

RO Buddie® Installation & Maintenance Guide



OVERVIEW

The RO Buddie uses replaceable Sediment, Carbon and RO Membrane cartridges. The Sediment and Carbon cartridges are self-contained pre-filters that remove particulate matter and some compounds found in the water supply, including chlorine.

The RO Membrane is located in the center canister, separating the water into a more purified water and a concentrated waste water.

PARTS LIST

- Micron Cartridge
- Carbon Cartridge
- RO Unit Housing with Mounting Brackets and Screws
- Canister Cap Wrench
- Faucet Adapter
- 1/4" Tubing
- Reverse Osmosis Membrane
- Installation & Maintenance Guide



WARNING:

Please read carefully before proceeding with installation. Failure to follow these instructions or operating parameters may lead to the product's failure and possible property damage.

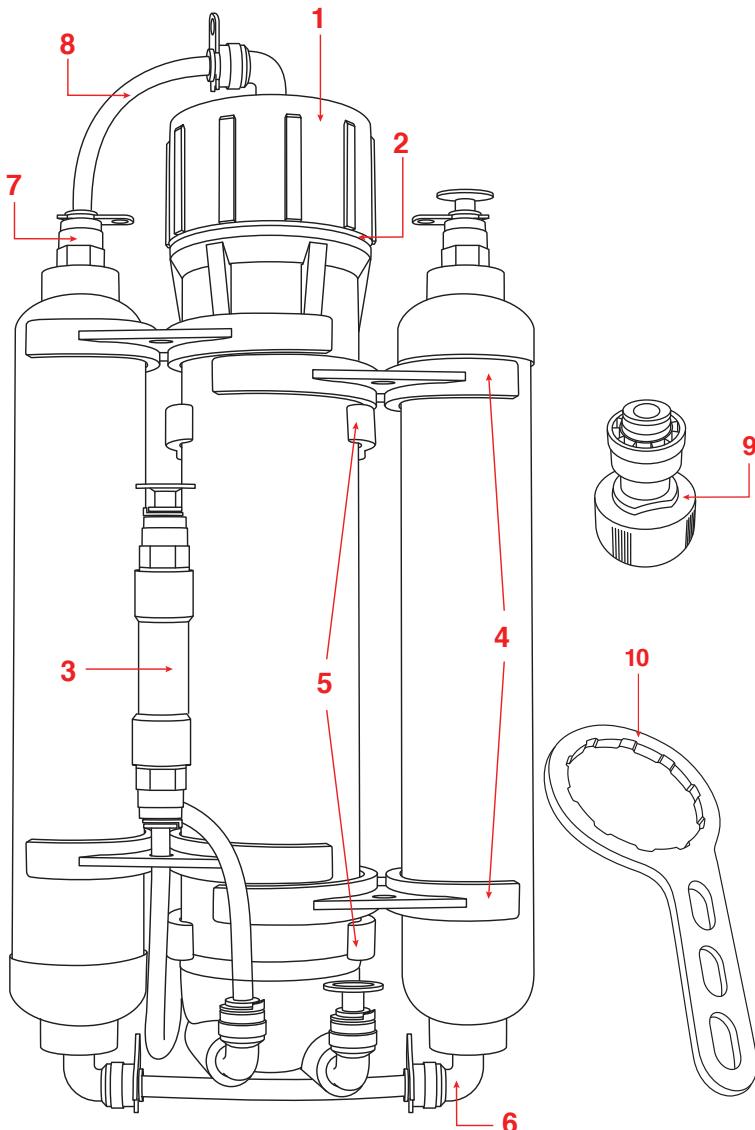


TIP FOR AQUARIUM OWNERS:

Using the RO Buddie to top off evaporation or for makeup water will significantly reduce the amount of impurities going into your aquarium. Reduction of impurities in your water should greatly increase your success.



Visit www.AquaticLife.com
for helpful videos.

