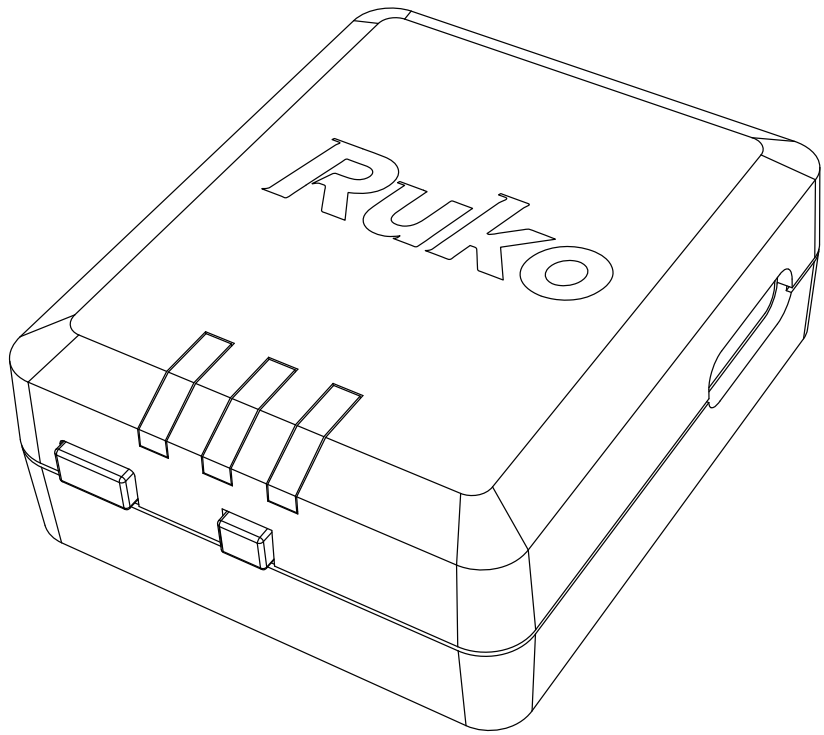
Ruko®

14+
for age

User Manual



R111

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1 Quick Guide

1.Download App

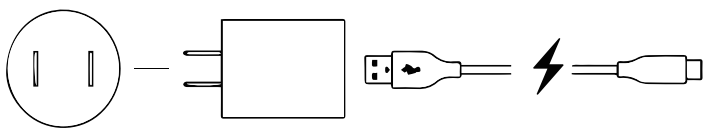
Ruko Scanner

(iOS)

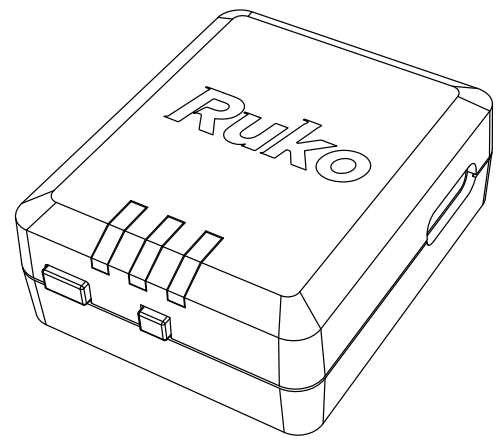
(Android)

Charge the Batteries

・Charger not included



≤15W



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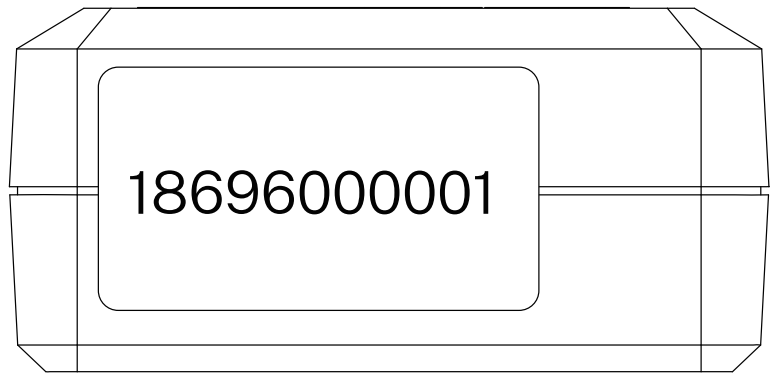
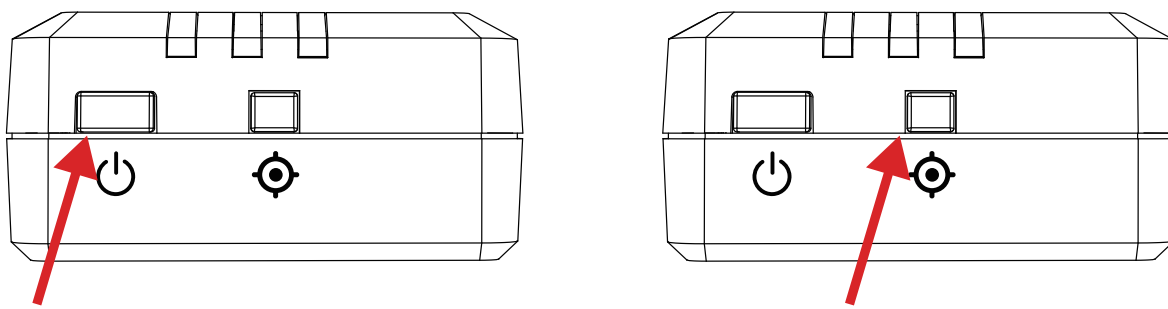
2.RID Serial Number Registration

- Register with the RID Serial Number on the FAA Drone Zone website.



