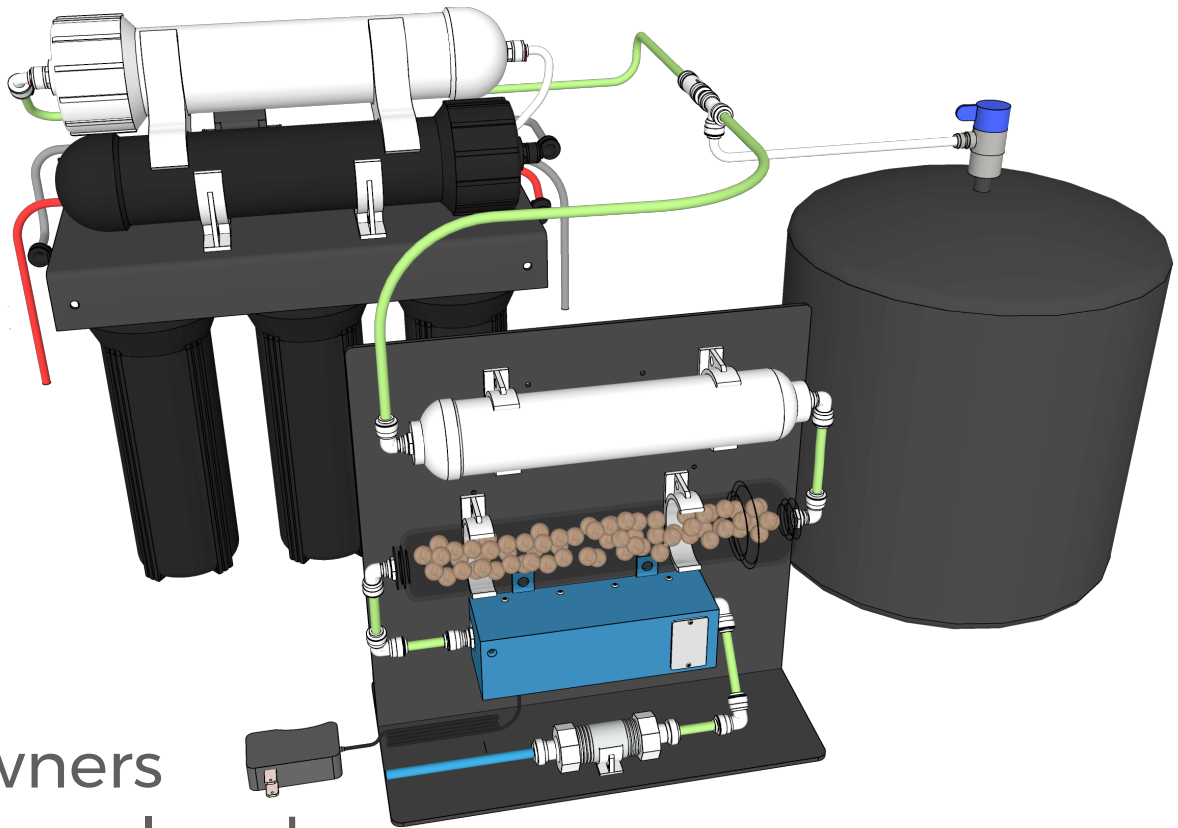


Bio-Renew Under Counter system



Owners
Manual and
Installation Guide



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Quick Set-up

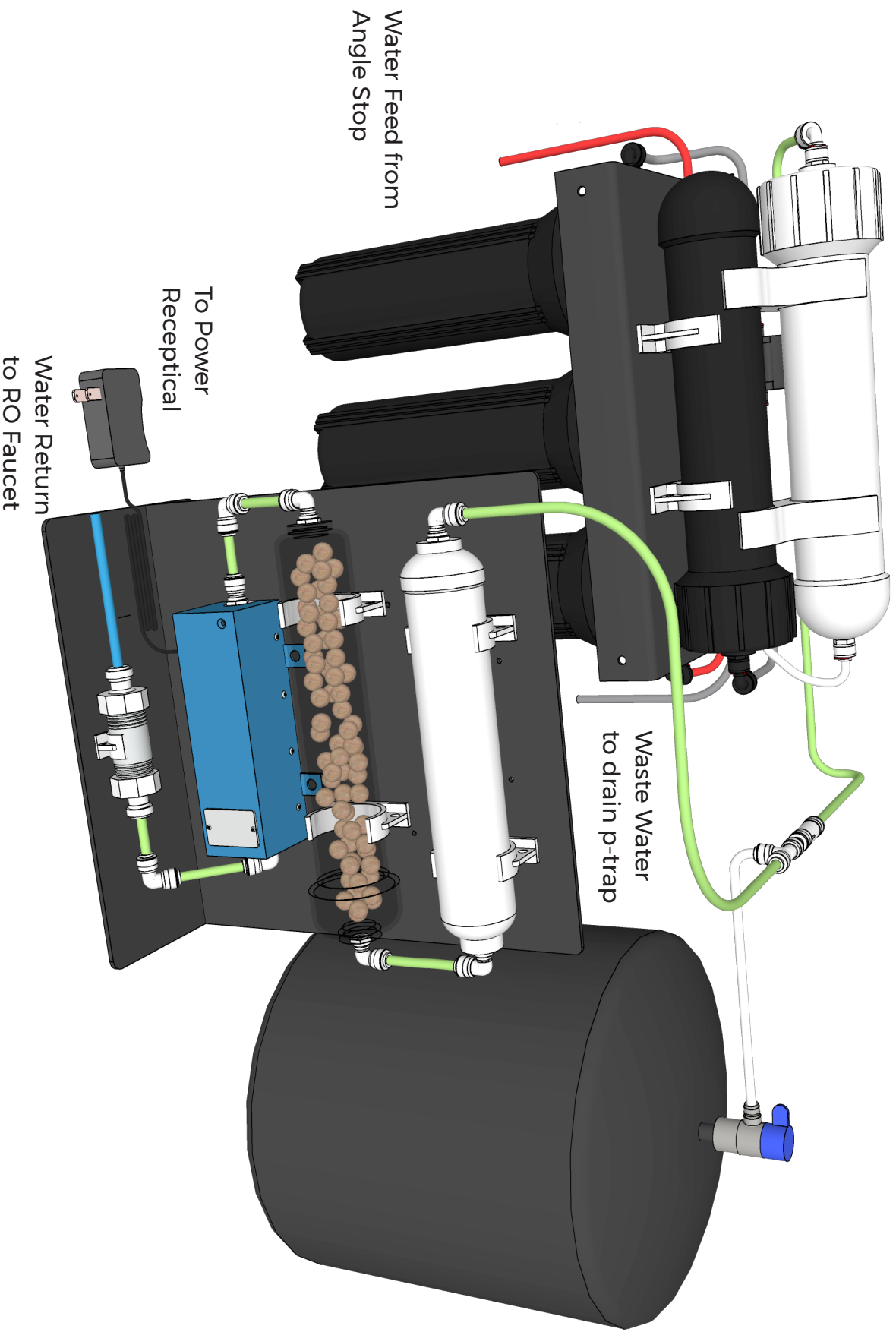


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Tools Required for Installation

- Basic plumbing knowledge
- 1/8" & 7/32" Drill Bits/Drill
- Masking Tape
- Tape Measure
- Adjustable Wrench
- Pan or Bucket
- Utility Knife
- Safety Glasses
- Screwdriver (Phillips)
