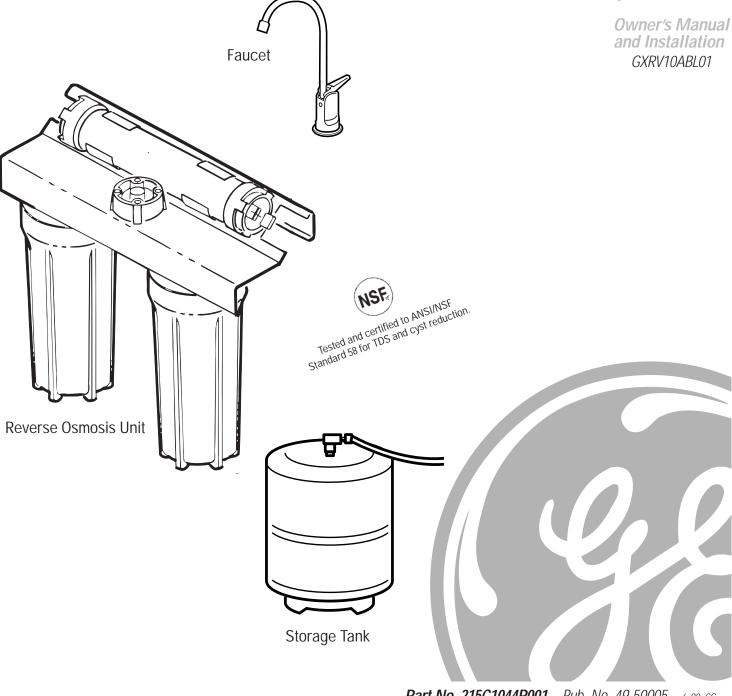


**GE Appliances** 

# Reverse Osmosis Filtration System



Part No. 215C1044P001 Pub. No. 49-50005 6-98 CG 7198846

Safety Instructions

**Operating Instructions** 

Installation Instructions

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# *Congratulations! You are Now Part of the GE Family.*

Welcome to the GE family. We're proud of our quality products and we are committed to providing dependable service. You'll see it in this easy-to-use Owner's Manual and you'll hear it in the friendly voices of our customer service department.

Best of all, you'll experience these values each time you use the water system. That's important, because your new system will be part of your family for many years. And we hope you will be part of ours for a long time to come.

We thank you for buying GE. We appreciate your purchase, and hope you will continue to rely on us whenever you need quality appliances for your home.



### IMPORTANT!

Fill out and return the Consumer Product Registration Card that is packed with this product. If you cannot find it, please send in the duplicate card printed in the back of this manual.



### FOR YOUR RECORDS

Write the model and serial numbers here:

# #

You can find them on the sump bracket.

Staple sales slip or cancelled check here.

Proof of the original purchase date is needed to obtain service under the warranty.



## READ THIS MANUAL

Inside you will find many helpful hints on how to use and maintain your water system properly. Just a little preventive care on your part can save you a great deal of time and money over the life of your system. A video has been included with the product containing important use and care instructions.

You'll find many answers to common problems in the *Before You Call For Service* section. If you review our chart of *Troubleshooting Tips* first, you may not need to call for service at all.



## IF YOU NEED SERVICE

If you do need service, you can relax knowing help is only a phone call away. A list of toll-free customer service numbers is included in the back section.

**Customer Service** 

Troubleshooting Tips

**Operating Instructions** 

Installation Instructions

Troubleshooting Tips

Customer Service

# IMPORTANT SAFETY INFORMATION. READ ALL INSTRUCTIONS BEFORE USING.

**A WARNING!** For your safety, the information in this manual must be followed to minimize the risk of property damage or personal injunc



# SAFETY PRECAUTIONS

Check with your state and local public works department for plumbing and sanitation codes. You must follow these guidelines as you install the Reverse Osmosis system. Using a qualified installer is recommended.

- If house water pressure is over the maximum (125 pounds per square inch), install a pressure reducing valve in the water supply line to the Reverse Osmosis system.
- Be sure the water supply conforms with the Specification Guidelines. If the water supply conditions are unknown, contact your municipal water company or your local health department for a list of contaminants in your area and a list of laboratories certified by your state to analyze drinking water.

WARNING: Before using the Reverse Osmosis system for the first time, the system must be purged. The Reverse Osmosis cartridge contains a food grade preservative that must be purged from the system. The preservative will give product water an unpleasant taste and odor.

This product reduces fluoride in drinking water. Please consult your dentist if you have questions.

WARNING: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts. This Reverse Osmosis unit contains a replaceable membrane cartridge treatment component critical for effective reduction of Total Dissolved Solids. The water should be tested periodically to verify that the system is performing satisfactorily. This system is acceptable for treatment of influent concentrations of no more than 27 mg/L nitrate and 3 mg/L nitrite in combination measured as N and is acceptable for nitrate/nitrite reduction only for water supplies with a pressure of 280kPa (40 psig) or greater.



# PROPER INSTALLATION AND MAINTENANCE

This Reverse Osmosis system must be properly installed and located in accordance with the Installation Instructions before it is used.

- Install or store where it will not be exposed to temperatures below freezing or exposed to any type of weather. Water freezing in the system will damage it. Do not attempt to treat water over 100°F.
- Do not install on *HOT WATER*. The temperature of the water supply to the Reverse Osmosis system must be between the minimum of 40°F. and the maximum of 100°F. See the Specification Guidelines.
- **Do Not** open the water supply valve until the pipes have been flushed.
- Extended non-use of the Reverse Osmosis system. If the system is not used for one week or more, open the RO water faucet, allow the system to drain. Close the RO water faucet and allow the system to regenerate the water supply.

- WARNING: Discard all unused parts and packaging material after installation. Small parts remaining after the installation could be a choke hazard.
- Sanitize upon installation of the Reverse Osmosis system and after servicing inner parts, including replacement of prefilter, postfilter and Reverse Osmosis cartridge. It is important to have clean hands while handling inner parts of the system. See the Sanitizing the Reverse Osmosis System section.
- This Reverse Osmosis system contains a replaceable treatment component critical for effective reduction of total dissolved solids. This product water shall be tested periodically to verify that the system is preforming satisfactorily. See the About the Water Test Kit section.



Read and follow this Safety Information carefully. SAVE THESE INSTRUCTIONS

# Specification guidelines.

|  | Product – height 16" width 17" depth 6"   |   |
|--|---|---|
|  | The system makes a good supply of drinking water each day.<br>How much it will make depends primarily on these things   |   |
|  | Feed water pressure limits—pounds per square inch (psi)   | 40–125 <sup>C</sup>   |
|  | Feed water temperature limits—minimum/maximum degrees F   | 40–100  |
| Maximum Total Dissolved Solids (TDS)—parts per million (ppm) |   |   |
|  | Maximum water hardness @ 6.9 pH—grains per gallon (gpg)   | 10  |
|  | For water with hardness greater than 10 grains (at 6.9 pH) the use of a softener<br>is recommended. Failure to install a water softener will reduce the life of the<br>Reverse Osmosis membrane. See chart for additional information on the<br>possible need for a water softener. | <sup>8</sup><br>7.5<br>7<br>7<br>6.5<br>6<br>Water Softener Recommended<br>Water Softener<br>not required<br>10 20 30 40 50 60<br>INCOMING WATER HARDNESS (GPG) |
|  | Maximum iron, manganese, hydrogen sulfide (ppm)   | <0.1  |
|  | Chlorine in water supply  | Allowable <sup>b</sup>  |
|  | Feed water pH limits (pH)   | 4–10  |
|  | Product (quality) water, 24 hours—gallons   | 10.0 <sup>a</sup>   |
|  | Process water per gallon of product water, 24 hours—gallons   | 5   |
|  | Percent refection of TDS (new membrane)   | 92 <sup>a</sup>   |
|  | Cyst reduction  | 99.95%  |
|  | Storage tank capacity—gallons   | 1.3   |
|  | Automatic shutoff control   | yes   |
|  | Prefilter and postfilter  | (FX12PA) Carbon Block   |
|  | Reverse Osmosis membrane  | (FX12M) Thin Film Polyamid  |
|  |   |   |

