

USER & INSTALLER HANDBOOK

MODELS 314
TIMETRONIC

MODELS
514 – 518 – 3000-R30
SENSATRONIC

ECO WATER
S Y S T E M S



INTRODUCTION

Thank you for choosing a Water Softener from EcoWater.

With over 80 years experience we have manufactured your new water softener from quality corrosion free materials to give you many years of trouble-free softened water.

This User Manual will guide you through the steps of how to install your unit and how to get the best out of it.

Please read it carefully.

CONTENTS

	Page
Unpacking your Water Softener	1
Installation of your Water Softener	4
Timetronic Programming	11
Sensatronic Programming	18
Understanding How Your Sensatronic Works	29
The EASE Feature	30
How Your Water Softener Works	31
General Information	32
Trouble Shooting	34
Unit Specification and Hardness Setting	36
Guarantee & Service	37

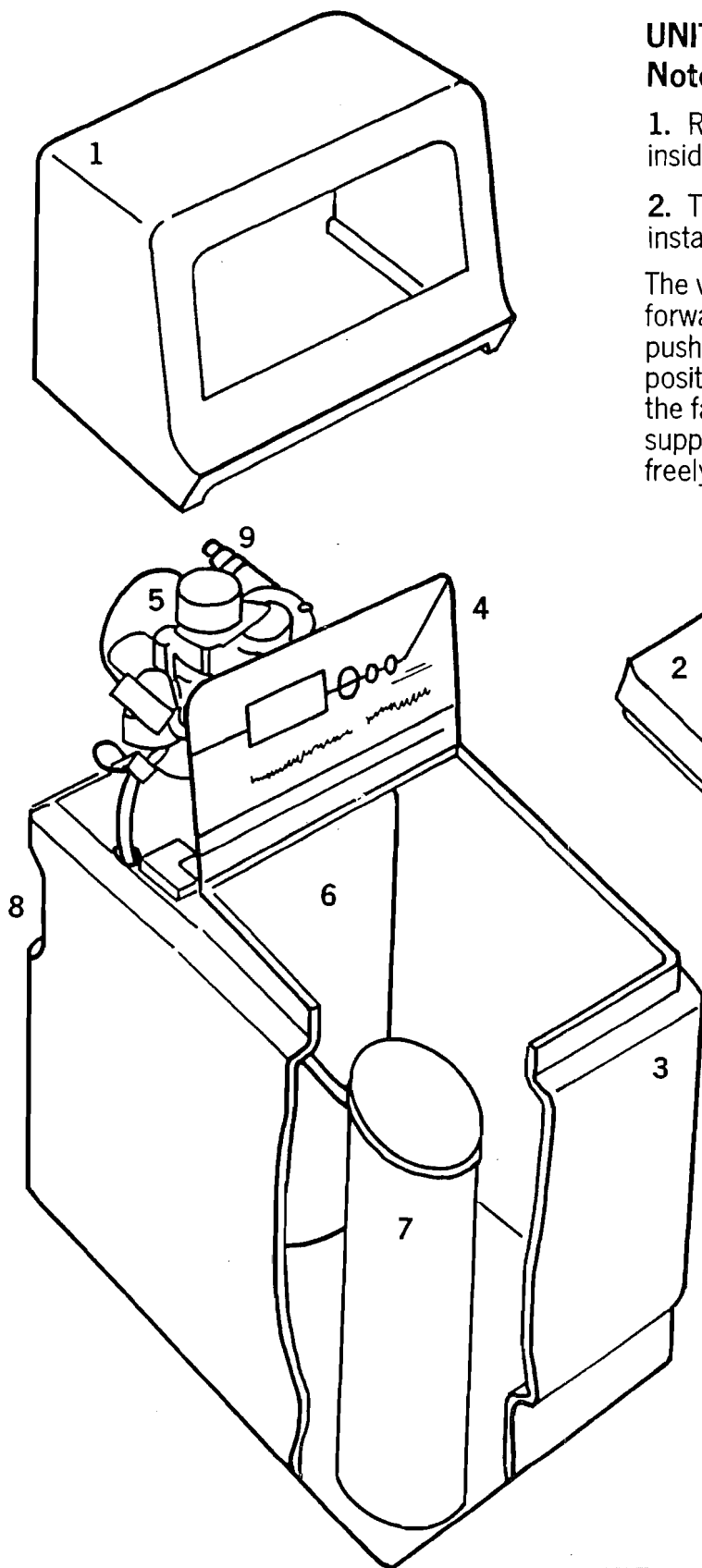
UNPACKING YOUR WATER SOFTENER

UNIT EXPLOSION

Notes

1. Remove all packaging and parts from inside the unit.
2. To remove valve cover for ease of installation follow the instructions carefully.

The valve cover is removed by sliding it forwards. First remove the salt lid. Firmly push the faceplate back with both thumbs positioned on the upper grey area. Push until the faceplate is released from the holding support so that the valve cover can slide freely forwards.



- 1 Control Valve Cover
- 2 Salt Lid
- 3 Brine Cabinet
- 4 Electronic Faceplate
- 5 Water Softener Valve & Motor
- 6 Resin Cylinder
- 7 Brine Float and Tube
- 8 Overflow Connection
- 9 Drain Connection

MODEL SENSATRONIC 3000-R30 UNPACKING

IMPORTANT NOTICE

To avoid transportation damage the back cabinet is transported inside the unit.

To fix to unit follow these instructions carefully as it can be easily manoeuvred to be assembled.

1. Remove back lid from inside the unit (manoeuvre out diagonally).
2. Undo the brine nut and release brine line (Fig. 1).

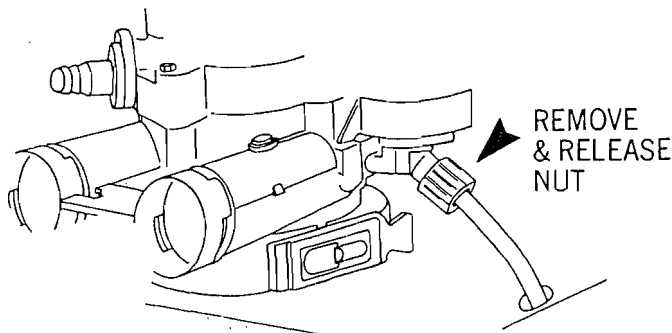


FIG. 1.

3. Hold the lid to the right hand side of the faceplate as shown (Fig. 2).

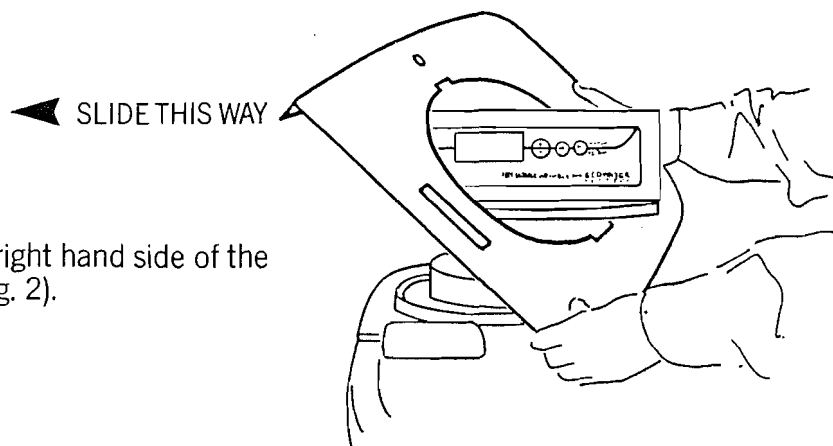


FIG. 2.

4. Slide the lid to the left as far as possible and turn the front to the left so that the faceplate passes through the hole (Fig. 3). Reconnect the brine nut and brine line.

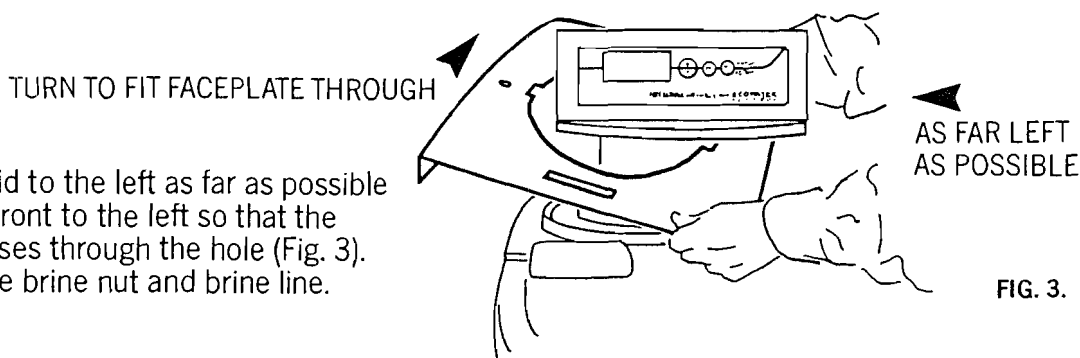


FIG. 3.

INSTALLATION KIT PARTS

Please note that the following installation components are **not** supplied with the Sensatronic 3000-R30.

Part Ref.	Description
1	Non-Return Valve
7	Inlet/Outlet Hoses
12	Bypass Set (3 Valves)
13	Filter Discs

These components are standard $\frac{3}{4}$ " connections for models 314, 514 and 518.

The model Sensatronic 3000-R30 is normally connected directly to mains pipework with 1" copper connections.

A 1" Bypass Set and Check Valve should be supplied by the installer.

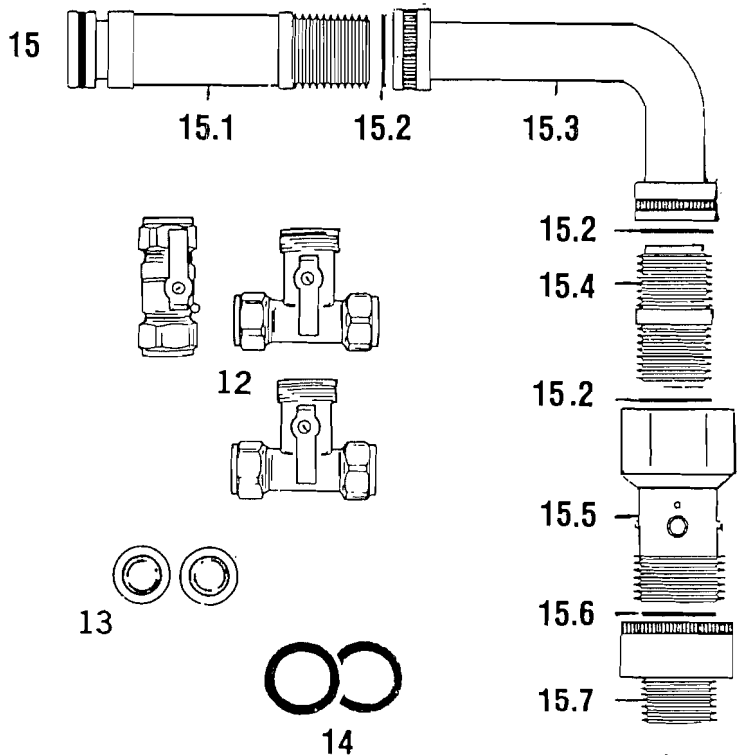
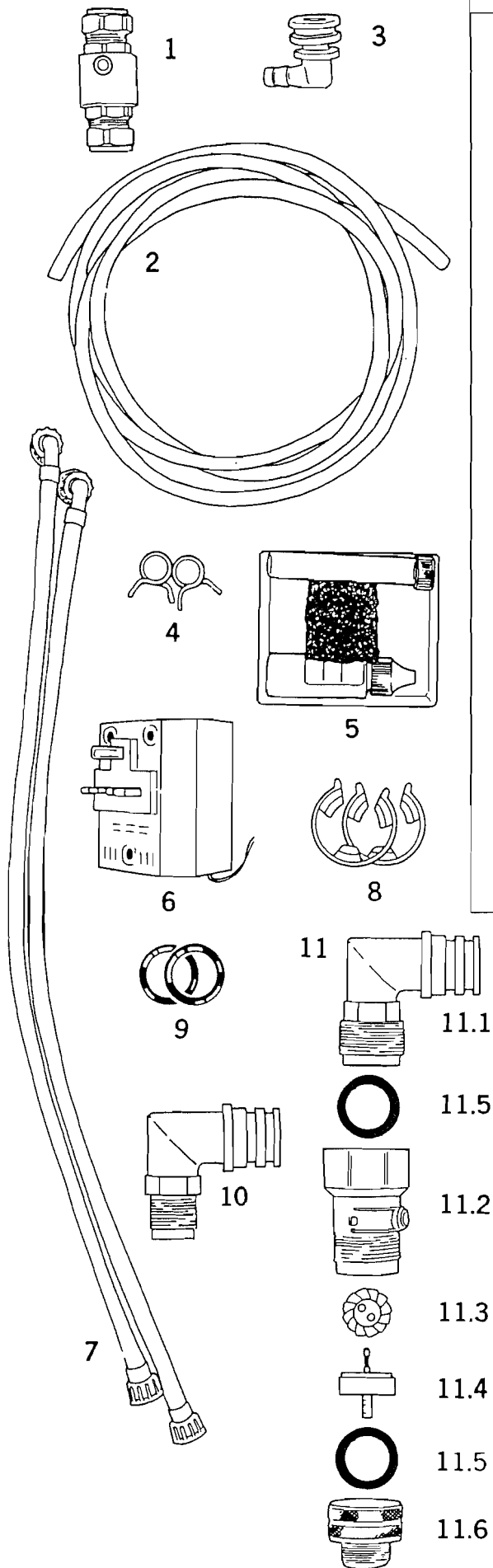
INLET AND OUTLET CONNECTIONS

The plumbing pipework and fittings should be the same size as the rising main. Only reduce or increase the size when making the connection to the softener valve.



INSTALLATION KIT PARTS

PART REF	DESCRIPTION	TIMETRONIC	SENSATRONIC	
		314	514/518	3000-R30
1	Non-return Valve	1	1	0
2	Drain/Overflow Tubing	1	1	1
3	Overflow Elbow & Grommett	1	1	1
4	Hose Clips	2	2	2
5	Water Hardness Test Kit	1	1	1
6	Transformer	1	1	1
7	Inlet/Outlet Hoses	2	2	0
8	Adaptor Clips	2	2	2
9	Adaptor "O" Rings	2	2	2
10	Adaptor Elbows, (1" to 3/4")	2	1	0
11	Adaptor Elbow Meter Set	N	Y	N
11.1	Adaptor Elbow	0	1	0
11.2	Meter Housing	0	1	0
11.3	Meter Turbine	0	1	0
11.4	Meter Turbine Support	0	1	0
11.5	Gaskets	0	2	0
11.6	Meter Hose Adaptor	0	1	0
12	Bypass Set (3 Valves)	1	1	0
13	Filter Discs	2	2	0
14	Hose Gaskets	2	2	2
15	Adaptor Elbow Meter Set	N	N	Y
15.1	Inlet/Outlet Connections	0	0	2
15.2	Gaskets	0	0	3
15.3	Copper Elbow	0	0	1
15.4	1" Nipple Adaptor	0	0	1
15.5	Meter Assembly	0	0	1
15.6	Gasket	0	0	1
15.7	1" Meter Adaptor	0	0	1



INSTALLATION OF YOUR WATER SOFTENER

PLANNING & SITING THE INSTALLATION

The installation of a water softener is relatively easy to carry out, but we recommend that this work is undertaken by a plumber or an experienced DIY handyman. Where possible the water softener should be sited close to the rising main, allowing for

any required hard water draw off points, i.e. drinking tap and outside tap. Keep the drain run as short as possible and allow for ease of access for salt refill. If installed next to a boiler or hot water cylinder you may have to protect against condensation.

