

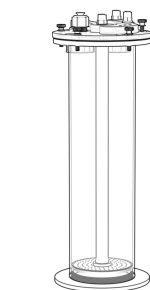


## Check Parts

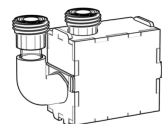
The Calcium Reactor should be partially assembled when you open the box.

For missing parts or support please contact AquaReady support at:

[getaquaready.com/support/](http://getaquaready.com/support/)



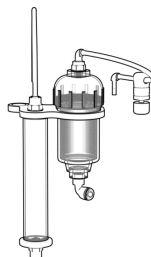
Main Reactor Body and Lid



Pump and Baffle Assembly



Hose (Inlet and Outlet)



Inlet Filter Assembly

## Additional Parts Needed

(Sold Separately)

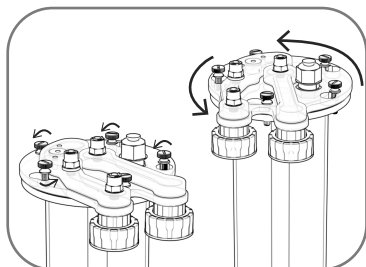
- Feeding Pump
- Calcium Reactor Media
- CO2 Cylinder
- CO2 Check Valve
- CO2 Regulator
- CO2 Tubing
- pH test kit, pH monitor or pH controller

## Recommendations

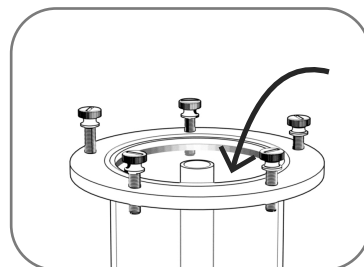
Take a moment to clean the reactor and plumbing before attaching to your tank. Only use warm water to clean, never clean acrylic with alcohol based products.

Choose a media that is coarse or extra coarse to reduce maintenance needs and that will dissolve at the recommended pH of 6.5-6.8.

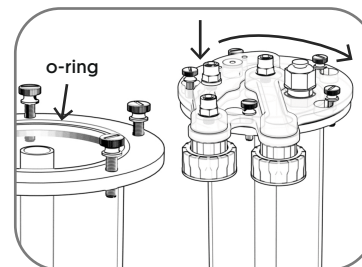
## Installation



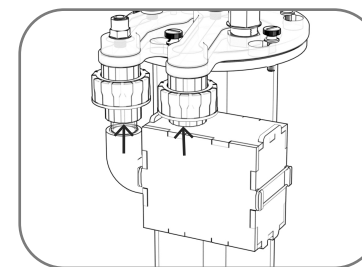
1. Loosen the thumb screws. Turn lid counter-clockwise to release.



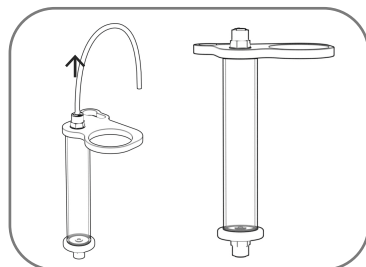
2. Fill in your media, watch out not to fill into the central tube. You can temporarily block the central tube while filling.



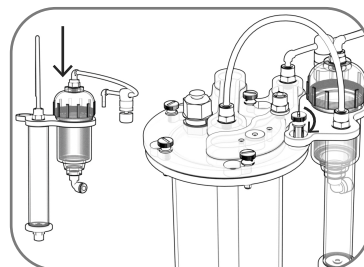
3. Once you finish filling, make sure the o-ring is in the groove, then place the lid, and screw back. [DO NOT OVER-TIGHTEN] Remember to leave one screw to install the inlet holder.



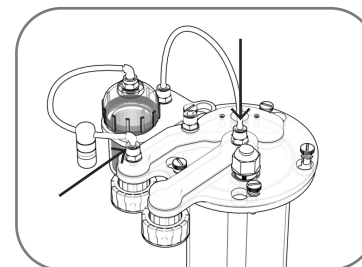
4. Install the pump baffle assembly.



5. Separate the bubble counter, and take off the air hose to fill in freshwater. Once it's 3/4 full, install the check valve to the bottom of bubble counter.



6. Reinstall the inlet filter, and install the holder onto the lid.

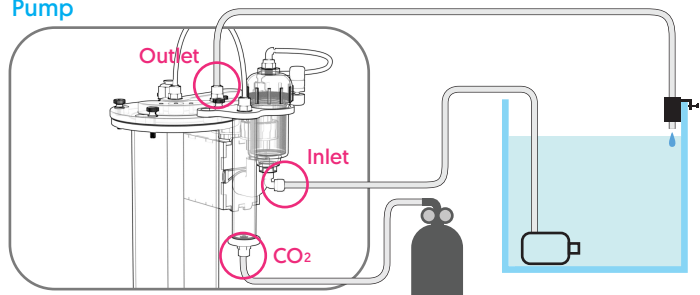


7. Connect the bubble counter to the central tube and the inlet to the pump.

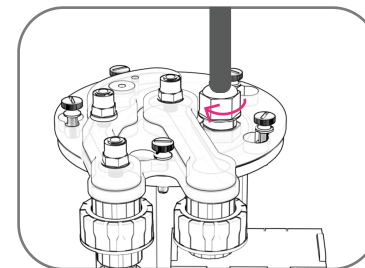
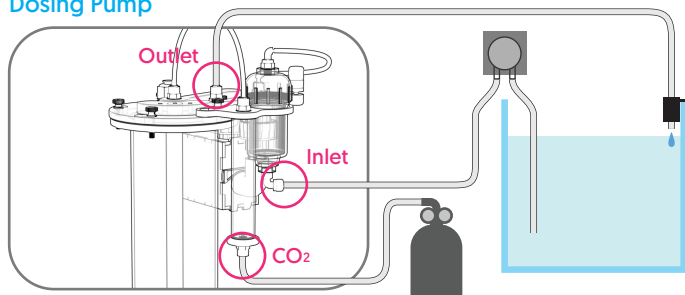


