HIGH
PERFORMANCE
FILTRATION

Undersink RO System – 5 Stage

MODEL ID: H1-25

Please read through the entire instruction manual fully before commencing installation.

IMPORTANT INFORMATION BEFORE INSTALLATION

Notice: Water filter systems/taps, like any other product, have a limited lifespan and will eventually need replacement. Unexpected circumstances may cause them to fail prematurely. To prevent property damage, it's important to regularly inspect the system for leaks or signs of wear and replace it as necessary. We strongly advise using a drain pan that is either connected to an appropriate drain or equipped with a leak detector in situations where leaks could cause damage. Additionally, if no one will be home for an extended period, we recommend turning off the water supply upstream of the water filter system/tap.

CAUTION: Do not use with water that is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the system.

While the system is designed to support water quality under typical use, supplementary treatment may be advisable in certain scenarios to assist in maintaining bacteriostasis and managing potential variations in microbial content.

A 500 kPa PLV must be installed on the property, or between the Cold Water Stop Valve and the Filter System to limit the incoming pressure to a maximum of 500 kPa (70 PSI). Failure to install a PLV may void warranty. If a Cold-Water Line Stop Tap (Isolation Valve) is not already fitted at the point of installation, the plumber should install one.

This system is designed to be installed under the sink by way of connection between the Cold-Water Inlet and a dedicated drinking water tap. Ensure the installation location is suitable for both installation and maintenance. Minimum inlet water pressure 400 kPa is required for this system.

DO NOT USE THREAD SEALANT – ONLY THREAD TAPE WHERE REQUIRED. TAKE NOTE OF INSTRUCTION MANUAL WHICH STATES WHICH CONNECTIONS REQUIRE THREAD TAPE AND WHICH DO NOT.

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Technical Overview

I. Important Notes

For correct operation of this appliance, it is essential to observe the manufacturer's instructions. Installation must be carried out by a qualified plumber or authorised technician to comply with Australian Plumbing Codes. This system is certified to WaterMark Standards AS 3497:2021 under Certificate Number 23247. WaterMark Certification is the level of certification required by law for a licensed plumber in Australia to install a water filter system.

In accordance with plumbing regulations, a backflow prevention device is required for plumbed-in POU undersink drinking water filters, and the system is supplied with a compliant valve to meet this requirement.

You will find most answers to your queries can be found in this instruction manual – please thoroughly read through this manual from front to back including the troubleshooting page before contacting customer support.

II. Before You Purchase or Open

The system requires specific working conditions to be met before installation, some of which are listed below. If these conditions are not met, the system may not be suitable for the application and may not function as specified.

These systems are designed for use in home applications on Mains Water or Tank Water. For applications where raw water supplies are used (E.g. Bore Water) please contact the manufacture for technical assistance to determine if your application is suitable for this system.

Feed Water Conditions	Min	Max
Inlet Pressure	400 kPa*	700 kPa
Temperature	4.5°C	38°C
pH Level	2	11
TDS	0 mg/L	2,000 mg/L
Iron	0 mg/L	0.3 mg/L
Manganese	0 mg/L	0.1 mg/L
Hardness	0 mg/L	300 mg/L

***Minimum inlet pressure is 400 kPa for the system to function correctly. Running the system lower than 400 kPa will cause the rejection rate to decrease and may result in operational issues.**

III. Space Requirements

System Dimensions (Approx):
Height: 43cm, Width: 37cm, Depth: 21cm

Storage Tank Dimensions Large (RO 132):
Tank Height:(with stand) 42cm, Tank Height: (without stand) 38.5 cm, Tank Width: 29 cm.

IV. Before Installing

All components that come pre-assembled will need to be thoroughly checked before installation. Due to transit, fittings and other components may be loosened or unseated – ensure fittings, tubing and filters are inspected before continuing.

V. Scope of Use

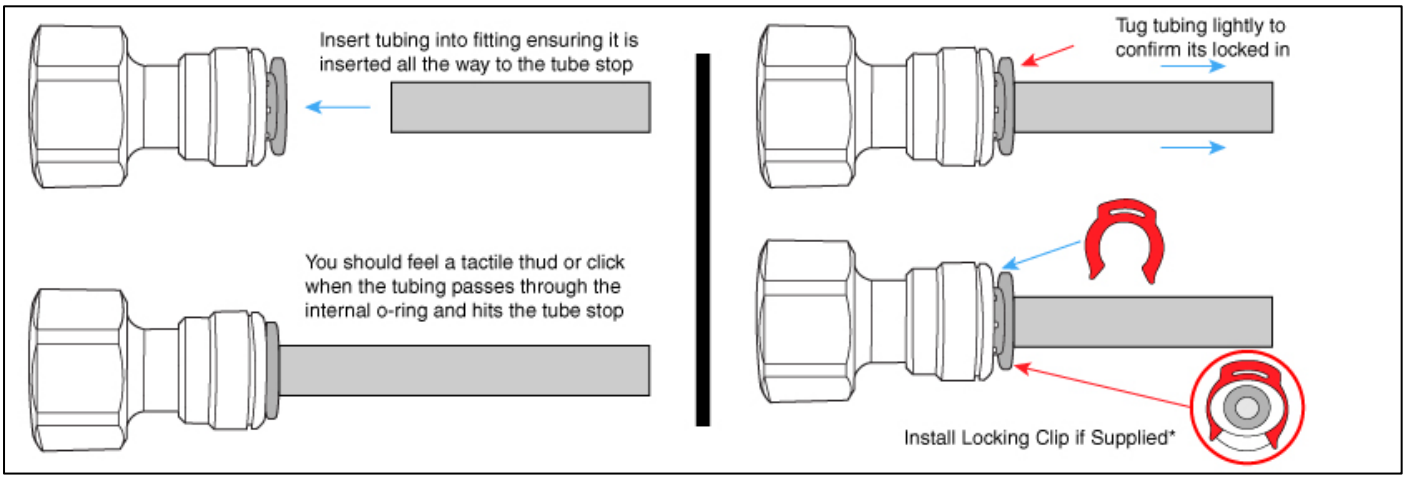
This undersink Reverse Osmosis (RO) system is intended for point-of-use installation and is suitable for use with potable water supplies that meet local drinking water standards. It is designed to improve the aesthetic quality of water, such as taste, odour, and clarity, by reducing a broad range of dissolved substances through a semi-permeable membrane. The RO membrane used in this system is certified to NSF/ANSI Standard 58 for the reduction of Total Dissolved Solids (TDS), as verified under specific test conditions. The system operates by separating the incoming water into two streams: treated water for consumption and a secondary stream carrying the residual concentrate to waste. It is intended for residential or light commercial applications.

VI. Quick Connect Fittings

Pushfit or quick release fittings are commonly used on water filter systems as they provide a rapid & secure connection without the need for tools. They operate by simply pushing the tube into the fitting, where internal components grip and seal the tube securely.

a) Installing tubing into fitting

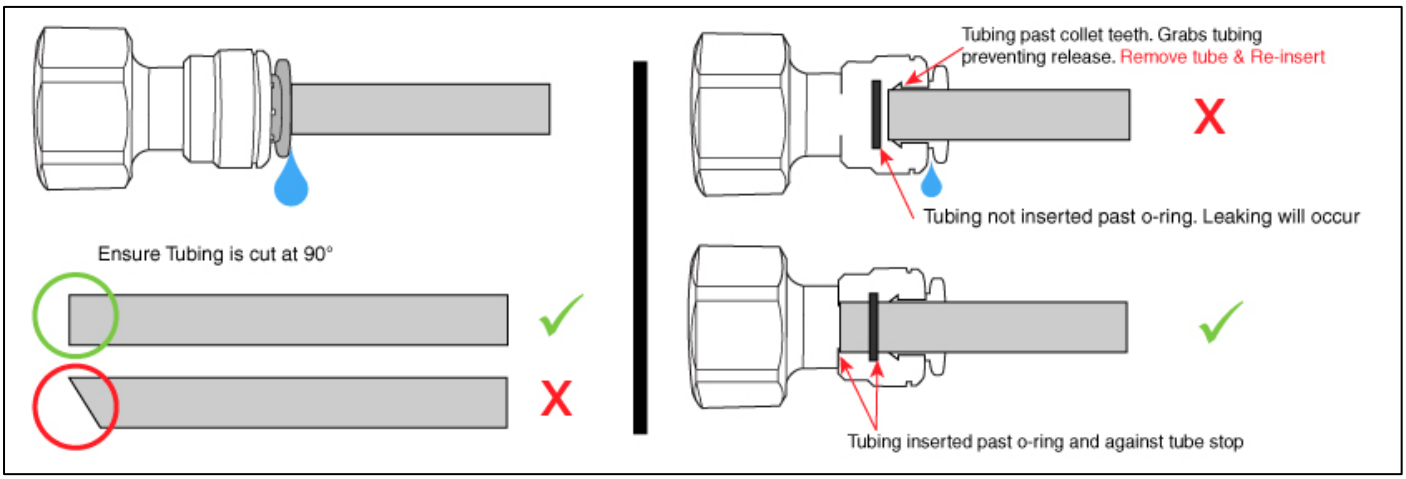
Ensuring the tubing has a clean cut 90° edge, push the tubing firmly into the fitting until it reaches the tube stop end. You should feel a tactile thud of click when the tubing passes through the internal o-ring and reaches the stop. If you have a locking clip, insert it between the fitting and the collet. Locking clips are not required for the fitting to function correctly, they are designed as a safety backup which prevent accidental disconnection of the fitting if it were to be knocked, moved or if the tubing is at a certain angle that is putting pressure on the collet.



b) If fitting leaks

If there is water dripping from the fitting at the point where the tubing pushes in, usually this is because the tubing has not been inserted far enough into the fitting to pass the o-ring. The stainless-steel teeth within the quick connect fitting can bite into the tubing before the tubing is fully inserted which can give the impression that the tubing is installed correctly. If this occurs, remove the tubing and re-insert.

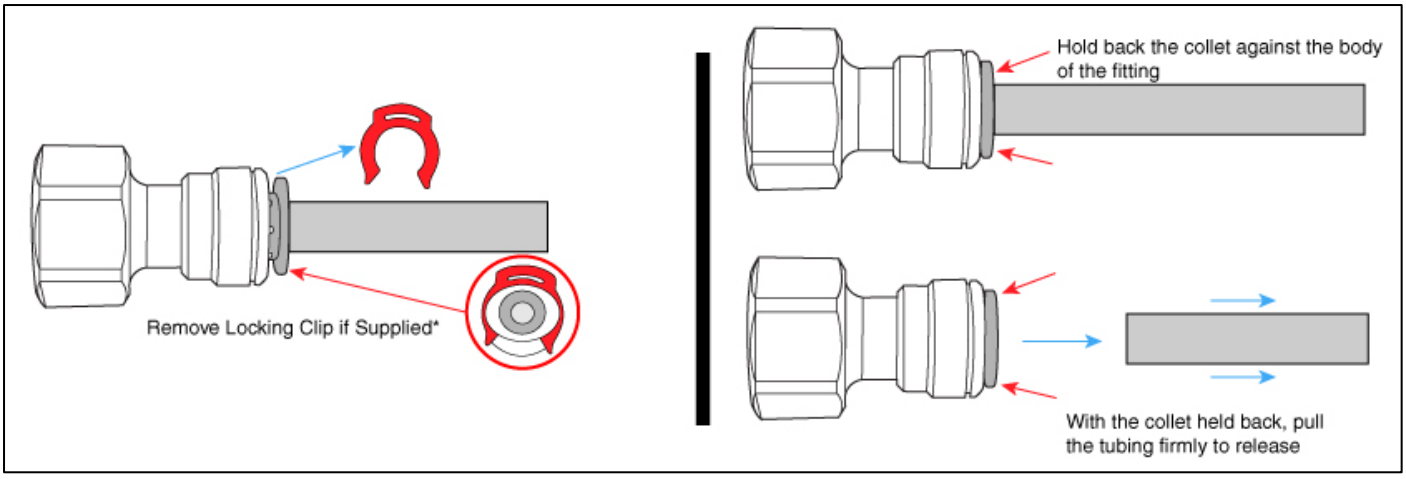
In some cases, it could be due to the tubing not having a clean and parallel cut, this should be checked and re-cut if it is the issue. Lastly, there could be damage to the internal o-ring on the fitting, a visual inspection should confirm this. If none of the above, please contact the supplier.



c) Disconnecting tubing from Quick Connect Fitting

To disconnect the tubing from the fitting, the water will need to be turned off and the filter system will need to be de-pressurised (Usually by opening the tap to remove excess pressure). Once the pressure is gone from the tubing, the fitting can be removed. Firstly, remove the locking clip (if applicable), hold back the collet against the body of the fitting. Pull on the tubing firmly to release it from the fitting.

(Diagram over page)



Due to guidelines, we are unable to wet test these filtration systems before shipping. As a result, the systems are not pressure tested during assembly, which may lead to minor leaks in connections. These leaks can be easily fixed by re-seating the tubing or tightening a fitting. Additionally, since the filters are dry packed, the systems will require flushing before their first use.

Installation

I. Feed Water Connection

Locate the connection between the kitchen tap & cold-water line. Shut off the incoming water and bleed pressure from the line by opening the kitchen tap. Disconnect the pre-existing kitchen tap's Cold Water Flex Hose from the **Cold-Water Stop Tap** (Inlet) and install the ½" **Feed Water Adaptor**.

