

WARNING!

Buyer/user assumes all responsibility for safety and proper use not in accordance with the directions and safety labels.



ACRO-CalTM REACTOR

calcium reactor



AC-30
ViaAqua[®]

ACRO-Cal™ REACTOR

calcium reactor

- Built-in water pump and bleed valve
- Built-in compression fitting for pH sensor
- Use in sump or hanging pump
- Lid secured with latches
- Bubble counter included
- For 50 to 200 gallons aquariums

ViaAqua® Acro-Cal™ Calcium Reactor offers a simple and convenient solution for maintaining calcium and alkalinity in your reef tank. After the initial setup, the calcium reactor requires minimal maintenance. A calcium reactor is almost a necessity for tanks heavily stocked with stony coral, where calcium and alkalinity demands are high and will promote coral line algae growth. Acro-Cal™ Calcium Reactor provides a steady supply of calcium by using CO₂ to dissolve media in the reactor and, thus, releasing calcium into your water. The effluent released also acts as a buffer to stabilize kH.

WARNING AND SAFEGUARDS:

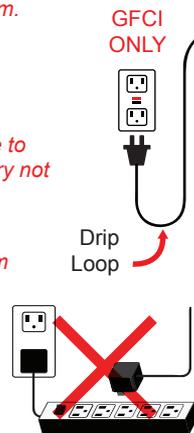
This product may contain chemicals known to the state of California to cause cancer and or birth defects or other reproductive harm. Wash your hand after handling this product.

It is your sole responsibilities to verify that the plug and the receptacle are clean and free of moisture and salt build up at all times. The receptacle must be free of water, salt, calcium, magnesium and dust. Failure to do so can cause fire, damage to property, permanent damage to the product and personal injury not limited to loss of life.

Do not plug into extension cord/power strip.

A drip loop must be used when plugging all electrical aquarium devices. A drip loop is that part of the cord hanging below the receptacle.

The national code requires that a GFCI (Ground fault circuit interrupter) be used in the branch circuit supplying all power to water pumps and electrical aquarium equipment. If you do not have a GFCI, have an electrician install one prior to operating any aquarium component.



- Read and follow all instructions before using the Acro-Cal™ Reactor to ensure proper use and application.
- Use this product for its intended use only.
- Do not operate ViaAqua® Acro-Cal™ Reactor without water. Doing so can cause permanent damage to the pump.

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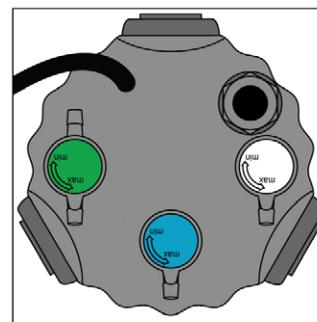
- Prior to maintenance on any electrical aquarium appliance or aquarium, you must disconnect all electrical aquarium devices.
- Routine maintenance is required to ensure the maximum performance and the longevity of the ViaAqua® Acro-Cal™ Reactor. See maintenance guidelines.
- The use of a surge suppressor is strongly recommended.

Items Required for Installation (not included):

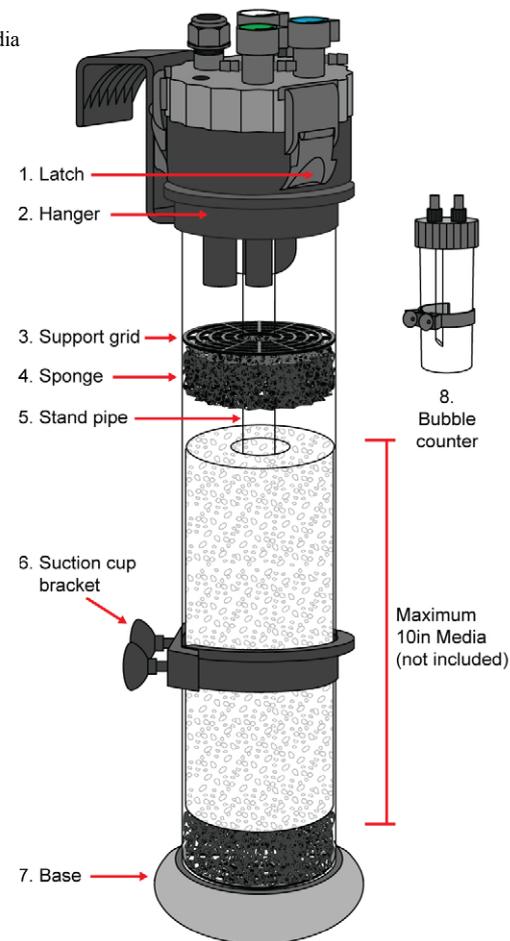
- CO₂ Source
- CO₂ Regulator
- CO₂ Check Valve
- Silicone Tubing
- Oceanpure™ Calcium Reactor Media
- pH Controller (recommended)

