eXpress
WATER

Alkaline RO System
INSTALLATION MANUAL

1-800-992-8876
Customer Support

Disclaimer

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Introduction

You have purchased the finest residential **Reverse Osmosis Alkaline Drinking Water System** available for your home. When properly maintained, this system will provide you with years of great tasting, pure drinking water and trouble-free service.

Please read the enclosed section regarding the proper care and maintenance of your new **Water System**, and experience the taste of exceptional purity.

Please make sure to thoroughly read the installation manual and warranty information before any attempt to install this unit in your home.

Also, please make sure to inspect the package for any missing or shipping damages.

Components / Parts

Your new **RO Alkaline** system should include the following items. If any item is missing, please contact your supplier, retailer or any local professional plumbing service.

Please take a few moments to check all the following components:

• 10 Stage Alkaline Reverse Osmosis Assembly
• Drinking Water Storage Pressure Tank
• Feed Water Valve
• Drain Saddle Valve
• Storage Tank Shut-Off Ball Valve
• Faucet Package
• Filter Housing Wrench
• Color Poly Tubing
• Extra Locking Clips
• Leak Stop Valve
• Teflon tape

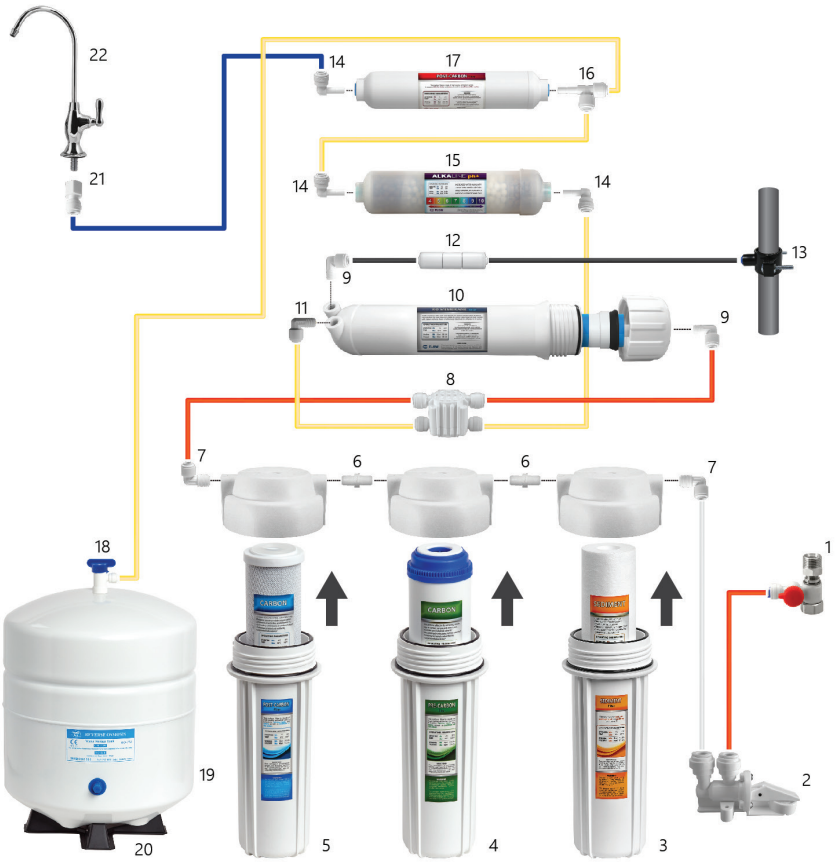
Recommended Tools List

Before you begin, make sure the installation kit and tools are complete and ready to use.

• Box cutter
• Phillips screwdriver
• 1/4" Drill Bit (waste line connection)
• 1/2" Drill Bit (faucet hole)
• Wrench or adjustable wrench

