WATER·ON·WATER™
REVERSE OSMOSIS

INSTALLATION & USER MANUAL
for
Undercounter WOW RO Systems

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Introduction to The WOW RO System

The **WOW RO System** operates by removing contaminants from water at the molecular level. By using your household water pressure to squeeze your water against a special membrane, water molecules are separated from impurities. Rejected dissolved solids are automatically rinsed down the drain leaving only high-quality, delicious water for you to use.

General Information

1. The **WOW RO System** will replenish approximately 1.5 gallons (5.7 L) in 35–90 minutes, depending on your incoming water pressure, quality and temperature. This appliance is designed with a self-regulating flush feature that limits the reject water to approximately 2 gallons (7.6 L) for every gallon (liter) of treated water. Your appliance will perform better and last longer with heavy use. We encourage you to water house plants, provide water for pets, cook, mix drinks, fill batteries, etc., with treated water. **Caution: The working capacity of this appliance depends on the pressure and temperature of the water supply.** This appliance is not guaranteed to work properly with water pressure less than 20 psi (1.4 bar) and water temperature less than 40°F (4°C).

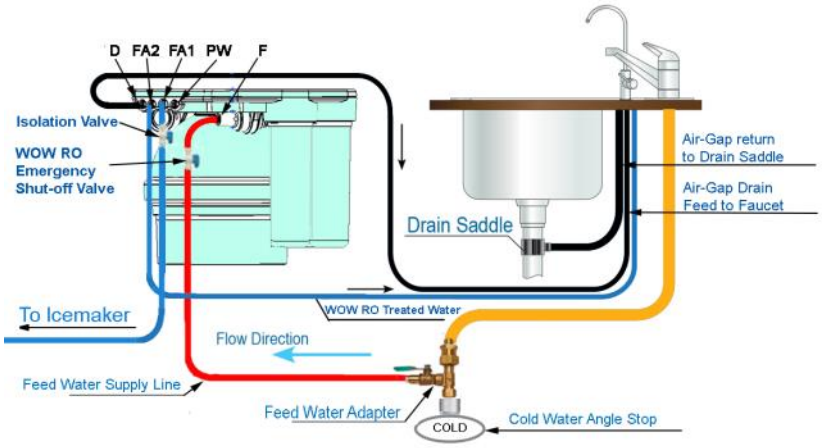


Figure 1: Installation Diagram

2. The storage tank will store 1.5 gallons (5.7 L) of water.
3. The **WOW RO System** can be connected to a variety of appliances, including your automatic ice maker, cold water dispenser in the refrigerator door, coffee maker, water cooler and other commercial applications.
4. The **WOW RO System** is designed to be connected to cold water only.

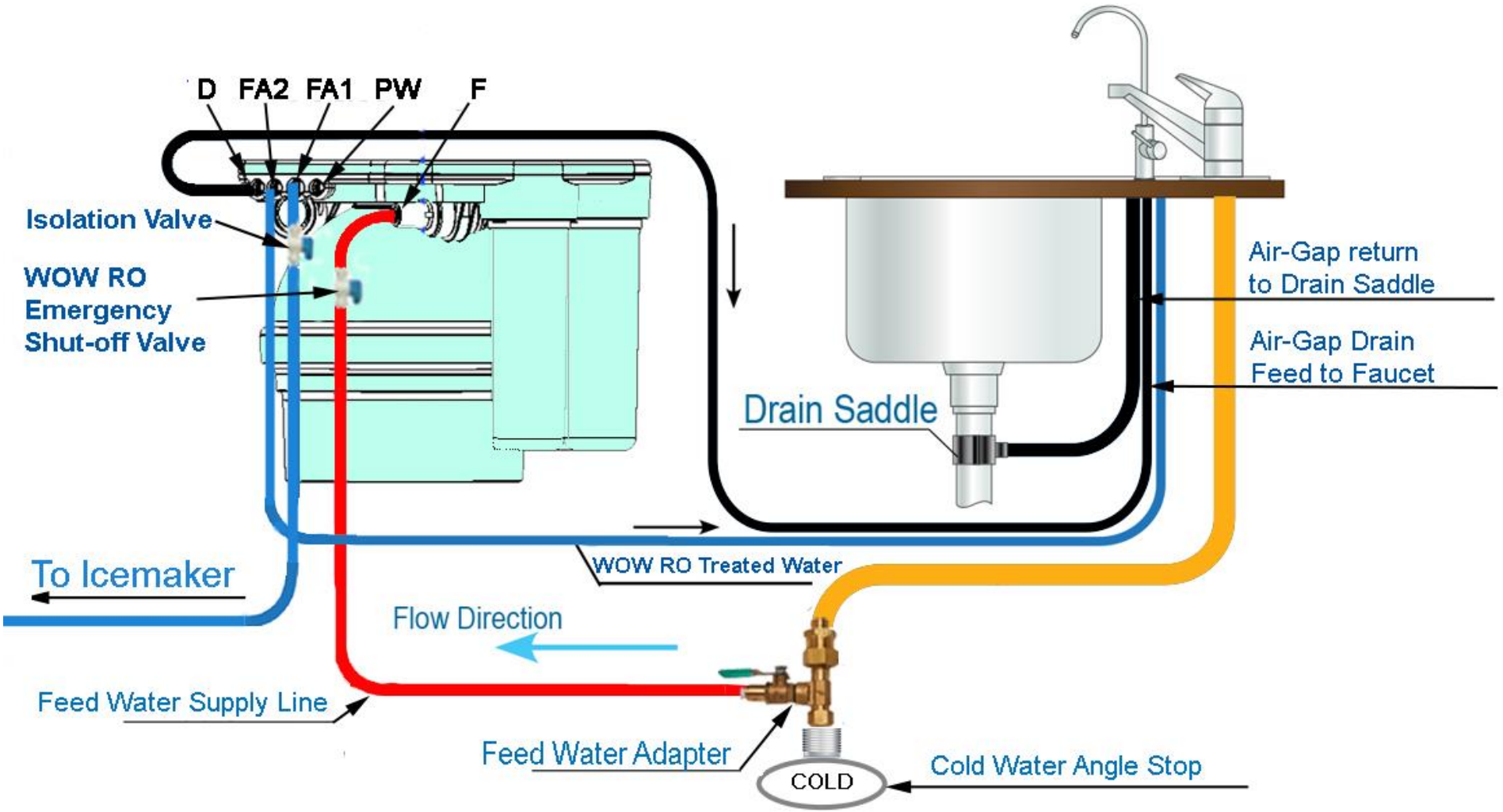
Caution: Never run hot water through your appliance.

5. The flow of water through your treated water faucet will not be as strong as your sink faucet.
6. The **WOW RO System** is made of safe, non-toxic, health and environment-friendly materials. BPA Free.

Warning: Do not allow your appliance to freeze.

Contents

Figure 1: Installation Diagram



Section 1

Installation & Start-up Procedures

Installation Steps and Start-Up Procedures

AVOID COMMON MISTAKES !

Review the most common missed steps made BEFORE starting. This will ensure an easy and successful installation.

1. Prepare and install all service components such as RO faucet, drain, and valve before installing **WOW RO System** (Pages 26-28).
2. Fully pre-load filter cartridges according to Step 3 (Page 11) to remove all air before attaching to system.
3. When installing pre-loaded filters to system, you MUST make sure they are properly attached and engaged to the stop tabs per Step 3 (Figure 3, Page 11) instructions. Filters are labeled PRE, POST and RO. Ensure each filter matches position on RO unit manifold.
4. If replacing an existing RO unit under the sink, you MUST ensure an independent isolation valve is used between the **WOW RO System** and any added outlets. Without an isolation valve, the **WOW RO System** will not start. Refer to Section 2 for connecting additional appliances.
5. Before beginning Start-up Procedures (Step 5, Page 13) make sure all tube connections match the Figure 1 diagram on Page 4.
6. Make sure unit is ONLY connected to a cold water supply (Page 7).
7. If your connections to and from **WOW RO System** have a leak (even one drop), the system will not work. Repair leak (see Troubleshooting if necessary) and repeat Start-up Procedures (Step 5, Page 13).
8. To avoid air-gap overflowing onto counter, air-gap return line must never have loops or sags in tubing.
9. If you are not using WOW's RO installation kit, it is critical that installers use correct color coded tubing (See installation kit contents, Page 8) to ensure easy trouble shooting or add-on appliance follow-up.
10.. If replacing an existing RO unit, make sure you replace all old tubing with new color coded tubing.

Installation Steps and Start-Up Procedures

<u>Warning:</u> Installation of this appliance must conform with state and local plumbing codes, laws, regulations, and the instructions provided with this appliance. Failure to install as instructed will void the product warranty.

Step 1 Pre-Installation Checklist

- Look under sink to identify where the unit will rest.
- To identify hot from cold, turn on hot water at the sink until hot water is flowing. Touch pipes below and mark cold from hot.
- Identify desired location for new faucet and mark sink for drilled hole, unless hole is pre-existing.
- Review tool kit supplies needed (Table 1).
- Open box and confirm 3 filter cartridges (PRE, POST & RO), 1 RO unit (tank & manifold) and installation kit (if purchased *).

