

**Calcium
scale,
this is your
20-minute
warning**

**Installation,
operation &
maintenance
instructions**

**Áqua
King**
Electronic
Water Softener

AK-P

AK-P



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.** The unit is most easily installed on a horizontal pipe but it can also be located on a vertical pipe if required.

This product is intended for use on plastic pipe up to 75mm diameter on re-circulating systems for swimming pools. It may also be used to treat domestic water supplies on pipe diameter up to 32mm where it is exposed to wet or damp conditions. It **MUST NOT** be used on pipe sizes of more than 32mm diameter except on re-circulating systems such as pools.

The AK-P 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 AK1 which can be downloaded from our website, AguaKing.pt

The AK-P 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. ÁguaKing will **NOT** remove Silica scale. The scale around the grout lines of tiles generally comes from behind the tile and is mostly Silica. ÁguaKing will not be effective on this kind of scale either. High levels of Silica are found in a few ground water supplies. ÁguaKing 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.

Phosphates: ÁguaKing has shown to be effective at causing phosphates to flocculate and fall out of solution into the bottom of the pool. The water will be clearer and any algae will have less food so is less likely to cause a problem. It may also help reduce dissolved solids by encouraging them to precipitate into suspended solids which can then be removed by the filter.

Salt generator: It will also help to keep the salt generator plates clean.

Location

The unit should be installed downstream of the circulation pump and a multi cyclone filter, if fitted, 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 75mm diameter.

Installation

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 ÁguaKing 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 AK-P requires a standard 120 volt outlet. If your unit has a standard plug in transformer the power supply will be 9 volts AC. Additional cable can be spliced into the line between the transformer and its plug. If your unit has a USB connection then extra cable can be spliced in by an electrician or a USB extension cable can be purchased. In both cases the connection can be protected by the waterproof heat shrink sleeve provided. Both the transformer and the USB power supply must be protected from weather. 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.

Maintenance & trouble shooting

The AK-P 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 unit 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 on +44 608 811 070 or email us at info@lifescience.co.uk

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

100-day money back guarantee

If you are dissatisfied with your ÁguaKing 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, address and proof of purchase, showing the price paid.

5-year manufacturer's warranty

Lifescience Products Ltd, manufacturer of ÁguaKing, guarantees to replace your ÁguaKing treatment unit in the event of any manufacturing defect during the first five years after purchase. The unit should be returned properly boxed and wrapped, together with proof of purchase, showing the price paid. Lifescience Products Ltd cannot accept responsibility for consequential loss as a result of the performance or otherwise of the ÁguaKing unit.

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Want to know more?

Pleased with what your new ÁguaKing AK-P is doing for your pool? To find out about our complete range of electronic water softeners – for home, garden and pool – or to get installation or maintenance advice, go to AguaKing.pt

Lifescience Products Ltd are experts in chemical-free water treatment technologies, with a global reputation for providing the very best in environmentally friendly, hard water treatment solutions.

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