Handheld type detector and jammer integrated equipment

1. Overview

As a portable device, it is used for UAV detection, identification and attack. This document describes the technical specifications, functions, performance, features, structure, and specifications of the applicable devices, as well as the installation, deployment, and usage requirements. It serves as an operation guide for users.

1.1 Product Pictures

1.2 Product Features

1） Detection and countermeasures integrated design, easy to use, according to the results of detection drones, manual countermeasures.

2） The equipment adopts special processing algorithm to effectively reduce the false alarm rate of the equipment, and the false alarm rate can be no more than 1 time per day, which has the advantage of low false alarm rate compared with other similar products;

3） Real-time detection of UAV signals in the environment, and advance warning of UAV invasion;

4） The device can be upgraded remotely, or the installation package can be downloaded to meet different application requirements;

5） The use of aluminum alloy as the equipment shell, can be a good heat dissipation;

2. Main components of the product

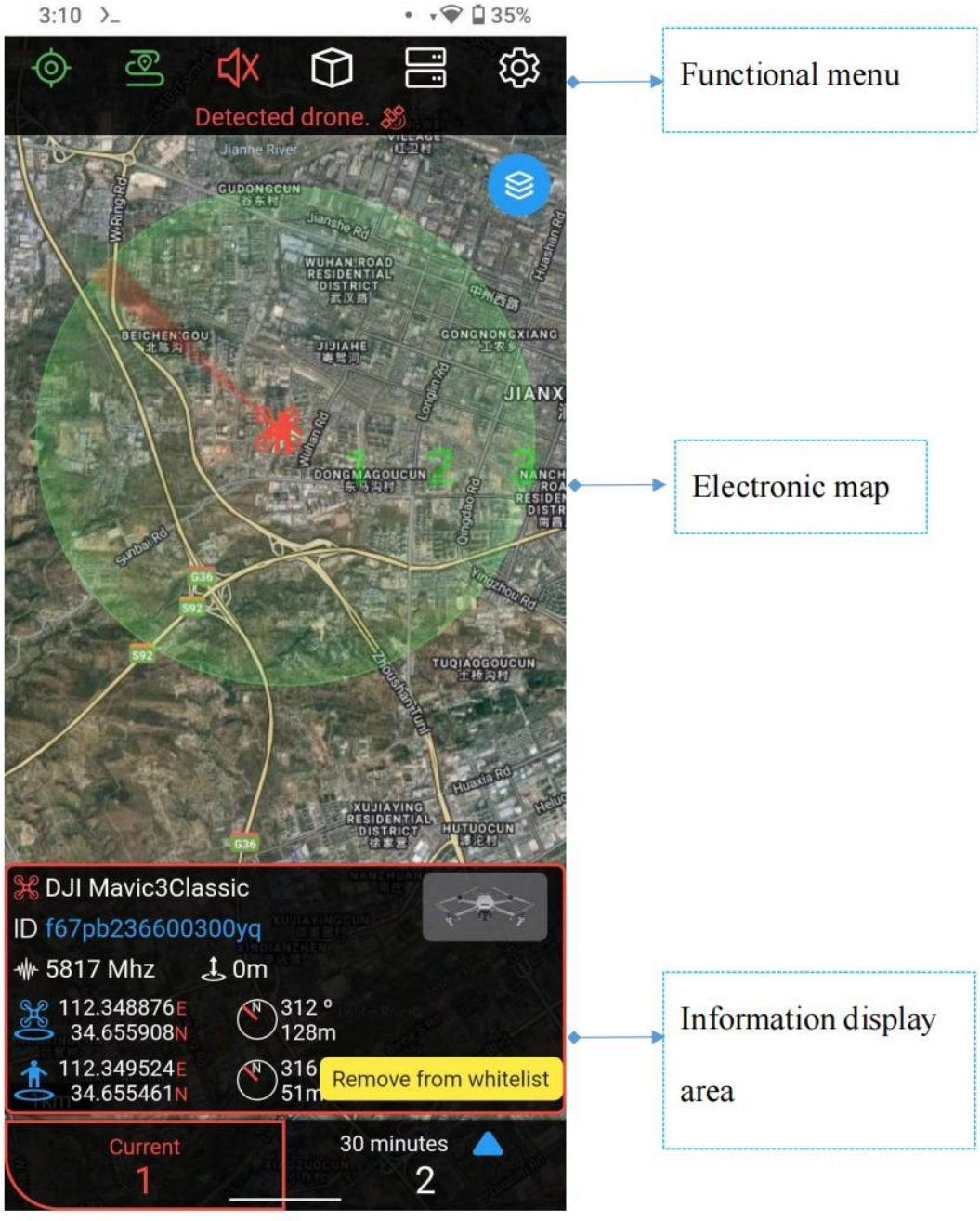
ID	Item	Number	Unit
1	Device host	1	set
2	battery	1	set
3	Gun cord	1	set
4	Detector cord	1	set
	Detector antenna	1	set

