

Ruko R111S

Ruko R111S Remote ID Module User Manual

Model: R111S | Brand: Ruko

1. INTRODUCTION

The Ruko R111S Remote ID Module is designed to provide FAA compliance for drones over 250g that do not have built-in Remote ID capabilities. This lightweight module also functions as a GPS tracker with a built-in beeper to assist in locating lost aircraft. It offers multiple installation options and a user-friendly application for setup and tracking.

2. PACKAGE CONTENTS

Verify that all items are present in your Ruko R111S package:

- 1 × Ruko R111S Remote ID Module
- 2 × Velcro strips
- 2 × Double-sided adhesive tapes
- 8 × Self-locking zip ties
- 1 × Adjustable zip tie mount
- 1 × Type-C Charging Cable
- 1 × User Manual

What's in the box

- 1 x R111S Remote ID Module
- 2 x Velcro
- 2 x Double-Sided Tape
- 8 x Self-Locking Zip Tie
- 1 x Adjustable Zip Tie Mount
- 1 x Type-C Charging Cable
- 1 x User Manual

Light as a feather

Experience free flight with Ruko R111S



Image: Contents of the Ruko R111S Remote ID Module package.

3. SPECIFICATIONS

Feature	Description
Model	R111S
Dimensions	1.5 x 1.34 x 0.53 inches (approx. 1.3 x 1.1 x 0.5 inches stated in feature bullets)
Weight	13.5g (0.48oz)
Battery Life (Buzzer Off)	Up to 3 hours
Battery Life (Buzzer On)	Up to 2.5 hours
Charging Time	Approximately 40 minutes
Charging Port	Type-C
Connectivity	Bluetooth
Supported Application	Ruko Scanner App
Special Features	FAA Regulation Compliance, Precise GPS Tracker, Built-in Beeper/Buzzer
Material	Plastic





Image: Ruko R111S key features and specifications.

4. SETUP & INSTALLATION

4.1 Charging the Module

Before first use, fully charge the R111S module. A full charge takes approximately 40 minutes using the provided Type-C charging cable. Use a charger with less than 15 watts.

Only 40 Minutes To Charge

Up to 3 hours of use

40 minutes



Image: Ruko R111S module being charged via Type-C cable.

4.2 App Installation

Scan the QR code provided in the Quick Guide (included in the package) to download and install the Ruko Scanner app on your smartphone. This app is essential for configuring the device and tracking your drone.

4.3 Mounting the Module on Your Drone

The R111S module is lightweight (13.5g) and designed to have minimal impact on drone flight. Choose an installation method that ensures the module is securely attached and does not interfere with the drone's center of gravity or GPS signal.

4 Ways to Install

Secure to different position



Velcro × 2



Double-sided tape × 2



Adjustable zip tie mount × 1



Self-locking zip tie × 8

Image: Various installation methods for the Ruko R111S module.

Installation on the Arm of FPV Drones (using zip ties)

Your browser does not support the video tag.

Video: Tutorial demonstrating how to install the Ruko R111S module on the arm of an FPV drone using zip ties.

1. Connect two self-locking zip ties together to create a longer tie.
2. Place the R111S module on a flat surface of the drone arm.
3. Secure the module with the connected zip ties, ensuring it is tight and stable.
4. Cut off any excess part of the zip ties.
5. Verify that the module is securely installed and does not obstruct propellers or other moving parts.

Installation on the Top of FPV Drones (using adjustable zip tie mount)

Your browser does not support the video tag.

Video: Tutorial demonstrating how to install the Ruko R111S module on the top of an FPV drone using an adjustable zip tie mount.

1. Attach the adjustable zip tie mount to the back of the R111S module.
2. Peel off the Velcro strap of the drone battery.
3. Attach the zip tie from the mount to the drone's Velcro strap, securing the module on top of the drone.
4. Ensure the battery and module are securely installed.

General Installation Guidelines:

- Avoid areas near the drone's GPS module, propellers, and the bottom of the drone to prevent signal interference and damage.
- Ensure the module has a clear view of the sky for optimal GPS signal acquisition.
- The module should be placed to maintain the drone's balance and center of gravity.



Image: Ruko R111S module on a drone, ready for flight.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

Long press the power button on the R111S module to turn it on. The indicator lights will activate. To power off, long press the power button again.

5.2 GPS Signal Acquisition

The module needs to complete a GPS signal search before drone takeoff. Ensure the module has a clear view of the sky. The working indicator light will show the GPS status (refer to Section 6).

Ensure Compliant And Safe Flight



FAA Compliant



GPS Tracking



Image: Ruko R111S ensuring compliant and safe flight with GPS tracking.

5.3 Using the Ruko Scanner App

The Ruko Scanner app allows you to configure the module, view its status, and track your drone. It also enables the buzzer function for locating lost aircraft.

Your browser does not support the video tag.

Video: Tutorial demonstrating the operation guide for the Ruko R111S module, including app usage.

