

Drinking Water Treatment Ultra-violet (UV) Disinfection Systems

If you have a drinking water system that has a water source that is not secure such as a dug well, a buried well, a surface water supply or drinking water with a history of contamination, you may need to install treatment. Treatment is an important method of ensuring that the water you provide to your family or customers is safe. One type of treatment system that can provide safe drinking water is an UV disinfection system.

How does ultra-violet (UV) disinfection make water safe?

In an UV disinfection system drinking water flows past a light that is capable of killing harmful bacteria, parasites and viruses making the water safe to drink. The water flowing past the light must be clear with no cloudiness to interfere with the light.

In a well water system a 5 micron prefilter placed before the UV unit will help to make the water clear enough to let the UV light work properly. If you have hard water you will also need a water softener to remove any scale that may form on the light. If you take your water from a lake or river you will need to consult a water treatment professional to make the water clear enough for the UV system.

All drinking water treatment systems require regular cleaning and maintenance.

Which type of ultra-violet (UV) disinfection system is right for you?

Owner of a Small drinking water system:

If you operate a small drinking water system your UV light must have a sensor to indicate when the unit is not working properly and a feature that will cause an alarm device or an automatic shut off to activate when the UV light is malfunctioning.

NSF 55A standard UV systems: These systems have all of the functions required in the small drinking water system regulation which include:

- A sensor that monitors if the system is working properly. If the system is malfunctioning the sensor will trigger an alarm to warn you that the system is not treating the water and/or it will shut off the water completely. These important features ensure that your customers are not exposed to contaminated water.
- The alarm device on these units must be placed in a location where the alarm can be easily heard by the operator.
- Taking water samples in accordance with your small drinking water directive is vital to ensuring that your treatment system is providing safe water.

Home/cottage owner:

UV disinfection units intended for your home or cottage where you want to provide safe water for your own families use are not required to have the safe guards of the NSF 55A standard systems. These systems are lower cost and do not have the sensor to inform you if the unit is malfunctioning. The alarm devices on these UV units will sound once per year to remind you to change the UV bulb.

Even with treatment it is important to sample your drinking water regularly.



For more information, please call the
Health ACTION Line at **1-800-660-5853**
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