



# Owners Manual

For Reverse Osmosis Systems

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MODEL ET4000 — ET5000

P/N 1-1310-10 — 1-1320-10



Includes: Installation and Service Procedures, Specifications and Operation Guidelines

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# INTRODUCTION

Congratulations, you have purchased one of the highest quality Reverse Osmosis, "RO" systems available today. This unit combines a series of different filtration processes into one single module that makes bottle-quality water right in your own home or office. This system has been engineered with only the finest quality components and materials. The system works connected to most potable city water supplies.

## IMPORTANT: ONLY USE ON POTABLE WATER SUPPLIES

- Obtain all materials and tools needed for installation before starting.
- Please read entire manual carefully before proceeding with installation. Failure to follow manual's guidelines could cause personal injury or property damage. Be sure to check household plumbing for signs of leaks, corrosion and aging. Correct these problems before attempting to install your new RO system.

# MANY USES AND BENEFITS OF REVERSE OSMOSIS WATER

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Quality Drinking Water.</li> <li>2. Quality Ice Cubes.</li> <li>3. Car Batteries and Window Washer.</li> <li>4. Removing some carpet stains.</li> <li>5. Drinking water for pets.</li> <li>6. Watering plants.</li> <li>7. Some humidifiers.</li> <li>8. Washing windows.</li> </ol> | <ol style="list-style-type: none"> <li>9. Making coffee, juice and teas.</li> <li>10. Use for cooking.</li> <li>11. Rinsing vegetables.</li> <li>12. Brushing teeth.</li> <li>13. Rinsing hair after washing.</li> <li>14. Steam irons.</li> <li>15. Office coolers.</li> <li>16. Bottled Water.</li> </ol> |
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## TOOLS & MATERIALS RECOMMENDED FOR NORMAL INSTALLATION

1. Adjustable Wrench (2)
2. Phillips Screw Driver
3. 3/8" drill motor with a 3/8" drill bit
4. Teflon Tape
5. Safety Glasses
6. (Optional) Faucet Installation - Step 2  
1-1/4" hole saw appropriate for sink material to be drilled
7. (Optional) Refrigerator Icemaker Hook-Up - Step 8  
3/8" polyethylene or polypropylene tubing.  
3/8"×3/8"×3/8" plastic compression T-fitting

## CONTENTS OF PACKAGE

1. Filter Pac/RO module
2. Storage Tank
3. Owner's Manual
4. Warranty Registration Card
5. Standard air-gap faucet or optional colored faucet
6. **Parts Bag:**
  - a. Easy Tap Adapter w/washer (plastic)
  - b. Drain Clamp (black plastic)
  - c. 1/4" Coupler (plastic) for use w/air gap faucet
  - d. Faucet Adapter plastic (7/16" fip × 3/8" push)
  - e. Tank Ball Valve
  - f. Mounting Screws
7. Water quality monitor (ET5000)

# SPECIFICATIONS AND LIMITATIONS

## INCOMING WATER SUPPLY:

pH	3 min. to 11 max.
Water Pressure	40 PSI min. to 85 PSI max.
Total Dissolved Solids (TDS)	2000 ppm max.
Temperature:	40° F min. to 110° F max.
Air and Water Hardness	Water Softener recommended over 10 GPG
Iron Content	<1 PPM max.

## SYSTEM:

System Dimensions	16"×15.5"×7"
Storage Tank Dimension	15.5"×11"
Rejection Rate	Up to 98% TDS *
Storage Capacity	Up to 3.2 Gallons*
Production Capacity	24 gallons per day *
Membrane Rating	

\*NOTE: These specifications are not the certified results and can vary greatly depending on feed water makeup, i.e. pressure, tempera-

ture, TDS, and hardness. See Performance Data Sheet for the actual WQA Certified results under standard test conditions on page 14. Regular maintenance and filter replacement are necessary for system's performance and longevity.

## WARNINGS

1. **Only use with potable water supplies** (Water must be microbiologically safe).
2. **Installation of RO system must comply with state and local laws and regulations.**
3. **Check for leaks after installation or service** as system is reaching standard operating pressure and temperature. **Check for leaks periodically thereafter.** A system may be inadvertently moved or jarred while other items are moved under the sink. **If a fitting is accidentally loosened, a leak could result causing damage to your cabinet.**
4. **Do not let system freeze.** Allow system to warm up to room temperature before installing. It is best to be installed indoors with air temperature between 60° - 85° F.
5. **Attach to cold water supply only.**
6. A water-softening appliance is recommended if hardness of incoming water supply is over 10 grains of hardness to increase filter life.
7. **Never drain RO tank completely without first turning off the refrigerator icemaker.**
8. Air-gap faucet may cause a slight noise at first but noise should diminish in about a week. If noise continues, adjusting drain clamp may help reduce noise. Also, install faucet so air-gap faucet hole will drain into the sink if drain line gets plugged from obstruction in the drain line.
9. Water containing iron in excess of 1ppm will require some pretreatment. Consult your local water authority.
10. This reverse osmosis system contains a replaceable component critical to the efficiency of the system. Replacement of the reverse osmosis component should be with one of identical specifications, as defined by the manufacturer, to assure the same efficiency and contaminant reduction performance.
11. Failure to follow recommended service intervals or use of filters and parts other than those recommended by the manufacturer may void warranty.
12. Drain RO tank completely at least twice a year. If daily use averages less than a gallon per day, drain every two weeks. (See page 2 for Uses and Benefits)
13. We recommend having all porcelain/enamel-coated sinks professionally drilled.
14. Sanitizing most RO systems on a yearly basis is important for reducing bacteria build-up.

