

## II. Operation & Maintenance Instructions

### CAUTION

#### To reduce the risk associated with property damage due to water leakage:

- **Read and follow** Use Instructions before installation and use of this system.
- Installation and use **MUST** comply with all state and local plumbing codes.
- **Protect from freezing**, remove filter cartridge when temperatures are expected to drop below 40° F (4.4° C).
- **Do not install** if water pressure exceeds 100 psi (690 kPa). If your water pressure exceeds 80 psi (552 kPa), you must install a pressure limiting valve. Contact a plumbing professional if you are uncertain how to check your water pressure.
- **Do not install** where water hammer conditions may occur. If water hammer conditions exist you must install a water hammer arrester. Contact a plumbing professional if you are uncertain how to check for this condition.
- The disposable filter cartridge **MUST** be replaced every 12 months, at the rated capacity or sooner if a noticeable reduction in flow rate occurs.
- The RO Membrane cartridge **MUST** be replaced at least every 36 months.

#### A. IMPORTANT WATER QUALITY ASSURANCE REQUIREMENTS

Reverse Osmosis drinking water appliances contain treatment components that are critical for the effective reduction of Total Dissolved Solids (TDS) as well as inorganic chemical contaminants. Water Factory Systems™ strongly recommends that the user test the water periodically (every six to twelve months minimum) to verify that the appliance is performing satisfactorily. Your dealer may offer a water testing service. Routine maintenance is necessary in the form of prefilter, postfilter, and membrane replacement, based on the following guidelines:

- Sediment, Carbon, or Sediment/Carbon Prefilters, and Carbon Postfilters: Change every 12 months or sooner depending on the feed water quality.
- RO Membrane: Change it as required based on Percent Rejection. A testing service may be offered by your dealer every 36 months or sooner.

#### B. REPLACING THE FILTER CARTRIDGES

The life of the prefilter cartridge generally depends on the local water conditions (i.e., dirt, rust and/or chlorine levels) while the life of the postfilter cartridge(s) is generally determined by the length of service.

##### When to Replace the Sediment Replacement Filter

- Every twelve (12) months or sooner depending on local water conditions.
- A noticeable decrease in water production is an indication that the filter requires changing.

##### When to Replace the Granulated Carbon Replacement Filter

The granulated carbon replacement filter reduces free chlorine in the feed water supply to protect the TFCM membrane from chlorine attack. To find out the chlorine level in a water supply, call the public water supplier.

##### When to Replace the Carbon Block Replacement Post-Filter

- If the filter is being used to control tastes and odors, replace it every twelve (12) months or sooner depending on local water conditions.

##### When to Replace the Carbon Postfilter Cartridge

Change at a minimum of 12 months or sooner, depending on feed water quality.

##### How to Replace the Prefilter and Postfilter Cartridges

- 1) Lift up on the faucet handle to drain the tank. Close the cold water supply valve. Wait five (5) minutes for the filtration assembly to completely depressurize.
- 2) Remove cover and twist the filter cartridge 1/4 turn clockwise so that the ears on the cartridge are able to disengage from the head. Firmly pull the cartridge from the head. It may be necessary to twist the cartridge slightly from side to side to help free it. (See Fig. 8)
- 3) Remove the new filter cartridge from its sanitary sealed wrapper. (Double check to see that it is the correct replacement by comparing the labels.)
- 4) Using tap water, wet the o-ring seals to make cartridge insertion easier.
- 5) Line up the cartridge ears, insert the cartridge and push it into the head until it is fully seated. Twist the cartridge 1/4 turn counterclockwise to lock it into place.
- 6) Open the cold water supply valve and carefully check for leaks.

##### 7) RO System Flush Instructions:

**Prefilter:** Flush at least 2 gallons of water through filter before use.

**Postfilter:** Flush at least 2 gallons of water through filter before use.

RO Membrane Cartridge: Run product water to drain for 24 hours.

