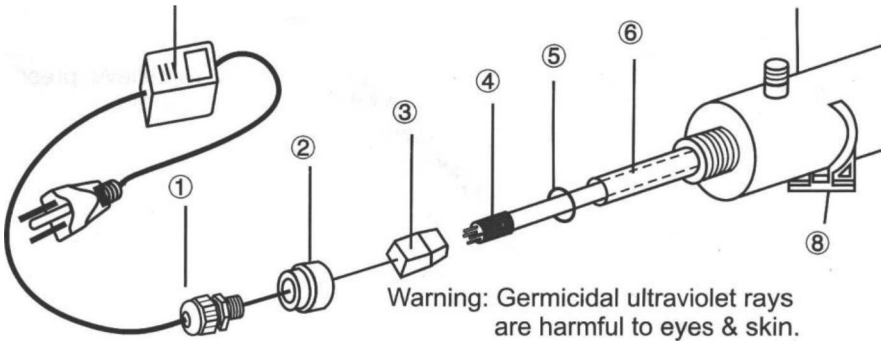
Typical Ultraviolet Sterilizer Installation Flow Diagram:



Installation:

1. It is recommended that the unit be installed horizontally, however it can be installed vertically as well. Keep in mind that you will need space on the side (the side without the ballast connection) to be able to take out the bulb and sleeve so that it can be easily changed.
2. Attach mounting clips to the wall and insert the chamber into the mounting clips.
3. Connect to plumbing
4. Continue on to next page.

5. Install the quartz sleeve and lamp. **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) open ends of quartz sleeve.

b. Slide sleeve (6) another carefully the quartz from one end to end of the chamber.

c. Slide the O-rings (5) on the

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).

6. Turn on the water and inspect for leaks. Repair if necessary.
7. Plug the ballast into an electrical outlet. An electrical outlet protected by a Ground Fault Interrupt (GFI) circuit is recommended.
8. Run water through the chamber for 5-10 minutes prior to use
9. 2. Add ½ to 1 cup of bleach to pre-filter to UV, or shock well or add directly to piping if possible. Flush piping in home after UV with chlorinated water to sanitize pipes in the home. 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.
10. 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.
11. If ballast RED light is lit, this means the lamp is not operating.
12. 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.