



REVERSE OSMOSIS SYSTEMS WITH BOOSTER PUMPS INSTALLATION AND USER GUIDE



MODELS: -

EWR 5100C

EWR 5100E

EWR 7100P

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1) INTRODUCTION

Your new Reverse Osmosis Drinking Water System uses a combination of filtration technologies to reduce unwanted contaminants in your water supply. Your Reverse Osmosis System uses the 5 filtration stages which combines to give you the best in clear sparkling Reverse Osmosis water.

2) FILTRATION STAGES

2.1) Mechanical Filtration

The Reverse Osmosis Turbidity Pre-filter will remove suspended matter that are larger than 5-micron as well as silt, dirt, scale and rust. The 5-Micron nominal rating helps give maximum life to the Reverse Osmosis Membranes.

2.2) Carbon Block

The Reverse Osmosis Carbon Block Pre-filter contains carbon with a vast network of pores. The tremendous surface area of these pores (typically 800-1200 square meters per gram of carbon) gives the Reverse Osmosis carbon very good adsorption sites for substances that contribute to tastes and odors. The Reverse Osmosis carbon block in the Pre-filters will remove chlorine that may be present in the feed water. This Reverse Osmosis pretreatment is necessary for membrane protection.

2.3) Ceramic Filter (EWR 7100P model Only)

This filter removes the bacteria, cysts and particles. This filter also prevents the microbiological growth within the ceramic element.

2.4) Reverse Osmosis Membrane

The Reverse Osmosis Membrane is the heart of Reverse Osmosis filtration system. The Reverse Osmosis system is designed to reduce the dissolved mineral content of the water. Minerals picked up in the environment by the water are measured as Total Dissolved Solids (TDS). In the Reverse Osmosis process, dissolved minerals are separated from the incoming water (feed water). The Reverse Osmosis excess minerals are rinsed to drain (the Reject Water) and clean water (permeate water) is stored in tank.

2.5) Enalka Filter (EWR 5100E & EWR 7100P models only)

The Reverse Osmosis Enalka filter includes an ultra-clean white granular media. Enalka filter of Reverse Osmosis system is used to neutralize the pH of water.

2.6) In-Line Activated Carbon-Coconut Shell Post Filter

The Reverse Osmosis In-Line Activated Carbon Post Filter is located after the Holding Tank and reduces tastes and odors that may pass through the Reverse Osmosis system. It adds a final polish to the water.

3) REVERSE OSMOSIS COMPONENTS

3.1) Automatic Reverse Osmosis Shut Off

The Reverse Osmosis pressure switch senses when the product water tank is full and closes the feed water supply to prevent excess Reverse Osmosis reject water going to drain when the Reverse Osmosis System is not producing water.

3.2) Booster Pump

The Reverse Osmosis in line booster pump will increase the incoming water pressure after pre-turbidity and carbon filtration stages to 100psi for maximum efficiency and production quality through the Reverse Osmosis TFC membrane TDS removal process. Power standard outlet plug 110V / 60Hz is required.

3.3) Faucet

The reverse osmosis faucet is a designer lead free brushed nickel high flow 3/8" design goose neck with ceramic disc valve.

3.4) Holding Tank

The reverse osmosis holding tank is 3.2-gallon plastic designed for the storage and repressurization of reverse osmosis pure drinking water with valve.

3.5) Drain Restrictor

The restrictor is vital for proper operation of the RO membrane cartridge as it keeps water flowing through the membrane at the proper rate ensuring the water produced is the best quality. It is recommended the restrictor assembly be periodically inspected to be sure it is clean and unrestricted.

4) WATER REQUIREMENTS

4.1) Water Supply

Source	Municipal / Well Water
System Pressure	30 to 100 psi
Temperature	4° to 38° C (40° to 100° F)
pH	3.0 to 11.0
Maximum TDS	1800 mg/L
Turbidity	< 1.0 net turbidity (NTU)

4.2) Chemistry Requirements

Hardness (CaCO ₃)	< 170 mg/L (<10 gpg)
Iron (Fe)	< 0.1 mg/L
Manganese (Mn)	< 0.05 mg/L
Hydrogen Sulfide (H ₂ S)	0.00 mg/L

5) INSTALLATION

5.1) Tools Required

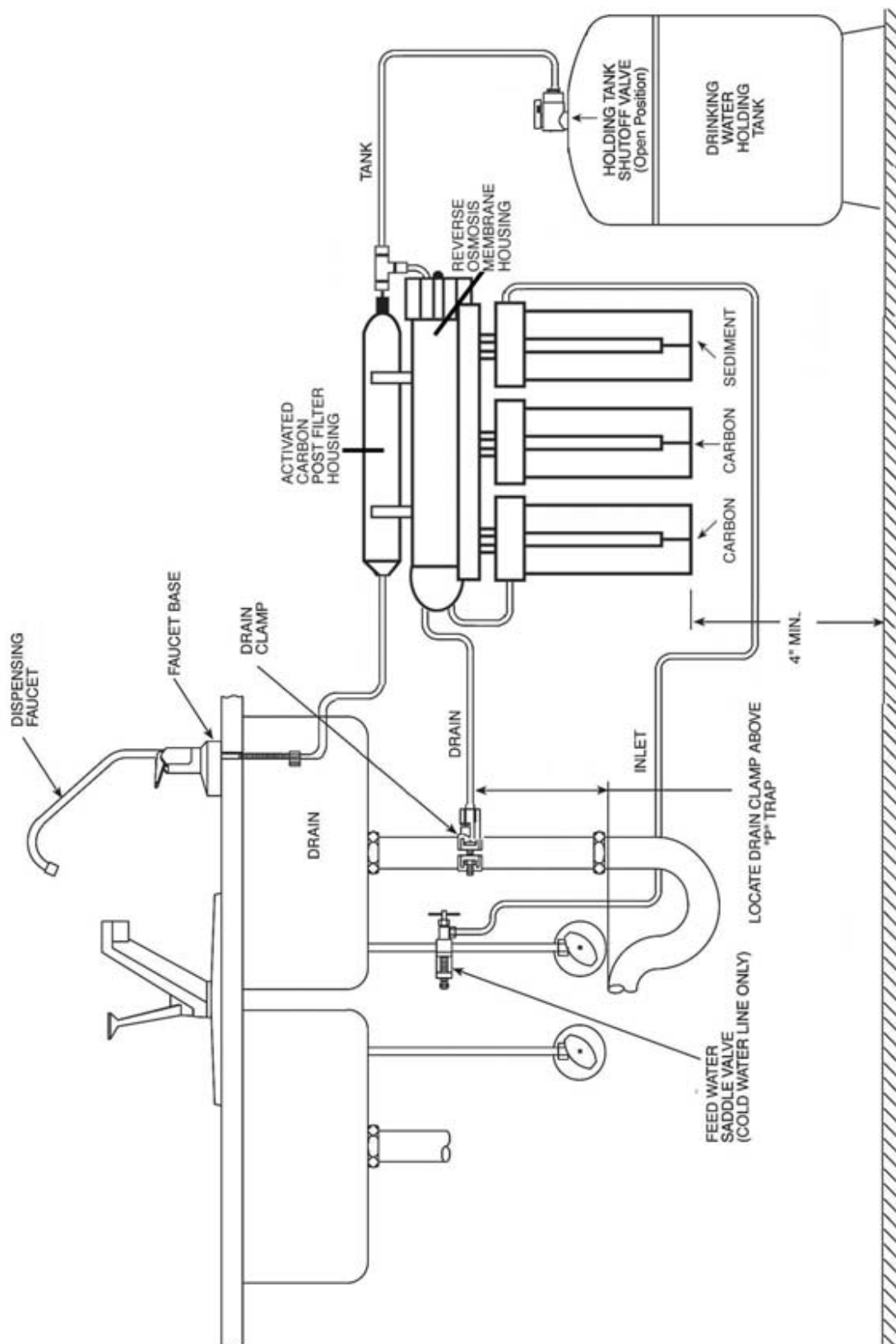
- | | |
|--|-------------------------------------|
| 1. Tape Measure | 10. Safety Glasses |
| 2. Phillips and Flat Head screwdrivers | 11. Paper Towels |
| 3. Adjustable Wrench | 12. Extra Plastic Tubing |
| 4. Variable Speed Drill Driver | 13. Basin Wrench or 10" Pipe Wrench |
| 5. Center Punch and hammer | 14. Low range air pressure gauge |
| 6. 7/32", 1/8" & 1/2" Drill Bits | 15. Liquid Chlorine Bleach |
| 7. Utility Knife | 16. Pencil |
| 8. Tubing Cutter | 17. Masking Tape |
| 9. Teflon Tape | |