NOTE: This connection uses washer seals, do not use thread tape on these connections.

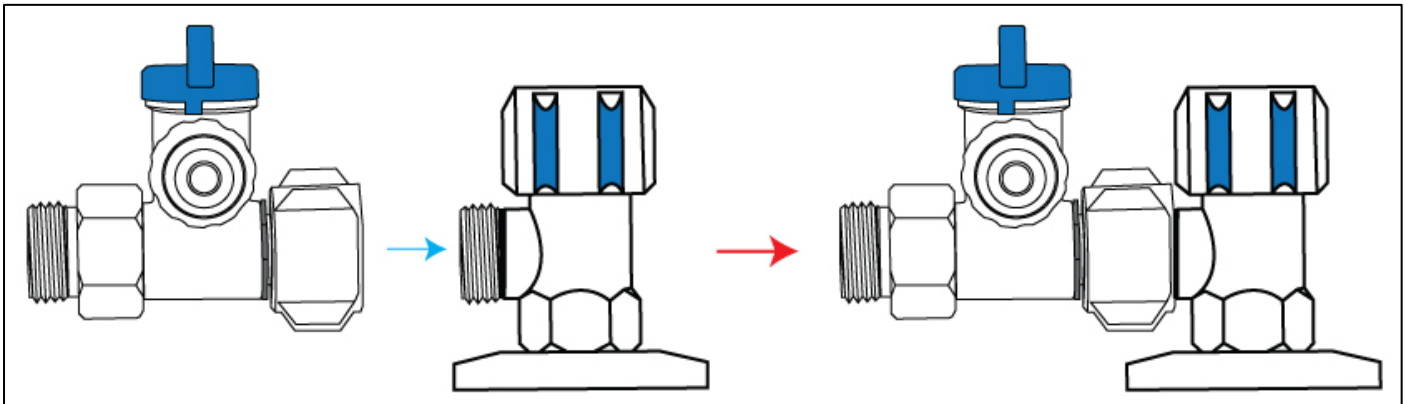


Fig. 1 Install Feed Water Adaptor onto Cold Water Inlet

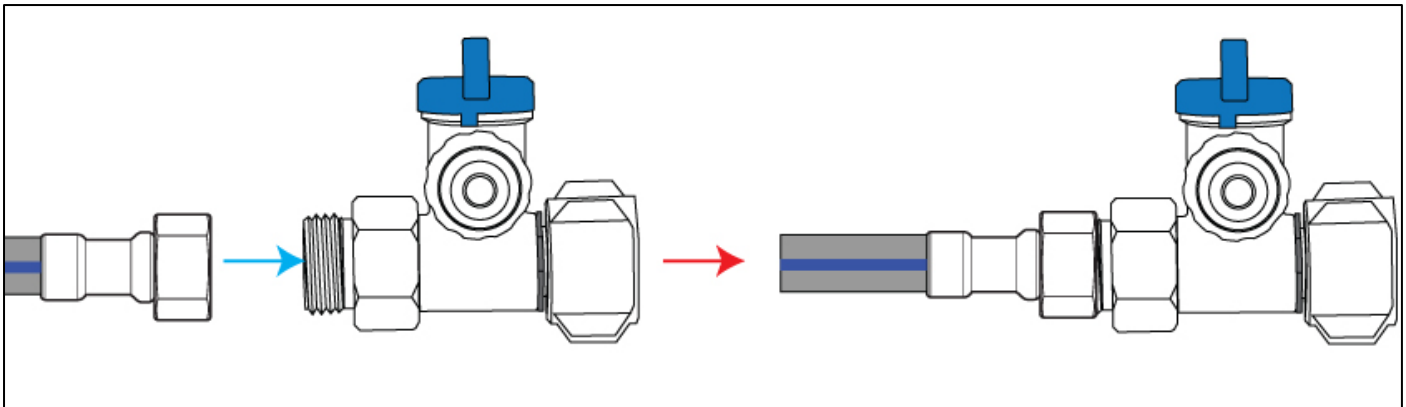


Fig. 2 Re-connect cold water flex line to Feed Water Adaptor

The blue handle on the tap will signify the direction of the water flow. Pictured here, the tap is in the open position which will allow water to flow out the ¼" sideport. To turn off the side port, turn the tap handle 90° so it is pointing inline with the main cold water line. When the **Feed Water Adaptor** is turned OFF, you can turn the **Cold-Water Stop Tap** back on to check for leaks.

A Pressure Limiting Valve (PLV) is required on the inlet of the filter system. To limit the incoming pressure to a maximum of 500 kPa (70 PSI). Failure to use a PLV may void warranty.

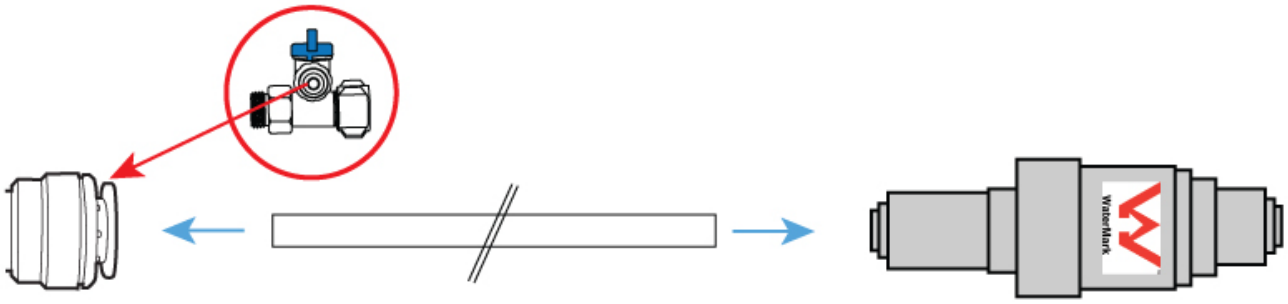
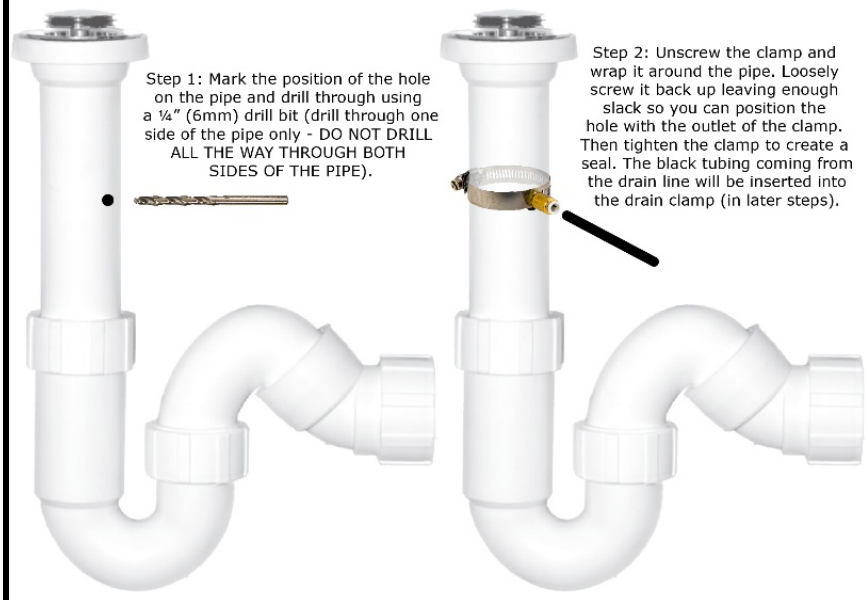


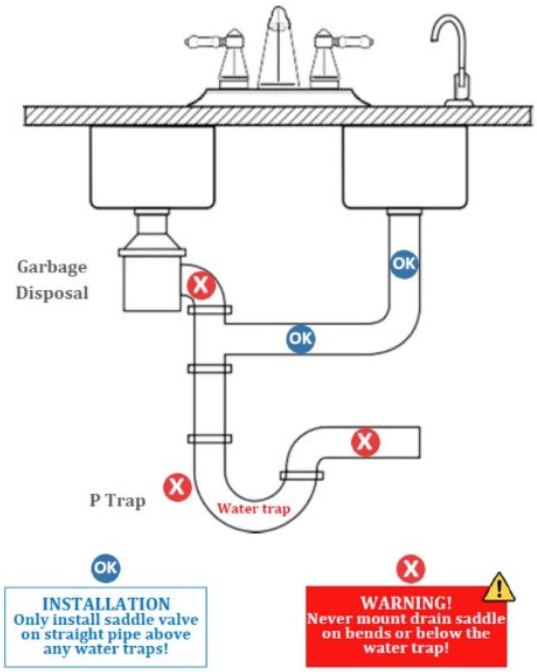
Fig. 3 PLV connected to the Feed Water Adaptor

II. Drain Clamp Connection

The best installation point for the drain clamp is **above the S bend (Trap)**.
Alternatively, if you have a double sink and there is a **P Trap**, you can install it on the **topside** of the horizontal pipe.

1. Mark the position of the hole on the pipe and drill through the surface using a ¼" (6mm) drill bit (One side of the pipe only).
2. Unscrew the clamp and wrap it around the pipe, loosely screw it back up leaving enough slack so you can position the hole with the outlet of the clamp. TIP: You can insert some spare ¼" tubing into the drain clamp port so it protrudes out and use this to help line up the hole.
3. Tighten the clamp to create a seal. Do NOT overtighten the clamp as this can damage the gasket. Only tighten enough so the seal is firm to prevent any leaks.





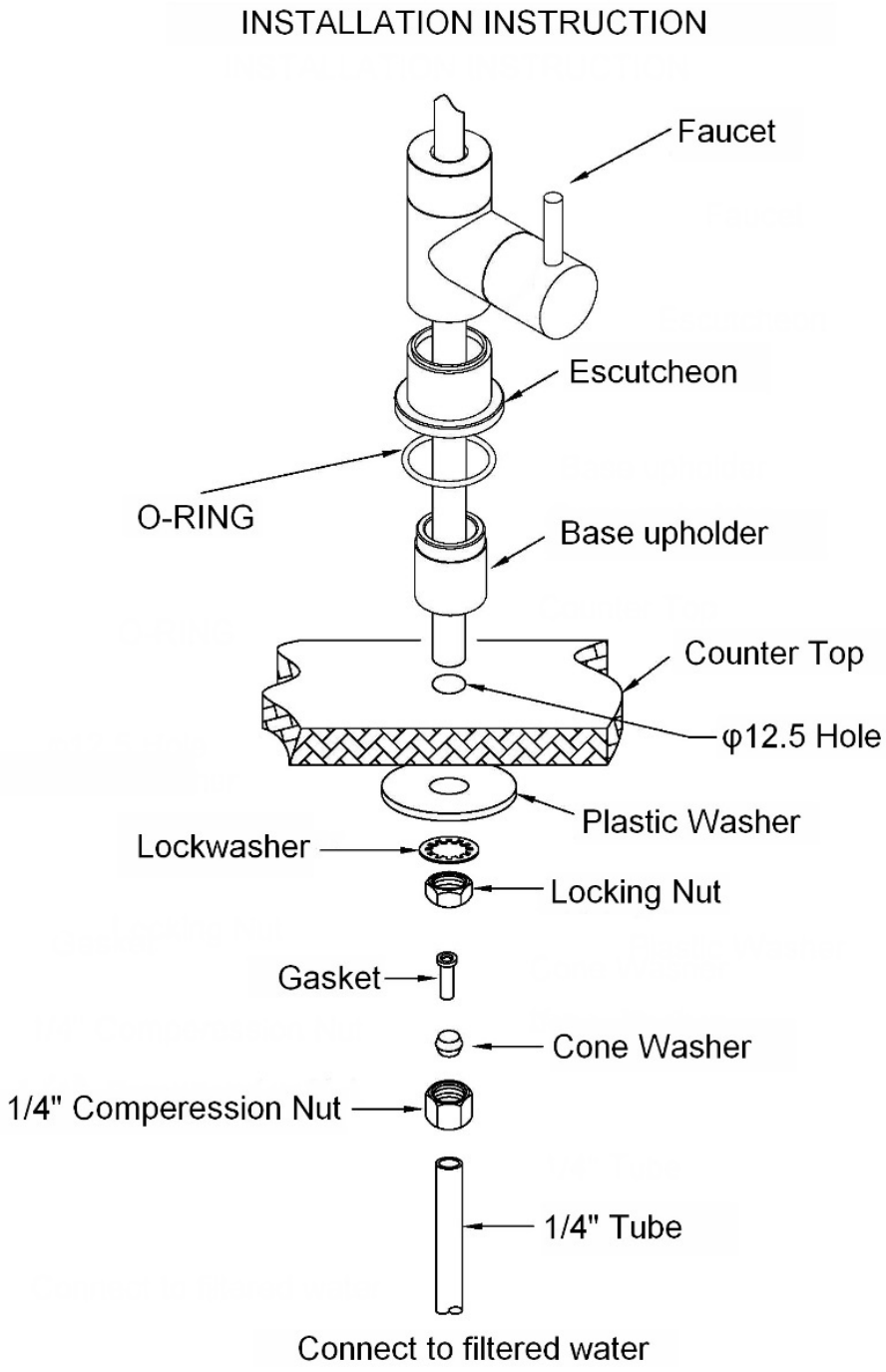
III. Drilling Faucet Hole – Stainless Steel Sink

1. Drilling through a stainless-steel sink can be achieved by marking the location with a centre punch and drilling a 3/16" Pilot Hole – When drilling through stainless steel – lower speeds are better with a sharper bit to avoid burning the surface of the sink.
2. Using a 1/2" carbide or sharp drill bit, enlarge the hole to fit the stem of the faucet (7/16" Thread). For installation on other types of sinks – such as stone, it is best to employ a specialist to drill the hole to ensure it is done correctly – where possible it is best to get the sink manufactured with a pre-drilled hole. Alternatively, consider installing a 3 Way Mixer Tap in place of the current kitchen faucet, which alleviates the need to drill altogether.

