



14 Stage Biocompatible

Water Purification System User Guide

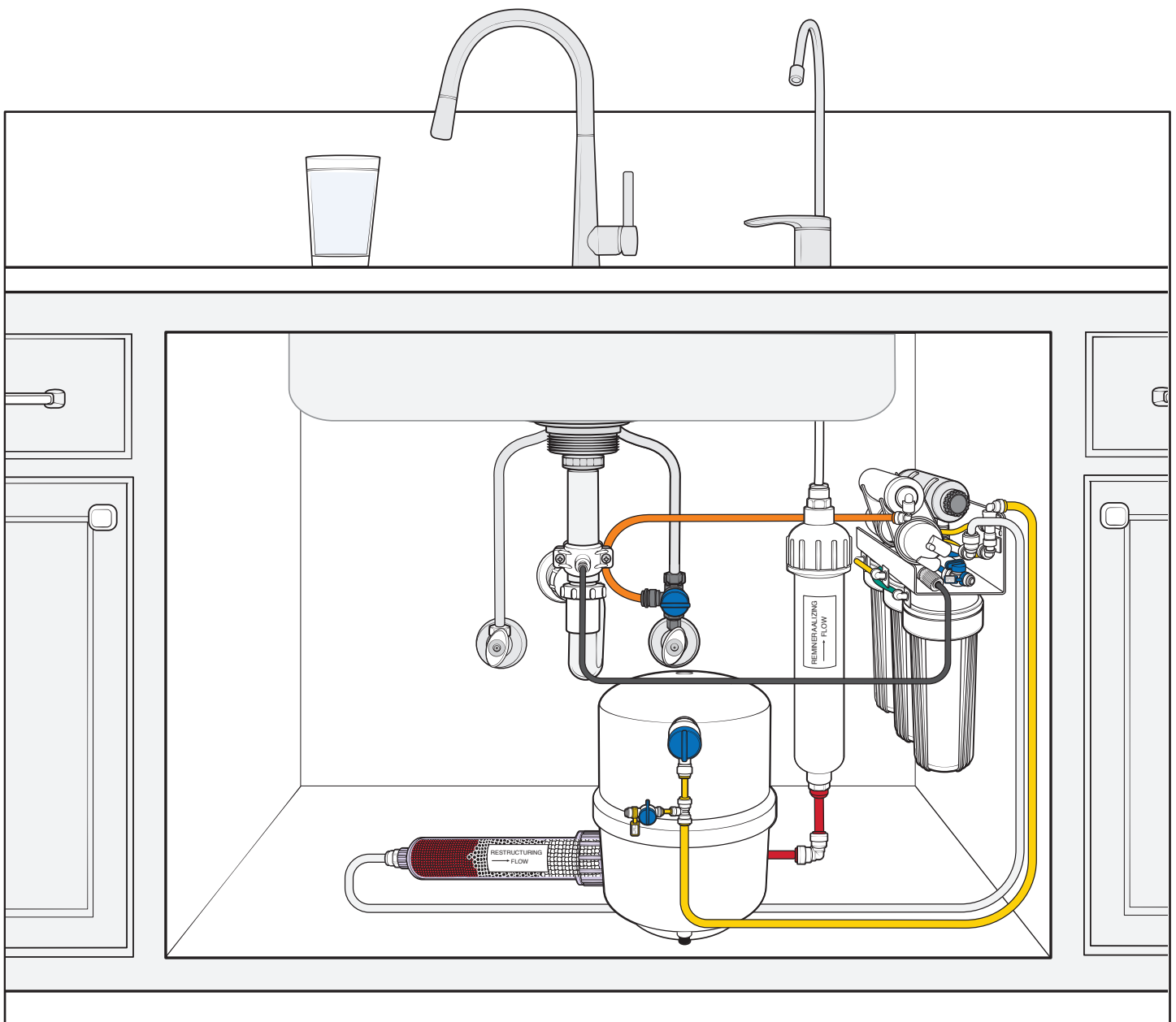


Table of Contents

Introduction.....	1
Safety	1
Specifications	1
1.0 Common Observations and Questions	2
2.0 Understanding Total Dissolved Solids	3
2.1 TDS Readings.....	3
3.0 Water Testing	4
3.1 Purification Component and Filter Lifespan	4
3.2 Water Testing Frequency.....	4
3.3 Water Testing Locations and Test Sequence	5
3.4 How to Draw Test Samples Using the TDS Meter.....	6
3.4.1 TDS Readings Worksheet.....	7
3.5 Interpreting the TDS Results	8
4.0 Maintenance.....	9
4.1 Component Replacement Schedule	9
4.2 Maintenance Instructions	10
4.2.1 Maintenance Tools	10
4.2.2 Shut Down System.....	10
4.2.3 Changing the UV Light.....	11
4.2.4 Disconnecting the Tubing.....	12
4.2.5 Replacing the 5 micron Pre-filter	12
4.2.6 Replacing the Coconut Shell Carbon Filter and Deionization Purifiers	13
4.2.7 Changing the RO Membrane.....	13
4.2.8 Changing the Remineralizing or Restructuring Cartridges.....	14
4.2.9 Checking Tank Air Pressure	14
4.2.10 Restoring the System.....	15
4.2.11 System Leakage	15
5.0 Troubleshooting.....	16
Warranty	

Introduction

Thank you for purchasing Radiant Life's Biocompatible Water Purification System. We are confident that your system will provide you many years of dependable service while its design requires very little maintenance or filter changes compared to other systems.

To make installation and maintenance of your system as easy as possible, it arrives to you mostly assembled. The parts supplied will support nearly all installation situations. However, occasions do arise where unique plumbing or installation locations may dictate the need for an adapter, pressure reducing valve or other devices readily available through a local hardware or plumbing supply store. While we have made every effort to be complete in our instructions, if questions do arise, please call our Water Service Team at (888) 593-9595 (option 2).

Please note that your system has been thoroughly tested and inspected for leaks, product water quality, product water output and all other functions prior to shipment. Therefore, the system may retain a small amount of water. The system should be **kept away from extreme heat or freezing** and should be **installed within 45 days** of receipt to ensure that the deionization purifiers are not affected.

Note: Reverse osmosis water can react with certain metals causing leaching. Stainless steel or food grade plastic tubing is ideal to safely dispense purified water. For this reason, we advise confirming that any additional appliances or dispensers being use are "reverse osmosis ready." (i.e., refrigerators, ice makers, hot water dispensers, faucets, etcetera). Be sure that the system tank is large enough to meet the demands of all connected appliances and dispensers.

Safety

Exposure of the filters to freezing temperatures (32°F, 0° C) or temperatures exceeding 110°F (37.8° C) may damage the filters and cause the system to malfunction. Always install the filters where the temperature is above freezing and below 110°F (37.8° C).

High water pressure may cause plumbing issues that could damage the filtration system and cause plumbing leaks. The maximum recommended water pressure for the system is 80 psi. If the pressure exceeds 80 psi a pressure reducing valve must be installed.

Installation and use of the system must comply with all state and local plumbing codes. If necessary, contact a local plumber for advice or help with installation.

Specifications

Feed Water

Pressure Range: 40 – 80 PSI

Temperature Range: 40 – 100 °F

TDS: ≤ 600 ppm

Iron: ≤ .30 ppm

Manganese: ≤ .05 ppm

Chlorine: ≤ .1 ppm

pH Limits: 2 – 11

Hardness: < 10 grains per gallon or 170 ppm

System Dimensions

14 Stage Purification System: 18" H x 16" W x 7" D

5 Gallon Storage Tank

Tank dimensions: 15.6" H x 11.6" D (space required 17" H x 12" D)

Maximum holding capacity: 3.5 gallons

Tank air pressure empty: 8 PSI

Connections: ¼" male threads

9 Gallon Storage Tank

Tank dimensions: 21.2" H x 12.5" D (space required 21" H x 12.5" D)

Maximum holding capacity: 5.5 gallons

Tank air pressure empty: 8 PSI

Connections: ¼" male threads

14 Gallon Storage Tank

Tank Dimensions: 25" H x 15.5" D (space required 25" H x 15.5" D)

Maximum Holding Capacity: 9.0 gallons

Tank Air Pressure Empty: 8 PSI

Connections: ¼" male threads

1.0 Common Observations and Questions

The following section provides answers to common questions you may have. Please contact us at 1-(888) 593-9595, option 2, if you need additional assistance.

Q. The box has a sticker that says, “Install within 45 days”, why is this important?

This is a guideline to ensure that the system or replacement components are installed timely due to the deionization purifiers having a natural shelf life if exposed to air or volatile temperatures. If this is a newly purchased system, is still in the main box, and being stored in a temperate climate away from direct sunlight, this timeframe can be extended several weeks. If it is a set of replacement components, we highly recommend installing them as soon as possible after receipt.

Q. Do I have to use the supplied faucet, or can I use any faucet with the purification system?

Any dedicated faucet can be used with the purification system. We recommend ensuring that it is reverse osmosis ready or alternatively called a lead-free faucet.

Q. How long does it take to fill the tank with water?

The Reverse Osmosis purification process is NOT on demand, requiring time and a storage tank to maintain an adequate volume of water for use. When starting the system for the first time, it may take as long as 15-20 minutes before water reaches the faucet. Depending on the size tank purchased, the system purifies water at an average rate of one gallon every 45 minutes. Therefore, a five-gallon tank will take approximately three to four hours to fill to capacity (3.5 gallons). The volume of water stored in the tank is determined by the incoming water pressure.

