

# WATERSIDE

## WATER SOFTENERS

### Installation Instructions

EC 184

Thank you for choosing a Waterside Water Softener. The following installation instructions have been painstakingly put together and if followed should ensure the installation is trouble free. If you have any queries please feel free to contact our Technical Department.

#### PLANNING THE INSTALLATION

Bearing in mind the Water Board byelaws, check the water pressure (see note 1) locate the rising main, drain facilities and electricity supply. Allow room for access, maintenance and filling with salt. Ensure there is only one rising main to the property.

#### SITING THE SOFTENER

Where possible this should be close to the rising main. Take care to allow for hard water draw off points, i.e. drinking tap and outside tap. The distance between the unit and a drain should be as short as possible, since salt must be added periodically to the softener, the location should be easily accessible. Do not install any unit closer to a hot water heater than a total run of 10 feet (3m.) of piping between the outlet of the softener and the inlet to the heater. **IMPORTANT DO NOT** locate unit where it or its connections (including the drain and overflow lines) will ever be subjected to room temperatures under 32 deg. F (0 deg. C) or over 120 deg F (49 deg. C). Do not install unit near acid or acid fumes. If you are planning to install the water softener above ground level e.g. in a loft the following instructions should be strictly adhered to. The Softener should be installed within a container of not less than 25 gallons capacity. To which there shall be connected an overflow pipe not less than 3/4 inch in diameter. The overflow shall be connected not less than 6 inches below the height of any electrical components mounted on the Softener. Where necessary the Softener and any additional pipework should be adequately lagged to prevent damage by freezing.

#### PRESSURE DROP

All water Softeners have an effect on flow rate pressure etc. On plumbing systems with storage tanks this is not usually a problem. However, on pressurised systems care must be taken to ensure adequate flow rate, pressure etc. is available. This may be critical to correct operation of the system, always consult our Technical Dept before softener installation to avoid flow problems.

#### BACKFLOW PREVENTION DEVICE

In single dwellings a check valve complying with BS6282 part 1 should be correctly fitted. (Please note Waterside Domestic Softeners have check valve built in.) All other installations require a double check valve.

#### DRINKING WATER

The tap to be used for drinking water must be left on the hard water supply (see Fig. 2).

#### LEAD PIPEWORK

If you have lead pipework and softened water is going to be passed through it you should replace the lead pipework at the time of installation. (Grants may be available from your local council). However, newer houses are not affected as lead pipework has not been used since 1976.

#### FLEXIBLE HOSES

Care should be taken to avoid any kinking or restrictions to the drain and overflow piping, which may cause overflowing.

#### MATERIALS

Try to use the same pipe materials that are already used in the water system.

#### ELECTRICAL CONNECTIONS

This unit must be earthed. A fused connection unit incorporating a double pole switch is recommended to avoid the supply being interrupted.

#### CHECK MATERIALS

Before commencing ensure you have the necessary plumbing fittings and check the contents of the installation kit. Installation kits are supplied with your Softener and we recommend you use it as it makes installation and any subsequent servicing much easier.

#### 1. TEST PRESSURE

It is **VERY IMPORTANT** and must be carried out before you commence any further. Low or high pressure could result in damage or non-operation of the Softener (See Fig. 1). To find out the pressure you may test with a gauge on an outside tap or single pillar kitchen tap, hire the gauge from your supplier. If you are in doubt fit a pressure limiting valve as it will ensure long life for the Softener and other household appliances. They are available to order from your supplier and are not very expensive. If daytime pressure is above 70p.s.i. fit a pressure limiting valve. If daytime pressure is less than 20p.s.i. (25p.s.i. for autotwin) a pressure pump is required.

#### 2. DRAIN RISING MAIN

Before cutting the rising main turn off the stopcock and run water from the bath cold tap for a few minutes to open the ball valve. Then turn on the kitchen sink cold tap. It will run for a few minutes and then stop. Your rising main is now empty. **NOTE** ensure there is only one rising main to the property, also bear in mind the possibility of the rising main being tied off to other locations



Fig. 1

### 3. FIT BYPASS SET

Cut the rising main and fit the three valves as shown. Garden taps and hard water drinking taps should be teed off prior to the bypass set. You may have to run additional pipework to alter the existing plumbing.

### 4. INLET AND OUTLET CONNECTIONS

The inlet and outlet connections are straightforward plumbing jobs. They may be run in hose as shown (supplied with kit) or in copper tube. DO NOT use washing machine hoses as they will contaminate the drinking water. If running in copper tube use 3/4 Fl elbows to connect to the valve. If using the WRC approved hoses screw onto inlet and outlet connections as in (Fig. 3). We recommend the use of hose as it facilitates plumbing and any subsequent servicing. (Read PRESSURE DROP on page 1).

