



# Owner's Guide

## Atlantis Water Softeners





## **1 How does it work?**

Water softeners work by passing hard water through a bed of ion exchange resin. As the hard water comes into contact with the resin the calcium and magnesium (hardness) is exchanged for sodium. This means that the

water produced by the softener is soft i.e. it contains no hardness. The resin can only keep softening the water until it runs out of sodium ions. This is why we need to regenerate the resin.

## **2 What is regeneration?**

Regeneration is the process of restoring the softening ability of the resin. During regeneration some of the salt in the salt storage tank is turned into brine. This brine is then sucked up and flushed through the resin. When the brine comes into contact

with the resin the calcium and magnesium that has been collected is released and flushed away down the drain. After this, the resin is flushed out to remove any excess brine. The resin is then ready to soften more water.

## **3 How long will the resin last?**

Under normal use the resin is expected to last ten to fifteen years.

## **4 How does it know when to regenerate?**

A flow meter inside the control valve monitors the water flow. The electronics then compare the remaining softening capacity of the machine with the expected water use.

The softener is programmed to monitor the flow of water, and builds up a pattern of your family's typical usage. When appropriate the softener will regenerate.

## **5 What will happen if I drink softened water?**

Softened water is higher in sodium content than mains water. To put this into perspective, one pint of softened water contains less than quarter of the sodium found in one pint of milk! The Department of Health advises that water from a domestic softener should not be used for cooking and drinking.

It is most important that softened water is not used for making up babies feed. If you were to consume very large quantities of softened water you would increase the amount of sodium in your body.

## **6 How can I be sure it's working?**

Softened water feels slippery when you wash your hands; this is how most people can tell.

Alternatively, you can use a test kit which are widely available.

## 7 How much salt does it use?

This depends on how much water you use. But on average, a family of four will use around 25kg per month.

## 8 How much power does it use?

Very little. The cost of electricity for a year is virtually insignificant. Much of the power for regeneration is drawn from the kinetic energy of the water supply.

## 9 Why does the softener need salt?

The salt is used during regeneration. (See question 2).

## 10 When will the salt need topping up?

It is best to check the salt level every two weeks. If it is less than a quarter full, it needs topping up.

## 11 Where should I get the salt from?

Usually the shop where you bought the softener, or any local builder's merchant will sell tablet salt.

## 12 What sort of salt should I use?

The best sort of salt for your softener is tablet salt. Don't use block salt, as it dissolves too slowly.

## 13 Should there be water in with the salt?

Yes, but only a couple of inches (50mm). Normally you won't see it because the salt covers it. During regeneration, the water level gets higher for a time.

## What do the lights mean?

### NORMAL OPERATION:

The softener has one light illuminated. This tells you the hardness setting for your incoming water. To change it, press the button on the fascia panel repeatedly until the required setting is reached

### WATER FLOWING:

The lights flash from left to right. This tells you that the softener is measuring the flow of water through the softener.

### REGENERATING:

The right hand 'D' light flashes constantly and the other lights come on in a sequence. This lasts for about one hour.

### FAULT:

All lights flashing on and off together. See the Trouble Shooting Guide, in this manual.





## Regeneration light cycles

### Cycle 1 – Fill



### Cycle 2 – Soak



### Cycle 3 – Backwash



### Cycle 4 – Pickup



### Cycle 5 – Rapid rinse



### Cycle 6 – Mini fill



### Cycle 7 – Looking for home position



### FAULT all lights flashing – Call for service



## 14 Where does the salt go?

Salt is only used during regeneration. Any excess is flushed away down the drain.

## 15 It's making a noise?

Most likely the softener is in regeneration. If it is, then the right hand "D" light will be flashing. Leave the softener to finish the cycle.

## 16 It's not making any noise?

Softeners only really appear to do something when they regenerate. You can tell if the softener is working by running off some water; after a time, the lights on the fascia will start to flash.

## 17 There's no water in the salt cabinet; what's wrong?

Nothing. (See question 13 and 16).

## 18 Can I use softened water in a dishwasher?

Most dishwashers contain a water softener built in, so you can feed the dishwasher with hard water if you want to. However, if you feed the dishwasher with softened water, there is no need to put salt in.

## 19 How often does it need servicing?

It is difficult to be specific, but once every two years is normally adequate. Call us on 01440 761500 if required.

## 20 How do I turn it off?

It is possible to isolate the softener using the three valves that connect to your pipework. Full details of this, together with a diagram of the valves, are shown on the label under the salt lid.

## 21 Where is the serial number?

Under the salt lid.



# Trouble Shooting Guide

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See the back cover of this manual for a diagram of the rear view of the water softener.

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## Hard water

Make sure that the power is connected (one light on the fascia panel should be on).

