

# Nature's Balanced Reverse Osmosis System Manual

11-14-11

## 1. WATER SUPPLY

- a. Chemistry.
  - Hardness. 20 Grains or less
  - TDS. 600 PPM or less
  - Temperature. 45 Deg. F. to 100 Deg. F.
  - Iron. 0.2 mg/l or less
  - Manganese. 0.03 mg/l or less
- b. Pressure. 40 to 100 PSI

If any of the parameters are exceeded please contact the supplier. Pre-treatment or special adjustments may be Required.

2. **LOCATION.** Though most often thought of as an under the kitchen sink counter device, it may be more convenient to locate the unit in the basement or in the garage.
3. **PLACEMENT.** The unit should be within 10 feet of a drain. Hang the main unit on a wall or cabinet side wall using the holes in the back of the bracket. Leave at least 3" clearance below the unit so that filter cartridges can be easily replaced. A tank base has been provided to permit mounting the tank either vertically or horizontally in the cradle portion of the base.
4. **INSTALLATION.**
  - a. View the enclosed sketch and locate and identify all components.
  - b. Mount the main unit to a wall or cabinet side wall.
  - c. Turn off the raw water supply.
  - d. On the COLD WATER fitting to the sink, disconnect the flex line from the stand pipe. For traditional ½" piping, a feed water valve has been supplied. Using Teflon tape, thread the female portion of the valve on to the pipe 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.
  - e. Place the drain saddle valve on the sink drain assembly above the water level in the P trap. Once secure, carefully drill through the hole in the tube connector to pierce the drain tube. Use a 1/8" dia. Drill.
  - f. With a tire pump put 7 -10 PSI air into the **EMPTY** water tank. Tank is already pressurized. This step is when the tank loses any pressure.
  - g. Mount the faucet. View the drawing and locate the indicator with the light between the faucet and the counter top. After mounting, put the FPT x Tube fitting on the faucet stem. Use Teflon tape.
  - h. Connect the black line from the unit to the drain saddle valve
  - i. Connect the orange line from the unit to the feed water valve.
  - j. Connect the green line from the unit to the tank
  - k. Open the tank valve.
  - l. Connect the blue line from the unit to the bottom of the faucet.
5. **START-UP**
  - a. Open the faucet.
  - b. Open the feed water valve
  - c. Water will begin to flow to drain and to the faucet.
  - d. Use a flash light and view down the drain from the top to be sure that water is flowing to drain.
  - e. As soon as the flow from the faucet is steady with no air, close the faucet.

- f. **OBSERVE EVERY FITTING AND LINE ON THE UNIT AND CHECK FOR LEAKS. FAILURE TO OBSERVE AND CORRECT ANY LEAKS WILL CAUSE EXTENSIVE WATER DAMAGES!!!!**
- g. The tank will fill and the drain water will shut off in about 2 hours.
- h. **OBSERVE EVERY FITTING AND LINE ON THE UNIT AND CHECK FOR LEAKS. FAILURE TO OBSERVE AND CORRECT ANY LEAKS WILL CAUSE EXTENSIVE WATER DAMAGES!!!!**
- i. Open the faucet and drain the tank.
- j. Turn off the faucet and again allow the tank to fill and the unit to shut off.
- k. **OBSERVE EVERY FITTING AND LINE ON THE UNIT AND CHECK FOR LEAKS. FAILURE TO OBSERVE AND CORRECT ANY LEAKS WILL CAUSE EXTENSIVE WATER DAMAGES!!!!**
- l. Use water at about ¼ gallon at a time while adjusting the pH Adjust Valve to achieve desired water quality. Note: When the pH adjustment valve is CLOSED all water goes through the pH cartridge and **pH elevation is maximized**. When open, water by-passes this cartridge and there is no pH correction.
- m. **Daily for the first week and at least weekly thereafter ---**

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#### **6. MAINTENANCE**

- a. Every month or so, open the membrane flush valve (turn CCW) about ½ turn and leave in that position for 2 or 3 minutes. Close tightly.
- b. Every 9 to 15 months, replace the five micron inlet filter and the KDF/AC filter cartridge.
- c. The water quality monitor measures water quality in Total Dissolved Solids (TDS) as Parts Per Million (PPM). The lower the number, the less materials there are dissolved in the water. When the lever on the monitor is pushed to the LEFT (IN) you will see the level of contaminants in the raw/untreated water when the. With the lever pushed to the RIGHT and the ON button pushed, you will view the TDS of the treated water. The difference between the two numbers represents the level of material removed from your water. **Record** the OUT value on the brand new unit. Every few weeks re-check the OUT value. If it doubles, replace the DI cartridge. If the frequency of replacement changes dramatically, first try rinsing the unit (see a. above). If that does not improve the duration between DI cartridge replacements, it indicates that the membrane may need to be replaced.
- d. Replace the pH cartridge when the pH value ceases to rise to the desired level.
- e. The outlet carbon filter normally needs replacement about once a year and the element historically has a life of 18 to 60 months depending on the severity of system use, frequency of filter replacements and how often the element is flushed.
- f. Keep the faucet area clean and occasionally wipe with a sanitizing solution to prevent contamination which can find its way to the pressure tank.
- g. Should there be an indication that the tank has become contaminated (unexplained taste or odor in the water) tank sanitizing is in order. This can be accomplished in one of two ways:
  - i. Drain all water **AND AIR** from the tank, disassemble, put in ½ cup of household bleach or hydrogen peroxide and fill with water. Re-assemble and allow to set for at least one hour. Drain and reconnect to the system.
  - ii. Turn off inlet water to the unit and drain water from the tank via the R.O. faucet. Remove the pH adjustment filter cartridge from its container (sump) and add ½ cup of household bleach or hydrogen peroxide to the sump. Reassemble the sump to the unit, close the faucet and turn on the water. After about an hour, drain the tank through the faucet. Drain one more time to eliminate residual chemical from the tank. Repeat the initial steps to re-assemble the pH cartridge into the unit.

#### **REVERSE OSMOSIS WARRANTY DIME WATER, INC.**

**PLEASE READ AND UNDERSTAND THIS WARRANTY BEFORE PROCEEDING WITH THE INSTALLATION OF THE SYSTEM.**

All components except the element(s) are warranted to be free of defects in materials or workmanship for a period of one year from the date of installation.

Repair or replacement at option of Dime Water, Inc. and based upon inspection by Dime Water, Inc. Defective items are to be returned to Dime Water, Inc. at owner's expense. Dime Water, Inc. will then pay for the transportation on the repaired or new replacement parts.

Elements have a one year pro-rata warranty. If it is established that the element problem is related to material and or workmanship then the elements will be replaced at no charge in the first month after the date of installation. A cost of 8 1/3% per month will be charged for each month after the first month. Improper system operation, excessive water temperature (above 100 Deg. F.), failure to prevent chlorine passage into the system, scaling due to softener or chemical feed operational negligence and general system neglect voids the element warranty.

All warranty is for materials only. Any labor charges must be paid by the system owner. Dime Water, Inc. is not responsible for contingent liability caused by Reverse Osmosis equipment failure. We do not warrant any system or part of a system that has been damaged by neglect, improper use, acts of nature, fire or vandalism.