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HOT WATER SOFTENER INSTALL GUIDE

HW70/10 / HW70/15 / HW70/20 / HW70/30



EVOLUTION SINCE 1964

PLANNING THE INSTALLATION

Always observe the water bylaws, Ensure there is only one rising main, that you have allowed space for access to the unit for salt filling and for any possible maintenance in the future, Check the water pressure; locate the rising main, a drain facility and a power supply,

SITING THE SOFTENER - Fig 1

Where possible, this should be close to the rising main, Take care to allow hard water take off points for a drinking water facility and also an outside tap if applicable, The distance between the softener and the drain should be as short as possible, Ensure that both the drain and the overflow are not subject to freezing or over 120 degrees F. If siting the softener on a shelf, ensure that the base is adequately supported, If the softener is being installed above the ground floor, it is recommended to house the softener within a 25 -gallon plastic tank and insulate if required, The overflow on the plastic tank should be below the overflow of the softener and a minimum of ¼" in size, Failure to install the softener in a suitable tank will void the warranty,

CHECK VALVE REQUIREMENTS

Check the requirements with your local water authority,

INSTALL BYPASS VALVES & NON - RETURN VALVE

Form an installation as per Fig 1,

MATERIAL CHECK LIST

Please ensure you have all materials necessary to conclude a successful installation,

WATER PRESSURE TEST

It is IMPORTANT that a pressure check is carried out, Low and high pressure can result in either damage to, or failure of the softener, If daytime water pressure* exceeds 3.5 bar (50psi) a 5 bar pressure limiter should be fitted, Minimum dynamic pressure must exceed 1.5 bar, If in any doubt please call us on 01986 784759, *50psi daytime pressure can reach over 90psi night time pressure!

INLET & OUTLET CONNECTIONS - pic B

It is recommended to connect to the softener using flexible hoses, Do not use washing machine or similar O,D, sized hoses, Using the hoses, connect to the in/out connections on the sides of the control valve; they are marked for your assistance, It is recommended to use 'elbow' connections here,

DRAIN CONNECTION - pic C

The drain hose connection is the black barbed connection on the rear of the control valve, Use jubilee clip to secure (not provided), Run the drain hose to either an upstand or an outside drain, A minimum air gap of 20mm must exist at the end of the drain line, Softened water will have no adverse effect on a septic tank, If you need to extend the drain hose this can be done by connecting to a 15mm copper tube for a maximum run of 8 metres with a minimum daytime pressure of 2.5 bar.

Ensure that the drain hose is adequately fixed to the copper pipe, The drain hose must not dip or be kinked in any way as this will lead to an overflow of the machine, UPHILL? The clear braided drain hose can run uphill internally for a maximum of 3 feet with a minimum water pressure of 2.5 bar.

OVERFLOW CONNECTION

The overflow connection is the ½" barbed hose spigot on the side of the cabinet, No clip is required, The overflow must be run downhill through an outside wall without kinks or restriction, It is recommended the overflow hose be kept as short as possible and be visible when it exits the outside wall, A 22mm copper protective sleeve through the outside wall will help prevent kinking of the hose, The overflow hose can be cut off the drain hose for use.