5.2) Site Selection for Major Components

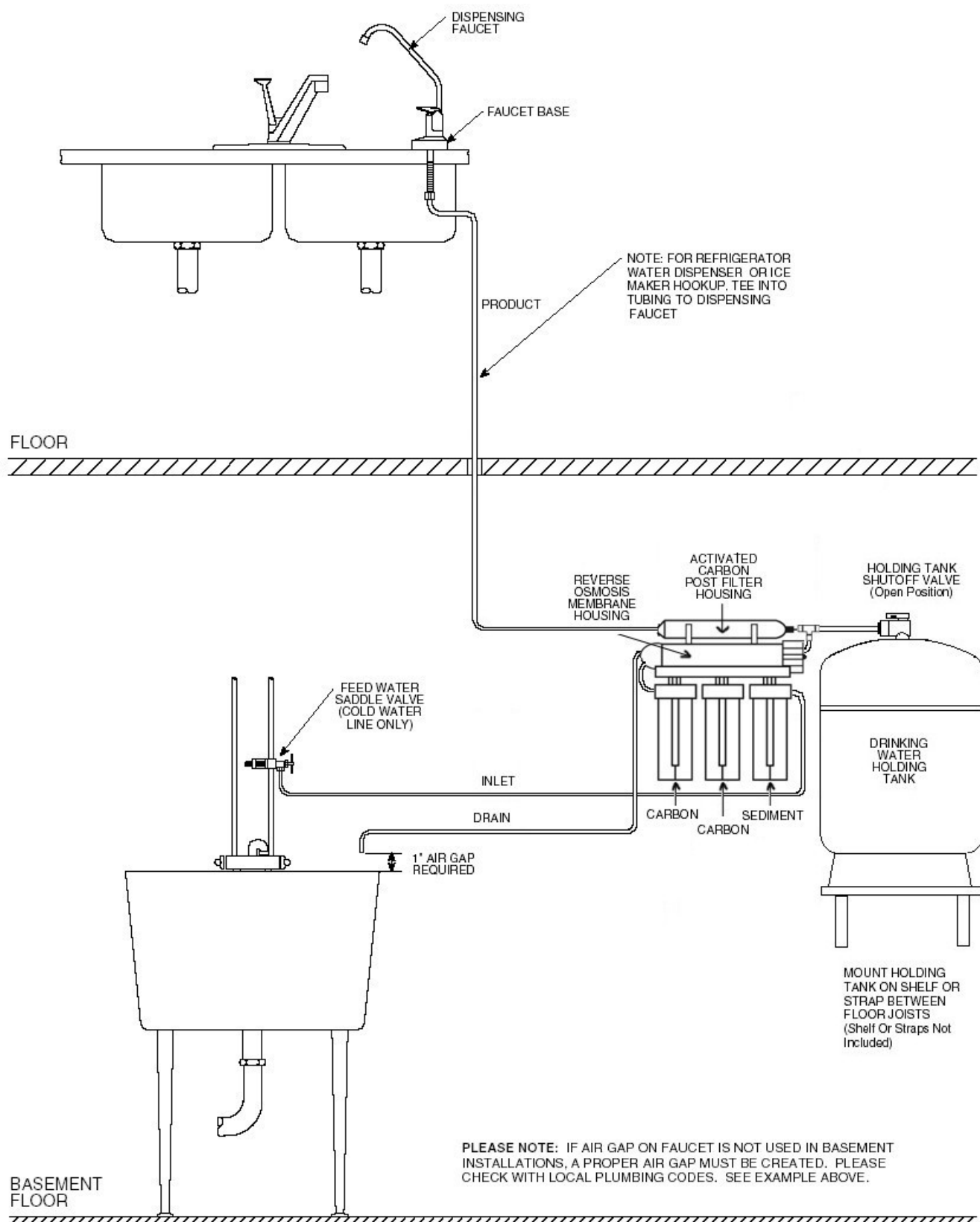
The Reverse Osmosis System was designed to fit under a sink, however, because of space limitations or other reasons, the Reverse Osmosis system's flexible design allows for other locations. When determining the location of your Reverse Osmosis system remember that access to a cold water tap line, the household drain, and ease of Reverse Osmosis filter replacement are important considerations.

All Reverse Osmosis components and tubing should be located in an area not exposed to freezing temperatures. If winter temperatures are severe, the area should be above the minimum temperature for proper performance. Do not expose Reverse Osmosis system or tubing to direct sunlight.

5.2.1) Under Sink Installation



5.2.2) Remote Installation (Basement)



5.2.3) Drinking Faucet

Reverse Osmosis faucet should be placed near the sink where drinking water is normally obtained. Convenience of use (filling of water pitchers and glasses), and an open area beneath the Reverse Osmosis faucet under the sink for attaching product and Reverse Osmosis drain tubing are considerations. A 2" diameter flat surface is required above and below the Reverse Osmosis installation site.

5.2.4) Holding Tank

The Reverse Osmosis Holding Tank may be placed where it is convenient within 10 feet of the Reverse Osmosis faucet; under the sink, in an adjacent cabinet are the best choices or in a basement within 20 feet of the Reverse Osmosis faucet. If a longer run of Reverse Osmosis tubing is required, a transfer delivery pump may be required extra to boost line pressure.

5.2.5) Manifold Assembly

The Reverse Osmosis manifold can be installed on either the right or left side of the under-sink area or a cabinet. The right side is recommended because all the Reverse Osmosis tubing will be to the back of the cabinet and out of the way. Reverse Osmosis Installation in the basement is also an option; one location is near the laundry/utility sink where cold potable water and rain access are handy. The mounting location should allow adequate clearance and accessibility for Reverse Osmosis cartridge changes.

5.2.6) Feed Water Connection

The feed water has the option of angle valve adapter or self-piercing saddle valve. The Reverse Osmosis Feed Water Saddle Valve should be located as close to the manifold assembly as possible. The angle valve adapter should be mounted over the faucet supply valve. **USE A POTABLE COLD WATER SUPPLY ONLY TO YOUR REVERSE OSMOSIS SYSTEM.** Softened water is preferred as it will extend the life of the Reverse Osmosis Membrane.