Caution: If you have a stone benchtop, you should engage a professional to drill the faucet hole due to the risk of damage.

IV. Mounting the Faucet

1. Refer to the below diagram on the components of the faucet (NOTE: Models may vary)
2. Remove the required fixings of the faucet and thread the faucet through the hole.
3. Re-assemble the faucet fixings in the correct order and tighten into place.
4. The Faucet uses a compression fitting to connect to the filtered water tubing. Compression fittings crimp the tubing around a stem (gasket) to seal the water, the compression ring then prevents the tubing from being removed. In this instance, thread the Compression nut over the tubing, followed by the cone washer. Then firmly press the gasket into the end of the tubing. You can then insert the tubing into the base of the faucet and secure it by fastening the compression nut onto the bottom of the faucet thread.



NOTE: Base Upholder not applicable to all models

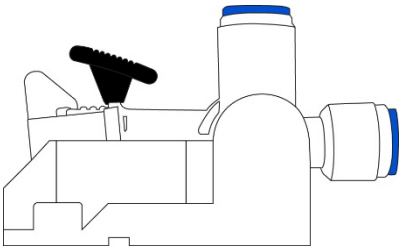
V. Storage Tank Assembly

1. Using standard white thread tape – wrap the stainless-steel port (top of tank) with 6 – 8 even rounds of tape. Ensure the tape does not cover the port.
2. Install the 90° Tank Valve Elbow firmly.
   NOTE: DO NOT tamper with the air valve on the tank during new installation – these tanks are pre-set to ~7psi (while empty). This is a bladder tank, and the water will go in/out of the tank on the same water line.

Please note that the Medium and Large Storage Tanks must sit in an upright position. Only the Small tank can be seated horizontally.

VI. Leak Shut Off Valve

The leak shut-off valve is a simple, yet effective safety device designed to help protect against incidental water damage. While undersink water filter systems are built for durability, they include various fittings and connections that may be disturbed during everyday use. Over time, natural wear or unforeseen issues may also contribute to minor leaks.



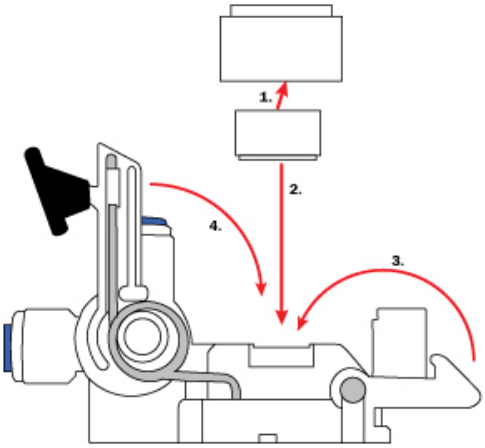
As an added layer of protection, the leak shut-off valve automatically stops the flow of water in the event of a leak, offering peace of mind and helping to minimise the risk of water damage. It is a recommended safeguard for any installation where water leaks could potentially cause damage to cabinetry or flooring.

The leak shut-off valve uses a highly absorbent fabric capsule positioned beneath a quick-release mechanism connected to a spring-loaded valve. When water contacts the capsule, it rapidly expands, triggering the mechanism and causing the valve to snap shut — much like a spring-loaded safety latch. This action instantly stops the flow of water, helping to prevent further leakage.

Because the valve is activated by direct water contact, it's important to position it where water is most likely to accumulate in the event of a leak. Ideally, it should be installed at the lowest point within the cabinet or inside a designated catch tray. If no catch tray is used, we recommend testing the slope of the cabinet floor by pouring a small amount of water and observing where it naturally collects. Install the valve in that location to ensure effective activation.

1. Add the fabric capsule to the plactic cap
2. Place the capsule into the receiver so the raised section is protruding out the bottom of the receiver
3. Swing the holder so it is sitting ontop of the plactic cap in the receiver
4. Arm the spring lever by pressing it down until it goes past the holder and grabs.

When water contacts the capsule - it will expand and cause the holder to lift. This will release the spring lever which is connected to the valve which will shut off the water.



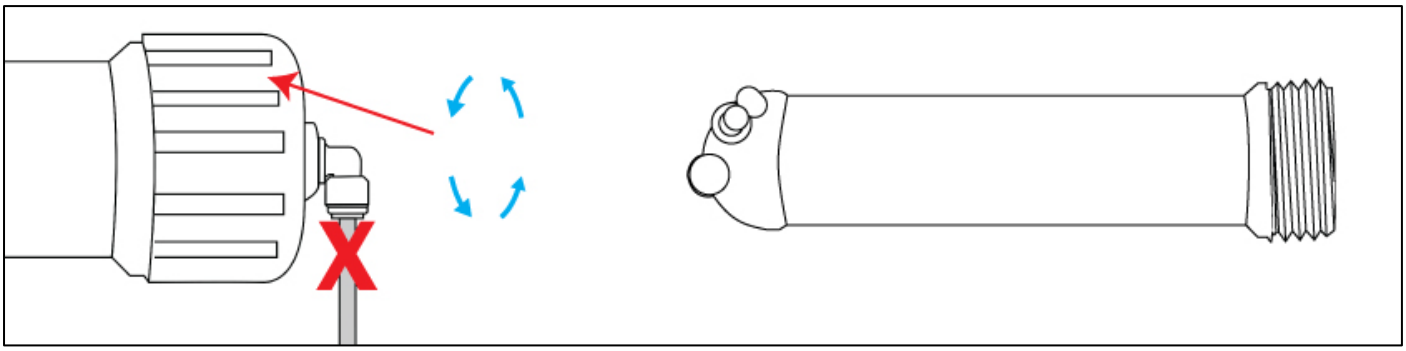
The valve includes two mounting options:

1. **Screw Mounting** – Two screws are provided. Use the two diagonally opposite mounting holes to secure the valve to the base of the cabinet or catch tray.
2. **Adhesive Mounting** – A die-cut double-sided adhesive pad is also included. This pad allows water to reach the fabric capsule through channels, even when the valve is stuck directly to the surface. Ensure the pad is firmly applied and that the valve is mounted securely.

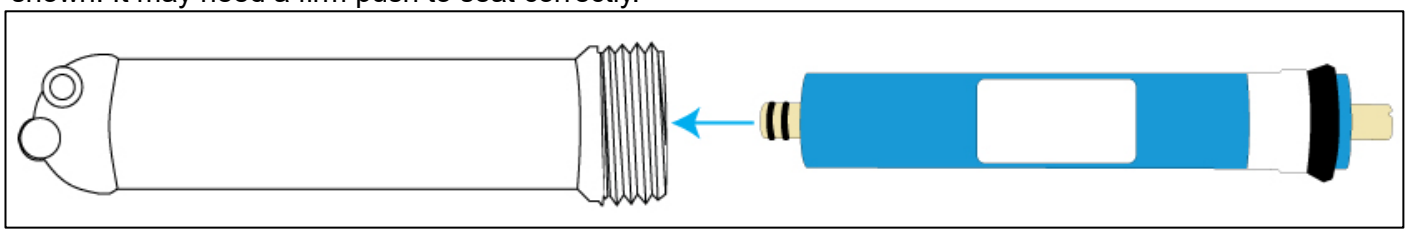
VII. Assembling the System

The RO system is supplied with the pre-filters and the membrane wrapped in packaging and not pre-installed. You will need to remove the **outer plastic shrink packaging** and the **plastic outer bag** from the membrane during the below assembly instructions.

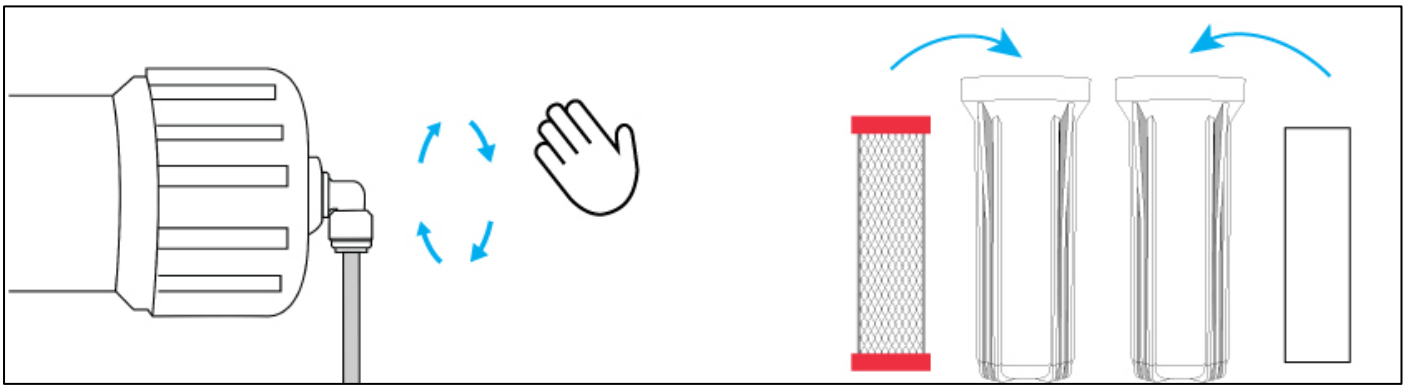
1. Disconnect the tubing from the membrane housing cap, and then unscrew the cap



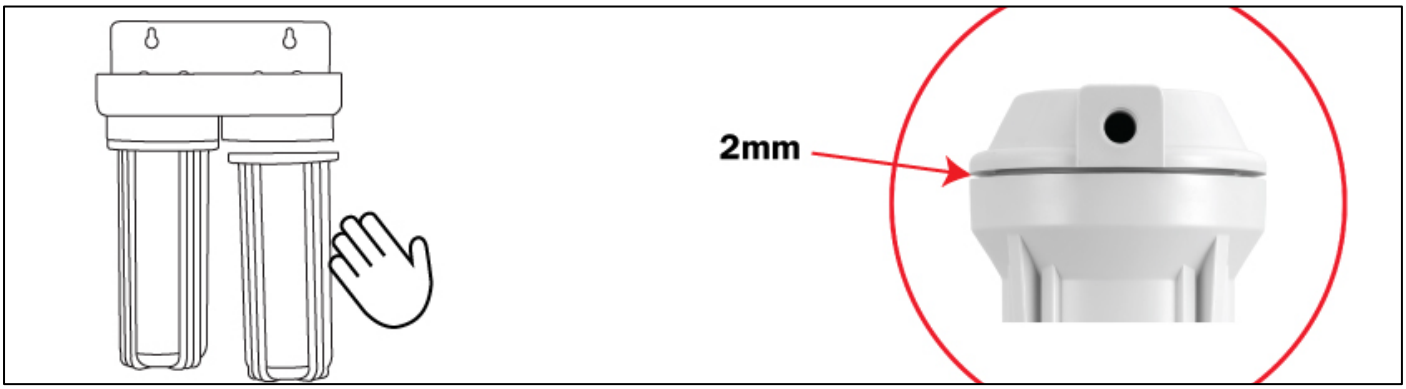
2. Remove the **outer clear plastic bag** from the membrane cartridge – **Do NOT remove the rubber gasket, tape or label from the membrane – only the clear bag.** Avoid excessive hand contact with the membrane to reduce the risk of contamination. Insert the membrane firmly into the housing O-rings first as shown. It may need a firm push to seat correctly.



3. Re-install the membrane housing cap and tighten firmly by hand, **do not overtighten**. Reconnect the tubing back into the fitting. Unscrew the vertical pre-filter housings and remove the outer shrink plastic from the pre-filter cartridges and install them carefully into the housings. The Polyspun Sediment in the 1st housing (right) and the Carbon Block in the 2nd housing (left).



4. Screw the housings back onto the base while it is in a vertical position to ensure the cartridges remain centred in the housing. Gently wobbling the housing during tightening can help guide the filter into the correct position. **Hand Tighten Only** – Do NOT use the opening tool to tighten the housings as this can weaken the housings causing failure. There should be a 2mm gap between the cap and housing.



