ANCHOR®
WATER FILTERS

REVERSE OSMOSIS WATER FILTER SYSTEM

Installation & Setup Guide

Model#:
AF-5002, AF-5003, AF-5004, AF-5005

Experience the taste of exceptional purity

Congratulations, you have purchased one of **Anchor Water Filters'** finest Reverse Osmosis Water Purification Systems available for homes.

When properly maintained, this system will provide you with years of great tasting, pure drinking water and trouble-free service. Please read the section regarding the proper care and maintenance of your new **Anchor** Water System.

These systems are made with highest quality NSF approved high performance parts

Parts Checklist

Please take a few moments to check and view the entire system and components before installation. Your new Anchor R.O. System should include the following items:

Reverse Osmosis Assembly

Note: RO Assembly will depend on model purchased

Water Storage Pressure Tank

Long-Reach Faucet Package

Alkaline Mineral Cartridge + Mounting Clips*

Angle Connectors for Alkaline Mineral Cartridge*

Filter Housing Wrench

RO Membrane Housing Wrench

Quick Fitting Elbow Connectors

Spare RO membrane Housing Elbow

Quick Connect Feed Water Valve for both 1/2-inch & 3/8-inch Plumbing Fitting

Storage Tank Shut-Off Ball Valve

Multi-colored Poly Tubing

Drain Water Saddle Valve

User Guide

Note: If any item is missing or damaged, please contact Anchor support at support@anchorfilters.com

* Only for Models AF-5004 & AF-5005

Filter Cartridge Replacement Cycle

Below is the approximate life of filter cartridges. Age of filters depends on GPD consumed and quality of feed water.

Model #	Name	Description	Service Time
AF-1001	Sediment Filter	extracts sediment, rust, insects, and other particles	3-6 months
AF-1014	GAC Filter	removes chlorine and unpleasant taste and odor	6 months
AF-1000	Carbon Block Filter	reduces taste, odor, color, SOCs, and VOCs	6 months
AF-1007/8/9	50/100/75 GPD RO Membrane	removes 99% contaminants that might be present in water	2-3 years
AF-1010	Inline Post Carbon Filter	further removes unpleasant taste and odor	6 months
AF-1006	Alkaline Filter	Adds minerals and balances and maintains the pH level	1 year

Tube color code

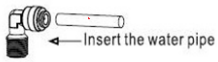
Please follow the 4 color-coded tube connections for installation

Connections		Tube Color	Description
A	RO Faucet	Blue	Pure Water to the Faucet
B	Water Feed Valve	Red/Orange	Feed Water to RO System
C	Tank Ball Valve	Yellow	Filtered Water to Storage Tank
D	Drain Connector	Black	Discharge Water to Drain

Tube Connection Guide

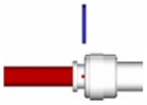
To easily identity connection points, quick fitting joints on filter assembly is fitted with colored coded lock pins. Insert the same color tube into the joints. Remove the pin before inserting tubes into it and then put it back.

1. Install the water pipe



Pull the lock fitting outward and push tubing straight in as far as it will go. You should hear a slight click sound.