3.Drone Information Binding



1. Press the power switch for 3 seconds;
2. Press the settings button for 3 seconds;

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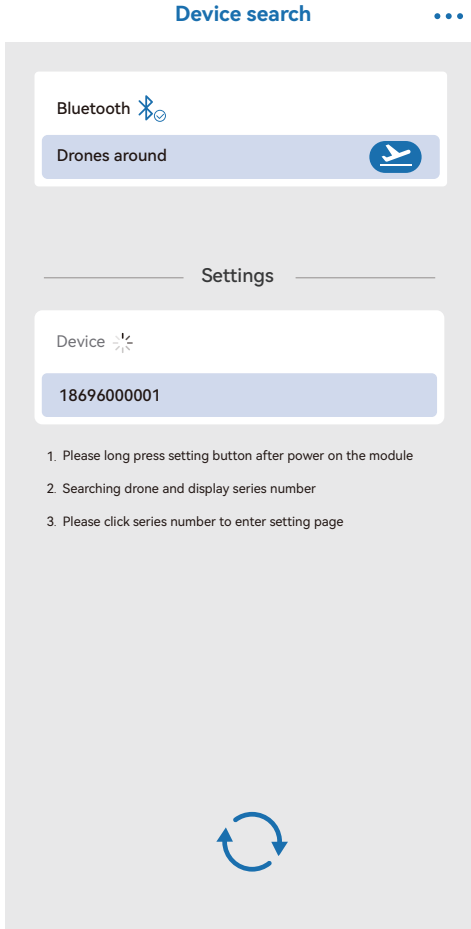
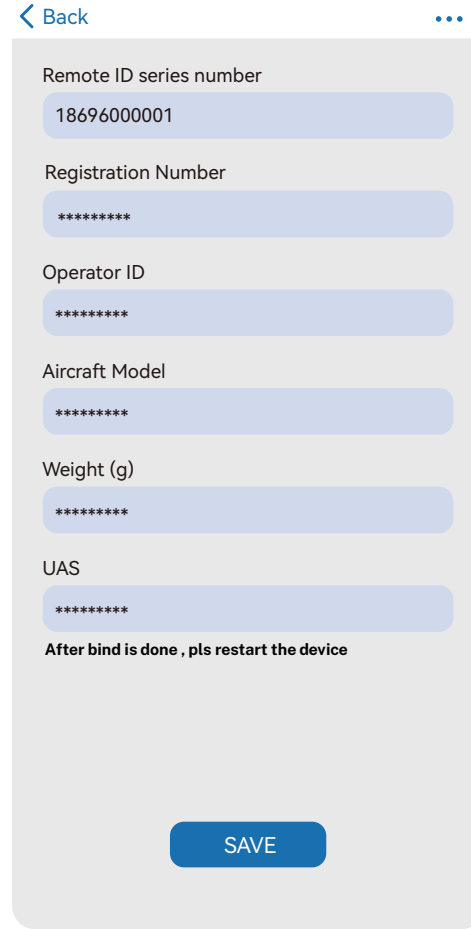
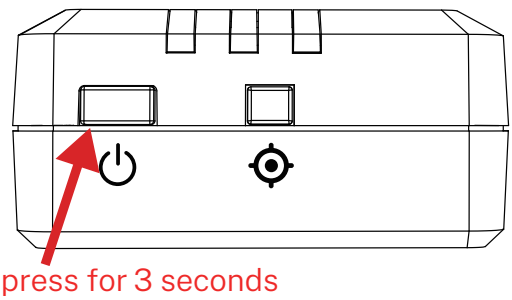
3. Click on the device serial number to enter settings on the App;

4. Input binding information and save it;





5. Restart the RID module until the indicator on the right side blinks rapidly.



- Note: The binding succeeds only after the device is restarted.

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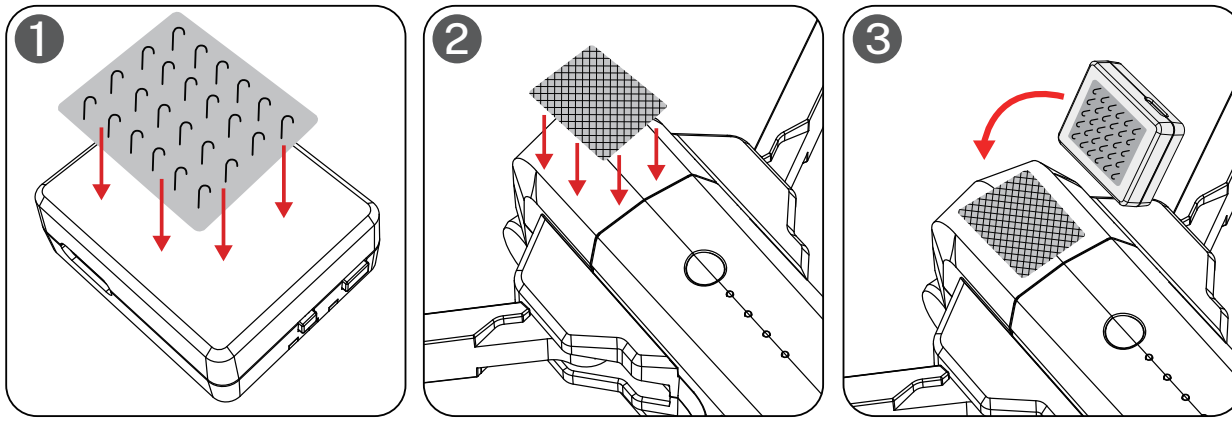
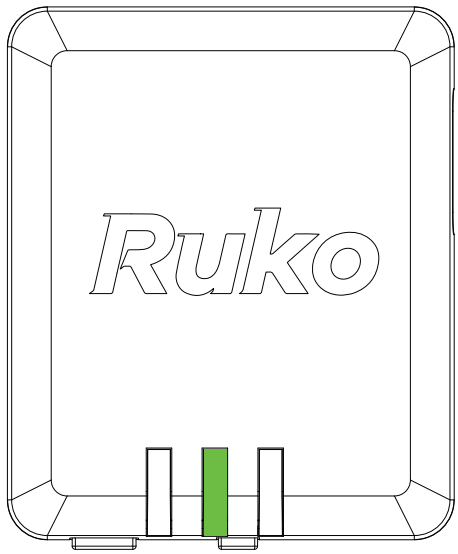
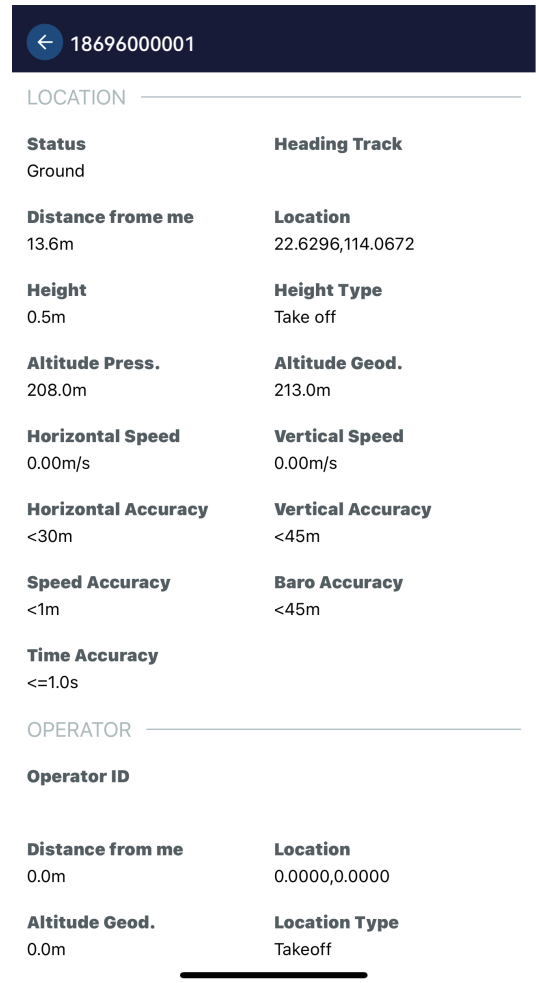
4.RID Module Installation



