

**PICTOR<sup>®</sup>**

**2 or 4-Channels AI intelligent  
4G Dash Camera**

**Product Instruction manual**



Note: must read before product installation

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# 1. Product introduction

The device is an intelligent terminal product integrating GPS/ Beidou positioning monitoring, 4G remote real-time video monitoring, local TF card video recording, DMS/ADAS AI voice reminder and other advanced functions. The real-time monitoring, operation management, command and dispatch functions are organically integrated into one. It is a cost-effective product developed for vehicle video surveillance and remote monitoring. The product adopts domestic intelligent image chip and embedded operating system, combined with the most advanced H.265 video compression/decompression technology in the IT field, network technology, GPS/BD positioning technology. Supports a maximum of 1 1080P+ 3 720P HD video surveillance video and playback; 1 audio input/output. Exclusive pre-distributed vehicle dedicated file system technology, to solve the problem of file fragmentation caused by repeated erasure, to solve the memory file system crash data loss, can not find the memory and file garbled phenomenon, to ensure data stability and integrity; Vehicle driving information recording and wireless data uploading, with the central software can realize the central monitoring of alarm linkage, remote management and playback analysis based on the central database. The product features simple appearance, flexible and convenient installation.

# 2. Precautions for use

In order to ensure the safe use of terminal equipment and extend the service life of the equipment, users should fully consider the following factors during installation:

1. After receiving the product, check the equipment and accessories. If the items in the packaging box are damaged or any parts are short, please contact the distributor in time.

2. When installing and operating the equipment, comply with the specifications of the relevant electronic products, as well as the requirements of the vehicle and other

connected equipment.

3. Installation and construction must comply with specifications, which can refer to relevant national or local standards.

4. Check the power supply voltage, which must be in the range of 10-36V. The recommended working voltage is 12V or 24V to prevent device exceptions caused by voltage mismatch.

5. To achieve the ideal positioning effect, the receiving surface of the positioning GPS antenna must be upward with no metal objects above it. The bottom of the antenna must be kept flat with a tilt Angle of no more than 30 degrees, and the distance from the device is about 50cm. Try to place the positioning antenna at the intersection of the instrument panel and the edge of the windshield.

6. The vehicle video recorder should work within the temperature and humidity range permitted by the technical indicators.

7. The external wire of the equipment should have sufficient spacing and the protection of the flame retardant tube to ensure that the wire will not be caused by wear or aging.

### 3. Product appearance, features and specifications



## Product Features

- ◆ H.265&H.264 encoding and decoding,Save storage space and transmission flow;
- ◆ Front high-definition 1080P cameras and Rear 720P cameras, plus extended 2-channel 720P cameras, simultaneous recording inside and outside the car;
- ◆ Built in AI intelligent algorithm, which can support ADAS and DMS functions;
- ◆ Support GPS + Beidou dual-mode precise positioning;
- ◆ 2 products support 1 emergency alarm input; 4 products support 2 IO input +1 low level alarm output;
- ◆ Support 1 Micro SIM card;
- ◆ Support 1 TF card, up to 512GB;
- ◆ Support 1CH of RS232;
- ◆ Super capacitor double guarantees the integrity of video files;
- ◆ Support 4G, it can support global frequency band;
- ◆ Support WiFi hotspot;
- ◆ Support mobile app, client, preview video and parameter configuration;
- ◆ Built in speaker and microphone, Support voice intercom between dash camera and platform;
- ◆ Special file system to improve disk reading and writing efficiency,More stable video recording;

**Table 1.Product specifications**

ITEM	Technical Specifications	
	2CH	4CH
CPU	Dual-Core processor@1.5GHz,Total coding resources. NPU@1.0TOPS neural network acceleration engine	
Memory	2Gb DDR3	
Video Input	Active Pixels: 1920×1080,1080×720, H.264&H.265 format	
	Front camera:1080P,Rear camera: 720P	1ch 1080P + 3ch 720P Built-in 2-channel camera,2-channel expansion: AHD 720P@25fps
Configuration	Support mobile APP preview and setting	

Audio input / output	Built-in MIC and speaker, G.711a format	
Video recording resolution	1-ch 1080p*25fps+3-ch 720P@25fps, Simultaneous recording of sound and video.	
G-Sensor	Built-in 3-axis acceleration	
External interface	1-ch RS232, reserved for communication with peripherals	
Alarm Input	1CH SOS Emergency alarm	2-ch IO input, Contains 1CH SOS.
Alarm output	---	1-ch IO low output (mainboard must support PCBV4.0)
Positioning module	GPS / Beidou Positioning Module	
4G	built-in 4G module, TDD-LTE, FDD-LTE	
WIFI	Support External USB WIF, 2.4G, 802.11b/g/n, AP mode	
Storage	Support 1 TF card, Support 16G/32G/64G/128G/256GB/512GB	
USB	Micro USB, support usb wifi dongle	
Upgrade	TF card and OTA	
AI - ADAS	Lane departure, collision alarm, Distance detection, pedestrian detection etc	
AI - DSM	Fatigue driving detection, Smoking, call mobile phone, Occlusion, Unsafe driving behavior habit detection	
Input voltage	DC:+10V ~ +36V	
Power consumption	Normal working state < 5W (without external equipment)	
Power off protection	Super capacitor design, support abnormal power failure, ensure the integrity of video files	
Working Temperature	-25°C to +70°C	
Working relative temperature	20% to 80%	
Communication protocol	JT/T808-2011, JT/T808-2019, CMSV6	
Equipment size	120mm*77mm*55mm	
Net weight	260g	






## 4. Accessories and interface definitions

### 4.1. Inspection of products and accessories

Before using this product, please check whether the product is damaged, whether the accessories are complete, if any missing, please contact your supplier.

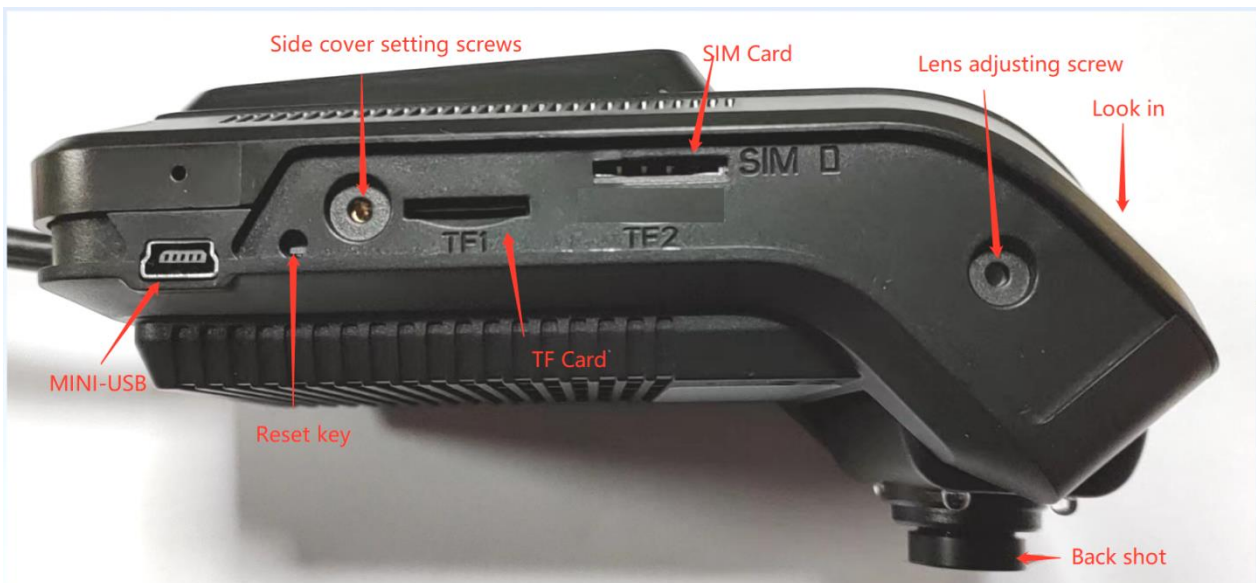
The list of products and accessories is as follows:

#### Table 2. Product accessories list

SN	ITEM	Picture	Number
1	Main Host		1
2	Power cable		1
3	SOS button alarm line		1
4	BD/GPS antenna		1
5	3M adhesive		1
6	Side cover, screws, tool kit		1
7	Extended Video Cable (optional)		1

## 4.2. Panel Introduction

Figure 1. Schematic diagram of product interface

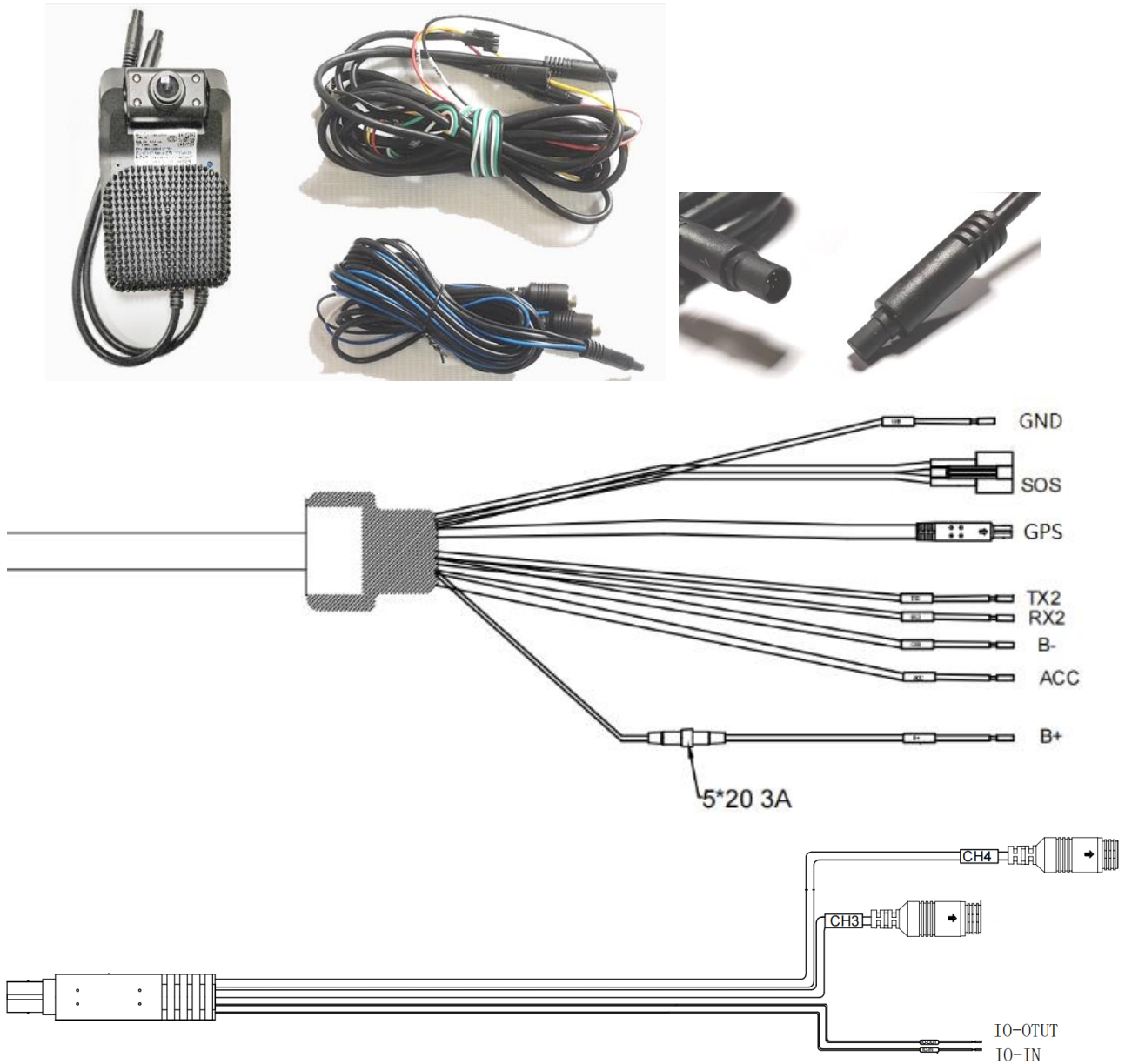


### 4.3. Wire interface connection mode

It mainly introduces the definition of power supply, ACC, GPS, SOS emergency alarm and other interfaces, as follows:

#### 4.3.1 Host wire interface

Connect the host cable to the power extension cable as follows:



Picture 2. Power line interface definition

#### 4.3.2 Connection method of accessories and wires



Picture 3. GPS line 3.5mm headphone jack or 4P interface



Picture 4. SOS ALM line

2P interface

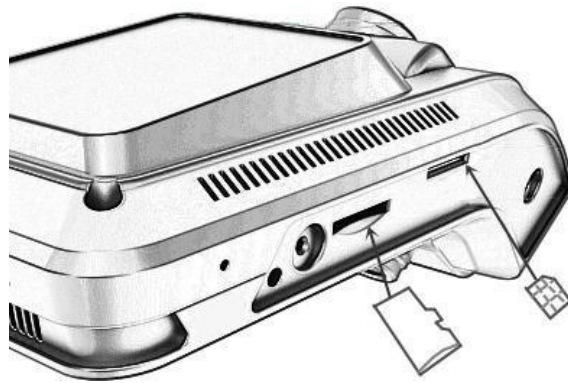
## 5. Installation instructions

TF card selection: It is recommended to choose a big brand, good quality TF card, TF card recommended to use class 10 or more, capacity between 8G and 512G.

