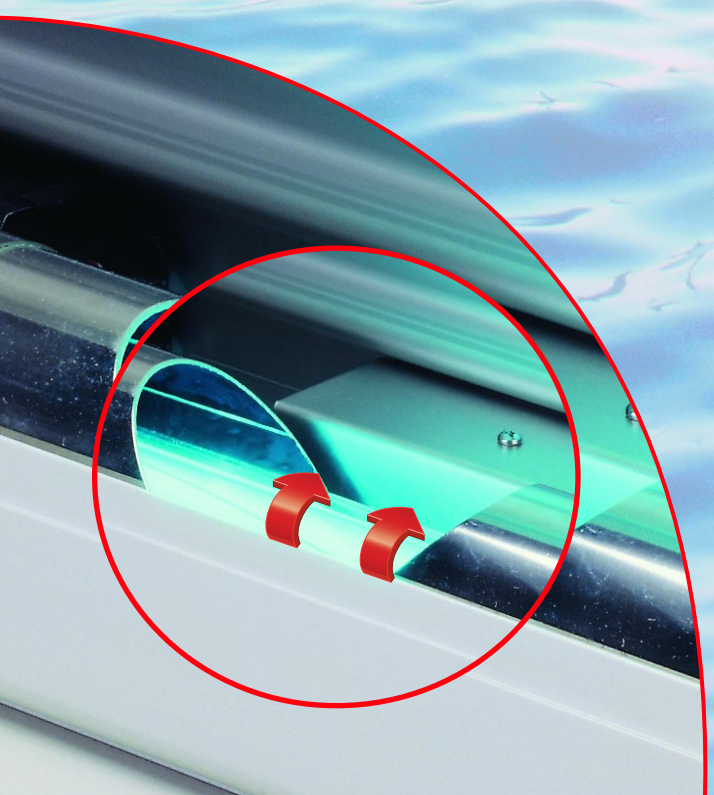
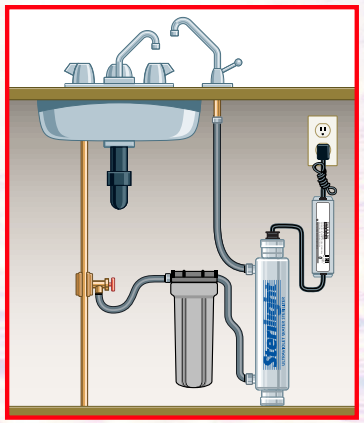
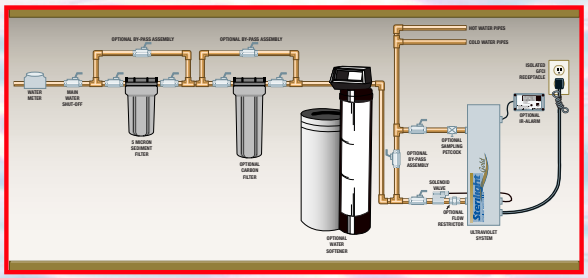
Ultraviolet or "UV" is a type of energy found in the electromagnetic spectrum lying between x-rays and visible light. Ultraviolet is divided into four basic sections: UV-V, UV-A, UV-B and UV-C. It is the UV-C, or germicidal UV, specifically the 265nm wavelength of UV-C that offers disinfection.

The ultraviolet energy attacks the genetic core of the harmful microorganism and rearranges the DNA/RNA preventing reproduction. If the microbe can not replicate, it cannot infect! UV is quick and the most cost effective way to disinfect your water.



How it works...





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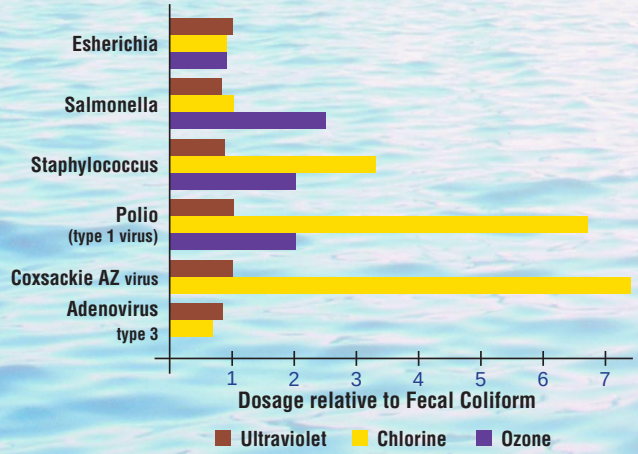
Is your water safe to drink?