OPERATING CONSIDERATIONS

FREEZING

The installation of all water fittings should be in accordance with local water byelaws and the water softener, and all associated pipework must be protected against freezing. Take special care where the drain runs outside. Freezing will prevent recharge and cause overflowing.

LEAD PIPEWORK

Where lead pipework exists downstream of the proposed location of the water softener, we advise you ask the local water authority for advice on the replacement of lead pipework. Grants may be available. Homes built since 1976 will not have lead pipework.

ELECTRICAL REQUIREMENTS

The water softener requires a 240 volt 50 Hz electrical supply taken off a power supply not a lighting circuit. Power is supplied via a 24 volt 50 Hz transformer.

HARDWATER TAP

Water Authority byelaws require that one tap in the house remains unsoftened for drinking purposes. It is also recommended that the garden tap is left with a hard water supply.

PRESSURE

All water softeners have an effect on flow rate and pressure. Low or high pressure could lead to damage or non operation of the water softener. If the daytime pressure exceeds 4.76 BAR (70 psi) a pressure reducing valve should be fitted. If daytime pressure is less than 25 psi a pressure pump is required. Note that night time pressures will be much higher than daytime.

FLOW RATES

The water flow must be at least 1 litre per minute for the water softener to be working as per its design specification.

PLUMBING COMPONENTS NEEDED

The Installation Kit provides the basic plumbing components but additional piping and connectors (capillary and/or compression copper fittings) should be used as required.

WARNING FAILURE TO MEET THE FOLLOWING REQUIREMENTS CAN CAUSE DAMAGE TO THE WATER SOFTENER, OR RESTRICT ITS OPERATION.

SPECIFICATION REQUIREMENTS

Maximum Water Temperature 49°C (120°F)
Maximum Daytime working pressure 4.76 BAR (70 psi)
Minimum working pressure 1.7 BAR (25 psi)
Minimum system flow 0.06m³/hr

If a pressure reducing valve is required this may be ordered from Ecowater Systems:

Quote Part No. 800220 for ½" or 15mm pipework

Quote Part No. 800223 for ¾" or 22mm pipework

CENTRAL HEATING SYSTEMS

Central heating systems should always be treated with a proprietary corrosion inhibitor regardless of being filled with softened or hard water.

Aluminium systems should always be filled with hard water unless instructed otherwise by the manufacturer.

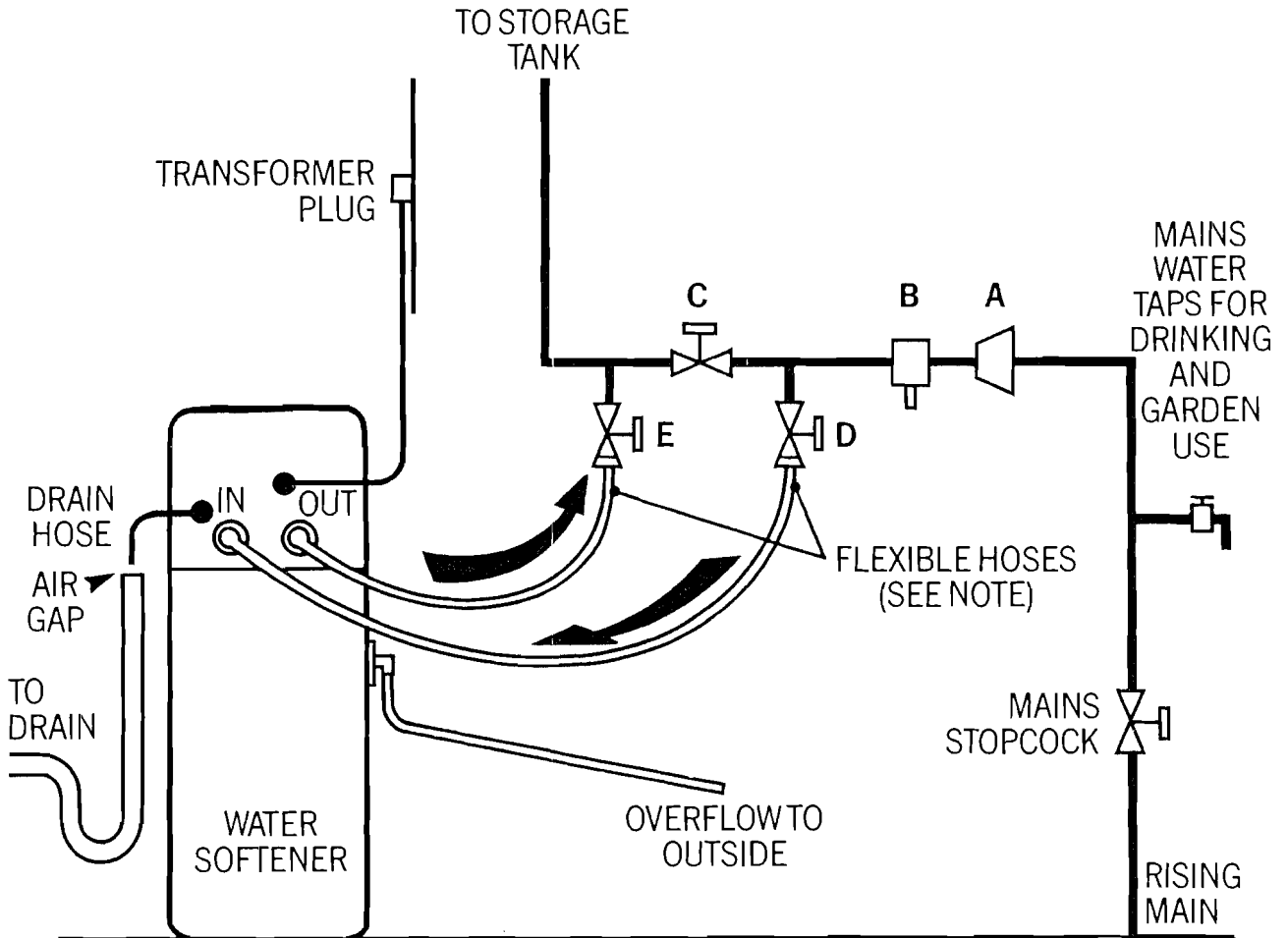
TYPICAL INSTALLATION DIAGRAM (SOFTENER VIEWED FROM REAR)

DRAIN HOSE

We recommend that the maximum length of the drain line is 3 feet before entering an airgap. Also any rise in height of the drain line should not be above 3 feet.

UNVENTED OR DIRECT SYSTEMS

Connection to the water softener should be made with 22mm or 28mm copper pipe and not with flexible hoses, to ensure that a satisfactory flow rate is maintained. You will also require a suitably sized bypass set and check valve.



- A** CHECKVALVE (NON RETURN VALVE)
- B** PRESSURE REDUCING VALVE (IF REQUIRED)*
- C** BYPASS VALVE
- D** INLET VALVE
- E** OUTLET VALVE

*Refer to Maximum Pressure Limits on page (4).



STEP BY STEP GUIDE TO PLUMBING

PLUMBING

Turn off the water supply at the incoming main and begin plumbing as per the installation on the previous page.

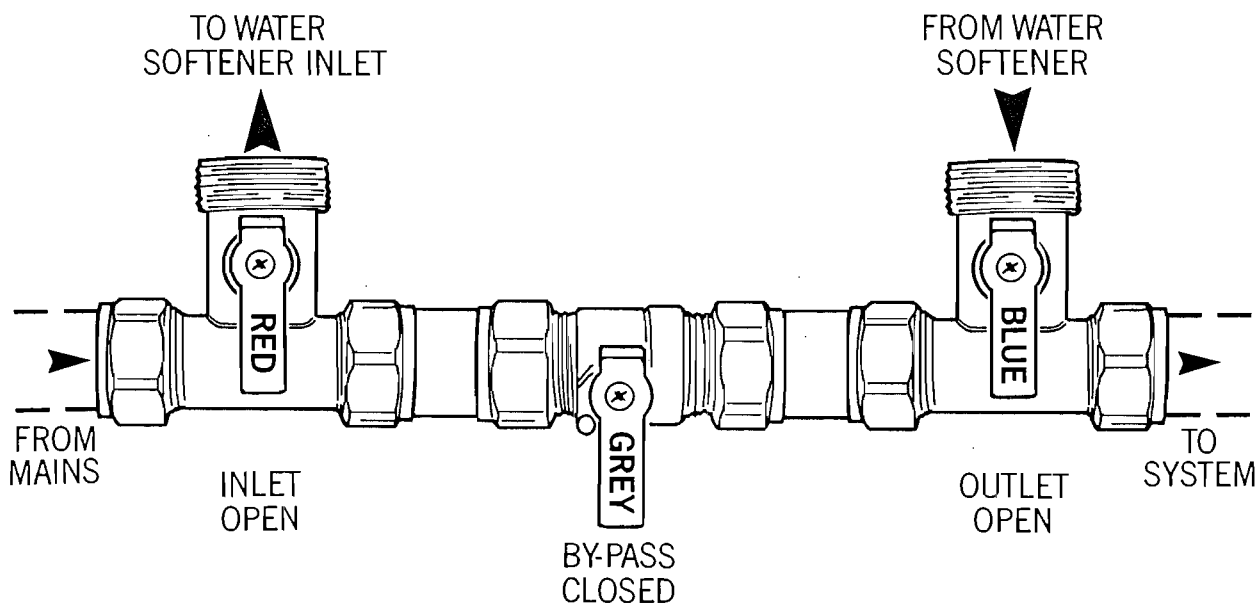
FIT THE BYPASS KIT

Cut the rising main and install the check valve. Next, plumb the bypass, inlet and outlet valves so that the water supply can be turned on. For ease and future customer confidence, follow the typical installation illustration below. Use the red valve for the inlet, the blue

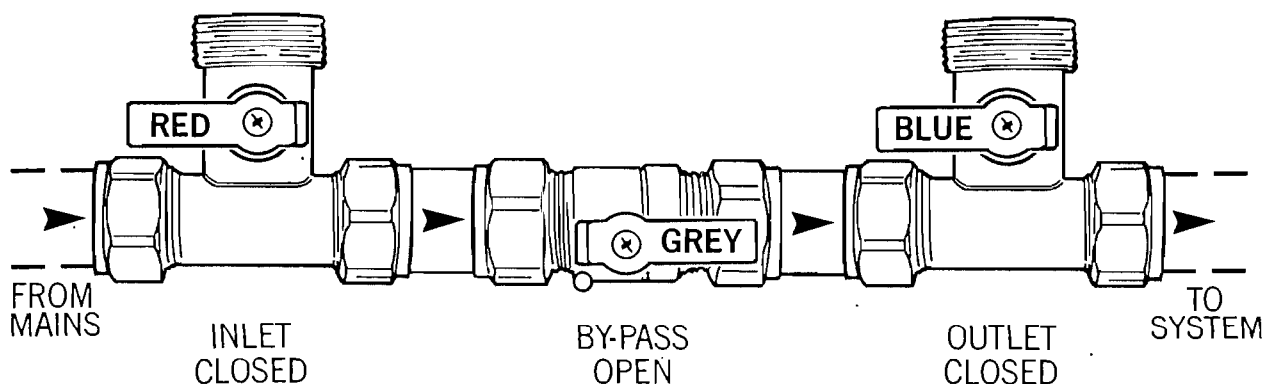
valve for the outlet and the grey valve as the bypass. Before turning the water back on, make sure the bypass is open and the inlet and outlet valves are closed. This will allow water to pass directly to the household system without it diverting to the water softener. (The use of the plastic plumbing fittings with copper pipe may affect the electrical earthing or bonding of the copper pipe. We advise that you contact an electrician about the implications on your system.)

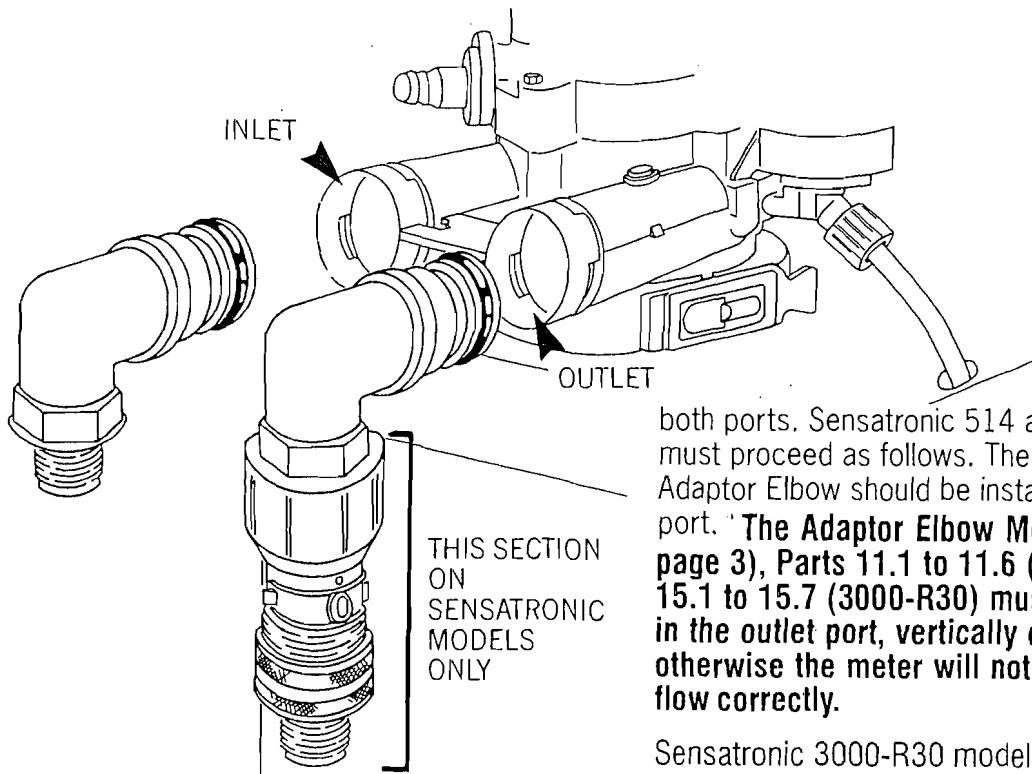
TYPICAL VALVE INSTALLATION

WATER TO UNIT. INLET IS OPEN, OUTLET IS OPEN, BY-PASS IS CLOSED



WATER BY-PASSES SOFTENER TO SYSTEM





FIT THE INLET AND OUTLET ADAPTORS

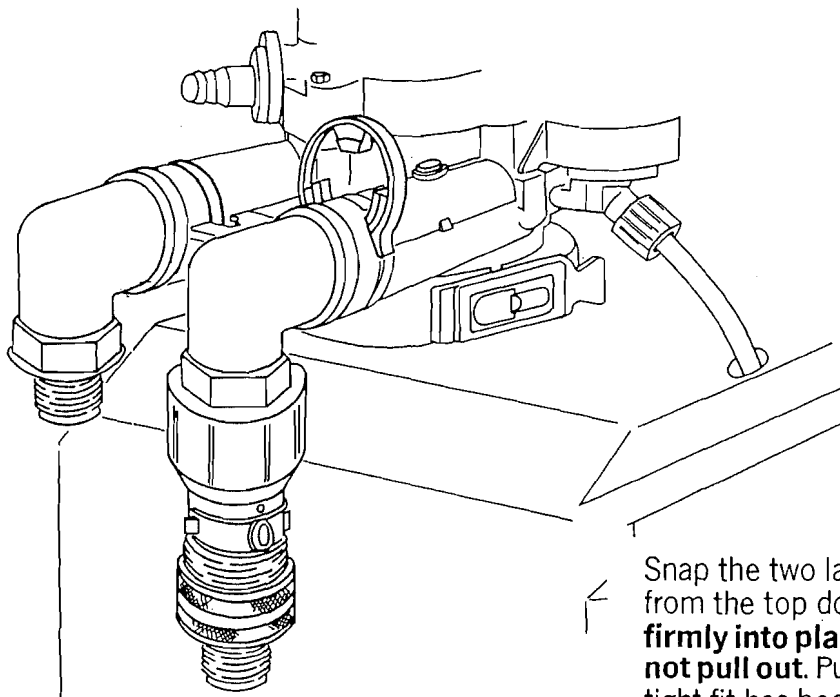
Remove the plastic plug from the outlet port on the water softener valve, if present.