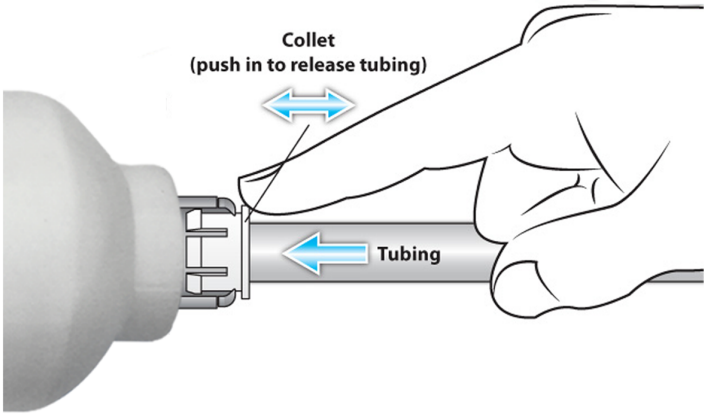
Reverse Osmosis

Alkaline System Components

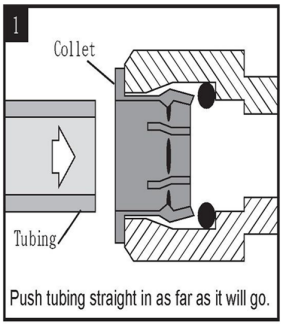


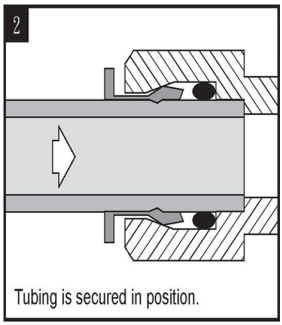
1. Adapter Valve
2. Leak Stop Valve
3. Sediment Water Filter
4. GAC Carbon Filter
5. Carbon Block Filter
6. Nipple
7. Male Elbow 1/4”
8. Automatic Shut-Off Valve
9. Male Elbow 1/8”
10. RO Membrane Housing
11. Check Valve
12. Drain Flow Restrictor
13. Drain Saddle
14. Stem Elbow
15. Alkaline Filter
16. Stem Tee
17. Inline Carbon Post Filter
18. Tank Valve
19. Water Tank
20. Tank Stand
21. QC Faucet Connector
22. Faucet

Quick Connect Guide

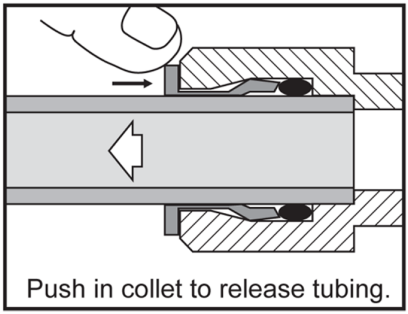


TO ATTACH TUBING

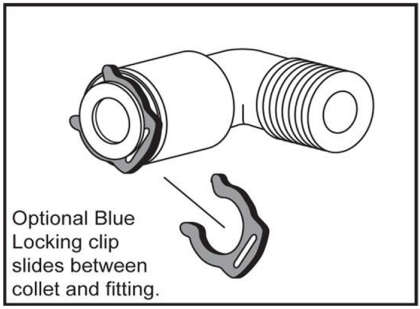




TO RELEASE TUBING



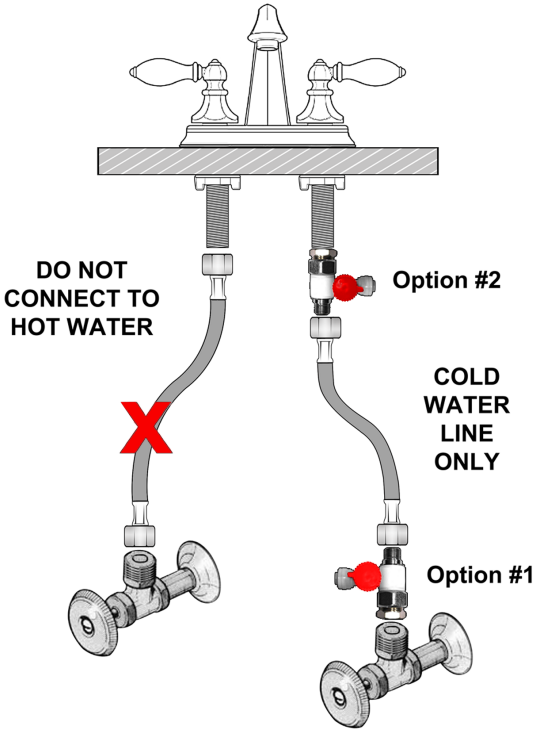
TO INSERT LOCKING CLIP



CAUTION: When cutting supplied tubes, predetermine the length by measuring the distance between the components to be connected.

Installation Step 1

Feed Water Adapter



Tapping into COLD WATER line

CAUTION!

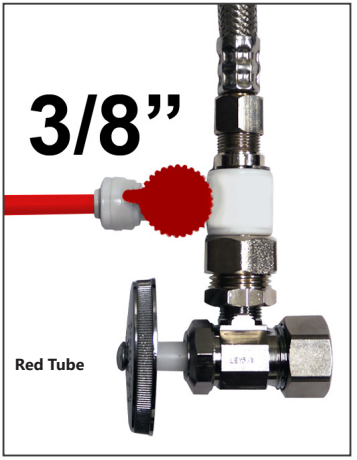
The water supply to the unit MUST be from the COLD WATER LINE.
HOT WATER will severely damage your R.O. System.

