

 MONARCH WATER

Water softener installation guide

Model:

Mini Aqua HE Pro, Midi HE Pro, Master HE Pro



IMPORTANT!



Ensure your customer
downloads our Culligan app!
(read more on P.9 in this guide)

*Make sure your customer
receives their
Customer Pack too! -
it's included in the box!* 



01986 784759
monarchwater.co.uk

A. PLANNING THE INSTALLATION

- ✓ Water pressure 1.5 (dynamic) - 5 bar (20 – 70psi)
- ✓ Ensure there is only one rising main
- ✓ Make sure you've allowed space for access to the unit - for salt filling and any future maintenance.
- ✓ For installation on potable water systems only.
- ✓ Ensure there is a strong 2.4ghz wifi connection in range of the water softener - to ensure the App works correctly
- ✓ Where possible, this should be close to the rising main.
- ✓ No matter the location, please ensure the base/ floor is adequately supported.
- ! Installing in a loft/1st floor/2nd floor, etc?
Place the softener in a 25-gallon tank and insulate well. Monarch take no responsibility for any water damage etc if this recommendation is not applied. The overflow on the plastic tank should be below the overflow of the softener and a minimum of 3/4" in size. Failure to install the softener in a suitable tank will void the warranty.
- ✓ Always observe the water byelaws
- ✓ Locate access to a drain facility
- ✓ Locate a power supply
- ! Be aware of condensation occurring in warm environments.
- ! If you are not using our Rapid-fit bypass - Tee off for mains water supply to outside tap and/or drinking water tap if applicable.
- ! Rapid-Fit bypass has a 3/8" speed fit connection for flexi tube connection to a dedicated drinking water faucet. Monarch faucet and 5mtr length of 3/8" tubing code is MW38CFK.
- ! The distance between the softener and drain needs to be as short as possible, to ensure the drain and overflow are not subject to freezing, or over 120° F/49°C.

- ! DO NOT install softener at height. This will invalidate the warranty as our technicians will not be able to safely work on the unit.
- ! DO NOT Install hoses covering the main unit of the softener. Our technicians cannot maintain/repair the unit if this is done and will invalidate warranty.
- ! If using plumbers putty, please ensure you wipe away any excess.
- ! We recommend to avoid installing the softener in sunken areas/cut out areas in cupboards. This will invalidate the warranty as our technicians need to be able to access the unit and cannot do so if it is in a sunken, unmovable area.
- ! DO NOT use any heat as the softener and bypass uses plastic components.

B. CHECK VALVE

FLUID CAT.2

Domestic ion exchange water softeners

Our Rapid-Fit bypass (optional) incorporates a high flow check valve in accordance with the fluid category 2 requirement.

If you are not using our Rapid-fit bypass for this installation, please ensure a suitable check valve is installed.

C. DRINKING WATER FACILITY

The Regulations require that 'All premises supplied with water for domestic purposes shall have at least one tap conveniently situated for the drawing of drinking water'. Drinking water must comply with the Water Supply (Water Quality) Regulations 2000, which stipulate a maximum limit of 200 mg/l (milligrams per litre) for sodium. The provision of an unsoftened drinking water tap is essential where the hardness of the public supply and its sodium content as supplied would result in the softened water exceeding 200 mg/l milligrams per litre sodium limit.

For ion exchanged softened water, this limit will be exceeded where the water is extremely hard, i.e. above 425 mg/l as hardness (assuming zero sodium in the public supply).

The Department of Health recommends that this sodium limit should not be exceeded for infant feed preparation and for those individuals on a medically supervised low-sodium diet.

D. CHECK THE INSTALL KIT

The set consists of:

- A: 2 standard flexible hoses
- B: 4 clips
- C: Rapid-fit bypass (standard 3/4")
- D: 2.5m drain hose
- E: 1 Jubilee clip
- F: Power adapter

Gravity system?

Use standard hoses

Combi Boiler?

Use Maxflow hoses (code MFH006)

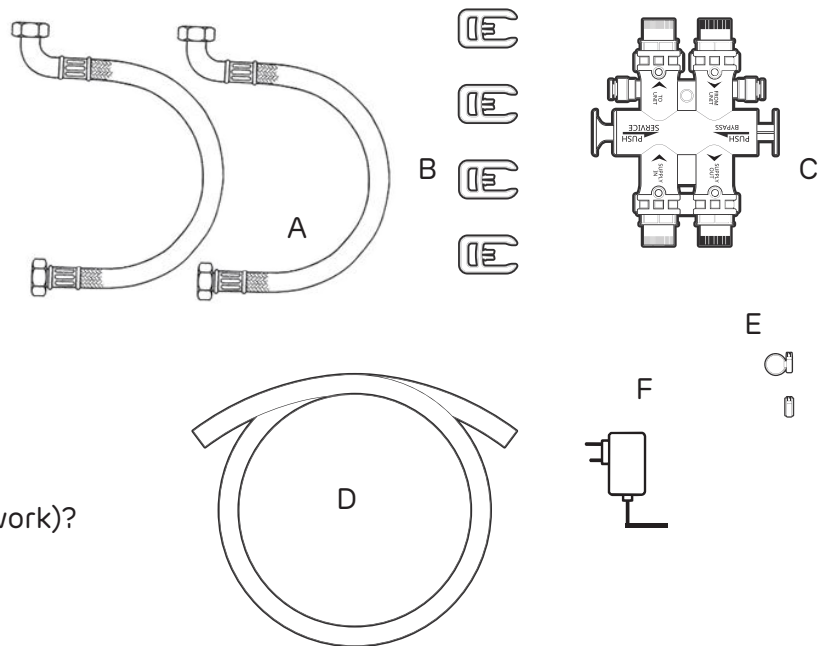
Pressurised/unvented system (22mm pipework)?

Use Maxflow hoses (code MFH006)

28mm supplies

A full upgrade for the softener is available - details on request.

Rapid-Fit bypass comes with 1" connectors and Softener supplied with 1" adapters



E. WATER PRESSURE TEST

IMPORTANT - carry out a pressure check.

