

Calmag

Calming troubled waters

MODEL:
CALSOFT M

CalSoft Metered Water Softener *Specification*



CalSoft

The ultimate in water softening

Due to Calmag's commitment to new product development the photographs contained within these instructions may depict earlier product models - Calmag reserve the right to alter specification without prior notification - please contact Calmag technical services on 01535 210320 (option 2).

CalSoft Installation

Valve Display

Your CalSoft unit has been pre-programmed for a water hardness level of 300ppm. Under normal operating conditions these settings do not require any adjustment but if they are required to be adjusted please contact your installer or Calmag.

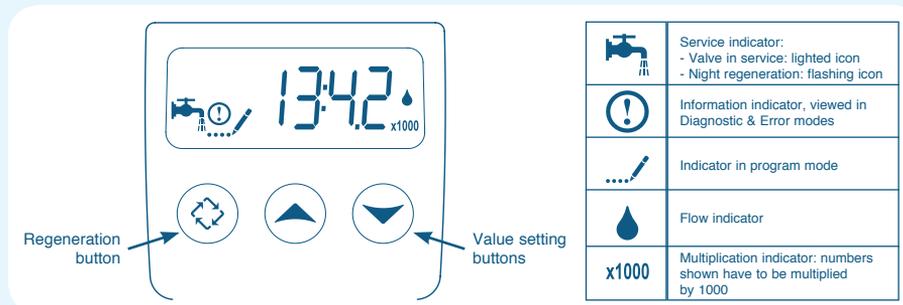
To access the valve lift up the front lid of your water softener.

If the electricity fails, the electronic controller will keep in the memory the pre-set program. Use the up and down arrows to set the correct time of day.

If you need to manually initiate a regeneration, push and hold the "extra cycle button" for five seconds. The unit will then proceed to regenerate automatically.

Operating Tips

- Keep the bypass closed at all times. Open the bypass to service the water softener and to allow hard water to service.
- Keep the salt level at all times above the water in the brine tank.



Installation

WATER PRESSURE

A minimum of 1.5 bar inlet water pressure is required for the valve to operate effectively. Do not exceed 5 bar. If the pressure is higher fit a pressure reducing valve. Note:- It is recommended that a pressure reducing valve rated at 5 bar should be fitted on the valve inlet.

ELECTRICAL CONNECTION

A standard UK power supply is required to operate the unit.

Bypass

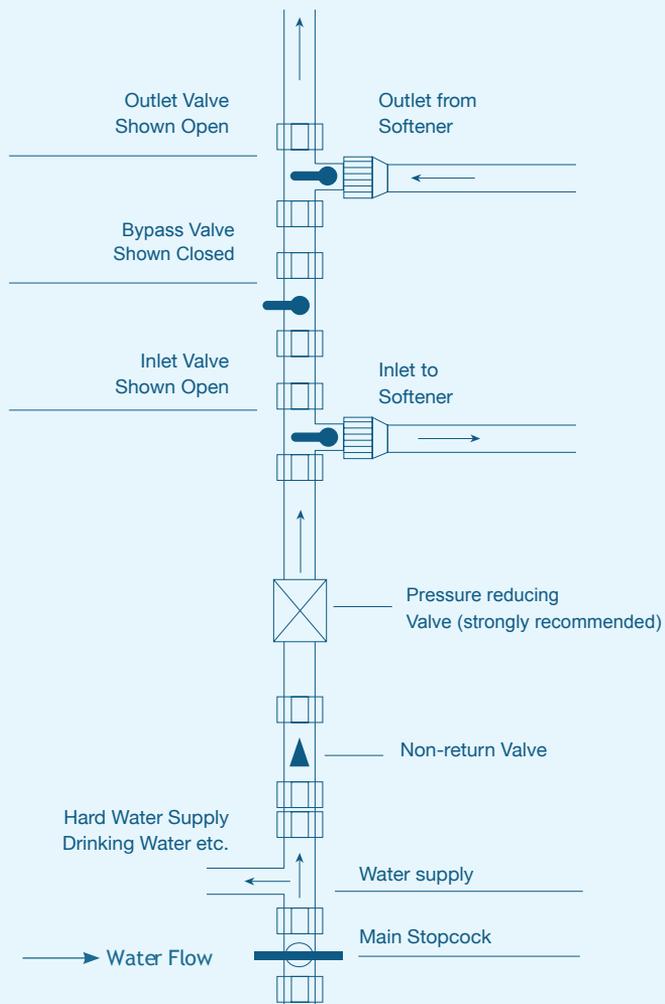
Always provide a bypass valve for the installation.

