LAKOTA SCIENTIFIC
HOME WATER FILTRATION
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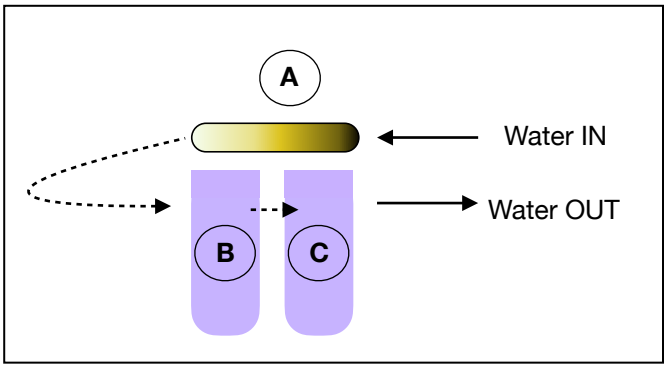
Instructions for Under Counter Filter Replacement

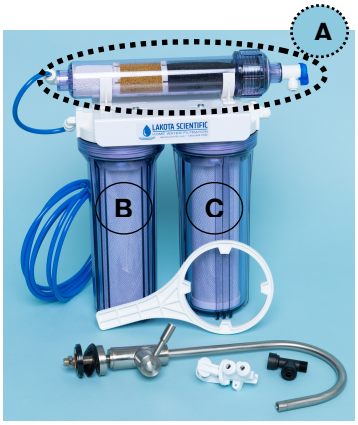
1. Before Getting Started

- Call us anytime with questions! We are here to help: 1.800.945.5782.
- Does your unit have a **Leak Protector** installed? In the unusual event that a fitting or housing fails, the Leak Protector will automatically shut off the water supply to your unit. Older units may not have this installed, but it is recommended for your protection. Please see instructions below for installation.

2. General Information

- Water goes through the inline filter first (**A**). The inline filter is comprised of several different filter and media types housed in one unit. The inline filter is changed every 2 years.





- Next, water flows through two carbon blocks in a series (**B** and **C**). Both filters are replaced and rotated every six months.

3. How to Change the Inline Filter (A)

- Turn off the water supply at the cold water shut off valve under the sink.
- Open the faucet to release pressure.
- Turn off the ball valve on the inlet of the inline filter (circled in photo).

- Disconnect the blue tubing from the inline filter (circled in photo) at the Quick Connect Fitting.
- Disconnect the blue tubing at the Quick Connect Fitting at the outlet

side of the inline filter (circled in photo).

- Unclip the used inline filter and discard.
- Clip in the new inline filter. The flow arrow should point to the left.
- Connect the blue tubing into the Quick Connect Fitting on the left side of the inline filter. See Quick Connect Fittings at the bottom of the instruction sheet, if needed.
- Connect the blue tubing into the Quick Connect Fitting on the right side (ball valve side) of the inline filter.

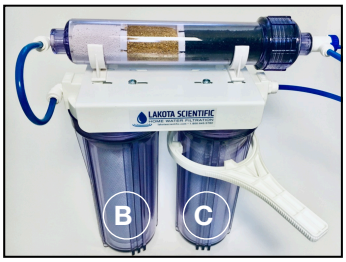
Connect blue tubing here first.

Connect blue tubing here second.

Before changing the Carbon Block Filters (B and C), read through steps 4 and 5 to determine which best suits your needs. Follow either step 4 or step 5.

4. How to Change Carbon Block Filters (B and C)

- Slowly unscrew housing B and C using the plastic wrench provided.
- Set O-rings aside. They will be re-used.



Black O-ring inside top of housings

- Pull out carbon filters and discard.
- Place new carbon filters into the housing.
- Be sure the O-rings are in place, and screw housings back on. **Missing or improperly placed O-rings may cause leaking.**
- Once the filters have been replaced, re-connect blue tubing at the ball valve and the outlet of housing C (circled in photo).

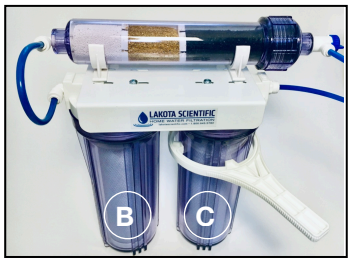
NOTE There may be times when it is easier to remove the unit from underneath the kitchen cabinet to change the filters.

- Disconnect blue tubing from the Quick Connect Fittings located by the ball valve and the outlet of housing C. Follow the "How to use Quick Connect Fittings" at the bottom of the instruction sheet.
- Place the under counter unit in a dishpan on the floor.
- Follow the instructions above for replacing Inline and Carbon Filters.

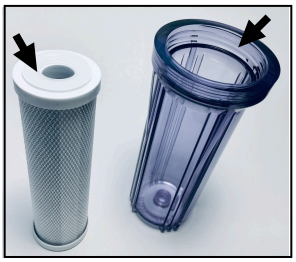
5. How to Rotate/Change Carbon Block Filters (B and C) for low water use households

Typically, "low water use" households are 3 or fewer adults in areas that do not have high contamination levels. In cases of extreme water quality issues and/or very high levels of water consumption, this rotation schedule is not sufficient.

- Slowly unscrew housing C using the plastic wrench provided. Set the black rubber O-Ring at the top of the housing aside. It will be re-used.