PART LIST

1. Latch
2. Hanger
3. Support grid
4. Sponge
5. Stand pipe
6. Suction cup bracket
7. Base
8. Bubble counter



- Green water & CO₂ intake valve
- Blue effluent water valve
- White air-vent-bleed valve
- Compression fitting

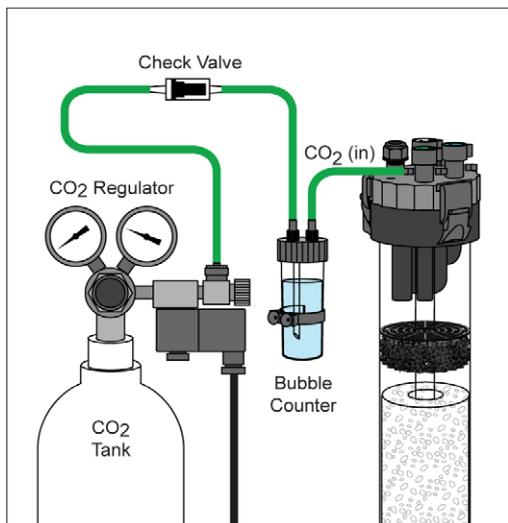


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INSTALLATION:

1. Remove the top of the calcium reactor. Rinse calcium reactor media. Place a sponge over the bottom support grid. Add approximately 10in of media to the reactor. When adding media verify that media does not go down the stand pipe. Place another sponge over the top support grip above the media. Latch lid back onto the calcium reactor and verify that the output is connected to the stand pipe.
2. Choose one of the following water source (in):
 - a) Gravity (unit installed below aquarium): Connect a piece of silicone tubing to the green water intake valve, insert the line inside the aquarium 2in below the water surface. The tube can be secured directly to the overflow box using a zip tie.
 - b) Pressure: Choose an existing pressure line. Cut the line and plumb in a tee. The bleed line will supply water to the calcium reactor. The bleed line must have a valve and reduced to 3/16in barb. With the valve closed connects the silicone tubing from the bleed line directly to the green water intake valve.
 - c) Supply pump: Use a separate low flow pump. Reduce the output of the pump to 3/16in barb. Connect silicone tubing directly to the green water intake valve. Depending on the size of the pump, a bleed line is needed to keep water flowing through the pump at all times.
3. Effluent water (out): Connect silicone tubing to the blue effluent water valve. Secure the line to the back of the aquarium or sump. The silicone tubing must be positioned above water level so that you can see droplets of water flowing from the tube.

4. Fill bubble counter three quarters full with fresh water.
5. CO₂/Water intake (in): Attach the silicone tubing from the CO₂ regulator to a check valve to the bubble counter and to the CO₂ green water intake valve. See diagram.
6. Air-vent-bleed: Attach silicone tubing to the white air-vent-bleed valve. Secure silicone



