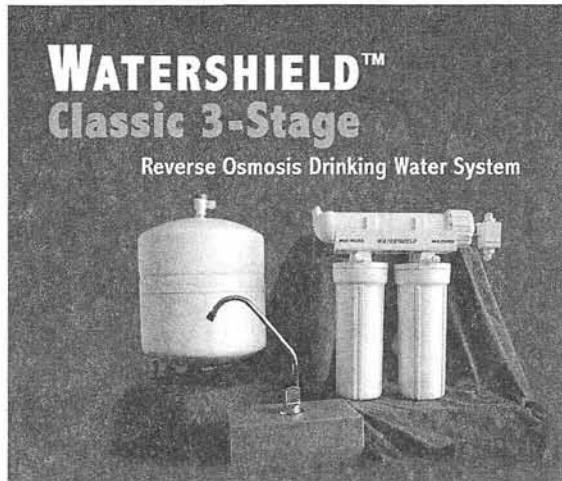
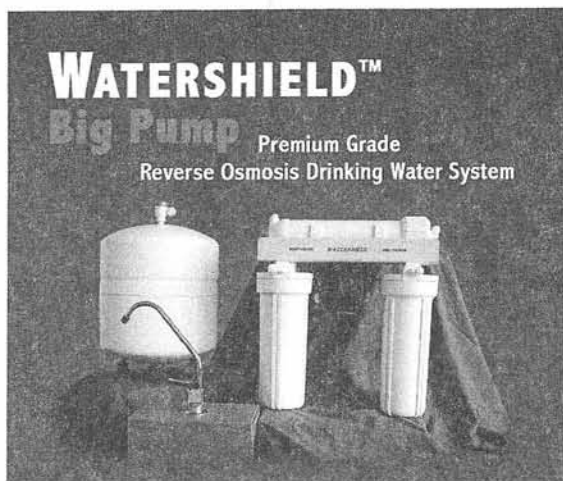


WATERSHIELD™

REVERSE OSMOSIS SYSTEM



INSTALLATION MANUAL

IMPORTANT

THIS REVERSE OSMOSIS SYSTEM WAS SOLD IN KIT FORM. IT HAS NOT BEEN PRESSURE TESTED IN ANY WAY. UPON INSTALLATION IT MUST BE PRESSURE TESTED FOR LEAKS. THE MANUFACTURER CAN NOT BE HELD RESPONSIBLE FOR ANY LEAK DAMAGE, INCIDENTAL OR CONSEQUENTIAL. IT IS THE SOLE RESPONSIBILITY OF THE INSTALLER TO INSURE THIS PRODUCT AND THE INSTALLATION THEREOF.

A. Reverse Osmosis System Components

1. Reverse Osmosis (RO) System
2. Drinking Water Storage Tank
3. Ball Valve for Storage Tank
4. Saddle Valve Kit
5. Faucet
6. Drain Clamp

B. Items Not Included That May Be Necessary for Installation

1. Wood or Steel Metal Screws for Mounting Reverse Osmosis Bracket to Wall.
2. Extra Tubing (1/4"), if supplied tubing insufficient.

C. Tools Recommended For Installation

1. 3/8" Electric Drill
2. Porcelain Hole Cutter Kit
3. 1/8" & 1/2" Metal Drill Bits for Pilot Hole
4. Center Punch & Hammer
5. Assorted Wood and Metal Drill Bits for Pilot Hole
6. Phillips Head and Flat Head Screwdrivers
7. 1/2", 9/16", and 5/8" Open End Wrenches
8. 10" Crescent Wrench
9. Basin Wrench or 10" Pipe Wrench
10. Teflon Tape
11. Plastic Tubing Cutter

D. Site Selection for Reverse Osmosis

The Watershield Reverse Osmosis System can be installed under the sink or wall mounted elsewhere due to space limitations. Access to a cold water line and drain are necessary.

All tubing and reverse osmosis components should be installed in areas that have temperature above 38°F.

The drinking water storage tank may be placed under the sink or anywhere that is convenient within 10 feet of the faucet. The tank can weigh up to 40 pounds when full and should therefore be placed on a firm, level surface.

The self piercing valve should tap into the cold water line. The feed water should come from a potable cold water supply line only. **DO NOT USE** the hot water supply line.

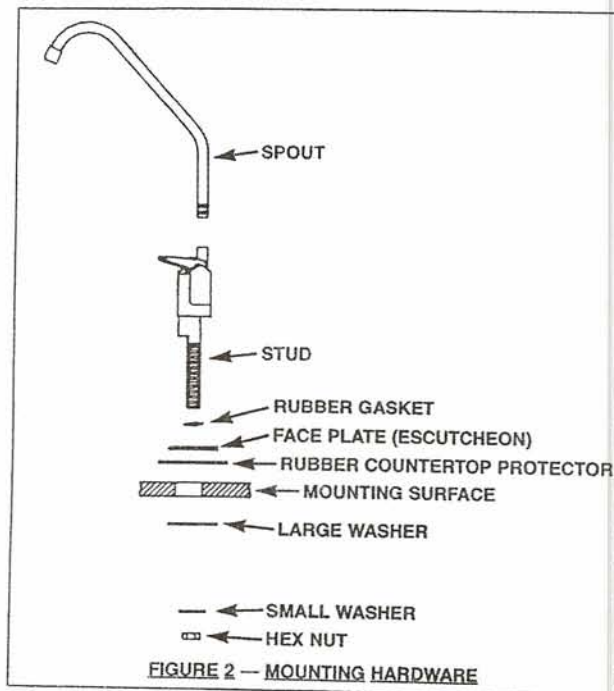
Waster water must go to the drain. Do not connect the RO system drain line to the dishwasher drain or near the garbage disposal.