2.1 Specifications

ID	Item	content	Note
1	dimension	72*29*11cm	
2	weight	5.5kg	
3	Operating temperature	-30℃~ + 55℃	
4	Humidity	RH(93±3)%	
5	Detection UAV types	Dji series main UAV models	It can be updated later
6	Detection frequency band	2.4GHz、5.8GHz	Subsequent adjustment
7	Detection range	500-1500m	
8	Detection direction	omnidirectional	
9	dimension	72*29*11cm	
10	weight	5.5kg	
11	Detection mode	Passive detection	No signals are emitted
12	Attack mode	Initiative	radio
13	Strike band (customizable)	433mhz、900mhz， 1.2G、1.5G、2.4G、5.8G	Function: forced landing, return
14	power	150W	
15	Large interference range	500 - 2000m	
16	Strike direction	Directional strike at 30-60° Angle	
17	Trajectory tracking	Multi-target trajectory tracking	color-coded
18	Simultaneous detection and location	About 10	

3.1 Operation Introduction

After the device is powered on, the system interface automatically starts the UAV
defense system and enters the main interface, three display areas (the functional menu,
the electronic map and the information display area) will be showed below in 3-1.



3-1 main interface

Note: After entering the system, the main interface does not display the electronic map, at this time, the device's various functionsal controller is in the start state and search for GPS for some time (about 20-30s).

3.2 Functional Menu

The functional menu of the software includes some functional modules such as location center point, trajectory display, tone setting, statistics, device status, account
setting, status alert. The user clicks on the button to select the corresponding function.

①--location center point
This function is for positioning the center point of the device, click this button to geo-locate to the center point of the device, and at the same
time to display the protective area of
the device with the center point;
②--Trajectory display
Support the operation of switch for UAV and RC trajectory, the button is opened, you can see its trajectory
on the electronic map;
③--Tone Setting
Click it to adjust the volume;
④-- Statistics Function
The function mainly displays the trend graph of drone events, WiFi signals, and statistical information;
⑤--Equipment status
View in real time of the working status of the main functional modules and set them accordingly;
⑥--Settings
View and modify the basic settings of the device and the white list of drones.

3.3 Passive Detection and Localization

When the device detects a drone, the system will automatically generate an alarm, and at the same time, display the logo and approximate location of the drone and the RC in the electronic map; the information display area at the bottom of the interface displays the brand, model, ID, flight frequency, altitude and longitude, latitude and longitude, intrusion direction, and reference distance of the detected drone.

3-2

1 Information Display area

As shown in 3-2, in the information display area is displayed as: Drone brand, ID, flight frequency,altitude and latitude, intrusion direction, and reference distance;

2 Drones detected currently

Displays the total number of drones currently detected;

3 Drones detected in history

Display the number of drones detected in a recent period of time, and multiple time can be set (within 30 minutes, 1 hour, 2 hours, 4 hours, 8 hours, 24 hours or all of history);

3.4 Whitelist Setting

After the system detects a drone, as shown in 3-3, click the button to add to/remove from the whitelist.

