

HDJS 1.0

User Manual

V2.1



Reading Tips

This manual applies to the UAV radio countermeasure equipment developed and produced by the company. The manual provides comprehensive specifications, functional design, structure and specification requirements of the system, as well as installation, deployment, and operational requirements, serving as an operational guide for end users.

Symbol Legend



Supplementary Notes: Additional explanations and annotations to the main text of the manual.



Safety Notices: Important operational warnings and risk prevention guidelines for users.



DANGER: Indicates imminent hazards which, if not avoided, will result in death or serious injury and major property damage.

Manual Usage Recommendations

1. Before using the product, please read this manual thoroughly. Retain this manual for future reference to address any operational inquiries.
2. All photographs, graphics, charts, and illustrations in this manual are for explanatory purposes only and may differ from the actual product. Refer to the physical product for exact specifications. The company reserves the right to update this manual due to product version upgrades or other requirements, with the latest electronic version to be distributed to users.
3. The company recommends using this manual under the guidance of qualified personnel.

Safety Notice

Before using the product, please carefully read the following precautions and operate the product correctly as required.

Installation Precautions

Environmental Requirements

Do not install or store the product in any of the following locations:

- Extreme environments: places where temperatures exceed the range of the device operating temperature or where frost may form.
- Near strong electromagnetic interference sources or equipment with large current fluctuations.
- Areas with flammable, explosive, corrosive gases or dust.
- Damp or water-exposed areas. Liquid ingress may cause electric shock or fire hazards.

Operational Guidelines

- Only qualified personnel or designated maintenance staff may open the chassis.
- All antennas must be fully connected and tightened according to the labels. Powering on the device without antennas installed is strictly prohibited.

Usage Precautions

Power and Electrical Safety

- Use only the specified AC 110 V–220 V power supply.
- Do not pull or bend the power cord. Avoid crushing or twisting it, and stop using it if damaged.
- Do not operate the equipment during thunderstorms. Avoid touching power lines or device connectors during lightning to prevent electric shock.
- Always unplug the power cord before moving the device.
- Do not touch the power plug with wet hands.

- When unplugging the power cord, hold the plug body firmly.

Operational Risk Warnings

- If abnormal conditions such as smoke, unusual noises, or burning smells occur, shut off power immediately and contact our after-sales service department.
- Do not install any software unrelated to the software platform; system issues caused by such software are not covered under warranty.
- Do not connect unauthorized USB drives or external hard drives to avoid malware infection. Do not delete server files arbitrarily, change the system time, or shut down or restart the server without authorization.
- Unauthorized personnel are prohibited from disassembling the device to avoid damaging internal components or compromising your rights. If the device malfunctions during use, contact our after-sales service department.

Regulatory Compliance

- This device may cause radio interference during operation. Users must take feasible measures to mitigate such interference.
- If suspected interference occurs with civil-aviation or military frequencies, stop using the device immediately, investigate the cause, and report the incident.

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1 Product Introduction

The product HDJS 1.0 adopts an integrated design concept, integrates detection, early warning, target direction finding, jamming, display and control networking functions into one. It can be used independently in a single set or in a network of multiple sets of equipment, visually displaying the equipment and target status on control terminal.

1.1 Main Functions

Comprehensive Features

Integrated design with detection and jamming, early warning, direction finding functionality.

Self-contained System

Multiple task operating functions and support to work with the drone defense system.

