LANCASTER
WATER TREATMENT

7-TFC-50

REVERSE OSMOSIS INSTALLATION, OPERATION AND SERVICE MANUAL

Congratulations on purchasing your new **Lancaster Reverse Osmosis System**. This unit is designed to give you many years of trouble free service. When installed in accordance with the following instructions and if given reasonable care, better water quality will be the result. For servicing and future inspection purposes, please file this booklet with your important documents.

In the event that you need assistance for servicing your water filter, please first contact the professional contractor who installed the system.

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INSTALLATION INSTRUCTIONS

RESIDENTIAL REVERSE OSMOSIS DRINKING WATER SYSTEM

RECOMMENDED OPERATING LIMITS FOR FEED WATER

- Membrane type TFM
- Water pressure 40-100psi
- Water temperature 40-100°F
- TDS 2000ppm max.
- pH 3-11
- Hardness less than 10 grains or soften
- Iron less than 0.1 ppm
- Manganese less than 0.05ppm
- Hydrogen Sulfide: None
- Chlorine: The carbon pre-filter is designed to reduce chlorine from the incoming water. Change filter every 6-12 months, more often if more than 1ppm chlorine.
- Bacteria: Must be potable - Do not use with water that is micro biologically unsafe or of unknown quality without adequate disinfection before or after the system.

COMPONENTS

The following components make up your Reverse Osmosis Drinking Water System:
Pre-filter (sediment) removes larger particles such as sand, silt, rust and scale.
Pre-filter (activated carbon) removes chlorine in the feed water to protect the reverse osmosis membrane.
Reverse Osmosis Membrane reduces dissolved minerals, metals and salts. During the process harmful compounds are separated by the membrane and the reject water goes to waste (drain).
An activated carbon **post-filter** is provided for a final "polish" and to remove foul tastes, odors and to provide great tasting drinking water.

Filter housings and **R/O module** hold pre-filters and membrane. A **bracket** is provided so they may be mounted, typically below sink.

Storage tank holds filtered water, ready for use.

Automatic shut-off valve senses when the storage tank is full and closes the water supply to conserve water. The dedicated **faucet** is used to dispense RO produced water when needed.

Feed water angle stop valve is connected to the cold water line to supply water to the R/O system.

Drain saddle clamp assembly is connected to the drain to remove reject water from the R/O system.

Tubing supplies feed and reject water.

Fittings are used for necessary tubing connections.

SYSTEM LOCATION

Your R/O system may be installed under a sink, in a basement or other location, depending on available space. Do not install unit where temperatures fall below freezing. Do not install the drain saddle clamp assembly near a garbage disposal; otherwise, plugging of the waste water line may occur. If discharging into a utility sink or standpipe, an air gap must be provided. (Air gaps must be 1" or greater above the flood rim.)
Note: Plumbing codes may require the use air gaps. Please check with your local municipality.
Do not connect the R/O system drain line to the dishwasher drain line due to the fact back pressures may cause the air gap to overflow.

SITE PREPARATION

Installing dealers may want to speak with customers in advance and ask them to clean under the sink to save time. If a basement installation is advisable, check area to determine if extra fittings or hosing are required. Upon arrival, it is a good idea to check the condition of all plumbing for potential leaks and advise customer so there will be no misunderstandings in the event leaks occur.

UNIT PREPARATION

Open shipping carton, remove components and check that all parts are present. Remove shrink wrapped pre-filters from their housings. Check empty storage tank to be sure air pressure is 5 to 7 psi using a tire gauge on the tank air stem valve. Adjust if necessary. Wrap teflon tape three times around the tank's 1/4" male outlet thread (wrap clockwise when looking down on the tank). The tape is a thread sealant. Screw on the tank shut-off valve. Note: Hand tighten all fitting connections to be sure they are tight.

INSTALLATION STEPS

All plumbing must be completed in accordance with state and local plumbing codes. Some municipalities may require installation by a licensed plumber. Check local authority prior to installation.

1. Factory equipped air gap Faucet installation

If the sink has a sprayer it may be disconnected for faucet installation. (Installing dealers should discuss this with customers.) A pipe cap or plug will be necessary to seal the sprayer connection. Before drilling the faucet mounting hole (if sprayer or second hole is not used), check below to make sure the drill does not interfere with anything below. 2" flat surface is required, not exceeding 1-1/4" in thickness. The faucet should be positioned so it empties into the sink and the spout swivels freely for convenience. If sink has a hole that can accommodate the RO faucet, no drilling is required. Read the instructions supplied with faucet to confirm mounting hole size required. Proceed with mounting the faucet.

Porcelain, Enamel, Ceramic on Metal or Cast Iron:

Precautions must be taken to penetrate the porcelain through to the metal base and prevent it from chipping or scratching.

Tools required:

- Variable speed drill
- Porcelain cutter tool set
  (7/8" or alternative size, 9/16" for non air gap faucets)
- Plumber's putty

Procedures:

1. Mark the center for the mounting hole.
2. Form shallow putty around hole area and fill with enough water to lubricate carbide drill bit.
3. Carefully drill pilot hole through all layers. (Use light pressure and slow speed.)
4. Insert pilot tip of spring-loaded porcelain cutter into pilot hole.
5. Drill porcelain / enamel using spring loaded porcelain cutter, making certain a complete ring has been cut through the porcelain / enamel to the metal base.
6. Cut away the inner porcelain / enamel disc down to the base metal. Make certain the cutter does not touch the outer rim of the cut porcelain / enamel. Continue with this bit to cut through metal until sink has been completely penetrated.

