NOT EVERYTHING IN LIFE IS COMPLICATED.

SCALEMASTER SOFTLINE 150
INSTALLATION & OPERATING PROCEDURES

OWNERS MANUAL

SCALEMASTER
A Division of DAW Enterprises Ltd
Emerald Way, Stone Business Park, Stone, Staffordshire ST15 0SR
Tel: 01785 811636. Fax: 01785 811511
www.scalemaster.co.uk

PLEASE NOTE:

The Softline water softener comes with everything you will need for a standard 15mm installation already in the box. This includes the Scalemaster integral bypass with built in non-return valve.

In the interests of continuing product development, Scalemaster reserves the right to make modifications to specification of the unit without notice.

DATE SOFTENER FITTED

……

We suggest you keep this manual for future reference.

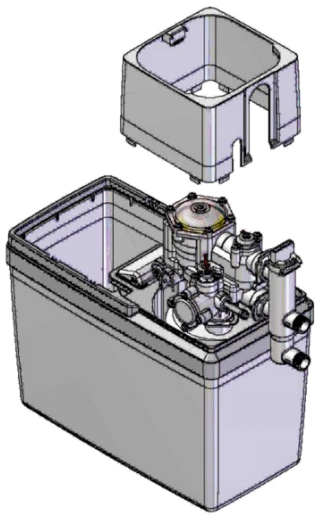
6.6. (c)
Check outgoing hardness with a “hardness test kit” . Adjust blending as necessary.

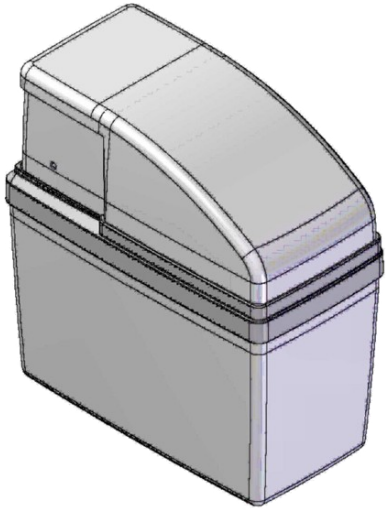
6.7 Place both lids on the container.

First the valve cover; make sure the connections fit in the large opening and the drain in the small opening. (if the valve cover does not sit correctly check the position of the base plate (see 4.8, page 10).

Then replace the front lid. For future salt refills, only the front lid has to be removed.

For ongoing operation, add salt to the container when it becomes low. Do not allow salt container to become drained completely as this will impair the performance of the unit.





Don’t forget to connect the overflow to the drain.

Record the date of installation inside the front cover and keep this manual for future reference.

Congratulations and welcome to the benefits of quality softened water!

6.5 Turn on mains tap so a flow runs through the softener. Some air may flow from the tap; this comes from the softener. This will happen only once; at start-up. When only water flows from the tap, close the tap.

6.6 Perform a manual regeneration. Follow steps 6.6 (a) - 6.6 (c)

6.6 (a)
Use a 5mm allen key to turn the program disk (shown in diagram 1 below) manually.

Turn the programme disk counter clockwise until it is in the position shown in diagram 2 below.. When the arrow and the small line on the transparent cover reach the area marked by “B” (brining), the regeneration will start.

Immediately, the program disk will drop down a little (you will be able to see and hear this). “R” stands for refill (refilling the container with water at the end of the regeneration stage). To make sure the softener is in regeneration, there should be a small water flow to the drain. The water level in the container should drop.

Diagram 1.

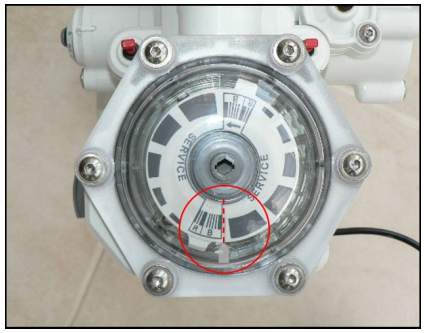


Diagram 2.

