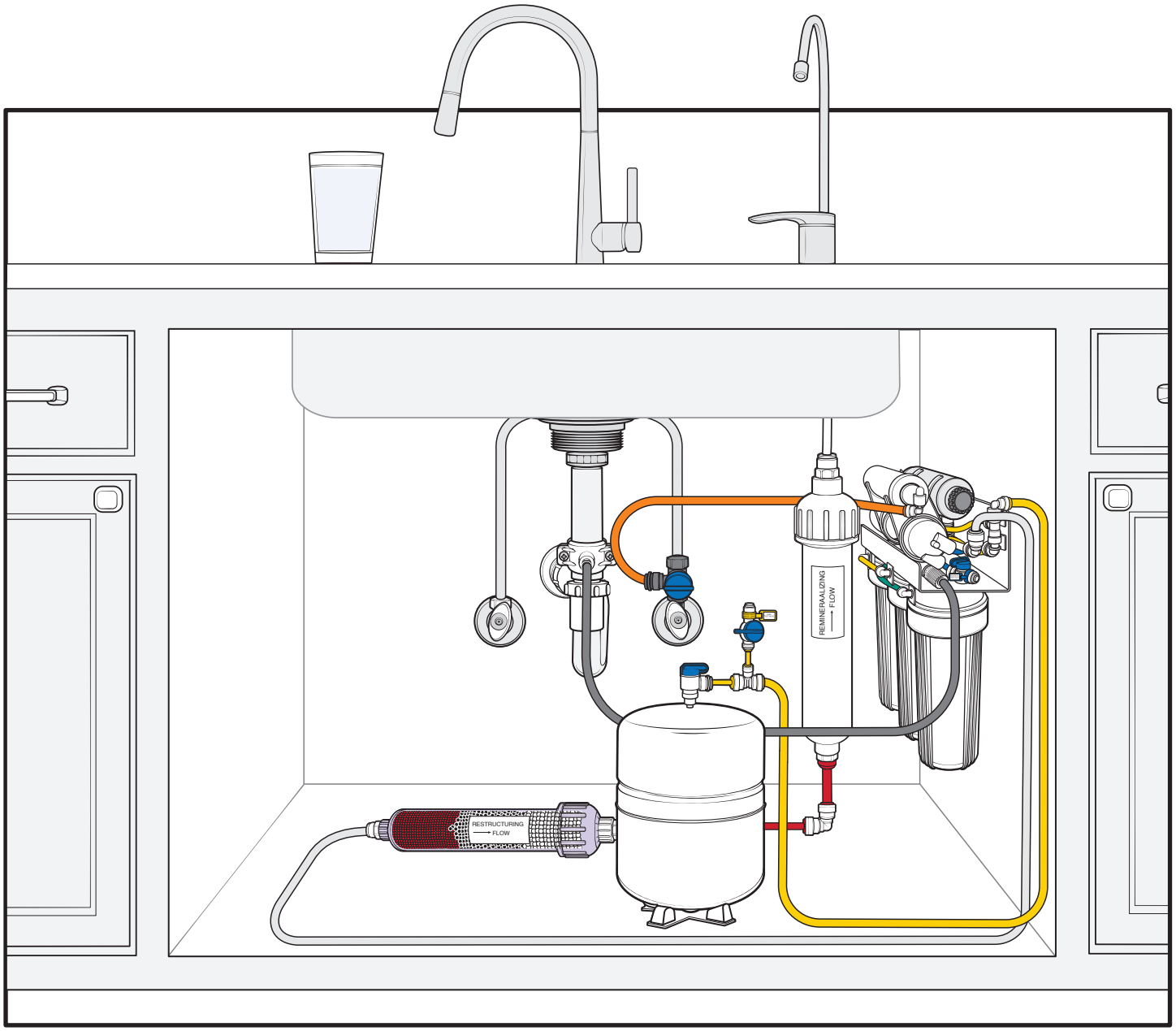
Radiant Life®

14 Stage Biocompatible

Water Purification System

INSTALLATION • G U I D E



Introduction

Thank you for purchasing Radiant Life's Biocompatible Water Purification System. Your system will provide you many years of dependable service while its design requires less maintenance and fewer 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 adversely 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. Copper pipes are not recommended. For this reason, we advise confirming that any additional appliances or dispensers being used 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.

We are confident that you will enjoy your water for many years!

Safety

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

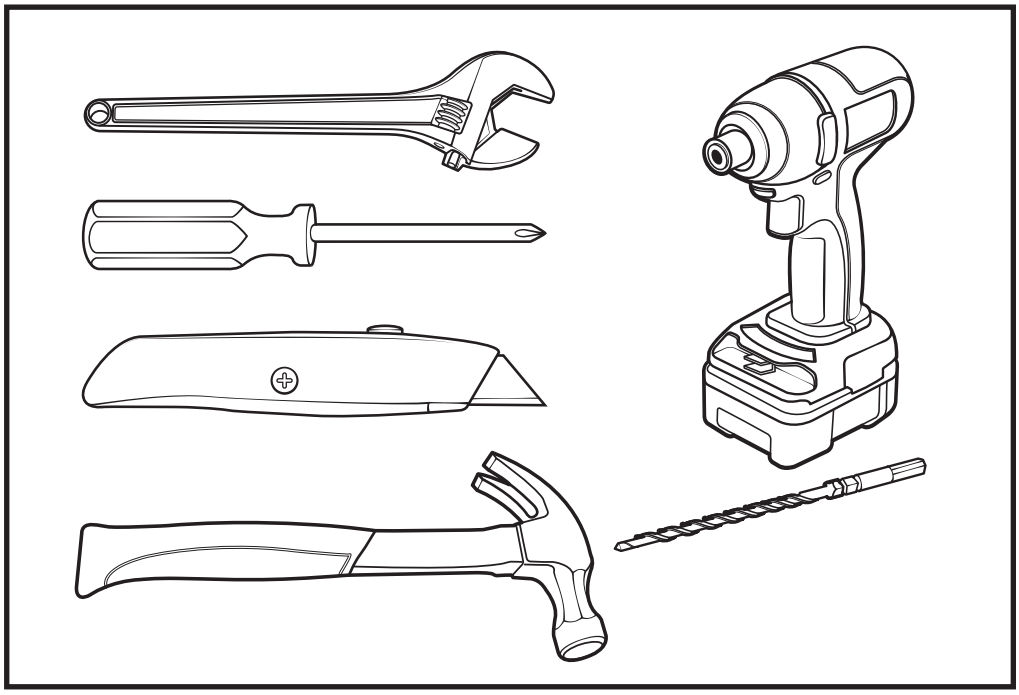
High water pressure may cause plumbing issues that could damage the purification system and cause plumbing leaks. The maximum recommended water pressure for the system is 80 psi. If the pressure exceeds 80 psi a pressure reducing valve must be installed.