- Pencil or Pen



A R/O System Manifold

B Alkaline Cartridge

C KDF Cartridge

D Dirt/Sediment Filter

E Carbon Block

F Reverse Osmosis Filter

G Water Storage Tank

H Crystalline Platform

I Activated Carbon

J Rose Quartz Cartridge

K UV Light

L Vortex Implosion Device

M Leak Detector

N Drain Saddle

O Feed Water Angle-stop adapter

P Feed water adapter

Q Pressure Regulator

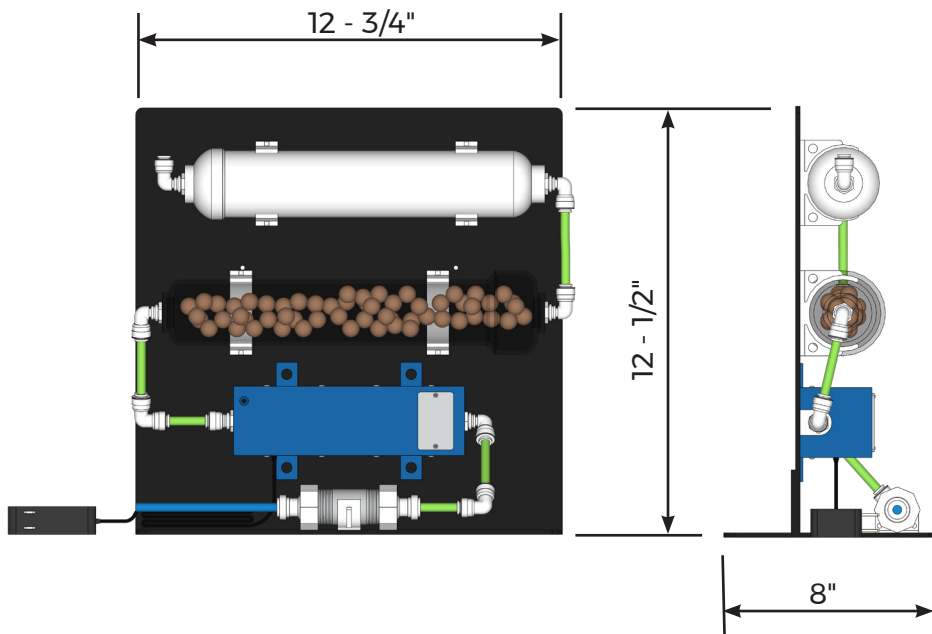
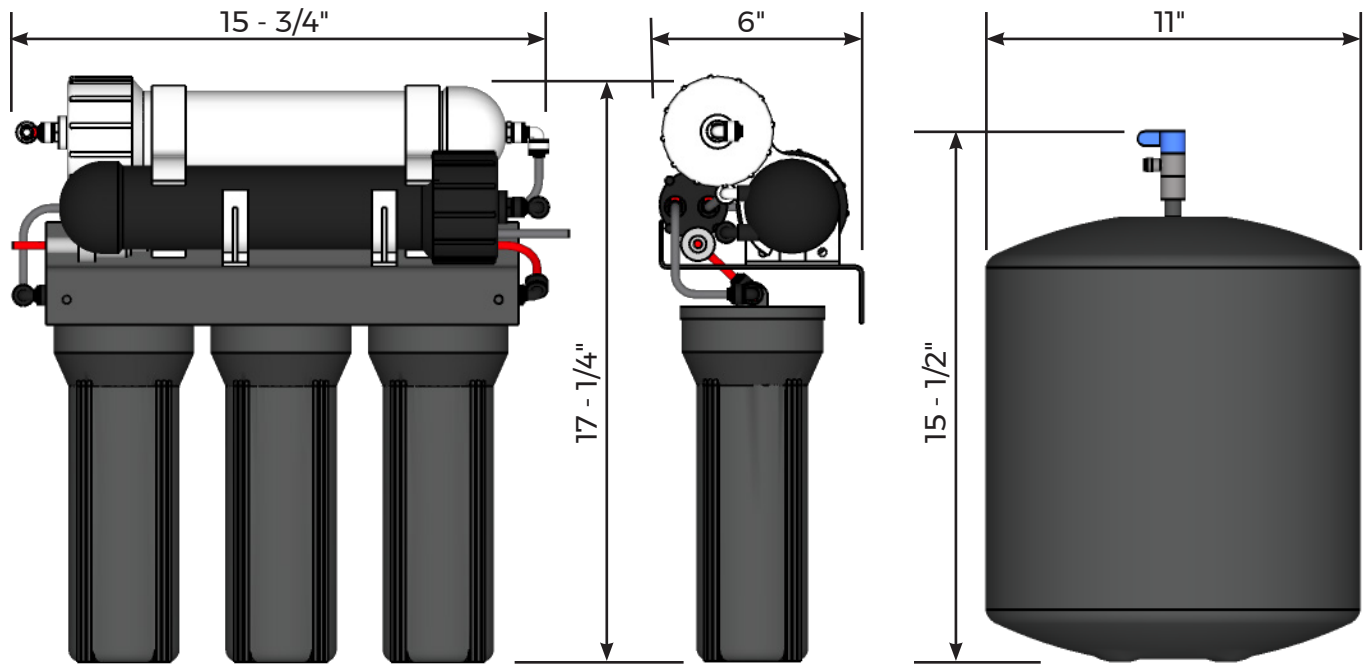
R Faucet Connector