## PHOTOS OF RO AND CONTENTS LIST

### ET4000 SYSTEM





- A. Faucet and tubing
- B. Drain clamp
- C. Easy Tap Adapter
- D. Screws
- E. Union Coupling
- F. R/O tubing

- G. Storage tank with ball valve
- H. FilterPac/RO Unit (*image may vary from model in box*)
- I. Water quality monitor (ET5000)

## INSTALLATION PROCEDURES

### STEP 1 SYSTEM POSITION

The RO system needs both a water supply and access to a drain. The RO system is designed to fit under most sinks. The kitchen sink is the most common location for the RO install. Remove all system components from boxes and determine the location for placement of the Filter Pac/RO module, tank, and faucet.

If you desire to hang the Filter Pac/RO mod-

ule, use mounting screws, placing them to align with holes in the bracket (**make sure the cabinet wall is thick enough to support the Filter Pac/RO module and that the mounting screws will not pierce through the wall**). Hang Filter Pac/RO module to assure sufficient space is allowed. Remove Filter Pac/RO module from the wall for now and continue with install.

### STEP 2 FAUCET INSTALLATION

**A. Check for an extra hole in the sink** You must drill a 1 ¼" hole for the faucet if the sink does not have one.

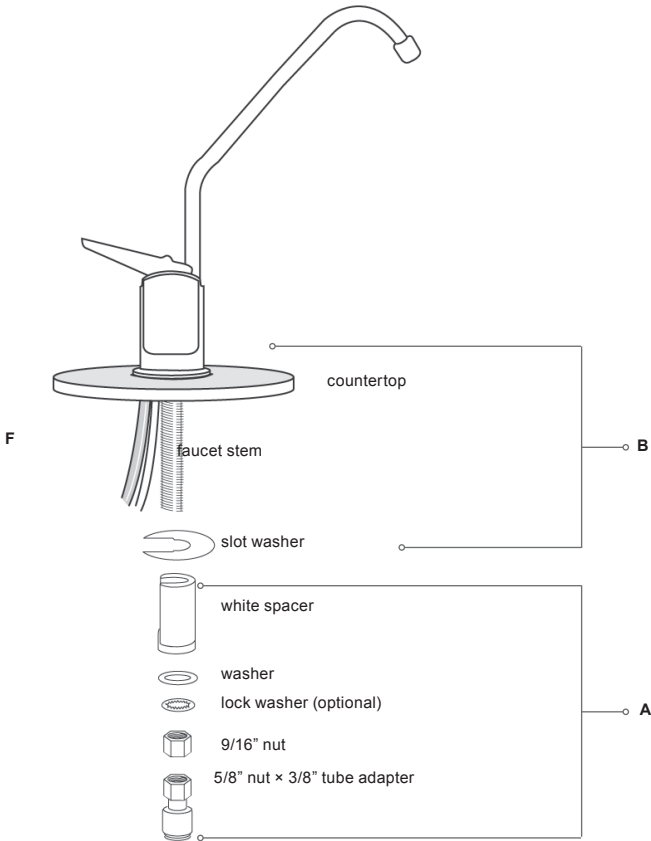
**Determine Location of Faucet Hole** Check underneath sink before drilling. Make sure there are no obstructions.

**Drilling a Stainless Steel Sink** Drill a 1 ¼"

hole with a hole-saw or hole punch for an air-gap faucet. Smooth out rough edges with a file if necessary.

**A Porcelain/ Enamel-Coated Stainless or Cast Iron Sink** *The manufacturer recommends having this type of sink professionally drilled because of possibility of chipping or*