Fit the 'O' rings to the **outer** groove of each adaptor. Push the adaptors into the valve inlet as far as they will go ensuring that the elbow is pointing vertically down. Timetronic models utilise the same adaptor elbow for

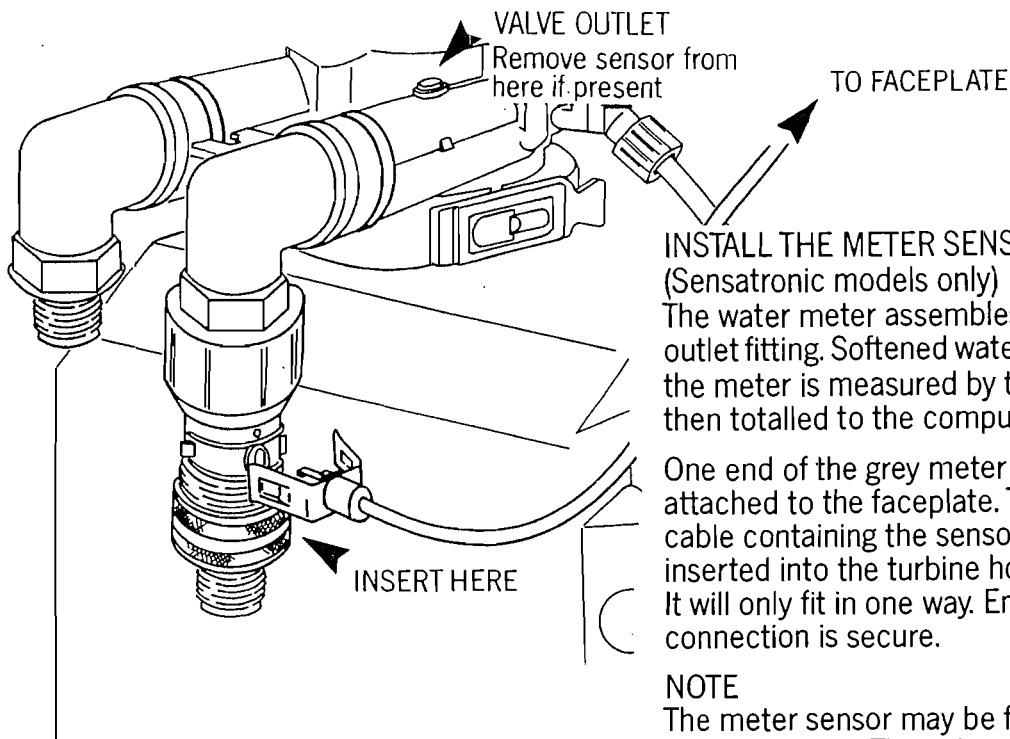
both ports. Sensatronic 514 and 518 models must proceed as follows. The 1" to 3/4" Adaptor Elbow should be installed in the Inlet port. **The Adaptor Elbow Meter Set (see page 3), Parts 11.1 to 11.6 (514/518) or 15.1 to 15.7 (3000-R30) must be installed in the outlet port, vertically downwards, otherwise the meter will not register water flow correctly.**

Sensatronic 3000-R30 models proceed by installing the 1" to 1" Adaptor in the inlet port and the adaptor elbow meter set in the outlet port.

Before installing the elbow meter set, blow into the elbow to ensure that the turbine moves easily and is free of debris. This section seals hand tight. Do not use PTFE tape to secure as this will impair performance.



← Snap the two large holding clips into place, from the top down. **Be sure they snap firmly into place so that the adaptors will not pull out.** Pull on the adaptors to assure a tight fit has been achieved.



INSTALL THE METER SENSOR
(Sensatronic models only)

The water meter assembles to the valve outlet fitting. Softened water passing through the meter is measured by the sensor and then totalled to the computer.

One end of the grey meter sensor cable is attached to the faceplate. The end of the cable containing the sensor should be inserted into the turbine housing as shown. It will only fit in one way. Ensure that the connection is secure.

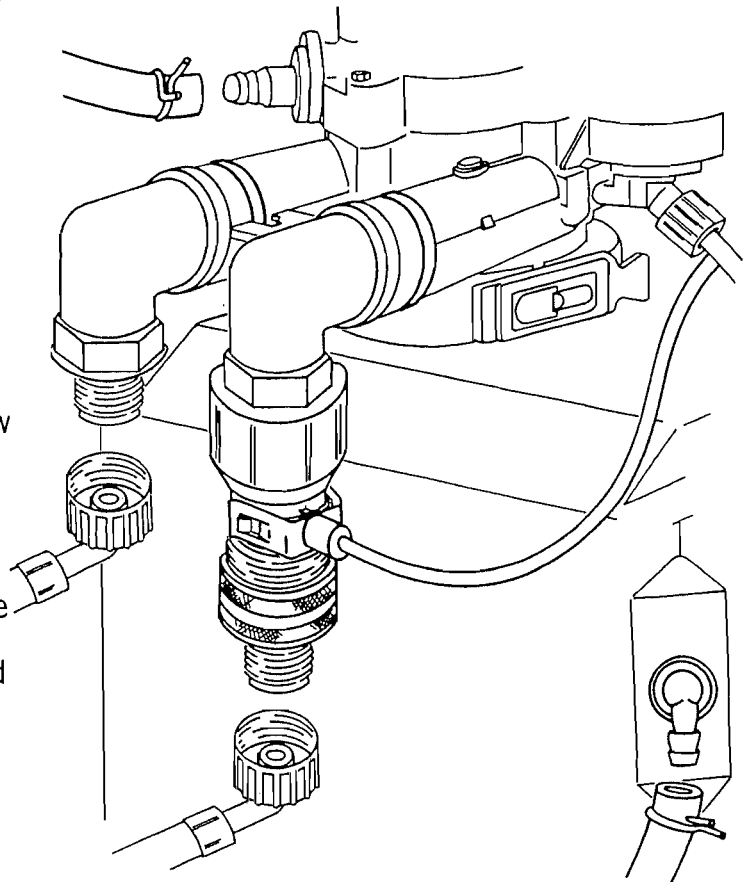
NOTE

The meter sensor may be found attached to the valve outlet. This is for transportation only. Remove it and connect to the elbow set.

THE INLET AND OUTLET CONNECTIONS

(For unvented or direct systems refer to note on page 5.) Use the connecting hoses provided with the elbow unions to make the inlet and outlet connections. **Ensure that the hoses are connected such that access can be obtained to the rear of the water softener by pulling the water softener away from the installed site.** The elbow connection should be fitted to the adaptor union and the straight end connected to the inlet or outlet valve as appropriate. Fit the filter discs into the straight union end of the inlet/outlet hoses.

open drain or via the waste outlet similar to a washing machine. The drain and overflow must be kept straight and not kinked.



DRAIN OUTLET/OVERFLOW CONNECTION

Insert the rubber grommet into the overflow socket situated $\frac{2}{3}$ of the way up the rear of the water softener cabinet. Only insert the overflow adaptor once the grommet is secure.

Cut two lengths of hose as required to make the drain and overflow connections. Fit one length of hose onto the overflow adaptor and one length onto the drain line adaptor. Turn the drain line adaptor so that a straight connection can be made.

The drain hose and overflow hose must be secured with the supplied metal clamps.

Pass the overflow hose through a hole in an outside wall so that its end can be seen. The drain hose may be connected directly into an

On some tight fitting installations it may be a benefit to make all connections up before inserting the elbow into the valve ports.

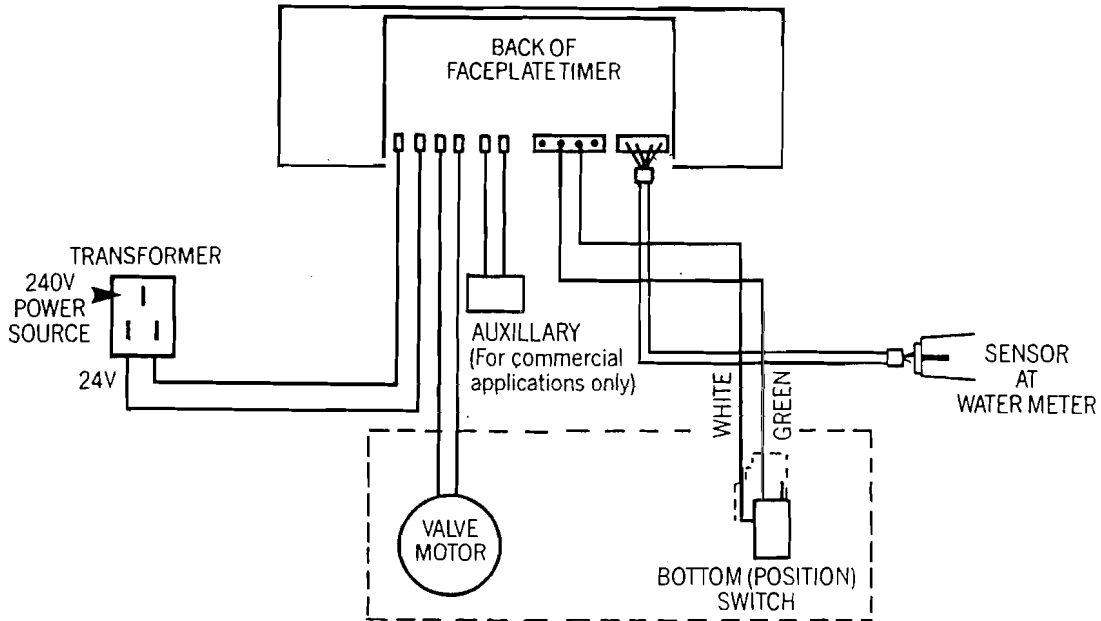


ELECTRICAL SUPPLY

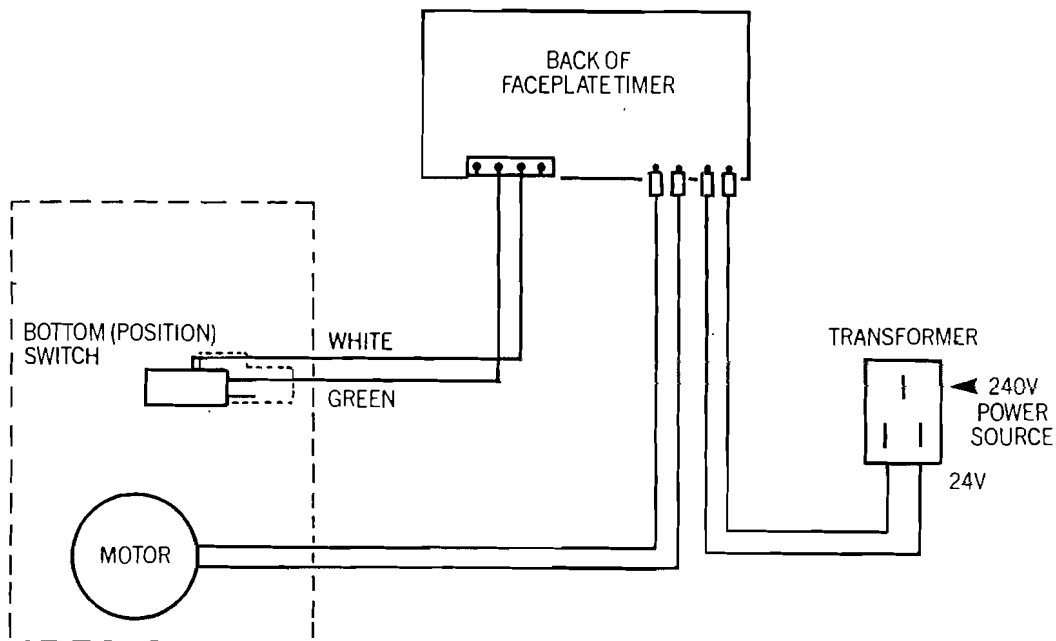
The water softener works on a 24 volt, 50 Hz electric power supply. You must plug the transformer into a 240 volt outlet only. Be sure that the electrical outlet you plug the transformer into is inside, as the transformer is not designed for outdoor use.

To connect the transformer to the valve push the female end plugs on to the male connectors as indicated below. The two flat ends of the female connectors should face each other to allow for an easy connection.

SENSATRONIC



TIMETRONIC



FAULT FINDING

Should the faceplate fail to light up or indicate an error code please check that the connections are as per the above diagrams, you will need to remove the valve cover to do this.



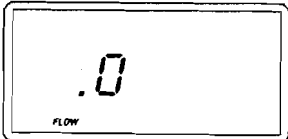
PROGRAMMING

Your unit is now fully plumbed in and ready to programme. If the unit is a Timetriconic advance to page 11.

If the unit is a Sensatronic advance to page 18.

RETURN HERE TO FINISH THE INSTALLATION ONCE THE PROGRAMMING IS COMPLETE.

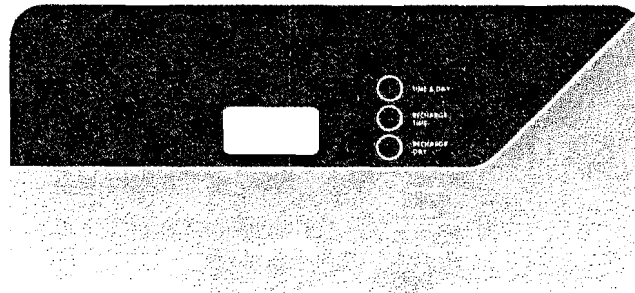
NOTES TO THE INSTALLER – BEFORE YOU LEAVE

1. Having programmed your unit you will wish to ensure that the unit is functioning properly before you leave the site.
2. Our Service Department will offer you advice. If you have any queries do not hesitate to call us.
3. Open the inlet and outlet valves and close the bypass as indicated in the diagram (p.6). Check that all the plumbing connections are secure and that there are no leaks.
4. Check that the time of day is correct and that for the Timetriconic models, the day is correct and that the days of recharge have been set.
5. **CHECK METER IS CONNECTED CORRECTLY ON SENATRONIC MODELS**
 - a) Press the SELECT button and hold for about 3 seconds (as per page 25).
 - b) Press the select button again and hold until a display shows . This indicates the flow.
 - c) Open a nearby softened water tap.
 - d) The display should give a reading indicating the flow rate.
 - e) If you don't get a reading, check the meter sensor is not blocked and is correctly connected to the faceplate and meter elbow, and ensure that the bypass valve is closed. (See pages 6 and 8.)
 - f) Press select until the present time shows again.
6. Initiate a Recharge.

For Timetriconic Models hold down the On/Off button for 3 seconds until RCHG shows in the display.
For Sensatronic models hold down the recharge button for 3 seconds until RECHARGE flashes in the display. After a few minutes a small amount of water will be drawn into the Brine Cabinet. This process will take approximately 15-20 minutes. At this stage some of the water will be drawn from the cabinet and run to drain. Again check for leaks.
7. Once the water has run to drain fill the cabinet with salt. **You will require a 25 Kg bag of Pellet or Tablet salt. DO NOT use granular salt.** For best results Ecowater Systems recommend AQUASOL. Make sure that the brinewell cover is in place and secure as salt must not be allowed to enter the brinewell. Do not fill salt above the overflow.
8. The whole recharge procedure will take approximately 1 hour and softened water will gradually replace the hard water in the storage tank over a period of 2-3 weeks.
9. Advise the customer that those water outlets fed from the header tank will not see softened water immediately. However, following the recharge appliances drawing directly from the water softener may be tested for softened water.
10. Unless otherwise specified, warranty on the unit will be undertaken by Ecowater's Service Department. However, call outs not due to the water softener but to installation problems or incorrect usage will be chargeable.
11. Ensure that the customer is left with all literature relating to the unit and that the guarantee card is returned immediately to effect the full warranty.