*** <u>If installation kit is not purchased, you will need</u>:**

3— 4’ x 1/4” tubing

1— 3/8” drain saddle (sized for air-gap or non air-gap)

1— 3/8” tubing if air-gap is desired

1— Feed water adapter

1— 1/4” WOW RO emergency shut-off valve

1— Faucet with appropriate connector to 1/4” tubing

Recommended Tool List	Professional Installers “Must Have” Tool List
Relton drill 1-1/4” assembly (HST-20) (porcelain sinks)	2 pressure gauges adapted to 1/4” tube
Greenlee 1/2” to 1-1/4” punch (stainless steel sinks)	Conductivity or TDS meter
1” to 1-1/4” Carbide drill bit or hole saw	Tubing cutter or sharp knife
7/16” open-end wrench	
1/2” open-end wrench	
9/16” open-end wrench	
5/8” open-end wrench	
Medium-sized (#2) Phillips screwdriver	

Table 1:
Recommended Tool List

Installation Kit Contents

Installation Kit Legend

A. Non air-gap faucet

B. Air-gap faucet

C. Non air-gap faucet hardware

D. Air-gap faucet hardware

E. Drain saddle—(1/4”)

F. Drain saddle—(3/8”)

G. 1/4” WOW RO emergency shut-off valve

H. Feed water adapter

I. Tubing for install connections:

- Black 3/8” - Air-gap return line to 3/8”drain saddle
- Black 1/4” - Air-gap drain feed to faucet/D port to non air-gap drain saddle
- Red 1/4”
- Blue 1/4”

Installation Steps and Start-Up Procedures

Step 2 Inspect Unit Parts from Box

Cartridge Inspection:

- Remove red cap on pre-filter and post-filter.
  - Confirm that external large O-Ring is in place.
  - Confirm that 2 smaller O-Rings are in place (located in center).
- Remove red cap on RO-filter.
  - Confirm that large external O-Ring is in place.
  - Confirm that medium O-Ring is in place.
  - Confirm that 2 small O-Rings are in place (located in center).
- If any O-Rings are missing, please call our service center: (866) 790-8911 ext: 4

Proper Placement of Filters

Caution:

Cartridges must line up with tank cutouts when present

Newer systems may not have cutouts

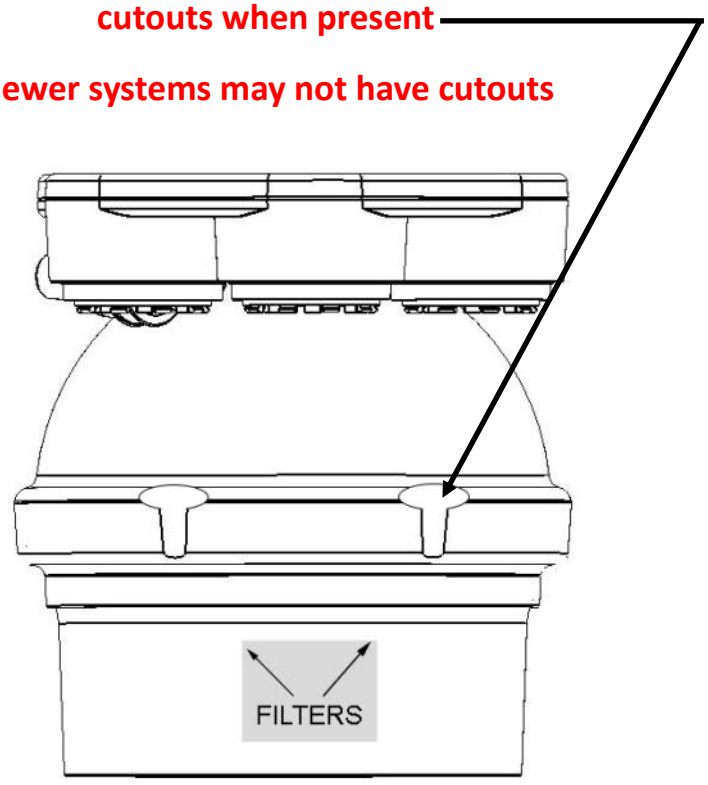


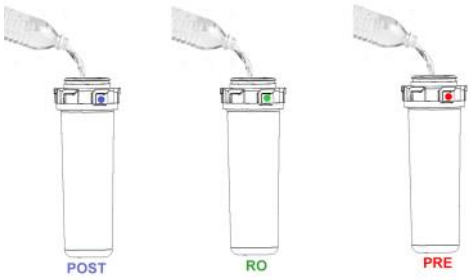
Figure 2:

Installation Steps and Start-Up Procedures

Step 3 Install Filtration Cartridges

1. Remove red cap from top of filter cartridge.
2. With a black permanent marker, write the date on each filter to track replacement time. Filters last up to a year.
3. Pre-fill filter cartridges with bottled water or tap water until it overflows from the top. Wait 3 minutes and top off as cartridges soak up water. Repeat until cartridges are completely saturated and no air is present at the top.

Figure 3a:



4. Attach post-filter in the labeled POST position, RO-Filter in the labeled RO position and the pre -filter in the labeled PRE position, with a twisting counter clockwise upward motion until you feel and hear stop tabs touch and colored dots are aligned (see Figure 3), .

Figure 3b:

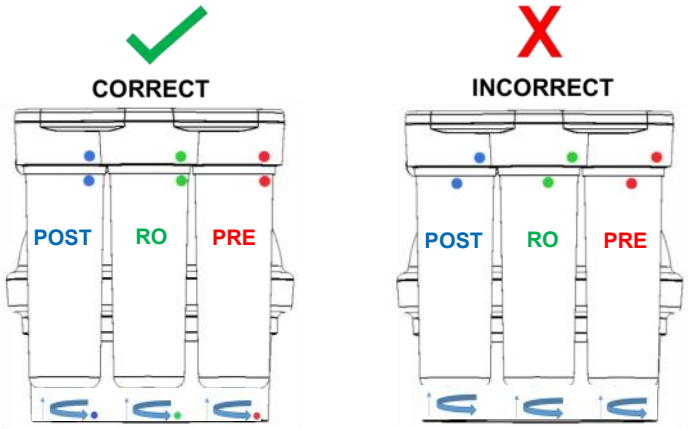
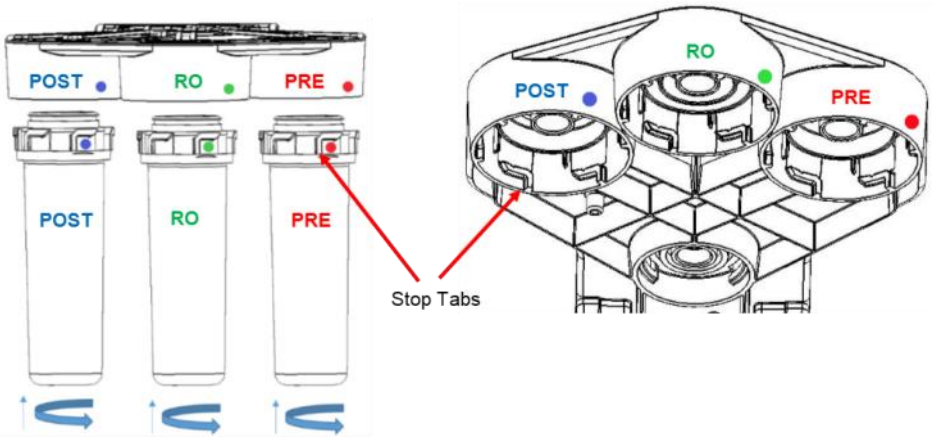


Figure 3c:



Warning: Check to see if the cartridges are fully engaged. Visually confirm colored dots are lined up and white cartridge stop tabs are flush with black manifold stop tabs prior and after pressurization of system.

Installation Steps and Start-Up Procedures

Step 4 Connect the System

WOW RO System port identification markings molded into top of manifold: (See Figure 4).

- **F:** Feed (¼" red)
- **D:** Drain (¼" black)
- **FA1:** Faucet/Accessory 1 (⅜" blue)
- **FA2:** Faucet/Accessory 2 (¼" blue)
- **PW:** Used for testing or additional storage.
- **SQ:** Used for testing or additional storage.
- **RF:** Do not touch (pre-connected).

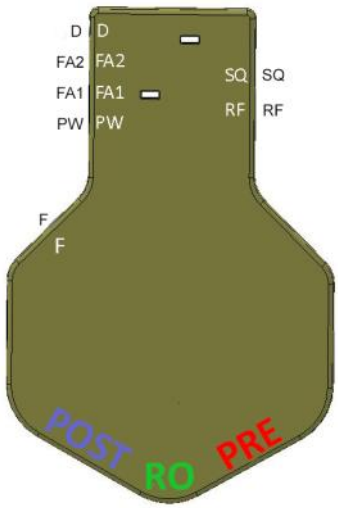


Figure 4:
System Connections

NOTE: Ports that are not used require the appropriate sized plug. (Included).

A. With the **WOW RO System** in place, remove any port plugs as necessary (push in white collet to release) and make the following connections:

B. **Feed F connection:** Take the 1/4" red tubing and snip off a 6" length. Take long end of remaining tubing and attach to feed water adapter (cold water supply). Attach other end to **WOW RO System** emergency shut-off valve (in installation kit). With 6" tubing, attach one end to **WOW RO System** emergency shut-off valve and the other end to gray "F" port (See Figure 1, Page 4: Installation Diagram).

C. **Drain D connection:**

i. **Air-Gap Faucet**
Route the free end of the 1/4" black tubing attached to the RO faucet air-gap to the connection marked "D".

ii. **Non Air-Gap Faucet ***
Route drain line connection (saddle clamp or other) to the connection marked "D", using the 1/4" black tubing.

