

REVERSE OSMOSIS

Replacing Filters & Sanitizing the System

Each year the filters in the system should be replaced. Usually the membrane can be replaced every 2-6 years (check TDS level to determine need per below), but the prefilters and post-filter should be changed annually, and in some cases, when high levels of sediment or iron are present, more often.

Yearly Filter Replacement

Note: Only unhook one tubing line at a time and remove one housing/filter at a time. Do not disconnect any lines to any other components of the unit.

1. Turn off valve on RO bladder tank.
2. Turn off feed water valve to the unit (on side by first (sediment) filter.
3. Open RO faucet to relieve the pressure and wait until the storage tank is empty and faucet is no longer running water, then turn off the faucet.
4. Using the supplied housing wrench or similar tool, remove the filter housing making sure to remove the top and bottom rubber filter seals.
5. Discard old filters.
6. Clean filter housings with a cleaning brush or sponge and a solution with a cap full of household bleach and a small amount of water (every 2-3 years, follow "Sanitizing the System" section.)

8. One at a time, remove wrappers on applicable filters and place in appropriate housings, making sure to put the correct filter in its corresponding housing. Note that if the filters are not in the right order, the unit will not perform as intended.

Note: Post Carbon filter may not have a wrapper.

9. Lubricate O-Rings inside housing.
10. Carefully align the top and bottom of the filter core in the housing so that it fits snugly.
CAUTION: FILTER ALIGNMENT IS CRUCIAL FOR LEAK PREVENTION AND FILTER PERFORMANCE. IF FILTER DOES NOT ALIGN PROPERLY, LEAK AND RESULTING FLOODING IS POSSIBLE.
11. Screw housing(s) back in place until hand tight and then a 1/2 turn.
12. Remove and replace Post Carbon filter utilizing the quick connect fittings (see instructions.) Take note of tubing positions to filter. Position the filter with the arrows running in the direction of the flow marked on the filter. Note that the outlet side of this filter will connect to the tubing that goes to the faucet.
13. Open the faucet.
14. Slowly turn on feed water to unit. Allowing water to fill system and purge air from the unit. A small stream of water should come out of the faucet in a few minutes.
15. Slowly open tank valve.

15. Allow water in tank to flush out post filter and run to drain until empty.

Membrane Replacement

**Check TDS level to determine need for replacement (if less than 70% replacement is recommended):
Check RO faucet TDS level and then main faucet. TDS level.**

Compare the two by dividing the smaller number by the larger and subtracting from 1.00 to arrive at a percentage.

1. Turn off feed water to the unit.
2. Disconnect the supply tube. to the membrane, which is the end of the housing containing a single tube.
DO NOT remove the tubes on the other end.
2. Unthread the cap from the membrane housing.
3. Remove membrane using a pair of pliers.

4. Clean membrane housing with a brush or sponge, using a solution containing a capful of bleach and a small amount of water.
5. When installing a new membrane be sure to push the membrane into the housing as far as it will go with the appropriate side in first. Note: This is not marked, put the double O-ring side in first to fit snugly into groove in module.
6. A new membrane typically has a preservative that should be purged. Drain down storage tank by opening the faucet until water stops flowing.
7. Turn on feed water to the unit and allow storage tank to refill. Repeat emptying the storage tank 2 cycles before drinking the water.

Sanitizing the System

Every 2-3 years it is recommended that the entire system be sanitized (unless slime is noticeable prior to that.)

1. Remove all filters and membrane from the system, empty tank, and open faucet.
2. Add 1 teaspoon of household bleach to each housing and add water until about ½ full.
3. Reinstall filter housings (without filters and membrane) filled with solution.
4. Connect membrane housing and feed tube.
5. Slowly open tank valve and feed pressure valve.
6. Allow water to fill the RO housing assembly until water comes out of faucet.
7. Close the faucet immediately to preserve the entire volume of solution (if too much water comes out of the faucet there may not be enough sanitized water left to disinfect the storage tank).
8. Allow system to fill up for 5 minutes.
9. Shut-off feed water to unit.
10. Allow solution to stand for 30 minutes.
11. Open faucet and allow system to drain.
12. Remove any remaining water from housings before installing new filters and membrane.
13. Install new filters, tighten housings, and reconnect all tubing connections.
14. Slowly open feed water supply and check for leaks.
15. Allow the system to make a full tank of water.
16. Run 2 cycles to drain to rinse out sanitizing solution before using water.

REPRESSURIZING the STORAGE TANK

Adding air to the tank should be done every 2-3 years to maintain performance of the unit, particularly if output flow from faucet has decreased even with new filters installed.

1. Turn off the water feed to the reverse osmosis unit.
2. Drain tank completely by opening the faucet and letting it run until water stops flowing. At this point the tank should be empty. If not, it will be heavy, and will have to be further drained (proceed to the next step.)
3. Turn faucet to on position and unscrew protective cap and insert air compressor or similar air injection device. With the faucet open, any additional water in the tank will flow from the faucet while air is added.
4. Measure the air pressure inside the tank and add as needed to achieve 8-10 psi when the tank is completely empty.
5. Replace the protective cap on storage tank.
6. Close faucet and turn water feed on to the storage tank.
7. Turn on main water feed to the reverse osmosis unit.
8. After about ½ hour, open the faucet to check flow and volume.

Note: Reverse osmosis systems are dependent on inlet pressure, temperature of the water, influent TDS load, as well as the size (gpd) of the membrane. Thus, each unit output will vary based on these factors.