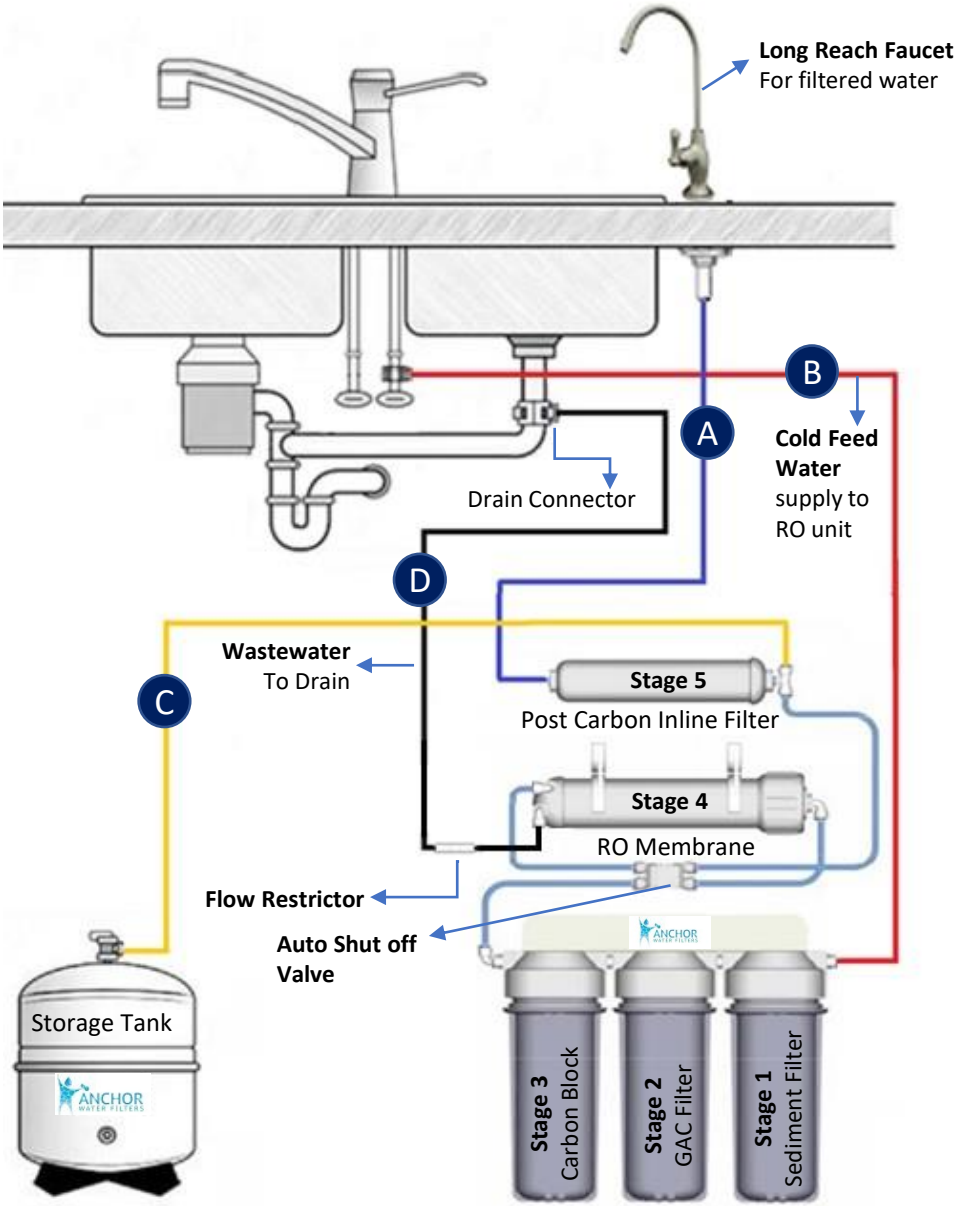
2. Insert the lock pin back on.



