



Permanent Water Softener

EY70115 : 15mm feed

EY70122 : 22mm feed

Installation & Operation Manual

PLEASE READ FULLY BEFORE INSTALLATION

	PAGE
Contents	
Introduction	1
Features & Benefits	2
Before You Start	3 - 4
Installation	
Your Water Softener	5
Installation	6 - 10
Settings	11
Commissioning & Operation	12 - 14

PLEASE NOTE:

Before you start installing your Water Softener ensure that you have all the correct parts and tools required to install your Water Softener.
The water softener comes with an integrated bypass & non-return valve.

**YOUR WATER SOFTENER IS COVERED BY A 5 YEAR PARTS & LABOUR WARRANTY.
TO ENSURE YOUR WATER SOFTENER IS COVERED IT MUST BE INSTALLED IN
ACCORDANCE WITH THESE INSTRUCTIONS & REGISTERED ONCE INSTALLED.**

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

Thank you for choosing the Non-Electric Water Softener.

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

1. Introduction.

The Water Softener presents a new approach to the world of dental water softeners. Based on proven technology, these softeners are non-electric (so there are no issues relating to electrical installation compliance), yet these units are still fully automatic. The units operate purely through the hydraulic pressure on the incoming water whether that be from the mains or from a well. EY7010 non-electric water softeners have no motors and no wires, they just do not need them! The moving parts are operated by dynamic water pressure above .8 bar.

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

2. Features & Benefits.

1. **NON-ELECTRIC:**
2. **EASE OF INSTALLATION:** Far simpler than standard water softeners to install due to the simple and unique 'clip-connect' design.
3. **COMPACT DESIGN:** The EY7010 is designed to fit into a standard kitchen cabinet and other areas where space is at a premium.
4. **MINIMAL PROGRAMMING:** Just set the water hardness for your area.
5. **ENVIRONMENTALLY FRIENDLY:** Designed to use minimal salt & water during regeneration.
6. **HIGH TEST STANDARDS:** The units are all 'wet tested' before leaving the factory.
7. **HIGH FLOW RATES:** Nominal flow rate (1 bar loss of pressure) 25 litres per minute (1500 litres per hour).
8. **HIGH RELIABILITY:** Fabricated from high-grade engineering materials, and covered by a 5 years parts & labour warranty.

3. Before You start

- Make sure you have all necessary parts and tools required before starting the installation.
- Follow all regulations regarding drainage. If in doubt see the relevant WRAS guidance notes which can be found at www.wras.co.uk.
- **Read this manual carefully.** If you have any questions or remarks please contact the **Technical Helpline: technical@cleancert.co.uk**.
- Check incoming water pressure: minimum 0.8 bar (dynamic), maximum 6 bar (static) (15 - 100 PSI). If necessary fit a pressure reducing valve to reduce the incoming water pressure.
- Do not install the water softener close to a heat source. (environment temperature must be below 40°C).
- Protect the water softener drain hose (item 12, page 5), and all fittings against frost.
- Make sure you have tested the water for Total Hardness for the area. If in doubt telephone the **Technical helpline on: technical@cleancert.co.uk** to obtain this information.
- Remember, if you are not sure **ASK!**

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

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

Proper operation of the softener depends on correct installation, commissioning, maintenance and maintaining the salt level with suitable salt manufactured for use in water softeners.



3.1. Positioning the water softener

- Remember to measure your water softener and the space where it will be installed. Remember to allow extra space for connecting pipework when you do your calculations along with adequate space to allow for future servicing, maintenance and topping up of salt.
- Keep the distance of the incoming main and drainage to a minimum. While 2 metres is an adequate distance this can be longer in circumstances where water pressure allows.
- The weight of the water softener is greatly increased when fully operational and filled with both salt and water so this must be taken into account when choosing where to site the water softener.
- Your water softener is designed to operate effectively with an incoming water pressure of between 0.8bar and 6bar. If your water supply is likely to fall outside of these parameters we recommend that either a booster pump or pressure reducing valve should be fitted accordingly.
- Do not install your water softener next to a boiler or other heat source that will exceed 40°C.