- a. Tested by NSF International according to ANSI/NSF Standard 58 has given 7.1 GPD. Source water test parameters are 50 psig, 77°F, pH of 7.5±0.5, and 750 ppm total dissolved solids.
- b. Removed (maximum of 2.0 ppm) by the Reverse Osmosis prefilter. REGULAR MAINTENANCE IS REQUIRED. Chlorine will destroy the Reverse Osmosis membrane.
- c. If house water pressure is over 125 psi, install a pressure reducing valve in the water supply line. If house water pressure is under 40 psi, install a Reverse Osmosis booster pump (contact your local plumbing supply company).

# About the reverse osmosis system.

### What the Reverse Osmosis System Does

Reverse Osmosis removes Total Dissolved Solids (TDS) and organic matter from water by diffusing it through a special membrane. The membrane separates minerals and impurities from the water and they are flushed to the drain. High quality product water goes directly to the drinking water faucet or to the storage tank. The system makes a good supply of drinking water each day see Specification Guidelines above. How much it makes depends on the feed water supply pressure, temperature, and quality.

The *carbon prefilter* and *postfilter* are replaceable cartridges. The *prefilter* removes chlorine while also filtering sediments. The postfilter removes any other undesirable tastes and odors before you use the water.

4

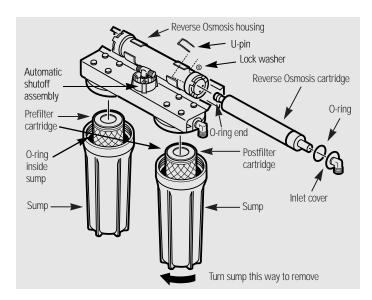
**Operating Instructions** 

**Prefilter**—Water from the cold supply pipe is directed to the prefilter cartridge, which is inside the sump. The prefilter is a replaceable sediment cartridge containing activated carbon. The cartridge removes sand, silt, dirt, other sediments and up to 2.0 ppm of chlorine from the feed water. The prefilter reduces chlorine in the feed water because CHLORINE DESTROYS THE REVERSE OSMOSIS MEMBRANE. Filtered, clean, chlorine-reduced water flows from the prefilter to the Reverse Osmosis cartridge.

Storage Tank—The storage area holds up to 1.3 gallons of product water. A diaphragm inside the tank keeps water pressurized, when the tank is full, for fast flow to the faucet when drinking water is needed.

**Check Valve**—A check valve is built into one end of the Reverse Osmosis housing under the tee fitting. The check valve prevents a backward flow of product water from the storage area. A backward flow could cause the Reverse Osmosis membrane to rupture.

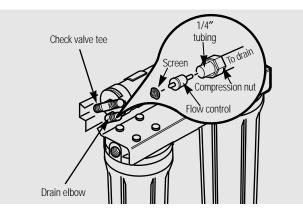
Automatic Shutoff Assembly—To conserve water, the drinking water system has an automatic shutoff. When the storage tank has filled to capacity and the drinking water faucet is closed, pressure closes the shutoff. Water flow to the Reverse Osmosis housing is shut off until drinking water is used again, and pressure drops in the Reverse Osmosis system.



Reverse Osmosis Cartridge—The cartridge, inside the Reverse Osmosis housing, includes a tightly wound, special membrane. Water is forced through the cartridge where the membrane removes the dissolved solids and organic matter. High quality product water exits the Reverse Osmosis housing and goes to the storage tank. Reject water, with the dissolved solids and organic matter, leaves the housing and is discharged to the drain through 1/4'' tubing.

**Postfilter**—After leaving the storage area, but before going to the system faucet, product water goes to the postfilter which is inside the sump. The postfilter is also a replaceable sediment cartridge that contains activated carbon. Any remaining tastes, odors, or sediments are removed from product water by the postfilter. Clean, high quality drinking water flows through the tubing and to the system faucet.

*Flow Control*—The flow control regulates the flow of water through the Reverse Osmosis cartridge at the required rate to produce high quality water. The control is located in the elbow fitting at the Reverse Osmosis housing drain port. A small, cone-shaped screen fits over the front end of the flow control to prevent clogging due to sediments in drain water.



# Care and cleaning of the reverse osmosis system.

### To obtain replacement filters, call GE Appliance Parts at 800-626-2002.

| Prefilter/Postfilter Cartridge Replacement FX12PA | Carbon Block        |
|---|---------------------|
| Reverse Osmosis Cartridge Replacement FX12M       | Thin Film Polyamide |

A CAUTION: Before servicing the Reverse Osmosis system, close the water supply/saddle valve and open the RO water faucet. Allow the system to drain.

### The Water Test Kit

This Reverse Osmosis system contains a replaceable treatment component, critical for effective reduction of Total Dissolved Solids (TDS). This product water shall be tested periodically to verify that the system is performing satisfactorily. Follow instructions included in the kit. Product water should be tested a minimum of every six months. A replacement test kit will be provided to you with the results of each test submittal.

### Prefilter and Postfilter Cartridge Replacement

Follow the steps in the Sanitizing the Reverse Osmosis System section **EXCEPT** discard the old filters and replace with new filters.

### Reverse Osmosis Cartridge Replacement

**NOTE:** When replacing the Reverse Osmosis cartridge, also install a new flow control and screen. See the Flow Control and Screen section.

If the Reverse Osmosis Filtration system is connected to your icemaker YOU MUST turn off the icemaker by raising the feeler arm before servicing the filter, changing the filters, or purging the filtration system. Four hours after servicing your unit, lower the feeler arm to resume icemaking.

When replacing cartridges you may lift the Reverse Osmosis assembly from the mounting washers and lay it on the floor. You can also remove the Reverse Osmosis housing by pulling it out of the mounting clamps.

### Be sure you clean your hands with anti-bacterial soap before handling inner parts of the system.

Be sure the water supply valve to the Reverse Osmosis system is turned off (turn clockwise) and the RO water faucet is open. Allow the system to drain completely (this takes several minutes).

Pull the Reverse Osmosis system out away from cabinet. Leave tubing connected. Place a dry towel under the Reverse Osmosis unit. Using pliers remove the lock washer, pull the u-pin and remove the Reverse Osmosis housing inlet cover. Save the lock washer for final assembly.

A CAUTION: Failure to close the water supply valve will cause water to spray or run when sumps are removed.

Remove the lock washer, pull the u-pin and remove the inlet cover from the housing.