5.RID Information Broadcasting

1. Search for GPS signal outdoors (90-120s).
2. Broadcast Information:





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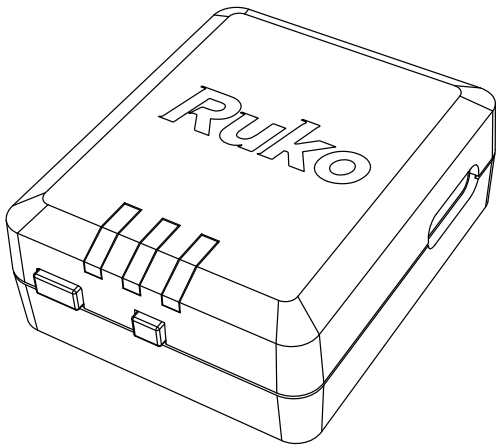
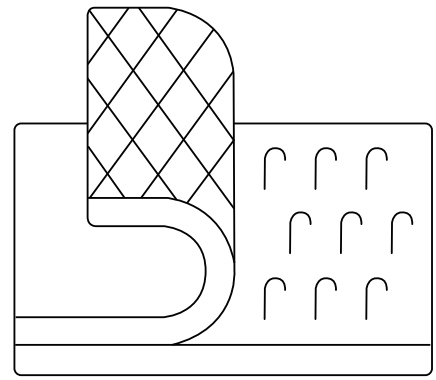
2 Product Introduction

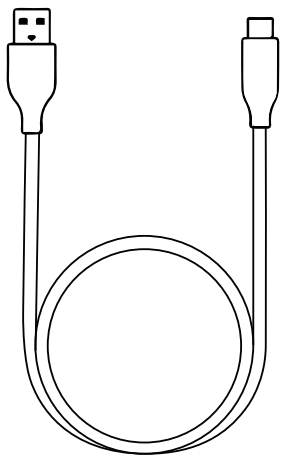
2.1 Product List



1. RID Module



2. Velcro



3. Charging Cable

4. Instruction Manual

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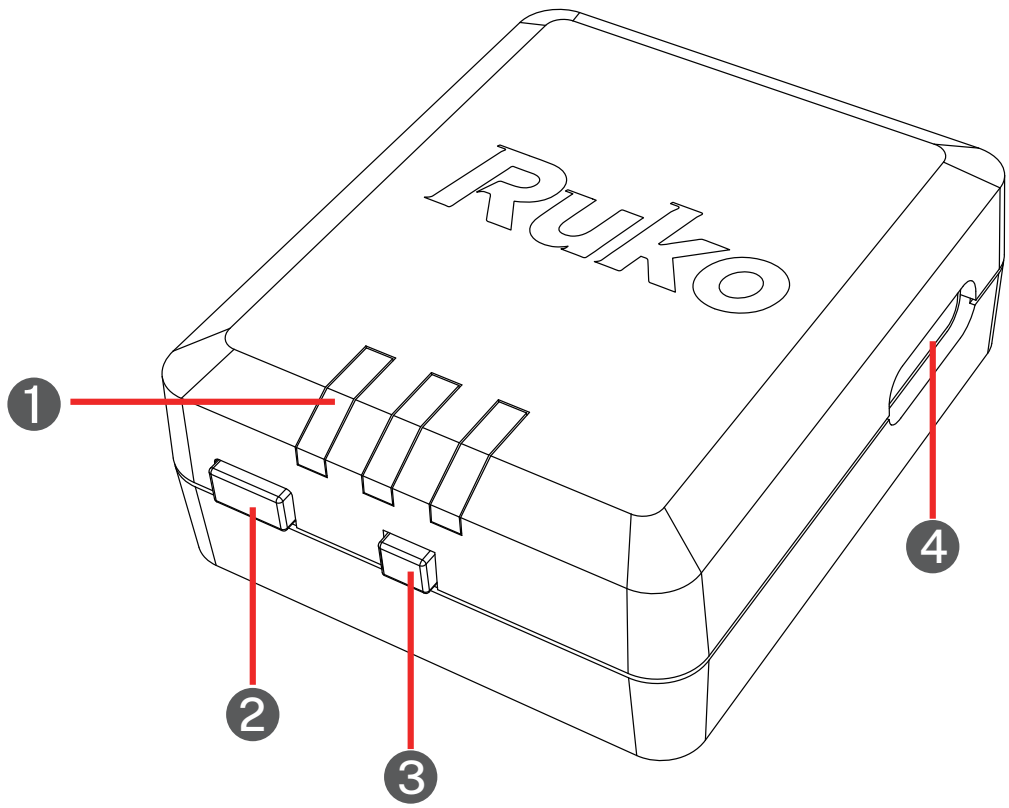
2.2 Product Appearance

- The Ruko R111 is a small, lightweight external remote ID broadcast module that allows you to repeatedly change the settings to bind other drone device, which needs remote ID broadcast module requirment.



1.Indicator light

2.Switch

3.Setting

4.Charging Port

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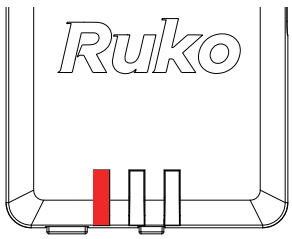
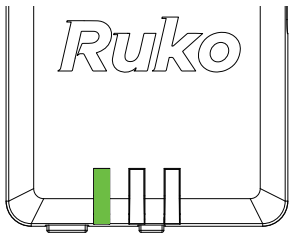
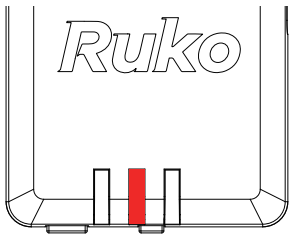
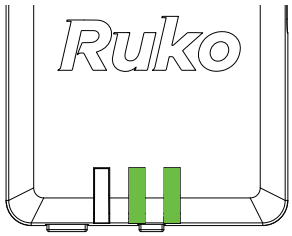
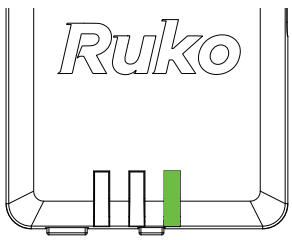
Icon	Icon Name	Notes
	Charging Indicator	Indicator turns red when charging
	Charging Indicator	Indicator turns green when fully charged
	Low Battery Indicator	Red light blinks when in low battery.
	Working Indicator	Star-searching Status: The indicator lights up and flashes in turn after powering on. Star-searching Completed Status: the middle light is always on, the right light flashes.
	Setting Indicator	Enter Setup: Green light is always on. Setup Succeeded: Green light flashes quickly.