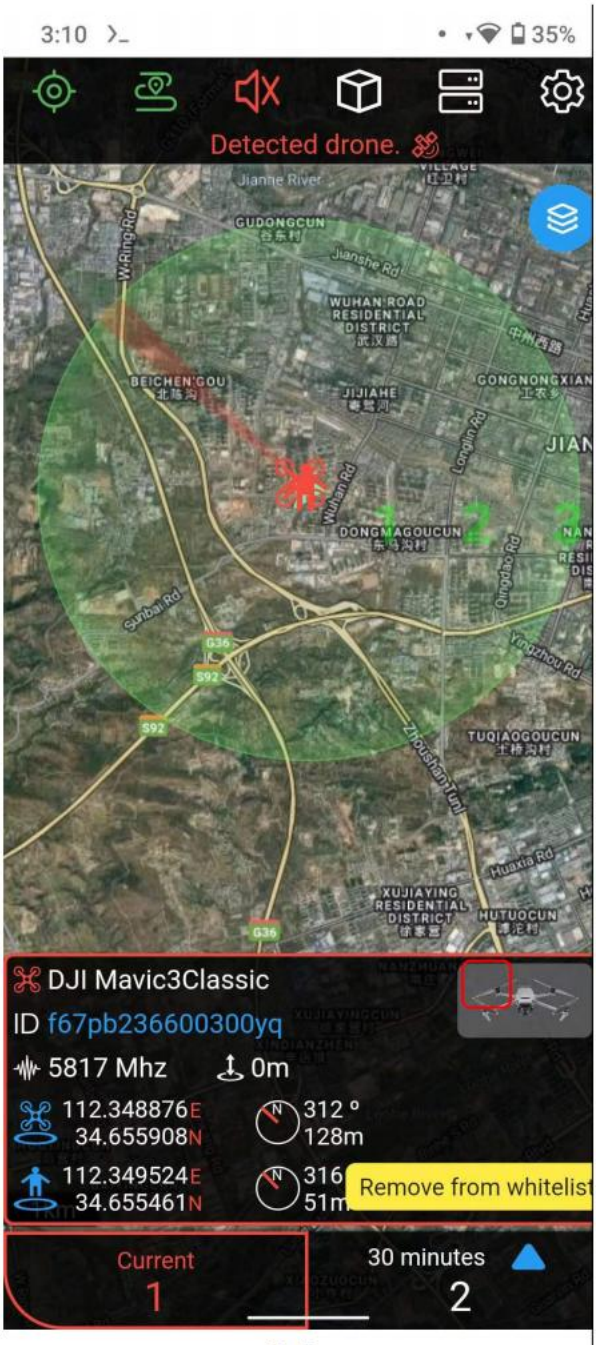
Note: This function only supports manual setting after detecting a drone

3-3

3-4

1. After detecting a drone, the "Add to Whitelist" button will be displayed at the bottom of the information display area, click "Add to Whitelist" to add the selected drone to the whitelist.

Note: After the drone is added to the whitelist, the device will no longer emit an alarm tone when being detected.



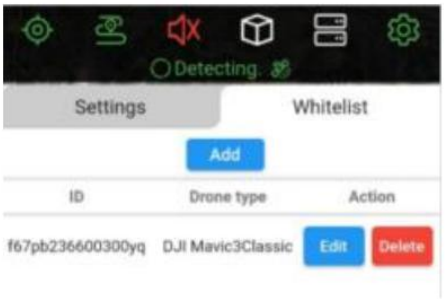
3-5

2. As shown in 3-5, if you want to move this drone out of the whitelist list, click on this button again to move the drone out of the whitelist.

Note: After the drone is moved out of the whitelist, , the device will continue to generate an alarm if this drone is detected again.

