

SCALEMASTER[®]

SCALEMASTER-TWIN WATER SOFTENER

INSTALLATION INSTRUCTIONS



Hello.

Thank you for choosing a
Scalemaster-Twin Water Softener to
improve the quality of your water.

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SAFETY INFORMATION

Read all information carefully before installing and using the softener. Check local building and sanitation codes for installation compliance.

- Scalemaster recommends that a qualified installer or engineer performs the installation. Failure to install the system as instructed could invalidate the warranty.
- Do not install if the supply water pressure exceeds 125 psi (8.3 BAR), unless a suitable regularity pressure valve has been installed on the water supply to the softener. The water temperature must not exceed 120°F (48.8°C).
- Do not install the water softener in an area where the temperature can cause the unit to freeze. Freezing temperatures will damage the system.

VERY IMPORTANT:

Where a cabinet overflow could cause damage, you must install a 1/2" I.D. overflow line to the barbed fitting on the cabinet and run to a suitable outlet that is visible and capable of taking the overflow (ie. through the outside wall). Make sure the outlet is not higher than the barbed fitting.

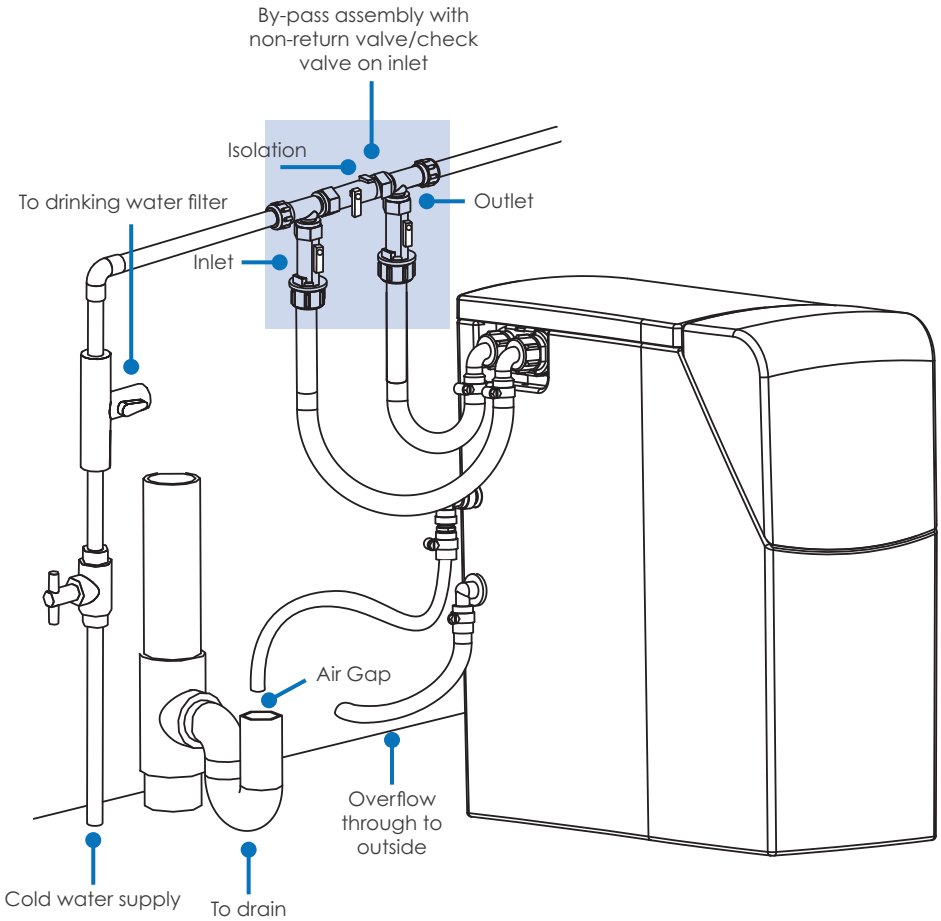
- When installing a plastic component on a copper pipe in line, Scalemaster recommends placing earth continuity straps ACROSS the component being fitted to ensure that the earth continuity is never broken.
- Scalemaster recommends installation of a by-pass device which enables the softener to be isolated from the water service lines for maintenance and service. This also maintains the continuity of the water supply when the system is disconnected.
- These systems are not intended to be used for treating water that is microbiologically unsafe or water that has an unknown quality without adequate disinfection before or after the system.

IMPORTANT: Refer to the plumbing schematic in Figure 1 before beginning installation.

NOTE:

There are two Scalemaster water softener models. Correct application will ensure you enjoy the full benefits of the water softener. If you are unsure of the correct model for your particular system, please contact your local stockist.

Figure 1:



Installation instructions

1 Locate:

Determine location to install equipment. Make sure that the unit will be on a flat surface.

