

# Calcium Reactor Installation

## Installation Guide :

Please open the package carefully and check for any damage or lost parts.

### PART INCLUDED :

- (1) Calcium Reactor Main Unit.
- (2) Flow Control Valve
- (3) Airline for water inlet and outlet
- (4) Hanger for water outlet.

### Adding Calcium Media

1. To open the lid, loosen the (6) thumb screws. Turn lid counterclockwise to release.
2. Remove the upper media plate and sponge.
3. Pour the Calcium media into the chamber filling 3 inches from the top of the reactor.
4. Fill reactor with aquarium water
5. Replace the lid, making sure the o-ring is seated properly. Tighten the screws in a star pattern to evenly secure the lid.

**CAUTION: DO NOT OVER TIGHTEN THE SCREWS.**

### Install the water inlet

1. Cut a suitable length of airline. Connect one end to water inlet above the pump. Submerge the other end in your sump.
2. Install a flow control valve in the middle of this water line.

**Note:** As long as the reactor pump is below the sump water level, a water supply pump is not needed. If your setup requires the Calcium reactor to sit above the waterline, please use one of the following two options to supply your reactor.

1. Add a "t" on the return line to the display tank. Use PVC adapters and JACO a fitting to reduce down to the proper line size.
2. Use a dosing pump as a water supply pump.

### Install the air inlet

Cut a suitable length of airline. Connect one end to the bubble counter and the other end to the CO<sub>2</sub> regulator valve.

### Install water outlet

1. Cut a suitable length of airline. Connect to the water outlet which located on the top of the lid.
2. Connect the other end to the water outlet hanger; place the hanger on the side of the sump.  
Please do not leave the end of the water outlet submerged in the water, because it will be difficult

to count the water drops and will decrease flow.

Install the pH monitor/ controller (Optional).

1. Unscrew the cap from the pH probe compression fitting.
2. Remove the black rubber stopper from the top of the lid.
3. Insert the pH probe and tighten the cap onto the fitting.

### **Operation:**

Caution: Do not operate on the pump before the unit is full of water.

1. Once the unit is full, adjust the water control valve to reach 2 drops/ second. (Clockwise will decrease the flow rate; counter-clockwise will increase the flow rate).
2. Check the bubble counter. Adjust the CO<sub>2</sub> valve to one bubble/ second.
3. If not using a pH controller, check the outlet water's pH after 30 minutes.
4. Please use a reliable pH test kit. We recommend that the best pH within a reactor is 6.6-6.8. If the pH is higher, increase the CO<sub>2</sub> bubble rate or decrease the water flow; If the pH is lower, decrease the CO<sub>2</sub> bubble rate or increase the water flow.
5. Make adjustments in small increments to find the optimal setting for your aquarium.
6. Test the Calcium levels in your tank daily for the first week and then weekly thereafter. Calcium levels should be between 380 -450ppm.

### **CAUTION :**

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 pH in the reactor regularly if not using a controller.
3. Refill the media as needed.
4. If you want to remove an airline, please remove the blue clip first and then press down the small white collar, before pulling out the airline. (DO NOT PULL OUT THE AIRLINE DIRECTLY).