### 5. DRAIN CONNECTION

The drain hose may be run to a stand pipe as for a washing machine or to an open gully. A minimum gap of 20mm must exist between the end of the drain hose and the top of the drain grid. Softened water will have no adverse effect on a septic tank. If the hose supplied is too short you may run additional pipework in 15mm copper tube. Up to 30ft. runs are possible where mains pressures are over 40p.s.i. daytime. (See Fig. 3). Drain must not be kinked or restricted in any way as this will cause overflowing.

### FREEZING

Where the drain runs outside it should be vented to empty the pipe after regeneration or insulated. This is to prevent freezing which would otherwise prevent regeneration and cause overflowing. NOTE drain Vent (illustrated Fig. 3) is available from your supplier if required.

### UPHILL

As the drain is under pressure it may be elevated. This allows for installation in cellars or in the centre of the house where no drains are available. Run the drain hose up and along to the nearest gully or soil stack. You may also run up, along under the floor boards and down again.

The mains pressure affects the amount of lift available. Below 30p.s.i. do not elevate, 40p.s.i. up to 8ft. and for each additional 10p.s.i. you may elevate by a further 2ft.

### 6. OVERFLOW CONNECTION

The overflow hose is connected to the 1/2 hose spigot on the rear of the cabinet. No securing clip is necessary as it is not under pressure. The hose should be run DOWNHILL ALL THE WAY AND TERMINATED AT THE EXTERIOR OF THE BUILDING WITHOUT KINKS OR RESTRICTIONS, or to a stand pipe. (See Fig. 3) Take care that overflow does not discharge where damage could occur. If Softener is fitted in a cellar overflow can be run to a storage tank.

### 7. SET PROGRAMMER

Obtain your water hardness figure by using test kit provided. To set programmer refer to programming instructions relevant to your model. (The model number can be found under the salt lid).

### 8 ELECTRICAL CONNECTION

All models require a 3 amp supply. A fused connection incorporating a double pole switch is recommended to avoid the supply being interrupted. Switch on now.

### 9. TEST AND CHECK ALL MODELS FOR LEAKS

Turn on main stopcock slowly, set the bypass valve to shut position, inlet and outlet valves to open positions. CHECK FOR LEAKS!!! The Softener is now letting water pass through it to the supply. The first water produced maybe amber coloured this is quite normal.

All the Softeners are factory set at brine refill stage. This will take approximately 20 minutes and will account for any water flow noises immediately after installation.

