

**Model: 540371**  
Twist-In 100 GPD 4-Stage RO/DI Unit  
**Installation, Operation & Maintenance Guide**



**WARNING:** Please read carefully before proceeding with installation. Your failure to follow any attached instructions and operating parameters may lead to the product's failure.



# IMPORTANT!

Please do not return this product to place of purchase

For technical assistance or warranty issues, please contact AquaticLife at

**1-888-548-3480 or 1-818-768-6943**  
or email

**customersupport@aquaticlife.com**

*Thank You!*

**Thank you for purchasing an Aquatic Life Twist-In (TI) Reverse Osmosis & Deionization Water Unit. When maintained properly, this unit will provide you with years of high quality filtered water.**

## OVERVIEW

Reverse Osmosis is the process of removing contaminants from tap water using a special semi-permeable membrane. By applying water pressure across the membrane, contaminants are concentrated on one side of the membrane and filtered water on the other side of the membrane. This is why Reverse Osmosis units have a waste water line as well as a filtered line.

In addition to the membrane, water is filtered prior to the membrane with a sediment cartridge to remove larger particulates, and a carbon block to remove chlorine and other materials.

After water is filtered by the membrane, it passes through a color-changing resin cartridge where additional Total Dissolved Solids (TDS) are removed from the water.

The cartridges and membrane on your unit are designed for easy installation and replacement. Each cartridge connects to the filter housing by simply inserting and twisting. It is important the cartridges be installed in the correct order to effectively filter the water.



### **S** STAGE 1 - SEDIMENT FILTER

Recommended change 6 months

The first stage of your RO/DI unit is a five micron Sediment Filter that traps sediment and other particulate matter like dirt, silt and rust which will affect the taste and appearance of your water.

### **C** STAGE 2 - CARBON BLOCK FILTER

Recommended change 6 months

The second stage of your RO/DI unit is a Carbon Block Filter. The activated carbon in the filter reduces chlorine and conditions the water prior to the RO Membrane.

### **RO** STAGE 3 - RO MEMBRANE

Recommended change 2 Years

The RO Membrane reduces impurities known as Total Dissolved Solids (TDS) from the water down to 1/10,000 of a micron, reducing arsenic, lead, parasitic cysts, copper and more. Because the process of filtering the high quality water takes time, it is common to use a storage tank to collect filtered water, making it available on demand.

### **DI** STAGE 4 - COLOR CHANGING RESIN (DEIONIZATION)

Replace filter when resin changes color

After the water is filtered by the membrane, there is usually a small amount of Total Dissolved Solids (TDS) left in the water. In certain non-drinking water applications, it is important to remove the remaining TDS from the water. This is accomplished by filtering the water through a resin that is charged with Cation and Anion resins (H<sup>+</sup> and OH<sup>-</sup>). As the resin absorbs the TDS, it will change color. When all resin has changed color, it is time to replace the DI filter.

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**Contents (Model #540371)**

1	TI Module (four heads on metal bracket with screws)	1	Drain Saddle
1	TI Sediment Filter Cartridge	1	Red Tubing, ¼" x 4 FT.
1	TI Carbon Block Cartridge	1	Blue Tubing, ¼" x 4 FT.
1	TI RO 100 GPD Membrane Cartridge	1	Yellow Tubing, ¼" x 4 FT.
1	TI Color-changing Deionization Cartridge	1	Installation, Operation and Maintenance Guide
1	Hose Bib Connection (fits standard garden hose)	2	Flush Cartridges
1	Under Sink Water Line Adapter w/Valve (1/2" Female x 1/2" Male x 1/4" Press Fit)		



**Tools & Materials Recommended for Installation**

1 ¼" Adjustable Wrench	¼" Drill Bit (for metal and plastic)
7/16" Open End Wrench	Masking Tape & Pencil
Phillips Screwdriver	Flashlight
Electric Drill	

**OPERATING GUIDELINES**

**DO NOT** use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the unit.

**The maximum incoming water pressure for the unit is 80 PSI.**

If the pressure is more than 80 PSI, a pressure regulator is required. If the water pressure is less than 40 PSI, a booster pump is needed.