5.2.7) Drain Line Connection

The Reverse Osmosis waste water must go to a drain connection with easy access. Do NOT connect the Reverse Osmosis system drain line to the dishwasher drain or near the garbage disposal.

5.3) Installation Instructions

All plumbing should be done in accordance with local plumbing codes.

In restricted under-sink areas, it may be easier to install the Reverse Osmosis faucet first. Allow adequate Reverse Osmosis tubing lengths for any final Reverse Osmosis component position.

5.3.1) Push to Connect Fittings



Assembly: - Cut the tube straight at the end and push the tubing into the grey collar.

Disassembly: - Push the grey release button and pull the tube out.

5.3.2) Faucet Installation

a) Installation on Stainless steel sink

- Center punch the hole to provide a starting point for the drill.
- Start with a smaller drill as a pilot and then drill a 1/2" diameter hole to accept the faucet to go through the countertop.
- Clean away any chips.
- Deburr any sharp edges.

b) Drilling a porcelain sink

It is best to use a special 1/2" diameter cutter designed for porcelain. A carbide tipped masonry bit is a second choice.

- Place a piece of tape over the area to be drilled to help prevent chipping.
- Drill a pilot hole for the porcelain cutter. Use the pilot drill supplied with the kit or a carbide tipped drill.
- When drilling the 1/2" hole, drill slowly and carefully; the porcelain chips easily.
- After drilling, clean the area well. Iron fillings, if left in place, can cause rust stains.

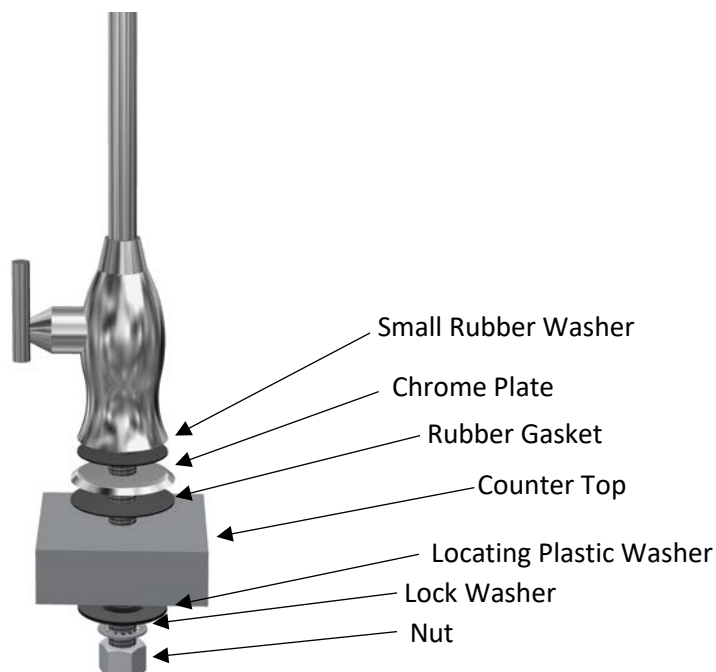
c) Drilling a Counter top

NOTE: The counter top must be less than 2 1/4" thick. Treat ceramic tiles as porcelain until the tile is penetrated, then use the carbide tipped metal cutter.

Formica counter tops may be drilled with a good 1/2" wood bit, drilling a 3/32" pilot hole will help keep the bit going straight.

Icemaker Hookup (If Exists): - Install a push to connect tee in the line anywhere from system to faucet. Use 3/8" tubing with inline ball valve from this tee to icemaker inlet.

Note: - Always keep this ball valve and ice maker off while initial startup and servicing the system.



5.3.3) Feed Water Installation

a) Self-Piercing feed water saddle valve

Decide on location. Do NOT connect Reverse Osmosis to a hot water feed line. Water over 100°F may cause permanent damage to the Reverse Osmosis Membrane.

- Shut the water supply off and drain the line by opening the faucet installed downstream of this location.
- Attach the self-piercing saddle valve to pipe and secure and tighten.
- Remove nut from the Reverse Osmosis feed water ball valve.
- Slide the nut onto the ¼" reverse osmosis tubing.
- Insert the ferrule and tube insert onto ¼" tubing.
- Place the ¼" tubing onto the exposed threads of the reverse osmosis feed self-piercing saddle valve.
- Screw the nut onto the Reverse Osmosis feed water ball valve.

Note: - Keep the pipe pressurized while piercing with T-handle after installation.

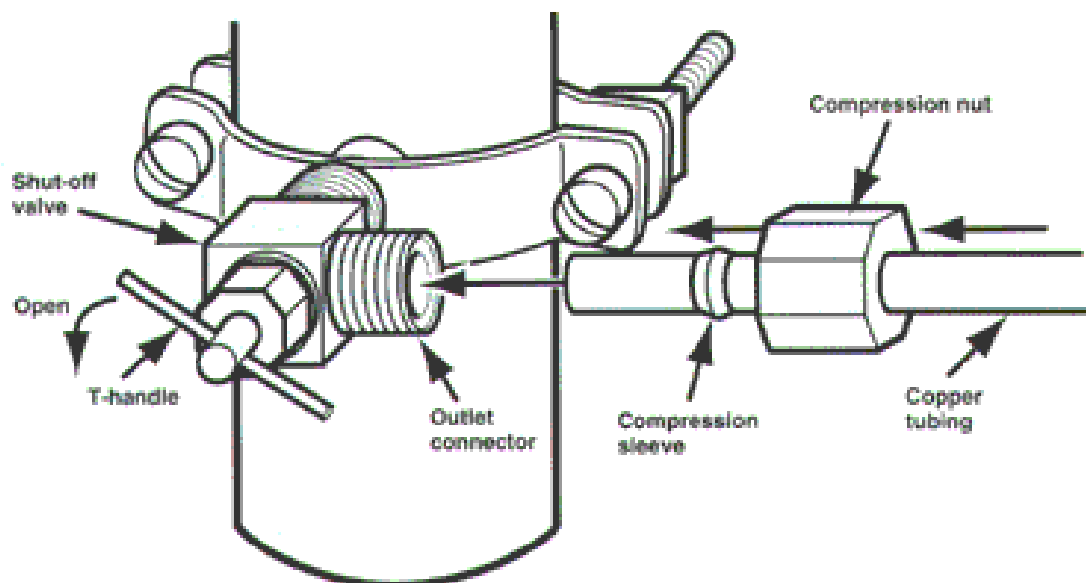


Figure: - Self Piercing Feed Water Valve

b) Angle Valve Adapter

- Identify the cold line.
- Shut the faucet supply valve off and drain the water by opening the faucet.
- T-Tape the male threads of faucet line valve and angle valve adapter.
- Fasten the angle valve adapter over the faucet line shut off valve and then install the faucet hose on angle valve adapter.
- Loosen the cap on ¼" quick connect port and then insert the ¼" tubing.
- Fasten the quick connect port cap. **Note:** - Only hand tighten, never use wrench or plier.

