# **SAPPHIRE Cabinet Softener Installation Guide**

# **Planning Our Softener Installation**

Please observe any local or national regulations concerning the installation of your water softener.

Check that there is only one rising main and that sufficient space has been allowed for access to the unit for installation, possible future maintenance and salt addition.

After locating the rising main, check the water pressure (minimum of 20 psi required, maximum of 85psi) - locate a drain and a 230V power supply.

Installation of this water softener will require plumbing work and may require an electrical outlet to be fitted near the softener, unless an existing softener is being replaced.

This should be installed by an experienced "DIYer" or competent plumber either or both should have the necessary skills.

# **Positioning Of Our Softener**

Our softener should be positioned as close to the rising main as possible. Allow "hard water" take off points for drinking water (if required) &/or an outside tap.

Ensure the distance between the drain and our softener should be as short as possible.

It is essential that both the drain-line and overflow will not freeze or reach a temperature above 40°C.

Placing our softeners within a cupboard is usual but please ensure that the base is adequately supported.

It is not recommended to fit our softener in a loft - but if it is, it should be installed within a "bund" for protection for "overflow".

## Use a Check List

Before starting the installation make sure that all necessary fittings and tools are available

# Water Pressure

High or low water pressure can result in either damage to, or failure of our softener. Our softeners are tested to a pressure of 8 bar (120psi), they have a minimum working of pressure of 1.4 bar (20 psi). We do advise, as a precaution that a pressure reducing valve should be fitted to 6 bar (85 psi).

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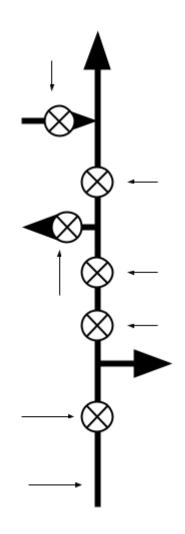
## **Prior to Installation**

Ensure mains water stop cock is closed - off position.

#### **Plumbing of Our Softener**

Complete the plumbing, when looking from the back of our Softener – mains water "In" on the left hand-side with softened water "Out" on the right hand-side – follow the arrows that are embossed on the Control Valve. Plumbing connections are to  $\frac{3}{4}$ " or 1" male BSP. It may be that a Bypass loop is required, either to supply un-softened water to an outside tap or for removal of the softener when moving home, this Bypass loop should be fitted at this stage of the installation. Now slowly open the stop cock and check for leaks.

#### **Suggested Plumbing Arrangement**



### **Installation of Waste/Drain**

The flexible drain/waste tubing provided should be connected to the drain/waste outlet and the tubing should be run to either an "up-stand" or "outside" drain – there should be a 20mm "air gap" to prevent backflow at the exit of the drain/waste tube. The drain/waste tube should be as short as possible and should run upwards to a maximum of 1 meter. If an extended run of more than 6 meters is required, then it should be connected to a larger diameter pipe.

## **Connection of Overflow**

The overflow connection is "to the left hand-side" of the main body of our softener – run this downwards to an external drain.

## **Connection of Electric Power**

The transformer should be connected to an electrical power supply (continuous) using the transformer and plug supplied and fitted. Our softener is pre-programmed, see programming instructions for setting the clock.

## **Commissioning Our Softener**

Pour approximately 6-8 litres of water into the "brine" tank. Add some salt into the "brine" tank, do not allow the salt level to exceed the overflow level and allow this to soak to create brine for 2-3 hours, then set the clock on our softener.

The cabinets will hold approximately the following amount of salt:

20 Litre @ 40 kgs

30 Litre @ 50 kgs

Press the "Regen" button, this will put our softener into an immediate Regeneration – this initial regeneration will purge air from the system and confirm that all cycled are being followed.

Softened water will automatically be sent to the "brine" tank after each regeneration.

## Setting the time

Time Clock Version – Press & hold "SET" then Up or Down to set hours (24 hrs) then "SET"

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Up or Down to set minutes then "SET" Back to clock

Metered version – Press & hold "SET TIME" then Up or Down to set hours (24 hrs) then "SET TIME" Up or Down to set minutes then "SET TIME" Back to clock

Pre-programming

Our metered Softeners have the hardness pre-set at 340 ppm of total hardness – the softener will regenerate only at 2.00 am having calculated reserve capacity

Setting the hardness

Press "NEXT" & "UP" together Press Up or Down to set the hardness Keep pressing Next to return to Normal Mode

#### Aftercare of Our Softener

There is little or no aftercare – A Clack control valve service wrench is included, however the Clack control valve is one of the most reliable valves available. It is most important to ensure that salt is added and that the "Brine" tank is never completely empty.

#### Salt Usage per Regeneration

Please see our Softener Catalogues.

#### NOTE:

The reason that most softeners don't perform to their maximum is due to faulty pipework – ie restrictions in service flow, drain and brine lines – these should be fitted without and restrictions.