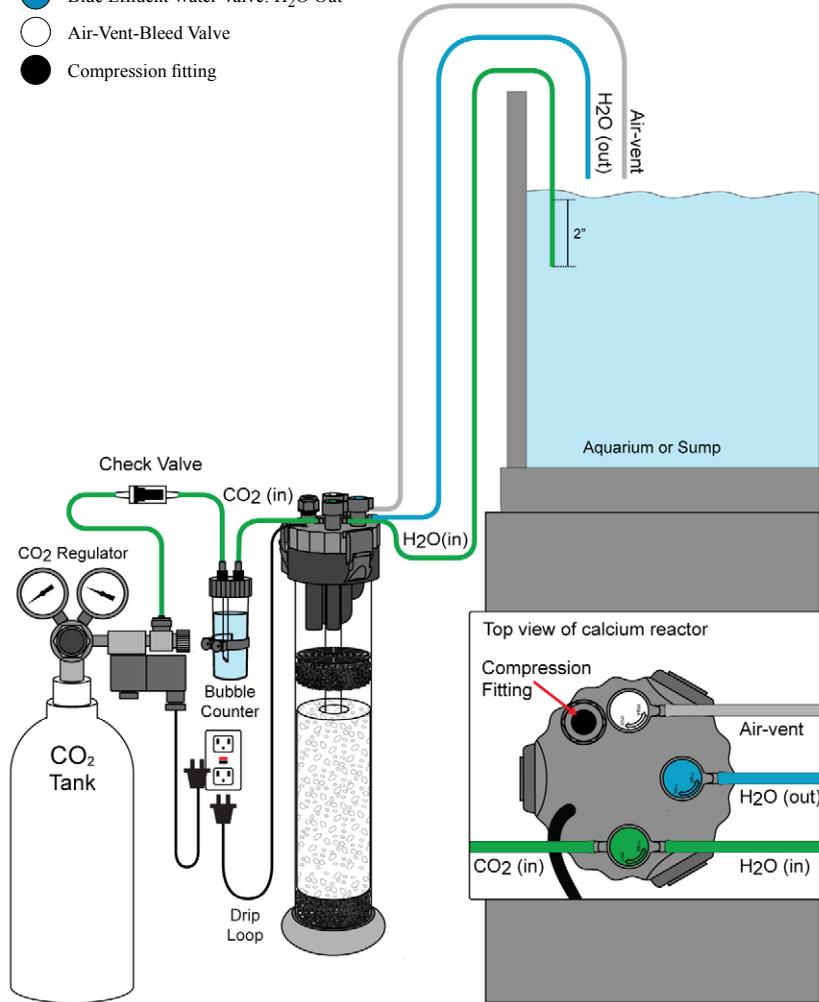
tubing to the aquarium or sump. This help prevents air and CO₂ from building up at the top of the calcium reactor.

7. When using a pH controller and probe, twist off the cap of the compression fitting. Remove the rubber plug. Slide on the compression fitting over the sensor probe. Insert probe into the compression fitting and hand tighten nut to seal. See instructions for pH controller and probe (page 7)
8. Priming Calcium Reactor:
 - a) Gravity: Open the green water intake valve. Disconnect the tubing from the green water intake valve, apply suction to start a siphon and reattach it back to the green water intake valve. Keep the white air-vent-bleed valve open until the calcium reactor is full of water.
 - b) Pressure: Open the green water intake valve, then the white air-vent-bleed valve (this valve may not have to be opened all the way). When a strong pump is used, the white air-vent-bleed valve only needs to be open a quarter turn. Close the white air-vent-bleed valve completely when the calcium reactor is full of water.
 - c) Supply pump: Open the green water intake valve. Plug the pump into a GFCI outlet. Open the white air-vent-bleed valve until the calcium reactor is full of water.
9. Once the calcium reactor is primed, close white air-vent-bleed valve. If air is accumulated in the calcium reactor, open white air-vent-bleed valve and leave the green water intake valve open.
10. Turn on the pump and wait until the water clears. Open the blue effluent water valve. Adjust the valve so there is a broken stream of water discharging from the tube. Set the valve as slow as possible without being able to count any droplets.
11. Turn on the CO₂ control valve. Adjust the CO₂ regulator to produce 60 bubbles per min. in the bubble counter chamber. The CO₂ input is directly related to water flow rate:
 - To raise pH in effluent water increase water flow or decrease CO₂
 - To lower pH in effluent water decrease water flow or increase CO₂
12. A pH meter/controller is recommended to maintain a proper level of pH in the aquarium. Collect a small amount of effluent water and test it with a pH meter. Initially adjust the CO₂ at pH 7.5. Monitor the pH in the aquarium and verify that it's not dropping fast. If pH drops rapidly, decrease CO₂ immediately. At all times, the pH of the aquarium should be over 8.0. The ideal pH of the effluent water should be 6.5 to 7.5. It takes approximately two weeks to stabilize the pH of the effluent water to the ideal level. Continue increasing or decreasing the CO₂ or effluent water amount as needed to achieve optimum pH level.
13. After 24 hours, measure the carbonate hardness of the effluent water. The hardness level should be around 12-16 dKH. Calcium levels will increase but the rate it increases depend on the type of media used. Oceanpure™ Calcium Reactor Media is recommended.
14. Continue adding the calcium until the Calcium Reactor starts to work.