Note: Always use sharpened porcelain cutter to eliminate chips and cracks.

Installation procedures for stainless steel sinks

Recommended tools:

- Center punch
- Variable speed drill
- High speed drill bits
- Greenlee chassis punch (7/8" or alternative size, 9/16" for non air gap faucets)
- Protective gloves & eye protectors

Procedures:

A. Center punch small indent for hole.
B. Drill the required pilot hole.
C. Set-up the chassis punch per instructions and tighten nut to cut the desired hole size.
D. Clean up sharp edges with file.

2. Mounting the faucet

Read the instructions supplied with the air gap faucet carefully before installing.
Disassemble hardware from the threaded nipple, except for chrome base plates and rubber washers.
(Rubber washers may be replaced with bead of plumber's putty for neater appearance.) Feed the threaded nipple through sink or counter mounting hole and orient the faucet. From below sink or counter, assemble the white spacer, flat washer and hex nut on threaded nipple and tighten by hand. (White spacer used for thin wall stainless steel sink or counter;open end up; open side toward air gap). After checking faucet orientation, tighten with a wrench until secure.

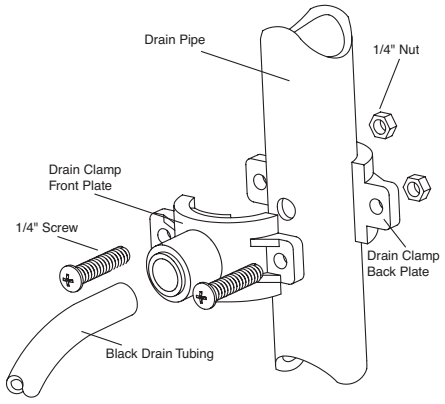
3. Feed water angle stop valve installation

The John Guest Angle Stop Valve connects between the supply valve and riser, to the main water supply line. Read the instructions supplied with angle stop valve carefully before installing.

I. Shut off water supply at brass/chrome supply valve.
2. Disconnect riser from brass/chrome supply valve.
3. Ensure that the sealing gasket is fully seated into the angle stop valve female thread.
4. Install angle stop valve on supply valve.
5. Connect the riser to the angle stop valve.

4. Drain saddle clamp assembly installation

Prior to proceeding it is important to inspect the condition of drain pipes to make sure they are not thin and frail.
Drain saddle clamps are designed to be installed on standard I-I/2" OD drain pipe. Install drain saddle clamp approx. 6" above (and before) the trap and on the vertical or horizontal tailpiece. Never install a drain saddle clamp close to the outlet of a garbage disposal or plugging of the RO drain line may result.



Drain saddle clamp installation

Procedures

I. Position drain saddle clamp front plate at selected location and mark for the opening.
2. Drill I/4" hole at mark through one side of pipe. DO NOT penetrate the opposite side of the pipe.
3. Position both halves of drain saddle on drain pipe so the front plate foam gasket hole and tubing connection hole lines up with the drilled I/4" hole.
4. Secure drain saddle clamp on pipe with screws and nuts provided. (Do not over tighten and make sure there is equal space between saddle halves on each side.)

5. Initial tubing connections

For convenience on under counter installations it may be advisable to begin under counter tubing connections at this time. Refer to installation diagrams.

6. RO components installation

Install RO membrane, carbon pre-filter and sediment pre-filter in modules of RO unit. (Refer to RO installation and parts diagrams.)

7. RO unit installation

The RO unit is normally mounted to the right or left sink cabinet sidewall, depending on where supply tank is to be located. Generally the unit is installed at the front of the cabinet and the tank at the rear. To mount the unit, elevate it at least 2" off the floor (providing clearance for filter housings removal), level it and mark the location of mounting holes needed. Drill holes for mounting screws and install screws, allowing the mounting bracket slots to slip over them.

Note: If the cabinet sidewalls are not solid, unit may sit on the floor with screws to keep it against the cabinet in a vertical position.

8. Storage tank placement

The storage tank should be placed under the counter or within 10 feet of the RO unit.

Reminder from **Unit preparation** section on page 5: Tanks are pre-pressurized 5 to 7 psi. Prior to installation, check air pressure, add or release as required. Make sure the tank shut-off valve is screwed onto the tank using teflon tape thread sealant.

9. Final tubing connections

With all components in place, complete final tubing connections using these guidelines:

- Tubing should follow contour of the cabinets.
- Cut tubing to desired length using square cuts and proper cutting device.
- Make no sharp bends.
- Keep tubing from the RO unit to the tank and faucet as short as practical for good flow.

Follow installation diagrams and the following procedures:

1. Connect tubing from faucet to RO unit.
2. Connect tubing from tank to RO unit.
3. Connect tubing from feed water supply valve to RO unit.
4. Connect tubing from drain clamp to RO unit.

ICE-MAKER HOOKUP (OPTIONAL)

The RO drinking water device can be connected to any standard refrigerator ice maker or ice maker / water dispenser. (Do not connect to a commercial type bar ice maker.)

To complete this operation, connect a tee with shutoff valve into the faucet tubing and route tubing to the refrigerator. (Hooking up to an existing copper line is not recommended.) Shut off ice maker by lifting lever prior to turning off the existing tap water supply line to the refrigerator. Turn on ice maker after the RO system has been drained several times and the tank has a full supply of water.