TF card formatting: When the new TF card is in hand, if there is any data to be backed up on the TF card, please back it up first. After the backup, the new card device will automatically format the TF card, and it can be used after the formatting is completed.

### 5.1. Memory card and SIM card

Remove the side protection cover and install the 4G card (Micro sim card) and video memory card (TF card).

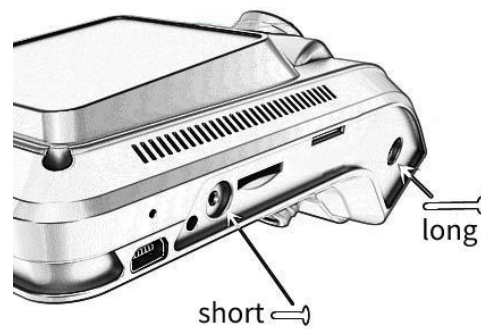
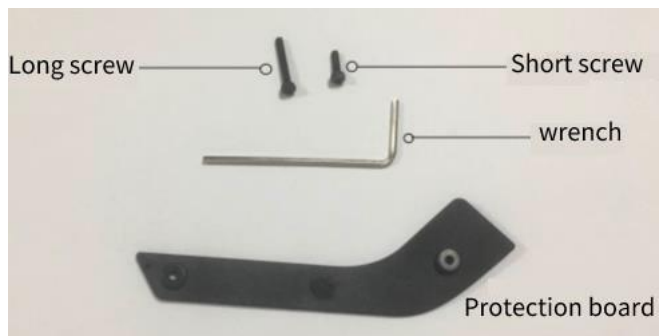


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💡 When the SIM card and TF card are inserted, if there is an elastic block and the buckle is stuck, the card is successfully installed.

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Install the anti-demolition protection plate, install the anti-demolition protection plate screws, and fix the lens at the same time. The specific accessories and schematic diagram are as follows.

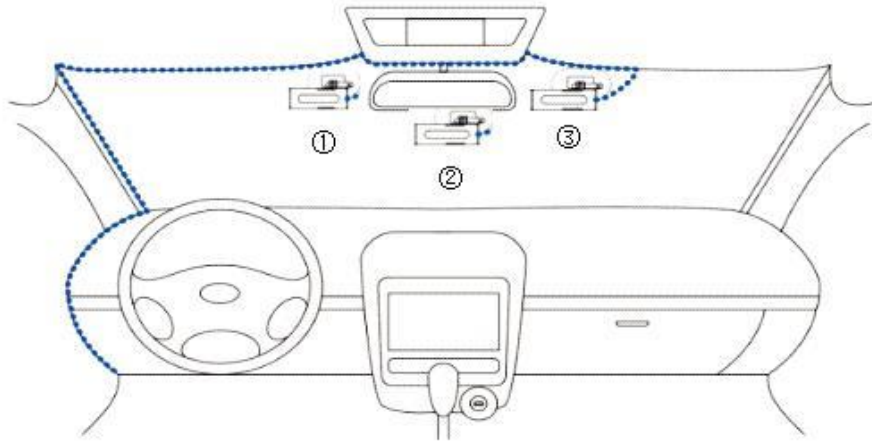


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⚠️ Tighten the screws of the short anti-demolition protection board to the fixing hole of the protection board next to the reset button, and tighten the long anti-demolition protection board to the fixing hole of the protection board near the camera.

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## 5.2. Select an installation position



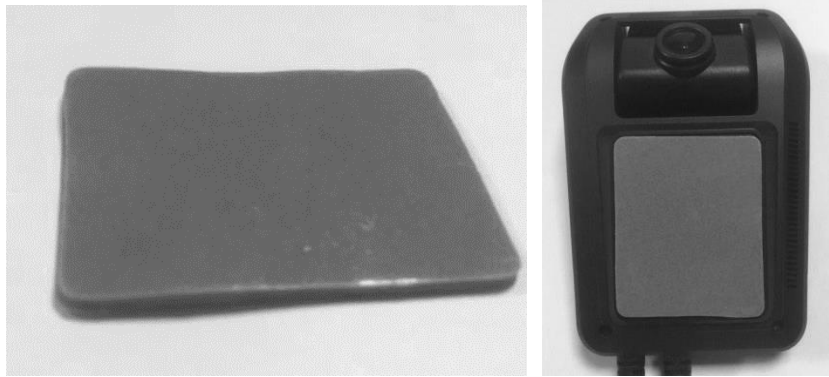
Recommended installation position diagram

Please note the following points when installing:

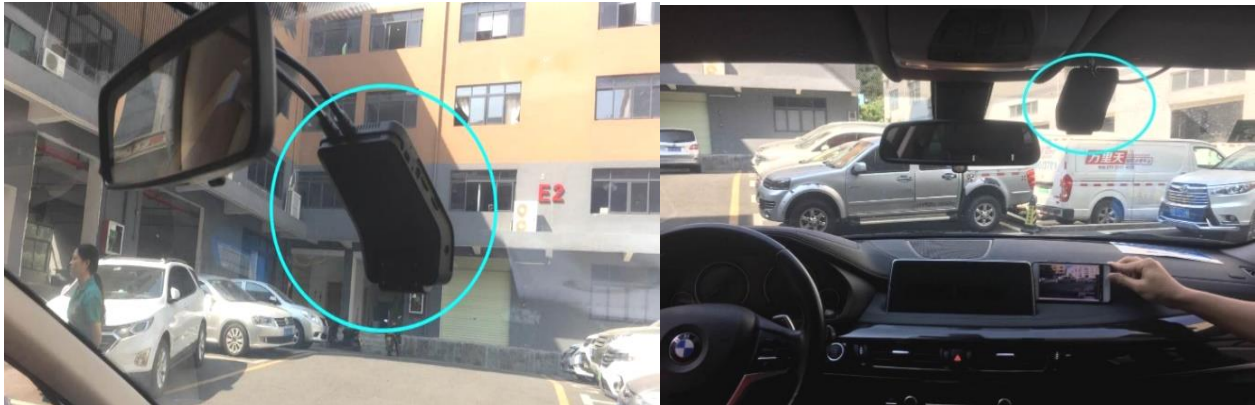
- Waterproof: should choose a position that is not suitable for water to ensure that the terminal is dry, pay attention to stay away from the air conditioning outlet to prevent condensation water accumulation in the terminal internal image product life.
- Shockproof: The terminal can not be suspended in the position of long-term vibration.
- Anti-interference: the terminal should be away from electronic equipment such as audio and video in the car and intercom to prevent conducted interference and radiation interference.

## 5.3. Fixed installation and commissioning

Install dust-free adhesive tape: Before installing the host, **clean the windscreen at the pre-installed position to avoid loose and falling**. Attach 3M adhesive tape to the device first, find the installation Angle inside the car, tear off the support 3M dust-free adhesive paper, **pay attention to the installation direction**, and attach the device with 3M adhesive tape to the front windscreen of the car.



Adjust the camera Angle of the recorder: adjust the camera of the recorder by comparing with the real-time preview screen of the APP, move the camera as required to ensure that the front camera faces the front of the car, and the rear camera can be adjusted according to personal needs and actual conditions. As the picture shows:



## 5.4. Antenna installation and wiring

Take out the external GPS antenna from the fitting box and connect the GPS antenna correctly. To achieve the ideal positioning effect, the receiving side of the positioning antenna must be upward and there is no metal object above it. The bottom of the positioning antenna must be kept flat and the tilt Angle cannot be greater than 30 degrees. If the distance between the antenna and the device is more than 50CM, place the positioning antenna at the intersection of the instrument panel and the windshield as far as possible.

For details, see 5.2. Recommended Installation Position Diagram (based on the actual situation). (1), (2), and (3) are the reference positions for device installation. If it is the host built-in front and rear dual cameras, it is recommended that the position is better

in □ and □; If only the front camera is recommended to be installed in the □ and □ position is more appropriate. You are advised to hide cabling.

## 5.5. Connect the power supply

Connect the blue wiring along the "recommended installation position diagram" to the safety control box in the car, find the corresponding signal line and the equipment line for installation (ACC, ground wire, normal power, left and right turn signal, etc.). Before connecting the power cable, check the power supply voltage. The voltage must be in the range of 10 to 36V. The recommended working voltage is 12V or 24V to prevent device anomalies caused by voltage mismatch.

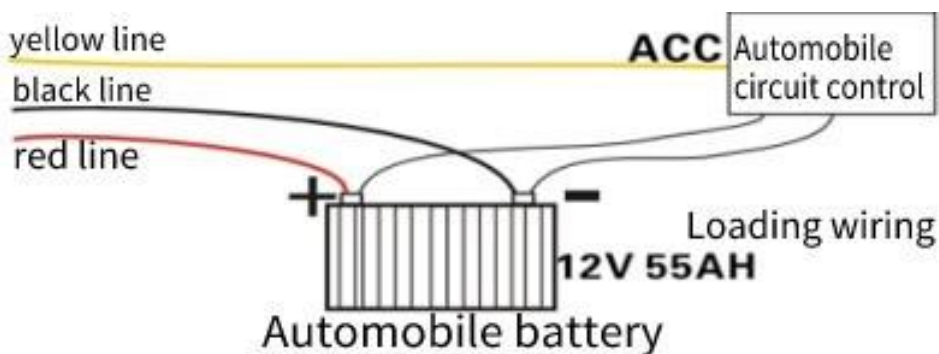
Power supply red line (positive electrode) : the normal electricity of the car is the positive electrode of the main control power supply of the car.

Power black (negative electrode) : It should be connected to the negative electrode of the car power supply or the iron, and ensure that the place of the iron is conductive.

Power yellow (ignition) : The ACC switch (that is, the gear switch before the car starts the motor) should be connected to the ignition control cable on the line that is not powered until the vehicle is running.

The device will automatically start when the car key is opened, and automatically turn off if the car key is turned off.

Connect the red and yellow wires to the positive terminal of the power supply when commissioning the device.




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💡 When the connection is powered on, the working indicator light will be on when the recorder is working, and the horn hole will make a startup sound.

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⚠️ Users should not connect the wrong positive and negative terminals.

