# **Installation & Instruction Manual**

For Portable Series R.O. units:



Please read carefully before proceeding with installation

\*System components and appearance may vary from above image.

# **REPLACEMENT AND FILTER CHANGE INTERVAL:**

Sediment Prefilter:	6 months - 1 year
Carbon Prefilters:	6 months - 1 year
Carbon Postfilter:	6 months - 1 year
R.O. Membrane:	2-10 years

NOTE: Life of filters and membrane depend on the quality of water supplied to R.O. system.

## **OPERATION PARAMETERS:**

**NOTE:** Residential Reverse Osmosis systems will typically reject 4 gallons of waste water for every gallon of product water created. (Ratio 4:1)

**WARNING:** The following conditions for feedwater supply must be met or warranty will be void.

- 1. Unit must be connected to a municipal or well water source that is treated and tested on a regular basis to insure bacteriologically safe water.
- 2. Operating temperatures: Maximum 113° F / Minimum 33° F

**CAUTION:** Do not allow unit to freeze. The membrane always contains water and will be destroyed if frozen.

 Operating pressure: Maximum 85 PSI (5.95 kg/cm<sup>2</sup>) Minimum 40 PSI (2.95 kg/cm<sup>2</sup>)

This reverse osmosis unit is designed to operate at a water pressure in the range of 40 to 80 PSI. At pressure lower than this, the quantity as well as quality will be reduced. At higher pressure, severe, damage to the system may result. If local water pressure exceeds 85 PSI, a pressure regulator must be installed, reducing the water pressure into the system.

**WARNING:** Warranty voided and manufacturer assumes no responsibility for damage to unit or property if pressure exceeds 85 PSI.

- 4. Turbidity: <5 NTU
- 5. pH: 4 to 11
- 6. Recommended hardness not to exceed 7 grains per gallon, or 120 PPM.

**RECOMMENDATION:** If your water hardness exceeds 7 grains per gallon, or 120 PPM you may wish to purchase a water softener for your home. Contact your local Distributor for pricing.

7. Recommended Total Dissolved Solids (TDS) not to exceed 2000.

# **LIABILITY:**

**WARNING:** The installer is responsible for any leaks resulting from installation of tubing or related fittings. The installer <u>must check over the entire unit completely while under pressure to ensure unit is not leaking and functioning properly.</u> Liability resulting from failure to check for leaks whole under pressure is the sole responsibility of the installer.

## **INSTALLATION:**

**NOTE:** System or tubing maybe be wet due to water testing at the factory. Portable RO systems can be placed anywhere on the sink tubing lengths will allow.



(Diverter valve styles and functions will vary based on model)

- 1. Remove aerator from under source faucet exposing threads.
- 2. Connect feed-water diverter valve be threading connecting ring on top of the valve to source faucet.

NOTE: Some source faucets may require additional universal adapters to connect diverter valve. Contact your local distributor for more information on these adapters.

3. With all connections complete, turn on the cold water supply to the R.O. unit.

NOTE: Hot water will damage system and void warranty.

- 4. Immediately check entire R.O. system for leaks. If you notice any leaks turn off cold water supply and fix the leak.
- 5. Flush system for a minimum 5 minutes before use. Engage the RO system by pulling on the diverter valve knob or turning the diverter valve handle after water pressure from the faucet has been applied. Water will flow through the system and product water.

The membrane contains a food grade preservative to protect it while in storage. This preservative is not harmful, however it does not have a pleasant taste. Carbon fines might also be present in the filters, which will appear as black cloudy water or even black particles in the product water. After flushing the unit the water should clear.

# **OPERATION:**

The diverter valve can be left connected to the source faucet. When you need to use the tap water disengage the RO system by either pushing the knob on the valve back in, or turning the lever on the valve to the off position (methods will vary based on RO model).

Product water will exit the small tube-port along side the diverter valve.

The loose black tube is the concentrated drain line. This tube is to be left hanging in the sink. The system will channel wastewater through this line when the RO system is engaged. The flow rate of water leaving this tube will exceed that of the product water.

RO water takes time to process and the amount of flow produced by the system will be affected by the following main factors:

- 1. Incoming pressure
- 2. Incoming water quality
- 3. Membrane gallon-per-day rating
- 4. Regular system maintenance

# **TROUBLESHOOTING:**

### Not Enough Product Water From Diverter Valve

Possible Cause	Solution
•Diverter Valve is plugged or closed.	Open valve or unclog.
•Sediment/Carbon prefilter or Carbon Post Filter is clogged.	Replace Filters.
•Low incoming water pressure.	Incoming water pressure must be above 40 PSI.
•Reverse Osmosis Membrane is fouled.	Make sure incoming water pressure is within operating limits. Make sure drain line is not clogged. (See High TDS) Correct cause of fouling and replace RO Membrane.
•No water to drain. Drain Flow Restrictor is clogged.	Replace Drain Flow Restrictor.
•Check Valve on RO Membrane Housing is stuck.	Replace Check Valve.

### **Product Water is High in Total Dissolved Solids (TDS)**

Possible Cause	Solution
Clogged Prefilter.	Replace Filter.
•Low incoming water pressure.	Incoming water pressure must be above 40 PSI.
•Reverse Osmosis Membrane is not correctly sealed in Membrane Housing.	Check that RO Membrane is correctly installed.
•Reverse Osmosis membrane is expended.	If Membrane life is unusually short, find and correct the problem. (Average life is 2 - 3 years.) Replace RO Membrane.
• Product water and drain water lines are reversed.	Correct plumbing.
•No water to drain. Drain Flow Restrictor is clogged.	Replace Drain Flow Restrictor.
•New Carbon Postfilter has not been rinsed completely.	Flush thoroughly to rinse new Carbon Postfilter.
• The incoming feed water TDS has increased.	An increase in feed water TDS will also give an increase in Product Water TDS.

## **Tastes and Odors in Product Water**

Possible Cause	Solution
Carbon Post Filter is exhausted.	Replace Filter.
Product water and Drain water lines are reversed.	Correct plumbing.
<ul> <li>Dissolved gases in feed water.</li> </ul>	Pre-treat feed water to remove gasses.
<ul> <li>Increase in Product Water TDS.</li> </ul>	See High TDS in Product Water Section

# **LIMITED WARRANTY:**

Your water filter system is warranted against defects in material and workmanship for a period of 12 months from the date of original purchase. This warranty is valid only to the original owner, installed at the original location and is not assignable or transferable.

Warranty will be voided if product failure or damage resulting from improper installation or contrary to printed instructions, misuse, alteration, neglect, accident, fire, flood, freezing or acts of god. We will not be responsible for any implied warranties, including those of merchantability and fitness for a particular purpose.

We assume no liability whatsoever for any incidental and consequential damages, including loss of revenue, loss of time, travel expenses, inconvenience and any damage caused by the equipment and it 's failure to function properly.

This warranty gives you specific legal rights, and you may also have other legal rights, which may vary from state to state.

In the event that component breaks down on the system that is still under warranty, please send the defective component prepaid to us or to your dealer. We will, at our option, repair or replace.