

BOILER TAP MAINTAINANCE AND REPAIR

BOILER TAP HANDLE

The boiler tap handle is fitted with two safety features to prevent accidental scolding.

- a) A spring loaded safety button which need to be depressed to operate the handle.
- b) A spring loaded dead man release on the cartridge to automatically shut down the tap on release.

Maintenance & repair Spring loaded safety button

Below describes the method in which to replace or reconnected this button upon failures

Parts that make up this mechanism listed in Fig 1



Fig 1

Step 1

Place the spring within the opening of the head with the larger part first (see Fig 2)



Fig 2

Step 2

Place the handle over the top of spring so the threaded opening can be seen as shown in (Fig 3)



Fig 3

Step 3

With the handle depressed screw in clip bar either by hand or using a flat head screw driver. Please note section below regarding red locking clip as this may effect length this needs to be left.

Replacement of red ring clip

The red ring clip is used in conjunction with the spring loaded safety button, a groove cut in the ring holds the handle in place preventing the handle from turning without first depressing the button.

Step 1

Remove the cover plate from the handle using a small flat object such as a Stanley knife blade. Then un-screw the holding screw with a positive screwdriver. (See Fig 4)

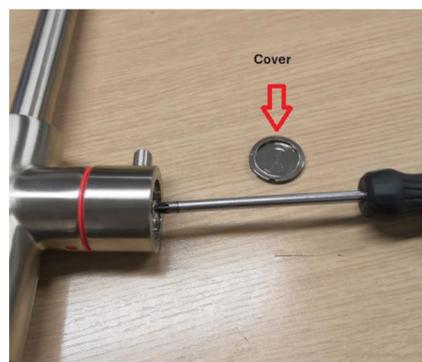


Fig 4

Step 2

To remove red ring clip, pull the top of the clip away from the tap body first. This will allow the clip to be removed without needing to depress the clip through the tap body. (see Fig 5)



Fig 5

Step 3

Install the replacement ring using the same method. Ensure the pin of the handle is the correct length as shown in (Fig 6)



Fig 6

Replacement spring mechanism & cartridge

The spring automatically closes the cartridge when the handle is released

Step 1

Remove the cover plate from the handle using a small flat object such as a Stanley knife blade
Then unscrew the holding screw with a positive screwdriver. (See Fig 4)

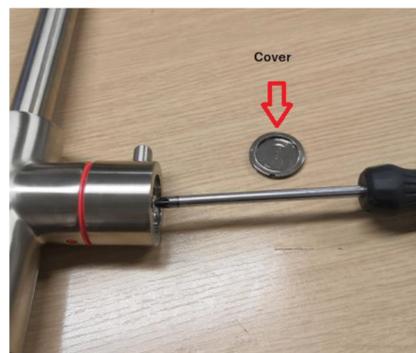


Fig 4

Step 2

Remove the spring and housing by pulling away from the tap cartridge. Be careful to avoid losing any parts (see Fig 7)

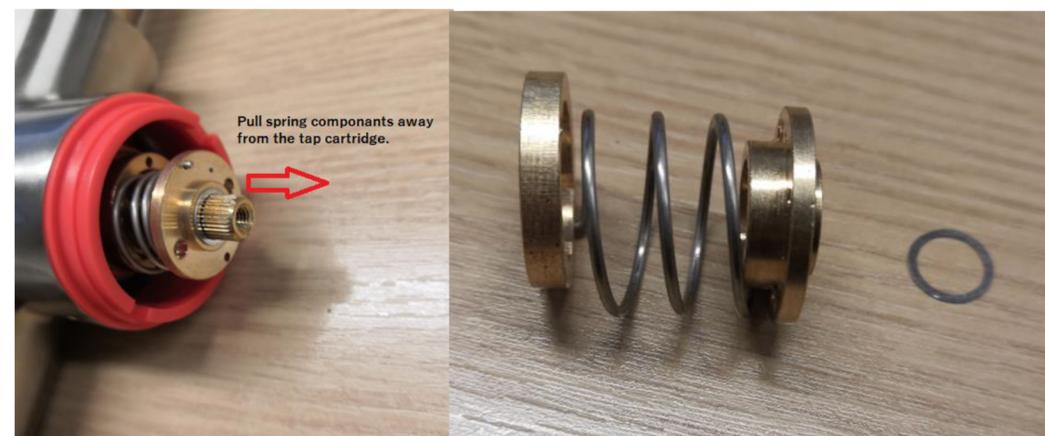


Fig 7

Step 3

If required remove and replace the cartridge using a 15mm attachment on a socket wrench. Anti clockwise to remove.



Fig 8

Step 4

Once the cartridge has been replaced, the next step would be to reinstall or replace the spring mechanism.