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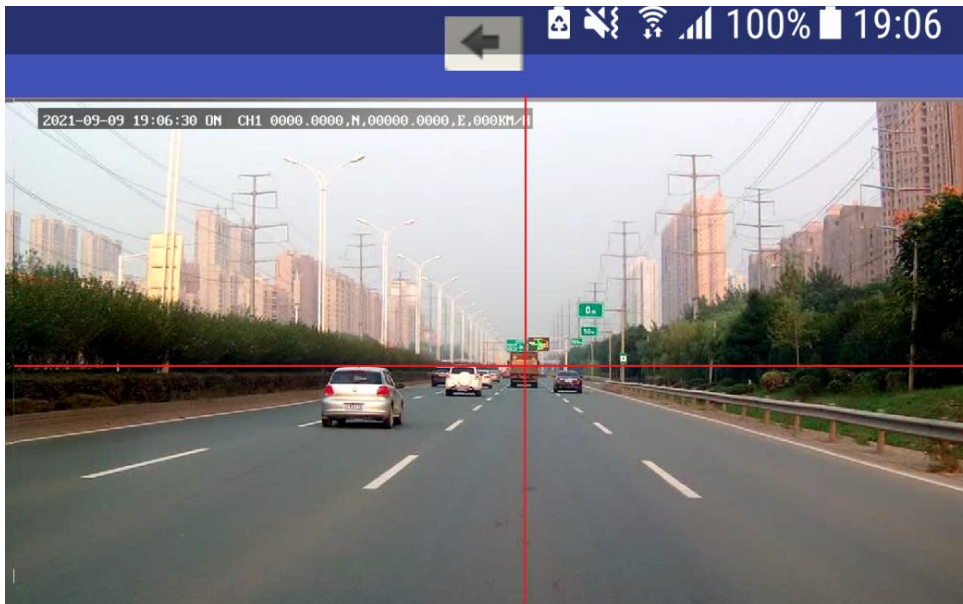
## 5.6. Install the camera Angle adjustment

DSM/ADAS function: This function has an alarm effect on irregular driving such as tired driving and lane departure. When the driver is yawning, closing eyes, smoking, playing mobile phone, making phone calls and other irregular driving, this function will alarm by voice and report the alarm information.

### 5.6.1. ADAS Front camera

Installation position: try to take the center of the windshield as the axis, move up and down according to different vehicle types, if it is a very tilted windshield, it is installed in the center of the slightly higher position; If it is a vertical windshield, it is installed a little below the exact center. (Note: Can not be affected by the wiper)

The ADAS camera is embedded in the host, after fixing the host, only need to adjust the Angle of the ADAS camera, the host power on, use the APP to view the image proportion, the road accounted for 1/2 to 2/3 of the image, the sky accounted for 1/2 to 1/3 of the entire image, the effect picture is as follows, adjust the Angle and use the tool to fix the camera.



When using APP for ADAS calibration, please drive the vehicle straight in the middle of the lane, the vertical line is the middle line of the lane, the horizontal line is the

horizontal line where the sky road disappears ahead, put the cross on the intersection, adjust with up/down/left/right, and click "Start calibration".

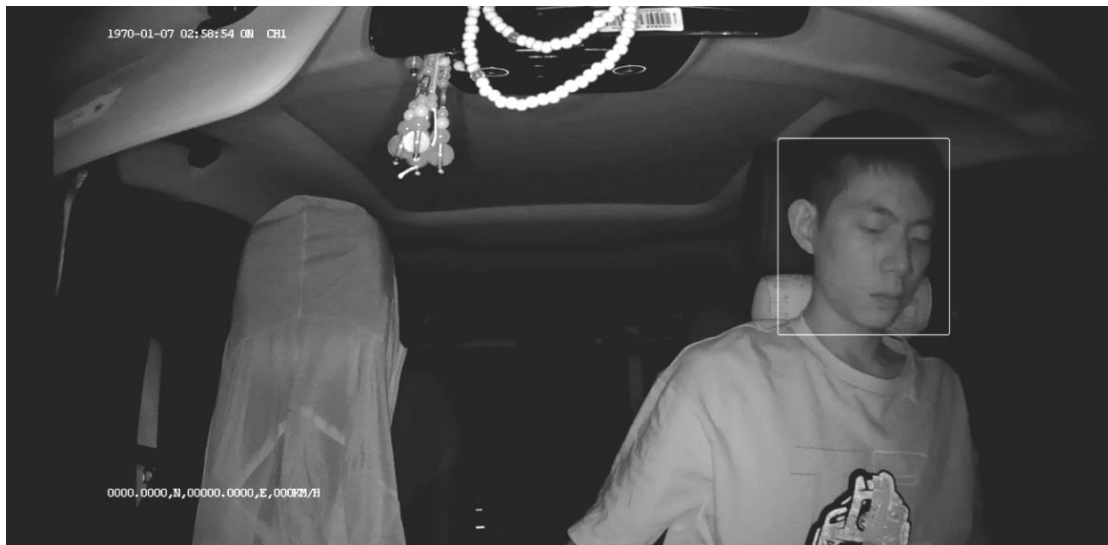
### 5.6.2. DSM Rear Camera (Infrared night vision)

1. Height requirements: 10-15cm below the driver's eye level (the camera is best to have a slightly tilted upward Angle, a little look up at the driver's eyes, so that the fatigue detection effect is better).

2. Distance requirement: 70cm-100cm from the driver's head.

3. Angle requirements: Adjust the camera Angle through the video, so that the driver's face can be clearly and completely on the side of the video.

DMS camera installation refer to the figure above, if it is the host built-in front and rear dual cameras, it is recommended that the position is better, the driver as far as possible in the middle, the image can clearly see the driver's face, the head can be in the upper area, need to keep the whole head complete, as shown below ;



If the host only has a front camera, the external DMS camera is recommended to be installed in the left ④ position of the steering wheel, and the driver's face is centered in the image, as shown below. Note: Position ⑤ is the GPS antenna position.



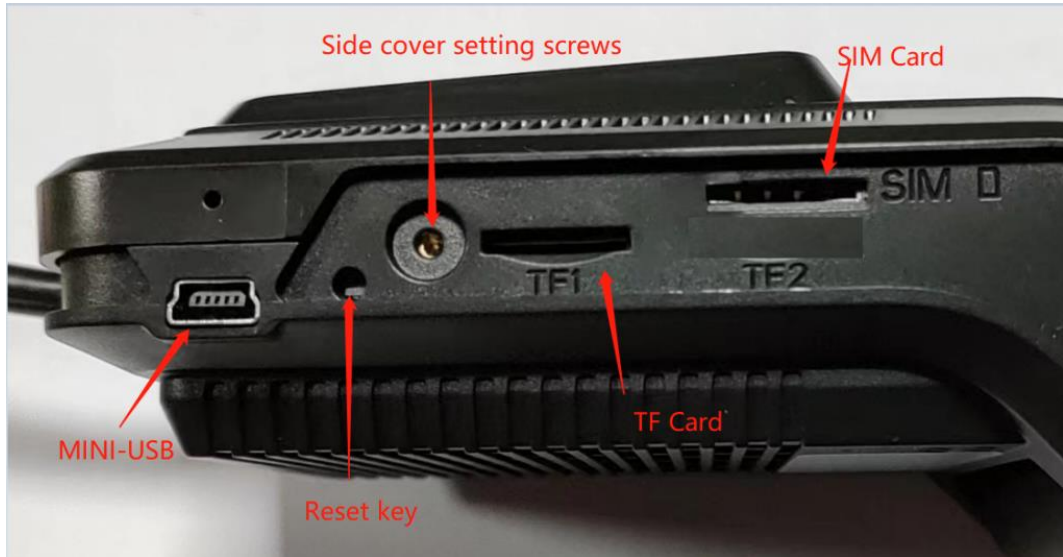
When the host is powered on, use the APP to view the image, DSM will automatically calibrate, click "Start calibration", please face ahead, about 3 seconds will automatically calibrate successfully and voice prompt; Manual calibration is also possible.

## 5.7. Emergency alarm button installation


Alarm button as an emergency alarm, installation location as hidden as possible.

## 5.8. Reset the button

The device reset key can restore the WIFI of the device to the default AP mode (WIFI name starts with 113xxxxxxx, password :88888888), the device number is restored to empty, and the network protocol of the server is restored to the CMSV6 protocol. The device reset key is located next to the TF card, as shown below.



## 5.9. Equipment upgrade

 The upgrade program requires the user to contact the business to obtain. Do not power off during the upgrade. Do not perform any operation on the device. Otherwise, the upgrade of the recorder will fail.

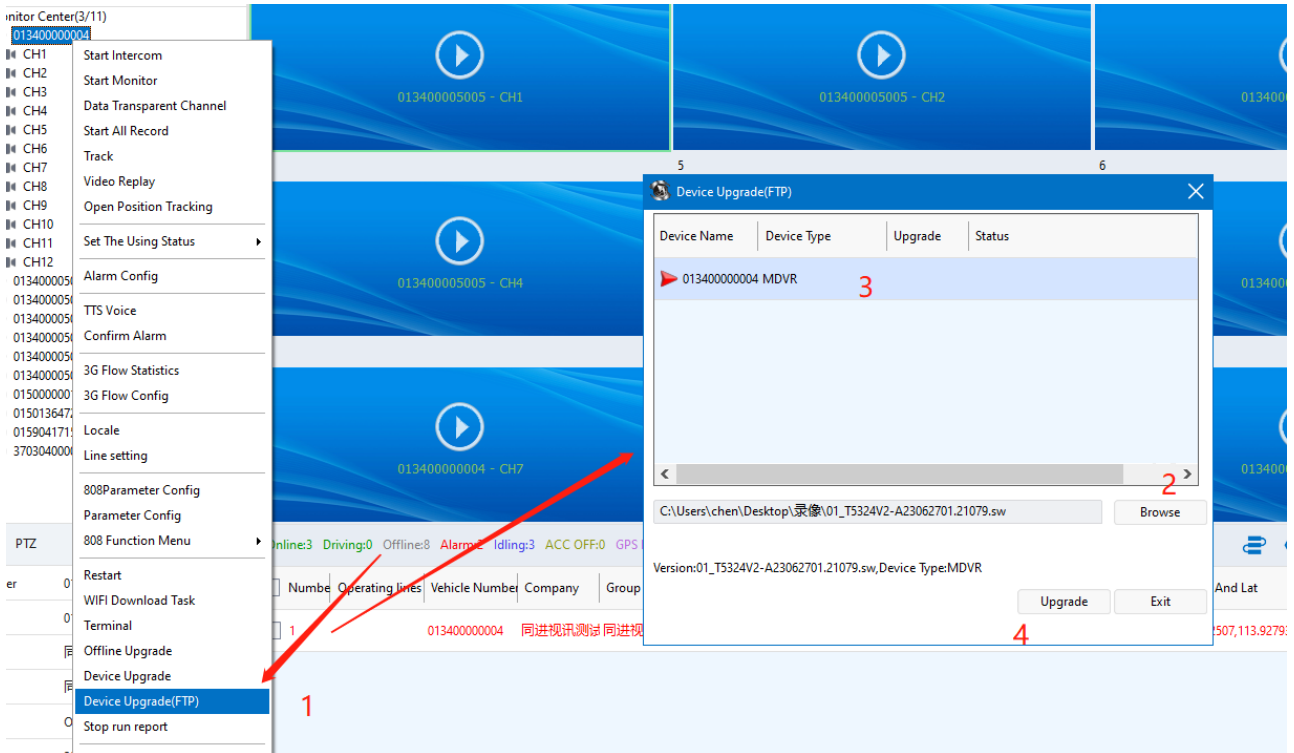
### Method 1: TF card upgrade

- First store the firmware upgrade program into the TF card; (Note: TF card please let the device format first, and then save the upgrade program)
- Enter the system menu "System Information" to view the application program, MCU version number, please record or take photos; The upgrade version number must be different from the current version number.
- Insert TF card with upgrade file into the card slot of the device;
- Insert TF card device will automatically upgrade, the device will restart during the upgrade process, there are several types of upgrade files will restart several times, please wait patiently; The recorder automatically restarts and gives a power-on prompt tone to complete the upgrade, as shown in the figure below.

 AS	2021/9/27 14:12	文件夹
 debug	2021/9/28 10:32	文件夹
 JtConf	2021/9/28 10:32	文件夹
 picture	2021/9/27 14:12	文件夹
 REC-ALARM	2021/9/24 16:47	文件夹
 UpgradeDaemon 	2021/9/28 10:29	文件夹
 cache_alarm	2021/9/28 10:32	文件
 cache_status	2021/9/28 15:58	文件
 effecLocation.dat	2021/9/28 15:50	DAT 文件
 itouchbind4	2021/9/28 15:50	Data Base File

## Method 2: Remote upgrade

The device connects to the CMSV6 server and is online. Select the device that needs to be upgraded, right-click to select the device upgrade, browse to the upgrade file, click Upgrade, after the upgrade is completed, the recorder will automatically restart and automatically go online, and the remote device will issue a power-on prompt tone to complete the upgrade, as shown below.