6.6 (b)
Let regeneration perform until it stops automatically. The estimated time is approx 12 minutes. When regeneration has stopped, no more water flows to the drain. This is a clear indication that the regeneration stage is over.

Thank you for choosing a Scalemaster Softline 150 Water Softener.

Please take the time to read this installation guide. It will tell you in a simple format how to install your Water Softener and how to start enjoying the benefits of softened water.

1. Introduction

The Scalemaster Softlife 150 Water Softener presents a new approach to the world of domestic water softeners. Based on proven technology, the Softline 150 unit is non electric (so there are no issues relating to electrical installation compliance), yet the unit is still fully automatic. The unit operates purely through the hydraulic pressure on the incoming water whether that be from the mains or from a well. The Softline 150 has no motors and no wires, they just do not need them! The moving parts are operated by dynamic pressure above 0.8 bar.

The Softline 150 unit is one of the most efficient softeners on the market. Through it’s advanced technology, the Softline 150 typically only uses 330 grams of salt and 18 litres of water for every regeneration making it one of the most environmentally friendly water softeners on the market today. Water usage is less than 4% per regeneration which meets the minimum performance requirements of the Code for Sustainable Homes published by the Buildings Research Establishment.

2. Features & Benefits

1. **NON - ELECTRIC**: The Softline water softener works entirely without electricity.
2. **EASE OF INSTALLATION**: Far simpler than existing water softeners to install due to its simple and unique ‘clip-connection’ design.
3. **COMPACT DESIGN**: Designed to fit into a standard kitchen cabinet and other areas where space is at a premium.
4. **MINIMAL PROGRAMMING**: Just set the water hardness for your area and the Softline 150 is ready for use.
5. **ENVIRONMENTALLY FREINDLY**: Designed to use only 330 grams of salt and 18 litres of water during regeneration.
6. **HIGH TEST STANDARDS:** The Softline is WRAS approved and all valves are wet tested before leaving the factory.
7. **HIGH FLOW RATES**: Nominal flow rate (1 bar loss of pressure) 25 litres per minute (1500 litres per hour).
8. **HIGH RELIABILITY**: Fabricated from high grade engineering materials, the Softline 150 will deliver quality softened water for many years to come.

3. Before You Start

- Make sure you have all necessary tools on hand before starting the installation.
- Follow all regulations regarding drainage. If in doubt see the relevant WRAS guidance notes (www.wras.co.uk).
- **Read this manual carefully**. If you have any questions or remarks, please contact your Scalemaster supplier.
- Check incoming pressure: minimum 0.8 bar (dynamic), maximum 6 bar (static) (15 - 100 PSI). If necessary reduce incoming pressure.
- Do not install the Softline unit close to a heating sour (environment temperature must be below 40°C).
- Protect softener drain hose (item 12, page 5), and all fittings against frost.
- Make sure you have tested the water to check the total hardness. If in doubt telephone Scalemaster on 01785 811636 to obtain the required information.
- Remember, if you are not sure, ***ASK!***

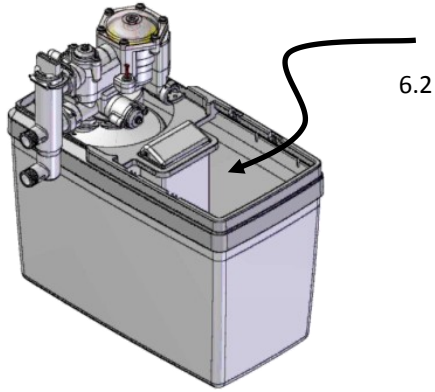
It is recommended that a water softener is installed by a professional. Although the Softline is probably the easiest and safest softener on the market, it is imperative that all necessary precautions are taken.