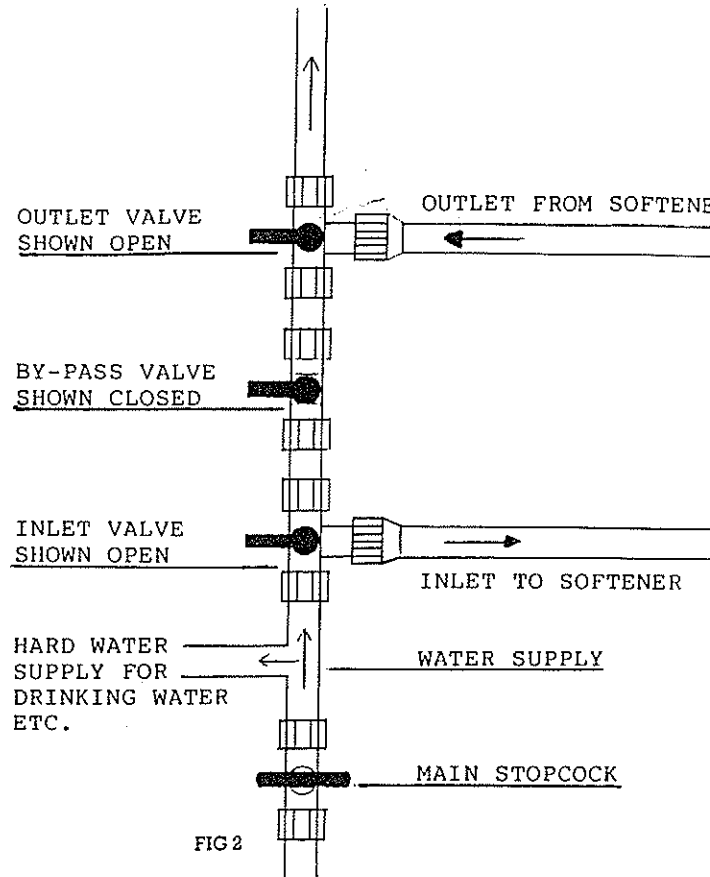


FIG 2

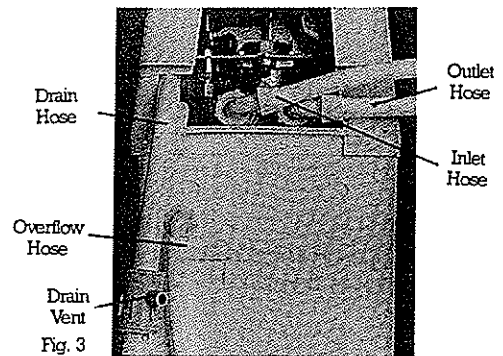


Fig. 3

### 10. FILL WITH SALT

Now fill cabinet, about three to six inches from the top with salt.

Model 184 Maximum salt capacity 40 lbs.

Model 284 Maximum salt capacity 60 lbs.

Autotwin Maximum salt capacity 55 lbs.

### 11. USER MAINTENANCE

Your Waterside softener requires minimal maintenance, simply check that the clock is displaying the correct time of day, not necessary on Autotwin model, and keep topped up with salt. If using granular salt we suggest that the cabinet be kept about half full. If using tablet salt then fill to within three inches from the top. The softener will require topping up when red indicator can be seen inside cabinet.

### 12. KIT CONTENTS

- 1 Pair Inlet hoses
- 1 Drain and overflow hose (3 m)
- 1 Set of bypass valves
- 4 3/4" washers
- 1 Test kit

Our Service Department is here to help. If you have any queries or problems please contact us on 0376 550577 for Service or 0376 48383 for technical advice.

Before calling out one of our Service Engineers please check through the installation and programming instructions as call-outs not due to the softener are chargeable.

ECONOMETER PROGRAMMING CHART

<u>WATER HARDNESS DEGREES CLARK</u>	<u>EC184 CAPACITY</u>	<u>EC284 CAPACITY</u>	<u>EC384 CAPACITY</u>
10	3.4	5.1	6.8
11	3.1	4.6	6.2
12	2.8	4.2	5.6
13	2.6	3.9	5.2
14	2.4	3.6	4.9
15	2.2	3.4	4.5
16	2.1	3.2	4.2
17	2.0	3.0	4.0
18	1.9	2.8	3.8
19	1.8	2.7	3.6
20	1.7	2.6	3.4
21	1.6	2.4	3.3
22	1.5	2.3	3.1
23	1.5	2.2	3.0
24	1.4	2.1	2.8
25	1.3	2.0	2.7
26	1.3	2.0	2.6
27	1.2	1.9	2.5
28	1.2	1.8	2.4
29	1.1	1.7	2.3
30	1.1	1.7	2.2
31	1.1	1.7	2.2
32	1.0	1.6	2.1
33	1.0	1.5	2.0
34	1.0	1.5	2.0
35	1.0	1.5	1.9

FIG. 5.

