



REVERSE OSMOSIS INSTALLATION 4 & 7 Stage

Although the 4 & 7 stage systems may appear different the install is exactly the same on both systems.

BRIEF TECHNICAL ASPECT OF THE WATER TREATMENT SYSTEM

The Filter Systems Australia Water Treatment System utilizes a process called reverse osmosis (RO). As the heart of the purification system, the RO process uses semi-permeable spiral-wound membranes to separate and remove dissolved solids, organic, pyrogens, sub-micron colloidal particles and bacteria from water. Feed water is delivered under pressure at about 60 PSI through the permeator where water permeates the minute pores of the membrane and is delivered as purified water. Impurities in the water are concentrated in the reject stream and flushed to drain. Your newly purchased Filter Systems Australia Reverse Osmosis System is capable of removing between 90% to 96% of the total dissolved solids (TDS), organic, and bacteria.

Important

We suggest you read and become familiar with all instructions, processes, and parts prior to proceeding with the installation.

BEFORE YOU START:

Prior to installing the feed water assembly, please make sure that the following water conditions are met:

• <u>Feed Water Condition</u>	<u>Min.</u>	<u>Max.</u>
Inlet Pressure	40 PSI	100 PSI
Temperature	40 deg. F	100 deg. F
pH Level	2	11
TDS Level	0 ppm	2000 ppm

- All local plumbing codes must be followed.
- All tubing must be cut in a straight line with a **clean, sharp** Stanley Knife.

Ready to start

- Locate cold water supply, suitable hanging and fitment room for system and tank. Locate the drain point, and sink faucet placement.

FEED WATER INSTALLATION:

Locate cold-water flex line ½” to cold water faucet tap on sink, Turn off water supply , open cold water faucet to release the pressure.



Picture indicates accessing water via the ½” flex line to cold water mixer tap. Please note that tubing colour on your systems is white, not blue as pictured.

Picture shows PLV when PLV is provided. If PLV is not provided tubing is continues through to the filter system. **IMPORTANT** - a PLV should always be used when connecting to mains water supply, it is not necessary on tank water supply.

DRAIN CLAMP INSTALLATION

1. The drain clamp should be drilled, installed above the trap and on the vertical or horizontal tailpiece (see figure 2).
2. The hole position on the pipe should be marked and drilled with a 1/4" bit through one side of the pipe (see figure 3)
3. Align the drain clamp over the drilled hole and attach it to the drainpipe and tighten the two screws evenly (see figure 4).

Figure 2. Drain Clamp Location

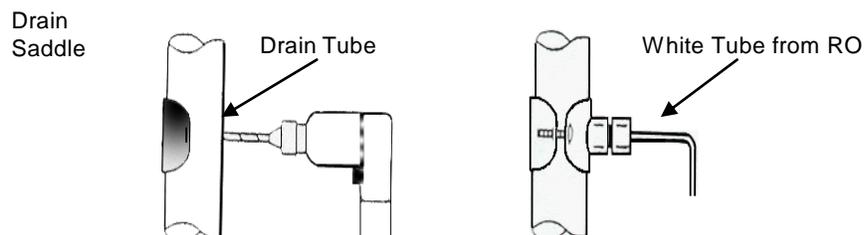


Figure 3. Drain clamp drill

Fitting the Faucet to the sink

Stainless Steel Sinks & Porcelain Sinks:

1. Drilling through a stainless steel sink can be achieved by marking a center punch and drilling a 3/16" guide hole.
2. Use a 1/2" or 7/16" carbide or very sharp drill to enlarge the hole.
3. Make sure when starting to drill, begin slowly through the porcelain portion of the sink so that chipping is reduced to a minimum.
4. On stainless steel, a very sharp drill bit and low speed is essential, or you risk burning the surface of the sink.

MOUNTING THE FAUCET:

1. Disassemble the bottom portion of the faucet.
2. Place into hole of sink and reassemble faucet from underneath sink (see figure 5).