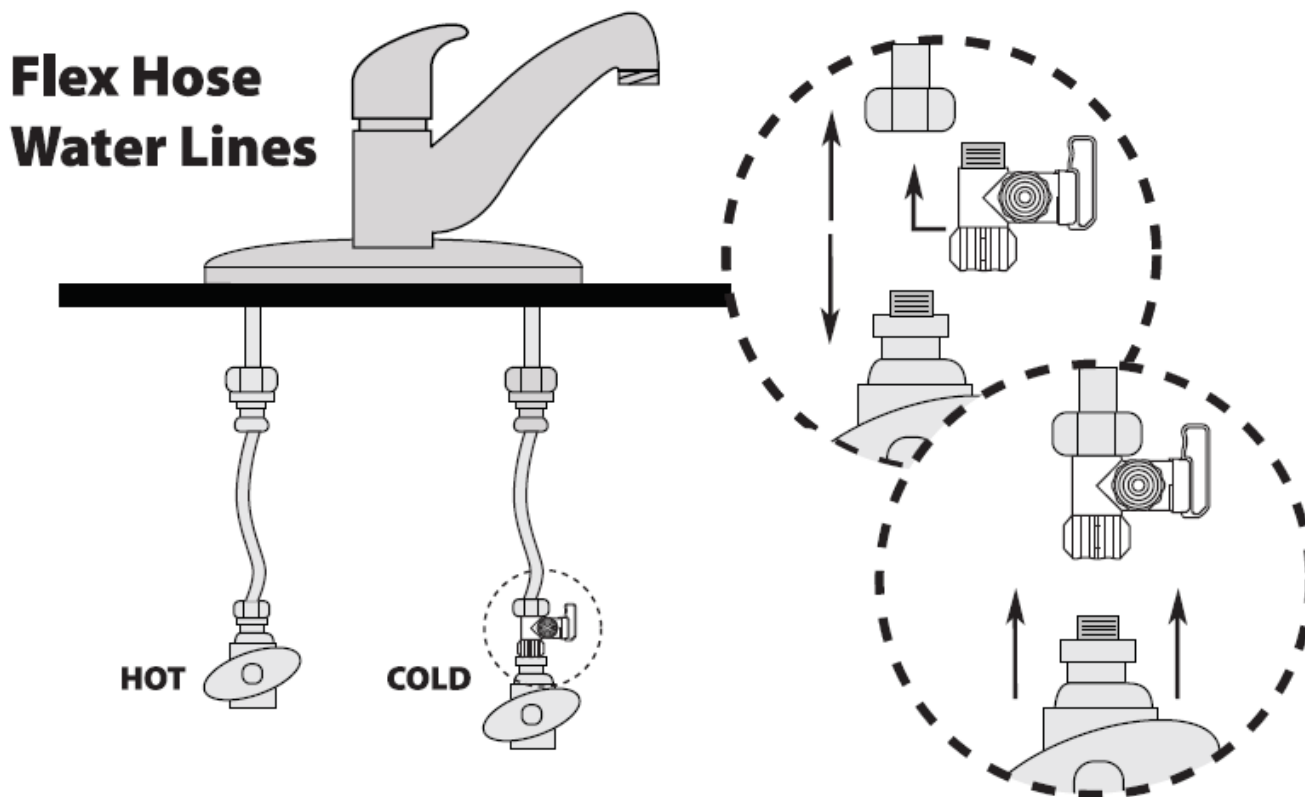


Figure: - Angle Valve Adapter

5.3.4) Holding Tank

- Check the Reverse Osmosis tank air pre-charge pressure. Make sure it is between 5 to 7 psig.
- Pull the cap/plug off the top of the Reverse Osmosis tank where the Reverse Osmosis Tank Shut-Off should go.
- Wrap Teflon tape three times around the $\frac{1}{4}$ " male outlet thread. Wrap in the direction of the threads. The tape will act as a thread sealant. Screw on the Reverse Osmosis Holding Tank Shut-Off Valve.
- Locate the $\frac{3}{8}$ " Reverse Osmosis Tubing. Firmly press one end into the Reverse Osmosis Holding Tank Shut-Off Valve and the other end into the tee. The fittings will grab the Reverse Osmosis tubing and seal it in place. Make sure the Reverse Osmosis tubing is pressed all the way in to create a pressure tight connection.

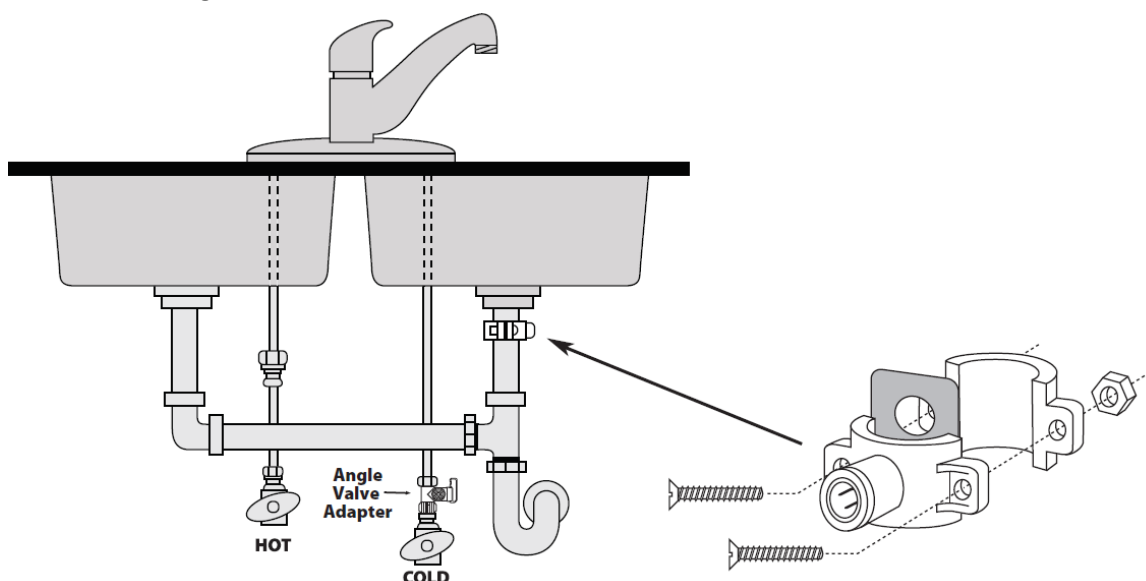


5.3.5) Drain Clamp Assembly

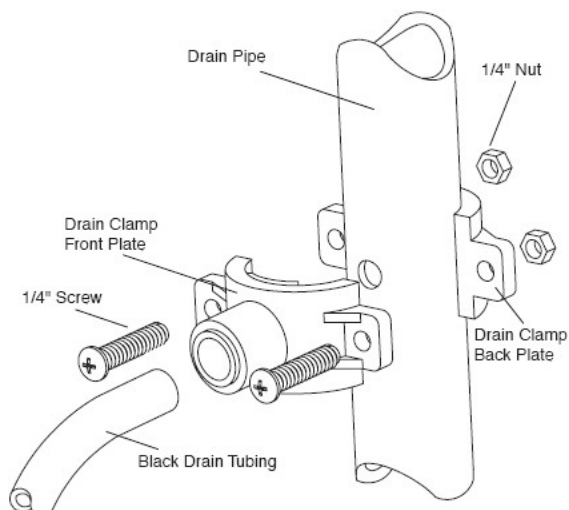
Choose the Reverse Osmosis drain outlet location. The following are instructions for discharging in the sink drain pipe.

- Position the Drain Clamp on the sink drain pipe above the drain trap. Allow room for drilling. Tighten securely.
- Use a battery powered or properly grounded drill. Using the Clamp port as a drill guide, drill a 7/32" hole through the wall of the drain pipe.
- Locate the 3/8" Drain Tubing connected to the Reverse Osmosis System. Route to the Reverse Osmosis tubing to the Drain Clamp and trim to length.
- Insert the tubing into the Drain Clamp.

