



# OPERATION AND MAINTENANCE

## Ultra-Violet Sterilisation Unit



The UV disinfection unit is designed to sterilise harvested rainwater and is required in certain situations where there is deemed to be a risk to users from water-borne organisms. It works by breaking down the organisms' DNA as a result of exposure to a particular part of the spectrum of light radiation.

The effective operation of any UV unit is affected by three vital factors:

- that there is sufficient pre-filtration of the water prior to entering the UV chamber (< 10 microns)
- that the water is sufficiently clear for light to pass through it
- that the lamp within the unit is fully operational - IT MUST BE REPLACED ON AN ANNUAL BASIS

Depending on the type of system used, there may be one, two or even three pre-filters. These are generally wall mounted plastic housings containing wound cartridge or disposable bag filter elements. Occasionally a backwash filter may also be used.

The pre-filter(s) must be maintained in order to ensure an adequate flow of water through the UV and on to the appliances being served.

### Location

The UV unit should be located near to and downstream of the fine sediment pre-filters and will be wall-mounted. It may be mounted either horizontally or vertically. There should be isolating valves located on either side of the unit for maintenance purposes.

### Maintenance

We supply various different types of UV sterilisation units, and whilst the required maintenance is roughly the same for all, we recommend that the separate **manufacturers O&M manual** is observed.

If this has been mislaid, please contact us for a replacement.

DO NOT open the unit unless it is switched off.

Ensure that lamps are replaced annually. UV lamps have a design life of 9000 hours (approximately 1 year), and if used for longer than this period of time their effectiveness cannot be guaranteed. Also note that frequent switching on and off of the lamp will reduce its lifespan. UV units are therefore designed to operate continuously.

