SG109PRO

Generic SG109 PRO Max Drone User Manual

4K/8K HD Dual Camera GPS Quadcopter

1. Introduction

Thank you for choosing the Generic SG109 PRO Max Drone. This manual provides essential information for the safe operation, setup, and maintenance of your new drone. Please read this manual thoroughly before operating the aircraft to ensure proper use and to prevent damage or injury. Keep this manual for future reference.

The SG109 PRO Max is a high-performance quadcopter designed for aerial photography, featuring a GPS positioning system, 4K/8K HD dual cameras, and a brushless motor for stable flight.

2. Product Overview

2.1. Package Contents

The standard package includes the following components:

Image 2.1: Overview of the SG109 PRO Max Drone and its included accessories. This image displays the drone, remote control, battery, mobile phone holder, USB charging cable, screwdriver, spare propellers, spare screws, instruction manual, and storage bag.

- Flying Machine (Drone) x1
- Obstacle Avoider x1
- Remote Control x1
- Mobile Phone Holder x1
- Battery x1
- USB Charging Cable x1
- Screwdriver x1
- Spare Propellers (pair) x1

- Spare Screws (grain) x2
- Instruction Manual x1
- Storage Bag x1

2.2. Drone Components

Image 2.2: The SG109 PRO Max Drone in its unfolded state, showcasing the main body, propellers, and dual camera system.

The drone features a foldable design for portability. Key components include:

- **Foldable Arms:** For compact storage and transport.
- **Brushless Motors:** Provide stable power output and reduced energy loss.
- **Propellers:** Four propellers for lift and propulsion.
- **Dual Camera System:** Integrated 4K/8K HD cameras for aerial photography and video recording.
- **GPS Module:** For precise positioning and stable flight.
- **Battery Compartment:** Houses the flight battery.
- **LED Indicators:** Provide status information during flight.

2.3. Key Features

- **Powerful Brushless Motors:** Ensures stable operation with low noise and extended lifespan.
- **Advanced Dual Camera System:** Supports multi-ratio shooting with 4K/8K HD resolution for high-quality aerial imaging.
- **GPS Positioning System:** Provides accurate location tracking and enhanced flight stability.
- **5G WiFi Signal:** Enables stable and lag-free image transmission for real-time viewing.
- **Foldable Design:** Compact and portable for easy transport.

Image 2.3: A detailed view of the drone's dual camera system, highlighting the two lenses.

Image 2.4: The drone's imaging capabilities are illustrated with icons for high-quality picture output, high-definition zoom, HD lenses, ideal color presentation, excellent shutter performance, and cloud transfer.

3. Setup

3.1. Unfolding the Drone

1. Carefully unfold the front arms of the drone until they lock into place.
2. Unfold the rear arms of the drone until they lock into place.
3. Ensure all arms are fully extended and securely locked before flight.

3.2. Battery Installation and Charging

1. Insert the flight battery into the designated battery compartment on the drone. Ensure it clicks into place.
2. To charge the battery, connect the USB charging cable to the battery and a suitable USB power adapter (not included).
3. The charging indicator will show the charging status. Disconnect once fully charged.

3.3. Propeller Attachment (If Required)

If propellers are not pre-installed, attach them according to the markings (A and B) on the propellers and motor shafts. Use the provided screwdriver and screws to secure them firmly.

3.4. Remote Control Setup

1. Install batteries into the remote control (batteries not included).
2. Attach the mobile phone holder to the remote control.
3. Download and install the companion application on your smartphone. Refer to the QR code in the separate quick start guide or packaging for the app download link.

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4. Operating Instructions

4.1. Powering On and Pairing

1. Place the drone on a flat, open surface.
2. Press and hold the power button on the drone until the LED indicators light up.
3. Turn on the remote control. The remote and drone will automatically attempt to pair. A successful pairing is indicated by a solid light on both devices.
4. Connect your smartphone to the drone's 5G WiFi network (usually named 'SG109_XXXX').
5. Open the drone's companion app on your smartphone.

4.2. GPS Calibration

Before the first flight or if flying in a new location, GPS calibration is recommended for optimal stability. Follow the on-screen instructions in the app or refer to the quick start guide for the specific calibration procedure (typically involves rotating the drone horizontally and vertically).

4.3. Takeoff and Landing

- **Automatic Takeoff:** Press the one-key takeoff button on the remote control or in the app. The drone will ascend to a safe altitude and hover.
- **Manual Takeoff:** Push both control sticks down and outwards to start the motors. Then, slowly push the left stick up to ascend.

