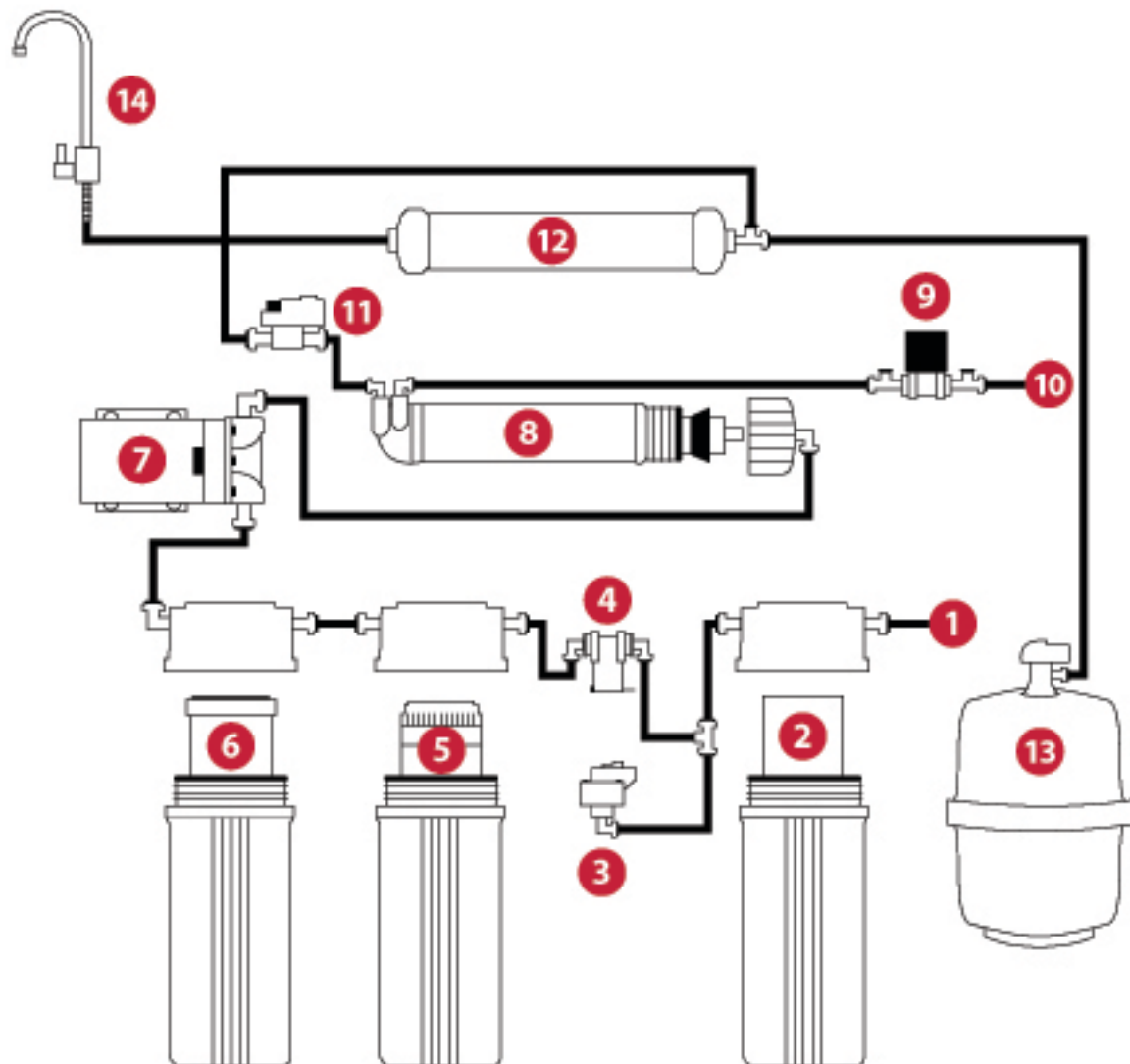


RO-1 Reverse Osmosis Unit Installation Instructions



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|-------------------------------------|---------------------------|--------------------------|
| 1 Water inlet | 6 CTO carbon block filter | 11 High pressure switch |
| 2 5 micron particle sediment filter | 7 Booster pump | 12 Post carbon filter |
| 3 Low pressure switch | 8 RO membrane | 13 Water storage tank |
| 4 Water valve | 9 Waste restrictor valve | 14 Pure water outlet tap |
| 5 GAC carbon filter | 10 Waste water outlet | |



