

Domestic RO Unit

Installation and Maintenance Manual



Manufactured exclusively for
Wholesale Market LLC
636-356-9911



RO-50G/75G/80G/100G/125G

Very Important

After your system is installed, the pre-filters need to be flushed. See owner's manual under **OPERATION AND MAINTENANCE**

To flush your filters, turn the blue valve (in the picture below) to **ON POSITION**.

After the filters have been flushed, make sure the blue valve is in **OFF POSITION** for regular operation.



INTRODUCTION

We would like to thank you for choosing the **Bluonics** Reverse Osmosis Unit. This is our standard 5-stage filtration unit with optional 6th stage filtration add-on. Our unit has been manufactured to strict quality standards to ensure you receive the best product possible. This unit is your first step to cleaner, healthier and better tasting water. The stages and their functions are outlined below.

First Stage: Spun PP Filter – removes larger particles suspended in water.

Second Stage: Granular Carbon Filter – removes organics, chlorine, odor, and turbidity.

Third Stage: Block Carbon Filter – further removes any organics, chlorine, odor and turbidity.

- Fourth Stage: RO Membrane** – removes bacteria, heavy metals, dissolved matter, and salinity.
- Fifth Stage: Inline Carbon Filter (post filter)** – adjusts the taste of treated water.
- Optional Sixth Stage add-ons include:**
 - Mineralized Ball Filter** – reincorporates healthy minerals back in to treated water.
 - Ultraviolet Sterilizer** – kills any bacteria, virus, or organisms present in water.

PACKAGE CONTENTS

- Reverse Osmosis Unit** – 1 pcs
- Housing Wrench** – 2 pcs
- Food Grade Tubing** – 4 pc (Red, White, Yellow and Blue)
- Faucet** – 1 pcs
- Accessories** – Tube Plug, Screws, Drain Clamp, Tee Fitting, Ball Valve, Feed Water Valve
- RO Membrane** – 1 pcs
- Manual** – 1 pcs

TECHNICAL SPECIFICATIONS

- RO Element Capacity:** 50/75/80/100/125 GPD
- Tank Capacity :** 3.2G Steel or 3.0G Plastic
- Inlet TDS:** ≤ 250ppm
- Chlorine Level:** ≤ 0.2ppm
- Average RO Rejection Rate:** 98%
- Inlet Water Pressure (min/Max):** 40-80 psi
- Inlet Water Temperature (min/Max):** 5°C - 45°C
- Flush Type** Manual

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
No product water	Water supply is off	Turn on feed water
Not enough product water	Water supply is blocker	Clear restriction
	Feed water valve is plugged	Open valve or unplug
	No drain flow	Clear or replace check valve
Pump not running	Low feed water pressure	Check source water supply
	No power supply or loose connection	Turn on power supply
	Transformer burnt out	Replace filter cartridges
Pump is running but system is not producing water	Pre-filters plugged	Replace filter cartridges
	Inlet solenoid valve not working	Repair or replace valve
System does not shut off	Auto shut off switch not working	Repair or replace switch
Abnormal pump noise	Pre-filters plugged	Replace filter cartridges
	Low feed water pressure	Adjust feed water pressure
No drain water	Plugged drain flow restrictor	Replace
	Tubing connection incorrect	Check/reinstall tubing
Tubing leaks	Defective or damaged tubing	Replace section of tubing

BEFORE YOU START

- Read through all instructions before beginning installation and using this system. Follow all steps exactly or risk damaging system/incorrect operation.
- This system contains filters that need to be replaced at certain intervals. Replacement intervals will vary according to use, please contact your local dealer for details.
- Please install system on potable water only . On non-potable water sources, system will not function properly and additional pre-treatment may be needed.
- Ensure source water pressure is between 3/ , 7/ **psi**. If source water pressure exceeds maximum pressure a pressure reduction valve may be needed, consult your local dealer.
- Ensure source water temperature is between 3/ °E , 00/ °E | System will not function properly if these temperatures are exceeded. **DO NOT INSTALL ON HOT WATER SOURCE.**
- Do not use system on noticeably contaminated water such raw sewage or well water.