1. Locate the cold water (angle) shut off valve (see picture above) underneath the sink and turn it off.

Open the cold water faucet to release the pressure.

On single-handle kitchen faucets, the hot water may have to be turned off to prevent any hot water cross over.

If water continues to come out of faucet with angled valve turned off, the house main water must be turned off.



2. As shown above, this adapter connection can be used for both 3/8” or 1/2” feed line plumbing. Simply by switching the adapter nut like below (PART A) from one side of the adapter valve to the other.

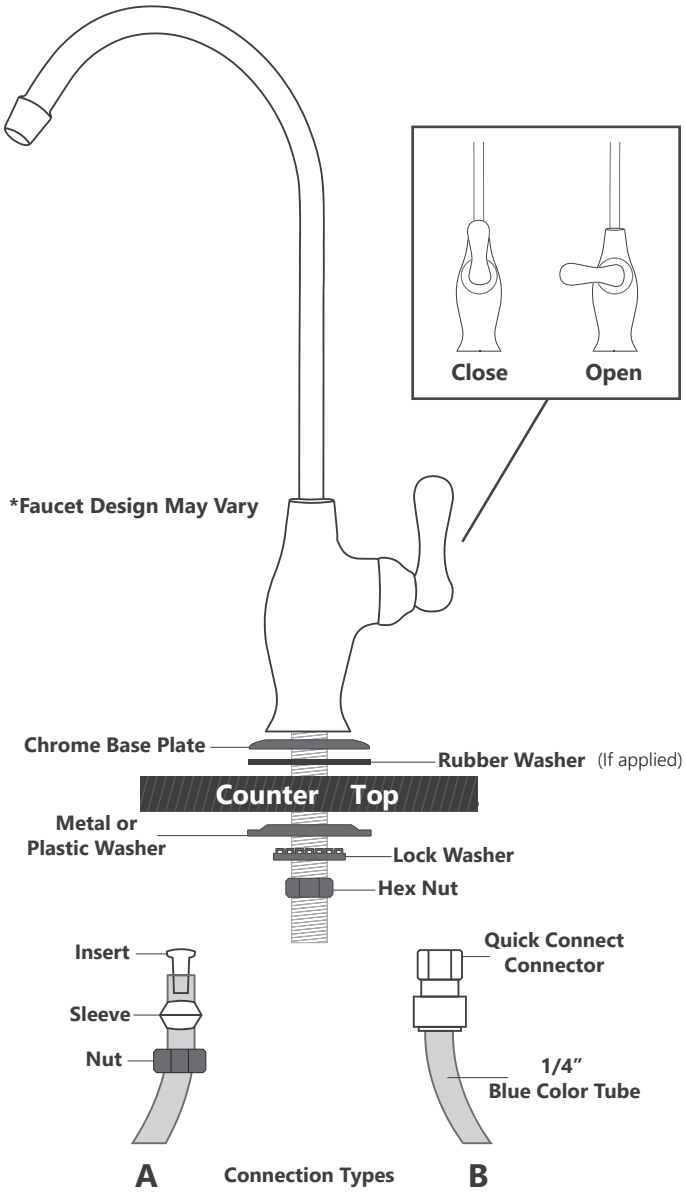
NOTE!
DO NOT USE TEFLON TAPE
(USE WRENCH)
DO NOT OVER TIGHTEN

WARNING!

WATER PRESSURE SHOULD NOT EXCEED 80 PSI

Installation Step 2

RO Faucet



The **RO Faucet** may be installed on any flat surface. Check the underside of the location for interference. You may use the existing hole on the sink or drill a new hole.

Make sure the washer is big enough to cover the hole. If you drill a new hole on the countertop or sink, make sure that drilling the hole will not damage any pipe or wiring underneath the countertop or sink.

Stainless Steel Sink

1. Determine the desired location for your RO faucet on your sink surface.

2. Place masking tape or duct tape on the determined location for the hole to be drilled.

3. Use a variable speed drill set on slow speed and drill with a 1/8 inch (3mm) drill bit to make a center hole at the select location.

Note!
Use water or lubricant to keep the drill bit cool while drilling.

4. Enlarge the hole using a ¼ inch (6.4mm) drill bit. Use factory approved method or approved plumbing practice to drill hole in sink.

