

BLUONICS

THE PURE WATER EFFECT



400 GPD TANKLESS 5 STAGE REVERSE OSMOSIS

INSTALLATION MANUAL

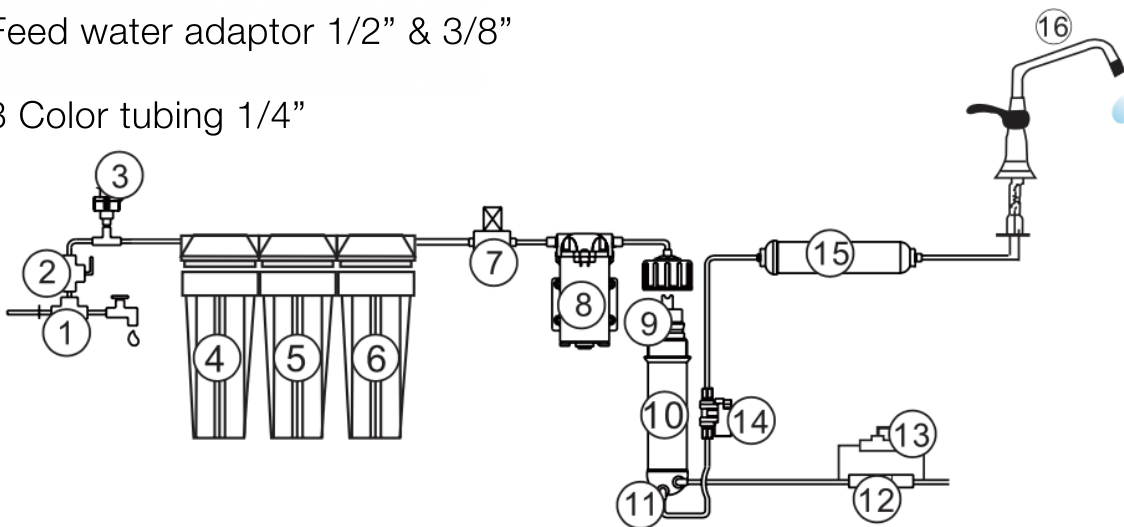
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PACKAGE INCLUDES

- Reverse Osmosis Unit
- 3 Filter cartridges reside inside the 3 housings
- Faucet with washers and a white quick connect faucet adapter
- 1 RO Membrane
- 1 Post Filter (T33 Carbon Filter)
- 1 Booster Ballast and High Pressure switch (Only in models with booster pump)
- Wrench for opening filter housings
- Drain clamps
- Feed water adaptor 1/2" & 3/8"
- 3 Color tubing 1/4"



- | | | |
|-------------------------|---------------------------|--------------------------|
| 1. Feed Water Valve | 2. Tee Fitting | 3. Low Pressure Switch |
| 4. PP Spun Fiber | 5. Granular Carbon Filter | 6. Block Carbon Filter |
| 7. Inlet Solenoid Valve | 8. Booster Pump | 9. Membrane Housing |
| 10. RO Membrane | 11. Check Valve | 12. Drain Restrictor |
| 13. By-pass flush Valve | 14. High Pressure Switch | 15. Inline Carbon Filter |
| 16. Faucet | | |

KNOW YOUR RO400 SYSTEM

Congratulations on your purchase! This is your first step to cleaner, healthier and better tasting water. This unit has been manufactured to the highest quality to ensure you receive best product possible.

- This manual covers 2 models: RO 400GPD both with and without the booster pump.
- Source Water Pressure:
 - 65-85 psi for RO400 without the booster pump
 - <45 psi for RO400 with the booster pump
- Feed Water Temperature: 40-100 F