Note: Before any service is performed on the RO system, turn off ice maker valve and ice maker unit. Turn back on only after RO tank is full.

SYSTEM START-UP

Prior to start-up

1. Check all connections are secure.
2. Turn on feed water valve and check for leaks. (Turn off and correct leaks if leaks occur.)
3. Open valve on storage tank and open faucet until a steady stream of water flows. The faucet's black dispensing lever can be lifted upward (parallel with the faucet body) to keep the faucet open.
4. With the faucet open, tip unit on its side to purge any air in the system.
5. Close faucet and wait five minutes to see if leaks result.

Note: When the system is first turned on, water may intermittently "spurt" from the air gap opening on the side of air gap faucet. This is common and should correct itself after an initial period of time.

CAUTION: The RO membrane is shipped with a preservative in it. To ensure proper flushing of the RO membrane it is important to wait approximately four hours before emptying each tank as described in the following flushing system steps.

FLUSHING SYSTEM AND CHECKING OPERATION

To make sure RO system is operating correctly, follow these simple procedures:

1. Open faucet handle and allow tank to completely drain of water.

Do not use this water.

Note: When tank is empty, faucet will steadily drip. This is the rate the RO system processes water.

2. With faucet handle in "open" position, measure the rate of the steady drip from spout. Use a graduated cylinder and watch with a second hand to calculate approximate production in gallons per day.

Note:
Milliliters per minute X 0.38 = GPD.
Ounces per minute X 11.2 = GPD

3. Proceed to check reject flow rate by disconnecting tubing at drain connection and measure flow as described above.

Note: Proper ratio should be 2.5 reject water to 1 part of product water, on average.

4. Close faucet and re-inspect system for leaks.
5. Allow system to process water for approximately four hours, at which point tank will be practically full.
6. Open faucet again and allow tank to empty. Carbon fines (very fine black powder) from the carbon post-filter may be noticed. This is normal for the first tank of water or after the carbon post-filter is changed.

Do not use this water.

7. Wait another four hours to allow tank to re-fill.

Note: If no objectionable tastes are noticed after second tank draining, RO processed water is ready for use. Otherwise, drain tank and re-fill for a third time.

8. At this point supply line to ice maker connection (optional) may be opened.

MAINTENANCE

Your RO system contains filters and a membrane which must be replaced periodically for proper operation.

- Pre-filter (sediment) every 6 to 12 months
- Pre-filter (carbon) every 6 to 12 months
- RO membrane every 2 to 3 years
- Post Filter (carbon) every 6 to 12 months

The RO system should be sanitized once each year. **Tips:**

1. If sanitizing system when new filters will be installed, all new filters should remain in the original packaging until it is time for replacement.
2. Ensure the service area is clean, free of dirt or dust.
3. Wash hands and/or wear sanitary gloves.

To change filters and membrane follow these procedures:

1. Refer to parts list and diagram for replacement parts.
2. Close feed water valve by turning it clockwise. If your RO system is connected to your refrigerator or ice maker, close the line going to the ice-maker.
3. Open RO faucet to allow holding tank to drain. Once the system is empty be sure to close RO faucet.
4. Using wrench provided,open the sediment pre-filter housing, which is the filter closest to the feed water line. Remove the pre-filter and discard. Leave the filter housing off.
5. Remove all remaining filters and the reverse osmosis element (membrane). If you have an inline post filter on your system, leave the old filter in place. Discard old filters.
6. Wash inside of the housings using purified water and a soft cloth.
7. Reconnect all empty housings to the system, except the sediment pre-filter housing. There should be no filters in any housings at this point.