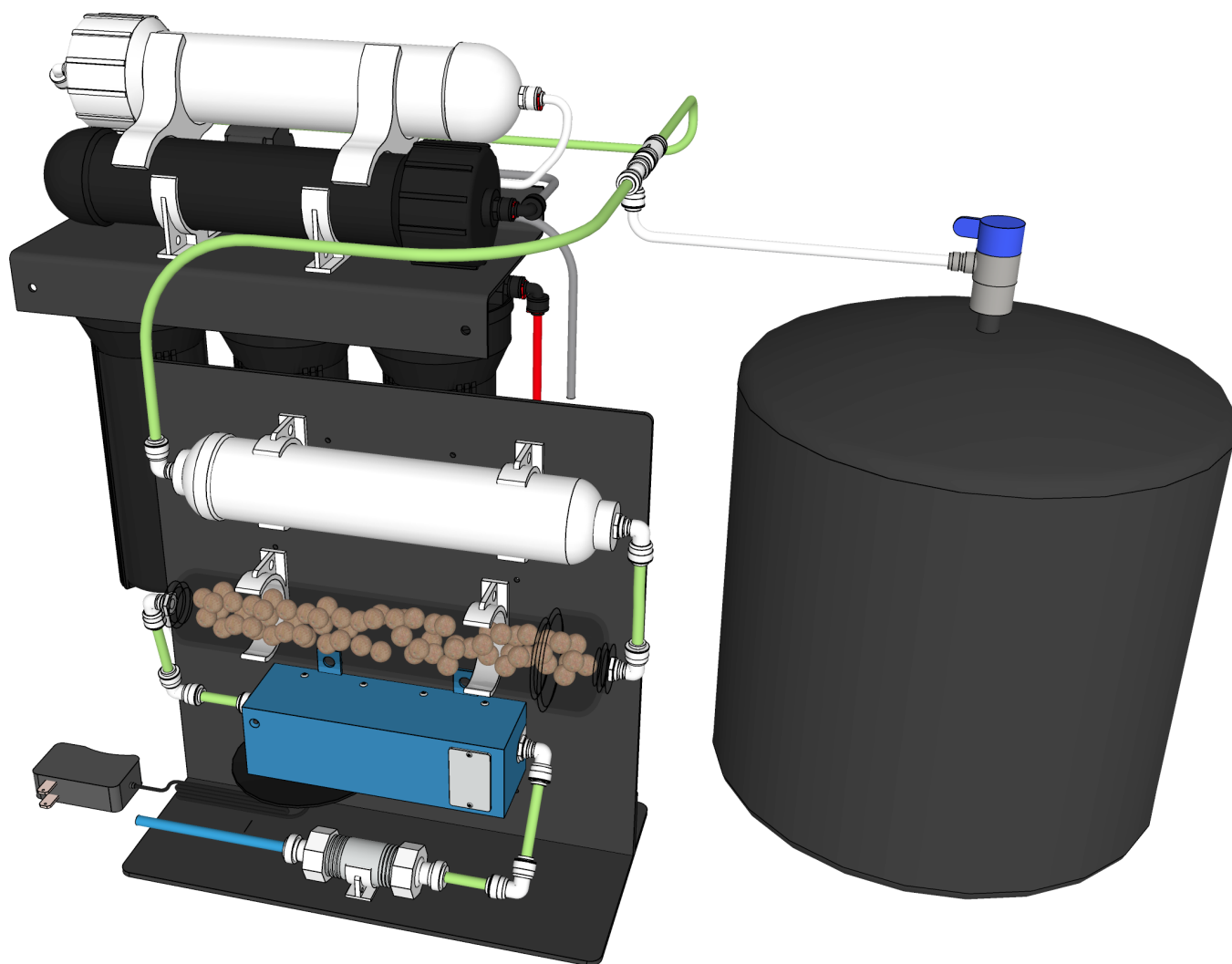
S Leak detector Fittings

T Filter housing wrench

U Vortex Implosion Device

Bio-Renew Under Counter System Installation Guide





Water Lines are color coded for ease of installation

- | | |
|---|---|
|  red - feed water line |  R/O to restructuring platform |
|  white - pressurized to tank |  black r/o waste to drain |
|  blue - restructured water out | |

System requires a 120V power receptacle for the UV Light

Please note that a range of incoming water pressure should be no lower than 40 psi and no higher than 85 psi.

Feed water temperature: 40 - 100 degree F (4-37 degree C)

Do not connect this unit to hot water source

Install the RO in a sheltered environment, avoid exposure to hot and cold weather or under direct sun light.

UNDERSTAND INSTALLATION

Prior to installation, we recommend you read the entire manual to familiarize yourself with the system, and help you determine the best location for installation. Please check and comply with all local plumbing codes.

PREPARE SITE FOR INSTALLATION

NOTE: If you have metal drain pipes, consult a plumber for installation of drain connection.

1. Prior to installation, close the cold water shut-off valve.
2. Temporarily place system manifold, restructuring platform, and tank the under sink cabinet or desired location to ensure adequate space and proper positioning.
3. Supplied 1/4" white tubing will be used to connect the tank to the restructuring platform and RO manifold. A 3/8" to 1/4" reducer is connected to end of 1/4" white tubing and will need to be inserted into 3/8" tank valve.
4. Remove system manifold, restructuring platform, and tank from under your sink to begin installation.