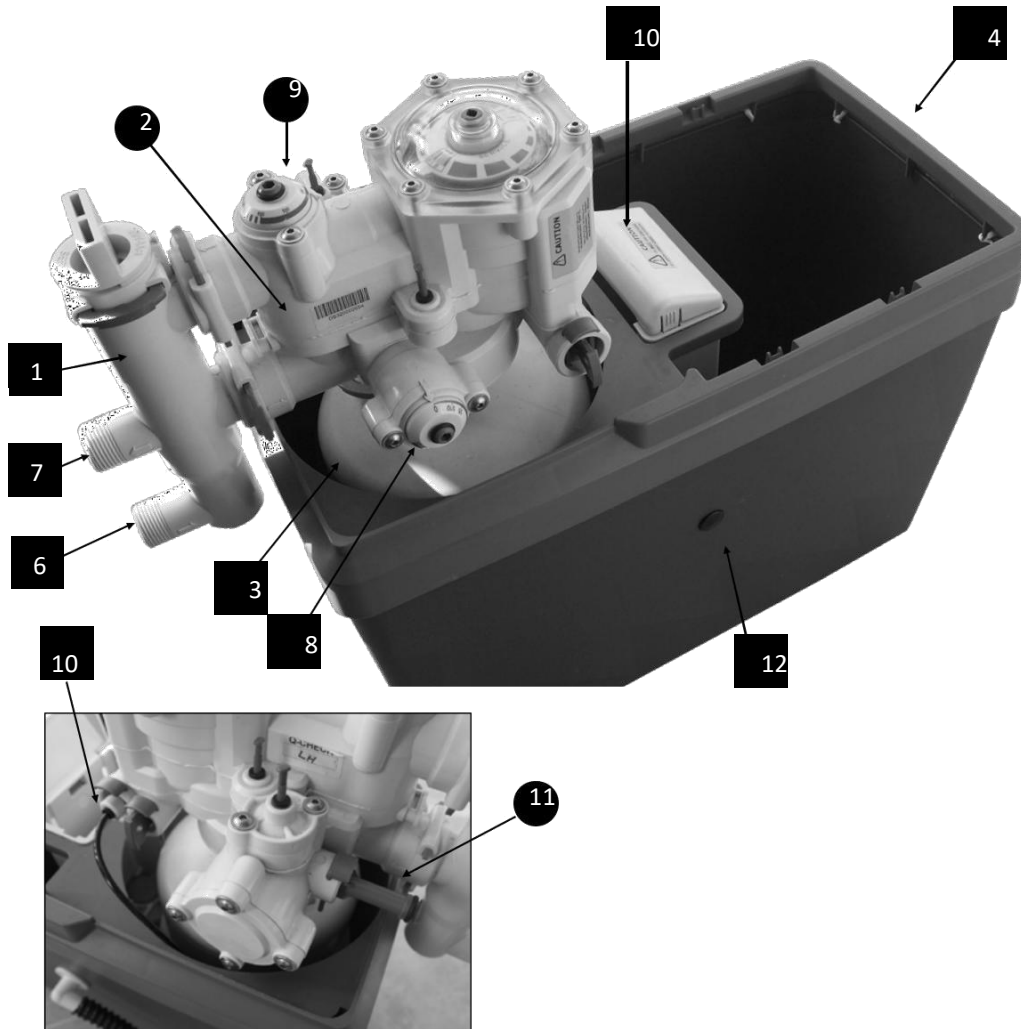
IF YOU ARE CONSIDERING INSTALLING YOUR WATER SOFTENER IN A LOFT, THE FOLLOWING INSTRUCTIONS SHOULD BE STRICTLY ADHERED TO.

