

# INSTALL GUIDE

*for Si160 / Si260 / Si360*



*and Poseidon i10 / HC*



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This symbol means that according to United Kingdom and European Union member countries laws and regulations your product and/or its battery shall be disposed of separately from household waste.



When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product and/ or its battery at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

## 1: PREPARING FOR INSTALLATION

- Always observe the water byelaws.
- Ensure there is only one rising main.
- Make sure you have allowed space for access to the unit for salt filling and for any possible maintenance in the future.
- Check the water pressure and locate the rising main, a drain facility and a power supply. Be aware of condensation occurring in warm environments.

## 2: SITING THE SOFTENER

- Where possible, the water softener should be close to the rising main.
- If applicable (see 4.), tee off mains hard water supply to kitchen tap (if above 400ppm of hardness).
- Wash's EaSi-Fit bypass includes 3/8" speedfit connections for a dedicated hard water supply i.e drinking water faucet. Faucet and tubing only, or faucet, tubing and filter can be purchased from Wash Water. Codes: Faucet & 5m tubing – WW38HN-MB or WW38HN-BN. Filter, faucet & tubing - CS-C30MB or CS-C30BN.
- Ensure the distance between the drain and the softener is as short as possible; this ensures that both the drain and overflow are not subject to freezing or temperatures over 49°C.
- If situating the softener in a kitchen cupboard, loft etc, make sure the softener is adequately supported. (Units can weigh 50kg+ once full of salt and water).
- For units situated in your loft, it is strongly recommended to have this in a 25-gallon plastic tank and insulate well. Wash does not take any

responsibility for any water damage if this recommendation is not followed.

- There should be an overflow running to outside installed on the tank below the height of the softener overflow and be a minimum 3/4" in size. Failure to install the softener in a suitable tank in your loft will void your warranty.
- Ensure outside tap remains on hard water where possible.

## 3: CHECK VALVE

Residential water softeners are in fluid category 2. Wash's EaSi-Fit Bypass includes a high flow check valve in accordance with this requirement. All other applications require a double check valve.

## 4: DRINKING WATER FACILITY

The Regulations require that 'All premises supplied with water for domestic purposes shall have at least one tap conveniently situated for the drawing of drinking water'. Drinking water must comply with the Water Supply (Water Quality) Regulations 2000, which stipulate a maximum limit of 200 mg/l (milligrams per litre) for sodium. The Department of Health recommends that this sodium limit should not be exceeded for infant feed preparation and for those individuals on a medically supervised low sodium diet. The provision of an unsoftened drinking water tap/faucet is essential where the hardness of the public supply and its sodium content as supplied would result in the softened water exceeding 200 mg/l sodium limit. For ion exchange softened water, this limit will be exceeded where the water is extremely hard, i.e. typically above 400 milligrams per litre as CaCO<sub>3</sub>.

