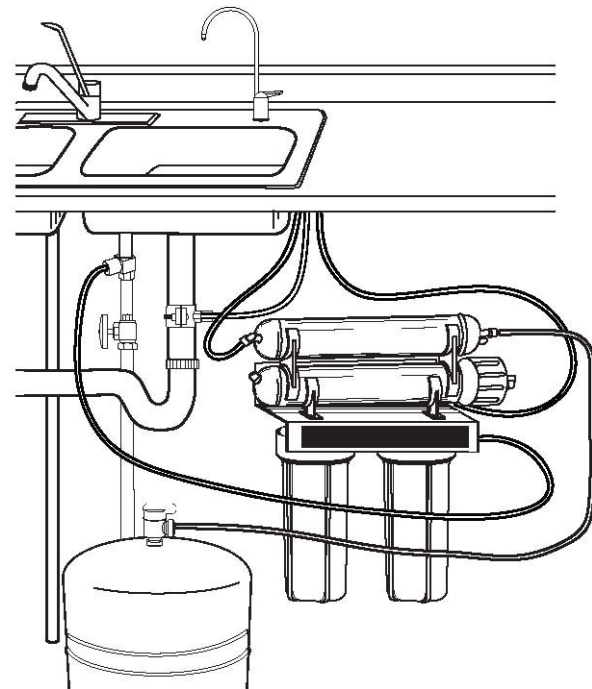


OWNER'S MANUAL

REVERSE OSMOSIS

MODEL # _____



CONGRATULATIONS!

Your choice of the **Reverse Osmosis System** will yield purer, healthier and better tasting water in your household. You have invested in a sophisticated home drinking water appliance. Please take the time to carefully review this manual. To realize your systems maximum performance, you should become familiar with your system and how your reverse osmosis system works.

Warning

This Reverse Osmosis System should not be used where the water is microbiologically unsafe or with water of unknown quality without adequate disinfection before and/or after the system. Your local dealer can assist you with testing of your source water and any additional treatment if necessary. Installation by a trained professional is recommended. Your local dealer is familiar with the installation, operation and maintenance of your Reverse Osmosis System.

GENERAL HINTS

USE LOTS OF WATER Your RO system will perform better and last longer with heavier usage. Use your RO water for pets, plants, steam irons, developing pictures, aquariums, automobile batteries, juices, infant formula, ice cubes, cooking, coffee and tea, etc. See what a difference it makes.

TO KEEP WATER IT'S FRESHEST In addition to heavy usage it is a good idea to drain your storage tank once a week. Before you go to bed, open your faucet and let the water run down the drain until goes down to a trickle. Then shut off your faucet. When you wake up the next morning, you will have a tank of fresh water.

WHILE GONE ON VACATION If the water supply to your house is shut off or you are going away for more than 6 months, you should remove your RO membrane to protect it from bacteria growth. Remove the entire RO membrane and housing placing it in sealed plastic and store in a refrigerator until you return. You will also need to drain your storage tank to protect it from bacteria growth. Discard the first tank of water after restarting the system when you return.

CHANGE FILTERS AS RECOMMENDED This can not be over emphasized. After 6-12 months of collecting the dirt, sand, chlorine, etc. These filters cannot hold any more and need to be changed. They may even start to grow bacteria and can plug up completely and cut-off the water supply to the unit. Or they may allow impurities to pass through and damage the RO membrane thereby reducing the quality of the water at the faucet.

PROTECT FROM FREEZING Failure to protect the system from freezing may cause housings to leak and cause water damage.

KEEP SERVICE RECORDS Use the space on the inside back cover to log filter changes and service.

IMPORTANT: Before installing this reverse osmosis system, make certain your water supply complies with the following operating specifications. Failure to do so may reduce the effectiveness of the system and will void the warranty.

SPECIFICATIONS

Thin Film Composite Membrane	TFC
Feed Water Pressure	40 to 80 psi
Temperature Range	40-100°F
TDS (Total Dissolved Solids)	2000 ppm
Maximum Hardness †	10 gpg (171 mg/l)
Sulfide, Iron and Manganese‡	0 ppm <0.1 ppm
Chlorine in Water Supply	Less than 2 ppm
pH Limits	3-9
Turbidity	11 NTU Average

† If the hardness of your water is above 10 gpg (171mg/l), lime scale will build up rapidly on the membrane. Scale buildup will plug the membrane and make the system ineffective. We do not recommend these reverse osmosis systems to be used with water in excess of 10 gpg (171mg/l) hardness.

‡ A maximum total level of approximately 0.01 ppm sulfide, iron or manganese is permissible. Should your water exceed this, see your local dealer to reduce these substances in your water.

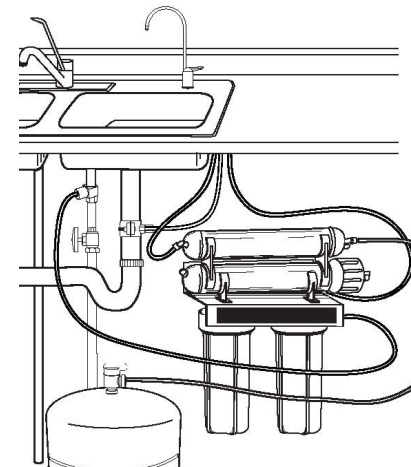
PART INCLUDED:

Pre-assembled and leak tested filter system (mounting bracket, membrane housing, membrane, pre-filter housings, pre-filter cartridges and post-filter).

