

PureDrop Reverse Osmosis Water Filter Systems

INSTALLATION INSTRUCTION & OWNER'S MANUAL Ver 2018-10



Please keep this owner's manual for future reference.

It includes the information on how to properly operate and maintain the system.

TABLE OF CONTENTS

Before Installation

[Inspect the package](#)

[Recommended tools list](#)

[Operating conditions](#)

[Components Identification](#)

[How to use Quick-Connect fitting](#)

[To connect:](#)

[To disconnect:](#)

[How to drill a hole on sink or counter-top](#)

[Step 1: Installing the Feed Water Adapter \(AFW\)](#)

[Step 2: Installing the Drinking Water Faucet](#)

[Step 3: Installing the Drain Saddle](#)

[Step 4: Installing the Vertical Filters: Stages 1, 2, and 3](#)

[Step 5: Installing the Tank Shut-off Valve \(TSV\)](#)

[Step 6: Installing the Reverse Osmosis Membrane](#)

[Step 7: Tubing Hook up](#)

[Step 8: System Start Up](#)

PUREDROP RO SYSTEM MAINTENANCE

[Stages 1 – 3 pre-filters: Replace every 6 – 12 months, or sooner if water flow gets slow.](#)

[How to change in-housing cartridges in 1st – 3rd pre-filter stages](#)

[Stage 4 RO membrane: Replace every 2 – 3 years or sooner if TDS level starts increasing.](#)

[How to change reverse osmosis membrane](#)

[Stage 5 FT15 fine carbon: Replace every 12 months](#)

[O-rings: Replace every 3 years or sooner if leak happens at O-ring.](#)

OWNER'S MANUAL

Section 1: Knowledge Base

[What Is Reverse Osmosis?](#)

[How Effective Is Reverse Osmosis Filtration?](#)

[What are the specific contaminants that a reverse osmosis system removes?](#)

[Does Reverse Osmosis remove pharmaceuticals from water?](#)

[Will a reverse osmosis water system taste as good as the water I pay \\$5.00 a bottle for?](#)

[I have heard that reverse osmosis wastes a lot of water!](#)

[What is a TDS meter?](#)

[Maximum distance from tank to faucet](#)

Section 2: Troubleshooting Guide

[Leaking around filter housing \(O-ring too small or not in place\)](#)

[Little water out of faucet, tank is heavy and appears full of water, but the stream turns very weak after a few seconds](#)

[Continuous drain](#)

[High TDS level in RO water](#)

[Tastes and Odors in RO Water](#)

[Faucet Leaks or Drips](#)

[What is an ASOV and what does it do?](#)

[Cloudy ice cubes or milky colored water](#)

[After installation, the water out of the RO faucet is only a trickle. Is this normal?](#)

[Sudden drop in RO water production: There are a few potential factors causing the problem?](#)

Thank you for choosing the PureDrop Reverse Osmosis Water Filtration System.

Before Installation

Inspect the package

Please open the box, and take all the components and tool kit out. Inspect them to ensure that nothing was damaged during shipping. If any part is cracked or broken, please immediately contact PureDrop Customer Support for a replacement. Identify and get familiar with the components.

Recommended tools list

- Variable speed drill with two bits: ¼" for drilling a hole in PVC drain pipe (can be patched with duct tape or PVC patch kit if no longer needed), ½" hollow diamond for drilling a hole in the countertop for the drinking faucet
- 5/8", 9/16" open-end wrench, or adjustable wrench, pliers
- Phillips screwdriver
- Scissors or utility knife

Operating conditions

- Maximum water pressure: 80 psi, otherwise a pressure regulator (part no. APR70) is required if there is high water pressure or water hammer
- Minimum water pressure: 40 psi, or a booster pump is needed to improve the RO efficiency
- Water temperature: 40 – 100 °F (4 - 37 °C) (This RO system is NOT designed for HOT water). Within the range, the warmer is the water, the faster is the RO process.
- Maximum TDS: 750 ppm (NOT designed for water source with extremely high TDS)
- Install this RO system in a location where it is safe from hot/cold weather and direct sunlight. Avoid hitting, dropping, or dragging as these can cause cracks and leaks.

Components Identification



RO machine head with 5th stage
* (membrane not yet installed)



Pre-filter housings, cartridges,
and RO membrane in sealed bag



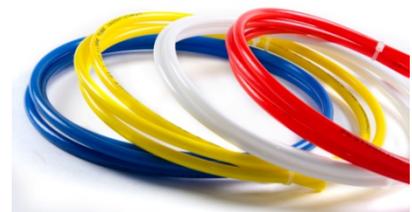
Storage tank (pre-pressurized
at 7-10 psi)



Housing wrenches



2x Feed Water Adapter (AFW)



4-color tubing set (5 feet each)



Drain saddle 1/4"



Tank valve



Faucet with installation kit



Spare O-rings and Fittings (Real
package quantity may vary)



Extra Filters



Water Detector (optional)

Installation Tips

How to use Quick-Connect fitting



To connect:

1. Check and cut the tubing end squarely and cleanly with utility knife or scissors.
2. Make a mark $\frac{1}{2}$ inch from the end of the tubing, this mark will help guide the tubing installation.
3. Fully insert the tubing until the mark is no longer visible. This ensures that it is sealed by the O-ring inside the fitting. Pop the blue lock clip back on the fitting. This will lock the tube in place and prevent it from moving.



TO CONNECT: Push tubing into Lock Sleeve and reach bottom about $\frac{1}{2}$ inch deep.



TO DISCONNECT: Remove Lock Clip. Pull out tubing while two fingers Pushing In and Pressing Down Lock Sleeve.