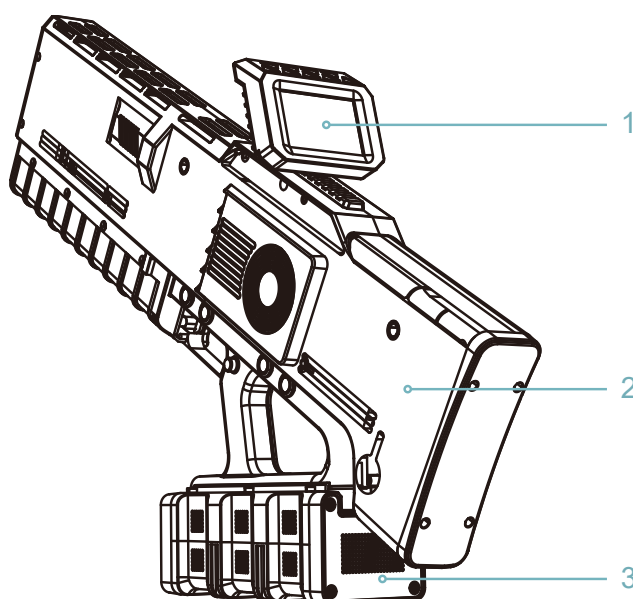
Flexible and Convenient

Handheld designed, easy to carry and simple to use.

Ergonomically Designed

Fulfil the collaborative demands of running, lifting, standing, safety, and comfort.