Connecting the RO System

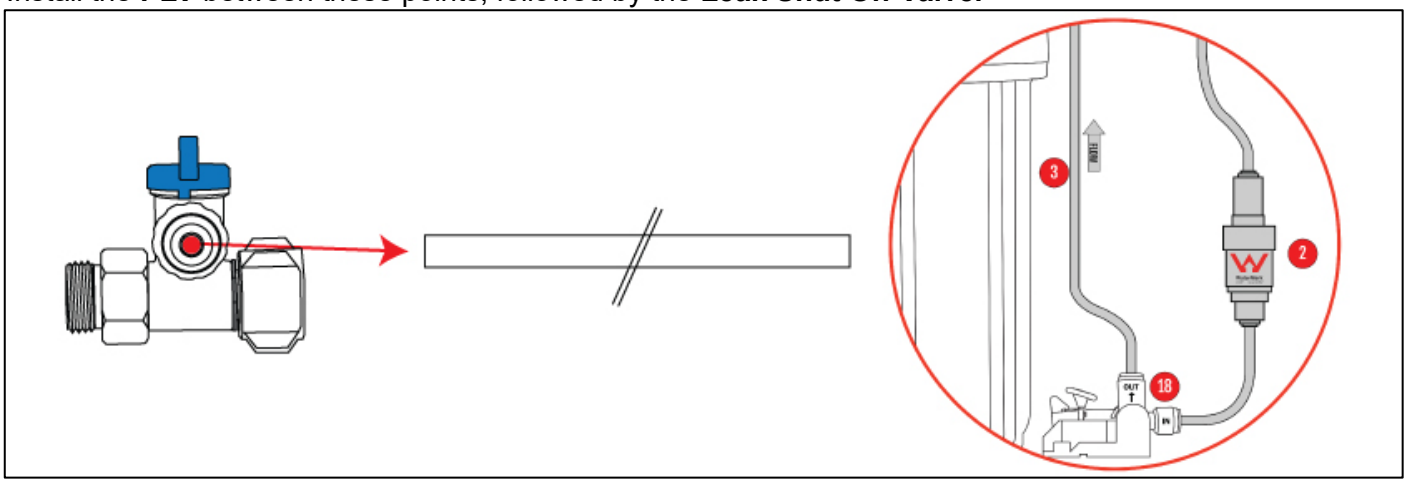
I. Tubing Connections

This Reverse Osmosis System is supplied with multiple lengths of ¼" filtration tubing with varying colours. While all tubing is the same, the colours can help differentiate which is which and can be helpful when it is time for maintenance or troubleshooting.

When cutting tubing to length, ensure you allow ample slack so the system can be easily moved for servicing the filters.

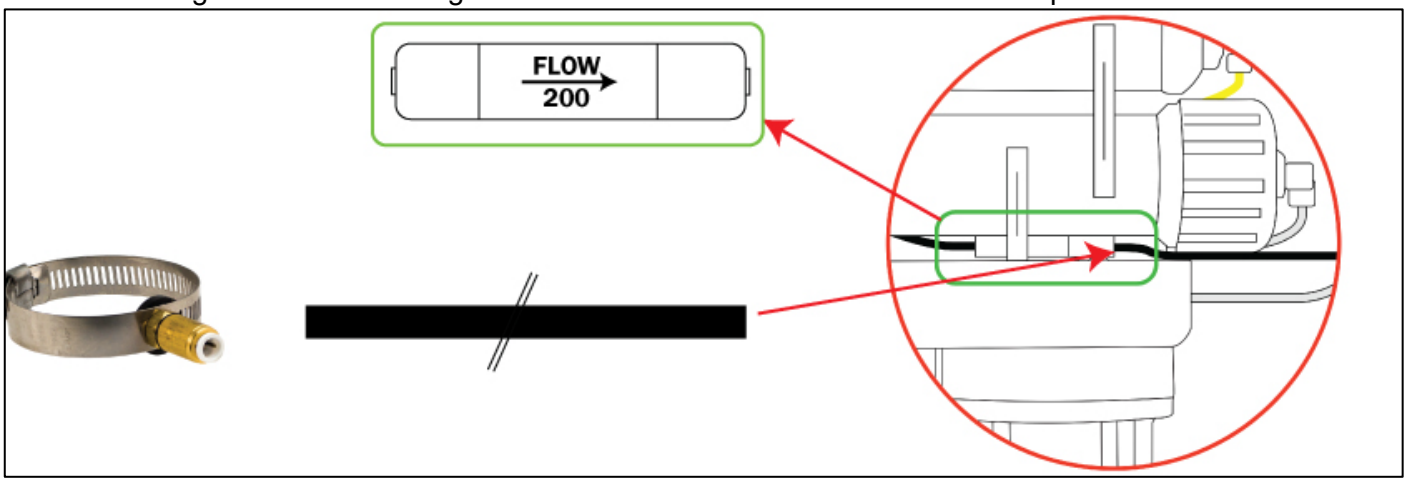
a) Inlet Line

Measure a length of **WHITE** tubing to be installed between the **Feed Water Adaptor** and the Inlet Port. Install the **PLV** between these points, followed by the **Leak Shut Off Valve.**



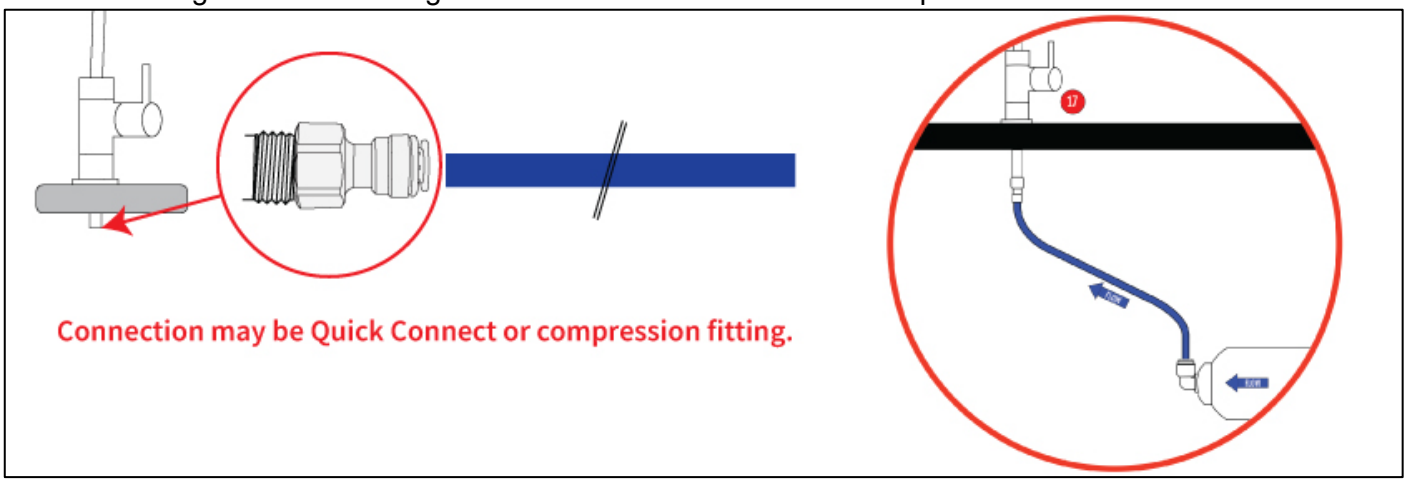
b) Drain Line

Measure a length of **BLACK** tubing to be installed between the waste drain clamp and the flow restrictor.



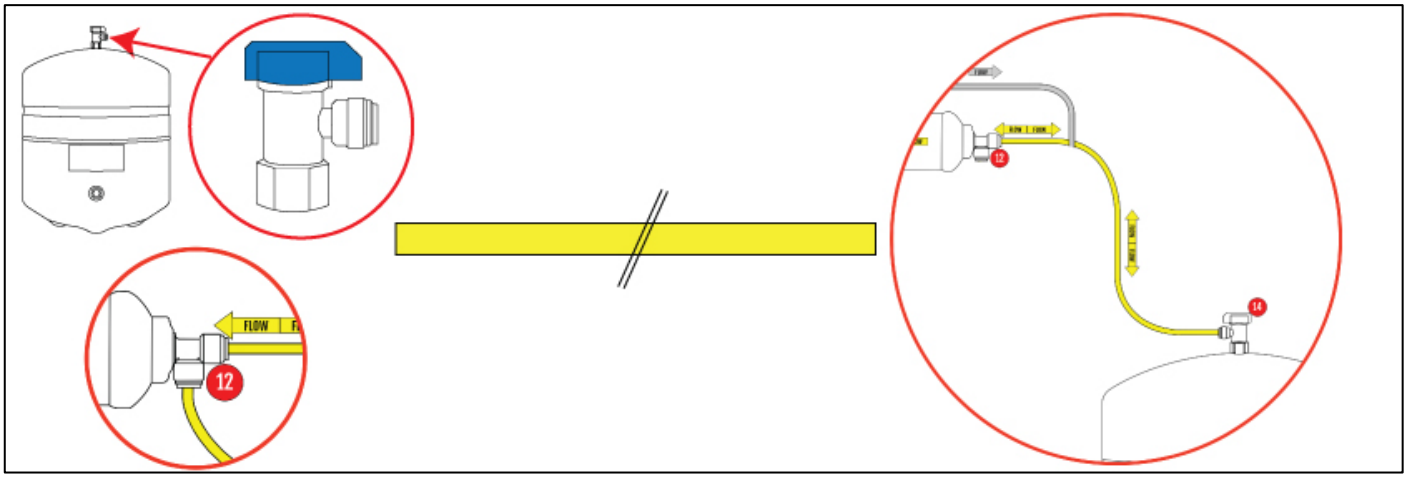
c) Faucet Line

Measure a length of **BLUE** tubing to be installed between the faucet tap & final filter.



d) Tank Line

Measure a length of **YELLOW** tubing and connect between the **Tee Fitting** on the **Alkaline Filter** and the **Tank Valve.** Water will flow in both directions on this line when filling or dispensing water.

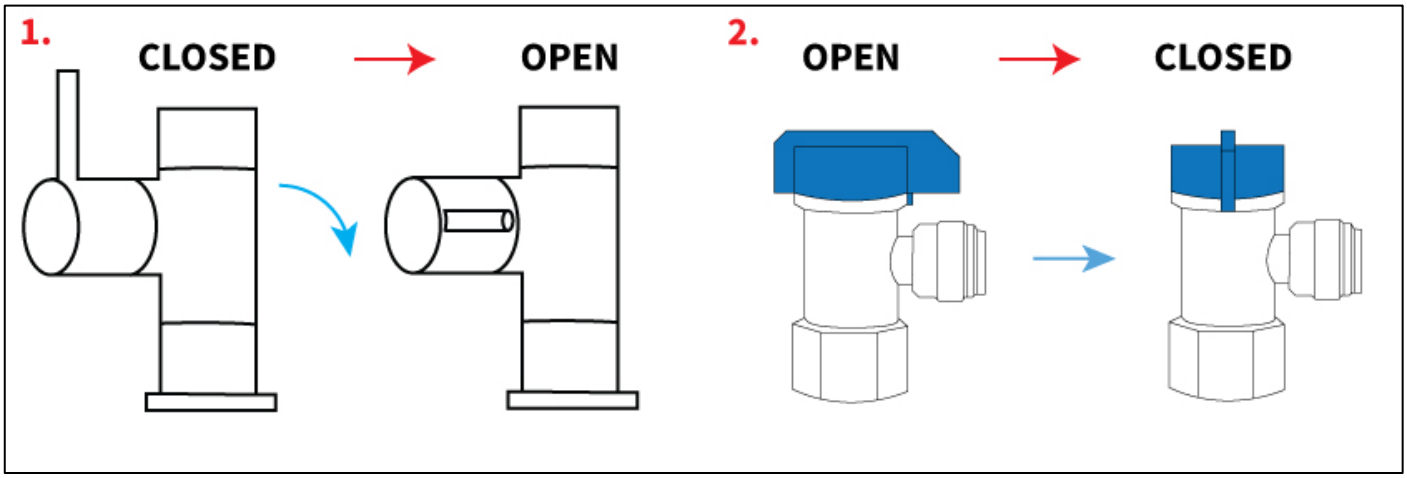


System Start Up & Operation

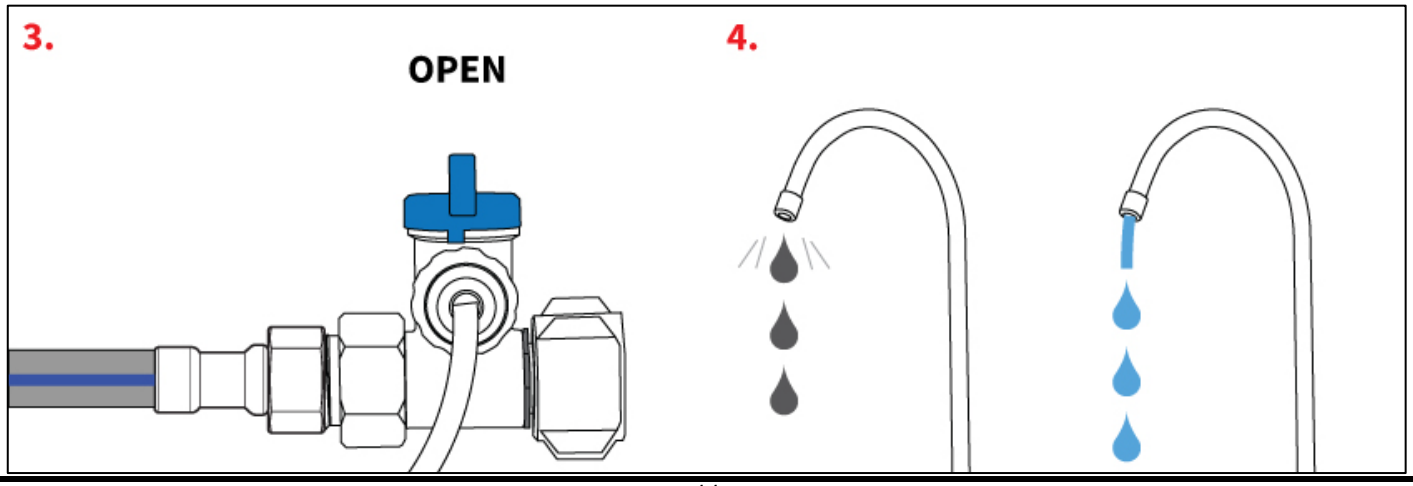
I. Plumber Commissioning

When you are confident that everything is connected correctly, follow the below steps to start the system commissioning