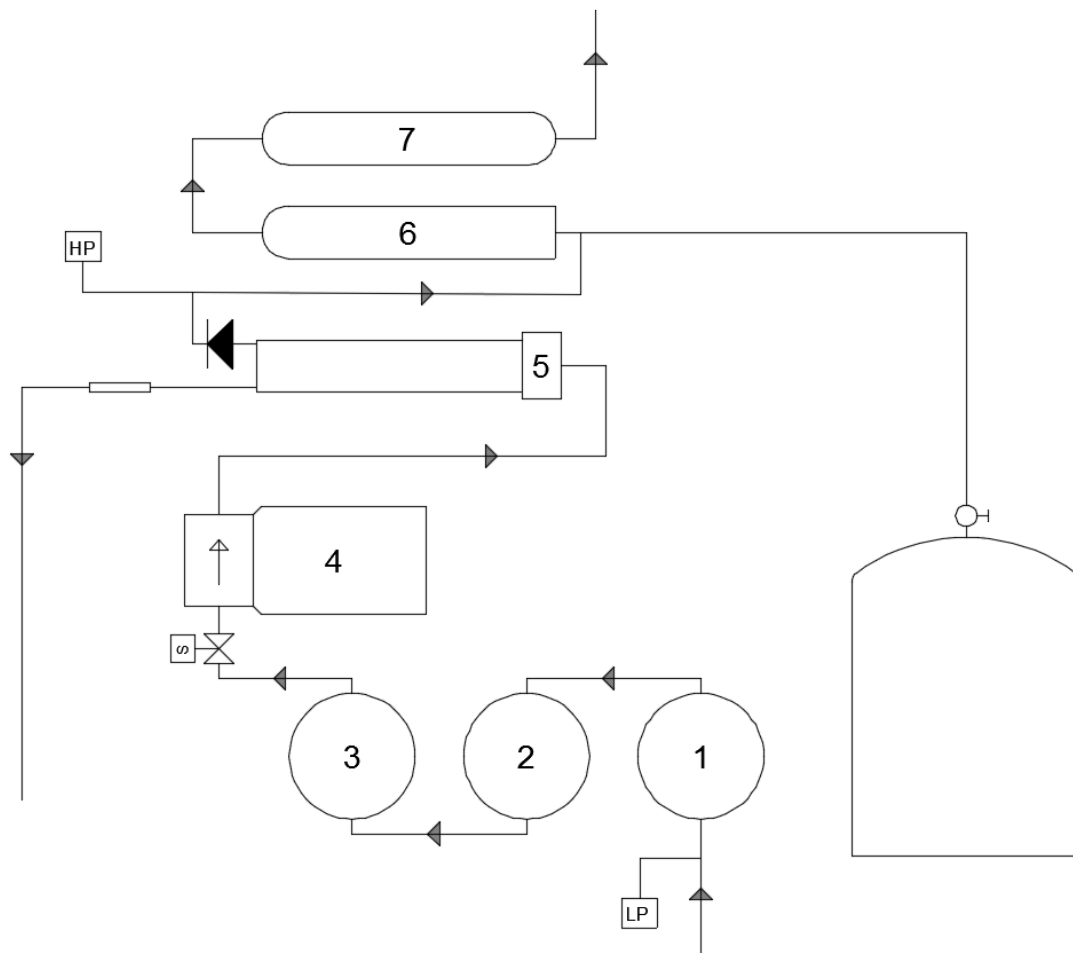
CAUTION: The lowest point of the line should be the point of connection to the Reverse Osmosis Drain Clamp. There should be no sag in the Reverse Osmosis tubing as this may cause excessive noise as the reject water is flowing to drain.



3/8" DRAIN CLAMP ASSEMBLY



6) PIPING AND INSTRUMENTATION DRAWING



LEGEND	
	NORMALLY CLOSED SOLENOID VALVE
	CHECK VALVE
	BALL VALVE
	BOOSTER PUMP
	LOW PRESSURE SWITCH
	HIGH PRESSURE SWITCH
	FLOW RESTRICTOR

7) REVERSE OSMOSIS STAGES

Model Number: - EWR 5100C

Stage#	Description
1 st	Sediment Filter 5-Micron
2 nd	Carbon Block 10-Micron
3 rd	Carbon Block 5-Micron
4 th	Booster Pump
5 th	RO Membrane 100GPD
6 th	Coconut Shell Carbon Polisher

Model Number: - EWR 5100E

Stage#	Description
1 st	Sediment Filter 5-Micron
2 nd	Carbon Block 10-Micron
3 rd	Carbon Block 5-Micron
4 th	Booster Pump
5 th	RO Membrane 100GPD
6 th	Enalka Remineralizing Filter
7 th	Coconut Shell Carbon Polisher

Model Number: - EWR 7100P

Stage#	Description
1 st	Sediment Filter 5-Micron
2 nd	Carbon Block 5-Micron
3 rd	Ceramic Filter 0.9-Micron
4 th	Booster Pump
5 th	RO Membrane 100GPD
6 th	Enalka Remineralizing Filter
7 th	Coconut Shell Carbon Polisher

8) START UP INSTRUCTIONS

- Sanitize the system with good quality unscented liquid chlorine household bleach and follow the sanitizing instruction given in maintenance section of this manual.
- Slowly open the feed water valve counterclockwise and inspect plumbing for leaks.
- Fully open the holding tank valve.
- Let the system to fill holding tank and when system automatically shuts off, then open the faucet to drain all water stored in holding tank. Repeat this step 2 more times.
- Do not use the water of first two full holding tanks.

CAUTION: The Reverse Osmosis Membrane is shipped with a preservative in it (0.5% sodium metabisulfite). This will be rinsed out with the first water produced. Allow the Holding Tank to fill (overnight) and discard the first two full tanks of production.

When the Faucet is first opened, expect air and carbon fines (very fine black powder) from the In-Line Activated Carbon Post Filter to be rinsed out. This is normal for the first tank of water or after when In-line filter is changed.

9) OPERATION AND MAINTENANCE

9.1) Tools Required

- | | |
|------------------------------------|---------------------------|
| 1. Basin Wrench or 10" Pipe Wrench | 5. Extra Plastic Tubing |
| 2. Low range air pressure gauge | 6. Pan or Bucket |
| 3. Air Pump | 7. Liquid Chlorine Bleach |
| 4. Liquid Chlorine Bleach | |

9.2) Normal Operation

Reverse Osmosis systems produce drinking water at relatively slow rates. Normal operation is to let the Reverse Osmosis Holding Tank fill with water and then draw water as is needed. When the pressure in the Reverse Osmosis Holding Tank falls to a given pressure (as the water is being used) the Automatic Shut-Off Valve (ASO Valve) will start water production and the Reverse Osmosis system will refill the Reverse Osmosis Holding Tank. When the Reverse Osmosis Holding Tank is full and no water is being used, the ASO Valve will automatically shut off the feed water to conserve water. The more water that is used (up to the capacity of the system) the better the Reverse Osmosis system will function.

After periods of non-use, such as a week of vacation, it is better to empty the Reverse Osmosis Holding Tank and allow the Reverse Osmosis system to produce fresh water for use.

9.3) Changing Filters

THIS REVERSE OSMOSIS SYSTEM CONTAINS FILTERS WHICH MUST BE REPLACED AT REGULAR INTERVALS TO MAINTAIN PROPER PERFORMANCE. USE ONLY FACTORY APPROVED FILTERS.