**FIGURE 1**



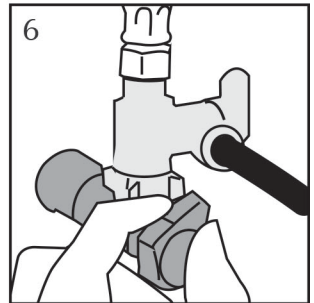
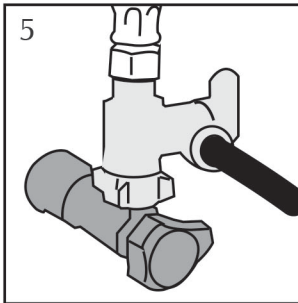
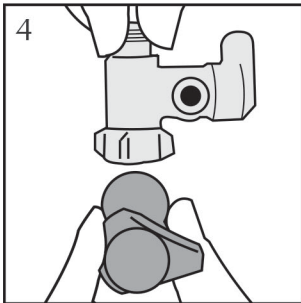
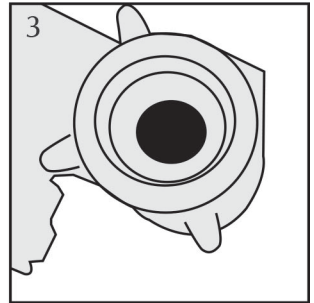
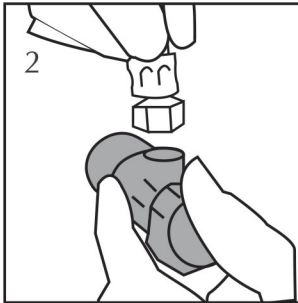
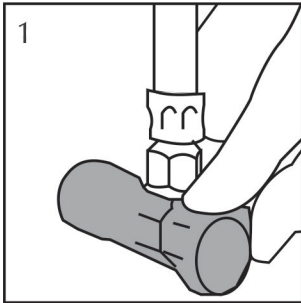
cracking. If you are attempting to drill, use extreme caution. Obtain the proper tools necessary to drill through the sink material. Follow the drill manufacturers instructions for your type of sink. Place an old towel under the sink to catch any metal filings and to make clean up easy. After drilling, clean up metal filings quickly to avoid staining the porcelain.

**B. Install Air-gap Faucet** Pre-assemble faucet prior to installing on the sink. Place the *white spacer* onto faucet stem flat side toward tubing and open end upward. Slide spacer up the stem leaving enough room for the thickness of the sink. Place the *washer* onto the stem and thread on the *7/16" nut* up to the spacer. Attach the plastic *3/8" faucet adapter fitting* to the base of the faucet stem (**do NOT over-tighten**). See A in Figure 1 on the right.

C. Guide the (2) tubes and the faucet stem through the hole on the sink until the faucet rests on top of the sink. Center the faucet over the hole. Position the faucet so the air-gap hole and the faucet lever point toward the sink basin (in case drain tube plugs causing water to spill out of the air-gap hole). Insert the *slotted washer* under the sink between the *white spacer* and the base of the sink. Tighten the *7/16" nut* securing the *white spacer* tight against the sink. (see B in Figure 1 above). Faucet may require repositioning before final tightening. Remove short packing tubing from top of faucet and insert faucet spout by pushing spout straight into the hole until it seats.

### STEP 3 EASY TAP ADAPTER INSTALLATION

1. Shut off water supply at brass/chrome supply valve.
2. Disconnect riser from brass/chrome supply valve.
3. Ensure that the sealing gasket is fully seated into the Angle Stop Valve female thread.
4. Install Angle Stop Adapter Valve on supply valve.
5. Connect the riser to the Angle Stop Adapter Valve.
6. Fully insert tubing into the Speedfit side of the valve.
7. Open valves and check installation for leaks.



### STEP 4 DRAIN SADDLE CLAMP INSTALLATION

#### A. Location of Drain Clamp

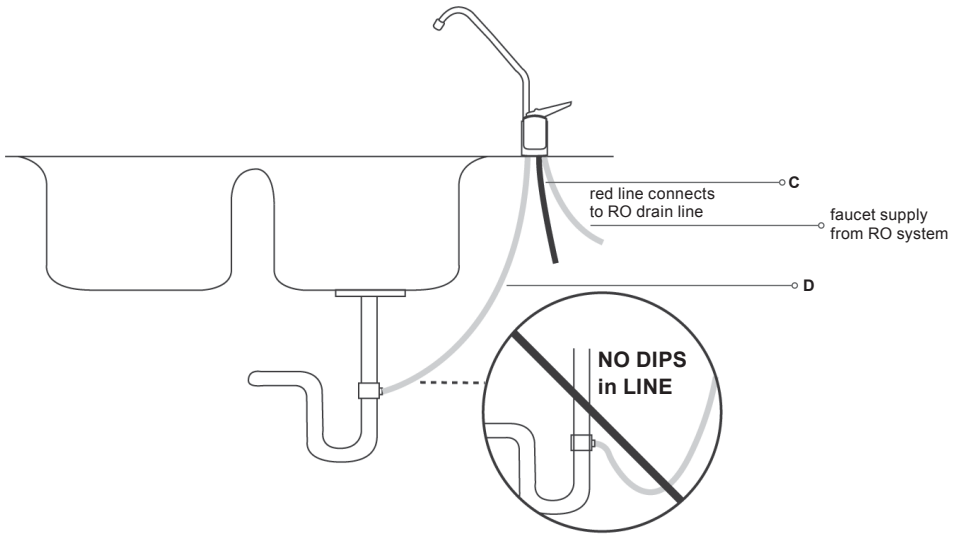
1. **Sink With Disposal** Select location to place drain saddle clamp. Best choice is the vertical pipe as near the sink as possible making certain that the drain clamp is above the horizontal garbage disposal waste pipe. When connecting the black drain tube to drain saddle clamp keep the tube run as straight as possible and that there are no dips, loops, low spots or kinks. (See D in Figure 2 on pg 7). Also, to reduce noise, assure that RO drain line enters the vertical pipe from a direction other than the direction of entry of the garbage disposal pipe.