(See Fig 9) as below steps with reference the parts by number

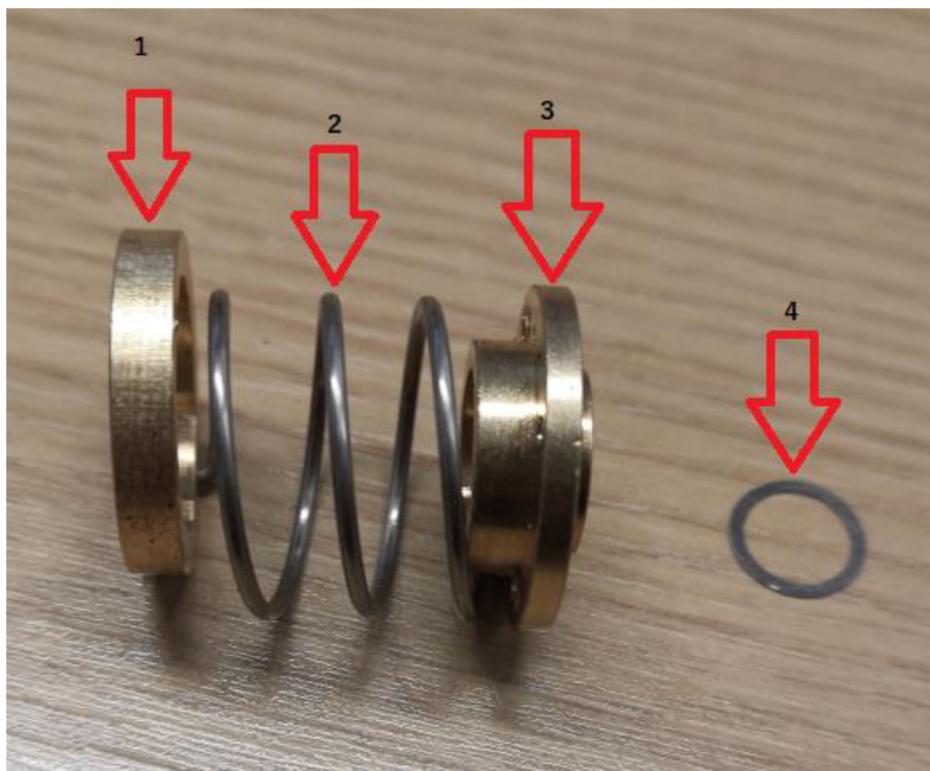


Fig 9

Step 5

Place part 1 over the cartridge then insert the end of the spring in to the smaller of the 2 holes. Place part 3 onto the spring again using the smaller hole, before fitting part 3 to the cartridge, turn part 3 approx. 120 degrees anti clockwise. This will add tension to the spring. Once part 3 is pushed onto the cartridge place part 4 on top to secure the fitting

This can be tricky

Step 6

Replace the handle and test that the handle returns to the off position on release.



Fig 10

Aerator Maintenance

Over the lifetime of the tap debris can collect in this part. Below is a guide to remove or replace.

Step 1

Un-screw the nozzle at the end of the spout, this should only be hand tight, if a tool is required please take steps to prevent damage to the finish (see Fig 1)



Fig 1

Step 2

Pull the aerator off the boiling water hose (see Fig 2)



Fig 2

Step 3

The aerator is made up of 2 parts as shown below



Step 4

Clean & Descale as needed , then reconnect to complete maintenance

Replacement of standard tap cartridge

The below steps will allow access to this part for maintenance or replacement.

Step 1

See underside of the tap head locate and remove plastic tab to reveal grub screw opening (see Fig 1)



Fig 1

Step 2

Remove handle and un-screw plastic cover. This will reveal a brass holding nut for the cartridge. Using an adjustable spanner turn anti clockwise to remove the grab ring.



Fig 2

Step 3

Remove cartridge replace if required or clean with appropriate descaling solution
When replacing the cartridge ensure the pins line up (see Fig 3)



Fig 3

User Manual

BOI002



Please read these instructions fully before commencing the installation and operation of the electronic instant hot water appliance

We are delighted that you have chosen our instant boiler and tap. This unique electronic instant hot water appliance will save you time and effort when requiring near boiling water for making tea and coffee and we are sure that you will discover many new uses each day.

Please read and follow our step by step guide to the installation, operation and care for the electronic instant hot water appliance and you will soon be making that first cup of coffee or tea from your new appliance.

What you need to know before you start

For your safety and satisfaction please read all the instructions, cautions and warnings before installing or using this electronic instant hot water appliance.

This electronic instant hot water appliance is not intended for commercial use.

Important notice, this product can cause harm if installed incorrectly and should only be installed by a competent person, if you feel for any reason unsure about the installation please contact a qualified plumber or electrician to install the appliance.

Make sure all electrical wiring and connections conform to the local standards.

A standard 220/240v grounded 13 amp switched electrical outlet is required under the sink for the electronic instant hot water appliance and must supply electrical power continuously to the appliance.

The power outlet must be connected to the 13-amp fused plug supplied.

The instant hot water appliance is an open vented system appliance. The mains cold water supplied to the instant hot water appliance needs to be within 1.5 to 5.0 bar

The water filter **MUST** be connected to the electronic instant hot water appliance. Failure to change the filter every 6 months may invalidate your warranty.

Do not plug the electronic instant hot water appliance in to the electric socket until instructed to do so.

Safety instructions – please read before you start the installation



The alert symbols displayed on the right point to the important safety information to make you aware of potential hazards that can cause serious injury or death. Please pay special attention to the information following these warning alerts. Failure to comply with these instructions could result in property damage, serious injury or death.

Please read this chapter carefully for your own safety and for the safety of those around you. Please read the safety information in this instruction, installation guide and on the product in order to install and use the product accordingly, so as to avoid any injury. The safety information will tell you what the potential danger is, how to avoid it and, and will identify what will happen if you do not operate following the instruction.

Electric shock: using an ungrounded connection or improper connection of the power supply to the product can result in a serious injury or death from electrical shock.

Electric shock: do not remove the earthing terminal

: do not reconstruct the plug

: do not disassemble the main box or any part of the power.

Important

The instructions are only intended as a guide, if there is any doubt then please contact a certified plumber or electrician or point of purchase and avoid using the product until it has been checked.

Components included

The electronic instant hot water appliance is supplied with the following:

Electronic instant hot water appliance with 13amp UK plug

The water connections are to allow correct connections from the instant hot water tap to the electronic instant hot water appliance.