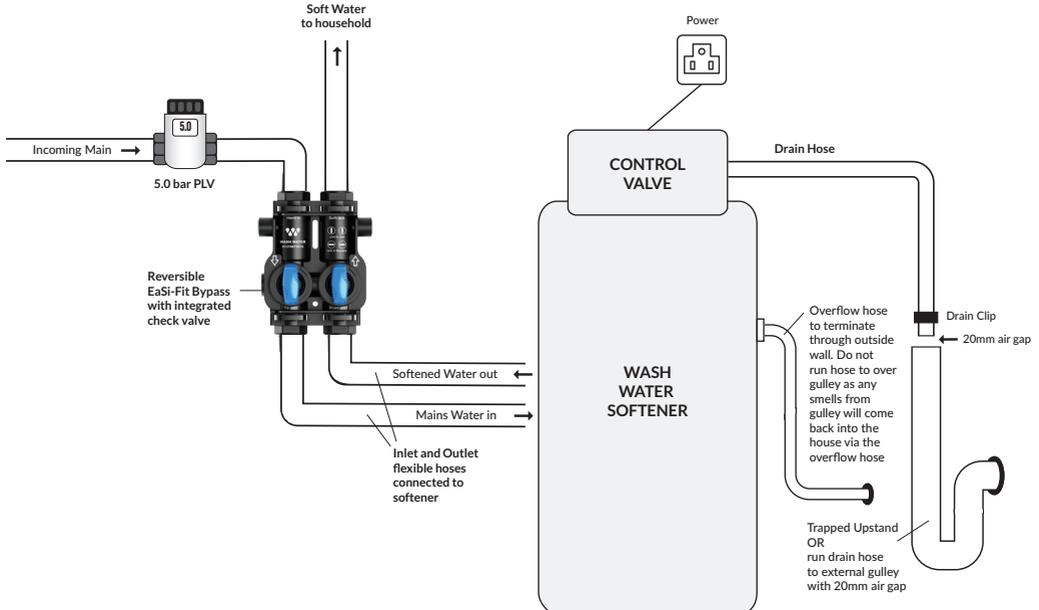
## 5: SOFTENER MATERIAL CHECK LIST

- ✓ Si160 and Si260 come with Wash's EaSi-Fit Bypass plus full installation kit complete with connections for 15mm and 22mm pipework. Suitable for conventional systems (storage tanks in roof)
- ✓ For pressurised or systems with a Combi boiler, you will need Wash's Hi-Flow Hoses - Code: HFH34-60 or HFH34-80.
- ✓ Poseidon i10/HC come with Wash's EaSi-Fit Bypass plus Hi-Flow Hoses and full installation kit for 15mm and 22mm pipework. Suitable for all plumbing systems.
- ✓ For 28mm systems, a full upgrade kit is available - Codes: Si Range - SI28UGLO  
Poseidon - PSI1028UGLO.
- ✓ Si360 comes 1" as standard. Installation kit will include Wash's 1" EaSi-Fit Bypass plus full 1" installation kit.

## 6: WATER PRESSURE TEST

- A pressure test must be carried prior to installation.
- Low and high pressure can result in either damage to your softener, or the failure of your unit.
- Minimum dynamic pressure must exceed 1.5bar (20psi).
- If daytime static water pressure exceeds 3.5bar (50psi) a 5bar (70psi) pressure limiter must be installed. Failure to do so will invalidate your warranty. 3.5bar daytime pressure can easily reach 7bar (100psi) at night!
- If you have any questions, please call us on: +44 (0) 1379 873 070.

## 7: WATER SOFTENER INSTALLATION DIAGRAM – Fig 1



## 8: CHECK LIST

- Access to incoming water supply.
- 3 pin socket available for Si models and if transformer is being used with Poseidon i10.
- Drain connection available.
- Access to unit for salt refilling and any possible future maintenance.
- Water pressure test – 1.5 – 5 bar (20-70psi).
- Installation preferably on an outside wall for the overflow.

## 9: EASI FIT BYPASS AND INLET/OUTLET INSTALLATION

Inlet and outlet connections are embossed on to the EaSi-Fit Bypass.

**Supply In** – Hard water supply from mains.

**Supply Out** – Soft Water supply to your property.

**To Unit** – Connection to the inlet of the softener.

**From Unit** – Soft water connection from softener outlet to EaSi-Fit Bypass.

- The EaSi-Fit Bypass comes complete with speedfit connections for both 15mm and 22mm copper pipework. Simply attach the required size speedfit connections to the SUPPLY IN and SUPPLY OUT threads on the EaSi-Fit bypass, tighten to seal.
- Grease the copper pipe, attach the EaSi-Fit bypass to the copper pipe by firmly pressing the pipes into the speedfit connections. **IMPORTANT.** Use pipe cutters (not hacksaw) when cutting copper to length to connect to speedfit connections as pipe cutters automatically create a chamfer on the end of the copper.
- **Poseidon i10/HC** - (Hoses will be attached already) Connect the hose from the softener inlet connection to the 'TO UNIT' connection on the bypass and connect the hose from the outlet connection from the softener to the 'FROM UNIT' connection on the bypass, tighten to seal. Standard hoses come with washers pre-inserted.

- **Si Models** - Remove the small rear back plate from the softener. Connect a hose to the softener inlet and to the 'TO UNIT' connection on the EaSi-Fit bypass, connect the other hose from the softener outlet connection to the 'FROM UNIT' connection on the EaSi-Fit bypass, tighten to seal. Standard hoses come with washers pre-inserted. If using Hi-flow Hoses, fibre washers are provided separately and are to be inserted prior to attachment.

## IMPORTANT

It may be easier to remove the TO UNIT and FROM UNIT bypass connections first. Remove the clips from the bypass and pull the connectors out. Once the hoses are connected, re-insert the connectors, ensure the clips are reinserted.