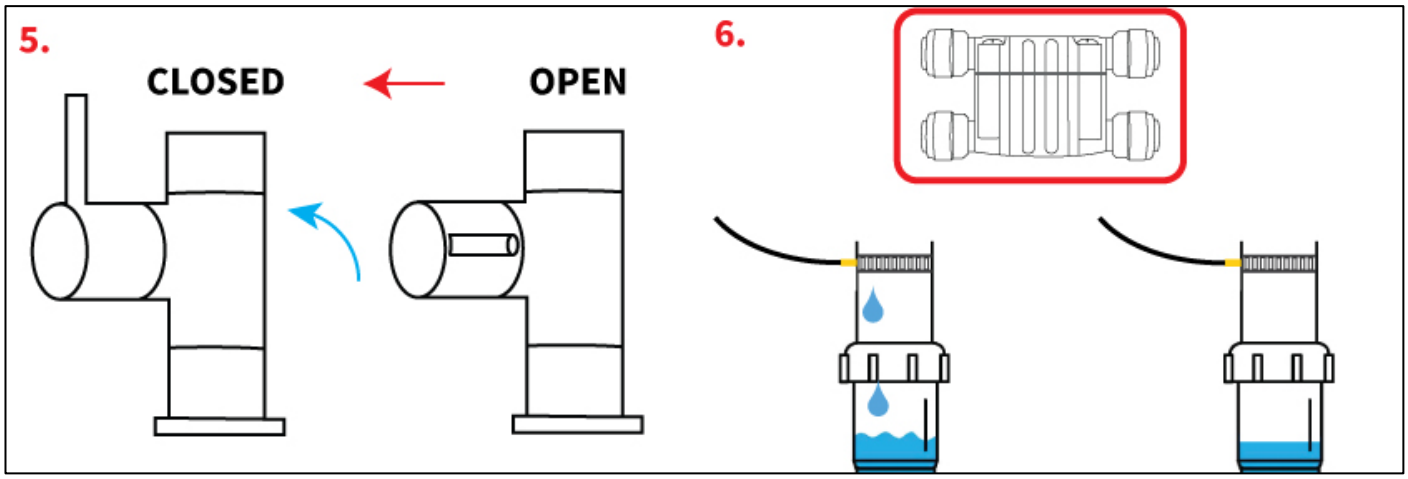
- Open the Faucet Tap – This will help to bleed out the air from the system when starting
  Close the Storage Tank Valve – This is to ensure all filters are wetted down and the air can be purged.



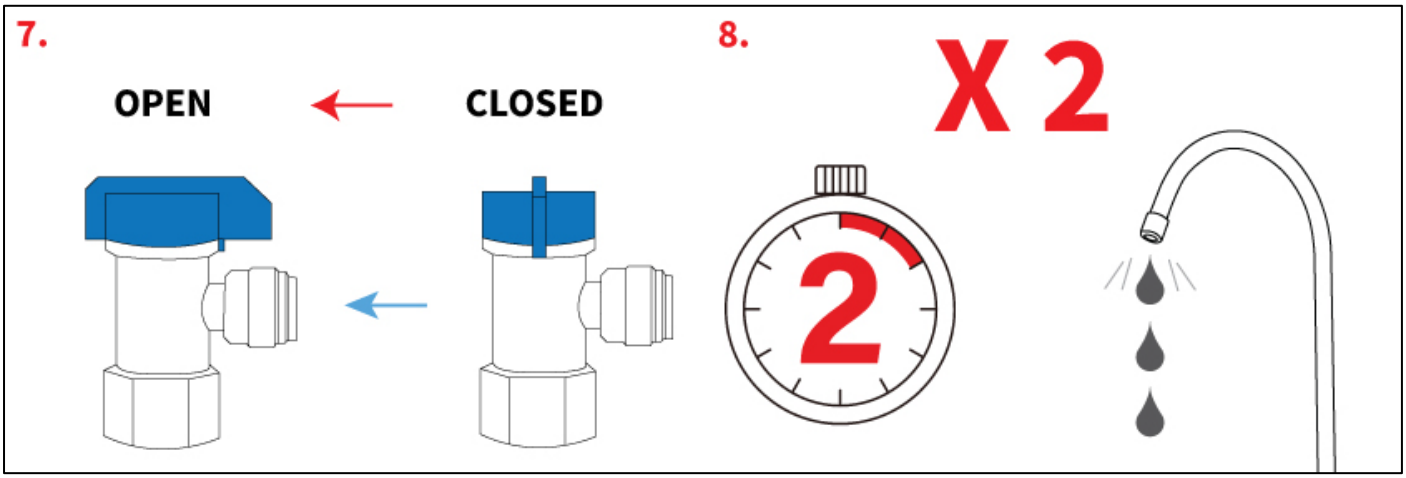
- Smoothly open the Feed Water Adaptor allowing water to enter the system, you will likely hear air purging from the system. The drain line will begin to flow once water reaches the membrane filter.
  NOTE: Check for any leaks in the system while the system is filling.
  The first lot of water begins to come out the faucet, it will likely be cloudy and black – this is normal and is just the carbon fines + small air particles in the water. Sputtering may occur also.



- Once the faucet comes to a steady trickle of water (all air has been purged), close the faucet tap. In doing this, the Automatic Shut-off Valve (ASV) should activate which will cut the incoming water to the membrane, this can take up to 60 seconds. This will cause the drain line to stop flowing and the unit will enter a 'standby'. Check that the drain line stops flowing at this point to confirm the system is operating correctly. **NOTE:** There may be some dripping in the drain line as the excess water drains from the tube, but the active flow should stop.



- Once the ASV is confirmed to be working correctly, open the Storage Tank Valve. The ASV should actuate, and water will begin flowing again which will be collected in the storage tank. The system produces water at approx. 130mL per minute so the storage tank can take 1.5 to 2hrs to fill depending on the tank.
  At this point, if you are confident that the system is functioning correctly and there are no signs of leaks or any concerns, you can finish your portion of the installation – ensure that the client is aware of the following steps to conduct next. We suggest that you (As the plumber) understand the remaining portion of the manual in case the client has further questions or to help basic troubleshooting.
  The System will now require a minimum of 2x flushes. This is essentially opening the faucet tap and draining all the contents of the tank twice – Instructions on this continued below…



II. Client to Complete Commissioning

- When the tank has had long enough to fill, open the faucet tap on the sink and allow all the stored water to flush out the system. You should notice some discolouration/cloudiness which is normal. Repeat this process at **least** 2 times to clear the fines from the system.
  The RO membrane has a small amount of food grade anti-bacterial preserve inside it which will be flushed out during these flushes. Air bubbles are common to remain in the system for up to 2 weeks, but they will disappear quicker if the system is flushed more or used frequently.
- The system is an alkaline unit which means minerals are dissolved into the water to balance the pH and 'alkalise' the water. When the system is new the pH can be higher than normal (which is still safe to drink) but you may notice a 'bitter' or 'metallic' taste in the water which is caused by the pH, NOT from any harmful chemicals or plastics. If you are not accustomed to drinking RO water or Alkaline water, you

may notice the water may taste ‘strange’ to your individual palate. This is due to the pH level in the water and once your body adjusts, you will no longer have an issue with taste.

III. Automatic Shut Off

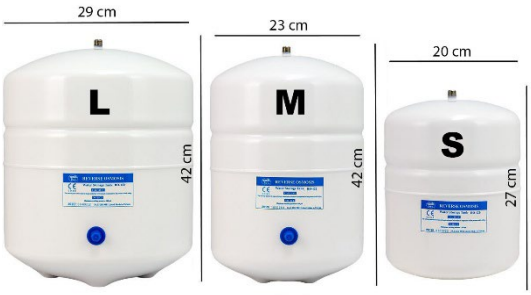
This system is fitted with automatic shut off. It is designed so that while the tank is full of water, the system is under pressure – this creates back pressure on the shut off valve and closes off the production water which will stop the water flow to the drain. When you draw water from the system, it will start back up and begin to produce water. The water is produced @ 8L/Hour +/- so if you take 1L of water, you can expect the system to run for approx. 5 – 15 minutes. Keep this in mind in case you hear running water and think the system is ‘leaking’ or ‘not shutting off’.

IV. Turning the System On/Off

If for any reason the system needs to be turned off – for example if leaking occurs or you are going away for over 48 hrs, follow the below steps to shut down the system.

1. Turn off the Feed Water Connection under the sink by turning the blue valve 90°.
2. Shut off the Storage Tank by turning the blue valve 90°
3. Briefly open the Faucet tap to bleed out excess line pressure and then close it again.

To start the system, open the Feed Water Valve and Storage Tank Valve. If the system has not been used for over 48 hrs – discard the first 45 seconds of water. If the system has been shut down for over 1 week – discard a full tank of water.



V. Storage Tank

A reverse osmosis (RO) storage tank is an essential component of an undersink water filter system, ensuring a steady supply of clean water on demand. These bladder-style tanks are made from steel and lined with food-grade butyl to safely hold the purified water. They are pressurized with air, which helps to push the water out when the tap is opened. The RO process can be slow, as it filters water through a semipermeable membrane that removes impurities. Without a storage tank, users would have to wait for the filtration process each time they needed water, making the system less efficient and convenient.

A common misunderstanding with reverse osmosis (RO) storage tanks is the difference between labelled capacity and usable water volume. For example, a Large tank's total volume is 18L but includes both water and air chambers, so it holds up 12 litres of water at 70psi. However, due to lower RO system pressures, it might only deliver around 8 - 10 litres. As water is drawn, the flow rate decreases, so even though Large tank may contain up to 10 litres, only about 5 litres might be at a desirable flow rate.

When we refer to a tank size (e.g. 12L) we refer to the maximum water holding capacity for the tank. This is the most common measurement used for tank sizing for Reverse Osmosis Systems. The 12L tank however is labelled at 18L as this is the total nominal volume of the tank (including air).

Maintenance

I. Replacement Cartridge Schedule

Filter cartridges can have a varying lifespan dependant on several factors including the water quality and the usage patterns of the filter system. The manufacturer’s recommended replacement guidelines are as follows:

- **Pre Filters (1, 2)** – Replace every 6 months
- **Post Filters (4, 5)** – Replace every 12 months
- **RO Membrane (3)** – Replace every 2 – 4 years

The lifespan of an RO membrane largely depends on water quality, assuming the filter change schedule is followed. In areas with hard water, the membrane typically lasts 1 to 2 years, while in areas with soft water, it can last between 3 to 4 years.

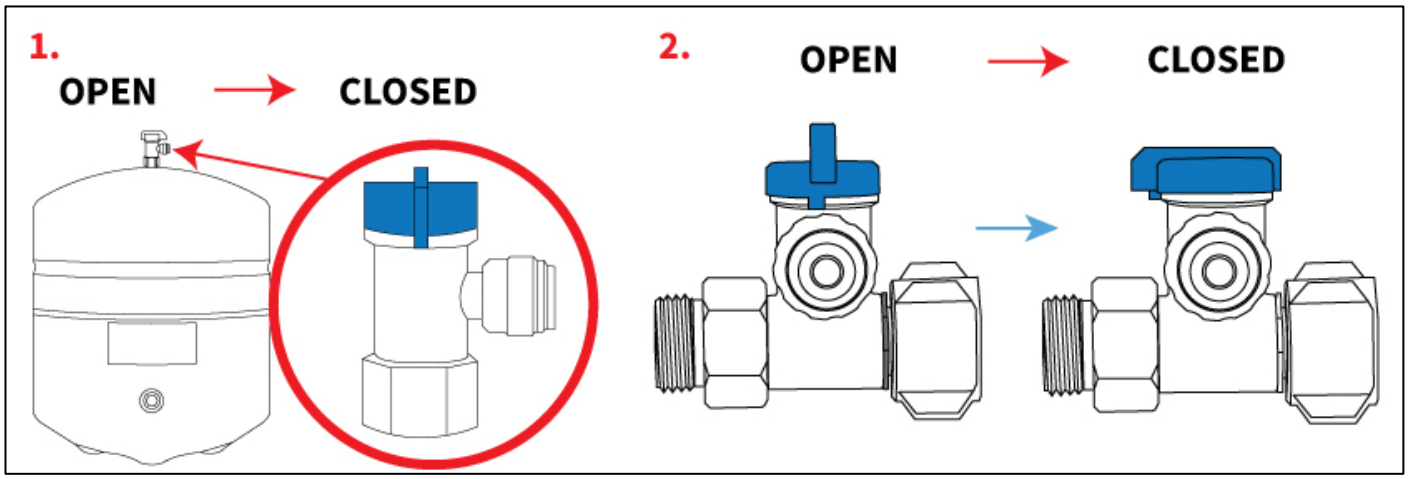
II. Service Inspection

All water filter systems have a limited lifespan and should be regularly checked to ensure safe and reliable operation. During routine maintenance, carefully inspect the filter housings for any signs of wear, including surface crazing, cracks, or weakening of the plastic components. An overall system check is also recommended to identify any early warning signs of potential failure. Regular inspections help prevent unexpected issues and reduce the risk of property damage. The filter should be inspected during regular filter changing at least once every 12 months. Failure to inspect the condition of the housings may result in a failure that could be prevented.