Outlet connection 3/8" BSP to barb for silicon hose

Inlet connection 3/8" BSP to 1/2" BSP

Important safety instructions



When using all electrical appliances, basic safety precautions should always be followed including information below:

To protect against electric shock, do not place cord, plug or unit near or in water or other liquids and do not operate the electronic instant hot water appliance controls or power socket with wet hands.

Check the power rating of your electronic instant hot water appliance is suitable for the power rating of the electrical circuit it is being installed on. Do not operate or install the electronic instant hot water appliance if it appears to have any missing parts, be damaged / faulty e.g., damaged cord or plug.

Do not use outdoors or in a damp area.

Do not use the electronic instant hot water appliance for anything other than the intended **domestic** use.

The electronic hot water appliance must be installed vertically as shown of the front cover with the inlet and outlet connections and the top of the appliance.

Ensure that the front of the unit is visible and the front temperature dial can be easily reached.

Do not attempt to open, modify or service this electronic instant hot water appliance. Repairs should be carried out by authorised serviced personnel. Opening the unit may void the guarantee.

The instant hot water appliance is an open vented system appliance. The mains cold water supplied to the instant hot water appliance needs to be within 1.5 to 5.0 bar

Turn off all controls before unplugging.

Do not unplug by pulling the cable. To unplug, grasp the plug, not the cable.

Property damage: to avoid the risk of flooding, regularly inspect the unit for any signs of leakage.

This electronic instant water appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the electronic instant hot water appliance or instant hot water tap. A safety spring back handle is used to control the flow of the near boiling water for additional safety.

Installation requirements

Electrical requirements



A 220/240v, 50Hz, AC only 13 amp fused, grounded electrical power supply is required. It is recommended that a separate circuit serving only the electronic instant hot water appliance be provided or use an outlet that can be turned on/off by a switch.

This electronic instant hot water appliance is equipped with a power supply cord with a power plug. To minimise the possible shock hazard, the cord must be plugged into mating, ground type outlet, grounded in accordance with all national and local codes and ordinances. If a socket outlet is not available, it is the responsibility and obligation of the customer to have a properly grounded outlet installed by a qualified electrician.

Water supply requirements



If local codes permit, the instant hot water tap feed line should be connected to the hot and cold-water supply line using isolation valves or another means for providing hot and cold water to the tap.

Important: if local codes do not permit the use of isolation valves, special feed valves can be obtained from your local plumbing supply distributor.

Environment requirement



Do not install the electronic instant hot water appliance outdoors or in a location that may fall below zero degrees C. The water inside the tap may freeze and may cause catastrophic damage to the unit.

The product has an IP rating of IPX4. Clean the product with a damp cloth only.

The installation environment should be well ventilated, with protection from the direct sunshine.

When installing the electronic instant hot water appliance, you must ensure there is adequate room around unit for ventilation. The environment should not be humid.

Instant hot water tap information



Connecting a standard tap to the electronic instant hot water appliance may cause injury and will damage the electronic instant hot water appliance and void the guarantee. Due to high water temperature, and for safety reasons, the electronic instant hot water appliance is not under pressure.

Preparation for Installation

Unlike other household hot water appliances, this electronic instant hot water appliance is non pressurised for safety reasons. For this electronic instant hot water appliance, the instant hot tap is placed before the electronic hot water appliance creating an “open vent” system and consequently no pressure is built up inside the appliance.

Preparation for the electronic instant hot water appliance installation

IMPORTANT : observe all local governing codes and ordinances

The electronic instant hot water appliance must be mounted vertically and level.

Before you begin, select a suitable location ideally directly under the instant hot tap or close enough to it to ensure the connection pipes will connect from the instant hot water tap to the electronic instant hot water appliance.

The electronic instant hot water appliance is not under pressure, consequently, there is a slight delay in water flow after the hot water handle has been turned on. This is normal and indicates that the electronic instant hot water appliance is functioning properly.

It is recommended that you have access to separate power circuit serving only your electronic instant hot water appliance. See previous pages for more information on “ELECTRICAL REQUIREMENTS”

Ensure that the electronic instant hot water appliance is placed so that you will be able to view and reach the touch control screen for adjustments.

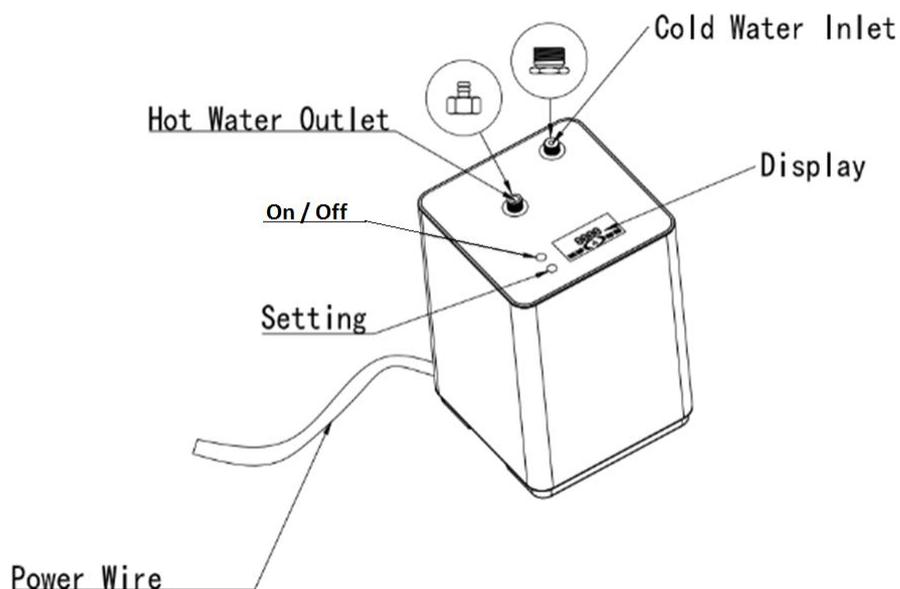
Installation

Step 1 – Position the instant hot water appliance.