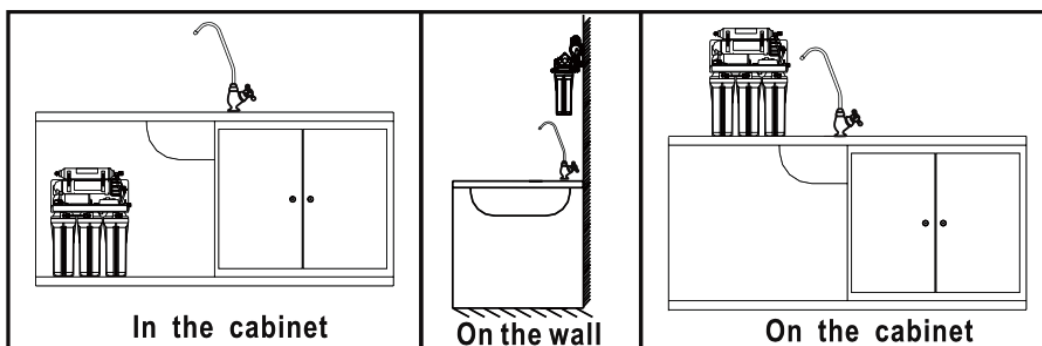
1. Stage 1 - Sediment filter
2. Stage 2 - GAC filter
3. Stage 3 - CTO carbon block filter
4. Stage 4 - Membrane
5. Stage 5 - In-line carbon filter
6. Booster pump (Only in model with booster pump)
7. Booster Ballast (Only in model with booster pump)
8. Quick connect fitting for water outlet

BEFORE YOU START THE INSTALLATION

- Please inspect the system before start installing the unit. Make sure nothing is damaged during shipping. If any part is broken or damaged, please contact Bluonics for an exchange or diagnosis.
- Read through all installation before proceeding with the installation.
- **DO NOT** connect the system to HOT water source
- This system contains filters that need to be replaced at certain interval.
 - **First 3 Stages** : Every 6-9 month
 - **RO Membrane**: Once every 4 years
 - **In-line Carbon Filter**: Once every 2 years
- The unit can be placed flat or upright, and on top, inside or under the cabinet.
- 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 the filters.
- Do not disassemble, open or modify this unit. Tampering with the unit may cause failure or damage and will void all warranties.



Important: Make sure the blue valve on the RO is in ON position to start the unit on flushing mode. See page 13 for details on flushing.



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

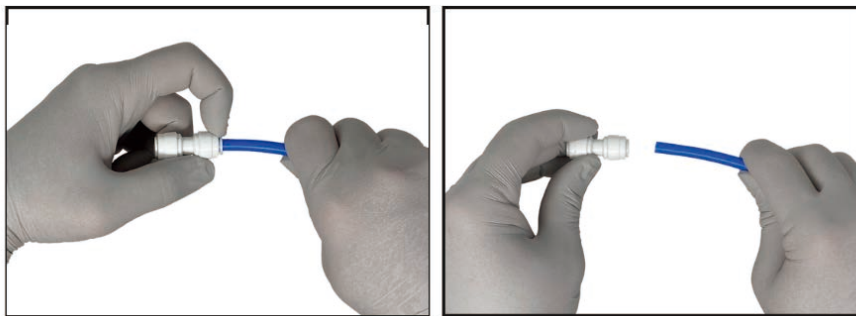
WE MADE IT EASY FOR YOU, WITH QUICK CONNECT

FITTING

The quick connect fittings come with an end plug that needs to be removed before the tubing can be connected. Please disconnect the end plugs from the quick connect fitting before connect the tubing.

TUBING CONNECTION

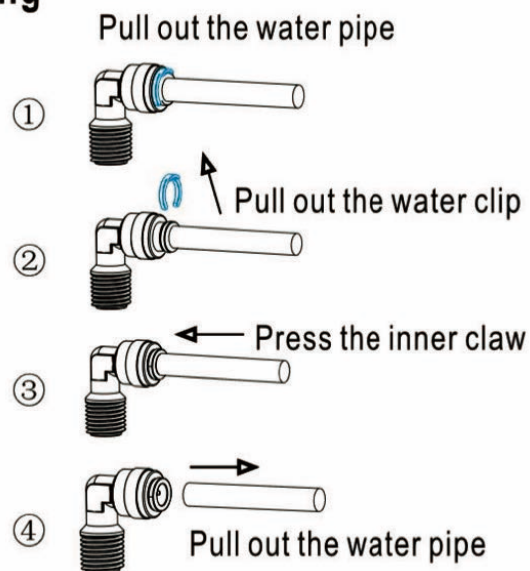
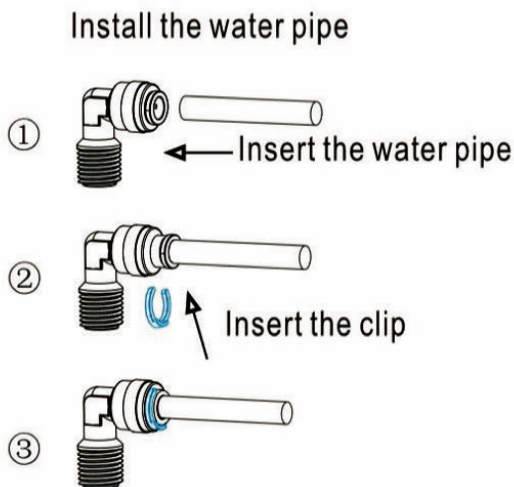
Refer to the following diagram for how to properly install the quick fitting.