The recommended interval for changing the Reverse Osmosis filters (not the Reverse Osmosis Membrane) is every six (6) months. Local conditions may dictate more frequent changes.

- Close the Reverse Osmosis Feed Water Ball Valve by turning fully clockwise and open the Reverse Osmosis Dispensing Faucet by lifting the handle. Allow the Reverse Osmosis Holding Tank to empty.
- Loosen and remove the Reverse Osmosis Sediment Pre-filter and the Activated Carbon Pre-filter Housings. Wash the inside of the Reverse Osmosis Housings using a mild detergent and a soft cloth. Do not use abrasive cleaners or pads. Thoroughly rinse all soap from the Reverse Osmosis Housings before reassembly.
- Sanitize the Reverse Osmosis system after the replacement of Reverse Osmosis filters:

Note: Always sanitize the system before the installation of Reverse Osmosis Activated Carbon Pre-filter.



9.4) Changing In-Line Activated Carbon Post Filter

- Close the Reverse Osmosis Feed Water Ball Saddle by turning fully clockwise.
- Close the Reverse Osmosis Holding Tank Valve and then open the Reverse Osmosis Dispensing Faucet to release the pressure.
- Remove the In-Line Reverse Osmosis Activated Carbon Post Filter. Disconnect the used Reverse Osmosis Post Filter by pressing in the connector's collar and at the same time pulling the tube out of the fitting. Unscrew the fittings on the In-Line, re-Teflon tape them and install them on the new Reverse Osmosis Post Filter. Do not over tighten the fittings.
- Firmly reconnect the polytubes to the new Post Filter.
- Slowly open the Reverse Osmosis Feed Water Saddle Valve.
- When water begins dripping out of the Reverse Osmosis Faucet, in the following order, close the Reverse Osmosis Faucet and open the Reverse Osmosis Holding Tank Valve. When the Reverse Osmosis Faucet is first opened, expect air and carbon fines (very fine black powder), from the new Reverse Osmosis Post Filter to be rinsed out. This is normal for the first tank of water.

At time of start-up and each time the Reverse Osmosis filters are changed the Reverse Osmosis system should be sanitized.

9.5) Installation of Reverse Osmosis Membrane

- Remove the Reverse Osmosis Membrane Housing (the closest of the three to in/out ports)
- Insert the Reverse Osmosis membrane into the Reverse Osmosis Membrane Housing (The O-ring should be up toward the Reverse Osmosis Membrane Housing Cap). Check the Reverse Osmosis Housing O-ring for proper position in its groove, engage and firmly tighten the Reverse Osmosis Housing hand tight only.
- Typical T.F.C. Reverse Osmosis Membrane life expectancy is three to five years with Water Softener prior to Reverse Osmosis system

9.6) Sanitizing the Reverse Osmosis System

NOTE: The Reverse Osmosis system should be sanitized BEFORE installing the Reverse Osmosis Activated Carbon Pre-filter and the Reverse Osmosis Membrane.

Use a drip pan to aid clean-up. Use a good quality unscented liquid chlorine household bleach.

- Fully close the feed water valve.
- Open the Reverse Osmosis dispensing faucet by lifting the handle and open the Reverse Osmosis Holding Tank Shut-Off Valve (the handle should be parallel with the valve body).
- Once all the pressure has been released, remove the Reverse Osmosis Housing on the side of the manifold labeled "SEDIMENT". Pour one capful of bleach (this is approximately 2 tsp. or 10 ml) into one of the white Housings. Engage and firmly tighten the Reverse Osmosis Housing hand tight only.
- Remove all Reverse Osmosis Housings add one capful of bleach in each. Engage and firmly tighten the Housings hand tight only.
- Slowly open the Reverse Osmosis Feed Water Valve (turning counter clockwise).
- As soon as the water begins to come out of the Reverse Osmosis Dispensing Faucet, close the Faucet.
- Let stand for 15 minutes.

NOTE: During this time, check the Reverse Osmosis system carefully for leaks.

- At the end of 15 minutes, CLOSE the Reverse Osmosis Feed Water Ball Valve and open the Reverse Osmosis Dispensing Faucet. Allow the Reverse Osmosis Holding Tank to completely drain.
- Fully close the feed water valve and then remove the Reverse Osmosis Activated Carbon Pre-filter Housing and install the Reverse Osmosis activated Carbon Pre-filter.
- Firmly tighten the Reverse Osmosis Housing hand tight only.

9.7) Rinsing the Reverse Osmosis System

- Slowly open the Reverse Osmosis Feed Water Saddle Valve fully counter clockwise.
- The Reverse Osmosis Holding Tank Valve should be open. The Reverse Osmosis System is now making water.
- Do not use the first three full Reverse Osmosis tanks of water.

10) TECHNICAL DATA

Reverse Osmosis water quality is normally measured with a TDS meter. The more dissolved solids in the water, the higher the conductivity. The results are usually reported in Parts per Million (ppm) or Milligrams per Liter (mg/l) of Total Dissolved Solids (TDS). (Although technically they are not exactly equal, in most discussions ppm = mg/l)

Reverse Osmosis Membranes are rated by the amount of dissolved solids that are rejected. This rating is a ration of the TDS in the feed water to the TDS in the product water and is reported as Percent Rejection. If the feed water contained 100 ppm of TDS and the product water contained 10 ppm of TDS, 90 ppm have been rejected and the reject ration is 90%.

$$\text{Percent Rejection} = \frac{\text{Feed TDS} - \text{Product TDS}}{\text{Feed TDS}}$$

EXAMPLE: Feed water is 500 ppm TDS and the product water is 75 ppm TDS.

$$\text{Percent Rejection} = \frac{500 - 75}{500} \times 100\%$$

$$\text{Percent Rejection} = 0.85 \times 100\% \text{ or } 85\%$$

11) TROUBLESHOOTING GUIDE

11.1) Troubleshooting Procedures

Problem	Possible Cause	Solution
1) Low quantity of Reverse Osmosis Product Water from Holding Tank	a) Reverse Osmosis Feed Water Ball Valve is plugged or closed	a) Open Valve or unclog
	b) Clogged Sediment Pre-filter or Activated carbon Pre-filter	b) Replace Reverse Osmosis filters
	c) Low water pressure	c) Reverse Osmosis feed water pressure must be above 40 psig
	d) Reverse Osmosis membrane is fouled	d) See feed water operating limits and correct the cause of fouling, then replace membrane
	e) Plugged in-line activated carbon post filter	e) Replace post filter
	f) Air pre-charge pressure in holding tank is too high	Empty water from Reverse osmosis holding tank and with the faucet open, adjust air pressure to 5-7 psig (35-48 kPa) range.
	g) Air pre-charge is too low	
	h) Air bladder in the holding tank is ruptured	h) Replace the holding tank
	i) Holding tank valve is closed	i) Open the holding tank valve
	j) No drain flow, the drain restrictor is plugged	j) Clear or replace Drain Restrictor
	k) The check valve is stuck	k) Free the check valve
2) Low pressure at the Reverse Osmosis Dispensing Faucet	l) ASO valve is malfunctioning	l) Replace ASO valve
	a) In-Line activated carbon post filter is plugged	a) Replace post filter
	b) Air pre-charge in the Reverse Osmosis Holding Tank is too low	b) Empty water from holding tank with faucet open, adjust air pressure to 5-7 psig (35-48 kPa)
	c) Holding tank valve is partially closed	c) Fully open the holding tank valve
	d) The dispensing faucet is out of adjustment or faulty	d) Repair or replace dispensing faucet
	e) Holding tank is depleted after heavy water usage	e) Allow holding tank to refill or add second holding tank to increase the storage quantity
	f) Low water production	See troubleshooting section#1
3) Tastes and odors in the product water	a) The in-line or activated carbon pre-filter is exhausted	a) Replace RO filters
	b) There is a foreign matter in the RO holding tank	b) Clean, flush and sanitize the system. Replace the filters
	c) The product water and drain lines are reversed	c) Correct plumbing
	d) Dissolved gases in the RO feed water	d) Pre-treat RO feed water to remove dissolved gases.
	e) Increase in product water TDS	e) See high TDS in the RO product water section