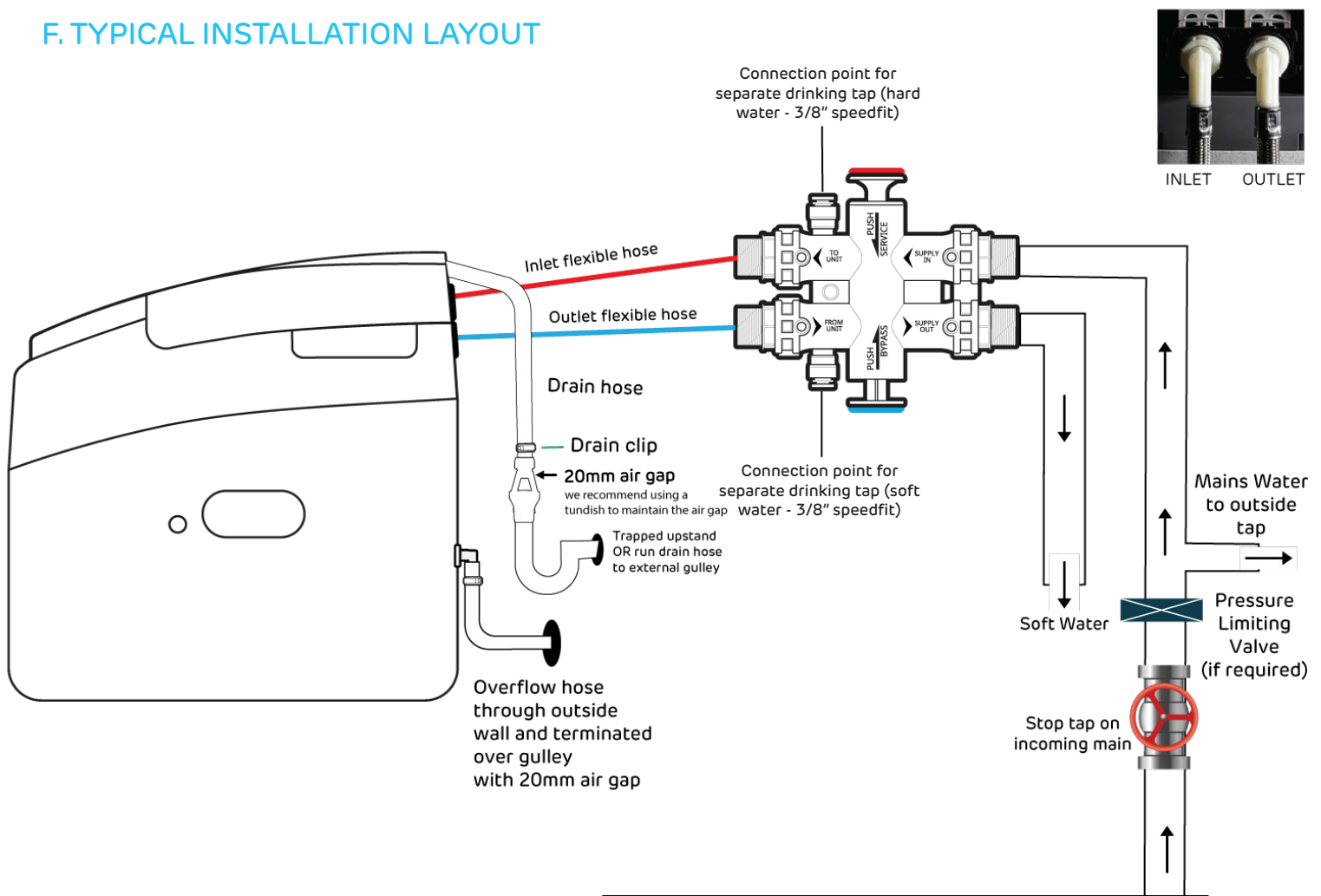
Low & high pressure can result in either damage to, or failure of the unit.

If daytime static water pressure exceeds 3.5 bar (50psi), a 5 bar (70 psi) pressure limiter should be fitted.

50psi daytime pressure can reach nearly 100psi at night!

Minimum dynamic pressure must exceed 1.5 bar. If in any doubt, please call our team on 01986 784 759

F. TYPICAL INSTALLATION LAYOUT



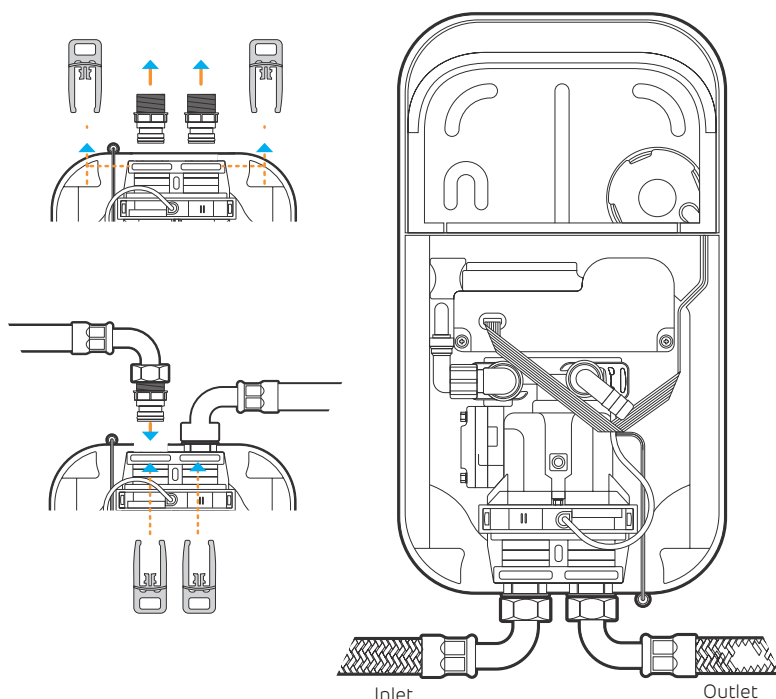
G. CONNECTING THE POWER SUPPLY

With the power off, connect the transformer – supplied – to a continuous electrical supply. Push the flying lead from the transformer into the adaptor on the lead coming from the controller.

H. CONNECTING THE INLET & OUTLET HOSES

Remove both salt lid and main cover (to remove rear top cover, slide/push backwards out of fixing, and lift off) to access inlet, outlet connections and the drain connection.

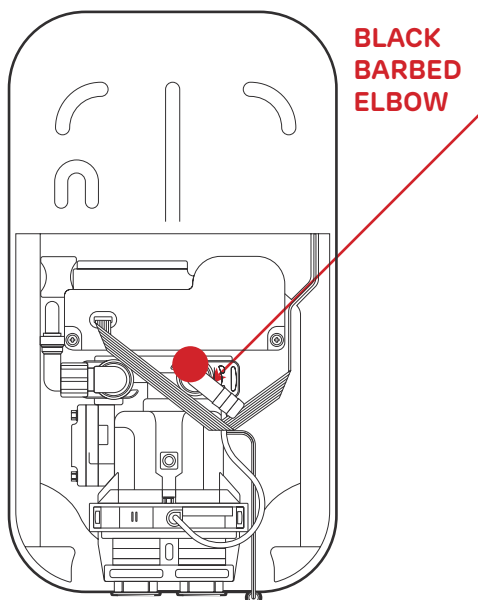
Remove the grey retaining clips and also BSP connection points. Connect hoses to male BSP connection points, tighten to seal, then reinsert BSP connection points back into valve body. Fit grey clips. We recommend you fit the elbow end of the hose to the inlet/outlet connection points on the softener.