3.5 View Whitelist

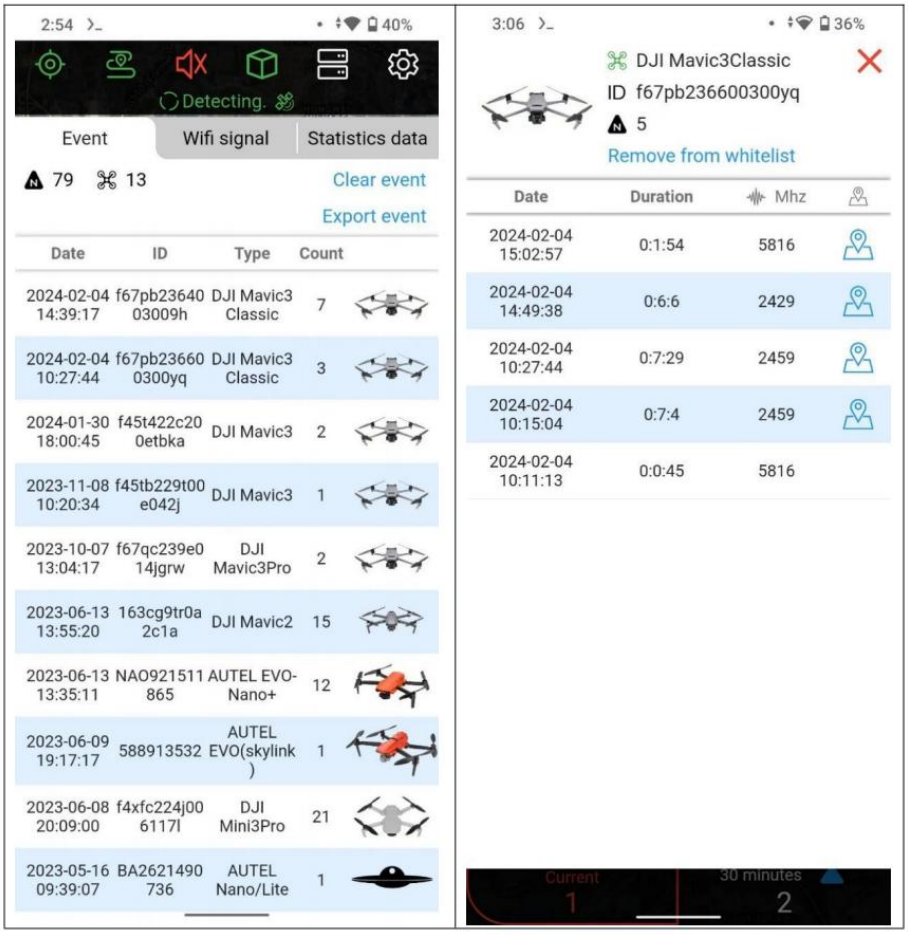
Click "Account Setting" at the top of the main interface, select "Whitelist" function, you can enter and manage the whitelist for modifying and deleting the drones. Support to add to the whitelist by adding their S/N in advance.



3-6 List of Whitelisted Drones

3.6 View Historical Events

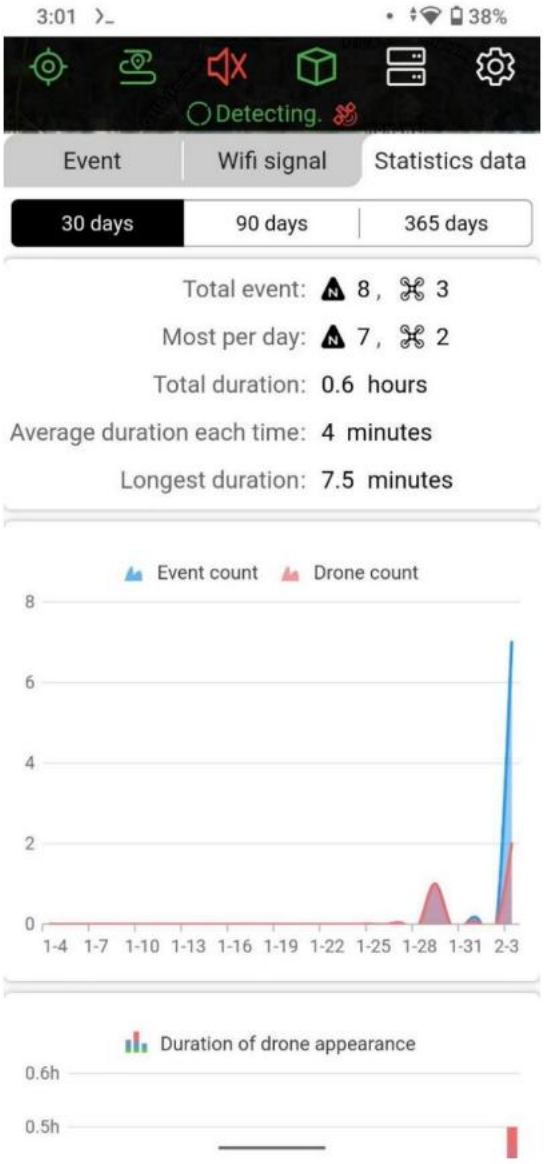
Click on "Event" at the top of the software to enter the list of historical events, you can view the discovery time, duration, model and ID, working frequency band and other information, as shown in 3-7.