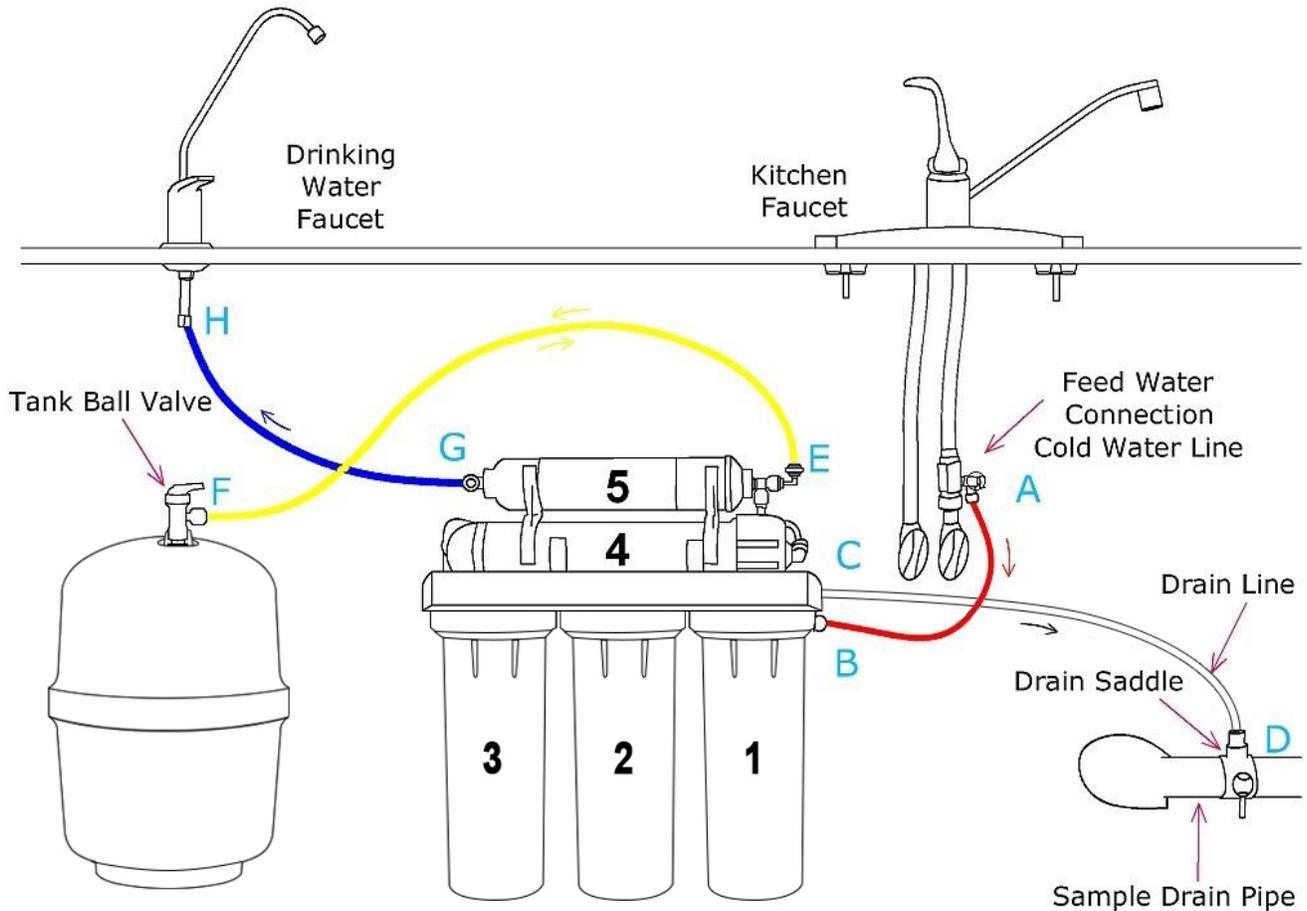
To disconnect:

1. Remove the blue Lock Clip.
2. With the blue lock clip removed, use your thumb and index finger to hold down the lock sleeve. This will release the metal teeth holding the tube in place. While holding the lock sleeve down with that hand, use your other hand to remove the tube from the fitting.

How to drill a hole on sink or counter-top

1. It's highly recommended that you watch the **YouTube video "How To Drill Faucet Holes"**.
2. Choose a half inch Diamond Core Bit for granite or a titanium drill bit for steel. Do NOT use a hammer drill on nature stone, glass, and ceramic.
3. An indent should be made with a punch on steel before drilling to help guide the bit.
4. Use caution when drilling on a Porcelain sink, as it could be easily chipped. Set drill speed on slow. Press the bit downward firmly until breaking through the slippery surface.
5. Use coolant to disperse heat. Choose water for granite, and oil for steel. Use Water Suction Cup to hold coolant inside and prevent the drill bit from slipping.
6. Starting at slowest speed, hold the drill firmly and vertically and prevent the drill bit from slipping on the counter.
7. Once breaking through the smooth surface, swirl the drill a little to apply pressure in a circle evenly.
8. Be patient and deliberate. It can take 20 – 40 minutes to drill through one inch.

Sample Installation



- A.** Source water from Feed Water Adapter → **B.** Source water to water inlet next to 1st stage
- C.** Waste water from Flow Restrictor → **D.** Waste water to Drain Saddle
- E.** RO water from Automatic Shut-off Valve → **F.** RO water to Storage Tank
- G.** RO water from 5th stage → **H.** RO water to Drinking Faucet

An Ice Maker Kit can be purchased separately to feed RO water to refrigerator and get crystal clear ice cubes and great tasting water at ease. It could make the Drinking Water Faucet optional.



Installation Steps



Note: Steps 1 – 7 are independent, and can be performed in any order.