Ensure the electronic instant hot water appliance is **NOT** connected to the electric power during installation.

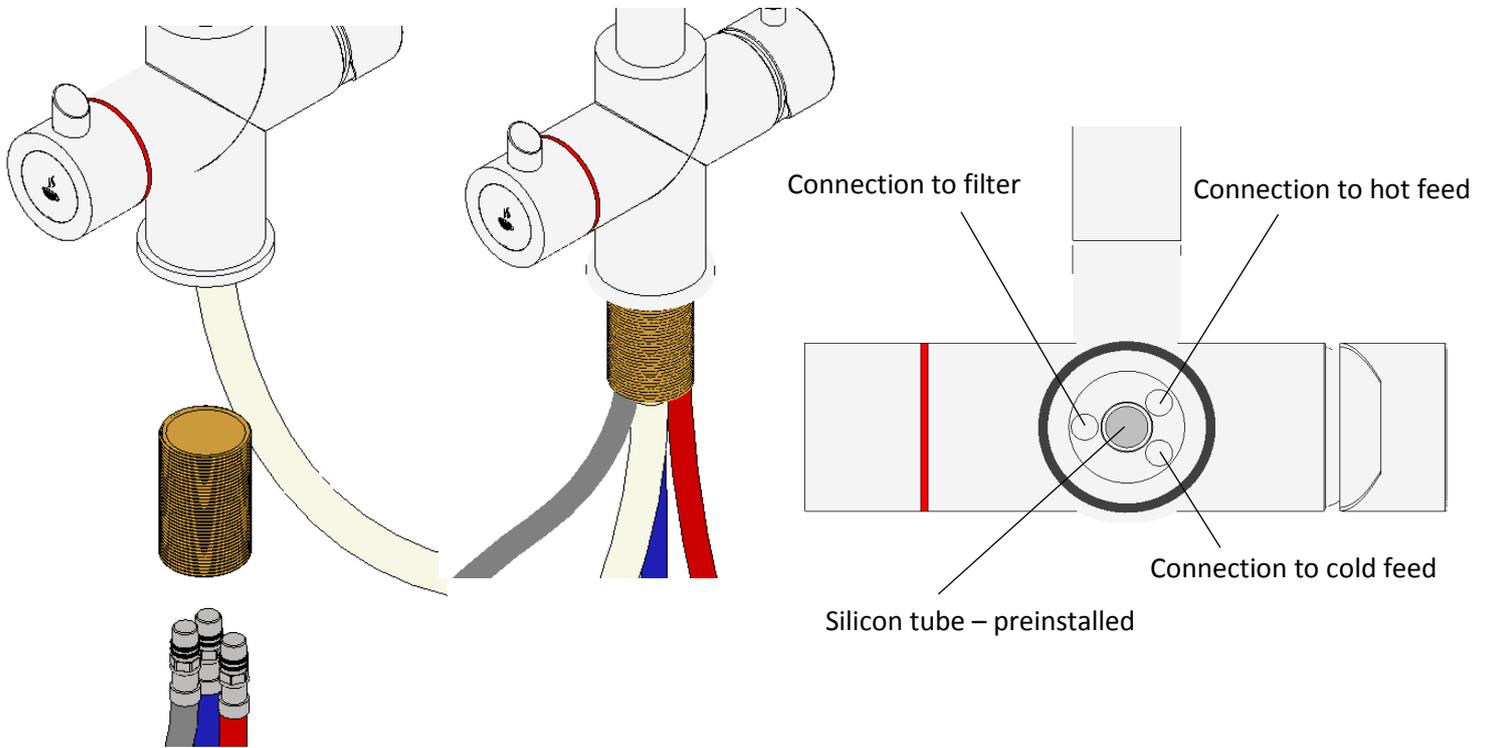
Place the electronic instant hot water appliance in position and check to ensure that the instant hot water tap connection pipes and power cord will reach without being stretched.

The electronic instant hot water appliance must be positioned so the water connections from and to the instant hot water tap do not kink and twist.