E. Installation Procedure

All plumbing should be done in accordance with state and local plumbing codes.

1. FAUCET INSTALLATION

[1] FAUCET INSTALLATION



(a) The easiest installation is to use an existing spray attachment hole. If the spray hole is not available, then the sink top must be drilled.

(b) Drilling a hole for faucet installation.

Drilling a stainless steel sink

-Center punch the hole to provide a starting point for the drill.

-Start with a smaller drill as a pilot, and then drill a 1/2" diameter hole to accept the bolt.

-Clean away any chips and debur any sharp edges.

Drilling a porcelain sink

-It is best to use a special 1 1/4" diameter cutter designed for porcelain. A carbide tipped masonry bit is a second choice.

-Place a piece of tape over the area to be drilled to help prevent chipping.

-Drill a pilot hole for the porcelain cutter.

-When drilling the 1 1/4" hole, drill slowly and carefully as the porcelain chips easily.

Drilling a counter top

-Treat ceramic tiles as porcelain until the tile is penetrated, then use a carbide tipped metal cutter. Formica countertops may be drilled with a good 1 1/4" wood bit, drilling a 3/32" pilot hole will help keep the bit going straight.

(c) Assemble and attach the faucet

-Place the rubber gasket followed by the face plate and rubber countertop protector on the faucet stud.

-From the top of the counter place the stud through the mounting hole.

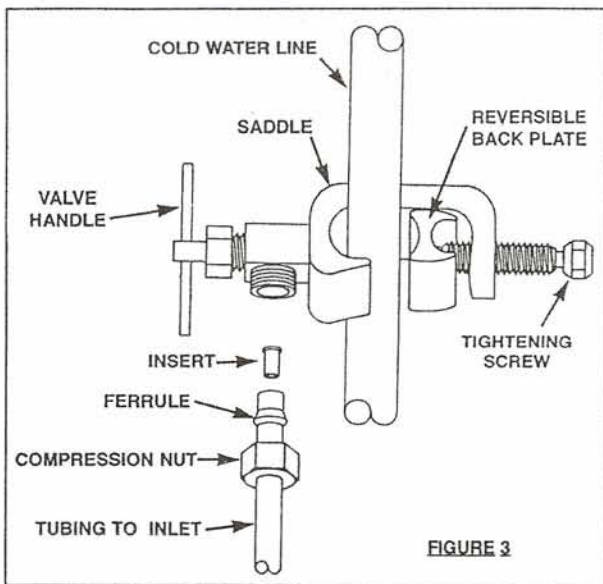
-From the bottom of the counter top in the following order assemble the large steel washer, small washer and hex nut.

-To the end of the stud, insert the polytubing as follows:

- insert the tubing through the compression nut and plastic ferrule
- place the insert into the tube opening
- screw the compression nut into the threaded stud

2. FEED WATER SADDLE VALVE INSTALLATION

[2] FEED WATER SADDLE VALVE INSTALLATION



The saddle valve should be connected to a cold water supply line. **DO NOT** connect to a hot water supply line.

(a) Shut off the water supply and drain line

(b) To install:

To install on a copper tubing supply line:

-Turn handle of saddle valve counterclockwise until needle does not protrude from gasket.

-Assemble the saddle valve on the tubing. For 3/8" O.D. tubing use the black plate side with the small groove. For larger tubing use the large groove of the back plate.

-Assemble and tighten the brass screw. To pierce the tubing, turn

the valve handle fully clockwise (inward). A small amount of water may escape from the outlet until full piercing of the tubing occurs.

-When you feel the valve handle is firmly seated in the clockwise direction, the copper tube is pierced and the valve is closed.

To install on (hard) steel or brass tubing supply line.

-Use a battery powered or properly grounded drill to avoid shock hazard.

-Drill a 3/16" hole in the supply line. **DO NOT** drill through the opposite wall.

-Turn the handle to expose the needle no more than 3/16" beyond the rubber gasket.

-Place the body of the valve over the hole so that the needle fits into the hole.