3. Pull the tube to ensure tube is tightly fitted.

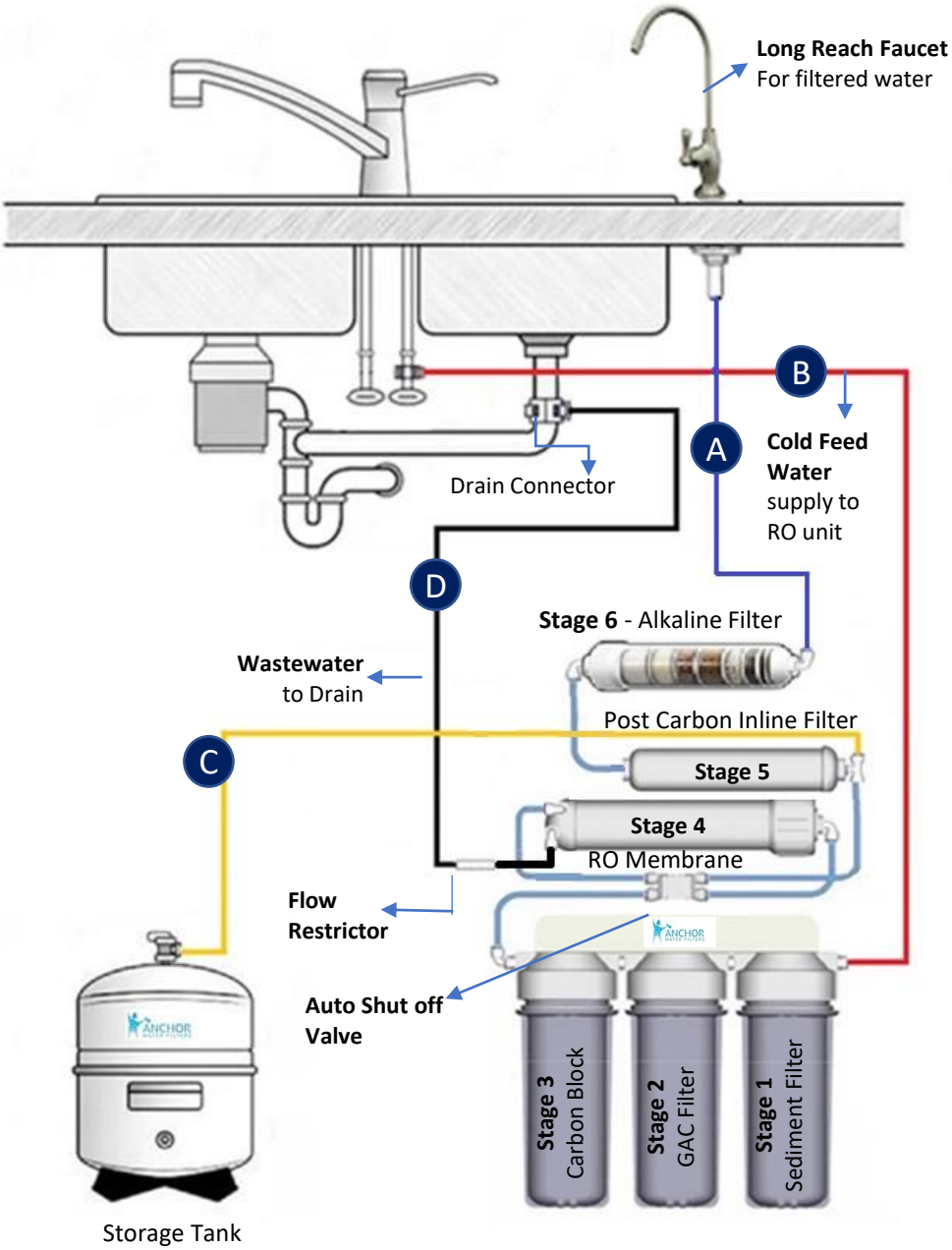
5-Stage RO Filtration System Connections

Make sure ALL the tubing is connected correctly



6-Stage RO Filtration System Connections

Make sure ALL the tubing is connected correctly



Preparation

1. Determine location

- Determine the location for installation of RO faucet.
    - You may use the existing predrilled hole on the sink. 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.
    - Make sure the faucet base fits flat against the surface at the selected location so the gasket will seal.
    - the faucet stud will be accessible from below once the hole is completed.