Step 2 – Connect tap

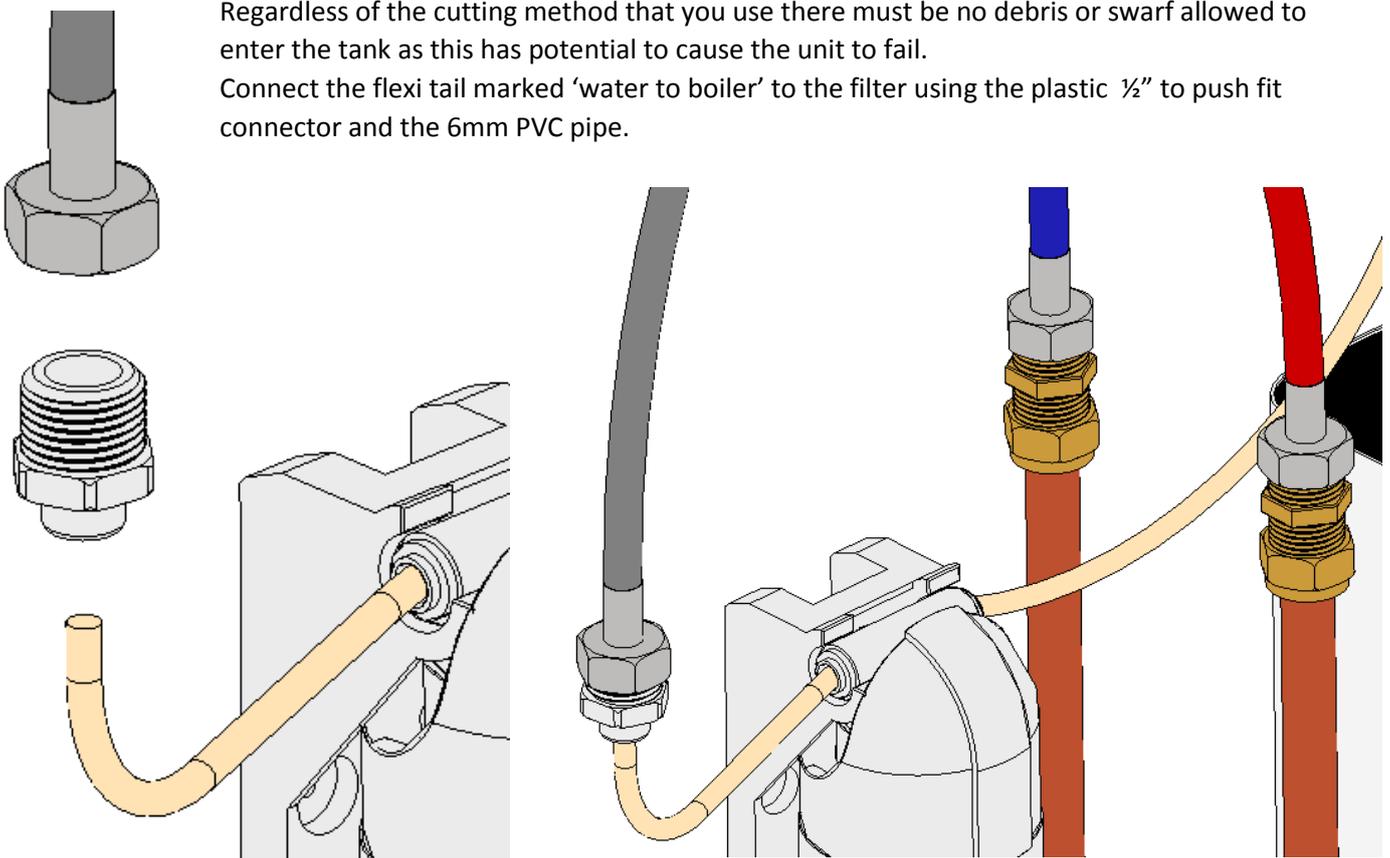
NOTICE – at no point should you use a wrench or tools to tighten the water connections. They are designed to be hand tightened only. Failure to follow this instruction can result in the twisting of the water connections and the possibility of a broken screen. Once finished connecting the unit together, check for water tightness.



Feed the flexi tails through the mounting barrel and then hand tighten into the tap. Fit the tap in the desired location using the black plastic lock ring.

The 6mm PVC pipe will come as one length. You will need to cut the pipe into two sections to allow positioning of the filter. We suggest using a plastic cutter as this will leave no swarf. Regardless of the cutting method that you use there must be no debris or swarf allowed to enter the tank as this has potential to cause the unit to fail.

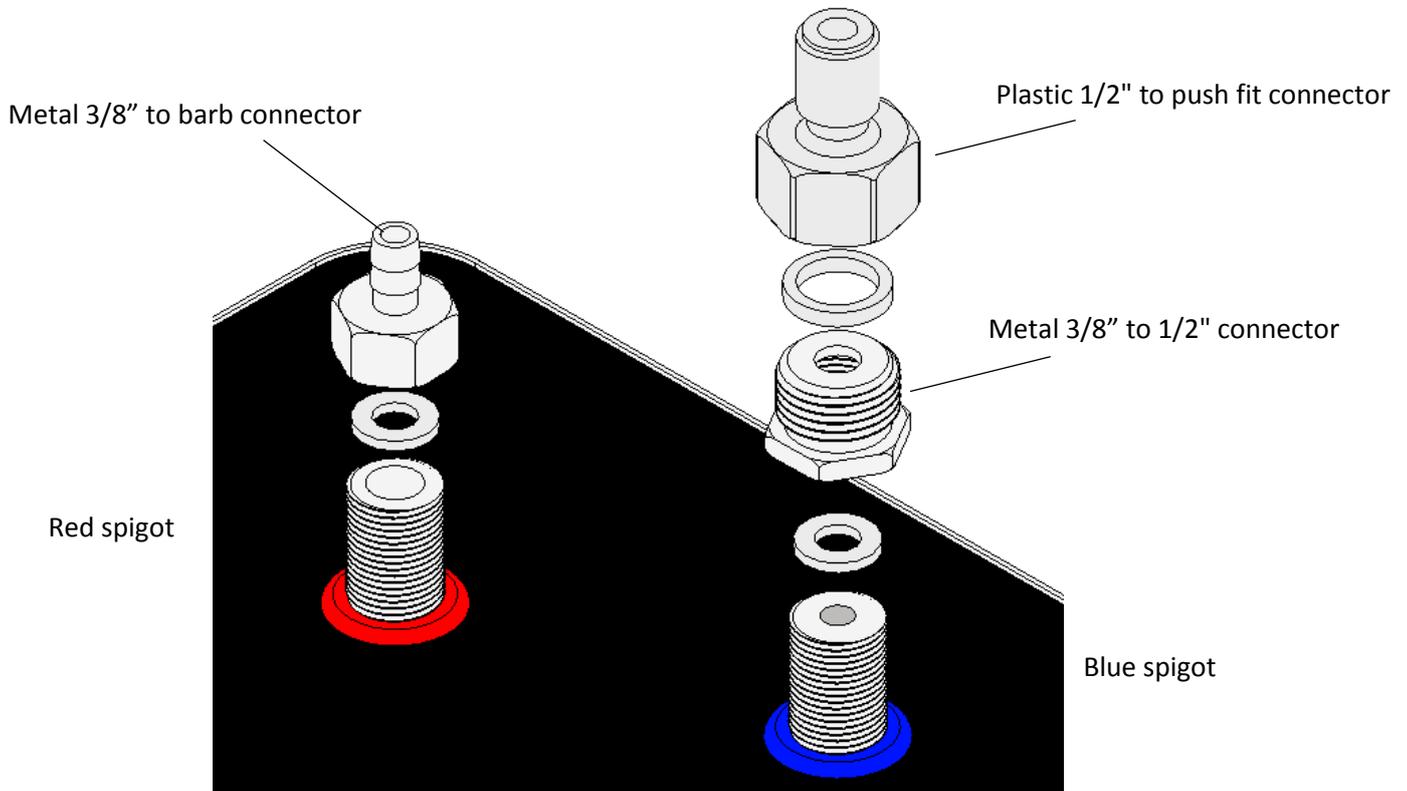
Connect the flexi tail marked 'water to boiler' to the filter using the plastic 1/2" to push fit connector and the 6mm PVC pipe.