* Reverse Osmosis Membrane	* Storage Tank
* Inlet supply adaptor	* Drain saddle
* Feed Tubing (1/4-inch)	* Tank Tubing (3/8")
* Tank valve	* Faucet Tubing (3/8")

Tools and Materials Required

- Hand or electric drill (cordless preferred)
 - (2) Adjustable wrenches
 - Slotted and Phillips screwdrivers
 - File
 - Safety glasses Drill bits: 1/8", 3/16", 1/4", 3/8"
- If sink does not have hole for separate faucet:*
- Center punch
 - Cone-shaped grinding wheel
 - 1-1/4" hole saw or drill bit
 - Safety mask



SYSTEM DIMENSIONS

Overall Dimensions:	14" W x 5 1/2" D x 17" H
Weight:	17.3 lbs. (dry)
Tank Dimensions	10" Dia. x 14" H
Tank Capacity Max:	2.8 Gallons
Tank Air Pressure Empty	7 to 10psi

NOTE:

- Your water must be within required limits for satisfactory operation. If not, your membrane life may be shortened and your warranty will be voided.
- This reverse osmosis system will not protect against disease-causing bacteria or remove naturally-occurring harmless bacteria.
- Install on cold water line only.
- Do not use wicking or sealer to fitting connections into the cap of the filter. Plumber tape is recommended.
- Make certain that installation complies with all state and local laws and regulations.
- The replacement cartridges and reverse osmosis membrane included with this system have limited service lives. Changes in taste, odor, and color of the water being filtered indicate that the cartridge should be replaced (see Replacing the Pre- and Post-Filters, and Replacing the Membrane).
- After prolonged periods of non-use (such as during a vacation) it is recommended that the system be flushed for 5 minutes and the tank drained before it is used.
- A drinking water cartridge may contain carbon fines (very fine black powder). After installation, flush the system for 5 minutes to remove the carbon fines before using the water.
- It is recommended that you run the tap at least 20 seconds prior to using water for drinking or cooking purposes.
- The contaminants or other substances removed or reduced by this water treatment device are not necessarily present in your water.

RO MEMBRANE PRECAUTIONS

CAUTION:

Chlorine will destroy the TFC membrane. If you use this RO system with a chlorinated or periodically chlorinated supply, it is **ABSOLUTELY NECESSARY** to use a carbon pre-filter (included with the system). This carbon pre-filter should be changed periodically to avoid chlorine by-pass. See warranty for disclaimers that apply to membrane.

NOTE: To make sure no chlorine is present in the water that reach the membrane, you may want to use a chlorine test kit to check the water that drains from the membrane. No chlorine should ever be detected.

HOW REVERSE OSMOSIS WORKS

The definition of reverse osmosis is to force water under pressure through a semi-permeable membrane. Thereby the membrane reduces the salt and minerals in your water supply. This will improve the taste and odor of your water. The water molecule can pass through the membrane material but salt and minerals are rejected and sent to the drain.

Your water supply is pre-filtered to remove the dirt and chlorine that may foul the membrane. The RO membrane separates this pre-filtered water into Product Water and Drain or Rejected Water. Incoming water pressure forces product water through the membrane and into the storage tank. Dissolved solids, salts, and other contaminants cannot pass through the membrane and are sent to the drain as rejected water. When you draw water from your RO faucet, product water is drawn from the storage tank and is run through the post filter where it is polished to remove anything that may be left. This provides you with great tasting cleaner water for your drinking pleasure.

The storage tank can hold approximately 2.8 gallons of water at a time for your water needs.

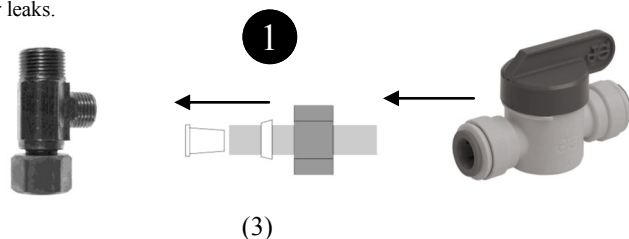
BASIC INSTALLATION PROCEDURE GUIDELINES

- For standard, under-sink installation on 3/8-inch steel, brass or copper cold water supply line.
- Please all instructions and precautions before installing and using your new RO System.
- All local codes should be followed. Should the products we supply with the unit not meet local codes, consult local plumbing supply house for correct fittings to connect the system.

1. Installing the Water Supply Adapter

Directions:

- (A) First shut off the cold water angle stop supply valve stopping the flow of water. Should there not be a shut-off valve on this supply line, you should install one.
- (B) Turn on cold water faucet and allow the water to drain from line.
- (C) Remove the supply line that runs up to the faucet. Install the brass swivel adapter (supplied with the unit).
- (D) Install the brass compression nut, insert, ferrule, and plastic shut-off ball valve (Illustration #1), supplied with the unit. After this is complete, turn the water back on at the angle stop and check for leaks.



INSTALLATION *CONTINUED*

2. Selecting the Faucet Location

The drinking water faucet should be positioned with function, convenience and appearance in mind. An adequate flat area is required to allow faucet base to rest securely. The faucet fits through a 3/4-inch hole. Most sinks have pre-drilled 1 1/2-inch or 1 3/8-inch diameter holes designed for spray hoses. The drinking water faucet may be installed using one of these holes, despite their larger size. If these pre-drilled holes cannot be used or are in an inconvenient location, it will be necessary to drill a 3/4-inch hole in the sink or through countertop next to the sink for the faucet. Non Air-Gap faucets are available when required and they would only require a 1/2-inch hole.

