

Satisfactory tests have been conducted on a cable extension of 500 yards. The low voltage power supply is 9v AC so there is no need to be concerned about the polarity of the wires.

To protect the plug/socket from damp and rain, use the heat shrink tube supplied. Slide the heat shrink sleeve over the plug, connect it to the socket and use a hair dryer to shrink it into place.

#### **PLUG / TRANSFORMER UNIT**

Plug in the transformer and switch on the power supply. The LED on the unit will flash, indicating that the unit is powered up and that the program is sequencing through the range of frequencies.

#### **HOW THE UNIT WORKS**

Once the unit has been installed correctly on the pool circulation system it will pass a radio signal into the water which causes the calcium ions to precipitate in suspension in the water instead of on the surface of the pool.

Existing scale will also be removed over a few weeks and any staining will disappear with it. Some Silica scale may re-appear but it should be considerably less than previously.

Silica scale that has been leached from behind the tiles will not necessarily be reduced.

**AQUA-REX LLC**  
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#### **MAINTENANCE & TROUBLE SHOOTING**

The Aqua-Rex needs no maintenance or servicing but do check occasionally to see that the LED light is flashing and that the wires are tight on the pipe. If the Aqua-Rex stops working, check first that the power supply to the transformer is functioning by plugging another appliance or lamp into the outlet and seeing if it works.

If the transformer is cold that means it has failed. Contact us for a replacement.

**If the unit still fails to work, or you are not happy with the results, before you do anything else contact us by email or phone.**

**Tel 702 304 2170**

**info@aqua-rex.com**

**Please do not remove the unit before contacting us. Very often the solution to the problem is very simple to resolve over the telephone or by email.**

#### **5 Year Manufacturer's Warranty**

Aqua-Rex LLC Guarantees that it will replace the WK1P unit should it suffer from a manufacturing defect during the first five years after the date of purchase. The unit should be returned to the dealer properly boxed & wrapped together with the invoice.

#### **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.



## **How to install the AQUA-REX WK1P**

It is a very simple installation but there are three basic points that it is **ESSENTIAL** you follow.

- 1. The wires must be tight on the pipe and secured at both ends by the plastic zip ties. Check from time to time that they stay tight and don't work loose with the vibration of the pump.**
- 2. Keep the box close to the pipe so there is the maximum number of windings possible on the pipe. It is best to secure the box to the pipe or just let it hang from the aerials.**
- 3. Install it on the discharge side of the pump.**

This product is intended for use on plastic pipe up to 2½" diameter on re-circulating systems for swimming pools. It may also be used to treat domestic water supplies on pipe diameter up to 1" where it is exposed to wet or damp conditions. It **MUST NOT** be used on pipe sizes of more than one inch diameter except on re-circulating systems such as pools.

The WK1P is fully waterproof so it can be left outside exposed to rain and weather.

The antennas and power supply are directly wired into the



control box and cannot be removed from the unit. The circuit board is fully encapsulated in epoxy resin.

There is a plastic sheath that can be heat shrunk onto the power supply connection.

**The power supply transformer is only rated for internal use and must not be allowed to get wet. It must be protected in the same way as a normal home internal plug.**

#### GENERAL

**If this unit is to be used on domestic water services to protect an externally mounted water heater then refer to the instructions for the Aqua-Rex WK1 which can be downloaded from the Technical Library on our website [www.aqua-rex.com](http://www.aqua-rex.com).**

The Aqua-Rex WK1P will substantially reduce the amount of Calcium scale deposits that occur around the waterline of pools. By removing the scale from the tiles or liner, any staining that is retained by the scale will also disappear.

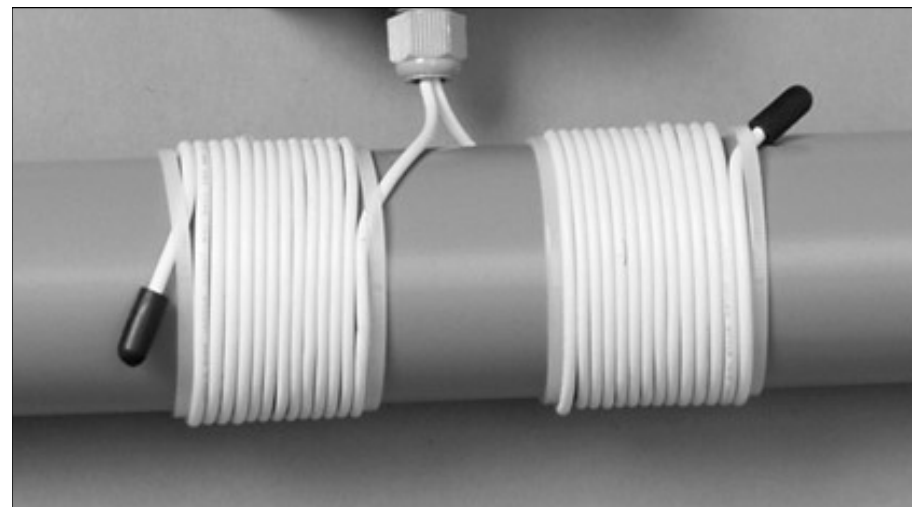
**Silica scale.** Calcium scale and Silica scale look very similar and are often confused with each other. The easiest way to tell them apart is to test them with an acid such as vinegar or muriatic. Calcium scale will bubble and will disappear. Silica won't react at all.

**Aqua-Rex will NOT remove Silica scale. The scale around the grout lines of tiles generally comes from behind the tile and is mostly Silica. Aqua-Rex will not be effective on this kind of scale either.** High levels of Silica are only found in a few ground water supplies and Silica scale along the water line is not a common problem in most areas of the USA.

Aqua-Rex will reduce scale in a filter so the sand is free to act more effectively and may require less backwashing. It will help chlorine or other biocides to be more effective so that the amount used can be reduced for the same effect. It may also help reduce dissolved solids by encouraging them to precipitate into suspended solids which can then be removed by the filter. **It will also help to keep the salt generator plates clean.**

#### LOCATION

The unit should be installed downstream of the circulation pump on a pipe that is always full of water. If there is more than one pump serving a separate pool or water feature then each pumped line needs to be treated downstream of the pump. It will operate on any type of pipe material, including corrugated and plastic up to 2½" diameter.



#### SECURING THE ANTENNAS

Once you have decided where to locate the unit you need to wrap the antennas around the pipe. It is normally easier to start by putting a plastic tyrap loosely around the pipe. Feed the end of an antenna wire through the tyrap and secure it so that there is the least amount of antenna left between the tyrap and the unit. The shorter this length of antenna, the more you have available to wrap round the pipe and the better the Aqua-Rex will work.

**It is perfectly acceptable to allow the unit to hang below the pipe, suspended on tyrap or on its antennas. It does not need to be attached to a wall or hard surface.**

Wind the remaining antenna around the pipe so that there are at least 12 turns, more if possible.

Secure the other end of the antenna with another plastic tyrap.

Repeat the process with the second antenna. Start it off in the opposite direction of the first antenna winding as shown in the picture above.

**It is important that the antennas are wrapped around the pipe as tightly as possible. If they are loose the process doesn't work. Do not use tape to secure the wires as the vibration from the flowing water will loosen the wires.**

#### POWER SUPPLY

The Aqua-Rex requires a standard 120 volt outlet for the transformer. To reach a suitable outlet it may be necessary to extend the low voltage 9v AC power cable. Additional cable may be spliced in between the transformer and its plug. A waterproof seal should be made over the connections.