

Thank you for purchasing your new SKIMZ Calcium Reactor that provides optimum performance with maximum safety and reliability.

Model	Reactor Pump	Body Diameter (mm)	Calcium Media (ml)	For Aquarium	Code
CM93	WP-VSC1200DC	90	up to 1,300	up to 500 L	8245-00
CM113	WP-VSC1200DC	110	up to 2,000	up to 800 L	8246-00
CM153	WP-VSC2000DC	150	up to 3,400	up to 1,500 L	8247-00

MAINTENANCE

It is recommended to clean recirculation pump and water outlet valve to ensure that they are not blocked with debris from the tank or calcium deposits. Top-off the media when about ¼ of it has been consumed.

Every three months:

1. Recalibrate the PH probe.
2. Clean the recirculation pump and inspect impeller for potential wear.

Every six months:

1. Remove the media, rinse it under running water to remove any muddy matter accumulated.
2. Clean the whole reactor to remove salt creep or calcium deposits.
3. Slightly lubricate the O-rings with silicone grease.

WARRANTY POLICY

Skimz Singapore LLP (Company) warrants this product to the original purchaser against defective material and workmanship that occurs during normal use of the body for two (2) years and one (1) year warranty on the pump. Company will, at Company's option, either repair or replace without charge.

PRODUCTS COVERED BY WARRANTY

All Skimz equipment is covered by warranty from the date of purchase.

To be effective, register your product at: www.skimz.sg, product warranty within 14 days of the product's purchase date.

Exclusions:

1. Damage resulting from accident, misuse, lack of reasonable care, subjecting the product to abnormal working conditions or any other failure not resulting from defects in materials or workmanship.
2. Damage caused by tampering, modification or attempted repair by anyone other than the Company.
3. Transfer of product to someone other than the original purchaser.
4. Bring the product to your nearest Skimz dealer or ship the product, together with a copy of the purchase receipt or other evidence of purchase to:

Skimz Singapore LLP
 5 Ang Mo Kio Industrial Park 2A
 #04-30 AMK Tech II
 Singapore 567760

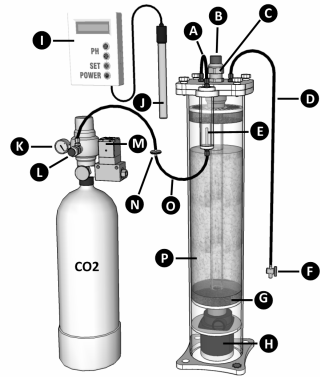
You must pay any postage, shipping charges, insurance costs and other expenses to return the product to Skimz. However, if the necessary repairs are covered by the warranty, Company will pay the return shipping charges.

QUICK INSTALLATION GUIDE



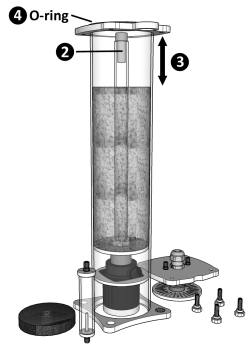
DC Calcium Reactor
 CM93 • CM113 • CM153





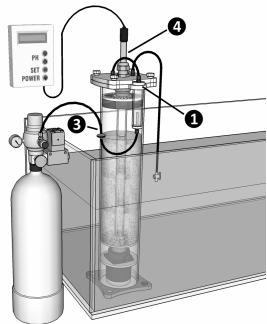
- A. CO2 inlet to reactor
- B. Port plug
- C. Plug holder
- D. Reactor water outlet
- E. Bubble counter
- F. Drip valve (Effluent)
- G. Sponge
- H. Reactor pump
- I. pH controller
- J. pH probe
- K. CO2 output pressure gauge
- L. CO2 pressure adjustment valve
- M. CO2 Solenoid
- N. Check valve (One direction valve)
- O. CO2 inlet to bubble counter
- P. Calcium media

STEP 1



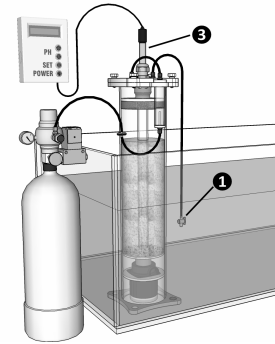
1. Before starting, thoroughly rinse the calcium media with freshwater to remove dust and fine particles.
2. Unscrew the lid and remove Port Plug from the plug holder than insert Port Plug into the centre flow tube thereafter pour Calcium Media into the reactor chamber. You may add 10% of magnesium media (dolomite) to maintain magnesium levels.
3. Leave about 75mm of free space between the top of the reactor and the media.
4. Make sure there is no debris on the O-ring and all the contacting surfaces of the O ring before placing it in position.
5. Replace the top sponge than the lid and tighten all screws.

STEP 2



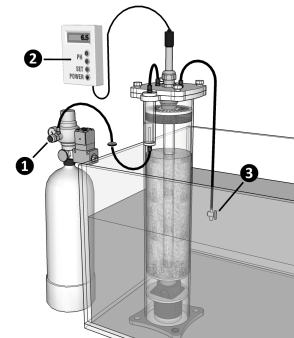
1. Insert Bubble Counter into the bubble counter holder.
2. Place calcium reactor in the sump tank.
3. Connect CO2 outlet to the Check Valve attached to the inlet hose of the Bubble Counter. Ensure that the arrow is pointing in the direction of CO2 flow.
4. Remove the Port Plug and insert pH Probe into the plug holder. Connect pH Probe to the pH Controller but do not turn on the controller at this stage.

STEP 3



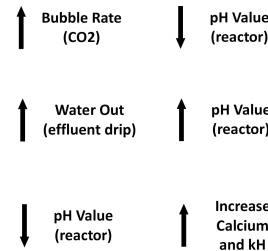
1. Fully open the Drip Valve and submerge it in the water. Turn on the Reactor Pump and let it prime. The average prime time is between 3-5 mins. (Do not turn on the CO2 at this stage)
2. After priming is completed you will be able to see water flowing out of the Drip Valve. Lift the submerged Drip Valve and shut the Drip Valve to fill the Bubble Counter with water.
3. if you experience the reactor cannot complete priming due to too much air trapped in the pump chamber. Remove the pH probe and add about 500 ml of water to assist the priming process. Replace the pH probe once priming is completed.
4. Leave the reactor to run for 12 hours with Drip Valve fully open to remove air trapped inside the reactor.

STEP 4



1. Calcium media starts dissolving at a pH of about 7.5. Set the pH Controller to 6.7 as a starting point. The aragonite media is usually run at a pH between 6.5 and 6.7. At a pH below 6.5 the media will have a tendency to crumble and turning muddy.
2. Adjust the Drip Valve until the drip rate is 1 drip per second.
3. Next, turn on the Solenoid Valve of the CO2 tank. Set the flow rate to 1 bubble per second.
4. During the first few days of initial set up, it is important to measure your aquarium's pH, alkalinity and calcium regularly to avoid any sudden parameter swing. A range of 7-11 dKH and 400-440 ppm calcium is considered acceptable.

STEP 5



1. Record the test results of your aquarium's calcium and alkalinity levels. If these levels are rising above, you should slow down the flow of CO2 and effluent drip. If these levels are falling, adjust the flow higher.
2. During the first couple of months you may need to test for alkalinity and calcium. Once the reactor set up has proven that it is maintaining the level, you can then stretch the time between tests.
3. Note that reactor adds calcium and alkalinity in a balanced way and initially you may need to manually adjust the level using a manual supplement to return the chemistry back to balanced targets. This may be due to nitrification, use of unbalanced salt mix, etc.