Installation Instructions

- 1 Remove all contents from the packaging
- 2 Use the smaller of the 2 white spanners to unscrew the 3 vertical pre-filter housings. (Parts 2 ,5 & 6).
- 3 Remove the pre-filter cartridges from the housings.
- 4 Remove the plastic wrapping from the 3 cartridges and replace them back into the housings.
- 5 Re-install the housings back onto the system using the same spanner (being careful to re-install them in the correct order).
- 6 Disconnect the single pipe that enters into the lid of the white horizontal RO membrane housing. (Part 8 on the diagram).
- 7 Unscrew the lid from the white horizontal RO membrane housing using the smaller white spanner.
- 8 Remove the blue RO membrane from it's wrapper (do not remove any of the blue material from the RO membrane).
- 9 Place a small amount of vaseline (unscented) on all 3 seals that are installed onto the RO membrane (2 small seals at one end and a larger one at the other end).
- 10 Insert the RO membrane into the ro membrane housing. Ensuring that the end with the 2 small rubber o-rings enter first.
- 11 When the RO membrane has been inserted, use a pair of pliers to grip the plastic central siggot (on the RO membrane) and give it approximately $\frac{1}{2}$ a turn. You should feel the RO membrane "click" into place.
- 12 Re-install the lid (that was removed in step 7) onto the housing and tighten with the smaller white spanner. (if you find that the ro membrane has to be pushed in with the lid, that is not fully inserted. You would need to remove the ro membrane and repeat steps 10 & 11).
- 13 Do not re-install the pipes that were removed during step 6.
- 14 Make the connection to your water supply. (If you wish to use the included mains piercing fitting, please refer to the mains piercing fitting part of the instruction manual).
- 15 Make the connection to your waste water outlet. If you wish to use the included drain saddle valve, please refer to the drain saddle valve part of the instruction manual. If you do not wish to connect the waste water outlet pipe onto the included drain saddle valve, please ensure that the pipe is installed somewhere where the waste water can drain freely.
- 16 Drill a $\frac{1}{2}$ " hole into your worktop at the place where you wish to mount your outlet tap (part 14 on the diagram). If you are connecting the system onto a 3 way tap, please ignore this step.
- 17 Put the decorative washer and then the rubber washer over the thread of the tap.



- 18 Place the thread of the tap through the hole in the worktop.
- 19 Place the harder rubber washer onto the thread of the top.
- 20 Install the locking nut onto the thread and fully tighten it up the thread. The tap should now be securely connected to the worktop.
- 21 Remove the blue plastic stopper from the horizontal post carbon filter (part 12 on the diagram).
- 22 Install a length of pipe where the blue plastic stopper was. This pipe will connect to your water tap (part 14 on the diagram).
- 23 Slide the pipe connection nut (that was originally installed at the bottom of the thread of the tap) over the pipe (that you wish to connect to the water tap).
- 24 Slide the plastic pipe olive over the pipe.
- 25 Install the plastic pipe insert into the end of the pipe.
- 26 Connect the pipe onto the bottom of the tap and fully tighten the nut onto the tap of the tap (part 14 on the diagram).
- 27 Remove the red plastic stopper and install a piece of pipe joining this fitting to your mains water supply (that was installed in step 14) (part 1 on the diagram).
- 28 Remove the black plastic stopper and install a piece of pipe joining this to your waste water outlet (as installed in step 15). (Part 10 on the diagram).
- 29 Apply 6-8 turns of PTFE tape to the thread on the top of the metal water storage tank (part 13 on the diagram).
- 30 Screw the tank tap onto the top of the tank (part 13 on the diagram).
- 31 Remove the plastic yellow stopper from the system and install a piece of pipe connecting that connection to the water storage tank. (ensure that the blue handle of the tank tap is pointing towards the pipe entering it).
- 32 Place the pipe that is currently removed from the RO membrane housing lid (as removed in step 6) into a bucket or suitable receptacle.
- 33 Turn the power supply to the RO unit on.
- 34 Turn the water supply to the system on. Water will now exit the pipe.
- 35 Leave the water running until the water has run clear. Once the water has run clear, then turn the water supply and power supply to the RO unit off.
- 36 Re-install the pipe back into the lid of the RO membrane housing (part 8 on the diagram).
- 37 Turn the power supply to the RO unit on.
- 38 Turn the water supply to the RO unit on, the pump will then activate.



