

Ruko U11MINI 4K

Ruko U11MINI 4K Drone User Manual

Model: U11MINI 4K

Brand: Ruko

1. INTRODUCTION

Welcome to the Ruko U11MINI 4K Drone User Manual. This guide provides essential information for the safe operation, setup, maintenance, and troubleshooting of your new drone. The Ruko U11MINI 4K is an ultra-portable, high-performance drone designed for both beginners and experienced pilots, featuring a 4K video camera, 8K photo capability, 3-axis gimbal, and intelligent flight modes.

Please read this manual thoroughly before your first flight to ensure proper usage and to maximize your flying experience.

2. WHAT'S IN THE BOX

Your Ruko U11MINI 4K Drone package includes the following components:

- Ruko U11MINI 4K Drone
- Intelligent Flight Batteries x3
- Advanced Controller x1
- Carrying Case x1
- Extra Propellers x4
- USB Cables x3
- Screwdriver x1
- Screws x11
- User Manual x1 (this document)



Image: All components included in the Ruko U11MINI 4K Drone package, neatly arranged.

3. PRODUCT OVERVIEW

The Ruko U11MINI 4K drone is designed for portability and high-quality aerial capture. It weighs under 249g, making it FAA-exempt in many regions, and features advanced camera and flight stabilization technologies.

3.1. Drone Features

- **Ultra-Portable Design:** Weighs under 249g, no FAA registration required in many areas.
- **Advanced Camera System:** 1/2-inch CMOS sensor, 48MP for 8K UHD photos, and 4K/30fps video.
- **Superior Stabilization:** Equipped with a 3-axis brushless gimbal and EIS (Electronic Image Stabilization) for smooth footage.
- **Intelligent Positioning:** Quadruple intelligent positioning (GPS, barometric altitude hold, TOF, and optical flow) ensures stable and precise flight.

Your First Pocket Aerial Drone

No FAA registration required

< 249g



Image: The Ruko U11MINI 4K drone's compact size, easily fitting in the palm of a hand, emphasizing its portability and FAA-exempt weight.



8K Photo
4K/30fps Video
1/2-inch CMOS | 48MP

Image: The Ruko U11MINI 4K drone in flight, showcasing its ability to capture high-resolution 8K photos and smooth 4K video.



Image: The Ruko U11MINI 4K drone flying steadily over a lake, illustrating its stable shot capabilities thanks to the 3-axis gimbal and EIS stabilization.

3.2. Controller Features

- **Ergonomic Design:** Comfortable and intuitive for extended use.
- **Integrated Phone Holder:** Securely holds your smartphone for FPV viewing.
- **Direct Connection:** Connects to your phone via cable, ensuring stable transmission without Wi-Fi interference.
- **Long Range Transmission:** R2 digital transmission system provides up to 20,000ft range.

Fly Further, View Stable

R2 Digital Transmission System
No Wi-Fi Needed



Image: The Ruko U11MINI 4K controller with a smartphone mounted, showing the live FPV feed and highlighting the 20,000ft transmission range.

4. SETUP

4.1. Charging Batteries

Before your first flight, ensure all intelligent flight batteries and the controller are fully charged. The RK3.0 Smart Charge System supports PD 3.0 fast charging, allowing all batteries to charge simultaneously.

- Connect the provided USB cables to the batteries and a compatible power source (e.g., Ruko PD65W charger or R299 portable power station for optimal performance).
- The battery indicator lights will show charging progress.
- Charge time for batteries is approximately 2-4 hours.



Charge Anywhere, Fly Anytime

RK3.0 Smart Charge System

96 Min
(32 min x 3)

Image: Multiple Ruko U11MINI 4K drone batteries connected to a portable power station for simultaneous charging, demonstrating the RK3.0 Smart Charge System.

4.2. Propeller Installation

If propellers are not pre-installed or need replacement, ensure they are correctly attached to the motor arms. Match the propellers with the corresponding motor arms (indicated by markings on the propellers and drone arms).

4.3. Controller and App Setup

1. Download the official Ruko Drone app (U11 series) from your device's app store.
2. Mount your smartphone securely onto the controller's phone holder.
3. Connect your smartphone to the controller using the appropriate USB cable (USB-C, Micro-USB, or Apple Lightning).
4. Power on the controller, then the drone.
5. Open the Ruko Drone app and follow the on-screen instructions to establish a connection.

Video: Ruko U11MINI 4K - Unboxing. This video demonstrates the unboxing process and initial setup of the drone and its components.

Video: Beginner Friendly - Enjoy your first flight with U11MINI 4K! This video provides a quick guide for beginners to get

started with their first flight.

5. OPERATING INSTRUCTIONS

5.1. Takeoff and Landing

The U11MINI 4K features an AI Takeoff/Landing system for effortless and precise control. After connecting the drone and controller, ensure the drone is placed on a flat, open surface.

- **AI Takeoff:** Press the one-key takeoff button in the app or on the controller. The drone will automatically ascend to a safe height and hover.
- **AI Landing:** Press the one-key landing button. The drone will automatically descend and land gently.



Image: The Ruko U11MINI 4K drone in a stable hover, demonstrating its AI Takeoff/Landing system and intelligent positioning features like optical flow, GPS, TOF sensor, and barometric altitude hold.

5.2. Flight Modes and Features

- **Beginner Friendly:** Designed for ease of use, with simplified controls and enhanced stability.
- **Auto-Cruise Control:** Maintains a steady flight speed for smooth, effortless aerial shots.
- **Triple Auto-Return Modes:** Includes one-click return, low battery return, and signal loss return to

prevent drone loss. Adjustable return point settings are available.