WATER TEMPERATURE

Water temperature is not to exceed 43°C. The unit cannot be subjected to freezing conditions. Both will invalidate any guarantees.

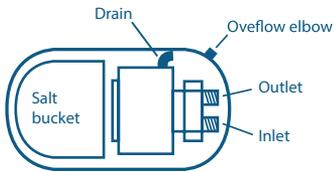
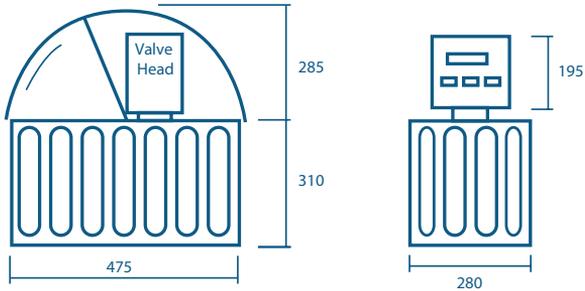
Installation

Typical Pipework Installation for the CalSoft



CalSoft *Dimensions*

Dimensions



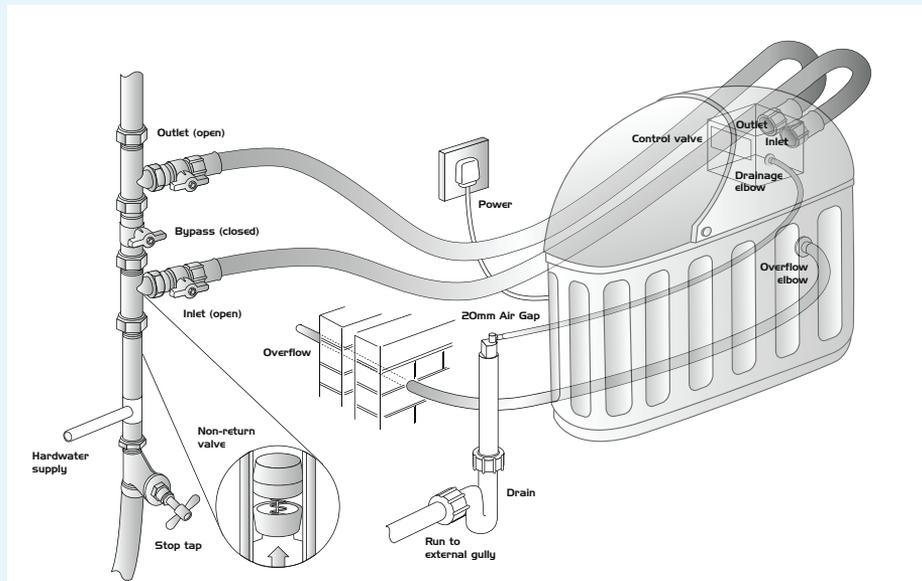
Please note these dimensions are approximations and should be checked depending where the installation will be carried out i.e. in a confined area. Dimensions do not include pipework dimensions.