#### C. REPLACING THE RO MEMBRANE CARTRIDGE

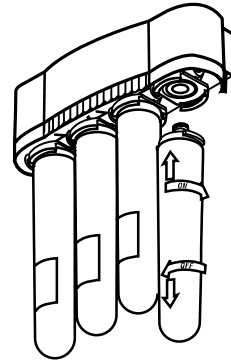
The life of the RO membrane cartridge depends on the local water conditions and proper maintenance, e.g., regular filter changes. The maximum recommended service life is 36 months. Unlike the filter cartridges, the RO membrane cartridge life is not determined by the amount of water used because of its self-cleaning feature.

### How to Replace the RO Membrane Cartridge

- 1) Close the cold water supply shut off valve. Lift up on the faucet handle to drain the tank. Wait five (5) minutes for the filtration assembly to completely depressurize.
- 2) Make sure that there is some slack in the red SFC tubing connected to the fitting at the bottom of the RO membrane cartridge. Twist the cartridge 1/4 turn clockwise so that the tubing connection is accessible. (See Fig. 8)
- 3) Remove the red SFC tubing by depressing the small gray collet and pulling the tubing away from the fitting.

**Note:** It is advisable to check the end of the red SFC tubing for nicks or scratches. If any are observed, cut off 1/4" from the end of the tubing with a sharp razor knife.

- 4) Firmly pull the cartridge away from the head. (It may be necessary to twist the cartridge slightly from side to side.)
- 5) Remove the new RO membrane cartridge from its sanitary sealed wrapper. (Double check to see that it is the correct replacement by comparing the labels.) Rinse it with tap water and dry it off.
- 6) Remove the white plug from the fitting at the bottom of the cartridge by pushing in the small gray collet and pulling out the plug.
- 7) Remove the red plastic cap from the top of the cartridge.
- 8) Using tap water, food grade silicone lubricant or glycerin, wet the O-ring seals to make cartridge insertion easier.
- 9) Reconnect the red SFC reject tubing by inserting it into the fitting at the bottom of the new RO membrane cartridge as far as it will go. Line up the cartridge ears, insert the cartridge and push it into the head until it is fully seated. Twist the cartridge 1/4 turn counterclockwise to lock it into place.
- 10) Open cold water supply valve and carefully check for leaks. Carefully inspect the fitting at the bottom of the new RO membrane cartridge.
- 11) Follow the sanitizing procedure for the storage tank and the filtration assembly outlined below.



**Remove the red SFC tubing from the fitting before completely removing the RO membrane module**

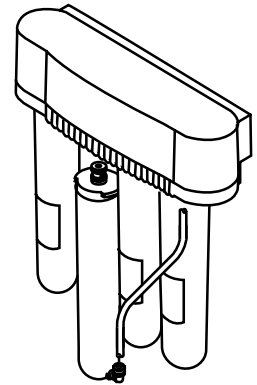


Fig. 8

### D. YEARLY MAINTENANCE SANITIZATION\* SANITIZING THE RO APPLIANCE

To assure the highest quality water from your RO Drinking Water Appliance, it is important to routinely sanitize both the storage tank and the filtration assembly.

**IMPORTANT: These procedures are only intended to be part of a routine maintenance program only and are not designed to sanitize systems that have become highly contaminated from misuse.**

#### When to Sanitize the Storage Tank

- Upon start-up as described in the beginning of this manual.
- After any servicing or routine maintenance that involves replacing the RO membrane cartridge, the postfilter(s), servicing the storage tank, or replacing the RO faucet.

#### When to Sanitize the Filtration Assembly

- After any servicing or routine maintenance that involves replacing the RO membrane cartridge, the postfilter(s), servicing the storage tank, or replacing the RO faucet.
- After any extended period of non-use (over 30 days) unless the cartridges are stored inside a sealed plastic bag in the refrigerator.

\* Initial sanitization to be performed using instructions on page 6.

