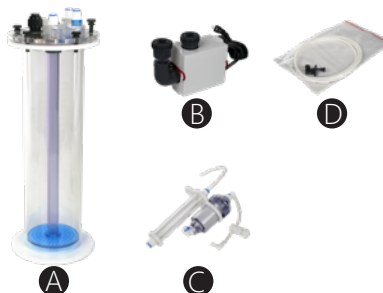


Before Assembly

Please open the package carefully, and check if there are any damaged or lost parts. We should have:

- Ⓐ Main reactor body and lid
- Ⓑ Pump (T-1 / T-2 / T-3 with baffle)
- Ⓒ Inlet filter (with hose and pinch valve) / bubble counter (with hose) / holder
- Ⓓ Hose (inlet/outlet) / hose holder



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



While we take great care to keep any contaminants away from our products during assembly, please take a moment to clean with warm water **ONLY**. Never clean Acrylic with alcohol-based products or other chemicals. Use caution when handling acrylic scratches easily.

Assembly

- ① Loosen the thumb screws. Turn lid counterclockwise to release.
- ② Fill in your media, but watch out not to fill into the central tube. You can temporarily block the top of the central tube to stop additives from going down the central tube.



Wash your media before you use them.
Leave at least 50mm from media to lid.

- ③ Once you finished 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.



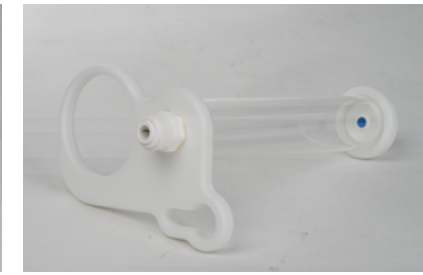
Tips: Tighten the screws in a star pattern to evenly secure the lid.

4 Install the pump



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

Tips: block the bottom of bubble counter by your finger and put it into water, you can easily fill it off.



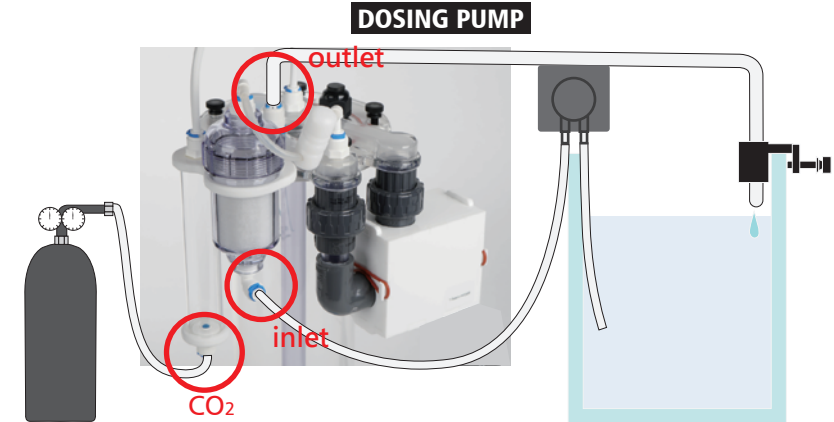
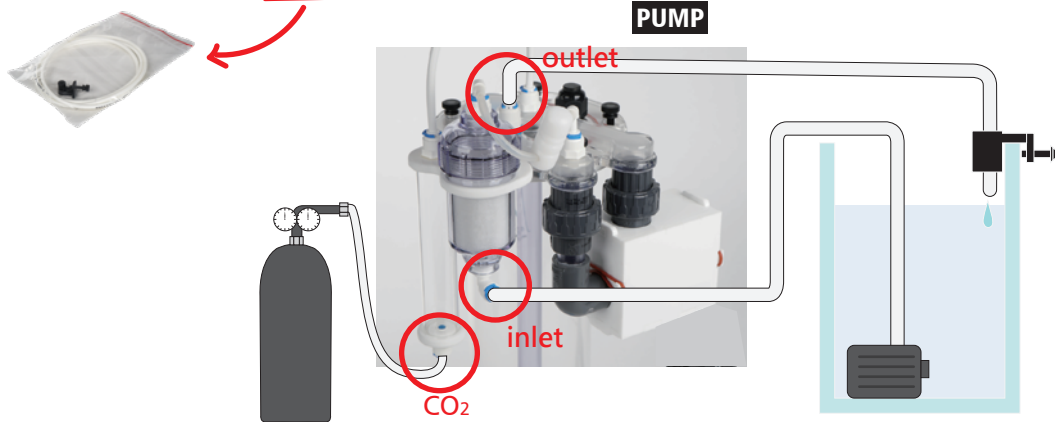
6 Reinstall the inlet filter, and install the holder onto the lid.



7 Connect the bubble counter to the central, the inlet to the pump.



8 Cut a suitable length of the included white tubing for the inlet and outlet. Connect the feeding pump to the inlet, and CO₂ regulator to the reactor.

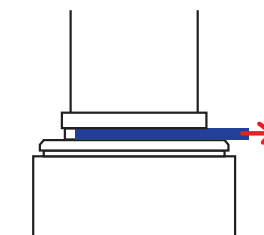


9 Take off the lid of pH probe holder to install the pH test probe

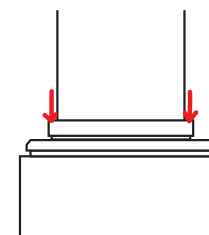


How to separate the hose?