INSTALLATION OVERVIEW

Step 1 - Connecting to **cold** water feed

Step 2 - Install RO drain connector

Step 3 - Install RO faucet

Step 4 - Prepare water storage tank

Step 5 - Place system manifold and Restructuring platform

Step 6 - Connect tubing

Step 8 - Pressure Test and Purge System

Step 9 - Plug in systems UV light

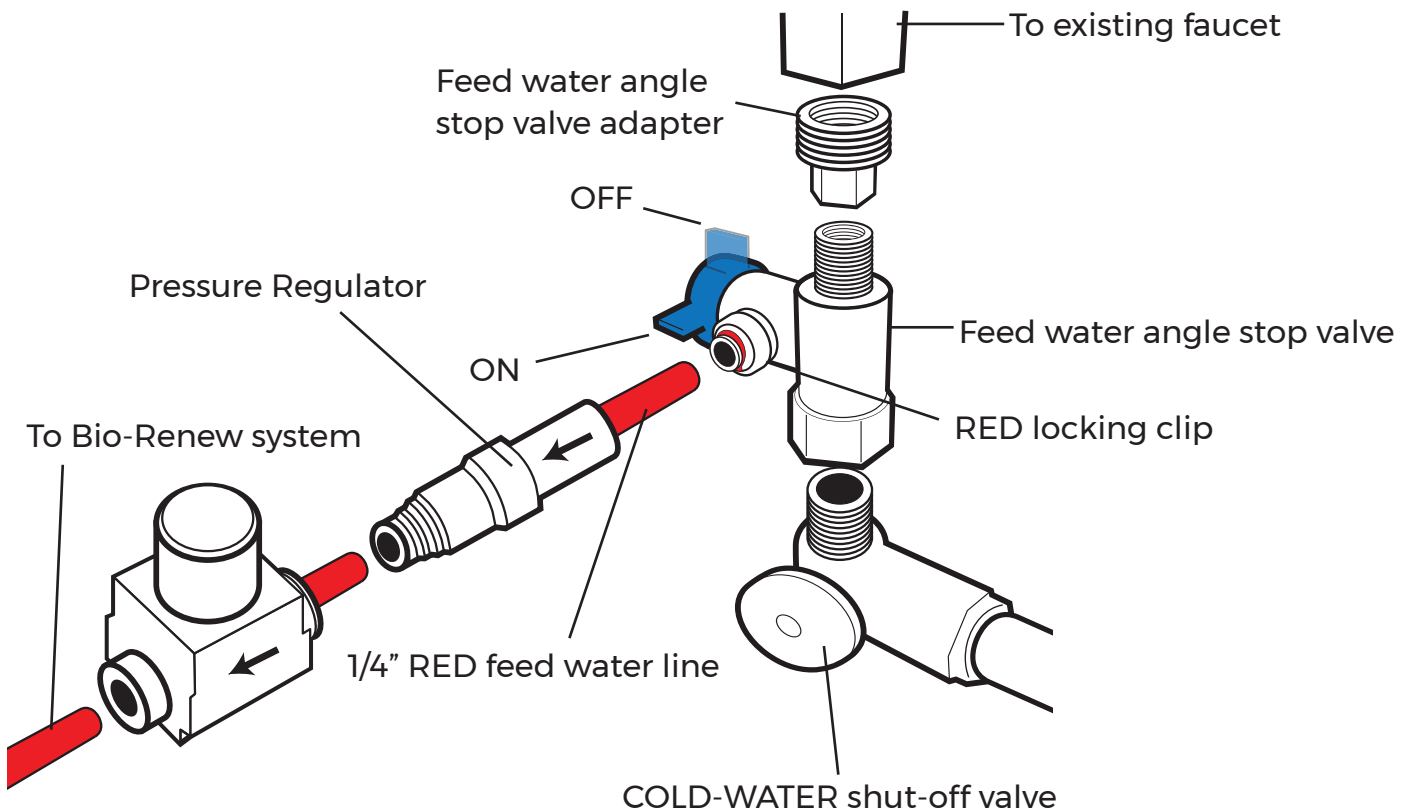
WARNING: Using a qualified installer is recommended.

Proper installation is the responsibility of the installer.

Product failure due to improper installation is not covered under the warranty.

Connecting to feed water

STEP 1: Angle Stop Valve



Locate the COLD-WATER Shut-Off Valve underneath the sink and turn it OFF.

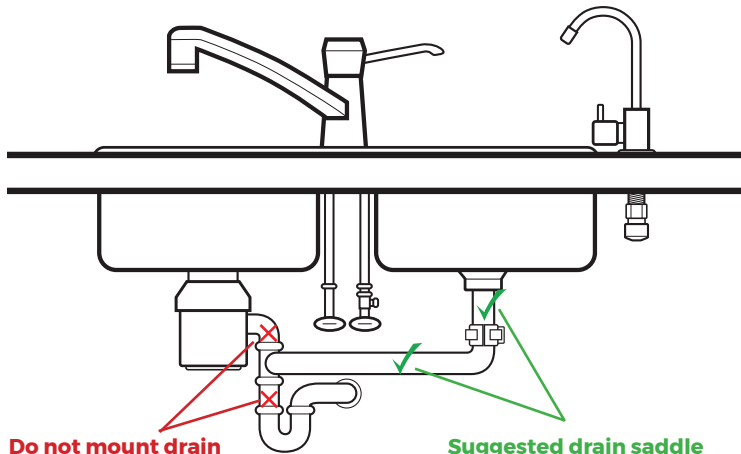
2. OPEN the COLD-WATER faucet to release the pressure.
3. On the COLD-WATER fitting to the sink, disconnect the flex line from the stand pipe.
4. For traditional piping, an Angle Stop Valve has been supplied. This adapter can be used for both 3/8" or 1/2" feed line plumbing. Simply switch the adapter nut one side of the adapter valve to the other.
5. Thread the female portion of the Angle Stop Valve on to the Cold-Water Shut-Off Valve and re-connect the flex lines to the male threads. If your plumbing is different, connect to the COLD-WATER line with a Saddle Valve or another Valve that is applicable.

Note: If the cold water shut off valve can not turn off the water, the main water supply to the house must be shut off for the installation. Another option is to use a "self piercing saddle valve" from a local hardware store.

These installation instructions are prepared for use by a licensed plumber or contractor.