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.

Required Tools

- Adjustable wrench
- Drill with 1/4" and 1/2" drill bits
- Phillips head screwdriver
- Razor, knife or tube-cutter

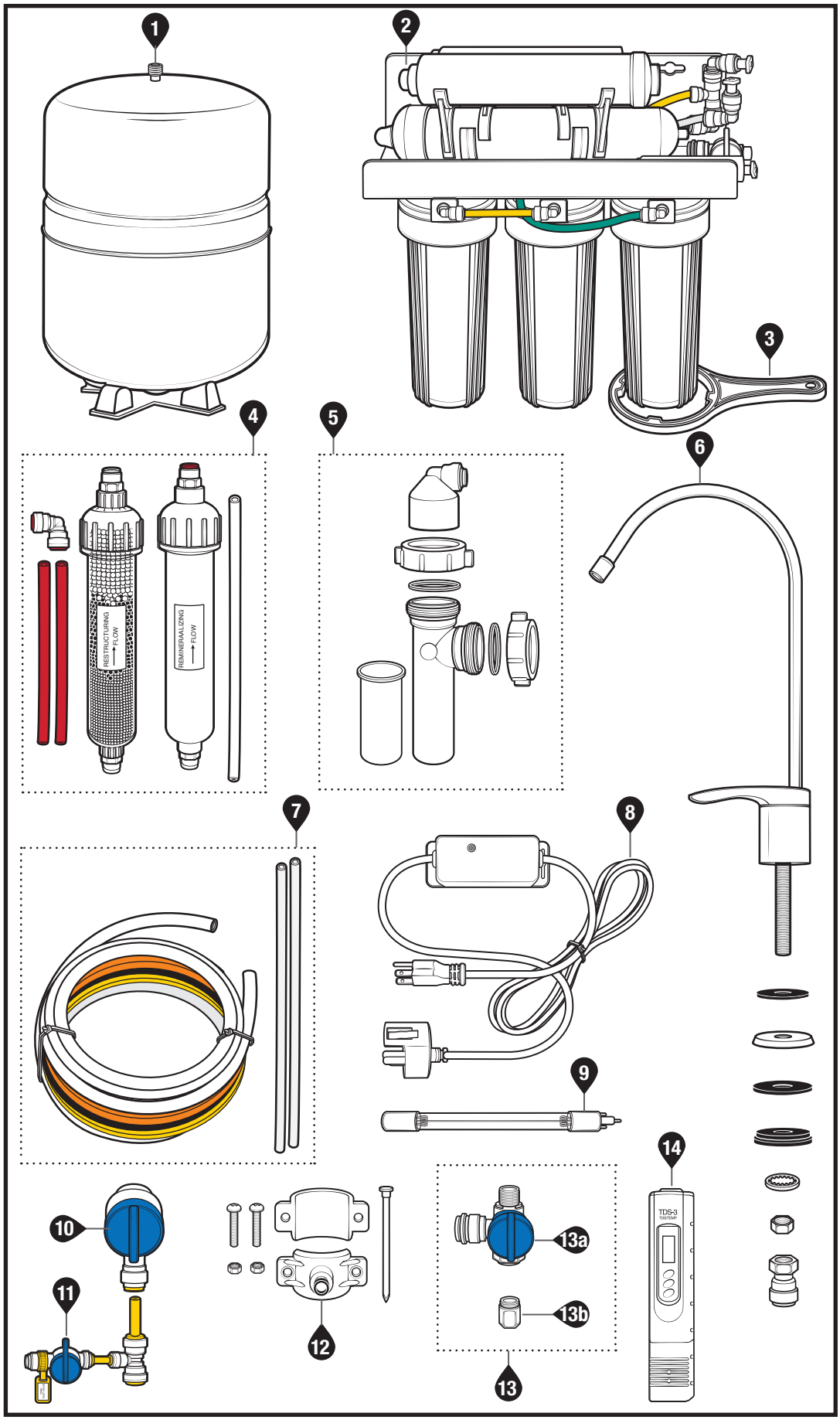
  Note: If your sink assembly does not have a pre-drilled hole for the faucet you may need the following tools:
- 1/8", 1/4" and 1/2" drill bit
- File or sandpaper
- Hammer



Product Components

Be sure the following components are included in your package:

1. Water storage tank
2. Water purification unit
3. Housing wrench
4. Remineralizing/ restructuring cartridge kit
5. Drain line adapter package (garbage disposal)
6. Faucet package
7. Tubing package
8. UV Power supply and ballast.
9. UV light bulb
10. Tank isolation valve
11. Tank test valve assembly
12. PVC drain saddle
13. Cold water angle kit
    (a) Angle stop valve
    (b) 3/8” - 1/2” adapter
14. TDS meter



Installation

Important! Failure to follow these instructions, or the use of parts other than genuine Radiant Life components, may void the warranty.

Step 1 Install the Faucet (#6)

Important! Drilling a hole through a solid countertop surface such as granite, marble, porcelain or cast-iron sinks may require special tooling such as a diamond tip drill bit. If you are unsure, or uncomfortable, drilling the hole you should have a reputable, experienced person drill the hole.

Drill the Sink Hole

Note: The faucet requires a 1/2" diameter sink hole.

1. Drill a pilot hole using a 1/8" or 1/4" drill bit.

   Note: If drilling through stainless steel; using a punch make a small dimple on the faucet location **before** drilling the pilot hole.

3. File any rough, sharp edges and clean the area.

Install the Faucet (#6)

4. Place the ***small thin washer***, ***hole cover*** and ***large thin washer*** onto the threaded shaft of the faucet.
5. Place the threaded shaft of the faucet through the sink hole.
6. Fasten the ***spacer washer*** onto the threaded shaft of the faucet.

