Blue Tide RO System

Installation and Maintenance Manual

RO-200G/400G/600G-P01

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INTRODUCTION

We would like to thank you for choosing the **Blue Tide RO System**. This 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. This unit features **5-stage** RO water filtration. These functions of the **5 stages** are outlined below.

First Stage: **Spun PP Filter** – removes lager 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.

PACKAGE CONTENTS

Reverse Osmosis Unit – 1 pc
Housing Wrench – 2 pcs
Food Grade Tubing – 3 pcs (Red, White, and Blue)
Faucet – 1 pc
Accessories – Tube Plug, Screws, Drain Clamp, Tee Fitting, Ball Valve, Feed Water Valve
RO Membrane – 1 pc/2 pcs
Manual – 1 pc

TECHNICAL SPECIFICATIONS

Voltage and Frequency: ☐110V ☐220V ☐50Hz ☐60Hz
Wattage: ☐48W ☐96W ☐110W
RO Element Capacity: ☐200GPD ☐400GPD ☐600GPD
Inlet TDS: ⩽ 250ppm
Chlorine Level: ⩽ 0.2ppm
Average RO Rejection Rate: 98%
Inlet Water Pressure (min/Max): 14.5 - 43.5 psi
Inlet Water Temperature (min/Max): 5°C - 45°C
Flush Type (model dependent): Manual

BEFORE YOU START

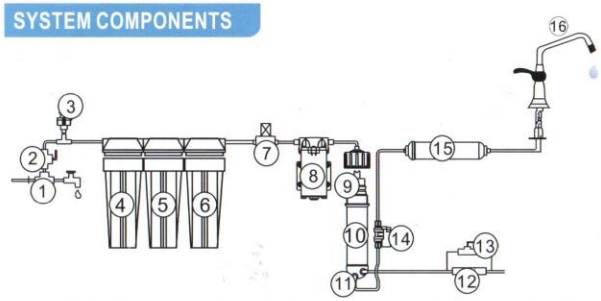
- Read through all instructions before beginning installation and using this system. Follow all steps exactly or risk damaging system/incorrect operation.
- This system contains filters that need to be replaced at certain intervals. Replacement intervals will vary according to use, please contact your 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 **14.5 - 43.5 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 **5°C - 45°C**. 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.

- This unit operates on **110V~240V** power. Please ensure you are using the correct power source.

CAUTION:

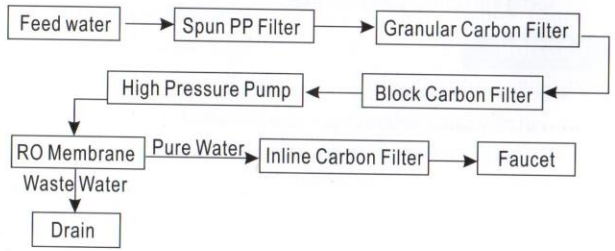
- Do not disassemble, open, or modify this unit. Tampering with the unit may cause failure or damage and will void warranty.
- Do not cover the unit, as this will prevent proper heat dissipation and can cause damage or fire.
- Do not place objects on top of the unit as this may cause damage to the unit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

SYSTEM COMPONENTS



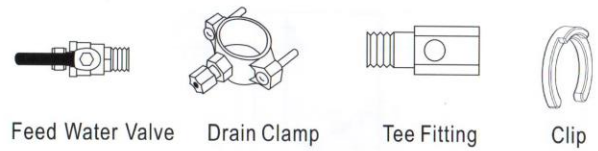
1. Feed Water Valve
2. Tee Fitting
3. Low Pressure Switch
4. PP Spun Fiber
5. Granular Carbon Filter
6. Block Carbon Filter
7. Inlet Solenoid Valve
8. Booster Pump
9. Membrane Housing
10. RO Membrane
11. Check Valve
12. Drain Restrictor
13. By-pass flush Valve
14. High Pressure Switch
15. Inline Carbon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