CAUTION: This procedure may generate dusts which can cause severe irritation if inhaled or come in contact with the eyes. The use of safety glasses and safety mask for this procedure is recommended.

CAUTION: Do not attempt to drill through an all-porcelain or porcelain-coated sink. For applications on these types of sinks we recommend using the sprayer hole or mounting the faucet through the countertop.

CAUTION: When drilling through a countertop make sure the area below the drilled area is free of wiring and piping. Make certain that you have ample room to make the proper connections to the bottom of the faucet.

CAUTION: Do not drill through a countertop that is more than 1 inch thick.

CAUTION: Do not attempt to drill through a tiled, marble, granite or similar countertop. Consult a plumber or the countertop manufacturer for advice or assistance.

(SEE ILLUSTRATION #2 next page)

The following instructions apply to stainless steel sinks **ONLY**.

- (A) Line bottom of sink with newspaper to prevent shavings, parts or tools from falling down the drain.
- (B) Place masking or duct tape over the area to be drilled to help prevent scratches if drill bit slips.
- (C) Mark point with center punch. Use a 1/4-inch drill bit to drill a pilot hole through sink.
- (D) Use a 1 1/4-inch hole saw to enlarge hole. Smooth rough edges with a file.

3. Mounting the Faucet

- (A) Loosen stem-nut on faucet, remove metal slotted disc (if attached).
- (B) Attach large diameter 3/8-inch drain tube to barb fitting at the faucet base. This tube should be long enough to reach the drain clamp. This is a gravity drain and should free flow to drain saddle.
- (C) Attach small diameter 1/4-inch drain tube to other barb fitting at faucet base. This tube should be the black 1/4-inch drain line from the RO Assembly Drain.
- (D) Slide faucet plate and black rubber washer onto faucet by threading both drain tubes through the holes on the plate and washer.
- (E) Slide white extension onto long threaded section of faucet. Open end of extension should come in contact with base of faucet.
- (F) Apply 3-5 wraps of plumber tape to faucet stem. Screw quick connector onto end of threads.
- (G) Wet end of 3/8" tube. Push into bottom of connector. Tug gently to be sure connection is complete.

NOTE: To remove the tube, push on the fittings' collar and pull the tube out.

(H) Holding the faucet, feed the three tubes through the hole in the sink. Position the faucet handle at a desired location

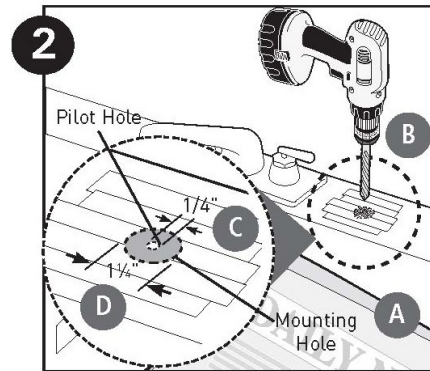
(I) Center the faucet and slip slotted disc between the white extension and the bottom of the counter or sink. Tighten the stem nut with a wrench until it is tight.

(J) Firmly insert goose-neck spout into faucet base.

(4)

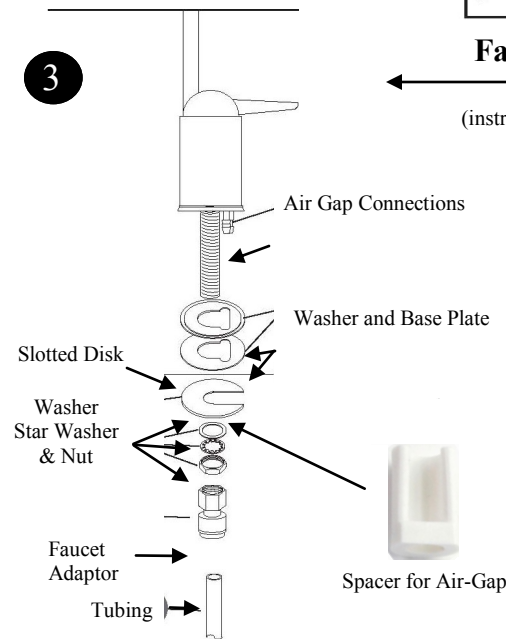
Illustration of Drilling Sink

(instruction on previous page)



Faucet Assembly

(instruction on previous page)



4. Installing the Drain Clamp

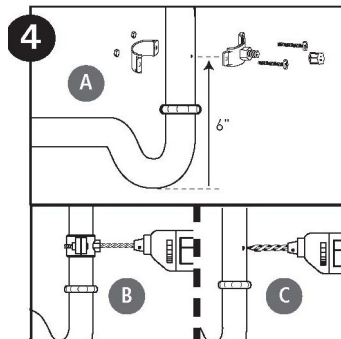
NOTE: If you have a single-basin sink with a disposal unit, call Technical Support for options.

NOTE: Before installing the drain clamp, check the drain pipes under the sink for corrosion. Corroded pipes should be replaced before continuing with installation.