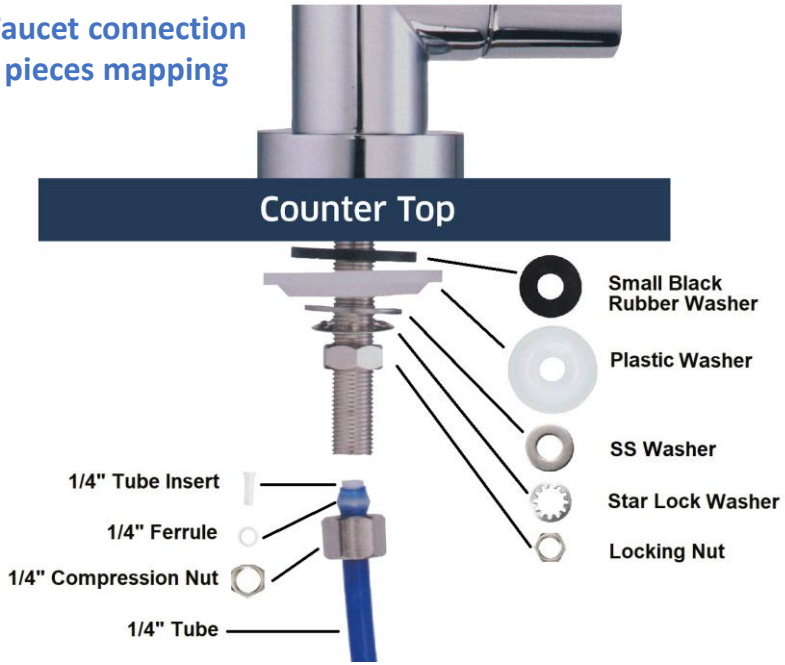
- Determine the location for the water storage tank.
    - The pressure storage tank can stand up straight or lie down at the desired location.
    - Maximum distance between storage tank and the RO faucet is 15 feet. The system will produce a faster flow at the RO faucet with shortest tubing from the tank to the RO faucet.

Installation

2. RO Faucet Installation (see image on page 8)

1) Slide Escutcheon chrome plate and large rubber gasket onto stem of faucet and place faucet onto sink with stem going through the hole.
2) Place small rubber gasket, plastic washer, metal ss washer and star lock washer over threaded stem of faucet and tighten locking nut from under the counter surface to lock the faucet into place. DO NOT OVER TIGHTEN.
3) Insert compression nut, plastic ferrule & tube insert into the **blue tubing** as shown in image on next page. Now insert this end to the faucet stud/stem hole from under the counter and tighten with compression nut.
4) Connect the other end of b**lue tubing** from the faucet to outlet of inline post-carbon filter (5th stage) in 5-stage RO, and to the alkaline cartridge (6th stage) in 6-stage RO. See image on page 5/6.

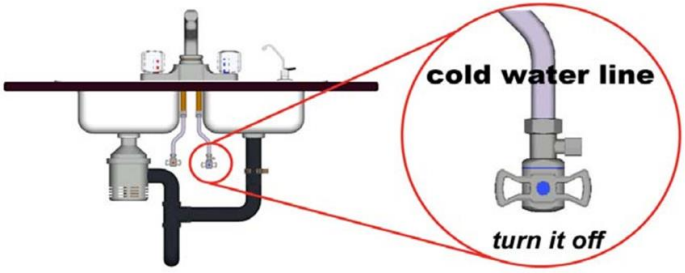
Faucet connection pieces mapping



3. Feed-Water Supply Installation

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 below) 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 must be turned off.



2) Locate the feed-water adapter in the installation kit.

Fits Both 1/2" NPT and 3/8" Compression Cold Water Supply

Please see the following for flex line and solid-copper riser installation.

Figure 2

Note: You may need to use Teflon tape on feed adapter to prevent leaks

a. Flex Line: Loosen nut and separate the cold-water riser tube from faucet shank. Gently bend riser tube so that feed adapter fits into faucet shank. Reinstall riser tube onto feed connector and tighten.

b. Solid-Copper Riser Tube: Follow same procedure as for flex tubing above, except cut a piece of the riser tube so the feed adapter can fit between faucet and riser tube.

3) Once the feed water adapter has been installed, connect the **red/ orange tubing** to the feed valve as in Figure 2.

4) Install the quick fitting elbow connectors to both IN and OUT ends of the filter unit. No Teflon tape is needed.

5) Other end of **red/orange tubing** will connect to first stage/IN side of RO system as in Figure 3.