OR

2. **Sink Without Disposal** Best choice is the vertical pipe about 4" above the water level in the trap.

**B. To Install** Drill a 3/8" hole through one side of the drainpipe. Align the hole in the drain clamp with the hole in the drainpipe. Tighten down the drain clamp snugly so it will not move on drain pipe.

**FIGURE 2**



### STEP 5 STORAGE TANK PREPARATION

- A. Wrap the threads on top of the tank with 6 wraps of Teflon tape (*do not use any type of pipe compounds*).
- B. Screw tank ball valve onto the top of the tank (*approximately 4 to 5 full turns - do NOT over-tighten*). Check for leaks once RO is pressurized and while tank is filling and again when tank is full.
- C. Tank is pre-charged with air pressure. Tank can be laid on its side if necessary (*tank will hold approximately 2 to 3 gallons of RO water depending on water pressure, tank positioning, and tank air pressure*).
- D. Tank pressure can be increased to improve water flow to the faucet or refrigerator. Air pressure can only be tested when tank is completely empty of water. Air pressure of 5-PSI minimum, 12-PSI maximum is recommended. The higher the air pressure the smaller the volume of water the tank will hold. Pressure of 10-12 PSI may be necessary to feed a line to the refrigerator. *Over pressurizing may ruin the tank.*

### STEP 6 TUBING CONNECTIONS

**IMPORTANT: Fitting manufacturer requires fittings to be re-checked after system reaches full operating pressure and temperature, Re-tighten and secure as necessary.**

It is not recommended to shorten the length of any tubes during installation (except black or red 3/8" drain tube on air gap faucet). This will make future servicing easier.

- A. **1/4" White Supply Tube on Filter Pac/RO module** Connect the supply (white) tube firmly into the push-in port on the side of the easy tap adapter installed on the cold water

supply line. *Optional If self-piercing valve is used, connect to valve using brass nut, tubing support, and ferrule, (not included).*



**B. 1/4" red Drain Tube on FilterPac RO Module Air-Gap faucet system** Use the coupler from the parts bag to connect the 1/4" red drain tube from the faucet to the red tube from Filter Pac/RO Module. (See C in Figure 2 on page 6). Push firmly so tubes will not pull out of coupler or leak.

**C. 3/8" black Drain Tube from Faucet** Connect this tube to the black 3/8" drain clamp. (See D in Figure 2 on page 6). Tighten firmly so tube will not pull out of drain clamp. **IMPORTANT: Do not leave excessive slack in drain tubing. Shorten tubing so that it flows directly to the drain with no dips,**

*loops, low spots, or kinks.*

**D. Post Filter Connection to Faucet** Depending on the model, connect the 3/8" blue tube from either the outlet side of the post-filter bowl or the outlet fitting from the 10" inline post-filter cartridge to the 3/8" Push-In adapter fitting on the RO faucet.

**E. RO Tank Connection** Depending on the model, connect the 3/8" blue tube from either the tee of the inlet side of the post-filter bowl or the tee of the inlet side of the 10" inline post-filter cartridge to the Push-In ball valve on top of the RO storage tank.

## STEP 7 SYSTEM START-UP PROCEDURES

Turn your sink cold water supply valve to the on position while leaving the Filter Pac/RO module and RO tank ball valves in the off position (horizontal, which is perpendicular to the valve). Check for leaks and adjust as necessary.

A. Slowly turn Filter Pac/RO module ball valve to the on position (blue valve vertical, which is in line with the valve). As water enters the filter bowls and makes its way through the filters to the membrane element you will hear air escaping through the drain. This is normal. Open RO faucet on the sink until the water starts coming out. (Water flow will only be a trickle and may take up to 20 minutes before water starts to come out of the faucet spout on some units). Shut RO faucet off and check for leaks and adjust as necessary.

B. Open the tank ball valve by turning handle

**IMPORTANT: Check carefully for small leaks every few hours for the first few days to assure there are no leaks. It is wise on any RO system to inspect for leaks since the system sits unseen underneath your sink and a small leak may not be detected without close inspection. Check for leaks occasionally thereafter and make adjustments as necessary.**

a 1/4 turn toward the tubing. Let tank fill for 4 to 6 hours (if you are changing filters, your tank may already be full, so you would not need to wait). Then turn on RO faucet and drain tank completely, (approx. 5 minutes). Shut RO faucet off, allow tank to refill, and drain again in 4 to 6 hours. The RO system is shipped with a food grade preservative and must be flushed out prior to use. **DO NOT DRINK THE RO WATER UNTIL TANK HAS BEEN DRAINED TWICE.**

C. Shut RO faucet off and let system fill again. RO water is now ready for use.

## STEP 8 REFRIGERATOR ICEMAKER HOOK-UP

A. If there is not an ice-line from the RO to the refrigerator, you may choose to run an ice-line so that your ice and water dispenser will have filtered water. If the distance from the refrigerator to the RO is more than 50', we recommend 3/8" polypropylene or polyethylene tubing for best results. **DO NOT USE COPPER.** (Be sure you have the recommended water pressure to your icemaker according to the refrigerator manufacturer's specifications.) 3/8" tubing, a supplemental storage tank, more RO air pressure, or dif-

ferent usage patterns, may be required to supply adequate pressure!