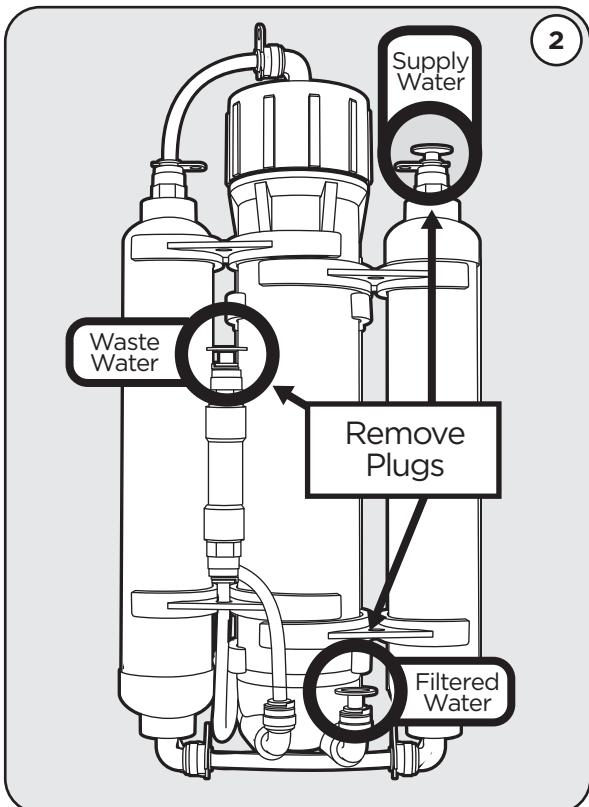
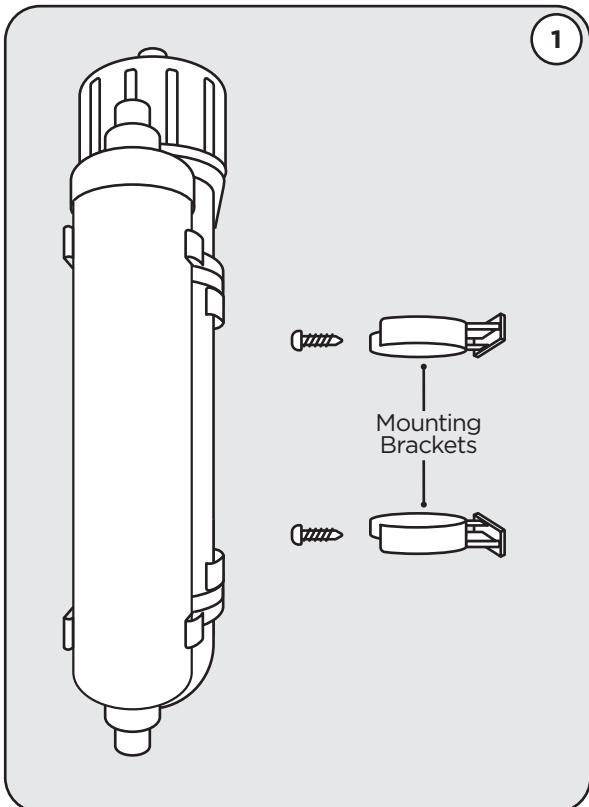


REPLACEMENT PARTS

DIAGRAM NUMBER	ITEM NUMBER	PART DESCRIPTION
1	9000345	Cap Membrane
2	9000474	Gasket - Cap Membrane
3	9000703	Flow Restrictor
4	9000705	Bracket - Membrane to Cartridge (2 PK)
5	9000706	Bracket - Wall Mount (2 PK)
6	500255	Fitting Press Fit Elbow w/ Clip (6 PK)
7	500258	Fitting Press Fit Straight w/ Clip (7 PK)
8	500297	Tubing Blue 1/4 IN. (50 FT.)
9	500259	Faucet Adapter (2 PK)
10	9000352	Wrench - Membrane Cap

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INSTALLATION

The RO Buddie uses replaceable Sediment, Carbon and RO Membrane cartridges. The Sediment and the Carbon Cartridges are self-contained. The RO Membrane is located in the center canister and will need to be installed.

1. Mount the RO Buddie to a solid surface using the two brackets included. A set of screws have been included, but depending on the mounting surface different screws may be required.
2. Remove the shipping plugs from the supply water, filtered water and waste water connectors.



IMPORTANT:

Review the section titled **How to Use the Buddie Fit™ Press Fittings (pg. 4)** before continuing installation.

3. Connect the Faucet Adapter to a cold water supply such as a standard threaded utility sink or garden hose. Remove the blue clip from the Faucet Adapter and insert the supplied 1/4" tubing. Replace the blue clip to secure the tubing. Cut the tubing so that it will reach the supply water connector on the RO Buddie (labeled).