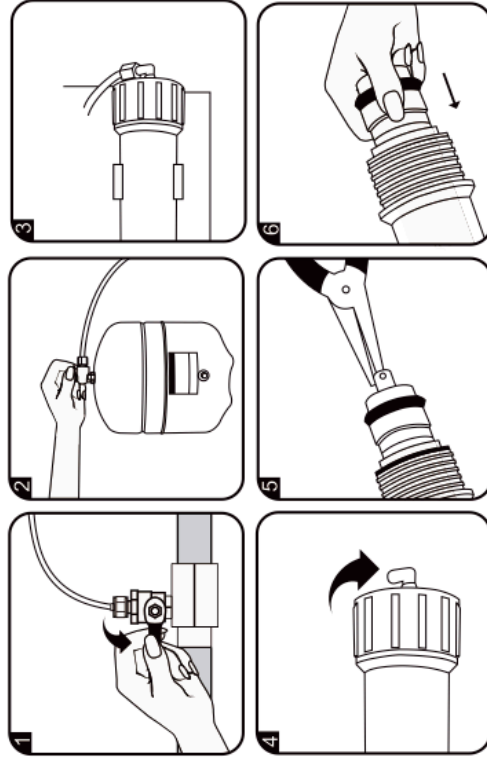
Filter Replacement

- Close Feed Water Valve.
- Close Tank Ball Valve on Pressure Tank.
- Open Faucet and drain any remaining water from system.
- Replace filters, reconnect, and open valves.
- Perform pre-filter flush after filters have been changed

Note: Diagrams on how to connect using quick connect fittings can be found in the installation section.

Membrane Replacement

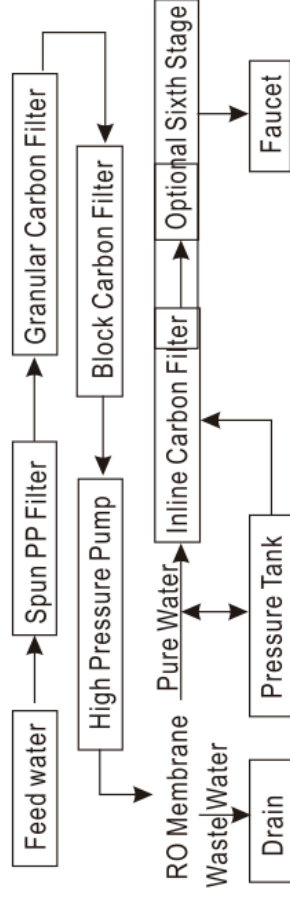
- Close Feed Water Valve.
- Close Tank Ball Valve on Pressure Tank.
- Open Faucet and drain any remaining water from system.
- Open membrane housing and remove used membrane.
- Follow the same procedure as RO membrane installation to replace RO membrane.



CAUTION:

- Do not disassemble, open, or modify this unit. Tampering with the unit may cause failure or damage and will void warranty.
- Do not cover the unit, as this will prevent proper heat dissipation and can cause damage or fire.
- Do not place objects on top of the unit as this may cause damage to the unit and may cause leaking.
- Follow all recommended operating pressures and temperature, failure to do so will cause damage to the unit and void warranty.

HOW YOUR SYSTEMS WORKS



Note: membrane may be severely damaged if system is run without flushing pre-filters. Discard all water from flush, it is not suitable for use or consumption.

- After flushing pre-filters connect and open all valves.
 - Wait approximately 2 minutes before opening faucet.
 - Allow system to flush for first 10-15 minutes with faucet open.
- Do not use water from RO unit at this time.

Flushing the Pressure Tank

- After flushing the Pre-Filters, allow the unit to operate and fill the Pressure Tank.
- Tank will take approximately 3.5 hours to fill. Once tank is full, discharge Pressure Tank by leaving faucet open.
- Once Tank is completely empty, close faucet and allow tank to fill again.

After the Pressure Tank has been flushed, the unit is ready for use. After flushing the system is ready to use.

Regular Operation

Once system has been set up, it will operate and begin treating water automatically. Once the faucet is closed, the unit will switch off automatically when the tank is full.

