TANKLESS UNDERSINK REVERSE OSMOSIS FILTRATION SYSTEM

MODEL：RO-2F-600

Instruction Manual

Please read this manual carefully before using the product.

Please keep these instructions for future reference.

Contents

1 - SAFETY NOTICES

1.1 - WARNINGS

- Read this manual before installing or operating your reverse osmosis system. Failure to follow instructions in this manual could result in personal injury or property damage.
- This system should be installed following all state and local regulations. In the event local code conflicts with any instructions in this manual, the local codes should be followed.
- This system requires a 110-120V AC electrical outlet to operate. Verify a power outlet is accessible from the desired installation location. If no electrical outlet is available contact a licensed professional to ensure all electrical codes and regulations are observed. This system should only be powered with the original power supply, do not attempt to power the system by any other means.
- Do not disassemble or modify the reverse osmosis system in any way, doing so could result in system malfunction and property damage from water leakage.
- This system should be installed resting on a flat surface. Do not attempt to mount or hang the system after installation.
- Do not install the system near any heat source, and avoid installing the system in direct sunlight.

1.2 - CARE AND MAINTENANCE

- Only use authorized filter replacements when changing the filters.
- Clean the system using a cloth and clean soapy water, do not use steel wire, abrasive cleaners, or corrosive cleaning products. Do not spray the system with water, and do not introduce cleaning liquids into the system to avoid damage to the filter cartridges.
- If the RO system will not be used for an extended period of time (one month or longer) drain the water from the system. Open the drinking water faucet, close the inlet supply valve, and let the system run for 2-3 minutes until water stops flowing from the faucet. Then disconnect the power supply.

- If the RO system will not be used for more than one week, take out the filter cartridges, seal them with plastic wrap, and keep in a refrigerator (do not put it in the freezer compartment) to reduce the breeding of bacteria. When the filters are reinstalled, rinse the system for 10 minutes before use using the water.
- Ensure the waste water line remains unobstructed to avoid water leakage and damage to internal components of the system. If the waste water line becomes blocked, turn off the system and remove the blockage before continued use.
- If the power cord, plug, or any other electrical components are damaged at any time, stop using the system immediately and contact customer support for assistance. Never touch the power cord or electrical components with wet hands due to the risk of electrical shock.

1.3 - OPERATING CONDITIONS

- The temperature range of the water purifier is 41°F-100°F. When the water temperature or ambient temperature drops below 41°F turn off the water supply to the system and drain the water inside the filters. If the water supply line or filter system freezes, it may damage the system and cause it to malfunction or create water leakage.
- This water purifier system is suitable for water pressures between 15-90 PSI. Do not install this water purifier on a water supply pipeline with a water pressure exceeding 90 PSI. If the inlet water pressure exceeds 90 PSI, a pressure reducing valve must be installed to prevent damage to the system.
- This system is not intended for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

2 - PRODUCT SPECIFICATIONS

2.1 - TECHNICAL SPECIFICATIONS

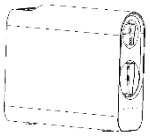
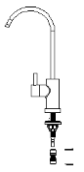
Model	RO-2F-600
Voltage / Frequency	110-120V/50-60Hz
Power Rating	80W
Dimensions	17 5/16” length x 5 1/2" width x 14 3/4” height
Gross Weight	≈20lbs
Pure water flow rate	25 gallons per hour*
Pure to waste water ratio	2 : 1*
Inlet water pressure	15 PSI - 90 PSI
Operating water temperature	41-100°F

**The pure water flow and pure to waste water ratio was measured with a water temperature of 77°F and inlet pressure of 30 PSI. The actual flow of water may vary depending on water quality and usage environment.*

2.2 - FILTER SPECIFICATIONS

RO-2F-600			
Filter Cartridge	1st stage Composite Filter		2nd stage RO Membrane
Filter Media	Poly Propylene	Carbon Block	600 GPD Membrane
Function	Filters sediment, rust, suspended solids, and large particles.	Filters VOCs, chlorine, organic matter, colors, odors, and improves taste.	Filters dissolved solids, heavy metal ions, organic matter, colloids, bacteria and more
Filter Micron Rating	10-15	5-10	0.0001
Capacity	1,000 Gallons		2,000 Gallons
Recommended replacement lifespan	≈12 months		≈24months