- **GPS with Beeper:** A built-in beeper assists in locating the drone if it lands out of sight.

Video: Ruko U11MINI 4K - Your First Pocket Aerial Drone. This video highlights the drone's features and ease of use for new pilots.

Video: Ruko U11MINI 4K - First Flight. Watch a demonstration of the drone's initial flight capabilities and stability.

Video: U11MINI 4K - Mini Pocket Drone, Fly Anytime Anywhere! This video showcases the drone's versatility and ease of use in various environments.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Ruko U11MINI 4K drone.

6.1. Cleaning

- Wipe the drone body and camera lens with a soft, dry cloth after each flight.
- Ensure no dust or debris accumulates in the motor areas or around the gimbal.

6.2. Battery Care

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

6.3. Propeller Inspection

- Before each flight, inspect propellers for any cracks, bends, or damage.
- Replace damaged propellers immediately using the provided spares and screwdriver.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your Ruko U11MINI 4K drone.

Problem	Possible Cause	Solution
Drone does not power on	Battery not charged or inserted correctly	Ensure battery is fully charged and securely inserted.
Drone does not connect to controller/app	Incorrect pairing procedure; app not updated; cable issue	Follow pairing instructions in manual; update app; check USB cable connection.
Unstable flight/drift	GPS signal weak; calibration needed; strong winds	Fly in open area with strong GPS; perform compass calibration; avoid strong winds.
Poor video/photo quality	Lens dirty; lighting conditions; drone vibration	Clean camera lens; fly in good lighting; check for propeller damage.

Problem	Possible Cause	Solution
Drone lost signal/returns home unexpectedly	Out of range; signal interference; low battery	Stay within transmission range; avoid areas with strong interference; ensure sufficient battery.

If you encounter issues not listed here or require further assistance, please contact Ruko Customer Service.

8. SPECIFICATIONS

Feature	Detail
Model Name	U11MINI 4K
Item Weight	248 Grams (8.7 ounces)
Product Dimensions	12.6"L x 7.56"W x 2.28"H
Video Capture Resolution	4K (4K/30fps)
Effective Still Resolution	48 MP (8K Photo)
Optical Sensor Technology	1/2-inch CMOS Sensor
Stabilization	3-Axis Brushless Gimbal and EIS
Max Flight Time (Total)	Up to 96 minutes (with 3 batteries)
Transmission Range	Up to 20,000ft (R2 Digital Transmission)
Connectivity Technology	USB (for controller-phone connection)
Skill Level	Beginner
Battery Cell Composition	Lithium Ion

9. WARRANTY AND SUPPORT

Ruko is committed to providing excellent customer service and support for your U11MINI 4K drone.

9.1. Warranty Information

- **Return/Exchange Policy:** 30 days for return or exchange from the date of purchase.
- **Free Warranty:** 90 days free warranty covering manufacturing defects.

9.2. Customer Service

For any questions, concerns, or technical assistance regarding your Ruko U11MINI 4K drone, please contact our customer service team:

Phone Support: +1 (888) 892-0155

Email Support: service@rukoytoy.com

Operating Hours (PST):

- Mon-Fri: 8 AM to 2 AM (next day)
- Sat-Sun: 8 AM to 5 PM

PD65W




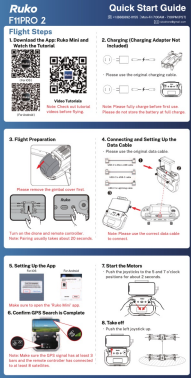






-  3-in-1 Charger
-  Compact & Portable
-  MultiSecurity System

Image: Ruko customer service representatives ready to assist, with contact phone number and email address displayed.

Related Documents - U11MINI 4K

	<p>Ruko F11PRO 2 Drone Quick Start Guide</p> <p>A quick start guide for the Ruko F11PRO 2 drone, covering flight steps, charging, setup, precautions, and return rules.</p>
	<p>Ruko F11GIM2 Drone User Manual: 4K Camera, GPS, and Flight Guide</p> <p>This user manual provides comprehensive guidance for the Ruko F11GIM2 drone. It details setup, operation, safety, app features, and technical specifications for the 4K camera drone with GPS, advanced flight modes, and long-range video transmission. Ideal for users seeking to master aerial photography and videography.</p>
	<p>Ruko F11GIM2 User Manual: Comprehensive Drone Operation Guide</p> <p>Explore the Ruko F11GIM2 drone with this user manual. Learn about setup, flight controls, safety, app features, specifications, and troubleshooting for your Ruko F11GIM2 GPS drone.</p>
	<p>Ruko U11 Pro Drone User Manual</p> <p>Comprehensive user manual for the Ruko U11 Pro drone, covering setup, flight operations, app features, safety guidelines, and specifications. Learn how to fly your drone safely and effectively.</p>

<div><div>User Manual</div><div>v2.0</div><div></div><div>U11 PRO</div></div>	<div>Ruko U11 Pro Drone User Manual: Operation, Features, and Safety Guide</div> <div>Comprehensive user manual for the Ruko U11 Pro drone. Learn about its features, how to operate it safely, understand the remote controller and Ruko GPS app, and find detailed specifications.</div>
<div></div>	<div>Ruko U11MINI Drone User Manual: Features, Operation, and Troubleshooting</div> <div>Comprehensive user manual for the Ruko U11MINI drone, covering control interface, flight operations, safety guidelines, calibration, troubleshooting, specifications, and accessories.</div>