3-7 List of drone events

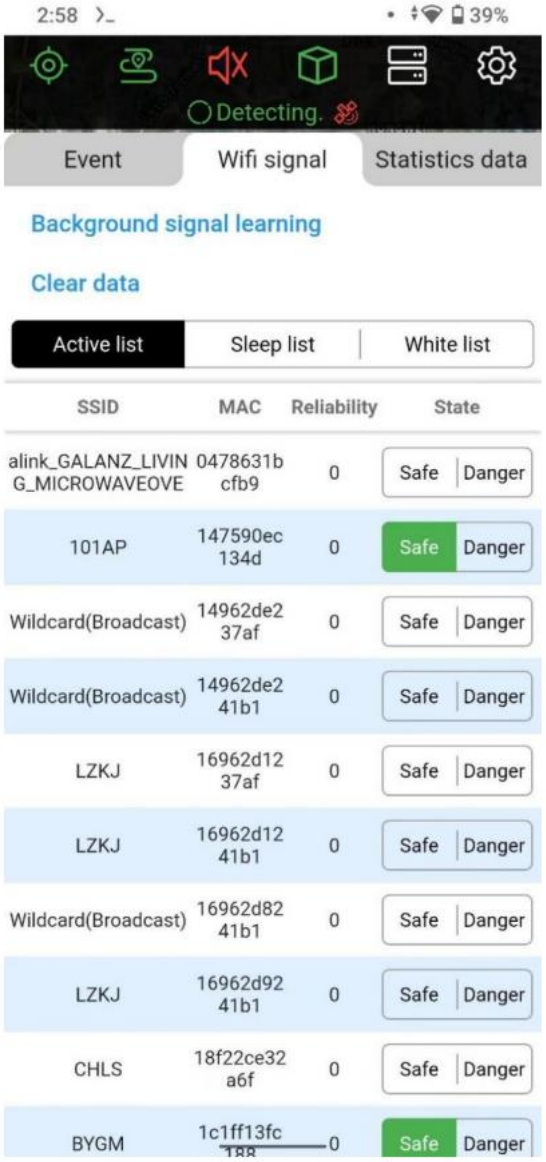
3.6 View Statistics Report

Click "Statistics data" to enter the statistics interface on the top of the software, you can view the last 30 days / 90 days / 365 days drone incident statistics report, including the number of drone sightings, common models, intrusion time, drone incident development trend and other information.