**Water hardness should not exceed 10 grains per gallon or 170 parts per million.**

Operating above this may shorten the membrane life.

**Reverse Osmosis filtered water should not be run through a copper tube.**

The pure RO water can leach copper from the pipe, eventually leading to holes in the pipe.

**DO NOT** operate the unit unattended.



**NOTE:** Filter Cartridges and Membrane life may vary based on local water conditions and amount of use.

## WATER SUPPLY INSTALLATION

This Aquatic Life TI Filter Unit includes two options for easy connection to a water supply.

**Option 1:** Connect to a standard water faucet (often found on the exterior of houses or utility sinks) with the Hose Bib Connection.



**Option 2:** Connect to the water supply line. The under-sink Water Line Adapter connects to the sink water supply and provides a way to connect the 1/4" tubing. Hand tightening this adapter is usually sufficient. However, if needed, use a 1 1/4" adjustable wrench.





**DRAIN SADDLE INSTALLATION**

All Reverse Osmosis units will produce waste water. The waste water contains high concentrations of TDS, but would be acceptable to use on plants. Depending on your installation, you may want to save the waste water for other uses.

Another option is to connect the Reverse Osmosis waste line to the drain under a sink. We have included a Drain Saddle that will fit standard size sink drain pipes.



**CAUTION:** If installing with a garbage disposal the saddle must be above the disposal. If a second sink drain is available, install it above the cross bar on the second sink drain. Installation of the Drain Saddle below a disposal may cause the drain to plug.

**Step 1 -** Locate all pieces of the Drain Saddle

- 1 - Bracket with 1/4" press fit opening
- 1 - Bracket - solid
- 2 - Screws & Nuts
- 1 - Foam gasket



**Step 2 -** Remove the center punch and peel tape backing from the foam gasket. Apply the gasket to bracket.



**DRAIN SADDLE INSTALLATION (cont.)**

**Step 3 -** The Drain Saddle must be mounted at least 2" above the nut of the P-trap or cross bar from the garbage disposal to insure proper drainage. Locate where the Drain Saddle will be mounted and mark with a piece of masking tape and pencil.



**Step 4 -** Use a 1/4" drill bit to make a hole in the drain pipe where you marked it on the masking tape. Remove the masking tape and clear any plastic burs/shavings from around the new hole in the drain pipe.



**Step 5 -** Align the Drain Saddle with the drilled hole in the drain pipe. Attach the solid Semicircle Bracket to the Bracket with the 1/4" hole and loosely tighten the nuts by hand.

**Step 6 -** Using a flashlight, look into the hole in the Drain Saddle to ensure it is lined-up with the hole in the pipe. Once it is aligned, tighten the 2 screws and nuts using a Phillips screwdriver and open end wrench if needed.



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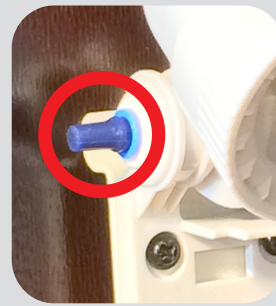
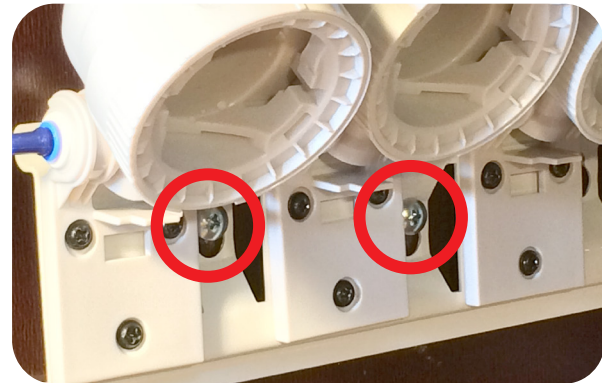
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#### MOUNTING THE REVERSE OSMOSIS / DEIONIZATION UNIT

The Aquatic Life TI RO/DI Unit is designed to be mounted to a secure surface. This will allow for the cartridges to easily be replaced as needed.