1.2 Product Appearance



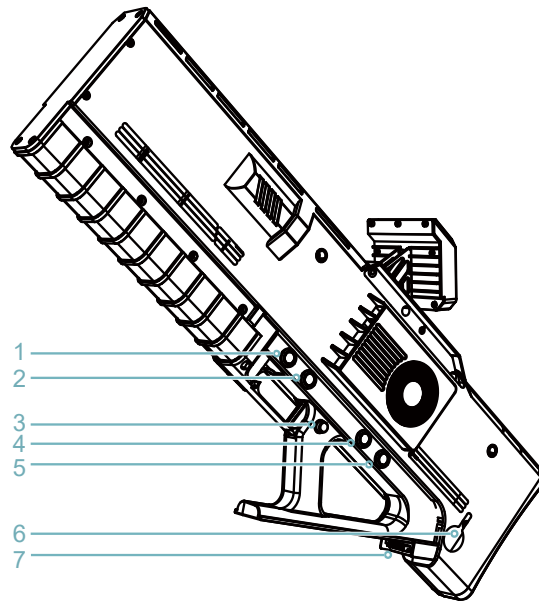
1. Touch Screen

3. Lithium Battery

2. Main Unit

1.3 Ports and Buttons

The Ports and Buttons of Main Unit



1. Power On/Off Button

5. Tri-band/Quad-band jamming switch button

2. Detection/Direction-finding switch button

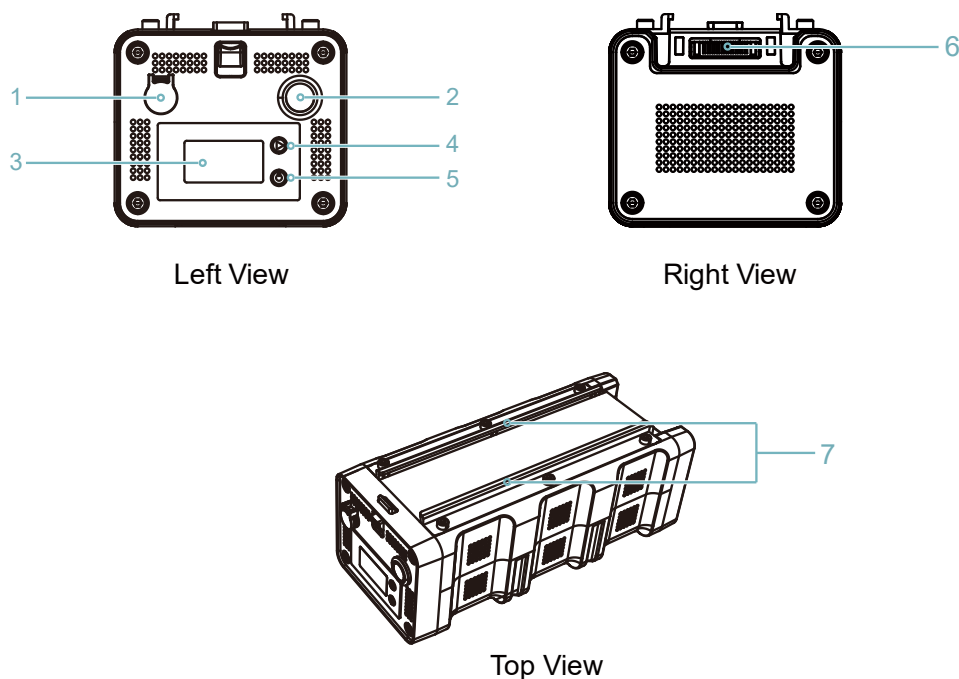
6. Ethernet port

3. Trigger lock

7. Male connector for lithium battery

4. Navigation spoofing switch

The Ports and Buttons of Lithium Battery



1. Charging port of the lithium battery

5. Power On/Off button of the battery display screen

2. Power On/Off Button of the lithium battery

6. Female connector for lithium battery

3. Lithium battery information display screen

7. Mounting rails

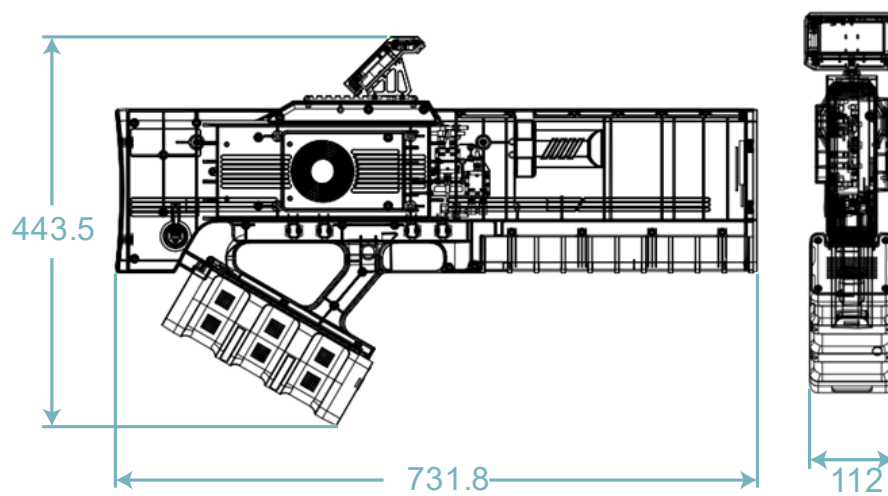
4. Voltage/Temperature display switch button

1.4 Mechanical Characteristics

Item	Specification
Size⁽¹⁾	
Length	731.8mm

Item	Specification
Width	443.5mm
Thickness	112mm
Weight	
Weight	6kg

(1) The data are of the main unit and lithium battery.



2 Equipment Deployment Preparation

This device adopts a portable design ideal for rapid outdoor deployment. Under compliant environmental conditions, it ensures stable operation and optimal detection, jamming and spoofing performance. First check the specifications and quantity of all parts and standard parts according to the equipment delivery list, and then assemble them step by step according to the following installation steps.

2.1 Site Selection

The equipment is typically deployed outdoors. Site the equipment should pay attention to the following factors:

Visibility environment: Choose a flat, open highland or building rooftop, ensuring a 360° unobstructed view for the antenna placement.

Electromagnetic environment: Avoid electromagnetic interference zones such as microwave stations, radio transmission towers, and high-voltage power line crossings, as well as areas near glass curtain wall clusters and large metal structures (e.g., bridges, transmission towers).

Natural environment:

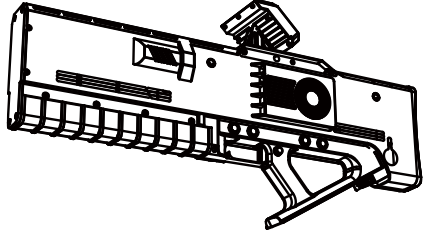
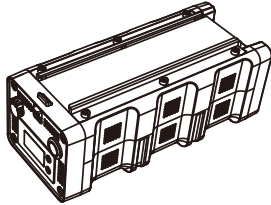
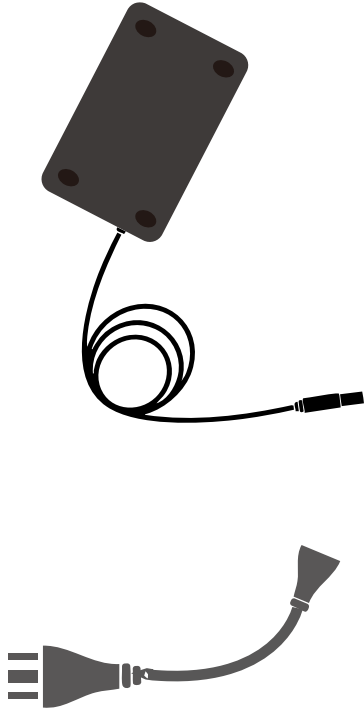
- Avoid the wind to reduce the equipment antenna wind load.
- When deploying in thunderstorm-prone areas, avoid locations susceptible to water accumulation and lightning strikes.

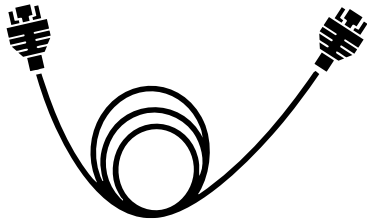
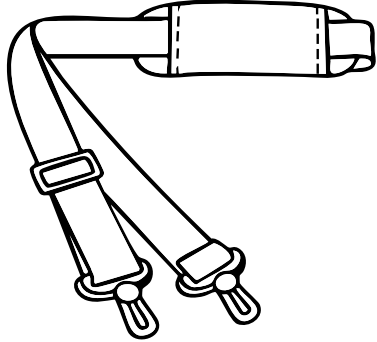
Electrical Environment: Avoid areas near electrified railways, base stations, or any other sources prone to signal interference.

Infrastructure: Ensure the site has mains power access and supports connection to public or dedicated communication networks.

2.2 Delivery Checklist

Check the specifications and quantity of all parts and standard parts according to the equipment delivery list.

Part	Quantity	Description	Diagram
Main Unit	1	Main unit of the device; used for detection, identification, direction-finding, and the transmission of jamming signals.	
Lithium Battery	1	28.8V, 10.05Ah; used to power the main unit.	
Power adapter	1	Used for charging lithium batteries.	

Category 6 Network Cable	1	Category 6 round network cable - 2M; used for connecting the device to the control terminal.	
Shoulder Strap	1	Polyester shoulder strap with quick-detach buckle; used for securing the device during carrying.	

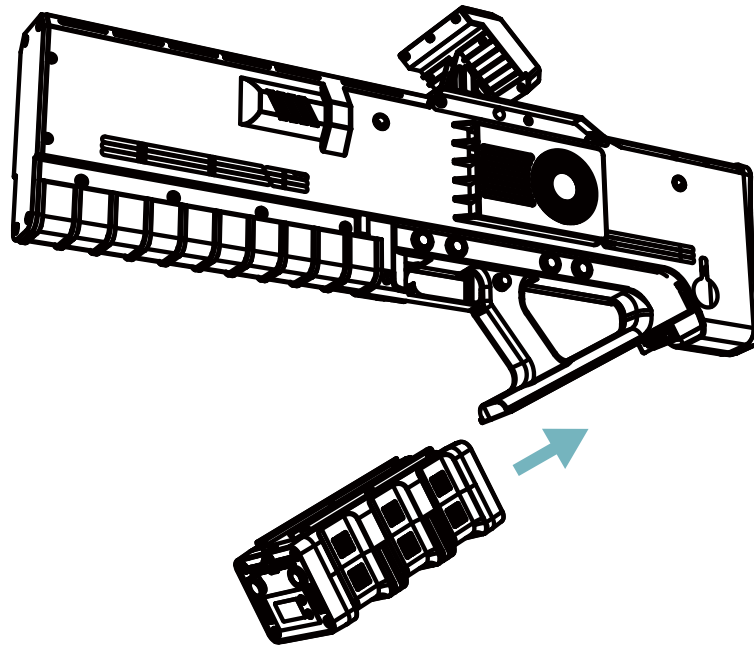
3 Deploy the Equipment

3.1 Check and Install the Lithium Battery

1. Check the lithium battery to confirm that its appearance and charge level are normal.
2. Align the battery's mounting rails with the fixed slot on the main unit and push them forward. Connect the battery's female connector to the male connector on the gun. A click sound will indicate successful engagement and lock of the front fixing latch, preventing the battery from sliding out.

