



OWNER'S MANUAL

Under-Sink Water Filters

Model: USF-H600

Basic Requirements For Hydrogen Water Machine & Smart Faucet Installation

1. Tools required for installation:

1. Drill & 2 drill bits [M6 & M22]
2. Wrench (Shifting spanner) [16mm, 14mm, 12mm openings]
3. PE tube cutter
4. Collet-release tool

The above tools are required for standard installation.

The extra tools below may be required for specific circumstances.

5. Drill bit 25mm/2" for faucet cut-out (Stainless steel, wood, granite)
6. 1 pair of long-nosed pliers
7. 1 Phillips/star screwdriver & 1 flat-head screwdriver

2. Key Installation Factors:

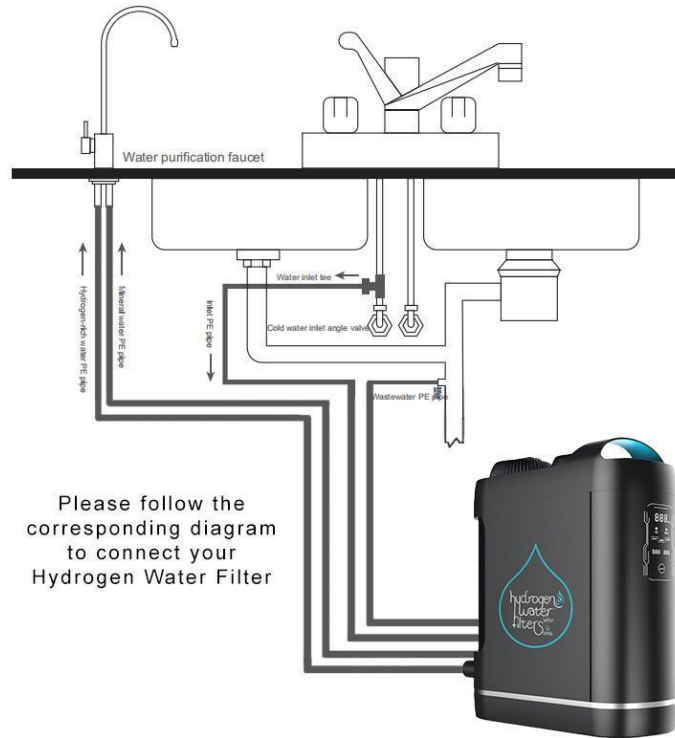
It is generally recommended to install Water Filter Machines in the kitchen. In household and commercial kitchens, the machine can be placed against the side of the under-sink cabinet, ensuring that the water pipes are unobstructed. When installing, please make sure to: (i) ensure the water inlet valve is in the 'closed' position, (ii) disassemble the water pipe to the original faucet, (iii) connect the tap water to the water inlet marked on the water purifier, (iv) and connect the water outlet pipe marked on the water purifier to the water outlet. Connect the Smart Faucet's water inlet to the water filter's pure water outlet as the water source that feeds the Smart Faucet. During the installation process, the male connector threads of the T-fitting should be generously wrapped with PTFE tape (in a clockwise direction) to ensure that when securely tightened, all connections are leak-proof.

3. Included Products and Components Pack For installation:

1. Hydrogen Filter Machine
2. ROCB & PCBA Filter Cartridges
3. TDS display Smart Faucet
4. Smart Faucet & under-counter attachments
5. T-connector (3-way threaded fitting)
6. PTFE tape
7. Three 'quick-connect' Nozzles
8. Two 3m PE tubes
9. Waste-water Seal clamp (optional use)
10. PE tube cutter
11. Collect Release tool
12. Power adaptor (region specific)
13. Solenoid valve (spare part)



4. Installation diagram of Hydrogen Water Filter



Installation Procedure

BEFORE COMMENCING:

Ensure you have the necessary tools and accessories as mentioned above.

Top Tip: Pre-measure both rolls of PE tubing to your specific requirements. Usually cutting these into equal lengths is good. To ensure a clean cut, use the PE tube cutter from the Accessory Pack.

Steps 1 – 6:

Step 1 ~ Creating the cut out for the Smart Faucet on your kitchen sink or counter-top

Select the correct drill bit & attachment based on the material you have to drill through (ie Stainless Steel sink top, wooden/Formica counter top, Granite/Caesar stone), see Figures 1-4 below.