SETUP DIAGRAM

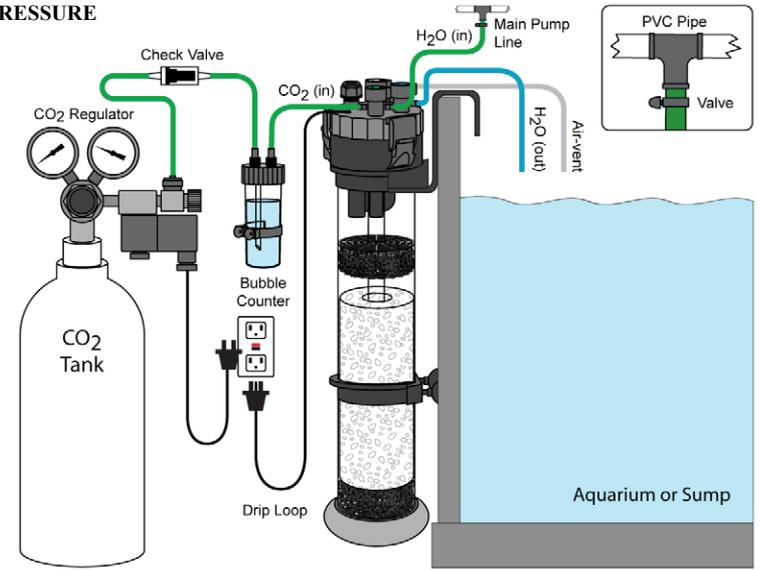
A) GRAVITY

- Green Water & CO₂ Intake Valve: CO₂/H₂O In
- Blue Effluent Water Valve: H₂O Out
- Air-Vent-Bleed Valve
- Compression fitting

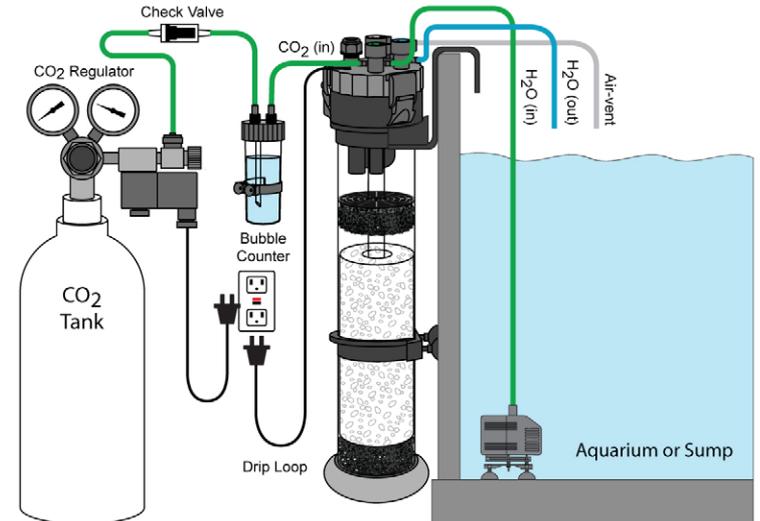


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B) PRESSURE



C) SUPPLY PUMP



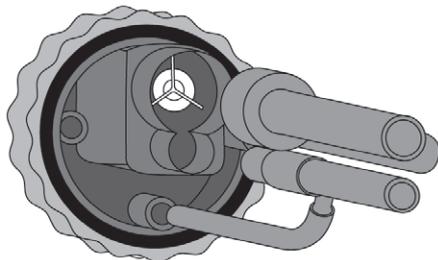
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MAINTENANCE