1. Launch the Ruko Scanner app on your smartphone.
2. Ensure Bluetooth is enabled on your phone and the R111S module is powered on.
3. The app will display nearby R111S devices. Select your module.
4. Follow the in-app instructions to add your drone's ID and obtain the module ID for FAA registration.
5. Once the module is selected and GPS lock is obtained, the app will show the module's location and status on a map.
6. To activate the buzzer, use the Ruko Scanner app. The buzzer has an effective range of about 100 meters and will

emit a continuous sound to help locate your drone.



Buzzer Alarm – Find Lost Aircraft

Range:	Accuracy:	Audibility:
500-1000m	2-3m	10m

Image: Using the Ruko R111S buzzer alarm to find a lost aircraft.

6. INDICATOR LIGHTS GUIDE

The Ruko R111S module features indicator lights to communicate its status:

Instruction of Indicator Lights



Charging Indicator:

The indicator turns red when charging, and turns green when fully charged.



Low Battery Indicator:

Red light blinks when in low battery.



Working Indicator:

Searching for GPS signal: the indicator lights up and flashes after powering on.

GPS signal search completed : the middle light is always on and the right light flashes.



Setting Indicator:

Start setting: The indicator light is green and flashes quickly.

Setting up: The indicator light will turn green and remain on.

Setting successful: The indicator light turns green and flashes quickly.

Image: Explanation of Ruko R111S indicator lights.

- **Charging Indicator:** Red light indicates charging; Green light indicates fully charged.
- **Low Battery Indicator:** Red light blinks when the battery is low.
- **Working Indicator:** Flashing lights indicate searching for GPS signal; Solid green light indicates GPS signal search completed and lock obtained.
- **Setting Indicator:** Green light flashes quickly to start setting; Green light turns solid during setup; Green light flashes quickly when setting is successful.

7. IMPORTANT SAFETY NOTES

- Always ensure the R111S module is securely attached to your drone to prevent detachment during flight.
- Avoid placing the module in a position where it could interfere with the drone's propellers or moving parts.
- Do not block the drone's internal GPS signal or other sensors with the module.
- Ensure the module has a clear line of sight to the sky for accurate GPS tracking.
- Comply with all local aviation regulations, including FAA Remote ID requirements.

8. MAINTENANCE

- Keep the module clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Store the module in a cool, dry place when not in use.
- Regularly check the charging port for any damage or obstruction.
- Ensure the adhesive on Velcro or double-sided tape is still strong before each flight. Replace if necessary.

9. TROUBLESHOOTING

9.1 Module Not Powering On

- Ensure the battery is charged. Connect the module to the Type-C charging cable and check if the charging indicator lights up red.
- Long press the power button for at least 3 seconds.

9.2 No GPS Lock (Working Indicator Flashing)

- Ensure the module has a clear, unobstructed view of the sky. Avoid indoor use for GPS lock.
- Wait for a few minutes in an open outdoor area for the module to acquire a GPS signal.
- Ensure the module is not placed in a location that blocks its own GPS antenna or the drone's GPS.

9.3 Buzzer Not Activating

- Ensure the Ruko Scanner app is connected to the module.
- Verify that the buzzer function is enabled within the app.
- Check the module's battery level; a low battery might affect buzzer operation.

9.4 Module Indicator Light Turns Blue

- A blue indicator light indicates that a self-test has been entered. Restart the device to restore normal operation.

10. WARRANTY & SUPPORT

Ruko offers a 30-day return or exchange policy and a 90-day free warranty for the R111S Remote ID Module. For any questions regarding product operation, technical support, or warranty claims, please contact Ruko customer service:

Phone: +1 (888) 892-0155 (Mon-Fri 5:00 AM - 2:00 PM PST)

Email: service@rukotoy.com

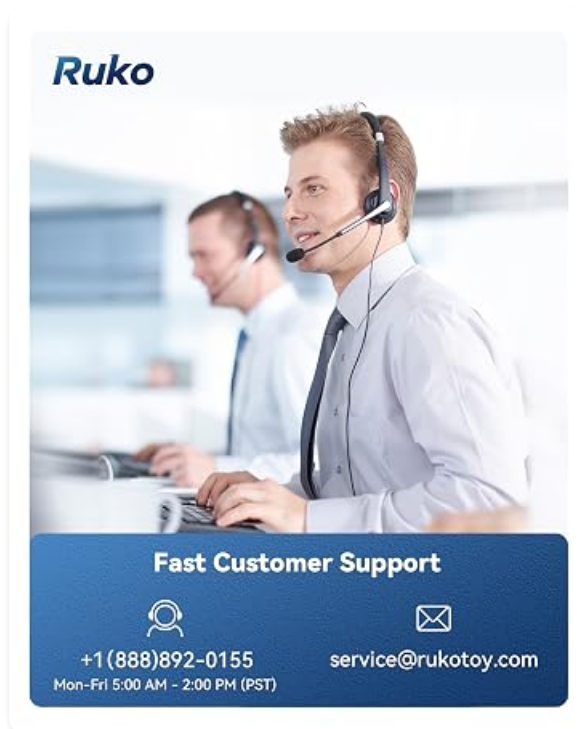


Image: Ruko customer support details.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question

and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question