**⚠ Please do not power off during the upgrade process and do not perform any operations on the device, as this may cause the recorder upgrade to fail. Please operate with caution!**

## 6. Instructions for using mobile APP software

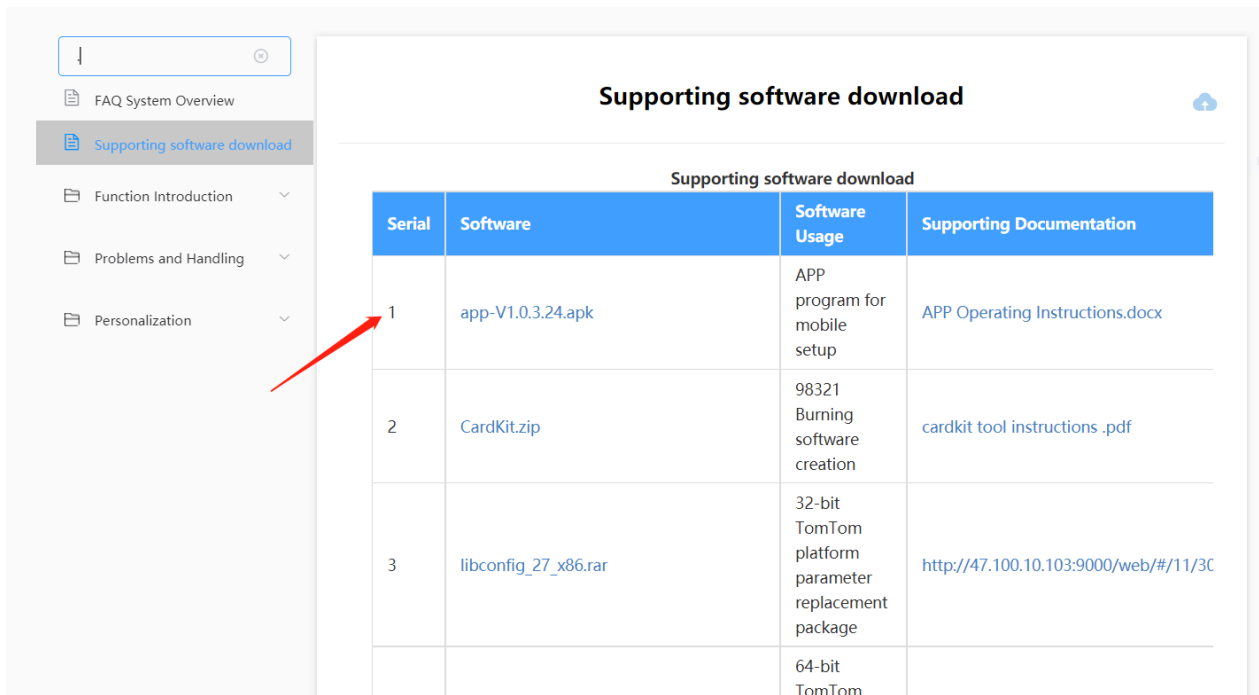
### 6.1. Introduction of mobile phone software

TViewer software is specially developed for Android system. Customers can realize online real-time preview, video playback, download, log export, set network, alarm and other functional parameters through mobile phones and tablets. It is convenient for

customers to use and manage terminal devices more conveniently.

## 6.2. Mobile software download


Software can be through the following address: <http://47.100.10.103:9000/web/#/11/293> download to mobile phone installation, also can download and install through mobile phone software market;



The screenshot shows a web interface with a sidebar on the left containing navigation items: 'FAQ System Overview', 'Supporting software download' (highlighted), 'Function Introduction', 'Problems and Handling', and 'Personalization'. The main content area is titled 'Supporting software download' and contains a table with the following data:

Serial	Software	Software Usage	Supporting Documentation
1	app-V1.0.3.24.apk	APP program for mobile setup	APP Operating Instructions.docx
2	CardKit.zip	98321 Burning software creation	cardkit tool instructions .pdf
3	libconfig_27_x86.rar	32-bit TomTom platform parameter replacement package	<a href="http://47.100.10.103:9000/web/#/11/30">http://47.100.10.103:9000/web/#/11/30</a>
		64-bit TomTom	

## 6.3. Mobile APP software installation

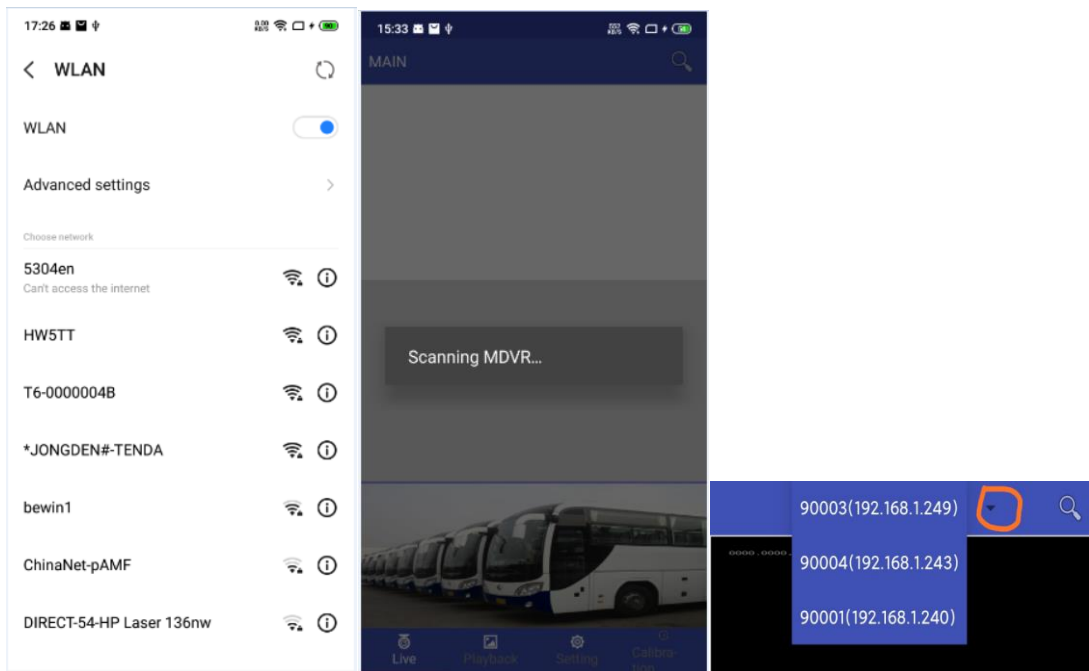
After downloading the software, click Install,  [app-V1.0.3.24.apk](#) after the installation is complete, the following APP icon will appear on the mobile phone interface.



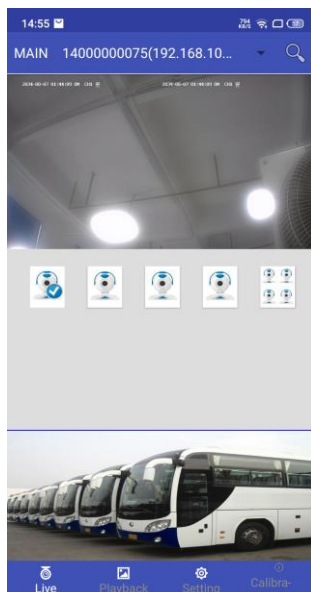
## 6.4. Device connection

### 6.4.1.APP Connection preview

- 1) Turn on WiFi on the mobile phone, search for the open WiFi/ LAN WiFi of the device, find the WIFI name beginning with "113XXXXXX", and click Connect.
- 2) Open the TVviewer app, the software will automatically search the device ,display it in the list of devices being scanned; If the device cannot be searched, you can manually click the search flag to search,

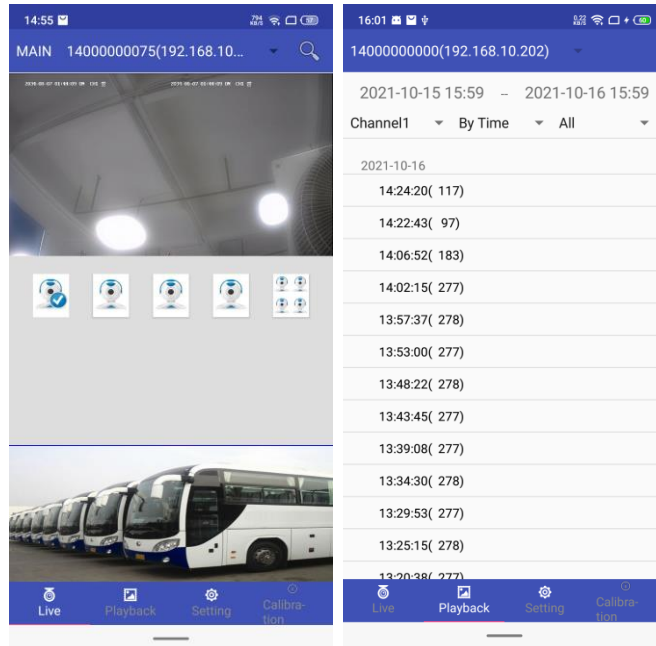


- 3) Select the camera below the preview box.



### 6.4.2.APP Video search

- 1) Open the TViewer App software,select the "Playback" setting below.
- 2) **Select time search Video:** query and search video files according to date, time, channel and video search conditions.
- 3) Select the default sort to display all video files, which is not limited by search conditions.

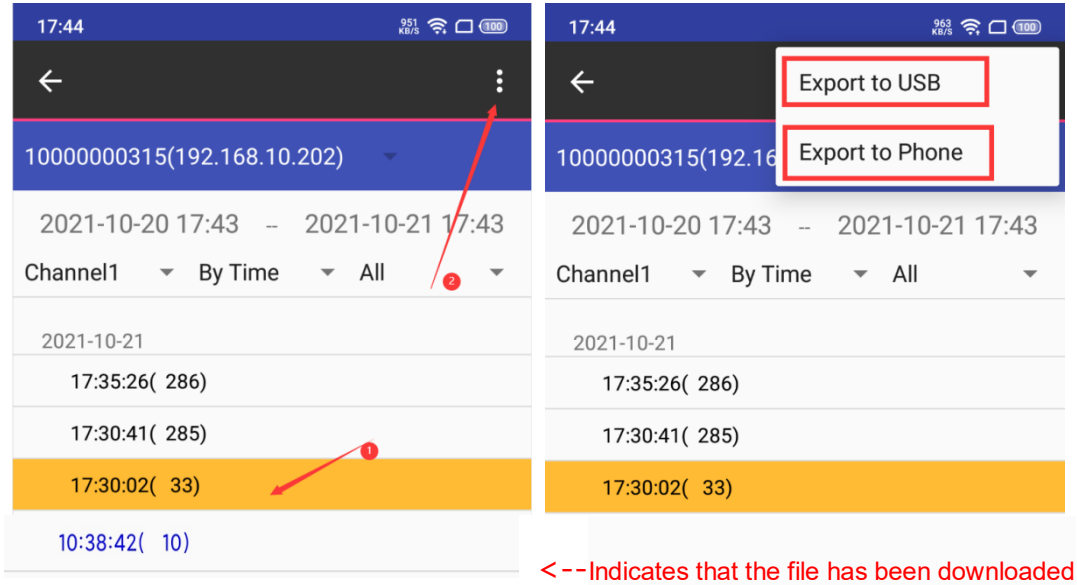


- 4) **Video playback:** click the video file below to enter the playback page. After playing a complete video, the video search page will change the current video time period to blue font, and the video file has been downloaded by default. If the video has audio, there will be sound output.