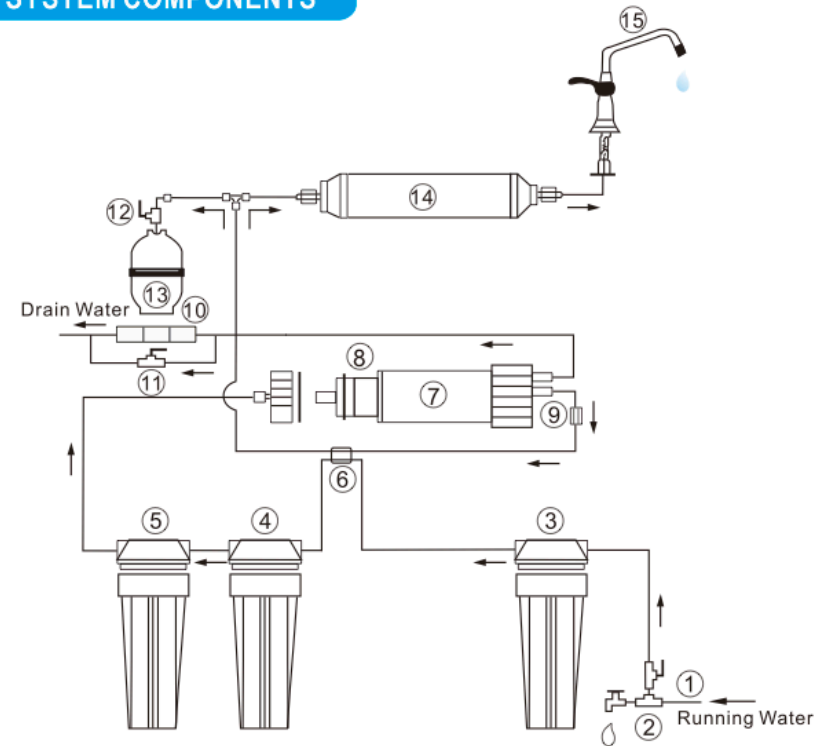
OPERATION AND MAINTENANCE

⦿ Pre-filter Flushing (initial setup, before installing RO Element)

Prepare system for operation by flushing pre-filters:

- 💧 After your system is installed, the filters need to be flushed.
- 💧 To flush your filters, turn the blue valve in front to ON POSITION.
- 💧 Continue flushing until output water is visibly clean.
- 💧 After the filters have been flushed, make sure the blue valve is in OFF POSOTION for regular operation.

SYSTEM COMPONENTS



- | | | |
|---------------------------|----------------------------------|----------------------------------|
| 1. Feed Water Valve | 2. Tee Fitting | 3. PP Spun Fiber |
| 4. Granular Carbon Filter | 5. Block Carbon Filter | 6. Auto Shut Off Valve (option) |
| 7. Membrane Housing | 8. RO Membrane | 9. Check Valve |
| 10. Drain Restrictor | 11. By-pass flush Valve (option) | 12. Ball Valve |
| 13. Pressure Tank | 14. Inline Carbon Filter | 15. Faucet |