Top Tip: Use masking tape & a felt tip pen to mark where pilot hole/drill should begin see Figure 1 below



Figure 1



Figure 2



Figure 3



Figure 4

Step 2 ~ Amending/Preparing the kitchen drain to accommodate the Waste-Water PE tube

Your kitchen drainage downpipe may already have a single or a double waste pipe to accommodate appliances such as a dishwasher and/or a washing machine, in this case you could simply drill a hole (6.35mm / 2points) hole into the drainpipe for the waste-water PE tube from the Water Filter machine and seal it with silicone.

Figures 5 & 6 below, shows a standard kitchen drain pipe before adding the Single Waste-water fitting.



Figure 5



Figure 6

Step 3 ~ Preparing your End-to-End connections

1 The Mains Water Inlet connection

This may either be shared by (i) the existing hot & cold kitchen taps, (ii) dishwasher, (iii) washing machine, or as per the image below illustrates in (Figure 7) below, an independent Mains Water Inlets for (i) hot & cold kitchen taps, & (ii) the Water Filter Machine.

In the former scenario, simply add the T-connector found in your Components Pack to the Water Inlet supply to couple the Water Filter Machine.

If it's the latter, images below (Figures 8 & 9) shows a metal braided pipe, threaded adaptor & threaded quick-connect with 9.53mm (3points) connection for Water-Inlet PE tube.



Figure 7



Figure 8

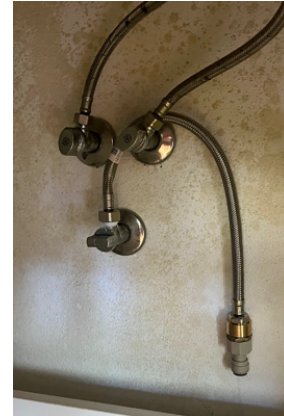


Figure 9

2 The Waste-Water connection

Figure 10 below illustrates the 6.35mm (2points) PE tube (with the one-way 'anti-reflux' quick-connect fitting) installed at approximately 10cm from the end of the tube), inserted into the pre-drilled hole in the single-waste drainpipe. Insert the PE tube to approximately where the branch of the drainpipe ends. As this waste water outlet is not a high-pressured tube it should not move once inserted.

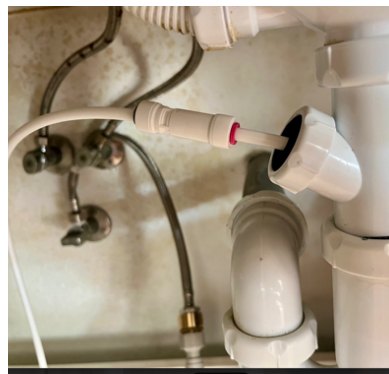


Figure 10

2.1. Your existing under-sink waste-water pipe may already be configured with a single or double waste-outlet waste trap, capped and ready for connecting various appliances (e.g., washing machine and dishwasher).

Should the under-sink waste connections are already in use, you could simply drill a hole in the existing waste-water pipe (see Figure 11) using a 6mm drill bit. Then, attach and tighten the plastic waste-water clamp around the pipe (see Figure 12) provided in the Components Pack. Insert the waste-water PE tube into place, and tighten clamp using a screwdriver (see Figure 13).



Figure 11



Figure 12



Figure 13

3 & 4 ~ The Smart Faucet connections

The white & the blue pipes on the faucet (Figures 14) below have been respectively labelled.

- (i) Kitchen Water (blue pipe): Insert the 9.53mm/3points PE tube into the quick-connect approximately a ¼ inch into the quick-connect fitting.
- (ii) Pure Water (white pipe): Insert the 6.35mm/2points PE tube into the quick-connect approximately a ¼ inch into the quick-connect fitting.
- (iii) Data cable: This coupling will be done last.



Figure 14

Step 4 ~ Connect up the Water Filter Machine [L – R]

IMPORTANT: Do not apply force to remove the plastic plugs as the quick-connect fittings on the machine could get damaged in the process. Use the Collet-Release tool in your Accessory Pack, or a slim spanner (Figure 15 & 15a) below

- 1) Starting with the left and working towards the right, using the Collet-Release tool, begin carefully removing the 4 white plastic plugs that are protecting the quick-connect fittings on the machine.



