

# INSTALLATION, COMMISSIONING & MAINTENANCE INSTRUCTIONS FOR THE Aqua-Rex WK4 PHYSICAL WATER CONDITIONER

## DESCRIPTION

The Aqua-Rex WK4 is a physical water conditioner which removes existing limescale deposits and reduces further encrustation of scale. Once the treated water has been heated, it will have a lower level of residual calcium bicarbonate than untreated water and will therefore be effectively softer.

The unit has four aerials arranged in two pairs.

The standard 23 foot aerials will allow fifteen turns around a four inch diameter pipe.

The signal generated by the aerials travels through the water irrespective of whether the water is flowing or not.

The signal travels both upstream and downstream of the unit and will treat static water in a storage tank if fitted to the down service.

## LOCATION

Refer to the Aqua-Rex Specifiers Guide for guidance for correctly locating the unit.

The control box should be installed within 18 inches of the pipe being treated.

## FIXING THE CONTROL BOX

On the back of the control box there is a top hanging bracket. A further two side screw slots are located behind the bottom cover. The control box may be hung from the pipe if there is no adjacent wall.

## AERIAL WINDING

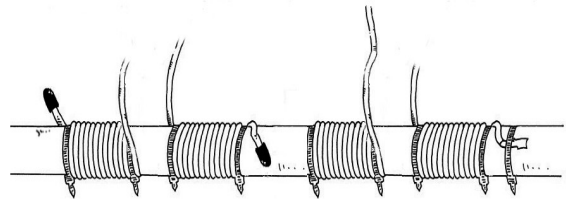
The four aerials are arranged as two pairs. The two aerials on the left of the box make up one pair and the two aerials on the right make up the other pair. Each aerial of each pair must be wound in opposite directions from a central point. When facing the pipe, one aerial should start by passing behind the pipe and the other should pass in front of the pipe. Secure each end of the aerial with a cable tie. Repeat the process with the other pair of aerials.

## Aqua-Rex WK4

The unit is manufactured to IP 65 standard.



**Do not** allow gaps between windings or between the aerials and the pipe. Windings must be tight and close together.



**Make as many** windings per aerial (a minimum of 15) as the wire permits.

**You do not need** to have the same number of windings on all aerials.

If there is going to be surplus aerial wire, ensure it is at the end with the cap rather than the end with the plug. Surplus aerial wire can be cut off.

Leave a gap of at least 3/4 inch between each aerial.

You can wind the aerials either side of a “T” junction or elbow, on a horizontal or a vertical pipe.

### **GROUNDING AN AERIAL**

Aqua-Rex performs better when one aerial is grounded to a metal pipe and we recommend this is done to enhance the unit’s performance.

Select one of the four aerials. Remove the black end cap and strip 1/2 inch of insulation leaving the wire exposed. Secure it with a cable tie to the pipe, ensuring there is good electrical contact by scraping off any paint so the bare metal is exposed. Never ground more than one aerial .

### **POWER SUPPLY**

The unit is supplied with an internal transformer wired to 5 feet of external cable. If a longer mains cable is to be fitted, then the bottom cover can be removed to allow access to the mains terminal block. The input power supply can be either 240 or 120 Volts indicated by the rating plate. The incoming supply is fused at 1 Amp, the fuse being accessible externally.

### **COMMISSIONING**

To commission the unit, open the enclosure door by pressing in the catch on the right hand edge. Switch on the mains power supply and the LCD will display

#### **“Aqua-Rex WK4, INITIATING”**

The unit goes through an initial checking sequence and then cycles through each of the outputs in turn.

### **MAINTENANCE**

Once installed, the WK4 requires no maintenance. However, a routine inspection to check that the lights are still flashing is recommended. If they are not flashing sequentially then re-boot the system by switching the unit off at the mains supply and leave for 1 minute. Switch the unit on again and the system should re-set itself. Under normal circumstances the extra Guard chip built into the unit will reset the system automatically if the program is upset by a power spike.

While the guard chip ensures resetting of the output signal in all normal circumstances, it is possible for the Liquid Crystal Display (LCD) to jam in which case rebooting the system either at the on off switch or loosening the fuse should reset it.

### **FUSE**

20 mm 1 Amp.T. (time delay)

### **BMS**

The BMS socket connection detects the presence of a power supply to the unit. If the fuse fails the BMS will detect no power supply.

**Aqua-Rex LLC cannot accept responsibility for consequential loss as a result of the performance or otherwise of the Aqua-Rex unit.**

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## **100 Day Money Back Guarantee**

If, for any reason whatsoever, you are dissatisfied with your Aqua-Rex product, you may return it at any time during the first 100 days after purchase and the purchase price will be reimbursed in full. Simply return it to wherever it was purchased, together with your full name and address and proof of purchase, showing the price paid.

## **5 Year Manufacturer’s Warranty**

Aqua-Rex LLC guarantees to repair or to replace the Aqua-Rex treatment unit in the event that it suffers from any manufacturing defect during the first five years after purchase. The unit should be returned to us properly boxed and wrapped, together with the proof of purchase, showing the price paid.