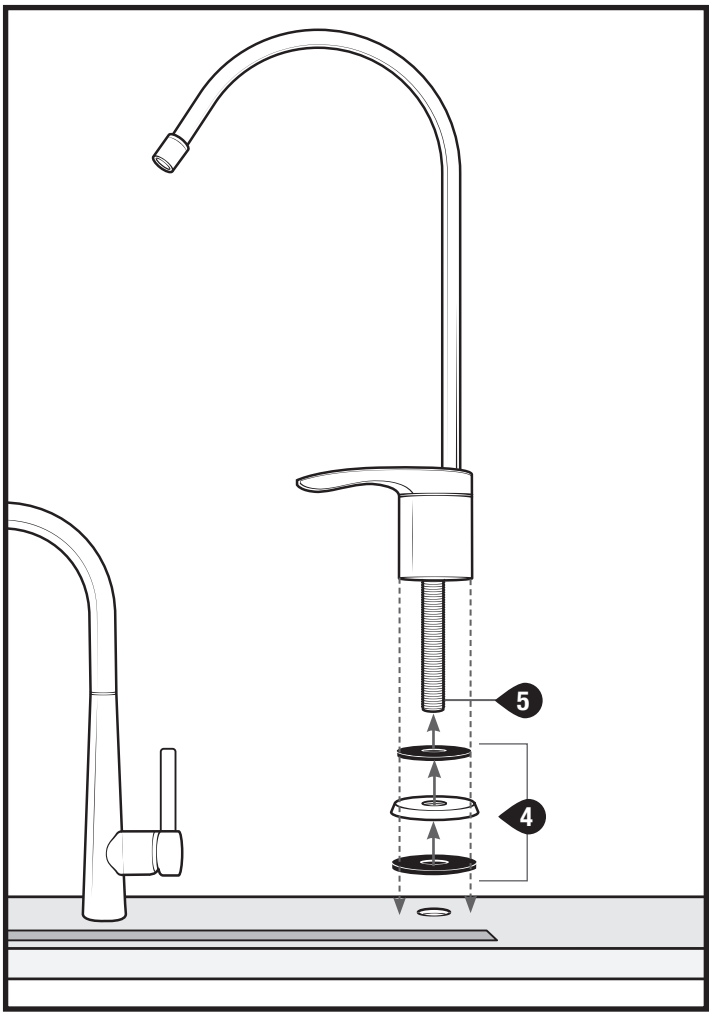
   Note:
   - **If the sink hole has a 1" diameter:** Install the ***spacer washer*** with the small diameter inserted into the 1" diameter hole.
   - **If the sink hole does not have a 1" diameter:** The ***spacer washer*** can be installed in any direction.

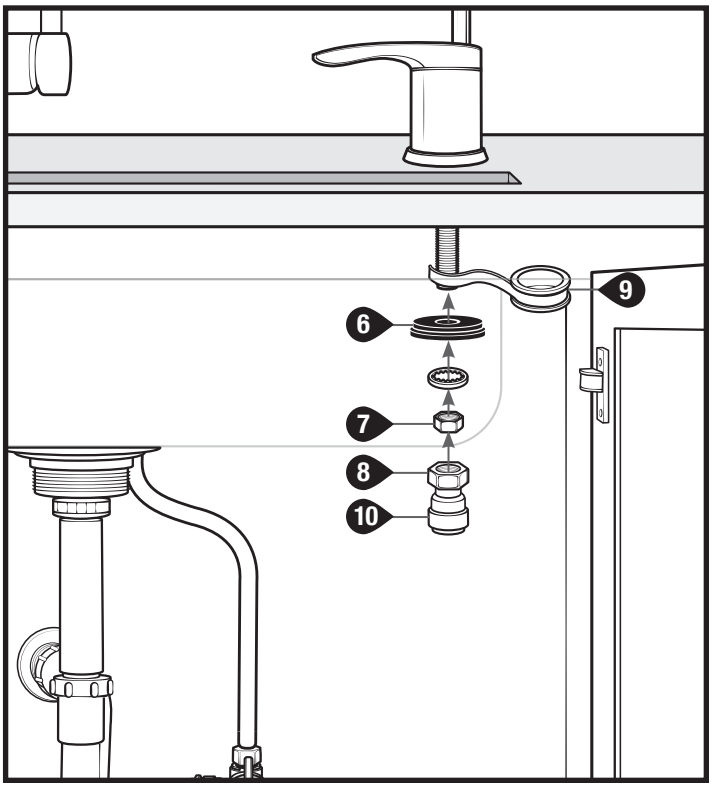
7. Place the ***toothed lock washer*** onto the threaded shaft of the faucet.
8. Thread the ***locking nut*** onto the threaded shaft of the faucet and tighten the faucet down onto the sink surface.

   Note: The spout of the faucet can rotate 360º. Position the faucet handle in the desired direction before tightening the faucet to the counter top or sink surface.

9. Wrap ***teflon tape*** around the threaded shaft of the faucet (2–3 wraps or 3/4 from the bottom of the shaft).
10. Carefully thread the ***faucet adapter*** onto the threaded shaft of the faucet. **Hand tighten only**.

    Note: There are three small pieces of installation hardware included that will not be used to install the faucet. Discard these pieces if you like.

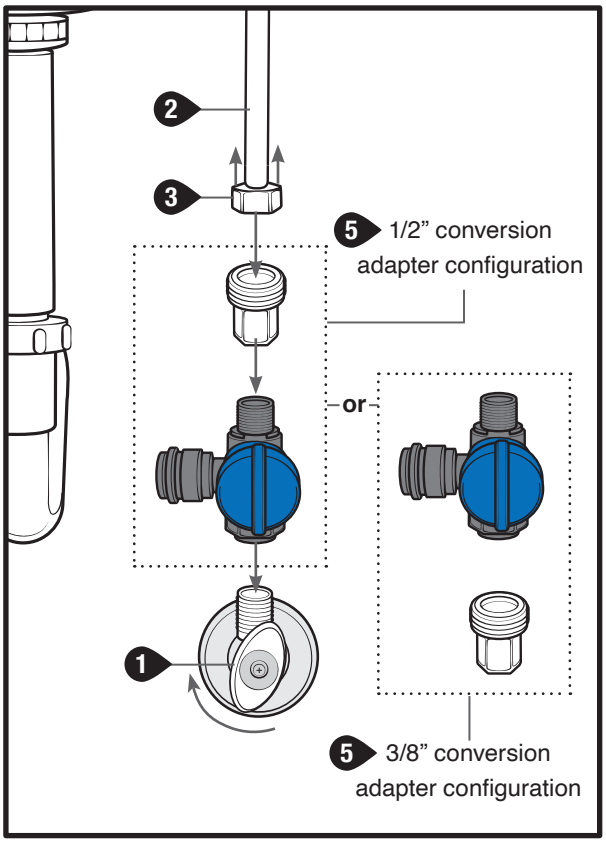




Step 2 Installing the Angle Stop Valve (#13a) with Conversion Adapter (#13b)

1. Turn off the cold water shut-off valve by rotating clockwise until completely closed. Check the kitchen sink cold water to confirm it is off.
2. Disconnect the cold-water riser tube from the cold-water shut-off valve.
3. Determine what size cold water supply valve and riser tube connections are needed, 3/8" or 1/2".
4. Confirm the black gaskets are inserted into the female threaded ends of the ***angle stop valve (13a)*** and the ***conversion adapter (13b)***.
5. Choose the appropriate adapter configuration. Using a wrench connect the ***conversion adapter*** to the ***angle stop valve*** in the configuration required.
6. Thread the ***angle stop valve*** with ***conversion adapter*** onto the cold-water shut-off valve using a wrench until seated. Do not over-tighten.
7. Connect the cold-water hose to the ***angle stop valve*** with a wrench until seated. Do not over tighten.