ABOUT TIMETRONIC



Your water softener has an advanced electronic mechanism which provides for superior features not available on conventional timeclock units.

- a) A seven day timer programme option. You can automatically recharge the water softener on the days of the week when you need to.
- b) Simple to effect automatic recharge. This allows an extra provision of softened water at any time, even when your consumption is unexpectedly higher.
- c) Touch button time, recharge time and hardness setting. There are no complicated
- d) Vacation on/off switch. When you go on holiday no water is being used and your unit does not need to recharge. The on/off button switches off the recharge modes without the need to switch off the whole unit. On your return one touch of the button restores all settings.
- e) A Microprocessor back up during power cuts. If electrical power to the time goes off, the memory built into the timer circuitry keeps all settings for a minimum of 6 hours.

TIMETRONIC

PROGRAMMING

SET THE TIME

1

Switch on the transformer, the unit will flash 12.00 a.m. Sunday (whole display flashes).

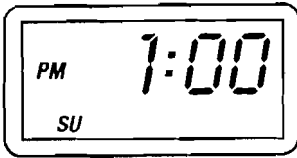
2

Press the TIME & DAY button once.
The **hour display** will flash.

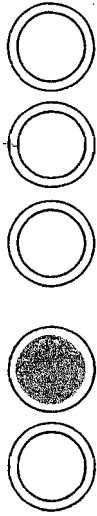


INSTRUCTIONS

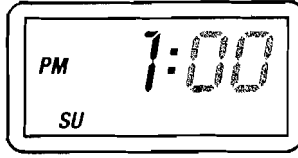
3



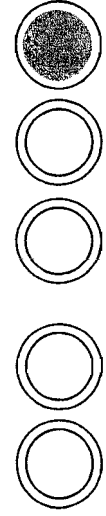
To advance the hour display press the SET/CLEAR button. Each time you press the SET/CLEAR button the time advances by one hour. Advance the time to the required hour.



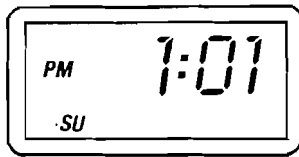
4



To set the required hour press the TIME & DAY button once. The hour display will cease to flash. The **minute display** will begin to flash.



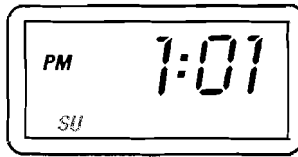
5



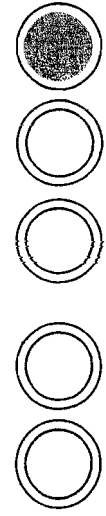
To advance the minute display press the SET/CLEAR button. Each time you press the SET/CLEAR button the time advances by one minute. Advance the time to the required minute setting.



6



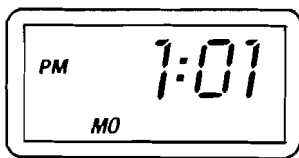
Press the TIME & DAY button to set. The day display will flash.



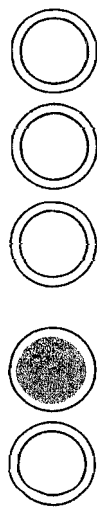
SET THE DAY OF THE WEEK

(In normal operation press TIME & DAY three times to reach this point)

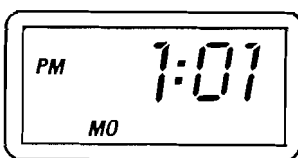
1



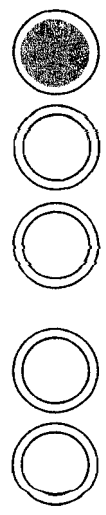
The day display is flashing. Each time you press the SET/CLEAR button the day advances. Advance until the required day is reached.



2



Press the TIME & DAY button to set. The display will be steady.



SET THE TIME OF RECHARGE


NOTE

The display should now be steady and read the correct time and day of the week. Only the hour minute/separator will flash as it is pulsing once a second. If an hour, minute, or day display is flashing press the TIME & DAY button once. Repeat pressing the TIME & DAY button until the display steadies.

The unit is factory set to recharge at 2.00 a.m. If you wish to change this time then proceed as follows: (if not proceed to the next section).

NOTE 2.00 a.m. is chosen because hard water will enter the system during recharge. Consequently a time is required when very little, if any, water will be used.

1




Press the RECHARGE TIME button once.

The display will show the time at which the recharge is set to take place and the days on which this will occur.

Diagram of control panel with 5 buttons: 1st button is shaded.

2



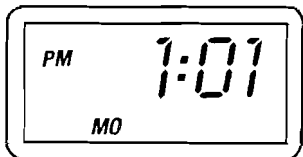
To advance the **recharge time** press the SET/CLEAR button.

Each time you press the SET/CLEAR button you will advance the time by one hour.

Advance the recharge time to the required hour.

Diagram of control panel with 5 buttons: 2nd button is shaded.

3




Press the TIME & DAY button to set.

Diagram of control panel with 5 buttons: 1st button is shaded.

SET THE REQUIRED DAYS OF RECHARGE

The unit is factory set to recharge on Monday, Wednesday and Friday. You may wish to set the days around your own household requirements or to set the days of recharge according to our user guide on page 36.

1

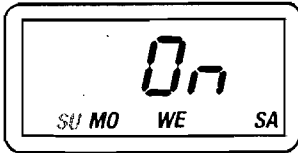


Press the RECHARGE day button once and SU (Sunday) begins to flash and 'OFF' will be displayed. This means the unit will not recharge on Sunday.

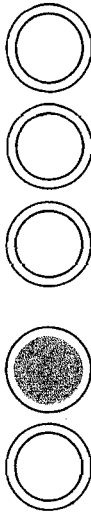
Diagram of control panel with 5 buttons: 3rd button is shaded.

THE RECHARGE

2 To change the instruction for Sundays to **ON**, press the SET/CLEAR button once.



The display will advance to show **ON**. Sunday continues to flash. Pressing the SET/CLEAR button once more will change the instruction to off again.



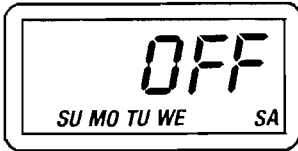
3 To set the instruction for Sunday press RECHARGE DAY once again.



The display will begin to flash **MO** (Monday) and **ON** to indicate that the unit will re-charge on Mondays. To change the instruction for Monday repeat the SET/CLEAR procedure described in **2** for Sunday.



4



To set each day as required, advance through the days of the week by pressing RECHARGE DAY. Each time you depress RECHARGE DAY you will advance one day. The new day will flash.



5

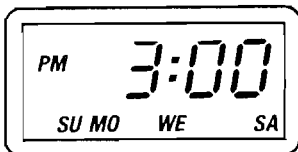


Once all days are set as required, to **ON** or **OFF**, press TIME & DAY once to set. The display will return to the time display.



CHECK YOUR RE-CHARGE SETTINGS

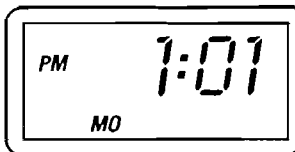
1



To check the settings you have made press RECHARGE TIME once. The display will show the time that recharge is set for and the days on which the recharge will take place.



2



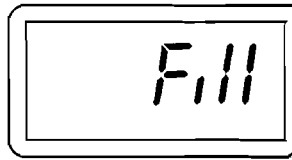
If you need to make any changes to these settings, repeat the sections above. Press TIME & DAY to clear and return to the time display.



SET THE FILL CYCLE MINUTES

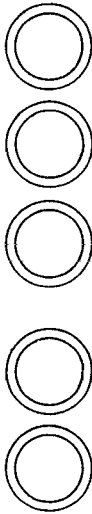
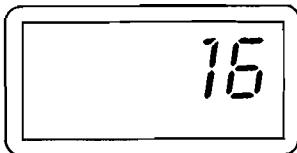
The unit is factory set to fill the unit with water for 16 minutes to soak the salt and produce brine for re-charge. If the time setting for the cycle is too low you may get hard water between re-charges. If the time setting is too high you will waste salt. Refer to the user guide on page 36 for the required setting for your particular unit.

1



Press and hold the RECHARGE TIME button until **Fill** shows in the display.

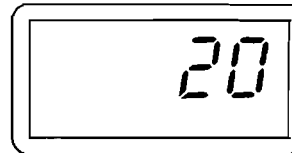
2



After a few seconds, the fill cycle setting will display and flash.

3

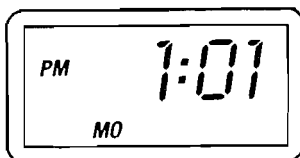
To advance the fill cycle press the SET/CLEAR button.



Each time you press SET/CLEAR the fill cycle will advance by one minute.

Advance the fill cycle until required setting is displayed. The display will advance to 59 then begin again at 0.

4



Once the required setting is reached press the TIME & DAY button once to set.

*** NOTE TO INSTALLER –
YOU MAY RETURN TO PAGE 10**

WATERMATE

TO RECHARGE NOW

An automatic recharge can be initiated at any time. If you have guests visiting or expect to use more water than usual, you may run out of softened water. If the unit is not due to recharge for another day or two and you think you may run into hard water then an automatic recharge will prevent this from happening.

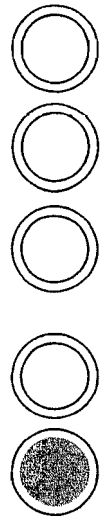
At the end of the recharge the time display will return to normal.

1 Press and hold the ON/OFF button until **RCHG** shows in the display.



RCHG will flash in the display during the recharge which lasts for approximately 1 hour.

Use as little water as possible during this time period as hard water will bypass the water softener.



HOLIDAYS OR LONG WEEKENDS

As your unit is programmed to recharge on set days it will waste water and salt even if you are not there. To overcome this you need to switch the unit off but still keep the time and cycle setting which have been pre-programmed.

Do not switch the unit off at the mains.

1

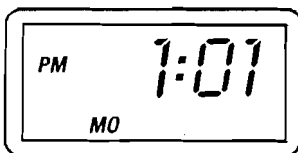


Press the ON/OFF button once (DO NOT HOLD DOWN).

VAC (Vacation) will flash in the display. The timer will keep time but not recharge to waste salt or water.

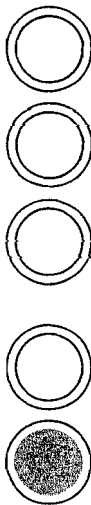


2 On return from your holiday.



Press the ON/OFF button once to return the unit to service. If this is not done the unit will not recharge and hard water will enter the system.

The correct time and day will show in the display.



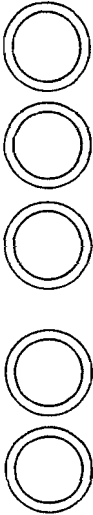
If the correct Time & Day do not re-appear a power cut may have occurred whilst you were away.

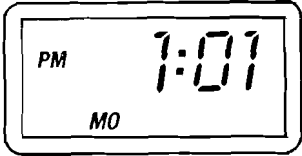
The following section describes the procedure for power cuts.

POWER CUTS

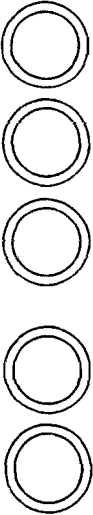
If electrical power to the timer is interrupted, the "memory" built into the timer circuitry keeps all settings for a minimum of 6 hours. The display is blank and the softener will not recharge, although it will provide softened water.


When electrical power is returned, 1 of 3 things will happen.

1




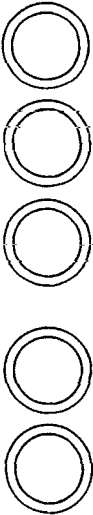
The present time of day is displayed. The settings have been kept.


2




A time will be flashing. This indicates that the settings will need to be re-programmed as the unit has returned to factory settings.

To reset, proceed to the beginning of this section and repeat each operation.

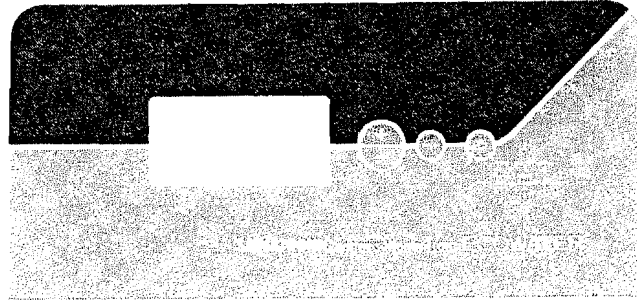
3




If the water softener was in a recharge cycle this will now flash, and the process will continue.



ABOUT SENSATRONIC



Your water softener has an advanced Sensatronic metering system which gives many product features and important savings on salt and water usage during recharge.

a) Back lit LCD display and user friendly buttons. This makes the unit easy to read in all conditions and allows for easy to understand programming.

b) A capacity charge bar indicator. You can see at a glance the remaining capacity of your unit before the next recharge cycle will take place.

c) An Extended power back up (up to 72 hours). The memory retains all settings for

extended periods during any power loss and beyond that time only requires the time setting to be reprogrammed.

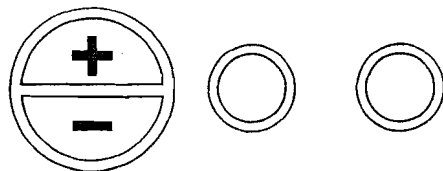
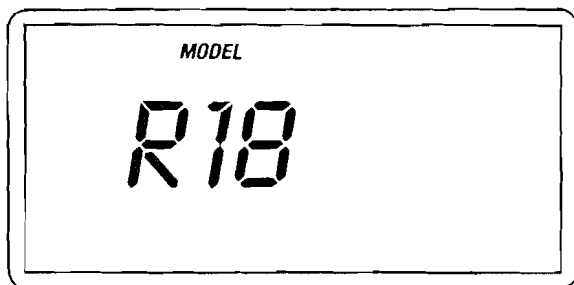
d) Recharge is based on volumetric water usage patterns, giving you continuous softened water with the maximum conservation of water and salt usage.

e) Your unit displays the average daily water usage. You can monitor your home water use.

NOTE

To alter settings during normal operation press **SELECT** until desired function is reached (see page 22).

PROGRAMMING



1 When the Transformer is first plugged in the display will show a model reference, and version number.

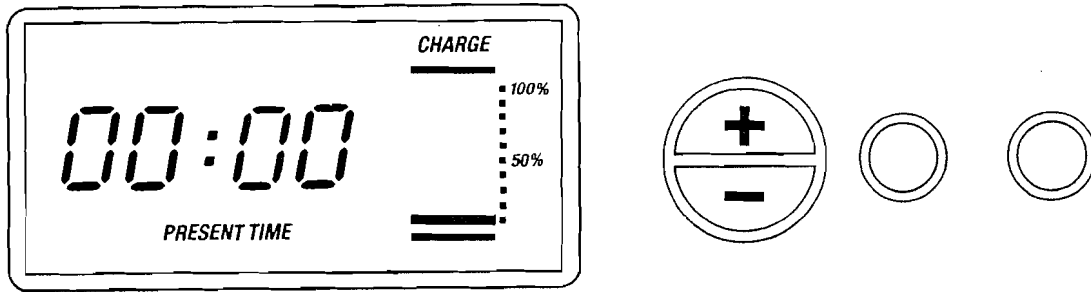
For example R18 then 4.0.