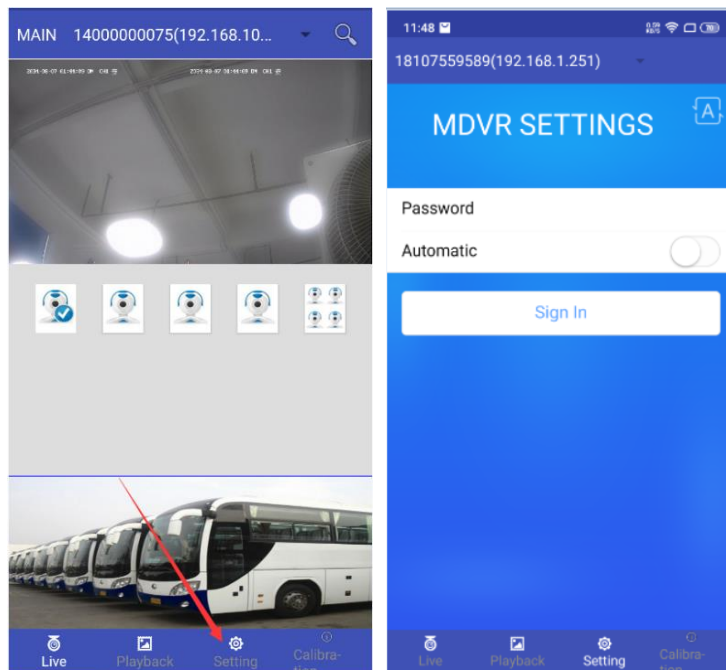
- 5) **Video download:** click the video time period, long press, and click "..."/>

- 6) **Download method:** download to USB, download to mobile phone ; After downloading, the font color of the video file will turn blue.

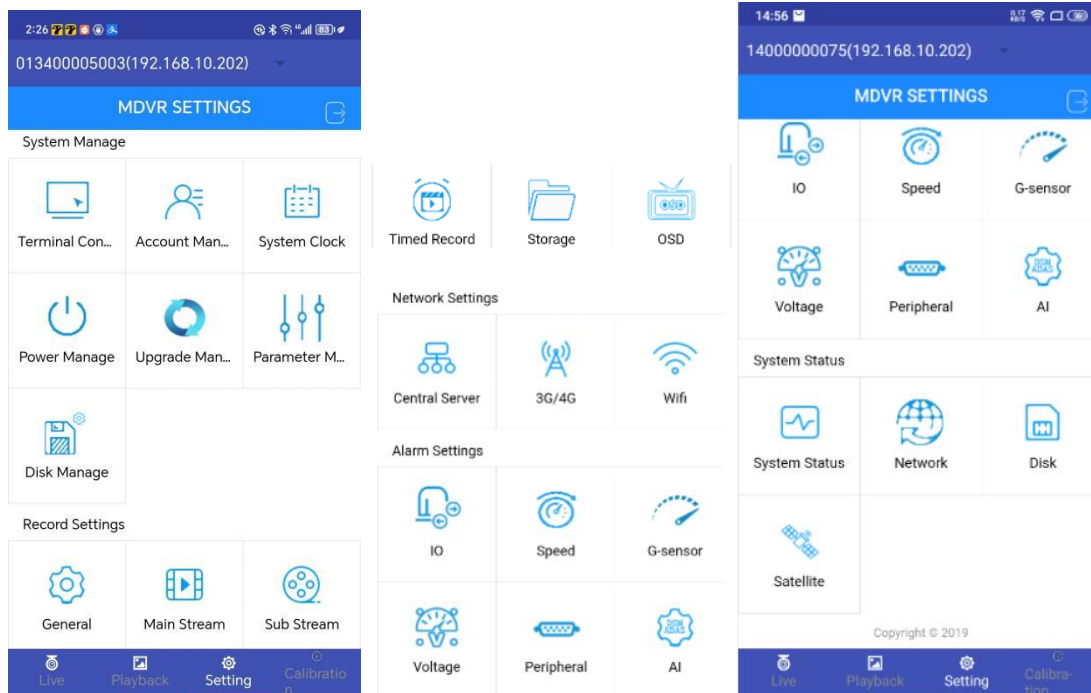


## 7. APP web setting

Click "Setting" in the menu bar below, Jump to the "MDVR SETTINGS" page, enter the password and click login. If "Automatic" login is checked, the device number will automatically enter the configuration interface without entering the password when logging in the app.

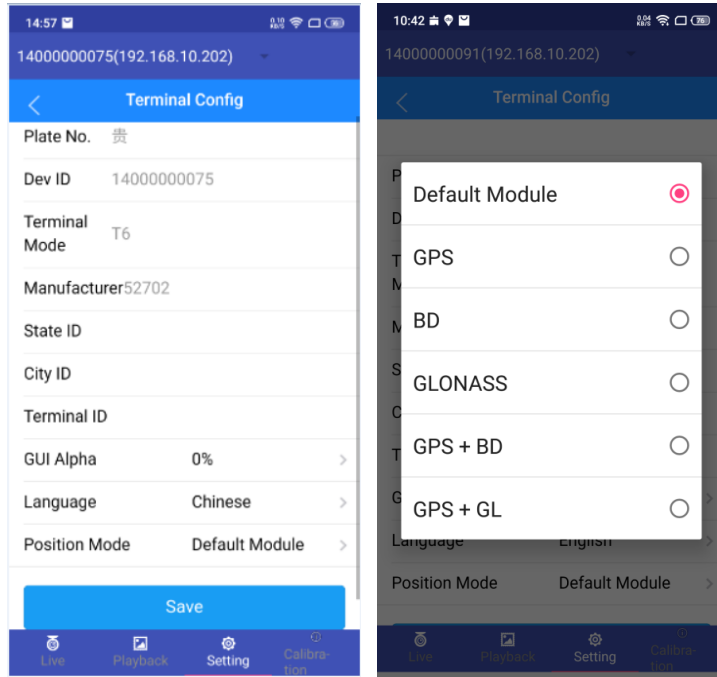


Enter the “MDVR SETTINGS” page, you can directly change the functions of the device on the app, and one party will modify them synchronously.



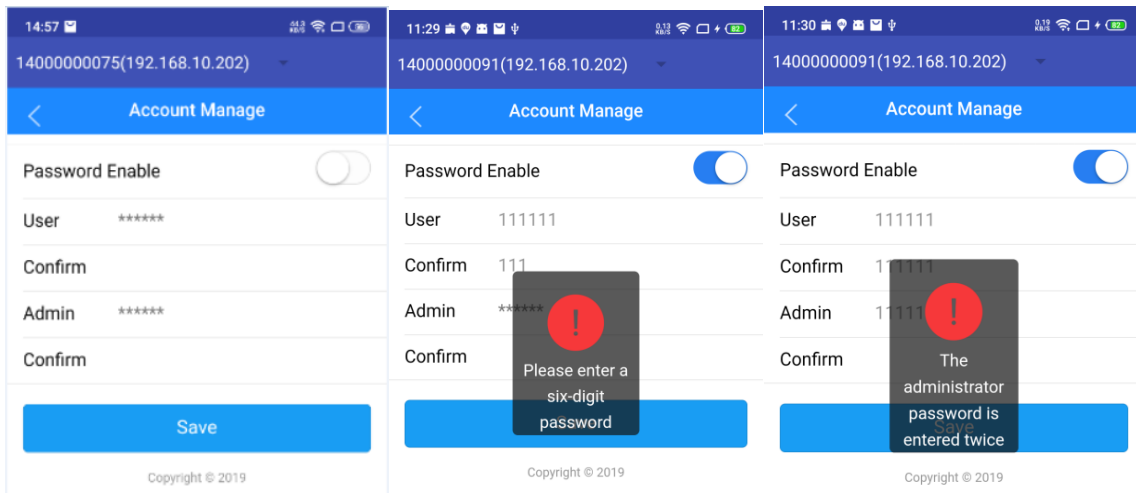
## 7.1. System manage

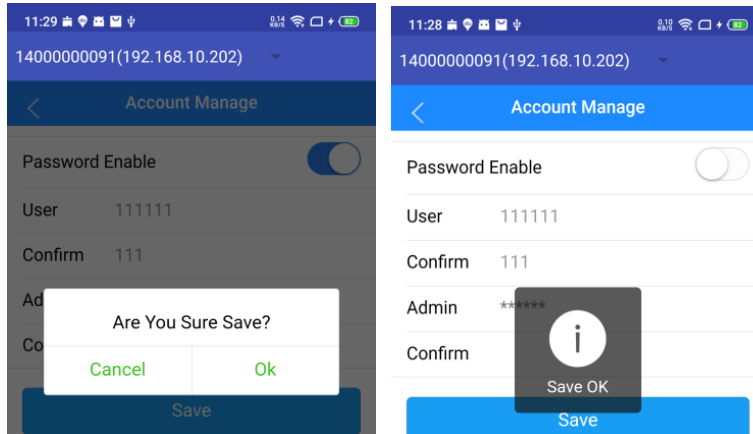
1.1 **Terminal Config** : Configure equipment parameters, such as: Plate No, Dev ID, Terminal model, Manufacturer ID, State ID, City ID, Terminal ID, GUI transparency, Language, Positioning modes include GPS, BD, GLONASS, GPS + BD and GPS + GL.



1.2 Account manage: Set password enable on / off, user name and administrator password.

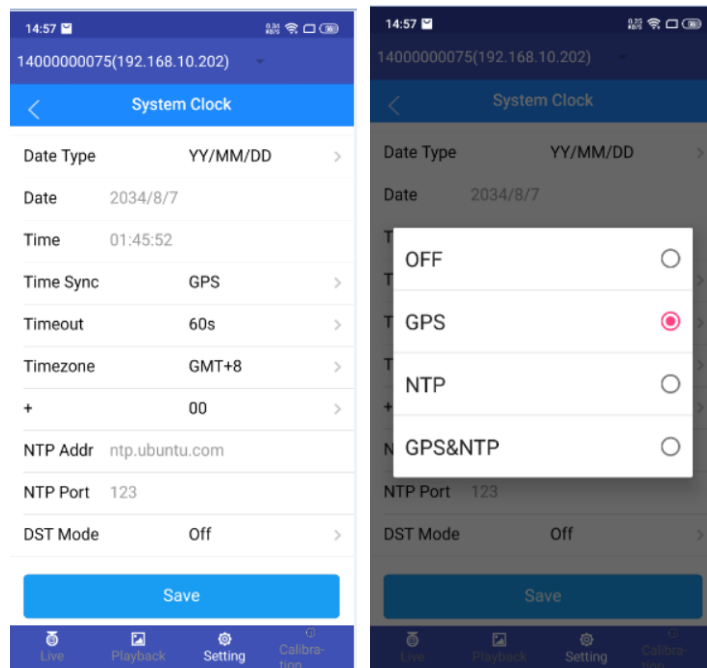
The restrictions on app and equipment are the same, example : Please enter a six digit password, and the user and administrator passwords cannot be the same.



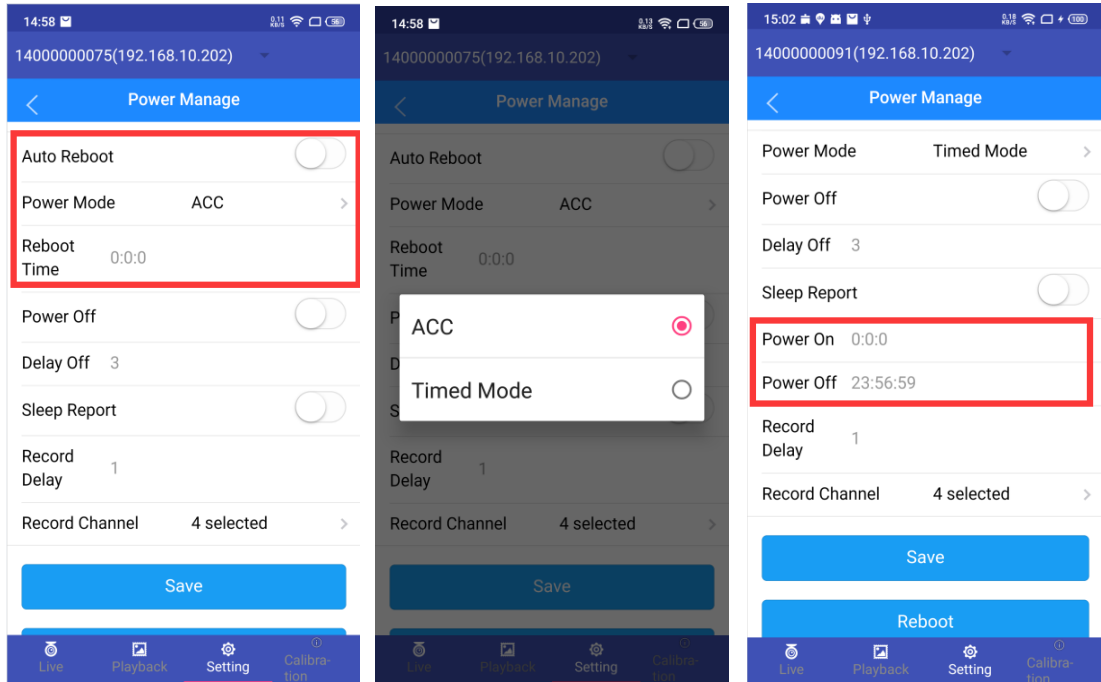


**1.3 System Clock:** setting date type, Date, Time, Time sync(OFF, GPS, NTP, GPS&NTP), Timeout, Timezone, NTP Address, NTP Port, DST Mode (ON/OFF).