   Note: See instructions included with the ***cold water angle kit (#13)***.



Step 3 Install the Drain Saddle (#12) to a Vertical Pipe or Drain Line Adapter (#5) to a Garbage Disposal

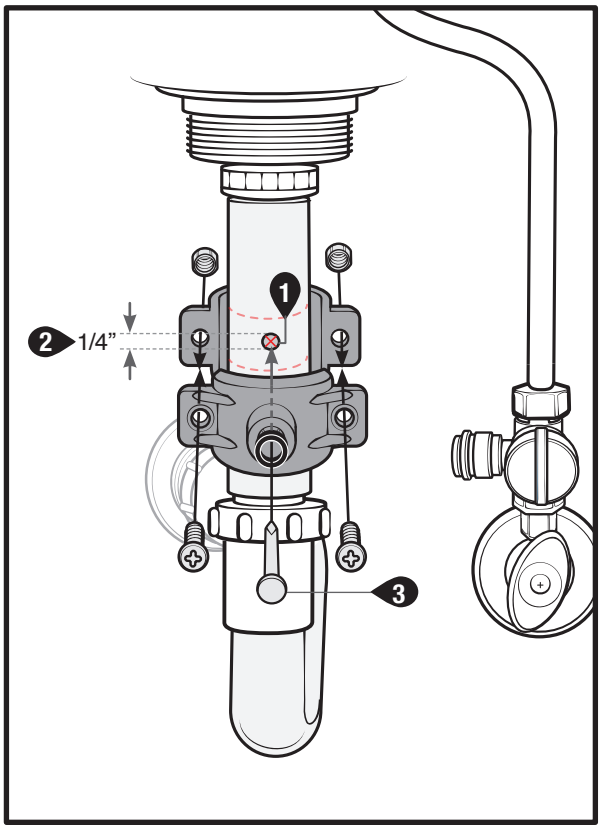
Before proceeding, determine which drain adapter is best suited for your application **Note:** Garbage disposal drain line adapter installation on the next page.

Note: Do not install the drain saddle on any pipe that carries waste from the garbage disposal.

The ***drain saddle*** will fit most 1-1/2" drain diameter pipes. The ideal position is as close to the p-trap as possible but must be above the horizontal exit pipe. Installing the ***drain saddle*** too high may cause noise from the system when draining.

1. Determine the position of the ***drain saddle*** and mark the location of the black collet on the drain pipe.

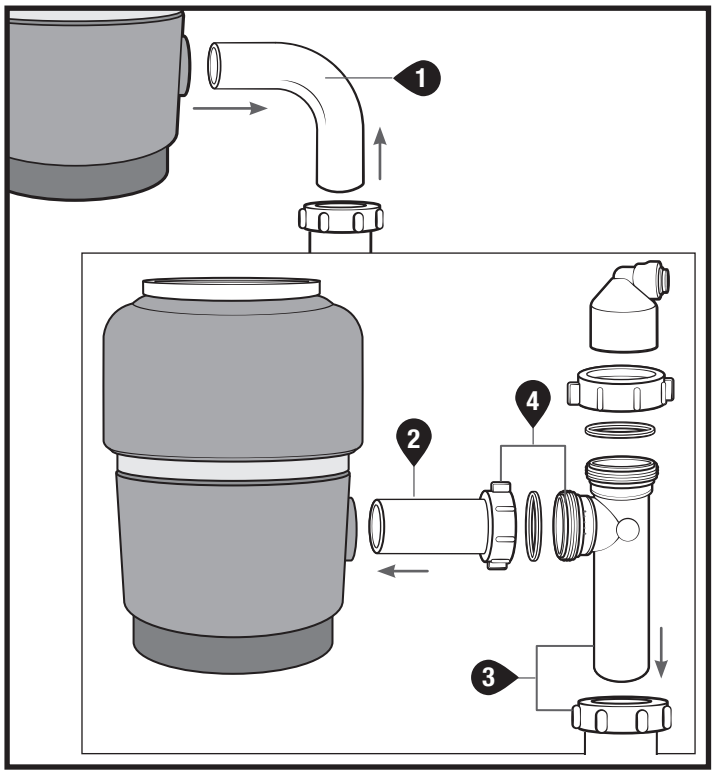
   Note: Leave enough space to unthread and raise the nut on the p-trap if necessary.
2. Set the ***drain saddle*** aside. Drill a 1/4" diameter hole through **one side** of the drain pipe.
3. Place the ***drain saddle*** over the previously marked positon. Insert a bolt into each ***drain saddle*** hole and fasten with the nut. **Hand tighten only**. Align the black collet on the ***drain saddle*** with the 1/4" diameter hole by inserting the nail until it touches the back of the pipe. **Important!** A leak may occur if not properly aligned.



Installing the Drain Line Adapter (#5) to a Garbage Disposal

Note: Do not install the ***drain saddle*** **(#12)** off the garbage disposal pipe. Doing so may cause clogging of the drain line, damaging the purification components, and voiding the warranty.

1. Remove the garbage disposal elbow pipe from the garbage disposal and drain piping.
2. Install the ***drain line adapter*** pipe into the garbage disposal.
3. Install the ***drain line adapter*** assembly into the drain piping.
4. Connect the ***drain line adapter*** pipe to the ***drain line adapter*** assembly. Tighten connectors.