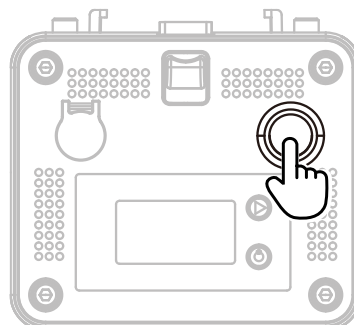


To remove the battery, press down the front fixing latch while simultaneously pushing the battery outward to release it from the device.

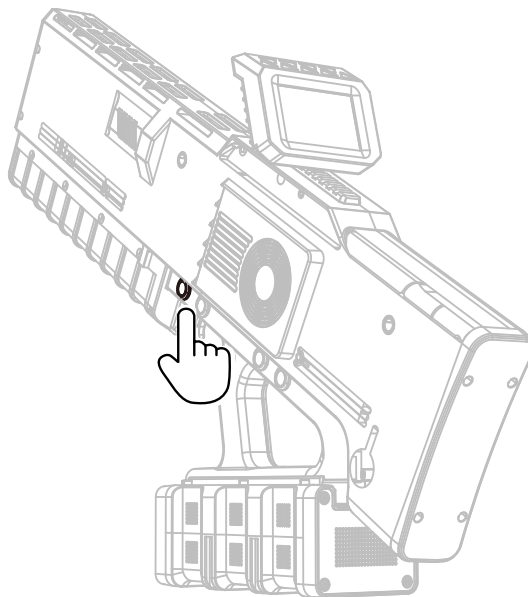


3.2 Power On / Power Off

1. After installing the lithium battery, press the power button on lithium battery.



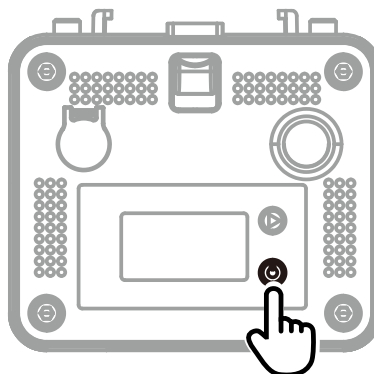
2. Press the power button on main unit.



3. The startup screen appears on the touch screen of main unit.

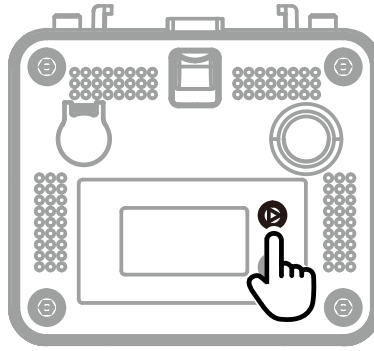


4. (Optional) Check information on the battery display screen.
 - a) Press the Power on/off button of the battery display screen to display charge level and voltage.



- b) Press Voltage/Temperature display switch button to switch voltage information to

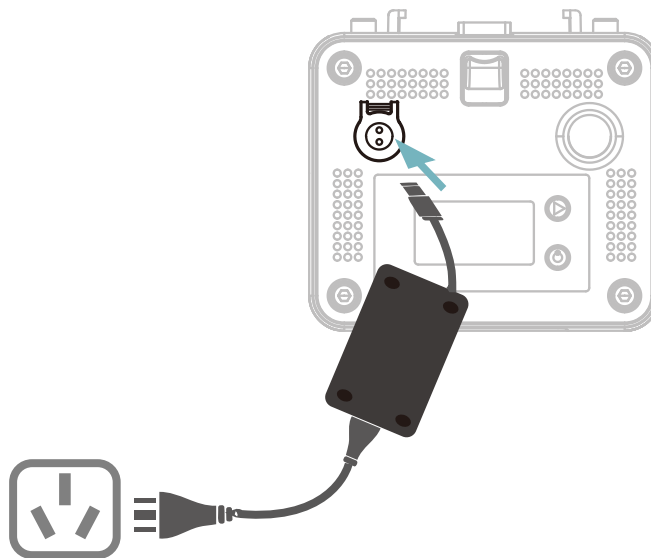
temperature information.



