

SG900-S

Generic SG900-S GPS RC Drone User Manual

Model: SG900-S

1. INTRODUCTION

This manual provides essential information for the safe operation and maintenance of your Generic SG900-S GPS RC Drone. Please read this manual thoroughly before operating the drone to ensure proper function and to prevent damage or injury. The SG900-S is a foldable RC quadcopter equipped with a 1080P HD camera, GPS positioning, and various intelligent flight modes.

2. SAFETY GUIDELINES

Operating an RC drone requires caution. Adhere to the following safety guidelines:

- **Pre-Flight Check:** Always inspect the drone, propellers, and battery for any damage before each flight. Ensure all components are securely attached.
- **Environment:** Fly in open areas, away from people, animals, buildings, and power lines. Avoid flying in strong winds, rain, or other adverse weather conditions.
- **Line of Sight:** Maintain visual line of sight with the drone at all times.
- **Battery Safety:** Use only the provided battery and charger. Do not overcharge or puncture the battery. Discontinue use if the battery shows signs of swelling or damage.
- **Propeller Safety:** Keep hands, face, and loose clothing away from rotating propellers.
- **Respect Privacy:** Be mindful of privacy laws when using the camera function.
- **Age Recommendation:** This product is not suitable for children under 14 years old.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x SG900-S RC Quadcopter
- 1 x Battery (7.4V 1600mAh modularized battery)
- 1 x Remote Controller
- 2 x Spare Propellers
- 2 x USB Cables (for drone and controller charging)
- 1 x Screwdriver
- 4 x Protective Rings (Propeller Guards)
- 1 x User Manual (this document)



Figure 3.1: Contents of the SG900-S drone package.

4. SETUP

4.1 Unfolding the Drone

The SG900-S drone features a foldable design for portability. Gently unfold the arms of the drone until they lock into position. Ensure all arms are fully extended before flight.