***** Check local plumbing codes for compliance when using non air-gap faucets.

D. **RO Faucet connection:**
FA1 (3/8") or FA2 (1/4") If there are no additional appliances (i.e. icemaker, coffee maker, cooler, etc.) to hook up then you have the choice of using either port for the RO faucet.

i. If the RO faucet is more than ten feet in distance from the **WOW RO System**, then the 3/8" FA1 port is preferred.

ii. Use the 1/4" FA2 port for the RO faucet and the 3/8" FA1 port for the added appliances.

Note: If your installation needs to connect to multiple appliances, such as an icemaker or coffee maker, go to Section 2, Pages 15-21

Installation Steps and Start-Up Procedures

Step 5 Start-up Procedure

Before the **WOW RO System** is operational, it must be properly primed by removing all air from the unit.

Purging the system:

A. Make sure the RO faucet and all other outlets using an isolation valve are CLOSED.

B. Turn feed valves (a.k.a. supply valves) on. Notice the sound of water filling the system.

C. Within 3-4 minutes, the waste line from the system will open with a noticeable exhaust of air and water.

D. After waiting another minute, open RO faucet. Notice air/water exhausting from faucet port. Wait for a steady stream of water and then CLOSE the faucet.

E. Within 2 minutes, the waste port will open again with a shot of air/water exhausting. At this point, let the tank fill for approximately 45 minutes.

F. After system shuts down (indicated by no audible or visible drain flow), open RO faucet and empty system to a trickle. At this point, the system should have generated a full gallon and a half of water. If not, see Note 1 below or refer to Troubleshooting Guide (Page 35).

G. Turn off RO faucet and let water make-up process refill tank (approximately 45 minutes).

H. The unit is operational, but it is recommended to repeat this process (Steps F & G) up to five times to completely prep and flush filter cartridges and ensure TDS levels are at their mini-mums. This will guarantee the best tasting water immediately.

I. System is now fully operational! If system does not work, refer to Troubleshooting Guide.

Note 1: If your connections along any FA lines have a leak (even one drop), the system will not work. Repair leak and repeat Start-up Procedure.

Note 2: See Pages 15-21 if adding any appliances.

Note 3: Unlike traditional air caprive RO systems, the WOW RO System will always have water in the tank. This fact does not change the need to follow Steps A-F for start-up.

Section 2

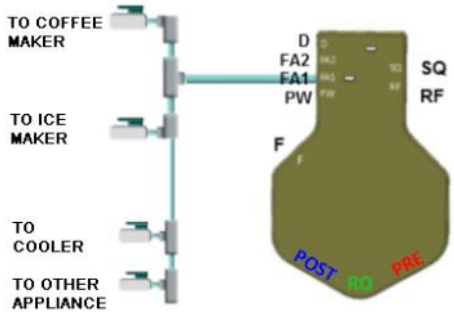
Connecting Additional Appliances to WOW RO System

There are many reasons why additional storage is required. If the unit is installed in houses with larger families, cooking needs alone may warrant more storage. If family fills water bottles exceeding 1½ gallons at same time, additional storage will be required. In addition, devices with larger storage capacities like coolers will require greater draw down needs. Draw down refers to amount of water that is released when opening up faucet and emptying tank from start to finish (single pull). A standard **WOW RO System** holds 1½ gallons. The **WOW RO System** has been designed in a modular format to add additional storage tanks as needed.

Connecting to Multiple Appliances

The **WOW RO System** is uniquely designed to connect to one or more appliances (Figure 5), including refrigerator icemakers/door dispensers, coolers (both gravity fed and pressurized), under-the-counter hot & cold vented systems, commercial steamers (restaurants), commercial coffee makers and other appliances that benefit from RO water. This section addresses "Do's and Don'ts" of connecting to one or more appliances. It also addresses how to determine storage and expansion needs depending on how many appliances are hooked up.

Figure 5



General MUST Do's for connecting ANY additional appliances:

A. It's a must that the filter and water lines to any and all added outlets be clear of air. Note: System will not work with air in the lines.

B. Close isolation lines to all additional outlets.

C. Charge system to its full status (refer to Start-up, Page 13).

D. Follow the instructions provided from Pages 16-22.

Determining Your Expansion and Storage Needs:

A standard **WOW RO System** holds 1½ gallons. The **WOW RO System** has been designed in a modular format to add additional storage tanks as needed.

Review chart below for each device connected. Add all additional tanks needed from right hand column to determine complete storage needs.

Device	Average Reservoir in Gallons *	Estimated Additional Tanks Needed
Refrigerator / Icemaker	0 gallons	None
Commercial Coffee Maker	1 gallon	0-1 Depending on draw down needs at peak periods (See Page 14 for draw down definition). Count glass/cups per hour to determine if greater than 1 gallon.
Gravity Cooler	Up to 3 gallons	1
Pressurized Cooler	Up to 3 gallons	1
Vented Hot Box	2/3 of a gallon or 84 oz.	0

* Check device manual for actual reservoir capacity.

Adding a Refrigerator/Icemaker

Refrigerator Hook-ups: (Figure 7, Page 17)

Adding a line from the **WOW RO System** to your refrigerator will provide you with clean tasting water and clearer, harder ice cubes.

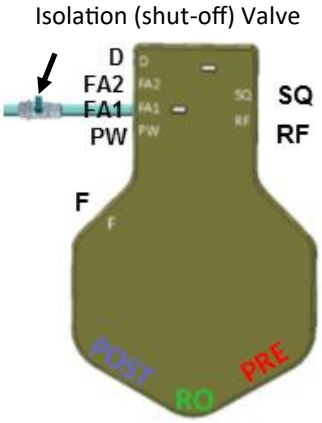


Figure 6

Adding a refrigerator hook-up from a new WOW (dry) installation:

a. Remove the 3/8" plug from the FA1 port by pushing on the white collet, releasing the plug.

b. Connect the 3/8" plastic tubing to the FA1 port that goes to the ice-maker.

c. Make sure that a 3/8" isolation/shut-off valve is installed at the system in the icemaker line and easily accessible under the sink cabinet (Figure 6).

d. Close isolation valve.

e. Go to Start-up Procedures (Page 13) and proceed until fully operational.

f. After start-up, open isolation valve and bleed line to icemaker as described below (Bleeding Lines).

Adding a refrigerator hook-up from a pre-installed WOW (wet) installation:

a. Close feed water valve.

b. Open faucet to relieve pressure on the FA ports.

c. Remove the 3/8" plug from the FA1 port by pushing on the white collet, releasing the plug.

d. Connect the 3/8" plastic tubing to the FA1 port that goes to the icemaker.

e. Make sure that a 3/8" isolation/shut-off valve is installed at the system in the icemaker line and easily accessible under the sink cabinet (Figure 6).

f. Close isolation valve.

g. Turn on feed water.

h. Open isolation valve.

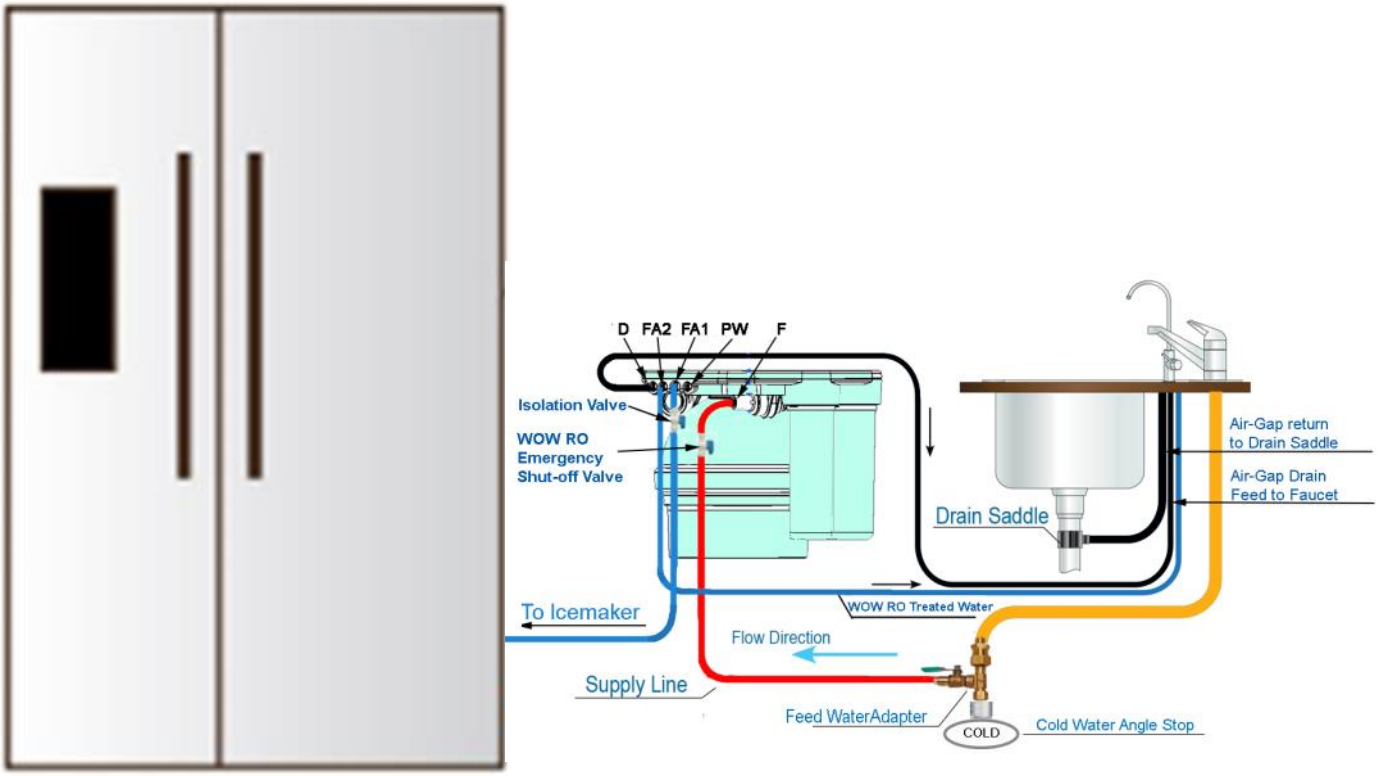
i. Bleed line to icemaker as described below (Bleeding Lines).