This installation guide is written to help the professional installer and assumes that this person has a working knowledge of hydraulic softeners and domestic plumbing.

Proper operation of the softener depends upon proper installation, maintenance and topping up with suitable salt. An annual inspection of your Scalemaster water softener will help ensure a long operating life.

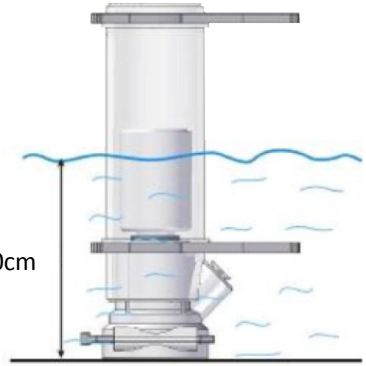
6. Commissioning & Operation:

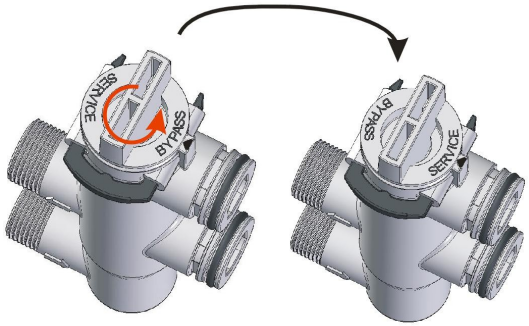
6.1 Leave Bypass in “bypass” mode, open main valve and flush for several minutes in order to avoid any debris from installation from entering the softener.



6.2 Fill salt container (indicated) with salt in the provided space. *Use only salt tablets or granules that have be specifically formulated for use in water softeners.*
(if in doubt consult your supplier).

6.3. Add water in the salt container until the water level is approx. 10cm (4”) high. (The float on the brine valve must be afloat)





6.4 Turn the bypass slowly to “service” mode.

5. Settings:

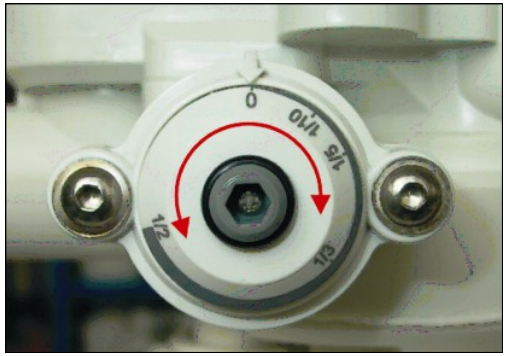
5.1 Hardness regulator: (part 9, page 5).

Measure the hardness of incoming water by means of the hardness test kit supplied. The Scalemaster unit uses ppm settings of $CaCO_3$.

Adjust the hardness regulator to the measured value. This requires a 5mm allen key.

5.2 Blending regulator: (part 8, page 5).

With the blending regulator, you can determine the outgoing hardness. Depending on the desired residual hardness, set outgoing hardness with a 5mm allen key. The setting is proportional, i.e. 1/10 = 1 part hard water to 9 parts soft water…. of total incoming hardness.



3.1. Positioning the water softener

- Remember to measure your water softener and the space where it will be installed. Remember to allow extra space for connecting pipe work when you do your calculations along with adequate space to allow for future servicing and topping up of salt.
- Keep the distance of the incoming main and drainage to a minimum. While 2 metres is an adequate distance this can be longer in circumstances where water pressure allows.
- The weight of a water softener is greatly increased when fully operational and filled with salt so this must be taken into account when choosing where to site the softener.
- Your Softline water softener is designed to operate effectively with an incoming water pressure of between 0.8bar and 8bar. If your water supply is likely to fall outside of these parameters we recommend that a booster pump or pressure reducing valve should be fitted accordingly
- Do not install your water softener next to a boiler or other heat source that will exceed 40˚.

