Reef Octopus VarioS CR200

Reef Octopus VarioS CR200 Calcium Reactor User Manual

Model: VarioS CR200

Introduction

The Reef Octopus VarioS CR200 is an advanced calcium reactor designed for marine aquariums. It provides a stable and consistent supply of calcium and alkalinity, essential for the growth of corals and other calcifying organisms. This manual provides detailed instructions for the safe and efficient operation of your new calcium reactor.

Safety Instructions

- Always disconnect power before performing any maintenance or assembly.
- Ensure all connections are secure to prevent leaks.
- Do not operate the unit if any parts are damaged.
- Keep out of reach of children and pets.
- This device is intended for indoor aquarium use only.
- Handle CO2 tanks with care and ensure proper ventilation.

Package Contents

Please check the package contents against the list below. If any items are missing or damaged, contact your retailer.

- Reef Octopus VarioS CR200 Reactor Body
- VarioS 4 DC Pump
- CO2 Inlet/Outlet Fittings
- Water Inlet/Outlet Fittings
- pH Probe Port
- Instruction Manual

- Power Adapter

Assembly

1. **Unpack Components:** Carefully remove all components from the packaging.
2. **Install VarioS Pump:** Attach the VarioS 4 DC pump to the reactor body using the provided fittings. Ensure a tight seal.

Image: The main reactor body with the VarioS 4 DC pump securely attached to its base.

3. **Connect CO2 Fittings:** Install the CO2 inlet and outlet fittings. The CO2 inlet typically connects to a CO2 regulator, and the outlet allows for gas recirculation.
4. **Connect Water Fittings:** Attach the water inlet and outlet fittings. The inlet should come from your aquarium's sump, and the outlet will return effluent to the sump.
5. **Insert pH Probe:** If using a pH controller, insert the pH probe into the designated port.

Setup

1. **Placement:** Place the calcium reactor in your sump, ensuring it is level and stable.
2. **Fill with Media:** Fill the reactor chamber with appropriate calcium reactor media. Do not overfill; leave space for water flow.
3. **Connect Water Lines:** Connect the water inlet line from a dedicated feed pump or manifold to the reactor's inlet. Connect the effluent line from the reactor's outlet back to the sump.
4. **Connect CO2 System:** Connect the CO2 regulator's output to the reactor's CO2 inlet. Ensure a check valve is installed to prevent water backflow into the regulator.
5. **Power On:** Connect the VarioS pump to its power adapter and then plug it into a power outlet.
6. **Prime the Reactor:** Allow the reactor to fill with water. You may need to gently tilt the unit to release trapped air.

7. **Adjust Water Flow:** Slowly open the water inlet valve to establish a drip rate of effluent. Start with a slow drip (e.g., 1-2 drips per second).
8. **Adjust CO2 Flow:** Gradually open the CO2 regulator to introduce CO2 into the reactor. Monitor the pH inside the reactor (if using a probe) and adjust CO2 flow to achieve the desired pH (typically between 6.5 and 6.8).

Operating Instructions

The VarioS CR200 operates by dissolving calcium reactor media using CO2-enriched water. Consistent monitoring and adjustment are key to maintaining stable aquarium parameters.

- **Monitoring pH:** Regularly check the pH inside the reactor and the aquarium's main display. Adjust CO2 injection rate to maintain the desired reactor pH.
- **Monitoring Effluent Drip Rate:** Ensure a consistent effluent drip rate. Fluctuations can impact calcium and alkalinity delivery.
- **Testing Aquarium Parameters:** Routinely test your aquarium's calcium, alkalinity, and magnesium levels. Adjust the reactor's CO2 and effluent drip rate as needed to maintain target levels.
- **VarioS Pump Control:** The VarioS pump allows for flow adjustment. Refer to the VarioS pump manual for specific control details. Typically, higher flow rates through the reactor can increase dissolution, but must be balanced with CO2 injection.

Maintenance

- **Media Replacement:** Replace calcium reactor media when it is significantly depleted. This typically involves opening the reactor, removing old media, and refilling with new.
- **Cleaning:** Periodically clean the reactor body and pump. Disassemble the pump and clean the impeller and volute to prevent buildup and ensure optimal performance.
- **CO2 Tank Replacement:** Replace the CO2 tank when empty.
- **pH Probe Calibration:** Calibrate your pH probe regularly (e.g., monthly) for accurate readings.
- **Check for Leaks:** Regularly inspect all connections for signs of leaks.

Troubleshooting

Problem	Possible Cause	Solution
No water flow through reactor	Pump clogged or not running; inlet line blocked; airlock.	Check pump power and for blockages. Prime the reactor to remove air.
Low pH inside reactor	Too much CO2; insufficient water flow.	Reduce CO2 injection rate. Increase water flow through the reactor.
High pH inside reactor	Not enough CO2; CO2 tank empty; CO2 line leak.	Increase CO2 injection rate. Check CO2 tank and lines.
Aquarium Ca/Alk levels not rising	Reactor pH too high; media depleted; insufficient effluent drip rate.	Lower reactor pH. Replace media. Increase effluent drip rate.

Specifications

- **Model:** Reef Octopus VarioS CR200

- **Pump:** VarioS 4 DC Pump
- **Dimensions (L x W x H):** Approximately 15.2" x 10.6" x 22.9"
- **Reactor Chamber Diameter:** 8 inches
- **Recommended Aquarium Size:** Up to 200 gallons (depending on coral demand)
- **Power Consumption:** Varies with pump speed (refer to VarioS 4 pump manual)

Warranty and Support

Reef Octopus products are covered by a manufacturer's warranty against defects in materials and workmanship. Please retain your proof of purchase for warranty claims. For technical support, troubleshooting assistance, or warranty inquiries, please contact your authorized Reef Octopus dealer or visit the official Reef Octopus website.
Note: Warranty terms may vary by region and retailer.