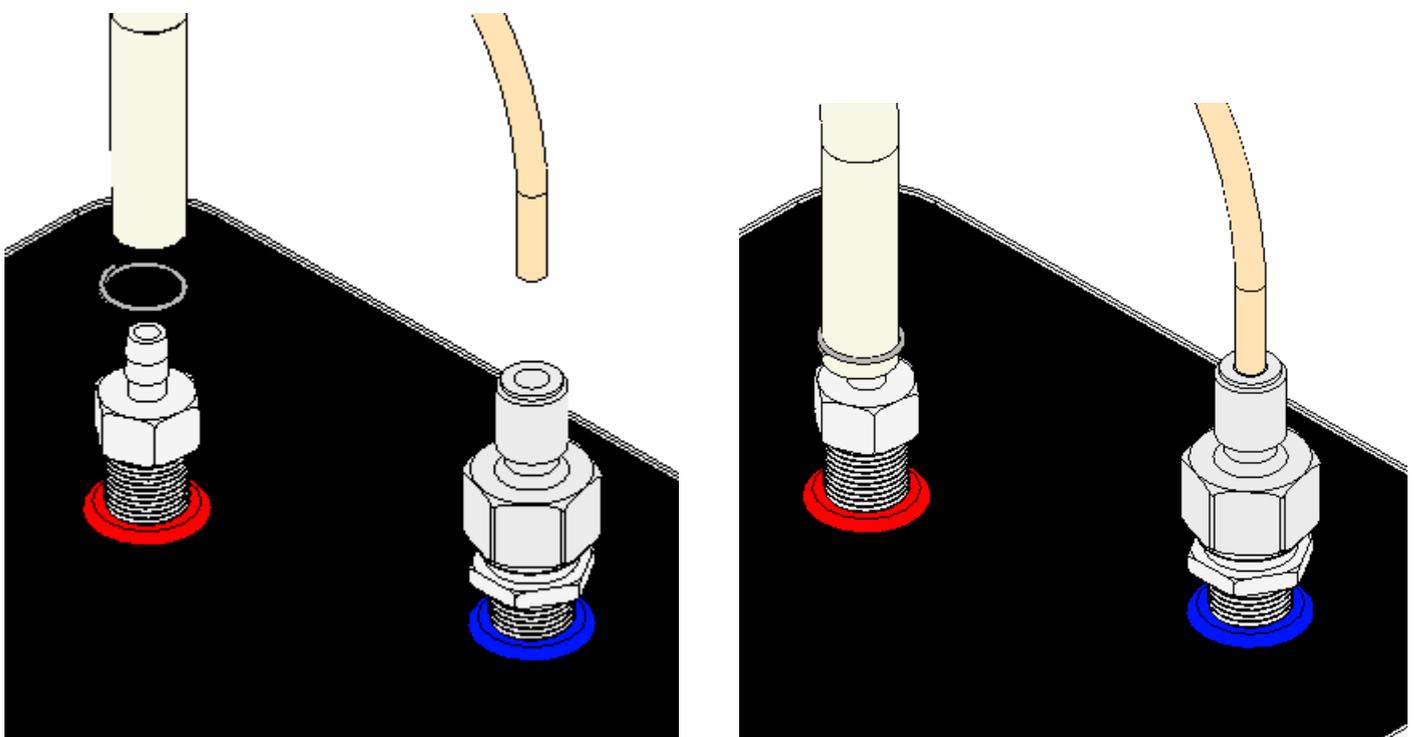
Place the metal 3/8" to barb connection on to the spigot coming from the boiler marked in red. You must use the washer provided. Note that the washer may already be inside the 3/8" to barb connector.