3.2. Loft Installation

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

3.3. Drinking Water

- When fitting your water softener allowance should be made for at least one drinking water tap that is not fed by the water softener. Where practical this should be at the kitchen sink but a utility room or other suitable alternative will suffice.
- It is recommended that people on a low sodium diet should not drink artificially softened water. Water used for mixing infant powder for babies must only be taken from un-softened water as softened water contains an increased level of sodium to which young babies have a limited tolerance.



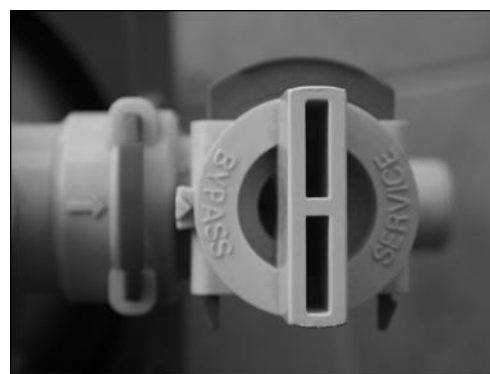
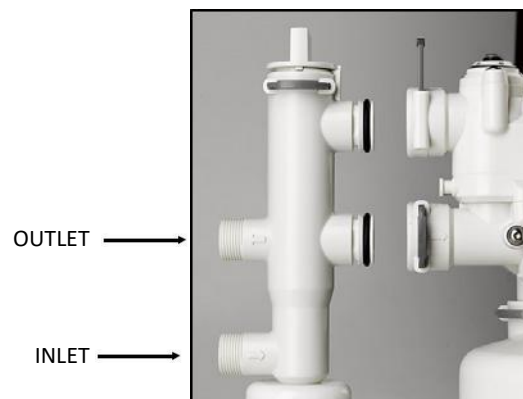
- | | |
|-----------------------|-----------------------------|
| 1. Bypass | 7. Water Outlet |
| 2. Valve Housing | 8. Blending Regulator |
| 3. Resin Vessel | 9. Water Hardness Regulator |
| 4. Salt Chamber | 10. To Brine Float |
| 5. Brine Float | 11. Discharge to Drain |
| 6. Water Inlet | 12. Overflow |

5

4. Installation:

- 4.1 Close the main valve (stop tap) and make sure pressure is released from the piping. This can be done by opening at least one tap.
- 4.2 Cut into the cold water mains supply in order to install two angled (or similar) isolation valves, one for the mains *inlet* and one for the mains *outlet*.
- 4.3 **ENSURE THE BYPASS VALVE IS SET TO "BYPASS"** Connect the mains *inlet* to the *bottom* port of the bypass unit using the hose supplied and the mains *outlet* to the *top* port of the bypass unit with the remaining hose.
- 4.4 Connect the bypass unit to the softener, by gently pushing the bypass into the two ports on the back of the valve, ensuring that the inlet filter does not fall out. Insert the two clips fully to secure the bypass.

Ensure that bypass is the correct way up with the Service / Bypass knob at the top.

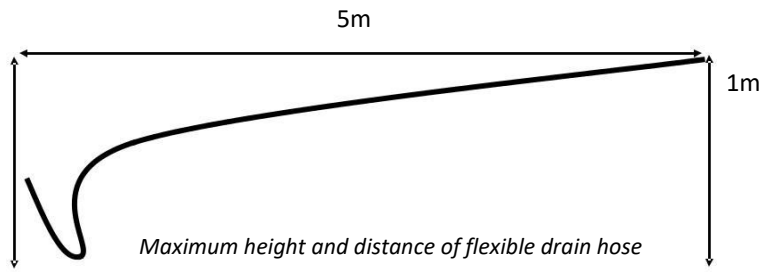


4.5 Connect the straight drain outlet (part 12, page 5) to a local drain by means of the 13 mm flexible drain hose supplied in the installation kit. **ENSURE THE HOSE IS FULLY PUSHED ON TO THE STRAIGHT DRAIN OUTLET.** This drain pipe has been reinforced to avoid possible problems caused by kinking of the pipe. **IT IS IMPORTANT HOWEVER TO PROTECT THE DRAIN HOSE FROM FROST & EXCESSIVE HEAT.** If the drain hose is being taken outside ensure a suitable insulation material is used to stop water freezing in the pipe. (min. temp. 5°C, max. temp. 40°C).