INSTALLATION

Tools and Parts Required



Knife



Electric Drill



Seal Tape



Hammer



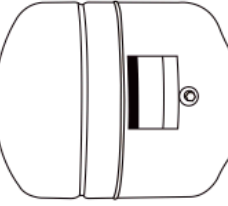
Monkey Wrench



Scissors



Faucet



Tank



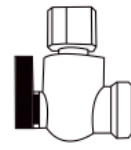
Housing Wrench



Water Pipe

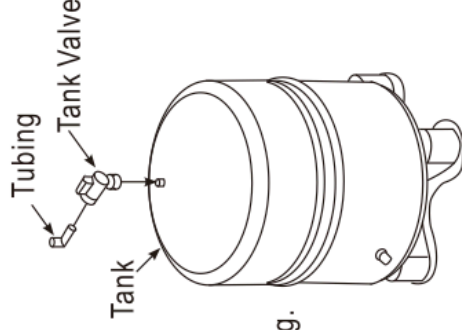


Clip



Tank Ball Valve

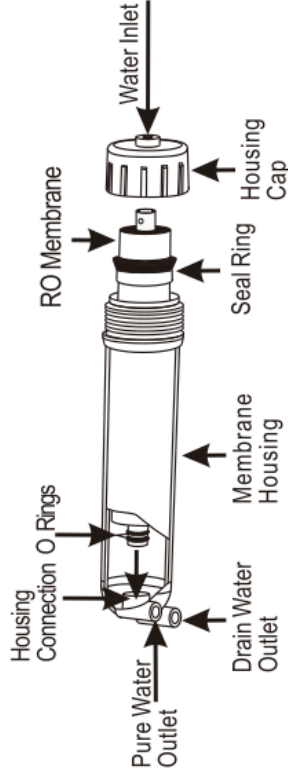
Install Tank



- Hand tighten plastic.
- Shut-off valve to tank.
- Then connect yellow color tubing.

Install RO Membrane Element

NOTE: Before proceeding with membrane element installation, please flush pre-filters thoroughly. (Instructions on how to perform filter flush provided in next section)



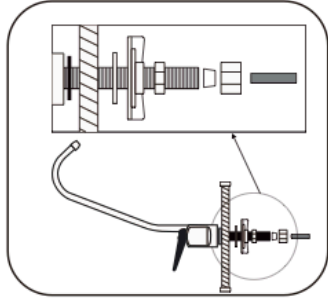
- Remove RO housing cap using wrench.
- Remove RO element from packaging.
- Insert RO element into housing with the small double O rings facing inward.
- Install membrane housing cap and tighten with wrench provided.

- Attach **Blue Pure Water tubing** to the bottom of faucet and connect tubing to unit.

CAUTION: Check that tubing is connected correctly according to Connection Diagram at beginning of section.

• Install Pre-Filters

- Remove Pre-Filters from packaging.
- Place filters in appropriate housings according to labels and install filter housing from right to left in the following order: PP, GAC, CTO.
- Tightening housings with wrench provided.