Bleeding Lines:

- Refrigerator with no door dispenser:
  - Open up freezer and clear ice cube tray.
  - Push lever down to engage ice-making. This will begin clearing air out of line.
- Refrigerator with door dispenser:
  - Use glass to engage water dispensing and wait for a solid stream of water.

Figure 7

Refrigerator Icemaker



Adding a Coffee Maker

Commercial Coffee Maker Hook-ups: (Figure 8A, Page 21)

Adding a line from the **WOW RO System** to a commercial coffee maker will ensure RO water is always being used to create great tasting coffee and reducing or eliminating scaling.

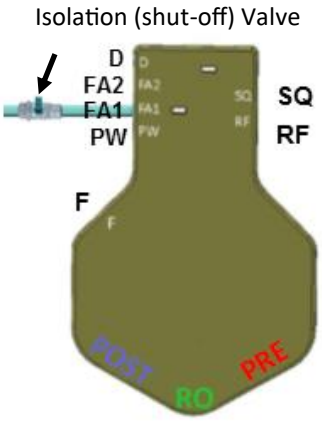


Figure 6

Adding a coffee maker hook-up from a new WOW (dry) installation:

a. Remove the 3/8” plug from the FA1 port by pushing on the white collet, releasing the plug.

b. Connect the 3/8” plastic tubing to the FA1 port that goes to the coffee maker.

c. Make sure that a 3/8” isolation/shut-off valve is installed at the system in the coffee maker line and easily accessible under the sink cabinet (Figure 6).

d. Close isolation valve.

e. Go to Start-up Procedures (Page 13) and proceed until fully operational.

f. After start-up, open isolation valve and bleed line to coffee maker as described below (Bleeding Lines).

Adding a coffee maker hook-up from a pre-installed WOW (wet) installation:

a. Close feed water valve.

b. Open faucet to relieve pressure on the FA ports.

c. Remove the 3/8” plug from the FA1 port by pushing on the white collet, releasing the plug.

d. Connect the 3/8” plastic tubing to the FA1 port that goes to the coffee.

e. Make sure that a 3/8” isolation/shut-off valve is installed at the system in the coffee maker line and easily accessible under the sink cabinet (Figure 6).

f. Close isolation valve.

g. Turn on feed water.

h. Open isolation valve.

i. Bleed line to coffee maker as described below (Bleeding Lines).

Bleeding Lines:

Brew a pot of coffee.

Adding a Cooler

Water Cooler Hook-ups: (Figure 8A, Page 21)

Adding a line from the **WOW RO System** to a cooler will ensure RO water is always being used to create great tasting water. When adding devices with larger storage capacities, like coolers, you must first determine draw down needs.

Refer to Section 2, Page 14-15, "Determining your Expansion Needs".

Isolation (shut-off) Valve

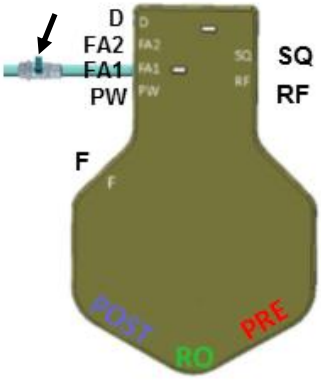


Figure 6

Adding a cooler hook-up from a new WOW (dry) installation:

a. Remove the 3/8" plug from the FA1 port by pushing on the white collet, releasing the plug.
b. Connect the 3/8" plastic tubing to the FA1 port that goes to the cooler.
c. Make sure that a 3/8" isolation/shut-off valve is installed at the system in the cooler line and easily accessible under the sink cabinet (Figure 6).
d. Close isolation valve.
e. Go to Start-up Procedures (Page 13) and proceed until fully operational.
f. After start-up, open isolation valve and bleed line to cooler as described below (Bleeding Lines).

Adding a cooler hook-up from a pre-installed WOW (wet) installation:

a. Close feed water valve.
b. Open faucet to relieve pressure on the FA ports.
c. Remove the 3/8" plug from the FA1 port by pushing on the white collet, releasing the plug.
d. Connect the 3/8" plastic tubing to the FA1 port that goes to the cooler.
e. Make sure that a 3/8" isolation/shut-off valve is installed at the system in the cooler line and easily accessible under the sink cabinet (Figure 6).
f. Close isolation valve.
g. Turn on feed water.
h. Open isolation valve.
i. Bleed line to cooler as described below (Bleeding Lines).

Bleeding Lines:

Open spigot to dispense water and wait for a solid stream of water.

Pressurized Cooler

Gravity Cooler

Adding a Hot Tank w/ Vented Faucet

Hot Tank Hook-ups: (Figure 8-B)

Adding a line from the **WOW RO System** to a hot tank will ensure RO water is always being used to create great tasting hot water. When adding devices with larger storage capacities, like hot tanks, you must first determine draw down needs.

Refer to Section 2, Page 14-15, "Determining your Expansion Needs".

Isolation (shut-off) Valve

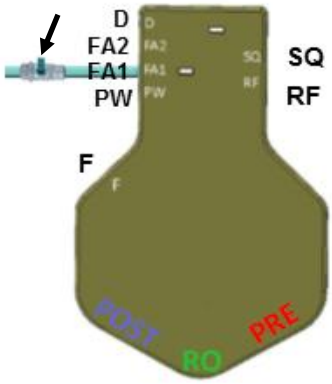


Figure 6

Adding a hot tank hook-up from a new WOW (dry) installation:

a. Remove the 3/8" plug from the FA1 port by pushing on the white collet, releasing the plug.
b. Connect the 3/8" plastic tubing to the FA1 port that goes to the hot tank.
c. Make sure that a 3/8" isolation/shut-off valve is installed at the system in the hot tank line and easily accessible under the sink cabinet (Figure 6).
d. Close isolation valve.
e. Go to Start-up Procedures (Page 13) and proceed until fully operational.
f. After start-up, open isolation valve and bleed line to hot tank as described below (Bleeding Lines).

Adding a hot tank hook-up from a pre-installed WOW (wet) installation:

a. Close feed water valve.
b. Open faucet to relieve pressure on the FA ports.
c. Remove the 3/8" plug from the FA1 port by pushing on the white collet, releasing the plug.
d. Connect the 3/8" plastic tubing to the FA1 port that goes to the hot tank.
e. Make sure that a 3/8" isolation/shut-off valve is installed at the system in the hot tank line and easily accessible under the sink cabinet (Figure 6).
f. Close isolation valve.
g. Turn on feed water.
h. Open isolation valve.
i. Bleed line to hot tank as described below (Bleeding Lines).

Bleeding Lines:

Figure 8-A

Ice-maker, Coffee-maker, Water Cooler

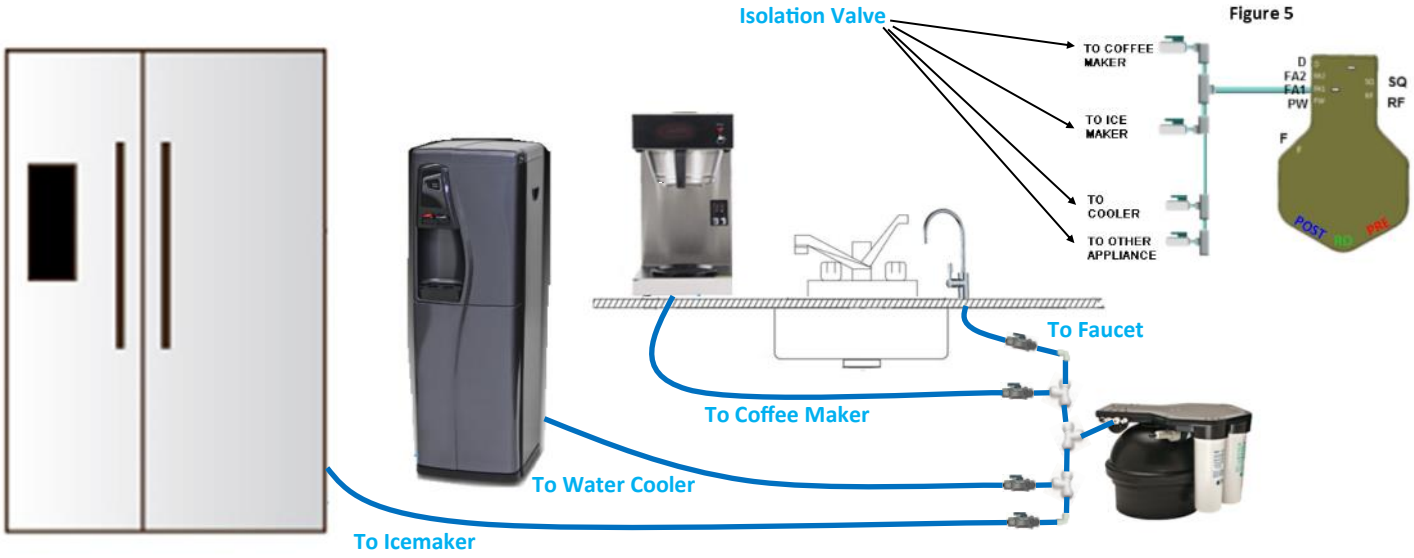
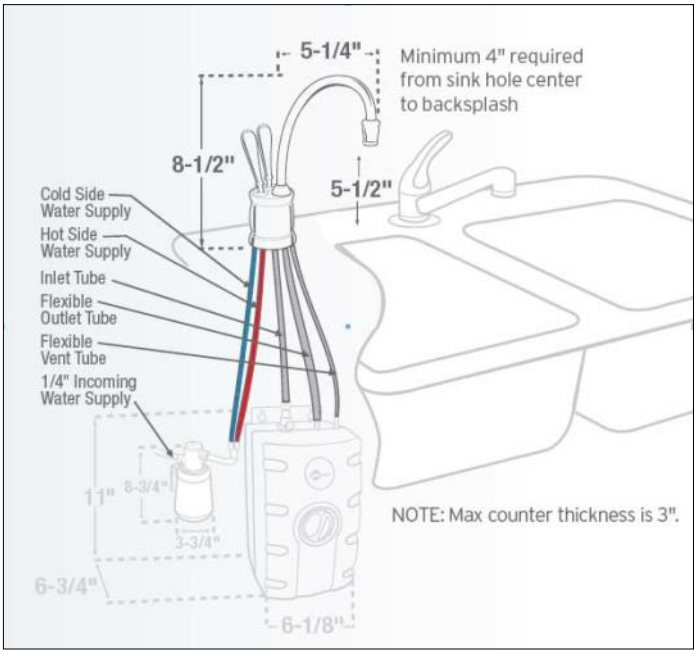