- **Automatic Landing:** Press the one-key landing button. The drone will descend and land automatically.
- **Manual Landing:** Slowly pull the left stick down to descend. Once landed, push both control sticks down and inwards to stop the motors.

4.4. Flight Modes

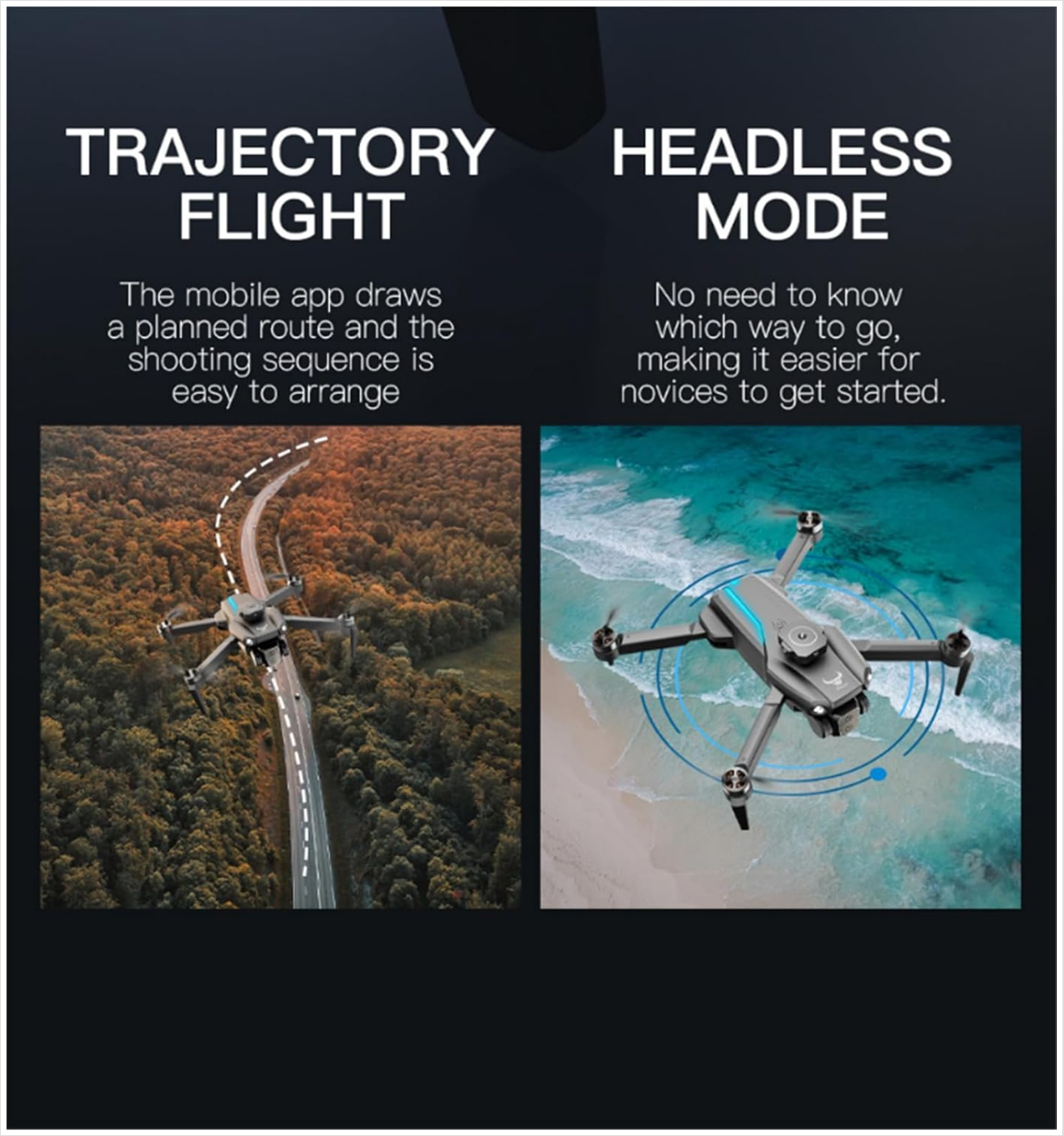

Image 4.1: Visual representation of Trajectory Flight, where the drone follows a pre-drawn path, and Headless Mode, simplifying flight orientation for beginners.

- **Trajectory Flight:** In the companion app, you can draw a planned flight route on the screen. The drone will automatically follow this trajectory, executing the flight sequence as arranged.
- **Headless Mode:** This mode simplifies control by eliminating the need to know the drone's front orientation. When activated, the drone will move relative to the pilot's position, making it easier for beginners to operate.