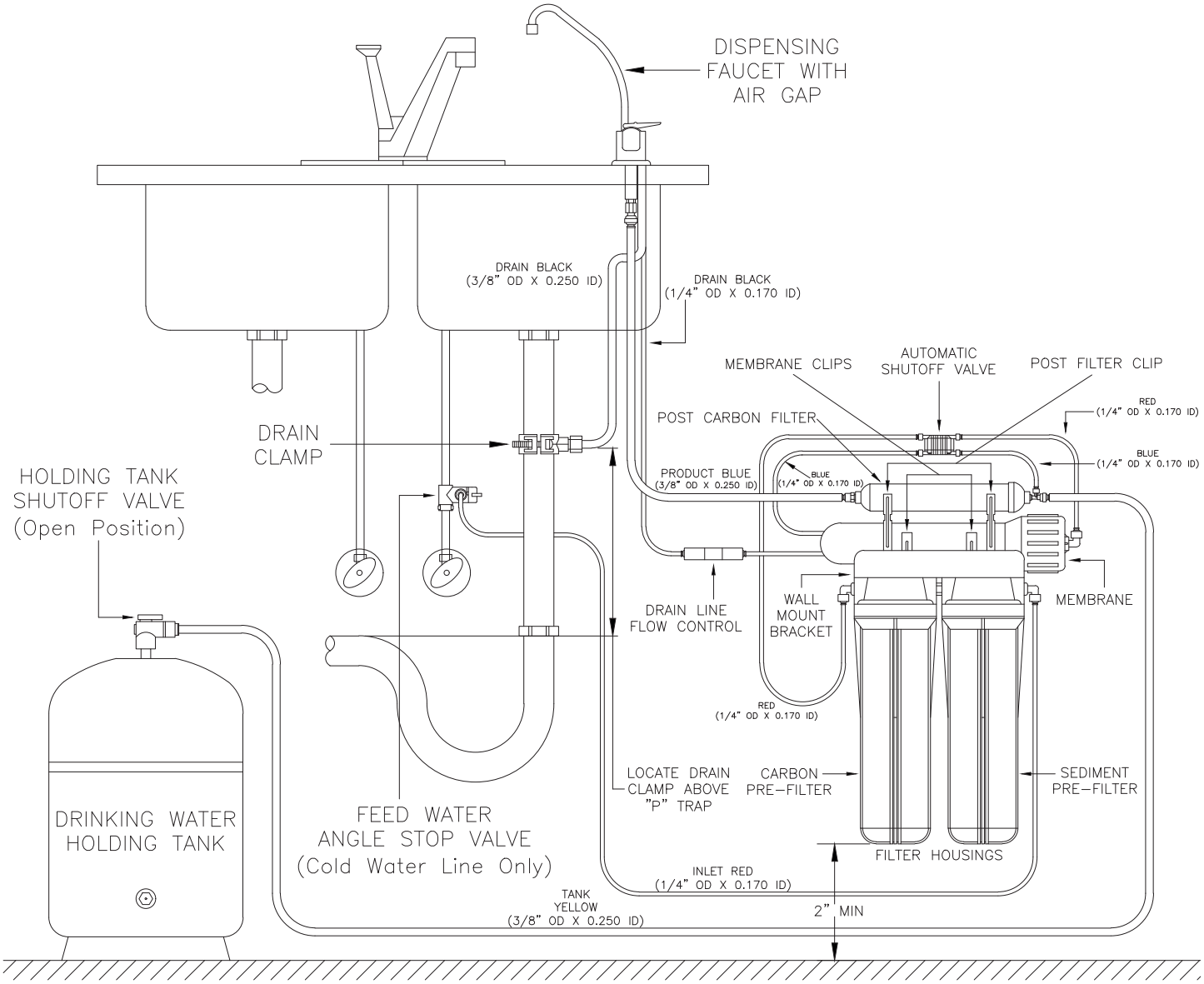
Note: Be sure to check o-rings are in place when reconnecting empty housings.

8. Pour entire packet of Sani System Sanitizer directly into the sediment pre-filter housing. Or, alternatively add two or three tablespoons of bleach to the pre-filter housing (5.5% unscented bleach).
9. Re-connect the pre-filter housing back onto the system with the sanitizer solution inside.

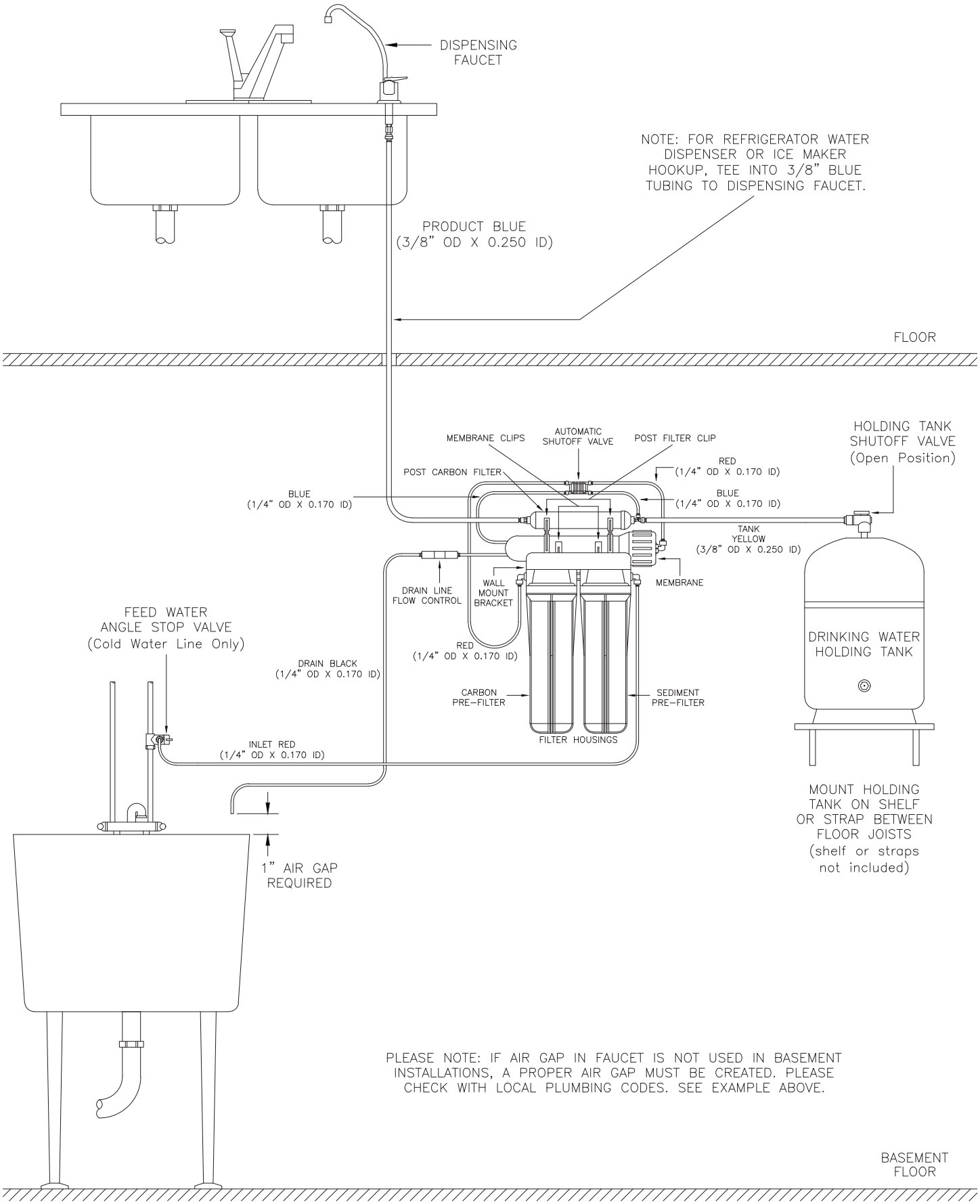
Note: Be sure to check o-ring is in place when reconnecting housing with sanitizer solution inside.