IF YOU ARE CONSIDERING INSTALLING YOUR WATER SOFTENER IN A LOFT, THE FOLLOWING INSTRUCTIONS SHOULD BE STRICTLY ADHERED TO.

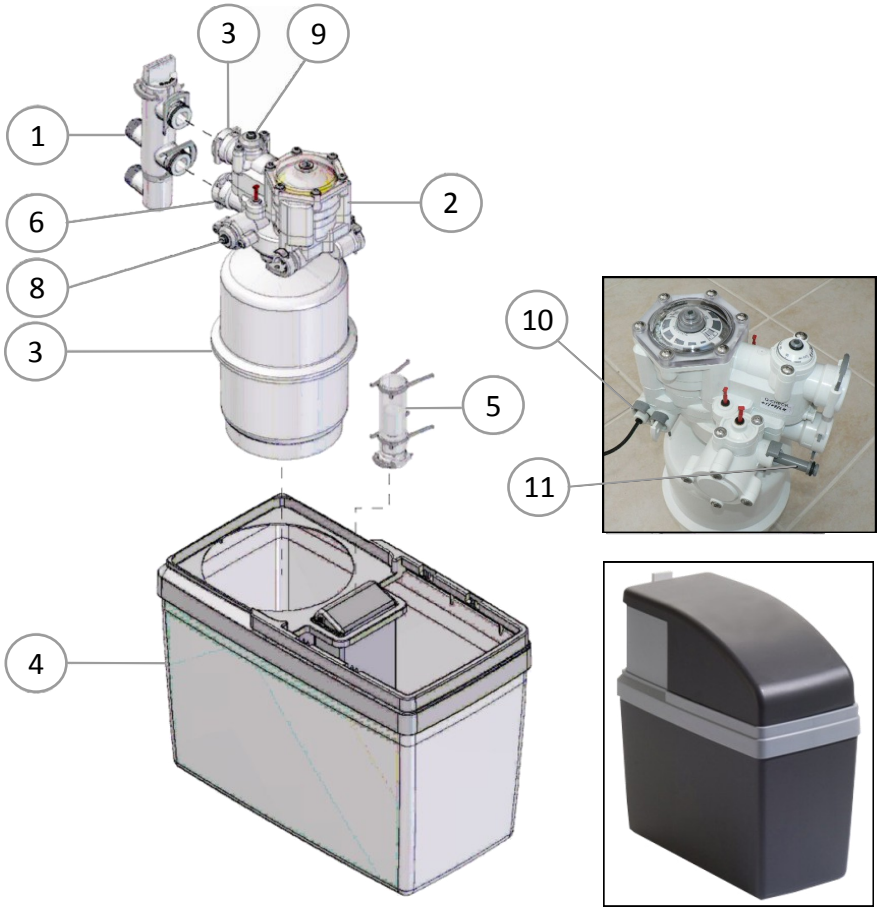
3.2. Loft Installation

- The water softener may be installed in a loft or roof cavity but must be situated within a safety tank of not less than 100 litre capacity. A suitable tank would be a plastic roof storage tank with an overflow pipe of not less than 20mm diameter. This tank should also be mounted on a board strong enough to spread the weight over a load bearing wall.

3.3. Drinking Water.

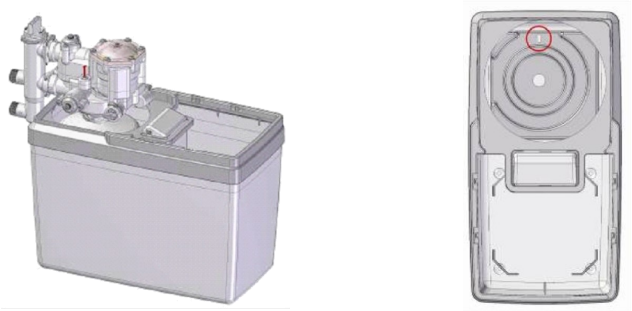
- When fitting your water softener allowance should be made for at least one drinking water tap that is not fed by the water softener. Where practical this should be at the kitchen sink but a utility room or other suitable alternative will suffice.

