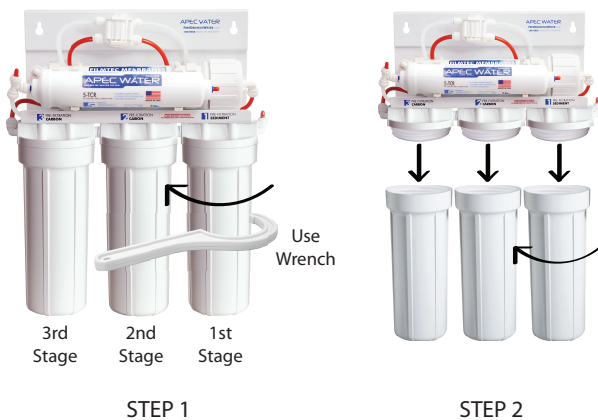


# APEC R.O. System Filter Change Instruction

## Changing Stages 1, 2, 3 Pre-Filters: (should be changed at least every 12 months)

- 1) Turn OFF cold water supply to RO system. Turn OFF the tank 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 groves. 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.

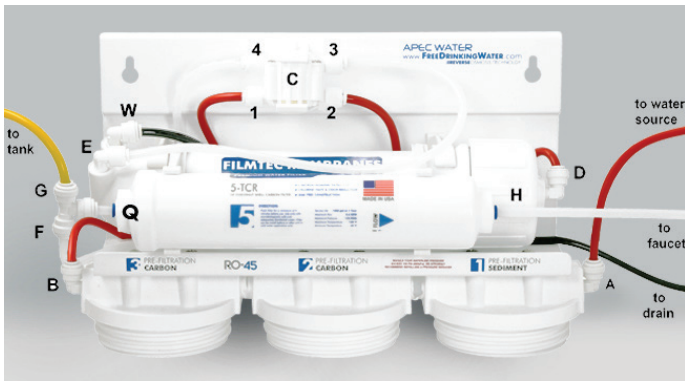


**Fig.A**

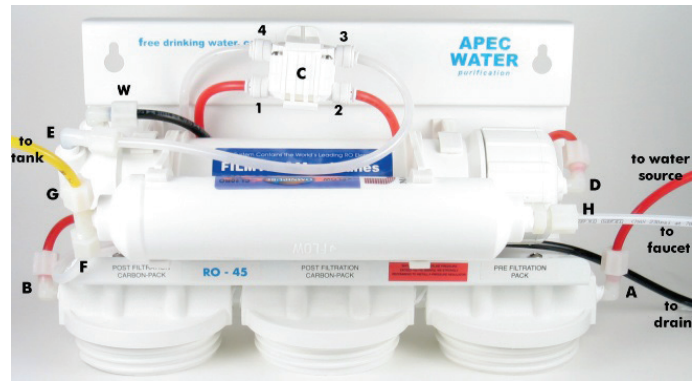
## Changing Stage-4 Membrane: (should be changed every 3-5 years)

- 1) Turn OFF the cold water supply to RO system. Turn OFF the tank 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. B1**. Locate the Membrane housing on the system (labeled "Membrane"). Remove the RED tubing from the housing's cap at **point D**. For Quick Connect fitting, push In and hold down on the collet ring square against the fitting. With the collet held in this position the tube can be removed. For threaded fitting, unscrew the plastic nut (not the L-shape fitting) and pull out tubing. 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. A**. above. The membrane cannot filter water if it's inserted in the WRONG direction!
- 4) Close the housing cap. Reconnect the RED 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 two tanks of water (through faucet) to flush out the new membrane!** The 3rd tank of water is ready for use.

## Changing Stage-5 Carbon TCR Filter: (should be changed every 3-4 years with Membrane)



**Fig. B1**  
Post Oct 1st 2012



**Fig. B2**  
Pre Oct 1st 2012

### **Post Oct 1st 2012 Systems:** (With Quick Connect Fitting)

- 1) Remove the OLD filter: See **Fig. B1**. Disconnect the Input tubing from **point Q** and Output tubing from **point H**. To remove the tubing, Push In and hold down on the collet ring square against the fitting. With the collet held in this position the tube can be removed. Unclip the filter from the membrane housing and discard the used filter.
- 2) Install NEW Filter: The QC filter will come with 2 end plugs. Please remove both end plugs before reattaching tubing. Put the filter back onto the membrane housing. Make sure the "FLOW →" on the filter is pointing to the pure water **output direction**.

Sanitize: Use some mild bleach solution to rinse the 2 tubing ends, and the 2 ports of the new filter. This is to prevent contamination.

- 3) Connect the Tee fitting on the **Inlet (Q)** of the filter. Push the tubing into the QC fitting on the filter, then gently pull back on make sure connection was secure. Lastly connect pure water output line to **Outlet (H)** on filter.
- 4) **Check for leaks!**

### **Pre Oct 1st 2012 Systems:** (With Compression Nut Fitting)

**Note:** We have upgraded the Stage 5 filter to the Quick Connect (QC) type. Before replacing the 5th stage filter, please make sure a Quick Connect Tee Fitting is available

- 1) The plastic insert and Nut on the old filter is **no longer needed**. See **Fig B2**. Please cut the tubing at Point **G, F** and **H**. Simply cut the tubing off, leaving the compression nut fitting on the filter.
- 2) Remove the OLD Filter: Unclip the filter from the membrane housing and discard the used filter.
- 3) Install NEW Filter: The new QC filter will come with 2 end plugs. Please remove both end plugs before reconnecting tubing. Put the filter back onto the membrane housing. Make sure the "FLOW →" on the filter is pointing to the pure water **output direction**.

Sanitize: Use some mild bleach solution to rinse the 2 tubing ends, and the 2 ports of the new filter. This is to prevent contamination.

- 4) Tubing Connection: A Tee Fitting must be used with the new filter. See **Fig. B1**. Connect the Tee fitting to the **Inlet (Q)** of the filter. Push the tubing into the QC fitting, then gently pull back on the tubing to make sure connection was secure. Connect Point **G** and **F** to the TEE fitting. Lastly connect pure water output line to **Outlet (H)** on filter.
- 5) **Check for leaks!**