- Use pliers to pull the cartridge from the housing and discard the cartridge.
- Sanitize the system. Go to the Sanitizing the Reverse Osmosis System section and follow steps 4 through 11.
- Install new flow control and screen. Go to the Flow Control and Screen section for directions.
- Pull the u-pin and remove the inlet cover from the housing.
- Install the new Reverse Osmosis cartridge. NOTE: The Reverse Osmosis cartridge o-ring end is notched and may need to be rotated during reinstallation for proper fit.
- Replace the inlet cover. Lightly lubricate the o-ring seal with only clean silicone grease.
- Insert the u-pin and install the lock washer.
- Turn on the water supply. Check for leaks.
- Purge the Reverse Osmosis system. Go to the Purging the Reverse Osmosis System section.
- A CAUTION: The Reverse Osmosis cartridge contains a food grade preservative that should be purged from the system before first use or whenever the Reverse Osmosis cartridge is replaced. The preservative will give product water an unpleasant taste and odor. After the tank has filled (takes about four hours), open the system faucet until the bladder is empty. After four of these drainings, the system is ready to make product water for your use.

Installation Instructions

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### Sanitizing the Reverse Osmosis System

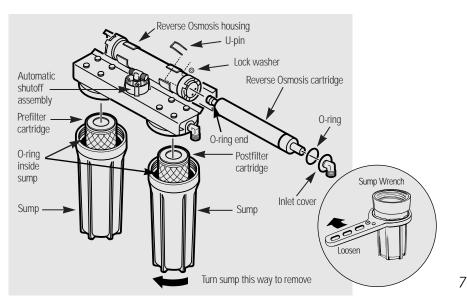
Sanitize upon installation of the Reverse Osmosis system and after servicing inner parts, including replacement of prefilter, postfilter and the Reverse Osmosis cartridge. *Be sure you clean your hands with anti-bacterial soap before handling inner parts of the system.* 

- A CAUTION: Before sanitizing, be sure to remove all cartridges as follows. Chlorine will destroy the Reverse Osmosis cartridge.
  - Be sure the water supply valve to the Reverse Osmosis system is turned off (turn clockwise), and the RO water is faucet open. Allow the system to drain completely (this takes several minutes).
- Pull the Reverse Osmosis system out away from cabinet. Leave tubing connected. Place a dry towel under the Reverse Osmosis unit. Using pliers remove the lock washer, pull the u-pin clip and remove the Reverse Osmosis housing inlet cover. Save the lock washer for final assembly.
- Remove (using pliers) the Reverse Osmosis cartridge from the housing. Place the cartridge in a clean plastic bag.
- Replace the inlet cover and u-pin, making sure the o-ring is in place.
- Remove the POSTFILTER sump by turning it to the left using the sump wrench tool provided. Be careful, the sump is full of water. Dispose of water in the sump. Remove the cartridge from the sump and place in a clean plastic bag. Make sure the o-ring is seated in the top of the sump. With the o-ring seal in position, replace the sump and tighten securely by hand.

- Remove the PREFILTER sump and cartridge. Dispose of water in the sump. Place this cartridge in a clean plastic bag.
- Fill the prefilter sump with cold water to about 1" from the o-ring. Add 1 ounce (2 tablespoons) of ordinary 5.25% household chlorine bleach and mix into the water. **Do** not add chlorine first. Concentrated chlorine may damage plastic.
- Carefully replace the sump (make sure the o-ring valve seal is in place) on the prefilter head and tighten securely by hand.
- Close the RO water faucet. Open the water supply valve (turn counterclockwise) to the Reverse Osmosis system. Allow system to fill for one minute.
- Open the RO water faucet and allow water to flow for 10 minutes through the Reverse Osmosis system. Close RO water faucet for one minute and then open faucet and allow water to flow (approximately 10 minutes) until bleach odor is gone.
- Turn off the water supply valve (turn clockwise) to the Reverse Osmosis system. After water flow stops, leave the RO water faucet open.
- Be sure hands have been cleaned with anti-bacterial soap. Repeat steps 1–6 and 8; however, reinstall the cartridges instead of removing them.

### *NOTE:* The Reverse Osmosis cartridge o-ring end is notched and may need to be rotated during reinstallation for proper fit.

73 After installing/reinstalling cartridges, close RO water faucet and open water supply valve (turn counterclockwise). Check for leaks.



# Care and cleaning of the reverse osmosis system.

### Flow Control and Screen

Check valve tee /4" tubing Compression nut Flow control Drain elbow

The flow control regulates the flow of water through the Reverse Osmosis cartridge at the required rate so high quality product water is produced.

When servicing the Reverse Osmosis cartridge, check the flow control and tubing, to make sure the tube and surrounding surfaces are clean and unrestricted. A small, cone-shaped screen is located in front of the flow control to help keep it clean. If the flow control is plugged with foreign particles, the Reverse Osmosis cartridge cannot discharge minerals and impurities to the drain. If this happens, it will only take a short time for the system to plug.

Make sure the water supply valve is closed (turn clockwise) and the RO water faucet is open. Drain system until water stops flowing.

Locate the plastic drain elbow, next to the brass check valve tee.

PUnscrew the compression nut.

Remove flow control with a clean knife edge. Remove screen; a toothpick may be needed.

- If you are replacing the flow control and screen, discard them. If you are checking the flow control, screen and tubing for blockage, clean these parts of any debris. Do not blow through the flow control, it will contaminate the part.
- $\overrightarrow{O}$  Replace the screen by placing the cone end into the elbow cap and carefully push it in.
- **A** *CAUTION:* Do not force in further after you feel resistance. Visually check to be sure it is properly positioned.
- Install flow control and tighten compression nut by hand, then another 1/4 turn with pliers. DO NOT OVERTIGHTEN AND DISTORT OR CRUSH THE TUBING AND FLOW CONTROL.
- If you are replacing the Reverse Osmosis cartridge, return to the Reverse Osmosis Cartridge Replacement instructions. Otherwise, open the water supply valve (turn counterclockwise). Close the RO water faucet.

### Purging the Reverse Osmosis System

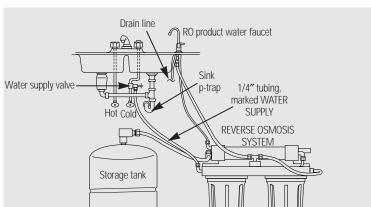
The Reverse Osmosis system MUST BE PURGED AFTER INSTALLATION and WHEN THE REVERSE OSMOSIS CARTRIDGE IS REPLACED.

Make sure all tubing connections are tightened.

Turn on water supply by slowly opening the water supply valve (turn counterclockwise) to the Reverse Osmosis system. Carefully check system for leaks.

- Fill sink(s) 1/2 full of tap water and drain, checking drain plumbing for leaks.
- Wait approximately four hours for storage tank to fill. At that time, carefully check all fittings and tubing connections again for any water leaks.

- $\overline{\mathcal{J}}$  Open the RO water faucet until the tank is empty and flow stops.
- $\partial$  After filling and emptying the storage tank four times, the system is ready to make product water for your use.
- A WARNING: The Reverse Osmosis cartridge contains a food grade preservative that should be purged from the system before use or whenever the Reverse osmosis cartridge is replaced. The preservative will give product water an unpleasant taste and odor.



Safety Instructions

### Important Installation Recommendations

Read entire manual. Failure to follow all guides and rules could cause personal injury or property damage.

- BE SURE TO FOLLOW ALL APPLICABLE STATE AND LOCAL CODES.
- Use a qualified installer.
- Do not install the Reverse Osmosis system outside or in extreme hot or cold temperatures. DO NOT INSTALL ON HOT WATER.
- Recommended installation is under the sink. However, the unit can be installed in a remote location, up to 30 feet away from the sink. Additional installation materials may be required.
- If Reverse Osmosis system is connected to a refrigerator icemaker, a special icemaker connection kit is required (RVKIT). Do not use copper tubing for the connection between the Reverse Osmosis system and the refrigerator.
- Be sure the water supply conforms to the specifications, see the *Specifications Guidelines* section. If water supply conditions are unknown, contact your municipal water company or your local health department for a list of contaminants in your area and a list of laboratories certified by your state to analyze drinking water.