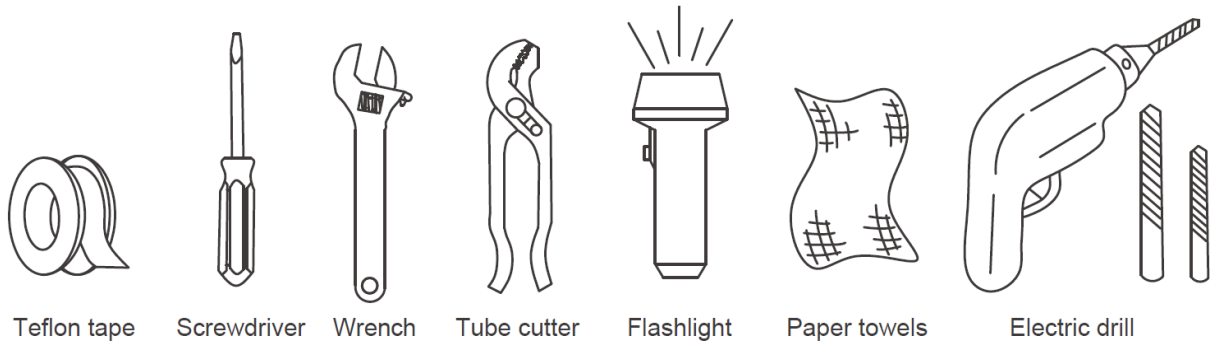
2.3 - PARTS LIST

No.	Part Name	Qty	Image	Notes
1	RO-2F-600 system	1		Include filters
2	T-valve connector	1		Connects to 3/8” or 1/2” supply lines
3	Drain saddle	1		Connects to 1 1/4” or 1 1/2" drain lines
4	Quick connector clip accessories	1		Qty -1 3/8” quick connect clip Qty -2 1/4”quick connect clip
5	1/4"PE tube （white）	1		3 feet
6	1/4"PE tube（red）	1		3 feet
7	3/8"PE tube （white）	1		3 feet
8	LED Drinking Water Faucet Kit	1		Includes installation parts

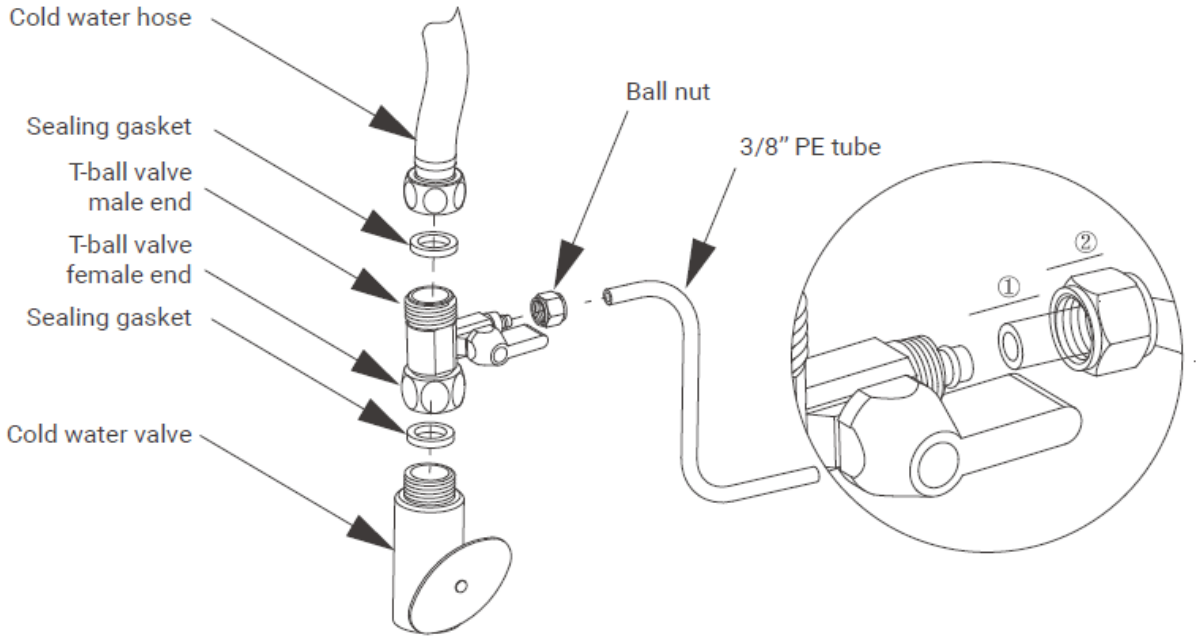
3 - INSTALLATION INSTRUCTIONS

3.1 - BEFORE INSTALLATION

1. Confirm the location where the reverse osmosis system is to be installed has access to power and is within reach of the inlet water supply, faucet location, and drain connections.
2. Check the packing list for any missing parts and confirm that all installation accessories are present and accounted for.
3. The following tools may be required during the installation.