(A) Attach the drain clamp to a vertical section of the drain pipe, about 6 inches above the trap. Make sure the opening on the drain clamp is facing towards the drinking water faucet.

(B) Using the fitting hole of the drain clamp as a guide, drill a 1/4-inch hole through one side of the drainpipe.

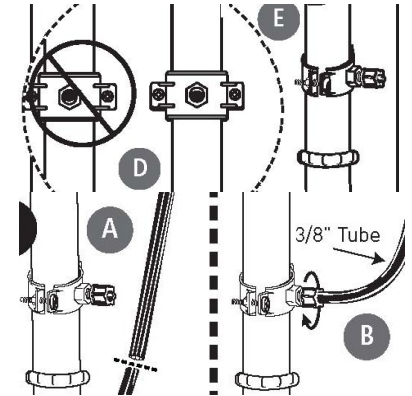
(5)



(C) Remove the drain clamp from the drain-pipe and enlarge the hole with a 3/8-inch drill bit. Use a file to remove rough edges from the drilled hole.

(D) Make sure the black rubber gasket is adhered to the inside of the drain clamp and place the drain clamp assembly over the drilled hole. Look through the hole and position the clamp so that the center of the clamp hole is slightly higher (about 1/16-inch) than the center of the drilled hole. Tighten the clamp securely.

(E) Screw the plastic compression nut onto the drain clamp until hand-tight.



5. Connecting the Faucet to the Drain

CAUTION: This is a gravity drain line. Any loops, kinks or sharp bends must be eliminated before proceeding. Failure to create a straight line to the drain may result in reject water leaking through the air gap in the faucet onto the countertop and below the faucet.

(A) Align the larger reject (3/8-inch) black tubing from the faucet with the compression nut on the drain clamp. Create as straight and smooth a path as possible with the tubing. Do not kink tube. Cut the tubing squarely below the nut and remove the internal and external burrs.

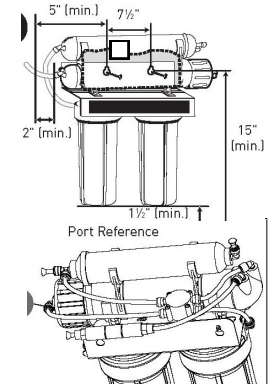
(B) Loosen the compression nut two complete turns. Insert the black tubing into the nut until it stops. Tighten with fingers, then tighten 1 to 2 turns with a wrench.

6. Installation of Mounting Screws

(A) If system is being installed under the kitchen sink, locate it on back or right wall. Make sure to allow ample space for installation. To change the filter cartridges, a minimum of 1-1/2 inches of clearance is required underneath the filter housings. A minimum of 2 inches of clearance from the left side of the unit is also required or 5 inches from the left bracket mounting screw hole.

(B) Install mounting screws at least 15 inches from cabinet floor and 7-inches apart. Leave a 5/16-inch space between the head of the screw and the wall to slip bracket onto screws.

NOTE: Each section of tubing on the RO Assembly has a cap that must be removed before inserting tubing. Please remove all cap during installation.



7. Connecting the Faucet and the Drain to the System

(A) Locate the reject or drain 1/4-inch black tubing from the drinking water faucet. This tube is the smaller of the two. Place a mark on the tubing 5/8-inch from the end. Moisten the end of the tubing with water and insert tubing into the quick-connect fitting on the flow restrictor found on the of system behind the membrane. If tubing is not firmly connected, leaking will occur. It is important for the tubing to be inserted all the way until the mark is flush with the outer edge of the quick-connect insert.

NOTE: Tubing may be quickly and easily removed from the fitting if necessary by pressing the collar around the fitting then pulling the tubing with your other hand.

(B) The blue tube from the bottom of the faucet threaded metal tube is inserted into the outlet of the post filter. Push the free end of the tubing into the quick connect fitting.

(6)

INSTALLATION *CONTINUED*

8. Connecting the Storage Tank to the System

CAUTION: When the tank is full it weighs approximately 28.5 lbs. Provide ample support under tank.

(A) To prevent leaks, apply 5 or more wraps of plumber's tape to threads on tank. Thread the tank valve onto the top of the tank opening. Turn tank so handle is in line with tubing.

CAUTION: The tank/valve connection will leak if not properly sealed. Plumber's tape will normally seal the threaded connection.

(B) Locate the 3/8-inch red tubing. Place a mark on the tubing 5/8-inch from each end. Moisten one end of the tubing with water and insert with a twisting motion into the port of the tank valve until the 5/8-inch mark is flush with the quick connect fitting. Then locate the tank near the system's installation area.

(C) Cut the tubing to correct length. Install free end of tubing into quick-connect fitting on the post filter tee. Do not cut tubing.

(D) Place entire system over mounting screws on wall and slide down.

CAUTION: Make certain system is firmly attached to wall to prevent it from falling and possibly becoming damaged.

NOTE: Use caution not to bend or pinch the tubing behind the system while attaching to mounting screws.

9. Connecting the Supply Adapter and Inlet Filter

(A) Locate remaining length of 1/4-inch yellow plastic tubing.

(B) Push into quick connect fitting on the system.

(C) Cut the yellow tube to a length that will allow connection to the cold water supply fitting. Ensure the tubing does not kink. Push the tube into the fitting.

10. Faucet Operation

(A) Simply turn the faucet a quarter turn and water will flow.

