Chasing GM0001

CHASING GM0001 Gladius Mini Underwater Drone User Manual

Model: GM0001 | Brand: Chasing

1. INTRODUCTION TO THE GLADIUS MINI UNDERWATER DRONE

The CHASING Gladius Mini is an advanced underwater Remotely Operated Vehicle (ROV) designed for exploring and capturing high-quality video and photos of the underwater world. This kit includes the Gladius Mini vehicle, a base station, a wireless transmitter/controller, necessary batteries and chargers, a 32GB memory card, and a 150-foot tether. It is capable of diving to depths of up to 328 feet (100 meters) and features a 4K UHD camera for stunning visuals.

Key features include:

- **4K UHD Video & 12MP Photos:** Capture high-resolution imagery with a 1/2.3" CMOS sensor and f/3 lens.
- **Powerful Illumination:** Two 1200-lumen dimmable LED lights provide clear visibility in dark underwater environments.
- **Advanced Maneuverability:** Five thrusters (two horizontal, three vertical) enable speeds up to 4 knots (2 m/s) and precise vertical movement (1 m/s).
- **Tilt-Lock Mode:** Adjust the drone's pitch up to 45° for angled viewing, ensuring stable operation with an AI intelligent control algorithm.
- **Depth Lock Mode:** Maintain a fixed depth with a single touch for stable observation.
- **Extended Operation:** Powered by a 5000mAh battery, offering up to two hours of runtime.
- **Real-time Viewing & Sharing:** View 1080P video on up to three wireless devices via a mobile app (iOS or Android) and share discoveries instantly.

Figure 1: The complete CHASING Gladius Mini kit, including the drone, controller, tether, and accessories.

2. Setup Guide

Before operating your Gladius Mini, ensure all components are properly charged and connected.

2.1 Charging Components

1. **Drone Battery:** Connect the drone to its dedicated charger. A full charge typically takes approximately 2 hours.
2. **Base Station Battery:** After charging the drone, unplug it and connect the base station to the same charger. This also takes about 2 hours.
3. **Controller Battery:** The controller charges via a micro USB cable.

2.2 Assembly and Connection

1. **Attach Tether:** Securely connect the 150-foot tether to the Gladius Mini drone and the base station. Ensure the connection is tight to prevent water intrusion.
2. **Controller Setup:** Mount your mobile device (smartphone or tablet) onto the wireless transmitter/controller.
3. **Power On:** Power on the drone, base station, and controller.
4. **App Connection:** Download and install the official CHASING mobile app (available for iOS and Android). Connect your mobile device to the base station's Wi-Fi network as instructed in the app.

Figure 2: The Gladius Mini drone with its tether connected, ready for underwater operation.

3. OPERATING INSTRUCTIONS

Familiarize yourself with the controls and features before deploying the drone.

3.1 Pre-Dive Checklist

- Ensure all batteries are fully charged.
- Verify tether connections are secure.
- Check the mobile app for a stable connection to the base station and drone.
- Inspect propellers for any obstructions or damage.
- Ensure the camera lens is clean.

3.2 Basic Controls

Use the joysticks on the wireless controller to maneuver the drone. The mobile app provides a real-time video feed and additional control options.

- **Horizontal Movement:** Control forward, backward, left, and right movement using the horizontal thrusters.
- **Vertical Movement:** Control ascent and descent using the vertical thrusters.
- **Depth Lock:** Activate the one-touch depth lock mode to maintain a stable depth.
- **Tilt-Lock Mode:** Adjust the drone's camera angle (up to 45°) for optimal viewing.
- **LED Lights:** Adjust the brightness of the two 1200-lumen LED lights via the app for improved visibility.

3.3 Video and Photo Capture

The Gladius Mini captures 4K UHD video and 12MP still photos. Use the dedicated buttons on the controller or within the app to start/stop recording and take pictures.

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Video 1: Demonstration of a CHASING underwater drone (Mini S model) in operation, showcasing its maneuverability and camera capabilities. Features are similar to the Gladius Mini.

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Video 2: A short demonstration of a CHASING underwater drone (Mini S model) being deployed and operating underwater. Features are similar to the Gladius Mini.

4. MAINTENANCE

Proper maintenance is crucial for the longevity and performance of your Gladius Mini.

4.1 Post-Operation Care

- **Rinse Thoroughly:** After each use, especially in saltwater, thoroughly rinse the drone, tether, and base station with fresh water. This helps prevent corrosion and salt buildup.
- **Dry Completely:** Ensure all components are completely dry before storage. Use a soft cloth to wipe down surfaces.
- **Inspect Propellers:** Regularly check the propellers for any debris, sand, or damage. Clean them gently if necessary.
- **Lubricate Seals:** Periodically inspect and lubricate any rubber seals or O-rings to maintain watertight integrity.

4.2 Storage

Store the drone and its accessories in a cool, dry place, away from direct sunlight and extreme temperatures. Use the provided carrying case for protection during transport and storage.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your Gladius Mini.

5.1 Connection Issues

- **No Wi-Fi Connection:** Ensure the base station is powered on and your mobile device is connected to its Wi-Fi network. Try restarting both the base station and your mobile device.
- **Frequent Disconnections:** Operate the drone within the recommended range of the base station. Minimize

interference from other wireless devices. Ensure the mobile app is up-to-date.

5.2 Motor or Movement Problems

- **Motors Seized/Not Responding:** This can occur if sand or debris enters the motor mechanisms. Immediately retrieve the drone, rinse the motors thoroughly with fresh water, and gently try to free them by hand. If the issue persists, contact customer support.
- **Unstable Operation:** Ensure the drone's thrusters are free from obstructions. Perform a calibration if available in the app.

5.3 App Functionality

- **App Crashes/Unresponsive:** Ensure your mobile device's operating system and the CHASING app are updated to the latest versions. Close other background applications.
- **Live Streaming Issues:** Live streaming requires a stable internet connection on your mobile device, separate from the drone's Wi-Fi. Verify your device's cellular data or external Wi-Fi connection.

6. SPECIFICATIONS

Feature	Specification
Brand	Chasing
Model Name	gladius mini
Item Model Number	GM0001
Video Capture Resolution	4K
Effective Still Resolution	12 MP
Connectivity Technology	HDMI, Wi-Fi
Included Components	Drone, Base Station, Controller, Tether, Charger, 32GB Memory Card
Battery Capacity	5000 Milliamp Hours (55.5Wh)
Maximum Range	100 Meters (328 feet)
Material	Plastic
Item Weight	14.27 pounds
Product Dimensions	19 x 16 x 21 inches

7. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the official Chasing Innovation website or contact their customer service directly. Keep your purchase receipt as proof of purchase for warranty claims.