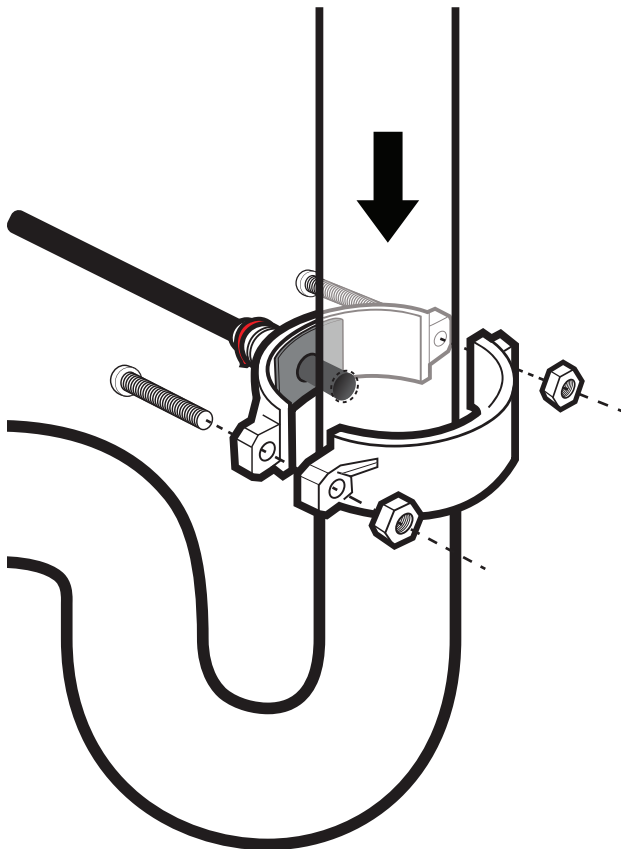
Installing RO drain line

STEP 2: Drain Saddle Valve



A Drain Saddle Valve is used to connect the 1/4" BLACK Brine Out Line to the drain pipe under the sink. It is designed to fit around a standard 1 1/2" OD drain pipe. The drain saddle valve should always be installed before the p-trap and on a vertical or horizontal drain pipe.

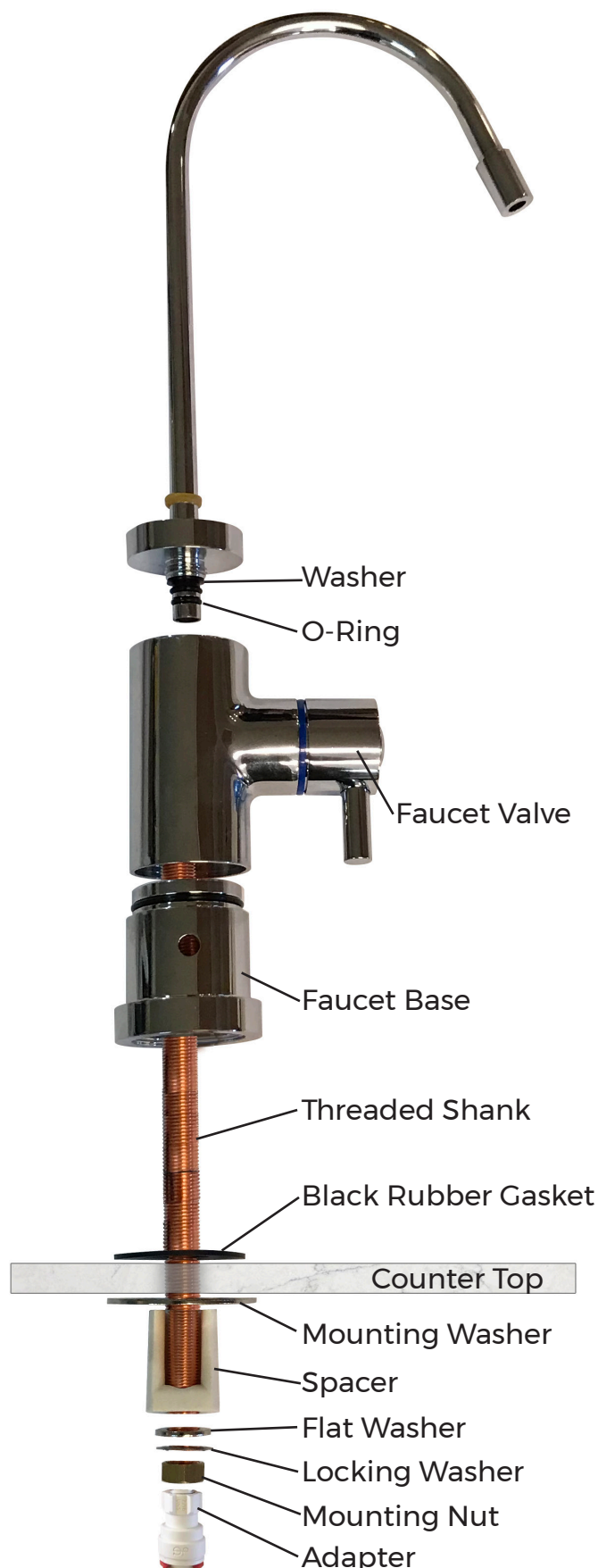
1. Position the drain saddle valve at selected location and mark the opening.
2. Drill 1/4" hole at mark through one side of pipe.
3. Remove backing from foam gasket and place adhesive side to the fitting half of drain clamp around hole.
4. Position both halves of drain saddle on drain pipe so the opening aligns with drilled hole. Use a small drill bit to verify that drain clamp is properly aligned.
5. Secure drain saddle clamp with bolts and nuts provided. Do not over tighten. Make sure there is equal space between saddle valves on each side.



Never mount drain saddle near garbage disposal to avoid clogging the drain line with debris.

RO Faucet

STEP 3: RO Faucet Installation



The Faucet may be installed on any flat surface. Check the underside of the location for interference. You may use an existing hole on the sink or drill a new hole.

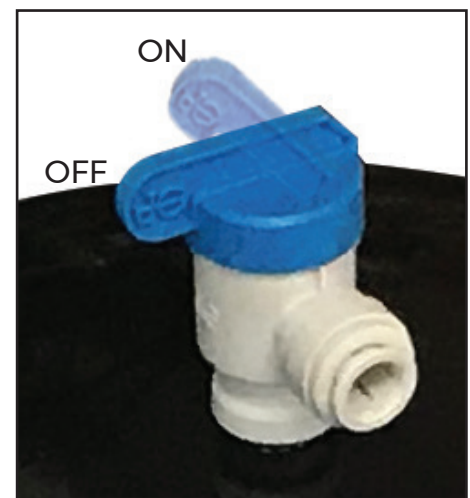
1. Determine the desired location for the Faucet.
2. Make a 7/8" diameter hole using the appropriate tools for the existing materials. Hole must not exceed 1-1/8" diameter. If you are not familiar with tools and materials for this consider hiring a professional.
3. On top of the sink, insert the Faucet Base, Inlet Tube, then Black Rubber Gasket in that order over the Threaded Shank.
4. Under the sink, install the Mounting Washer, Spacer, Flat Washer, and Locking washer over the Threaded Shank. Screw on the Mounting Nut and tighten.
5. Thread the Adapter to the end of the Threaded Shank. Make sure it is tight but do not over tighten.