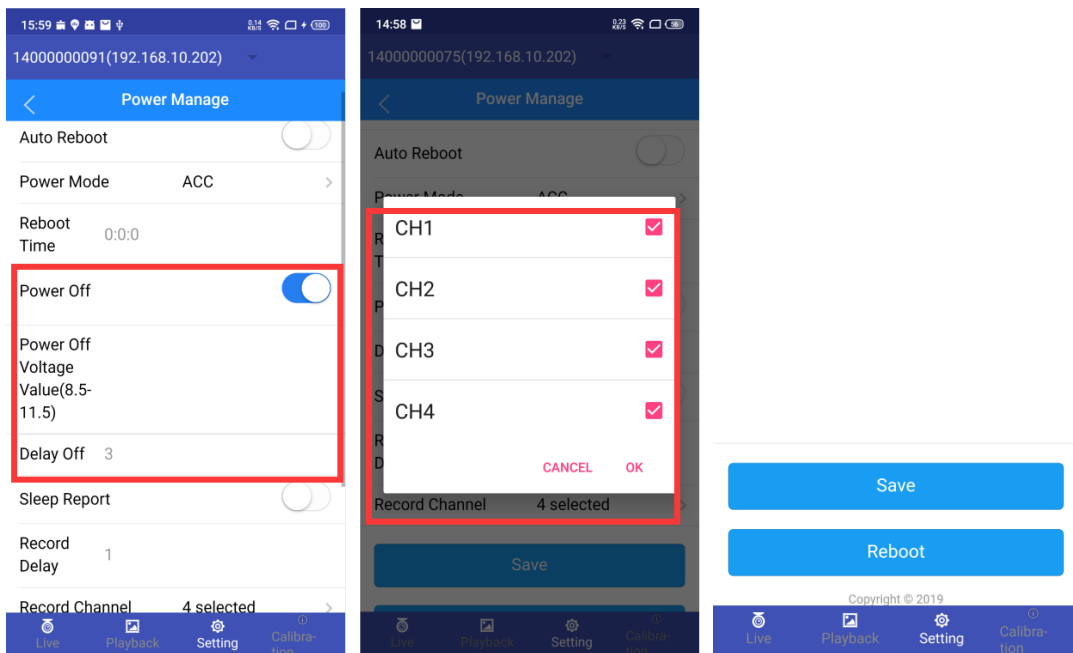
After modifying the date / time setting, if the device identification does not match the current time, it will restart. After restarting, the configuration will synchronize the device.



**1.4 Power manage:** When the power mode is ACC, you can turn on "Auto Reboot" and reboot time, When the set time is reached, the device will restart automatically. When "Timed mode" is selected: Auto reboot and reboot time are not displayed. Add two options: power on / power off time, the required interval must be greater than 1 minute.

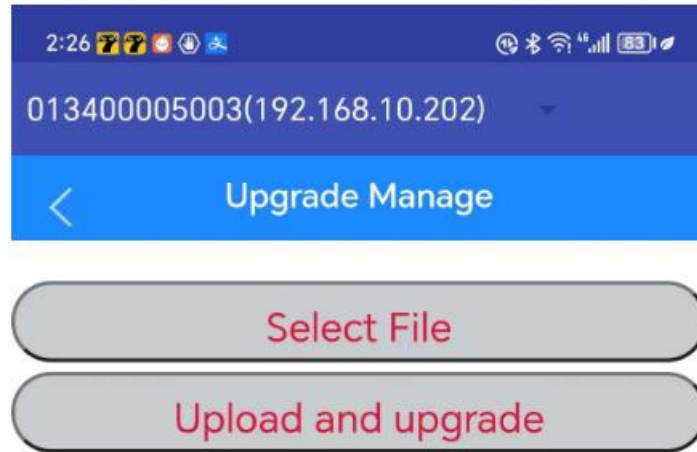


Power off: Low voltage shutdown, set the power supply between 8.5V ~ 11.5V for shutdown

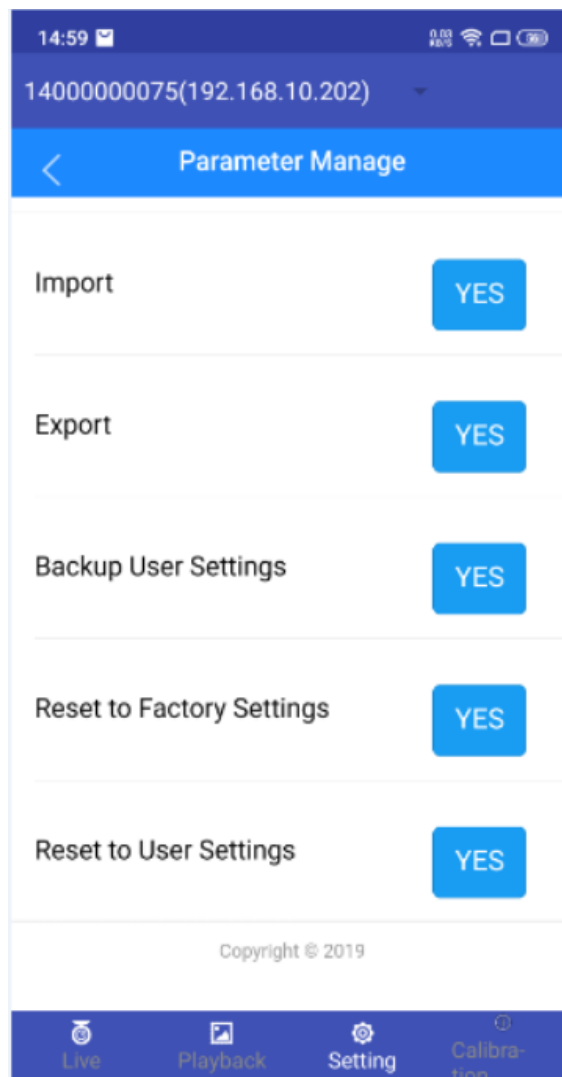


Reboot: Click reboot button, the device will reboot, and the App needs to be reconnected.

**1.5 Upgrade management:** By default, retrieve the storage disk, such as TF or SD card, select the file on the card, confirm, and then "Upload and upgrade";

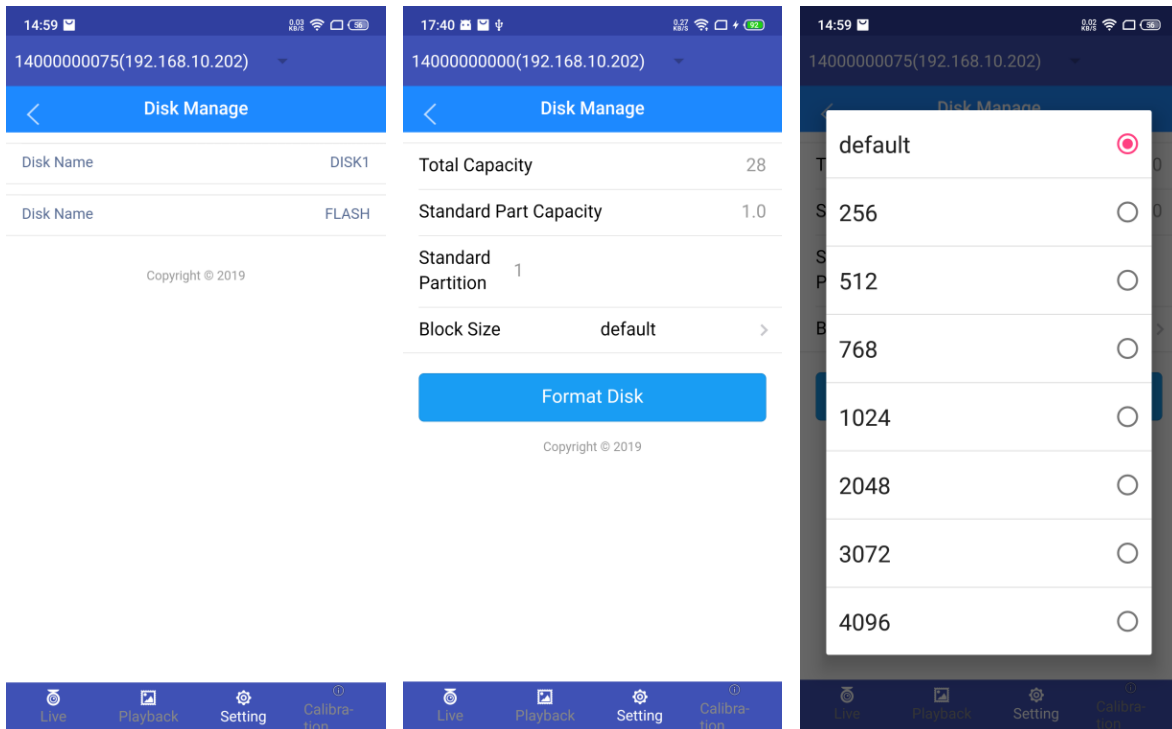


**1.6 Parameter Manage:** Select the parameters item to be, click "yes". After parameters Import, Reset factory settings, Reset to user settings, the equipment will reboot; The data exported by the parameter is on the USB flash disk.



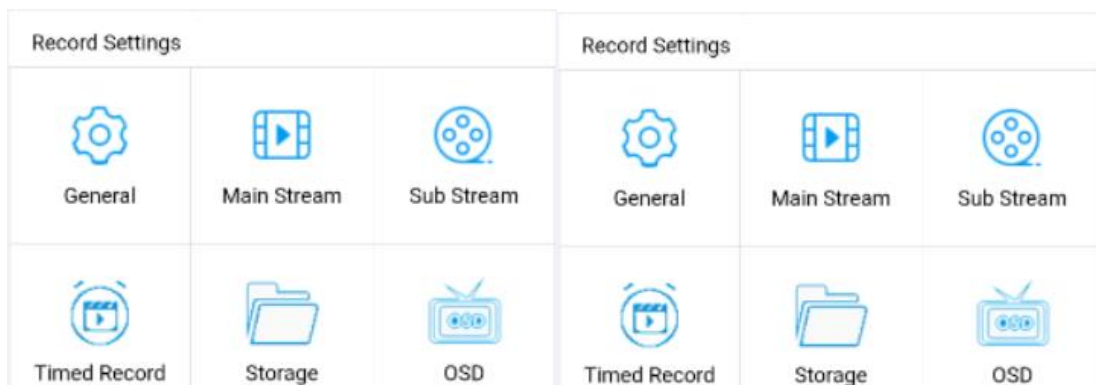
**1.7 Disk Manage:** Entering this page will display the disk list, select the target disk, and enter the sub-menu to display the capacity, standard capacity, standard partition, block size and other information of the target disk. The block size can be 256/512/768/1024/2048MB,etc, default is 256MB.

Note: When 1080p and highest level 1 image quality, 256MB recording time is about 30 seconds, when 1080p and the lowest 8-level image quality, 256MB recording time is about 170 seconds.