- 2** The unit will flash 00:00 after a few seconds.

NOTE

Each time you press a button on the fascia

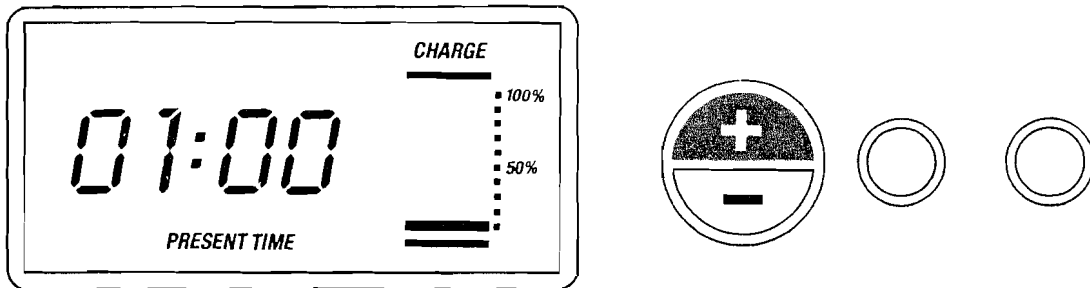
panel display a beeper sounds. One beep signals that a change is accepted. If the beeper sounds continually then a different button is required to effect the required operation.



SET THE PRESENT TIME

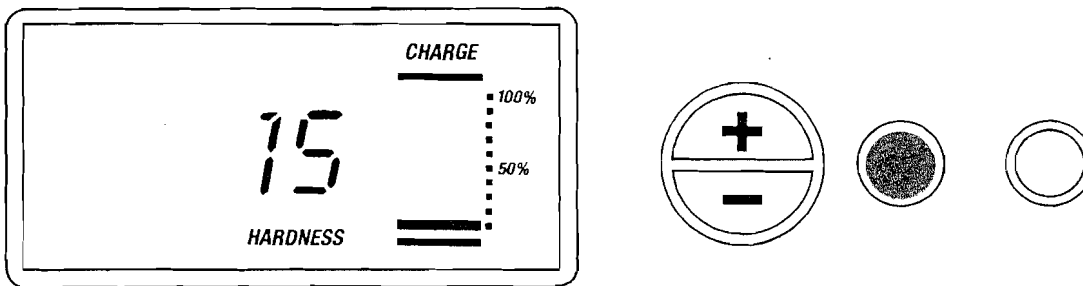
- 1** The display will continue to flash and the time can be advanced or moved backwards using the (+) or (-) buttons. Holding down the buttons advances the time at 30 minutes per second.

If the time requires changing during normal operation, press the SELECT button once. The display will flash and indicate present time. You may use the (+) or (-) buttons as described above to alter the time.



- 2** Once the required time is displayed the time may be set by pushing the SELECT button once more.

The display will flash "15 hardness".



SENSITRONIC

SET THE WATER HARDNESS CALCULATION

The display will flash "15 hardness" (this is a preset factory setting).

The user guide on Page 36 indicates how you might find your water hardness.

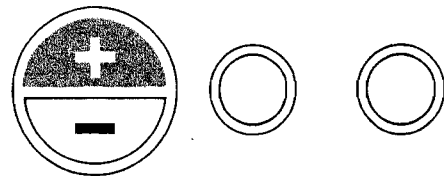
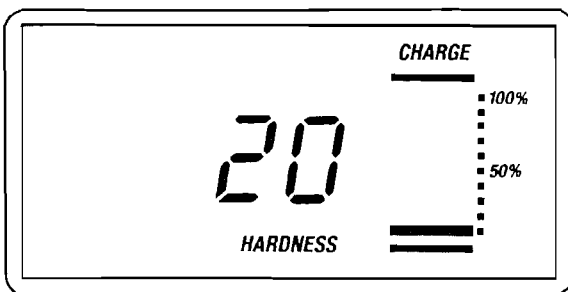
To set the calculation you will need to use the following table. Read down the left hand side of the table and find your current water hardness in degrees Clark or parts per million (ppm) – the water softener setting to the right is the number which requires programming into the unit.

For settings above 35 degrees Clark increase unit setting by 5 units for every 5 degrees Clark.

WATER HARDNESS		
DEGREES CLARK	(PPM)	SUGGESTED UNIT SETTING
14	(200)	12
15	(220)	13
17	(240)	15
18	(260)	16
20	(280)	17
21	(300)	18
22	(320)	19
24	(340)	20
25	(360)	21
27	(380)	22
28	(400)	23
29	(420)	24
31	(440)	25
32	(460)	30
34	(480)	30
35	(500)	35

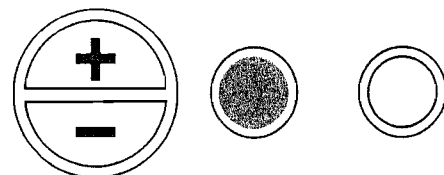
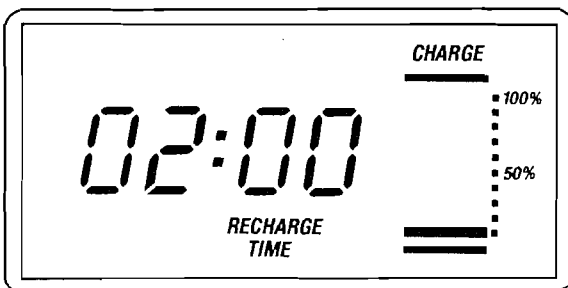
1 To advance or reduce the displayed number to your required setting, use the (+) or (-) buttons.

Between 25 and 95 the display changes in units of 5. Once 95 is reached the (-) button must be used to return to a lower setting.



2 Once the required setting is displayed it may be set by pushing the SELECT button once more.

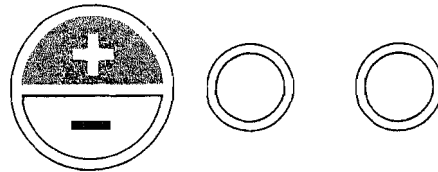
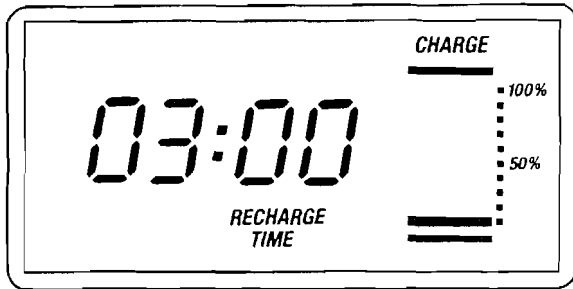
The display will flash 02:00 recharge time.



SET THE RECHARGE TIME

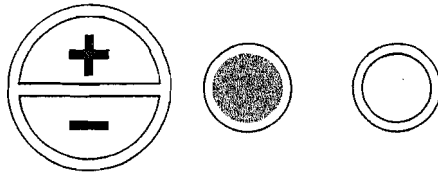
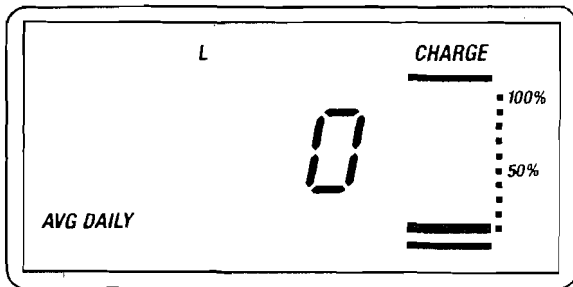
1 The display will flash 02:00 recharge time which is the pre-set factory setting. If you wish to change this time then proceed as follows: (if not, press SELECT and proceed to the next section).

NOTE
02:00 is chosen because hard water will enter the system during recharge. Consequently a time is required when very little, if any, water will be used.



2 The recharge time can only be set for hours and not minutes. To select a different recharge time use the (+) or (-) buttons, to advance or retreat one hour at a time. Once the required setting is displayed it may be set by pressing the SELECT button once

more. The display will show the average daily litre consumption. (**Note:** A recharge will take approximately 1 hour. At the time set, each day, the water softener will calculate the capacity remaining and additionally evaluate your water usage patterns to determine if it requires a recharge or not).



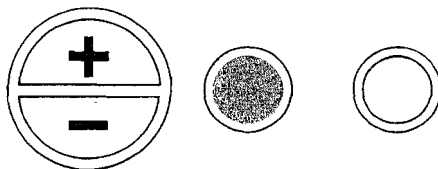
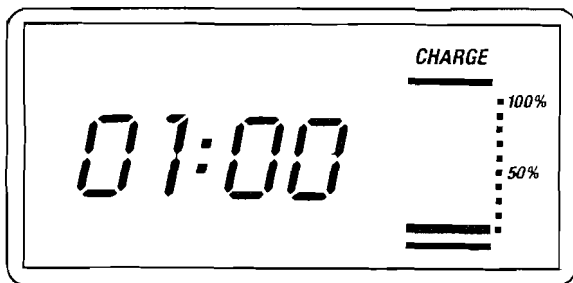
VIEW THE AVERAGE DAILY LITRES USED

The display will show the average daily litre consumption. At first this will read Zero but normally will show the average daily water used for the past 7 days. A small L is displayed to indicate the litre setting.

No adjustments can be made.

To return to the time display press SELECT.

NOTE
Your water softener is not designed to be a water meter. The reading measures softened water output but not regeneration water or water drawn that is not softened. Your water softener is similarly not designed to be a quartz accurate clock. Small variations on time keeping may be noticed.



SENSITRONIC

CHECK THE SETTINGS

Pressing the SELECT button runs you through the different stages of the programming.

Press Select once

Time will flash and show the present time.

Press Select again

Water hardness will flash and shows setting.

Press Select again

Recharge time is displayed and flashes.

Press Select again

Average daily litres used is displayed.

Press Select again

Returns to the operation mode.

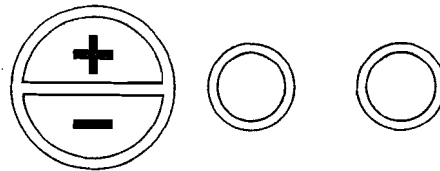
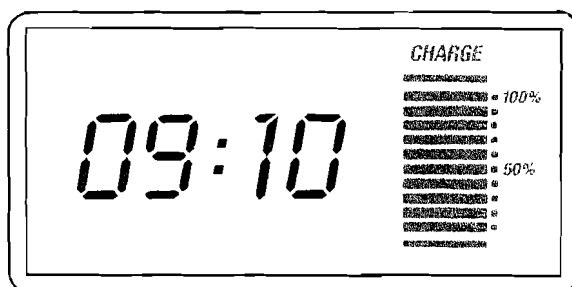
***NOTE TO INSTALLER
ONCE SETTINGS ARE PROGRAMMED AS REQUIRED
YOU MAY RETURN TO PAGE 10.**

READING THE CHARGE BAR DISPLAY

The charge bar is continually displayed and shows at a glance the percentage of water softening capacity remaining. Following a recharge, the charge bar returns to the 100% charge position.

This is a useful feature as it allows you to see at a glance the status of your machine. If you

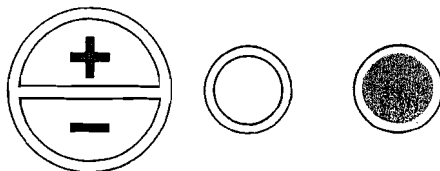
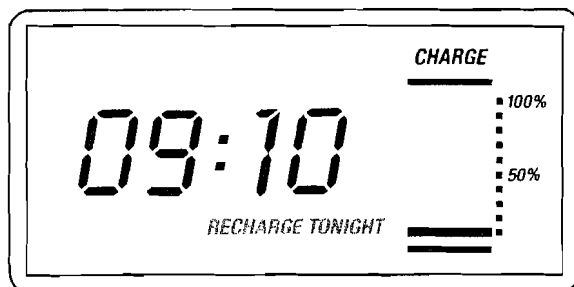
are about to have an influx of weekend guests and want to ensure that you will not deplete your water softening capacity then check the unit status. If it is below 50% it may be wise to initiate an immediate recharge or set the machine to recharge that night.



TO RECHARGE TONIGHT

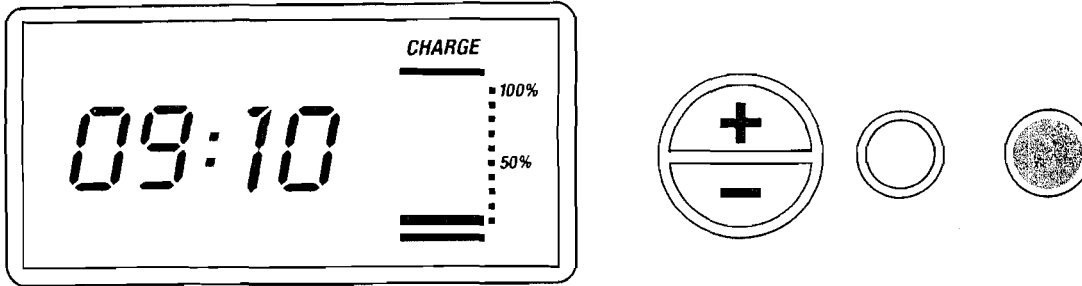
1 The unit can be programmed to recharge at the next pre-programmed time, regardless of its remaining capacity. This is particularly beneficial to ensure a

sufficient softened water supply for an expected heavy water usage the next day. Simply press the RECHARGE button once. "Recharge" tonight will flash on the display.



2 To cancel recharge tonight, press the RECHARGE BUTTON once and immediately release.

The display will return to the time display.



TO RECHARGE IMMEDIATELY

Alternatively an automatic recharge can be initiated at any time.

Simply press the RECHARGE button and hold it down for 3 seconds.

"Recharge" will flash on the display. The process will take a few minutes to begin and lasts approximately 1 hour.

It cannot be cancelled once started.

Use as little water as possible during this time period as hard water will by-pass the water softener.

Once the recharge is complete the recharge

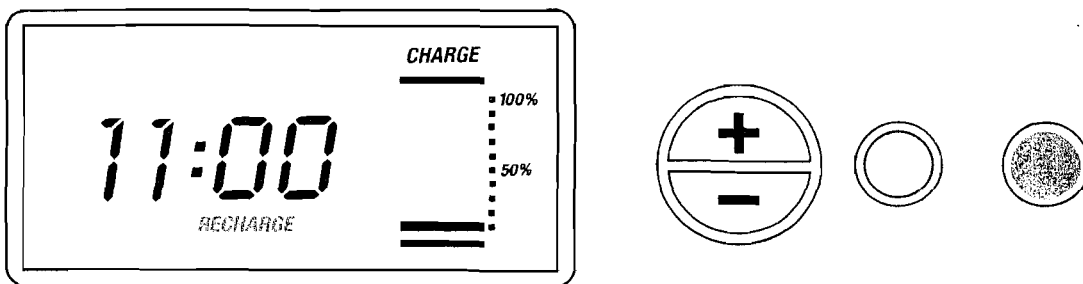
display will disappear. The present time will be displayed.

NOTE

The unit will automatically flash "recharge tonight" once the computer calculates that a recharge is required to restore water softening capacity.

At the next programmed recharge time the cycle will automatically begin.

Once a recharge is initiated a flashing "recharge" replaces the flashing "recharge tonight".



HOLIDAYS OR LONG WEEKENDS

Your unit is programmed to calculate water consumption and the capacity of the water softener remaining.

When you are on holiday, no water will be used and the water softener will not recharge, so no salt or water will be wasted.



POWER CUTS

If the electrical power to the water softener is interrupted, the time display is blank, but the 'memory' built into the faceplate will keep the correct time for up to 72 hours.