10. Turn on the cold water supply line for the system to fill with the sanitizing solution.
11. Check for any leaks.
12. Allow system to fill with water. Time will vary depending on water pressure. However, system should be full within 5-10 minutes without the filters or membrane installed.
13. Turn on the RO faucet until water begins to flow out, then turn off the faucet.
14. If using Sani system Sanitizer, let system set for at least 60 seconds. If using bleach, let the system set for at least 30 minutes.
15. After set time, flush system by turning on the RO faucet and letting water run through the system for 5 minutes,or until bleach odor is gone.
16. Turn off the cold water supply line. Turn on the RO faucet. Drain the system completely. Repeat this step twice
17. After draining the system completely the second time, replace or re-install all filters and membrane.
18. Turn on the cold water supply line and check for leaks.
19. Allow the system several hours for the RO membrane to refill the storage tank.

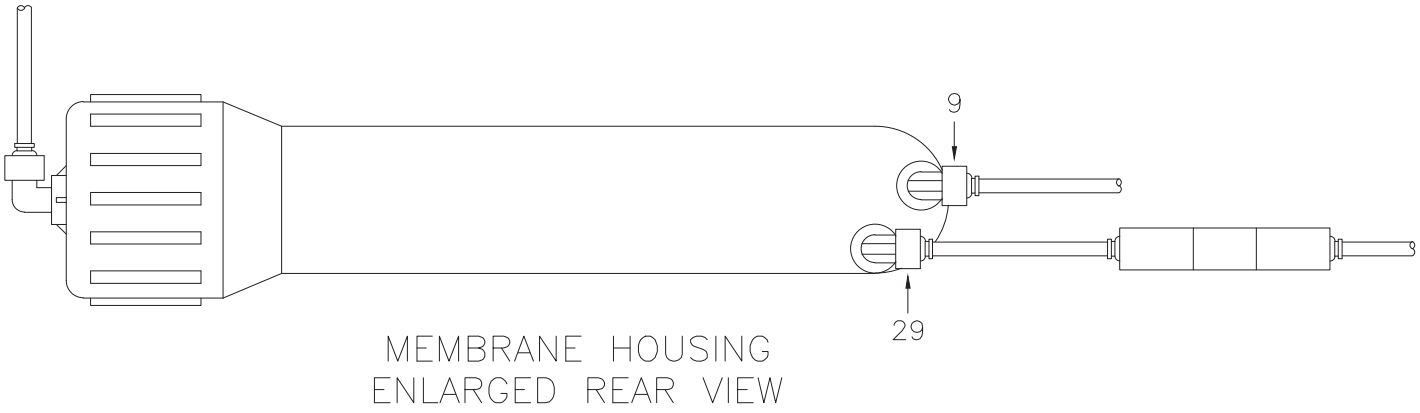
TYPICAL TFC-50 UNDER SINK INSTALLATION DIAGRAM