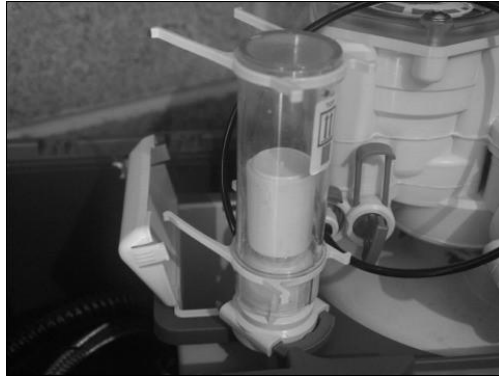
Straight Drain Connector

NOTE: The discharge drain hose may installed with a rise of 1m **but this must be over a 5 metre run.**



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

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



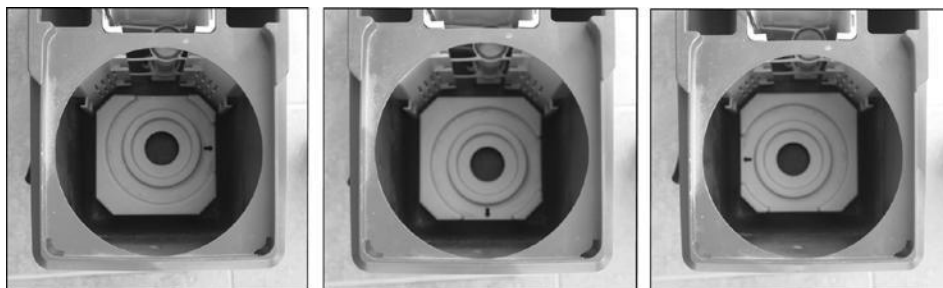
- 4.7 Install the supplied overflow fitting. Remove one of the 3 rubber plugs in the salt cabinet (A, B or C). Insert the overflow fitting and secure it from inside the salt cabinet with the supplied nut. **Connect the pipework so that any overflowing water runs downhill to drain or through an outside wall.**



4.8 Place the softener (valve & vessel) in the salt bin; use the side with the round opening (for correct installation, see 4.9). To install the brine float, open the small hinged lid (open by pressing gently on both sides) Insert the brine float inside the space provided, ensuring that it is the correct way up (see diagram below). The brine float should be gently pushed all the way to the bottom of the channel and the tube fitted so as to go behind the grey bar.



4.9 The valve & vessel can be installed in the salt container in three different ways: with the bypass at the back, to the left, or to the right simply by rotating the base plate so that the arrow faces the direction required, right, left or to the back.



Left Hand Install

Rear Install

Right Hand Install

5. Settings:

5.1 THE HARDNESS REGULATOR: (Part 9, Page 5).

The hardness regulator is situated on the **TOP** of the valve unit and has measurements marked 0 through to 600. Measure the incoming water by means of one of the test strips provided. (these are on the reverse of the registration card) The EY7010 units uses ppm (parts per million) settings of CaCO₃.

Adjust the hardness regulator to the measurement value using the 5mm allen key supplied. **If you are unsure contact the Technical Helpline.**



5.2: THE BLENDING REGULATOR: (part 8, page5).

The blending regulator is situated on the **SIDE** of the valve unit and has measurement markings from 0 through to 1/2 in fraction increments.

THE SETTING OF THE BLENDING REGULATOR SHOULD BE LEFT AT ZERO.



6. Commissioning & Operation

6.1 Leaving the bypass in 'bypass' mode, open the main valve (stop tap) slowly and flush for several minutes in order to avoid any debris from installation entering the water softener.



6.2 Add water to the salt container until the water level is approx, 10cm (4") high.

6.3 Now add salt into the salt container (indicated) salt may filled to about 3/4 of the height of the salt tank.



ONLY USE SALT TABLETS OR BLOCK IN THE EY7010.