WARNING: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts. This Reverse Osmosis system contains a replaceable treatment membrane cartridge critical for effective reduction of Total Dissolved Solids. The water should be tested periodically to verify that the system is performing satisfactorily. This system is acceptable for treatment of influent concentrations of no more than 27 mg/L nitrate and 3 mg/L nitrite in combination measured as N and is certified for nitrate/nitrite reduction only for water supplies with a pressure of 280kPa (40 psig) or greater. Small parts remaining after the installation could be a choke hazard. Discard safely.

### Tools and Materials Required for Installation

- Battery Powered Cordless Drill
- 1/4" Drill Bit
- 1-1/4" Carbide Hole Saw (if needed-see Faucet Installation section)
- Adjustable Open-End Wrenches
- Phillips and Straight Screw Drivers
- Utility Knife
- Teflon Tape<sup>™</sup>
- Contents Included with the Product:
  - Reverse Osmosis Assembly
  - Product Literature (Owner's Manual and Installation, Use and Care Video, Performance Data Sheet, and Owner Registration Card)
  - Water Supply Valve Parts Bag
  - Drain Line Adapter
  - 27" Length of 3/8" Tubing
  - Storage Tank
  - Filter Replacement Reminder Label

**INSTALLER RESPONSIBILITY:** The water supply valve (see the *Feed Water Supply* section) is included for use in areas where codes permit. **Installer must comply with state and/or local codes.** If not, the installer must provide fittings to tap the cold water pipe for a feed water source to the Reverse Osmosis system (must adapt to 1/4" OD tubing).

# Installation instructions.

### Things to Check Before Beginning Installation

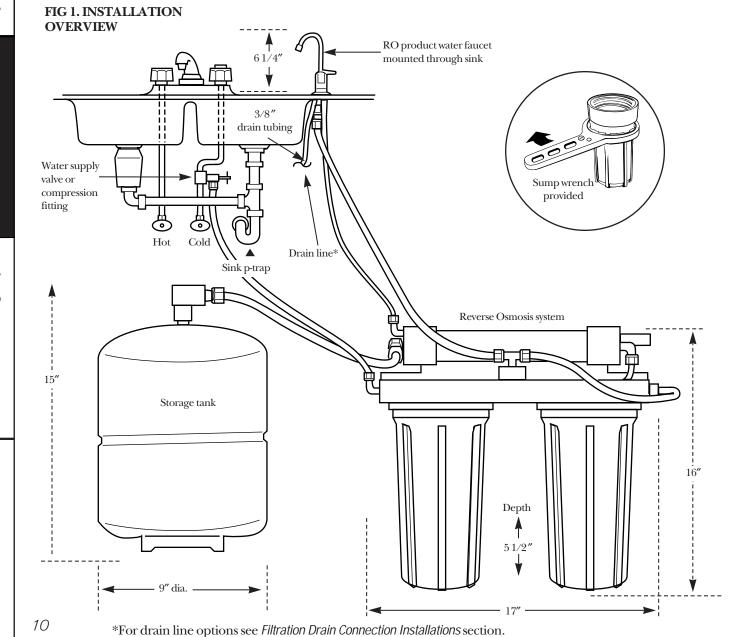
FEED WATER—The water supply to the undercounter Reverse Osmosis system must have the qualities listed in the specifications (see the Specifications Guidelines section). Municipal water supplies most often will have these qualities. Well water may need *conditioning*—have the water tested by a water analysis laboratory and get their recommendations for treatment.

CAUTION: For water with a hardness greater than 10 grains (at 6.9 pH), the use of a softener is recommended. Failure to install a softener will reduce the life of the Reverse Osmosis membrane. See the Specifications Guidelines section for additional information on the possible need for a softener.

DRAIN POINT\*-A suitable drain point and air gap (check your local codes) are needed for reject water from the Reverse Osmosis membrane cartridge.

RO FAUCET-The RO product water faucet installs on the sink or on the countertop next to the sink. Often, it is installed in an existing sink spray attachment hole. Space is required underneath for tubing to and from the faucet, and for securing the faucet in place. All faucet connections and installation procedures are done on or above the sink or countertop. Refer to Fig. 1 below.

BASEMENT INSTALLATION- If installing in a basement, leave enough tubing in place during installation to be able to move unit to floor for ease at servicing and making filter/membrane changes.

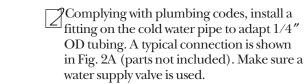


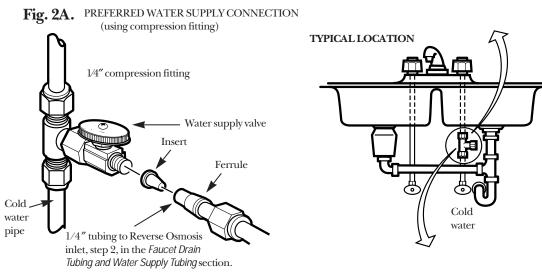
### Feed Water Supply

**Check and comply with local plumbing codes** as you plan, then install a cold feed water supply fitting. For new home installation using standard plumbing fittings, see Fig. 2A below. A typical installation for existing homes using the saddle valve is shown in Fig. 2B below.

### A. PREFERRED INSTALLATION

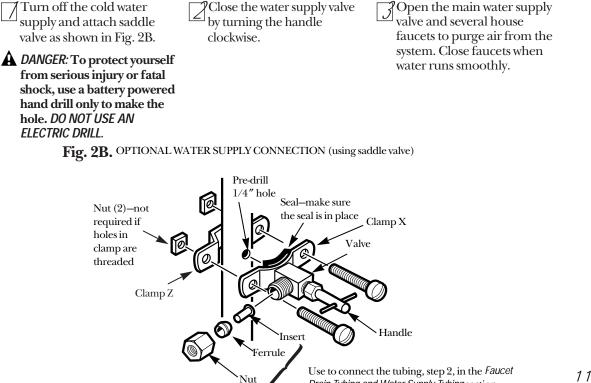
Turn off the cold water supply.





### B. OPTIONAL INSTALLATION Where codes permit

*NOTE:* Codes in the state of Massachusetts require installation by a licensed plumber and do not permit the use of the saddle valve. For installation, use plumbing code 248-CMR of the Commonwealth of Massachusetts.



Drain Tubing and Water Supply Tubing section.

Troubleshooting Tips

# Step-by-step installation instructions.

### Filtration Drain Connection Installations

Check and comply with all state and local plumbing codes as you plan.



CAUTION: The options detailed below are the ONLY approved installation configurations. Do not use any drain saddle device.

NOTE: Failure to follow these Installation Instructions will void the Warranty, and the Installer will be responsible for any service, repair, or damages caused thereby.

### Preferred Installation Options (Options A, B and C)

### OPTION A. BASEMENT ACCESS INSTALLATION (Fig. 3A)

Route the drain line DIRECTLY from the Reverse Osmosis system to a standpipe in the basement, by-passing the air gap provided in the faucet. The drain line may also be routed in the basement to a floor drain or washtub, provided that the air gap in the basement is maintained. Avoid dips, loops or low spots in the drain line. The basement air gap and drain installation configuration must conform to all local codes. Special air gap fittings are available to connect the drain line to the top of the standpipe.