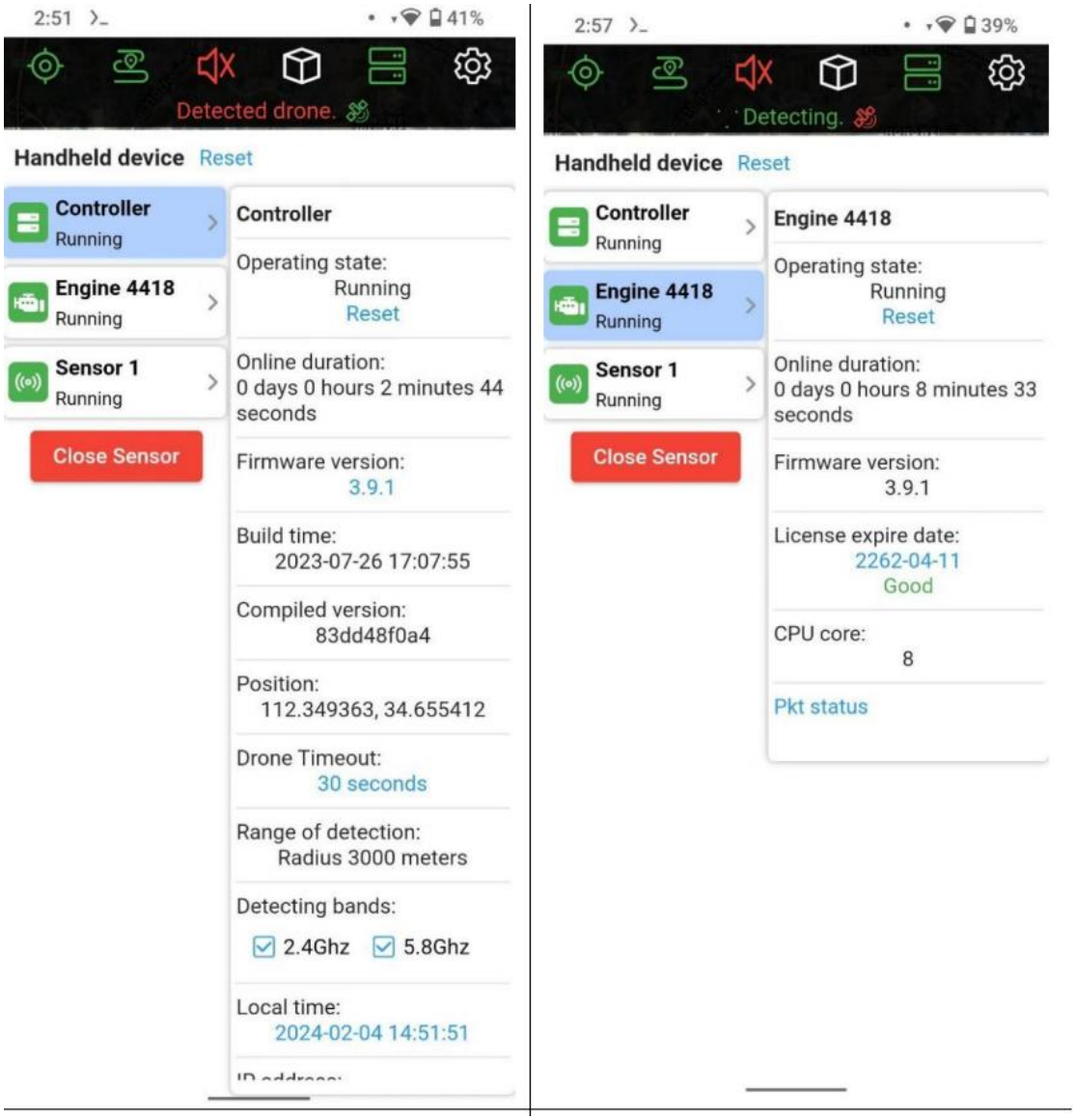
3.7 AI Learning

Unknown drone recognition learning, mainly for Wifi drone intelligent recognition learning. For detected Wifi drone signals, the system displays a list of unknown Wifi drones. Users can turn on the "Safe" signal switch for known non-Wifi drones (such as wireless hotspot signals), after turning on the switch, the system will not generate an alarm when it detects the signal. For confirmed Wifi drones, you can turn on the "Danger" labeling switch, and the system will generate an alarm as soon as it detects the signal.



3.8 Device Status View

Through device management, you can instantly view and monitor basic information about the operating status of controllers, computing engines, and sensors.



Controller Status View:

Allows you to view controller operational status, online time, and configuration files.

Compute Engine View:

View the compute engine running status, online time, temperature, and version information, as well as send and receive packet status.

Sensor Status:

View the running status, online time, software version and other information of the two sensors, as well as the configuration file.

Note: If there is equipment failure, click "Equipment Failure" and follow the

prompts to operate or consult the after-sales personnel.

Attention:

1. Please read this manual carefully before using the machine.
2. Non-professional personnel or designated maintenance personnel shall not disassemble
3. Be sure to operate under the specified power supply
4. It is recommended not to be exposed to the sun during thunderstorms or for a long time.