Figure 15



Figure 15a

Step 5 ~ The final six connections L-R:

The machine has been labelled for your ease of reference.

- 1) Water Inlet: Couple the 9.53mm/3points PE tube that has been connected to the Mains Water Supply and gently push the open end into the corresponding opening at the back of the machine labelled 'water inlet' see (Figure 16) below, approximately a ¼ inch into the quick-connect fitting;
- 2)Waste-Water Outlet: Couple the 6.35mm/2points PE tube that has been inserted to the kitchen waste drainpipe, and gently push the open end into the corresponding opening at the back of the machine labelled 'waste outlet' (2nd from left), approximately a ¼ inch into the quick-connect fitting see (Figure 17) below;



Figure 16



Figure 17

- 3) Kitchen Water: Couple the 9.53mm/3points PE tube that has been connected to the Smart Faucet and gently push the open end into the corresponding opening at the back of the machine labelled 'Kitchen Water' (3rd from left), see (Figure 18) below, approximately a ¼ inch into the quick-connect fitting;

- 4)Pure Water: Couple the 6.35mm/2points PE tube that has been connected to the blue pipe of the Smart Faucet and gently push the open end into the corresponding opening at the back of the machine labelled 'pure water' (4th from left), see (Figure 19) below, approximately a ¼ inch into the quick-connect fitting. The Faucet connections are illustrated below in Figure 19a



Figure 18



Figure 18a



Figure 19



Figure 19a

- 5) Power Adaptor: Insert the male plug of the power adaptor into the corresponding opening at the back of the machine labelled 'DC' (2nd from right), see (Figure 20) below;
- 6) Data cable: Ensuring the notch on the data cable is aligned with the '9o'clock' position, and gently insert and tighten into place with the threaded cap, see (Figure 21) below.



Figure 20



Figure 21

Step 6 ~ Testing for leaks and The First Rinse

Top Tip: To ensure all your quick-connect fittings have been securely connected, we highly recommend you place the Water Filter machine onto your kitchen counter with the back extending over the kitchen sink as shown in (Figure 22) below.



Figure 22

- 6.1 Turn the power switch to the 'On' position
- 6.2 Open the ball valve on the Water Inlet Supply
- 6.3 The LED panel will become illuminated, see (Figure 23) below, and the motor will run for the duration of the 30-minute Rinse cycle, which has now automatically initiated. Allow this to complete, prior to opening the Smart Faucet in either direction. Once this First Rinse has come to an end, the motor will go silent & the LED screen will switch off.



Figure 23

- 6.3.1 While the machine is in automatic Rinse mode, check each of the quick-connect fittings to ensure they are all watertight, should you find any drips or leaks, close the ball-valve on the Water Inlet to the machine and turn off the Power switch.

- 6.4 Once you have properly tightened/repaired any drips or leaks. Repeat steps 6.1 through 6.3.1 until you are satisfied all the connections are watertight.

Step 7 ~ Securing the Quick-connect fittings & PE pipes

Once you have ascertained all connections are watertight, clip the blue 'collar pins' onto each end of the quick connect fittings, in between the main body of the quick-connect & the 'collet' as illustrated in (Figure 24) below. Do this on both ends of each of the four PE tubes too. This will ensure the fittings are locked and remain securely in place, preventing the PE tubes from becoming dislodged while in use and/or during maintenance.



Figure 24

Step 8 ~ Initiating The Smart Faucet

Backwards position: When you push the lever into this position the TDS display screen will illuminate with its two acronym 'CBPA' & 'ROCB' bars at the top, and the TDS numeric values of the Pure Hydrogenated water will be displayed, with the letters 'RO' on the right, as shown in (Figure 24) below. Whenever the faucet is in this position, the machine's motor will start up to begin the RO, UV, Hydrogenating, Alkalising process, and the LED panel on the machine will become illuminated. The specific light corresponding to the relevant process will flash accordingly; eg UV, Hydro etc. When the lever is returned to its 'off' position, the LED screen will remain illuminated for several seconds before turning off.

Front-facing position: Conversely when you push the lever into this position the digital screen will show 'Tap' and the TDS numeric values of the local municipal water will be displayed, with the word 'tap' to the left, as shown in (Figure 25) below. When the faucet is in this position the motor will not initiate and the LED panel on the machine will remain off.