B. Connect tube (*not included*) to appropriate refrigerator connection and to a plastic "T" fitting (*not included*) spliced into the 3/8" blue tube between the post filter and faucet. It is recommended to install a ball valve on the tube to the refrigerator for service and start up purposes. Keep ball valve off until start up procedures are completed and RO tank is completely full after the second tank draining.

**IMPORTANT: Never turn on icemaker before RO tank is full of water to avoid damaging refrigerator solenoid. If your refrigerator has a water dispenser in the door, upon initial**

**start-up you will need to depress the water supply lever 2 to 3 minutes before the water will dispense.**

## STEP 9 RECOMMENDED FILTER SERVICE LIFE

The types of filters listed below vary depending on RO system style. The manufacturer provides very high capacity carbon filters and replacement intervals are based on our filters. Other filters may not have the same capacity as original factory filters and may not last as long. Water conditions vary greatly by region and can affect filter change intervals. For filter change interval recommendations, follow the guidelines below. If in doubt, contact the manufacturer.

**A. Sediment Pre-filter** These are the only filter(s) that you can visually inspect. They are white when new and will turn dark with dirt and sediment when changing is necessary. A water softener will extend the life of the filter(s). Inspect every 6 months or sooner in bad water conditions.

**B. Carbon Pre-filter** These filters should be changed at least once a year. Changing these filters is necessary to help insure membrane life and water quality. *Use of high capacity carbon block filters is recommended.* Granular carbon filters are **not recommended** because they release excessive carbon fines at initial start-up, which can reduce the life of the membrane element.

**C. RO Membrane** The RO membrane element is a replaceable component critical for effective reduction of TDS (Total Dissolved Solids). The RO membrane should be changed when TDS rejection rate falls below 75%. The rejection rate should be tested periodically to insure optimal performance. The membrane typically lasts 2-5 years depending on influent water quality and hardness. See *Performance Indicator* information listed below. \*

**D. Carbon Post-filter/ Carbon MAP Filter** These filters need to be changed at least every 12 months to insure quality water. **Do not wait until taste is a problem.**

\* **Performance indicator** The RO system contains a replaceable treatment component critical for effective reduction of TDS (Total Dissolved Solids). The product water shall be tested periodically to verify that the system is performing properly. Testing can be accomplished by contacting the service company that installed your RO system or an authorized dealer. If a service company is not available in your area a water sample may be sent to AmeriFlow™ for a free TDS test of your RO water. Additionally a water quality monitor is available for purchase from the manufacturer that will allow the product water to be tested at home.

To send water samples for TDS testing to the manufacturer do the following. Using 2 clean containers put approximately ½ cup of tap water in one container and ½ cup of RO product water in the other container. Send both samples to the manufacturer along with your contact information.

To order replacement filters or locate a source in your area call the factory: AmeriFlow™ Water Systems Inc. 602-275-4188.

## REPLACEMENT FILTERS – PART NUMBERS – REPLACEMENT FREQUENCY

RO MODEL	6 mo. - 1 yr. PRE-SEDIMENT	1 year PRE-CARBON	2 - 5 years MEMBRANE	1 year MAP CARBON	1 year POST CARBON
ET4000 1-1310-10	N/A	CB05 #135-1210-1	TF24 #138-124-1	CB-A #135-1210-2	CB #135-1210-2
ET5000 1-1320-10	P1 #136-1110-1	CB05 #135-1210-1	TF24 #138-124-1	CB-A #135-1210-2	10C4 #135-3110-1

## STEP 10 FILTER CHANGE INSTRUCTIONS

**A. Sediment and Carbon** Turn Filter Pac/RO module ball valve to off position. Turn tank ball valve off. Turn on RO faucet to help depressurize system. Unscrew filter bowls by turning counter-clockwise. Remove old filters and discard. Clean filter bowls if needed in warm, soapy water. Insert new filters into appropriate filter bowls. Make sure o-ring at top of filter bowl is clean, lubricated and seated properly when tightening. If changing the post filter, do so now following the same procedure as the pre-filters. *Follow Step 7 - System Start-Up Procedures.* Check for leaks and adjust as necessary.