Note: This faucet is for use with cold water supply only

Do not use for hot water applications

Water Storage Tank

STEP 4: Preparation of Water Storage Tank



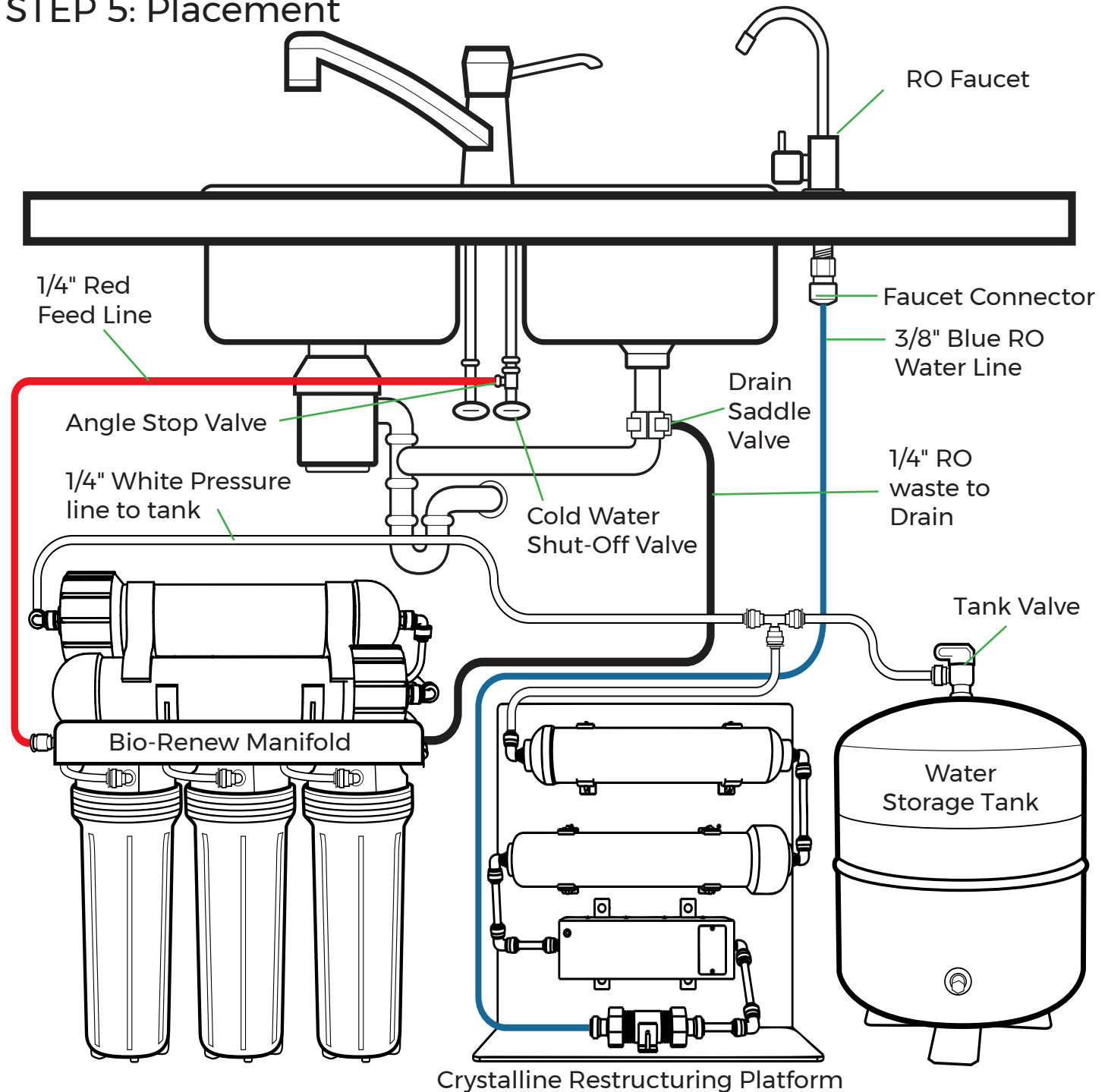
NOTE: The pre-charge on the Water Storage Tank is set at 7-10 psi by the manufacture. If the air pressure is low, remove the blue cap to expose the schrader valve. On an empty tank, add air using a standard floor pump.

1. Open the box and remove the stand from the top of the Water Storage Tank.
2. Wrap the stainless-steel water connection 6-8 times with plumbers (Teflon) tape only.
3. Thread the Tank Valve onto the stainless-steel water connection. Make sure it is tight but do not over-tighten.

Note: Leave blue cap on schrader valve. Only remove if pressure increase is needed

Placement and Connections

STEP 5: Placement

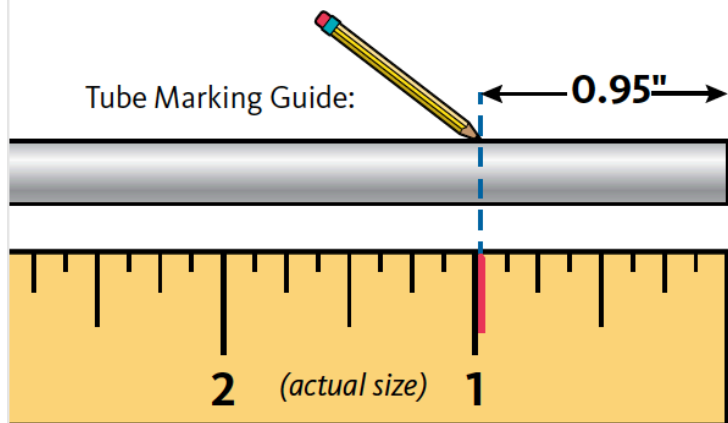


LOCATION: Though most often thought of as an under the kitchen sink counter device, locating the system in a basement, laundry room, or garage may also be convenient, depending on your circumstances.