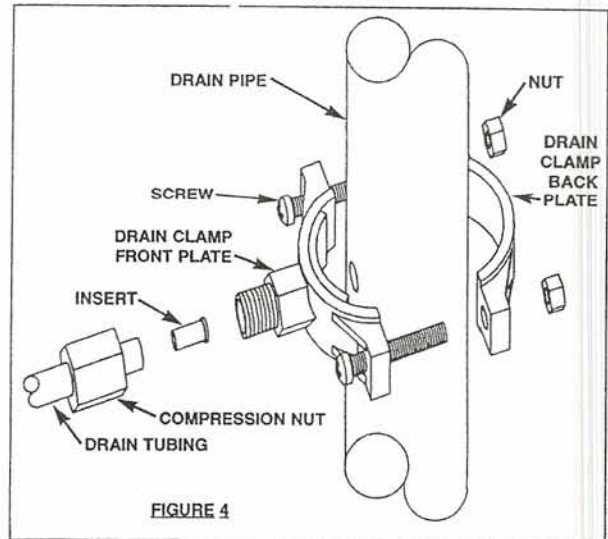
-Assemble and tighten the brass screw.

-Turn the valve handle clockwise (inward) until firmly seated. The valve is now closed.

(c) With the saddle valve closed, open the sink faucet and the water supply and allow the water to run for a few minutes to flush any debris caused by the installation. Close the faucet and check the Saddle Valve for leaks.

3. DRAIN CLAMP INSTALLATION

[3] DRAIN CLAMP INSTALLATION



Waste water must go to the drain. Do not connect the RO system drain line to the dishwasher drain or near the garbage disposal.

(a) Position the drain clamp on the sink drain pipe above the drain trap. Allow room for drilling. Tighten securely.

(b) Use a battery powered or properly grounded drill. Using the clamp port as a drill guide, drill a 7/32" hole. **DO NOT** penetrate the opposite side of the pipe.

(c) Install the compression nut and brass insert through the tubing, and tighten the compression nut to the drain clamp.

4. RO SYSTEM INSTALLATION

(a) The RO should be mounted firmly and securely. The mounting bracket will accept #10 or #12 screws. Allow at least 10" clearance beneath the housings to accommodate filter cartridge changes.

(b) Install the mounting screws and tighten slightly.

(c) Hang the mounting bracket on the mounting screws and tighten. Do not over tighten.

(d) Run the orange tubing (feed line), trim to appropriate length, and insert it into the saddle valve.

(e) Run the black tubing (drain line), trim to appropriate length, and insert it into the drain clamp.

(f) Run the blue tubing (purified water), trim to appropriate length, and insert it into faucet stud.

(g) The yellow tubing should be connected to the drinking water storage tank.

5. DRINKING WATER STORAGE TANK

(a) Check the tank pressure, the pressure should be 7-12 PSI. Use a hand pump or bicycle pump to adjust pressure.

(b) Wrap teflon tape around nipple of tank and screw in holding tank ball valve.

(c) Insert the yellow tubing into the ball valve. Make sure the tubing is pressed firmly and securely into the fitting hole. The fitting will grab the tubing and hold it in place.

6. START UP

(a) Open the saddle valve fully counterclockwise.

(b) The holding tank ball valve should be closed.

(c) Open the faucet and let the RO system rinse out for 20 minutes.

(d) Shut off faucet. Open the holding tank ball valve.

(e) Do not open the faucet for 8 hours. Let the tank fill and then open the faucet to empty the tank. Repeat this procedure 3 times. Do not drink water from these three rinses.

WARNING: The RO Membrane is shipped with a preservative in it (Sodium Metasulfite). This will be removed with the rinsing of the system. Discard the water from these rinses.

7. CHANGING FILTERS AND MEMBRANE

The RO system contains filters which must be changed at regular intervals. The recommended interval for typical conditions is every 6 months. Your Watershield RO comes with high quality sediment and carbon block filter cartridges. It is recommended these cartridges be replaced with similar quality cartridges. Poor quality cartridges can result in inadequate pre-filtration, damage the reverse osmosis membrane, and compromise drinking water quality. Only filter cartridges recommended by your water conditioning professional should be used. The reverse osmosis membrane should typically be replaced every 2-3 years depending on usage and water quality. Consult your water treatment professional for servicing and filter changes.

Limited Warranty

The Watershield Reverse Osmosis System, when installed and operated within the recommended parameters, is warranted to be free of defects in materials and workmanship for a period of 1 year. The manufacturer will repair or replace at its discretion during the warranty period any defective component. This warranty does not cover the disposable sediment or carbon cartridges whose service life depends upon the quality of feed water. The reverse osmosis membrane will not be warranted if the required pre-filter conditions to the membrane are not followed.

Conditions of Warranty

The above warranty shall not apply to any part of the Watershield Reverse Osmosis System that is damaged because of occurrence including but not limited to neglect, misuse, alteration, accident, misapplication, physical damage, or damage caused by fire, act of God, freezing or hot water. If the unit is altered by anyone other than the manufacturer, the warranty is void.

To obtain warranty service, contact the local dealer who supplied the system. It is the obligation of the owner to pay for shipping or travel charges to return the defective part.

This is the only warranty made by the manufacturer with respect to it Watershield Reverse Osmosis Systems. No other warranty, expressed or implied, is given including merchantability or fitness for a particular purpose, incidental or consequential damages, or their losses.

This exclusion applies to the extent exclusion is permitted by law.

No person or representative is authorized to assume for the manufacturer any liability on its behalf, or in its name, except to refer the purchaser to this warranty.