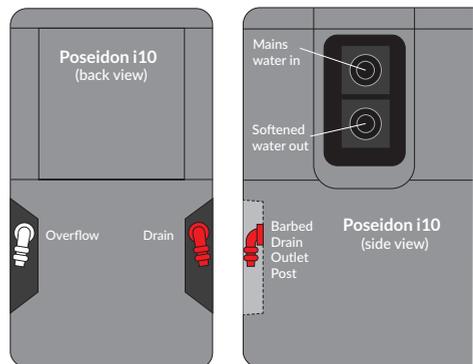
The connections on the EaSi-Fit Bypass and softener are designed to rotate to prevent excess stress on the connections.

## 10: CONNECTING YOUR DRAIN HOSE

- 3 metres of white low pressure drain hose is supplied with the unit. This is for both the drain and overflow connections.

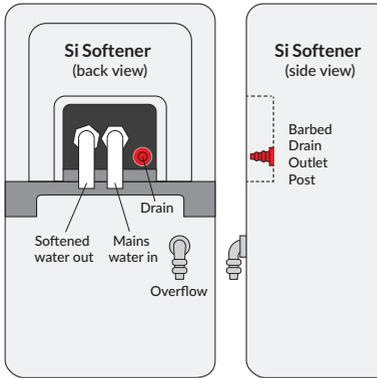
**Poseidon i10 - Drain Connection** Looking at the front of the unit the drain connection is the white barb at the rear left hand corner of the softener. Highlighted in red on the diagram below. There is a red shroud covering on this barb connection which is to be removed prior to hose attachment.

Fig 2



**Si Models - Drain Connection** The drain connection is the black barb located at the rear of the softener behind the small rear back plate (highlighted in red - see diagram below). There is a red shroud covering on this barb connection which is to be removed prior to hose attachment.

**Fig 3**



- Attach the drain hose to the drain barb using the jubilee clip (supplied).
- The drain hose needs to be ran to either an upstand or an outside drain, ensure a minimum air gap of 20mm exists at the end of the drain line.
- You can extend the drain hose by connecting to a 15mm piece of copper pipe. The pipe can run for a maximum of 4mtrs (minimum daytime pressure of 2.5bar (40psi) is required). Anything over 4mtrs, please use 22mm (or similar) copper pipe.
- Ensure the drain hose is securely fixed to the copper tube.
- Make sure the drain hose is not dipped or kinked in any way. This could lead to your machine overflowing and the voiding of your warranty.
- **NEED TO RUN UPHILL?** If you have a minimum daytime pressure of 2.5bar (40psi), your drain hose can run uphill internally for a maximum of 3 feet.
- Softener water is fine to use with a septic tank.
- At no point, should the drain and overflow hose share the same pipe. This could lead to foul smells entering the brine tank from the main drain via the overflow. Also, if drains ever get blocked, during regeneration the water may re-enter the brine tank through the overflow hose.

## 11: CONNECTING YOUR OVERFLOW HOSE - IMPORTANT

- The overflow hose should be cut from the low-pressure white hose supplied with the unit. It is to be used for both the overflow and drain hose applications.
- **Poseidon i10** – Looking at the front of the unit the overflow connection is the white barb at the rear right-hand corner of the softener.
- **Si Models** – The overflow connection is the grey barbed elbow located on the rear of the softener.
- Slide the drain hose on to the barb, ensuring it is fully pushed on. No need for a jubilee clip here.
- The overflow hose must run downhill and terminate immediately through an outside wall without any restrictions or kinks.
- The use of 22mm (or similar) copper pipe can act as a protective sleeve when putting the hose through a wall. This will also prevent any kinking.

## 12: CHECKING YOUR SYSTEM FOR LEAKS

- Put the EaSi-Fit Bypass into Bypass (see Fig. B). Open the mains stopcock slowly to flush the pipework. This can be done by opening a tap on the soft water side if your system. Shut tap off and check for leaks.
- Once no leaks have been confirmed, turn the bypass to Service. Water will now flow to the softener. Check the unit for leaks now and once the unit is pressurised.

## 13: SI MODELS AND POSEIDON WITH TRANSFORMER CONNECTION

**For Si models** use the transformer supplied, whereas the **Poseidon** can use either the transformer or the 9v battery (both supplied).

For applications where both model ranges use the transformer, please continue to follow the below.

- With the electrical connection turned off, connect the transformer to a continuous electrical supply.
- Coming from the softener will be a short black low voltage lead with jack plug.
- Push the male connection of fly lead from the transformer into the jack plug.