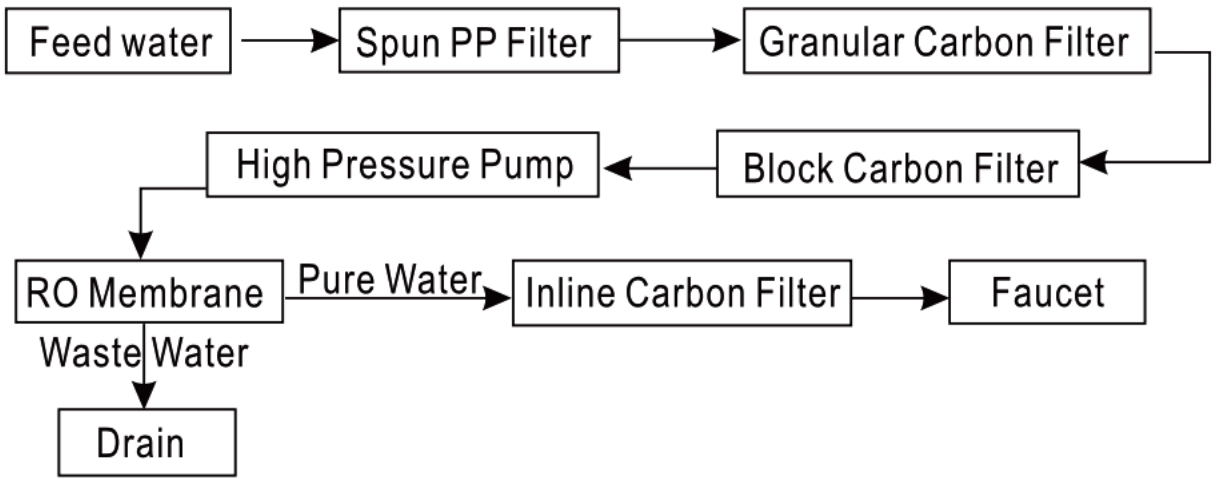
⦿ Tubing Connection

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

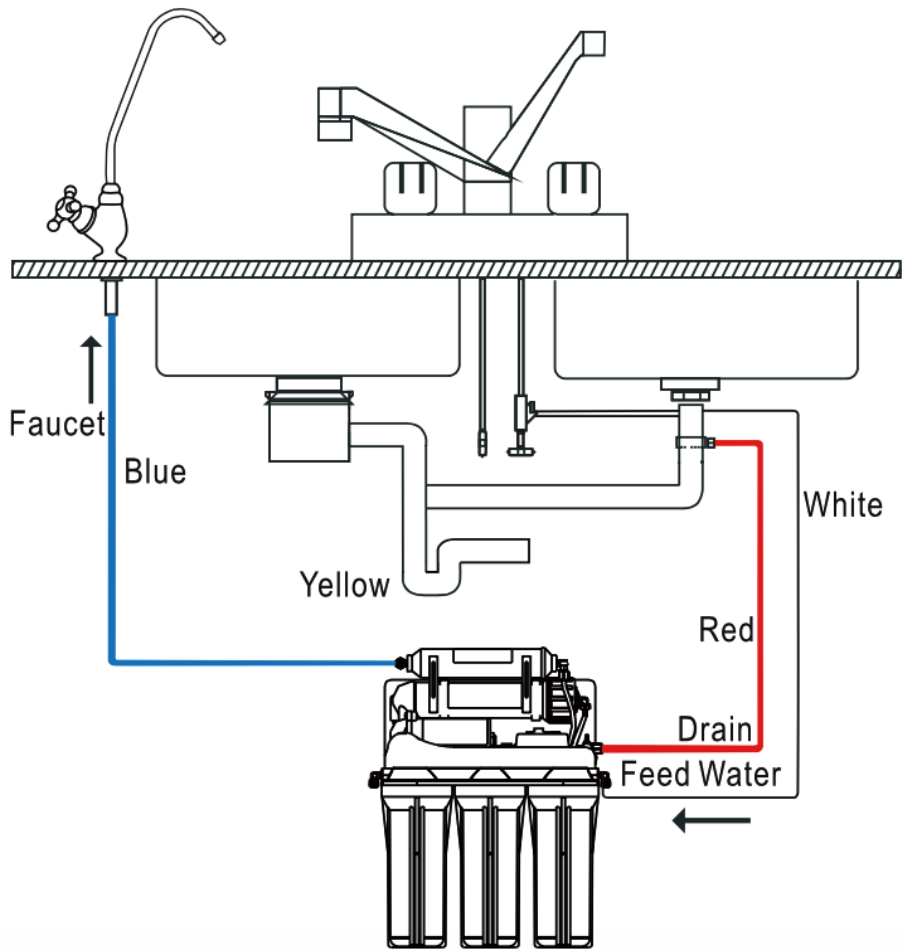
Quick Fitting



HOW YOUR SYSTEM WORKS



Unit placement



STEP 1

INSTALLATION

Assemble filters and filter housings

- Open the three filter housings on the bottom (use the wrench and turn them clockwise).
- Remove plastic wrap from all 3 filters, put them back into the housings and twist the housings onto the main RO unit. Turn clockwise to tighten.
- Make sure the O-ring in each housing placed correctly in the groove.

Note:

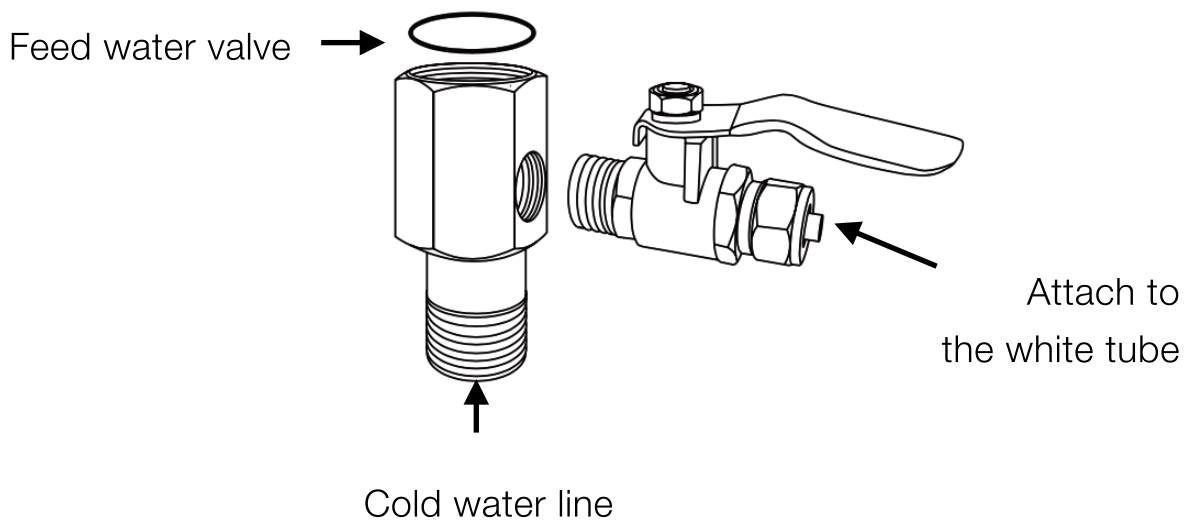
Sometimes it is easier to open the housings with the system laid down.

STEP 2

INSTALLATION

Feed Water Valve and T-Fitting

- Locate the cold water valve under the sink and turn it off.
- Choose the adapter that is the correct size for your cold water main pipe.
- Install T-fitting and feed water valve as diagram and connect it to source water.
- Wrap the threads of feed water valve and T-fitting with teflon tape.
- Connect white feed water tubing from the unit to feed water valve.



Note:

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

Hot water might damage your unit.