Q. The water in the glass appears cloudy. Is this normal?

Yes, this is perfectly normal upon start-up of a new system or when changing components. When the system is newly installed or maintained, there is still air contained throughout the various components of the system, even though water is flowing through the unit. What is being seen are tiny air bubbles being pushed out of the filters as they saturate with water. The cloudiness will quickly disappear from the glass of drinking water as the air bubbles dissipate. Generally, the cloudiness will cease within a few days of continued use.

Q. Why is the water in my glass warm at times? Is this normal?

Yes, this is normal. Water contained in the UV Light Sterilization System for an extended period, such as overnight, will warm due to heat generated from the UV lamp, like UV rays from the sun. Oftentimes, this small amount of water is discarded or used in other ways. The purified water dispensed from the storage tank will then quickly return to room temperature.

Q. Why do I hear water running in my sink drain?

The noise being heard is the system's drain line sending the wastewater to the sink drain. The system will produce wastewater while it is purifying water and filling the tank. Once the tank is full, the drain line will stop discharging water. If the drain is noisy, please refer to the installation manual for guidance on where to install to reduce the noise.

Q. How often will I need to change filters?

We include a TDS (Total Dissolved Solids) meter with the unit so that purification efficiency tests can be performed quickly and easily. These simple tests and calculations will determine how well the unit is purifying water and if purification components need replacing. Learn more about this handheld device, components lifespans and how to test the system in Section 2.0 Total Dissolved Solids, Section 3.0 Water Testing.

Q. Why am I not getting enough water? The tank is not filling completely, why?

The amount of water stored in the tank is determined by the water pressure during the purification process. Reverse Osmosis purification requires pressures above 40 psi to purify water. The purification process is more efficient and provides higher quality water at higher pressures (65 psi and above) which also results in higher volumes of water stored in the tank. For example, at 65 psi, a 5 gallon tank will store about 3-3.25 gallons of water. At 40 psi, the 5 gallon tank will only store about 1.5-2 gallons of water.

Q. Where do I find the serial number on my system? Why do I need it?

From time to time, it may require the serial number when ordering specific parts or if speaking with a technician to identify which generation system you own. When looking at the system unit from the front, there is a serial number sticker on the white mounting plate in the upper left corner. This will be directly behind where the UV light power cord connects to the system unit.

Q. Can I order filters in advance to have them on hand when needed?

Some filters can be stored for extended periods of time. However, the Deionization purifying components do have a shelf life and can expire prematurely if stored for long periods of time, exposed to air or extreme temperatures. See Section 3.0 for testing and Section 4.0 for an average replacement schedule.

2.0 Understanding Total Dissolved Solids (TDS)

At Radiant Life, we firmly believe in extending the life of the purification components and filters on the 14-stage purification system. The industry standard for determining purification component removal efficiency is testing the number of Total Dissolved Solids (TDS) present in the water before and after purification. **Note:** The TDS test results can range from 0 to 10,000 or more and are measured in parts per million (ppm).

TDS can include minerals, metals, and a few contaminants, but it is not an indication of water quality. TDS readings will not indicate what is in the water, only providing a generic reading of dissolved solids, mostly comprised of good minerals such as calcium, magnesium, potassium, and sodium. A TDS test reading of 500 does not mean that the water contains unhealthy contaminants; it most likely has a high mineral count. As an example, hard water that produces high TDS readings will mostly be comprised of high levels of calcium and magnesium, not contaminants.

The test valve system we've developed allows samples to be obtained simply by using the provided TDS meter and turning a lever or faucet within the system. The TDS meter tests the removal efficiency of the **purification components (reverse osmosis membrane and deionization purifiers)**. These tests will pinpoint precisely when these vital components need replacing. The TDS meter works with our system because when the reading is very low (typically 0 at the tank), we can surmise that all the contaminants are also being removed.

2.1 TDS Readings

Reference the following table to better understand TDS and what the readings indicate.

Source	PPM (parts per million)	Notes
Brackish seawater	1000	
EPA recommended maximum TDS	500	
High TDS for residences	300+	Typically hard to very hard water
Average range for US residences	150 - 350	Depends on location and water source
Common TDS produced by other RO systems at tank	10 - 30	
Typical reading for Radiant Life system at tank	0	
Typical reading for Radiant Life system at faucet	10 - 40	After restructuring and remineralization

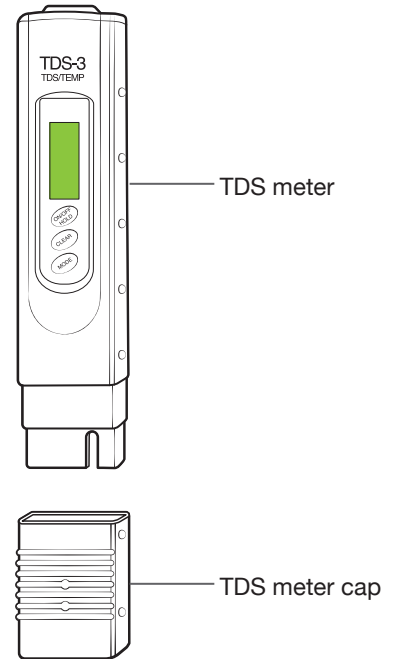
3.0 Water Testing

By using the TDS meter and our online calculator to determine efficiency rates, you can ensure the maximum lifespan possible. This will reduce the overall operating costs by not guessing or following predetermined guidelines that may not apply to your water conditions.

Note: The system's 5-micron and coconut carbon filters cannot be tested. These filters should be replaced if there are signs of reduced flow at the faucet, low volume in the tank or due to age (12-24 months maximum).

3.1 Purification Component and Filter Lifespan

The provided TDS meter can be used to test the removal efficiency of the purification components (reverse osmosis membrane and deionization purifiers). These tests will pinpoint precisely when these vital components need replacing.



3.2 Water Testing Frequency

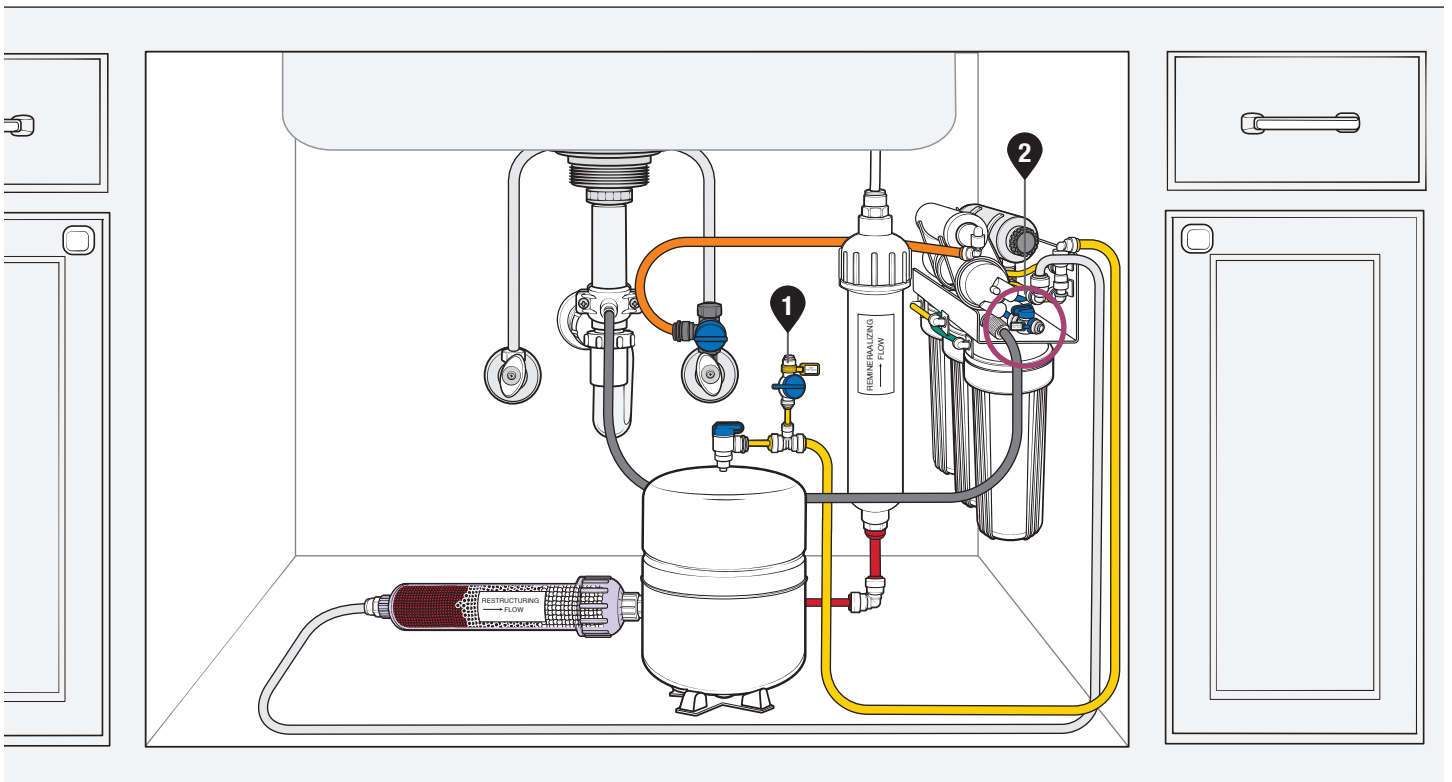
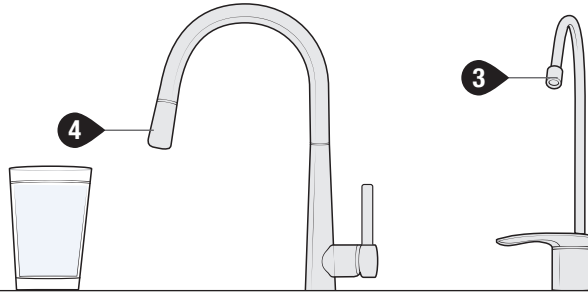
We recommend performing the initial water tests 30 days after your system is installed to establish a set of baseline readings and then at least every 3 months. Most customers do not change any purification components for the first 18 months.