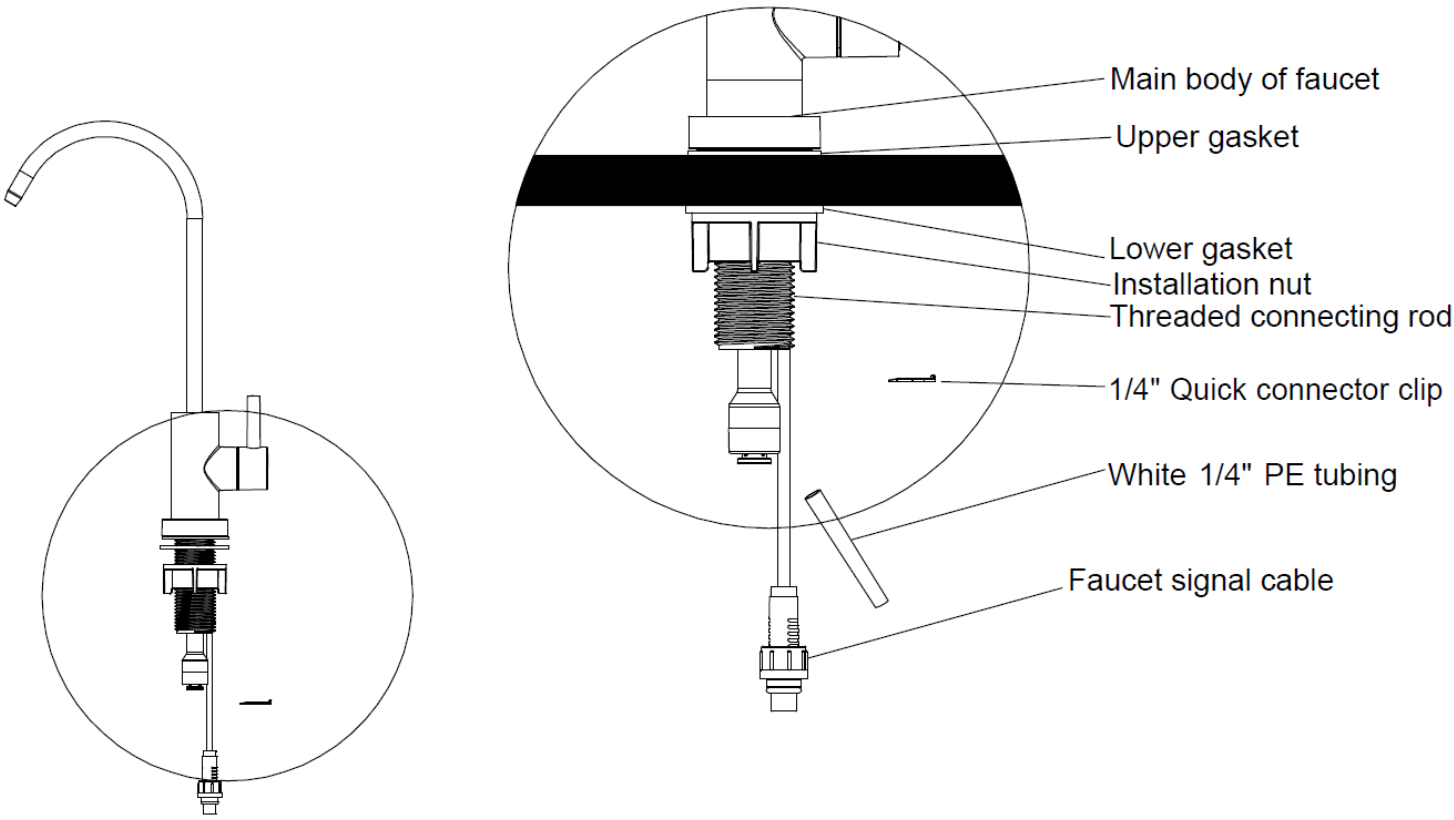


3.2 - INSTALLATION OF T-VALVE CONNECTOR



1. Attach the supply line tubing: Pass the 3/8" PE tubing through the ball valve compression nut and press it firmly onto the male compression port on the T-valve. Ensure the tubing is all the way to the base of the connection then tighten the ball valve nut with a wrench.
2. Turn off the cold water supply valve to the faucet and verify at the sink no water is flowing. Then unscrew the cold water supply line from the valve.
3. Install the T-Valve connector onto the cold water valve and tighten it with an adjustable wrench. (The T-Valve connector is compatible with both 3/8” and 1/2” supply valves, use the appropriate adapter for your connection.)
4. Install the cold water supply line from the faucet to the T-Valve connector and tighten it with an adjustable wrench.
5. Ensure all thread connections have been tightened and that the T-Valve is closed (perpendicular to the 3/8” PE tubing). Then check for leaks by slowly turning the faucet cold water supply back on. (Tighten any leaking connections before moving on with the rest of the installation.)