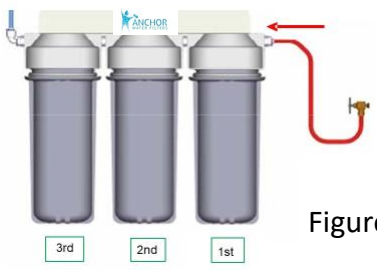
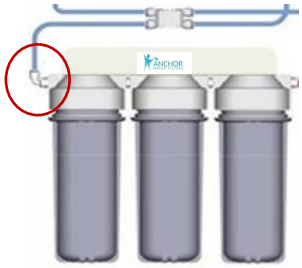


Figure 3

6) Connect the loose end of white tubing (that was left unconnected & marked ‘OUT’) to the OUT/third stage of the system.



4. Connecting Alkaline Mineral Cartridge

Only for Models AF-5004 & AF-5005

The Alkaline Mineral Cartridge has been left unconnected to prevent damage to the cartridge’s delicate connectors.

Refer page 6 for right connection flow. Use the ‘angle connectors’ to connect cartridges to the tubing. See below:

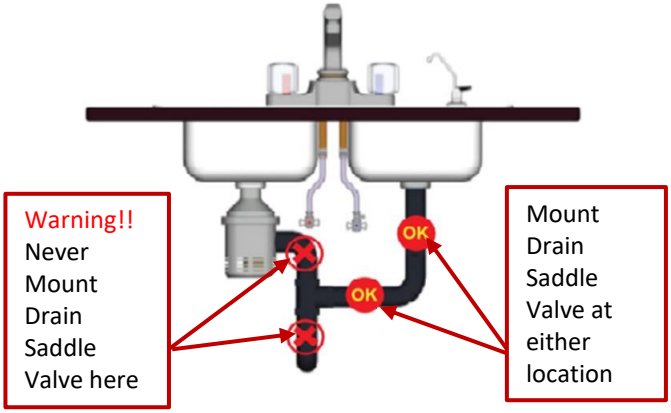
Remove the protective caps from both ends

Insert the angle connectors to both ends

Tubing connections and flow directions

5. Mounting the Drain Saddle Valve

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



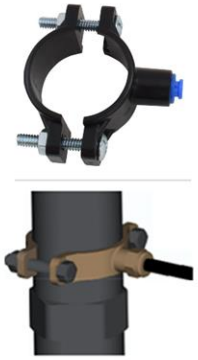


Fig 2. Drain Saddle Valve

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 drainpipe 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.)

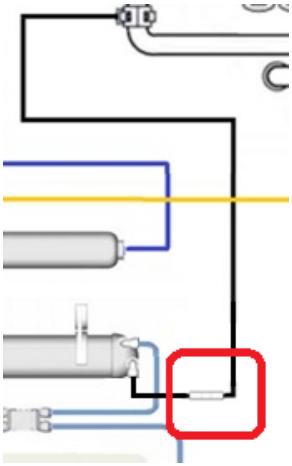


Fig 3. Flow Restrictor

6) Insert b**lack tubing** to the quick fitting connector of the saddle valve.

7) Other end of **black tubing** should connect to flow restrictor at the end with black lock pin. The flow restrictor is connected to the waste outlet of RO TFC membrane. See fig 3 on page 11.

6. Install Tank Ball Valve

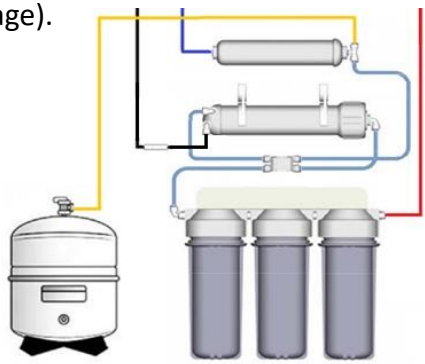
NOTE: Do not tamper with the air valve on low side of storage tank. It has been preset at 8–10 psi by the manufacturer.

1) Apply Teflon tape on the valve thread on top of the tank.
2) Connect ball valve to the thread. Make sure it is tight but not overly tight.
3) Connect the **yellow tubing** to the ball valve by pushing it through the quick connect inlet of ball valve.