5. Enlarge the hole to 1/2-inch diameter. Keep bit well lubricated and drill slowly.

6. On top of the sink, insert the chrome base plate (Escutcheon plate), and the large rubber washer in that order over the threaded mounting tube at the base of the faucet (if applied).

7. Under the sink, install the large metal (or plastic) washer and the star washer (or lock washer) over the threaded stem. Screw on the nut and tighten.

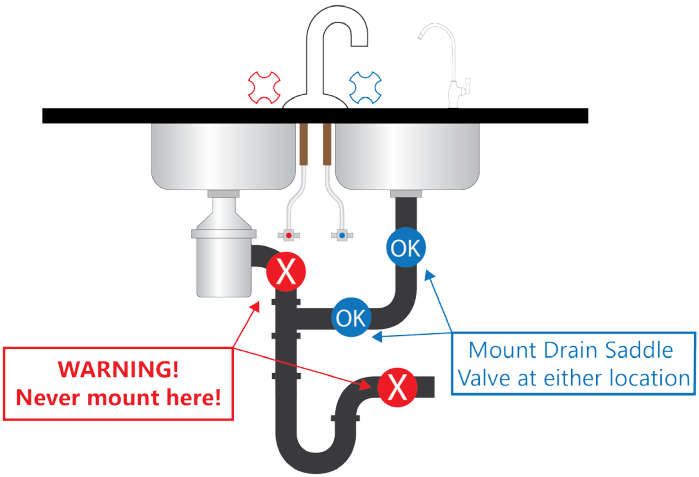
8. Connect the freshwater line sleeve over the brass compression nut and the white plastic ferrule (do not use the brass ferrule) over blue tubing, then push to the end of the threaded stem. Screw on the compression nut and tighten or use the quick connection adapter (PLEASE REFER TO PAGE 10).

Porcelain Sink

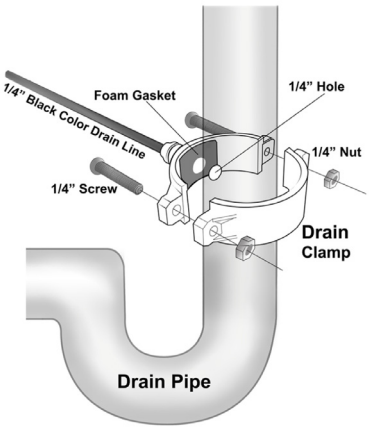
To drill on a porcelain sink, a spring-loaded Relton style drill set is strongly recommended to prevent chipping. Avoid high speed drilling during the initial cutting of porcelain as this can cause chipping.

Installation Step 3

Drain Saddle Valve



A **Drain Saddle Valve** is used to connect the waste water line to the drain pipe under the sink, and is designed to fit around a standard 1 1/2-inch OD drain pipe. The drain saddle valve should always be installed before (above) the p-trap and on a vertical or horizontal drain pipe. To avoid clogging the drain line with debris, do not install the drain saddle near a garbage disposal.



1. Position the drain saddle valve at selected location and mark for the opening.

2. Drill ¼ -inch (6.3mm) hole at mark through one side of pipe.

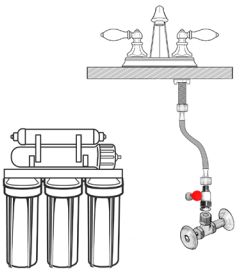
3. Remove backing from gasket and place adhesive side to the fitting half of drain clamp around hole.

4. Position both halves of drain saddle on drain pipe so the opening aligns with drilled hole. Use a small drill bit to verify that drain clamp is properly aligned.

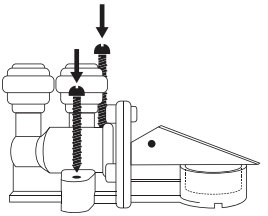
5. Secure drain saddle clamp on valve with bolts and nuts provided. (Do not over tighten, and make sure there is equal space between saddle halves on each side).

Installation Step 4

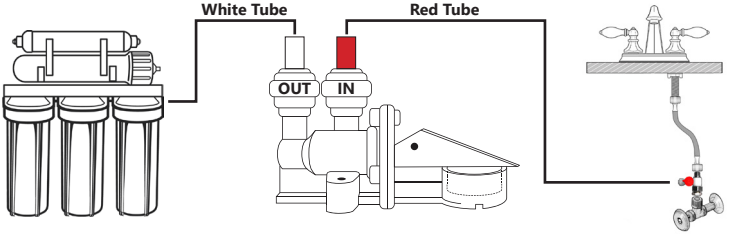
Leak Detector



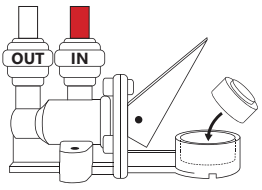
1.
POSITION THE SYSTEM TO THE DESIRED PERMANENT LOCATION