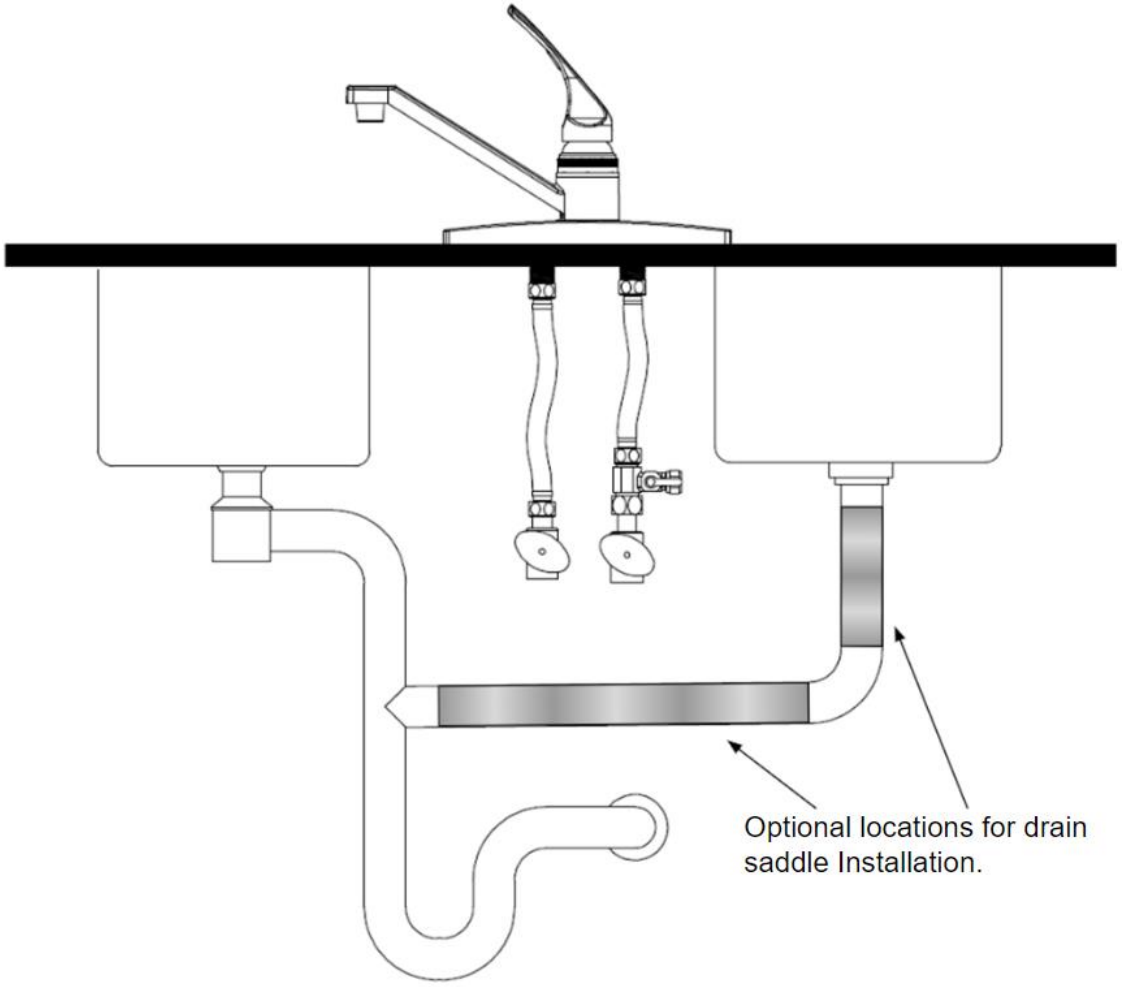
3.3 - INSTALLATION OF DRINKING FAUCET



1. Choose a suitable installation position on the sink or countertop for the faucet. The faucet needs to be installed on a flat surface and the installation hole must be 1-1 1/2 inches in diameter. (If the hole for the faucet is larger than 1 1/2”, a mounting plate will be required.)
2. Slide the upper gasket along the faucet cable and up to the base of the faucet.
3. Put the faucet cable into the installation hole and pull it through until the base of the faucet is flush up against the sink top.
4. Slide the lower gasket and faucet installation nut along the faucet cable until they get to the threaded connecting rod. Screw the nut onto the connecting rod until tight and make sure the lower gasket sits flush up against the base of the sink.
5. Connect white 1/4" PE tubing to the quick connect fitting on the faucet.

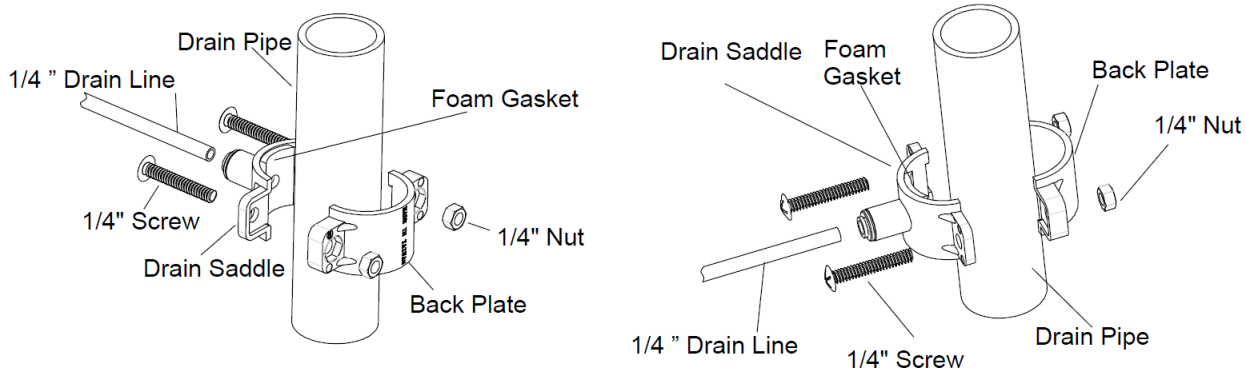
(Note: Take care not to get the faucet signal cable tangled during this process.)