If the unit is sited in a warm environment or next to a heat-generating appliance, you may experience salt build up on the inside of the cabinet and lid. This may need to be periodically cleaned with water and a wet rag; alternatively, site the unit in cooler ventilated position.

If sand, silt or turbidity is present in the water supply, a separate prefilter should be installed.

2 Test pressure:

Test incoming pressure to the unit. A pressure limiting valve will be required if the pressure is above 5 bar.

3 Install:

Plumb pipe work as necessary to accommodate a by-pass valve, see [Figure 1](#).

CAUTION:

Do not solder any fitting whilst connected to the unit adaptors. Excessive heat may result in damage to the plastic and rubber parts. The materials used in the soldering process may attack certain types of plastics. Care should be taken during the installation process to assure that solder and flux do not come in contact with media tanks, the control module and related plastic components.

NOTE:

Verify installation complies with local plumbing codes before continuing.

4 Flush:

After all the plumbing has been completed, but before connecting the water softener, flush both inlet and outlet lines allowing water to rinse out any debris in the lines.

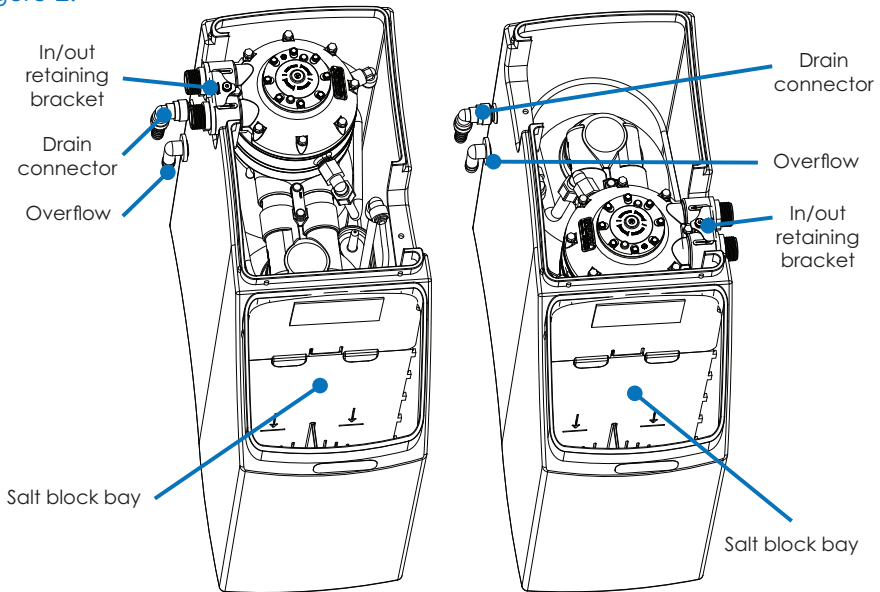
5 Remove Adapters:

Remove the inlet/outlet adapters from the control valve by removing the retaining pin and bracket see [Figure 2](#). Connect the inlet/outlet adapters to the hoses remembering to use the enclosed mesh washers. Re-install adapters into control valve in/out ports, ensuring that they are fitted into the correct openings (see arrows on valve for reference). Re-attach the retaining bracket and pin to the control valve.

NOTE:

The softener can be installed with the outlet ports on the left or right side of the cabinet by reversing the components as seen in [Figure 2](#). This allows the inlet/outlet connections to be fitted on the preferred side of the cabinet for easier installation.

Figure 2:



7 Drain Line:

Run a drain line to discharge point, checking for any obstructions or possible kinks. FOLLOW LOCAL PLUMBING CODES. Before connecting to the unit, slide on the stainless steel jubilee clip. Push the drain line onto the barbed fitting and tighten the jubilee clip securely.

NOTE:

On drain lines that must travel more than 2.4m up and over 9m, it is best to take the 1/2" drain line that fits the valve and increase it to a larger diameter pipe. The drain line must not be restricted or kinked.

8 Remove Brine Valve:

Remove brine valve and adjust setting for the water hardness and meter disc being used (see page 16). Replace the brine valve and make sure the 1/4" brine line is secure and that the valve is sat firmly on the base of the unit.

SETTING THE BRINE VALVE

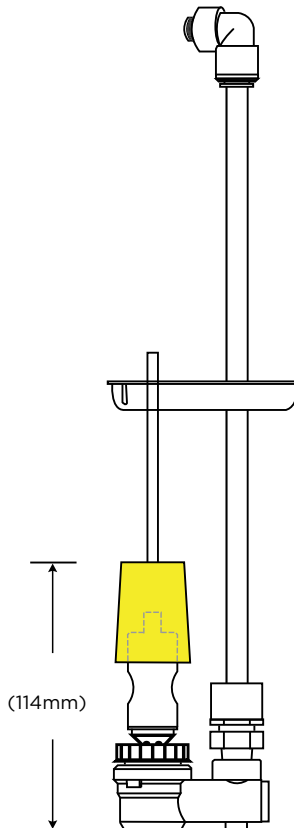
The standard salt dosage for the Scalemaster-Twin is 0.3 kg salt. The brine valve is prepared in the factory to take account of this.