Step 1: Installing the Feed Water Adapter (AFW)

- 1.1 Turn off the Cold Water Line via the Cold Water Shutoff Valve (CWSV) under the sink. Open the kitchen faucet to release pressure and make sure water has stopped before proceeding to the next step. Get a towel or bucket to catch water spill. Disconnect Kitchen Faucet Connector (KFC) pipe from CWSV.
- 1.2 Check O-ring inside AFW female end, and twist it onto CWSV. Tighten it up using wrench or pliers.
- 1.3 Twist KFC onto the male end of AFW. Turn the handle of AFW to cross (OFF) position. Turn on CWSV slowly, check and fix any leaks.
- 1.4 Connect the 1/4" **RED** tubing to AFW.



Step 2: Installing the Drinking Water Faucet

- 2.1 If your kitchen sink does not have an existing 1/2" hole, you will have to drill one. (Refer to *How to drill a Hole on Sink or Counter-top*). Wipe clean and dry the area.
- 2.2 Slip the front plate on the faucet stem, followed by the rubber washer. Insert the faucet stem into the hole on countertop
- 2.3 Under the sink, slip on the back rubber washer, tighten the nut with plastic wing.
- 2.4 Screw the tubing adapter on to the faucet stem. Insert the **BLUE** tubing 1/2 inch deep into the Push-in fitting.

Step 3: Installing the Drain Saddle

- 3.1 Choose a spot on the drain pipe that is convenient for installing the drain saddle and tubing. It is recommended that you install in a horizontal pipe to minimize dripping sounds.
- 3.2 Drill a 1/4" hole on the drain pipe; paste the black sticky pad around the hole.
- 3.3 Cut the **WHITE** tubing end to make a 45 degree angle. Slip the plastic nut and front plate on the tubing. Insert the tubing into the 1/4" hole on the drain pipe, install the back plate and tighten the two screws with hex nuts while the tubing remains in the hole.
- 3.4 Tighten the nut securing the white drain line to the Drain Saddle by hand. Pull the tubing to check if it is secure.

Step 4: Installing the Vertical Filters: Stages 1, 2, and 3

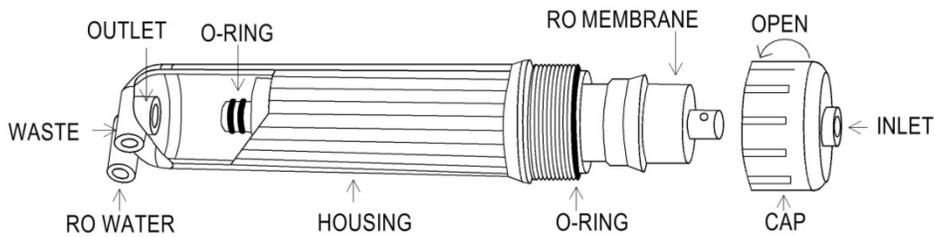
- 4.1 Make sure that the O-ring is seated inside the groove on the top of the filter housing. Food-grade silicon jelly may be used to help the O-ring stay in place and seal better.
- 4.2 Note the direction sign on the sticker before removing the shrink wrap (GAC at 2nd stage.)
- 4.3 Rinse the GAC and CTO cartridges with tap water for 5 minutes or until water is clear.
- 4.4 When placing the filter cartridge into its housing, make sure it is centered and the knob protruding from the bottom of the housing fits in the center hole of the filter.
- 4.5 Screw the housing, with filters inserted, onto the housing caps (caps are pre-assembled on the machine head). The cap also has a center knob which should be inserted into the center hole of the filter cartridge. Twist the housing on in a clockwise direction by hand, and then use a housing wrench to tighten it for about 1/4 – 1/2 of a turn. **Do not over tighten. This can cause leaks and make it difficult to unscrew the housing when replacing filters.**
- 4.6 Follow steps 1.1 – 1.4 to install the GAC and CTO filters. *Note* the second stage GAC is the only filter that must go in a certain direction. Make sure that the end with the rubber washer faces up, thereby attaching to the housing cap.



Step 5: Installing the Tank Shut-off Valve (TSV)

- 5.1 Screw (clockwise) the Tank Shut-off Valve on and tighten by hand. Do not over tighten.
- 5.2 Connect the **YELLOW** tubing onto the Quick-Fitting of TSV.

Step 6: Installing the Reverse Osmosis Membrane



6.1 Open the membrane housing screw cap. First, you will need to disconnect the white 1/4" tubing from the Inlet quick-fitting on the

membrane housing cap (refer to *How to Use Quick-Fitting* section), and then unscrew (counter-clockwise) the cap. A thick rubber band can be slipped on the housing body for a better grip.

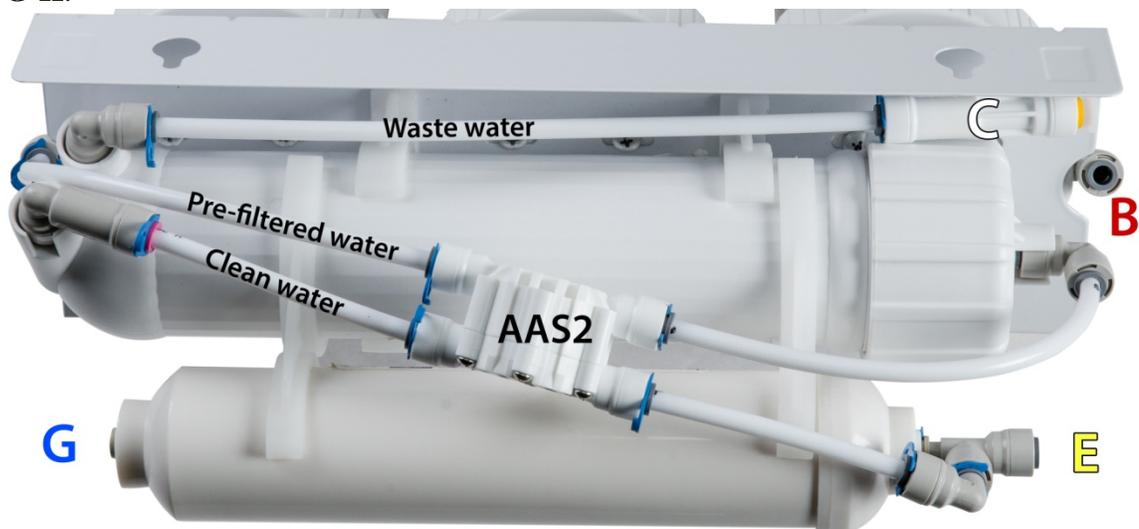
6.2 The RO membrane is preserved in a sealed bag. Follow the flow direction sign on the membrane, and firmly insert the membrane into the housing. The smaller end with two black O-rings should be inserted first until the back end is even with the housing opening.