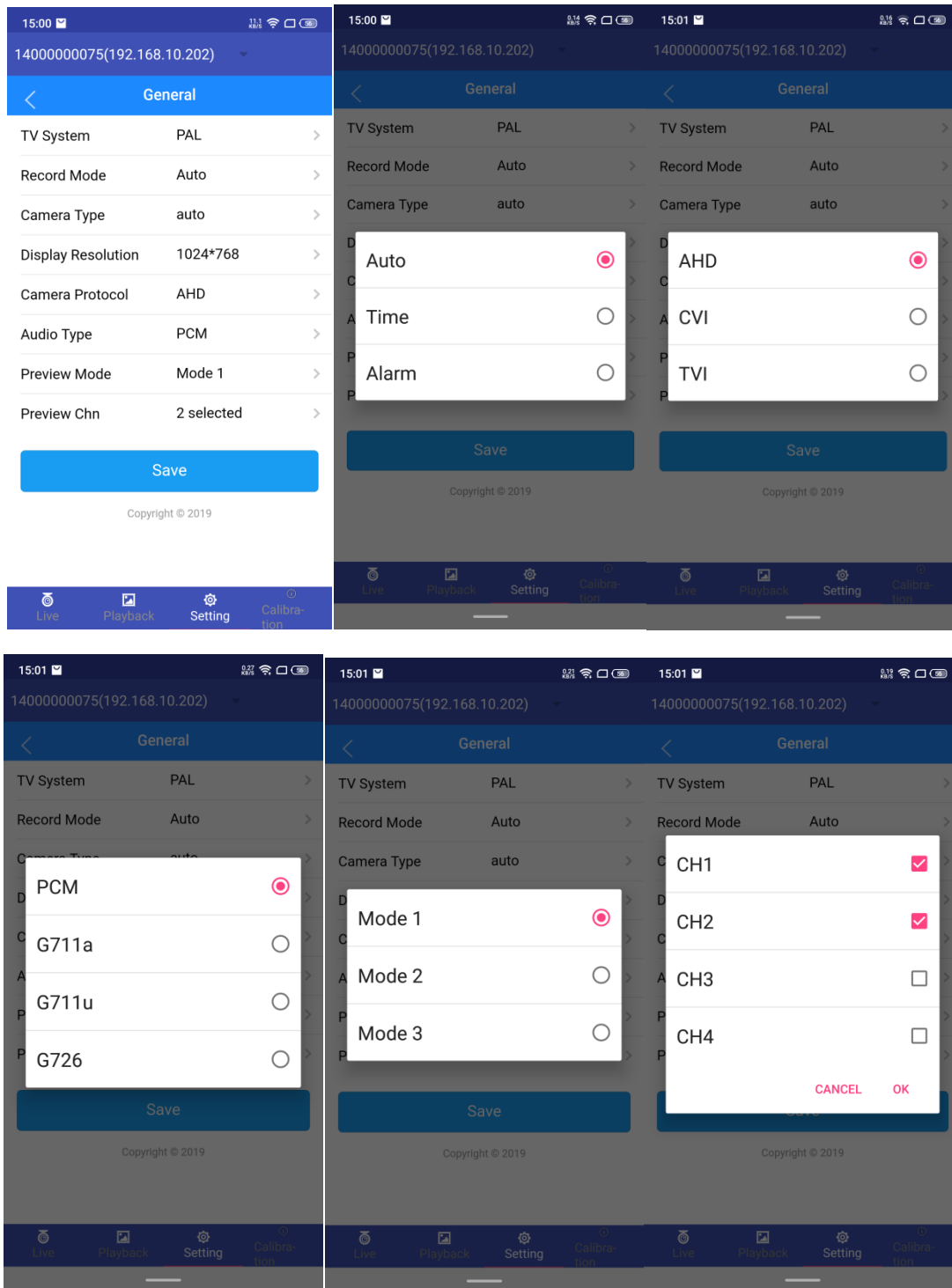


Format Disk: Click “Format disk” , Enter the disk format page

## 7.2. Record Settings

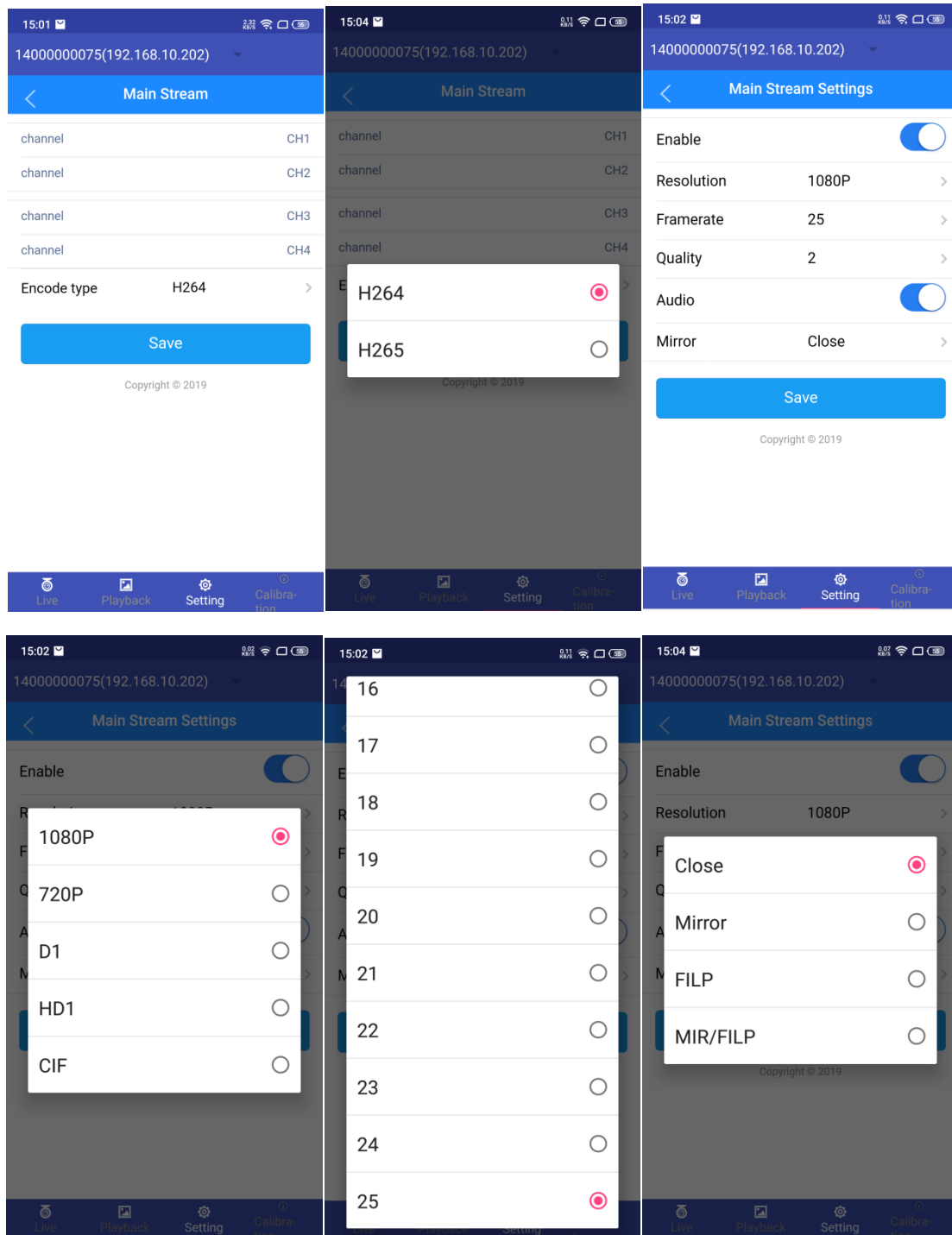


**2.1 General settings:** select the TV system PAL or NTSC, the Record Mode options are Auto / Time / Alarm, display resolution , Camera Type options are AHD/CVI/TVI, Auto Type, preview mode, preview channels ( Cannot be 0 )



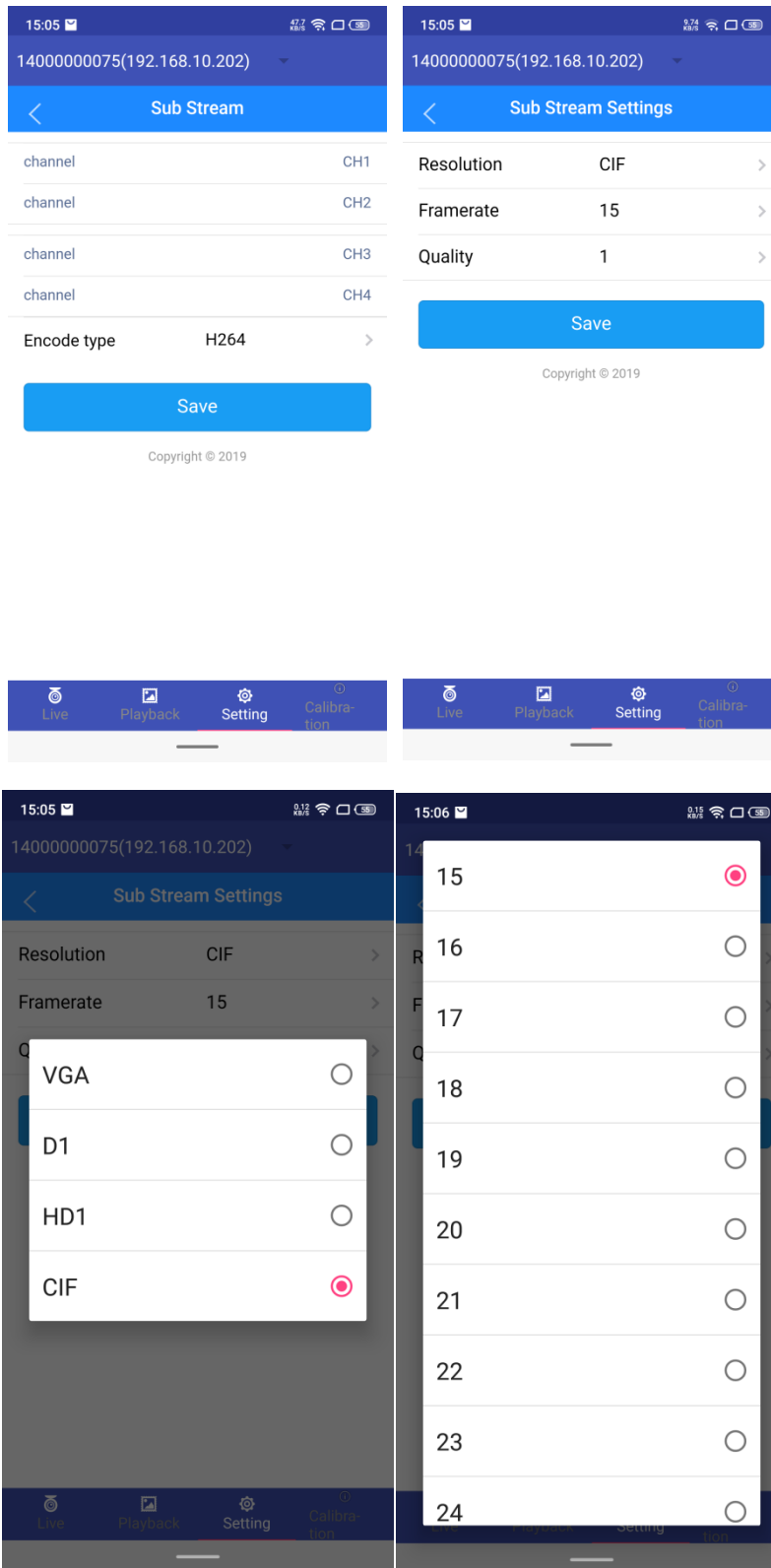
**2.2 Main Stream:** display the number of channels and select the Encode type. Click the channel to enter the channel setting page.

Enter the main stream setting page: set the main code stream enable switch, Resolution 1080P/720P/D1/HD1/CIF, Frame rate 1~25Fps, image quality1~8,(Level 1 is the highest and level 8 is the lowest), Audio switch ON/OFF, image mirror options are Mirror/ Flip/ Mirror and Flip.



**2.3 Sub Stream:** display the number of channels and select the Encode type. Click the channel to enter the channel setting page.