## Installation

### Pump



### Dosing Pump

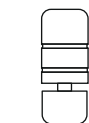


8. Cut a suitable length of the included white tubing for the inlet and outlet. Connect the feeding pump to the inlet, and CO<sub>2</sub> regulator to the reactor.

9. Take off the lid of pH probe holder to install the pH test probe

## Operation

1. Open the flow control valve, make sure the CO<sub>2</sub> regulator is not open yet. Turn on the feeding pump



Control Valve Open



Control Valve Closed

2. Turn on the Calcium Reactor pump on for 20-30 minutes or until the water inside the chamber runs clear. Take this opportunity to check for leaks.

3. Adjust the flow control valve until the drip rate is approximately 2 drips per second.

4. With the needle valve on the CO<sub>2</sub> regulator opened slightly, slowly open the main valve on the CO<sub>2</sub> tank.

5. Slowly adjust the needle valve while keeping an eye on the bubble counter. Adjust CO<sub>2</sub> injection rate to 1 bubble every 2 seconds.

6. Once the reactor is running, you will adjust the flow of CO<sub>2</sub> and effluent to match your aquarium's calcium/alkalinity demand. Over the course of the next week or two, you will need to fine tune the flow of CO<sub>2</sub> and drip rate to match your aquarium's calcium and alkalinity demands. Every tank is different and testing your water chemistry is the only way to determine the exact drip rate and CO<sub>2</sub> Injection rate that is appropriate for your aquarium.

To lower the pH: raise the bubble rate or lower drip rate. To raise the pH: lower the bubble rate or raise drip rate.

7. As changes to the CO<sub>2</sub> bubble rate or the drip rate need time to take effect, we recommend making small changes and allow a few hours (or overnight) for the change to take effect before making further changes.

\*The cTech will work most efficiently if the internal pH is between 6.5-6.8. For best results, do not set the internal pH lower than 6.4 or higher than 6.9.

## Maintenance

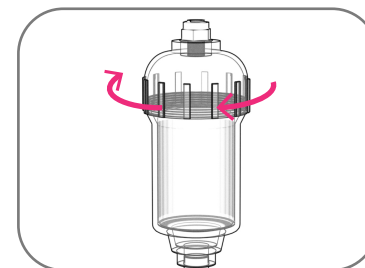
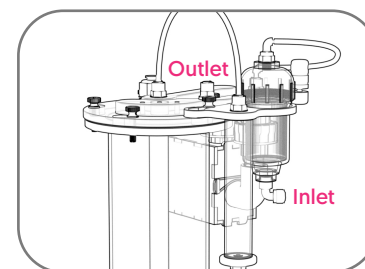
1. It is very easy for the water inlets and outlets to become blocked by the very slow flow rate, please check the water and air inlets and outlets during regular maintenance.

2. Check the effluent pH of the water from the water outlet regularly if not using a controller.

3. Replace the media annually or as needed.

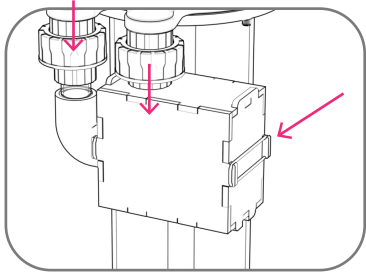
4. Regular maintenance of the pump will ensure a long life and maximum performance.

(Recommended every 3 months)

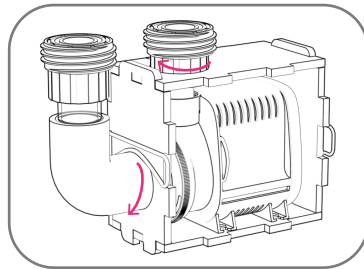




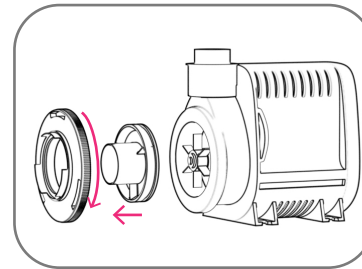
## Pump Disassembly



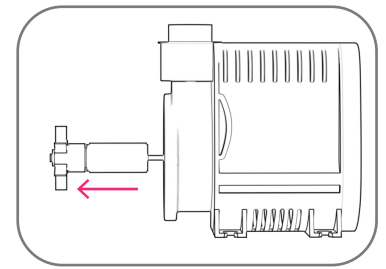
1. Take pump off of the unit and remove the o-rings from baffles.



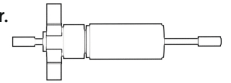
2. Take off tubes and remove all baffles.



3. Remove pump cover.



9. Pull out rotor.



## Assembly of the Pump Baffle