ALWAYS USE SALT THAT HAS BEEN SPECIFICALLY FORMULATED FOR USE IN WATER SOFTENERS. (IF IN DOUBT CONSULT YOUR SUPPLIER)



6.4 Turn the bypass fully 180° slowly into "service" mode.

6.5 Turn on the first cold water tap after the water softener so a flow runs through the water softener. Some air may flow from the tap, this is coming from the softener as excess air is purged from it. This will happen only once at start up. When only water flows from the this tap, close the tap.

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

6.6 (a) Use the 5mm allen key supplied to turn the programme disc (shown in diagram 1 below) manually.

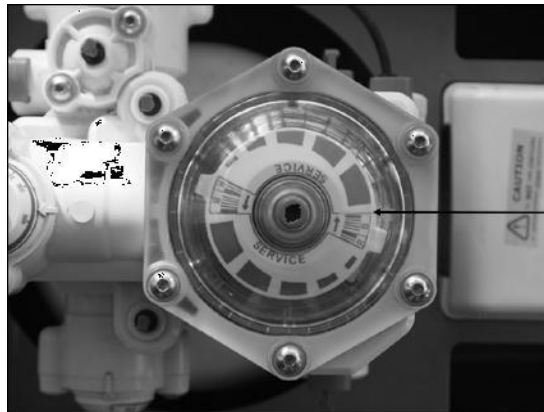
Turn the programme disc slowly counter clockwise until it is in the position shown in diagram 2 below. When the arrow and the small line on the transparent cover reach the area marked 'B' (brining), the regeneration will start.

Immediately, the programme disk will drop down slightly (you will be able to see and hear this) at this point you will hear or see a trickle of water going to drain and the water level in the container will start to drop.

About 3/4 through the regeneration you will hear a change in tone as the programme disc reaches 'R' (refill) and the softener refills the container with approx 1 litre of water ready for the next regeneration.

6.6 (b) Finally, at the end of the regeneration cycle you will hear the water go to drain and then stop. This is a clear indicator that the regeneration stage is over. Depending on water pressure the regeneration cycle will last between 8 and 12 minutes.

6.6 (c) Check outgoing hardness with the second hardness test strip provided. Test the water at the first cold water tap after the softener.



6.7 Place both lids on the container.

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

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

For ongoing operation, add salt to the container when it gets low. Do not allow the salt level to drop below the level of the water in the salt cabinet and do not allow the salt container to become drained of salt completely as this will impair the performance of the unit and its long term ability to provide soft water.

DO NOT FORGET TO CONNECT THE OVERFLOW TO A SUITABLE DRAIN

RECORD THE DATE OF INSTALLATION INSIDE THE FRONT COVER AND KEEP THIS MANUAL FOR FUTURE REFERENCE.

ALSO ENSURE THAT THE REGISTRATION FORM IS COMPLETED AND RETURNED TO THE ADDRESS ON THE CARD TO ENSURE YOUR NEW WATER SOFTENER IS COVERED WITH OUR 5 YEAR PARTS AND LABOUR WARRANTY

Congratulations and welcome to the benefits of quality softened water!

		✓
1	Are all grey clips fully secure ?	
2	Is the Brine Float correctly installed ?	
3	Is the Bypass the correct way up ?	
4	Is the Water Hardness regulator set correctly ?	
5	Is the Blending Valve set to Zero ?	
6	Are all hoses installed correctly ?	
7	Has the Water Softener been registered ?	
8	Has the customer been shown fully how to operate the Water Softener?	
9	Has the customer been shown how to isolate the unit in an emergency ?	

**THIS INSTRUCTION MANUAL SHOULD BE LEFT WITH THE
CUSTOMER FOR FUTURE REFERENCE**

<p>INSTALLED BY:</p> <p>DATE INSTALLED:</p> <p>Contact Detail:</p> <p>Instructions / manual given to:</p>
--