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

5) Connect the other end of **yellow tubing** from the tank ball valve to inline post-carbon filter (5th stage).

6) Turn the tank ball valve off.



System Start-Up

DO NOT DRINK WATER FROM THE FIRST TANK PRODUCED BY YOUR NEWLY PURCHASED SYSTEM

1. Turn on both, cold-water supply and under-sink feed-water valve, but close the tank ball valve. If there is any leak, turn off supply and correct before proceeding.
2. Check system for leaks; tighten when necessary.
3. Open RO faucet and keep it in ON position.
4. After 5 minutes, the water will start to drip out of the RO faucet. Let it drip for about 10 minutes and then close the faucet. Turn on tank ball valve. It will take several hours (2-3) for the storage tank to fill, depending on local water pressure.
5. After the tank is full (you will hear water stop), flush the system by placing RO faucet in open position until water is completely discharged.
6. Upon complete discharge of storage tank, close the RO faucet and let the refilling process begin. This process could take 2-3 hours to complete.
7. After the second tank is filled, you may enjoy the pure water.
8. Check for leaks daily during first week of use and periodically thereafter.
9. You may notice that water is milky colored during the first week. This is an indication of air bubbles in water; it is normal and safe.

Preventive Maintenance

This recommendation is intended for maximum efficiency of RO water production by your system.

1. Filter maintenance

a. It is OK to store filters for several years.
b. To keep the unopened filter sealed, place it into an airtight container, preventing it from absorbing air. This prolongs shelf life of carbon filter and avoids any possible odor from the air.

2. Membrane maintenance

a. The dry-packed membrane usually has a two-year shelf life. To prolong the shelf life, keep unopened dry membrane in refrigerator.

a. Once used, run the RO system every day for at least 10–15 minutes (about 1 gallon or 4 liters of drinking water). This helps maintain the membrane performance.
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.

3. Filter and membrane change procedures:
This RO system contains filters that must be replaced at regular intervals to maintain proper performance.

Use only Anchor approved filters. Please see page 4 for the recommended interval for changing the filters. Local conditions may dictate more frequent changes. Use a drip pan to catch any water that may spill when the filter housing is removed.

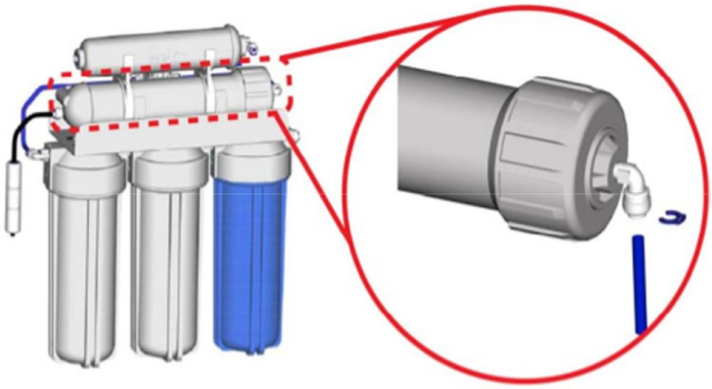
a. Shut off the water supply.
b. Turn off the tank ball valve by turning 90 degrees.
c. Open RO faucet to the UP position for continued flow.
d. Lift the filter housing up 1 inch and slide the housing wrench in. Use one hand to hold the system and the other hand to turn the wrench clockwise to open the housing.

    Note: If it is too tight to open the housing, try unplugging the fitting or tubing in order to release the air and water pressure inside the housing.

e. After opening the housing, remove used filter and put new filter into the housing. Make sure the O-ring is in place, and turn the housing counterclockwise to close. Make sure it is tight.
f. Repeat previous step on the second & third filters.
g. Turn on the water supply and make sure there are no leaks.
h. Let the water drip from the faucet for about 10 minutes. If the water flow is less than 1 cup (8 oz. or 240 ml) per minute, it may be a signal to replace the RO membrane cartridge (See Membrane change procedures on next page).
i. If the water flow is OK, turn on the tank ball valve. After 1 minute, turn off the RO faucet and complete the filter change procedures.