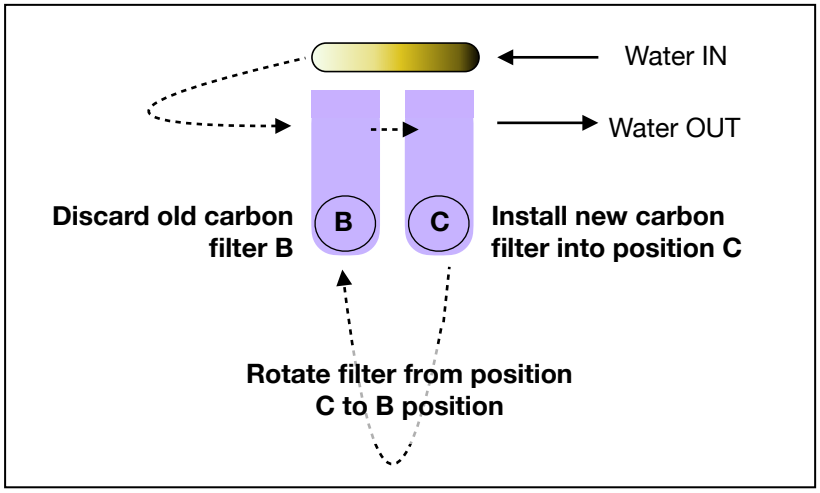


Clear/white gasket on carbon filter



O ring

- Once it is disconnected, pull out carbon filter C, **including the gasket,** and set aside. Filter C will be re-used.
- Slowly unscrew housing B. Set the O-Ring aside. It will be re-used.
- Once housing B is disconnected, pull out filter B and discard.
- Place a new carbon filter in housing C. Make sure the Gasket and O-rings are in place, and screw housing C back on. **Missing or improperly placed gaskets may cause leaking.**
- Place the carbon filter that was set aside from housing C into housing B. Make sure the Gasket and O-ring are in place. **Missing or improperly placed gaskets will cause leaking.** Screw housing B back on.



- Carbon block filters have now been rotated and replaced.
- Re-connect blue tubing at the ball valve and the outlet of housing C (circled in photo).

NOTE There may be times when it is easier to remove the unit from underneath the kitchen cabinet to change the filters.

- Disconnect blue tubing from the Quick Connect Fittings located by the ball valve and the outlet of housing C. Follow the "How to use Quick Connect Fittings" at the bottom of the instruction sheet.
- Place the under counter unit in a dishpan on the floor.
- Follow the instructions above for replacing Inline and Carbon Filters.

6. Starting Up the Under Counter Unit

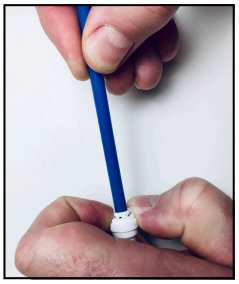
- Open the cold water shut of valve that is part of the existing plumbing.
- Open the ball valve to the unit.
- Turn on the faucet.
- **Watch carefully for any leaking from the new facet all the way back to the cold water supply valve.**
  - If any leaks are detected, turn off the water at the faucet and the cold water supply valve and tighten the connections from where it is leaking. Please review the quick connect fittings to ensure they were properly installed. Turn water back on at the cold water supply and push the handle up on the faucet and check for leaks again. If leaking continues, turn off the water at the faucet and cold water supply valve and call us to help troubleshoot issues at 1-800-945-5782.
  - If no leaks are detected, continue with the instructions.
- Keep the flow rate between 0.50 and 0.75 gallons per minute (GPM) by adjusting the ball valve on the unit.
  Calculating flow rate:
  1. Flow rate= ounces/seconds X 0.47
  2. Use a measuring cup that measures in ounces. Time how long, in seconds, it takes to fill it up to 16 ounces.
  3. For example, if it took 10 seconds to fill the cup to 16 ounces, the equation would look like this: 16 ounces/10 seconds X 0.47 = 0.75.
  4. If GPM is not between 0.50 and 0.75, adjust the ball valve and re-test.
- Once the GPM has be set to the appropriate range, let the water run through the unit for five minutes. Often times the water will have a black color and some particulates coming out of the faucet as the water is flushing out the unit. This is normal and will stop after five minutes of running the water.

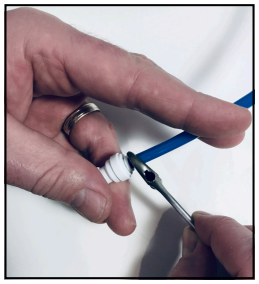
How to use Quick Connect Fittings

Connect
To ensure a proper connection using quick connect fittings, push the blue tubing into the quick connect fitting until you feel resistance and the tube “stops”. Once you hit the “stop”, push the blue tubing into the quick connect fitting another 1/4” to secure the tubing into the quick connect fitting. Tug on it to be sure it’s secure. ***NOTE* If the connection is not secure, leaking will occur.**

Disconnect
To disconnect the tubing from the fitting, you must push back on the little white plastic ring toward the fitting body while at the same time pulling on the tubing. You may have to work the tubing back and forth while pushing on the ring.

To push on the plastic ring, use two finger tips. Alternatively, it may be easier to use a small wrench or a 1/4” open ended wrench to push on the ring. The goal is to push back on the plastic ring while tugging on the tubing in the opposite direction to release the tubing.





How to Install a Leak Protector

- Fasten the Leak Protector to the bottom of the cabinet close to the water filter.
- Take the 5’ piece of blue tubing from the cold water supply quick connect fitting and run it to the leak protector. Do not connect the blue tubing yet.
- Leave some slack in the blue tubing from the quick connect fitting to the leak protector.
- Cut the blue tubing and insert it into in “IN” port on the leak protector.
- Save the left-over blue tubing. It will be used later to connect the leak protector to the ball valve when installing the inline filter.