11. System Start-up

Note: The reverse osmosis membrane is treated with a food grade sanitizing agent that may cause a undesirable taste. Although this is not harmful, it should be flushed from the system if not previously flushed.

Note: The post polishing filter may contain fine black carbon particles. These fines are harmless, but may make the water appear gray in color. The carbon fines are flushed from the system with the first tank full of water.

Note: The reverse osmosis system does not produce a high volume of water on demand as would an ordinary filter. Water is produced at a slow, drop-by-drop rate. The system requires about 2 to 4 hours to fill the storage tank. As water is taken from the tank, the system automatically starts the cycle of replacing the water used. When this is completed and the storage tank is full again, the system automatically shuts-off thereby saving water.

CAUTION: Visually check the entire system for leaks. If a leak is present, see "Troubleshooting".

(A) Turn off valve at the top of storage tank. This valve is closed when the valve handle is at a right angle to the tubing.

(B) Turn on the cold water supply

(C) Turn the faucet handle to the open position and let it drip for 30 minutes.

(D) Completely open the cold water supply valve until it comes to a stop. Allow the water to drip from faucet for another 2-3 hours. Then close the faucet and open the valve on the top of the storage tank. The tank valve is open when the handle of the valve is pointed at the tubing connection.

(E) Allow three hours for the tank to fill. Continue to periodically check the installation for leaks. After the storage tank is full, open the faucet to flush the post filter of the black carbon fines we spoke of earlier. Allow 4-5 minutes for the storage tank to drain and flush the post filter. Close faucet and allow the storage tank to refill.

Illustration
Shows
Instruction #8

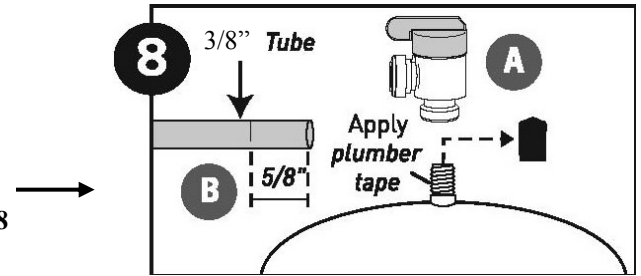
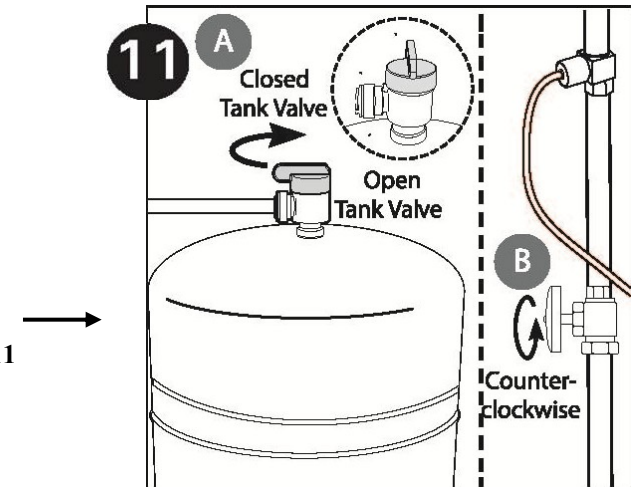


Illustration
Shows
Instruction #11



NOTE: Initially, the water may appear cloudy. This is a result of air bubbles trapped in the post filter. It is not harmful and will dissipate in a matter of a day or so. It may take up to a week after installing a new post filter for all the trapped air bubbles to dissipate.

The system is now ready for operation. You can now enjoy the quality water from your new reverse osmosis system.

TESTING YOUR REVERSE OSMOSIS SYSTEM

It is highly recommended that you have your local dealer test the TDS of your system with every filter change to make sure the system is performing to expected standards.

OPTIONAL INSTALLATION

Connecting your RO System to Refrigerator Icemaker / Water Dispenser

If you are connecting this unit to your refrigerator/icemaker with initial RO installation, wait to turn on the icemaker until the post-polishing filter has been flushed according to Step 11.

Use plastic tubing and fittings. Do not use copper tubing or brass fittings.

NOTE: For optimum performance, it is recommended that the distance between the RO system and the refrigerator icemaker/water dispenser be no greater than 10 feet. At distances greater than 10 feet, the water pressure from the system may not be adequate to deliver water to the refrigerator.

MATERIALS REQUIRED (available from your local hardware store):

- 3/8-inch x 3/8-inch x 3/8-inch compression or quick-connect tee
- 10 feet of 3/8-inch polyethylene tubing
- Shut-off valve

INSTALLATION INSTRUCTIONS

1. Turn off refrigerator water supply and icemaker (consult manufacturer's guidelines).
2. Close tank valve (on top of storage tank).
3. Turn off water supply to RO system at the cold water supply.
4. Open drinking water faucet to relieve pressure.
5. Locate tubing (permeate) leading to your drinking water faucet. Cut and insert the 3/8-inch x 3/8-inch x 3/8-inch compression or quick-connect tee into the permeate tubing.