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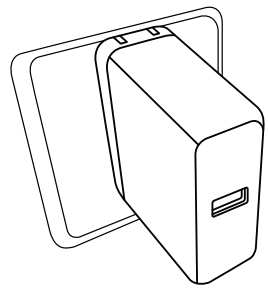
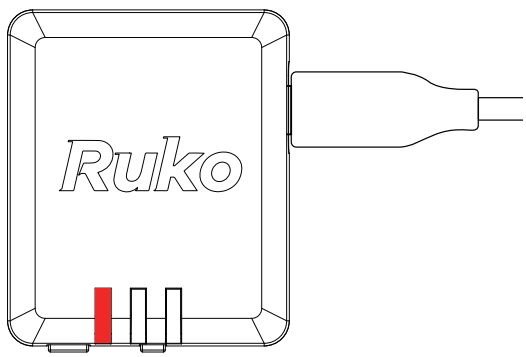
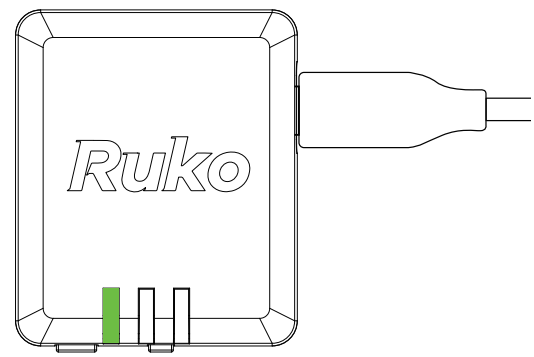
2.3 Product Charging



Adapter：5V/3A（Not Included）



(Charging)



(Charging finished)

- Please be sure to fully charge it before each use:

1. Please use 5V/2A-3A USB charging plug.
2. In the charging state, the indicator will be in red light. When the indicator turns green, it means charging completed.
3. After charging is completed, please remove the charger in time.
4. When using 5V/2A charging plug, it may take about 40 minutes to complete charging.

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3 Ruko Scanner App

3.1 Ruko Scanner Download

- Scan the QR code to get the download link.
- Connect the Ruko Scanner App to use R111 remote ID module.
- The App supports Android 6.0 and above, iOS 10.0.2 and above.

(iOS)

(Android)

⚠ **Notes on App download:**

- You can search for Ruko Scanner on Google and Apple stores to download it.
- Scan the QR code to download: Android phones need to scan the camera scanning function on the browser to download.

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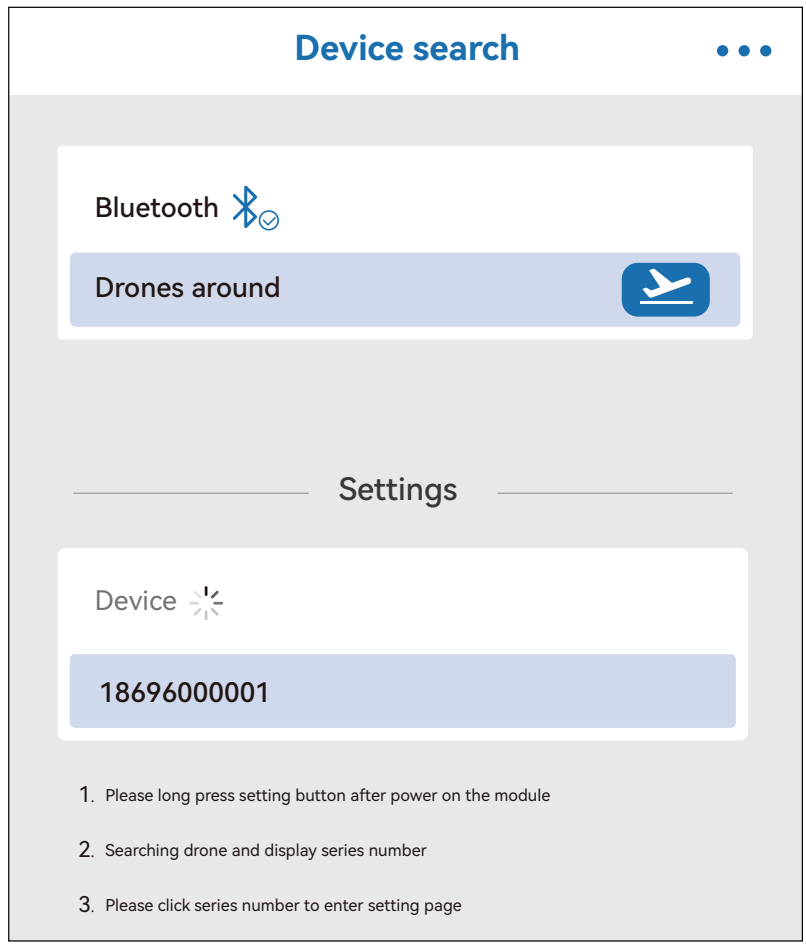
3.2 Video Tutorials

- According to the corresponding aircraft, visit the link or scan the QR code below to locate the model to watch tutorial videos or get more technical support, which how to use the aircraft safely.

3.3 Ruko Scanner Interface



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Icon	Icon Name	Display Information
	Remote ID Search Bar	Display remote ID broadcast serial number. (Click the serial number + long press the module setting button to enter the interface of Information Editing Bar)
	Operation Guide Bar	Instruction / Video provide the operation guide.
	Drones around Bar	Click it to enter the Surrounding Drones Interface to view the information of surrounding drones.

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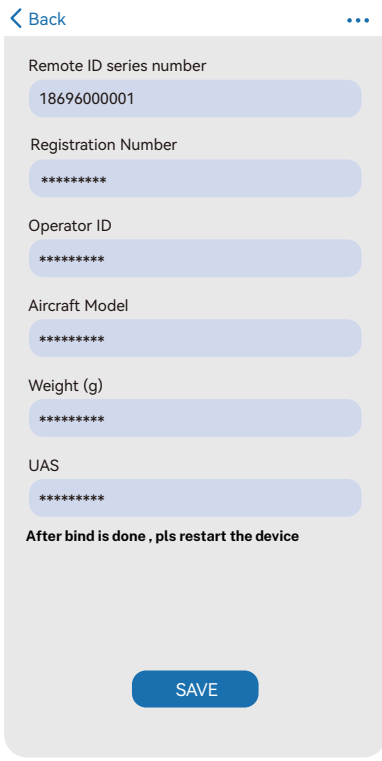
Icon	Icon Name	Display Information
	Information Editing Bar	Edit the related registration information of your drone.
	Surrounding Drones Interface	Display the serial number information of surrounding drones.