PLACEMENT: The system should not be further than 10 feet from a drain. Hang the Bio-Renew Manifold on a wall or cabinet side wall using the holes in the back of the bracket or simply rest on floor. If hung leave at least 3" clearance below the system so that filter cartridges can be easily replaced. Since the tank is pressurized, it can stand up vertical or lie down horizontal with the provided base.

Placement and Connections

STEP 5 Continued: Connections



Tubing Do's

Insert tubing ALL THE WAY IN to prevent leaking. In most cases, up to nearly a full inch.

Wet end of tubing to more easily insert into all inlets and outlets.

Cut excess tubing in order to prevent crimping, kinks, loops or folds.

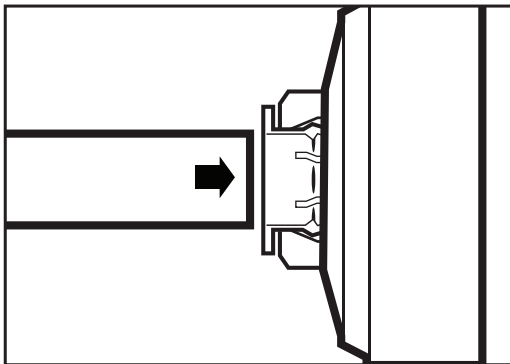
Tubing Don't's

DO NOT cut tubing too short. Always double check measurements before cutting.

DO NOT bend or crimp or kink tubing.

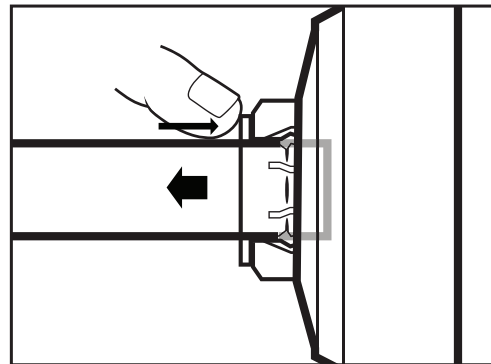
DO NOT discard excess tubing.

To Attach Tubing



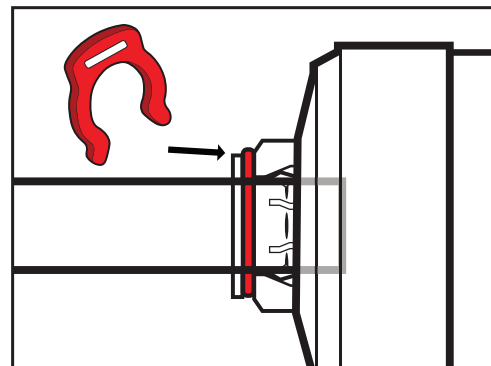
Push tubing straight in as far as it will go.

To Release Tubing



Push in collet while simultaneously pulling on tubing

To Insert Locking Clip



Optional RED locking clip slides between collet and fitting.

Start-Up

STEP 6: Start-Up procedures

1. CLOSE the Tank Valve and OPEN the Angle Stop Valve. If any leaks are noted, CLOSE the Angle Stop Valve and correct before proceeding.

2. OPEN the Faucet. After 5 minutes, water will slowly begin to drip out of the Faucet. This will flush out the dust, debris, air and odor from the system.

3. Check system for leaks; tighten when necessary.

4. If possible, use a flashlight to view down the drain to make sure the system is producing waste (brine) water. You should hear the sound of water going down the drain pipe.

5. The Water Storage Tank will fill in about 1-2 hours, depending on the incoming water pressure.

6. Once Tank is full a steady flow of water is being delivered from faucet, the UV can be plugged in.

Maintenance

Filter replacement procedures

NOTE: While performing filter changes it is recommended to have a small bucket and a towel handy to catch and dry up any residual water that may leak out from the system.

SYSTEM PREPARATION (pre-service check)

1. Turn OFF Angle Stop Valve.
2. Turn OFF Tank Valve.
3. OPEN Faucet to relieve pressure.

CARTRIDGE REPLACEMENT

1. Using the supplied Filter Housing Wrench remove the filter housing from Bio-Renew Manifold.
2. Taking note of order and the direction of flow, remove and discard old cartridges.
3. Install new cartridges into system in proper order previously noted.

IN-LINE FILTER REPLACEMENT

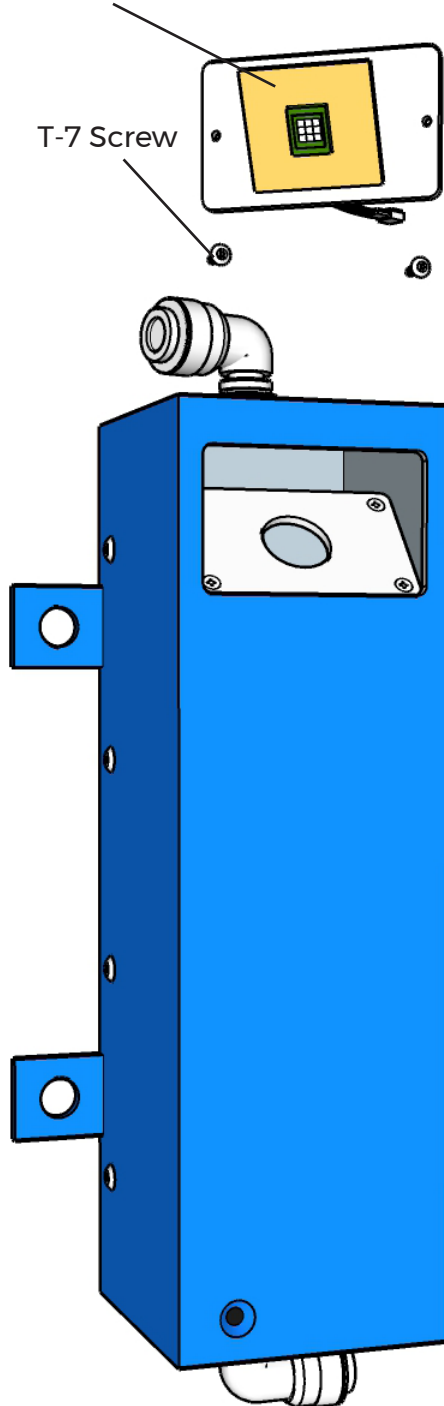
1. Remove tubing from the filter you wish to replace by first removing the optional RED locking clip. Then push in the collet on the quick connect fitting while simultaneously pulling on the tubing. (See pg 9)
2. Replace the filter with the new unit taking note of the direction of flow.
3. Fully insert tubing back into fitting until it hits the internal stop.
4. Replace locking clip by sliding it in between collet and fitting. Make sure it is fully seated.
5. Give the tube a gentle tug to ensure proper connection.
6. Complete this process for all cartridges being replaced