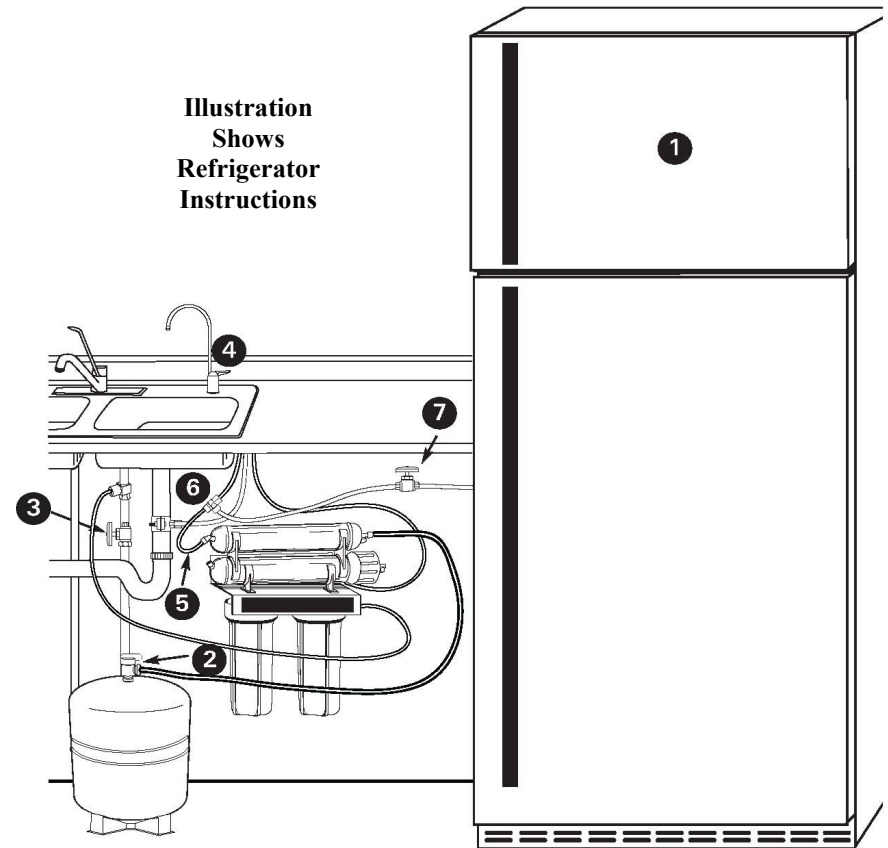
Consult manufacturer's guidelines before installing the supply adapter.

NOTE: When cutting the permeate tubing, you may experience some water leakage.

6. Using a length of 3/8-inch polyethylene tubing, connect the icemaker/dispenser line with the free port on the compression tee.
 7. The shut-off valve should be installed as close to this free port of the tee as possible. Shut-off valve should be installed in the OFF position Consult manufacturer's guidelines before installing the shut-off valve.
 8. Completely open cold water supply.
 9. Open tank valve.
 10. Turn off the drinking water faucet.
 11. Turn on water to RO system at cold water supply.
 12. Turn on icemaker and open shut-off valve.
- Consult manufacturer's instructions.
13. Check for leaks and tighten connections if necessary.

CAUTION: Be sure to check the previous refrigerator shut-off valve for leaks. You may have to install a blank cap or nut to stop the water flow because this valve may not totally shut-off.

**Illustration
Shows
Refrigerator
Instructions**



Replacing the Pre-Filter

The cartridges should be replaced every 6-12 months. If your water contains a high amount of sediment, it may be necessary to change the sediment cartridge more frequently. If your water contains a high amount of chlorine, it may be necessary to change the carbon pre-filter (s) more often.

1. Turn off incoming water supply and the storage tank valve. Place a tray under the system to catch any water that may spill during the removal of the filter housings.
2. Open faucet to release any water pressure.
3. Unscrew bottom of filter housings from caps using a filter wrench if necessary. Discard used filters.
4. Remove black rubber "O"-ring from groove in housing. Wipe grooves and "O"-ring clean, set "O"-ring aside.
5. Lubricate each "O"-ring with a coating of clean silicone grease. With two fingers press each "O"-ring securely into the groove below the threads of the appropriate housing.

CAUTION:

The rubber "O"-ring provides the water tight seal between the cap and the bottom sump. It is important that the "O"-ring be properly seated in the groove below the threads of the housing or a leak may occur.

6. Insert cartridge in the bottom of the housings. Make sure the cartridge slips over the stand-pipe in the bottom of the housing.

NOTE: Be sure to install cartridges in the proper housings.

7. Screw bottoms of housings back onto the caps securely, do not over-tighten. Hand tighten should be sufficient. Turn on cold water supply. Check for leaks. Continue to check periodically to make sure no leaks develop. Post-Filter be replaced every 12 months.

Replacing the Post-Filter

1. Turn off incoming water supply and valve on the storage tank. Place a tray under system to catch any water that may drip during the removal of the post filter.
2. Open faucet to release pressure.
3. Remove filter from bracket and discard.
4. Remove tubes from fittings by pressing in collar around the fitting while pulling the tube with the other hand. Note: If quick connect fittings need to be installed, tape fitting with 5 wraps of plumbers tape and attach to filter.