The TI Module includes a metal bracket with screw holes for easy hanging.

Use screws designed for the type of surface that the TI Module will hang on. Once the TI Module is hanging on the screws, tighten the screws to secure the TI Module to the surface.

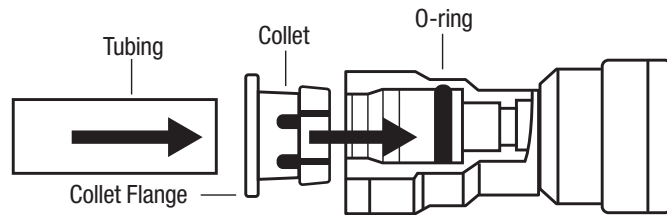


**NOTE:** If your model includes rubber plugs on any of the ports, it is now OK to remove the plug by simply pulling it out of the press fitting.

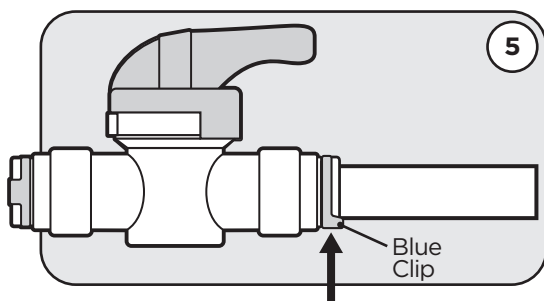
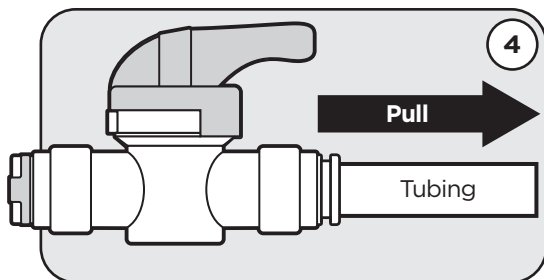
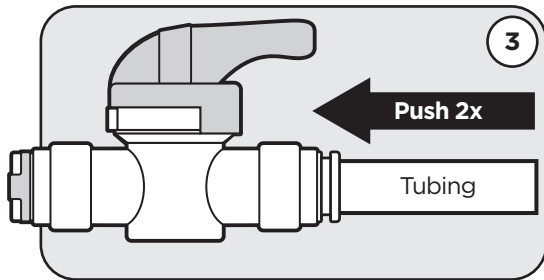
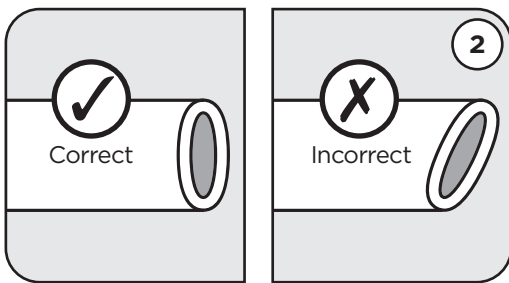
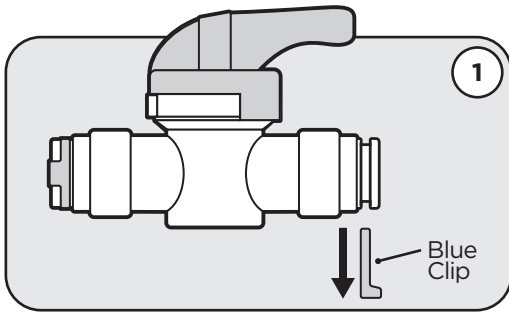
**HOW TO USE THE BUDDIE FIT™ PRESS FITTINGS**

Making the connections with the 1/4" tubing is easy with the Buddie Fit™ press fittings included.

To properly connect the 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.