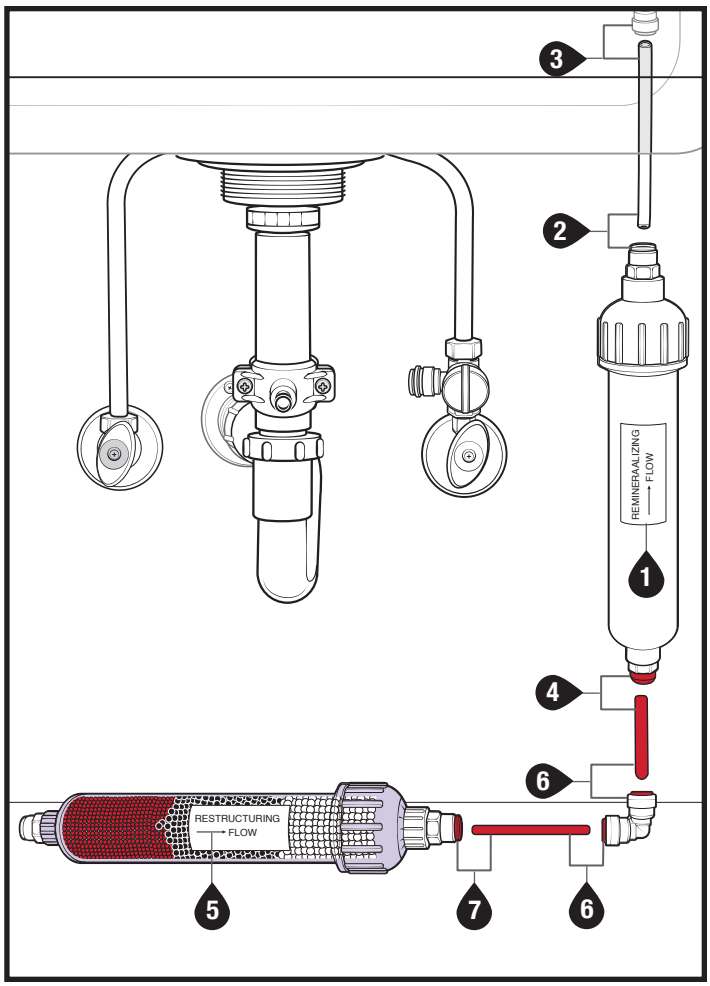
Step 4 Install the Remineralizing and Restructuring Cartridges (#4)

Important! Install the ***remineralizing cartridge*** with the directional flow arrow pointing towards the faucet. Do not install in the reverse direction.

1. Orient the ***remineralizing cartridge*** with the directional flow arrow pointing up towards the faucet.
2. Insert the 3/8" **white tube** into the cartridges **white outlet fitting**.
3. Connect the opposite end of the **white tube** to the ***RO faucet adapter*** that is attached to the installed faucet.
4. Insert a **red tube** in the remineralizing cartridge's **red inlet**.

   Important! Install the ***restructuring cartridge*** with the arrow pointing towards the ***remineralizing cartridge***. Do not install in the reverse direction.
5. Orient the ***restructuring cartridge*** with the directional flow arrow pointing in the flow direction (towards the ***remineralizing cartridge***).
6. Insert both 3/8" **red tubes** into the elbow.
7. Insert a **red tube** into **outlet port** of the ***restructuring cartridge.***

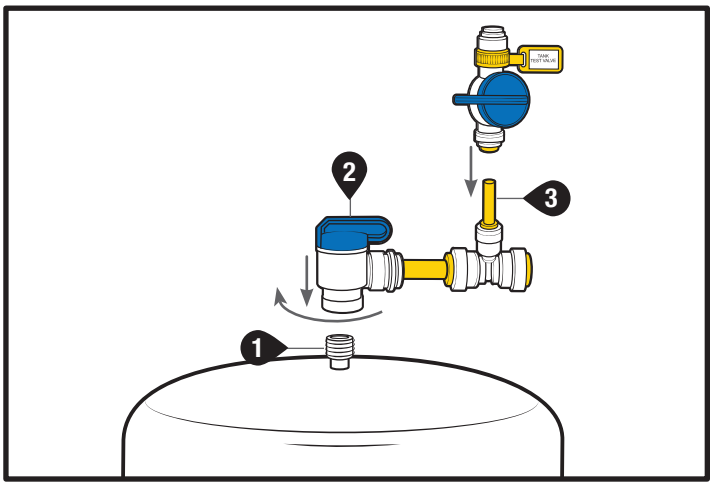
   Note: If necessary, cut one or both of the **red tubes** so that the ***restructuring cartridge*** lays flat on the bottom of the cabinet. Be sure to leave red tubing long enough that it can be disconnected during maintenance.



Step 5 Install the Tank Isolation Valve (#10) and Tank Test Valve Assembly (#11)

1. Before attaching the ***tank isolation valve*** **(#10)** to the tank**,** wrap the metal threads on the tank with ***teflon tape***.
2. Fasten the ***tank isolation valve*** onto the tank turning in a clockwise direction. Do not over-tighten.
3. Insert the ***3/8" yellow tube*** on the ***tank test valve assembly*** **(#11)** into the tank isolation valve.

   Note: Gently pull on the tube to ensure the tubing is locked into place.

