EDGE / HOG Regulator User Manual: Technical Reference & User Guide

Congratulations on your purchase of an EDGE / HOG Regulator. In choosing EDGE / HOG, you have selected a life-support instrument that is the result of thousands of hours of rigorous research, development, and real-world testing. Our engineering team doesn't just design regulators; we dive them in the most extreme environments on the planet—from deep cave systems to deep dive spearfishing.

Every component, from the high-flow first-stage piston or diaphragm to the precision-balanced second-stage valve, is manufactured to exacting tolerances. We place an immense amount of detail into the "Work-of-Breathing" (WOB) statistics of our regulators, ensuring that you receive smooth, consistent airflow whether you are at 20 feet or 200 feet. We take great pride in our craftsmanship so that you can dive with absolute confidence in your life-support system.

⚠️ DANGER: COMPREHENSIVE SAFETY WARNINGS

IMPROPER USE OF THIS EQUIPMENT COULD RESULT IN SERIOUS INJURY OR DEATH.

- **CERTIFICATION REQUIRED:** This equipment is for use only by persons who have successfully completed a course of instruction in SCUBA diving and earned a certification from a recognized training agency.
- **GAS LIMITS:** Standard EDGE / HOG regulators are compatible with air or Nitrox mixtures up to **40% oxygen**. Use with higher oxygen concentrations requires specific "Oxygen Clean" preparation.
- **COLD WATER LIMITATIONS:** Diving in water below 50°F (10°C) presents a risk of regulator freeze-up. Only use regulators equipped with environmental seals for these conditions and ensure you have received specialized cold-water training.
- **NO UNAUTHORIZED REPAIR:** Disassembly, first-stage adjustment, or internal repair must only be performed by a factory-trained EDGE / HOG technician.
- **LUBRICATION DANGER:** Never apply silicone grease, spray, or petroleum-based lubricants to the regulator inlet or internal parts.

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1. Purpose & Design Philosophy

The regulator is the bridge between your high-pressure gas supply and your lungs. EDGE / HOG regulators utilize a two-stage reduction system:

- **First Stage:** Reduces the high-pressure air from the cylinder to a stable intermediate pressure (typically 135–145 psi above ambient).
- **Second Stage:** Reduces that intermediate pressure to the exact ambient pressure of the water surrounding you, allowing for effortless inhalation regardless of depth.

Our design focuses on "High Flow" and "Low Work-of-Breathing," ensuring that air delivery remains smooth and consistent even at the limits of recreational or technical diving.

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2. Detailed Regulator Features

First Stage Configurations

- **Yoke (A-Clamp):** The standard international connection, approved for pressures up to 3,500 psi.
- **DIN (Threaded):** A secure, high-pressure connection (up to 4,350 psi) where the O-ring is captured within the regulator.

Second Stage Adjustments (Model Dependent)

- **Venturi Control Switch:** Set to **"MIN"** (Surface) to prevent accidental free-flow during water entry. Set to **"MAX"** (Dive) during the dive to allow the air to assist the diaphragm for effortless breathing.
- **Inhalation Control Knob:** Adjusts the spring tension on the second-stage valve.
    - **Turn Out (Counter-clockwise):** Decreases resistance for maximum performance.
    - **Turn In (Clockwise):** Increases the effort required to start airflow; useful in heavy surge or when using the regulator as an alternate air source.

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3. Comprehensive Pre-Dive Inspection

Follow this checklist before every dive. If the regulator fails any step, DO NOT DIVE.

1. **Hose Integrity:** Check all hoses for bubbles, nicks, or exposed braiding.
2. **Filter Test:** Remove the dust cap and inspect the conical filter. It should be bright silver. Yellow, green, or black discoloration indicates contamination or internal corrosion.
3. **Vacuum Test:** Without opening the tank valve, inhale gently from the second stage. You should be able to create a vacuum with **zero air** entering the mouthpiece.
4. **Slow Pressurization:** Always open the tank valve **slowly**. If you have an SPG, hold it facing away from you during this process.
5. **Steady Needle Test:** Take 3–4 deep breaths while watching your pressure gauge. The needle should remain steady and not "dip" significantly.

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4. Advanced User Care & Maintenance

- **The Pressurized Rinse:** The best way to wash a regulator is while it is still attached to the tank and pressurized. This keeps the internal valves closed and prevents water from entering the high-pressure side.
- **The Hour-Long Soak:** After the initial rinse, soak the regulator in warm, fresh water for at least one hour to dissolve deep-seated salt crystals.
- **The Unpressurized "Safe" Soak:** If the reg is off the tank, ensure the dust cap is bone-dry and sealed tight. **DO NOT** press the purge button while soaking unpressurized.
- **Storage Post-Dive:** Store in a cool, dry place. For adjustable models, turn the inhalation knob **all the way out** to prevent a permanent indentation on the internal low-pressure seat.

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5. Warranty & Service Policy

EDGE / HOG provides a **Limited Lifetime Warranty** to the original purchaser.

- **Service Interval:** To maintain the warranty, the regulator must be serviced by an authorized dealer **at least once every 12 months**.
- **Exclusions:** This warranty is void if the equipment is used for commercial/military purposes, or if damage is caused by neglect, abuse, or unauthorized tampering.

National Service Center:

Edge HOG Dive Gear

5208 Mercer University Dr., Macon, GA 31210

Phone: 1-800-810-4811 | **Email:** operations@hogscuba.com

Owner's Record

Staple your sales receipt here for reference and warranty validation.

Name: _____

Home Address: _____

City/State/Zip: _____

Date of Purchase: _____ **Product Model:** _____

Serial Number: _____ **Dealer:** _____

Professional Service Log

To be completed by an authorized EDGE / HOG Service Technician.

Professional Service Log

To be completed by an authorized EDGE / HOG Service Technician.

Date: _______________ **Service:** Annual / Repair **Tech/Shop:** _____________________________

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