3.4 - INSTALLATION OF THE DRAIN SADDLE



1. Identify a location for the drain saddle to be installed. The drain saddle assembly should be installed above the trap on the vertical or horizontal tailpiece of the sink drain.

   Note: To reduce drainage noise mount the drain saddle as low as possible on the vertical tailpiece or on the horizontal tailpiece.
2. Mark the position of the drain on the drain pipe and drill a 1/4" hole through one side of the tailpiece. Ensure the surface of the hole is smooth so the foam gasket can create a good seal.
3. Adhere the foam gasket to the drain saddle and line up the drain saddle hole with the hole in the drain pipe.
4. Secure the drain saddle by connecting it to the back plate with the provided screws and nuts. Use a screwdriver to ensure the drain saddle is snug and does not slide along the pipe.
5. 5) Connect the red 1/4" PE tubing to the quick connect fitting on the drain saddle.



3.5 - INSTALLATION OF WATER LINES

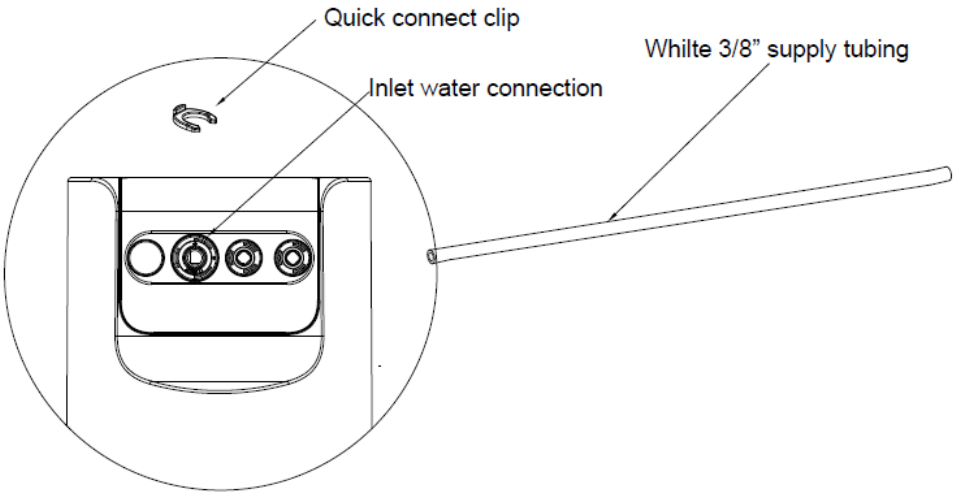
1. Place the reverse osmosis system in the installation location and mark the length of each water line. (Excess tubing can vibrate and cause unwanted noise while the system is running.)

3.5.1 - INSTALLATION OF SUPPLY WATER TUBING

2. If necessary, cut the excess length of the white 3/8” PE tubing connected with the T-valve joint according to the actual distance between the T-valve and the system with

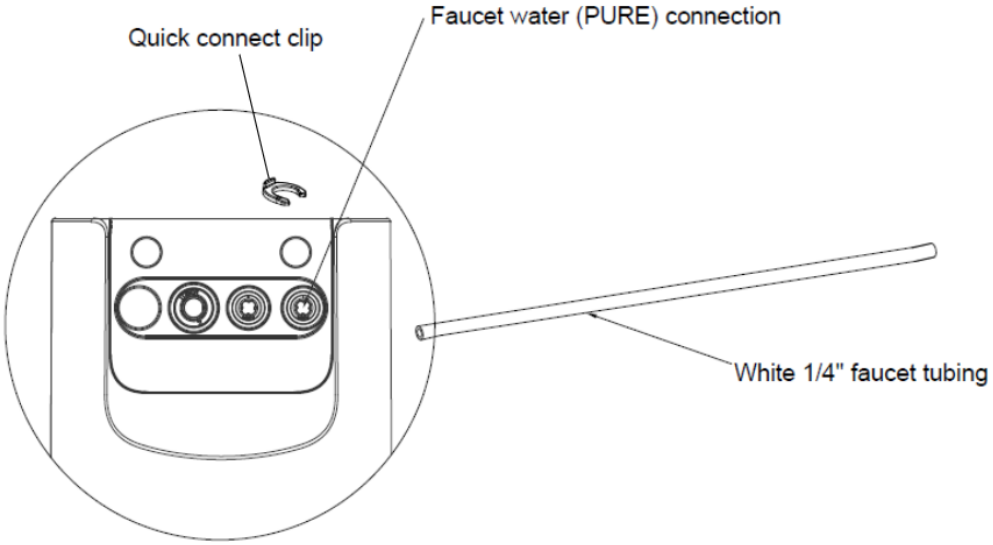
tube cutters. (If tube cutters are unavailable, the cut can be made with a utility knife as long as it is a clean 90° cut; jagged or angled cuts may cause water leakage.)