- It is recommended that people on a low sodium diet should not drink artificially softened water. Water used for mixing infant powder for babies must only be taken from unsoftened water as softened water contain an increased level of sodium to which young babies have a limited tolerance.

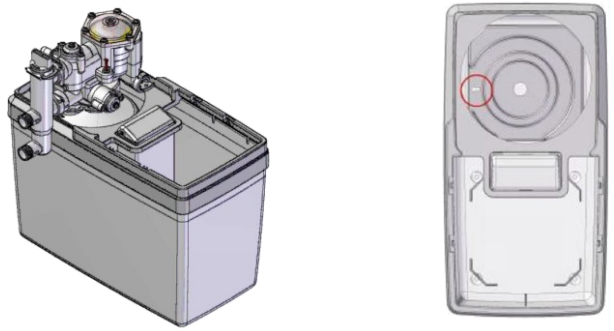


1. Bypass
2. Valve Housing
3. Resin Tank
4. Softener Cabinet
5. Brine Valve (Floater)
6. Water ***Inlet***
7. Water ***Outlet***
8. Blending Regulator
9. Hardness Regulator
10. To Brine Valve
11. To Drain

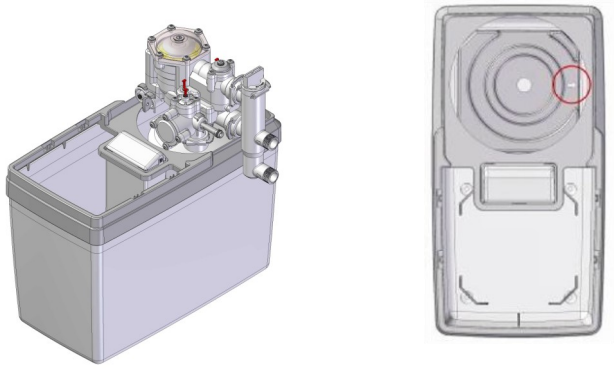
4.8 (a) **Connections at the back**: The arrow on the support in the container must be pointing to the back. Place the device in the container with the connections at the back, as shown below.



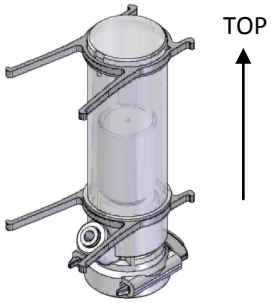
4.8 (b) **Connections to the left**: The arrow on the support in the container must be pointing to the left. Place the device in the container with the connections on the left, as shown below.



4.8 (c) **Connections to the right**: The arrow on the support in the container must be pointing to the right . Place the device in the container with the connections on the right, as shown below.



4.7 Place the softener in the salt bin; use the side with the round opening (for correct installation, see 4.8). To install the brine valve, open the cover by pressing it gently at both sides. Now put the brine valve in the provided space, with the top side up. Make sure that the brine valve goes all the way down to the bottom of the salt bin. Make sure not to squeeze the tube; avoid kinks. Disconnect if necessary, and reconnect correctly. Close the cover.



4.8 The device can be installed in the container in three different ways: at the back, to the left or to the right. The support (base plate) at the bottom of the container must be placed accordingly. Please refer to the figures on the following page.

4. Installation:

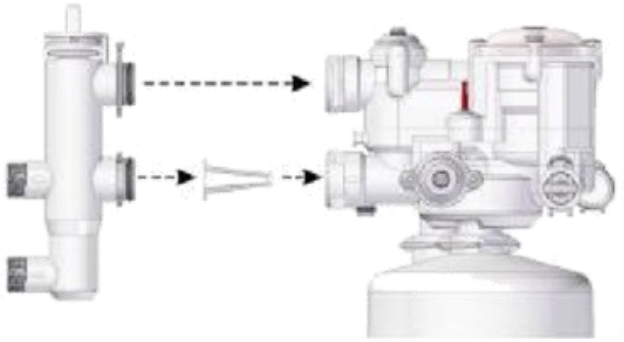
4.1 Close the main valve and make sure pressure is released from the piping. This can be done by opening at least one tap.

