



Ultraviolet (UV) Water Disinfection System

Model R519 / R830

Microbiological contamination can be present in any water supply, especially ground and surface water sources not treated by municipal water systems.



E. coli



Legionella

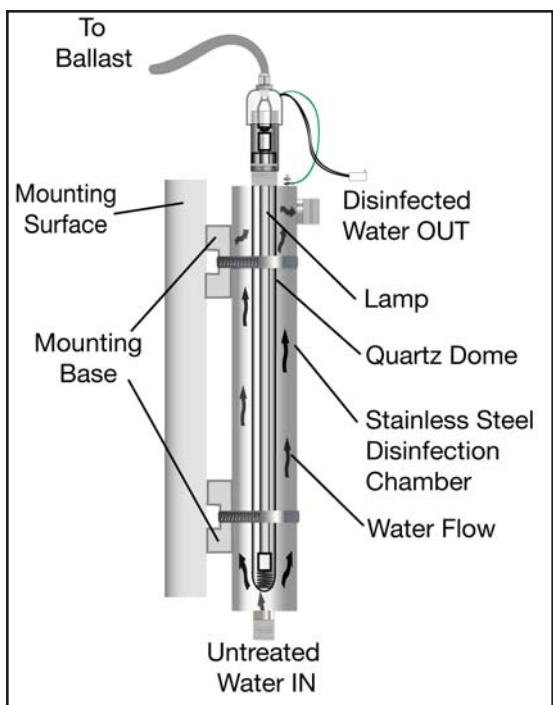


Virus

Pathogenic bacteria (like E. coli), viruses, etc., can cause illnesses from mild fever or dysentery to meningitis, hepatitis and other serious diseases. As a precautionary measure, no surface or ground water should be consumed without adequate microbiological treatment.

The Rainfresh R519 and R830/R830F UV disinfection systems protect your water by using the natural disinfection properties of ultraviolet light (or simply UV). It is non-chemical and imparts no residual chemicals into the water. The result is a simple, cost effective way of treating your water !

How the Rainfresh UV Disinfection System Works !



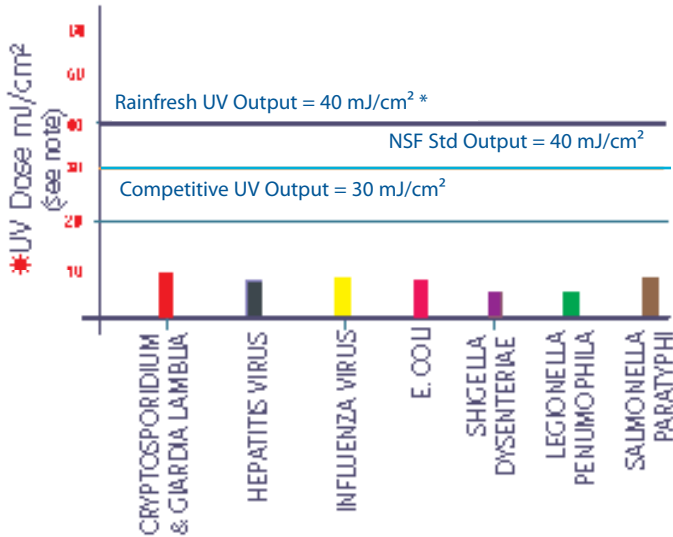
The system is installed on the main water line, typically after the pressure tank. Untreated water enters from the bottom end of the system (as shown in Fig. 1). As the water flows through the UV chamber, it is subjected to ultraviolet (UV) light emitted by a special UV lamp. The UV light instantaneously inactivates bacteria and viruses that may be present in the water, making the water microbiologically safe to drink. The treated water flows out from the outlet port and is ready to be consumed.

Rainfresh UV systems are ideal for:

- Homes
- Cottages
- Laboratories
- Industries
- Other applications

The Rainfresh R519 or R830/R830F UV systems deliver effective UV dosage rates for inactivation of a wide range of pathogens including viruses, bacteria and E. coli.