1. Routine maintenance is required to ensure the maximum performance and the longevity of the ViaAqua® Acro-Cal™ Calcium Reactor.
2. For proper operation of the Calcium Reactor, clean the impeller once a month.
 - a) Remove the top of the calcium reactor.
 - b) Remove the impeller cover.
 - c) Remove the impeller and shaft. With a small brush clean the inside of the impeller and impeller cover.
 - d) If the impeller does not spin easily on the shaft, soak the unit with 3:1 vinegar solution. Remove all calcium residue between the shaft and rotor.
 - e) Reassemble.
3. Replace calcium media every 3 to 6 months depending on the usage.
4. Clean the ViaAqua® Acro-Cal™ Calcium Reactor every 3 to 6 months along with the water pump.
5. Make sure all parts are free of debris and calcium build-up.

INSTRUCTIONS WHEN USING A PH CONTROLLER AND PROBE:

- a. Remove the rubber plug. Slide the compression fitting over the sensor probe. Insert probe into the compression fitting and hand tighten nut to seal.
- b. Two types of pH controller:
 1. pH monitor: Mount the control box so that the LCD screen is visible. The read out should have a pH of 6.5-7.5 ideally. pH should be maintained between 6.5-6.8. If pH is too high, decrease water flow and/or increase CO₂.
 2. pH controller: Unit requires a CO₂ regulator that has an electronic solenoid. Plug the solenoid into the pH controller. Turn on CO₂ to a bubble for a second. Set desired pH between 6.5-7.5 on the controller, the solenoid and controller will now monitor CO₂ by adding CO₂ when needed.



PH CONTROLLER (RECOMMENDED)

The pH Controller is used to keep the effluent water at a preset level.

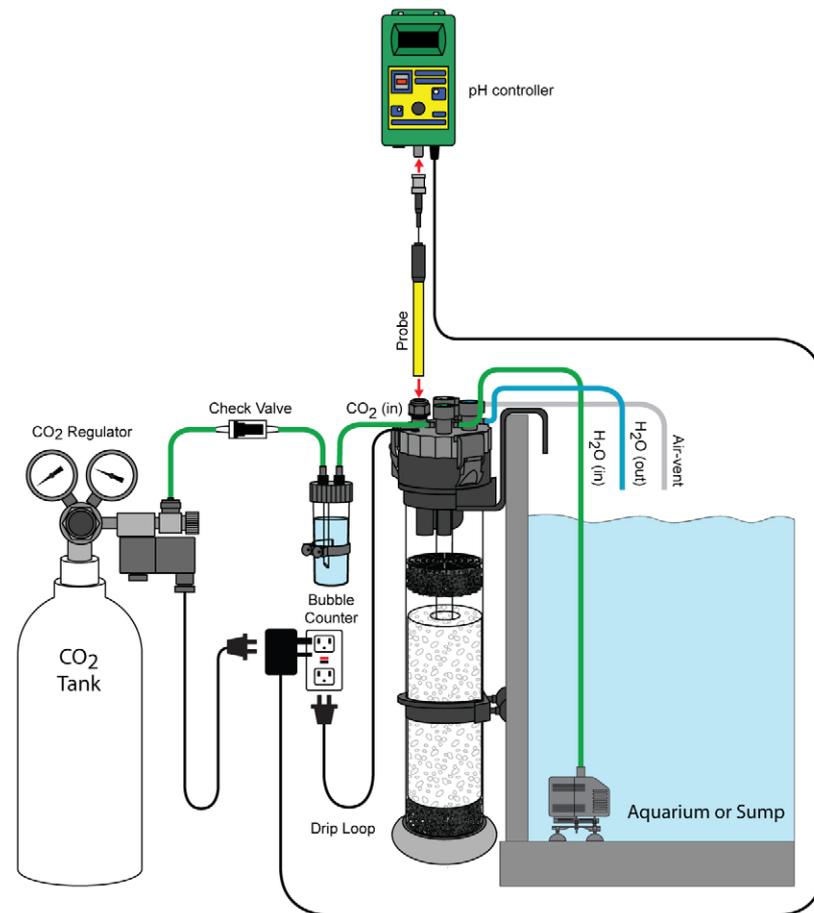
Items needed:

- pH controller
- CO₂ regulator with solenoid
- Container for the effluent water (must fit pH probe)

INSTALLATION:

- Secure the container to the pH probe.
- Plug the electronic solenoid into the pH controller.
- Follow pH controller manufacture instructions for proper unit setting.