6.3 Before twisting the housing cap back on, check to make sure the **O-ring is placed securely on the membrane housing (cap does NOT have O-ring)**. Hand tighten and then using a small plastic housing wrench tighten 1/4 – 1/2 of a turn, be careful not over tighten. **DO NOT** reconnect the tubing to inlet on cap at this point (This connection is made in the system start up step).



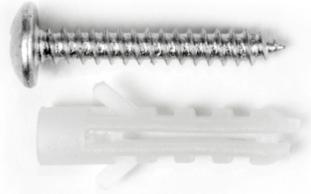
Step 7: Tubing Hook up

7.1 See the **Sample Installation** and **RTW5 TOP VIEW**, note connection points **A-B**, **C-D**, **E-F**, and **G-H**.



7.2 Facing the front of the unit, with the brand logo, the 1st stage pre-filter is located on the right hand side. Connect the **RED** tubing Feed Water Adapter (AFW) (point A) to the elbow fitting (point B).

- 7.3 Connect the Flow Restrictor (point C), which is a 3-inch long cylinder with a FLOW sign laying besides the membrane housing, to the Drain Saddle (point D) with the **White** tubing.
- 7.4 On the right side of the Post Carbon Filter (FT15 5th stage), connect the Tee-fitting (point E) and the Tank Valve (point F) with the **YELLOW** tubing. The tank is pre-pressurized at 7-10 psi and has an air valve on the side for refilling with a bike air pump if needed.
- 7.5 On the left end of FT15, insert the **BLUE** tubing (connects to RO faucet) into the elbow fitting.
- 7.6 Connect the other end of the **BLUE** tubing to the RO faucet.
- 7.7 You may organize the tubing, but make sure to leave enough length so the filter system can be moved freely in and out of the cabinet when replacing filters.
- 7.8 You may hang the system using two 3.9mm x 25mm screws with plastic anchors. This will prevent tipping and make replacing filter cartridges easier. **Note:** Use anchors on to mount on dry wall only. If you plan on mounting/hanging the system, it is highly recommended to include supports under each of the bottom three housings. Supports under the housings will take the water weight off the housing threads, and ensure the thread strength does not decay over the years.



Step 8: System Start Up

- 8.1 Make sure that no tubings are kinked. **Turn Tank Shut-off Valve OFF (perpendicular to the yellow tubing).** Place a towel under the system to catch any possible water leak.
- 8.2 To prevent any residual carbon dust in the first three stages from getting into the RO membrane, the tubing to the inlet of the RO membrane housing cap was left disconnected previously. Flush the first three stages into a bucket until the water turns clear, and re-connect the tubing to the RO membrane. (You may do this whenever you change the first three stages).
- 8.3 Turn on (inline) Feed Water Adapter valve (AFW), and then slowly turn on the Cold Water Supply Valve (CWSV) and **check for leaks.** The top 3 causes of leaks are 1) the tubing was not fully inserted into the quick-connect fitting for about half an inch deep. 2) the O-ring was not in place or kinked. 3) the Housing/Cap was not tightened properly or misaligned with the threads.
- 8.4 Within 5 minutes, RO water should start dripping. Let it run for at least 10 minutes. This flushes the system except for the tank. The water may appear black due to loose carbon from new carbon filters (step 8.2 could be taken to expedite the flush). It will turn clear with some air bubbles.
- 8.5 Shut off the RO Drinking Faucet. Turn on the Tank Shut-off Valve. Wait for the tank to fill up. It may take 1.5 hours in warm summer or 3 hours in cold winter to fill up a 3 gallon tank with about 2 gallons holding capacity.
- 8.6 After two hours, turn on the RO Drinking Faucet to flush out all the water in the tank. **DO NOT** use the first tank of water. The water out of the faucet should be a much stronger stream since the water pressure was built up to 35-40 psi when the tank is filled up. When the water flow changes back to a trickle, it means the tank is empty.
- 8.7 The reverse osmosis membrane is the key component for the effective reduction of total dissolved solids (TDS). The water shall be tested periodically to verify that the system is performing properly. If the TDS of the source water is 100ppm, the RO water should be less than 10ppm (Rejection rate >90%).