Press the power button on main unit, then press the power button on lithium battery to power off.

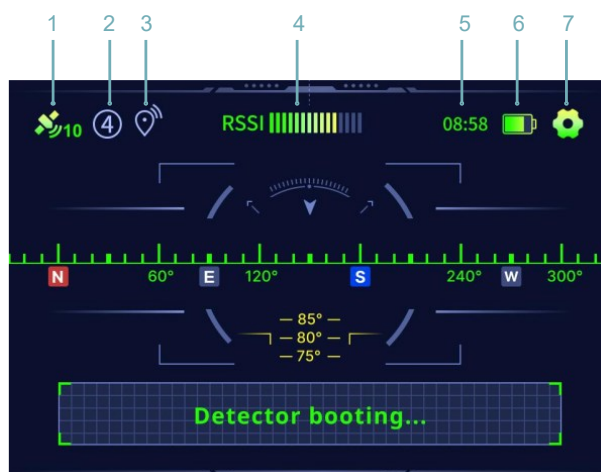
3.3 Charge

1. Connect the input end of the power adapter to the fixed power supply and insert the output end into the power connector on lithium battery.



4 Drone Defense System

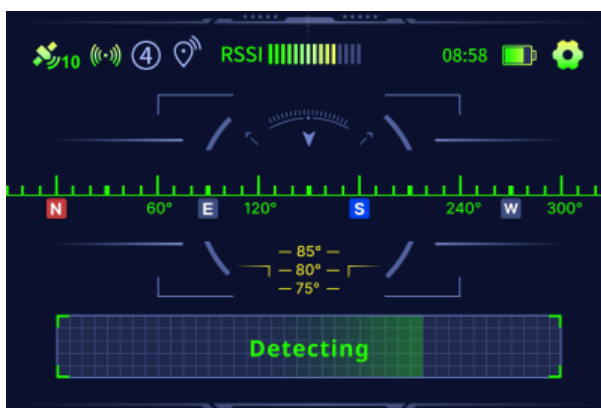
After the device is turned on, the drone defense system starts automatically. The main interface is as below:



- | | |
|-----------------------------------|-------------------|
| 1. GPS icon | 5. System time |
| 2. Number of jamming channels | 6. Charging level |
| 3. Navigation spoofing identifier | 7. Settings |
| 4. Strength of detection signal | |

4.1 Detect and Switch to Direction-Finding Mode

1. Keep the Detection/Direction-finding switch button in the "Off" (raised) position. The device automatically enters Detection mode upon startup.



2. When drones are detected, the system issues audible and vibration alerts, and the touch

screen displays information such as the drone's brand, model, direction, frequency band, electronic ID, latitude, and longitude.



- Click on the drone information to view drone details.



- Press down the Detection/Direction-finding switch button to switch to the Direction-finding mode.
- After a drone without azimuth data is detected, select this drone in the detection list. Slowly rotate the device through a full 360°, and then determine the drone's direction based on the signal strength displayed on the screen.



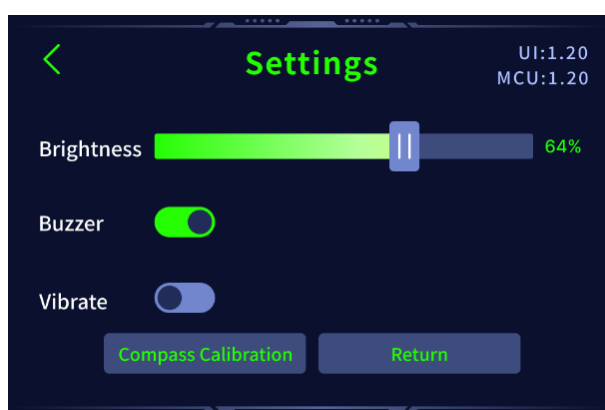
Stronger signal strength indicates closer proximity to the direction of the drone.