The period of time is dependent on several factors including high TDS levels, the amount of water used, the quality of the incoming water and the positive effects whole house water filters and softeners have on extending the life of the components within the 14-Stage Purifier.

3.3 Water Testing Locations and Test Sequence

For TDS testing, samples will be drawn from four (4) testing locations along the system pathway. For best results, we recommend drawing the samples in the following order:

1. From the **tank test valve** assembly located at the water storage tank.
2. From the **RO membrane test valve** located on the right side of the system unit.
3. From the **RO faucet** mounted to the sink/counter.
4. From your regular **kitchen faucet**.

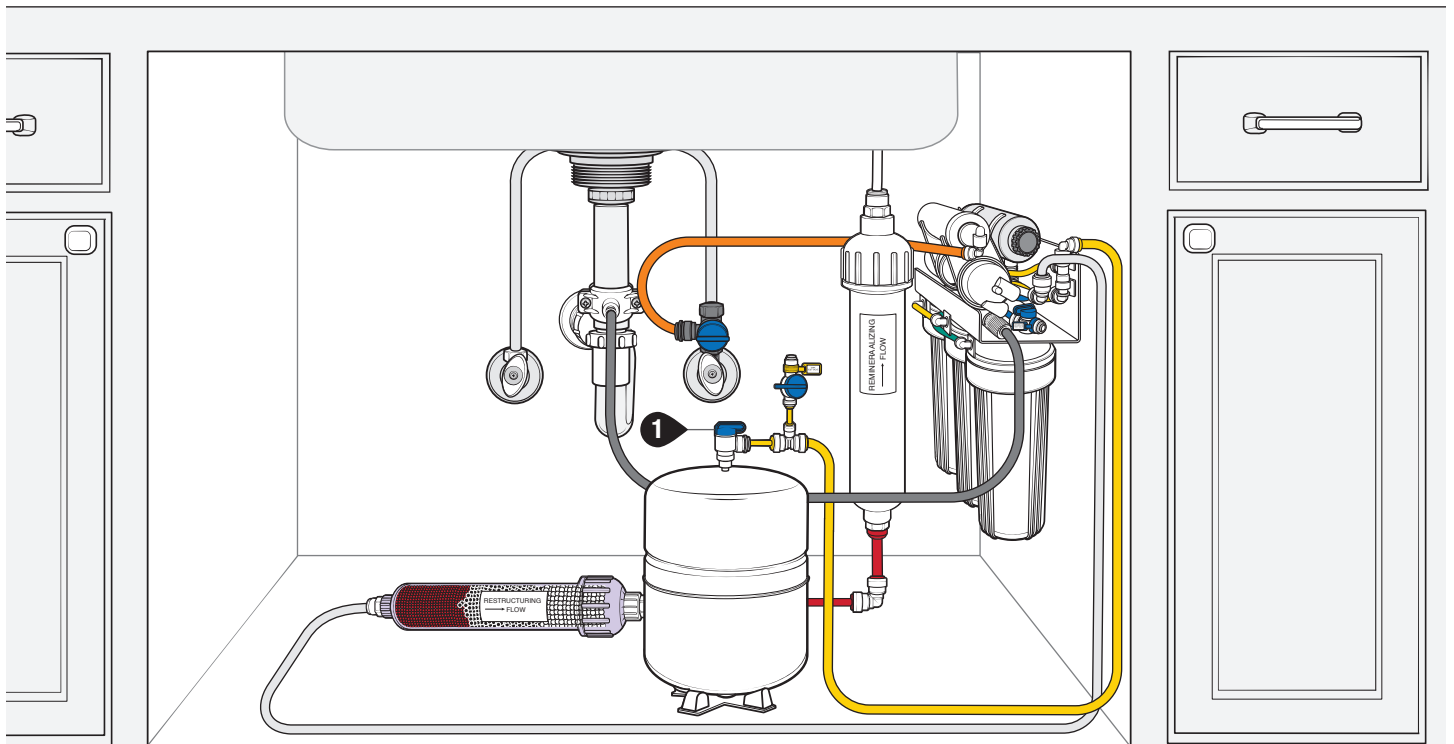
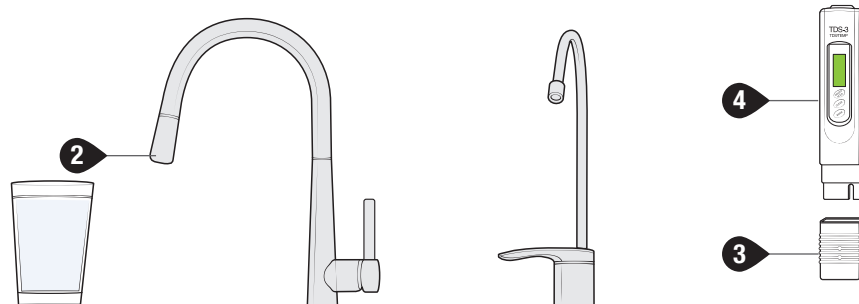


3.4 How to Draw Test Samples Using the TDS Meter

Note: See the instructions supplied with the TDS meter or visit our site at: <https://radiantlifecatalog.com/14-stage-testing-and-filter-replacement-guide/> for videos and additional information.

Follow these steps to draw test samples.

1. Close the **tank isolation valve** before drawing any water samples. **Important!** The water being tested should be newly purified water, not water stored in the tank.
2. Run the water into a container for 15 - 20 seconds to flush the tubes before drawing samples.
3. Remove the TDS meter cap.
4. Turn the TDS meter ON and confirm the reading display is zero (0) PPM.
5. Fill the TDS meter cap half full of water.
6. Insert the TDS meter into the meter cap to get a PPM reading. **Note:** Ideally, you should draw your sample directly into the TDS meter cap. If you find this impractical, you can draw your sample (approx. 3-4 oz, enough to fill the cap 5 times) into a clean glass container, such as a measuring cup.
7. Allow the reading to stabilize and write down the number. **Note:** The worksheet on page 8 can be used to record the test results.
8. Before taking the next set of readings, rinse the TDS meter and cap, or glass container, to help eliminate false readings.
9. Repeat steps 4 - 10 **five times** for the four testing locations. **Note:** After collecting the five samples throw out the high and low readings and average the remaining three readings.
10. After drawing all the test samples, open the **tank isolation valve**.
11. Turn the TDS meter OFF and let it dry before putting the meter cap back on.



3.4.1 TDS Readings Worksheet

Use the TDS Readings Worksheet to record your test results. **Note:** Remember, to determine the efficiency threshold at each location drop the high and low readings and average the remaining readings.

Date	Sample Location	TDS Readings					Comments
		1st	2nd	3rd	4th	5th	
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						

3.5 Interpreting the TDS Results

Comparing TDS result readings at each location determines the removal efficiencies across the various components. The following table explains the relationship between each location and what action should be taken if the removal efficiency fails to meet its target at a location.

Note: When all readings are recorded from the four locations, visit our online calculator on the maintenance page of the 14-stage system. Or you can email them to waterservice@radiantlife.com for review (please allow 24-48 hours for review). We will interpret the readings and return a recommended course of action.

Sample Location	Description	Removal Efficiency Target
Kitchen Faucet	This will be the highest reading and starting point of the following calculations.	Average reading
RO Membrane Test Valve	<p>When new, TDS readings will typically be between 1 and 10, unless you have a high TDS level (300+) at kitchen faucet.</p> <p>Over time, this number will increase naturally from continually removing TDS and contaminants from the water. When this reading calculates less than an 85% reduction from the kitchen faucet reading, the membrane should be replaced.</p> <p>For example, if the kitchen faucet's average reading is 100, then the average reading at the membrane test valve should be 15 or less. Higher than 15 would indicate it has dropped below the 85% efficiency threshold.</p>	<p>Should be above 85% efficiency reduction from the average kitchen faucet reading.</p> <p>Replace the RO membrane if the efficiency reduction is less than 85%.</p>
Tank Test Valve	<p>When new, TDS readings will read around zero (0). This should always represent the lowest TDS reading during the testing process.</p> <p>As this reading approaches the RO Membrane readings, indicating less than a 50% reduction from the membrane test valve, the deionization purifiers need to be replaced.</p> <p>For example, if the membrane test valve average reading is 10, then the average reading at the tank test valve should be 5 or less. Higher than 5 would indicate it has dropped below the 50% efficiency threshold.</p>	<p>Should be above 50% efficiency reduction from the average RO Membrane reading.</p> <p>Replace the deionization purifiers if the efficiency reduction is less than 50%.</p>
RO Faucet	<p>TDS readings will vary depending on how new the remineralizing components are and how long the water remains in contact with the minerals.</p> <p>If these TDS readings average below 5 under normal operation, the mineral cartridge should be replaced.</p>	<p>Average reading should not be less than 5 under normal operation.</p> <p>Replace the mineral cartridge if the efficiency reduction is less than 5.</p>

