

Dennerle 3059

Dennerle Primus Evolution CO2 Pressure Reducer

Model: 3059

Instruction Manual

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Dennerle Primus Evolution CO2 Pressure Reducer, Model 3059. This device is designed to regulate the CO2 supply for aquarium water treatment, ensuring optimal conditions for aquatic plants and inhabitants.

The Primus Evolution pressure reducer is compatible with disposable CO2 cylinders and can also be used with reusable Dennerle CO2 cylinders when equipped with an appropriate adapter (sold separately).



Figure 1: Dennerle Primus Evolution CO2 Pressure Reducer. This image displays the compact design of the pressure reducer, highlighting its main body and connection points for CO2 cylinders and aquarium equipment.

2. SAFETY INSTRUCTIONS

Please read and understand all safety instructions before installing or operating the Dennerle Primus Evolution CO2 Pressure Reducer. Failure to follow these instructions may result in injury or damage to the product.

- Always handle CO2 cylinders with care. CO2 is a compressed gas and can be dangerous if mishandled.
- Ensure the pressure reducer is securely attached to the CO2 cylinder before opening the cylinder valve.
- Never attempt to modify the pressure reducer or CO2 cylinder.
- Use only Dennerle approved adapters for reusable CO2 cylinders.
- Keep the device out of reach of children and pets.
- Operate the unit in a well-ventilated area.
- Regularly check for leaks using a leak detection spray or soapy water.

- Disconnect the pressure reducer from the CO2 cylinder when not in use for extended periods or during maintenance.

3. PACKAGE CONTENTS

Verify that all components are present and undamaged upon unpacking:

- 1x Dennerle Primus Evolution CO2 Pressure Reducer (Model 3059)
- Instruction Manual
- *Note: CO2 cylinder and adapter for reusable cylinders are sold separately.*

4. SETUP AND INSTALLATION

Follow these steps for proper installation of your CO2 pressure reducer:

1. **Prepare the CO2 Cylinder:** Ensure the CO2 cylinder is upright and stable. If using a reusable cylinder, attach the appropriate Dennerle adapter first, ensuring a tight seal.
2. **Attach the Pressure Reducer:** Screw the Primus Evolution pressure reducer onto the CO2 cylinder valve by hand. Tighten firmly but do not overtighten. A wrench may be used for a final snug fit, but avoid excessive force.
3. **Connect CO2 Tubing:** Attach the CO2 tubing (not included) from your aquarium diffuser or reactor to the outlet of the pressure reducer. Secure the tubing with a CO2-resistant hose clamp if necessary.
4. **Initial Leak Check:** Before opening the CO2 cylinder valve, apply a small amount of soapy water or leak detection spray to all connections (cylinder to reducer, reducer to tubing).
5. **Open CO2 Cylinder Valve:** Slowly open the main valve on the CO2 cylinder. Observe the pressure gauges (if present on your model) and check for bubbles at the connections. If bubbles appear, close the cylinder valve, tighten the connection, and re-test.
6. **Set Working Pressure:** The Primus Evolution is designed for optimal performance with Dennerle CO2 systems. Adjust the working pressure knob (if available) to the recommended setting for your aquarium size and plant requirements. Refer to your CO2 diffuser/reactor manual for specific pressure recommendations.

5. OPERATING INSTRUCTIONS

Once installed and leak-checked, the Primus Evolution pressure reducer is ready for operation.

- **CO2 Flow Adjustment:** Use the fine-tuning valve on the pressure reducer to adjust the CO2 bubble count per minute (BPM) at your diffuser. Start with a low setting and gradually increase until the desired CO2 level is achieved in your aquarium.
- **Monitoring:** Regularly monitor the CO2 bubble count and your aquarium's pH level or CO2 drop checker to ensure stable CO2 supply.
- **Cylinder Replacement:** When the CO2 cylinder is empty (indicated by a drop in cylinder pressure or no bubble flow), close the main cylinder valve, disconnect the pressure reducer, and replace the cylinder. Always perform a leak check after replacing a cylinder.

6. MAINTENANCE

Proper maintenance ensures the longevity and reliable operation of your pressure reducer.

- **Regular Inspection:** Periodically inspect all connections and tubing for signs of wear, damage, or leaks.
- **Cleaning:** Wipe the exterior of the pressure reducer with a damp cloth. Do not use harsh chemicals or abrasive cleaners. Ensure no water enters the internal components.
- **Seal Replacement:** The seals within the pressure reducer may degrade over time. If persistent leaks occur despite tightening connections, the seals may need replacement. Contact Dennerle support for authorized service or replacement parts.

7. TROUBLESHOOTING

If you encounter issues with your Dennerle Primus Evolution CO2 Pressure Reducer, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No CO2 flow	CO2 cylinder empty; cylinder valve closed; tubing kinked/blocked; pressure reducer faulty.	Check cylinder pressure; open cylinder valve fully; inspect and clear tubing; contact support if reducer is faulty.
Inconsistent CO2 flow	Low cylinder pressure; loose connections; diffuser clogged.	Replace cylinder; tighten all connections; clean or replace diffuser.
CO2 leak detected	Loose connections; damaged seals/O-rings; faulty pressure reducer.	Tighten all connections; replace damaged seals/O-rings; contact Dennerle support.
Pressure gauge not reading	Cylinder valve closed; cylinder empty; gauge faulty.	Open cylinder valve; replace cylinder; contact Dennerle support.

If the problem persists after attempting these solutions, please contact Dennerle customer support or your retailer.

8. SPECIFICATIONS

- **Model Number:** 3059
- **Dimensions (L x W x H):** 6.2 x 12.4 x 13 cm (2.44 x 4.88 x 5.12 inches)
- **Weight:** 210 grams (0.46 lbs)
- **Compatibility:** Dennerle disposable CO2 cylinders; Dennerle reusable CO2 cylinders (with adapter)
- **Power:** 1 Watt (Note: This specification might refer to an associated electrical component if the pressure reducer is part of a larger system, as a standalone mechanical pressure reducer typically does not consume power.)
- **Manufacturer:** Dennerle

9. WARRANTY AND SUPPORT

For information regarding warranty coverage, please refer to the warranty card included with your product or visit the official Dennerle website. For technical support, spare parts, or service inquiries, please contact your authorized Dennerle retailer or Dennerle customer service directly.

Dennerle Contact Information: Please refer to the Dennerle official website for the most up-to-date

contact details.