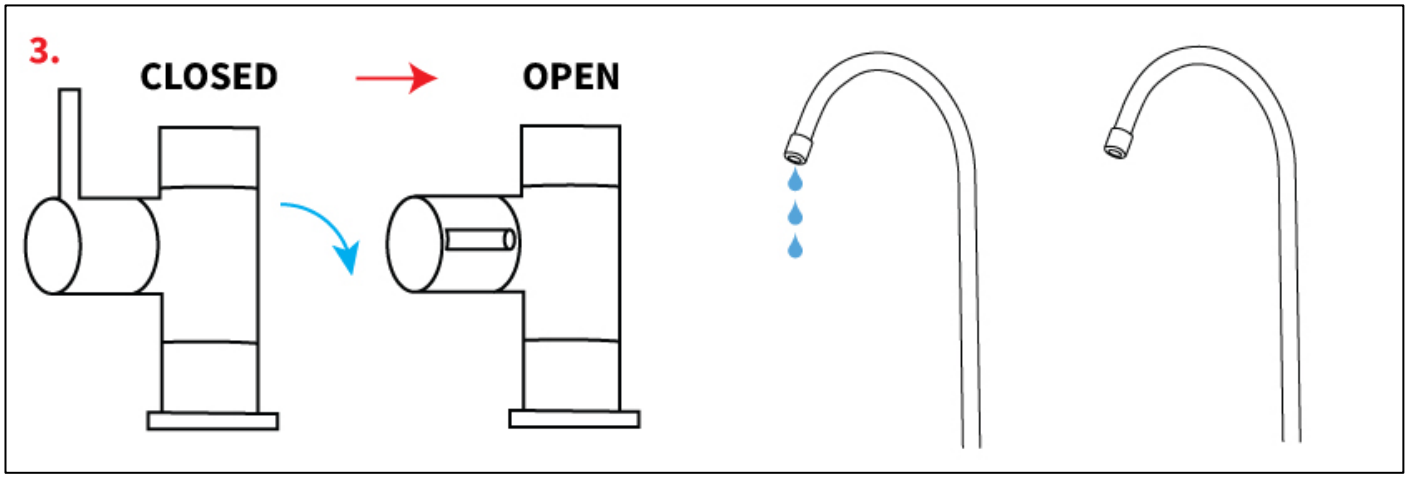
III. Replacing Filters

Before you begin, disengage the leak shut off valve (if applicable) and remove the fabric capsule so it doesn't get wet during servicing. Have a towel on hand to lay under or around the system to catch any water that may leak out.

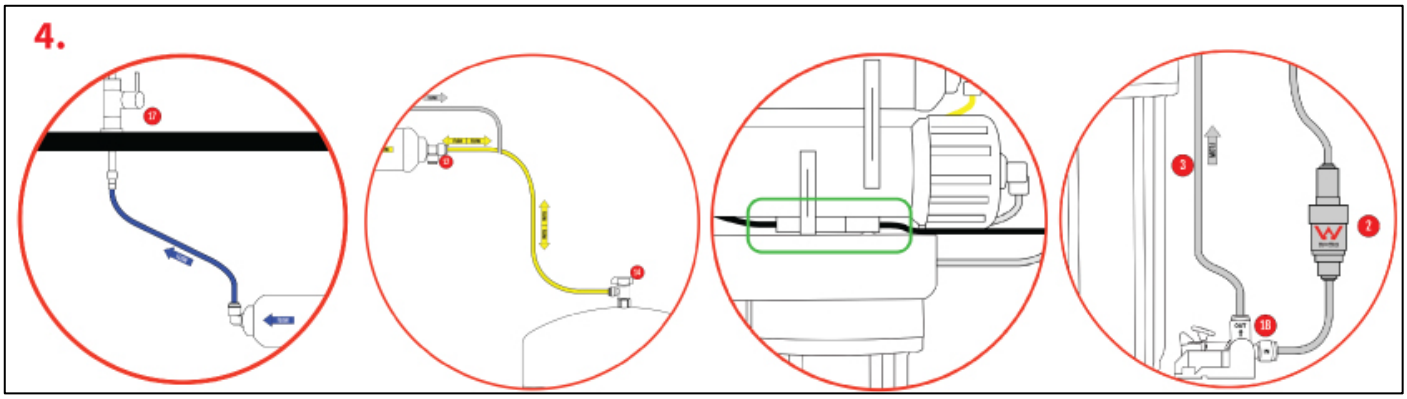
- Close **Tank Valve** and close **Feed Water Valve**.



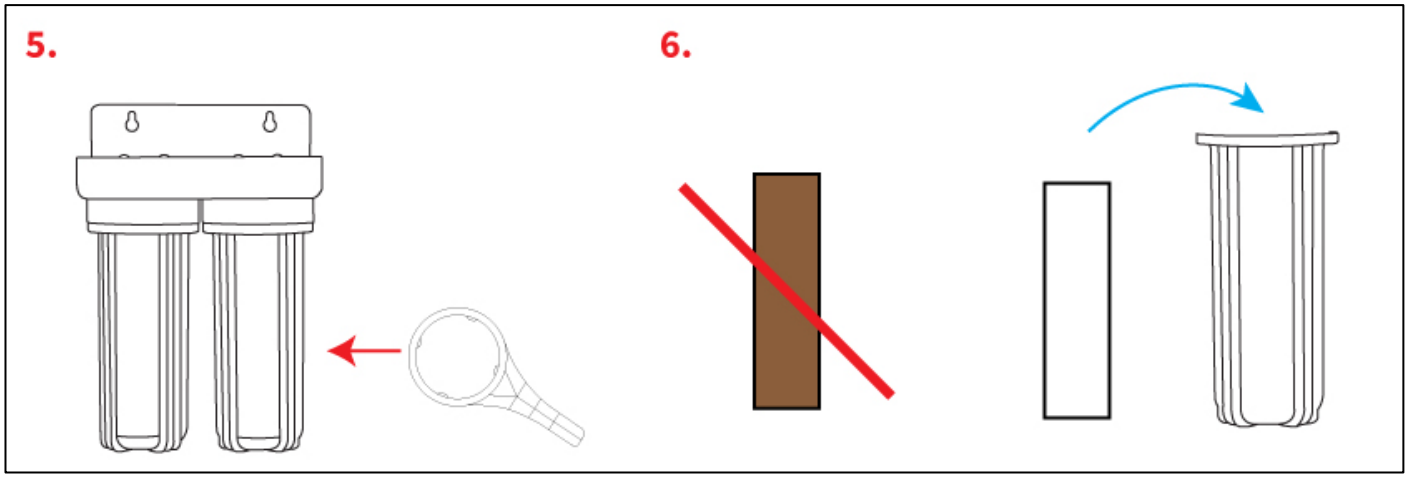
- Open **Faucet Tap** to bleed out any residual water pressure.



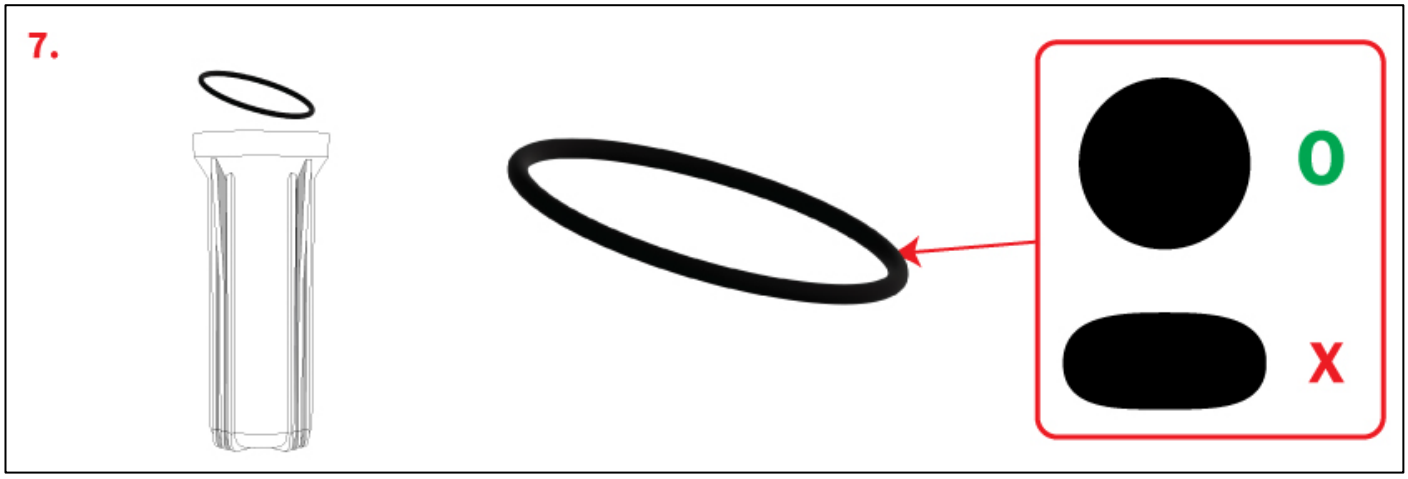
- For ease of servicing and inspection, disconnect the filter system from the 4 connection points; **Faucet, Tank, Drain, Inlet/Leak Valve.** During this, water may backflow and leak from the disconnected points. Use a towel to catch water. If possible, bring the system up onto the sink for easier servicing and to catch any spillage.



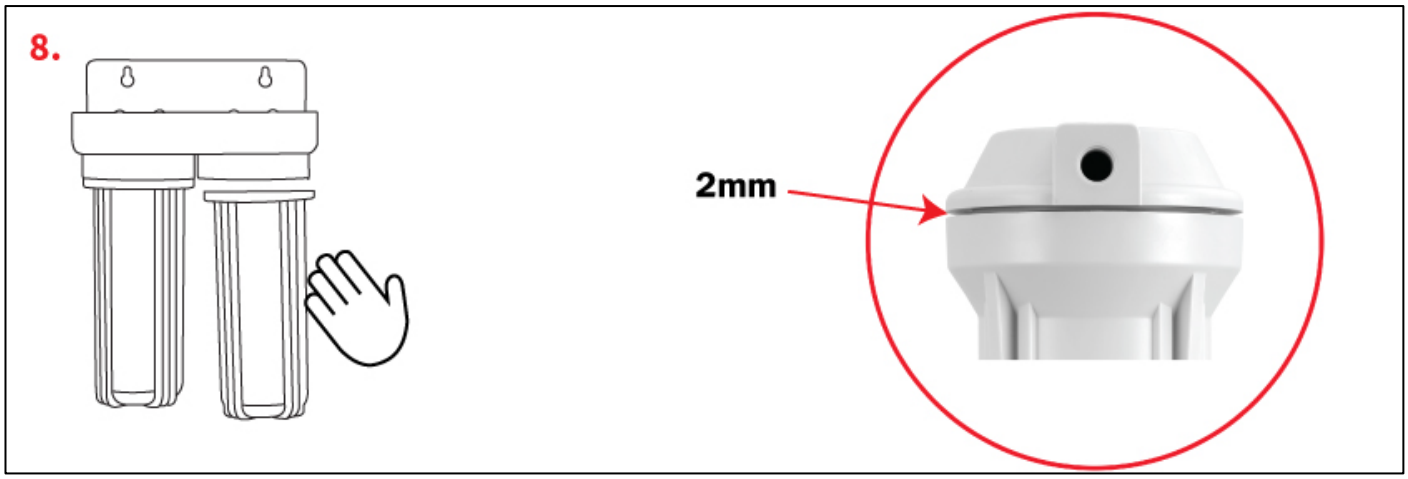
- Using the **Opening Tool (GT17-0)**, Unscrew the housings one at a time. NOTE: The housings will be full of water so after you break the seal with the Opening tool, unscrew the rest of the way by hand, keeping the system upright to prevent spillage. Discard the old filters as general waste. Carefully remove any shrink wrapping from the new cartridges and install them into the housings, ensuring the cartridges are centred.



- Check the condition of the **o-rings** in the housing, it is recommended that o-rings should be replaced at least **once per year**. O-rings over time are susceptible to flattening out of shape which will result in more pressure being required to seal the housings. This can lead to expedited weaking of the housings or leaking.