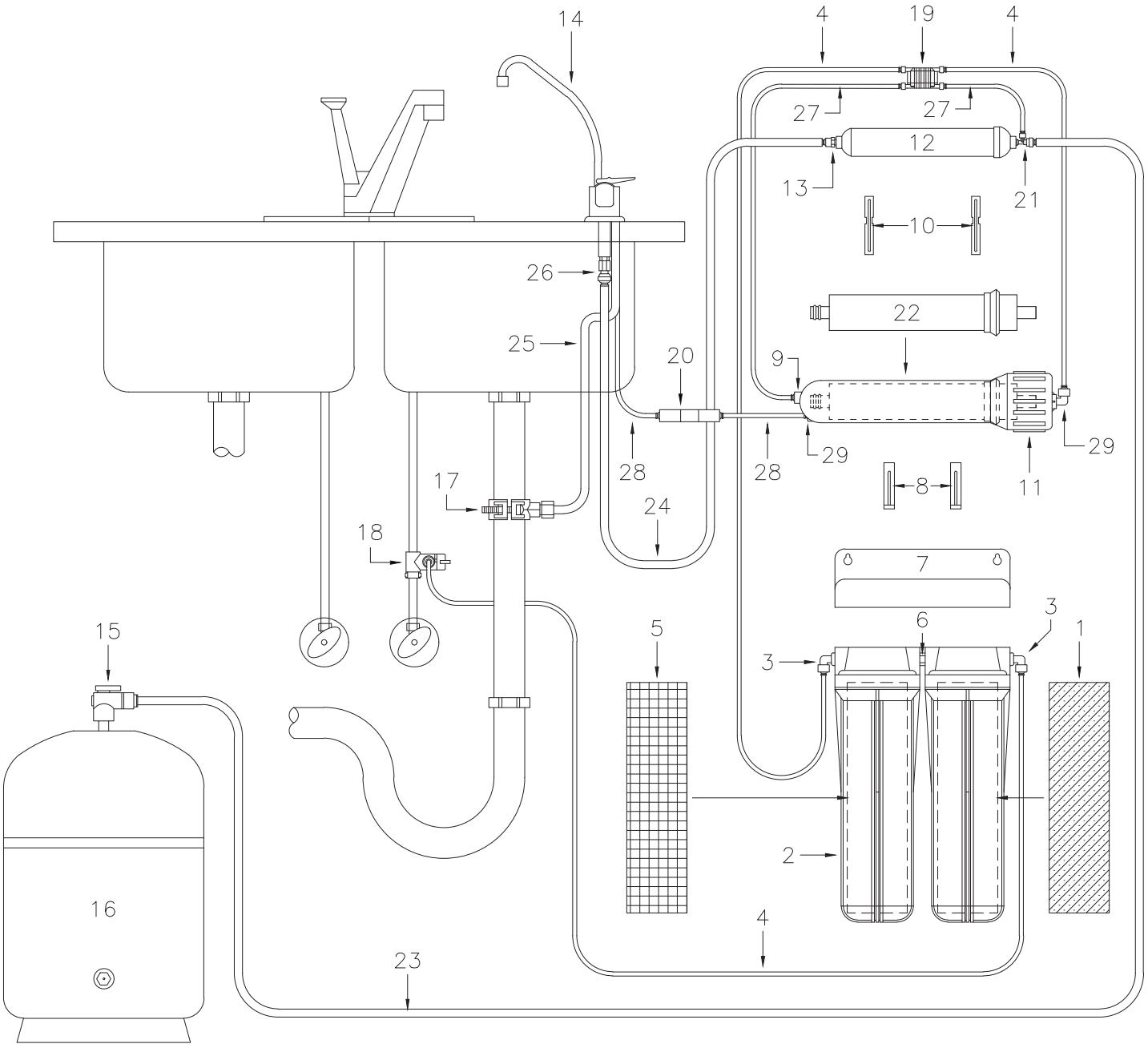
OPTIONAL TFC-50 BASEMENT INSTALLATION DIAGRAM



TYPICAL TFC-50 EXPLODED AND PARTS DIAGRAM



MEMBRANE HOUSING
ENLARGED REAR VIEW



PARTS LIST

ITEM NUMBER	PART NUMBER	DESCRIPTION	QUANTITY
1	210-C5-MB	10 inch 5 micron Sediment Filter Cartridge (replacement)	1
2	FH-4200W	White Filter Housing 1/4 FNPT Ports	2
3	PR-ME0404	Quick Connect Elbow, 1/4 Tube x 1/4 MNPT Thread	2
4	PE-08-BI-0500F-R	Red Tubing 1/4" OD x 0.170" ID LLDPE	
5	210-C5-CA	10 inch 5 micron Carbon Block Filter Cartridge (replacement)	1
6	PR-HN0404	1/4 NPT Hex Nipple	1
7	FM-40	Double Bracket	1
8	C-2500W	Single Clip Membrane Housing	2
9	PR-CV3142	Quick Connect Elbow, 1/4 Tube x 1/8 MNPT Thread with Check Valve insert	1
10	DC-2500W	Double Clip Membrane Housing to Inline	2
11	MH18	Membrane Housing 1/8 FNPT ports	1
12	AIRC0	10 inch Inline Carbon Post Filter	1
13	S1086-02	Quick Connect 3/8 Tube x 1/4 MNPT Thread Male Connector	1
14	S1089-08	*Long Reach Chrome Faucet (replacement)	1
15	S1037	Quick Connect 3/8 Tube x 1/4 FNPT Tank Ball Valve	1
16	C2000	3.2 Gallon RO Tank (replacement)	1
17	S1117	Drain Clamp Assembly	1
18	SV-6	Angle stop Feed Valve	1
19	ASV0	Automatic Shut Off Valve	1
20	FR-50	Flow Restrictor	1
21	PR-MRT0604	Quick Connect Tee, 1/4 Tube x 3/8 Tube x 1/4 MNPT	1
22	TFM-50	TFC Membrane 50 GPD	1
23		Yellow Tubing 3/8" OD x 0.250" ID LLDPE	
24		Blue Tubing 3/8" OD x 0.250 ID LLPDE	
25		Black Tubing 3/8" OD x 0.250 ID LLDPE	
26	PR-FA06-716	Quick Connect 3/8" Tube Faucet Adapter	1
27		Blue Tubing 1/4" OD x 0.170 ID LLDPE	
28		Black Tubing 1/4" OD x 0.170" ID LLDPE	
29		Quick Connect Elbow, 1/4 Tube x 1/8 MNPT Thread	2

Items in Gray are not stocked and will require a special order.

* S1089-08 Replacement air gap faucet requires 1-1/4" diameter mounting hole versus the original factory equipped air gap fauct requiring a 7/8" diameter mounting hole.