Sterilight

ULTRAVIOLET WATER STERILIZER

With Sterilight now it is.



This graph shows the amount of UV, chlorine, and ozone required to obtain the same level of disinfection.

You can see that UV is a superior disinfectant against bacteria and viruses.

Is UV 100% effective?

UV disinfection typically offers a 99.99% reduction in both bacteria and virus and is more effective than chemical disinfection processes at destroying viruses.

Does UV remove E. coli?

Yes, E. coli requires a UV dose of between 6 to 12 mJ/cm2 to achieve 4-log disinfection. This is well within the capabilities of the Sterilight UV system.

How much does it cost to operate?

UV systems are extremely economical to operate. A typical household UV system operates on the same power requirements as a 40 watt light bulb!

Will UV change the taste or smell of my water?

UV is a physical disinfection process, no additives are required. It does not change the taste or odour of the water. It simply provides safe reliable disinfection.

How do I know the system is working?

All UV systems come with "lamp-out" monitors which give an audible and visual signal in case of lamp failure. Sterilight GOLD systems incorporate true UV intensity monitors so an alarm will sound if the disinfection effectiveness falls below a safe level.

Why do I need Disinfection?

Disinfection is required on all water supplies that are not protected by a municipal water source. Due to the uncertainties that exist within some water systems, we can no longer rely on the fact that our water supplies "may be safe." By providing your own disinfection, you are taking the responsibility of ensuring the safety of the water supply for you and your family.

Do I need to Disinfect My Municipal Water Supply?

Our municipalities work very hard to provide safe disinfected water supplies to their customers. However, you may wish to give yourself that added "peace of mind" and install a UV sterilizer to protect against the possibility of drinking contaminated water.

What are the annual maintenance requirements?

UV systems contain no mechanical parts that wear out or require maintenance. UV lamps have a useful life of approximately 8,000 hours and require replacement annually. Proper maintenance of any pretreatment system is also required.

Sterilight
ULTRAVIOLET WATER STERILIZER

Should I be concerned about the adequacy of my electrical system?

The UV system requires consistent power, both voltage and frequency. To compensate for the fluctuations in power supplies, Sterilight systems incorporate proprietary ICE ballast technology to provide constant output voltage regardless of the fluctuations. This results in consistent UV output and UV dose.

What size of system do I need?

An average household UV range in size from 5 to 12 gpm. Determining your pumps flow rate will typically determine your required flow rate. (Sterilight offers many different models in sizes ranging from 1/2 gpm to 1,000 gpm.)

Should I shut my system off when I am not using it?

The UV system should be left on at all times. By leaving the unit on, you will eliminate the potential problem of having contamination pass through the system while the unit is off.

Do I need to worry about the quality of my water prior to the UV?

For UV to be effective, it is recommended that the influent water contain less than the following: iron less than 0.3 ppm hydrogen sulphide less than 10 ppm suspended solids less than 10 ppm manganese less than 0.05 ppm hardness less than 7 gpg.

All conditions are treatable. To obtain adequate water quality for the UV, please consult your local water treatment professional for further assistance. To validate the disinfection process, it is important to have the water tested for bacteriological contaminants on a regular basis.

Is UV effective against protozoa such as Cryptosporidium and Giardia Lamblia ("Beaver Feaver")?

Yes, as a result of recent findings by academic researchers, it has now been proven that UV appears to be the best available technology to treat protozoan cysts. In addition, the dose levels required to inactivate these cysts are actually quite low; less than10 mJ/cm2 for 99.99% reduction of both Cryptosporidium and Giardia Lamblia.