Figure 8-B

Hot Tank, Vented Faucet Installation



Section 3

When More Water is Needed

There are many reasons why additional storage is required. If the unit is installed in houses with larger families, cooking needs alone may warrant more storage. If family fills water bottles exceeding 1½ gallons at same time, additional storage will be required. In addition, devices with larger storage capacities like coolers will require greater draw down needs. Draw down refers to amount of water that is released when opening up faucet and emptying tank from start to finish (single pull). A standard **WOW RO System** holds 1½ gallons. The **WOW RO System** has been designed in a modular format to add additional storage tanks as needed. Review chart below for each device connected. Add all additional tanks needed from right hand column to determine complete storage needs.

Device	Average Reservoir in Gallons *	Estimated Additional Tanks Needed
Refrigerator / Icemaker	0 gallons	None
Commercial Coffee Maker	1 gallon	0-1 Depending on draw down needs at peak periods (See Section 3, Page 22 for draw down definition). Count glass/ cups per hour to determine if greater than 1 gallon.
Gravity Cooler	Up to 3 gallons	1
Pressurized Cooler	Up to 3 gallons	1
Vented Hot Box	2/3 of a gallon or 84 oz.	0

***** Check device manual for actual reservoir capacity.

When More Water is Needed / Desired

Steps to determine storage needs: See Section 2, Page 15

Adding extra storage tanks:

a. Open RO faucet and drain off at least a couple cups of water to release pressure on the internal bladder.

b. Wait until you hear the pressure release from the drain line.

c. Turn the feed valve off.

d. Remove the ¼" plugs from the SQ (Squeeze) and PW (Tank, Product Water) ports by pushing in white collet to release.

e. Connect ¼" yellow tubing between the matching SQ ports on the **WOW RO System** manifold and the spare tank adapter connected to the spare tank (See Figure 9 below for one or multiple tank set-ups).

f. Connect ¼" green tubing between the matching PW ports on the manifold and the adapter (See Figure 9 below for one or multiple tank set-ups).

g. After connections are completed, slowly turn on feed water and open faucet. You will hear a combination of air and water eliminated from system. Leave open until a solid stream of water dispenses.

h. Close the faucet.

i. In less than a minute, control module will activate and system will resume making water with a noticeable exhaust of air and water down the drain.

j. To expel all air from the newly added tank, it may be necessary to drain water from faucet several times.

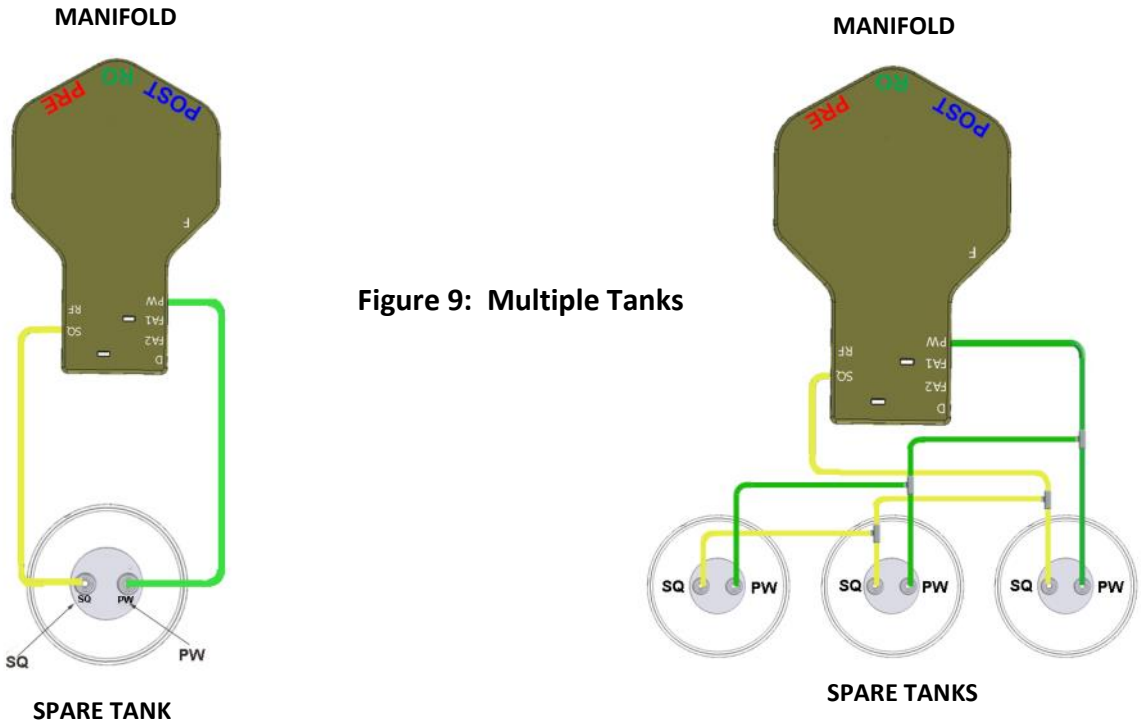
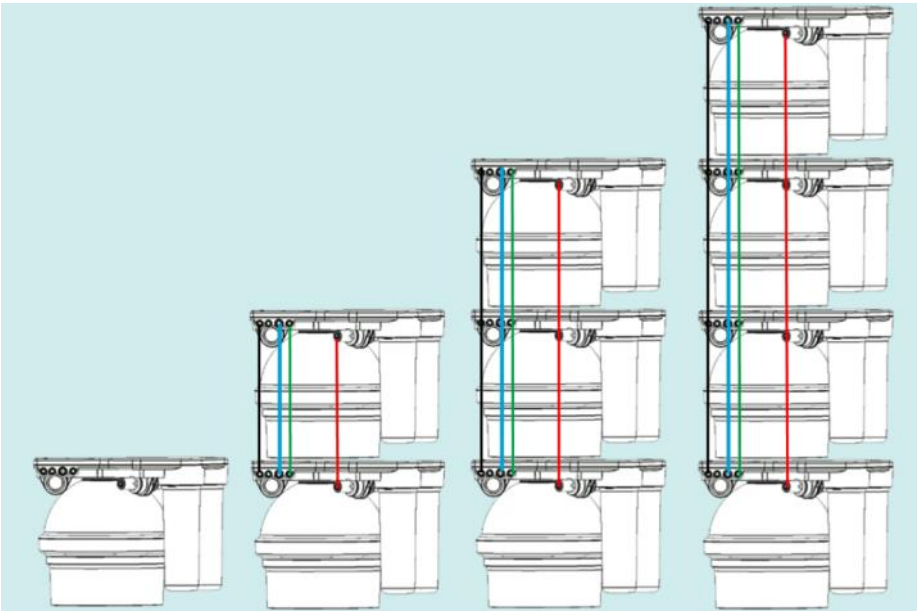
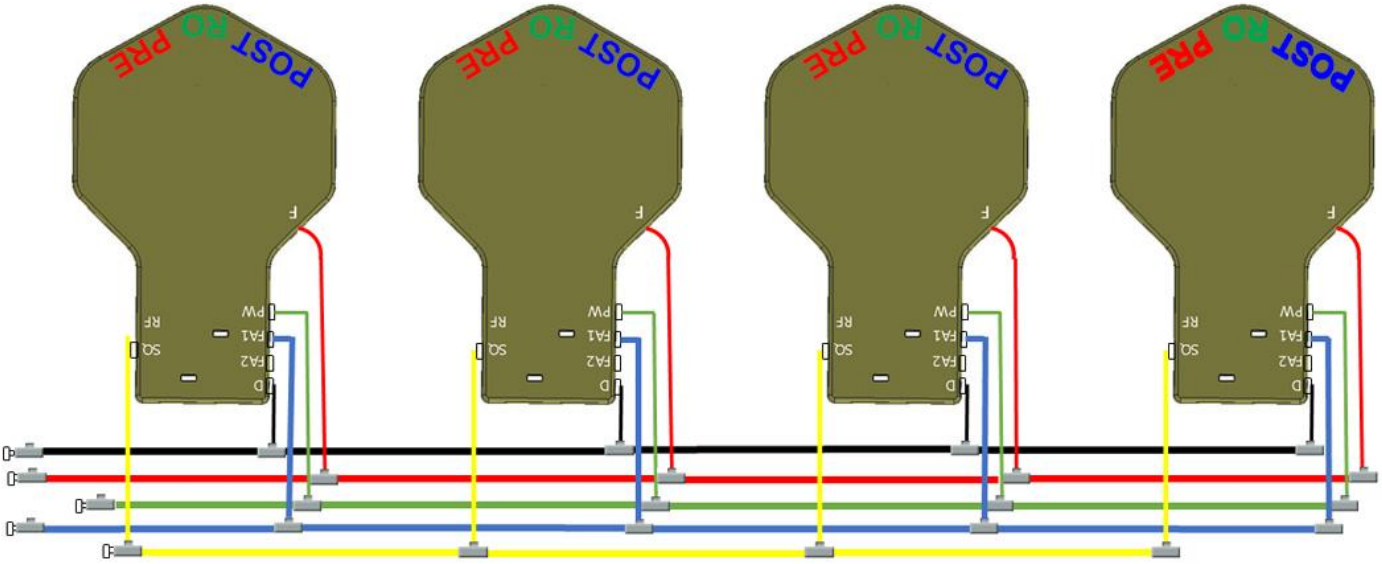


