

which will require cleaning out. You may find deposits of grit blocking very fine shower heads.

Thermostats

Because of the increased efficiency of the water heater after the scale is removed you may need to turn down the thermostat to reduce the chance of scalding from the hotter water. You should expect energy savings to occur.

Water Softeners

If you have been using a conventional salt filled water softener you should switch over to the by-pass. You may notice an initial deterioration of water quality. **Be patient !** This will gradually improve once your Aqua-Rex has become fully effective.

Remember that the Aqua-Rex does not remove the calcium from the water. It changes its physical properties so that it no longer sticks to pipes or heaters. The water will not be slippery or as soft as conventionally softened water but the hot water should be softer than untreated water. Most people are perfectly satisfied with the level of softening achieved by Aqua-Rex but don't expect it to be as effective as a softener.

Eczema and Psoriasis

If you suffer from skin complaints such as Eczema or Psoriasis you may notice a change. An independent survey showed that 78% of customers with skin complaints reported improvement in their condition after installing an Aqua-Rex.

MAINTENANCE

The Aqua-Rex needs no maintenance or servicing, but check occasionally that the lights are flashing. If the Aqua-Rex stops working, first check that the power outlet is functioning. If the transformer is cold that means it has failed. Contact us for a replacement.

If the unit fails to work, or you are not happy with the results, then **PLEASE CONTACT US FIRST FOR ADVICE BEFORE RETURNING THE UNIT.** info@aquar-ex.com or 1-877 640 2170

Neither Aqua-Rex LLC nor its parent company, Lifescience Products Ltd will accept responsibility for consequential loss as a result of the performance or otherwise of the Aqua-Rex unit.

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 of the unit will be reimbursed in full. Call us first before returning 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

Lifescience Products Ltd 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. This warranty excludes external transformers.

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INSTALLATION, OPERATING & MAINTENANCE INSTRUCTIONS FOR AQUA-REX WK1 WK1-E - WK2 - WK3

LOCATION

The best place to fit an Aqua-Rex physical water conditioner is either on the cold pipe close to where it goes into the water heater or on the softener loop if one is provided. Anywhere on the cold supply pipe is also OK.

The signal generated by Aqua-Rex travels both upstream and downstream through the water thus treating all the water in the home, even when fitted only to the water heater or softener loop. You can fit it anywhere on the cold water supply on any pipe material; Copper, PEX, CPVC or PVC.

REFER TO THE SPECIFIERS GUIDE FOR MORE DETAILED INFORMATION ABOUT COMMERCIAL SYSTEMS WITH BOILERS AND HEAT EXCHANGERS. It is available as a download from the website.

PUMPS

Pumps reduce the effectiveness of Aqua-Rex so always fit a unit after a pump, never in front of one. In a home with a hot water return we recommend installing Aqua-Rex on the cold pipe to the water heater. On larger commercial systems treat the cold service with one unit and fit a second unit on the hot water return after the circulation pump.

HEAT EXCHANGERS

Where pump fed heat exchangers are to be protected it is best to treat the hot discharge/return line. The signal travels back into the heat exchanger at the hottest point.

COPPER FIN BOILERS

Treat the return line from the heater to the storage tank, preferably after the hot water return and cold make up water junction.

FLEXIBLE CONNECTORS

A copper flexible connection has a spiral groove. You can run the aerials in these grooves for a tight fit. Stainless steel flexible connections have parallel grooves and can't be used for Aqua-Rex installations.

MAIN EARTH BOND

If there is a main earth bond close to the point of installation, make sure the Antennas are downstream (after) the earth bond.

PIPE BENDS & VALVES

Antennas can be wound either side of a bend, a tee or either side of a valve. (Twelve windings on two antennas requires 6 inches of pipe run; four antennas need 12 inches)



LEAVE THIS INFORMATION WITH THE HOME OWNER

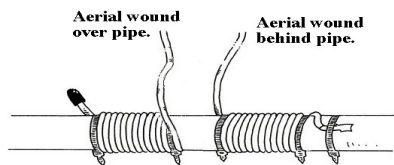
INSTALLATION

Fix the control box on the wall close to the pipe after wrapping the antennas. The length of free wire between the unit and the wrapped portion of the pipe should not exceed 15 inches. The WK2 and WK3 are supplied with two fixing lugs. Remove two of the screws from the back plate and attach the fixing lug to the back plate with the same screws. You can hang the control box from the pipe instead of fixing it to a wall if the pipe is distant from the wall.