4.5. Camera Operation

The SG109 PRO Max Drone is equipped with a dual camera system for high-definition aerial photography and

video. Use the companion app to:

- View real-time footage from the drone's camera.
- Capture photos and record videos.
- Adjust camera settings (if available).
- Switch between dual lenses for different perspectives.

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5. Maintenance

5.1. Cleaning

- Regularly clean the drone's body, motors, and camera lenses with a soft, dry cloth.
- Avoid using liquid cleaners or solvents that could damage electronic components.

5.2. Propeller Inspection and Replacement

- Before each flight, inspect propellers for cracks, bends, or damage.
- Replace any damaged propellers immediately using the provided spare parts and screwdriver. Ensure correct A/B propeller placement.

5.3. Battery Care

- Do not overcharge or over-discharge the battery.
- Store batteries in a cool, dry place away from direct sunlight and extreme temperatures.
- If storing for extended periods, charge the battery to approximately 50-60% capacity.

5.4. Storage

When not in use, fold the drone arms and store the drone and its accessories in the provided storage bag to protect them from dust and damage.

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6. Troubleshooting

- **Drone does not power on:** Ensure the battery is fully charged and correctly installed.
- **Remote control does not connect:** Check remote control batteries. Ensure both drone and remote are powered on and within range. Re-pair if necessary.
- **Unstable flight:** Perform GPS calibration. Check propellers for damage and ensure they are correctly installed. Fly in calm weather conditions.
- **No image transmission:** Ensure your smartphone is connected to the drone's 5G WiFi network. Restart the app and drone if needed.
- **Short flight time:** Ensure the battery is fully charged. Flight time can be affected by aggressive flying, wind, and cold temperatures.

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7. Specifications

Feature	Specification

Model Name	SG109 PRO Max
Brand	Generic
Folding Size	14 x 8 x 7 cm (5.51 x 3.15 x 2.76 inches)
Unfolding Size	20 x 18 x 7 cm (7.87 x 7.09 x 2.76 inches)
Product Dimensions	8.66 x 7.09 x 3.15 inches
Item Weight	1 Kilogram (2.2 pounds)
Flight System	GPS Positioning System
Battery Life	Approximately 20 minutes
Signal	5G WiFi
Camera	4K/8K HD Dual Camera
Motor Type	Brushless Motor
Material	Metal
Age Range (Description)	Adult

8. Safety Guidelines

Operating a drone requires responsibility. Adhere to the following safety guidelines:

- **Local Regulations:** Always check and comply with local drone regulations and airspace restrictions.
- **Line of Sight:** Maintain visual line of sight with your drone at all times.
- **Weather Conditions:** Do not fly in strong winds, rain, snow, or fog.
- **Obstacles:** Avoid flying near people, animals, buildings, trees, power lines, or other obstacles.
- **Privacy:** Respect the privacy of others when using the camera.
- **Battery Safety:** Use only approved batteries and chargers. Do not leave charging batteries unattended.
- **Pre-Flight Check:** Always perform a pre-flight check of the drone, propellers, and battery before takeoff.

9. Warranty and Support

For warranty information and technical support, please refer to the documentation provided with your purchase or contact the retailer. Keep your proof of purchase for warranty claims.

Related Documents - SG109PRO

	[Shantou Zhongli Intelligent Technology Co., LTD. - FCC Attestation Statement for R/C DRONE Models] Official FCC Attestation Statements Part 2.911(d)(5)(i) Filing from Shantou Zhongli Intelligent Technology Co., LTD. for various R/C DRONE models, confirming compliance with FCC regulations.
	[FCC Attestation Statement for Shantou Zhongli Intelligent Technology R/C Drones] FCC filing from Shantou Zhongli Intelligent Technology Co., LTD. regarding R/C Drones, listing FCC ID 2BEOV-DRONE and multiple model numbers, dated March 25, 2024.
	[Shantou Zhongli Intelligent Technology R/C Drone Product Similarity Declaration] Declaration from Shantou Zhongli Intelligent Technology Co., LTD. confirming the electrical and hardware similarity across numerous R/C Drone models, with variations primarily in model name and appearance color.
	[Letter of Authorization - Shantou Zhongli Intelligent Technology R/C Drone] This document is a Letter of Authorization from Shantou Zhongli Intelligent Technology Co., LTD. authorizing LGAI Technological Center S.A. to act on their behalf for regulatory matters concerning their R/C Drone products, including various model numbers and FCC ID 2BEOV-DRONE.