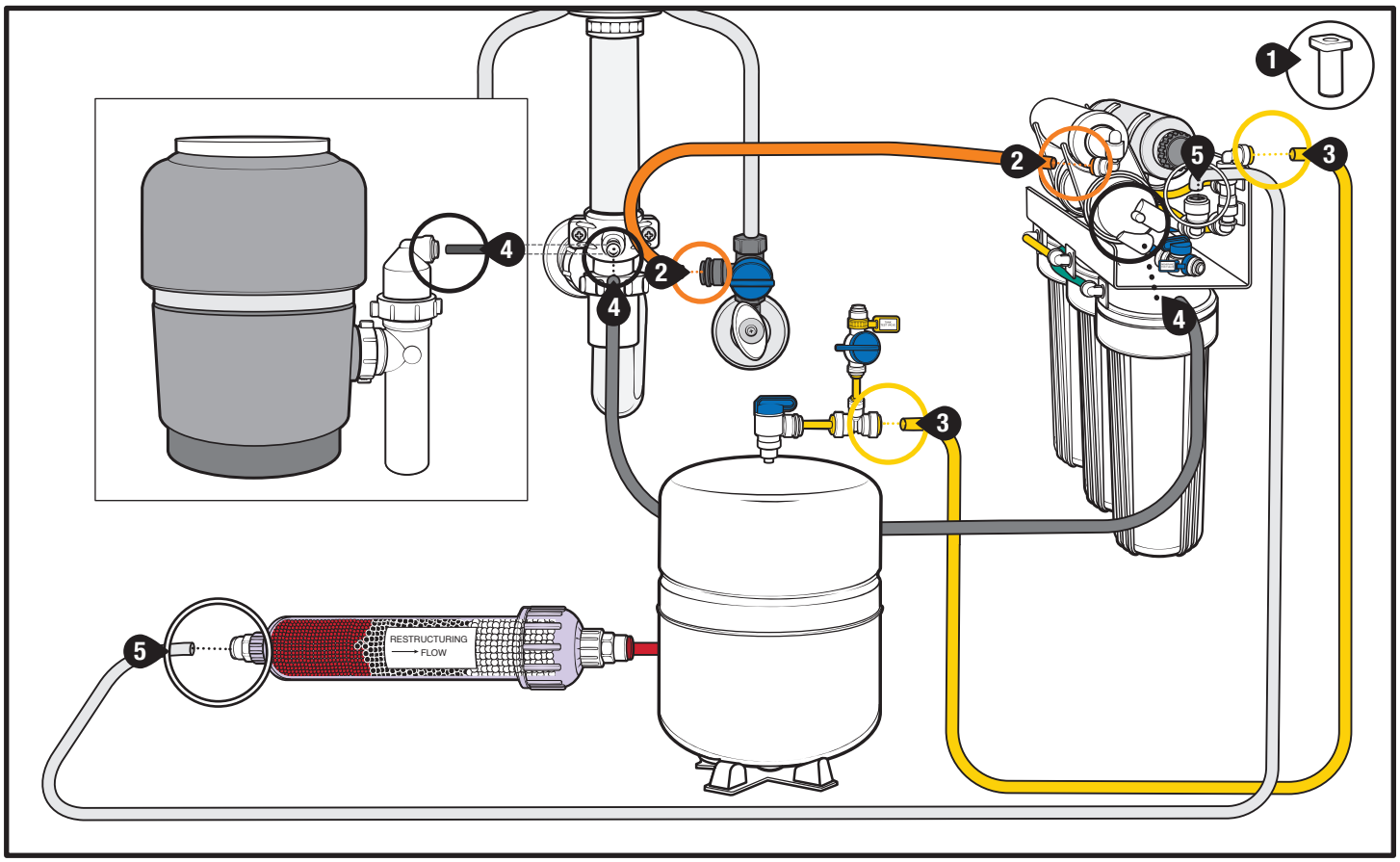


Step 6 Connect the Tubing (#7) to the System Unit

Important! Cut the tubing sections to a length that allows for removal of the system unit from its secured location without having to disconnect any tubes from the system unit. This will allow for maintenance to be done outside of the cabinet.

Note: The tube connection fittings are color coded**.**

1. Remove all of the sealing plugs from the system unit.
2. Connect the ***1/4"*** **orange tube** to the ***cold water angle stop valve*** and the ***5 micron pre-filter***.
3. Connect the ***3/8" yellow tube*** to the ***tank test valve assembly*** and the *periscope* fitting located on the system unit.
4. Connect the ***1/4" black tube*** to the ***RO membrane*** located on the system unit to the ***drain saddle*** on the vertical pipe to the sink ***or*** the ***drain line adapter*** installed on a garbage disposal.
5. Connect the ***3/8" white tube*** to the ***restructuring cartridge*** and the UV Light located on the system unit.



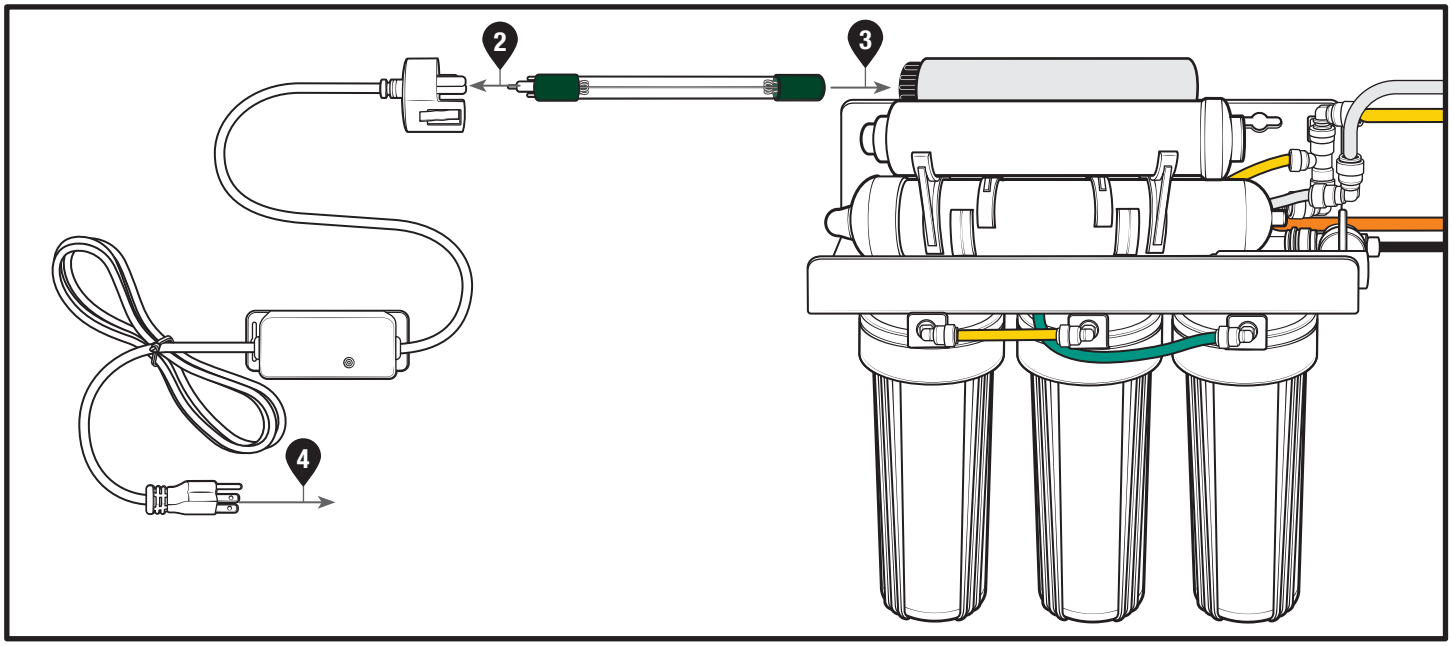
Step 7 Install the UV Light Bulb

WARNING!
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.

1. Pick up the UV light bulb by the ceramic ends. Inspect the bulb and wipe off any fingerprints and/or smudges.
2. Carefully insert the UV light bulb into the UV Power supply and ballast.
3. Carefully slide the UV light bulb into the UV hhousing on the system unit until you hear an audible click.
4. Plug the UV power supply into a standard 110V outlet.

   Note: 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.