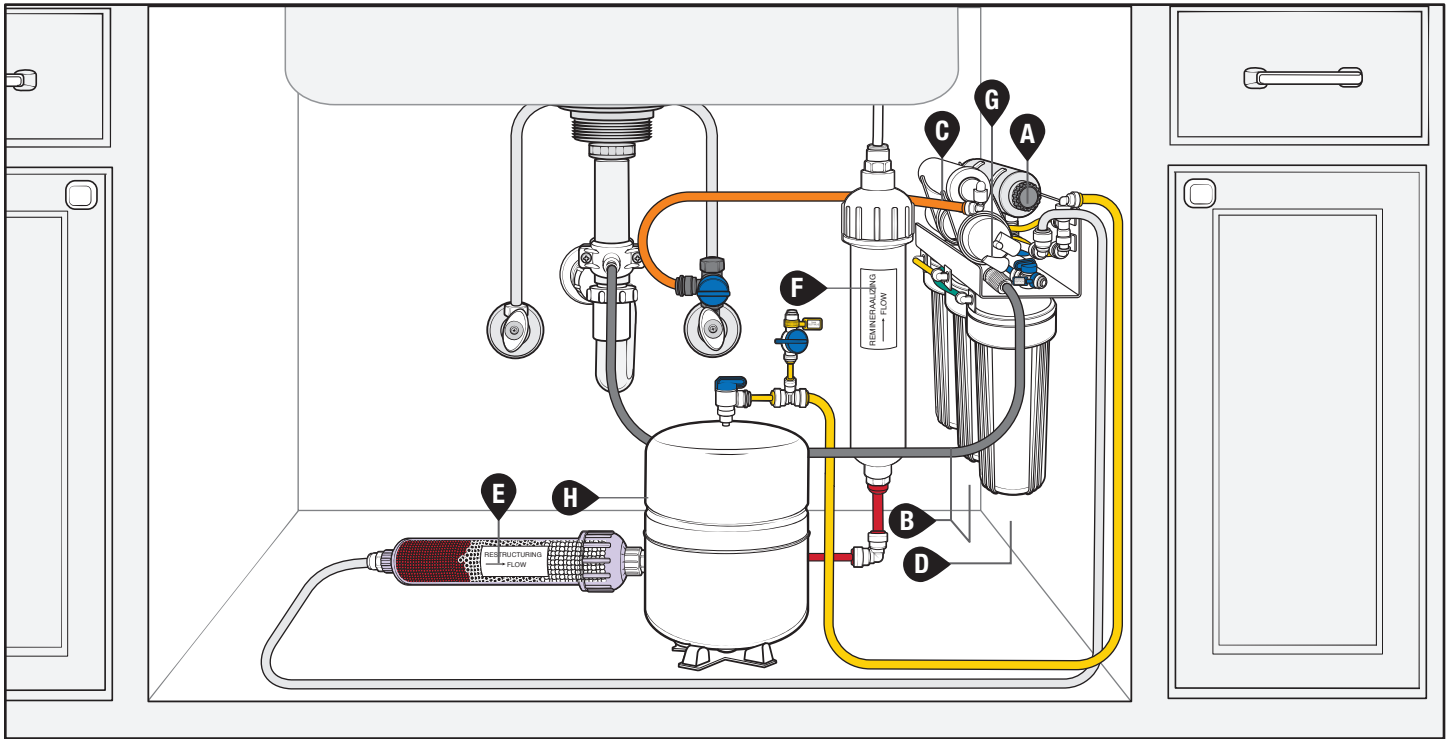
Note: In most situations, the filters, deionization purifiers and post cartridges are changed at the same time, allowing for the complete kit K082-004 to be purchased (this kit does not include the RO Membrane).

4.0 Maintenance

The 14-Stage purification system is designed for easy maintenance. Simply test your drinking water about every 3 - 6 months to ensure your purifiers are working properly.

The following section provides instructions on how to replace the system components. **Important!** Tubing and components will contain some water. Always have a catch container and towel available when performing system maintenance.

4.1 Component Replacement Schedule



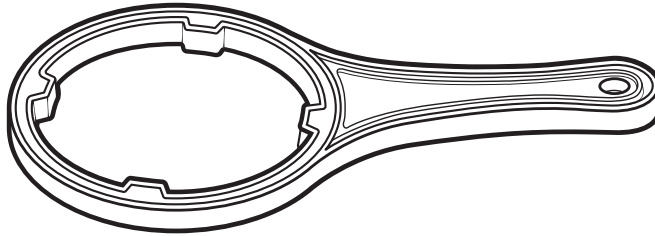
	Frequency	Component	Description
A	Every 12 months	UV Light	Must be replaced every 12 months for 100% effectiveness.
B	12 - 24 months	Deionization Purifiers	Water quality and RO Membrane efficiency will determine lifespan. Higher TDS, 300 or above, will result in shorter lifespans for the RO Membrane and Deionization Purifiers.
C	12 - 24 months	5 micron Pre-filter	Water quality will determine lifespan.
D	12 - 24 months (maximum)	Coconut Shell Carbon Filter	Essential to protect the RO Membrane
E	2 to 3 years	Restructuring Cartridge	
F	2 to 3 years	Remineralization Cartridge	
G	2 to 4 years	RO Membrane	Water quality will determine lifespan.
H	5 to 8 years	Holding Tank	Average lifespan.

4.2 Maintenance Instructions

4.2.1 Maintenance Tools

The following tools will be needed in order to conduct maintenance on the system.

Filter Housing Wrench



Push Fitting Release Tool



Pressure Gauge



If needed, you can order the tools individually by visiting our website at:

<https://radiantlifecatalog.com/water-purification-parts-accessories-items/>

Reference the following item number(s):

- Item #080002 Filter housing wrench (**Note:** Used to loosen the three vertical filter housings).
- Item #059022 Push fitting release tool (**Note:** Used to disconnect the tubing).
- Item #066001 Pressure gauge (**Note:** Used to check the air pressure of an empty tank. Standard tire gauges, even digital ones, are not accurate at this low-pressure range).

To order the complete tool kit, visit our website at:

<https://radiantlifecatalog.com/water-purification-replacement-filters-membrane-tools>

Reference the following item number: Item #K082-007

4.2.2 Shut Down System

1. Close the **supply isolation valve** (at cold water supply) .
2. Close the **tank isolation valve** (blue & white valve attached to the storage tank).
3. Open and leave open the purified drinking water faucet.

4.2.3 Changing the UV Light

WARNING!

UV light bulbs contain mercury, vapors and gases that can be dangerous to your health if broken. Always handle the UV bulb by the ceramic ends only. If the bulb breaks, immediately leave the space for 5 to 10 minutes and let the air clear. Wearing gloves, scoop up glass fragments and powder using stiff paper or cardboard. Use tape to remove any remaining small glass fragments and powder. Wipe the area clean with damp paper towels or wet wipes.

Fingerprints or smudges on the UV light bulb may result in the bulb exploding when turned on and cause personal injury. Clean the bulb with a soft, clean cloth if there are fingerprints or smudges on it. If possible, use soft gloves when installing the bulb. Handle UV bulb by ceramic ends only.

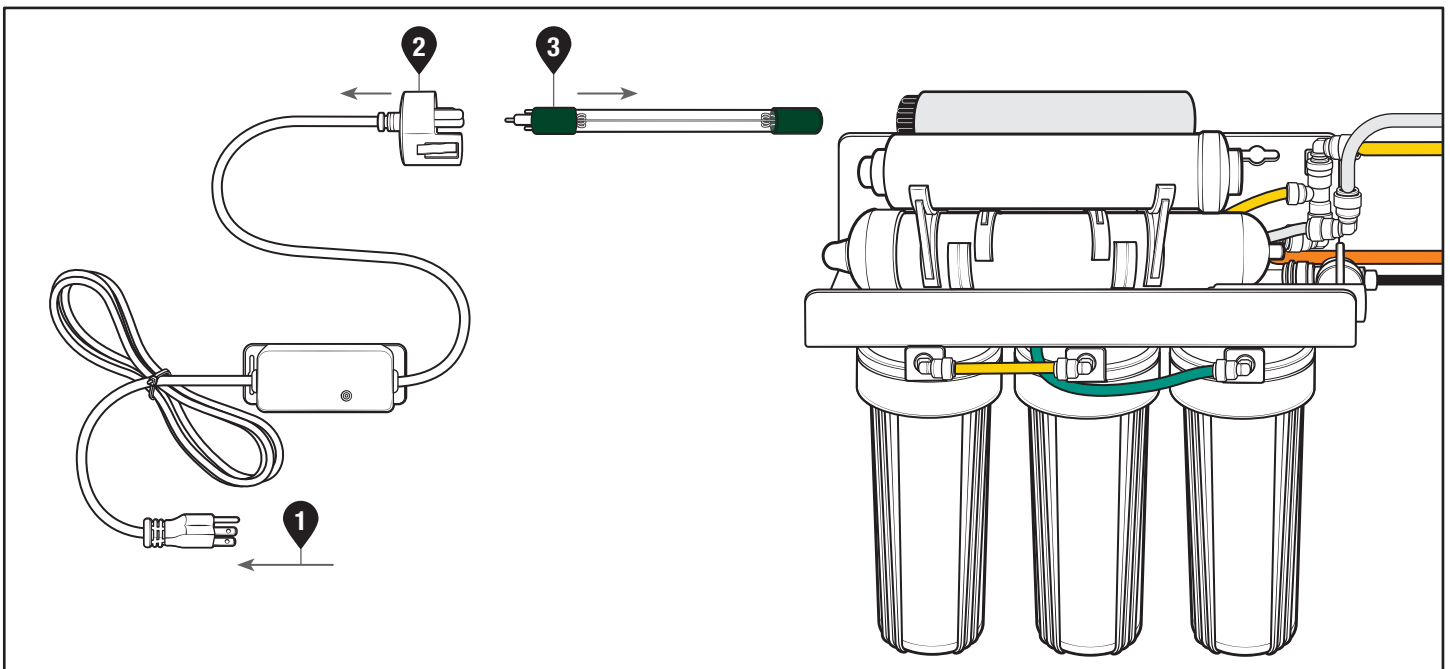
NOTICE

- Do not operate the water purification system with a damaged UV light bulb or glass sleeve inside the metal housing.
- Ensure the power outlet doesn't require a switch to turn on the UV light bulb. Once plugged in, a blue light will appear on the UV power supply and remain on (Viqua model).