Installation & start up procedure

1. Turn off the mains water supply to the house by closing the stopcock. Then drain the pipe by opening the kitchen tap.
2. Cut the pipe after the stopcock and install the inlet, outlet and bypass valves. To comply with regulations a check valve must be installed between the stopcock and the softener.
3. Connect a hose between the softener inlet and the inlet valve, then connect a hose between the softener outlet and the outlet valve.
4. Turn off the inlet, outlet and bypass valves.
5. The drinking water tap connection and the garden tap connection should be made in the pipe between the stopcock and the bypass valve.
6. Run the drain tube to the nearest waste pipe, typically a washing machine type standpipe. Cut off any excess tube. Secure the pipe so that it cannot fall out of the standpipe. Ensure that it is installed with an air gap of 20mm.
7. Push the overflow hose onto the overflow connection on the back of the cabinet and run it downhill to the outside of the house, keep the hose as short as possible.
8. Open the mains stopcock then the inlet, outlet and bypass valves. Open the kitchen sink tap for a few minutes to remove all the air and any colour from the water, and then close the tap. Leave for 10 minutes, checking for leaks. Close bypass valve.
9. Plug the valve into an approved power source. Once powered, it is possible that the valve drives itself to the service position.
10. Set the time of day by pushing either  or  buttons. Then press  to set.
11. Fill approximately 7 litres of water above the bottom of the salt bucket.
12. Start a manual regeneration:
Press and hold for 10 seconds the button: 
This will begin the regeneration cycle and allows the CalSoft to determine the correct water level in the cabinet. This process will take approximately 35 minutes.
13. After the regeneration cycle has completed salt can be added into the salt bucket at the front of the cabinet. The amount of salt is not critical apart from that there should always be 3-4kg in the bucket to accommodate at least one regeneration.

For the installer - Typical Installation



For further information please refer to the WRAS information and guidance note: No 9-07-01 titled:-

Information for Installation of Ion Exchange Water Softeners for Systems Supplying Water for Domestic Purposes.

(www.wras.co.uk)

Hardness setting

All program settings are set by Calmag and do not need adjusting. This water softener is set for a water hardness of 300ppm.

If your water hardness is above 300ppm it is recommended to change this setting only by following instructions below.

1. Press and hold together the 2 arrowed buttons marked  and 
2. The display will show **DO OFF**
3. Press  button once
4. The display will show **H 30**
5. Use the  or  buttons to adjust to required hardness e.g. **36 = 360 PPM**
6. When this is set press  twice. The display will return to the time of day

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Further Information

Troubleshooting

SYMPTOM	PROBABLE CAUSE	CORRECTION
1. Softener fails to regenerate automatically	<ul style="list-style-type: none"> A. Cord plugged into intermittent or dead power source. B. Disconnected meter cable. C. Defective power cord. D. Defective timer, meter or sensor. 	<ul style="list-style-type: none"> A. Connect to constant power source. B. Reconnect cable. C. Replace cord. D. Replace or Repair.
2. Regenerating at wrong time	<ul style="list-style-type: none"> A. Timer improperly set, due to Power failure. 	<ul style="list-style-type: none"> A. Reset timer.
3. Loss of capacity	<ul style="list-style-type: none"> A. Increased raw water hardness. B. Brine concentration and/or quality. C. Resin fouling. D. Poor distribution, Channeling (uneven bed surface). E. Internal valve leak. F. Resin age. G. Resin loss. 	<ul style="list-style-type: none"> A. Reset unit to the new hardness capacity. B. Keep brine tank full of salt at all times. Clean it yearly. Salt may be bridged. If using a salt grid plate ensure refill water is over it. C. Call Calmag. Find out how to confirm it, clean the resin and prevent future fouling. D. Call Calmag. Check distributors and backwash flow. E. Call Calmag. Replace spacers, seals and/or piston. F. Call Calmag. Check for resin oxidation caused by chlorine. Mushy resin. G. Call Calmag. Check for correct bed depth. Broken distributors. Air or gas in bed: Well gas eliminator. Loose brine line. H. Close bypass valve. I. Check for too slow or high service flow. Check for media fouling.
4. Poor water quality	<ul style="list-style-type: none"> A. Check items listed in *3 B. Bypass valve open. C. Channeling. 	<ul style="list-style-type: none"> A. Adjust salt setting. B. See symptom No.7