STANDARD FAUCET

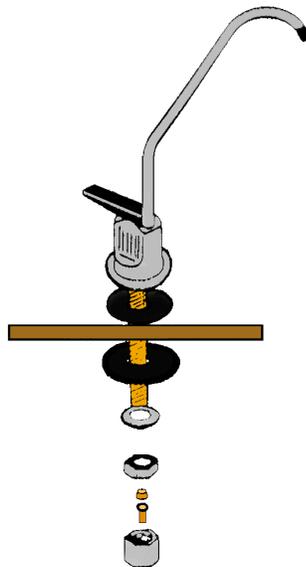


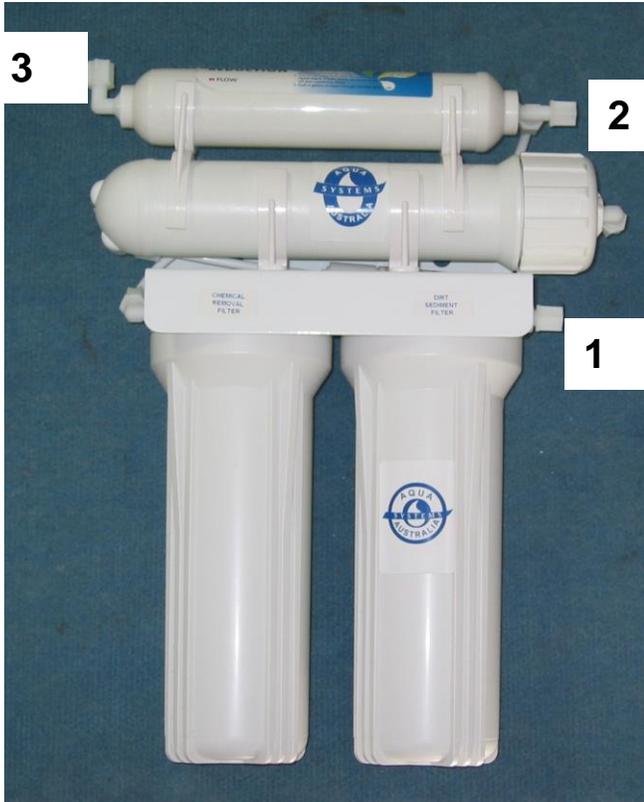
Figure 5 Faucet assembly

STORAGE TANK ASSEMBLY:

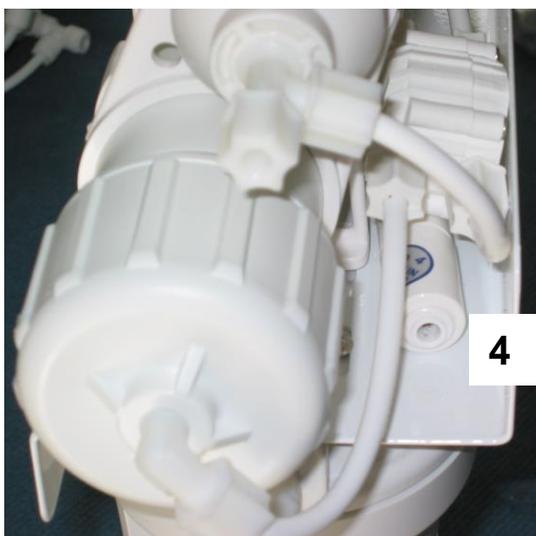
1. Use Teflon tape and wrap the nipple on the top of the storage tank and the 90 degrees elbow supplied.
2. Install the elbow on the 1/4" ball valve.
3. Install the ball valve onto the tank nipple.

Connecting the RO system:

1. Connect water supply to R/O system
2. Connect R/O to tank (**NOTE:** water goes in and out of the same line to the storage tank)
3. Connect filtered water to Facet tap on sink



4. Connecting drain from R/O to Drain (push tubing into restrictor valve marked 150 or 200 cc)



SYSTEM START UP:

1. Check all connections for leaks.

2. Move ball valve lever on storage tank to open position.
NOTE: At NO point does the pressure valve on the bottom of the storage tank need to be tampered with or used. The water enters and exits the storage tank through the **SAME LINE** on the top of the tank. There is NO need to touch pressure valve at any point.
3. **IMPORTANT FOR 7 STAGE SYSTEMS ONLY:** Allow the tank to fill to capacity **BEFORE** turning on the faucet on the sink. Once the tank is entirely full (approx. 3–5 hrs) open the sink top faucet and allow the entire tank to drain. This will flush the filters and the tubing prior to use. This is important as the filters are no longer pre-washed due to potential bacteria contamination. This process also helps to flush out the anti-bacterial solution which these units are factory treated with.
4. **FOR 4 Stage Systems:** Allow the storage tank to fill entirely and then open the sink top faucet for 5-7 mins to help flush out the anti-bacterial solution which these units are factory treated with.
5. The system will automatically start to fill the storage tank again.
6. The system is ready to provide you with fresh and purified water.

RECOMMENDED MAINTENANCE:

As a general rule, any cartridges **BEFORE** the membrane should be replaced every 6 months. This will help ensure the membrane itself will last between 3-5 years. The post carbon GAC (taste and odour cartridge) should be replaced every 12 months. In a 7 Stage system, the XtreaMn Alk should be tested periodically by means of pH test strips – but estimated life span is 12-24 months. The Life Energy Ceramic FIR Cartridge is to be replaced every 2 years. The magnetic Water treatment device will not need replacing.

On a standard 7 stage system the changes would be similar to this:

Poly Spun Sediment Cartridge – 6 months
Carbon Block Cartridge – 6 months
Membrane – 3/5 years
XtreaMn Alkalizing Filter – 12 to 24 months (depending on pH readings)
Life Energy Ceramic FIR Cartridge – 2 years
XtreaMn Carbon - 12 months
Magnetic Water Treatment System – never

On a standard 4 Stage System the changes would be similar to this:

Poly Spun Sediment Cartridge – 6 months
Carbon Block Cartridge – 6 months
Membrane – 3/5 years
Post GAC (taste/odour) Cartridge - 12 months

These times vary depending on the quality of your water, so if you begin to detect a different taste or odour in the water, you may need to replace them sooner than noted above.
Replacement cartridges sold here.