Figure 9: Multiple Tanks

Modular Expandability

Parallel Processing:





Section 4

Plumbing the Sink

Install the Drain Saddle Assembly

The drain saddle assembly should be installed above the P-trap on the vertical or horizontal tail-piece (See Figure 10 below). Use the black 1/4" saddle for the non air-gap RO faucet, or the white 3/8" saddle for the air-gap RO faucet.

A. Position the drain saddle in the desired location, mark the spot to be drilled, and remove the saddle. (See Figure 10).

B. Drill a 7/16" hole through one side of the drain pipe only.

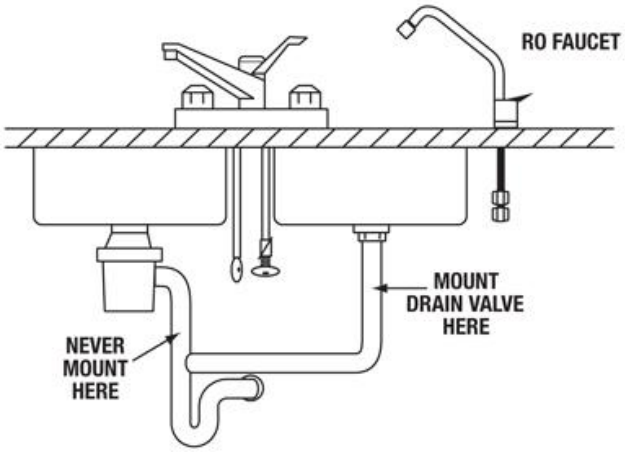


Figure 10: Drain Saddle Assembly Mounting Locations

C. Peel off the paper backing from the drain gasket and apply the gasket to the "port" connection of the drain saddle (See Figure 11).

D. Make sure to align the drain saddle to the drilled hole (use small screwdriver to check alignment).

E. Attach the drain saddle to the drain pipe and tighten the two screws evenly.

F. Cut the 1/4" tube or 3/8" tube to the desired length and connect to the drain saddle with the provided locking clip.

Note: State and local plumbing codes may prohibit the use of saddle valve connections.

Reminder: Must not have loop or sag in the drain saddle line as this will cause an overflow through the air-gap.

Figure 11: Drain Saddle Assembly

Prepare the RO Faucet for Installation

The most convenient installation will allow the use of an existing spray attachment or soap dispenser hole. If either hole is not available, then follow the basic procedures outlined below.

Drilling a stainless steel sink:

A. Mark the sink location for the center of the spigot.

B. Impact punch the sink top to provide a starting point for the drill bit.

C. Drill a 1/4" pilot hole in the sink using a high-speed drill bit.

D. Drill a 1/2" diameter hole to accept the bolt of a 1" Greenlee Chassis Punch.

E. Set the punch and turn the nut with a wrench to cut the hole. Follow Greenlee instructions.

Drilling a porcelain clad steel or cast-iron sink:

Caution: Be careful when the drill is about to penetrate the base metal of the sink. Reduce the speed and support the drill so the drill chuck does not impact the porcelain or enamel.

A. Assemble the faucet with all of the components (See Figure 12, for typical air-gap and non air-gap faucet) according to the faucet assembly instructions included with the faucet.

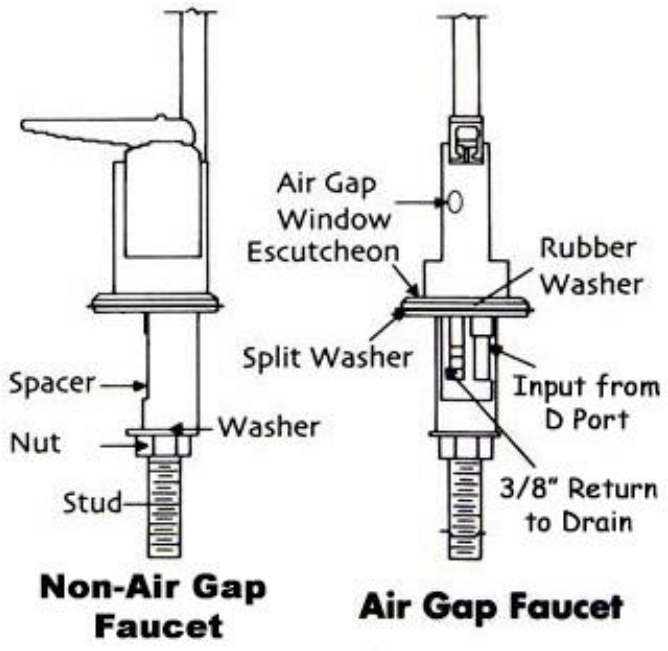
B. Feed the assembled faucet and tubing through the hole in the sink and fasten from under the sink according to the instructions.

C. Position the faucet for customer convenience and then secure the faucet on the sink.

D. Air-Gap return to drain; a 3/8" line must be installed with no loops or sags. It must be a direct shot to the drain.

Figure 12:

Air Gap and Non-Air Gap Faucets



Install the Incoming Water Supply Valve

For installation with standard angle stop incoming water supply valve (See Figure 14).

A. Shut off the water at the angle stop valve.

B. Use a wrench to loosen the compression nut on the angle stop riser tube/flex line to upper faucet.

C. Install the incoming water supply valve onto the angle stop. Use the wrench to tighten the compression nut on the incoming water supply valve. Do not over - tighten.

D. Reconnect the riser tube to the other end of the incoming water supply valve. Do not overtighten.

Caution: A longer riser tube assembly will be required if a gentle loop cannot be made. (See Figure 13).

E. Fully insert the 1/4" tube into the speedfit/John Guest style connection. The new incoming water valve can be swiveled to position the tubing out of the way.