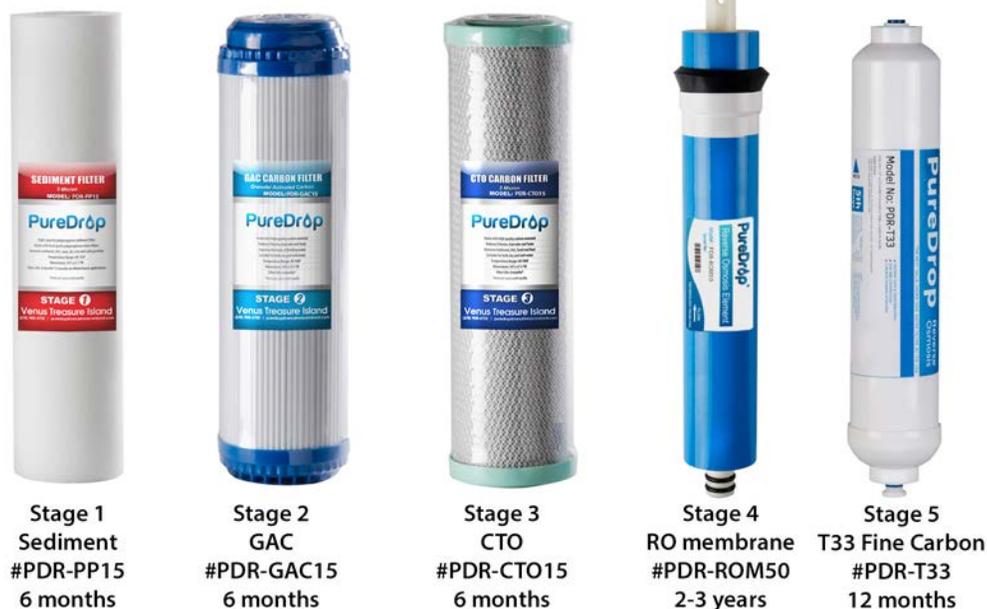
8.8 Check for leaks daily for the first two weeks after installation. Furthermore, a pan or tray can be put under the system in case of any leaks, and a Flood Alarm can be used together for better protection.

Congratulations! **You have successfully installed your PureDrop RO system.**

PUREDROP RO SYSTEM MAINTENANCE

This RO system is designed with ease of use and low maintenance in mind. If you change the filter cartridges as suggested below, and check TDS level periodically, the system will work properly for years to come.

Filter Cartridge Replacement Schedule



Stages 1 – 3 pre-filters: Replace every 6 – 12 months, or sooner if water flow gets slow.

The frequency depends on the source water quality and water usage. They could last longer in city water, and shorter in well water. Different areas have different source water. Some customers reported they had to replace the 1st stage every 1-3 months. Some customers reported they only needed to replace them every 12 months. To protect the RO membrane in the 4th stage, it is **required** to replace the pre-filters **at least every 12 months**.

How to change in-housing cartridges in 1st – 3rd pre-filter stages

1. Shut off the water supply valve and tank valve, open the faucet to depressurize the system. Place a bucket or towel underneath the unit to catch any water spills.
2. If there is enough room under the sink and filter system is hung on wall, you can twist the filter housing off without removing the system from the wall. Otherwise, you will need to pull the

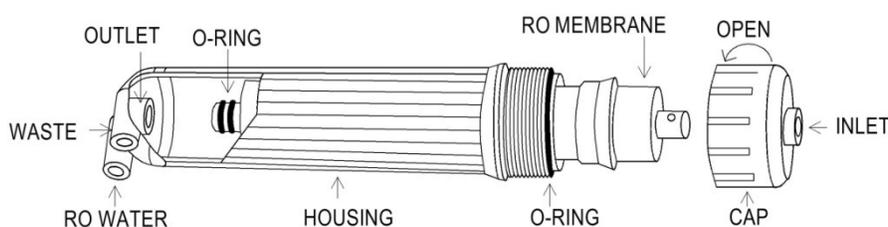
system out, lay it down, and remove the housings at that point. Be careful with the tubing connections when removing the system.

3. Twist off the filter housing in a counter-clockwise direction when looking from the bottom. Use a housing wrench (the bigger one) if necessary.
4. Refer to Installation Step 1.1 to install the new vertical filter cartridges and twist the housings back on. Remember not to over tighten or it will be hard to unscrew next time.

Stage 4 RO membrane: Replace every 2 – 3 years or sooner if TDS level starts increasing.

Check the TDS level at least once a month to monitor the system performance. The rejection rate should be above 90% (NSF/ANSI STANDARD 58 for RO water filter).

How to change reverse osmosis membrane



1. Reverse osmosis membrane usually lasts about 2 – 3 years, depending on the source water quality and the replacement schedule of the three pre-filters.
2. To ensure system performance and water purity, filter cartridges must be replaced on schedule. Use the TDS meter periodically to check water purity.
3. Shut off the water supply valve and tank valve, turn on the faucet to depressurize.
4. Place a bucket or towel under the unit to catch water spills.
5. Remove the tubing from the inlet fitting on the membrane housing cap. Use a housing wrench or by hand to twist off the housing cap in a counter-clockwise direction looking from inlet.
6. Pull out the old membrane. Use scissors or pliers to apply leverage if necessary.
7. Clean the housing using hot water and optional scent-free dish soap. Rinse thoroughly. Cut open the small end of the sealed bag of a new RO membrane, hold the new membrane with the bag, and insert it into the housing without touching the membrane with your bare hand, to avoid contamination of the membrane.
8. Check the O-ring on the open end of the membrane housing. It is recommended to replace it every 3 years to prevent leaks.
9. Twist the membrane housing cap back on by hand. Use a wrench for another ¼ of a turn if necessary. DO NOT over tighten.