HOW YOUR SYSTEMS WORKS

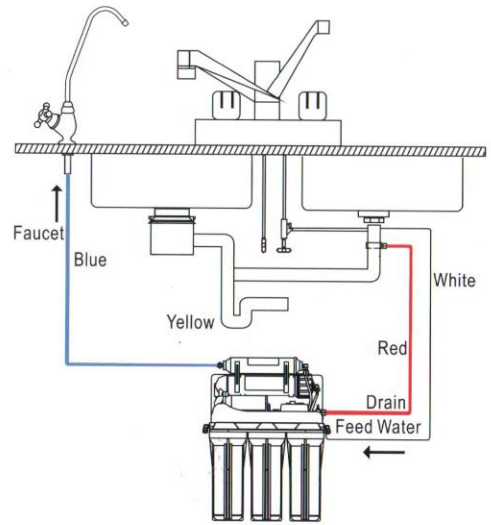


INSTALLATION

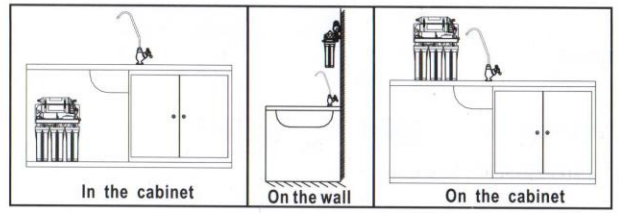
◎ **Tools and Parts Required**



◎ **Unit placement**



- 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.*

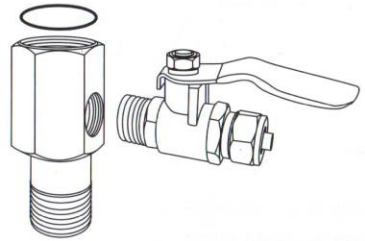
◎ **Feed Water Valve and Tee Fitting**

- 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.

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.

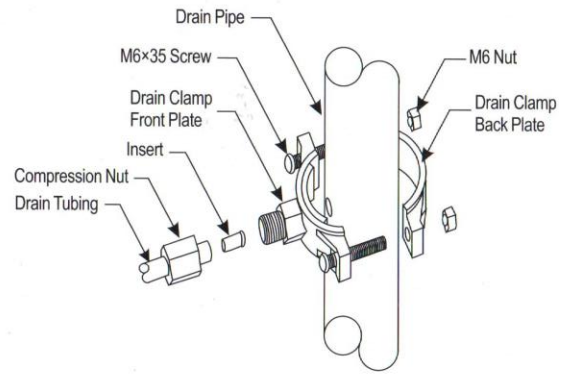
◎ **Drain Clamp Installation**

- 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.

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.

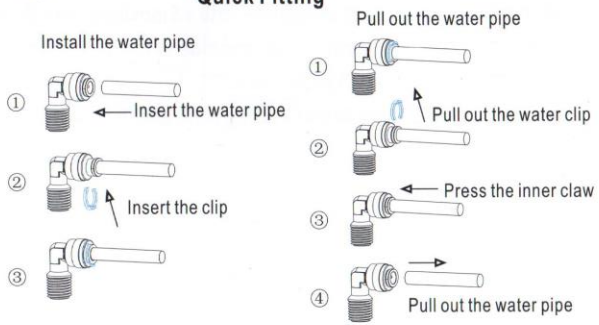
DRAIN CLAMP ASSEMBLY



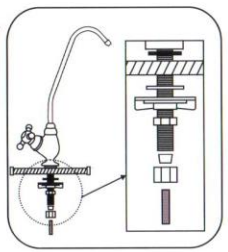
◎ Tubing Connection

Refer to the following diagram for how to properly install the Quick fittingss.

Quick Fitting



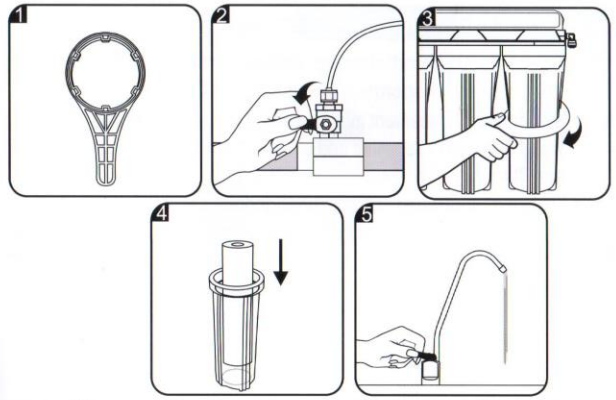
◎ Faucet Installation



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

◎ Install Pre-Filters

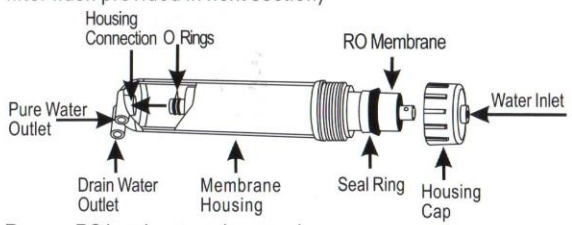
- Remove Pre-Filters from packaging.
- Place filters in appropriate housings according to labels and install filter housing from right to left in the following order: PP, GAC, CTO.
- Tightening housings with wrench provided.