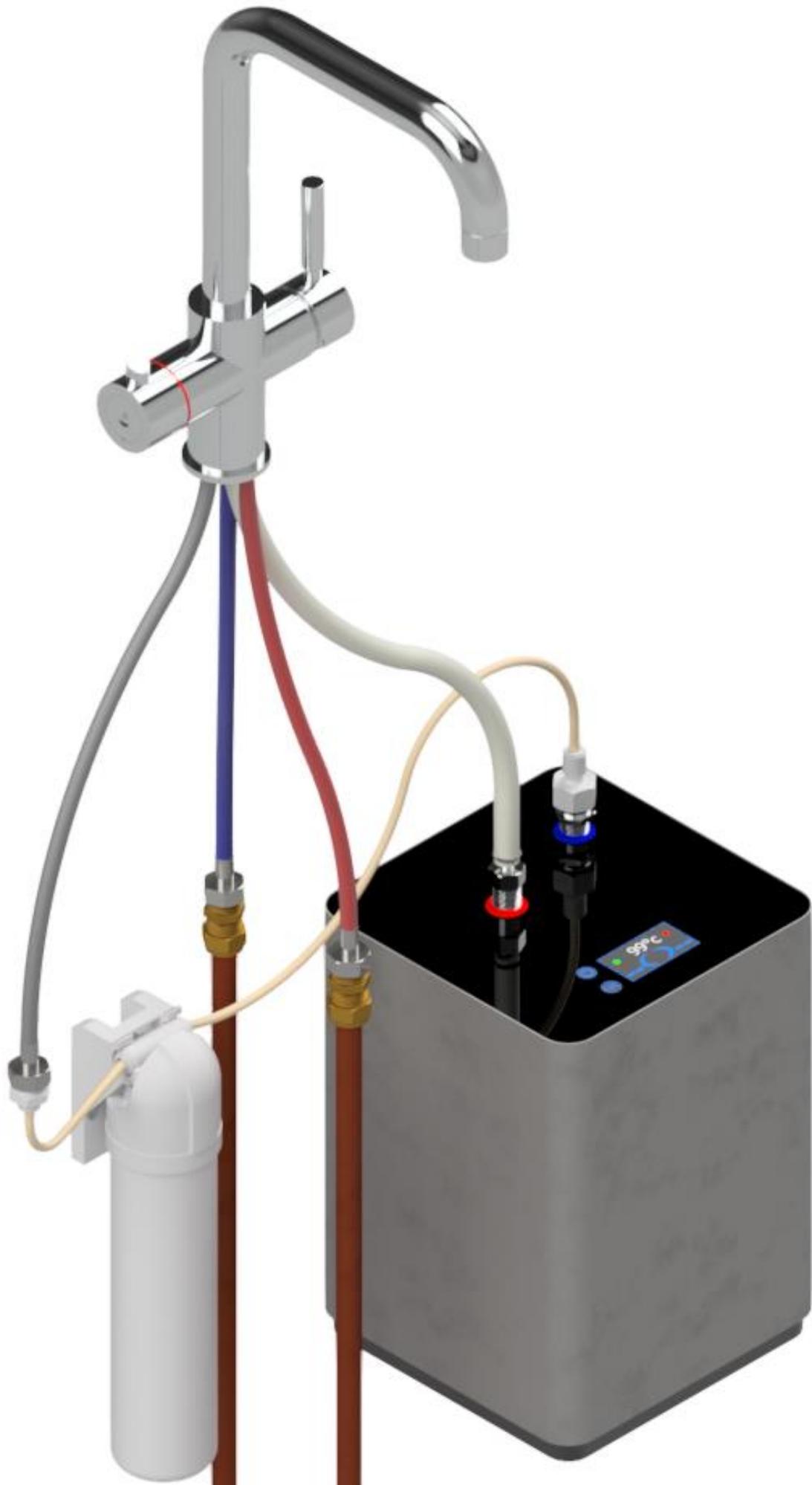
Then connect the metal 3/8" to 1/2" connector on to the threaded spigot coming from the boiler marked in blue. You must use the washer provided. Note that the washer may already be inside the metal 3/8" to 1/2" connector.

Then connect the plastic 1/2" to push fit connector on top of the metal 3/8" to 1/2" connector. You must use the washer provided. Note that the washer may already be inside the plastic 1/2" to push fit connector.



Connect the silicon hose to the barbed connection on the spigot marked with red. Secure with the securing clip. Then push fit the PVC pipe into the push fit connector on the spigot marked with blue and into the filter. Your filter may or may not have any clear markings to show flow direction depending on the filter. If your filter has a directional flow instruction, install accordingly. If your filter does not have any clear instruction, it can be installed with the flow of water in either direction.





Step 3 – Priming and checking for water tightness

Do not plug the electronic instant hot water appliance into the electricity until instructed later in the instructions.

To prime the tank - Turn the spring back instant hot water handle on, and hold to fill the electronic instant hot water appliance. This will take around 2 minutes.

When the electronic instant hot water appliance is full, water will flow from the instant hot water tap spout. Allow water to flow for 3 minutes so that the water runs clear.

Turn the instant hot water handle off. Open the mixer handle and allow water to flow through the tap until the water runs clear. Check all connections for water tightness and leaks.

Any leaking joint must be tightened to ensure no water leakage and the above priming undertaken again and checked for water tightness before connecting to the power socket.

Step 4 - Connect the plug to the power socket and turn on the power socket at the switch.

The power button will now flash. Press to power on.

Step 5 – Electronic control display panel

Temperature setting: press the temperature button to toggle select one of the five temperatures

75°C / 85°C / 90°C / 95°C / 98°C

The left-hand temperature will show the current temperature of the water

The right-hand temperature will show the selected temperature

Fault codes

If the electronic instant hot water appliance is empty of water and is turned ON then this will be automatically sensed and the display will show "E3". The tank needs to fill with water through the boiling water control handle on the tap.

When the display shows "E4" please unplug the boiler and then plug it back in. If the problem still exists, please contact customer service centre to have the tank checked and repaired.

If the electronic instant hot water appliance is not powered off or filled with water in approximately 5 minutes the electronic instant hot water appliance will automatically power down until it is primed with water using the instruction set out earlier.

If there has been a power cut in the property, you will need to reset the temperature of the hot water tank otherwise the water will not heat up.