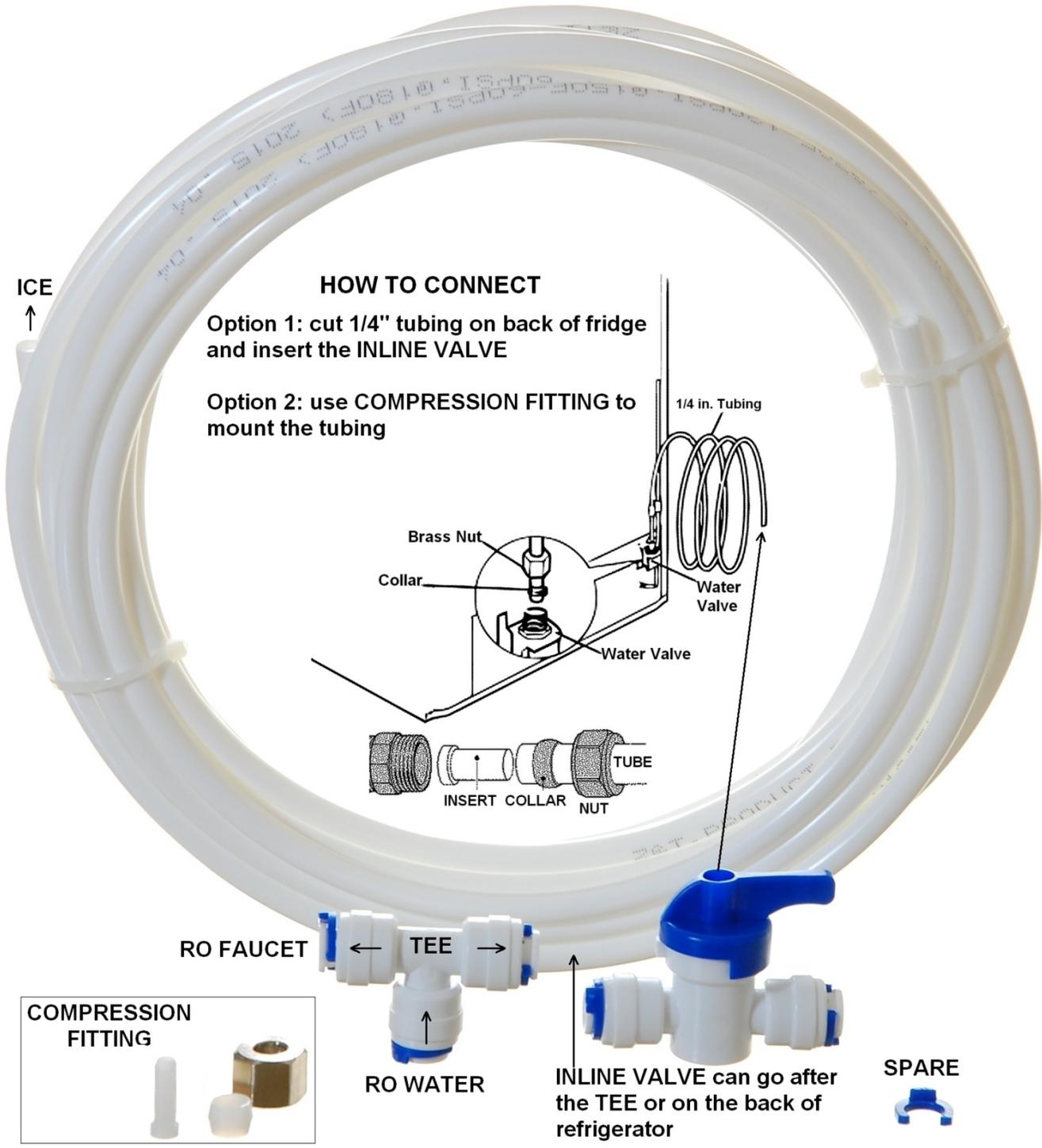
Stage 5 FT15 fine carbon: Replace every 12 months

Disconnect tubing on both ends, put them on the new cartridge.

O-rings: Replace every 3 years or sooner if leak happens at O-ring.

The package comes with spare O-rings for the pre-filter housing, and 1 spare O-ring for the membrane housing. Please save them along with this manual.

Extra Installation - Refrigerator Connection Kit (ICEK)



OWNER'S MANUAL

Please read this manual for useful reverse osmosis system and maintenance information.

Section 1: Knowledge Base

What Is Reverse Osmosis?

Reverse osmosis, also known as hyper filtration, is a membrane filtration process that separates undesirable materials from water by using pressure to force the water molecules through a semi-permeable membrane. This process is called "reverse" osmosis because the pressure forces the water to flow in the reverse direction (from the concentrated solution to the dilute solution) to the flow direction (from the dilute to the concentrated) in the process of natural osmosis. Reverse osmosis is used to purify water and remove salts and other impurities in order to improve the color, taste, odor and/or properties of your water. R/O filtration can remove up to 99% of most contaminants including arsenic, nitrates, radium, chromium, fluoride, and dissolved solids such as sodium, calcium, iron, magnesium, copper, etc.

How Effective Is Reverse Osmosis Filtration?

Reverse osmosis filtration is by far the most effective and economic method of water filtration. It filters water by squeezing water through a semi-permeable membrane, which is rated at 0.0001 micron (equal to 0.00000004 inch). This is the same technology used to make bottled drinking water. It is also the most used technology for desalinating seawater, making it into drinking water.

What are the specific contaminants that a reverse osmosis system removes?

PureDrop Reverse Osmosis filtration systems reject a wide variety of impurities. Here is a partial list:

Item	Rejection Rate	Item	Rejection Rate	Item	Rejection Rate
Aluminum	97-98%	Ferro cyanide	98-99%	Proteins	90+%
Amoebic Cysts	99%	Fluoride	94-96%	Protozoa	99%
Ammonium	85-95%	Giardia	99%	Pyrogen	99+%
Arsenic	94-96%	Hardness	93-97%	Radioactivity	95-98%
Asbestos	99%	Herbicides	97%	Radium	97%
Bacteria	99+%	Hydrocarbons	90+%	Sediment	99%
Barium	90-98%	Insecticides	97%	Selenium	97%
Bicarbonate	95-96%	Iron	98-99%	Silica	85-90%
Boron	50-70%	Lead	96-98%	Silicate	95-97%
Bromide	93-96%	Magnesium	96-98%	Silver	95-97%
Cadmium	96-98%	Manganese	96-98%	Sodium	92-98%
Calcium	96-98%	Mercury	96-98%	Strontium	90-95%
Chloride	94-95%	Nickel	97-99%	Sulfur/Sulfate	97-98%
Chromate	90-98%	Nitrate	93-96%	Sulphite	96-98%
Chromium	96-98%	PCBs	97%	TDS	95-99%
Copper	97-99%	Pesticides	90+%	THMs	90+%
Cryptosporidium	99%	Phosphate	99+%	Trichlorethylene	90+%
Cyanide	90-95%	Polyphosphate	98-99%	Virus	99+%
Detergents	97%	Potassium	92-97%	Zinc	98-99%

Note: You may or may not have these contaminants in your water. The percentage rejection rate is for reference only. Percentages may vary since water chemistry varies in each water supply.