Important! We advise shutting down the system prior to changing the UV bulb. See Section 4.2.2.

There are two possible UV lights. Check the serial number of your system to identify the model of UV light:

- Serial numbers RL001 - RL1640 will have the Puretech model. **Note:** This model bulb has four **even prongs**.
- Serial numbers RL1641 and higher will have the Viqua model. **Note:** This bulb has four **prongs that are stepped and match those on the plug**.



Puretech Model UV Light

1. Unplug UV light plug from electrical socket.
2. Carefully loosen the rubber cap covering the power cord connected to the UV bulb and delicately slide the bulb **straight** out until the entire bulb and ceramic end has cleared the stainless-steel housing.
3. Holding the ceramic ends of the bulb only, carefully separate the 4-prong bulb from the plug.
4. Insert new bulb into the plug.
5. Slide new bulb, connected to the plug, into stainless steel housing carefully, until fully inserted. Place rubber cap over the end of the stainless-steel housing to secure the cord and bulb.
6. Plug in the power cord. **Note:** A glow will be visible near the rubber cap. This indicates the light is working. If the new UV light does not illuminate, a new power supply may be required.

Viqua Model UV Light

Note: This model has a large, round plastic plug that clips to the UV housing, grounding the unit and bulb. There are squeezable clips on both sides, squeeze to unclip from the housing.

1. Unplug UV light plug from electrical socket.
2. Squeeze the large, round plastic plug to unclip from the housing and very delicately slide the bulb **straight** out of the housing until the entire ceramic end of the bulb has cleared the stainless-steel housing. **Note:** If not pulled straight out, the internal glass sleeve could be broken and would need to be replaced.
3. Holding the ceramic ends of the bulb only, carefully separate the staggered 4-prong bulb from the plug.
4. Insert new bulb into the plug, matching the stepped pattern of the plug. **Note:** The bulb can only connect one way.
5. Slide new bulb, connected to the plug, into stainless steel housing carefully, until fully inserted. You will hear an audible click when the plug and bulb have been completely connected.
6. Plug in the power cord. Check for the illuminated blue light on the power supply ballast. In addition, there are small holes on the round plastic clip that will allow you to see if the UV bulb is illuminated inside the housing.

4.2.4 Disconnecting the Tubing

Most components in the system utilize quick-connect push fittings. These are the holes where the tubing connects to various devices/fittings. The colored ring inserted into each fitting is a collet. The collet is used to lock the tubing into the fitting. Your system included a **push fitting release tool** that greatly aids in the operation of these fittings.

Note: The fitting tool has three sizes to choose from, Radiant Life's system will use the 1/4" and 3/8" openings.

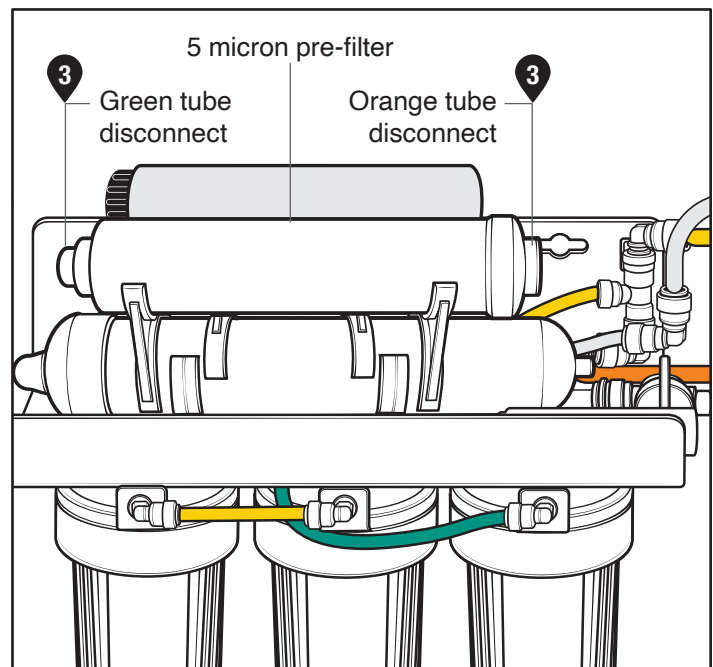
Follow these steps to connect the tubing:

1. Place the open end of the tool around the tube and on top of the collet. **Note:** Do not put the fitting tool under the collet ring and pry up. This will act as a lock, and the tube will not be released, and potentially break the collet.
2. Using the flat side of the fitting tool, compress the collet ring into the fitting, while simultaneously pulling out on the tubing
3. If you have difficulty with a certain connection, try pushing the tubing into the fitting first, compress the collet ring, then pull the tubing out.

See the demonstration video at: <http://www.youtube.com/watch?v=VHiwvUL4D9U>

4.2.5 Replacing the 5 micron Pre-filter

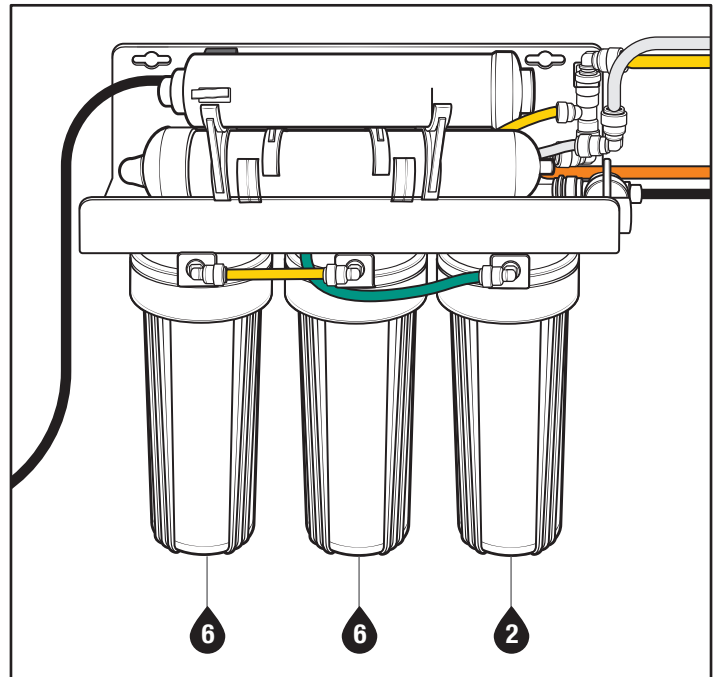
1. Shut down the system:
 - Close the **supply isolation valve** (at cold water supply)
 - Close the **tank isolation valve** (blue & white valve attached to the storage tank)
 - Open and leave open the purified drinking water faucet
2. Remove the **5-micron pre-filter** from the retaining clips.
3. Remove the **orange tube** from the inlet of the filter. This is done by compressing the orange collet while simultaneously pulling the tube out of the fitting. Remove the **green tube** using the same method, to complete the removal of the old filter.
4. Insert the orange and green tubes into the new pre-filter, using the color matching system, orange tube to orange collet, green tube to green collet.
5. Press **5 micron pre-filter** into retaining clips.
6. Restore the system (see Section 4.2.10)



4.2.6 Replacing the Coconut Shell Carbon Filter and Deionization Purifiers

Note: These housings will contain water. Have a towel ready for any dripping water.