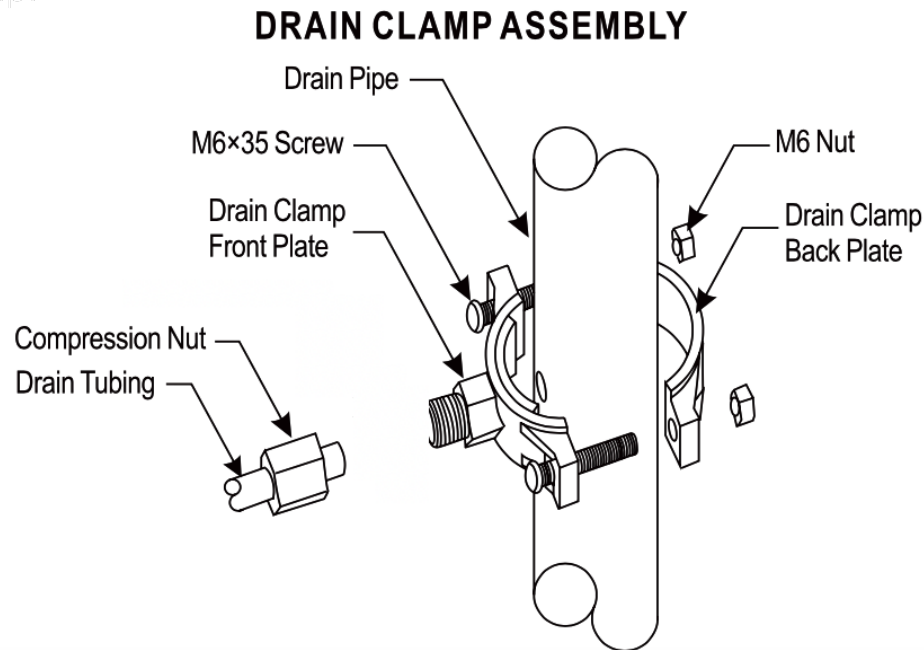
Softened source water will extend the life of the RO Membrane.

STEP 3

INSTALLATION

Drain Clamp Installation

- Locate the drain pipe under the sink.
- Drill a 1/4" hole through one side of the drain pipe, enough for the 1/4" tubing to pass through one side the drain pipe. **DO NOT** drill through both sides.
- Connect **RED WASTE WATER TUBING** from RO unit to drain clamp.
- Use the adhesive sponge inside the clamp to cover any gap between the pipe and the drain clamp.



Note:

Mount drain line as low as possible, no sag in the line as this may cause excessive noise as the reject water is flowing to the drain.

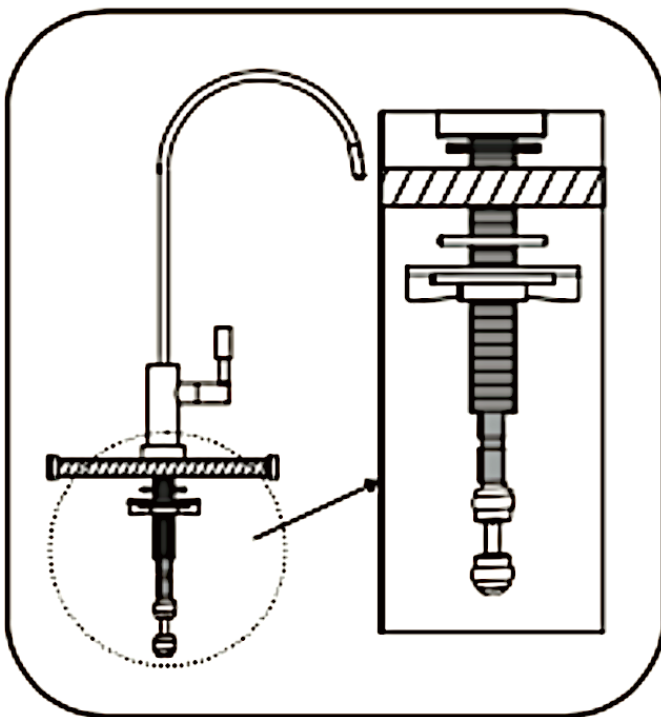
When cutting the tubing make clean square cut.

STEP 4

INSTALLATION

Faucet Installation

- Find a convenient location in your sink or near the sink.
- Drill a 1/2" diameter hole in the sink or in the counter top.
- Make sure the faucet stud will be accessible from below before drilling the hole.
- Place washers, plates, seals and nuts in order as per diagram and tighten on the counter.
- Connect the quick connect to the base of the faucet and to the outlet of the inline carbon filter (stage 5 filter).



Goes to blue tubing

Filter Installation

- Make sure the filters are unwrapped and in appropriate housing according to the label and tighten housing with wrench.
- Make sure all the housings are leveled to avoid leaking.
- **DO NOT** put the membrane in the system until you are done with flushing the pre filters. Pump and membrane can be severely damage if you system runs without flushing the three pre-filters.