However, it is possible that the float may have moved during shipping and it is advisable to check the setting on each unit prior to installation.

1 Scalemaster-Twin 0.3kg brine valve setting:

Bottom of yellow float to be level with top of white plastic section giving 0.3kg salt.

Figure 3:



INSTALLATION REVIEW

1 Test pressure:

Test incoming pressure to the unit and adjust pressure limiting valve if the pressure is above 5 bar.

2 Secure drain line:

Make sure the drain line is secure, uses an airgap and is fully compliant.

3 Main inlet valve:

With the by-pass in position (inlet closed, outlet closed, by-pass open), turn on the main inlet valve slowly and check for leaks in the plumbing.

4 Pressurising:

With the inlet valve open, allow the softeners to pressurize. Water may run to drain until the unit is fully pressurised.

5 Brine drum:

Allow the brine drum to fill with water until the brine valve shuts off. The water level should be approximately one inch over the grid plate.

TIP:

If the cabinet does not fill with water, manually fill with 4 litres of mains water.

STARTUP INSTRUCTIONS

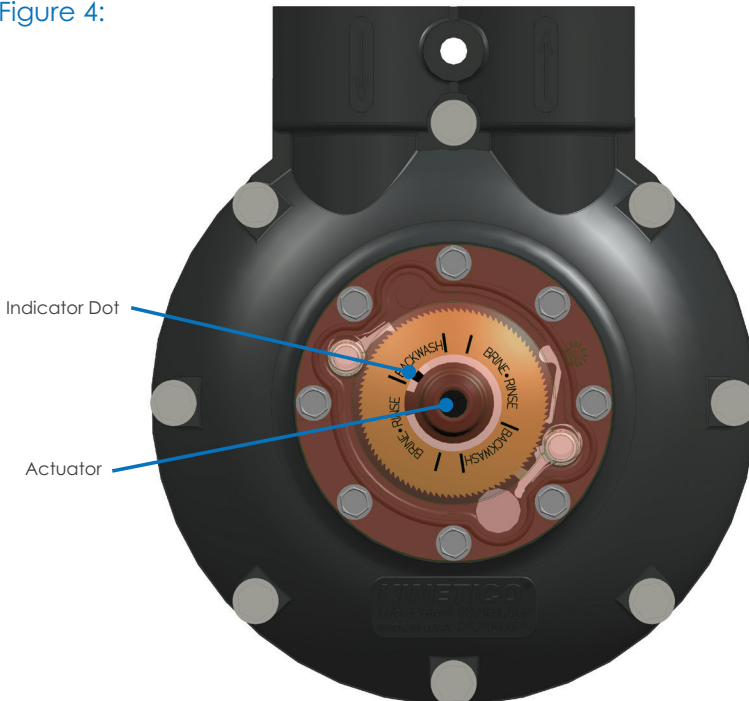
1 Cycle the softener to the backwash position:

Manually engage the backwash of the softener by using a Phillips head screwdriver to push down on the actuator, see [Figure 4](#), and slowly turn CLOCKWISE ONLY until the actuator tab has advanced the indicator dot to the letter W in the word "BACKWASH" on the clear cap. You will hear a rush of water and air going to the drain. When the vessel has finished its cycle, repeat the procedure by advancing the indicator dot to the other backwash cycle and allow it to finish.

NOTE:

After the unit is pressurized, open the outlet valve, ensure isolation valve is closed. Open a tap in the house to release trapped air from the lines.

Figure 4:



MAINTAINING YOUR WATER SOFTENER

The Scalemaster-Twin provides you with quality water without requiring extensive maintenance. Minor, routine maintenance is necessary to keep your softener working properly. Should you have any questions or need any assistance, call 01785 811636.

1 Adding salt:

The Scalemaster-Twin is designed to accommodate two 4kg blocks of salt in the front compartment although a good quality tablet salt can be used if desired. The water level will normally sit around 5cm above the salt grid and in contact with the salt. It is normal for one block to dissolve quicker than the other.

IMPORTANT:

Never use rock or granular salt in your system. It contains impurities that can interfere with performance.

2 Manual regeneration:

If your salt storage tank does run out, you will need to add salt then manually regenerate your water softener. Please note, you should wait at least 3 hours after adding the salt before you regenerate the unit. If you prefer, you can wait for the system to automatically regenerate, although you may have hard water in the meantime.

