

# Countertop Reverse Osmosis Water Filtration Systems – Manual

Premier Water Systems  
WWW.PREMIERWATERSYSTEMS.NET  
(661) 575 - 0033

## Conditions - Please READ THIS FIRST

Please pay attention to the following installation and safety recommendations:

- Read the installation manual before installing this system.

**NOTE!** Please make sure your installation location has enough room for the RO Countertop System. We suggest an installation location where the RO Faucet can overhang your sink.

**Incoming Water:** Incoming water pressure must be between 45 PSI and 80 PSI. If your water pressure is under 45 PSI you will need a booster pump on your system. If your water pressure is above 80 PSI you will need a pressure regulator on your system. Test your water occasionally to make sure the system is performing. If your water is microbiologically unsafe or of unknown quality do not use this system without adequate disinfection before or after the system. Extremely hot or cold incoming water will damage the system and cannot be used.

**Leaks:** Inspect all connections after the installation to make sure no leaks occur, wait until after the system is pressurized to inspect again. Check system occasionally after installation or maintenance to make sure no leaks have developed.

**General:** This RO System unit is for climate controlled indoor use only. Exposure to overly high or low temperature ranges will damage the unit. Follow all of your state and local laws and codes regarding plumbing even if they differ from what is stated in this manual. If your state law requires use a professional licensed installer or plumber who meets the requirements of this system. All o-rings, fittings, filter canisters, and teflon tape wears out after a certain period of time. The lifetime of your components are subject to change with the quality of the water supplied. Do not handle an unwrapped filter directly with your bare hands as this can cause early filter failure. Use appropriate eye protection if you are performing any drilling.

The owner/user is obligated to properly maintain the RO System when necessary, at least once a year. This includes the following:

- Replace any o-rings used
- Replace any connectors and filter housings with proper replacement parts
- Sanitize your system as often as needed (this changes with the profile of your area's incoming water) - Always use proper replacement filter cartridges with the correct size and length replacements
- Replace any teflon tape used

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# Introduction

First, get ready to have safe clean water. You're going to need under 30 minutes for the initial installation and two hours to run the system and flush out your filters before you can drink the water.

## Take a Look at Your System

First inspect your system and make sure all parts are present and have not been damaged during shipping. We've taken every step to make this process as easy as possible but if you discover any problems or run in to questions during your installation just give us a call:

**1-661-575-0033 Monday to Friday 10 am - 3 pm PST**

## Take a Look at Your Faucet




If you have a standard kitchen or bathroom faucet you can get up and running right away, just remove your aerator and screw the diverter valve on. We support 13/16" male threaded faucets, 13/16" female threaded faucets, and 15/16" female threaded faucets. If you have another type of faucet you will need to visit a home or plumbing supply store to adapt from your faucet type to 13/16" male (as the diverter valve is 13/16" female).

## Get Ready for Pure Water

The flow through your faucet makes perfectly pure RO water at a rate of about 3 gallons an hour (this may be less depending on your home's water pressure) so we've found the ideal setup is filling a large pitcher or dispenser with water.

# Replacement Sets

Premier Water offers replacement filter sets for the Countertop Reverse Osmosis Water Filtration Systems. For purchasing information on replacement filters please visit our website at [WWW.PREMIERWATERSYSTEMS.NET](http://WWW.PREMIERWATERSYSTEMS.NET)