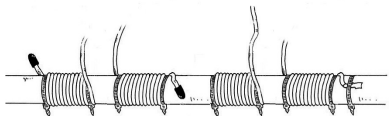
ANTENNA WINDING

Antennas on all Aqua-Rex units are paired. They must be wound in opposite directions from a central point.

When facing the pipe, one antenna should start by passing behind the pipe and the other antenna should pass in front. Secure each end of the antennas with a cable tie.



All four antennas of the WK1-E, WK2 and WK3 must be wrapped around the pipe.



GROUNDING AN ANTENNA

The Aqua-Rex can perform better on metal pipes when **one** antenna is grounded. To ground an antenna, remove the black end cap and strip a half 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 antenna on any unit.

WK1-E WK2 and WK3 MODELS

Each of these units have two adjacent pairs of antennas. These can be fitted to a single pipe, to two adjacent pipes or either side of a heat exchanger.

ALL MODELS

Do not allow gaps between the antenna and the pipe. Windings must be tight and close together except in the grooves of a copper flex connection.

Do maximise the number of windings per antenna, a minimum of 12. (WK3 minimum is 15)

You do not need to have the same number of windings on both antenna.

If there is going to be surplus antenna wire, arrange for it to be at the end with the cap rather than the end nearest the Aqua-Rex.

You can wind the antenna either side of a "T" junction or elbow, on a horizontal or on a vertical pipe.

POWER SUPPLY

All units use the same 115/9Vac plug transformer with internal fuse. The low voltage lead from the plug transformers can be extended by splicing in extra cable such as

speaker wire. It has been tested over half a mile so you can extend it to a convenient outlet without having to install a new outlet.

LIGHTS

WK1 & WK1-E One light will flash.

WK2 The two orange lights will flash independently

WK3 The two outer lights will flash orange independently. The central light will show green to indicate it is receiving power.

All units have a built in "Guard chip" which senses any irregularity in the micro-chip performance and re-sets the system automatically. No manual intervention or re-setting is required in the case of brownouts or power outages.

WK3 - Building Management System (BMS)

The WK3 has an outlet jack to connect to a BMS to indicate power supply failure. The isolated BMS contact is rated for signal levels only. The maximum rating is 24V and 100 mA. The contact remains closed during normal operation (fail-safe) and opens upon fault.

EVAPORATIVE SYSTEMS

Where systems are designed to operate with make up water for evaporation, such as cooling towers and steam generators, provision must be made for blow down and regular cleaning to remove residual deposits. This is specially important in the first couple of months after installation.

WHAT WILL YOU NOTICE?

Within three to four weeks, existing scale will become softer and will be

easy to break off or wipe away. You may notice cloudy water coming from the hot faucets and some loose scale deposits at the bottom of your bath or basin. This is an indication that de-scaling has commenced. If the system was severely scaled, an increase in hot water flow may be observed. You may notice the water becoming hotter more rapidly, with better lathering and the water feeling softer with more foam.

De-scaling the system

You may find that chunks of scale break away from within the pipes and these, in rare circumstances, can block pipes, shower sprays, aerators and heat exchangers. Be aware that this may happen and can reduce flow until the blockage is cleared. **Filters and strainers on appliances and blending valves should be checked on a regular basis for the first few months after installation until the old scale no longer appears.**

Dishwashers

Aqua-Rex is not very effective treating water in a dishwasher as it's performance is reduced by the internal pump. Make sure you use an appropriate hard water detergent and hard water rinse aid such as Lemishine. If you use the correct liquids you shouldn't have a problem.

Shower head and bathroom units

Encrustation of scale will be reduced substantially. Shower heads will be cleaner and will require little or no de-scaling. Loose chunks of scale may become trapped behind the shower heads and aerators