**B. RO Membrane** Turn RO tank and water supply off. Turn on RO faucet to help depressurize system. Disconnect white tube going into membrane housing. Unscrew end cap

of membrane housing. Have a towel and a bucket handy because some water will pour out. Pull out old membrane and clean membrane housing if necessary with warm, soapy water. Insert new membrane in the same direction as old membrane. Push firmly up to properly seat RO membrane. Replace end cap and reconnect white tube to membrane housing. *Follow Step 7 - System Start Up Procedures.* System should be sanitized each time membrane is changed. (See *Recommended Sanitizing Procedures* on page 9). Test TDS (Total Dissolved Solids) rejection rates and be sure the rates are over 75%. A TDS monitor is optional on some models and included on others. If your unit did not come with a monitor, you can order one or seek advice from a local water treatment service company. A new membrane should

## STEP 11 RECOMMENDED SANITIZING PROCEDURE

The manufacturer recommends having your system professionally sanitized once a year. The best time to sanitize is when changing all the filters and/or when changing the membrane.

**A.** Drain all water from RO tank by turning on RO faucet until water stops flowing. Follow Filter Changing Procedures (assuring ball valve on tank and Filter Pac/RO module are in off position). Remove old pre-filters and membrane from housings. Remove the post-filter. On the ET5000 a 3/8" union (not included), will be necessary to reconnect the tubing together without the post-filter installed during sanitizing procedures.

**B.** Carefully put 2 capfuls of household bleach into the empty filter bowl canisters. Re-install filter bowls without filters. **CAUTION:** *Be careful not to splash bleach on hands or surfaces.*

**C.** Turn water supply on (open ball valve on tank and RO module) and let system fill for 4 minutes with tap water. Shut system off. Turn RO faucet on until water comes out and then shut it off.

**D.** Let entire system sit for about 30 minutes to sanitize. Then turn on RO faucet and let system drain until empty. Turn off water supply valves and empty water in filter bowls. Re-install filter bowls. Turn the water supply on again. Turn off faucet and let system refill with tap water as before. Drain again. Install new filters following the *Filter Change Instructions - Step 10.* Follow *System Start-Up Procedures Step - 7.*

## STEP 12 SERVICE AND MAINTENANCE RECOMMENDATIONS

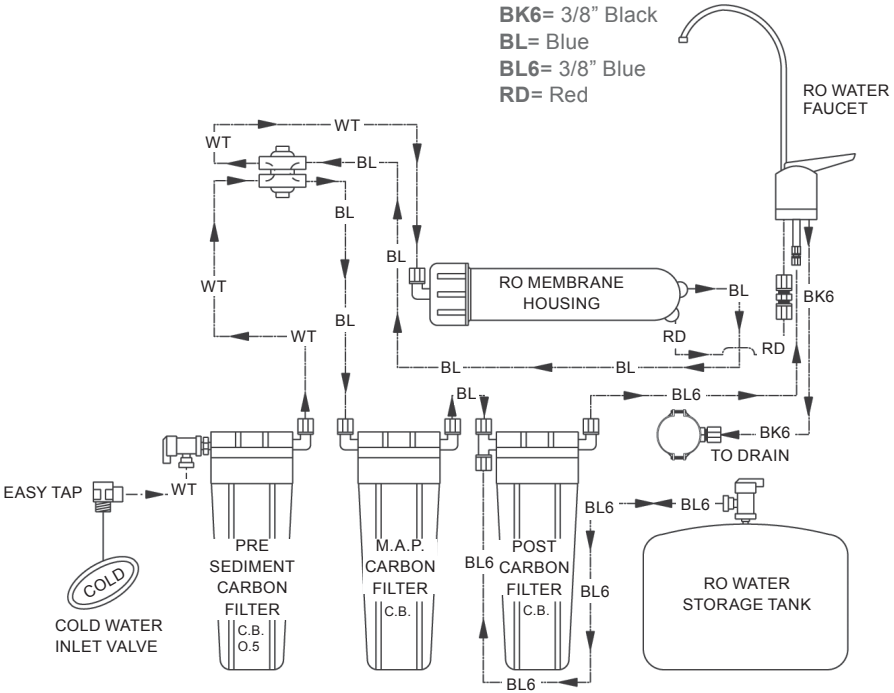
All Reverse Osmosis systems require periodic maintenance to insure the continuation of water quality. Test TDS rejection rates at least every 6 months. Changing filters is important for continuous good water quality. Filters need to be replaced at recommended intervals as old filters may retain a considerable amount of debris and contaminants. Failure to change filters, use of lower quality filters, or improper sanitization can dramatically reduce membrane life and water quality. **DO NOT WAIT UNTIL YOUR WATER TASTES BAD TO REPLACE YOUR FILTERS.**

**REMEMBER:** *Most contaminants do not have a foul taste except in extreme quantities.* Testing the check valve, flow restrictor, incoming water pressure, water hardness, and TDS levels periodically are important to help extend membrane life and overall water quality. Your local water professional can easily perform these tests. Failure to follow proper maintenance instructions, use of filters or parts other than those recommended by the manufacturer, or use of an unauthorized service agent may void your warranty.