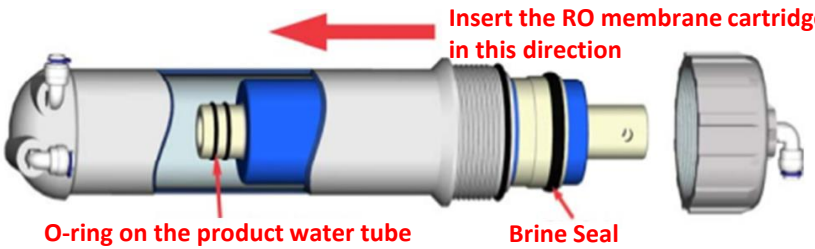
RO Membrane Cartridge Replacement

1) Disconnect the tubing from connector as shown in the diagram below.



2) Remove the membrane housing end cap by turning cap counter-clockwise as shown in the diagram below using the supplied blue wrench. Slide out the used membrane and discard.

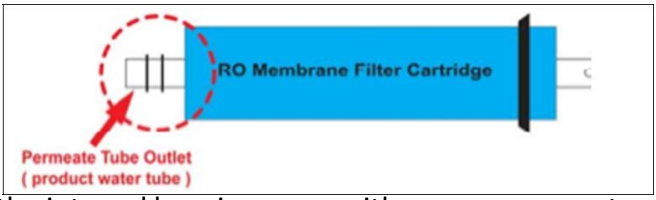
3) Insert the New RO membrane cartridge into the housing as shown in the diagram below. The O-rings on the product water tube of the RO membrane cartridge MUST FULLY SIT in the membrane housing for proper operation. Also, make sure that the Brine Seal on the membrane seals with no gaps or wrinkles inside the membrane housing. Once the RO membrane cartridge is installed, replace the end cap and reconnect the tubing.



Cleaning Procedures

The following system and tank cleaning procedures are recommended every 12-18 months.

1. Shut off the source water supply to the RO system.
2. Open the RO faucet and depressurize the RO system and storage tank.
3. Remove pre-filter cartridges, post-filter cartridges, and RO membrane. Discard or prepare for cleaning. If the RO membrane element is to be reused, disinfectant solution should be introduced into the permeate tube outlet (see below picture) sufficient to remove bio-film in this vulnerable area before reinserting the membrane into the housing.



4. Wash the internal housing areas with warm soapy water using clean brush (do not scratch the surface of the housings). Be sure to clean O-ring grooves thoroughly. Remove the existing O-ring. or prepare for cleaning.
5. Rinse off all housing pieces with clean water to remove soap.
6. Replace O-rings and lubricate per manufacturer's instruction.
7. Pour recommended amount of disinfectant solution into each of the clean housings and replace housing on the RO system.
8. Disconnect RO storage tank from the system.
9. RO storage tank cleaning procedure:

Recommended items:

- Tank sanitizer feeder or small filter housing with fittings and tubing
- Disinfectant solution
- Pressure gauge and air pump

a. The tank should be empty. Check the air pre-charge pressure with an accurate gauge (low pressure type 0-12 lbs.) The average tank pressure should be 6–8 psi (when the tank is empty).
b. Fill the tank sanitizer feeder with the recommended disinfectant dosage and connect the feeder to the water supply and RO storage tank.
c. Turn on water supply and force water and disinfectant solution into the RO storage tank. The storage tank should feel heavy when filled.
d. The disinfectant solution should remain in the tank a minimum of 10 minutes. If the tank has not been sanitized in over a year, leave the solution in for 20 to 30 minutes. Turn off the feed-water valve and the RO storage-tank valve. Disconnect the sanitizer feeder and connect the RO storage tank to the RO unit (the tank ball valve should remain closed).