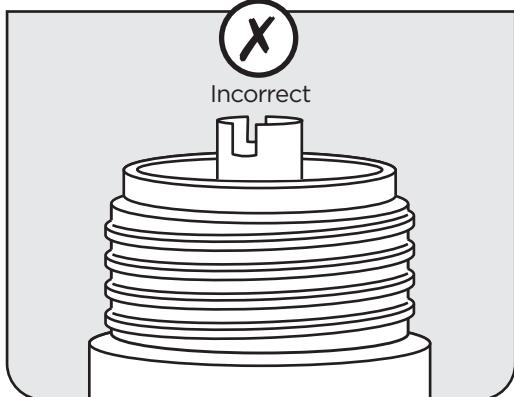
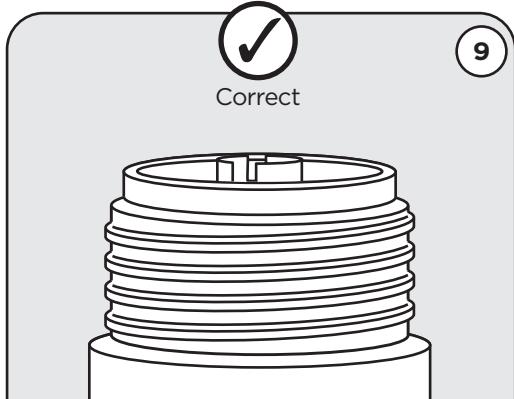
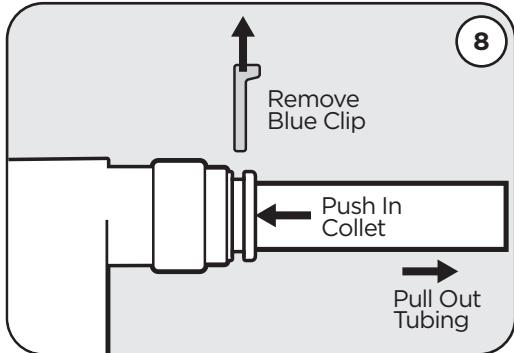
NOTE: We recommend cutting the tubing with a razor blade or something similar so the tubing is not pinched. If the tubing is pinched, it will not seal properly.

All tubing connections will have a "double push" into the Connectors. You should feel a two-step insert to verify the tubing is inserted completely into the connectors.

4. Connect the tubing to the supply water connection on the RO Buddie. Remove the blue clip, insert the tubing and reattach the blue clip. Water supply is now setup.
5. Remove the blue clips from the Filtered Water connector (labeled) and the Waste Water connector (labeled). Insert a piece of the tubing to the Filtered Water connector and cut the tubing to the desired length. Insert a piece of the tubing to the Waste Water connector and cut the tubing so that it reaches the drain. Replace the blue clips on the connectors.

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- With both filtered water and waste water lines in the drain, turn on the water supply. This will flush the filter cartridges prior to installing the membrane and extend the membrane life. Flush for 5 minutes until the water is clear coming from the filtered water line and the waste water line.
- After the water runs clear, turn off the water supply and allow the RO Buddie to drain.
- Remove the tubing attached to the elbow fitting on top of the RO membrane, remove the blue clip, depress the collet around the tubing and remove the tubing.
- Unscrew the membrane housing lid from the membrane housing. Remove the membrane from the plastic bag and insert the membrane into the membrane housing. The membrane should be inserted so that the top of the plastic pipe in the membrane is flush with the top of the membrane housing.
- Replace the membrane housing lid and tighten with the supplied wrench. Reattach the tubing and replace the blue clip to secure the tubing to the elbow connection on the membrane housing.
- Run the RO Buddie for 30 minutes to remove the preservative from the membrane.



NOTE: If you are using a DI resin filter cartridge, install it after flushing the membrane. This will prevent exhaustion of the resin during the membrane flushing.

Reverse Osmosis technology alone cannot eliminate unusually high concentrations of individual components. Examples include high levels of silica and nitrate. To remove residual dissolved solids from the reverse osmosis water, an additional deionization filter can be utilized.