The water softener will not recharge but will pass softened water. In the case of a power

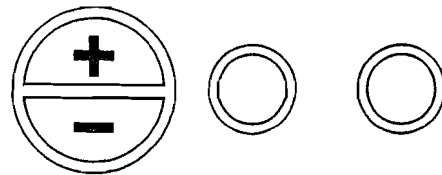
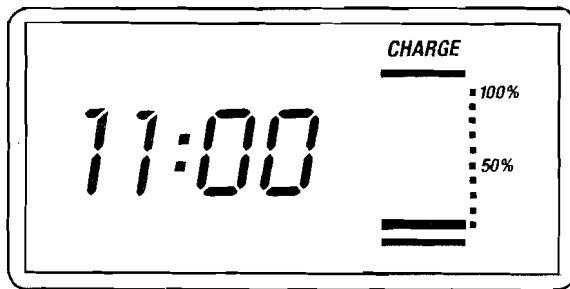
cut your demand for water will be less as most appliances will not work and so a recharge should not be necessary.

When electrical power is returned, 1 of 2 things will happen.

1 Power off up to 72 hours

The display returns and is steady.

No operation is necessary.



2 Power off over 72 hours

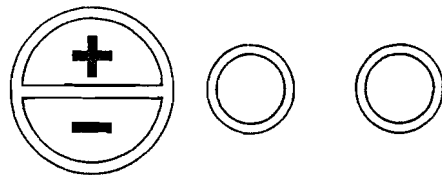
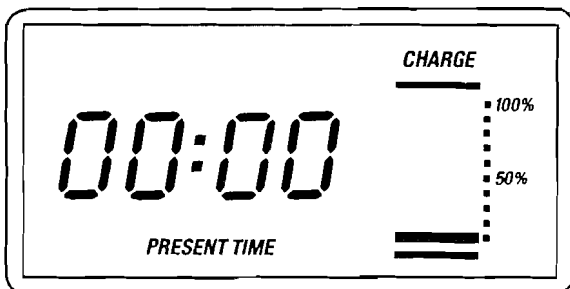
The display returns and flashes.

Only the time requires re-setting.

The Model code, hardness and recharge time will not have been lost as they are stored.

Even if the time is incorrect after a long period the water softener will continue to work but will recharge at what it believes the time to be.

Re-set the time as described in the Programming Section (see page 19).



If a sudden power cut occurs, the memory may be drained by an electrical 'surge'. Although rare, the unit can lose its time memory immediately. Proceed as per 2 above should this happen.



ADVANCED OPTION FOR SENSATRONIC MODELS

This section provides instruction on how to enter the secondary functions of the Sensatronic programme. By entering the secondary function you may monitor the performance of your unit and most importantly manage your household water usage.

If you are in any part of an operation you do not recognise do not touch any buttons for

2 minutes. The display automatically returns to the present time mode.

WARNING

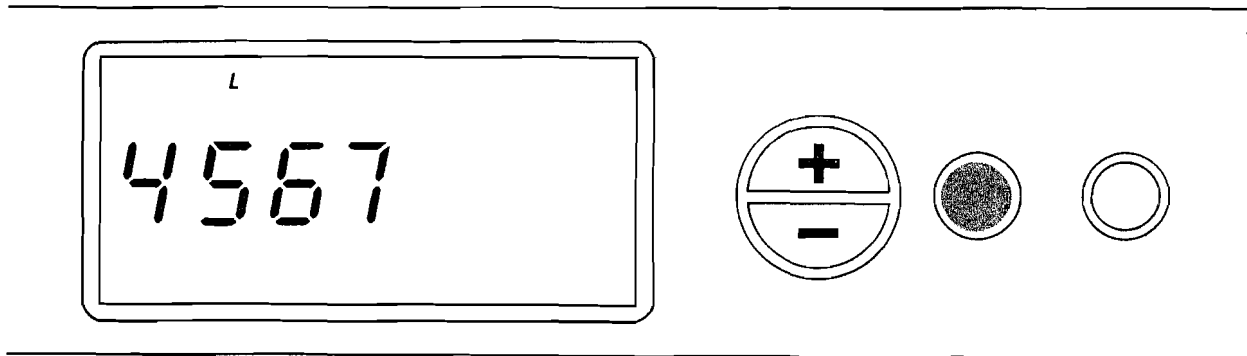
The settings for your water softener have been calculated to produce the most efficient usage of your water. Any change to these settings will result in your unit working inefficiently.

THE SECONDARY FUNCTIONS

TOTAL WATER USAGE SINCE INSTALLATION

Press and hold the select button for three

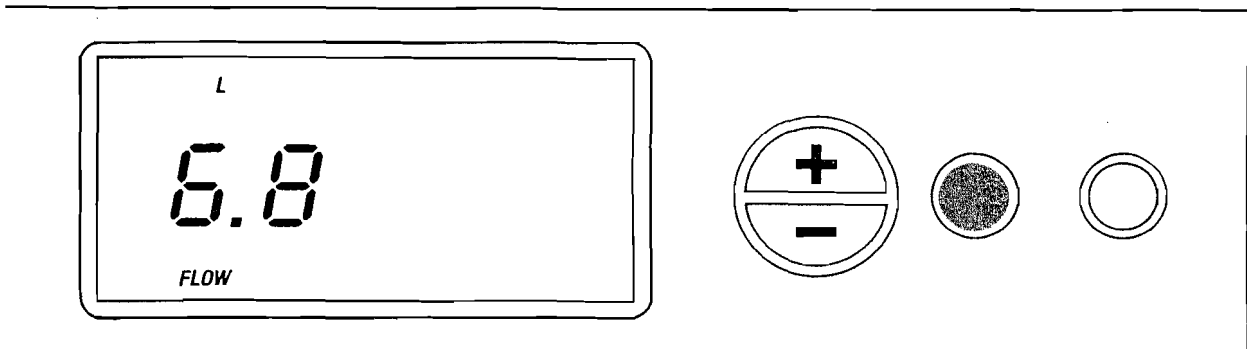
seconds. The display will show the total volume of softened water used since the unit was installed. The reading will be in litres (European) or gallons (United States).



MEASURING THE WATER FLOW RATE

Press select once. The unit will now display the water flow in litres or U.S. gallons per minute through the water softener. If the

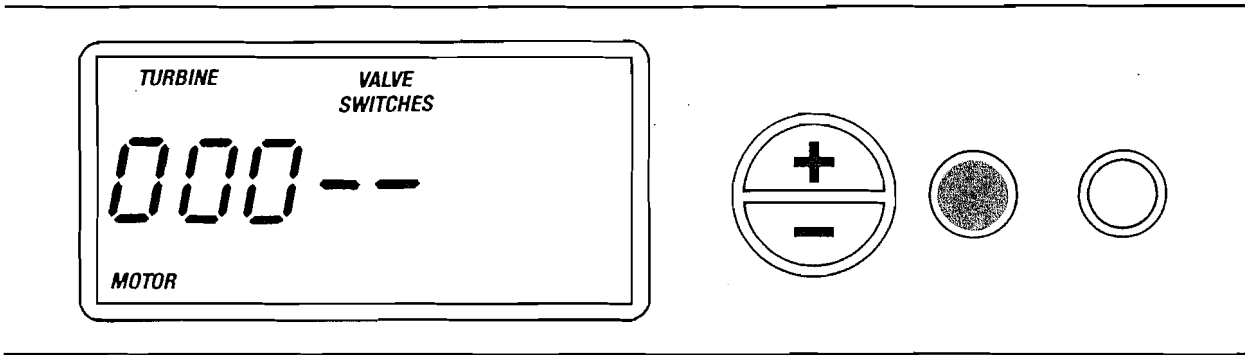
reading is Zero, open a tap connected to the softened supply to achieve a reading. If the reading is still Zero check that the inlet, outlet and bypass valves are set as per diagram (P.6), and that the meter is connected as on page 8.



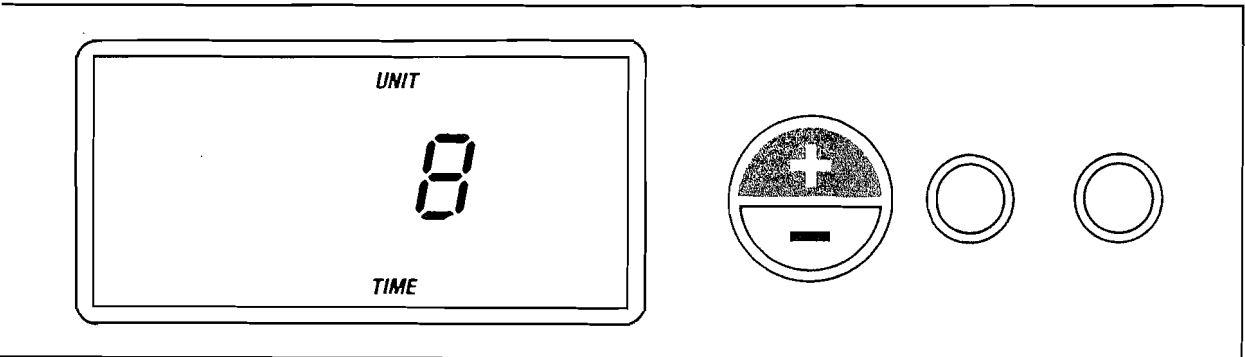
SENSATRONIC

COUNTING THE DAYS OF OPERATION AND NUMBER OF RE-CHARGES

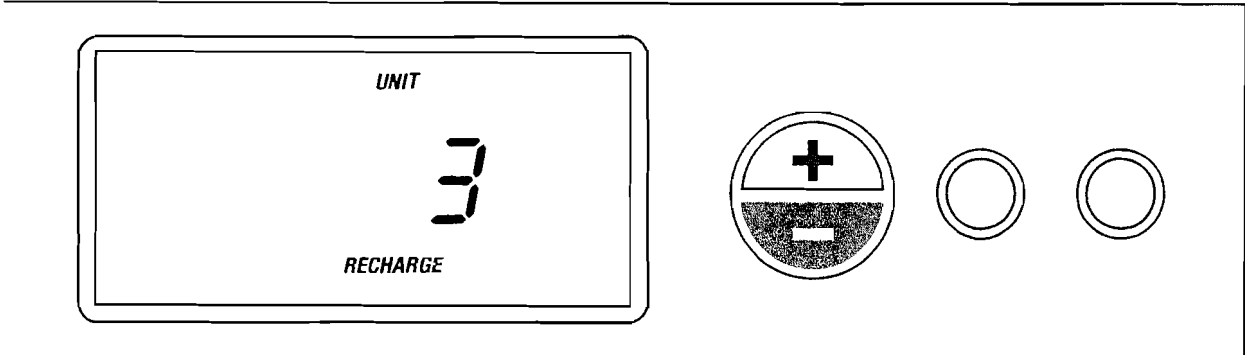
1 Press select **twice**. The unit will display a counting meter. If water is passing through the unit this will be advancing.



2 Press (+) once to display the number of days the unit has been in operation.



3 Press (-) once to display the number of times the unit has recharged since it was installed.

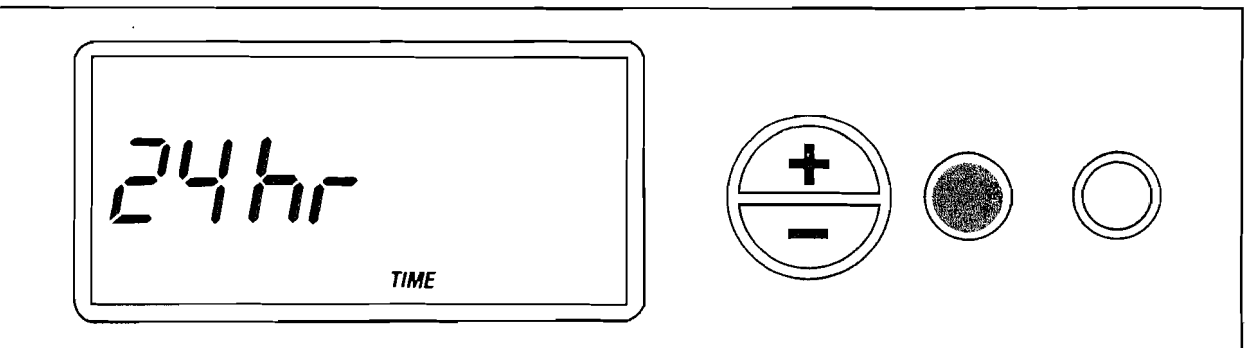


SETTING A 12 HOUR OR 24 HOUR CLOCK

Press select once. The display will flash the current setting. The unit is factory set to display a 24 hour clock.

Press (+) once to activate the 24 hour clock mode.

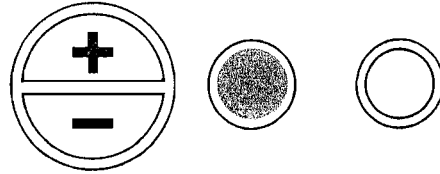
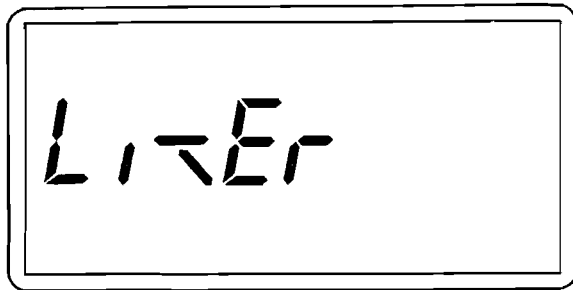
Press (-) once to activate the 12 hour clock mode.



SETTING A LITRES OR GALLON (US) MEASURE

Press select. The display will flash the current setting. The unit is factory set to display litres and all water flow rate and usage displays are shown in this mode.

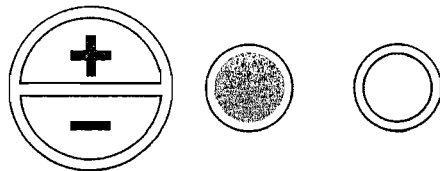
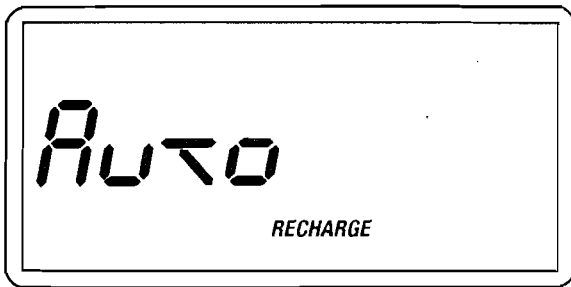
Press (+) once to activate the litre count mode.
Press (-) once to activate the U.S. gallon count mode.



MAXIMUM DAYS BETWEEN RE-CHARGE SETTING

Press select once. The display will flash the current setting. The unit is factory set to automatically control all re-charges with intervals based on water usage.
Press (+) to set a maximum time in days between re-charges. Each press of the (+)

button advances 1 day. When set the unit will re-charge after the set number of days since the last re-charge irrespective of water usage.
We recommend for maximum efficiency that the unit is normally set to AUTO. However, households with exceptionally low water usage may require to have a setting other than AUTO.

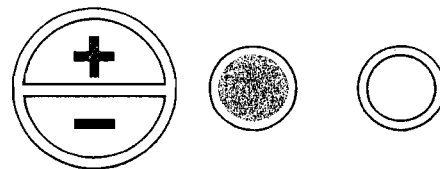
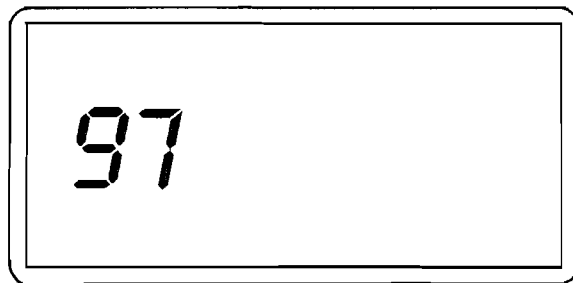


DISPLAY THE AUTOMATIC RECHARGE OPTION

Press select once. The display will flash between '97' and 'OFF'. This setting would be

switched to 'ON' in Industrial settings to automatically initiate a recharge once 97% of the capacity was depleted.