SYSTEM FLUSH (post-service check)

1. Turn ON Angle Stop Valve.
2. If any leaks are noted, CLOSE the Angle Stop Valve and correct before proceeding.
3. Water will slowly begin to drip out of the system Faucet. Let water run for approximately 5 minutes or until water runs clear. This will flush out the system.
4. Once the filters have been flushed, CLOSE the Faucet and OPEN the Tank Valve.
5. If you chose to drain The Water Storage Tank it will fill and automatically shut off in about 1-2 hours, depending on the incoming water pressure.

UV Bulb Replacement

UV Replacement



Step 1

CLOSE the Tank Valve and Close the Angle Stop Valve.

Step 2

Unplug UV Light

Step 3

Unscrew Faceplate screws using T-7 wrench and remove from UV Device.

Step 4

Remove LED UV bulb and disconnect wire connector.

Step 5

Connect wire connector of new bulb and place into position.

Step 6

Check to make sure wires are in proper place and screw Faceplate back onto UV Device.

Step 7

Plug in UV

Step 8

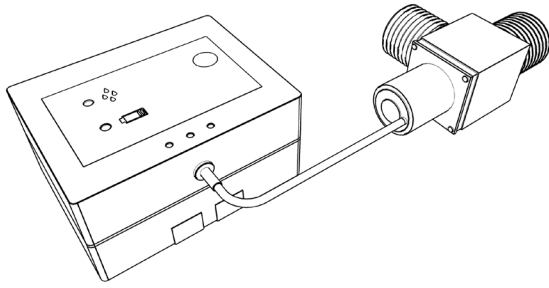
OPEN the Angle Stop Valve. If any leaks are noted, CLOSE the Angle Stop Valve and correct before proceeding. OPEN the Tank Valve.

Caution:

Unit can potentially be hot, be sure power is off and wait for it to be cool.

*** Never look directly into UV bulb when active.**

Leak Detection



All systems are built with an in-line leak detector. The location may vary depending on placement of the unit. Installation should be on the floor in close proximity of the unit. If you hear beeping and the machine is not producing water then this means a leak has been detected and the automatic incoming water shut off has been activated.

Important Note:

1. The solenoid valve may be stuck by dirty water. Please check the solenoid valve periodically. Having the metal plate of the control box contacted with water. If the solenoid valve can not shut off the water. Please call technician to Alcan and fix it.
2. The leak controller must be at least 30 cm from any water heater.
3. The two metal plates of the leak controller case must be contact ed with floor.
4. The leak controller must be put on the position where the leaking water may go through most likely.

1.0 Installation:

Install the proper fitting with the solenoid valve. The thread of solenoid valve is 1/2" BSP male. Then connect the in let tube of the water treatment system with the solenoid valve.

2.0 Reset to work

Keep pressing button for 4 seconds, the leak controller activates solenoid. The leak controller will generate a long beep sound.

3.0 Auto shut off when water leak is detected

The leak controller shuts off water and generates an acoustic signal, "beep-beep", and blinks the blue light continuously to notify the water leak is detected. After the leakage problem is solved, keep pressing button for 4 seconds, the leak controller turns on water again with a long beep sound.

4.0 Low power alert and shut off

When the battery power is low, the leak controller blinks red light and generates an acoustic signal "beep" sound continuously to notify user to replace the battery with a new 9V alkaline battery. User needs to change the battery immediately to keep the leak controller functional The leak controller may also shut off water. It depends on the battery power. After replacing with a new 9V alkaline battery, the alert will be released. Pressing the button for 4 seconds to turn on water again if the water is shut off

Trouble Shooting

Problem	Cause	Solutions
Milky colored water	- Air in the system	* Air in the system is a normal occurrence with initial startup of system. This milky look will disappear during normal use within 1 to 2 weeks
Fishy smell	- New filters	* Slight odor is a normal occurrence with initial startup of system. OPEN Faucet to flush the system.
Slow stream from Faucet	- System just starting up - Air pressure in the Water Storage Tank is low	* Normally it takes 1-2 hours to fill the Water Storage Tank. Low water pressure and/or temperature can reduce production rate. * Add pressure to the Water Storage Tank. The pressure should be 7-10 psi when the tank is completely empty.
No water or slow production from Faucet	- Low water pressure - Crimps in tubing - Clogged pre-filters - Fouled High Efficiency Reverse Osmosis Membrane - New System - Angle Stop Valve CLOSED - Tank Valve CLOSED	* Add a booster pump. * Make sure all tubing is straight. * Replace pre-filters. * Replace High Efficiency Reverse Osmosis Membrane. * Wait at least 5 minutes for water to travel through System to Faucet. * OPEN Angle Stop Valve. * OPEN Tank Valve and allow Water Storage Tank to fill to maximum capacity.
Unusual taste or smell	- Coconut Carbon is depleted - Fouled High Efficiency Reverse Osmosis Membrane	* Replace Re-mineralization + Coconut Carbon Cartridge. * Replace High Efficiency Reverse Osmosis Membrane.
No drain water	- Clogged Flush/Flow Valve - Clogged Auto Shut-Off Valve - Clogged Filter(s)	* Replace Flush/Flow Valve. * Replace Auto Shut-Off Valve. * Replace Filter(s).
Leaks*	- Fittings are not tightened - Loose tubing - Damaged O-Ring	* Tighten fittings as necessary. * Make sure tubing is fully seated in fittings. * Replace the O-Ring.