2.
POSITION THE LEAK DETECTOR IN THE SAME CABINET NEAR THE SYSTEM AND SCREW IT TO THE CABINET FLOOR

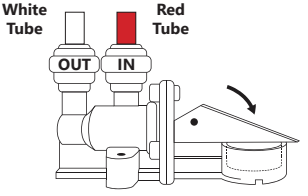


3.
CONNECT THE **RED** TUBE INTO THE FEED VALVE AND INTO THE INLET (**IN**) OF THE LEAK DETECTOR. CONNECT THE **WHITE** TUBE INTO THE OUTLET (**OUT**) OF THE LEAK DETECTOR AND INTO THE 1ST STAGE OF THE RO SYSTEM (**TO FEED**)



Closed Position

4.
TAKE OFF THE PLASTIC WRAP AND PLACE THE COMPRESSED TEXTILE



Open Position

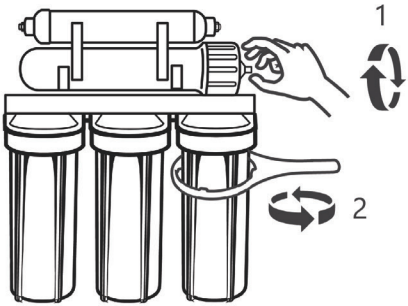
5.
TURN THE SWITCH DOWN, AND THE LEAK DETECTOR IS READY TO BE USED

Note! Please avoid contact of any liquid to the compressed textile. Failure to do so will activate the textile and shut the incoming water.

Installation Step 5

Tighten The Housings

TIGHTEN THE HOUSINGS



1. TIGHTEN **BOTTOM HOUSINGS** WITH PROVIDED **WRENCH**
2. TIGHTEN **MEMBRANE HOUSING** WITH YOUR **HAND**

DO NOT OVER TIGHTEN

BOTTOM FILTER PLACEMENT

Remove plastic wrappings from the 3 housings and filters, then assemble the housings onto the main system as follows:

1. Stand the 3 housings upright. Make sure each housing has a rubber O-ring in its groove.

2. Put the Orange labeled Sediment filter into the "1st stage" housing with the Orange label on the right.

3. Put the Green labeled GAC filter into the "2nd stage" housing with the Green label in the middle.

4. Put the Blue labeled Carbon filter into the "3nd stage" housing with the Blue label on the left.

Installation Step 6

Elbow Fitting Connection

Screw the elbow fitting into the end of the right filter housing (in) until tightened and (the insert) is facing at a downward angle.

Fully insert the white tubing into the fitting. Apply force while pushing tube into fitting to ensure the quick connect has locked.

Screw the elbow fitting into the end of the left filter housing (out) until tightened and (the insert) is facing at a 11 O'Clock degree.

Fully insert the red tubing into the fitting. Apply force while pushing tube into fitting to ensure the quick connect has locked.

Installation Step 7

RO Tank Assembly

NOTE!

Do not tamper with the air valve on low side of storage tank.
It has been preset at 7–10 psi by the manufacturer.

1. Open the box and remove the stand from the top of the tank.

2. Wrap the thread 6-8 times with plumbers (Teflon) tape only.

3. Connect the ball valve to the thread. Make sure it is tight but not overly tight.

4. Place the storage tank in desire location. Since it is the pressure storage tank, it can stand up straight or lie down.