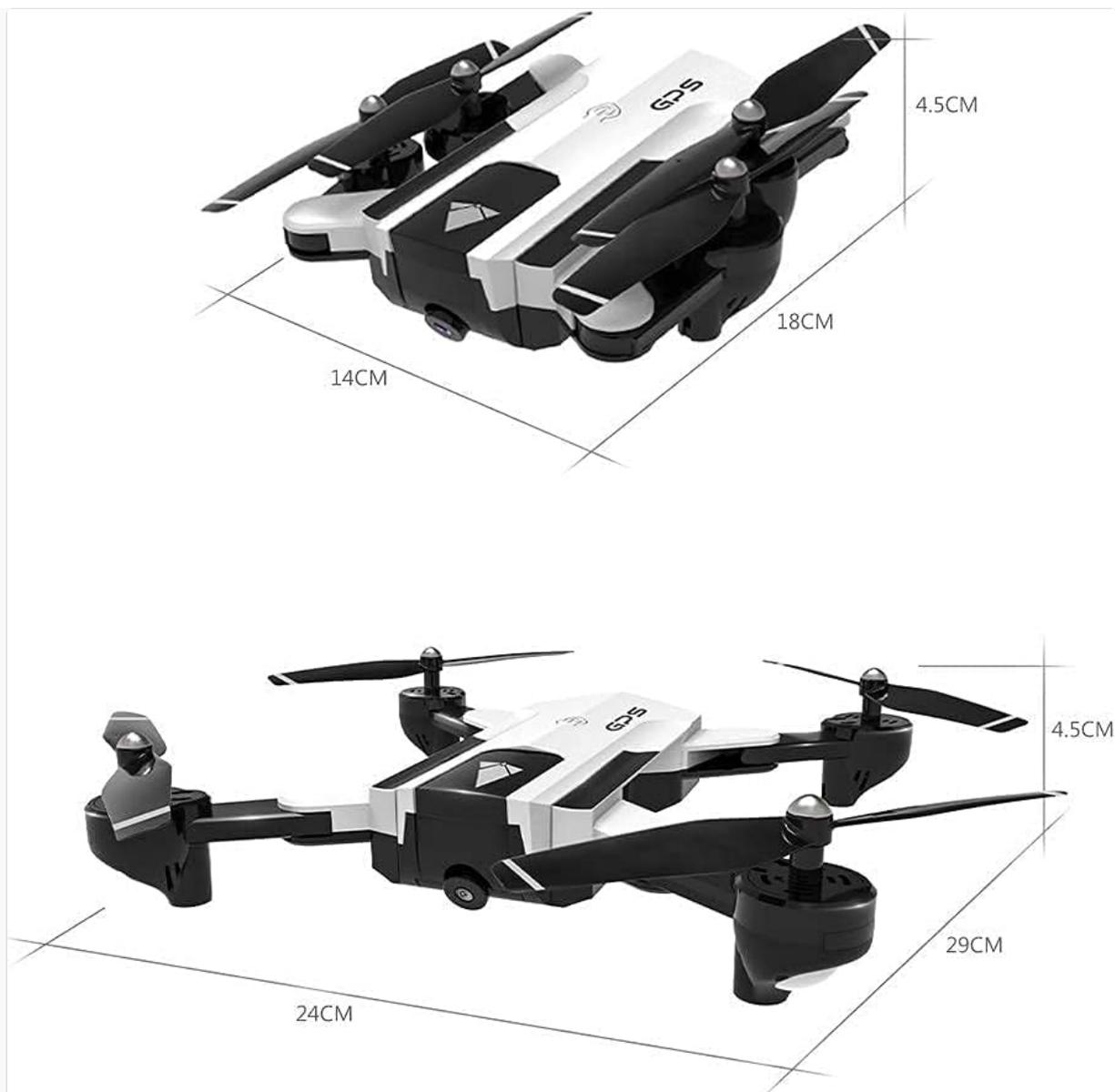


Figure 4.1: SG900-S drone folded and unfolded dimensions.

4.2 Battery Installation and Charging

1. **Drone Battery:** Insert the 7.4V 1600mAh modularized battery into the drone's battery compartment until it clicks into place. To charge, remove the battery from the drone and connect it to the provided USB charging cable. Connect the USB cable to a 5V/2A USB power adapter (not included). Charging time is approximately 180 minutes.
2. **Remote Controller Battery:** The remote controller has a built-in 3.7V 390mAh battery. Connect the controller to a USB power source using its dedicated USB charging cable.

4.3 Propeller Guard Installation

For beginner pilots or indoor flights, attach the protective rings (propeller guards) to the drone's arms to prevent damage from collisions.

4.4 App Installation and Connection

Download the dedicated control app for the SG900-S drone on your smartphone or tablet. Search for the app name (usually found in the manual or on the product packaging) in your device's app store. Once installed:

1. Power on the drone.

2. Go to your device's Wi-Fi settings and connect to the drone's Wi-Fi network (e.g., "SG900-S_XXXX").
3. Open the control app. The app should automatically connect to the drone, displaying the live camera feed.

5. OPERATING INSTRUCTIONS

5.1 Basic Flight Controls

Ensure the drone is placed on a flat, level surface before takeoff.

- **One Key Takeoff:** Press the one-key takeoff button on the remote controller or in the app. The drone will automatically ascend to a safe altitude and hover.
- **One Key Landing:** Press the one-key landing button. The drone will slowly descend and land automatically.
- **Throttle (Left Stick Up/Down):** Controls altitude (ascend/descend).
- **Yaw (Left Stick Left/Right):** Rotates the drone left or right.
- **Forward/Backward (Right Stick Up/Down):** Moves the drone forward or backward.
- **Sideward Flight (Right Stick Left/Right):** Moves the drone left or right sideways.

5.2 GPS Positioning and Altitude Hold

The SG900-S utilizes GPS for stable flight and precise positioning. Altitude Hold maintains a consistent altitude, making the drone easier to control.



Figure 5.1: GPS Positioning and Automatic Return features.

OUTDOOR GPS FIXED POINT

The aircraft adopts advanced GPS flight control system for more accurate flight positioning. Safer and easier to fly outdoors.