### OPTION B. SEPARATE VENT INSTALLATION— 2 P-TRAP (DRY-VENTED) (Fig. 3B)

Install a separate dry-vented p-trap under the sink to be used exclusively for the Reverse Osmosis drain line. A dry-vented p-trap is a p-trap that has its own vent/stack. Attach the provided drain line adapter to the p-trap and secure it with the slip joint nut and washer as shown. Route the drain line from the air gap to the drain line adapter ensuring that there are no dips, loops or low spots in the line, which could result in a clogged drain line. The drain line adapter should be aligned vertically such that the hose connection points in a direction 45° off vertical. (See Fig. 3E.) The drain line must be routed through the air gap provided in the RO water faucet.

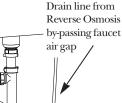
### OPTION C. SHARED VENT INSTALLATION— 2 P-TRAP (WET-VENTED) (Fig. 3C)

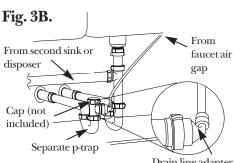
Install a p-trap under the sink to be used exclusively for the Reverse Osmosis drain line. A wet-vented p-trap is a p-trap that shares a common vent/stack. Attach the provided drain line adapter to the p-trap and secure it with the slip joint nut and washer as shown. Route the drain line from the air gap to the drain line adapter ensuring that there are no dips, loops or low spots in the line, which could result in a clogged drain line. The drain line adapter should be aligned vertically such that the hose connection points in a direction 45° off vertical. (See Fig. 3E.) The drain line must be routed through the air gap provided in the RO water faucet. Locate the p-trap as high as possible (minimum of 4" above horizontal pipe from second sink or disposer).



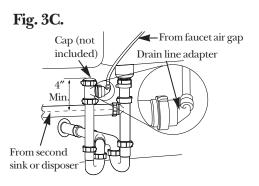
Maintain air gap at drain point in

basement









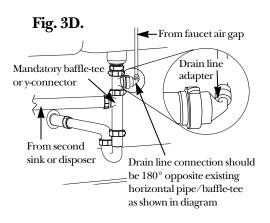
**Customer Service** 

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Safety Instructions Operating Instructions

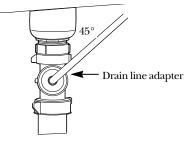
### OPTION D. DRAIN LINE ADAPTER INSTALLATION (FIG. 3D)

DO NOT install the drain line downstream of a disposal or in a horizontal pipe. Install the provided drain line adapter under the sink as shown. The baffle-tee or y-connector shown must be in place (purchase and install if necessary) to prevent a clog in the Reverse Osmosis drain line. Route the drain line from the air gap to the drain line adapter ensuring that there are no dips, loops or low spots in the line, which could result in a clogged drain line. The drain line adapter should be aligned vertically so that the hose connection points in a direction 45° off vertical. (See Fig. 3E.) This installation MAY result in a slight drain noise in the sink drain when the Reverse Osmosis system is operating. Rotate the Drain Line adapter tee assembly slowly until noise is minimized. Generally, 180° opposite the existing horizontal pipe/baffle-tee is a good orientation.





Proper drain line adapter orientation.



**Troubleshooting Tips** 

# Step-by-step installation instructions.

### Faucet Installation

Be sure there is room underneath the sink to make the needed connections. Select one of the following places to install the faucet:

- -IN an existing sink spray attachment or soap dispenser hole.
- -IN a hole to be drilled in the sink top.
- -IN a hole to be drilled in the countertop, next to the sink.

*NOTE:* Looking at Fig. 4B, be sure the faucet base will fit flat against the surface at the selected location so the gasket will seal.

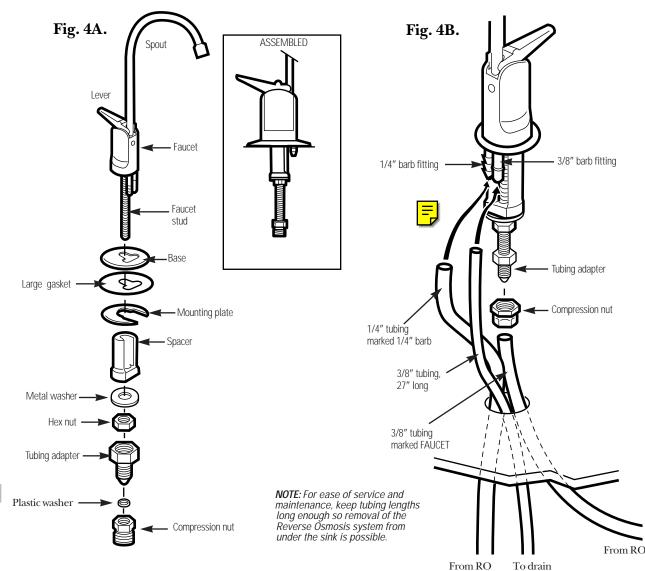
- 7 If drilling is needed, make a 1-1/4" dia. hole.
- Be sure to use the proper procedure for drilling porcelain or stainless steel.
- Place base on threaded stem (flange facing down). Next, place large gasket on threaded stem, making sure the stem and two barbed studs fit through the gasket. Place spacer on stud (open end up) followed by metal washer and hex nut (Fig. 4A).
- Insert washer into tubing adapter. Securely tighten to faucet stud.

- Take the 27" length of 3/8 " tubing and push one end completely onto the 3/8 " faucet barb fitting (Fig. 4B).
- Desition the Reverse Osmosis system under the sink. Referring to Fig. 5, on the next page, hang the system on cabinet wall.
- Route the 1/4" tubing (marked "1/4" BARB ON FAUCET") and the 3/8" tubing (marked "FAUCET") up through the mounting hole:
  - **a.** Push one end of the 1/4'' tubing onto the 1/4'' barb on the faucet.
  - **b.** Using the compression nut, fasten the 3/8" tubing to the tubing adapter and tighten the nut. Make sure the tubing is completely seated in the adapter.

Remove the short shipping tube and insert the spout into the faucet body.

BLower the faucet assembly through the sink.

Under the counter, place the mounting plate above spacer and securely tighten the hex nut.



**Operating Instructions** 

Installation Instructions

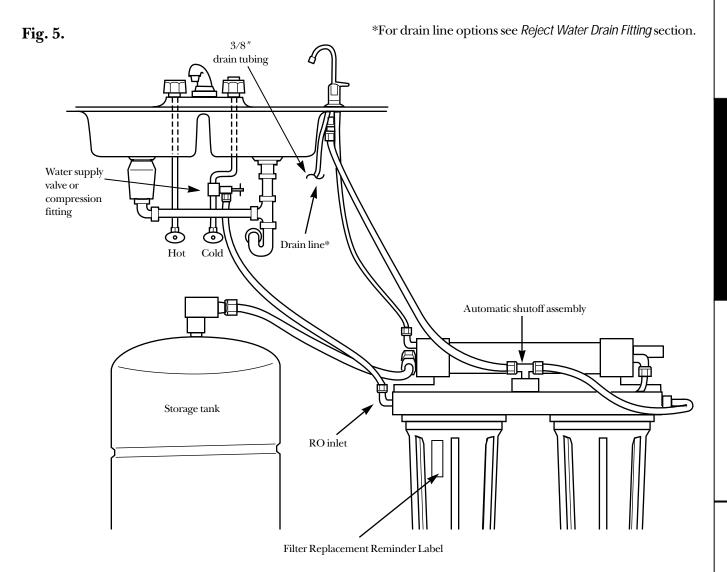
Troubleshooting Tips

### Faucet Drain Tubing and Water Supply Tubing

If Option A, BASEMENT ACCESS INSTALLATION, see *Filtration Drain Connection Installations* section, was used, go to step 2.