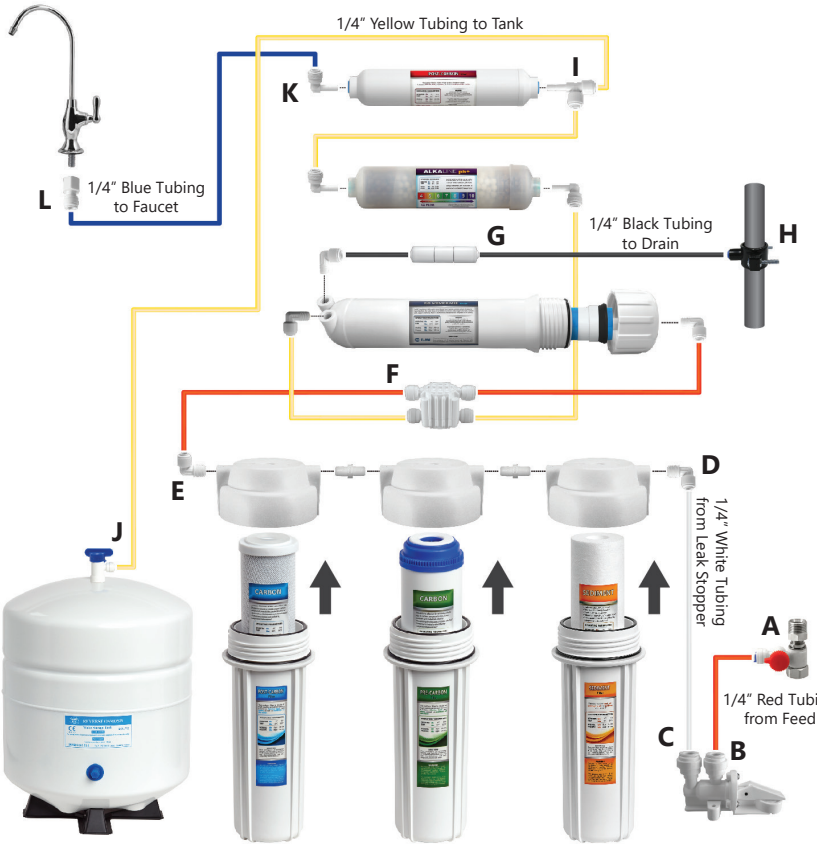
5. Connect the (yellow) tubing from the T connection of the post carbon inline filter (10th stage) to the tank ball valve. (See Alkaline system diagram page 6)

6. Turn the tank ball valve on.

ON POSITION

OFF POSITION

System Connections



• **A to B.** Connect the **RED** tube into the feed adapter **(point A)** and to the inlet marked as **"in"** of the leak detector **(point B).**

• **C to D.** Connect the **WHITE** tubing to first stage housing **(point D)** to the outlet marked as **"out"** of the leak detector **(point C).**

• **E to F.** Connect the **RED** tubing from the Automatic Shut Off Valve **(point F)** to the 3rd stage housing **(point E)**.

• **G to H.** Connect the **BLACK** tubing from the Drain Saddle Valve **(point H)** to the Flow Restrictor marked as "to drain" **(point G)**.

• **I to J.** Connect the **YELLOW** tubing from the storage-tank **(point J)** to the post carbon inline tee **(point I).**

• **K to L.** Connect the **BLUE** tubing from the faucet **(point L)** to the end of the post inline carbon marked as "to faucet" **(point K).**

System Startup

1. Turn Tank Valve to closed position (refer to page 16).

2. Open the water supply to the system (Cold water supply and Feed Valve, refer to page 9).

3. Open RO Faucet and wait up to 10 minutes for the water to start dripping and let it drip for 5 minutes. (Refer to page 10)

4. Close the RO Faucet and wait 10 minutes for pressure to build up and carefully check for any leaks. (If a leak occurs, please refer to page 22)

5. Open the Tank Valve.

6. Allow the Tank to fill up (Approximately 2-3 hours depending on your incoming water pressure).

7. Flush the system by opening the RO Faucet until the water is completely discharged and the flow is reduced to a trickle (approximately 1-5 minutes).

8. Close the RO Faucet and allow the Tank to fill up again.

9. Repeat steps 6 and 7, three more times.

10. After the 5th tank is filled, you may drink the water.

11. Check for leaks daily during the 1st week of use and periodically thereafter.

12. You may notice that the water may be milky colored during the 1st week. This is an indication of air bubbles in the water; it is normal and safe to drink.

System Maintenance

This recommendation is intended for maximum efficiency of your RO SYSTEM.

1. Filter Maintenance

a. It is OK to store filters for several years.

b. Keep the unopened filter sealed, place it into an airtight container, preventing it from absorbing air. This prolongs the shelf life of the carbon filter and avoids any possible odor from the air.

2. Membrane Maintenance

a. The dry-packed membrane usually has a 2 to 3 year shelf life. To prolong the shelf life, keep unopened dry membrane in a cool, dark place and avoid heat and moisture.

b. If you will not be using the RO system for weeks, drain the storage tank completely. Fill the tank and drain it twice before using the RO system again.