**For applications where the Poseidon uses the 9v battery only, please:**

Follow 14: 'GETTING YOUR WATER HARDNESS LEVEL' as normal, skip 15, 16 and 17.

At No 18: 'SETTING YOUR WATER HARDNESS' (i10) follow instructions apart from the second point 'If using transformer, turn the unit on'.

## 14: GETTING YOUR WATER HARDNESS LEVEL

- Your softener comes with a water hardness test kit which these instructions refer to.
- Run a hard water tap for 1 minute (if a hard water tap isn't available, put the EaSi-Fit bypass on to bypass).
- Fill the test tube up to the 10ml level (indicated on the side).
- Add 2 drops of the titrant solution and mix gently. If the water sample contains hardness it will turn red.
- Add the solution in batches of 5 drops by holding the bottle at a 45 degree angle.

- Mix gently after each 5 drops.
- Count the drops needed until the colour of the sample in the test tube changed from a dark red to a dark blue/green.

Up to 30 Drops	Advance Electronic Display to 300 (recommended min setting)
31 - 35 Drops	Advance Electronic Display to 350
36 - 40 Drops	Advance Electronic Display to 400
41 - 45 Drops	Advance Electronic Display to 450
46 - 50 Drops	Advance Electronic Display to 500

### Si Models Water Hardness Set Up See Points 15 to 17



## 15: SETTING YOUR WATER HARDNESS (Si)

- Turn your electrical connection on.
- Once the display is showing – 'WATER SYSTEM IN-SERVICE' press the Menu button.
- Press the down arrow until you get to 'Set Water Hardness'.
- Apply your drops needed to colour change from red to dark green/blue from the table above and set the number as determined by the table. i.e. 36-40 drops, set display to 400.
- Press 'Confirm' to save the setting (recommended min setting).



## 16: SETTING THE TIME OF DAY (Si)

- Press the Menu button.
- Select 'Set Time of Day'. Set the hours by pressing the up and down arrows, press confirm to save hours and automatically advance to programme the minutes.



- Use the up and down arrows to set the minutes. Press confirm to save.
- Using the arrows, set the correct time (24hr clock).



## 17: SETTING REGENERATION TIME (Si)

- You can choose when your unit starts its regeneration. Select the menu.
- Scroll to – Select Regen Time.
- Select the time you want your regeneration to start. This time is when the unit will decide if a regeneration is necessary. This is preset to 22:30 (recommended). The system then allows 4 hours for the brine solution to be created at which point the regeneration will begin i.e. 02.30hrs. Please note we only recommend changing this time if the household uses water from 2.30-4.40am.



Your Si unit is now programmed.

**Poseidon i10 Water Hardness Set Up**  
See Points 18 to 29



**18: SETTING YOUR WATER HARDNESS (i10)**

- Install the 9V battery (if using) by removing the front salt cover. Press the battery compartment on the left-hand side and connect the 9V battery (supplied). Close the compartment.
- If using transformer, turn the unit on.
- The display will rotate between 'Time' and 'Hardness'. When the display shows hardness, press the 'UP' arrow.
- Apply your drops total from table (above left) and set the number required i.e. 31-35 drops set display to 350.
- Press 'SET/REGEN' to save this setting.



**19: SETTING THE TIME OF DAY (i10)**

- When the display screen shows the time, press the 'UP' arrow.
- Set the hours by pressing the 'UP' and 'DOWN' arrows (this is a 24hour clock). Once the hours are correct, press 'SET/REGEN'.
- Set the minutes by pressing the up and down arrows. Once the minutes are correct, press 'SET/REGEN'.



**20: REGENERATION TIME (i10)**

- Your unit is programmed to do a regeneration at 2am. If you need the regeneration to happen at a different time, offset your clock. For example, if you want to regeneration to start 1 hour later, set the clock 1 hour slow. Follow point 19 above.

**Your i10 unit is now programmed.**

**21: PUTTING YOUR SOFTENER INTO BYPASS**

**Current Bypass**



Fig A. Unit in use

Fig B. Unit in Bypass mode

**New Bypass (expected Q3 2025)**



Fig C. Unit in use

Fig B. Unit in Bypass mode

## 22: ADDITIONAL REGENERATIONS

- **Si Models** – Press the 'Manual/Confirm' button. This will automatically start a regeneration. (You may need to unlock the PCB first, follow the instructions on the screen).