To manually regenerate your system, using a Phillips head screwdriver, push down on the actuator and slowly turn CLOCKWISE until the actuator has advanced the indicator dot to the "BRINE" position, see [Figure 4](#) (page 11). You should hear at least 5 "clicks" while turning the actuator before the indicator dot reaches the "BRINE" position. At this point you will hear water flowing to the drain. This indicates that you have successfully initiated a regeneration. Repeat the procedure for manual regeneration after the water flow stops (approximately 11 minutes) to be sure both resin tanks are regenerated.

NOTE: If you do not hear a flow of water running to drain, contact your local stockist.

NOTE: If your hot water tank or loft storage tank has filled with hard water, it may take several days for it to empty completely and for your water to feel soft again.

IMPORTANT: Never turn the actuator anti-clockwise.

3 Cold weather protection:

If your Scalemaster-Twin is installed outside or in an area that is not heated, you may want to take precautionary measures to prevent damage to your unit from freezing. Scalemaster offer cabinets specifically designed to protect your softener from freezing temperatures. Please call your local dealer for more information.

NOTE:

The warranty does not cover damage caused to your system due to freezing. If you have any questions about your Scalemaster-Twin, or you suspect that your system isn't working properly, contact your local stockist.

4 By-pass:

There may be times when you need to shut off the water supply to your entire house.

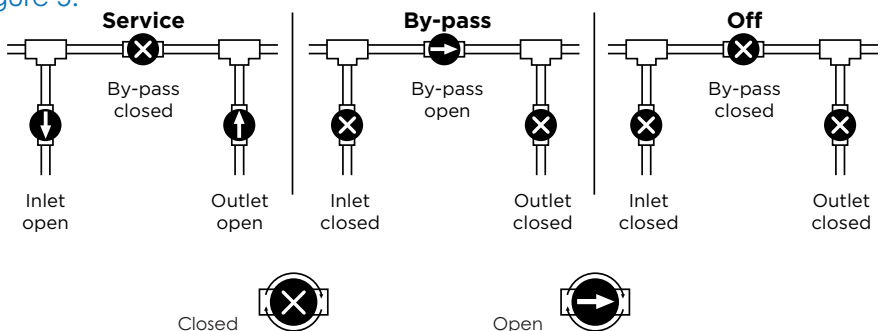
To do this, set the by-pass valve to the "OFF" position, see [Figure 5](#). No water will flow through the house. To restart the water, set the by-pass valve to the "SERVICE" position.

You may put the softener into by-pass at any time, if necessary, by putting the by-pass valve into the "BY-PASS" position. You will still get water throughout the house, however all of the water will be untreated. To return the softener to service, set the by-pass valve to the "SERVICE" position.

NOTE:

By-pass styles vary and yours may not be as described. Contact your local stockist for further assistance.

Figure 5:



MAINTENANCE TIPS & FAQs

My system seems to be regenerating more frequently, is this normal?

Your Scalemaster-Twin is demand operated and therefore adjusts to your water usage. If you do not think that your water usage has increased due to extra house guests, additional laundry or for any other reason, check for leaking plumbing, dripping taps or running toilets, all of which can contribute to more frequent regenerations.

My water doesn't seem soft. How can I be sure that my system is regenerating properly?

Be sure that the water supply to the softener is not by-passed. Follow the instructions on page 12 to manually regenerate the softener. If the unit does not begin advancing to the next regeneration automatically, please contact your local stockist for further assistance.

I can hear my Scalemaster-Twin system running or regenerating during the day. My old softener only used to run at night. Is this normal?

Single tank, electric water softeners tend to be set to regenerate at night because of the unavailability of soft water during the regeneration process. Unlike traditional water softeners, this system will operate based on your water usage, without timers or electronics. Your system regenerates whenever necessary, at any time of day. The twin cylinder design allows one tank to provide treated water while the other regenerates so you will never be without soft water.

If at any time you feel your Scalemaster-Twin requires a service, put the system in by-pass and call your local stockist.

SPECIFICATIONS

Meter Disc	1	2	3	4	5	6	7	8
Max hardness (in mg/L)	63	125	186	246	305	362	419	474
Litres between regenerations	1961	980	654	490	392	327	280	245

Media Tank Size	6" x 13"
Cabinet Dimensions @ base	H 495mm x D 475mm x W 205mm
Resin per tank	4.5 litres
Tank Freeboard	Packed
Salt used per cycle	0.3 kg
Regeneration Time	12 minutes
Service Flow Rate @ 15 psi drop	33 l/m
Service Flow Rate @ 30 psi drop	33 l/m
Backwash Rate	1.8 l/m
Resin Type	Fine mesh
Pipe connections - in/out	3/4"
Min./Max. Operating Pressure	12/120 PSI (0.83 BAR/8.3 BAR)
Min./Max. Operating Temperature	1.7°C - 35°C
Minimum Operating Flow	1.1 l/m
Water used per cycle	23 litres



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