If Option B, C or D from page 13 was used, connect the faucet drain tubing by running the 27" length, 3/8" tubing from the 3/8" faucet barb to the drain fitting (installed in *Filtration Drain Connection Installations* section). Keep this tubing run as short and straight as possible, without loops, dips, or low-spots. Cut the tubing as needed and insert into the drain fitting (see Fig. 3B, 3C or 3D in the *Filtration Drain Connection Installations* section).

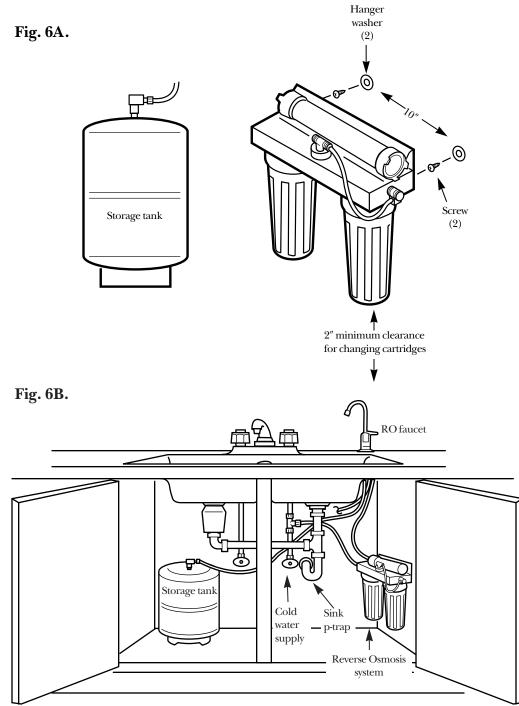
- To connect the water supply tubing: Run the 1/4" tubing (marked "WATER SUPPLY") from the Reverse Osmosis inlet to the feed water supply fitting (see Fig. 2A or 2B, in the *Feed Water Supply* section). Connect the tubing as applies (Fig. 2A or 2B, in the *Feed Water Supply* section) and tighten the nut securely (use Teflon Tape<sup>™</sup> to prevent leaks).
- Apply the Filter replacement reminder label to one of the filter sumps between the ribs. Mark the date for filter replacement six months from the installation date.

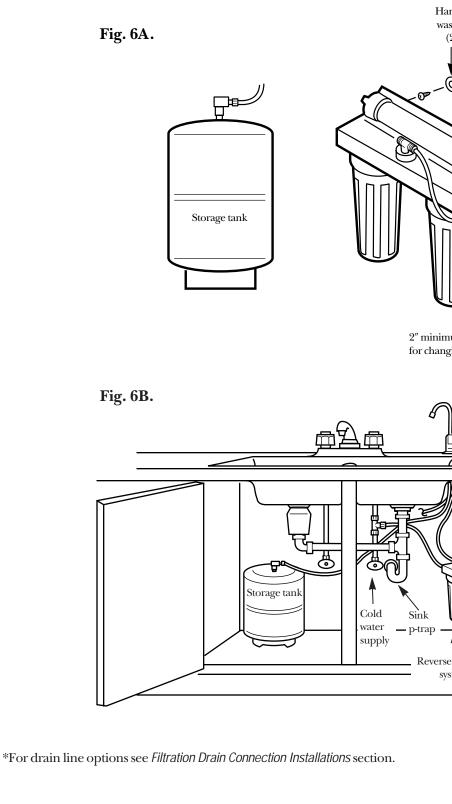


# Step-by-step installation instructions.

### **Reverse Osmosis System Assembly and Storage Tank Installation**

- 1. Hold the Reverse Osmosis assembly up to the wall surface where you will install it. Mark locations for the hanger washers and screws.
- 2. Fasten the hanger washers to the wall surface. Wood screws are included for fastening to a wood surface. Provide other screws as needed.
- 3. Hang the Reverse Osmosis assembly on the hanger washers.
- 4. Connect the tubing to the storage tank: Run the length of 3/8" tubing (marked "STORAGE TANK") from the tee fitting on the Reverse Osmosis module to the tank shutoff valve. Use Teflon Tape<sup>™</sup> to prevent leaks.





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# **Operating Instructions**

Troubleshooting Tips

### Now That Your Reverse Osmosis System is Installed...Sanitize

Sanitize upon installation and after servicing inner parts, including replacement of prefilter, postfilter and the Reverse Osmosis cartridge. It is important to wash hands with anti-bacterial soap before handling inner parts of the system. See the *Sanitizing the Reverse Osmosis System* and *Purging the Reverse Osmosis System* sections.

 CAUTION: If installing unit in New Construction, ensure house plumbing is flushed thoroughly before opening the water supply valve. Also, before sanitizing, be sure to remove all cartridges as described in the Sanitizing the Reverse Osmosis System section. Chlorine will destroy the Reverse Osmosis cartridge.

### Installation Checklist

- 1. Are all tubing connections tightened? Do they run between the points shown? No leaks!
- **2.** Did you use drain option B, C or D? Make sure the 3/8" drain tubing, from the faucet to the drain point, is without loops, dips, or low-spots.
- 3. Is the water supply shutoff valve open?
- 4. Did you sanitize and purge the system?

# Before you call for service...



Troubleshooting Tips Save time and money! Review the charts on the following pages first and you may not need to call for service.

| Problem   | Possible Causes  | What To Do   |
|---|--|--|
| Sounds you might hear   | Running water from the unit to a drain.  | • This is normal.  |
| Water has air bubbles<br>and is cloudy                                | Air in system after installation.  | • Will go away after water runs for a while.   |
| Chlorine taste and/or<br>odor in the Reverse<br>Osmosis product water | The ppm of chlorine in your<br>water supply exceeds maximum<br>limits and has destroyed the<br>Reverse Osmosis membrane. | • If the water supply contains more than 2.0 ppm of chlorine, additional filtering of the water supply to the Reverse Osmosis is needed. Correct this condition before doing maintenance on the Reverse Osmosis system.  |
|   | The prefilter is no longer<br>removing chlorine from<br>the water supply.  | • Replace the Reverse Osmosis membrane cartridge, control, screen, prefilter and postfilter  |
| Other taste and/or odor   | High quality product water<br>may have a different taste<br>than what you're used to.                                    | • This is normal.  |
|   | Low water usage  | • Completely drain system and allow to refill.   |
|   | Contamination in product water storage.  | • Use sanitizing procedures.   |
|   | Prefilter and postfilter<br>need to be changed and/or<br>the Reverse Osmosis cartridge<br>needs to be changed.           | • Replace the prefilter and postfilter. If taste and odor persists, replace the Reverse Osmosis cartridge, flow control and screen.  |
| Water leaking from<br>faucet air gap hole                             | Drain side of faucet air gap<br>(3/8" tubing) plugged, restricted<br>or incorrectly connected to the<br>drain point.     | • Inspect and eliminate restriction or plug. It is important<br>that there are no dips, loops or low spots in the drain line<br>from the faucet air gap to the drain pipe. Refer to the<br><i>Filtration Drain Connection Installations</i> section, for proper<br>drain connection. If drain line adapter was used as the<br>drain point, periodic inspection/cleaning is recommender |
| System makes product<br>water slowly                                  | This is normal.  | • Water flow rate will be lower than your regular faucet.  |
|   | Water supply to the Reverse<br>Osmosis system not within<br>specifications.  | • Increase water pressure, precondition the water, etc., as needed to conform before doing maintenance on the Reverse Osmosis system.  |
|   | Prefilter cartridge plugged<br>with sediments and/or the<br>Reverse Osmosis cartridge<br>plugged with sediments.         | • Replace the prefilter. If rate does not increase, replace<br>the postfilter, Reverse Osmosis cartridge, flow control,<br>and screen.   |