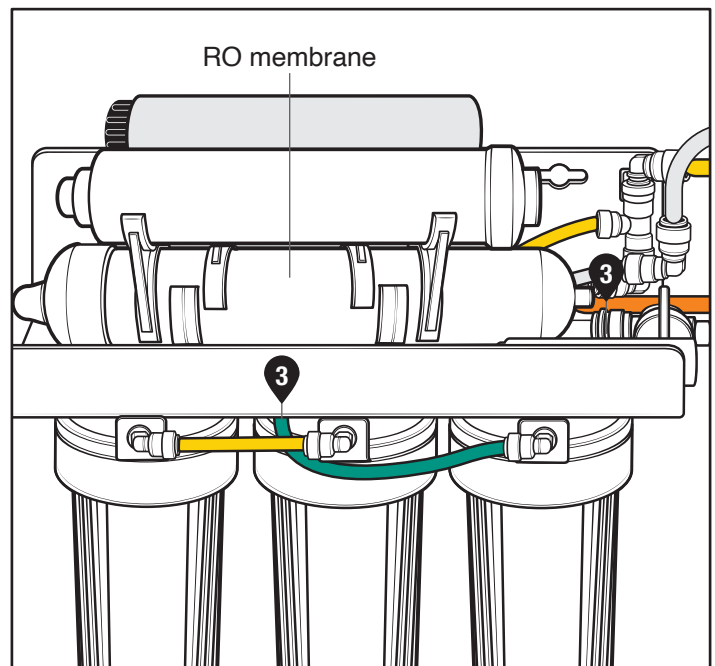
1. Shut down the system:
 - Close the **supply isolation valve** (at cold water supply)
 - Close the **tank isolation valve** (blue & white valve attached to the storage tank)
 - Open and leave open the purified drinking water faucet
2. Using the housing wrench, unscrew the housing labeled **coconut carbon/aquametix filter**. **Note:** The wrench has the words open/close with an arrow on either side. With the word **open facing up**, slide the wrench onto the housing until it stops, turn the wrench in the direction shown on the handle until loose. Unscrew the housing by hand.
3. Remove and discard the used carbon filter and, dump the remaining water.
4. Insert a new **coconut shell carbon filter** (Item #075037) ensuring the gaskets on both ends are in place.
5. Check that the black O-ring for the housing is at the top before reattaching. Turn the housing clockwise until hand tight to reattach. Using the wrench with the word **close facing up**, finish securing the housing following the arrow direction on the handle.
6. Repeat these steps on the center and left housings to replace the **deionization purifiers** (Item #082011).
7. Restore the system (see Section 4.2.10)



4.2.7 Changing the RO Membrane

Note: This housings will contain water. Have a towel ready for any dripping water.

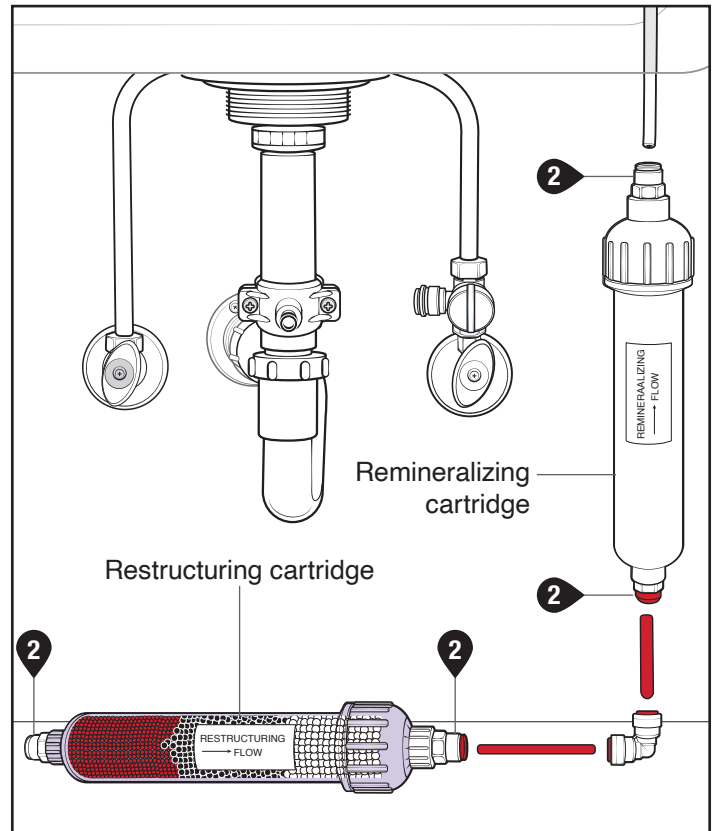
1. Shut down the system:
 - Close the **supply isolation valve** (at cold water supply)
 - Close the **tank isolation valve** (blue & white valve attached to the storage tank)
 - Open and leave open the purified drinking water faucet
2. Remove the tubing from both ends of the membrane housing.
3. Discard the old membrane.
4. Insert the new membrane and re-attach tubing using the color matching system:
 - Blue tube to blue collet (purified water)
 - Black tube to black collet (waste water)
 - Clear tube to the gray collet (incoming water)
5. Restore the system (see Section 4.2.10)



4.2.8 Changing the Remineralizing or Restructuring Cartridges

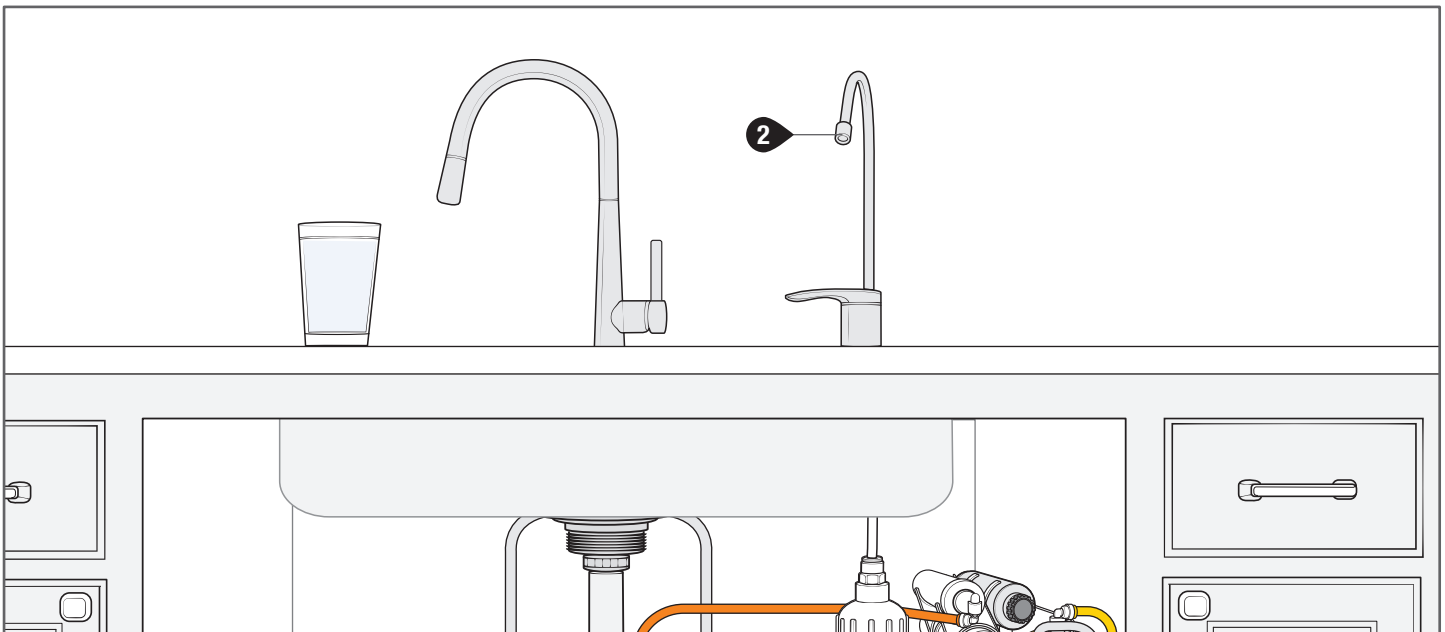
Note: These housings will contain water. Have a towel ready for any dripping water.

1. Shut down the system:
 - Close the **supply isolation valve** (at cold water supply)
 - Close the **tank isolation valve** (blue & white valve attached to the storage tank)
 - Open and leave open the purified drinking water faucet
2. Remove the cartridge by using the **push fitting release tool** to disconnect the red & white tubes connecting these two cartridges
3. Insert the new cartridge with the arrow (water flow) point towards the faucet. The color matching system will also assist, connecting white tubes to white collets and red tubes to red collets.
4. Restore the system (see Section 4.2.10)



4.2.9 Checking Tank Air Pressure

1. Close the **supply isolation valve** (at cold water supply)
2. Open the **RO faucet** to empty all the water from the tank.



3. Shake the tank to verify it is completely empty. If not, follow steps 4 - 5 to add air pressure, expelling the water until completely empty.
4. Locate the Schrader air valve. **Note:** The valve is similar to a car or bike tire valve.
 - On the plastic 4-gallon tank, the valve is located under the black cap on the bottom rim of the tank. The black cap and valve are located directly underneath where the blue valve is attached to the tank, on the bottom rim.
 - On the metal 3.2, 5.0, and 9.0 gallon tanks, the valve is located under a blue cap on the side of the tank.
 - On the metal 14-gallon tank, the valve is located under a blue cap on the end of the tank.
5. When empty of water, using the air pressure gauge supplied with the system when purchased, check the air pressure of the tank. When empty the tank's air bladder should have 8 psi of air pressure. If lower than this, using an air compressor or bike pump, connect to the Schrader valve putting air into the tank and resetting to 8 psi when empty.
6. Restore the system (see Section 4.2.10).

4.2.10 Restoring the System

1. Open the **RO faucet**.
2. Open the **tank isolation valve** by turning the blue handle 90°, until it is in line with the yellow tubing.
3. Slowly open the water supply valve to the system.

At this time, water should be heard filling the **coconut filter housing** on the system unit. The system will start to purify water (2-4 ounces per minute), filling the remaining two housings, system tubing and eventually a slow trickle of water will be seen at the **RO faucet**. Once water is continuously trickling from the **RO faucet**, close it to direct the newly purified water into the storage tank.