# ENVIROTEC™ RO SCHEMATICS

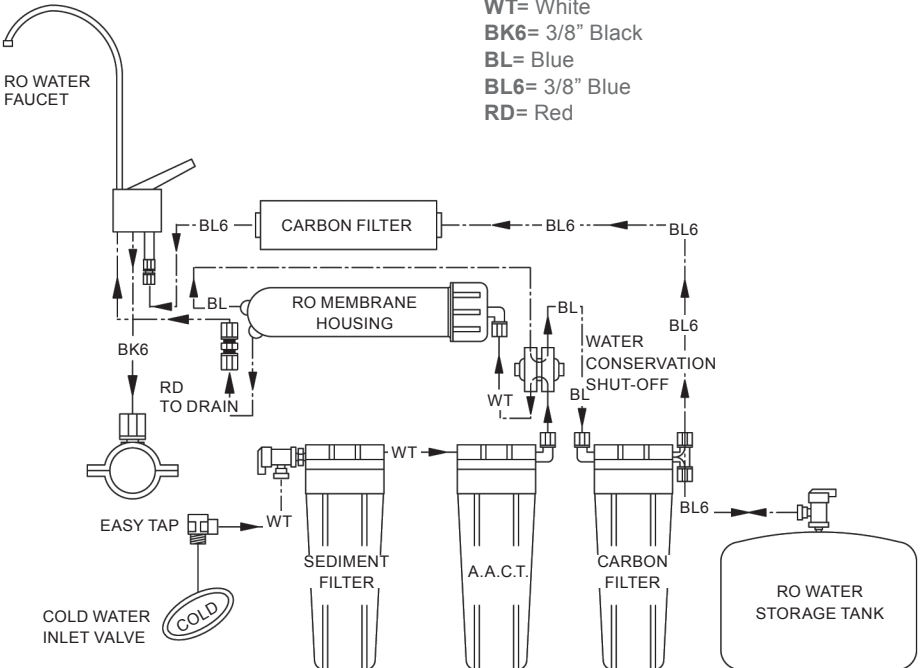
## ET4000

WT= White  
 BK6= 3/8" Black  
 BL= Blue  
 BL6= 3/8" Blue  
 RD= Red



## ET5000

WT= White  
 BK6= 3/8" Black  
 BL= Blue  
 BL6= 3/8" Blue  
 RD= Red



# REPLACEMENT PARTS LIST

FOR ET4000 - ET5000

Quantity	Part No.	Description
1	103-0504	Easy Tap Adapter
1	419-1404-1	1/4" JG 90 Ball Valve
2	804-11-04	1/4" Hex Nipple
1	419-1406	3/8" JG 90 Ball Valve, Storage Tank
2 (3)*	805-40-02	Fitting 1/4" mpt x 1/4" JG Elbow *
1	123-541	Water Conservation Shut-Off Valve
1	128-00	RO Membrane Housing
1	128-R	O-ring, Membrane Housing
2	805-40-04	Fitting 1/8" mpt x 1/4" JG Elbow
1	121-1604-1	Check Valve Fitting 1/8" mpt x 1/4" JG Elbow
1	129-260	Flow Restrictor, 260 ml
1	110-03181	3.2 Gallon Storage Tank
1	805-40-042	Fitting 3/8" stem x 1/4" JG Elbow
1	805-70-06	Fitting Union 3/8" JG Tee
1	805-S10-06	Fitting 1/4" mpt x 3/8" stem
1 (1)*	805-40-06	Fitting 1/4" mpt x 3/8" JG Elbow *
1	125-124	RO Faucet, Specify Color
1	805-25-04	Faucet Adapter 3/8" x 7/16" fpt
1	805-15-04	1/4" Union JG
1	124-462	Drain Saddle Clamp
3	127-1101	Filter Bowl Canister
3	127-1R	O-ring, Filter Bowl canister
6	805-LC-06	3/8" Locking Clip JG
11	805-LC-04	1/4" Locking Clip JG
2	122-321	Clips, Membrane
2 (4)*	122-24321	Clips, Post Filter *
1	120-131	Bracket
1	114-10	Water Quality Monitor

## TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Cloudy ice cubes or milky colored water.	Bad membrane.	Replace Membrane and sanitize when below 75% rejection
	Water supply.	High oxygen content
	Refrigerator.	Some refrigerators freeze differently, leaving the ice cube looking cloudy. Let cube dissolve in glass of water. If just air, will float to surface and dissipate.
	System is still new.	This is normal and should clear up in two weeks.
Noisy drain or faucet.	Air gap faucet.	A little noise is common with air gap faucets. Check manual to be sure installed in proper location. Allow two weeks for air to work out of system.
	Drain tube.	Check that drain tube from faucet is continuously down hill to drain. Loops or dips will cause noise. Disconnect drain tube and clean free of debris.
Hole on faucet is leaking.	Drain clamp slipped.	Align drain clamp hole with drainpipe hole.