Luxury RO faucets with modular air gap and many finishes and styles to match any decor are available - consult factory.

WATER QUALITY

Water quality from an RO system is normally determined with a TDS Meter, which measures total dissolved solids in water, measuring conductivity. The results are normally measured in parts per million or milligrams per liter. Fewer dissolved solids results in higher quality water. RO membranes are rated by the amount of dissolved solids they reject, expressed as "rejection percentage". For example if feed water contains 100 ppm of dissolved solids and the product water after the membrane has 10 ppm of dissolved solids, the rejection percentage is 90%.

The formula is as follows:
Feed water TDS – Product water TDS = Rejected TDS
(Rejected TDS/Feed water TDS) X 100 = Rejection Percentage

WATER PRODUCTION

Product water rate

Usable water production from an RO system is designated product water rate, produced on a daily basis. The rate is normally described in gallons per day (gpd) or milliliters per minute (ml/min.).

Reject water rate

The flow of water to drain is designated as reject water rate, as measured in gallons per day (gpd) or milliliters per minute (ml/min.).
Using a graduated cylinder the formulas are:
Milliliters per minute X 0.38 = gallons per day
or Ounces per minute X 11.2 = gallons per day

Reject ratio

The reject ratio is the amount of water produced compared to the amount of water flowing to drain.
The formula is as follows:
Reject ratio = Reject water rate/Product water rate

Example:
Product water rate = 10gpd
Reject water rate = 40gpd
Reject Ratio = 40gpd / 10gpd = 4 or 4-to-1

Percent recovery

The percent recovery is the amount of water produced compared to the amount of water which is actually used.
The formula to determine percent recovery is as follows:
Percent recovery = (Product water rate / Feed water rate) X 100
Note: Feed water rate is the sum of the product water flow rate and reject water flow rate.

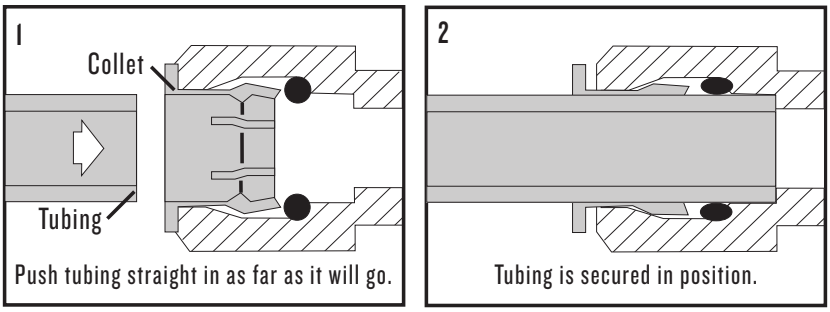
Example:
Product water rate = 10 gpd
Reject water rate = 40 gpd
Feed water rate = 10 gpd + 40 gpd = 50 gpd
Percent recovery = (10gpd / 50gpd) X 100 = 20%

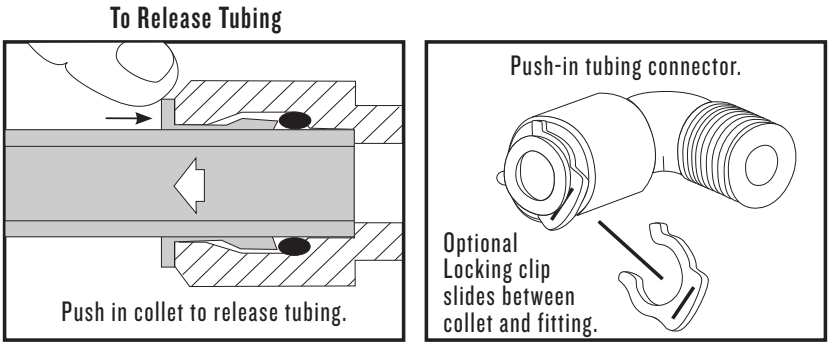
WATER PRESSURE AND TEMPERATURE

Product water quality and production of RO systems is dependent on pressure and temperature. Typically, RO membranes are rated at standard conditions of 77°F (25°C) and 60 psi (4 bar) discharging to atmosphere. In general, the higher the pressure differential and temperature, increased quality and quantity of water is produced. These factors should be considered when sizing RO systems for a particular application.

PUROMAX BRAND FITTINGS

Many RO systems utilize PuROMax brand fittings. These user-friendly fittings provide superior performance and may be provided with this system. Proper use of these push-in fittings is shown below. Along with these fittings, all tubing selected must be of high quality and must be cut with a plastic tube cutter or sharp razor with a clean, square cut. Should a leak occur at a fitting, the cause is generally defective tubing. To fix a leak, relieve pressure, release tubing, cut off at least 1/4" from the end (square cut), reattach the tubing and confirm the connection is leak free. Each time a new connection is made, it is advisable to cut off 1/4" from the end of the tubing using these fittings.





CONVENTIONAL FITTINGS

If PuROMax Quick Connect fittings are not used, it is essential to install inserts at the ends of all tube connections when conventional fittings are used.

TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SOLUTION
Low quantity of Product Water from Holding Tank	Feed Water Valve is plugged or closed.	Open Valve or unclog.
	Clogged Sediment/Carbon Prefilters or Activated Carbon Post Filter.	Replace Filters.
	Low water pressure.	Feed Water pressure must be above 40 psig.
	R.O. Membrane is fouled.	See Feed Water operating limits. Correct cause of fouling, replace Membrane.
	Plugged Activated Carbon Post Filter.	Replace Post Filter.
	Air precharge pressure in Holding Tank is too high.	Empty water from Holding Tank, and with the faucet open, adjust air pressure to 5–7 psig (35–48 kPa) range.
	Air precharge is too low	
	Air bladder in the Holding Tank is ruptured.	Replace tank.
	Holding Tank Valve is closed.	Open Valve.
	No drain flow, the drain line Flow Restrictor is plugged.	Clear or replace Flow Restrictor.
	No drain flow, the drain orifice in the Air Gap Faucet is plugged.	Clear or replace the Dispensing Faucet.
	The Check Valve is stuck.	Replace elbow assembly containing check valve insert.
	The Automatic Shut Off Valve is malfunctioning.	Replace ASVO.
Low pressure at the Dispensing Faucet	Activated Carbon Post Filter is plugged.	Replace Post Filter.
	Air precharge in the Holding Tank is too low.	Empty water from Holding Tank and with the faucet open, adjust the air pressure to 5–7 psig (35–48 kPa) range.
		Check for leakage at the Holding Tank's Air Valve Stem.
	Holding Tank Valve is partially closed.	Open Valve.
	The Dispensing Faucet is out of adjustment or faulty.	Repair or replace Dispensing Faucet.
	Heavy water use, Holding Tank is depleted.	Allow Holding Tank to refill (adding a second Holding Tank will increase storage capacity).
	Low Water Production.	See Low Quantity of Product Water from Holding Tank section above.
High Total Dissolved Solids (TDS) in the Product Water	Clogged Sediment/Carbon Prefilters or Activated Carbon Post Filter.	Replace Filters.
	Low Water Pressure.	Feed Water Pressure must be above 40 psig.
		Check Feed Water Valve.
	R.O. Membrane O–ring is crimped.	Check O–ring.
	R.O. Membrane brine seal is not sealing.	Check the brine seal.
	R.O. Membrane is expended.	If Membrane life is unusually short, find and correct the problem. Replace Membrane.
	The Product Water and Drain Water lines are reversed.	Correct plumbing.
	No drain flow, Drain Line Flow Restrictor is clogged.	Clear or replace Drain line Flow Restrictor.
	No drain flow, the drain orifice in the Dispensing Faucet is plugged.	Clear or replace Dispensing Faucet.
	The Automatic Shut Off Valve is not closing.	Repair or replace the ASVO.
	New Activated Carbon Post Filter not rinsed completely.	Flush with several full tanks of Product Water.
	The Feed Water TDS has increased.	An increase in Feed Water TDS will give a corresponding increase in Product Water TDS.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Tastes and odors in the Product Water	The Activated Carbon Post Filter is exhausted.	Replace Filter.
	There is foreign matter in the Holding Tank.	Clean, flush and sanitize the system. Replace the filters.
	The Product Water and Drain Water lines are reversed.	Correct plumbing.
	Dissolved gasses in the Feed Water.	Pretreat Feed Water to remove dissolved gasses.
	Increase in Product Water TDS.	See high TDS in the Product Water section.
Drain Water overflows at the Dispensing Faucet	Air Gap is blocked.	Clear Air Gap.
		Rinse with vinegar for removal of calcium buildup.
	Drain tubing is clogged.	Clear tubing.
	Drain Clamp hole is misaligned.	Align with hole in the drain pipe.
	Excessive drain flow rate.	Replace Drain Line Flow Restrictor.
Fitting leaks in general	Close the Feed Water Valve and relieve pressure before disconnecting any tubing or replacing any fitting. Before replacing a fitting, re–cut the tubing and re–insert into the fitting to see if that solves the leak. If pipe threads are leaking, remove and re–tape with Teflon tape.	

LANCASTER

WATER TREATMENT

1 YEAR LIMITED WARRANTY

LANCASTER, warrants your under sink Reverse Osmosis drinking water unit, to be free of defects in material and workmanship, for a period of one year, under normal use, within the recommended operating limits listed on page 4. To resolve any warranty problems, you must first contact your local dealer, they in turn will contact the factory. Upon proof of purchase, **LANCASTER**, will repair or replace, at the factory, the defective part or unit, and return it to your local dealer. Freight to and from the factory is to be paid by the buyer. The Pre and Post filter cartridges are warranted for manufacturers defects only and not for taste and odor problems. The membrane is warranted separately as stated below. Any accessories, such as pumps and motors, shall be warranted by the manufacturer of these parts.

The **REVERSE OSMOSIS MEMBRANE** will be warranted for a three month shelf life and a twelve month in use period, for a total fifteen months under the manufactures warranty. Warranty begins from the date of purchase from the manufacturer. Membrane is warranted against defects when used under standard operating conditions. Membranes sent for review will be sent to the manufacture of said element for review.

Membranes must be kept moist at all times. Defective membranes must be returned in a sealed bag and kept moist with an appropriate preservative solution or R.O. water. **Membranes returned dry, opened, or improperly packaged cannot be evaluated for warranty and will be returned to the sender at your expense.**

THERE ARE NO OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED AND THERE IS NO LIABILITY FOR CONSEQUENTIAL DAMAGES OF ANY NATURE OR KIND.

SERIAL# _____

LANCASTER
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