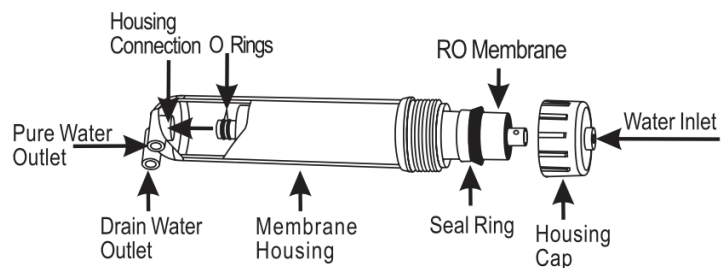
Pre-Filter Flushing

- Before installing the membrane, turn the blue valve (in the picture below) in **ON POSITION**.



- Open main water valve and allow water to run through the first 3 pre-filters.
- Discard water into a container or drain and continue flushing until output water is visibly clear.
- Turns the blue valve on **OFF POSITION**.

- Remove membrane housing cap, open the membrane package and insert the RO membrane into the housing with the small double O-rings facing inward.



- Install membrane housing cap and tighten with wrench.
- Open the main water valves, wait approximately 2 minute before opening the faucet.
- Allow system to flush for first 10-15 minutes with faucet open , after this, your system is ready to use.

MAINTENANCE

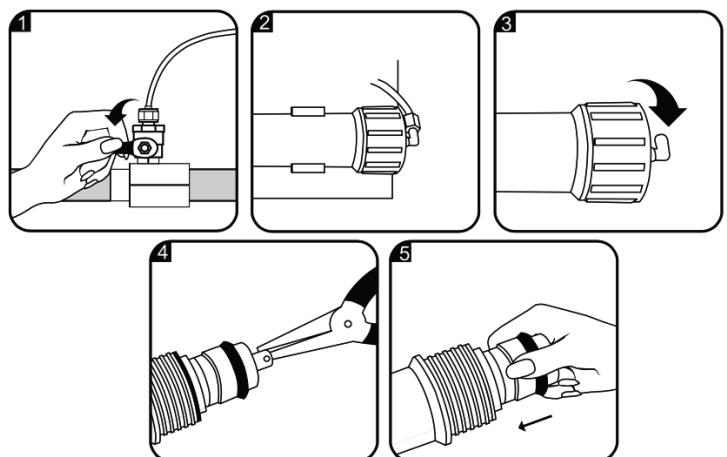
Filter Maintenance

To ensure the unit operates at its optimum level, routine maintenance is required. The frequency of maintenance depends on the quality of the feed water. Here are some guidelines for filter replacements, keep in mind the frequency of filter replacement may vary.

- Change Sediment PP Filter every 3-6 month
- Change Granulated Carbon Filter and CTO Carbon Block Filter every 6-12 month or as required
- Change RO Membrane every 24-48 month
- Change inline Carbon filter every 12-24 month
- If you are not going to use the unit for an extended period time, please disconnect unit from power supply and drain the system, if the unit has been shut down and not used for an extended period of time, perform the same flushing procedure as in the initial set-up.

Membrane Replacement

- Close feed water valve.
- Open faucet and drain any remaining water from the system.
- Open membrane housing and removed used membrane.
- Follow the same procedure as RO Membrane installation to replace the membrane.



BLUONICS RO SYSTEM TROUBLESHOOTING

Problem	Causes	Solutions
Slow water flow from faucet	Ro Membrane or Filters are in bad condition/Clogged	Replace
	Membrane not properly seated	Readjust
	Clogged flow restrictor	Unclog or replace
	Feed water valve closed	Open Valve
Water constantly goes down the drain	Clogged flow restrictor	Clean or replace
	Defective shut-off valve	Replace
Noisy air gap faucet or drain	Air pockets in Ro after installation	Tilt the system and let it run for a while
	New system or recent filter replacement	Will subside over time
	Bent tubing	Straighten all water lines
Cloudy water	Trapped air in the system or filters	Will subside over time
Bad water taste	Depleted filters or membrane	Replace Filters
	Fouled membrane	Replace + clean system periodically
	Stagnant water	Flush entire system
Leaking	Worn out or Misplaced O-ring	Reposition/replace
Noisy Gurgle	Too much water to the drain.	Locating the saddle on the crossover
Pump Not running	Low feed water pressure	Need a booster pump or increase water pressure
	Loos power connection	Check power supply
	Transformer burnt out	Replace
Pump is on but no water	Pre Filters clogged	Replace
Tubing Leaks	Incorrect connection	Check and reinstall

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