## TROUBLESHOOTING GUIDE CONTINUED

PROBLEM	CAUSE	SOLUTION
	Drain tube loops or dips.	Shorten drain tube from faucet until smooth down hill flow to drain.
	Restriction in drain tube.	Disconnect drain tube and clean out restriction.
Filter bowl canister leak.	O-ring not sealed properly.	If damaged, replace. If dirty, clean, lubricate and retighten filter bowl. Hand tighten firmly.
Water does not taste or smell right.	Bad membrane.	Replace membrane when below 70-75% rejection and sanitize.
	Filters have expired.	Replace filters. Should be replaced every 6 to 12 months.
	Little water use.	Drain or use entire tank. Should be done every 2 weeks if low water use.
	System needs sanitizing.	Sanitize (see <i>Sanitizing Procedure</i> on page 9) and replace filters.
Little water from faucet.	Over pressurized tank.	When empty, tank pressure should be between 5-12 psi.
	Incoming water pressure is below 40 psi.	Increase pressure to 40 psi with a pump.
	New system or filters just changed.	System takes 4 to 12 hours to completely fill.
	Bad check valve.	Replace check valve.
	Tank valve not open.	Open valve.
	Bad storage tank.	Replace storage tank. If not bad check that tank air pressure is between 5-12 psi when empty.
	Filters clogged.	Replace filters.
	Kinked tube.	Unkink tube. If damaged, replace tube.
System is continually running.	Shut off valve not working.	Replace shut off valve.
	Low city supply water pressure.	Increase water pressure to 40 psi with a pump.
	Bad check valve.	Replace check valves.
	Ice being made in refrigerator.	Nothing you can do, ice is made on demand.
	System is new.	Allow 2 weeks for air to bleed.
Ice maker not working	Ball valve to ice line is off.	Turn on ball valve.
	Icemaker in refrigerator is off.	Turn to on position.
	Ice maker line frozen.	Thaw with hair dryer. Make sure you have a full tank of water before turning icemaker on.
	Tube to refrigerator is kinked.	Find kink and repair.
No water out of refrigerator door.	1-quart reservoir not full.	Hold down dispenser handle for approximately 3 minutes until water comes out. Make sure RO tank is full.
Makes water slowly.	Normal RO process.	Your RO system makes water a drop at a time. 3-gallon storage tank should be full in 4-12 hours.
	Low city water pressure.	Increase to 40 psi with a booster pump.
	Kinked tubing	Find kink and repair.
	Filters plugged.	Replace filters.
	Bad membrane.	Replace membrane.

# PERFORMANCE DATA SHEET NSF/ANSI 58

**REVERSE OSMOSIS SYSTEM** MODEL NUMBERS 1-1310-10, 1-1320-10

REPLACEMENT TREATMENT COMPONENTS SEE STEP 9, PAGE 8

GENERAL INSTALLATION — OPERATION — MAINTENANCE REQUIREMENTS

- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
- This reverse osmosis system contains a replaceable treatment component critical for effective reduction of total dissolved solids. The product water shall be tested periodically to verify that the system is performing properly.
- While testing was performed under standard laboratory conditions, actual performance may vary.
- See Owner's manual for Manufacturer's limited warranty.
- This system has been tested and shown to operate at its calculated recovery rating and efficiency rating under standard test conditions.
- Chlorine in the influent water may affect the R/O membrane polymers.
- See Owner's manual for complete installation / operation and maintenance requirements, as well as user responsibility and parts and service availability.



This system has been tested and certified by IAPMO according to NSF/ANSI 58

This system has been tested according to NSF/ANSI 58 for reduction of substances listed below. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI 58.

## PERFORMANCE CLAIMS

Contaminant	Average Influent Concentration (mg/L)	Average Effluent Concentration (mg/L)	Average Percent Reduction	Maximum Effluent Concentration (mg/L)
Barium	9.4	0.001	> 99.9	0.001
Cadmium	0.029	0.0015	94.8	0.004
Copper	2.8	0.02	99.2	0.05
Turbidity	16 NTU	0.13 NTU	99.1	0.17 NTU
Fluoride	7.7	0.25	96.7	0.4
Lead	0.15	0.002	98.6	0.008
Radium 226/228	25 pCi/L	5 pCi/L	80.0	5 pCi/L
Selenium	0.13	0.003	97.6	0.009
TDS	717	44	93.8	133

Daily Production Capacity	9.2 gpd
Rejection Rate	93.8%
Storage Capacity	2.5 gallons
Recovery Rating*	18.7%
Efficiency Rating*	12.2%
System Weight	27 lbs.
System Dimension	16"×15.5"×7"
Storage Tank Dimension	15.5"×11"
Min./ Max. Pressure	40 - 85 psi
Min./ Max. Temperature	40° - 110° F

\* **Performance indicator** The product water shall be tested regularly to verify that the system is performing properly. Testing can be accomplished by contacting the service company that installed your RO system or an authorized dealer. If a service company is not available in your area a water sample may be sent to *AmeriFlow™* for a free TDS test of your RO water. Additionally a water quality monitor is available for purchase from the manufacturer that will allow the product water to be tested at home.

Test parameters: 25± 1°C, 50 psi, and pH of 7.5

\***Recovery Rating** means the percentage of the influent water to the membrane portion of the system that is available to the user as reverse osmosis treated water when the system is operated without a storage tank or when the storage tank is bypassed. \***Efficiency Rating** means the percentage of the influent water to the system that is available to the user as RO treated water under operation conditions that approximate typical daily usage.



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