4.2 Cut into the cold mains water supply in order to install the angled stop taps supplied in the installation kit for connection to the Scalemaster Softener Bypass.

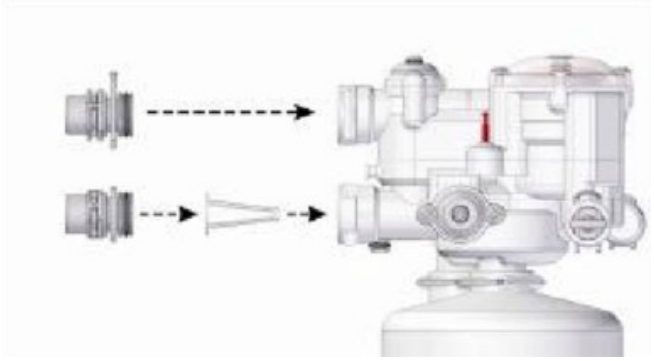
4.3 Follow the arrows on both Bypass and softener for water inlet and Outlet accordingly

Please ensure that the inlet filter does not fall out.

4.3.1

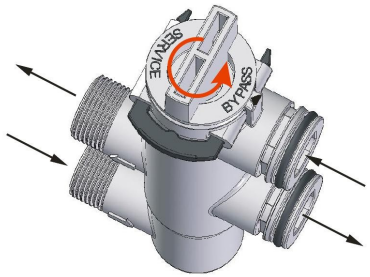


The Scalemaster Bypass has a ¾" connection.

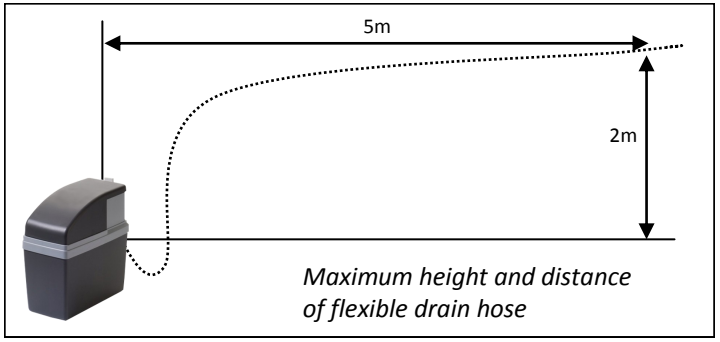


ALWAYS ENSURE CLIPS ARE FIRMLY IN PLACE.

CAUTION: Before installing the Softener, ensure that the valve is set to "bypass", ***not*** "service"



4.4 Connect the straight drain outlet (part 12, page 5) to a local drain by means of the 13 mm flexible drain pipe supplied in the installation kit. This drain pipe has been reinforced to avoid possible problems caused by kinking of the pipe. Ensure that the drain is protected against frost and excessive heat (min. temp. 5°C, max. temp. 40°C)



CAUTION: Follow all regulations regarding connection of the flexible drain hose to the drain. If in doubt check the relevant WRAS guidance notes.

4.5 Connect the brine valve (part 5, page 5) to the softener by means of the 4mm flexible tube. Insert the tube as far as possible (to stop) into the quick-release couplings. Make sure not to squeeze the tube, avoid kinks.

4.6 Install the supplied overflow tap. Remove <u>one</u> of the 3 plugs in the side wall of the salt bin (A,B or C). Insert the overflow tap and secure it from inside the bin with the supplied nut. Connect the pipework so that any overflowing water runs downhill to drain or through an outside wall.