The hoses are designed to rotate once inserted in the valve body. This removes any stress/pressure placed upon the hoses when connecting them to the Rapid-Fit bypass.

UNDER NO CIRCUMSTANCES use washing machine hoses or plumb the softener in solid copper pipe.

I. CONNECTING THE DRAIN



Using the supplied 2.5mtrs of white low pressure hose, cut the required length for the overflow and drain hose.

The white hose in the installation kit is for both the drain and the overflow.

Please cut according to length requirements, to ensure both the drain and overflow are equipped.



Connect the drain hose -

The **drain connection** is the **black barbed elbow** under the rear top cover.

Fix drain hose to black barbed elbow with jubilee clip (supplied). Run the drain hose to either an upstand or an outside drain. A minimum air gap of 20mm should exist at the end of the drain line.



Failure to attach the drain hose will cause extensive damage to the unit and will void the warranty.

Placing the drain hose uphill?



The drain can run uphill for 3ft max, as long as the water pressure is 40 psi or above.

Extending the drain hose



Connect to a 15mm copper tube, run horizontally for a max of 4m. Ensure the daytime pressure is minimum 40psi. If extending over 4m, use 22mm (or similar) copper tube. Ensure the hose is adequately fixed to the copper pipe.

! Under no circumstances should the softener drain and overflow share the same pipe. This could lead to foul smells entering the salt cabinet from the main drain via the overflow. Also, if the common drain ever gets blocked, the regen water can re-enter the softener via the overflow pipe. The drain hose must **NOT DIP or BE KINKED** anywhere, as this will lead to the softener overflowing.

Softened water will have no adverse effect on a septic tank.

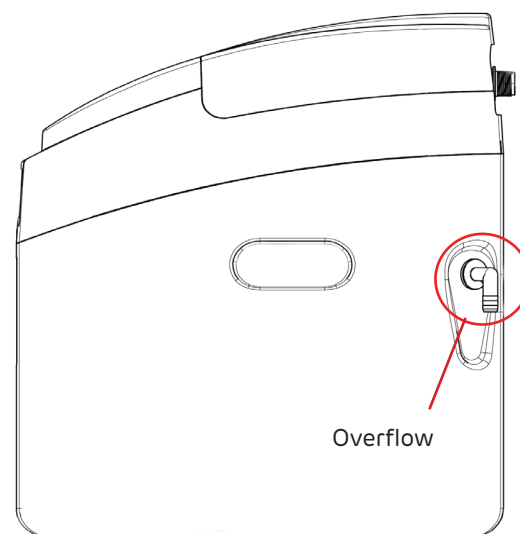
J. CONNECTING THE OVERFLOW - IMPORTANT

The hose for the overflow should be cut from the white low pressure hose supplied with the unit.

The overflow connection is the 1/2" hose spigot on the rear right hand corner of the cabinet – no jubilee clip required.

The overflow must be run downhill. Terminate the overflow immediately through an outside wall without kinks or restriction, or into a suitable trapped upstand.

A 22mm (or similar) copper protective sleeve through the outside wall will help prevent kinking of the hose.



K. INSTALLING THE RAPID-FIT BYPASS

Every Rapid-Fit bypass comes with the following;

2 x Stainless steel standard hoses (washers already inserted)

2 x 2mm x 3/4" FI brass adaptors including 2 x 24.6mm fibre washers

(inserted) 2 x 22mm x 15mm reducers

For Combi boilers upgrade hoses to Maxflow hoses - see image right.

22mm Unvented/Pressurised systems, upgrade to Maxflow hoses.

If upgrading to 28mm applications an upgrade kit (code M28UGL0HE) is available.



Connection of brass adaptor (22 x 3/4 FI & 28 x 1" FI) to Rapid-Fit bypass:

1. Fibre washers are pre inserted against shoulder inside brass female thread - Fig A. **IMPORTANT** - Do not use 3/4" industry standard washers here.
2. For additional security, Fernox LS-X or Loctite SI 5331 may be used. Simply apply to male thread of noryl bypass adaptor and to inside of female thread of brass fitting - Fig B. In all cases, fibre washer must be used.
3. Tighten male noryl connection into brass adaptor solidly up against fibre washer - Fig C. Remove any excess sealant inside brass/noryl adaptor assembly.
4. Place assembled connection back into bypass and fix with clip - Fig D.
5. Connect water mains supply pipe to SUPPLY IN connection
6. Repeat 1-5 above for soft water mains supply back to SUPPLY OUT connection.

FIG A



FIG B



Brass adaptor

FIG C



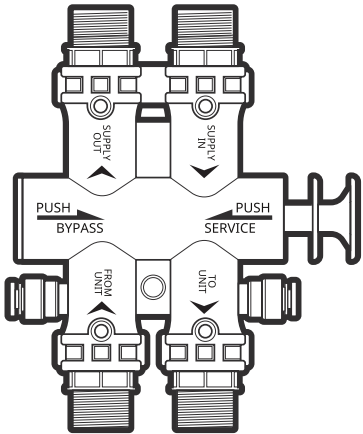
FIG D



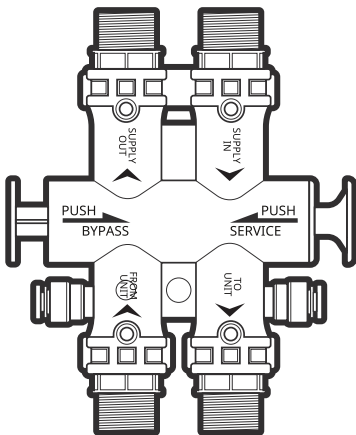
L. FLUSH SOFTENER & TEST FOR LEAKS - IMPORTANT

- 1. Place Rapid-Fit bypass in **Bypass position** by pushing the plunger indicated on the bypass.
- 2. Open mains stopcock slowly to flush the new pipe work (5 mins). This can be done using a mains tap i.e utility room cold tap or wash basin in a bathroom - the tap may splutter.

PUSH TO BYPASS
SOFTENER



- 3. Repeat step 2 but change the position of the Rapid-Fit bypass by pushing the plunger for **Service position**.
- 4. Check all connections for leaks.



PUSH SERVICE
FOR SOFT WATER

M. SETTING THE ELECTRONIC CONTROLLER



Menu Confirm /Regen Up Down

N. PROGRAMMING THE SET-

- 1. Press the menu button and hold for 3 seconds until you hear a beep. That will unlock the buttons.
- 2. Press the menu button again.