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### **GE Service Protection Plus**<sup>™</sup>

GE, a name recognized worldwide for quality and dependability, offers you Service Protection Plus<sup>™</sup>–comprehensive protection on all your appliances–**No Matter What Brand!** 

**Benefits Include:** 

- Backed by GE
- All brands covered
- Unlimited service calls
- All parts and labor costs included
- No out-of-pocket expenses
- No hidden deductibles
- One 800 number to call

# *We'll Cover Any Appliance. Anywhere. Anytime.*\*

You will be completely satisfied with our service protection or you may request your money back on the remaining value of your contract. No questions asked. It's that simple.

Protect your refrigerator, dishwasher, washer and dryer, range, TV, VCR and much more—**any brand!** Plus there's no extra charge for emergency service and low monthly financing is available. Even icemaker coverage and food spoilage protection is offered. You can rest easy knowing that all your valuable household products are protected against expensive repairs.

Place your confidence in GE and call us in the U.S. toll-free at **800-626-2224** for more information.

\*All brands covered, up to 20 years old, in the continental U.S.

Please place in envelope and mail to:

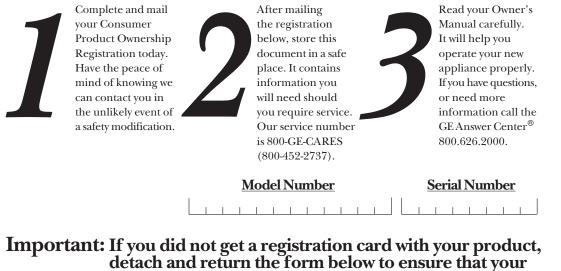
*General Electric Company* Warranty Registration Department P.O. Box 34070 Louisville, KY 40232-4070 Cut here

# **Consumer Product Ownership Registration**

Dear Customer:

Thank you for purchasing our product and thank you for placing your confidence in us. We are proud to have you as a customer!

### Follow these three steps to protect your new appliance investment:

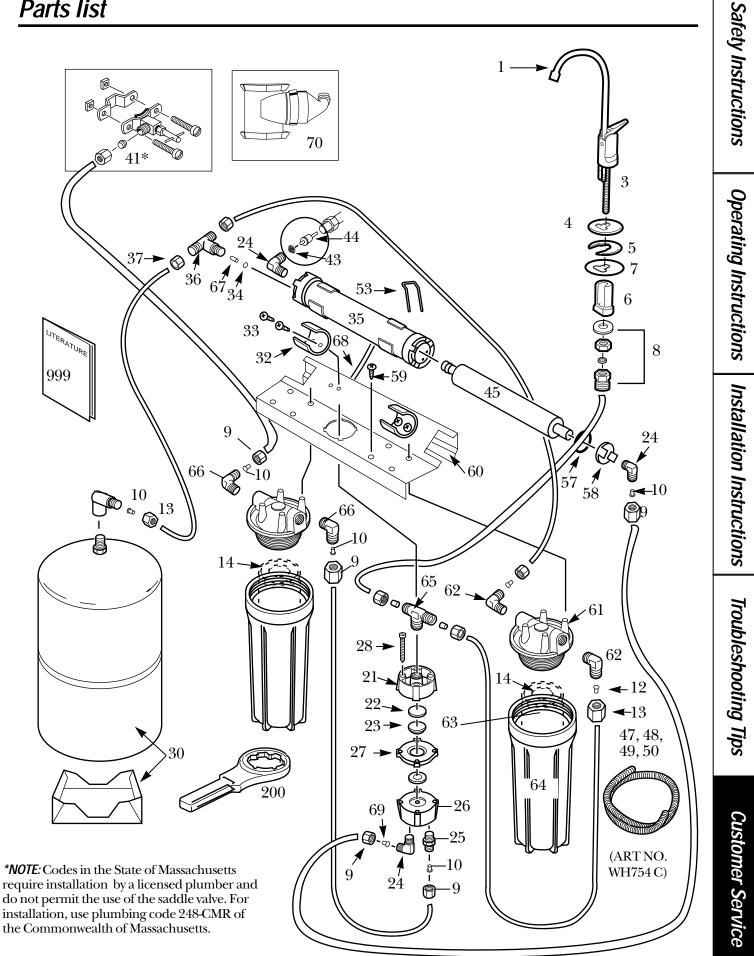


product is registered.

# **Consumer Product Ownership Registration**

Cut here

| mortant  | Model Number  |          | Serial Number |
|--|---------------|----------|---------------|
| Important<br>Mail<br>Today!                            |               |          |               |
| Mr.□ Ms.<br>First<br>Name ⊥ ⊥ ⊥                        | Mrs. Miss     | ]        |               |
| Last Name  |               |          |               |
| Street Address   |               |          |               |
| Apt. #   |               |          |               |
| City   |               |          |               |
| State  | Zip<br>Code   |          |               |
| Date Placed<br>In Use<br>Month                         | Day Year      |          |               |
| Phone Number   |               |          |               |
|  | GE Appliances | HOTPOINT | RСЛ           |
| General Electric Company<br>Louisville, Kentucky 40225 |               |          |               |