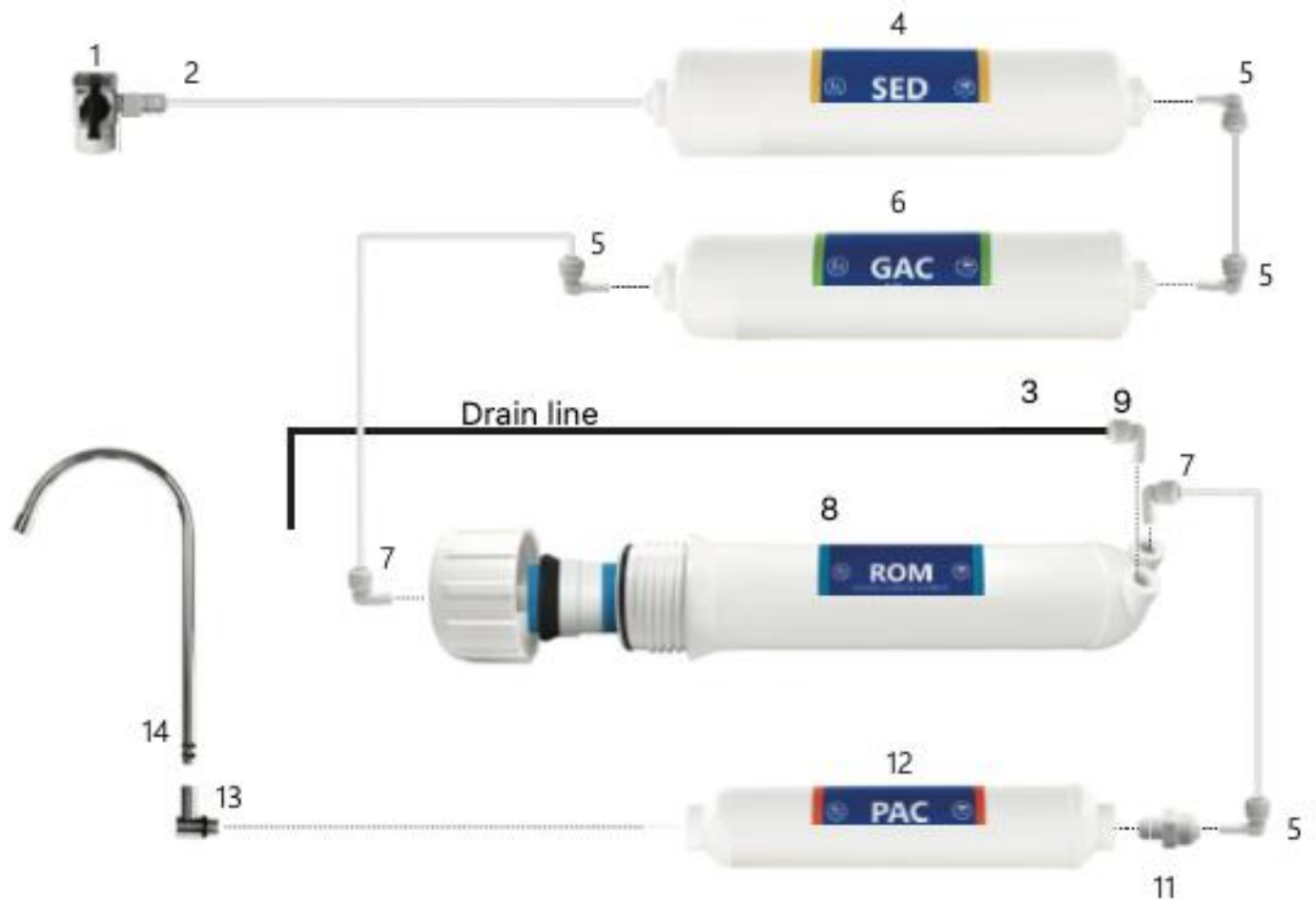
Cartridge	Sediment	Granular Activated Carbon	Reverse Osmosis Membrane	Post Activated Carbon
Type	5 Micron	5 Micron	100 GPD	5 Micron
Life Cycle	6 Months	6 Months	1 Year	6 Months
6 Month Half Set 	1	1		1
6 Month Full Set 	1	1	1	1
1 Year Set 	2	2	1	2

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Pre & Post Filters - MODEL # **3INSEDCAR**  
(Replace every 6 months)

MEMBRANE FILTER: (Replace every 1.5 years)  
MODEL # **ROMEMB**

## System Diagram



1. Diverter Valve
2. System Feed Tube
3. System Drain Tube
4. Sediment Filter
5. Stem Elbow 1/4"
6. Granular Activated Carbon Filter
7. Male Elbow 1/8"
8. RO Membrane Housing
9. Drain Flow Restrictor
10. Union Connector
11. Male Connector 1/4"
12. Post Activated Carbon Filter
13. Male Faucet Connector 1/4"
14. Push Fit RO Faucet

## Tubing Quick Connect Guide

### Plug

The tubing in your RO System uses a Quick Connect locking mechanism to **Collet** lock the Color Coded Tubing in place. Be careful not to damage your tubing as you unpack it.

## Release Tubing

If there is a Locking Clip on the Collet it must be removed before the Tubing can be released. Push and hold the Collet in to release the lock while pulling out on the Tube/Plug.

**NOTE! Collet must be held down while pulling up on the tube to release the tube.**

### NOTE!

**Improperly cut Tubing may leak water or fail to lock into Fittings.**

Wait until all elements of your RO System are in their final locations before cutting your Tubing. Make sure you measure the length you will need before cutting.

# Installation

## CAUTION!

The water supply to the unit **MUST** be **COLD WATER ONLY**. Using **HOT WATER** will severely damage your RO System.