How to Sanitize your Drinking Water System

(Recommended once a year)

1. Close the incoming water **(Feed Valve).**

2. Open the RO faucet and drain the system completely and then close the faucet.

3. Remove **ONLY** the following filter cartridges:
(Stage 1,2,3 Bottom Filters + Stage 4 Membrane)

Stage 1 Sediment
Stage 2 GAC
Stage 3 Carbon
Stage 4 RO Membrane

***NOTE! Leave the old Post Inline Carbon and Alkaline Filter in place! You will replace them after sanitation.**

4. Mix **1 gallon** of water with **2 tbsp** of household bleach.

5. Fill up the bottom filters housing with the solution and close them.

6. Open the incoming water to the system (**Feed Valve**) and let it run for 10 minutes.

7. Open the drinking water faucet and let it drain for **10 minutes.**

8. Close the drinking water faucet and wait for **10 minutes** and then open the drinking water faucet again and completely drain. (**If you smell the household bleach from the drinking water faucet, repeat steps 6 and 8**).

9. Now you are ready to replace all the filter cartridges.

Filter Change

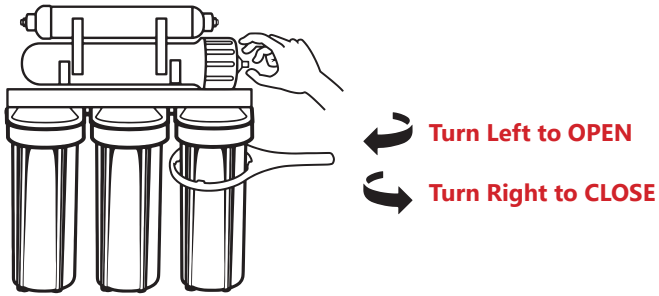
THIS RO SYSTEM CONTAINS FILTERS THAT MUST BE REPLACED AT REGULAR INTERVALS TO MAINTAIN PROPER PERFORMANCE. USE ONLY FACTORY-APPROVED FILTERS.

How to Change the 1st, 2nd and 3rd Stage Filters

1. Turn off the water supply connected to the Reverse Osmosis system and Tank Valve (if applicable) -- then open the RO Faucet to release pressure.

2. After releasing pressure, place the filter manifold in a bucket and unscrew the filter sumps using the filter wrench to loosen the housings. Keep track of which filter came from which housing.

3. Throw out the old filters and wash the filter housings with dishwashing soap then proceed to rinse well with cold water. Ensure your hands are washed and clean before unwrapping the new filters. Place filters inside the correct housings, making sure the O-Rings are in their proper location (within the ridges of the housing) before you tighten the housings. Do not overtighten.



How to change the RO Membrane and top filters

1. Open the membrane housing by unscrewing the cap, then pull out the membrane with a pair of pliers. Be sure to note which side is the front and which side is the back. Wash out, rinse and refill housing with new membrane making sure to push it in firmly then close the housing by tightening it, hand tight.

2. Replace the Alkaline Filter by removing the 2 elbows from both sides of the filter. Detach the filter from the holding clips and push the new filter into the clips. Connect both elbows back (check the direction of flow).

3. Now you can fully open the water supply and the tank valve (if any) and empty the tank. Then, let the system refill with water, this process typically takes 2 to 4 hours. You can open the RO Faucet briefly to release any air

trapped inside the system while it's filling. Note: the first few cups of water may be black in color due to carbon fines. (Be sure to check for leaks in the first 24 hours).

4. Now you can fully open the water supply and the tank valve (if any) and empty the tank. Then, let the system refill with water, this process typically takes 2 to 4 hours. You can open the RO Faucet briefly to release any air trapped inside the system while it's filling. Note: the first few cups of water may be black in color due to carbon fines. (Be sure to check for leaks in the first 24 hours).

5. After it has filled for 2-4 hours, drain the entire system by opening the RO Faucet until water flow is reduced to a slow trickle, then, close the faucet and repeat the procedure 3 more times.

NOTE! If the system is connected to a refrigerator, do not drain the system through the refrigerator water dispenser, the carbon fines from the new carbon filter will clog the internal fridge filter.