If you wish to cancel this, keep pressing the button until the screen says 'In-Service'.

- **Poseidon i10** – If your unit is asleep, press any button to turn it on.

Press the 'SET/REGEN' button and this will start a regeneration.



If you wish to cancel this, keep pressing the 'SET/REGEN' button until the screen get back to the time and hardness.



Fig 4

Fig C. Unit set for green/blue scale mode

Fig D. To set bypass for green/blue scale mode, turn bypass wheel to show 1 segment in small circular window

## 23: FLUSHING YOUR SOFTENER PRIOR TO USE

- Place the EaSi-Fit Bypass in to the 'In Use / Service' position.
- Check the system for leaks.
- Leave a soft mains tap to run for 5 minutes, this will purge any air and 'resin dust' from the softener (resin dust may appear orange in colour).
- It is recommended you do not fill the softener higher than the top of the handle with salt. For the Si360 we recommend not filling the unit more than 2/3rds full to prevent unnecessary pressure on the cabinet walls. Poseidon can be filled to the top of the cabinet. Our softeners are a dry salt softener, meaning the required amount of water will be added just before the regeneration.

- On all models, add 2 litres of water in to the salt compartment on initial installation only.

**If you see excess water in your salt compartment going down the overflow, please call us on +44 (0) 1379 873 070.**

## 24: WATER SOFTENER BLEND (BLUE/GREEN STAINS) – Fig 4

- All of our water softeners are set to produce 100% soft water. It is recommended for Combi / Condensing boilers and areas of hard water which have a green/blue build up of scale to have slightly blended water.
- On current bypass, see Fig D ref how to set bypass to applications with blue/green build up of scale by turning round dial until 1 tear drop appears in the viewing window.

On new bypass - due Q3 2025, slightly rotate both blue handles on the EaSi Fit bypass until the water hardness test on a soft water outlet takes 6/7 drops to turn from dark red to dark green/blue (See Fig. C).

## 25: GOING ON HOLIDAY?

- When going on holiday we highly advise putting your softener on to bypass and turning the electronics off.
- Follow the instructions on Point 21 - 'Putting Your Softener into Bypass'. If using the plug-in transformer, turn this off. If using the 9V battery, remove this from the softener to preserve battery life. Don't worry your Time setting is saved for 1 month. All other settings are permanent.
- Upon your return, **reverse** the steps in Point 21 and place your softener back into Service.
- **All Models:** Fully open a soft water tap and allow to run for 3 minutes. Once flushed, your softener is ready to be used.

## WASH WATER RESIDENTIAL WATER SOFTENER WARRANTY – EFFECTIVE JANUARY 2025

This water softener is covered by a 2 year parts and 2 year labour 'at home' warranty. Register your product within 30 days of purchase and we will upgrade this to 7 years parts and 2 years labour totally free of charge for installation within the hard water regions of mainland England and Wales. Installations outside this area are covered by a 2 years (if registered, 7 years) parts only 'exchange' warranty\*.

**PLEASE NOTE** – The warranty has the following conditions, and is not covered by the following:

- Damaged caused by high water pressure. A 5 bar water pressure limiting valve is required on the inlet where daytime static water pressure exceeds 3.5bar (50psi).
  - The water softener is suitable for mains water supplies only.
  - The majority of debris in water is caused by the local authority work on the water main. If notified in advance by your local water authority, put you softener on to bypass. (See Fig. B).
  - Resin exchange is not covered under warranty, if caused by degradation, blinding and/or chlorine attack.
  - Callouts due to incorrect installation. If you have any questions when installing your softener, please call us on 01379 873070.
  - Wash recommend the brand UniTabs or UniBlocks for their softeners. In all cases use only PDV TABLET SALT which is produced to BS EN 973 Grade A Standards.
  - The use of any other hoses than those supplied with the unit. Under no circumstances should washing machine hoses be used. Longer hoses can be purchased from Wash Water – Tel: 01379 873070.
  - Under no circumstance should the softener be hard plumbed with copper pipe.
  - The installation kit (Including EaSi-Fit Bypass) is covered by a 12 months parts 'exchange' warranty only.
  - Repairs necessary due to incorrect installation, misuse or damage are not covered by the warranty. Any appointments missed, or not cancelled with at least 24 hours' notice; Wash Water reserves the right to make a charge to cover their costs and will be charged at our standard rates.
  - Any callouts within the warranty period that are due to external influences affecting the operation of the softener will incur a charge.
  - Poseidon i10 battery is not covered under warranty. Nor is any damage which is the result of the battery going flat. Please ensure you replace your battery often.
- The above does not affect your statutory rights.