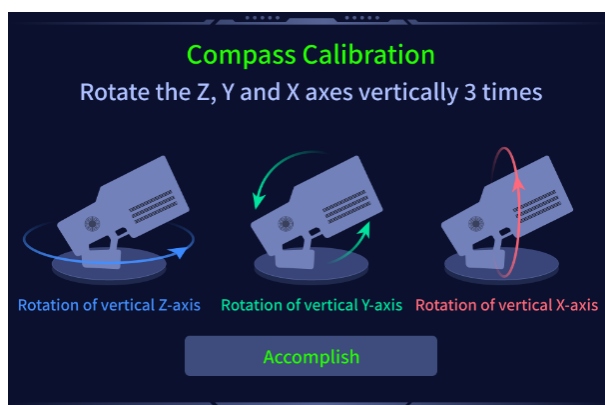
4.2 Calibrate Compass

If during the drone direction-finding process, the measured direction deviates from the actual direction, it may be due to electromagnetic interference affecting the device, resulting in inaccurate compass readings. The electronic compass can be recalibrated before performing direction-finding again.

1. Click **Settings** button on the main screen.



2. Click **Compass Calibration** button.
3. Follow the on-screen instructions to perform a three-axis calibration of the device.



4.3 Execute Jamming and Spoofing

Once the device is oriented toward the intruding drone, point the front end of the device in the drone's intrusion direction. Press the button for the desired jamming band to select it, and then pull the trigger lock to execute drone evict or forced landing.

There are four jamming modes:

3-Channel Jamming

Jamming on 900MHz, 2.4GHz, and 5.8GHz channels.

1. Keep the tri-band/quad-band jamming switch button in the "Off" (raised) position, and keep the navigation spoofing switch in the "Off" (raised) position.
2. Aim at the target drone and pull the trigger lock to perform 3-channel video link jamming on the target.



3-Channel Jamming + Navigation Spoofing

Jamming on 900MHz, 2.4GHz, and 5.8GHz channels, along with L1 navigation spoofing.



The navigation spoofing function can only be used when the GPS icon on the interface is green.

1. Keep the tri-band/quad-band jamming switch button in the "Off" (raised) position, and press down the navigation spoofing switch.
2. Aim at the target drone and pull the trigger lock to perform 3-channel jamming and navigation spoofing on the target.



4-Channel Jamming

Jamming on 900MHz, 2.4GHz, 5.8GHz, and 1.5GHz channels.

1. Press down the tri-band/quad-band jamming switch button, and keep the navigation spoofing switch in the "Off" (raised) position.
2. Aim at the target drone and pull the trigger lock to perform 4-channel video link jamming on the target.



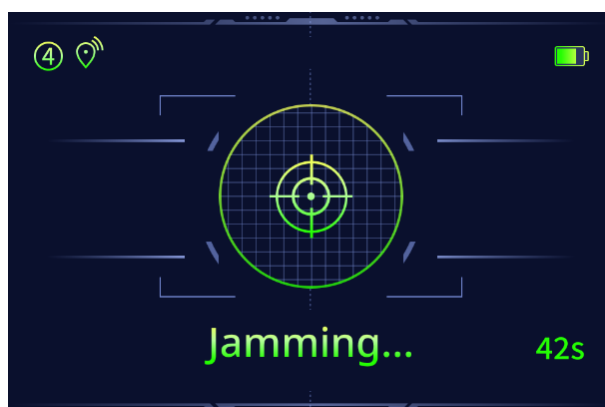
4-Channel Jamming + Navigation Spoofing

Jamming on 900MHz, 2.4GHz, 5.8GHz, and 1.5GHz channels, along with L1 navigation spoofing.