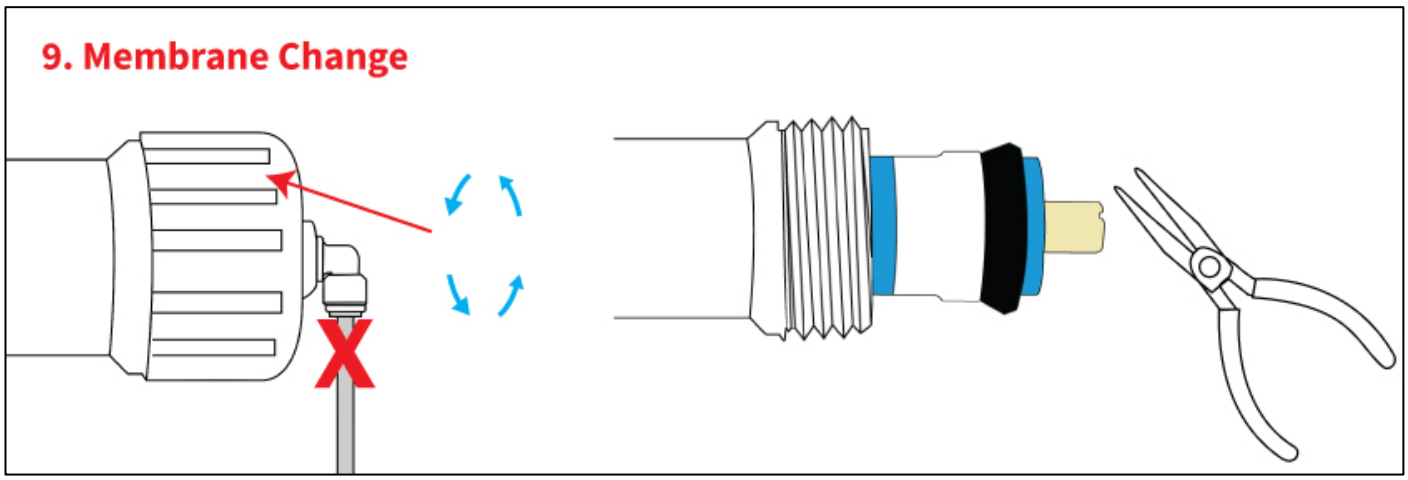


- Tighten the housing by **hand only** – do not use the opening tool as this can encourage overtightening. **A thin gap** (2mm) between the sump (housing) and the cap should be present. If you notice the gap is smaller or the 2 parts are touching – the housing **is too tight**, the o-rings may be out of shape and need replacing.

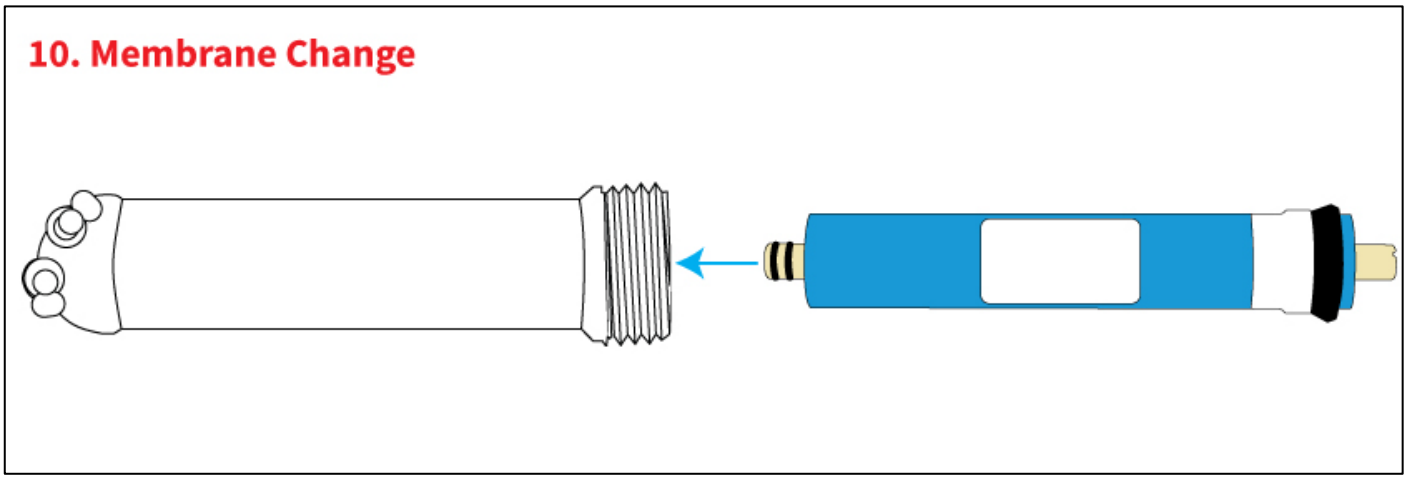


Replacing Membrane

- If the membrane is being changed, disconnect the inlet tubing to the membrane shown below, then unscrew the cap from the housing to expose the membrane cartridge. Using a pair of gripping tools, pull the membrane cartridge out from the housing – using a back/forth twisting motion can help release the seal. Discard the old Membrane cartridge.



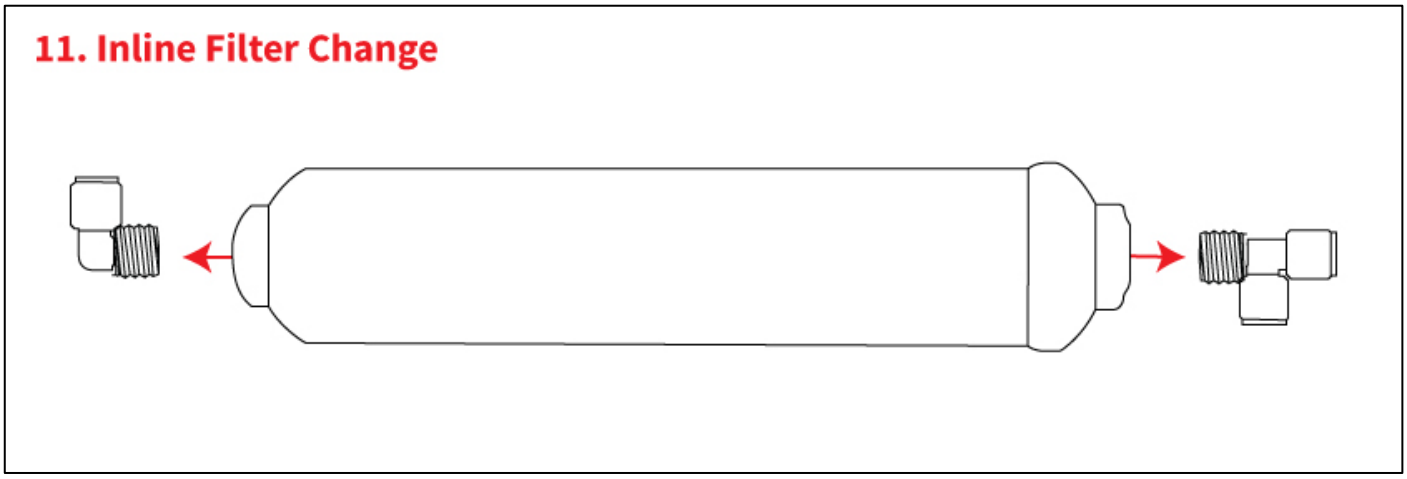
- Take the **clear outer packaging** off the new RO membrane cartridge and install it into the housing. Replace the cap onto the membrane housing and hand tighten, then reconnect the tubing to the inlet fitting.
  DO NOT try to remove the white tape, black seal or blue outer layer – this is part of the filter.



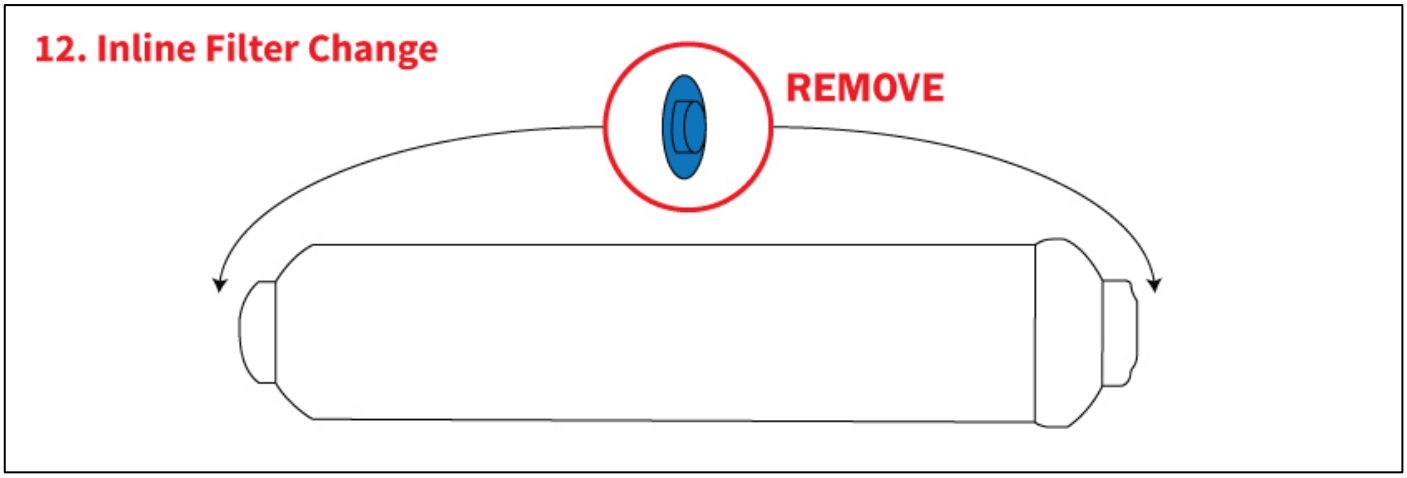
Replacing Inline Filters

The top 2 inline filters have screw in fittings. These fittings can be removed from the old cartridge and then installed into the new replacement cartridge. **Refer to VI. Quick Connect Fittings** for instructions on how quick connect fittings work.

- Remove any old fittings from the inline filters and discard the filter. Keep the fittings for re-use in the new filters if applicable. Check the condition of the o-rings on the fittings, if they are worn – replace the fittings with new ones or apply thread tape.



- Remove the sanitary plugs (if applicable) from the new filters to expose the internal threads. Install the additional quick connect fittings & re-connect the tubing. Pay attention to flow directions on the filter.



Recommissioning the System

Follow steps under **System Start Up & Operation** to flush out the new filters. Check for any leaks in the new filters, particularly around the new tube connections.

Troubleshooting

Problem	Possible Cause(s)	Solution
Leaking between fitting & tubing	Unseated Tube	Check all tubing connections by firmly pushing them into the fitting. Check that there are no kinks or any obvious issues. If the problem persists, remove the tubing and check for a clean cut with no burs. Push the tubing back in and try again. If this does not work, please contact customer support.
Leaking from Feed Water Valve	1. Damaged or Missing Washer 2. Not Tight Enough 3. Thread is too Short	1. Check the valve to see if the washer is inside, if it is damaged it may need replacing – this is a common size washer and can be purchased from most hardware/plumbing stores. 2. If the diverter valve is loose (or you can easily swivel the fitting without resistance, the fitting is not tightened enough. It may feel like you can't tighten it anymore and it just keeps spinning but if you use a gripping tool (multi grips) to grab the collar of the fitting and use your hand to hold the valve itself steady, you will be able to further tighten the valve. The valve is tight enough when you feel light to moderate resistance when trying to swivel the valve. 3. If you screw the valve on and the collar 'bottom's out' on the tap, you may need to add another washer (to bulk up the space).
The unit is not producing any water?	1. Water Supply is off or disconnected. 2. Pre-Filter has a blockage 3. Insufficient Water Pressure 4. Water Quality	1. Turn on the water supply and ensure there are no obstructions to the water flow. 2. Disconnect the tube between the membrane and pre-filters and run water at full pressure to see if water comes out of the filter. – If the water does not come out (or is very weak pressure) the filter may need to be changed. 3. Reverse Osmosis required 50psi (Minimum) to operate – 70psi+ is ideal. If you have lower than 50psi pressure this unit may not be suitable for you. 4. Ensure that the water quality meets the feed water requirements outlined previously. High levels of impurity such as hardness and salt can cause the system to block or not produce water.

I am getting much more wastewater than filtered water	1. Water Pressure 2. Water Quality 3. Blockage	1. Our units are designed to run at approx. 1:2 – 1:3 wastewater ratio at 70 psi. If your pressure is lower than 70 psi, the production rate may decrease and cause more drain water than filtered water. 2. If your inlet water quality is poor and contains higher salts and hardness the filter may produce less water than the specified amount. 3. If you have good pressure, and average water quality it is possible there is a small blockage somewhere in the system. Try to follow the water flow along the system, disconnecting 1 tube at a time to try and pinpoint where the water is 'stopping'
High pH Reading	1. Alkaline Filter 2. GAC Filter 3. Insufficient Testing Equipment	1. Alkaline Filters are designed to increase the pH of the water. When the filter is new it will be high but will soon settle to the advertised levels after adequate flushing. 2. If you have a post GAC filter (Carbon), this will naturally increase the pH of the water. pH is the measure of Hydrogen in the water and this hydrogen will vent off the water if you leave it to stand and the pH will then drop back down to the normal level. 3. pH testing equipment can range from a cheap test pen right up to lab grade equipment. Before coming to a conclusion on pH issues, it is best to ensure the equipment used to measure the pH of the RO water is of high standards and suitable for reading pH levels in low EC water (i.e. The guy at the pool shop is not going to cut it). We have access to high quality testing equipment and frequently test our units and conduct research. If you feel that there is an issue with your pH, please contact us.
Strange taste to the water (New System)	1. Alkaline Filter 2. Residue 3. Contamination	1. If you are using an alkaline filter system, the unit requires adequate flushing before first use. Usually, all taste is gone within a week of use. This taste is normal and in most cases is your body adjusting to the high pH water (which some people can describe as a slight metallic taste). 2. The filters are dry packed, the carbons, alkaline filters will have 'fines' on them as they are granular medias, this will go away with flushing. The membrane has a food grade preserve inside it to prevent contamination during storage, this will also flush away quickly. 3. Bacterial contamination is highly unlikely, but not impossible. If there is a strong 'foul smell' or organic taste to the water, it is possible that there is some form of contamination. Contact us straight away so we can rectify (or diagnose) the problem if there is one present.
The TDS Is Higher than the inlet water (or the same).	1. New Filter 2. Alkaline Filter 3. Expired Filters 4. Mixed Up Drain Line and Drinking Line	1. While filters are new, it is normal for the TDS to be elevated while the system is flushing. Continue flushing the system & contact support if the high TDS persists. 2. Alkaline filters will naturally increase the TDS of the water, especially when new. If you have low TDS water already, it is possible for the TDS level out of the alkaline filter to be higher than your inlet water. This is because you are adding minerals back into the water therefore increasing the TDS and alkalinity. 3. If the filters have not been changed as per the recommendations, it is likely that the increased TDS is due to the filters needing replacing. 4. This is common as sometimes the lines may be mixed up. Make sure that the tubing connected to the 'Drain Line' flow restrictor is being run to waste, do not use this water for drinking. Your drinking water line should be marked with either 'outlet', 'Drinking Water' or 'Aquarium Water'.