Figure 24



Figure 25

Step 8 ~ The LED Digital Panels Explained On the Machine

As illustrated in (Figure 26) below, the digital displays on the face of the machine are as follows:

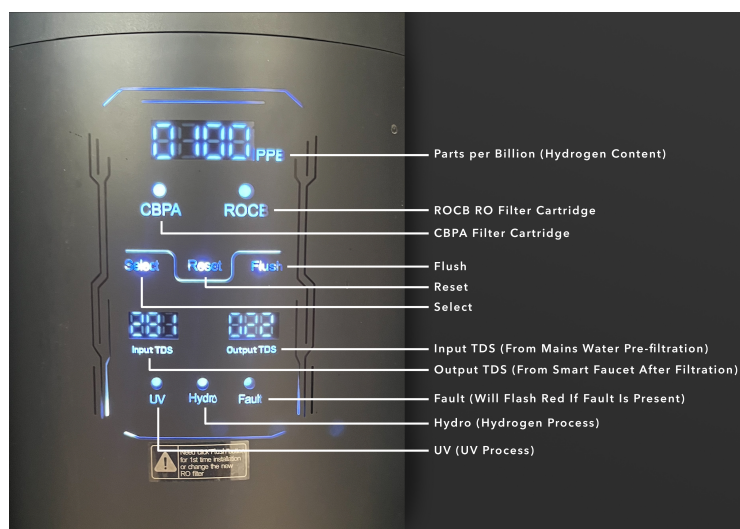


Figure 26

After closing the Smart Faucet

After each time you tap filtered water (back-facing position), upon closing the faucet, you will notice the LED panel on the front of the machine will remain illuminated for several seconds and the motor will running before automatically going silent, this is completely normal, as illustrated in Figure 26a below.



Figure 26a

On The Smart Faucet

See Figures 27 & 28 below

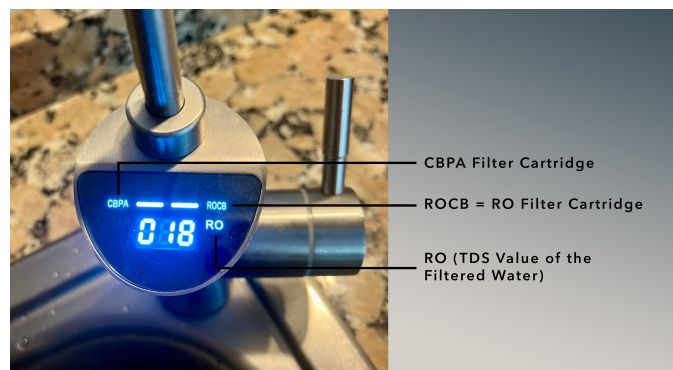


Figure 27



Figure 28



Congratulations

Mission Complete! Now carefully back the machine into the kitchen cabinet taking care not to buckle the PE tubes. Your Hydrogen Filter Machine & Smart Faucet is now ready to use., and you can begin to tap and enjoy Clean Hydrogenated water to your heart's content!

Maintenance Mode and/or Vacation Mode

Should there be periods when your Hydrogen Water Machine is going to be unused, either due to maintenance, a kitchen renovation, moving house or going on vacation, it is important that your Water Filter machine does not stand dormant with waterlogged cartridges.

Step 1: Close the ball-valve on the Mains Water Supply

Step 2: Allow the water in the Filter Machine to drain

2.1: Open the Smart Faucet to the backwards facing direction and allow to discharge the filtered water, until it stops;

2.2: Open the Smart Faucet to the forwards facing direction and allow the municipal water to drain until it stops

Step 3: Turn the power to the Machine to the 'Off' position

To Initiate Re-Use of the Water Filter Machine

Step 1: Open the ball-valve to the Mains Water Supply

Step 2: Turn the Power Switch to the 'On' Position

Step 3: Tap 'Flush' on the front panel of the Machine, this will initiate the 30minute rinse cycle

Step 4: Open the Smart Faucet to the backwards facing direction and allow this water to run for a few minutes (collect it into a bucket to use on house plants, or your garden). Thereafter, you can begin using your Water Filter Machine as usual.

Wishing you many years of Happy, Healthy, Hydrogen Hydration!

For any issues requiring assistance during the installation process, please contact our Technical Support team for our Trouble-shooting Installation Video clips. If issues persist, contact your plumbing professional or our CS team and provide a detailed description of the issue for better assistance.