- 3. Press the up and down buttons to change the time of day, and press the menu button to continue to the next screen.



- 4. Press the up and down buttons to change the **year** and press the menu button to continue to the next screen.

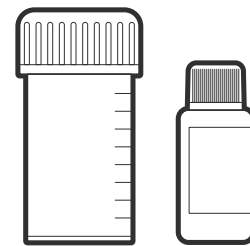
- 5. Press the up and down buttons to change the **month** and press the menu button to continue to the next screen.

- 6. Press the up and down buttons to change the **day** and press the menu button to continue to the next screen.



O. OBTAIN YOUR WATER HARDNESS

1. These instructions apply to the enclosed test kit only, read all steps before starting.
2. Let your tap (hard water) run for 1 minute and rinse the test tube well.
3. Fill the test tube up to the 10ml level.
4. Add 2 drops of the dark solution and slowly swirl the tube so the liquid mixes with the water. If the water sample contains hardness it will turn red.
5. Add the dark solution in batches of 5 drops, holding the dropper bottle at 45 degrees. Mix gently after each 5 drops.



The number you set is based on the number of drops from the water hardness test. mg/L = PPM (e.g 30 drops = 300 PPM)

No. of Drops	Enter on unit
< 30 drops	300 (recommended min setting)
31 - 35 drops	350
36 - 40 drops	400
41 - 45 drops	450
46 - 50 drops	500

7. Press the up and down buttons to change the **hardness** and press the menu button to continue to the next screen.



8. Press the up and down buttons to change the **people** and press the menu button to continue to the next screen.



Number of People sets the reserved capacity to ensure there is enough soft water for each person, which is about 140 litres per person. Once you start to use the water in that reserved capacity, the system knows to regenerate at the next scheduled regen time.

9. Leave the salt settings set to standard, and press the menu button to continue to the next screen.



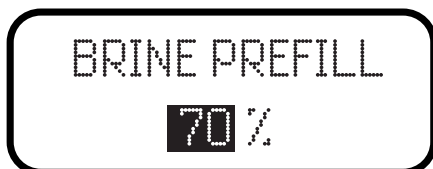
10. Change Water Source to Municipal (unless connected to a well), and press the menu button to continue to the next screen.



11. Press the up and down buttons to change the **regen time** and press the menu button to continue to the next screen. The default is 2am.



12. Ignore the brine prefill screen and press the menu button to continue to the next screen.



12. Ignore the load default screen and press the menu button to continue to the next screen.



13. The settings will now have been saved.



A manual regen is needed to complete the install, press the regen button and hold for 4 seconds, until it beeps. The screen will display 'REGENERATION IMMEDIATELY', press the regen button to start the regeneration. The screen will eventually display the number of minutes the brine make time will take.

P. FILLING THE SOFTENER WITH TABLET SALT

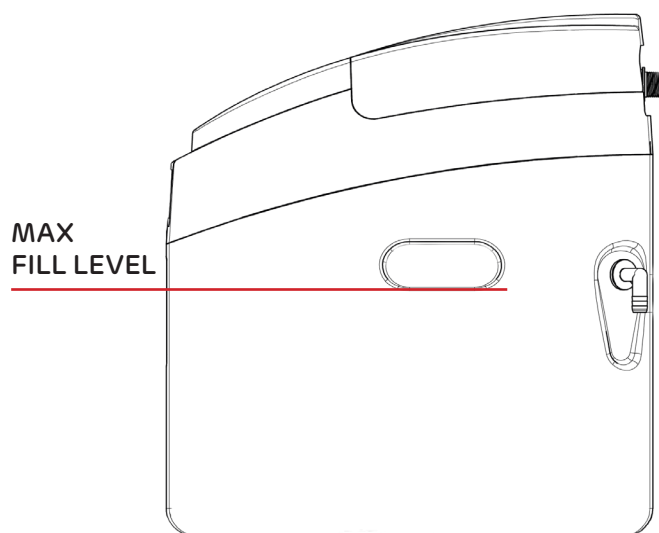
Once the softener is in position, fill the salt compartment with salt.

DO NOT fill salt compartment higher than the bottom of the lift handles moulded into the sides of the cabinet, as illustrated.

Add 1 litre of water into the salt compartment on initial installation only.

Please ensure the unit is kept topped up with tablet salt.

Use tablet salt only.



Q. MANUAL REGENERATIONS

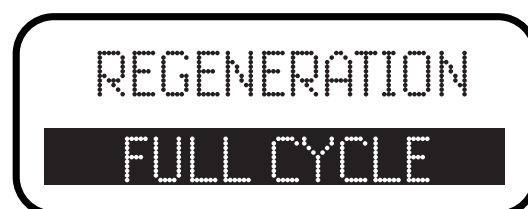
If you ever need to start a manual regeneration, press the regen button and hold for 4 seconds, until it beeps. The screen will display the below:



press the regen button to start the regeneration. The screen will eventually display the below:



The regeneration above is a mini regeneration - it will regenerate to a 70% brine prefill. If you ever need to start a full cycle regeneration, press the regen button and hold for 4 seconds, until it beeps. The screen will display 'REGENERATION IMMEDIATELY' as above. Press the down button till you reach 'FULL CYCLE', press the regen button to start the regeneration.



R. BLENDING CONTROL - BLUE/GREEN STAINS

All our water softeners are factory set to produce water that is 100% soft. If you require slightly blended water - recommended on Combi/Condensing Boilers and in areas of hard water that have a green/blue build up in the scale - open blending control on left hand side of the main softener valve by turning slightly, until it takes 6/7 drops of the dark liquid to get a red to green colour change, as per the original water hardness test.

This blended water setting can only be done when the softener is in operation.



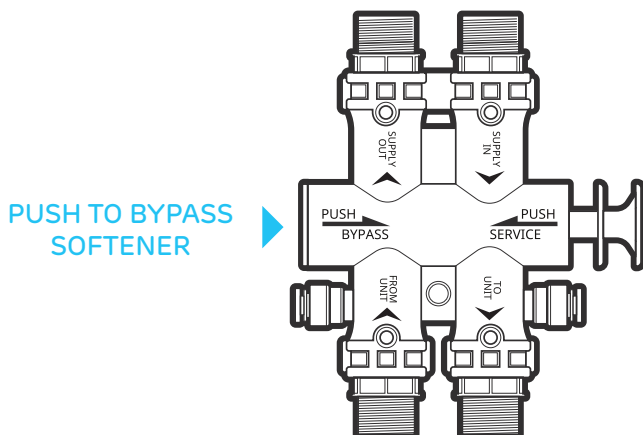
WHAT DO I DO WHEN I GO ON HOLIDAY?