CAUTION:

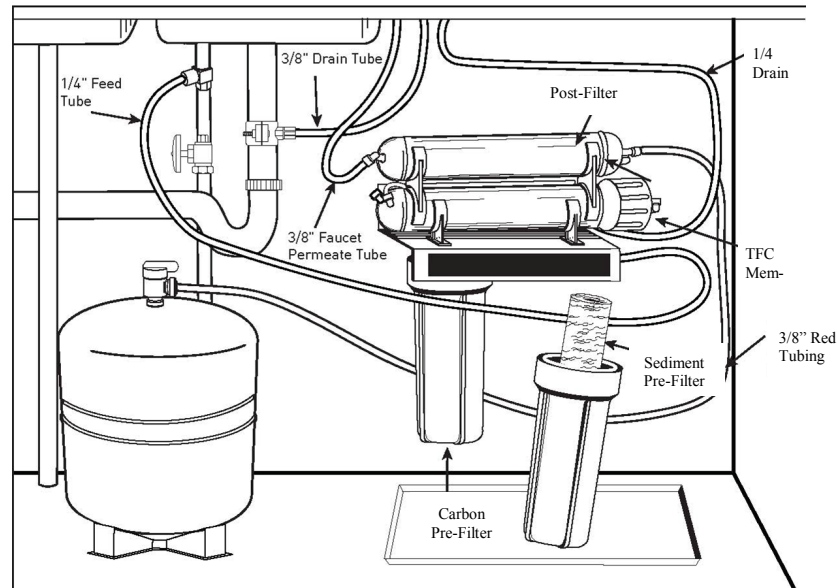
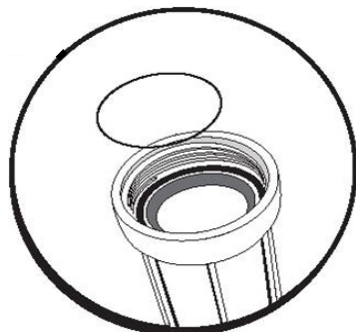
Ensure the tape is not touching the "O"-ring on the fitting or a leak may occur.

NOTE: The filter has an arrow on it showing the direction of the flow. The tee fitting connects to the inlet side of the filter and the elbow attaches to the outlet side.

NOTE: Hand tighten fittings, then tighten with a wrench 1/4 turn.

5. Attach post-filter to bracket with the tee fitting on the inlet end.
6. Attach tubes to fittings by pushing in until the tube stops. Check to see if tube is in place by trying to gently pull tube out.

Sump "O" ring
Illustration



REPLACING THE REVERSE OSMOSIS MEMBRANE

About the Reverse Osmosis Membrane

When used under the operating conditions specified on page one of this manual, your reverse osmosis membrane should last at least one to five years. You should replace the membrane after 18 to 60 months. Replace it sooner if you notice the return of the unpleasant taste and odors or a noticeable decline in the production rate. The precise life span of the reverse osmosis membrane will depend on the quality of the water supply feeding the system and the frequency with which you use the system. Frequent use of the system prevents the filtered salt from building up on the membrane as scale. The more water the system is required to produce, the longer the membrane will last. You may wish to find a variety of uses for your system to prolong the life of the membrane. During periods of non-use (such as during long vacations), remove the membrane housing and place it in a sealed plastic bag. Store in the refrigerator until you return.

NOTE: DO NOT FREEZE.

NOTE: If the system stands for two or three days with no use, the storage tank should be drained.

Replacing the Membrane and Sanitizing the System

NOTE: It is recommended that you sanitize the system each time you change the membrane. It is not necessary to sanitize the system when changing only the filters.

NOTE: When installing a new membrane, it is recommended that you replace the pre-filter and post-filter as well.

Removing the Membrane and Filters

1. Turn off the cold water supply. Allow five minutes for the system to depressurize. Place a tray under the system to catch any water that may spill during the removal of the filter housings.
2. Open the drinking water faucet to drain storage tank. When tank is drained, close faucet.
3. Disconnect the tubing from membrane housing. Hold the membrane with one hand and remove the cap with the other hand.
4. To remove the membrane, grasp the center tube of the membrane with needle nose pliers and pull. Discard the old membrane. Screw cap back on membrane housing without installing the new membrane. Reinstall the tubing to housing at this time.
5. Unscrew filter housings from caps and discard old used filters.

Sanitizing the System

6. Remove black rubber “O”-rings from grooves in housings. Wipe grooves and “O”-rings clean, set “O”-rings aside for now.
7. Rinse out bottom of housings and fill each 1/3 full with water. Add 2 tablespoons of household bleach to each housing and scrub cap, bottom of housings and the membrane housing with a non-abrasive brush or sponge. Rinse thoroughly
8. Lubricate each “O”-ring with a coating of clean silicone grease. With two fingers press each “O”-ring securely into the groove below the threads of the appropriate housing.

CAUTION: *The rubber “O”-ring provides the water tight seal between the cap and the bottom sump. It is important that the “O”-ring be properly seated in the groove below the threads of the housing or a leak may occur.*

9. Screw bottom of housing onto caps WITHOUT inserting filters and hand-tighten. Do not over-tighten.
10. Open the cold water supply and let system run for 2-3 minutes to carry the bleach solution throughout the system.
11. Close the cold water supply and turn on the drinking water faucet. Let the faucet run for about 30 seconds before turning off.
12. Let the entire system stand for 30 minutes to sanitize.
13. After 30 minutes, turn on the drinking water faucet to allow the bleach water to rinse out (about 3-5 minutes).
14. Unscrew bottom of housings, discard any water and rinse with fresh water.