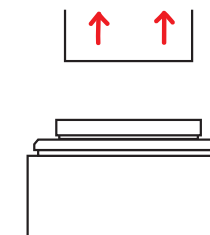
DO NOT PULL OUT THE TUBING DIRECTLY AS THIS WILL DAMAGE THE FITTINGS



(1) remove the blue clip



(2) press down the small white collar



(3) pulling out the tubing

To Start Operating

- 1 Open the flow control valve, make sure the CO₂ regulator is not open yet. Turn on the feeding pump.
- 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 CO₂ regulator opened slightly, slowly open the main valve on the CO₂ tank.
- 5 Slowly adjust the needle valve while keeping an eye on the bubble counter. Adjust CO₂ injection rate to 1 bubble every 2 seconds.
- 6 Once the reactor is running, you will adjust the flow of CO₂ 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 CO₂ 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 CO₂ 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 CO₂ 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.



flow control valve (opened)



flow control valve (closed)

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 Replace the filter media of inlet regularly or as needed.



- 5 Regular maintenance of the pump will ensure a long life and maximum performance (recommended every 3 months). You can disassemble the pump through the following steps:



(1) take off the pump



(2) take off the oring on both side



(3) take off the tubes



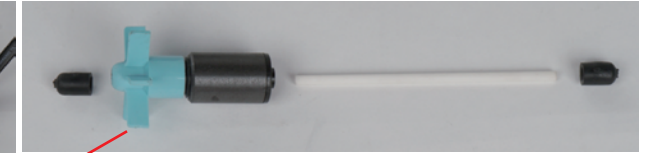
(4) Take off all the baffles



(5) Take off the cover of pump



(6) Pull out the inside parts
(Make sure to put back in right position)

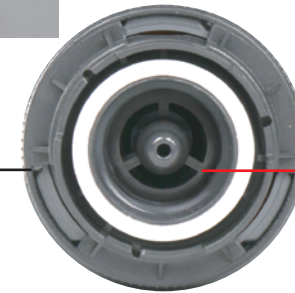


(7) The rotor could be disassembled.



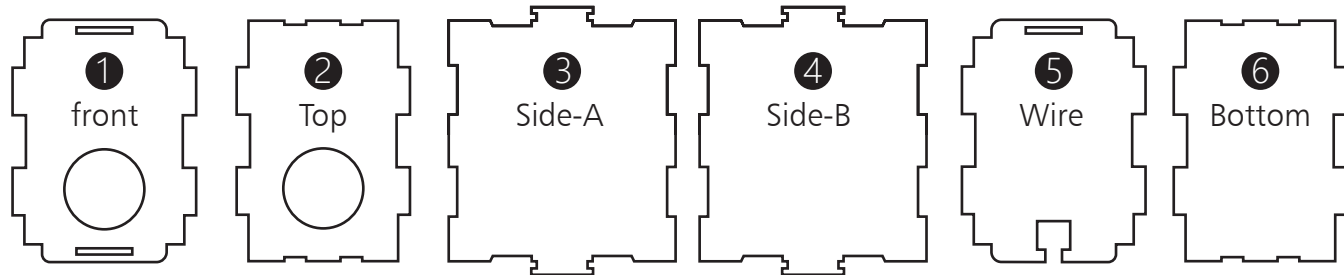
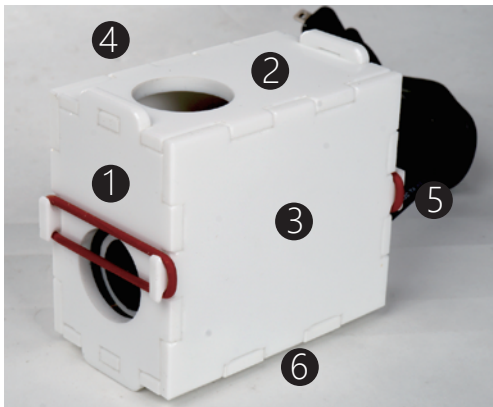
How to remove the limescale?

NO OTHER CHEMICALS, soak in a mixture of 1 part water and 1 part vinegar (citric acid also available) for at least 24 hours. Once you finish, please rinse with warm water.



Should be installed this way, or the inlet can't be installed.

6 Assembly of the pump baffle:



Warranty

AquaMaxx warrants all AquaMaxx products to be free from manufacturing defects for one year from the original purchase date when purchased through an authorized AquaMaxx retailer. This warranty does not cover any damages caused by misuse, neglect, alterations or improper handling / transport / maintenance / installation. Physical damages are not covered by warranty. AquaMaxx does not cover personal injury, personal loss, or other damages associated with the use of our products. In order to request warranty service, please email us at info@aquamaxxaquariums.com. A purchase receipt is required for any warranty service. Products requiring warranty service must be returned to AquaMaxx. You are responsible for the cost of shipping a warranty claim to AquaMaxx and any damages that may occur during transit. Once a returned product has been inspected, it will be repaired or exchanged at our discretion and returned to you. International and/or expedited shipping are not covered under your AquaMaxx warranty.