TEST INSTALLATION FOR LEAKS

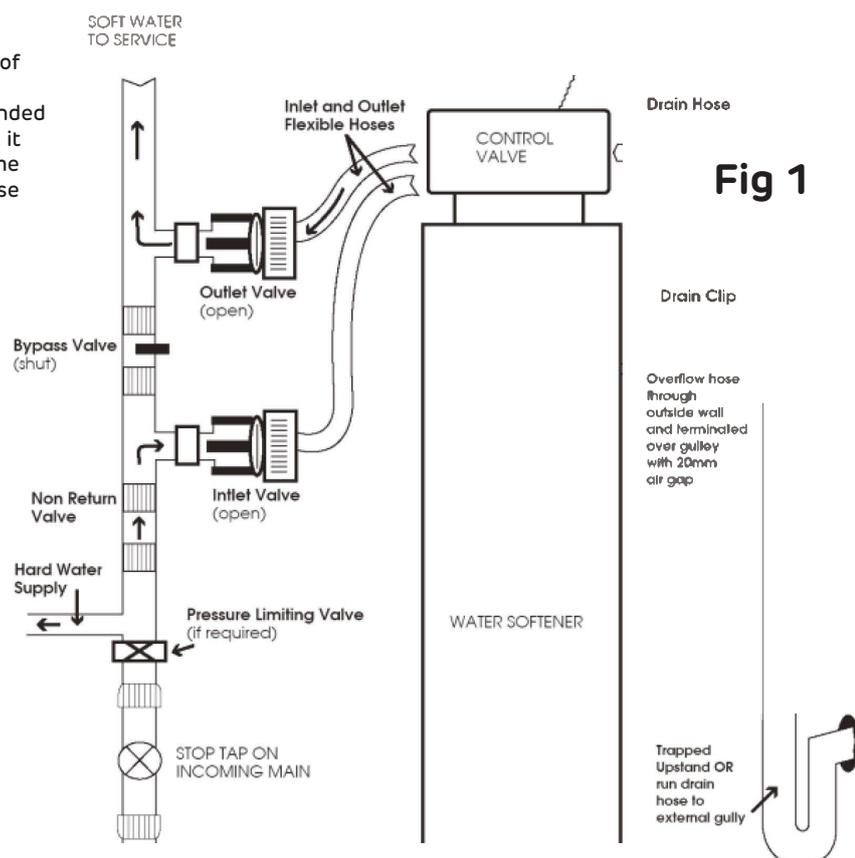
Close Inlet and Outlet valves to the softener and open Bypass valve, Open mains stopcock slowly and flush the new pipe work and connections via an adjacent mains tap, Ensure the tap used is not a hard water tap, Check all connections for leaks,

ELECTRICAL CONNECTION

Connect the 13amp plug to a continuous electrical supply, Leave power off at this stage,

OBTAIN YOUR WATER HARDNESS

These instructions apply to the enclosed test kit only, Run hard water for approx, 1 minute and rinse the test tube well. Fill the test tube up to the 10ml level. Add 2 drops of the dark solution and mix gently, If the water sample contains hardness it will turn red, Add the dark solution in batches of 5 drops, holding the dropper bottle at 45 degrees, Mix gently after each 5 drops, Count the drops needed until the colour of the sample in the test tube changes from a dark red to a dark blue/green, You need this figure for when setting the regeneration frequency, Each drop equates to 10ppm, i.e. 30 drops = 300ppm