Faucet Bracket



RO Membrane



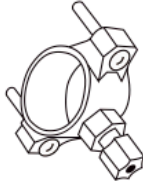
Manual



Feed Water Valve

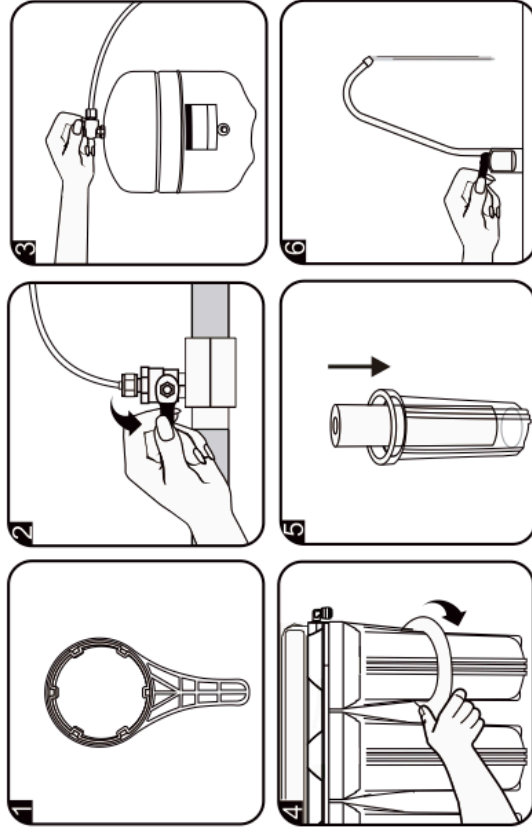


Tee Fitting

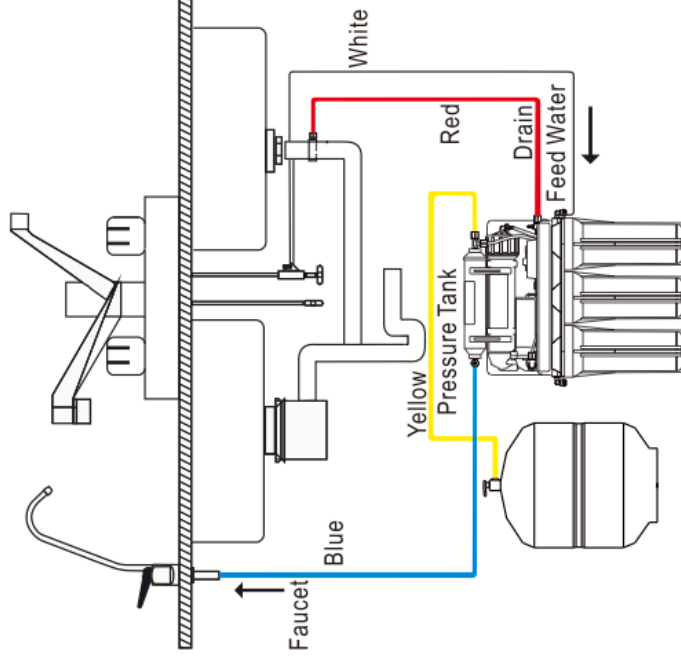


Drain Clamp

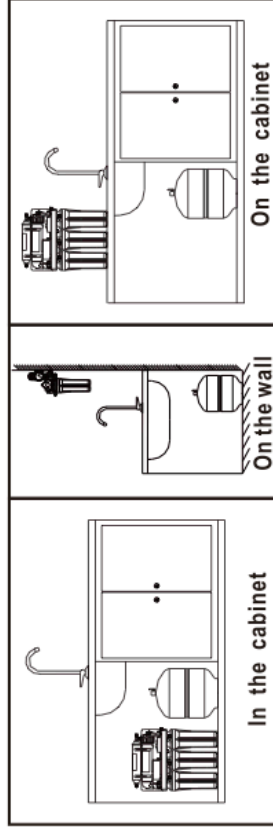
• Unit placement



Note: When installing housings make sure housing is level and even to avoid leaking.



- The unit can be placed flat or upright and on top, inside, or under the cabinet. Feed Water connection should be as close as possible to unit. However, if due to space or other limitations, this unit can be placed where it is convenient.
- When choosing a location for the unit, remember to have easy access to cold water line, drain pipe, power outlet, and enough room to change filters.



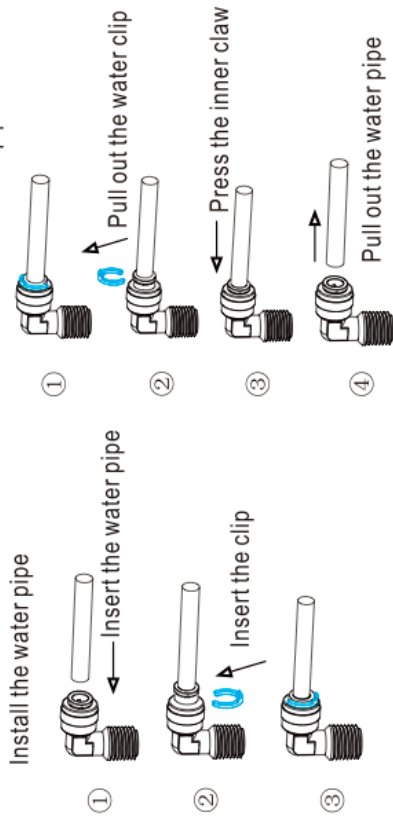
NOTE: All components and tubing should be located in an area not exposed to freezing temperatures or direct sunlight.

- **Drain Clamp Installation**
 - Position drain clamp on drain pipe above the drain trap and tighten securely.
 - Using the drain clamp as a guide, drill a 6mm hole, enough for the 1/4" tubing to pass, through one side of the drain pipe. **DO NOT** drill through both sides.
 - Connect **Red Waste Water Tubing** from unit to Drain Clamp.