## Diverter Valve

1. Identify if your faucet is compatible with the 13/16" female threaded diverter valve  
- If it is not compatible you may need the 13/16"

male to 13/16" male adapter -or the- 15/16" male to 13/16" male adapter

- If your faucet is not compatible with either of these adapters you will need to purchase an appropriate adapter to connect your faucet to the diverter valve



2. Screw on Diverter Valve (with appropriate adapters if needed)

## RO Faucet

1. Push the RO Faucet stem into the Faucet Adapter on the Post Activated Carbon Filter
2. Make sure the faucet is fully pushed in



# Using the System

When the diverter valve is in the vertical position water will come through your sink's faucet into your sink. You can still use faucet as you normally would.

When the diverter valve is in the horizontal position water will be sent to the RO System and pure clean drinking water will come through your RO faucet.

When using the RO Faucet, the waste water (carrying rejected contaminants away from the RO membrane) will pour from the drain line into your sink. Never drink this waste water, although it can be use for some household uses like watering plants.

# System Startup

Turn the Diverter Valve to the horizontal position to direct flow to your RO System.

Turn on the cold water from your feed faucet. Once you are sure there are no leaks and water has begun to come out of the RO Faucet, let the system run for two hours. This will flush out any loose carbon fines and prime your filters. Inspect your system occasionally during this time to make sure there are no leaks.

Your water may be cloudy for the first week of operation. This is just air bubbles escaping from the new system. You can shift the sides of your system up and down while running your water to help this air escape.

Now your system is ready for use and the water from the RO Faucet is ready to drink.

## TROUBLESHOOTING:

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
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.
Slow production or no water from RO Faucet	-Low water pressure -Crimps in tubing -Clogged Pre Filters -Fouled RO Membrane	*Make sure tubing is straight. *Replace SED and GAC. *Replace RO Membrane.
Water taste or an offensive smell	- Drain line clogged - Inline Post Carbon Filter is depleted - Fouled RO Membrane - Sanitizer not flushed out	* Replace Inline Post Carbon Filter. * Replace RO Membrane.
No drain water	- Clogged Flow Restrictor	* Replace the Flow Restrictor.
Leaks	- Fittings are not tightened - Twisted O-Ring - Misalignment of hole in Drain Saddle - Threaded Connections	* Tighten fittings as necessary. * Replace the O-Ring. * Realign Drain Saddle * Replace Teflon Tape with 7-10 rounds

## FAQ's

**Does this system filter Fluoride, Lead, Pharmaceuticals, and Arsenic?**

Yes, as well as Cyanide, Phosphate, Pesticides, Sodium, Cadmium, Sulfates, and many other contaminants up to certain levels. You may need other changes to media for high levels of these substances.

### **What PSI do I need? What is the operating pressure?**

The minimum PSI for the system is 45 and the maximum PSI is 80. If your PSI is too high you can purchase a Pressure Regulator to reduce your pressure to acceptable levels. Let us walk you through these options; call us at 1-661-575-0033 Monday - Friday 10am - 3pm PST or visit [WWW.PREMIERWATERSYSTEMS.NET](http://WWW.PREMIERWATERSYSTEMS.NET)

### **What is the discharge rate?**

The typical discharge range is one to three gallons for every one gallon produced. Your water pressure, incoming water quality, and water temperature will affect your RO System's discharge rate.

### **How often do I change Filters? Is there an indicator?**

The Sediment, GAC, and PAC Filters should be changed every 6 months. The RO Membrane should be changed every one year at the same time as the second change of the 6 month filters. There is no direct indicator for filter changes. However, if you notice a drop in water quality before the 6 months or 1 year mark this may mean that due to your water quality your filter has degraded. If you reach 6 months or 1 year without noticing a change in taste you should still change your filter at this point as they are no longer viable.

### **Can I add additional filters to my current system?**

Yes, each system is fully upgradeable. Check the Upgrades and Accessories section at PremierWaterSystems.net for more information.

### **Can I reuse discharge water?**

Never consume discharge water. With proper installation it is possible to utilize your discharge water. Contact Premier Water to speak with a qualified representative who can give you more information based on your situation.

### **How long does the system last?**

With proper maintenance and average water quality an RO System should last 5-10 years.

### **Does this produce aquarium safe water?**

While the water is perfectly safe for human consumption, we suggest installing our Deionization Filter Upgrade to create water for aquatic life.

### **Why do I need to flush the system?**

New filters (or filters that have experienced extended disuse) can develop carbon residue. Two hours of constant flow is recommended to release any extra carbon before the water is safe to drink.

**Premier Water Systems**  
**WWW.PREMIERWATERSYSTEMS.NET**  
**(661) 575 – 0033**  
**DYLAN@PREMIERWATERSYSTEMS.NET**