- 39 The system will now begin filling the tank. It will take between 1.5 - 3 hours to fill the water tank (depending on your incoming water temperature).
- 40 The system will automatically switch off when the water tank is full. At this point, open the pure water tap and leave the system to run until the flow of water has stopped. When the flow of water has stopped, then close the tap.
- 41 Repeat steps 39-40 a total of 2 further times (3 times in total).
- 42 When the tank has refilled (after you have drained the tank for a 3rd time), the system is then ready to use.
- 43 Do not install the concentrate (waste-water) outlet pipe at a positive incline as this practice commonly clogs the RO membrane.

How to use a Saddle Drain Valve

Important Information

(Please note that this fitting can only be used with pipe that has a diameter of 32-40mm).

We strongly recommend that this is installed above the u-bend (if there is one installed on the pipe that you wish to connect onto).

If you are unable to install the drain saddle valve above the u-bend, it is critical that you install a none return/one way/check valve on the waste water pipe that enters the drain saddle valve

Installation process

- 1 Drill a ¼" hole in the pipe that you wish to connect the valve onto.
- 2 Dissamble the drain saddle valve.
- 3 Remove the strip from the self adhesive tab and place it onto the inside curved edge on the inlet side of the valve (making sure that the hole in the self adhesive tab lines up to the hole on the inside of the valve).
- 4 Line this up to the hole that you have drilled (in step 1). We recommend that you use the drillbit that you used to create the hole to step 1, to hold this part of the valve in place.
- 5 Connect the other part of the drain saddle valve around the pipe (ensure that the 2 nuts are present within their respective grooves)
- 6 Tighten the 2 parts of the valve together with the 2 included screws.
- 7 The valve will now be fully installed onto the sink/waste pipe.
- 8 Remove the pre-installed ¼" blue locking clip from the valve
- 9 Install the drain outlet pipe from your reverse osmosis system or water filtration system into the valve.
- 10 Once the pipe is fully inserted, replace the ¼" blue locking clip (that was removed in step 8).



11 The installation process is now complete.

How to use a Mains Piercing Fitting

Please note that this fitting can only be used on copper piping. If the pipe that you wish to connect onto is plastic, do not use this fitting.

- 1 Remove all parts from the packaging.
- 2 Remove the curved metal piece from the fitting.
- 3 Loosen the bottom brass bolt (that is attached onto the threaded bar) on the mains piercing fitting.
- 4 Slide the main fitting over your copper pipe and re-install the curved metal piece (that was removed during step 2) so that the copper pipe sits inside of the groove.
- 5 Re-tighten the bottom brass bolt so that it tightens the curved metal piece (that you have just re-installed) onto the copper pipe.
- 6 Remove the brass nut from the fitting.
- 7 Slide the nut over the pipe that you wish to connect onto the fitting.
- 8 Install the pipe olive onto the pipe (that you wish to connect onto the fitting)
- 9 Install the plastic pipe insert into the end of the pipe (that you wish to connect onto the fitting).
- 10 Slide the nut to the end of the pipe and re-install onto the thread that it was originally removed from (in step 6).
- 11 Turn the handle of the valve as far as it will go (the valve has now pierced into the copper piping).
- 12 When you are ready to activate the water supply to your filter/filtration system, simply turn the handle in the opposite direction as far as it will go. This will then activate the water supply.

Maintenance

We recommend changing the 3 pre-filters every 6 months.

Each time the 3 pre-filters are replaced, please follow steps 2-6 and 32-42.

We recommend changing the RO membrane every 12 months.

Each time the RO membrane is replaced, please follow steps 6-12 and steps 36-42.

We would recommend changing the sponges on the refillable inserts at the first sign of discolouration or deterioration.

