

Step by step guide to installing an ultraviolet unit

Below are the main aspects of an ultraviolet system installation. FWT will design a bespoke system that will meet your individual needs. Details of the final installation will be dictated by the quality of the water to be treated, location, existing pipe work and demand on the water system

Step 1 - Water testing

To decide if an ultraviolet system is the right choice for you, a water test needs to be carried out. This is normally done by one of our engineers who will sterilize the supply tap to prevent any contamination of the sample. We offer two levels of testing, the first being an 'in house' bacterial test to determine the presence of E coli and coliform bacteria. Basic test for certain minerals and water hardness are also on offer. The second level is a full laboratory analysis that analyses all parameters listed within the standards for potable (drinking) water. Once the results of the tests are available our engineers will call to advise on the location and the correct size and type of system.

Step 2 - Installation

Once the type, size, suitable electrical supply and location of the ultraviolet system have been agreed, our engineers will come to install the system. The ultraviolet unit will need at least a 5-micron rated pre-filter to ensure a clear supply of water for ultraviolet light to treat. The ultraviolet unit is sized to deliver a UV dosage of 40mJ/cm² for the anticipated flow rate of the property. The filter is also sized to your requirements and water quality



and normally you will require 10 inches of filter for every 15 litres per minute of flow.





Step 3 – sterilisation

Once installed the whole water system will be chlorinated to eliminate any bacteria present in the system, we advise that the system is left to stand for 2 hours after this chlorination, then flushed before drinking any water. Ultraviolet treatment has no residual treatment effect on the water. It is, therefore, vital that the supply system after the unit is fully sterilized. Your current water system and header tanks will be checked for areas of possible re-contamination and you will be advised accordingly.

Note: The water supply normally needs to be disconnected for part of the installation time, which on average takes around 6 hours depending on location and pipe-work, and a further 2 hours for the chlorination.



Step 4 - Maintenance

Once installed, your ultraviolet system will require annual maintenance to keep it working effectively. The light from the ultraviolet lamp will loose its intensity over time, so to ensure the water is treated correctly we recommend that the lamp be changed annually. The quartz tube needs to be checked and cleaned, seals should be checked, and the pre-filter will require changing. Some systems require a more frequent filter change that is easily carried out (this is normally indicated by a drop in pressure as the

filter fills with sediment). FWT offer an annual service contract where we will call you when a service is due and come out to keep your system working efficiently. We can also supply the parts and show you how to service the system yourself if required.