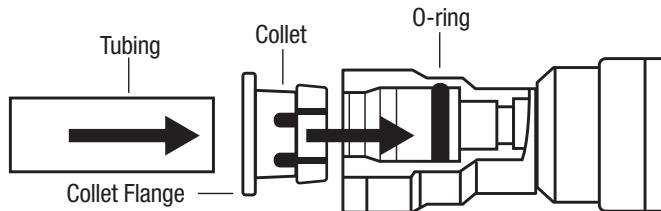
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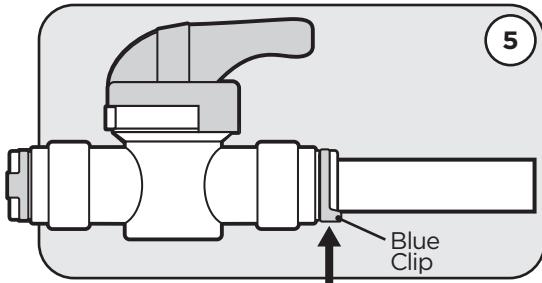
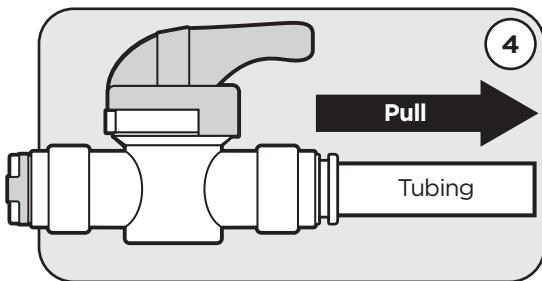
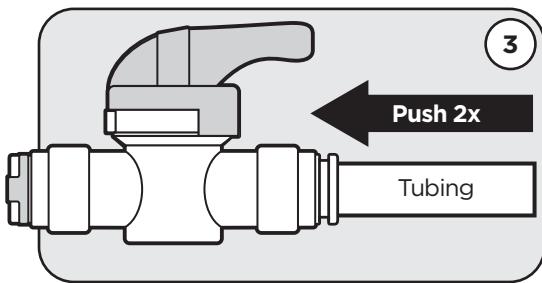
How to Use the Buddie Fit™ Press Fittings

Making the connections with the $\frac{1}{4}$ " tubing is easy with the Buddie Fit™ press fittings included.

To properly connect the $\frac{1}{4}$ " tubing to the press fittings, follow these simple steps:



1. Remove the blue clip from the press fitting.
2. Make sure the end of the tubing is cut evenly and not at an angle.
3. Push the tubing into the fitting. You will hit the first stop. The tubing is still not secured properly. Push the tubing a second time and you will feel the tubing insert completely into the press fitting.
4. Pull back on the tubing to ensure it is secure.
5. Insert the locking blue clip back onto the end of the press fitting.



NOTE: To remove a piece of tubing, remove the blue clip and press down on the collet where the tubing enters the fitting. While the collet is depressed, remove the tubing from the fitting.

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RO BUDDIE FILTER BASICS – CARTRIDGE REPLACEMENTS

The membrane does the majority of the work by removing up to 95% of the TDS from your water. The other two included filters protect the membrane from the many malicious elements that shorten its life. The sediment cartridge removes suspended particles larger than 1 micron (15 times smaller than a mold spore). The carbon block removes chlorine. Timely replacement of the cartridges will increase the membrane's life.

The carbon cartridge is the most important cartridge to change frequently. The carbon cartridge can filter about 1500 gallons of water before being replaced **IF** your chlorine level is 1 ppm. With a 2 ppm you should get 750 gallons of filtered water before needing to change, with a 3 ppm you should get 500 gallons, and so on. Any chlorine not absorbed by a spent carbon cartridge will break down your membrane, thus greatly shortening its life.

The 1500 gallon threshold is **TOTAL** water that passes through the unit. The RO Buddie has an average rejection ratio of 1:4.5. That means for every 1 gallon of good water produced you will reject 4.5 gallons for a total of 5.5 gallons of water passed through the system. At 1 ppm of chlorine, you can make about 360 gallons of good water before changing the carbon cartridge, 2 ppm you can make about 180 gallons, 3 ppm you can make about 120 gallons, and so on.

When the sediment cartridge needs to be changed, the production of water will reduce. Even with reduced water production, the cartridge will not allow anything larger than one micron to pass through the chamber. On average the sediment cartridge should be changed at every other carbon change.

With proper filter changes, the membrane could last up to two years. That is if there is not anything in the water that can get past both the sediment and the carbon cartridges. Remember, water quality is the main X factor in the longevity of the cartridges.

The membrane's water production rating is based on 77 deg F water at 60 PSI. Any deviation from this will affect the water production. Reference the conversion table at right. You will notice that the warmer the water, the better the production. It is not advised that you introduce water from your water heater in an effort to increase water temperature. The membrane cannot handle temps over 100 deg F and most water heaters have sediments in their reservoirs that can damage the filters or membrane.

The optional color changing mixed bed resin DI Cartridge will absorb the remaining TDS not filtered by the membrane. By adding a DI Cartridge to the RO Buddie, you can produce zero TDS water. When mixed bed resin is dry, it is a blue green color. When it gets wet it will change a dark blue color. When the medium is spent it will change to a light brownish tan color.