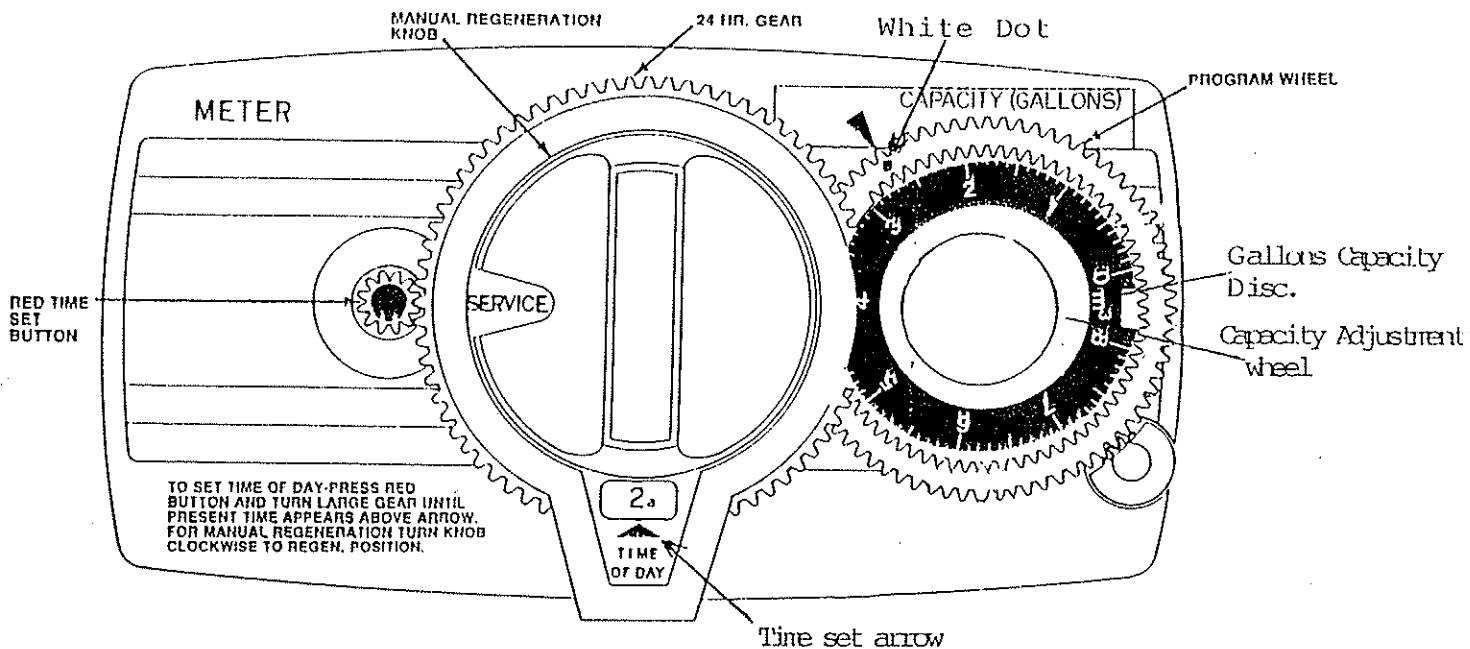


FIG. 4.

# ECONOMETER PROGRAMMING INSTRUCTIONS

First consult Fig.4 to familiarise yourself with dials etc.

## SET PEOPLE DIAL

There are no complicated calculations to make. Simply set the number of people resident in the household against the appropriate water hardness. To do this grasp the disc marked hardness and pull gently forward (see Fig. 6). Turn so that the correct hardness figure aligns with the appropriate number of people. (Fig. 5) shows the people dial set for hardness of 20° clark with a family of four people.

## SET TIME

Press the red button and turn the 24 hours gear until the correct time of day is in line with time of day arrow. See Fig. 7.

## SET REGENERATION TIME

All Waterside softeners are factory set to regenerate at 2.00a.m. If you prefer to have the unit regenerate at an earlier or later time, simply set the current time-of-day accordingly, (e.g. to have the unit regenerate at 4 a.m. - 2 hours later - set the clock 2 hours earlier than the actual current time.

Note: When the softener is regenerating only hard water is available.

Programming is now complete.

In the unlikely event that you should require an immediate regeneration turn manual regeneration knob clockwise to start position. See Fig 8. Please note regeneration will take place approximately 30 minutes after turning knob.