3. Insert the end of the white 3/8” tubing into the water inlet (IN) connection port on the RO system. Ensure the tubing is pushed in all the way to the mark, then insert the quick-connect lock piece.



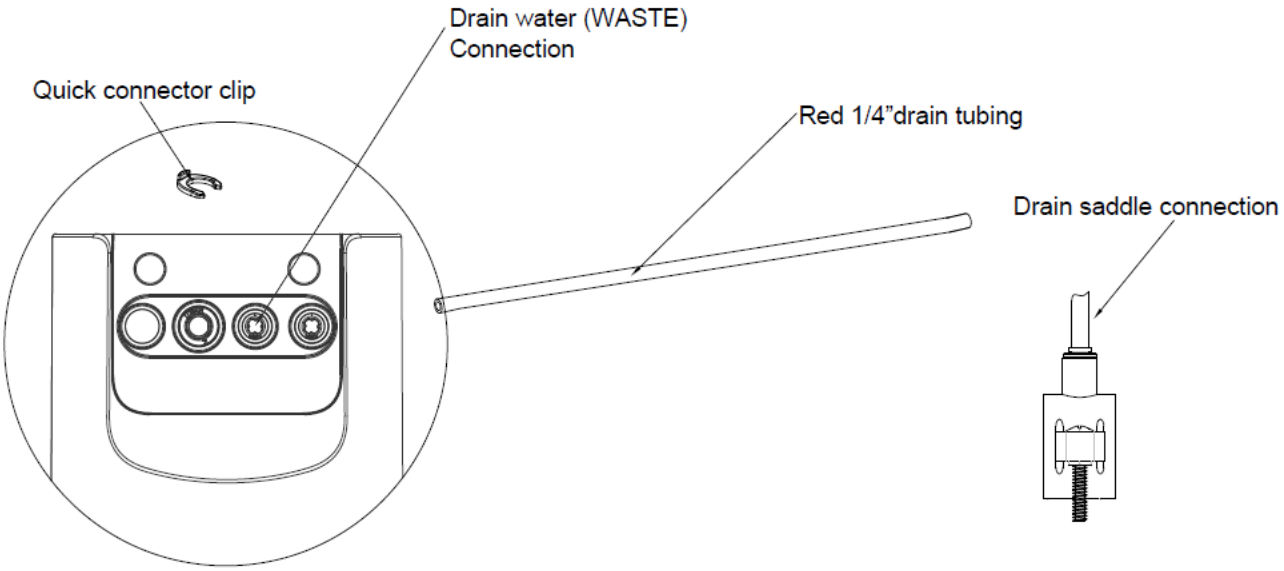
3.5.2 - INSTALLATION OF FAUCET WATER TUBING

4. If necessary, cut the excess length of the white 1/4” PE tubing connected with the faucet according to the actual distance between the faucet and the system with tube cutters.
5. Insert the end of the white 1/4" PE tube into the faucet water outlet (PURE) on the RO system. Ensure the tubing is pushed in all the way to the mark, then insert the quick-connect lock piece.