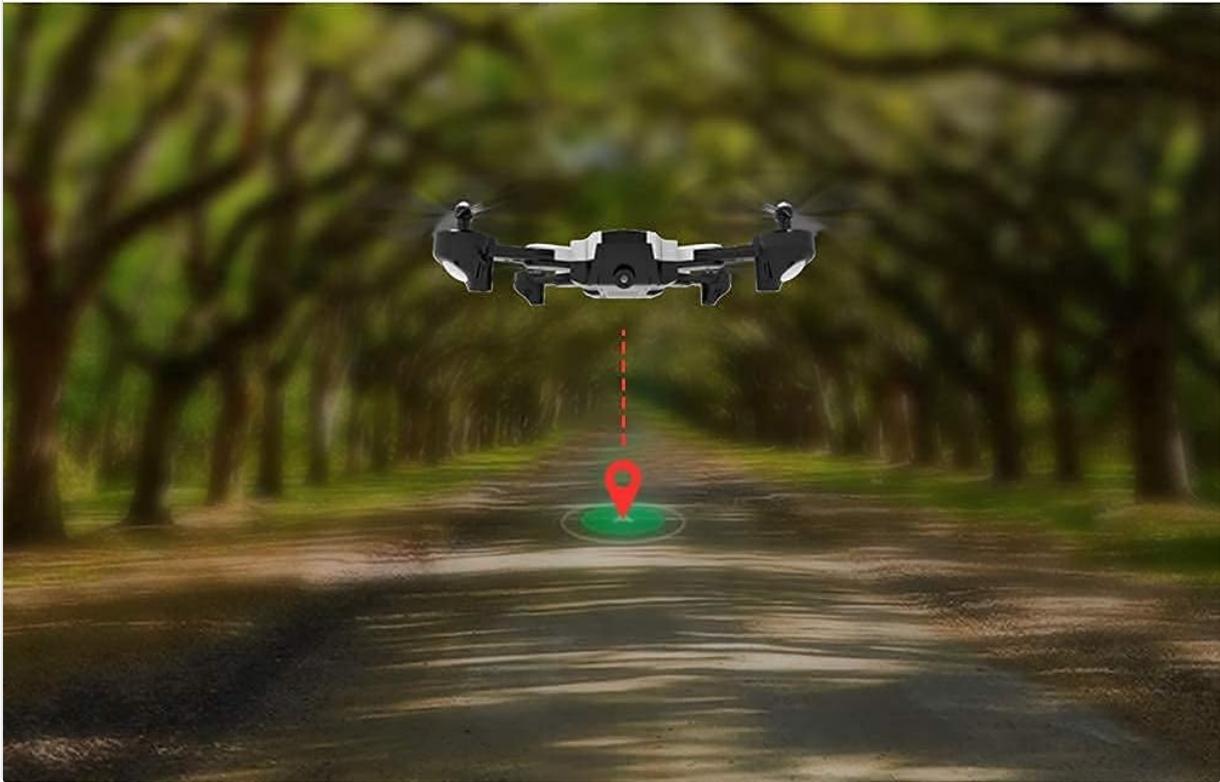


Figure 5.2: Outdoor GPS Fixed Point flight.

5.3 Intelligent Flight Modes

- **Follow Me Mode:** In this mode, the drone will automatically follow the remote controller (or connected mobile device) at a set distance. Activate this feature via the control app.
- **Multi-Point Fly (Waypoint Flight):** Use the control app to draw a path on the map. The drone will then fly along the specified route, visiting each waypoint in sequence.

FIXED FLIGHT

First enlarge the map, enlarge the position of the aircraft, and then draw the track points with the strokes. Click Send, the aircraft will fly from the initial point to the first point of the trajectory.

Then fly in point according to the trajectory order; when the flight is low, the aircraft Return to the initial point from the current location.



Figure 5.3: Multi-Point Fly (Fixed Flight) setup in the app.

- **Surround Mode:** Select a point of interest in the app, and the drone will circle around it at a specified radius and altitude, capturing footage.
- **Headless Mode:** In headless mode, the drone's orientation is relative to the pilot, regardless of the drone's actual front direction. This simplifies control for beginners.

5.4 1080P HD Camera and FPV

The integrated 1080P HD camera allows for high-quality photo and video capture. The WiFi FPV (First Person View) system transmits a live video feed to your connected mobile device, providing a real-time view from the drone's perspective.



Figure 5.4: 1080P HD Camera in action.

To record video or take photos, use the corresponding buttons on the remote controller or within the control app. Captured media is typically saved to your connected mobile device.

6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the drone body and camera lens. Avoid using harsh chemicals.
- **Propeller Replacement:** If propellers are damaged, replace them with the provided spare propellers. Ensure the correct propeller (A or B) is installed on the corresponding motor.
- **Battery Care:** Store batteries in a cool, dry place. Do not store fully charged or fully discharged for extended periods.
- **Storage:** When not in use, fold the drone and store it in a safe place to prevent damage.

7. TROUBLESHOOTING

- **Drone does not respond:** Ensure the drone and remote controller are fully charged and properly paired. Check for any obstructions to the propellers.
- **Unstable flight:** Calibrate the drone's gyroscope and compass as per app instructions. Ensure flight

is in an open area with good GPS signal.

- **No FPV feed:** Verify that your mobile device is connected to the drone's Wi-Fi network and the control app is open. Restart both the drone and your device if necessary.
- **Drone flies away:** Immediately press the One Key Return button. Ensure GPS signal is strong before flight.
- **Short flight time:** Ensure the battery is fully charged. Flight time can be affected by aggressive flying, strong winds, or cold temperatures.

8. SPECIFICATIONS

Item	Specification
Model	SG900-S
Camera	1080P HD
Main Material	ABS
Control Method	APP / Remote Controller
Remote Control Frequency	2.4GHz
Channels	4 channels
WIFI Transmission Distance	Approx. 80m
Remote Controller Distance	Approx. 300m
Transmitter Power	3.7V 390mAh battery (built-in)
Quadcopter Battery	7.4V 1600mAh modularized battery
Maximum Flying Time	Approx. 20 minutes
Charging Time	Approx. 180 minutes
Folded Size	180 * 140 * 45mm
Unfolded Size	290 * 240 * 45mm