The navigation spoofing function can only be used when the GPS icon on the interface is green.

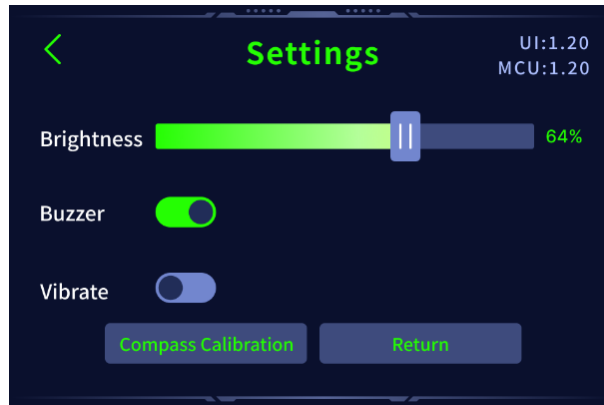
1. Press down the tri-band/quad-band jamming switch button, and press down the navigation spoofing switch.
2. Aim at the target drone and pull the trigger lock to perform 4-channel jamming and navigation spoofing on the target.



4.4 System Settings

Adjust the Brightness of Touch Screen

1. Click Settings button on the main screen.



2. Slide the slider to adjust the brightness.

Turn On/Off the Alarm Sound

1. Click Settings button on the main screen.
2. Toggle the switch of **Buzzer** to turn on/off the alarm sound.

Enable/Disable Vibration

1. Click Settings button on the main screen.
2. Toggle the switch of **Vibrate** to enable/disable vibration.

5 Equipment Maintenance

To ensure stable operation of the equipment, please comply with the following maintenance specifications.

5.1 Routine Maintenance



Routine maintenance is recommended every 3 months.

Maintenance Type	Maintenance Method
Interface protection	Seal unused interfaces with protective covers.
Cable maintenance	● Immediately replace any power/Ethernet cables with damaged jackets or exposed wires. ● Ensure plug pins are not bent or damaged.
Power inspection	Verify that the device is powered normally.
Battery maintenance	● The battery appearance must be free from defects such as cracks, scratches, melted plastic, or deformation. ● The metal contacts inside the battery connector must be intact, with no breakage or burn marks. ● Before long-term storage (>3 months), charge the battery to 80% to prevent deep-discharge damage. ● Recharge and discharge the battery approximately every three months to maintain its performance. ● The storage temperature for batteries: -20°C to +45°C. For long-term storage (>3 months), keep the battery at 23 °C ± 5 °C and 65 %RH ± 20 %RH.
Device appearance & Operation	● The device appearance must be intact, with no cracks. ● Power the unit on and off 3–4 times; startup and shutdown must proceed normally. ● The device power on/off button, detection/direction-finding

switch button, and jamming switch button must function properly, with smooth pressing and no sticking.

- Battery insertion and removal must be smooth; once inserted, the battery must lock firmly to the main unit.

5.2 Basic Troubleshooting

Fault Type	Troubleshooting Method
Power-related fault	● Check and confirm that the power supply battery is properly installed, the device is powered on, and both the detection terminal and all components are receiving electrical power. ● Turn the power on/off button again. ● Power off the device, wait for 30 seconds, and then restart it.
System Process Exception	Log in to the "Device" interface to check the process status of the controller, engine, and sensors.

If the issue persists, contact our technical support team.



Unauthorized personnel or non-designated maintenance personnel are prohibited from disassembling the chassis.

6 Packaging, Transportation and Storage

The equipment shall comply with the following requirements for packaging, transportation, and storage:

6.1 Packaging

The packing boxes shall be moisture-proof and shock-proof, and contain the following items:

- Delivery list
- Product Inspection Certificate
- User manual.

6.2 Transportation

In the process of transportation, avoid throwing, sun and rain, avoid mixing corrosive substances.

6.3 Storage

The storage shall meet the following requirements:

- Products should be stored in a cool, ventilated, dry warehouse.
- Do not put together with oil, away from heat sources.
- Stacking should be 20cm from the ground and 20cm from the wall.