



Free Phone 0800-109-202

[www.ecoworld.co.nz](http://www.ecoworld.co.nz)

## **Ecoworld's helpful guide to....**

# **Domestic Rain-Water Treatment**

Rain-water is by far the most common source of supply in rural environments. However, it's not generally the cleanest nor the safest for potable use.

### **Common facts about rain-water....**

Although rain-water is quite often chemically alright, it does tend to be slightly acidic (low pH). Other problems include high sediment loadings, organics and pesticides being wind-blown onto roofs and then washed into storage tanks. This can effect the waters taste, odour and colour. However, the biggest problem facing rain-water users is the potential for biological contamination. Faecal matter from birds or possums, etc. onto exposed roofs and gutters are more then likely to contain pathogenic bacteria, which can easily contaminate the water supply.

Testing rain-water for pathogenic bacterial can be somewhat in vain, whether the test is positive or negative rain-water is considered a high bacterial risk. There is no real way of preventing these problems from occurring except for treating the water before you use it. The most effective and efficient method used is filtration followed by UV (Ultra Violet Disinfection).

### **UV (Ultra Violet Disinfection)**

UV is commonly used to disinfect water. UV is a non-chemical process whereby the water is exposed to a special wave of UV light. This powerful light penetrates the cell walls of the bacteria and many viruses destroying their DNA and rendering them harmless . UV disinfection is considered safe, user friendly and doesn't alter the taste, colour or smell of the water.

Ecoworld provides a range of UV packages designed for many situations. These UV packages have been assembled and plumbed ready for easy installation on any water supply. Should a special requirement be needed we can also custom design and supply UV systems to suit.

# Domestic Rain-Water Range....

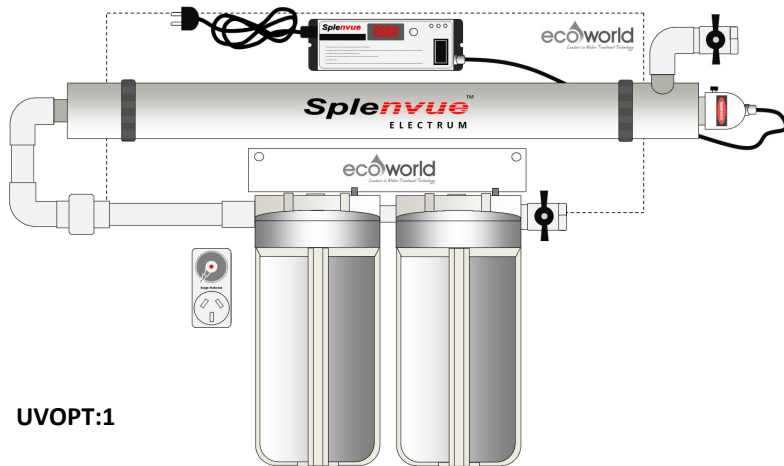
## Whole of House UV Treatment

The Splenvue Electrum UV Disinfection System by Aquabest, USA, is the latest in UV technology and is designed for residential applications requiring 99.9% (3 Log) reduction of bacteria and viruses. Unique features of the Splenvue Electrum is its bottom entry point which incorporates a mixer to increase turbulence and improve UV exposure, the patented UV lamp connection making changing UV lamps much easier and its domed-end quartz sleeve reduces the risk of water intuition.

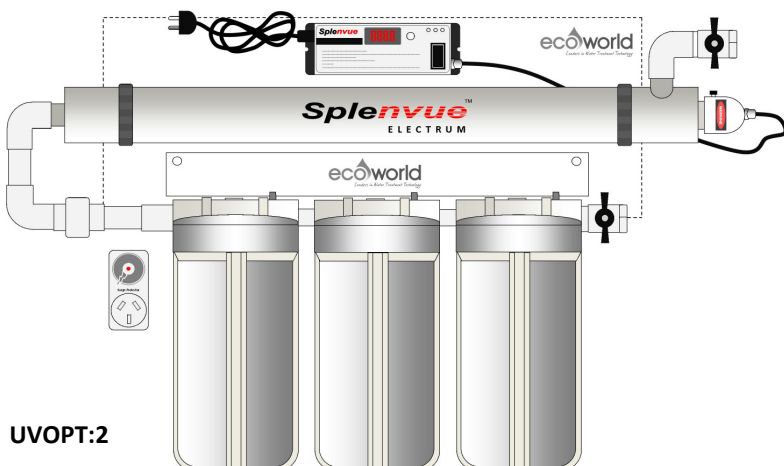
### Splenvue Electrum Domestic UV Packages

Both UV packages provide full protection against bacteria, viruses, giardia and cryptosporidium. The UVOPT:1 package is ideal for the removal of high sediment, while the UVOPT:2 package has the added benefit of activated carbon to absorb more impurities while also improving taste, odour and colour. Both systems are board mounted and plumbed ready for easy installation. All Splenvue Electrum UV's come with surge protection devices should power fluctuations be a problem.

\*Flow-rate: 55lpm. Cartridge Type: UVOPT:1 20µ pleated, 1µ string-wound—UVOPT:2 20µ pleated, 1µ string-wound, GAC cartridge. Cartridge Life: Annual replacement. Lamp Life: Annually (8000hrs). Read specification for more details.



UVOPT:1



UVOPT:2

### Splenvue Electrum Specifications

Flow-Rate <sup>1</sup>	US Public Health 16mj/cm <sup>2</sup>	104lpm
	Splenvue STD 30mj/cm <sup>2</sup>	55lpm
	Protozoa Inactivation 40mj/cm <sup>2</sup>	40lpm
Electrical	Voltage	100-250VAC 50-60Hz
	Max. Current	0.42 A
	Watts	48 W
	Lamp Watts	39 W
Max. Operating Pressure		125psi
Ambient Temperature		2-40°C
Quartz Sleeve		Domed
Inlet/Outlet		25mm
Visual "Power ON"		YES
Audible Lamp Failure Alarm		YES
Chamber Material		304 SS

1. Assumes water does not contain any physical components which could potentially cloud UV transmission.

2. Protozoa—Giardia, Cryptosporidium, etc.

Iron <0.3ppm

Hardness <120ppm

Turbidity <1NTU

UV Transmission >75%

### Warranty

Splenvue Electrum has a 2 year warranty on the UV chamber and electronic ballast, and a 1 year pro-rata warranty on the lamp.

**For further product information please free phone Ecoworld on 0800-109-202**