**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.

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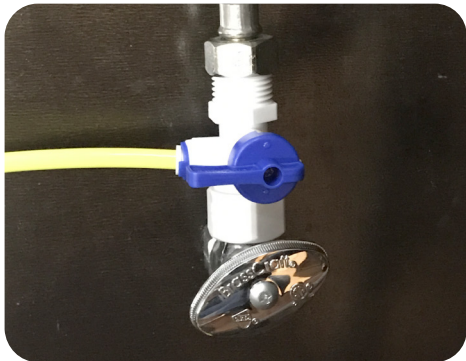


**INSTALL THE COLOR CODED TUBING**

The Aquatic Life TI Units include color coded tubing to help easily identify filtered, incoming and waste water. This also makes it easier to correctly connect the tubing to the unit.

Refer to the instructions on how to use Buddie Fit press fittings before installing the tubing (pg.5).

**Step 1** - Connect one end of the yellow tubing to the incoming water supply. This will be the Hose Bib or Under Sink Water Adapter.



**Step 2** - Connect the other end of the yellow tubing to the port on the TI Module closest to the Sediment Cartridge.



**Step 3** - Connect one end of the red tubing to the waste port on the TI module. The other end of the red tubing should be connected to the Saddle Drain or secured in a way to handle the waste water.



**Step 4** - Connect one end of the blue tubing to the filtered water port on the TI module. This is the port closest to the DI Cartridge. The other end of the blue line should be plumbed to the container that will collect your Reverse Osmosis/Resin filtered water.





## INSTALLING THE CARTRIDGES

Each TI Cartridge uses a triple gasket seal to prevent water leaks. The cartridges are easily installed into the TI Module Heads by inserting the cartridge into the head and twisting to the right.

The TI Module Heads are equipped with a valve that automatically turns off the water supply to each filter cartridge when you remove the cartridge. To make the removal of the filter cartridges easier, the heads and cartridges can be tilted up as shown below.

Install: Twist right



Remove: Twist left



**NOTE:** Return new cartridge to down position after installation.



**NOTE:** It is important to install the cartridges in the correct order. Match the cartridge label/color to the labels that are affixed to the TI Module Heads. Failure to do so will result in loss of filter performance and can shorten the lifespan of the filter.

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**PREPARING CARTRIDGES FOR USE**

 **IMPORTANT!**  
Flush Carbon & Membrane cartridges prior to use.

The Carbon cartridge may contain carbon dust that must be flushed out prior to installing the Membrane. **If it is not rinsed, the carbon dust can plug the Membrane and shorten its life.**

**The Membrane is packaged with a preservative that must be flushed prior to using the filtered water.**

A Flush cartridge has been included to allow for flushing of the Carbon cartridge.

**Step 1** - Install the Flush cartridge on the Membrane head. Run water through the Sediment and Carbon cartridges to flush the carbon. Continue to flush until the water exits clear.



**Step 2** - Remove the Flush cartridge and install the Membrane cartridge. Flush until about 30 gallons of filtered water has been produced. **Do not use this water** as it contains the Membrane preservative.



**Step 3** - Unit is ready for use.

## ADDITIONAL PURCHASE CONSIDERATIONS

Depending on your installation and application needs, you may find other Aquatic Life products helpful with this RO/DI Unit. Visit [www.aquaticlife.com](http://www.aquaticlife.com) for the complete line of Aquatic Life TI filtration products and accessories.



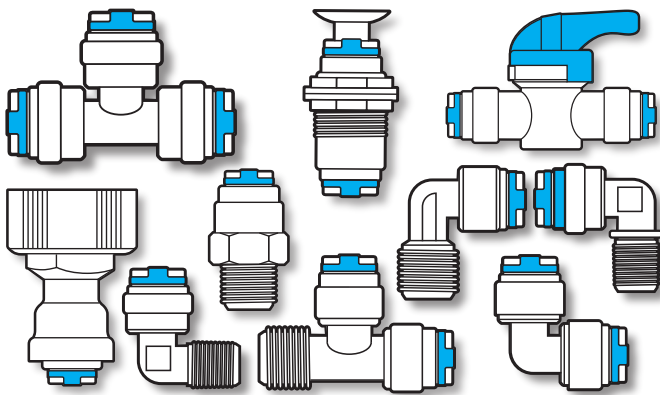
### **Aquatic Life Float Valve Kit (Item # 500300)**

Fill large tanks, containers, and aquariums automatically. If using this with a reverse osmosis or RO/DI unit, you will not need any other components, as this includes the necessary auto shut-off valve, check valve and tubing.