Troubleshooting

5. High salt usage	<ul style="list-style-type: none"> A. High salt setting. B. Excessive water in brine tank. 	<ul style="list-style-type: none"> A. Clean or replace pipeline. Pretreat to prevent. B. Clean the resin. Pretreat to prevent C. Too many resin fines and/or sediment. Call Calmag, reset backwash flow rate, and/or adjust time.
6. Loss of water pressure.	<ul style="list-style-type: none"> A. Scaling/Fouling of inlet pipe. B. Fouled resin C. Improper backwash 	<ul style="list-style-type: none"> A. Clean or replace pipeline. B. Clean the resin. Pretreat to prevent. C. Too many resin fines and/or sediment. Call Calmag, reset backwash flow rate and/or adjust time.
7. Excessive water in brine tank and/or salty water to service.	<ul style="list-style-type: none"> A. Plugged drain line. B. Dirty or damaged brine valve. C. Plugged injector. D. Low inlet pressure. E. Timer not cycling. F. High water pressure. 	<ul style="list-style-type: none"> A. Check flow to drain. Clean flow control. B. Clean or replace brine valve. C. Clean injector and replace screen. D. Increase pressure to allow injector to perform properly (1.5 bar minimum) E. Replace timer. F. Install a pressure reducing valve.
8. Softener fails to use salt	<ul style="list-style-type: none"> A. Plugged/restricted drain line. B. Injector is plugged. C. No water in brine tank. D. Water pressure too low/high E. Brine line injects air during brine draw. F. Internal control leak. 	<ul style="list-style-type: none"> A. Clean drain line and/or flow control. B. Clean or replace injector and screen. C. Check for restriction in BLFC. Ensure safety float is not struck. D. Line pressure must be at least 1.5 bar / 5 bar max. E. Check brine for air leaks.
9. Control cycles continuously.	<ul style="list-style-type: none"> A. Faulty timer. 	<ul style="list-style-type: none"> A. Replace timer.
10. Continuous flow to drain.	<ul style="list-style-type: none"> A. Foreign material in control. B. Internal control leak. C. Valve jammed in brine or backwash position D. Timer motor stopped or jammed. 	<ul style="list-style-type: none"> A. Call Calmag. Clean valve, rebuild unit. B. Same as above. C. Same as above. D. Replace timer motor.

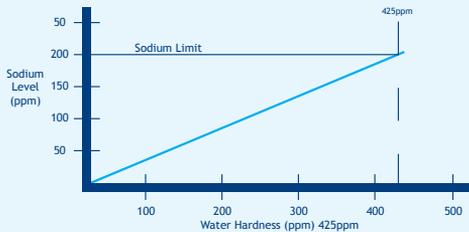
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Drinking Water Supply Information

Advice from various international bodies state that when a water softener has been installed then a separate unsoftened water tap should be provided - mainly for drinking water purposes. This would normally be at the kitchen sink as this would ordinarily be the main area that people would pour drinking water from and also used for cooking purposes. Alternative positions for this supply, or more than one supply can be installed, and is purely down to the individual application. The separate unsoftened drinking tap should then be connected into the supply pipe prior to the bypass valve and then run directly to the specified drinking tap. *See illustration below*

The Regulations state 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 also comply with the Regulations which stipulate a maximum limit of 200ppm for sodium. The Department of Health recommends that this sodium level should not be exceeded for baby food preparation and also for individuals that may be on a low sodium diet.

As the maximum limit is set at 200ppm, it is therefore necessary to check if this would be exceeded in the area and could be the case where the water is extremely hard. This level of sodium would be exceeded if the incoming water hardness reaches 425ppm (assuming that the incoming level of sodium is zero from the mains supply). This can be checked with the Calmag water hardness test kit or alternatively by asking the local water supplier the level of hardness and sodium in the area. Once this information is confirmed then a balanced decision can be made for the requirements of a water filter or not.



Fresh CR or Slim R cartridges should be used to reduce limescale from building up in kettles

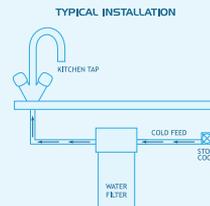
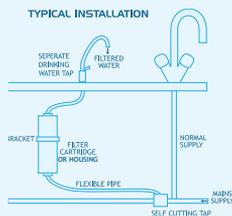


Filtered water

Hard water



Limescale build up inside a kettle



Replacement filters...

Contaminants are trapped within the filter cartridge, therefore you need to change them on a regular basis to maintain a clean water supply. The lifespan of a cartridge is dependant on the quality of water passing through it and we recommend changing filter cartridges every 4-6 months.



CalSlim C Kit



CalFresh CR Kit



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