F. Make sure the incoming water supply valve is off before turning the angle stop valve on. Check for leaks.

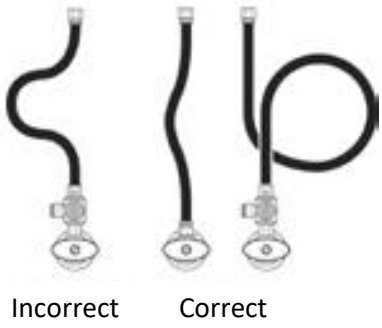


Figure 13: Flexible Hose Positions

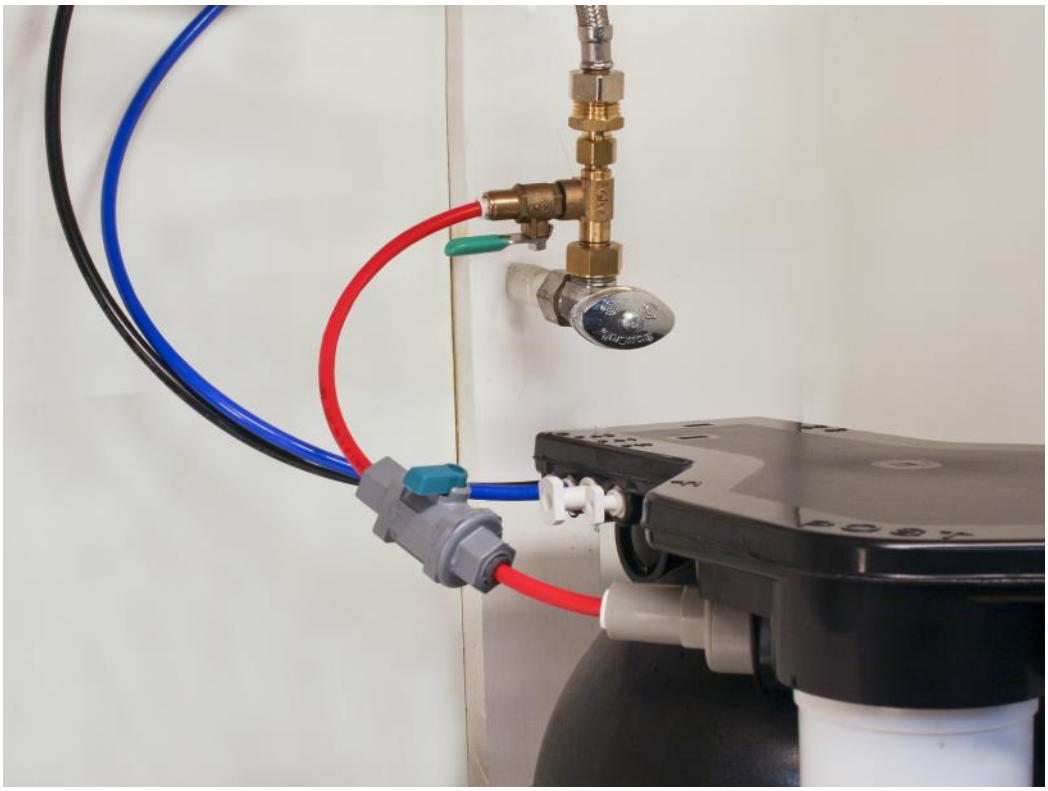


Figure 14: Installation with Flexible Hoses

Section 5

Maintenance

Changing Filters

Changing the Filter Cartridges (PRE, RO, POST)

(Refer to Installation)

Removal

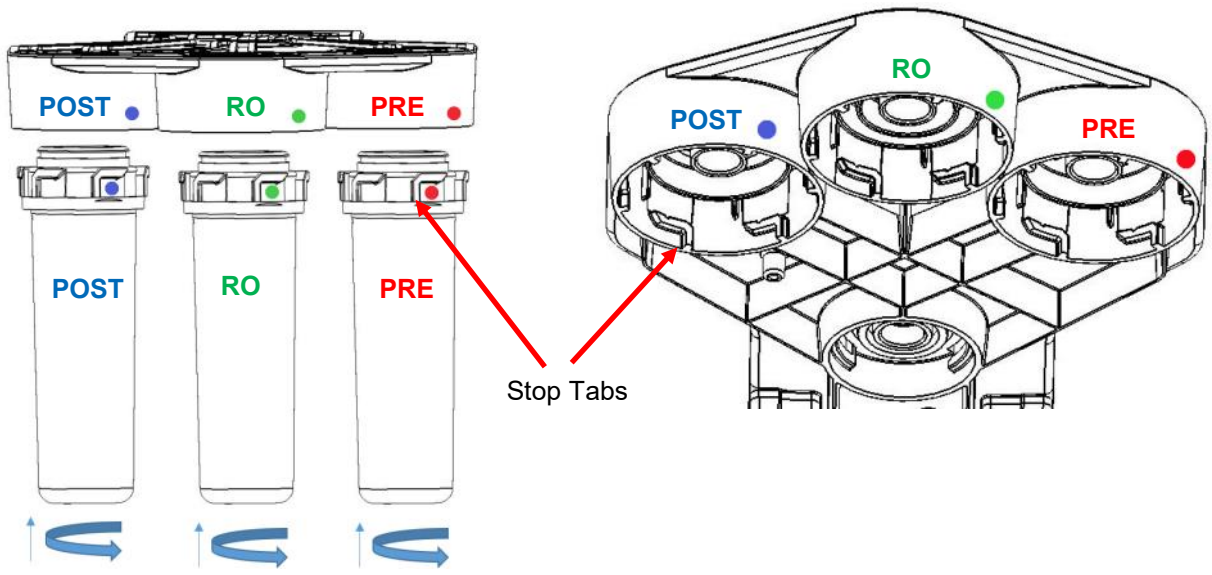
1. Open RO faucet for a glass of water and close.
2. Turn system feed off and wait for 20 seconds.
3. The system has now been depressurized for a safe removal of the cartridges.
4. Towels should be placed under the system first.
5. Remove cartridges with a clockwise upward twist.

Replacement

1. Remove red cap from top of filter cartridge.
2. With a black permanent marker, write the date on each filter to track replacement time. Filters last up to a year in most cases.
3. Pre-fill filter cartridges with bottled water or tap water.
4. Attach post-filter in the labeled POST position, RO-Filter in the labeled RO position and the pre-filter in the labeled PRE position, with a twisting counter clockwise upward motion until you feel and hear stop tabs touch (see Figure 15).

Note: Make sure your cartridges are inserted completely !

Figure 15: Changing Filters



Recommended Filter Replacement

The frequency in which the membrane and filters should be replaced depends upon the quality of the water that enters the appliance. Contact your WOW Water specialist or visit **www.wowwater.com** for replacement filters and parts.

Note: The installation of the **WOW RO System** appliance on a pre-treated water supply will greatly increase the life of its filters.

Note: Any filter that demonstrates reduced water production or a slower rate of flow is overdue for a change.

Warning: **Shut off water to the appliance before beginning any maintenance**.

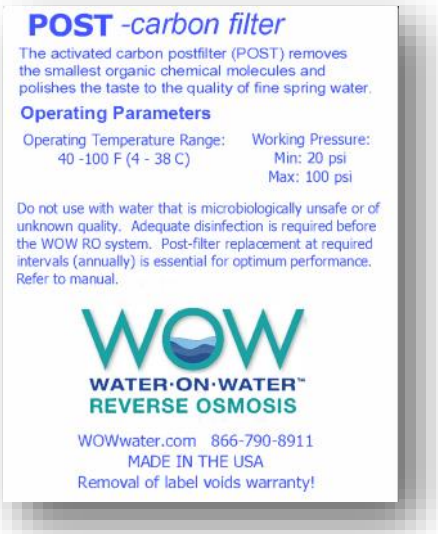
Filter	Recommended Replacement (Months)
Replacement Sediment/Carbon Pre-filter (RED) Part# 20-201-001	6-12
Replacement Reverse Osmosis Membrane (GREEN) Part# 20-250-001	12-24
Replacement Carbon Post-filter (BLUE) Part# 20-202-001	6-12

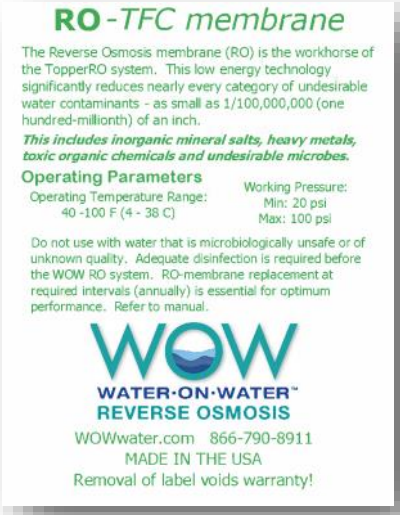
WOW RO System Appliance

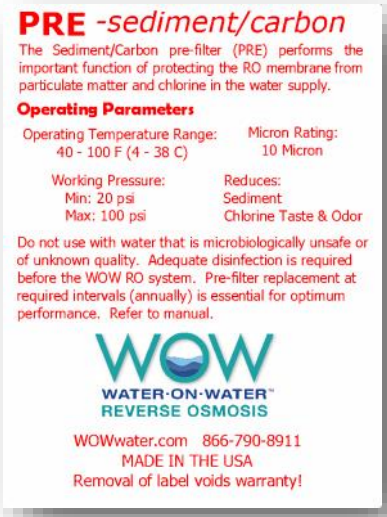
Figure 16: WOW RO System Appliance

1. **Replacement Sediment/Carbon Pre-Filter (RED)** - The Sediment/Carbon pre-filter (PRE) performs important function of protecting the RO membrane from particulate matter and chlorine in the water supply.
2. **Replacement Reverse Osmosis Membrane (GREEN)** - The Reverse Osmosis membrane (RO) is the workhorse of the WOW RO system. This low energy technology significantly reduces nearly every category of undesirable water contaminants—as small as 1/100,000,000 (one hundred-millionth) of an inch. ***This includes inorganic mineral salts, heavy metals, toxic organic chemicals and undesirable microbes.***
3. **Replacement Carbon Post-Filter (BLUE)** - The activated carbon post-filter (POST) removes the smallest organic chemical molecules.

WOW RO System Filter Labels







Sanitize Water on Water

This can be performed at the time of the filter replacement.