We recommend you bypass your softener and turn off the electrics when going away on holiday. Upon your return, reset time (if necessary) and activate a manual regeneration (see step P).

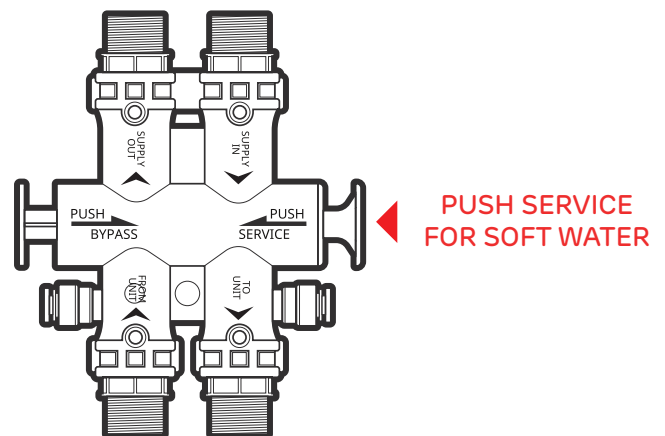
BYPASSING THE SOFTENER

Important: Please ensure the power is turned off whilst the unit is in bypass.

To bypass your water softener simply push the **Blue bypass plunger**



To resume soft water simply push the **Red service plunger**



FURTHER INFORMATION

This softener uses tablet salt only.

Do not worry if your softener regenerates during the day. This is the Self Protect Programme initiating an additional mini regeneration, as the softener does not have enough soft water to last you until the next programmed regeneration of 2am.

A regeneration can last between 51 and 92 minutes depending on the model. During this time the softener goes into hard water bypass, ensuring a continuous supply of water.

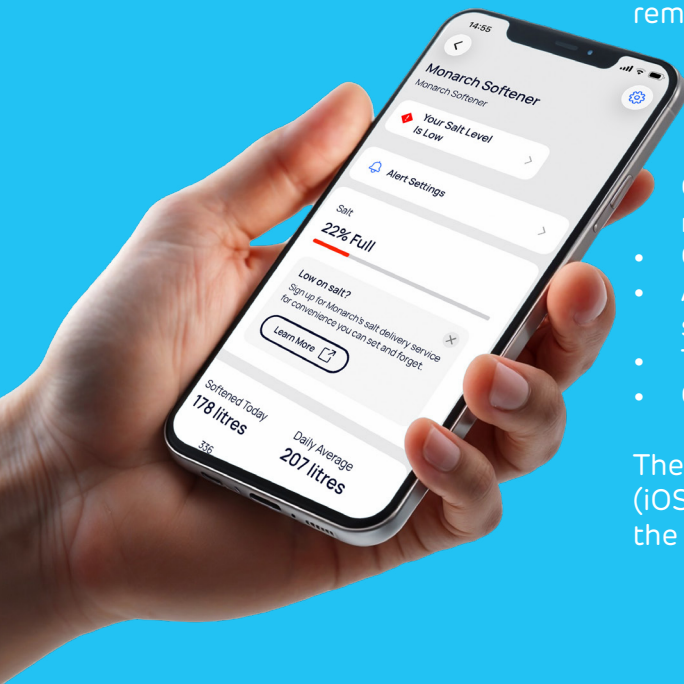
A Normal regeneration is programmed to 2am, a time when little, if any, water is being used.

To change the regeneration time, simply offset the Time Setting i.e. to have the unit regenerate 2 hours later, set clock 2 hours slow- see SETTING THE TIME (page 7).

To ensure the softeners continuous operation, please do not let the salt drop below half way down in the

To make the most of their new water softener your customer needs to download the Culligan Connect App

Monarch Water is a Culligan brand, bringing together our trusted water softening solutions with Culligan's global expertise in science and service. The Culligan Connect app keeps you connected and in control of your softener, but your warranty, service, and support remain with Monarch.



Download the Culligan Connect app to make the most of your new Monarch water softener.

Get instant alerts for low salt or system errors via SMS or push notifications.

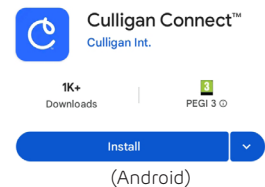
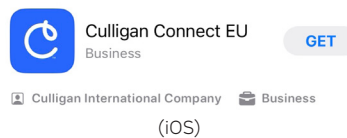
- Order salt or set up a subscription for hassle-free delivery.
- Access service plans and reminders to keep your system running smoothly.
- Track your water use and set goals.
- Check your system status anytime, anywhere.

The Culligan Connect app is free to download on the App Store (iOS) and Google Play (Android). Search "Culligan Connect" or scan the QR code, then follow the steps to pair your water softener.

Scan the QR code to download the app for free:



Help your Customer pair the softener with the app



Open the app and tap **'Create an Account'**. Once your account is set up, pair your Monarch Water Softener to unlock the full range of features and benefits.

Create Account

First Name*

John

Last Name*

Smith

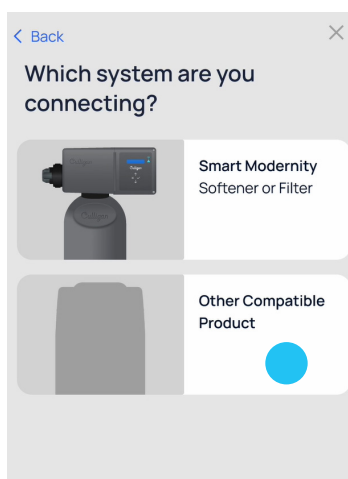
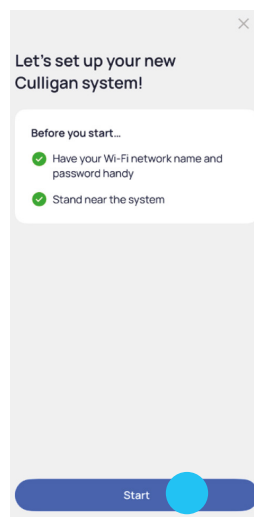
☐ I agree to Culligan's [Terms & Conditions](#)

☐ I agree to the [Privacy Policy](#)

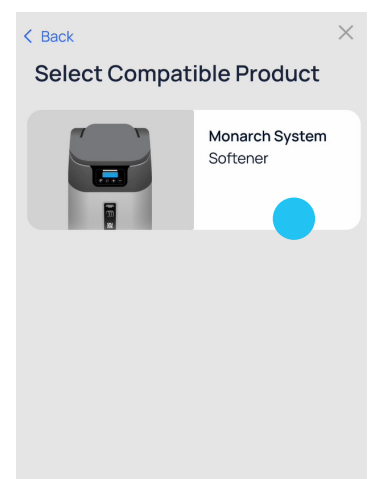
Next

In the Culligan Connect app, select **'Add System'**.