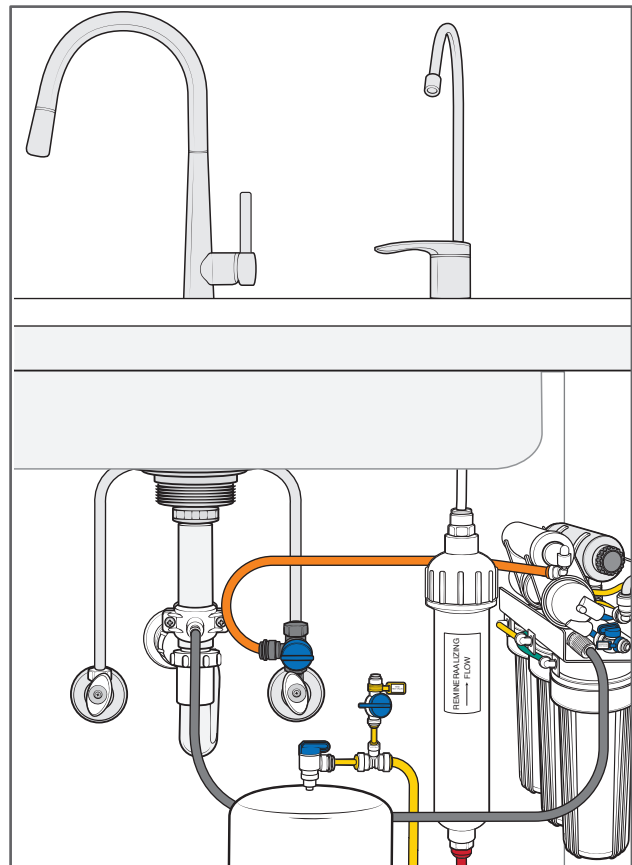
Depending on the size of your tank, filling it will take anywhere from 3-4 hours for a 5-gallon or smaller tank, up to 10 hours for a 14-gallon tank. As the tank fills with water, pressure inside the system will increase. This will create the water pressure necessary to push water from the tank to the faucet. This will also mean any leaks could present themselves as the pressure increases. **Important! We suggest monitoring the system for at least 24-48 hours for leaks, checking connections, mounting plate, or cabinet floor for signs of water.**

4.2.11 System Leakage

If there are leaks detected, locate the source of the leak to see how to correct. If it is at a tube connection, the tubing may not be seated completely, needing to be pushed in further into the collet/fitting connection. If this does not stop the leak, the system will need to be shut down, as done prior to the filter replacement, to remove and reattach the tubing.

Remove the leaking tube from the fitting connection, firmly reattach and seat it into the fitting. If this does not work, using a new, sharp razor blade, cut off the small amount of tubing to ensure it is straight, not angled, to seat inside the fitting properly.

If a leak is detected around one of the white housings, tighten with the **filter housing wrench** supplied, tightening following the instructions above. If this does not correct the leak, turn off the system as done prior to replacement, unscrew the housing, checking for the black O-ring at the top of the housing is in place and that the filter is seated properly at the bottom of the housing.



5.0 Troubleshooting

Although there are minimal moving parts in our system, on occasion there will be a need to investigate problems with the system. Our Water Service technicians are available Monday – Friday from 9am to 4pm Pacific to assist.

Below is a list of the more common problems that occur either due to incoming water quality or component age, steps to resolve, or gain additional information to correct the problem.

Depending on the type of maintenance (filter change, troubleshooting, etc) you most likely will need full access to your system, front & back. If your system is mounted to the side/ back of the cabinet (or to the wall in a basement installation), we recommend removing it prior to any other steps.

Things to have handy when troubleshooting

- Push fitting release tool
- Housing wrench
- Hand/kitchen towel
- Catch container

Possible Problems / Concerns

- No water or reduced amount of water from RO faucet (see Diagram A)
- Taste/smell of water at ro faucet drastically changes (see Diagram B)
- Beeping sound (see Diagram G)

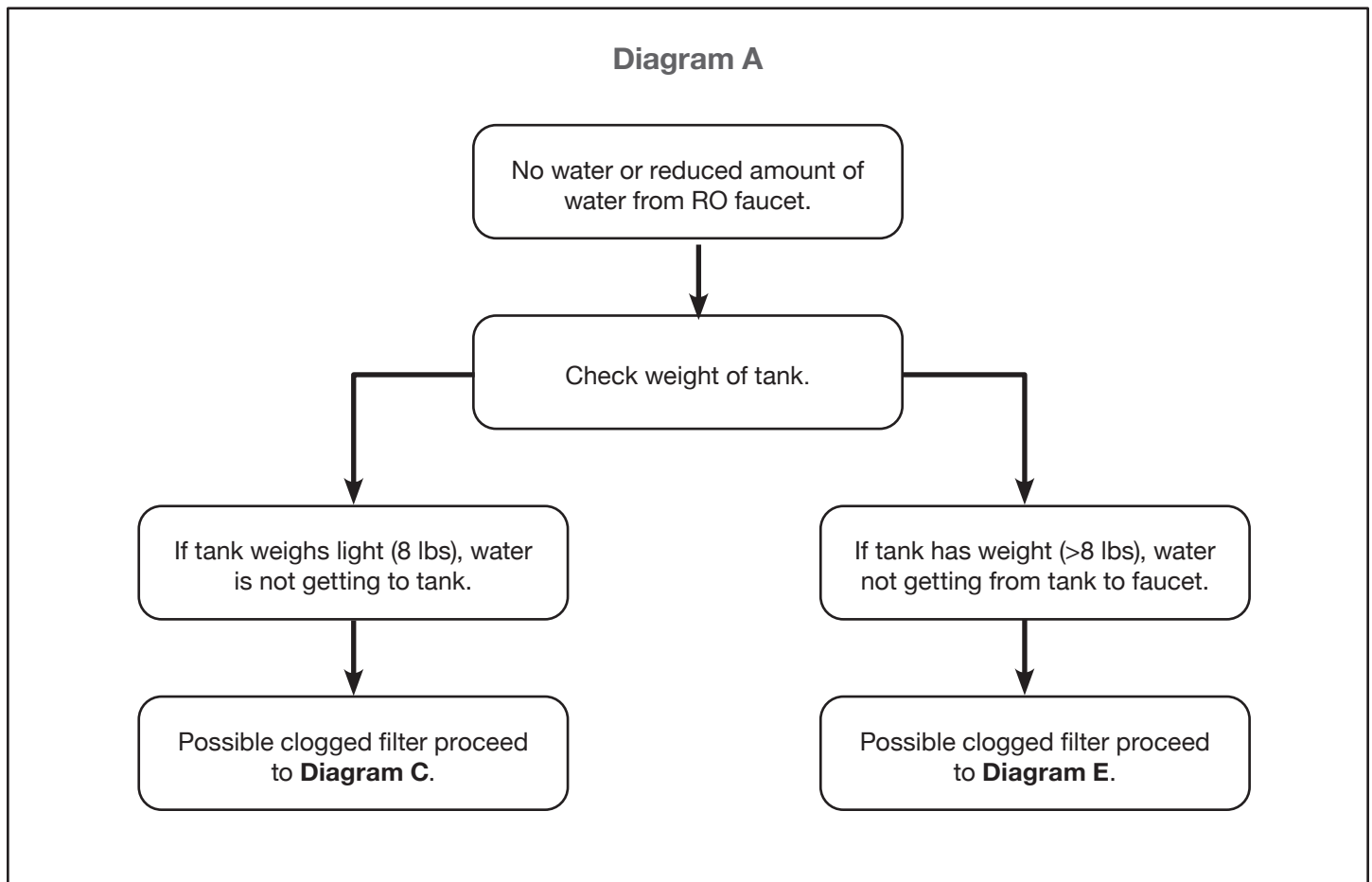


Diagram B

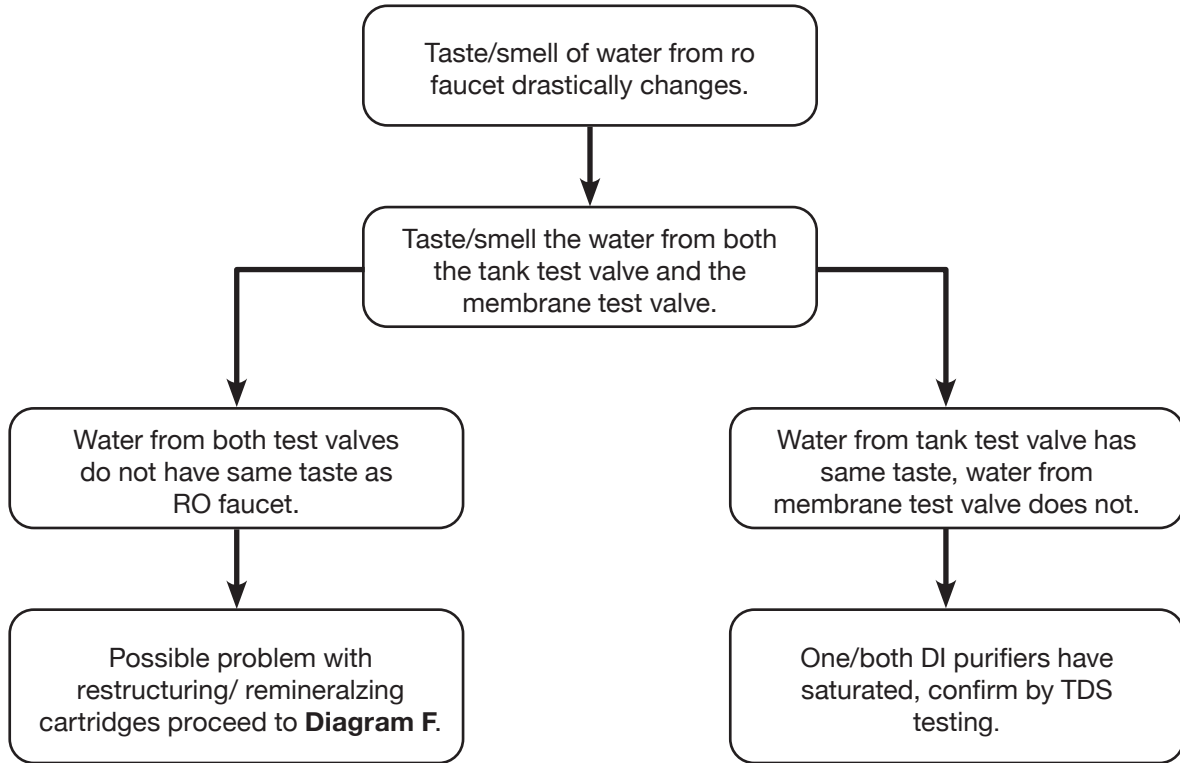


Diagram C

Shut down the system (see section 4.2.2)