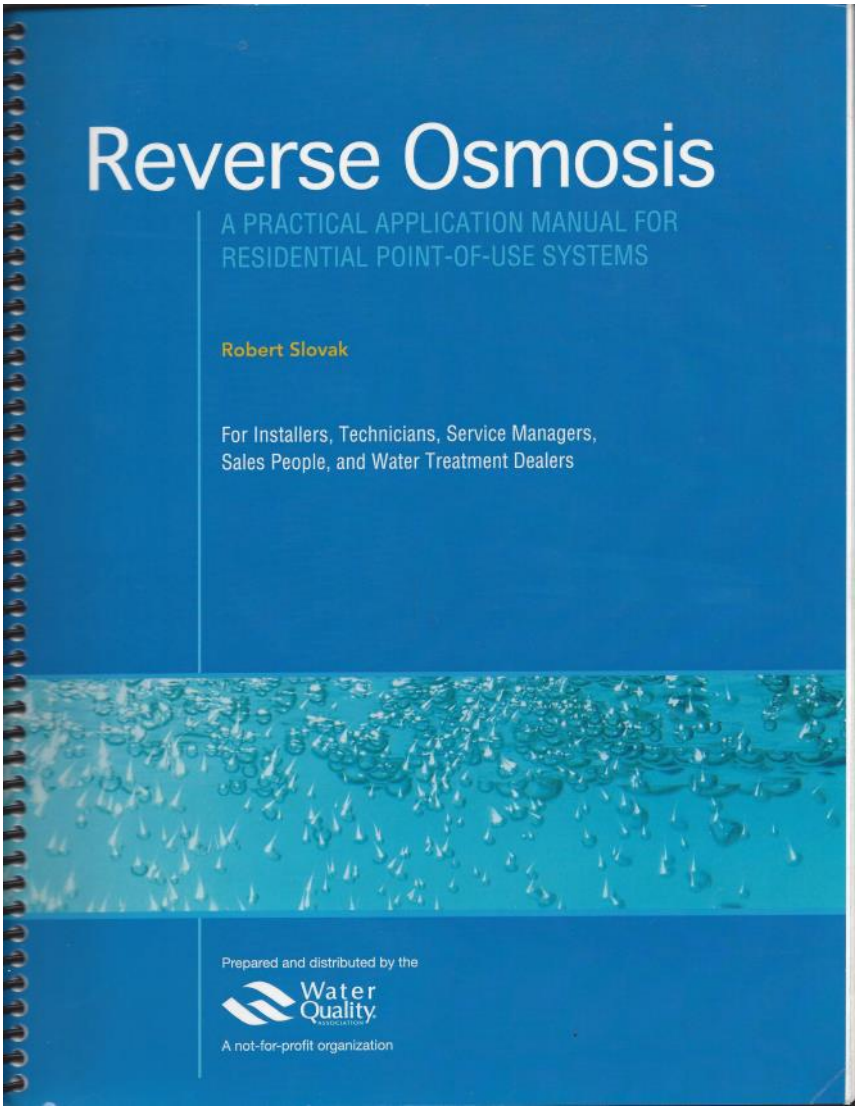
Place a towel down under the system for spills. Also have a small bucket available.

1. With feed supply on, drain down about 20 seconds of water through the faucet, then close the faucet.
2. Giving it 10 seconds, the system should be de-pressurized by this time. The “PW/SQ” port will not have any pressure.
3. Turn off supply to the “F” port.
4. Remove the “PW” and the “SQ” pins.
5. Install the sanitizer cannister (available online at www.wowwater.com) to the “PW” port, using a ¼” tube, making sure the cannister has the sanitizing solution (3% Hydrogen Peroxide) inside. (This is important).
6. Place ¼” tubing in the “SQ” port and direct “SQ” exit into a bucket or pot.
7. Using the supply line to pressurize the sanitizer is best, so detach from the “F” port. Place into the sani-cup and turn on supply for 10 seconds.
8. You are now ready to turn on the feed valve to the sanitizer. Water will immediately emanate from the “SQ” port into the bucket. Leave on for about a liter/quart of water. You have now introduced a sanitizer to the product water bladder.
9. Next, remove sanitizer tube from “PW” port. Disengage feed line from sanitizer unit and place back into “F” port. Plug the “PW” port. Remove “SQ” exhaust line and place plug back in “SQ” port.
10. Leave sanitizing solution in the system for about 2 hours, then open faucet and drain system until empty. Then let system fill on its own.

Notes

For comprehensive and detailed information on all aspects of installing POU RO systems we recommend purchasing **Reverse Osmosis—"A Practical Application Manual for Residential Point-of-Use Systems"** by Robert Slovak, one of the members of the *TOPPER* development team. This publication can be purchased directly from *TOPPER* or from the Water Quality Assn. (www.wqa.org) bookstore.

Refer to Installation Instruction Video for tips.



Section 6

Troubleshooting

Troubleshooting

PROBLEM	REASON	SOLUTION
System will not make water.	• Not enough feed water pressure. • Feed valves are closed. • Tubing may be connected to wrong port.	• House regulator may need to be increased or add a pump. • Feed water adapter, Emergency shut-off valve, Angle stops. • See Page 12 connection.
System has a trickle of water from faucet and has never initiated to a high flow volume.	• Leak down line of FA Ports. • System has added outlets with no isolation valves, causing trapped air. • Exceeding storage capacity. Current storage insufficient.	• Locate leaks and repair. • Isolation valve needs to be added as described in Section 2, Pages 15-21, and follow procedure. • Revisit "When more water is needed", Section 3, Page 22
Water dispensing does not meet average flows.	• Not enough water pressure. • Pre-filter is plugged.	• House regulator may need to be increased or add a pump. • Change filter. See Page 30
Failure to dispense water from a remote location such as a spare RO faucet, refrigerator water dispenser or cooler.	• If RO water is dispensing from the primary faucet, then either the isolation valve to the remote location is closed or there is some tubing obstruction.	• A combination of long distance from the *WOW RO* system and inadequate tubing size may prevent the control module from activating. Limit ¼" tubing to runs of 15' and use ⅜" tubing up to 50'. For even longer runs consider ½" tubing.
System making noise.	• Trapped air.	• Close isolation valves and wait until system is full and shut down. Purge lines until steady stream and close valve at the end. See Step 5, Page 13.

Troubleshooting

PROBLEM	REASON	SOLUTION
System starts knocking after turning faucet off.	• Air or water leak.	• Check for leaks on all FA lines. Close all isolation valves. If problem persists, you have a leak down the FA line. Repair any leaks you may find. **(SYSTEM WILL NOT FUNCTION WITH ANY LEAKS IN THE FA LINES).** If that does not correct the problem, then turn off the feed water valve and open the RO faucet. Remove the post-filter cartridge, and inspect and re-lubricate the O-Rings or change post-filter.
	• Pre & Post filters are in wrong locations.	• Match filter with proper position on RO unit.
	• Bad Internal check valve in post-filter.	• Change post-filter
Water leaking from Air-Gap installation.	• Air-gap installation incorrect.	• Remove loops or sags from Air-Gap to drain.
	• Clogged drain.	• Unclog drain.
Small leaks at plugs.	• Internal O-ring is off-set.	• Rotate plugs a few times. Check for leaks after a few minutes.
Small leaks from tube connections.	• Old tubing or tubing cut at an angle.	• Cut 1” off end of tubing.
Leak at pre/post filter. (Filter fell off)	• Filter cartridge was not inserted correctly.	• Insert and rotate to the stop tabs. See Page 11.
High TDS levels.	• WOW RO System not properly flushed prior to use.	• Follow guidelines in Start-up Procedure, Section 1, Step 5.
	• Filters needs replacing.	• See Page 30
	• TDS creep.	• Empty and refill tank once a week.

Owner Information

Safety Instructions

Warning: This appliance must be applied to potable water only. It is recommended that a water treatment specialist install and maintain this appliance.

Note: The manufacturer reserves the right to make specification and product changes without prior notice.

When installing the appliance into a local water supply, it is recommended to conduct a water analysis. If the water analysis does not correspond with the requirements, the lifetime of the filtration cartridges and membrane unit may be significantly reduced. In this case, it is recommended to use auxiliary water treatment systems (e.g. mechanical filter, de-ionizing filter, and/or water softener). It is recommended to use only microbiological safe water with your **WOW RO System** appliance.

Caution: Do not use water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the appliance.

We recommend that you have your local treatment specialist service this appliance. Ensure that all items are checked when servicing the appliance.

For Online instructions, go to www.wowwater.com

OWNERS REGISTRATION CARD

PLEASE fill out this form when installation has been completed and return to

Topper Manufacturing Corp, 23880 Madison St. Torrance CA 90505 (310) 375-5000

Name: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Name of Water Service Company: _____

Purchased From: _____

Date of Purchase: _____ Date of Installation: _____

Serial Number: _____ Model Number: _____

Installation Company: _____

Technician: _____ Telephone: _____

2 Year Limited Warranty

TWO YEAR LIMITED WARRANTY

WOW Water Reverse Osmosis System

For a period of 2 (two) years from date of original installation, we will repair or replace any part of this Reverse Osmosis unit that we find to be defective in operation because of faulty material or workmanship. You pay only freight to and from our factory and local labor charges. Warranty does not include filter cartridges and RO membrane. Available for replacement at www.wowwater.com.

General Provisions (or Conditions):

This warranty is void should any part of the Reverse Osmosis system be damaged due to mis-application, neglect, accident, alteration, or installation and operation contrary to our printed instructions. Damage caused by freezing, flood, fire, or Acts of God are not covered by this warranty.

We assume no warranty liability in connection with this Reverse Osmosis System other than as specified herein. This warranty is in lieu of all other warranties, expressed or implied including warranties of fitness for a particular purpose. We do not authorize any person or representative to assume for us any other obligations on the use of the Reverse Osmosis unit.

For this warranty to be valid, the following conditions must be met:

1. Microbiologically-safe water supplies.
2. pH cannot be lower than 3 or higher than 11.
3. Water temperature must be between 40°F and 100°F.
4. Total dissolved solids cannot exceed 1500.
5. Supply line pressure min. 20 psi; max. 125 psi.
6. ALL UNITS MUST BE ON COLD WATER LINES ONLY.

Any and all warranties will be immediately void if label or any part of label is removed or if original WOW RO replacement filters are not used.

TOPPER MANUFACTURING CORP

WOW WATER·ON·WATER™ REVERSE OSMOSIS

23880 Madison Street, Torrance, CA 90505 310-375-5000 www.wowwater.com