Replacing Membrane and Filters

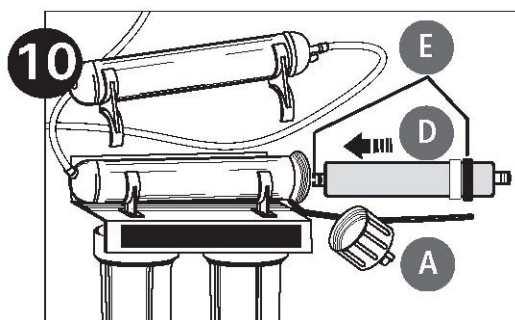
To replace filters, see Replacing the Pre-Filters and Post-Filter on page 11.

To replace the membrane, see illustration #10 below.

NOTE: After installing new membrane and filters, allow the system to run for three hours to fill tank. Check system for leaks periodically. As the storage tank builds pressure, leak may occur that were not present initially.

When membrane and filters have been changed, follow the instructions for system start-up procedure Step #11 System Start-Up.

**Illustration
Showing Changing
Membrane**



TROUBLESHOOTING GUIDE

Leaks Between Bottom of Housing and Cap

1. Ensure sump is tightly screwed to cap. If it leaks, close the cold water supply and the tank valve.
2. Clean black rubber “O”-ring and lubricate with clean silicone grease. With two fingers, insert “O”-ring in groove below threads of housing and press into place. Tighten housing back onto cap.
3. Open cold water supply and tank valve.

If leak persists, call Technical Support.

Leaks on Tank Valve Assembly

1. Open drinking water faucet to drain storage tank. Let drinking water faucet run until it drips. Turn off cold water supply.
2. Push in on white collar of tank valve fitting and pull out on tubing. Unscrew the tank valve from storage tank. Rewrap threads on top of tank with at least 5-8 wraps of plumbers tape. Screw tank valve back onto tank. Trim 1/2” from end of tubing and reinsert 5/8” back into tank valve fitting.
3. Open the cold water supply and tank valve and close the drinking water faucet. Let system pressurize for several hours and check for leaks. Check for leaks again after the tank is full.

Leaks on Quick-Connect Fitting

1. Close the cold water supply and tank valve.
2. Depress plastic collar and pull out tubing.
3. Cut off 1/2” of tubing and place mark 5/8” from end of tubing. Tubing should be cut squarely. The internal and external burrs should be removed.
4. Push in tubing 5/8” into fitting.
5. Open the cold water supply and tank valve. If leak persists, call Technical Support.

No Flow or Slow Flow from the Brine (Drain) Line

Less than 1 1/2 cups per minute.

NOTE: Before checking brine (or reject) flow, make sure the system is producing water by turning off the tank valve and opening the faucet. Water should drip from faucet.

1. Examine the pre-filters. If clogged, replace and recheck the brine (or drain) flow rate.
2. If the pre-filter are not at fault, the brine (or reject) flow controller is probably clogged.

Call Technical Support.

High TDS in Product Water

If high levels of TDS (Total Dissolved Solids) are detected in your product water (approximately 30% or greater of what is measured in your tap water, as determined with a conductivity meter), the RO membrane may need to be replaced, or the brine (or drain) flow control tubing may be clogged. See your dealer or plumber to test product water TDS.

Reduced Production

Slow or no product water flow usually indicates either a clogged pre-filter or an exhausted membrane. First, replace the pre-filters. If the production rate is not improved, replace membrane.

Gradual Return of Taste and Odor

Gradual return of unpleasant taste and odor over a period of time may indicate that your filter cartridges and/or membrane need to be replaced. See “Replacing the Pre-Filters and Replacing RO Membrane”.

Sudden Return of Taste and Odor

If shortly after complete servicing noticeable taste and odors return contact Technical Support.

No Water Pressure from the Drinking Water Faucet or Low Volume in Storage Tank

1. Close the cold water supply to system.
2. Lift storage tank to see if it is empty. If not, open drinking water faucet to empty water from tank.

NOTE: it may be necessary to pump a small amount of air into the tank with a bicycle pump to remove all the water from the tank.

3. When the tank is empty, use a pressure gauge to check the air pressure in the tank. An empty tank should contain approximately 7 to 10 psi pressure in the tank. Increase or decrease the air in the tank accordingly.
4. Open cold water supply. Let system run for 3 hours to fill tank, then check performance.

1	RO0840	Drain Saddle	15	FW10FF	Multi-Wrench
2	BF127	Brass Swivel Adapter	16	42561	Silicone "O" Ring Lube
3	6033CP	Faucet - Chrome	17	JG39	Faucet Adaptor
4	158125	Filter Housing Complete	18	ASV100JG	Auto Shut-Off Valve
5	RO1210	1/4" Tubing	19	S7029-09	Membrane Housing
6	RO1212	3/8" Tubing	20	4002573	LF GRO Membrane
7	BV175	Tank Valve	21	TDS-3	TDS Testing Meter
8	RO1010	Storage Tank	22	GS210RO-MF	Premium Post Filter
9	BB050988	Pre-Sediment Cartridge	23	CVJGSS	Check Valve
10	BRCBC10	Pre-Carbon Cartridge	24	6033NP	Faucet-Brushed Nickel
11	TLC24	TFC Membrane	25	6033AZ	Faucet - Antique Bronze
12	BRAIC10	In-Line Post-Filter	26	9053CP	Upgrade Faucet -Chrome
13	150539	SL Filter Sump Wrench	27	9053NP	Upgrade Faucet -NP
14	RO0826-2	Drain Line Flow Control	28	9053AZ	Upgrade Faucet - AZ



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