

JBL 6462100

JBL PROFLORA CO2 ADVANCED SET M Aquarium CO2 Fertilization System Instruction Manual

Model: 6462100

1. INTRODUCTION

The JBL PROFLORA CO2 ADVANCED SET M is a complete CO2 fertilization system designed for freshwater aquariums ranging from 40 to 600 liters. This system provides essential carbon dioxide to aquatic plants, promoting healthy and robust growth. It features a reusable CO2 cylinder, a pressure regulator with two gauges, a night shut-off solenoid valve, a bubble counter with a non-return valve, a CO2 reactor, and a permanent CO2/pH test for continuous monitoring.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the JBL PROFLORA CO2 ADVANCED SET M. Failure to follow these instructions may result in injury or damage to the product.

- **Pressurized Cylinder:** The CO2 cylinder contains gas under high pressure. Handle with care. Do not expose to direct sunlight or temperatures above 50°C (122°F). Keep out of reach of children.
- **Ventilation:** Ensure adequate ventilation in the area where the CO2 system is installed. While CO2 is not toxic in small amounts, high concentrations can displace oxygen.
- **Connections:** Always ensure all connections are tight and secure to prevent CO2 leaks. Use appropriate tools for tightening, but do not overtighten.
- **Non-Return Valve:** The included non-return valve is crucial to prevent aquarium water from entering the CO2 cylinder and regulator, which could cause damage. Ensure it is installed correctly.
- **Electrical Components:** The solenoid valve is an electrical component. Keep it dry and away from water. Disconnect power before performing any maintenance.
- **TÜV Tested:** The CO2 cylinder is TÜV tested for safety. Do not modify or tamper with the cylinder or its valve.

3. PACKAGE CONTENTS

Verify that all components are present in the package:

- 1x JBL PROFLORA CO2 ADVANCED SET M (complete CO2 fertilizer system)
- 1x Reusable CO2 cylinder (500g)
- 1x Stand for CO2 cylinder
- 1x Pressure regulator with two gauges
- 1x Solenoid valve (for night shut-off)
- 1x CO2 hose
- 1x Bubble counter with integrated non-return valve
- 1x CO2 reactor
- 1x Permanent CO2/pH test
- Aquarium plant fertilizer





Image 1: JBL PROFLORA CO2 ADVANCED SET M product packaging, showing the main components included in the set.

4. SETUP INSTRUCTIONS

Follow these steps to set up your JBL PROFLORA CO2 ADVANCED SET M:

1. **Prepare the CO2 Cylinder:** Place the 500g reusable CO2 cylinder into its designated stand to ensure stability.
2. **Attach the Pressure Regulator:** Carefully screw the pressure regulator onto the CO2 cylinder valve. Ensure a tight, leak-free connection. The two gauges will display the cylinder pressure and the working pressure.
3. **Connect the Solenoid Valve:** Attach the solenoid valve to the pressure regulator's outlet. This valve controls the CO2 flow and enables the night shut-off function.
4. **Install the Bubble Counter:** Connect one end of the CO2 hose to the outlet of the solenoid valve. Connect the other end of the hose to the inlet of the bubble counter. Ensure the non-return valve within the bubble counter is oriented correctly to prevent water backflow. Fill the bubble counter partially with water.
5. **Position the CO2 Reactor:** Place the CO2 reactor inside your aquarium. Secure it using the provided suction cups or clips. Connect the outlet of the bubble counter to the inlet of the CO2 reactor using the CO2 hose.
6. **Install the Permanent CO2/pH Test:** Place the permanent CO2/pH test indicator inside the aquarium, typically on the opposite side of the CO2 reactor, to monitor CO2 levels and pH continuously.
7. **Power Connection:** Plug the solenoid valve's power adapter into an electrical outlet. The solenoid valve can be connected to a timer (not included) to activate the night shut-off feature.
8. **Initial CO2 Adjustment:** Slowly open the main valve on the CO2 cylinder. Then, use the fine-adjustment knob on the pressure regulator to set the desired bubble rate in the bubble counter. Start with a low rate (e.g., 10 bubbles per minute for a 100L tank) and adjust gradually based on the permanent CO2/pH test results and plant response.



Image 2: Diagram illustrating the setup of the JBL PROFLORA CO2 ADVANCED SET M, showing the CO2 cylinder, regulator, solenoid valve, bubble counter, and reactor connected to an aquarium.

5. OPERATING INSTRUCTIONS

Once the system is set up, follow these guidelines for optimal operation:

- **Monitoring CO2 Levels:** Regularly check the permanent CO2/pH test indicator. The color change indicates the CO2 concentration in your aquarium water. Aim for optimal CO2 levels (typically 20-30 mg/L) for healthy plant growth without harming fish.
- **Adjusting Bubble Rate:** If the CO2/pH test indicates levels are too low, slightly increase the bubble rate using the fine-adjustment knob on the regulator. If levels are too high, decrease the bubble rate. Make small adjustments and allow time for the CO2 to dissolve and the indicator to react (several hours).
- **Night Shut-off:** Connect the solenoid valve to a timer. Set the timer to turn off the CO2 supply during the night (when aquarium lights are off). Plants do not photosynthesize and consume CO2 in the dark; continuing CO2 supply at night can lead to dangerously high CO2 levels and low pH, which can be harmful to fish.
- **Pressure Gauges:** The left gauge on the regulator shows the remaining pressure in the CO2 cylinder. The right gauge shows the working pressure. When the left gauge approaches zero, it's time to consider refilling or replacing the CO2 cylinder.

6. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your CO2 system:

- **CO2 Cylinder Refill/Replacement:** When the cylinder pressure gauge indicates low pressure, the cylinder needs to be refilled or replaced. Consult your local aquarium store or CO2 supplier for refilling services.
- **Bubble Counter Water:** Periodically check the water level in the bubble counter and refill with fresh aquarium water if it evaporates.
- **CO2 Reactor Cleaning:** Over time, algae or debris may accumulate in the CO2 reactor, reducing its efficiency. Disconnect the reactor and clean it thoroughly with an aquarium-safe brush or solution.
- **Hose Inspection:** Inspect the CO2 hose regularly for kinks, cracks, or signs of wear. Replace the hose if any damage is observed to prevent leaks.
- **Permanent CO2/pH Test Reagent:** The reagent in the permanent CO2/pH test needs to be replaced periodically (e.g., every 4-6 weeks) to ensure accurate readings.

7. TROUBLESHOOTING

Refer to the following table for common issues and their solutions:

Problem	Possible Cause	Solution
No CO2 bubbles in the bubble counter.	CO2 cylinder empty. Cylinder valve closed. Regulator working pressure too low. Solenoid valve not powered or faulty. Hose kinked or disconnected.	Check cylinder pressure gauge; replace/refill cylinder. Open cylinder valve fully. Increase working pressure slightly with adjustment knob. Check power connection to solenoid valve; ensure timer is on. Inspect hose for obstructions or disconnections.
Bubble counter falls off aquarium wall.	Suction cups are dirty or worn. Surface is not clean.	Clean suction cups and aquarium surface thoroughly. Replace worn suction cups if necessary.
Difficulty with fine adjustment of bubble rate.	Over-sensitive adjustment knob. Working pressure not stable.	Make very small, gradual adjustments. Wait a few minutes between adjustments for the system to stabilize. Ensure the working pressure is set correctly before fine-tuning the bubble rate.
Aquarium water entering the CO2 system.	Non-return valve installed incorrectly or faulty.	Immediately disconnect the system. Check the orientation of the non-return valve. Replace the non-return valve if it is faulty.

8. SPECIFICATIONS

Feature	Detail
Model Number	6462100
Brand	JBL



Feature	Detail
Product Dimensions (L x W x H)	8 x 14 x 52 cm
Product Weight	500 Grams (CO2 cylinder content)
Recommended Aquarium Size	40 - 600 Liters (freshwater)
CO2 Cylinder Capacity	500g (reusable)
Features	Night shut-off, 2 pressure gauges, non-return valve, permanent CO2/pH test


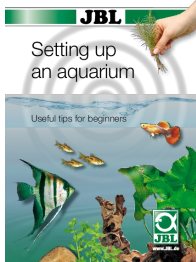
9. WARRANTY AND SUPPORT

JBL products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please refer to the official JBL website or contact your local JBL dealer. Keep your purchase receipt as proof of purchase.

You can visit the official JBL store for more information: [JBL Store](#)

Related Documents - 6462100

	<p>JBL CO₂ Fertilization Systems for Aquarium Plants - Guide</p> <p>Comprehensive guide to JBL's ProFlora CO₂ fertilization systems for aquariums. Learn how CO₂ enhances plant growth, prevents algae, and explore the range of JBL CO₂ products, regulators, diffusers, and control units for optimal aquatic plant care.</p>
	<p>JBL PROFLORA CO₂ Bio-Sets: Anleitung und Informationen</p> <p>Entdecken Sie die JBL PROFLORA CO₂ Starter, Basic und Advanced Bio Sets für Ihr Aquarium. Diese Anleitung bietet detaillierte Informationen zur Installation, Verwendung und Wartung.</p>

	<p>JBL PROFLORA CO₂ BIO SETS: Anleitung für gesunde Aquarienf Pflanzen</p> <p>Entdecken Sie die JBL PROFLORA CO₂ BIO SETS für eine optimale CO₂-Düngung im Aquarium. Fördert Pflanzenwachstum und Sauerstoffproduktion. Einfache Anwendung und lange Wirkungsdauer.</p>
	<p>JBL PROFLORA CO₂ TAIFUN SPIRAL 5 & 10: Anleitung, Produktbeschreibung & Vorteile</p> <p>Umfassende Anleitung für die JBL PROFLORA CO₂ TAIFUN SPIRAL CO₂-Reaktoren (Modelle 5 und 10). Erfahren Sie mehr über Installation, Betrieb, Wartung und die Vorteile dieses modularen, erweiterbaren CO₂-Diffusors für Aquarien zur optimalen CO₂-Versorgung Ihrer Wasserpflanzen.</p>
	<p>JBL PROFLORA CO₂ TAIFUN SPIRAL 5 & 10: Anleitung CO₂-Reaktor für Aquarien</p> <p>Umfassende Anleitung für den JBL PROFLORA CO₂ TAIFUN SPIRAL 5 und 10, modulare Aquarien-CO₂-Reaktoren für optimales Pflanzenwachstum und Wasserqualität. Erfahren Sie mehr über Installation, Wartung und Funktionen.</p>
	<p>Setting Up Your First Aquarium: A Beginner's Guide by JBL</p> <p>Learn how to set up a thriving aquarium with this comprehensive guide from JBL. Discover essential tips on choosing the right aquarium, substrate, plants, fish, and equipment, along with vital care and maintenance advice for beginners.</p>