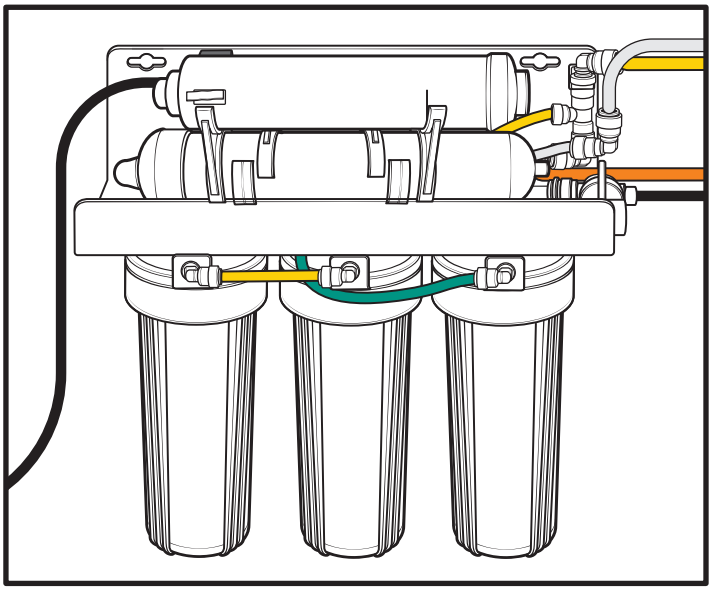


Step 8 Securing the System Unit to the Cabinet (optional)

Note: Mounting the system is not required, it will stand up on any flat surface. Mounting hardware not supplied.

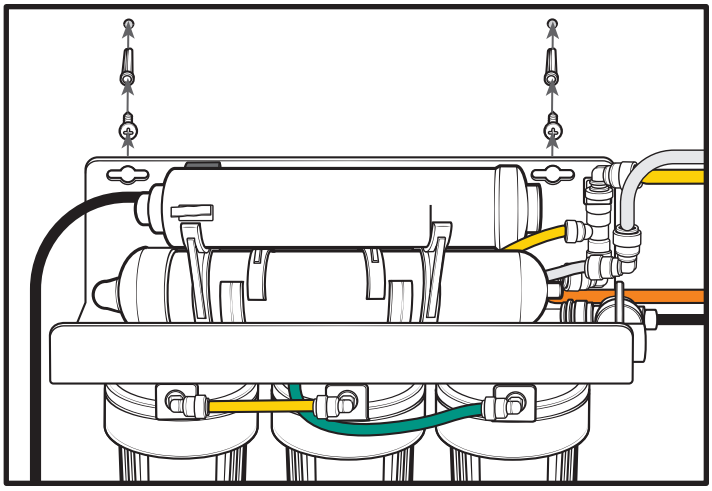
The following are important considerations when choosing the location:

- The system unit can be mounted to an interior wall or rest on the cabinet floor. If you do not wish to mount the system unit to the interior walls simply place the system unit in the desired location on the cabinet floor. **Important!** The system unit ***must*** remain in the vertical position. Tip-over may result in leakage.
- Allow sufficient space to access the unit for maintenance.
- Ensure the housing assembly or tubing will not interfere with the cabinet door.
- Position the system unit so the tubing fits comfortably (i.e.: no pinching, kinks or over stretched) between the System Unit and connected parts.



Important! When mounting to the wall, ensure there is sufficient space to remove the filter housings when changing components. There must be a 3” minimum clearance between the bottom of the system unit and the floor.

1. Position the system unit in the desired location and mark the mounting hole locations.
2. Drill a 3/16” pilot hole at the mounting hole locations. Insert a wall anchor into each hole.
3. Fasten the system unit to the wall.