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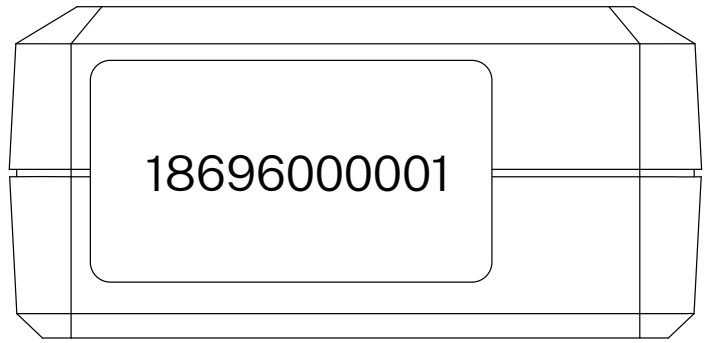
4 RID Module Usage

4.1 RID Serial Number Registration

- In order to comply with FAA Declaration of Compliance, the Remote ID Module serial number must be registered with the FAA website. The serial number is available on the device case sticker or on the Ruko Scanner App.



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FAA Registration Steps:

1. Log on to the FAA Drone Zone website: https://faadronezone-access.faa.gov
2. Register or login to FAA Drone Zone.
3. Add a service "SELECT DRONE OWNERS AND PILOTS SERVICE".
4. Enter "LAUNCH DRONE OWNERS AND PILOTS DASHBOARD" and select "SET UP PART 107 ACCOUNT" and register your personal information account.
5. Select "MANAGE DEVICE INVENTORY" under "Inventory" in the "Part 107 Dashboard".
6. Under "Your Shopping Cart", select "ADD DEVICE".
7. In the Add Device, follow the guidelines below to make your selection:
   ① In the Add Device directory, select "Yes" for "DOES YOUR DRONE BROADCAST FAA REMOTE ID INFORMATION?";
   ② Select "Remote lD Broadcast Module" for "UAS TYPE";
   ③ Fill in "Ruko" for "UAS MANUFACTURER";
   ④ Fill in the corresponding "R111" for "UAS MODEL";
   ⑤ "REMOTE ID SERIAL NUMBER" can be obtained from the sticker on the device case or from the Ruko Scanner App;
   ⑥ After filling in, select "ADD DEVICE".
8. Return to "Your Shopping Cart" interface, select "CHECKOUT" and fill in "Payment Information" to finalize the payment.
9. The electronic version of the registration certificate will be sent to the personal account via Email, download and save it.

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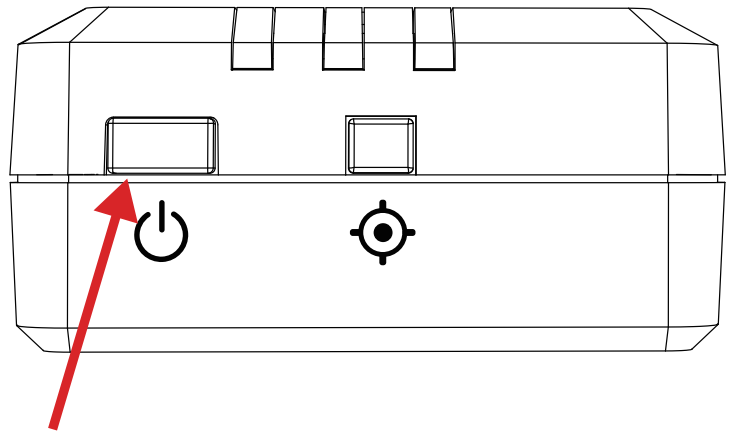
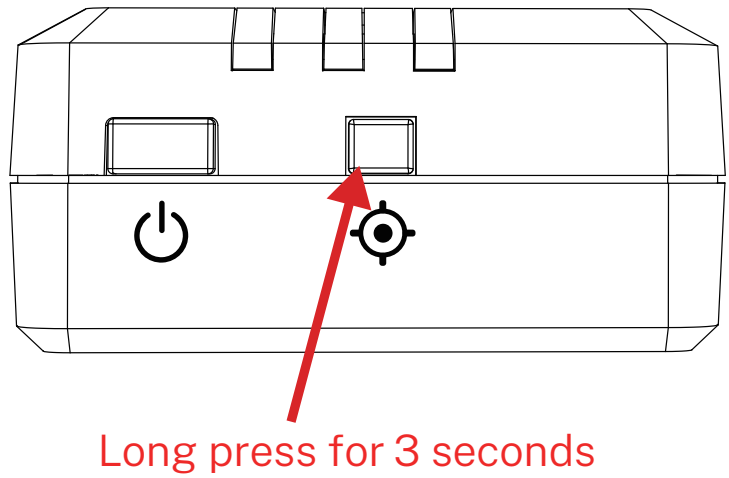
4.2 Drone Information Binding

1. Turn on the remote ID module: press and hold the switch for 3 seconds until the indicator lights up.



2. Press and hold the device setting button. The light on the right side will stay on and the device will enter the setting mode.



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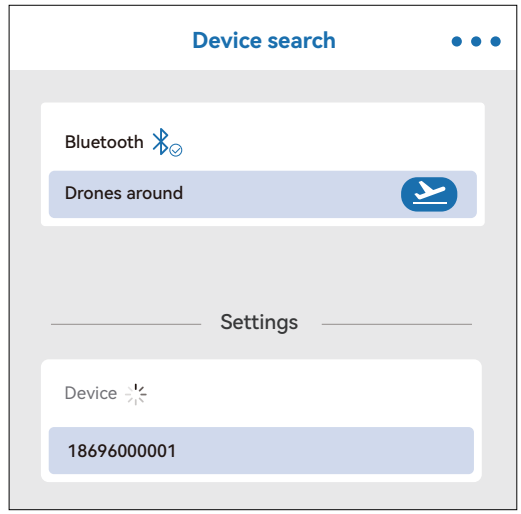
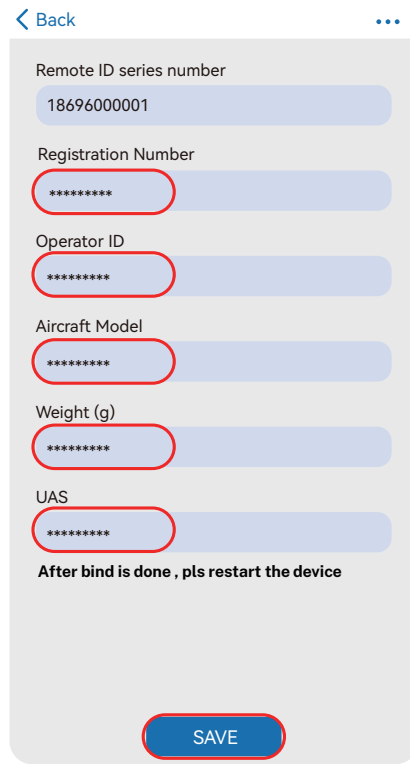
3. Enter Ruko Scanner App (using this App requires turning on the Bluetooth function of your phone).