Flow has suddenly slowed down to a trickle	1. Tank lost air pressure 2. Tank Bladder Rupture 3. Blocked filters	1. Over time, air can slowly leak out of a RO tank. Sometimes this is more noticeable at the time you change your filters. An indication that this has occurred is that the tank will be very heavy (full of water), but no water comes out the tap. The solution is to disconnect the tank (after shutting down the system). Then empty all water from the tank, or as much as possible. Add air pressure into the tank equal to 7psi. Reconnect the tank and let it fill and try again. 2. Depress the air valve on the side of the tank – if water comes out the air valve the bladder is ruptured. Or if you add air to the tank and the air comes out the inlet/outlet valve it is also ruptured. – The tank will need to be replaced. 3. It is unlikely that the filters would be totally blocked but it is possible. Check the feed water conditions and replace the filters if they are passed the recommended change times.
Water constantly running to waste	1. Air Lock 2. Faulty Shut Off Valve 3. Still Filling 4. Low Pressure/Blockage	1. When the system is newly installed or you have just changed the filters, there is a considerable amount of air in the system. This air can become trapped in air pockets and if they are sitting in just the right spot, they can lock the valve in place. Try tilting the system from side to side, back & forth to shift the air pockets. You can also tap on the 4-way shut off valve (the cube shape fitting on the back) to try and clear the air pocket. If this fails, turn the water off, bleed out the pressure then turn the incoming water back on to try and clear it. 2. If it is not an air lock, there may be something wrong with the shut off valve. These parts are warranted for 2 years from date of purchase. Outside this time, it is recommended to replace them. 3. Ensure that you have allowed the system enough time to replenish the tank. Check with other household members to see if someone recently drew water from the unit. 4. Low pressure can cause the water to continuously run to waste without producing filtered water. Ensure your feed water pressure is > 50psi. Your pre-filters may also be blocked.
TDS is higher than expected from membrane.	1. Rejection Rate Calculation 2. Incoming pressure below optimal	1. The rejection rate of these systems when working under optimal conditions should be 95 – 98%. So, if your TDS was 200ppm the final TDS off the membrane should be around 5 – 10. This can fluctuate due to several factors but mostly due to inlet pressure. Note that as the EC/TDS of the water reduces, so does the accuracy of most TDS/EC monitors and meters. Also, rejection rate will also be lower if your incoming TDS is already (for example <50 TDS) 2. As mentioned online and in the manual, the optimal working pressure for this system is >70psi (500 kPa). At 70psi or above you will achieve the best rejection rate. If your water pressure is lower, you can expect the TDS of the membrane water to increase due to the reduced osmotic pressure

Warranty

(See over page)

General Warranty

Water Filter Systems[1] (Excluding consumables) Manufactured or Assembled[2] by High Performance Filtration (HPF) are covered under a 12-month Warranty Against Defects (Manufacturer's Warranty). This warrants the water filter system to be free from defects in material and workmanship for a period of 12 months from date of sale.

If applicable, HPF may cover the return freight in the form of a re-imbursement after the system has been inspected and confirmed it is a valid warranty claim.

HPF will not cover any labour charge incurred by the consumer for the replacement or repair of a product. The warranty is strictly parts only for the parts supplied by HPF. This warranty only applies to the original consumer of the product and is non-transferable. If you have purchased the system through a re-seller, please contact them to facilitate the warranty on your behalf. All replaced or exchanged parts become the property of HPF.

HPF does not cover the workmanship of the plumber who originally installed the system. Responsibility for damages that occur during installation fall with the plumber.

Qualification for Warranty

As per Australian Plumbing Codes, all filter systems must be installed by a qualified plumber. The consumer is responsible for keeping record and proof of installation in the form of an invoice and/or receipt.

Filter systems must be maintained as per HPF recommendations[3] including the use of replacement filters, fittings and components supplied by HPF. Failure to maintain the filtration systems using HPF supplied/approved products may void warranty.

The warranty only applies if the product was used and/or installed in accordance with the user guide and/or installation instructions. This warranty is given in lieu of all other express or implied warranties and manufacturer shall in no circumstance be held liable for damages consequential or otherwise or delays caused or faulty manufacturing except as excluded by law.

Warranties need to be approved by HPF to ensure the product was not incorrectly used, installed or claimed. False and incorrect claims will be pursued at HPF's discretion including chargeable inspection and transit costs incurred.

HPF does not take responsibility for retaining customer records, it is the consumer's responsibility to retain all invoices or proof of purchase from the original sale and ongoing maintenance records as proof of upkeep.

Warranty Exclusions

HPF Standard Warranty shall be void if the product sustains damage or failure resulting from any of the following:

- If your system(s) fails to be maintained in accordance with recommended servicing and as per the manufacturers operating instructions.
- Unauthorised or abnormal use or operation, or the use of non-genuine filters or parts.
- Exposure to unsuitable environmental conditions*.

HPF does not cover the work of the plumber who originally installed the system.

Warranty – Australia

This warranty is given by High Performance Filtration (Jacknel Pty Ltd ATF The J & N Family Trust). ABN 64 855 305 562
Located at 7/38 Jade Drive, Molendinar QLD 4214. Ph 07 5597 6142 & email info@hpfiltration.com.au

This warranty is provided in addition to other rights and remedies you have under law. Our products come with guarantees which cannot be excluded under the Consumer Guarantees Act.

Extended Warranty

High Performance Filtration RO Undersink Systems are eligible for an extended 4-year warranty (commencing no later than 12 months from sale date), to provide a total warranty of 5 years. This extended warranty is subject to terms and conditions outlined below. This extended warranty covers the below parts of the system.

- GT8-14 10” x 2.5” Undersink Housings
- GT8-31 Reverse Osmosis Housing
- GT19-8SC ¼” NPT Centre Joiner

The following components are also eligible for an extended 12-month warranty (commencing no later than 12 months from sale date), to provide a total warranty of 2 years. This extended warranty covers the below parts of the system.

- GT9- Faucet Tap Supplied by HPF
- GT13- RO Storage Tank Supplied By HPF
- GT13-4S 4 Way Shut Off Valve
- GT18-13 70 psi Pressure Limiting Valve
- GT14-14-DM ½” Feed Water Adaptor

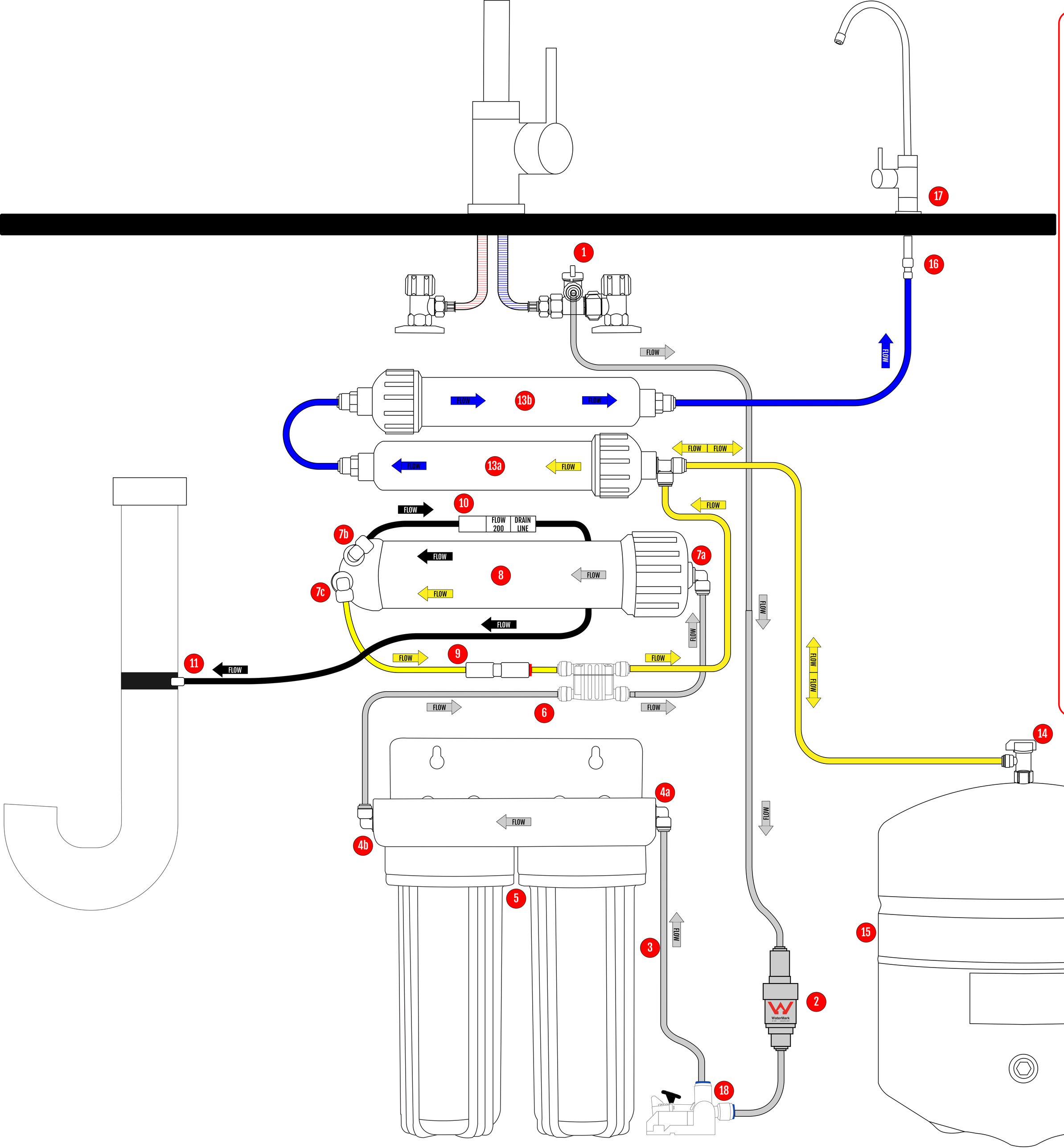
Extended Warranty Qualification

Extended Warranty is valid only if the following conditions are met:

- The System was installed by a licenced plumber – proof of installation required in the form of a receipt or invoice for works.
- The system was maintained in accordance with our recommendations in Maintenance Section.
    - Cartridges must be purchased through HPF or originating from HPF/HPF – supplied by a verified stockist
    - Proof of purchase for replacement filters required.

Definitions

[1] Water Filter Systems are defined as systems designed for drinking water under our Water filter Systems, Reverse Osmosis Systems & Ultraviolet Sanitation Categories – Excluding Cartridges and Shower Filters.
[2] Other products not manufactured or assembled by HPF are covered under the applicable manufacturer’s warranty.
[3] HPF specifies recommended or required filter maintenance – see product information for further details. If a maintenance schedule is not specified, filter maintenance is required at least once per 12 month period.
* Unsuitable environmental conditions include but are not limited to; Excessive hot or cold, Weather extremes.



1 GT14-14-DM | DMfit Angle Stop Valve (Feed Water Inlet)

2 GT18-13 | Dual Check Pressure Limiting Valve 70psi

3 GT8-14 | Pre-Filter Housings (Sediment + Carbon)

4a GT10-23LS | 1/4” Male Elbow x 1/4” Tube (Inlet)

4b GT10-23LS | 1/4” Male Elbow x 1/4” Tube (Outlet)

4c GT10-23LS | 1/4” Male Elbow x 1/4” Tube (To Faucet)

5 GT19-8SC | 1/4” Male Hex Joiner NPT

6 GT13-4S | Automatic Shut-Off Valve (4 way valve)

7a GT10-13LS | 1/8” Male Elbow x 1/4” Tube (Inlet)

7b GT10-13LS | 1/8” Male Elbow x 1/4” Tube (Drain)

7c GT10-13LS | 1/8” Male Elbow x 1/4” Tube (RO Out)

8 GT8-31 | RO Membrane Housing

9 GT10-17 | 1/4” Inline Check Valve

10 GT13-1S | 200cc Flow Restrictor (Drain Valve)

11 GT13-46LS | Drain Clamp

12 GT10-20LS | 1/4” Stem Run Tee (Tank Tee)

13a GT6-36 | Inline Alkaline Filter

13b GT6-37 | Inline Carbon Filter

14 GT14-8LS | 1/4” Tank Valve

15 GT13-47 | RO-132 Large Storage Tank
GT13-52 | RO-122 Medium Storage Tank
GT13-55 | RO-120 Small Storage Tank

16 GT10-34LS | Faucet Adaptor (if supplied)

17 GT9-2S | Drinking Water Faucet (Standard)

18 GT16-LD-14 | Leak Shut Off Valve