This is located in the menu in the upper left of the screen, or use **'Add System'** located on the main dashboard. Follow the Setup Wizard.



Tap **'Other Compatible Product'**



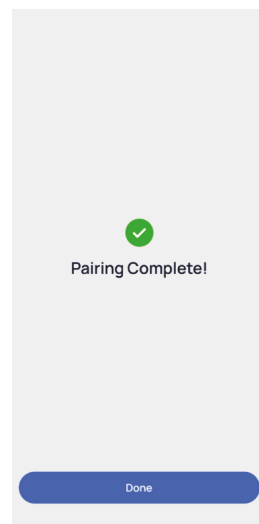
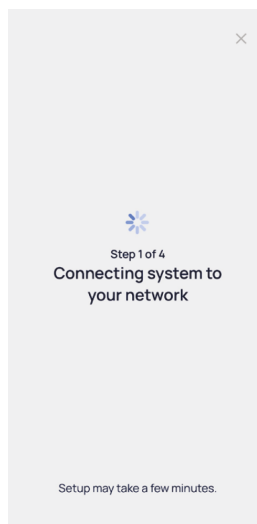
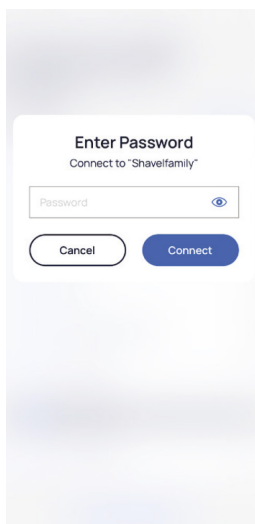
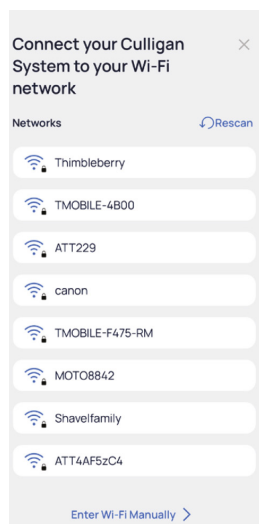
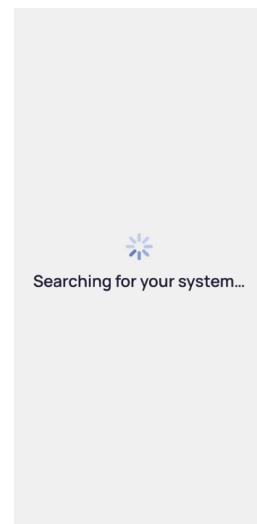
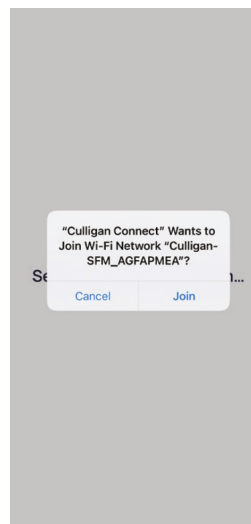
Tap **'Monarch System Softener'**

Press and hold the **Up arrow** button on the softener control panel for 8 seconds. **Do not release** until you hear a beep.

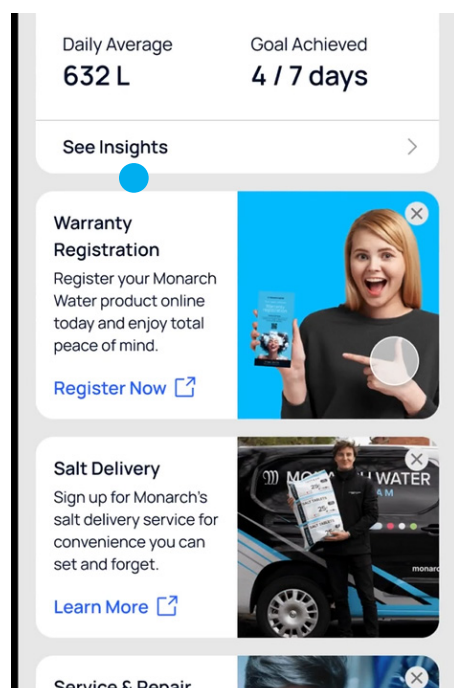
Wait for the Wifi symbol to start flashing off and on.



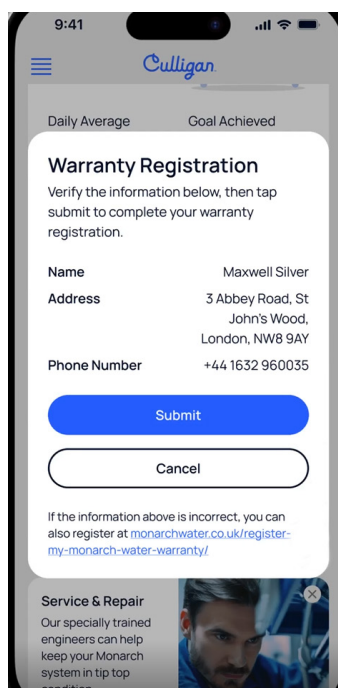
Tap
'Wi-Fi symbol is Flashing'



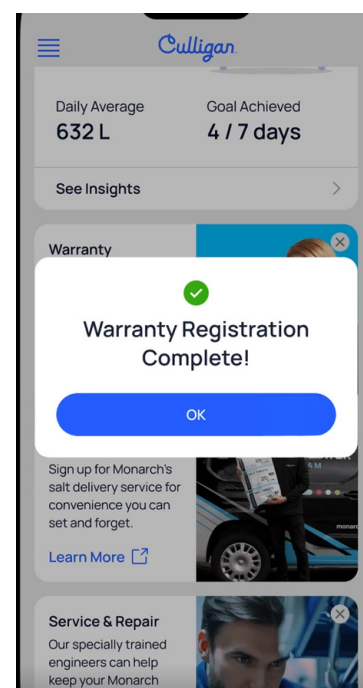
How to register with the app



On the main page, click 'Register Now' on the Warranty Registration tab.



Your app should be able to pre-fill your details, so all you'll need to do is check they are correct and click submit!



If it cannot fill your details in automatically, or your details are incorrect, click cancel, and it will take you to the online form to complete your registration, which will only take **less than 2 minutes**.

CONNECTING YOUR MIDI PRO TO WIFI



VM hubs transmit both 2.4Ghz and 5Ghz signals on a combined SSID. Some devices do not like this and refuse to work. If you do not have Virgin Media Wifi pods, you can separate the bands into 2 SSIDs.