\* All parts to be sent back to Wash Water at the expense of the sending party, with the approval from Wash Water before return. All repaired or replaced items will be returned to the sender on a no charge basis whilst covered under the parts exchange warranty. For parts outside of the warranty, Wash Water reserves the right to charge for any postage/delivery, labour and parts costs deemed necessary. Wash Water will endeavour to keep these costs to a minimum.

## HINTS AND TIPS ABOUT YOUR NEW WASH WATER SOFTENER

- 1 Poseidon i10** - This biggest user of the battery power is buttons being pushed to check settings/time etc. Therefore to optimise battery life, please only check the display when absolutely required.
- 2 Electricity supply** Make sure the electricity supply is not turned off.
- 3 For appliances used during 'Economy 7' time**, please do not use these between 2.30am and 4.40am.
- 4 To ensure your softener operates at the highest efficiency** it is recommended that you top up the unit weekly (easier to remember than doing it monthly) with Wash Water UniTabs salt. If Wash Water salt is not available, ensure you use PDV salt that meets BS EN 973 Grade A standards. Wash Water does not recommend the use of solar evaporated salt.
- 5 Do not fill the softener** higher than the top of the handle of the side of the cabinet.
- 6 Never let the salt** go down more than half way.
- 7 In the event of a power cut**, check the time and hardness settings are correct (Refer to No's 15 and 16 to reset if necessary).
- 8 Bath and shower surfaces** will become smoother – be careful, in particular the young and infirm. Why not buy a bath mat?
- 9 Cut your washing powder usage down** by at least 1/3rd, or you'll go in to your kitchen/utility room full of suds.
- 10 Soft water will become available** throughout your system in varying time spans. Conventional systems (tanks in roof) will take anything from 4-10 days, while mains fed pressurised systems will give soft water within 2-3 days.
- 11 Dishwashers** On most installations dishwashers will be connected to the soft water. We recommend that you continue to add dishwasher salt to the appliance as before, as this helps the salt holder in the appliance stay clean. We do not however, recommend that crystal glass, solid silver and silver plated items are washed in your dishwasher as etching may occur. Less dishwasher liquid may be required and in certain cases this will also apply to rinse aid. On dishwashers connected to hard water, you should continue to put salt into the dishwasher's own softener. If in any doubt if your machine should have either soft or hard water, please contact your dishwasher manufacturer, but remember they want to sell you spare parts damaged by hard water.
- 12 Steam Irons** we do not recommend the use of soft water in your steam iron as most are designed for hard water and to be de-scaled periodically. Alternatively you could use de-ionised water.

**13 Outside Tap** It is recommended to leave your outside tap on mains hard water. Additionally, in the wintertime we recommend that this tap is isolated via an internal valve to prevent freezing.

**14 Existing Scale** Soft water will immediately begin to de-scale your pipes and appliances. Your hot water cylinder will take longer to de-scale than your pipework. Therefore, you may notice different levels of soft water for some time while the system is de-scaling. This is particularly noticeable in the bath and shower. In a severely scaled system it can take approx 18 months to fully de-scale which has had no previous soft water protection.

**15 Every boiler** has two sides to its operation. The radiators are classified as the 'primary system' and the hot water through the taps etc is called the 'secondary system'. All the benefits of soft water are enjoyed in the secondary side of the system i.e. cold and hot water in your shower, baths, toilets, appliances, your hot water cylinder etc. The majority of boilers primary side are designed to be used with hard water. Therefore, in compliance with the BS7593, the HHIC and boiler manufacturer guidelines, place the softener onto bypass and fill the primary system (radiators) with hard water and the appropriate inhibitor. The inhibitor is designed to keep the radiators operating at maximum efficiency and prevent corrosion caused by the oxygen within the filling water. Once the radiators are filled with hard water, place your softener back into service. This will return the remainder of the system (secondary) to soft water throughout.

**16 Accumulators** please ensure that the softener is installed on the outlet of an accumulator.

**17 Lastly...** soft water is a life style change. It makes your skin softer, your clothes softer, reduces usage of cleaning products, shampoo etc, prolongs the life of your appliances and helps save you money. So enjoy it.





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