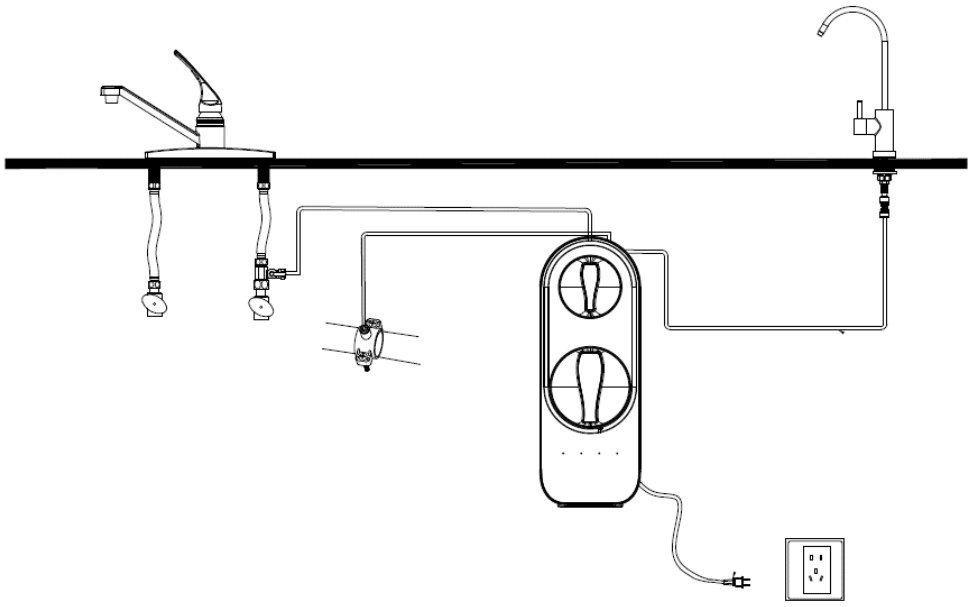


3.5.3 - INSTALLATION OF WASTE WATER TUBING

6. If necessary, cut the excess length of the red 1/4” PE tubing connected with the drain saddle according to the actual distance between the faucet and the system with tube cutters.
7. Insert the end of the red 1/4" PE tube into the waste water outlet (WASTE) on the RO system. Ensure the tubing is pushed in all the way to the mark, then insert the quick-connect lock piece.



3.5.4 FULL INSTALLATION DIAGRAM



4 – USER INSTRUCTIONS

4.1 - FIRST USE

1. Open the T-valve to supply water to the system and verify there are no leaks.
2. Attach the faucet signal cable and plug in the power cord, the buzzer will beep and the display lights will turn on. (Filter lights will flash blue, purple and red as the system performs a self-check.)
3. The RO system will automatically rinse itself for 5 minutes. (While rinsing the water dispensing indicator and the faucet LED will flash blue.)
4. After the 5 minute rinse open the faucet and dispense water for 30 minutes to continue to flush the system. (The water dispensing indicator and the faucet LED will continue to flash blue during the 30 minute rinse.)

NOTE: When the faucet first dispenses water it will be discolored. This is because the RO membrane is packaged in a food grade glycerin. It is not recommended to drink this water, but it can be used for cleaning if desired.

5. If you close the faucet during the first rinse process it will continue until the system has rinsed for an accumulated 30 minutes.
6. Check the system periodically during the 30 minute rinse process and verify that there are no water leaks at any of the water line connections.
7. Once the 30 minute rinse process has completed the installation is complete and the system is ready for use.

4.2 - REPLACEMENT FILTERS

4.2.1 - FILTER LIFESPAN

- Make sure to replace the filters according to the filter cartridge life indicator. Actual service life of each filter cartridge will depend on local water quality and daily usage.
- If local water quality is significantly lower than average it is possible for a filter cartridge to become blocked before the filter replacement indicator turns red. Replace a blocked or failed filter regardless of the filter replacement indicator light and check incoming water quality for excess sediment or debris.
- Only use authorized filter cartridge replacements.