To split 2.4GHz and 5GHz on a Virgin Media Hub, log in to the router settings at 192.168.0.1 using the password on the base sticker.

Navigate to Advanced Settings > Wireless > Wireless Signal, disable "Channel Optimisation" (or Smart Wifi), then change the SSIDs to unique names (e.g., Name-2.4G and Name-5G)

You can now connect your softener to the 2.4G SSID you made.



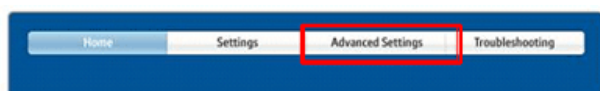
For Home Hub 4 and Hub 5

To split your SSID:

1. Open a new web browser on your connected device and type 192.168.1.254 into the address bar. This will open the Hub Manager.

3. Enter the admin password. Unless you've previously changed it, you'll find the default password on your Hub settings card on the back of your Hub.

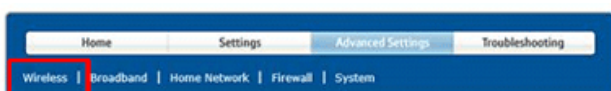
2. Click Advanced Settings



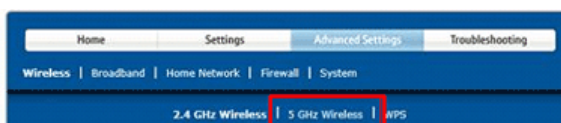
4. Click Continue to Advanced Settings



4. Click Wireless



5. Click 5GHz Wireless



6. Set "Sync with 2.4GHz" to No

7. Change the "Wireless SSID" to a new name. (We recommend just adding '5GHz' to the end of the existing SSID name so you'll know which one is which)

8. Click Apply

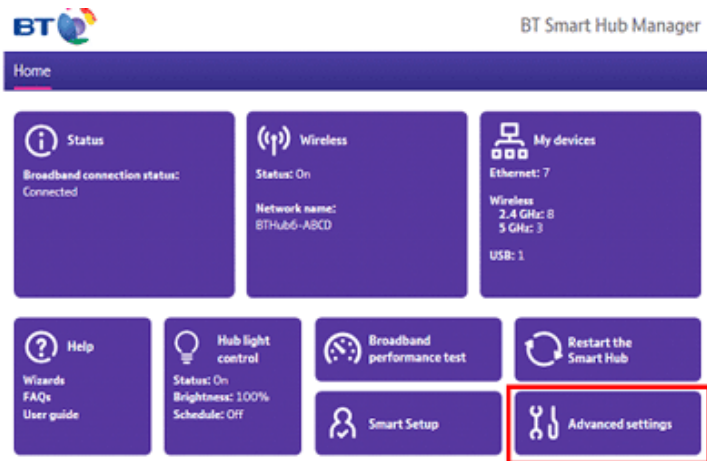


BT Smart Hub

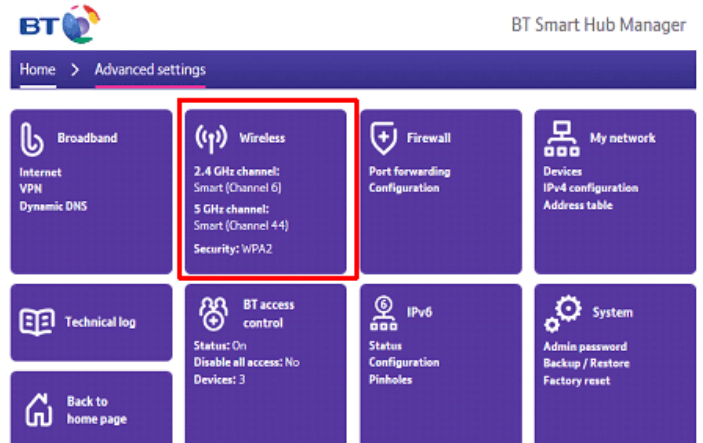
If you do want to split your SSID, here's what to do:

1. Open a new web browser on a device connected to your Hub and type 192.168.1.254 in the address bar - this will open the Hub manager.

2. Click Advanced Settings

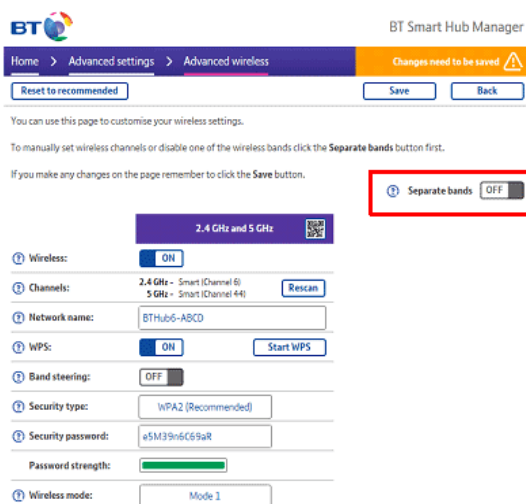


3. Click Wireless

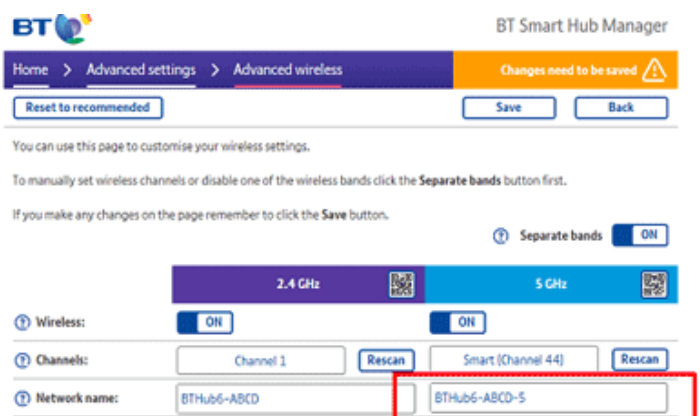


4. Enter the admin password. Unless you've previously changed it, you'll find the default password on your Hub settings card on the back of your Hub. If you have changed it and now forgotten it, you can use the password override feature to set up a new password without losing all your personal Hub settings

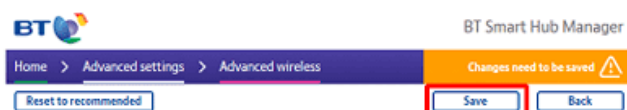
5. Set the "Separate bands" switch to "ON"



6. Your new SSID for the 5GHz band will be created by default. But you can call your new network what you want (providing the name doesn't have any spaces)



7. Remember, once you make any changes you'll need to save them. Click Save



Devices may lose connection after splitting your SSID. So you may need to reconnect each device to the network you want to connect to.