Operation

Once the temperature is set, the light will flash that signifies that the tank is being heated. The desired temperature and the actual temperature of the water will match when the water has been heated to the required temperature.

To operate the instant hot water side of the tap, press down the lock button and twist away from you. Caution, near boiling water will come from the spout. Release to turn off.

To operate the regular mixer side of the tap, pull the lever away from the tap and either pull it toward you for hot water or push it away from you for cold water. To shut off, return the lever to a vertical position.

When the instant hot water is drawn from the instant hot water tap or the temperature in the electronic instant hot water appliance falls below the required temperature setting then it will automatically reheat to the required temperature setting.

To turn off the electronic instant hot water appliance at any time, push the off button.

When there is a power failure or if the unit has been switched off you will need to turn the electronic instant hot water unit on again and re-select the temperature as described previously in this instruction.

Maintenance and power saving

If the electronic instant hot water appliance is not being used for long periods of time i.e.

Over 7 days, to save power we recommend you switch off using the "ON/OFF" switch.

Seasonal shutdown

The hot water system (tank and tap) must not be exposed to freezing temperatures. If there is any possibility of this then system must be drained of water. Shut-off the mains supply and unplug the unit from the electricity main and allow the tank to cool for at least one hour. Disconnect the inlet supply to the tank and remove the silicon hose outlet pipe, lift the unit to the sink, turn upside down and drain all the water from the tank. When reinstalling, follow the original installation instructions

NOTICE

The electronic instant hot water appliance like any water heater has a limited life span and will eventually fail. In order to ensure maximum protection and to avoid possible damage to any property or personal injury the electronic instant hot water appliance should be inspected regularly for any water leakage or damage.

Regularly check for any signs of water leakage, if there is any water leakage then replace any loose or split silicon tubes or flex tails which can cause water leakage and damage.

Problem	Possible cause	What to do
Water and steam spitting from the instant hot water tap spout	Unit is boiling	Turn the instant hot water tap handle on and release the water
	Pressure is lower than 1.5 bar or higher than 5 bar	Check pipe pressure. Check if aerator is blocked and remove the debris in the aerator
Water is not hot	The electronic instant hot water appliance is unplugged	Make sure that the electronic instant hot water appliance is plugged in and connected to a grounded electric current
		Make sure the circuit breaker and fuse are working correctly
Water is too hot	Water temperature setting is set to high temperature	Re set the temperature to the lower temperature
Water is dripping from the instant hot water tap spout	The expansion chamber isn't draining the system correctly due to very small draw off of water	Draw of 0.5L of water to clear and prime the system. Avoid less than 150ML draw offs of water
	The spout is blocked	Remove and clean the aerator
Slow flow from the spout	Water filter may be clogged from impurities in the inlet mains water	The water filter must be changed every 6 months or this will void the guarantee
Water does not flow straight away	The electronic instant hot water appliance is designed for non-pressurised operation and there will be a slight delay until the near boiling water appears	After a large volume of water has been drawn off there may be a slightly longer delay in the water appearing from the instant hot water spout
No water flowing	Water valve have been turned off	Turn on all water valves
	Inlet pipes have been blocked or twisted	Ensure all pipes are not twisted and kinked to restrict flow
		Remove and clean aerator
E3 fault code	The E3 code indicates water shortage protection. When the water level in the inner tank is below the minimum required level 'E3' will appear	Open the instant hot water tap handle to fill the instant hot water tank.
	If the above does not work and the unit continues to show 'E3', it could be a float switch sensor fault	Contact the retailer
E4 fault code		Power off the unit and unplug from the power source. Then try reinstalling. If this does not solve the issue, contact the retailer.
The boiler causes the electrics within the property to trip	The electric meter is overloaded, the installation of your instant hot water appliance in addition to the rest of your appliances has exceeded the limit of the RCD protection limit.	Upgrade the RCD protection limit or move the instant hot water appliance on to a different circuit
	The boiler could be short circuiting. To test this, unplug all other electric equipment, plug in the boiler and turn on. If the boiler trips the electric this time, the boiler is short circuiting.	Contact the retailer

If you are in any doubt, power off the electronic instant hot water appliance and call the retailer.

Instant boiler unit Why E3?

The open vented instant hot water system, uses an element much like a cylinder or an electric towel rail. All of which need to be submerged in water to work correctly, if the elements were to be heated dry the element would quickly overheat and fail.

The boiler unit has a safety feature to prevent this issue from occurring. The default stat of the boiler is an E3 error message. This locks out the unit until a flow switch within the boiler is lifted to indicate sufficient water present.

In most cases when this message is shown all that is required is to turn on the boiler flow handle to full the boiler to the correct level.

Unfortunately, in some cases a full boiler will not change the default state of the boiler. If this is the case the message is not being sent to the PCB.

- Flow switch stuck not lifting to the full position. Try to give the boiler a shake too free the flow switch.
- Wiring to the PCB damaged or loose. This may be repairable but unfortunately a repair would be too difficult for end user or most competent persons installing the unit. A replacement boiler would be required.

The most common reason for insufficient water this can be caused by debris collecting within the boiler unit.

Boiler Unit flow restricted

This is caused by a blockage within the expansion vessel, either by debris entering the system from incoming pipework. If installed without filter. Or swarf from the plastic pipe being cut and not cleaned from the pipework.

To attempt to resolve issue follow these steps.

- Turn power off at the plug
- Cool tank either by running water until cool, or leave until cooled naturally
- Disconnect pipework from the boiler
- Tip unit upside down to empty the water from unit
- Blow air down the hot side of the unit to dislodge debris
- Reconnect boiler
- Refill system before turning the power back on