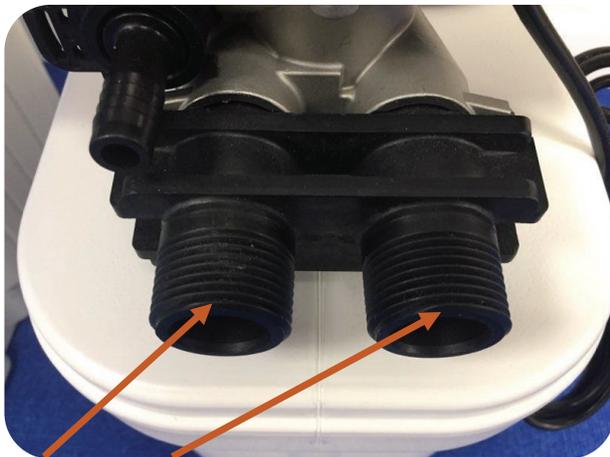


STEP BY STEP GUIDE FOR ASSISTANCE

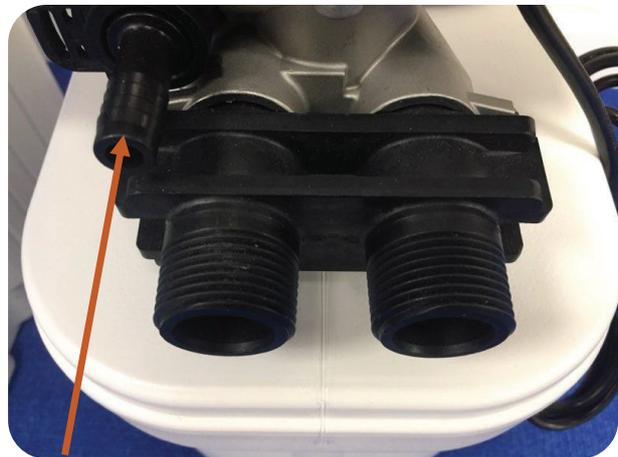


Rear view showing Inlet (L) & Outlet (R) connections

Remove top cover to expose controller - Pic A



Inlet and Outlet connections - Pic B



Barbed drain connection - Pic C



White Geared Wheel - Pic D

IN SERVICE WINDOW - Pic D

TIME OF DAY setting - Pic D

PROGRAMMING THE MECHANICAL CLOCK

The unit is fully automatic, all that is needed is to set the Time of Day and also the regeneration interval settings. Please read before programming.

REGENERATION INTERVAL SETTINGS

Remove valve cover to expose controller – Pic A

Begin by pushing in all pins 1 – 12 towards centre of pin wheel as shown in pic A.

Apply your water hardness test result to the chart for your model below. Then apply the daily water use of the appliance to the same chart. Cross reference to give you a letter i.e. A, B, C, D or E.

This letter will determine which pin numbers to pull out.

Example: Glasswasher using 300 litres per day at 300ppm using the HW70/10, setting B applies. B denotes slide out pins 1, 5 and 9. This means the softener will regenerate every 4th day.

A = Slide out pins 1 and 7

D = Slide out pins 1, 3, 5, 7, 9 and 11

B = Slide out pins 1, 5 and 9

E = Slide out all pins or consider larger softener with

C = Slide out pins 1, 4, 7 and 10

greater capacity for less frequent regenerations.

denotes softener too small for application

Model HW65/5 (not recommended for applications over 400ppm)

Litres per day	300 ppm	350 ppm	400 ppm
200	C	D	D
300	D	E	E
400	E	E	E
500	E	E	#
600	E	#	#

Model HW70/10

Litres per day	300 ppm	400 ppm	500 ppm
200	A	A	B
300	B	B	C
400	B	C	D
500	C	D	D
600	D	D	E

Model HW70/15

Litres per day	300 ppm	400 ppm	500 ppm
300	A	A	B
400	A	B	C
500	B	C	C
600	B	C	D
700	C	D	D

Model HW70/20

Litres per day	300 ppm	400 ppm	500 ppm
500	A	B	C
600	B	B	C
700	B	C	C
800	B	C	D
900	C	D	D

Model HW70/30

Litres per day	300 ppm	400 ppm	500 ppm
800	A	B	C
900	B	B	C
1000	B	C	C
1100	B	C	D
1200	B	C	D

FINALISE COMMISSIONING

1. Add 1 litre of water to the salt cabinet on all models. This happens only on initial commissioning.
2. Slowly turn on water supply and allow softener to pressurise - approx 2 minutes.
3. Check for leaks. Close bypass valve and open outlet valve.
4. Run water for 5 minutes or until it runs clear. It may appear orange in colour. This is simply resin dust created during manufacture. This is totally non-toxic.
5. Turn on power.
6. Set TIME OF DAY (pic D) by pressing white geared wheel in and hold (pic D) . Whilst holding the white gear wheel in, turn large black cog to show correct TIME OF DAY in window at bottom of mechanism. Important: TIME OF DAY is a 12hr clock, so if setting time at 3 in the afternoon when commissioning, set display to 3pm.
7. Over the next 20-30 minutes, the softener will self-fill a pre-measured amount of water in the salt compartment. When the Blue bar on the front of the mechanism has returned to its Home position showing IN SERV (pic D) , the softener has finished its self - commissioning.
8. Fill with tablet salt only, to within 3-4" to the top of the salt compartment.
9. The softener is now ready for use.

User Maintenance

The softener requires minimal maintenance. Simply keep the unit topped up with salt. The softener will require topping up before the salt drops to half way in the cabinet. We recommend that the softener be topped up twice weekly. Use tablet salt in every instance. Water softener warranty becomes void if any other salt is used!



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