# General Electric parts catalog

| Safety Instructions       |              | Electric parts           | outdrog                       |                      |
|---------------------------|--------------|--------------------------|-------------------------------|----------------------|
| лс<br>л                   | REF. NO.     | PART NO.                 | PART DESCRIPTION              | GXRV10ABL01          |
| sti                       | 0001         | WS15X10003               | FAUCET WHITE TIP & LEVER      | -                    |
| ŝ                         |              | WS15X10011               | FAUCET BLACK TIP & LEVER      | 1                    |
| S                         | 0004         | WS02X10007               | SCREW #6-32 X 1 -3/8"         | 2                    |
| Jej                       | 0006         | WS08X10003               | GASKET FAUCET                 | 1                    |
| a                         | 0007<br>0008 | WS02X10008               | NUT<br>ADAPTER TUBING         | 2<br>1               |
| S                         | 0008         | WS03X10003<br>WS22X10005 | NUT 1/4" TUBE                 | 8                    |
|                           | 0010         | WS22X10005<br>WS22X10006 | INSERT 1/4" TUBE              | 8<br>7               |
|                           | 0012         | WS22X10000<br>WS22X10007 | INSERT 3/8" TUBE              | 7                    |
| S                         | 0012         | WS22X10008               | NUT 3/8" TUBE                 | 7                    |
| 5                         | 0014         | FX12PA                   | CARTRIDGE-CARBON/SED          | 2                    |
| Operating Instructions    | 0017         | WS03X10004               | WASHER FLOW                   | 1                    |
| 2                         | 0018         | WS01X10001               | MAGNET                        | 1                    |
| it.                       | 0019         | WS03X10005               | SPRING                        | 1                    |
| S                         | 0021         | WS10X10005               | VALVE BOTTOM                  | 1                    |
|                           | 0022         | WS22X10009               | DIAPHRAGM                     | 2                    |
| Ĕ                         | 0023         | WS22X10010               | PLUNGER                       | 1                    |
| ati                       | 0024         | WS22X10012               | ELBOW 1/8" NPT X 1/4"         | 1                    |
| E.                        |              | WS22X10011               | ELBOW 1/8" NPT X 1/4" & NUT   | 3                    |
| ğ                         | 0025         | WS22X10013               | CONNECTOR W/NUT 1/8 NPT       | 1                    |
| 0                         |              | WS22X10014               | CONNECTOR 1/8 NPT X 1/4       | 1                    |
|                           | 0026         | WS10X10006               | VALVE TOP                     | 1                    |
| S                         | 0027         | WS10X10007               | VALVE CENTER                  | 1                    |
| 5                         | 0028         | WS02X10010               | SCREW # 10-14 X 1-3/4"        | 4                    |
| Ĭ                         | 0030<br>0032 | WS32X10006               | TANK–2.1 GAL.<br>CLIP         | 1<br>2               |
| ž                         | 0032         | WS02X10018<br>WS02X10017 | SCREW                         | 4                    |
| Ť.                        | 0033         | WS02X10017<br>WS10X10012 | CHECK BALL ASM                | 4                    |
| Ĕ                         | 0035         | WS10X10012<br>WS20X10004 | CARTRIDGE-R.O.                | 1                    |
| Installation Instructions | 0036         | WS22X10024               | TEE 3/8" TUBING               | 1                    |
| <u>.</u>                  | 0037         | WS02X10004               | NUT 3/8"                      | 2                    |
| ati                       | 0041         | WS15X10008               | WATER SUPPLY VALVE*           | 1                    |
|                           | 0043         | WS03X10015               | SCREEN CONE                   | 1                    |
| ţ                         | 0044         | WS03X10016               | CONTROL FLOW                  | 1                    |
| Ĕ                         | 0045         | FX12M                    | MEMBRANE CARTRIDGE            | 1                    |
|                           | 0047         | WS07X10005               | TUBING 1/4" X 10 FT           | 1                    |
|                           | 0048         | WS07X10006               | TUBING 1/4" X 20 FT           | 1                    |
| S                         | 0049         | WS07X10007               | TUBING 3/8" X 20 FT           | 1                    |
| Ĕ                         | 0050         | WS07X10008               | TUBING 3/8" X 20 FT           | 1                    |
| 5                         | 0053         | WS03X10026               | U-PIN                         | 1                    |
| Ĕ.                        | 0057         | WS03X10028               | O-RING 1-19/32" ID 2" OD      | 1                    |
| 5ti                       | 0058         | WS31X10009               | COVER INLET                   | 1                    |
| ğ                         | 0059         | WS02X10001               | SCREW #10-14 X 3/4"           | 8                    |
| Troubleshooting Tips      | 0060         | WS28X10006<br>WS19X10001 | BRACKET                       | 1                    |
| le                        | 0061<br>0062 | WS19X10001<br>WS22X10002 | HEAD<br>ELBOW 3/8″ NPT X 3/8″ | 2<br>2               |
| 9                         | 0063         | WS03X10001               | O-RING 3-3/8" X 3-5/8"        | 2                    |
| õ                         | 0064         | WS05X10001<br>WS30X10001 | SUMP                          | 2                    |
|                           | 0065         | WS22X10025               | TEE 3/8 NPT X 3/8 TUBE        | 1                    |
|                           | 0066         | WS22X10026               | ELBOW 3/8 NPT X 1/4 TUBE      | 2                    |
|                           | 0067         | WS03X10030               | SPRING                        | 1                    |
|                           | 0068         |                          | LOCK WASHER                   | 1                    |
| Ģ                         | 0069         |                          | <b>FLOW RESTRICTER</b>        |                      |
| ic                        | 0070         |                          | DRAIN LINE ADAPTER            |                      |
| Ş                         | 0200         | WX5X140                  | WRENCH SUMP                   | -                    |
| Se                        | 0999         | 49-50005                 | PM MANUAL USE & CARE/         | 1                    |
| 5                         |              |                          | INSTALLATION                  | *NOTE: Codes in th   |
| ne                        |              |                          | PERFORMANCE DATA SHEET        | Massachusetts requ   |
| Vo                        |              |                          | VIDEO                         | by a licensed plum   |
| Customer Service          |              |                          | WATER TEST KIT                | permit the use of t  |
| 25                        |              |                          |                               | For installation, us |
|                           |              |                          |                               | 248-CMR of the Co    |

the State of quire installation mber and do not the saddle valve. use plumbing code 248-CMR of the Commonwealth of Massachusetts.

# GE Reverse Osmosis System Warranty



All warranty service provided by our Factory Service Centers, or an authorized Customer Care<sup>®</sup> technician. For service, call 800-GE-CARES.

For The Period Of:GE Will Replace, At No Charge To You:One Year<br/>From the date of the<br/>original purchaseAny part of the Reverse Osmosis Filtration System which fails due to a defect in materials or<br/>workmanship. During this limited one-year warranty, GE will also provide, free of charge, all labor<br/>(does not include service trip to home) to replace the defective part.

### What GE Will Not Cover:

- Service trips to your home to teach you how to use the product.
- Improper installation.
- Failure of the product if it is abused, misused, or used for other than the intended purpose or used commercially.
- Filters or membranes.
- Use of this product where water is microbiologically unsafe or of unknown quality, without adequate disinfection. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts.
- Replacement of house fuses or resetting of circuit breakers.
- Damage to the product caused by accident, fire, floods or acts of God.
- Incidental or consequential damage to personal property caused by possible defects with this appliance.

This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within the USA. In Alaska, the warranty excludes the cost of shipping or service calls to your home.

Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To know what your legal rights are, consult your local or state consumer affairs office or your state's Attorney General.

### Warrantor: General Electric Company. Louisville, KY 40225

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# Service Telephone Numbers.



Safety Instructions

**Operating Instructions** 

Troubleshooting Tips

**Customer Service** 

# GE Answer Center® 800.626.2000

The GE Answer Center® is open 24 hours a day, 7 days a week.



# In-Home Repair Service 800-GE-CARES (800-432-2737)

Expert GE repair service is only a phone call away.



# Special Needs Service 800.626.2000

## 800-TDD-GEAC (800-833-4322)

GE offers, free of charge, a brochure to assist in planning a barrier-free kitchen for persons with limited mobility.



# Service Contracts 800-626-2224

Purchase a GE service contract while your warranty is still in effect and you'll receive a substantial discount. GE Consumer Service will still be there after your warranty expires.



# Parts and Accessories 800-626-2002

Individuals qualified to service their own appliances can have parts or accessories sent directly to their homes (VISA, MasterCard and Discover cards are accepted).

Instructions contained in this manual cover procedures to be performed by any user. Other servicing generally should be referred to qualified service personnel. Caution must be exercised, since improper servicing may cause unsafe operation.



# Service Satisfaction

If you are not satisfied with the service you receive from GE:

*First,* contact the people who serviced your appliance.

*Next*, if you are still not pleased, write all the details-including your phone number-to:

Manager, Consumer Relations GE Appliances Appliance Park Louisville, KY 40225

*Finally*, if your problem is still not resolved, write:

Major Appliance Consumer Action Program 20 North Wacker Drive Chicago, IL 60606