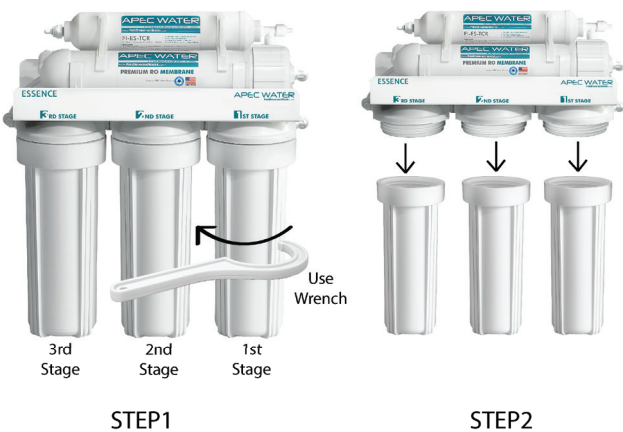


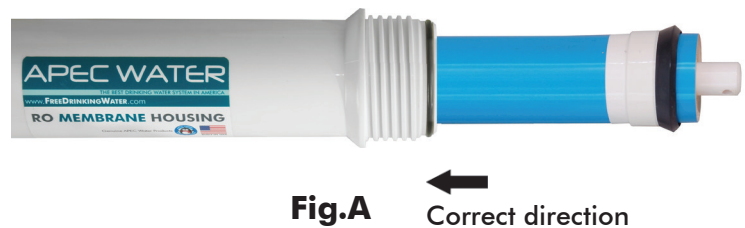
# APEC ESSENCE R.O. System Filter Change Instruction

## Changing Stages-1, 2, 3 Pre-Filters: (should be changed at least every 6-12 months)

- 1) Turn OFF cold water supply to RO system by turning the needle valve stem to the right until it stops. Turn OFF the tank ball valve by turning the blue handle 90 degrees. Turn on RO faucet lever briefly to relieve 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 gently 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!**



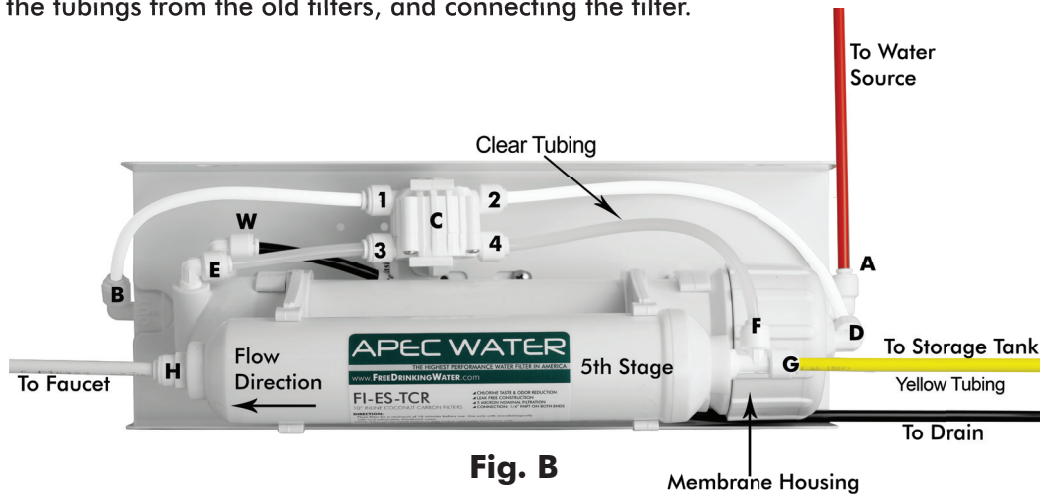
After Taking the housings off, take out the dirty filters and put the new 3 pre-filters in. Remember, Stage-2 and Stage-3 are the same carbon filters.



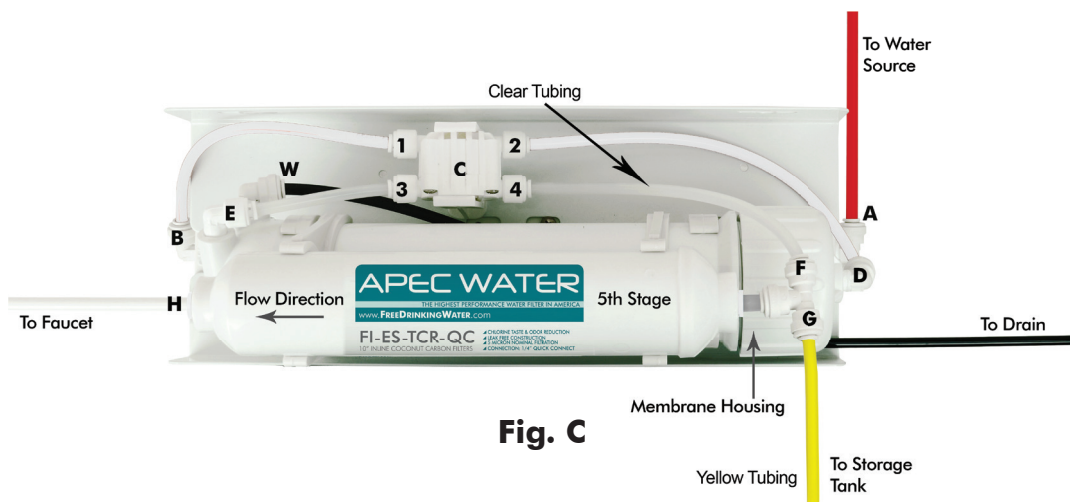
## Changing Stage-4 Membrane: (should be changed every 2-3 years)

- 1) Turn OFF the cold water supply to RO system. Turn OFF the tank ball-valve. Turn on RO faucet lever briefly to relieve the built-up pressure inside the RO system. This will make opening the housings easier.
- 2) See **Fig. B**. Locate the Membrane housing on the system (labeled "Membrane"). Remove the RED or WHITE 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 or 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 tanks of water (through faucet) to flush out the new membrane!** The 2nd tank of water is ready for use.

**Changing Stage-5 Carbon TCR Filter:** (should be changed with the membrane every 3-5 years). The new stage-5 carbon filter (FI-ES-TCR-QC) includes a new Tee Fitting on one end. The stage-5 filter is easily replaced by disconnecting the tubings from the old filters, and connecting the filter.



**Fig. B**



**Fig. C**

- 1) Remove the OLD filter: See **Fig. B**. Disconnect the output tubing from **point H** and tubings at **point G & F**. 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.
- 2) Unclip the old filter from the membrane housing and discard the used filter.
- 3) Sanitize: Use some mild bleach solution to rinse the 2 plastic ports of the Tee fitting and the open port of the new filter. This is to prevent contamination.

**NOTE:** Only this filter change needs bleach sanitizing. **Do Not** apply chlorine/ bleach in any way to Membrane for it will damage the membrane!

- 4) Connect New Filter: See **Fig. C**. Attach the new filter onto the clips. Make sure the "FLOW →" arrow on the filter is pointing towards the pure water output direction. Reconnect the tank yellow tubing and clear tubing from **C4** back to **point G & F** on the Tee fitting. Then, connect the output tubing to **point H**.

**NOTE:** The QC fittings come with an **End Plug that needs to be removed** before the tubing can be connected. See **Fig. D**.

- 5) **Check for leaks!**



**Fig. D**