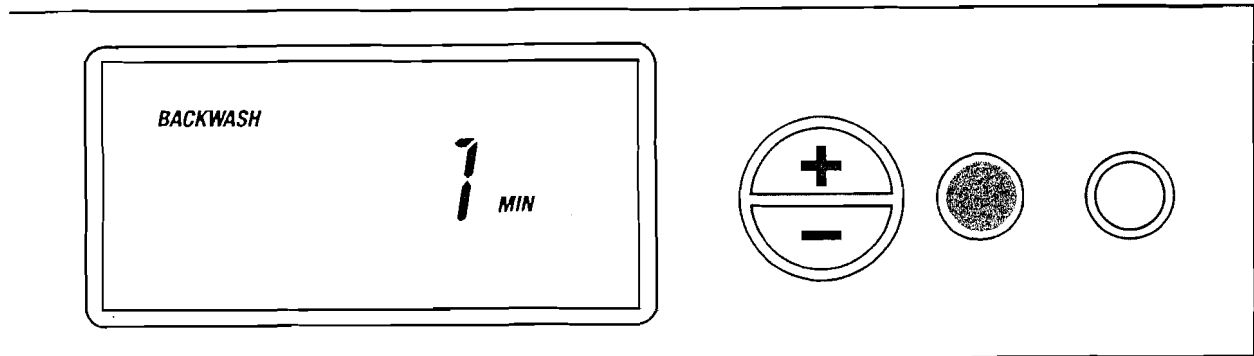
This is not advised in a domestic application.



GENERAL
INFORMATION

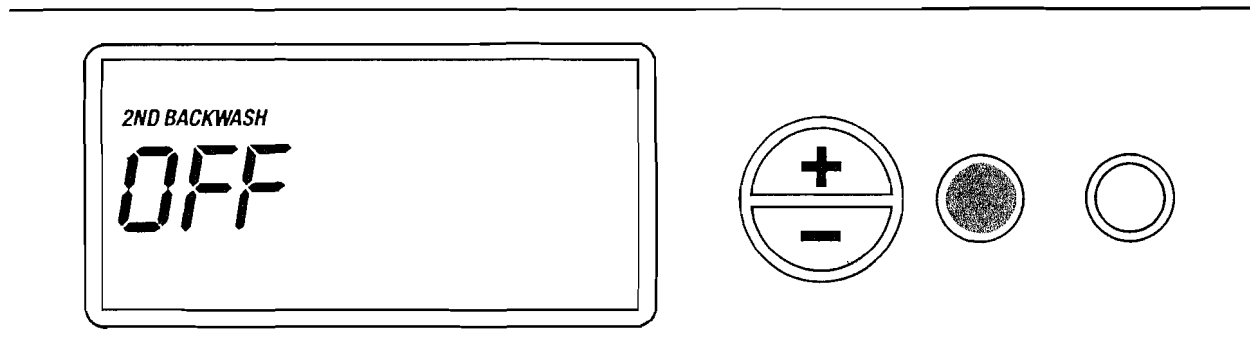
DISPLAY THE BACKWASH TIME

Press select once. The display will flash the current setting.



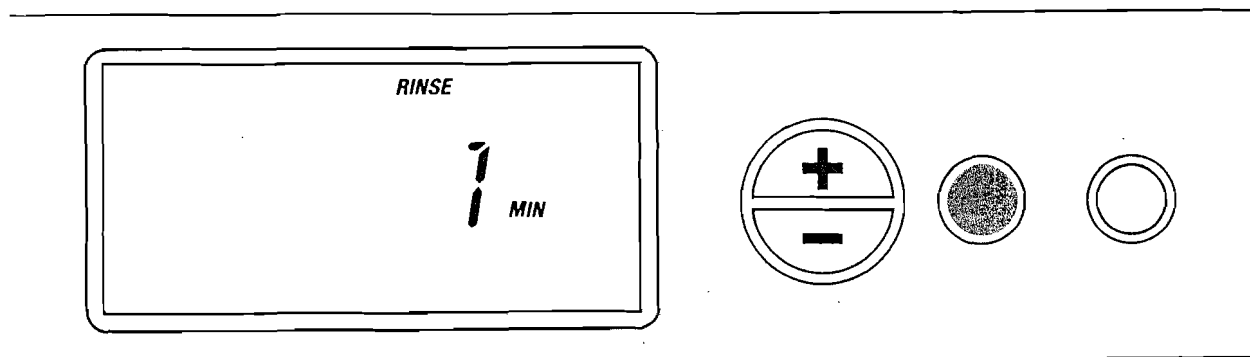
DISPLAY THE 2ND BACKWASH SETTING

Press select once. The display will flash the current setting. The unit is factory set to OFF for maximum efficiency.



DISPLAY THE RINSE TIME

Press select once. The display will flash the current setting. Press select once to return to the primary function the present time will be displayed.



TECHNICAL SERVICE

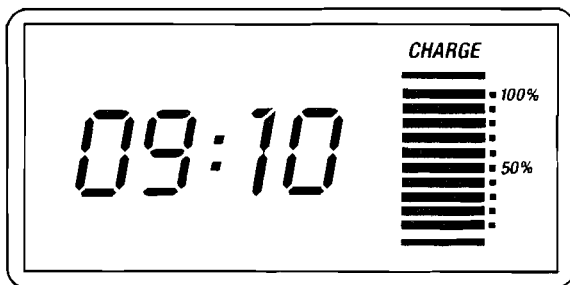


UNDERSTANDING HOW YOUR SENSATRONIC WORKS

Sensatronic Water Softeners have a microprocessor control which constantly checks the remaining capacity of the unit and looks ahead at your requirements for the following day based on historical data about your daily water usage.

It regenerates as often or as little as necessary but ensures that a continuous supply of softened water is always available.

THE CHARGE BAR DISPLAY



The Charge Bar is continually displayed and shows at a glance the percentage of water softening capacity remaining. As your Sensatronic is designed to provide continuous softened water, it will flash "Recharge tonight" at the point where it determines, based upon your current water usages, that it needs to allow for further softened water. You will only use 100% of the Sensatronic capacity if this is drawn off in a single day – so expect regeneration well before the capacity is exhausted.

BUILDING A HISTORY

When a water softener is first switched on you will find that it regenerates quite frequently. It has no historical data to base its logic on so it regenerates to ensure it can provide continuous softened water. Within a few months you will find it settles into a more regular pattern.

HIGH WATER USAGE

If your average daily water usage is above 35% of the total capacity of the water softener you may see it regenerating daily. By using a lower unit setting than that suggested (see page 20) you may slow down the regeneration frequency.

However, you must be careful not to set the hardness setting so low that you risk occasional hard water.

SALT USAGE

As your Sensatronic water softener is a proportional brining system more frequent regenerations are not at the expense of large salt usage. However, when your Sensatronic is first installed it begins in a middle band of salt usage. If you are a low water using household you will find that after a few months the Sensatronic will become more and more efficient as it adapts to suit your water usage.

LARGE INFLUXES OF GUESTS

If you have people to stay and use larger volumes of water than you normally do, you will find for a period of time your Sensatronic will recharge more frequently than it did before. As your household water usage returns to normal so the recharge frequency will reflect this.

RUNNING LOW ON SALT

It is important not to run low on salt (see page 32), as this will disrupt your supply of continuous softened water. If you do run low, add a litre of water when you refill with salt and set the unit to "Regenerate tonight."



THE EASE FEATURE

(Available only on version 5.0 electronics and models with the  symbol)

After returning your completed registration card you will receive the contact telephone number of your EASE Service Centre and your Customer Reference Number.


EASE (Electronic Automated Service Evaluation) enables your water softener to 'talk' directly to the EASE Service Centre and communicate data which otherwise might only be accessed by a site visit to your home.

The data received is reviewed by an Ecowater technician and if there is a problem it may be possible to correct it by telephone. If a service call is necessary, the engineer will be likely to know in advance what parts and repairs are required.

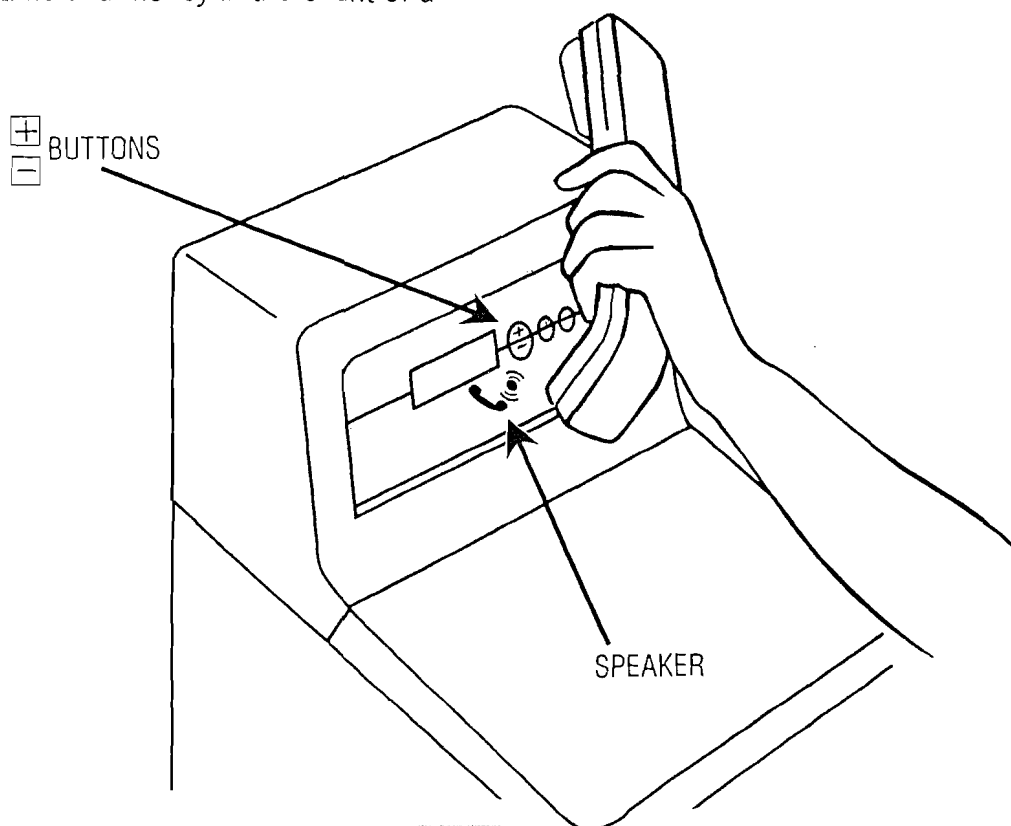
EASE

- can provide you with information on the efficiency and performance of your water softener.
- can save you the cost and inconvenience of an unnecessary call-out.
- can save time and money in the event of a call-out.

USING EASE

- You will need a portable telephone.
- Have your Customer Reference Number to hand.
- Dial the EASE telephone number.
- When connected, the EASE Service Centre will ask you to follow a simple procedure.
- Hold the telephone mouthpiece about 1" from the EASE speaker ( symbol) on the face plate (see illustration).
- Simultaneously press the (+) and (-) buttons.
- A constant beeping pattern is emitted.
- Release the buttons, the EASE message will continue to transmit for about 20 seconds.
- When the beeping stops finish your call.

Your call will then be processed by the EASE Service Centre.



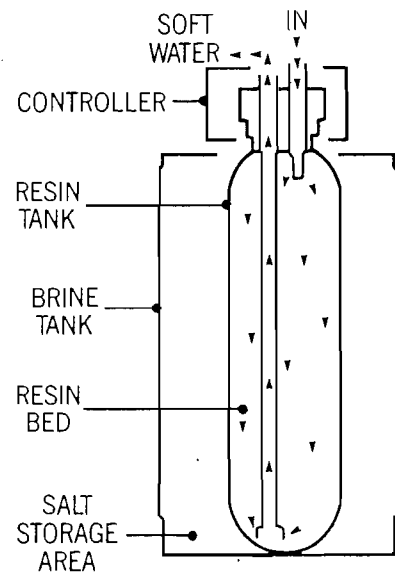
HOW YOUR WATER SOFTENER WORKS

SERVICE

Hard water enters from the back of the controller and flows down to the resin tank. As it flows down through the resin bed, the resin beads attract the hardness minerals from the water and holds onto them.

This is known as "Ion Exchange".

Depending on how many hardness minerals are in the water, and how much water is used, the resin bed reaches a point where it can no longer hold onto any more minerals. The resin bed needs cleaning. Cleaning the bed is known as "Regeneration" or "Recharge".



RECHARGE

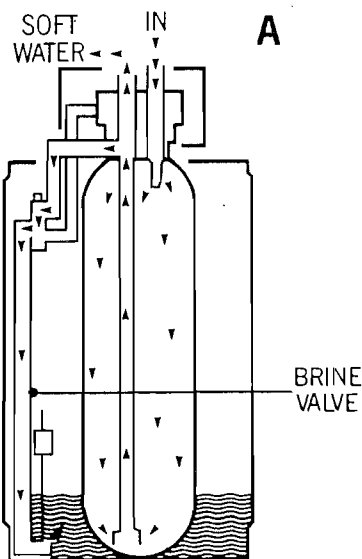
Recharge is triggered by different methods according to your type of machine.

A Timetronic will recharge on the days programmed regardless of how much of the capacity is used. A Sensatronic has a meter built

into the valve outlet. As water is used the meter sends electronic pulses to the circuit board computer registering the volume used. The hardness of your water is programmed into the controller. All of this information is collated together with the knowledge

of the time since the last recharge and water usage cycle.

The computer continually updates this information to calculate when the next recharge is due. When this occurs recharge tonight is displayed.



THE RE-CHARGE CYCLE

A) FILL

Water passes through the brine valve and into the brine tank. The fill water dissolves the stored salt to make brine solution. This solution is used to cleanse or re-charge the resin bed.

Timetronic units have a pre-set fill time to soak sufficient brine to cleanse the resin bed.

Sensatronic units calculate the exact proportion of brine required to recharge the capacity used.

During the fill, softened water continues to pass to service.

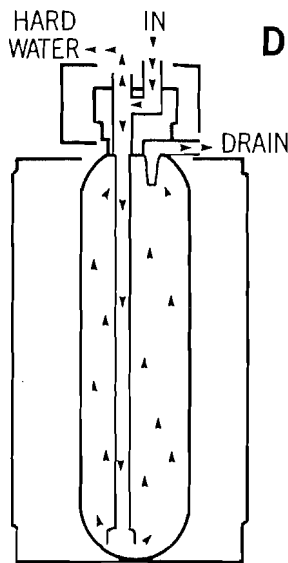
B) UPFLOW BRINING

Salt brine is drawn from the brine tank, through the valve and to the bottom of the resin bed. The brine passes up through the resin bed and releases the hardness minerals which have collected on the resin.

The mineral laden brine leaves the resin tank at the top and flows through the valve to the drain. Small deposits of sodium are left on the resin bed as a residue. Upflow brining is important in reducing the volume of water used and the salt saturation required as those beads which need most cleansing are at the top and can be flushed upwards to the drain more quickly.

C) BRINE RINSE

Clean fresh water replaces the brine drawn and flows up the resin bed and cleanses the resin bed of residual brine. The rinse water flows to drain.