10. Open the feed-water valve and open the RO faucet until water flows freely from the spout. Close the RO faucet. Hold the disinfectant solution in the RO system, including the tubing and faucet, for a minimum of 10 minutes. Open the tank ball valve.
11. Shut off the feed-water valve and open the RO faucet. Let water run out until the flow stops at the RO faucet.
12. Open the feed-water valve. Let water flow freely from the faucet for three minutes. Shut off the water at the source water supply with RO faucet open.
13. When the flow of water has stopped at the RO faucet, remove the filter housing sumps and membrane housing from the RO system. Replace the filters and membrane according to the service life.
14. Replace the housings on the RO system. Open the feed-water valve and allow the water to flow from the faucet.

    Because some of the disinfectant may still be in the system, the system should be flushed prior to using the water for human consumption.

    A maintenance record should be kept for the RO system, including information about replacement parts and when the service was performed.

Troubleshooting

Note: Turn off the system before servicing or inspecting

PROBLEM	CAUSE	SOLUTIONS
Milky colored 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 faucet	Air gap faucet	Will disappear after system shut down.
	Location of drain saddle	Relocate the drain to above water trap.
	Restriction in drain line	Blockage sometimes caused by debris from garbage disposal or dishwasher
Small amount of water from RO drinking faucet.	System just starting up	Normally it takes 2–3 hours to fill tank. Low water pressure and/or temperature can reduce production rate.
	Air pressure in the storage tank is low	Add pressure to 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	Add a booster pump.
	Crimps in tubing	Make sure tubing is straight.
	Clogged pre-filters	Replace pre-filters.
	Fouled membrane	Replace membrane.
Water taste or smell offensive	Post carbon is depleted	Replace post carbon.
	Fouled Membrane	Replace membrane.
	Sanitizer not flushed out	Drain storage tank and refill it overnight.
No drain water	Clogged flow restrictor	Replace flow restrictor.
Leaks	Fittings are not tightened	Tighten fittings as necessary.
	Twisted O-ring	Replace the O-ring.
	Misalignment of hole in the drain saddle valve	Realign drain saddle valve.

Cartridge Information

Image	Stage	Compatible Model	Cartridge Model #, Name, URL	QR Code
	Stage 1	All RO Models	AF-1001 - Sediment Filter Cartridge https://www.anchorfilters.com/products/af-1001	
	Stage 2	All RO Models	AF-1014 - GAC Filter Cartridge https://www.anchorfilters.com/products/af-1014	
	Stage 3	All RO Models	AF-1000 - Carbon Block Filter Cartridge https://www.anchorfilters.com/products/af-1000	
	Stage 4	AF-5002, AF-5004 (pre-April 2021 models)	AF-1007 - 50 GPD RO TFC Membrane https://www.anchorfilters.com/products/af-1007	
	Stage 4	AF-5002, AF-5004	AF-1009 - 75 GPD TFC RO Membrane https://www.anchorfilters.com/products/af-1009	
	Stage 4	AF-5003, AF-5005	AF-1008 - 100 GPD RO Membrane https://www.anchorfilters.com/products/af-1008	
	Stage 5	All RO Models	AF-1010 - In-Line Carbon Filter Cartridge https://www.anchorfilters.com/products/af-1010	
	Stage 6	AF-5004, AF-5005	AF-1006 Alkaline Filter Cartridge https://www.anchorfilters.com/products/af-1006	

Register Your Product

Give yourself complete peace of mind and register product online to receive timely reminders for filter replacements & for quick support.

Register here:
https://www.anchorfilters.com/product-registration

OR

Scan to Register Product

Technical Support

At Anchor USA, we are always here to help you. With 24-hour access to our company contact web page, you can drop a message or email us directly anytime, and one of our representatives will respond to your query in less than 24-hrs.

Web: https://www.anchorfilters.com/contact-us
Email: support@anchorfilters.com

Warranty Policy

One-year warranty against manufacturer defects is offered with the purchase of the system. This warranty does not cover damage due to abuse, neglect, freezing, fire or other fortuitous event.

IMPORTANT!
Run only cold water through the unit.

WARNING!
Do not use this filter for water that is microbiologically unsafe or of unknown quality.

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