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

◎ 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.

OPERATION AND MAINTENANCE

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

Prepare system for operation by flushing pre-filters:

- Disconnect RO element inlet tube on element housing cap. Open water main and inlet valve and allow system to run through the 3 pre-filters.
- Discard output water into container or drain.
- Continue flushing until output water is visibly clean. Reconnect tube.

Note: Pump and 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.

After flushing the system is ready to use.

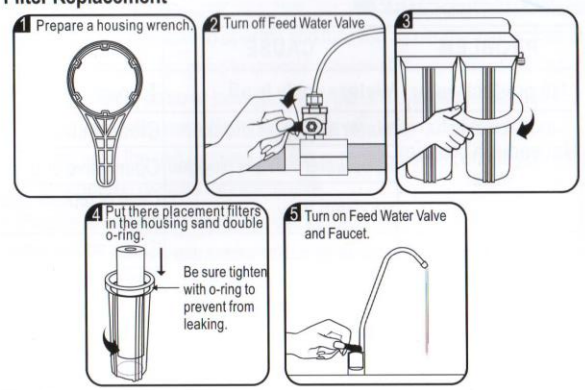
◎ Filter Maintenance

To ensure the unit operates at its optimum level, routine maintenance is required. The frequency of maintenance depends on the feed water quality. The follow are some guidelines for scheduled filter changes, keep in mind the frequency of filter changes may vary. If in doubt, contact your local dealer or service technician.

- Change Spun PP Filter every 3-6 months or as required.
- Change Granular Carbon Filter and Block Carbon Filter every 6-12 months or as required.
- Change RO Membrane every 18-24 months or as required.
- Change Inline Carbon Filter every 6-12 months or as required.

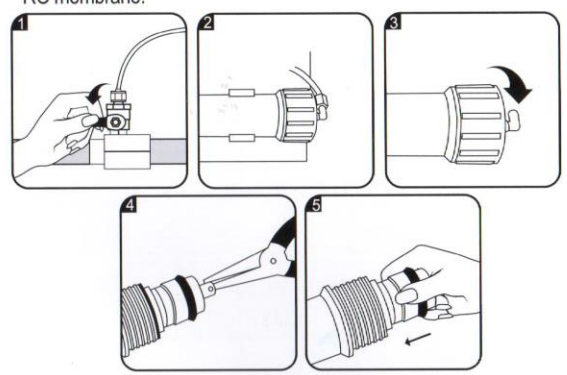
If you will be away or not using the unit for an extended period of time, please disconnect unit from power supply. If the unit has been shut down and not used for an extended period of time, perform the same flushing procedure as in the initial set-up.

◎ Filter Replacement



◎ Membrane Replacement

- Close Feed Water Valve.
- 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.



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 transformer
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
No drain water	Plugged drain flow restrictor	Replace
Tubing leaks	Tubing connection incorrect	Check/reinstall tubing
	Defective or damaged tubing	Replace section of tubing

SAFETY INSTRUCTIONS

This appliance is intended to operate and function as per the instructions in this manual. It is not designed to operate outside of the specifications listed and any attempt to do so or tampering with the unit can cause damage to the unit and/or bodily harm. This unit is not a toy, keep out of reach from small children. If the unit requires service or repair, please contact your local service technician or sales representative.

- Please ensure feed water temperature is over 4°C. Using water below 4°C can cause ice to form and damage the unit.
- Please ensure power source is correct before connecting unit. Incorrect voltage could result in damage to unit and/or fire hazard.
- Do not cause damage to or use unit if the power cord is damaged. A damaged power cord could cause an electrical shock or fire hazard. If power cord is damaged, unplug and discontinue use immediately.