

SYSTEM MAINTENANCE

The system requires very little maintenance. Just change the filter cartridges regularly as suggested below. Keep the system indoors away from extreme heat or cold temperatures, and run the system within its reasonable output capacity (i.e. allow the system to rest at least a few hours a day).

*To properly maintain your APEC drinking water system,
please use only genuine APEC Water replacement filters at
www.FreeDrinkingWater.com/filters*

- Stages 1, 2, 3 Pre-Filters:** **Replace every 12 months.**
(FILTER-SET) (Private well water source: may need to replace pre-filters sooner than 12 months due to heavy sediments and other particles.)
- Stage-4 Membrane:** **City Water:** Replace every **3-5 years** depending on input water quality, water usage, and prefilter change maintenance
(MEM-90) use MEM-45 for pump models
- Private Well Water:** Replace every **2-3 years** depending on well water quality, and prefilter change maintenance.
- Stage-5 Carbon Filter:** **Replace every 3-5 years:** It's best to replace this filter when replacing the stage-4 membrane.
(5-TCR-QC)
- Filter Housing O-rings:** We recommend that the filter housings O ring be replaced every **3-5 years**.

Important! It is important to change the 3 pre-filters timely, at least every 12 months. The pre-filters protect the stage-4 membrane. If they are not changed timely and become over-depleted, the membrane will be damaged and the RO system will be contaminated.

It's best to use APEC replacement filters. Using "non APEC" and lesser quality filters may clog up the RO system and damage the membrane.

We recommend that the plastic filter housings be replaced periodically: every 5 years for the clear housing and opaque housing.

FILTER CHANGE INSTRUCTIONS

How To Replace Stages 1, 2, 3 Pre-Filters:

- 1) Turn OFF cold water supply to RO system. Turn OFF tank's ball-valve. Lift up RO faucet lever briefly to relief the built-up pressure inside the RO system. This will make opening the housings easier.

- 2) Open housing: Have the RO standing upright. Slip the plastic wrench onto the #1 housing. Looking down from a top view, you should open the housing turning **clockwise**. If necessary, lay RO down on the floor to get a better leverage. If the housing is too tight, use a hammer and tap on the wrench handle to help turn the wrench.
- 3) Discard 3 used filters, wash housings with mild soap, rinse off. Put 3 new filters into their respective housings: sediment filter in stage-1, carbon block filters in stages 2 & 3.
- 4) Close up the housings. Make sure each housing has a **black O-ring** in the thread grooves. Use wrench to tighten each housing.
- 5) **Remember: Turn ON the cold water supply and OPEN the tank valve after finished changing filters!**
- 6) **Check for leaks!**

After taking the housing off, take out the dirty filters and put the new 3 pre-filters in. Remember, Stage 2 and Stage 3 are the same carbon filters.

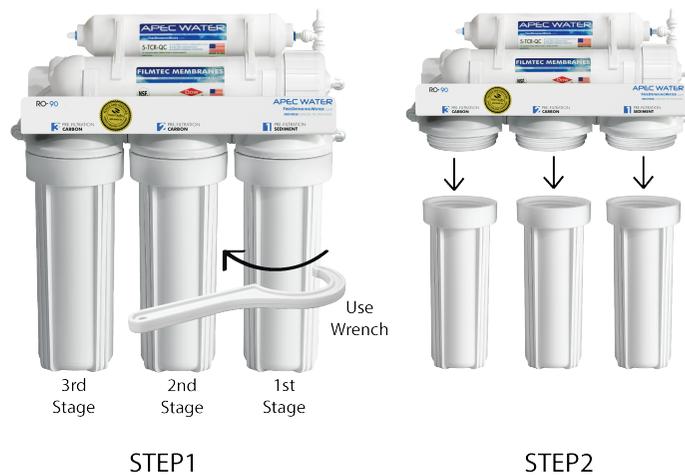


Fig. 14

How to Replace Stage-4 Membrane:

- 1) Turn OFF the cold water supply to RO system. Turn OFF tank's ball-valve. Lift up RO faucet lever briefly to relief the built-up pressure inside the RO system. This will make opening the housings easier.
- 2) See **Fig. 14A**. Locate the Membrane housing on the system (labeled "Membrane"). Remove the White tubing from the housing's cap at **point D**. Do so by Pushing In and Holding Down on the collet ring into the elbow fitting, then pulling out the tubing at the same time. (Do not remove the L-shaped fitting). Open up the cap (turn counter-clockwise). Remove the used membrane. Discard. Insert the new membrane using a pair of pliers. Push membrane into housing tightly. Avoid touching the Membrane with your hands to prevent contamination!
- 3) Important! Make sure the "double-ring" end of the membrane goes into the housing first as shown in **Fig. 14B** below. The membrane cannot filter water if it's inserted in the **WRONG** direction!
- 4) Close the housing cap. Reconnect the White tubing to the cap. **Turn on** the cold water supply and **open** the tank valve. Let the RO system run to re-fill the tank (takes about 2-3 hours).

- 5) Check for leaks!
- 6) **Drain the first tank of water (through faucet) to flush out the new membrane!** The 2nd tank of water is ready for use.



How to Replace Stage-5 Carbon Filter:

Replace this last filter at the same time you replace the stage-4 membrane.

- 1) Remove the OLD filter: See **Fig. 14 A**. Disconnect the output tubing from **point H**. Remove the T-fitting from filter's Left hand port. (**point J**). Discard the used filter.
- 2) The new Stage 5 carbon will come with two end plugs on the stage 5 filter that has to be removed before inserting the tubing. Please refer to **Fig. 1A** on **page 4** for removal instruction.
- 3) Use some mild bleach solution to rinse the Tee-Fitting and Tubing end. This is to prevent contamination.
- 4) Connect the Tee-Fitting to **point J** and pure water output tubing to **point H**. Make sure the "FLOW →" on the filter is pointing to the pure water **output direction**. Only this filter change needs bleach sanitizing. **Do Not** apply chlorine/ bleach in anyway to Membrane for it will damage the membrane!
- 5) **Check for leaks!**

*** End Filter Change Section ***