Does Reverse Osmosis remove pharmaceuticals from water?

Yes, the 5-stage RO with carbon pre-filters can remove most of pharmaceuticals from water. An activated carbon filter gives these contaminants a charge so they are absorbed and removed.

Will a reverse osmosis water system taste as good as the water I pay \$5.00 a bottle for?

Yes! Sometimes better, depending how well the bottled water company is maintaining their purification equipment. Reverse Osmosis is the same process used by most major bottled water companies. Even some companies that use "spring water" still use Reverse Osmosis to insure purity.

I have heard that reverse osmosis wastes a lot of water!

It wastes a little but not a lot. On the average, these systems will use less than 2% of your home's total water consumption. In addition, all Our Reverse Osmosis Systems use automatic shut off valves. The drain will stop when the tank is full. The ratio of drain water to RO water is 2:1 – 3:1 for all of our RO systems. For a regular residential household, the waste water per day is about 3 more flushes of toilet, which is not too bad.

What is a TDS meter?

A TDS meter is a Handheld Total Dissolved Solids Tester. Total Dissolved Solids are the total weight of all solids that are dissolved in a given volume of water, expressed in units of mg per unit volume of water (mg/L), also referred to as parts per million (PPM). With a TDS meter, you can easily compare the quality of RO water with your original source water.

Maximum distance from tank to faucet

A maximum distance from tank to faucet of 15 feet is possible. The system will produce a faster flow at the faucet with the shortest tubing run from tank to faucet.

Section 2: Troubleshooting Guide

Leaking around filter housing (O-ring too small or not in place)

First of all, please check if all filter cartridges are sitting upright inside the canister. Then, check if O-ring is properly seated in place. The o-rings may be a little too small, please stretch it out and put it back inside the groove. You may over-stretch a little so when it is back in the canister, it will shrink and fit just right. Then insert the cartridge to the top cap, screw the canister all the way in. **MAKE SURE** O-rings are staying in place during this process. Then use a wrench to tighten it (do not over tighten).

Little water out of faucet, tank is heavy and appears to be full of water, but the stream becomes very weak after a few seconds

If there is no change in the supply water pressure, the problem is very likely from the tank. It could be due to low tank pressure or broken bladder. Perform the following steps first:

- Shut off main water supply

- Get a bucket under the tank and remove tank by disconnecting the ball valve.
- Dump the water from the tank by turning it upside down (through the top stem). You may add air from the front valve to help emptying the water.
- Use a gauge at the front air valve to check tank pressure. It should be within 7-10 PSI. If pressure is too low, you can use a bicycle pump to add more pressure to the tank.
- Re-connect tank to the system and turn on the water supply.

Continuous drain

All RO systems create drain water. The drain water should run only when the system is making water. The ratio of drain water to RO water is about 0.8-3:1 for our RO systems (Pumped, Side-Flow systems have lower ratio). For a regular residential household, the waste water per day is about 3 more flushes of a toilet, which is not too bad. The drain should stop after the tank is full. Allow 3 hours for the tank to fill up. If the drain is still running, the problem might be caused by the following reasons:

- Faulty automatic shut-off valve (ASV, the white square valve that connects to the 4 tubings),
- Faulty check valve (at the pure water outlet of the membrane housing),
- Faulty flow restrictor (the small tube that marks "flow 300" and connects to the drain line).
- Low tank pressure.

High TDS level in RO water

The RO system should produce a TDS rejection rate of about 85-95%. Check the following first:

- What is the TDS reading of the tap water? Is there a sudden increase in tap water TDS level?
- Has the RO membrane been installed? It is packed in a plastic bag and in blue color, located in the accessory box.
- Possibility of reverse drain line and pure water line. Compare your tubing connection to the diagram in the manual.

Tastes and Odors in RO Water

Possible Cause	Solution
Carbon Post Filter is exhausted.	Replace Filter.
There is foreign matter in the Holding Tank.	Clean, flush and sanitize the Holding Tank. Replace filters.
Product water and Drain water lines are reversed.	Correct the plumbing.
Dissolved gases in feed water.	Pre-treat feed water to remove gasses.
Increase in Product Water TDS.	See High TDS in Product Water Section

Faucet Leaks or Drips

Possible Causes and Solution for water leaks from faucet spout: Adjust faucet by turning the tee bar located under the handle to provide a small amount of free play in the handle when it's shut off. Should this not work, repair or replace the faucet.

Leaks from beneath the handle: Repair or replace the faucet.

What is an ASOV and what does it do?

ASOV is automatic shut-off valve. This valve allows your system to turn off the water supply, using pressure from the pure water side of the system. It will turn off the water supply to the unit, whenever there is sufficient pressure from the pure water side of your system. ASOV is a must. It saves water, extends filter life, and improves the performance of your unit. As the storage tank fills the pressure inside increases, when the pressure equals to 1/2 - 2/3 of your feed water pressure, the water to the system is shut off. No waste water will be produced. Since you subtract the storage pressure from the operating pressure, the storage pressure needs be limited.

Cloudy ice cubes or milky colored water

Bad membrane. Use TDS Meter to check membrane. Replace membrane and sanitize the system when rejection rate is below 75%.

High oxygen content in source water.

Tiny frozen bubbles. System is still new. This is normal and should clear up in two weeks.

After installation, the water out of the RO faucet is only a trickle. Is this normal?