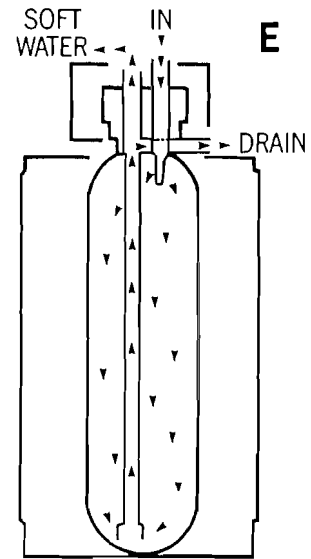
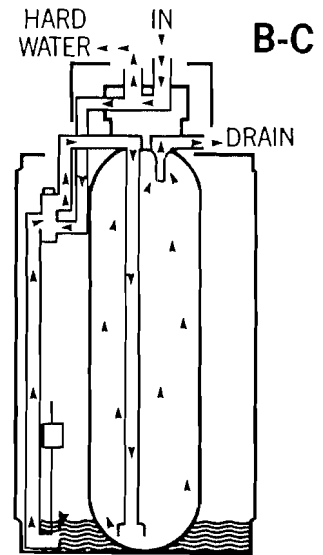


D) BACKWASH

Water enters the resin bed at the bottom and flows upward loosening it and fluffing the bed causing any remaining deposits to release and discharge to drain.

E) FAST RINSE

Water flows at a fast rate, down through the resin bed, then out through the valve to drain. Following the fast rinse cycle the water softener returns to service.



GENERAL INFORMATION

SALT

Salt is used as the regenerate (cleansing agent) for your Water Softener's resin bed. The salt cabinet will need to be refilled from time to time.

It is essential that approximately 6 inches of salt is maintained as a minimum to ensure operating efficiency.

Failure to replenish salt will prevent the unit from cleansing itself on its re-charge cycle and consequently it will be unable to soften the water.

Pour the salt slowly into the cabinet. Ensure that the brinewell cap is secure, as no salt should be allowed to enter here. **DO NOT use granular salt. ONLY use tablet or pellet salt.**

Ecowater Systems recommend Aquasol. Your local water softener stockist will stock salt.

NOTE: During the cleaning process salt does **not** enter the water supply. Salt is rinsed to drain.

CLEANING

Your unit may be cleaned with a damp cloth and detergent. Do not use bleaches, solvents or spirits as they may cause damage.

WATER LEVEL

The water level will vary. Generally there will be no more than two inches of water in the cabinet. During re-charge this will increase. Water may normally be visible only when the salt level is very low.



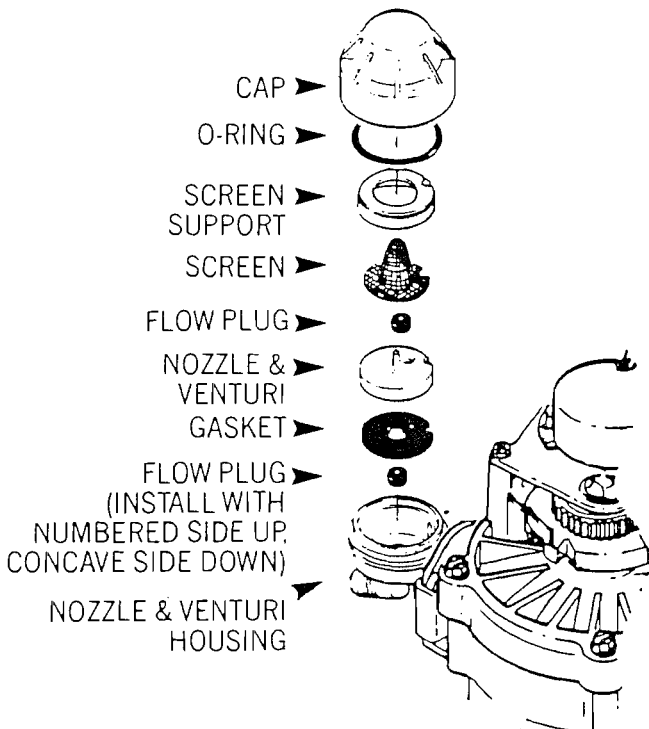
CLEANING THE NOZZLE AND VENTURI

A clean nozzle and venturi is a must for the softener to work right. This small unit moves brine from the salt storage tank to the resin tank during regeneration. If it becomes plugged with sand, silt, dirt, etc., the softener will not work and you will get hard water. We would recommend that an engineer should perform this service.

Be sure the softener is in normal operation mode (no water pressure at nozzle and venturi), then turn off the cap from the nozzle and venturi housing. Lift out the screen support and screen, then the nozzle and venturi.

Wash and rinse the parts in warm water until clean. If needed, use a small brush to remove iron or dirt. Also check and clean the gasket and flow plug if dirty.

Carefully replace all parts in the correct order. Lubricate the o-ring seal with silicone grease or Vaseline and place in position. Install and tighten the cap, **BY HAND ONLY. DO NOT OVERTIGHTEN AND BREAK THE CAP OR HOUSING.**



THE USE OF SOFTENED WATER

WASHING MACHINES

You will need much less soap powder. In most washes one tablespoon will be sufficient. Too much lather and clothes will not rinse properly.

DISHWASHERS

If your dishwasher is on a softened supply it will no longer need to be filled with salt as this was used to soften the water in the dishwasher.

STEAM IRONS/CAR BATTERIES

Only use distilled or deionised water, not softened water. An Ecowater Distiller (part no. 202100) is a cost effective alternative to buying distilled water.

COPPER STAINING

In some cases small amounts of blue copper deposits may be noticed shortly after installation. This will be caused by new pipework and should disappear after a short time. Simply wipe away the deposit.

CLEANING SINKS, BATHS AND BASINS

You will find that your cleaning chores are reduced, as cleaning becomes a quick wipe around. Occasionally 'spotting' may result but this is easily rinsed off and nothing to worry about.

HOW SOFTENED IS MY WATER

Test the water hardness from a softened supply using Ecowater's Test kit. Your water should change the colour of the test with one drop of solution. If your unit has been installed for a short period of time it may be 2-3 weeks before the softened water replaces the hard water in your header tank.

DRINKING WATER

One household tap should be left on a hard water supply. Softened water contains a small amount of sodium. In one pint of softened water the sodium content is the same as in two slices of white bread or 1/4 pint of milk.

Individuals on a low sodium diet should follow the Department of Health's advice that water from a domestic water softener should not be used for drinking and cooking. All water for mixing with powdered milk for babies should be taken from an unsoftened mains tap as powdered milk and softened water both contain sodium for which young babies have a limited tolerance.

Anyone on a sodium restricted diet should follow their doctor's advice.

If you are concerned about the quality of your drinking water supply ask your local stockist about the benefits of an Ecowater drinking system.



TROUBLE SHOOTING

SAVE MONEY BY ENSURING THAT AN ENGINEER IS NOT CALLED OUT UNNECESSARILY. HOWEVER, IF THE SOLUTION TO THE PROBLEM IS NOT SUCCESSFUL, PLEASE CALL FOR SERVICE AND ADVISE US WHAT YOU HAVE TRIED.

CHECKLIST	SOLUTION	PAGE REF.	
		TIMETRONIC	SENSATRONIC
PROBLEM: HARD WATER, OR SOMETIMES HARD			
1. Is there a minimum of 6 inches of salt in the cabinet?	1. Fill the cabinet with salt.	32	32
2. Is the bypass valve closed, and the inlet and outlet valves open?	2. Close the bypass valve and open the inlet and outlet valves.	6	6
3. Is the power on?	3. Switch the power on and check the connections.	9	9
4. Timetronic only - Does the display show "VAC"?	4. Press the ON/OFF button once.	16	-
5. Timetronic only - Is the fill time setting correct?	5. Reset the fill time as per the table.	36, 15	-
6. Timetronic only - Are the days of recharge correct?	6. Increase frequency of recharge if too low.	36, 13	-
7. Sensatronic only - Is the hardness setting correct?	7. Reset the unit setting as per the table.	-	36, 20
IMPORTANT NOTE: If any of the above requires action, add 1/2 bucket of water to the salt and initiate a "recharge now".		16	23
PROBLEM: NO WATER			
1. Is the water mains open?	1. Open water mains.	5	5
2. Are the inlet and outlet valves open?	2. Open inlet and outlet valves.	6	6
PROBLEM: UNIT RECHARGES AT INCORRECT TIME OF DAY			
1. Is the present time correct?	1. Reset the present time.	11	19
2. Is the recharge time correct?	2. Reset the recharge time.	13	21
3. Has there been a power cut?	3. No action required if the time is correct.	-	-
PROBLEM: NO RECHARGE OCCURRING, OR LITTLE OR NO SALT USAGE			
1. Is the water soft?	1. If yes, no action required.	-	-
2. Is the water level in the brine cabinet high?	2. If yes, check the drain line is not frozen or blocked.	5	5
	Initiate an immediate recharge.	16	23
3. Timetronic only - Check that the days of recharge are set correctly.	3. Reset the days of recharge if incorrect or not set.	13	-



CHECKLIST	SOLUTION	PAGE REF.	
		TIMETRONIC	SENSATRONIC
PROBLEM: NO RECHARGE OCCURRING, OR LITTLE OR NO SALT USAGE			
4. Sensatronic only - Check the capacity bar, is the % remaining high?	4. Check the meter sensor connections. Check that there is a flow reading.	-	8, 9 10
PROBLEM: EXCESSIVE SALT USAGE			
1. Timetronic only - Check the hardness against the days of recharge and fill time.	1. Reduce settings if incorrect.	36,13 15	-
2. Sensatronic only - Check the hardness.	2. Reduce the unit setting if incorrect.	-	36, 20
3. Sensatronic only - Check the average.	3. If your water usage is high, then this may be correct.	-	21, 29
PROBLEM: NO WATER IN CABINET OR VERY LOW			
1. This is quite normal. Unlike conventional water softeners only a few inches of water is at the bottom of the cabinet.	1. No action necessary.	-	-
PROBLEM: HIGH WATER LEVEL IN CABINET			
1. Is the water level in the brine cabinet high?	1. Initiate an immediate regeneration. If the problem does not return, there is nothing wrong.	16	23
PROBLEM: WATER RUNNING DOWN THE OVERFLOW			
1. Is the water level in the salt cabinet high?	1. If yes, bypass the water softener and call for service.	6, 37	6, 37
PROBLEM: WATER RUNNING DOWN THE DRAIN LINE CONSTANTLY			
1. Is the unit in recharge mode?	1. If yes, wait until it finishes, check the present time and recharge time settings, and adjust if incorrect.	11, 13	19, 21
2. Does an error code appear, eg. "ERRO1"?	2. Check all connections are secure. Turn the power off for 10 seconds and then turn back on. Press the Recharge button one	9 12	9 22
If the problem persists, bypass the softener and call for a Service.		6, 37	6, 37
PROBLEM: FACEPLATE PROBLEMS			
1. Is the faceplate blank?	1. Check the power is turned on and all connections are secure.	9	9
2. Is the display stuck in one function?	2. Turn the power off for 10 seconds and then switch back on.	9	9
3. Does an error code appear, eg. "ERRO1"?	3. Check all connections are secure. Turn the power off for 10 seconds and then turn back on.	9	9



TESTING YOUR WATER HARDNESS

Hardness varies from one point of use to another. Use the kit provided to determine your water hardness. From the hardwater tap, drain 10ml of water. Add the supplied solution one drop at a time – shaking in between. When the solution turns from wine red to blue, record the number of drops.

Number of drops ppm of Hardness

× 20 =

Owners of Sensatronic models may now programme their units as described on Page 20.

DAYS OF RECHARGE AND FILL TIME

SETTINGS FOR TIMETRONIC MODELS

The following are the recommended frequency of recharge for the Timetriconic units and the accompanying fill times.

These settings are for guidance only and you may find that you need to adjust them according to your own household requirements.

NO. OF PERSONS	TIMETRONIC 314 Hardness in Parts per Million					
	1-140	160-220	240-300	320-340	360-440	460-500
1	M 3	M 4	M 4	M 4	M 4	M 5
2	M 3	M 4	M 5	M F 4	M F 4	M F 5
3	M 4	M 5	M F 4	M F 5	M TH S 5	M TH S 5
4	M 4	M F 4	M TH S 4	M TH S 4	M W F S 4	M W F S 5
5	M 5	M F 5	M TH S 5	M W F S 5	M W F S 5	
6	M F 4	M TH S 5	M W F S 5			

* Shaded areas will provide inefficient results. We recommend that the next largest model is used.

STEP 1 – Read down the side of the table for the number of persons in your family using water.



STEP 2 – Read across the top of the table and find the table listing the relevant hardness for your model.

STEP 3 – Read across and down to find the point where steps 1 and 2 meet. At this meeting point the recommended days of recharge and fill times are listed. Refer to the legend below for guidance.

STEP 4 – These settings are based on average water usage. You may find that you can reduce these settings to the next lowest hardness level setting.

STEP 5 – Record your fill time settings in the spaces provided and write **ON** against those days recommended for recharge in Step 3.

LEGEND

MONDAY	TUESDAY	WEDNESDAY	=	M	T	W
THURSDAY	FRIDAY	SATURDAY		TH	F	S
SUNDAY		FILL TIME		SU		12

RECORD YOUR SETTINGS HERE

FILL TIME MINS

DAYS OF RECHARGE

(ON/OFF)

M	T	W	TH	F	S	SU
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



GUARANTEE AND SERVICE

All EcoWater Softeners are fully covered by a one year parts guarantee against manufacturing defect from the date of purchase. Please read below for details on labour/guarantee.

This guarantee does not effect the statutory rights of the consumer.

Any faults which are not attributable to the water softener but to faulty installation or operation will be chargeable.

The following are excluded from your warranty and a call out will be chargeable.

1. Water Softeners installed where pressure or flow rates are not within the limits stated in the user and installer handbook.
2. Faults arising from misuse or neglect.
3. Failure to replenish salt or not using tablet salt.
4. Resetting the programmer in the event of a power failure.
5. Resetting the programmer when the influent water hardness or the number of people in the household changes.

6. Water Softeners not installed in accordance with the local water authority regulations.
7. Any fault arising from repairs or alterations to the water softener carried out by anyone other than engineers employed by Ecowater Systems Limited, or representatives working on EcoWater authority.
8. Water Softeners installed outside the mainland counties of England.
9. Faults arising from faulty installation, plumbing or electrical.
10. Any defect or damage occasioned by fire, lightning, power surges, explosion, flood, storm, tempest, impact or other extraneous causes.
11. Water softener installed on bore hole, well water or a non-standard installation not covered by the instruction book may be subject to limitations on the warranty provided.
12. Units installed in such a way that access for servicing is restricted.

On receipt of your Registration Card we will send your Warranty Number. Please record it here:

MY WARRANTY NO. IS

YOUR WARRANTY

The Timetric and Sensatronic Models are fully covered by a one year parts warranty against manufacturing defect from the date of purchase. Labour Warranty is subject to receipt of the registration card. Your Service Contact Point will then be confirmed to you.

EXTENDED WARRANTY

On receipt of your Registration Card this warranty will be updated to fully cover any further parts and labour warranty from the date of purchase as per your sales agreement. Please ensure that this Registration Card is returned immediately and we will send you your Warranty Number.

SERVICE

We have a nationwide network of Ecowater employed engineers. In case of any difficulty not covered by this handbook, call us on **01494 484848**. Please quote your Warranty Number at the time of your call.

RETURN YOUR REGISTRATION CARD TODAY!

ECOWATER
S Y S T E M S



EcoWater Systems Limited,
Mill Road, Stokenchurch,
Bucks. HP14 3TP.
Tel: 01494 484000
Fax: 01494 484396
Service: 01494 484848