FIG 5

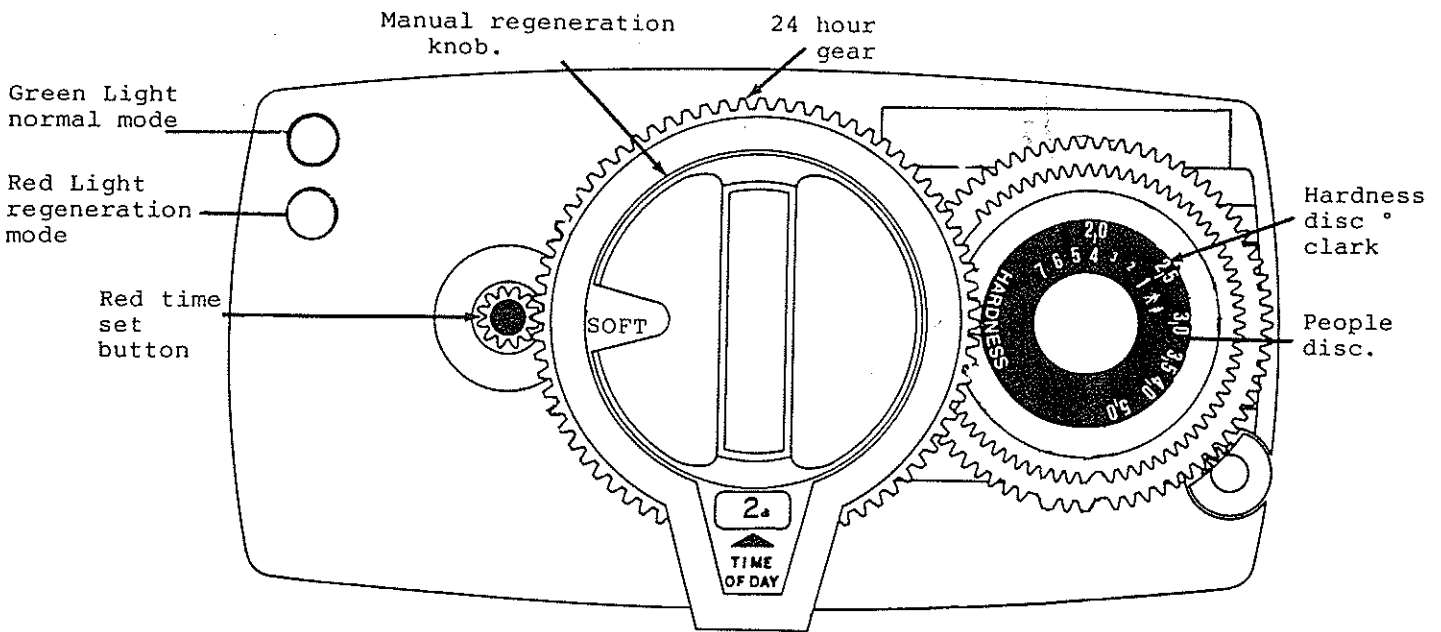
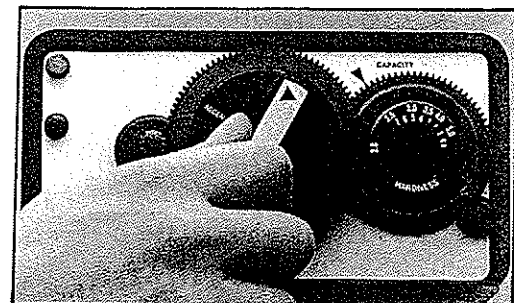
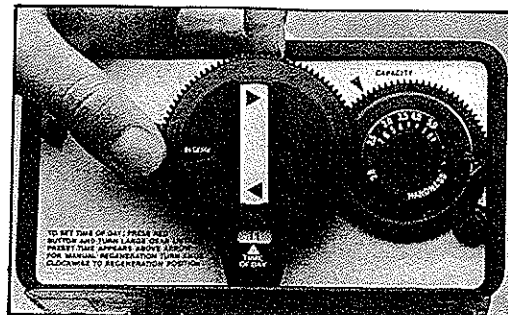
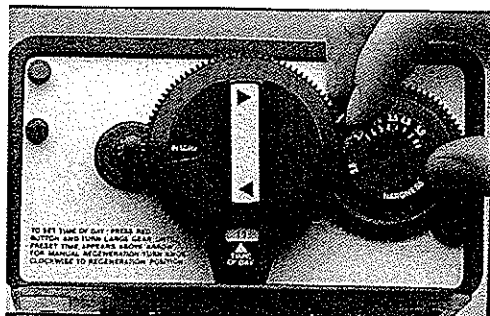


Fig: 4.



## ECONOMETER PROGRAMMING INSTRUCTIONS

First consult Fig. 4 to familiarise yourself with dials etc.

The capacity of the softener is dependent upon the hardness of the water. To find the capacity that applies to your model consult the Econometer Chart Fig.5. Hardness figures from 10 - 35 deg. are shown in the left hand column.

The various model sizes are shown on the top of the chart. After determining your water hardness (see No.7) Find the point on the chart where the hardness and the model number cross :-

e.g. hardness = 20°  
Model No. = EC284  
Capacity = 2.6

Now you must deduct 0.2 from this figure for each person resident in the household.

e.g. Capacity = 2.6  
No of persons = 4  
Deduct 0.8 from 2.6  
Total Capacity = 1.8

### Set Capacity

Now pull the capacity adjustment wheel forward, turn so that the correct number on the capacity disk lines up with white dot on outer wheel.

### Set Time

Press the red button and turn the 24 hr gear until the correct time of day is in line with the time set arrow.

### Set Regeneration Time

All Waterside softeners are factory set to regenerate at 2.00 a.m. If you prefer to have the unit regenerate at an earlier or later time, simply set the current time-of-day accordingly, (e.g. to have the unit regenerate at 4 a.m. - 2 hours later - set the clock 2 hours earlier than the actual current time).

Note: When the softener is regenerating only hard water is available.

Programming is now complete.

In the unlikely event that you should require an immediate regeneration turn manual regeneration knob clockwise to regeneration position. Please note regeneration will take place approximately 30 minutes after turning knob.