Recommended filter replacement schedule

CTO GAC SED ALK

6 MONTHS

Inline MEM

12 MONTHS

Troubleshooting

Note: Turn off the system before servicing or inspecting

PROBLEM	CAUSE	SOLUTIONS
Milky colored water Air bubbles in the water	- **Air in system**	* Air in the system is a normal occurrence with initial startup of the RO system. This milky look will disappear during normal use within 1 to 2 weeks.
Noise from system	- **Air gap faucet** - **Location of drain saddle** - **Restrictions in drain line**	* Will disappear after system shutdown. * Relocate the drain to above water trap. * Blockage sometimes caused by debris from garbage disposal or dishwasher.
Small amount of water from RO drinking faucet	- **System just starting up** - **Air pressure in the storage tank is low**	* Normally it takes 2-3 hours to fill the tank. Low water pressure and/or temperature can reduce production rate. * Add pressure to the storage tank. The Pressure should be 8-10 psi when the tank is empty.
Slow production or no water from RO drinking faucet	- **Low water pressure** - **Crimps in tubing** - **Clogged pre-filters** - **Fouled membrane**	* Add a booster pump. * Make sure tubing is straight. * Replace pre-filters. * Replace membrane.
Water taste or an offensive smell	- **Post carbon is depleted** - **Fouled Membrane** - **Sanitizer not flushed out**	* Replace post carbon. * Replace membrane. * Drain storage tank and refill it overnight.
No drain water	- **Clogged flow restrictor**	* Replace the flow restrictor.
Leaks	- **Fittings are not tightened** - **Twisted O-Ring** - **Misalignment of hole in the drain saddle valve** - **Threaded Connections**	* Tighten fittings as necessary. * Replace the O-Ring. * Realign drain saddle valve. * Replace teflon tape with 7-10 rounds
No Water	- **Check Leak Stop Valve** - **Check Feed Valve**	* Refer to page 13 * Refer to page 8

VACATION MODE

Please locate the red valve found on the feed water adapter connected to your water supply (shown on page 6, component 1).

Activate: Turn the Red valve away from the red tube connection to shut off feed water supply to the system.

Deactivate: Turn the Red valve to point towards the red tube connection to open the feed water supply to the system.

Conditions

READ THIS FIRST

Please pay attention to the following installation and safety recommendations:

- Read the installation manual before installing this system.
- Install the system at a location with adequate drainage.
- This water system unit is for INDOOR use ONLY. To preserve the unit, avoid using extremely HOT/COLD water, and protect against sudden temperature changes.
- Install the system under supervision of a professional, licensed installer or plumber.
- Inspect all connections after the installation to make sure NO LEAKS occur.
- Wait and inspect the system AFTER it's pressurized.
- MUST install the Pressure Regulator on the system, when pressure is over 80 PSI.
- Strongly recommended: SHUT OFF the water supply when homeowner/user will not be using the water system for a long period of time.

IMPORTANT

Please contact your insurance carrier before installing the water system.
The manufacturer WILL NOT cover ANY water damage under any circumstance.
These are our recommendations to avoid any water damage.

- Must install the PRESSURE REGULATOR/PRESSURE LIMITING VALVE and LEAK DETECTOR SHUTOFF DEVICE to avoid water damage.

- Homeowner/User is obligated to properly maintain the water system unit periodically, every 2 years which includes the following:

  Replace the O-ring seals on the filter canister, fitting, filter cartridges and membrane housing.
  Replace the fitting connectors with proper replacement parts.
  Replace the filter canisters with proper replacement parts
  Replace the filter cartridges with the correct size and length replacements.
  Replace the water seal tape on ALL connector fittings

ALL O-RING SEALS, FITTINGS, FILTER CANISTERS, AND WATER SEAL TAPE WEAR OUT AFTER A CERTAIN PERIOD OF TIME. THE LIFETIME OF THESE COMPONENTS ARE SUBJECT TO WATER QUALITY. THEREFORE, ADEQUATE MAINTENANCE IS NECESSARY AND MANDATORY.

- Please contact a professional, licensed installer or plumber who meets the above requirements. The Manufacturer's insurance carrier **WILL NOT** cover any loss. Please consult your own insurance carrier for terms and conditions.

WARNING

For drinking water application, do not use where the water is microbiologically unsafe or unknown quality without adequate disinfection before or after the system.

Keep away from high or freezing temperatures.

Limited Warranty

Express Water Inc. (**"Express Water"**) warrants this product (including any accessories) against defects in material or workmanship as follows:

For a period of 1 year from the date of purchase, if this product is determined to be defective, **Express Water** will repair or replace the product at no charge. After the Warranty Period, you must pay for all the charges.

In addition, **Express Water** will supply, at no charge, new replacements in exchange for defective parts for a period of one (1) year excluding filters. Labor for removal and installation is not covered under this warranty.

To obtain warranty service, you must take the product, or deliver the product freight prepaid, in either its original packaging or packaging affording an equal degree of protection.

This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of the product. This warranty does not cover damage due to improper installation, operation, maintenance, repair or connection to improper water source.

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the warranty period must be presented to obtain warranty service. This warranty is invalid if the factory applied serial number has been altered or removed from the product.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. EXPRESS WATER SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

For service assistance or resolution of a service problem, or for product information or operation, call:

Express Water Response Center
1-800-992-8876

Or write to:
support@expresswater.com
12730 Raymer St, Unit 1, North Hollywood, CA 91605