Reverse osmosis is a very slow process. Water flow is only a continuous drip when bypassing the tank. With the pre-pressurized tank, the water out of the faucet will be about 7-10 PSI (same as tank pressure), which creates a pretty strong flow. It takes about 2-3 hours to get the tank filled up, then the system will shut off automatically and the drain stops running.

Sudden drop in RO water production: There are a few potential factors causing the problem:

- Feed water valve is plugged or closed.
- Sediment/Carbon prefilter or Carbon Post Filter is clogged.
- Low incoming water pressure.
- Reverse Osmosis Membrane is fouled.
- Air pressure in holding tank is incorrect.
- Air Bladder in Holding Tank is ruptured.
- Holding Tank valve is closed.
- No water to drain. Drain Flow Restrictor is clogged.
- Check Valve on RO Membrane Housing is stuck.
- The Automatic Shut-Off Valve is Malfunctioning.

Warranty

This Limited Warranty extends to the original purchaser of the system only. This warranty covers all Manufacturer-supplied items only that prove to be defective in material, workmanship, or factory preparation. This warranty covers parts only; all labor is excluded from this warranty, including, but

not limited to, services related to the removal, replacement, installation, adjustment, maintenance, and/or repair of the unit or its components items. excludes all non-Manufacturer labor required for any servicing of the unit, including, but not limited to, servicing related to installation, adjustment, maintenance, and repair of the unit. This warranty applies only for the first full calendar year from date of purchase. The following items are excluded from this warranty: membranes, filters, O-rings, and all other parts or components that require regular replacement as a result of ordinary usage.

Disclaimers: This Limited Warranty applies only if the system is installed, used, and maintained in compliance with all instructions and requirements enclosed with the system. This warranty will be void for failure to observe the following conditions:

1. The system is to be used with potable water supply only.
2. Feed water pressure to the unit is no less than 40 PSI (30 PSI for systems with built-in booster pump) and no greater than 80 PSI.
3. The system is to be used on water supplies with chlorine concentrations of 1.0 mg/L (ppm) or less.
4. Feed water temperature to the unit must be no less than 40°F and no more than 100°F.
5. Total dissolved solids (TDS) in feed water must be less than 750 mg/L (ppm).
6. Feed water must have a pH between 4 and 8.
7. Turbidity must be less than 1.0 NTU.
8. SDI must be less than 5.
9. Feed water must be completely free of iron, manganese or hydrogen sulfide.

While the testing was performed under standard laboratory conditions, actual performance may vary. The Manufacturer does not know the characteristics of your water supply. The quality of water supplies may vary seasonably or over a period of time. Your water usage may vary as well. Water characteristics can also change if the drinking water appliance is moved to a new location. The Manufacturer assumes no liability for the determination of the proper equipment necessary to meet your requirements, and we do not authorize others to assume such obligation on our behalf.

This Limited Warranty does not cover any Manufacturer-supplied items that are defective as a result of the use of improper parts, equipment or materials. This warranty does not cover alterations or modifications of the unit or failure of a unit caused by such alterations and modifications.

This Limited Warranty does not cover malfunctions of the unit due to tampering, misuse, alteration, lack of regular maintenance, misapplication, fouling due to hydrogen sulfide, manganese or iron, scaling from excessive hardness, turbidity greater than 1.0 NTU, Silt Density Index (SDI) greater than 5.0 SDI, or excessive membrane hydrolysis due to chlorine levels in excess of 1.0 mg/L (ppm). In addition, damage to the unit due to fire, accident, negligence, act of God, or events beyond the control of the Manufacturer are not covered by this warranty.

Incidental and Consequential Damages Limitation: The Manufacturer will not be responsible for any incidental or consequential damages as a result of the failure of this unit to comply with express or implied warranties or any defect in the unit, including but not limited to, lost time, inconvenience, damage to personal property, loss of revenue, commercial losses, postage, travel, telephone expenditures, or other losses of this nature. In case some states do not allow the exclusion or limitation of incidental or consequential damages, you may choose to return the system. If you choose to keep it, you insist this exclusion STILL apply to you.

Owner's Warranty Responsibilities: As a condition of this Limited Warranty, the owner must ensure that periodic maintenance of the system is performed as described in the literature enclosed with the system. Neglect, improper maintenance, abuse, modification, or alteration of the unit will invalidate this Warranty. Should your unit develop a defect or otherwise fail to perform in accordance with this warranty, you should contact the retailer from whom the product was originally purchased.

Implied Warranties: The implied at-law warranties of merchantability and fitness for a particular purpose shall terminate on the date one year after the date of purchase.

NOTE: IN CASE SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, YOU MAY CHOOSE TO RETURN THE SYSTEM. IF YOU CHOOSE TO KEEP IT, YOU AGREE THAT THE ABOVE LIMITATIONS STILL APPLY TO YOU.

Warranty Registration

We provide a 30-day money back guarantee, one-year Manufacturer Warranty and lifetime tech support for all of our products. However, we do not have your order information from the vendors other than our website. **The easiest way to activate the warranty is to go to:**

www.purifiltration.com, and submit your warranty registration under “Warranty Registration”. You can also email the following information via email to support@purifiltration.com, along with your comment.

PureDrop Warranty Registration	
Your Name:	
Your E-Mail:	
Your Phone:	
Order#:	
Model#:	
Order Date:	
Reviewer ID:	
Notes:	

Please remember, we love to help our customers. If you have any questions or concerns about our products, please don't hesitate to call or email us. We will do everything we can to make your purchase a 5-star experience.

If you are happy with our product and service, please show your support by writing a product review on eBay or Home Depot, even if it's just a single line. It takes you just a minute, but means a lot to us. Thank you!

How to reach us:

Local / International: 678-900-4702

Office Hours: Monday-Friday 9:00 a.m. - 5 p.m. EST

Technical Support Hours: Monday-Friday 9:00 a.m. - 5:00 p.m. EST

Venus Treasure Island, LLC