4. Tap the device ID found and enter the Settings of the App.

5. Input the information of the device and save it, the rapid blinking of the light on the right side of the device indicates that the binding is successful.



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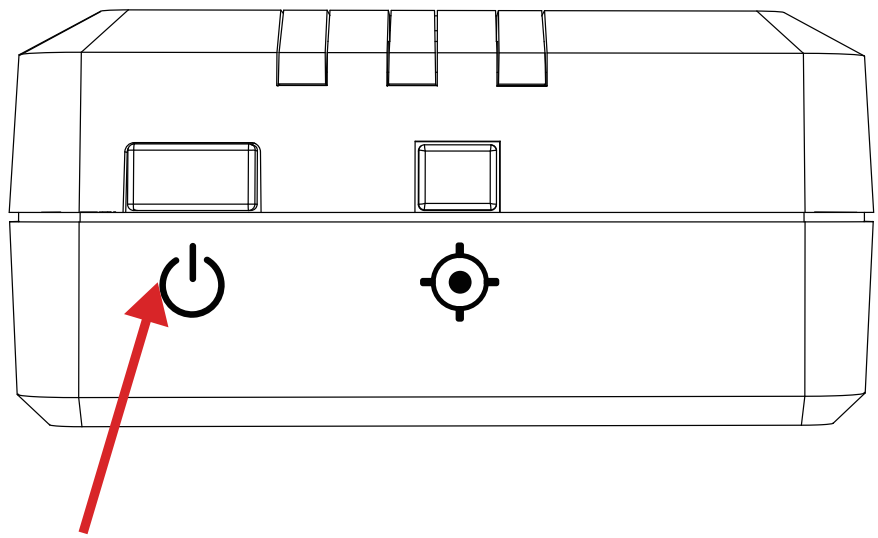
6. Restart the remote ID module.



- Power off: Long press the switch for 3 seconds until the indicator light goes out.
- Note: After setting the information, restart the device to work properly based on the latest binding information.

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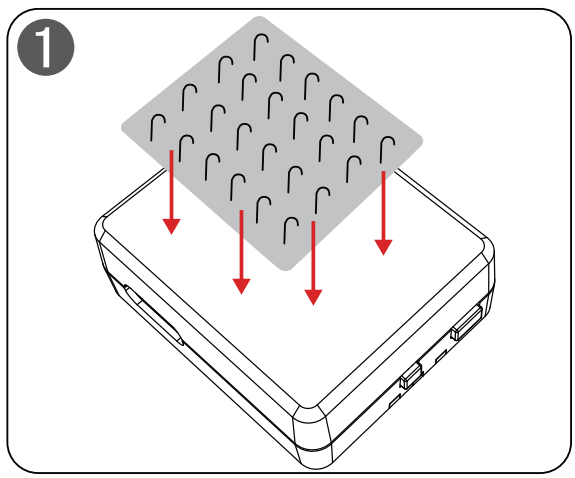
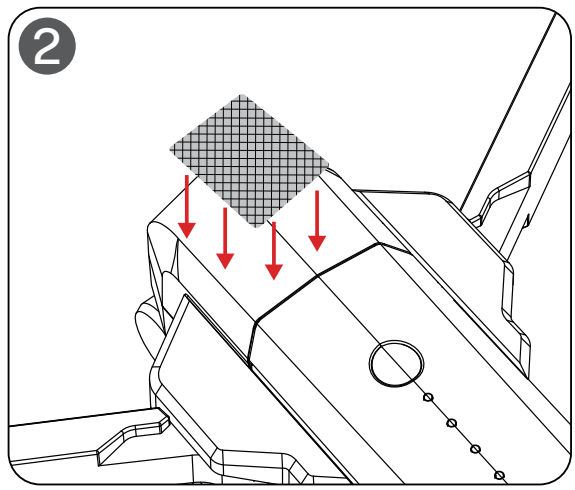
4.3 RID Module Installation

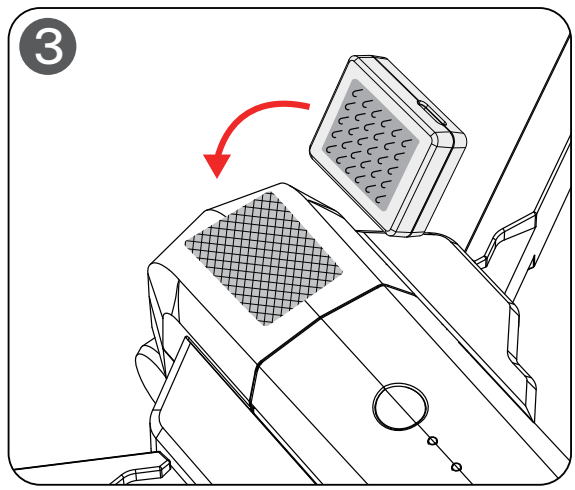
- The R111 is equipped with Velcro. It can be fixed by Velcro or other means.



1. Attach one Velcro to the RID module;



2. Attach the other Velcro to the drone;



3. Attach the RID module to the drone.

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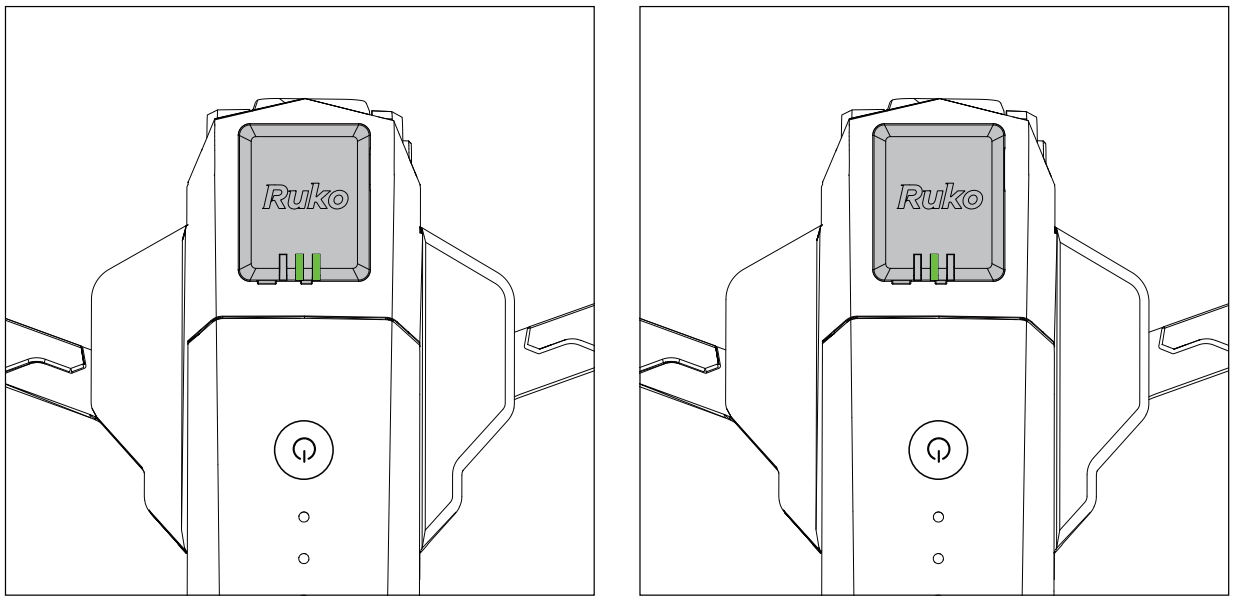
4.4 RID Information Broadcasting

1. The RID module can send broadcast information normally only when the GPS signal is found outdoors.
   Search time: 90-120s (depending on the environment).