TROUBLESHOOTING

- Leaks at the threaded connection:** If once installed the system should leak, use plumbers tape on the threaded fitting. Typically, no more than three wraps will be required to seal the connection.
- Leaks at the tubing connections:** The fittings on the RO Buddie use an O-ring inside of them. This will require the tubing to be inserted past the O-ring. You will want to make sure that when inserting the tubing you feel the initial stop when the tubing first meets the O-ring and a second stop when you push past the O-ring and meet the end inside the fitting. This is what we call the "double push". Also, make sure to cut the tubing with a razor or similar object so that the tubing is not pinched and causes the tubing to not seal properly.
- No water production:** Make sure the water supply is turned OFF. Remove the tubing from the elbow on top of the membrane housing, direct the tubing into a container and turn on the water. Does the water flow quickly through the cartridges? If not, the cartridges likely need to be changed.
- Low filtered water production:** The RO membrane is rated to produce the stated volume of water based on 60 PSI and a 77° F water supply. If you have one or both of the specifications out of tolerance use the Temperature and Pressure correction factors above.

Temperature Correction		Pressure Correction	
Temperature F/C	Correction Factor	Pressure PSI	Correction
50/10	0.58	10	0.17
60/16	0.73	20	0.33
70/21	0.87	30	0.5
77/25	1.00	40	0.67
80/27	1.06	50	0.83
90/32	1.23	60	1
100/38	1.45	70	1.17
		80	1.33

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USE & CARE

- Use care not to over tighten the threaded connections – in particular the elbow connections.
- The RO Buddie should only be connected to a cold water supply. The optimal water temperature is 77°F. Using other water temperatures will diminish the effectiveness of the filtration and can accelerate degradation of the membrane.
- **DO NOT** leave the RO Buddie unattended during use.

RO BUDDIE STORAGE

If the RO Buddie will not be active for more than two weeks, we recommend you remove the membrane and store it in the refrigerator in a sealed bag with a small amount of purified water. This will preserve the membrane for longer periods of time.

Additional Purchase Considerations	
Item #	Description
330249	Sediment Cartridge
330250	Carbon Cartridge
330084	50 GPD Membrane
330093	100 GPD Membrane
500297	50 FT. Blue Tubing
500298	50 FT. Red Tubing
500299	50 FT. Yellow Tubing
500300	Float Valve Kit 1/4 IN.
330242	DI Color Changing Mixed Bed Resin Cartridge (21CU.IN.)
330283	KDF 85/Catalytic GAC Cartridge – Chloramine filtration

WARRANTY

Lifetime Products LLC warrants that this Filtration Unit (excluding cartridges) shall be free from defective components and leaks or cracks due to defects in materials or workmanship for a period of one (1) year from the date of purchase. If a defect is shown, Lifetime Products LLC will, at Lifetime Product's sole discretion, either repair or replace the product without charge. No cash refunds will be made. This warranty is provided solely to the original consumer purchaser of the product and may not be transferred or assigned. If Lifetime Products chooses to replace the equipment, Lifetime Products may replace it with reconditioned equipment. Parts used in repairing or replacing the equipment will be warranted for 90 days from the date the equipment is returned to you or the remainder of the original warranty period, whichever is longer.

This warranty does not apply to damage resulting from accident, misuse, abuse, lack of reasonable care, failure to follow safety and installation instructions.

This warranty will be void if defects occur due to failure to observe the following conditions:

- The RO Buddie should only be connected to a potable municipal or well cold water supply.
- Incoming water to the RO cannot exceed 100°F.
- Incoming water pressure must be between 40 and 80 PSI.
- Incoming water pH must not be lower than 2 or higher than 11.
- Incoming water iron content must be less than 0.2 ppm.
- Incoming water hardness must not exceed 10 grains per gallon or 170 ppm.

This warranty will not be effective unless and until the Aquatic Life product is shown to have been used in accordance with the installation and maintenance instructions accompanying the product.

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LIFETIME PRODUCTS IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY. LIFETIME PRODUCTS, LLC EXPRESSLY DISCLAIMS ALL ALLEGED DAMAGES FOR LOSS OF MARINE LIFE, PERSONAL INJURY, AND/OR PROPERTY DAMAGE.

Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages or exclusions or limitations on the duration of implied warranties or conditions, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary by state or province.

Lifetime Products, LLC shall not have any obligations under this warranty unless the owner notifies Lifetime Products, LLC in writing of any alleged defect(s) within 30 days of discovery of the defect(s).

Any notice to Lifetime Products, LLC must be delivered by United States or electronic mail to the following address: U.S. Mail: Lifetime Products, LLC, 9710 Klingerman St., S. El Monte, CA 91733 or electronic mail: customersupport@aquaticlife.com. Lifetime Products shall be allowed a reasonable period of time to investigate any warranty claim and to perform any testing Lifetime Products deems necessary to determine the cause of the defect. This warranty shall be interpreted under the laws of the State of California.