  1st Stage: RO-2F-600-F

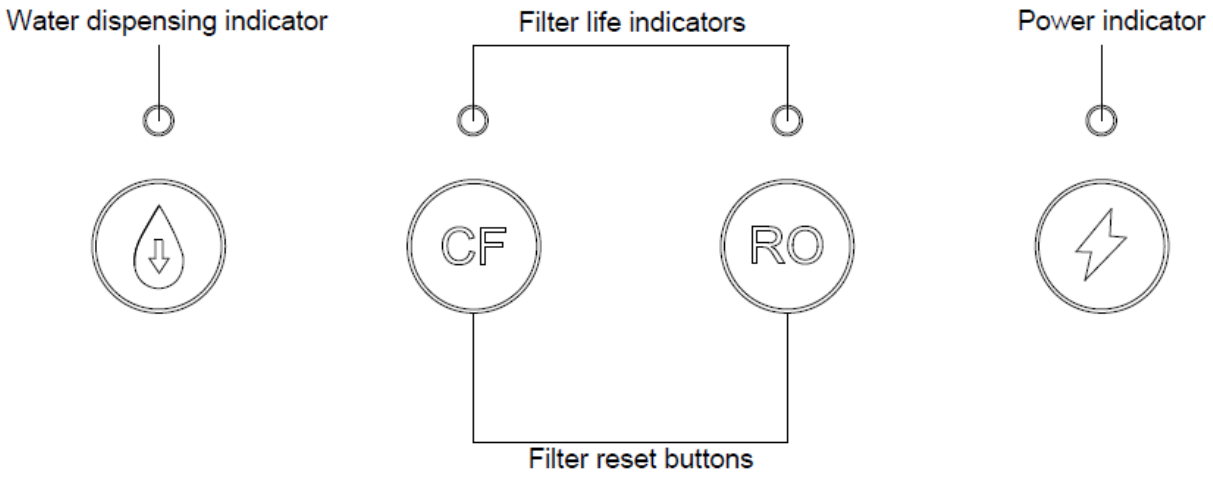
  2nd Stage: RO-2F-600-M

4.2.2 - INSTALLING REPLACEMENT FILTERS

1. Ensure the drinking water faucet is turned off and the system is in standby mode before replacing a filter.
2. Remove the filter cartridge that needs to be replaced by twisting it a quarter turn counter-clockwise, then pull it out of the filter housing.
3. Slide the new filter cartridge into place and secure it by twisting a quarter turn clockwise to lock it in place.
4. After replacing the filter press and hold the filter life indicator of the corresponding filter for 5 seconds until the system beeps to reset filter life indicator, then flush the system accordingly. (Note: Both filter cartridges cannot be reset at the same time.)
5. After the 1st stage CF filter is successfully reset, turn on the RO faucet for 5 minutes to flush the new filter. (While flushing the faucet LED will flash blue.)
6. After the 2nd stage RO membrane is successfully reset, turn on the RO faucet for 30 minutes to flush the new membrane. (The faucet LED will flash blue during the 30 minute flush.)

NOTE: When water is first dispensed after replacing the RO membrane the water will be discolored. This is because the RO membrane is packaged in a food grade glycerin. It is not recommended to drink this water, but it can be used for cleaning if desired.

4.3 - DISPLAY AND OPERATION



4.3.1 - Water dispensing indicator:

- Flashing Blue: Ongoing rinse / flush.
- Solid Blue: Dispensing water.
- No light: Standby mode.

4.3.2 - Power Indicator

- Blue light: Power on.
- No light: Power off.

4.3.3 - Filter Life Indicator

- Blue light: Filter life is normal.
- Purple light: Filter will need replacement soon.
- Red light: Filter life has expired and needs to be replaced.

Note: The Faucet LED will also change color when a filter needs to be replaced.

Filter Life	Remaining service time (days)	Remaining treatment capacity (gallons)	Reminder	
			Indicator light	Buzzer
Normal	>30	>80	blue	No warning
Warning	>0 & ≤30	>0≤80	purple	When filter life indicator turns purple, the buzzer will beep twice when dispensing water.
Alarm	≤0	≤0	red	Beeps when dispensing water.

4.4 - FRESH CUP SELF CLEANING LOGIC

In order to prevent TDS creep that commonly affects high volume RO systems the RO-2F-600 automatically flushes to ensure your first cup is fresh every time you get a glass.

- The RO system will perform a self-cleaning flush for 60 seconds 5 minutes after the system stops dispensing water.
- If the system continues to not dispense water for 12 hours another 60 second flush is performed.
- The self-cleaning flush timer is reset every time the system dispenses water.
- If the system has not dispensed water for more than 24 hours allow the system to run for 60 seconds before use to avoid TDS creep.

5 - TROUBLESHOOTING

5.1 - Pump time-out protection fault

- If the system runs continuously for 30 minutes, a pump time-out reminder will sound. (The LED faucet will flash red and the system will beep every second for 3 minutes.)
- If the system continues running and exceeds 33 minutes a time-out protection will be implemented and the system will stop dispensing water.
- The filter indicator lights and faucet will begin flashing red and the system will need to be powered off and restarted to exit the time-out protection.

5.2 - Pump short-cycle protection fault

- If the system pump is repeatedly switched on and off again rapidly within a short period of time a short-cycle protection is implemented. The filter indicator lights will flash purple and the system will beep 5 times.
- The system will need to be powered off and restarted to exit the pump short-cycle protection.

5.3 - Water leakage protection fault

- When water leakage is detected by the system for 3 seconds, a water leakage fault alarm will be executed. The filter indicator lights and the faucet LED will flash red and the system will beep for 3 minutes.
- Once the water leak is addressed and the system is dried, it automatically returns to its normal state.

Malfunction/Fault	Verification	Solution
Leakage	1. Check if any PE tubing is broken. 2. Check all quick connect fittings to ensure the PE tubing is fully inserted. 3. Check that all PE tubing has clean 90° cuts and no jagged or angled ends.	1. Replace the PE tube. 2. Re-insert the PE tube. 3. Re-cut the PE tube.
	Check that the filter cartridges are installed properly.	Re-install the filter cartridge.
	Check if the T-valve is installed properly.	Re-install the T-valve.
No display on the control panel	Check if the power supply is well connected	Plug in the power supply.
	Check if the connected outlet has power	Use alternative outlet, or repair existing outlet.
Machine stops automatically	Check if the failure is caused by the pump time-out protection. (Filter life indicators will be flashing red.)	Restart the system.
	Check if the failure is caused by the pump short-cycle protection. (Filter life indicators will be flashing purple.)	Check if the faucet is close completely and there is no system leakage. Then restart the system.

5.4 - Customer Support

Our customer support team is available Monday - Friday, 8 am - 5pm central time. If you require any assistance or have questions about your system, we are happy to help! Scan our QR code, visit DiscountFilterstore.com, or contact us for more information.

- Phone:….**1-800-277-3458**
- Email:…..**Support@Discountfilterstore.com**