Problem	Possible Cause	Solution
4) Drain water overflows at the air gap faucet	a) Drain tubing is clogged	a) Clear drain tubing
	b) Drain clamp hole is misaligned	b) Align with hole in the drain pipe
	c) Excessive drain flow rate	c) Replace Reverse osmosis drain restrictor
5) High Total Dissolved Solids (TDS) in the Product Water	a) Clogged sediment Pre-filter or Activated Carbon Pre-filter	a) Replace clogged filters
	b) Low water pressure	b) Reverse Osmosis feed water pressure must be above 40 psig
	c) RO membrane O-ring is crimped	c) Check or replace O-ring
	d) RO membrane brine seal is not sealing up into the manifold head	d) Check O-ring
	e) RO membrane is expended	e) If RO membrane life is unusually short, find and correct the cause, then replace the membrane
	f) The product water and drain water lines are reversed	f) Correct plumbing
	g) Drain restrictor is clogged	g) Clear or replace RO drain restrictor
	h) ASO valve is not closing	h) Repair or replace the RO ASO valve components
	i) New In-line or activated Carbon Pre-filter not rinsed completely	i) Flush with several full tanks of product water
	j) The RO feed water TDS has increased	j) RO feed water TDS will give a corresponding increase in Product water TDS
6) RO faucet leaks or drips	a) Leaks from spout	a) Adjust RO faucet by turning the tee bar just below the handle to provide a small amount of free play in handle when shut off
	b) Leaks from base of the delivery	b) O-ring is bad, replace O-ring
	c) Leaks from beneath the handle	c) Replace the O-ring or replace the faucet
7) Reverse Osmosis fitting leaks in general	Close the feed water ball valve and relieve pressure before disconnecting any tubing or replacing any fitting. Before replacing a fitting, recut and reinsert the tubing to see if that solves the leak. If pipe threads are leaking, remove and re-tape	

11.2) Replacement Part numbers

11.2.1) EWR 5100C (6 Stage 100GPD With Booster Pump)

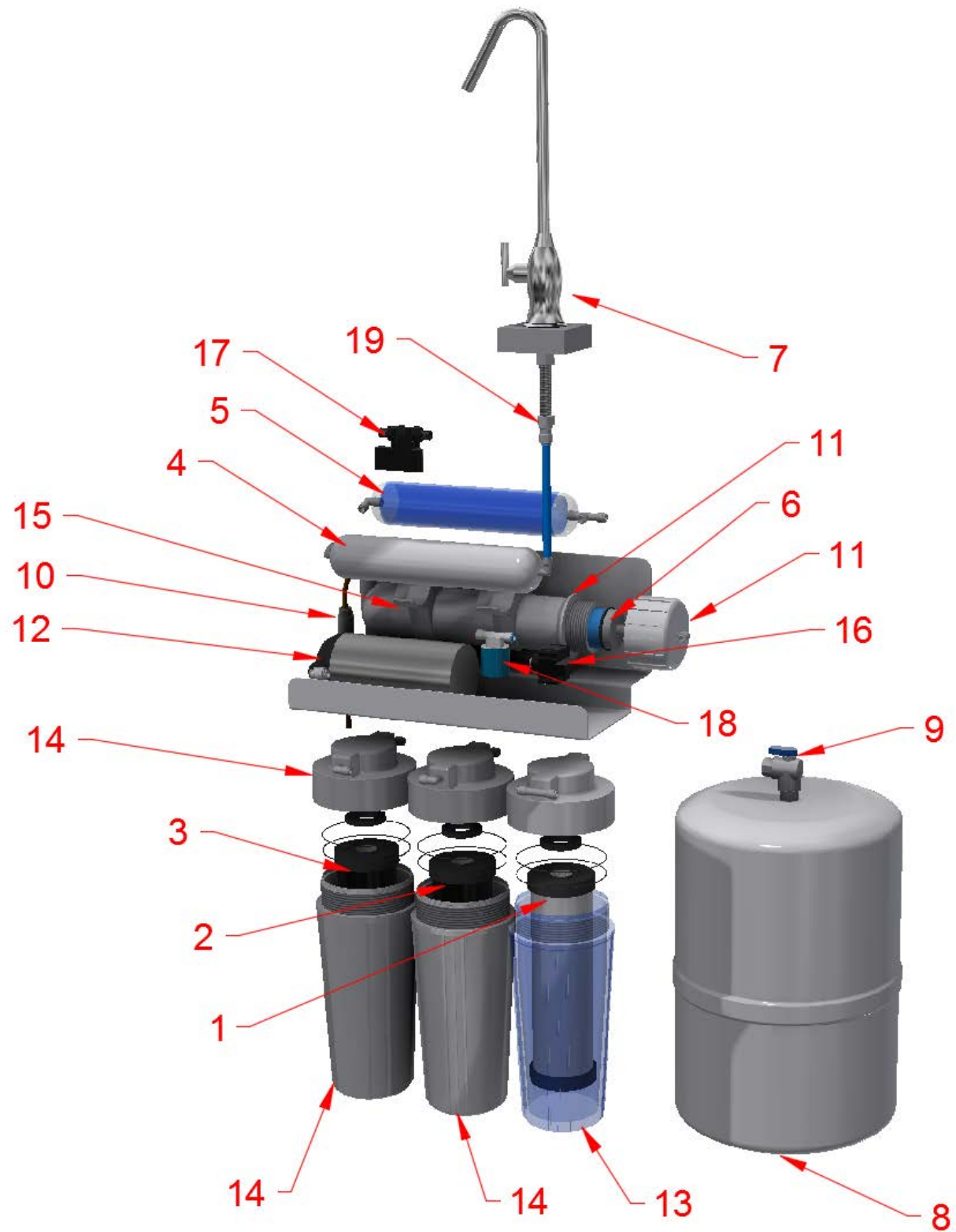
Item #	Part Number	Description	Changing Frequency
1	SMF PP1005	Polypropylene 5-Micron Sediment Filter	6 Months
2	SMF CBC1010	Carbon Block 10in 10-Micron	6 Months
3	SMF CBC1005	Carbon Block 10in 5-Micron	6 Months
4	SMF AICRO	Coconut Shell Carbon 2"x10" Polishing Filter	6 Months
5	RO TFC100	Membrane Element 2"x10" 100GPD	3 Years
6	RO F104	Designer Chrome Faucet	N/A
7	RO TNK 5	Holding Tank	N/A
8	RO A13	Tank Ball Valve	N/A
9	RO FR300EZ	Drain Flow Control 300ml	N/A
10	RO MEMHOUS	Membrane Housing with Cap	N/A
11	RO BP110V	Booster Pump 110V	N/A
12	FH 10SC025	Clear Housing 2.5"x10"	N/A
13	FH 10SW025	White Housing 2.5"x10"	N/A
14	RO A21	2.5"x2" Mounting Clip	N/A
15	RO LPSA15	Low Pressure Switch	N/A
16	RO HPSA16	High Pressure Switch	N/A
17	RO SV025	1/4" Solenoid Valve	N/A
18	6325 60 133WP2	Faucet Adapter 7/16" Female UNC X 3/8" PTC	N/A