### How to Sanitize the Storage Tank and Filtration System

#### Sanitizing the storage tank generally requires:

- Common household bleach (5.25% non-scented)
  - Eye dropper or plastic oral syringe
- 1) Close the cold water feed valve and lift up on the faucet handle to empty the water in the storage tank. It should feel light when empty.
  - 2) Disconnect the 3/8" yellow tubing (system tank) from the ball valve on top of the storage tank.
  - 3) Insert into the yellow tubing 1/2 teaspoon (3 ml) of household bleach. (See Fig 9)
  - 4) Reconnect the yellow tube to the tank ball valve.
  - 5) Close the RO faucet and open the cold water feed valve.
  - 6) Wait 4-5 hours.
  - 7) Lift up the handle of the RO faucet and allow contents of tank to drain completely into the sink.
  - 8) Sanitizing is now complete.
  - 9) If there is any residual chlorine/bleach taste in the next tank full, drain tank completely a second time.

### E. LONG TERM NON-USE

If the RO appliance is to be left unused for a long period of time (greater than 30 days), follow this procedure:

- 1) Lift up on the faucet handle to drain the storage tank and close the cold water supply shut off valve. Wait five minutes for the filtration assembly to depressurize.
- 2) Remove all of the filter cartridges. Turn the cartridges upside down in the sink to drain out as much water from them as possible.
- 3) Place the cartridges in an air tight plastic bag and store them in the refrigerator.

#### IMPORTANT NOTE:

The cartridges must not be allowed to freeze because permanent damage may occur, which may result in property damage due to water leakage.

- 4) When the RO appliance is ready to be put back into service, reinstall the filter cartridges by matching the symbols on the top of the cartridge labels with the ones on the filtration assembly heads. Sanitize the storage tank as described in the previous section. The filtration assembly can be sanitized at this time if so desired.
- 5) Follow the start up procedure outlined in the previous section.

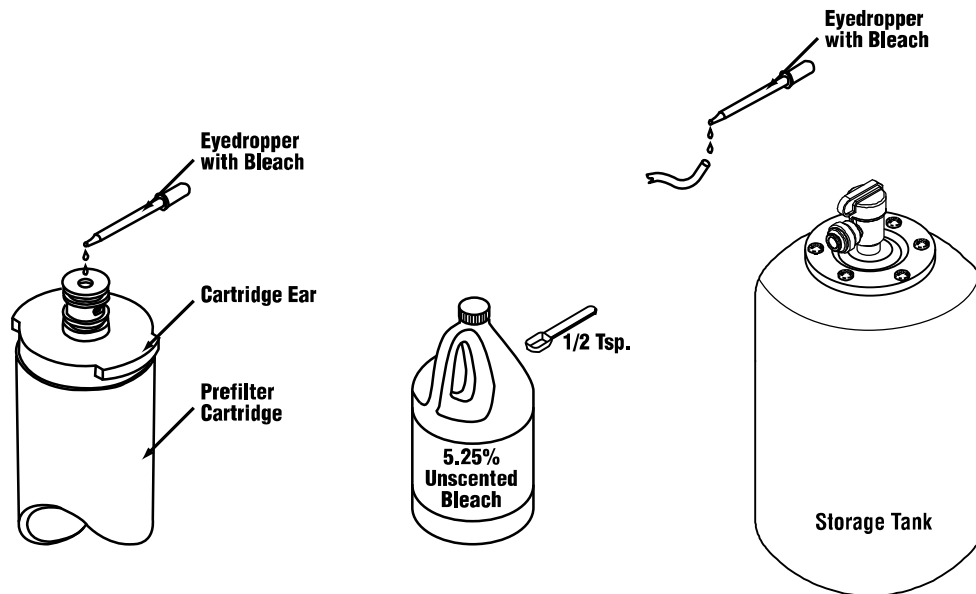


Fig. 9



## WARNING

#### To reduce the risk associated with ingestion of water contaminated with sanitizer:

- Sanitizer must be flushed from the system before using as directed within the installation instructions.

#### To reduce the risk of injury associated with household bleach:

- **Read and follow** manufacturers directions and cautions
- **Keep out of the reach of children**
- **DO NOT** intermix with other chemicals