Hub settings

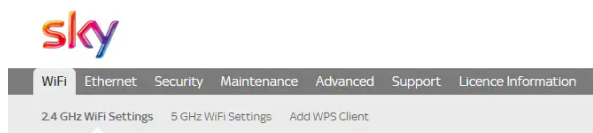
Type <http://192.168.0.1> in a browser address bar and hit enter. You'll see a Summary Status page.

Select any option from the menu bar e.g. WiFi or Ethernet, and the sign in window will appear.

Enter the login in details for the hub.

The default name is admin and the password can be found on the sticker, located on the hub. You can also locate your password on the Keep me safe card.

1. Select WiFi from the menu bar



2. Select 2.4 and/or 5 GHz WiFi Settings.

Scroll down to the WiFi Access Point section and uncheck the Synchronise 2.4 GHz and 5 GHz Settings box

2.4 GHz WiFi Settings

Placement of your Sky Hub to Optimise WiFi Connectivity

The range of your WiFi signal can vary significantly based on where you locate your Sky Hub in your home. For best results, place your Sky Hub:

- In a central location if you will have several devices connecting to it wirelessly.
- Away from potential sources of interference, e.g. microwaves, baby monitors, and cordless phones.
- Away from electrical equipment, e.g. fluorescent lighting, fans with a motor.
- Away from large metal surfaces.

Try your Sky Hub in different locations to find the best position and always stand the Sky Hub upright. If you install your Sky Hub in a non-optimal location or lay it horizontally it may result in reduced performance.

WiFi Access Point

- ☒ Enable WiFi Access Point
- ☒ Enable WPS
- ☒ Allow Broadcast of Name (SSID)
- ☒ Synchronise 2.4 GHz and 5 GHz Settings

4. To distinguish between the two Wi-Fi bands, modify the Name (SSID) under WiFi Network section, such as SKYXXXXX5GHz.

5. Select Apply to save the changes.

Note: The Sky hub will now power cycle (reboot) and generate two network names. When the hub has restarted, reconnect your devices.



splitting the bands into separate SSIDs is now entirely possible in later Smart Hub Plus firmware. One way to do this: -

Access the Hub Manager at 192.168.1.254 and navigate to Advanced > Wireless

Go to the 'Compatible WiFi' section, enable, choose a wireless network/name for the 2.4GHz SSID and save (make sure you leave the 5GHz option unticked)

Back on the main WiFi section, disable the 2.4GHz radio and save

All being well, that will leave you with a 2.4GHz-only and 5GHz-only network with separate names.

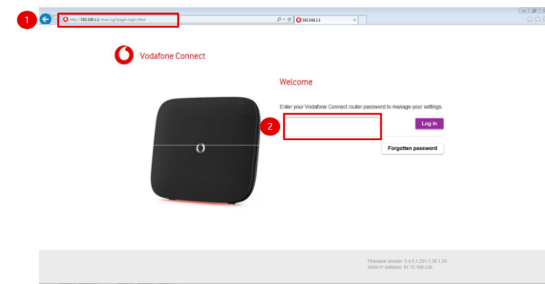
Smart Hub 2 / Smart Hub does not have this functionality.



Login Page

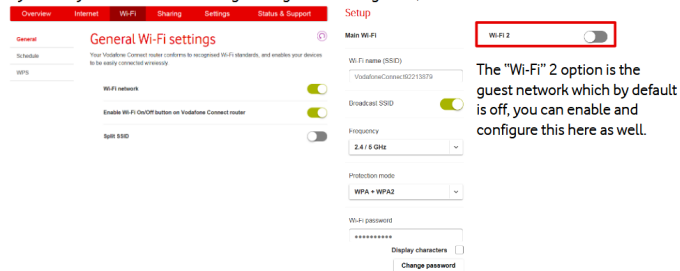
1 Enter <http://192.168.1.1/> into your browser whilst you are connected to your Vodafone Home Broadband.

2 The password to login is **vodafone**



Splitting SSIDs and changing Wi-Fi settings cont.

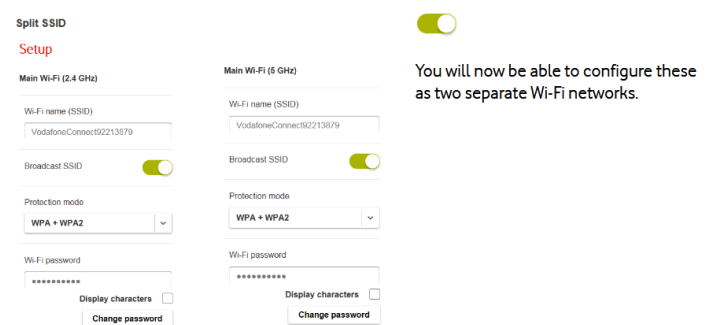
By default you will see the following in the general settings area;



Here you can select the dropdown menu to change the bandwidth and channels of both 2.4Ghz and 5Ghz bands.

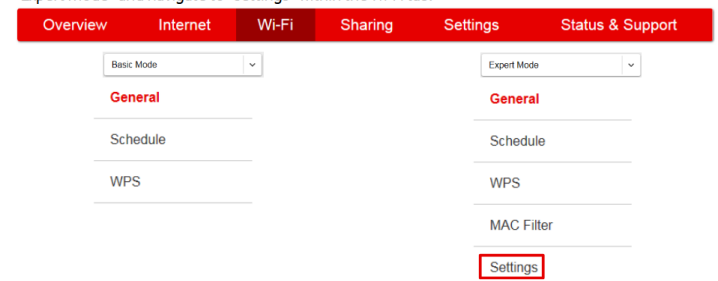
Splitting SSIDs and changing Wi-Fi settings cont.

Once the option is enabled you'll see two Wi-Fi networks underneath;



Splitting SSIDs and changing Wi-Fi settings cont.

To change the Wi-Fi mode / bandwidth and channel for each frequency you will need to enter "Expert mode" and navigate to "settings" within the Wi-Fi tab.



1. Open your browser and type in 192.168.1.1 to go to the router admin page

2. Login with your router username and password. You can find these on the sticker underneath the removable settings card on back of your Wi-Fi Hub

3. Select the See Wi-Fi settings button on the Dashboard page

4. Now Select Manage advanced settings

5. Select on the blue cog icon in the Wi-Fi 2.5GHz settings section

6. Then select the drop-down arrow next to WPA2 Personal

7. Select WPA2/WPA Personal from the list

8. Select the Apply button



We're here to help

If you need more info or advice,
contact our team by phone or via our
website.



The symbol opposite means that according to United Kingdom and European Union member countries laws and regulations your product and/ or its battery should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product and/ or its battery at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

Producer Number: WEE/MM5677AA

We can offer a WEEE recycling service - contact us for more information.