Model # : - EWR 5100C

11.2.2) EWR 5100E (6 Stage 100GPD with Pump and Enalka)

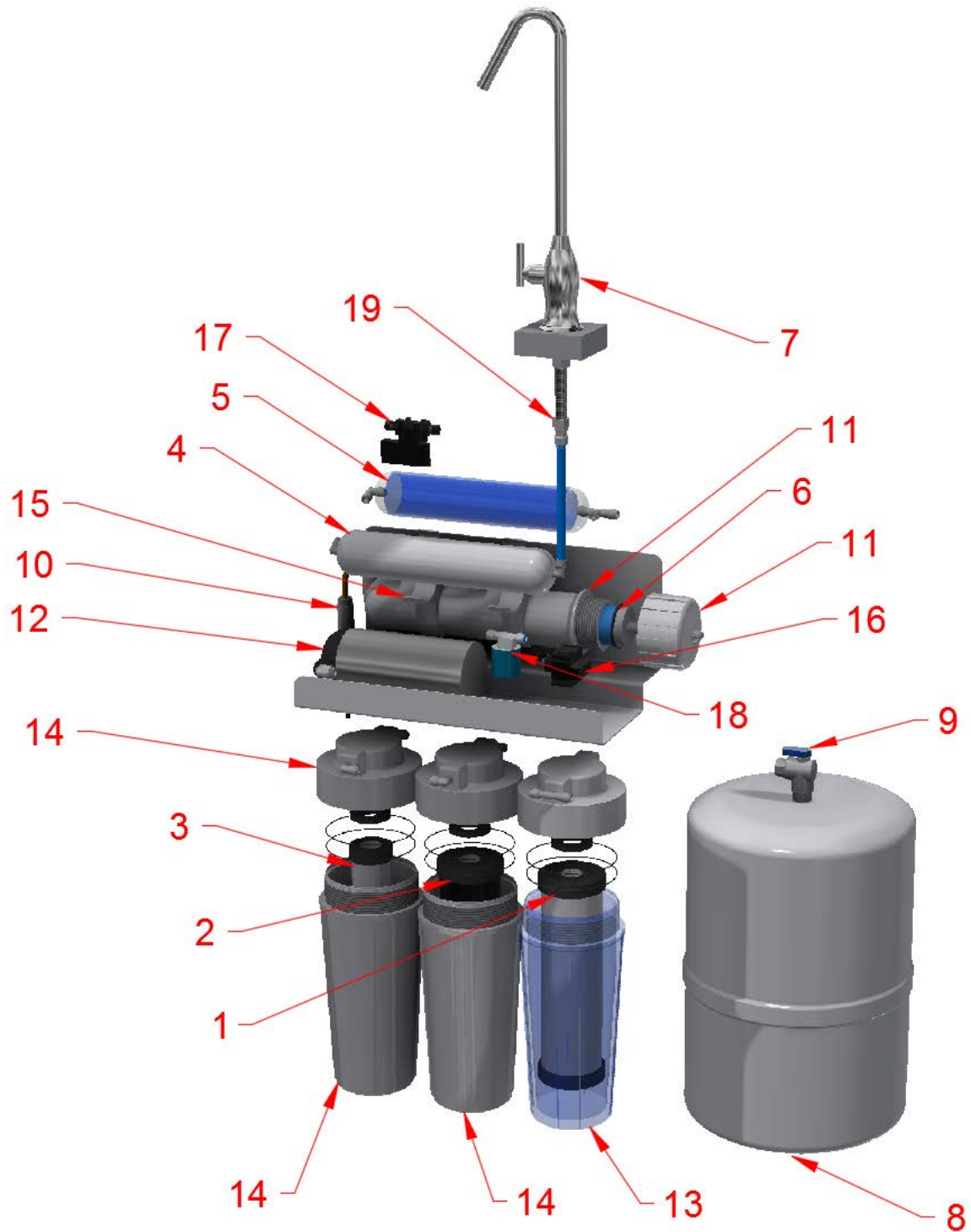
Item #	Part Number	Description	Changing Frequency
1	SMF PP1005	Polypropylene 5-Micron Sediment Filter	6 Months
2	SMF CBC1010	Carbon Block 10in 10-Micron	6 Months
3	SMF CBC1005	Carbon Block 10in 5-Micron	6 Months
4	SMF AICRO	Coconut Shell Carbon 2"x10" Polishing Filter	6 Months
5	SMF REM2X10C	Enalka Alkaline pH Neutralizer	1 Year
6	RO TFC100	Membrane Element 2"x10" 100GPD	3 Years
7	RO F104	Designer Chrome Faucet	N/A
8	RO TNK 5	Holding Tank	N/A
9	RO A13	Tank Ball Valve	N/A
10	RO FR300EZ	Drain Flow Control 300ml	N/A
11	RO MEMHOUS	Membrane Housing with Cap	N/A
12	RO BP110V	Booster Pump 110V	N/A
13	FH 10SC025	Clear Housing 2.5"x10"	N/A
14	FH 10SW025	White Housing 2.5"x10"	N/A
15	RO A21	2.5"x2" Mounting Clip	N/A
16	RO LPSA15	Low Pressure Switch	N/A
17	RO HPSA16	High Pressure Switch	N/A
18	RO SV025	1/4" Solenoid Valve	N/A
19	6325 60 133WP2	Faucet Adapter 7/16" Female UNC X 3/8" PTC	N/A



Model # : - EWR 5100E

11.2.3) EWR 7100P (7 Stage 100GPD With Booster Pump)

Item #	Part Number	Description	Changing Frequency
1	SMF PP1005	Polypropylene 5-Micron Sediment Filter	6 Months
2	SMF CBC1005	Carbon Block 10in 5-Micron	6 Months
3	CRF W9220402	Ceramic 0.9-Micron Cartridge	6 Months
4	SMF AICRO	Coconut Shell Carbon 2"x10" Polishing Filter	6 Months
5	SMF REM2X10C	Enalka Alkaline pH Neutralizer (Optional)	1 Year
6	RO TFC100	Membrane Element 2"x10" 100GPD	3 Years
7	RO F104	Designer Chrome Faucet	N/A
8	RO TNK 5	Holding Tank	N/A
9	RO A13	Tank Ball Valve	N/A
10	RO FR300EZ	Drain Flow Control 300ml	N/A
11	RO MEMHOUS	Membrane Housing with Cap	N/A
12	RO BP110V	Booster Pump 110V	N/A
13	FH 10SC025	Clear Housing 2.5"x10"	N/A
14	FH 10SW025	White Housing 2.5"x10"	N/A
15	RO A21	2.5"x2" Mounting Clip	N/A
16	RO LPSA15	Low Pressure Switch	N/A
17	RO HPSA16	High Pressure Switch	N/A
18	RO SV025	1/4" Solenoid Valve	N/A
19	6325 60 133WP2	Faucet Adapter 7/16" Female UNC X 3/8" PTC	N/A



Model # : - EWR 7100P