### **Aquatic Life TI Deionization Cartridge Value 4-Pack (Item # 330390)**

Always have a new color-changing resin cartridge on hand plus save money with the Value Pack. Each pack includes four cartridges, making it easy to stock-up for your filtration needs.



### **Aquatic Life Buddie Fit™ Press Fittings**

Easily plumb 1/4" water units with these press-fit connectors. Available in a variety of connections that include adapters to threaded fittings as well as elbows, tees and check valves.



### **Aquatic Life Tubing - 50 Ft rolls Blue (Item # 500297) Red (Item # 500298) Yellow (Item # 500299)**

Ideal for applications where a longer run of tubing is required. This 1/4" polyethylene tubing is durable, flexible and easy to plumb. Available in Blue, Yellow and Red for quick identification of supply, waste and filtered water.



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**UNIT MAINTENANCE**

**6-Month Maintenance**

TI Sediment Filter Cartridge (Item # 330377)  
TI Carbon Block Cartridge (Item # 330379)

**24-Month Maintenance**

TI RO 100 GPD Membrane Cartridge (Item # 330375)

**As Required - By Visible Color Change**

TI Deionization Color Changing Resin Cartridge  
(Item # 330380)



**MAINTENANCE REMINDERS**

The Aquatic Life TI Cartridges include a place where you can write the date of installation to make it easy to know when a cartridge needs to be replaced.



**NOTE:** The life span of the filter cartridges, including the membrane, are dependent on multiple factors. These include the quality of the incoming water supply (TDS levels, chlorine, etc.) as well as the amount of use. Our recommended replacement intervals are based on average usage.

**PRODUCT REGISTRATION**

Thank you for purchasing an Aquatic Life product - we know you'll enjoy it!

**BENEFITS OF REGISTRATION:**

**Confirmation of Ownership**

Provides a record in the event you need to contact us about your product in the future.

**Your Safety**

Allows us to contact you with important product notifications.

**Improved Product Support**

Helps us continue to tailor our products and services to meet your needs.

**Register Online at [www.aquaticlife.com](http://www.aquaticlife.com)**

Lifetime Products is committed to reducing our carbon footprint and we appreciate your time in registering electronically. If you do not have access to the Internet, you can call us at 888-548-3480.



### THREE YEAR LIMITED WARRANTY

Lifetime Products LLC warrants that this Reverse Osmosis / Deionization Unit (excluding cartridges and membrane) shall be free from defective components and leaks or cracks due to defects in materials or workmanship for a period of three (3) years 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 Aquatic Life TI Unit should only be connected to a potable municipal or potable well cold water supply.

Do not use with water that is of unknown quality without adequate disinfection before or after the unit.

- Incoming Total Dissolved Solids (TDS) not to exceed 1,800 ppm.
- 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.
- Do not use outdoors or in a location that is subjected to direct sunlight or freezing.

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.

THIS CONSTITUTES LIFETIME PRODUCTS ENTIRE WARRANTY AND LIFETIME PRODUCTS MAKES NO OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCT. LIFETIME PRODUCTS, LLC SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF LIFETIME PRODUCTS, LLC CANNOT LAWFULLY DISCLAIM IMPLIED WARRANTIES UNDER THIS LIMITED WARRANTY, ALL SUCH WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

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](mailto: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.

Lifetime Products, LLC  
9710 Klingerman St. | S. El Monte, CA 91733

**Toll Free: 888-548-3480 | Local: 818-768-6943**

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