Specifications for Rainfresh UV Water Disinfection Systems Models R519 & R830



Optimum Performance Water Conditions

Hardness	: < 7.0 gpg (120 ppm)
Iron	: < 0.3 ppm
Manganese	: < 0.05 ppm
Turbidity	: < 1 NTU
Tannins/Colour	: None
Transmissivity	: > 80%

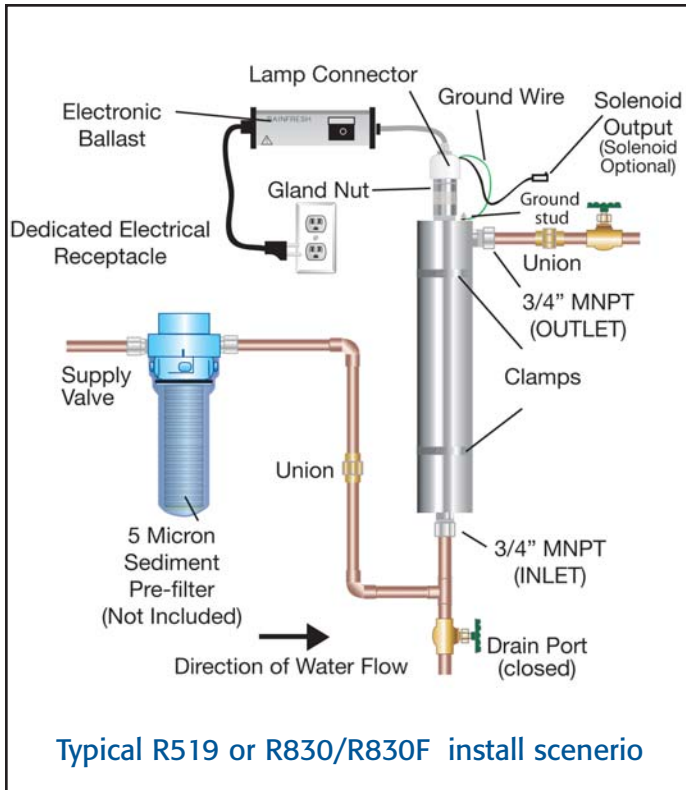
For optimum performance of the system, water should be pre-treated if any of the above conditions are exceeded.

Note: UV Dose is the product of UV intensity and contact time and is measured in mJ/cm² or μWsec/cm². 1mJ/cm² = 1000μWsec/cm².

** - At > 80% UVT at end of lamp life.

SPECIFICATIONS

Product Specification	MODEL R519	MODEL R830/ R830F
Rated Flow Rate	5 US gpm (19 lpm)	8 US gpm (30 lpm)
AC Supply Voltage	120V, 50/60Hz, 0.7A (OR) 240V, 50/60Hz, 0.35A	120V, 50/60Hz, 0.7A (OR) 240V, 50/60Hz, 0.35A
Total power consumption	28 watt	41 watt
Lamp wattage	25 watt	38 watt
Lamp Length	16 inch	20 inch
Disinfection Chamber Material	Stainless Steel 304	Stainless Steel 304
Maximum Operating Pressure	100 psi	100 psi
Maximum Ambient Temperature	50 C (122 F)	50 C (122 F)
Water Temperature Range	4 - 37 C (40-99 F)	4 - 37 C (40-99 F)
Lamp Service Life	9000 hours	9000 hours
Chamber Dimensions (LxD)	19" x 3.5"	23" x 3.5"
Controller Dimensions (LxDxW)	7" x 1.7" x 2.3"	8.75"x1.7"x2.3"
Inlet/Outlet port Size	3/4" MNPT inlet 3/4" MNPT outlet	3/4" MNPT inlet 3/4" MNPT outlet



Point of Entry system tested and certified by CSA International to CSA Standard B483.1 and NSF/ANSI Standard 61 for materials and structural integrity requirements only.

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