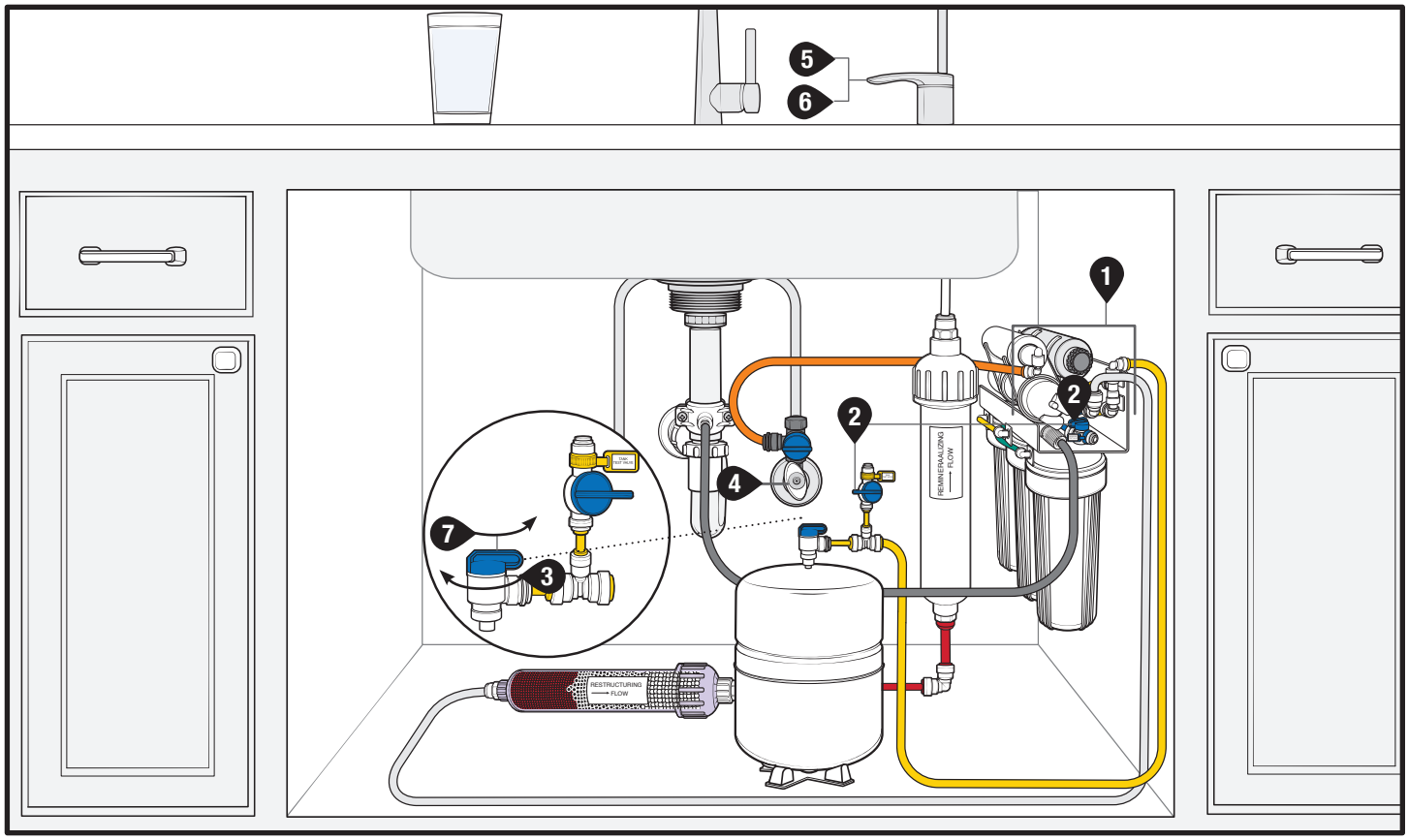


Step 9 Starting the System

1. Check that all tube connections are secure.

   Note: To test, push the tube in completely (approximately 1/4”) and gently pull to secure.
2. Check that the ***tank test valve*** and ***membrane test valve*** are in the **closed** position.
3. Turn the ***tank isolation valve*** to the **closed** position.
4. Turn on the water supply and move the ***angle stop valve*** to the **open** position (i.e.: in line with the orange tube). Water will begin to fill the system and purify the water.
5. Open the faucet to purge air from the system. Keep it open until a slow, steady stream of water begins to flow from the faucet. It may take as long as 15–20 minutes for the system to begin dispensing water from the faucet.
6. Close the faucet.
7. Move the ***tank isolation valve*** to the **open** position (in line with the yellow tubing). The purified water is now being directed into the tank. Depending on the size of the tank purchased, it will take between 3-10 hours to fill completely. This will also begin the flushing process to eliminate any residues remaining from the various manufacturing processes. This will require filling and emptying two tanks of water before using the water (see next page).

   Note: For the next 24-48 hours, continue to monitor the plumbing, system, and tube connections for leaks.



System Start-up

- 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 15-20 minutes before water reaches the faucet. Once water is seen at the faucet, close the faucet to direct the water into the storage tank. Note the fill times and flushing instructions below.
- Estimated time to fill a tank:

  5 gallon: 3–4 hours (3.5 gallon max capacity)*

  9 gallon: 5–6 hours (5.5 gallon max capacity)*

  14 gallon: 9–10 hours (9 gallon max capacity)*

  * Capacity determined by incoming water pressure.
- The first **TWO full tanks** of water should be disposed of by opening the RO Faucet until the tank is completely empty. A small trickle of water will continue to flow from the RO faucet, this is the system making water and the RO faucet can be closed to refill the tank.
- Water may be heard traveling through the black drain line. This is perfectly normal while the system is purifying water. This water cleanses the RO Membrane of contaminants, expelling waste water from the system into the sink drain. When the system is not purifying water, the drain line will not run.

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

Specifications

Feed Water

Pressure Range: . . . 40–80 PSI
Temperature Range: . . . 40 – 100 °F
TDS: . . . 500 ppm
Iron: . . . 0.3 ppm
Manganese: . . . 0.05 ppm
Chlorine: . . . 2.0 ppm
pH Limits: . . . 2–11

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

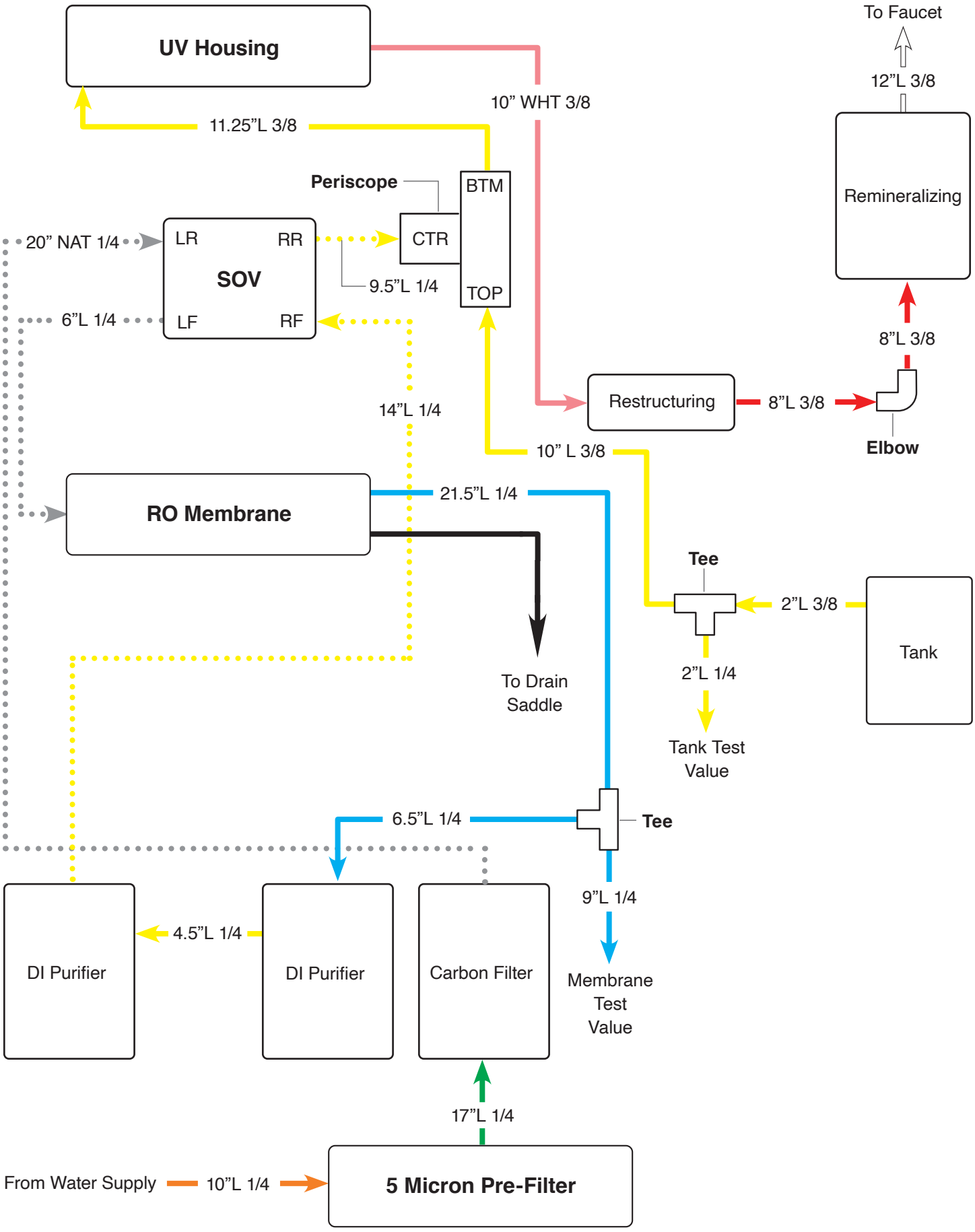
9 Gallon Storage Tank

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: . . . 1/4” male threads

System Flow Chart



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.

Radiant Life
Water Service Division

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