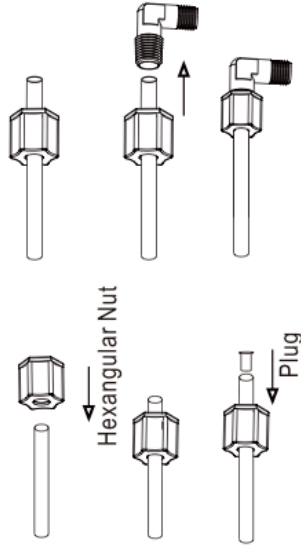
• **Tubing Connection**

Refer to the following diagram for how to properly install the Quick fittings and JACO fittings.

Quick Fitting



JACO Fitting



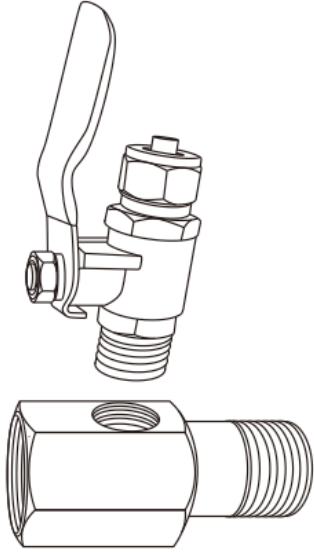
• **Faucet Installation**

- Select a convenient location near your sink to place the faucet.
- Drill a hole 12mm in diameter in counter top.
- Place washers, plates, seals and nuts in order as per diagram and tighten on to counter.

Install the Feed water valve

Install the Feed water valve Tee fitting, and then connect to source water.

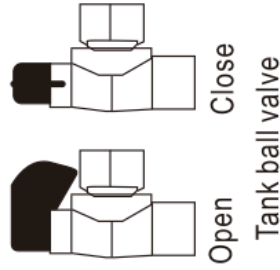
Caution: The water supply to your unit **MUST** be from **COLD WATER LINE**.



NOTE: Use only a **cold potable water** supply as Feed Water, hot water will damage your unit. Softened Feed Water will extend the life of the RO Membrane.

Pressure Tank

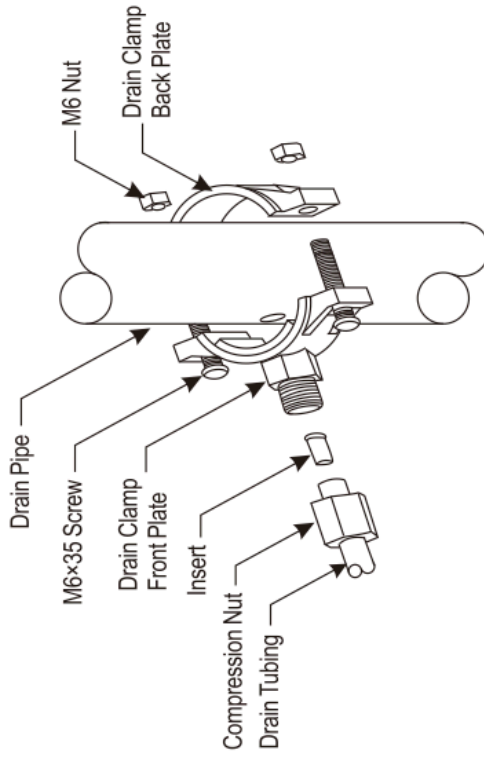
- Keep Pressure Tank within 10 feet of faucet.
- If longer length of tubing is needed, use 3/8" tubing only to prevent pressure drop.
- Tank can weigh up to 30lbs when full, find firm and level flooring.
- Install Ball Valve by screwing Valve on to Tank and apply Teflon tape to prevent leaking.
- Connect Red tubing from post filter to Pressure Tank.



NOTE: When cutting the tubing make clean, square, cuts, failing to do so result in poor connection and possible leaks.

CAUTION: The lowest point of the line should be the point of connection to the Drain Clamp. There should be no sag in the line as this may cause excessive noise as the reject water is flowing to drain.

DRAIN CLAMP ASSEMBLY



Feed Water Valve and Tee Fitting

- Install Tee Fitting and Feed Water Valve as per diagram.
- Wrap threads of Feed Water Valve and Tee Fitting with Teflon tape.
- Connect White Feed Water Tubing from unit to Feed Water Valve.