Remove the ¼" orange tube from the inlet of the 5 micron pre-filter.
Direct the loose end of the tube into the catch container.

Quickly open, then shut the cold-water supply valve. This is
unobstructed pressure/flow.

Insert the ¼" orange tube back into the inlet of the
5 micron pre-filter. Gently tug out on the tube to ensure it will not
pop out under pressure.

Remove the ¼" green tube from the inlet of the coconut carbon/AQ
filter, the right-hand vertical housing. Direct the loose end of the
tube into the catch container.

Again, quickly open, then shut the cold-water supply valve. You
should see little to no pressure/ flow reduction across the 5 micron
pre-filter when compared to the unobstructed pressure/ flow from
the orange tube.

If you **do** see a reduction in pressure/flow, the 5 micron prefilter is
clogged. You need to order item 082003 here:

<https://radiantlifecatalog.com/water-purification-parts-accessories-items/>

Insert the ¼" green tube back into the inlet of the coconut
carbon/AQ filter. Gently tug out on the tube to ensure it
will not pop out under pressure.

If you do not see a reduction in pressure/flow continue to the next page

Diagram C (continued)

The next step is to check the outlet of the coconut carbon/AQ filter.
If you wish to continue pulling tubes and get immediate results, choose the left path. If you cannot get to the back of your system, choose the right path.

If the system is still mounted, remove from wall. On the back of the coconut carbon/AQ housing, locate the outlet elbow with clear tube coming out

If you can not or do not wish to continue pulling tubes, proceed to **Diagram D**.

Remove the natural (clear) tube from the elbow. Locate one of the two 12" natural tubes that came with the system. Insert that tubing into the elbow. If you do not have these, any miscellaneous piece of ¼" tubing will work. Gently tug on the piece of tubing to ensure it will not pop out under pressure. Insert the loose end of the tubing into the catch container. If you do not have any tubing, then use a catch container that you get up close to the elbow.

Again, quickly open, then shut the cold-water supply valve. You should see little to no pressure/flow reduction across coconut carbon/AQ filter when compared to the pressure/flow from the green tube at the pre-filter outlet.

If you **do** see a reduction in pressure/flow, the coconut carbon/AQ filter is clogged. Order replacement coconut carbon/AQ filter (item 075037) at:
<https://radiantlifecatalog.com/water-purification-parts-accessories-items/>

If you **do not** see a reduction in pressure/flow, further troubleshooting is required. Contact the Water Service team to discuss options.

Diagram D

Open up the right-hand vertical housing by removing the sump from the cap. Then remove the coconut carbon/AQ filter from the sump.

Screw the sump back onto the cap without the filter. Open the cold-water supply valve.

If you have a scale weigh your tank. If not, just get a feel for it's weight. Let the system run for an hour. After an hour, the tank should be approximately 8 lbs heavier.

If you **do** see/feel an increase in weight, the coconut carbon/AQ filter is clogged. Order replacement coconut carbon/AQ filter (item 075037) at:
<https://radiantlifecatalog.com/water-purification-parts-accessories-items/>

If you **do not** see/feel an increase in weight, further troubleshooting is required. Contact the Water Service team.

Diagram E

If you haven't already, familiarize yourself with the location and installation directions of the restructuring and remineralizing cartridges.

Shut down the system (see section 4.2.2)

Using the fitting tool, disconnect the red 3/8" tube coming out of the restructuring cartridge.

Point the free end of the tube into a catch container. Quickly open, and then shut, the tank isolation valve. You should see a flow similar to what you had out of the faucet when your system was first installed.

If the flow is not good, you have a clogged restructuring cartridge (item 082009). A replacement can be ordered here:
<https://radiantlifecatalog.com/water-purification-parts-accessories-items/>

If the flow is good, you have a clogged remineralizing cartridge (item 082010). A replacement can be ordered here:
<https://radiantlifecatalog.com/water-purification-parts-accessories-items/>

Diagram F

If you haven't already, familiarize yourself with the location and installation directions of the restructuring and remineralizing cartridges.

Shut down the system (see section 4.2.2)

Using the fitting tool, disconnect the red 3/8" tube coming out of the restructuring cartridge.

Point the free end of the tube into a catch container. Quickly open, and then shut, the tank isolation valve. Taste/smell the water sample.

If the water tastes/smells the same as it did from the membrane tank test valves, you have a bad remineralizing cartridge (item 082010). A replacement can be ordered here:
<https://radiantlifecatalog.com/water-purification-parts-accessories-items/>

If the water tastes/smells the same as it did from faucet, you have a bad restructuring cartridge (item 082009). A replacement can be ordered here::
<https://radiantlifecatalog.com/water-purification-parts-accessories-items/>

Diagram G

Beeping sound coming from Puretech UV Ballast. On systems built prior to August 2018, the ballast for the UV light makes a beeping noise to indicate a failure.

Listen to the sound.

If the sound is a slow, steady beep, like a truck backing up, the uv bulb (item 020001) has failed. A replacement can be ordered here:

<https://radiantlifecatalog.com/water-purification-parts-accessories-items/>

If the sound is a rapid chirp or buzzing noise the uv ballast (item 020002) has failed. Check the red light on the UV ballast to see if it is solidly illuminated, if not this confirms the ballast has failed. A replacement can be ordered here:

<https://radiantlifecatalog.com/water-purification-parts-accessories-items/>

Date	Sample Location	TDS Readings					Comments
		1st	2nd	3rd	4th	5th	
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						
	Tank Test Valve						
	RO Membrane Test Valve						
	RO Faucet						
	Kitchen Faucet						

Warranty

Warranty Scope

Radiant Life warranties to the original purchaser of the 14 Stage Biocompatible Reverse Osmosis water purification system will be free from defects in materials or workmanship in manufacturing for one (1) year from the original date of purchase, except as noted below. During the Warranty Period and subject to the limitations and exclusions set forth below, Radiant Life will, at its option, replace the product or refund the product purchase price if the product fails to satisfy this Limited Product Warranty. This warranty does not cover labor.

Warranty Conditions

- The product was installed and operated within the operating conditions specified in the installation/owner's manual.
- The individual invoking the warranty is the original purchaser of the 14 Stage Purification System.
- The system has been properly maintained. The replaceable filters and membrane are changed and maintained on a regular basis as directed in the Instruction and Owner's Manual. In some areas, the numbers and amounts of impurities present in the local water supply may require that the filters and membrane be replaced on a more frequent basis.

What is not Covered

No warranty is given as to the service life of any filter cartridge or membrane as this will vary depending on local water conditions and water input.

This warranty does not cover filter cartridges that were not installed according to the instructions provided with your system, operated incorrectly, abused, or improperly maintained. This warranty also does not cover the following items:

- Clogging (water conditions)
- Incidental or consequential damages caused by failure of the product
- Labor costs to install or replace the filters or system
- Damages caused by fire, flood or acts of God
- Damage from non-potable water supplies
- Damages caused by any person

This warranty is voided if the product is not installed with genuine Radiant Life components and in accordance with the provided instructions. This includes, but is not limited to, filters, faucets, and fittings/valves.

Limitations and Exclusions

Except as otherwise expressly provided above, Radiant Life makes no warranties, expressed or implied, arising by law or otherwise, including without limitation the implied warranties of merchantability and fitness for a particular purpose, to any person. This Limited Product Warranty may not be altered, varied or extended except by written instrument executed by Radiant Life. The remedies of replacement or refund of the Product purchase price are exclusive and are the sole obligations of Radiant Life under this Limited Product Warranty. Radiant Life will not be liable for any loss or damage arising from installation and use of the Product, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including warranty, contract, negligence, or strict liability. Some states and countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

How to get service

To receive assistance with your water system and warranty, contact the Water Service Team at 888-593-9595 Opt. #2 or email waterservice@radiantlife.com. Be prepared to provide account details, purchase date, and describe the problem to the representative, who will verify the warranty. At this time, it will be determined if a new part or system will be replaced at no cost to you.

Customer Service

Contact the Radiant Life Water Service Team for instructions and authorization number for returning the defective part or product.



Scan the QR code to see our YouTube video of the Biocompatible Water Purification System assembly.