- GPS search in progress: Lights flash in turn
- GPS search completed: center light steady on, right light flashing

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⚠ **Attention:**

- Be sure to know the location of the drone's GPS module well to avoid the RID module blocking the drone's GPS, resulting in the drone not being able to search for GPS signals properly.
- Be sure to install the RID module firmly with the drone and safely avoid the blades of the drone to avoid the blades hitting the RID module.
- The RID module needs to be installed in an unobstructed place to avoid blocking the GPS signal of the RID module, resulting in the inability to search the GPS signal and broadcast data normally.

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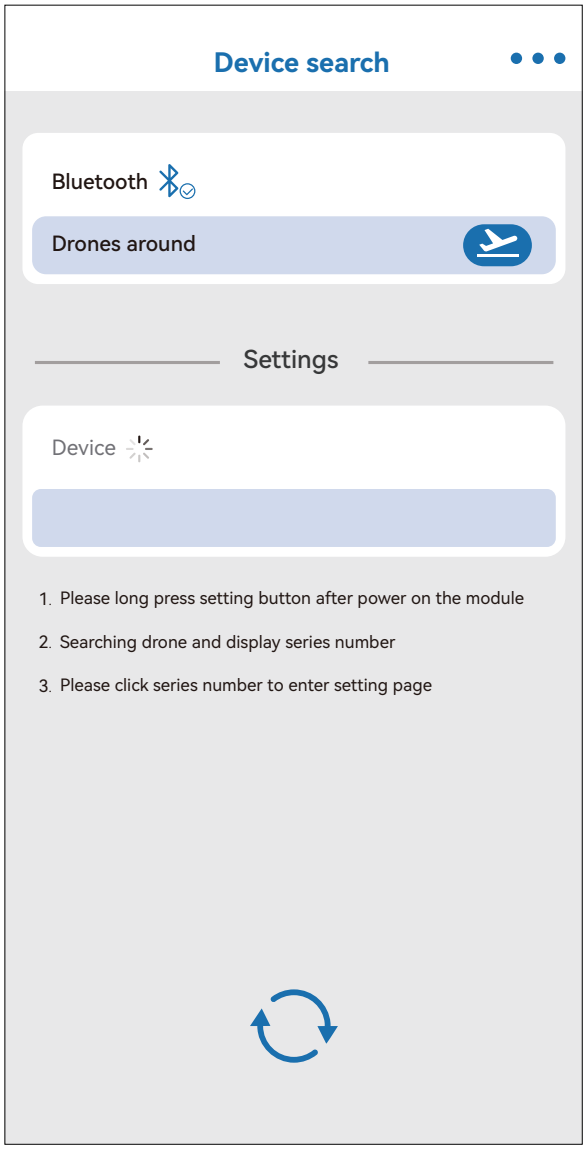
4.5 Broadcast Data Viewing

1. Enter the App;

2. Click to view data on surrounding drones:



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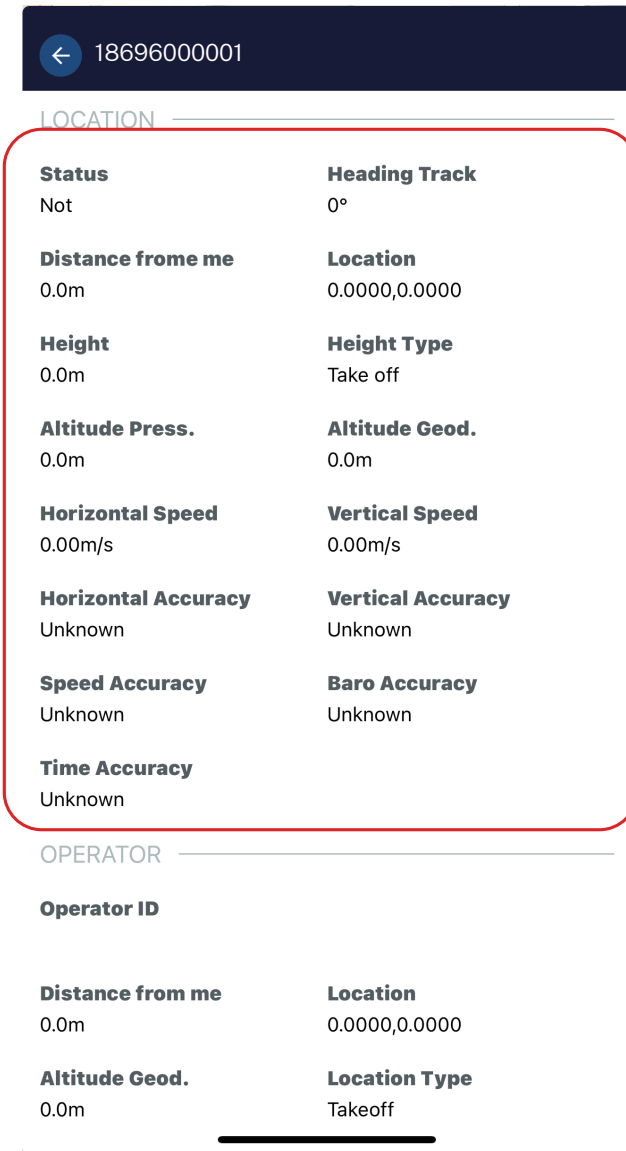
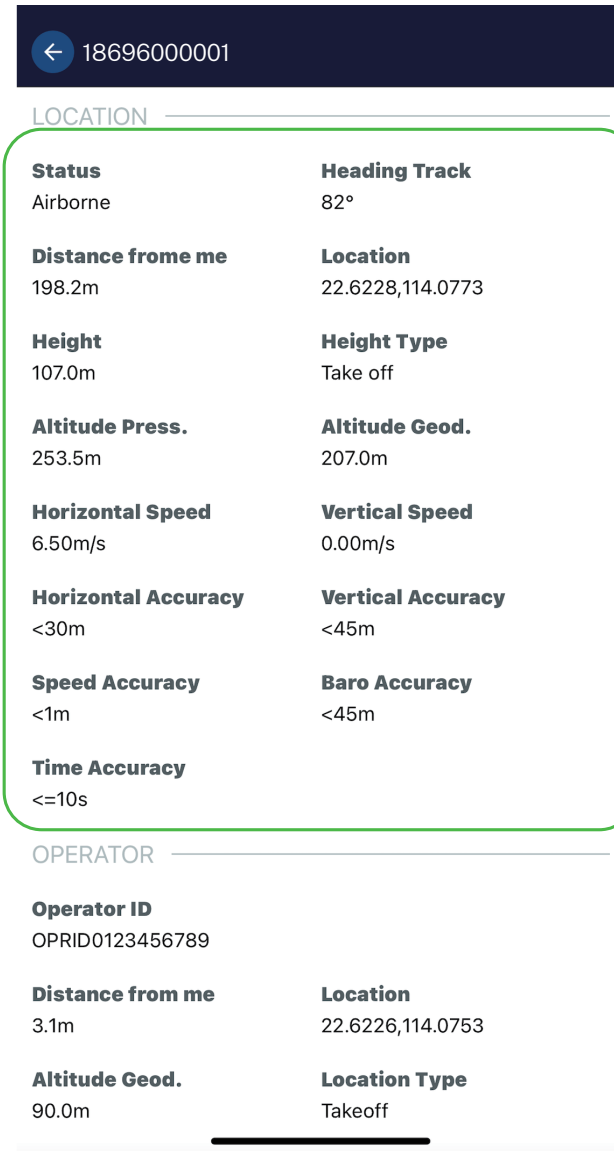
3.Data Viewing:



GPS signal data not found



Data broadcast normally

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5 Specification

- Model: R111
- Working Mode: Bluetooth4 / Bluetooth5
- Charging Time: About 40 minutes
- Working Time: About 4 hours
- Battery Capacity: 150mAh
- Operating Voltage: 3.7V
- Product Size: 38*34*13.5 mm / 1.50*1.34*0.53 in
- Product Weight: About 13g / 0.46oz

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6 Common Problems and Solutions

Problems	Reasons	Solutions
Failed to bind the RID module to the drone	Did not set correctly	Reset
	Did not restart the device	Restart the device and retry
The RID module cannot broadcast data properly	No GPS signal found	Wait for the signal search to complete
	The fixed position of the RID module blocks the GPS signal	Change the position of the RID module
Drone GPS signal search failed	The fixed position of the RID module occludes the GPS module of the drone	Change the position of the RID module
The App cannot search for RID module serial number	Mobile phone Bluetooth permission is not enabled	Turn on Bluetooth permission and refresh the search list

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7. Safety Precautions

⚠:

1. Please read the entire manual before the operation to familiarize yourself with the functions of the product.
2. Improper operation of the product may result in damage to the product, personal property and serious injury.
3. It must be operated with caution and common sense, and some basic mechanical ability is required.
4. Failure to handle this product in a safe and responsible manner may result in personal injury or damage to the product or other property.
5. This product is not suitable for use by children without direct adult supervision.
6. Do not enhance the product by disassembling, using incompatible components, or in any other ways.
7. All instructions and warnings in the manual must be read and followed before assembly, setup or use in order to operate correctly and avoid damage or serious injury.

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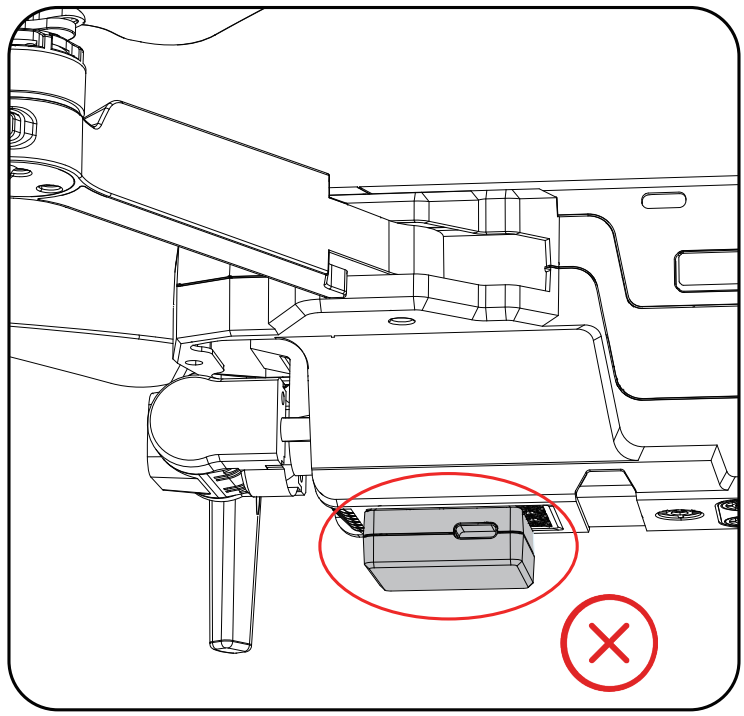
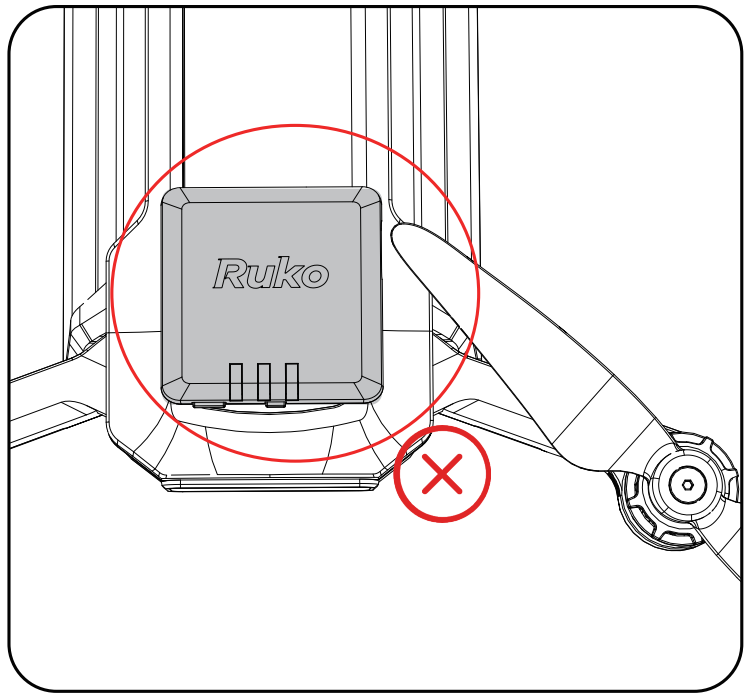
- Note: This product is suitable for use in consumer-grade drones. RUKO does not assume any responsibility for any damage to drones or other equipment during use, except for the remote ID module.





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