If you still have questions about how to install or maintain the Acro-Cal™ Reactor, consult your local fish store. Continue monitoring the water quality (calcium, alkalinity, effluent pH) to ensure a properly working Calcium Reactor.



LIMITED WARRANTY

Commodity Axis, Inc.® warrants that the ViaAqua® Acro-Cal™ Calcium Reactor is free from defects for a period of one year from the initial date of purchase shown on the original cash register receipt. Commodity Axis, Inc.® disclaim all other warranties, express or implied, including but not limited to any implied warranties of merchantability and/or fitness for a particular purpose. Although this limited warranty gives you specific rights, you may have other rights which vary from state to state. This warranty is void if the failure is due to misuse, tampering, negligence, abuse, accident and/or submersion, a failure to properly install, maintain, clean, prefilter, reassemble, and/or use the ViaAqua® Acro-Cal™ Calcium Reactor with a Ground Fault Circuit Interrupter (GFCI).

CONSUMER REMEDIES

Commodity Axis, Inc.'s entire liability and your sole and exclusive remedy shall be either repair or replacement of the ViaAqua® Acro-Cal™ Calcium Reactor only if you return the defective unit directly to Commodity Axis, Inc.® with the original receipt in its original box along with twenty dollars (\$20.00) for shipping and handling. Do not send the ViaAqua® Acro-Cal™ Calcium Reactor by insured mail. You may send your returns or replacements by UPS if requiring a signature upon arrival. Any replaced unit will be warranted for the remaining time of the original warranty period. In no event shall any shipping charges be reimbursed. In no event will Commodity Axis, Inc.® be liable for any consequential or incidental damages, including but not limited to lost sea life, personal injury, property damage, damage equipment, lost profits, lost wages, lost savings, lost income, etc., arising out of the use of the ViaAqua® Acro-Cal™ Calcium Reactor. Some states do not allow for the limitation or exclusion of liability for incidental or consequential damages, so the above exclusion may not apply to you.

RETURNS: Please contact our service center at (888) 838-3882 or fax to (888) 989-0878 to arrange repair and/or replacement. Please allow 4-6 weeks for all returns. Commodity Axis, Inc.® cannot ship nor respond to a P.O. Box address.

Assemble or Use Problems: If you have any problems assembling or using this unit **DO NOT RETURN** ViaAqua® Acro-Cal™ Reactor to the store.

Call our Technical Service Department: Monday to Friday 9 am - 5 pm PST. (805) 383-3566 ext. 102
e-mail: info@commodityaxis.com

Replacement Parts	UPC 0069037
Motor housing	3024 2
Media sponges - 2 pack	3022 8
Impeller	3026 6
Oceanpure™ Calcium Reactor Media	TBA

WARRANTY CARD

ACRO-Cal™ REACTOR

calcium reactor

*Affix a copy of your original purchase receipt here. Please mail warranty card and proof of purchase within 15 days of purchase to:

Commodity Axis® Inc., 300 South Lewis Rd. Unit J. Camarillo CA 93012

IMPORTANT: Please make a copy of this warranty card and retain it for your records. Warranty policy is subject to change without notice.

Name	Date	
Address		
City	State	Zip Code
Country	Phone	
Date of Purchase	Seller (Retail Name)	
Seller's Location	Phone	



www.CommodityAxis.com
www.ViaAquaOceanpure.com

Commodity Axis, Inc.[®] is also a manufacture of
ViaAqua[®] Acro-Cal[™] Reactor, ViaAqua[®] Poly Reactor[™],
ViaAqua[®] Oceanpure[™] Salt, ViaAqua[®] Glass Heater, ViaAqua[®] Titanium Heater,
ViaAqua[®] MillionAir[™] Air Pump, ViaAqua[®] Water Pumps, ViaAqua[®] Glass Aquariums
and Helios[®] Lighting Systems.

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Specifications are subject to change without notice