If no lights are on, then the power is turned off, the power connector at the back of the softener has been unplugged, or the transformer is faulty.

If the plug-in transformer is warm, it is probably working.

Check that the inlet/outlet hoses are connected the right way around.

Check that the bypass valve is shut and the inlet /outlet valves are open.

Check that there is salt in the salt container. Check also, that the salt hasn't built up a 'crust' inside the container – if it has, break it up and rinse it away.

If you have a tank in the loft ensure that the float valve is not blocked or filling very slowly.

Check the hardness setting on the fascia panel is correct (<http://www.atlantis-uk.com/setting-your-water-softener>).

Make sure that the lights flash from left to right across the fascia panel when water flows through the softener.



## Trouble Shooting Guide

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All four lights  
flashing on and  
off together

Try turning the power off for ten seconds and then back on. This will cause the softener to reset and return to the “home” position.

If this does not solve the problem, please call our service department.

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Overflowing/  
full of water

Make sure that the drain hose is not frozen.

Make sure that the inlet/outlet hoses are not leaking at the back of the softener.

Make sure that the drain hose is not blocked.

Make sure that granular salt is not being used.

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Leaking

To find the leak, first dry up any water with cloths etc.

Then check that none of the hoses that connect to the back of the softener are leaking.

Then manually regenerate the softener. (Press and hold the “Select” button on the fascia for 5 seconds).

Regeneration takes about one hour.

After regeneration, check again for leaks.

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Using too much salt

Ensure that the water softener is not feeding an outside tap.

Check the water level inside the cabinet. (If it is more than half full, then see ‘Overflowing’ section).

Check that the correct hardness has been set on the fascia panel.

(A rough guide to salt usage for a family of four, is 1 x 25kg bag of salt per month.)

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Loss of water  
pressure/reduced  
flow

Make sure that the softener is plumbed in correctly for your type of plumbing system (refer to the 'inlet and outlet connections' section of the installation instructions).

Make sure that the inlet and outlet valves are fully open (see back cover of this manual for diagram of the rear view of the water softener).

Note that – depending upon the level of usage and local water conditions, after several years the resin can become exhausted and may result in loss of flow. Please call Atlantis Water Treatment for a service visit.

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Salty water

Make sure that the red drain hose is not blocked or partially blocked. Remove the red drain hose from the connection on the rear of the softener and blow through to make sure that it is clear, then reconnect.

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Constantly  
regenerating/  
constantly filling

First look at the fascia and see what lights are on (see the Regeneration Display lights table on preceding page).

If no lights are on, then the power is turned off, the power connector at the back of the softener has been unplugged, or the transformer is faulty.

If the plug in transformer is warm, it is probably working.

If the lights are on, check with the table, to see what stage of regeneration the softener is in.

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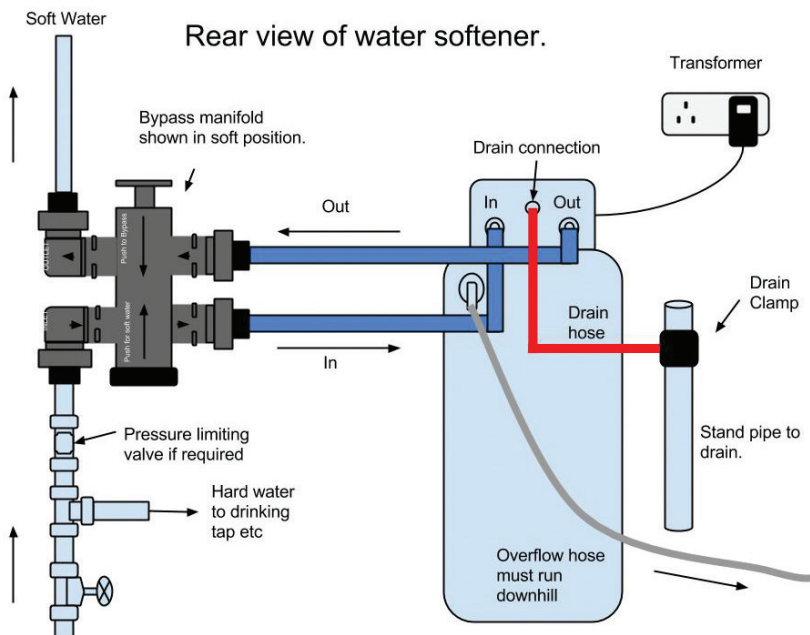
Constantly running  
to drain

See 'Constantly Regenerating' above.

**If, after checking this fault finding guide, you are still experiencing difficulties, please contact either your installer, or the Atlantis Water Treatment Service department on 01440 761500.**



## Rear view of water softener



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