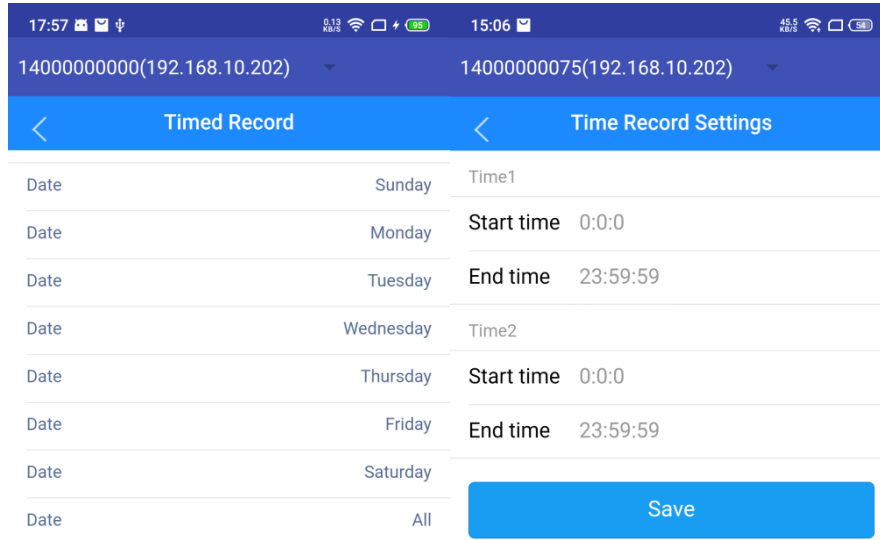
Enter the sub stream setting page: set the Resolution VGA/D1/HD1/CIF, Frame rate 1~25Fps, image quality 1~8,(Level 1 is the highest and level 8 is the lowest).



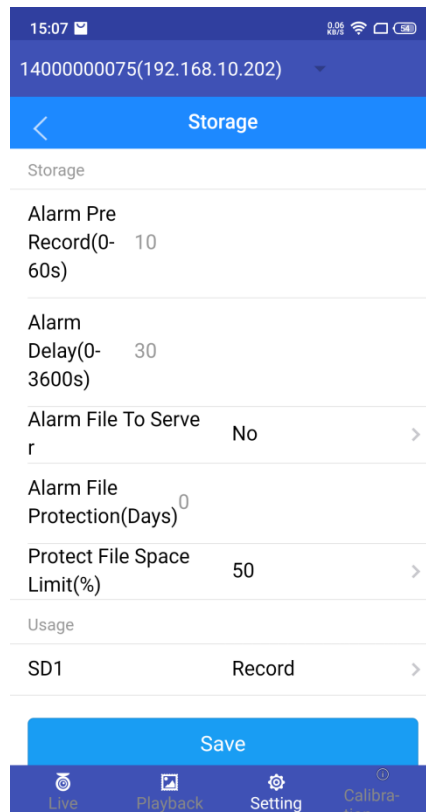
**2.4 Timed Record:** Enter the timing recording setting, You can set the recording time

period, set Monday~Sunday (single day) or All( every day) Start time and end time, Two time periods are optional.

Note: set All (every day) includes single day.



**2.5 Storage:** Set alarm pre recording, Alarm delay (alarm record = pre record + delay), Alarm file to serve optional FTP/, Alarm file protection days, Protection file space limit and disk purpose, If any item is modified, the equipment will reboot.



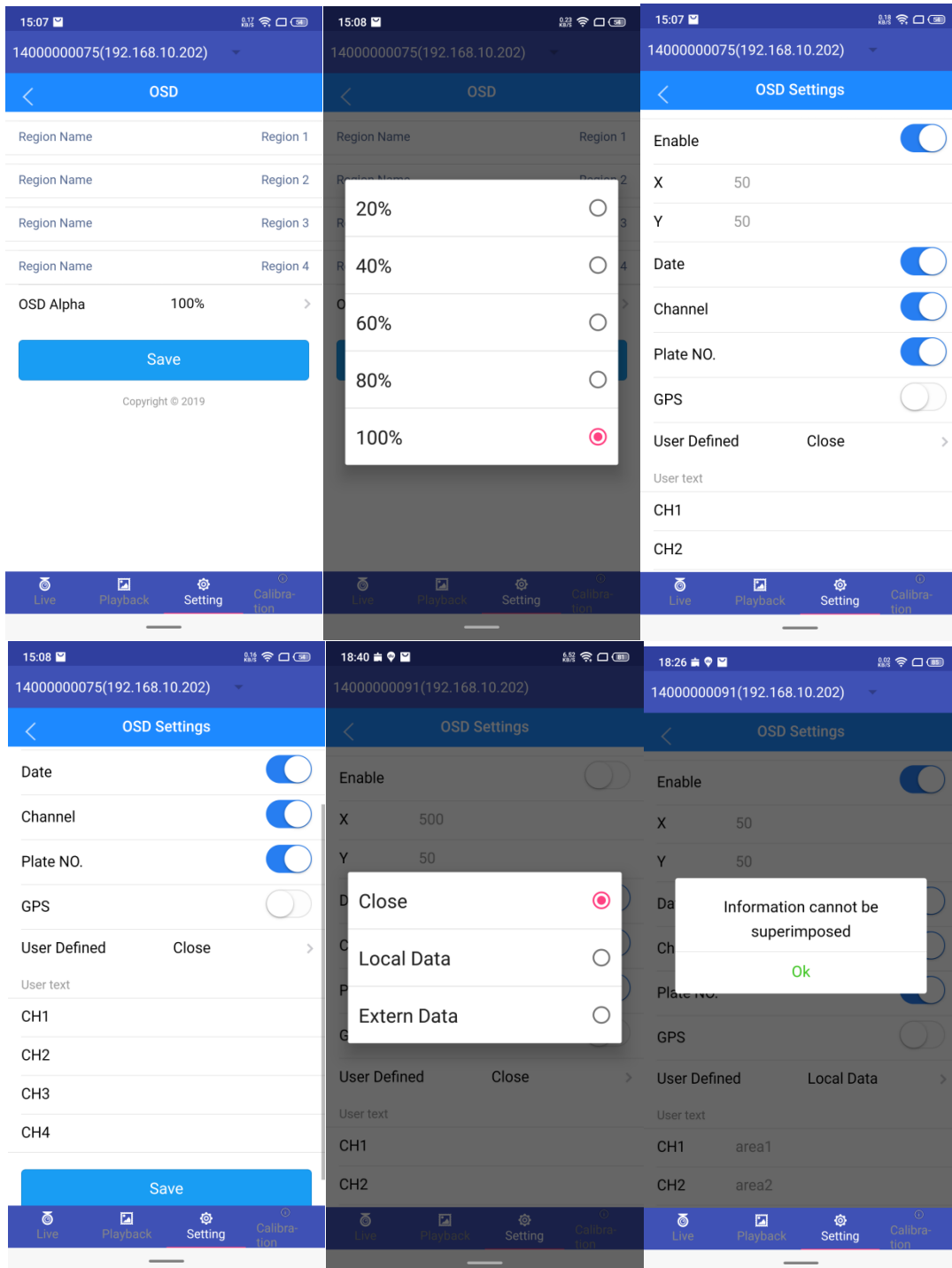
**2.6 OSD :**OSD information overlay,there are 4 areas, It can be display in App preview and

playback.

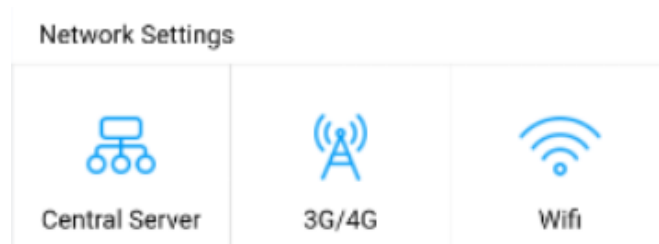
Transparency: overlay information background transparency, options 20% ~100%.

Enter Region name setting page: click the area enable switch, input Coordinate X,Y value,select Date/ Channel No/ Plate No/GPS switch, or custom text information for each channel.

Note: Custom items and channel overlay items cannot be saved at the same time.

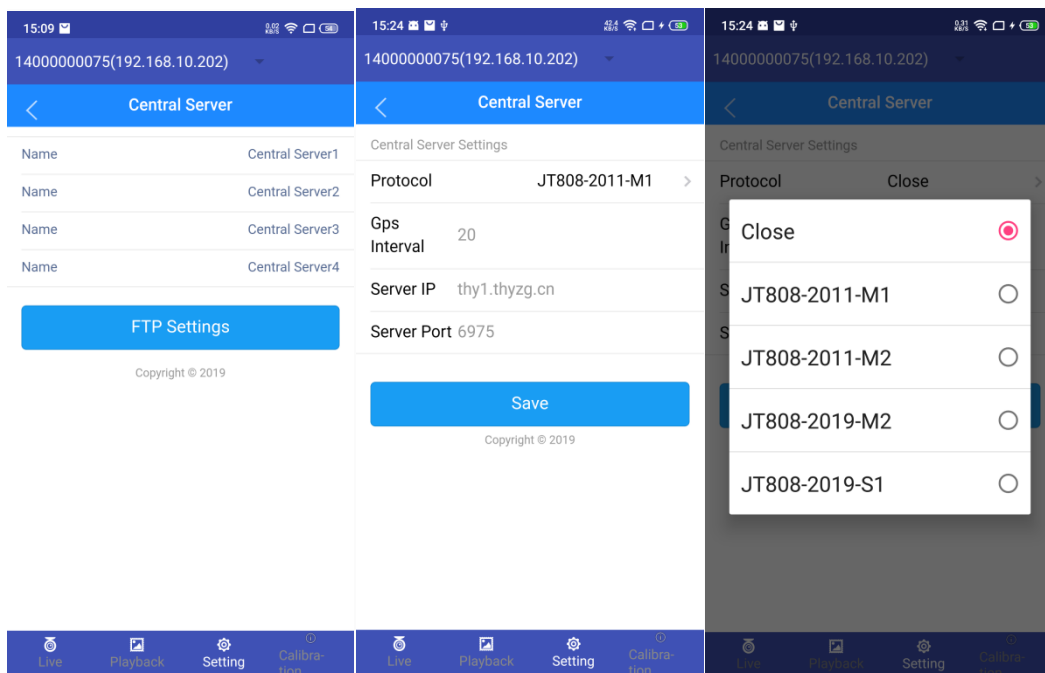


## 7.3. Network Settings



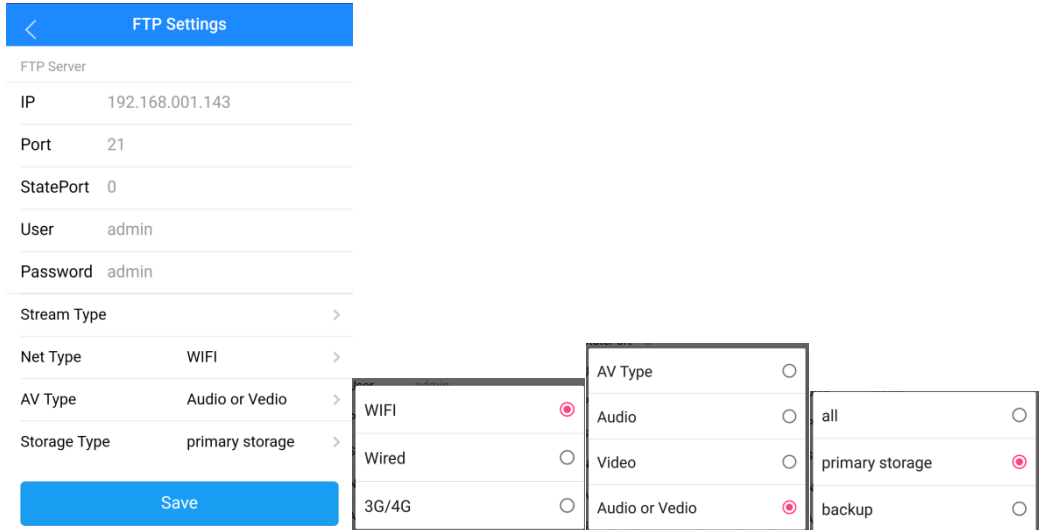
**3.1 Central Server :** There are 4 "central server" options. Enter the central server setting page.

**Central server setting:** you can set the protocol (optional protocol is consistent with the device), GPS refresh interval, IP address and port, fill in the existing device number of the platform in the terminal device, and check whether it is connected on the "system status" page.



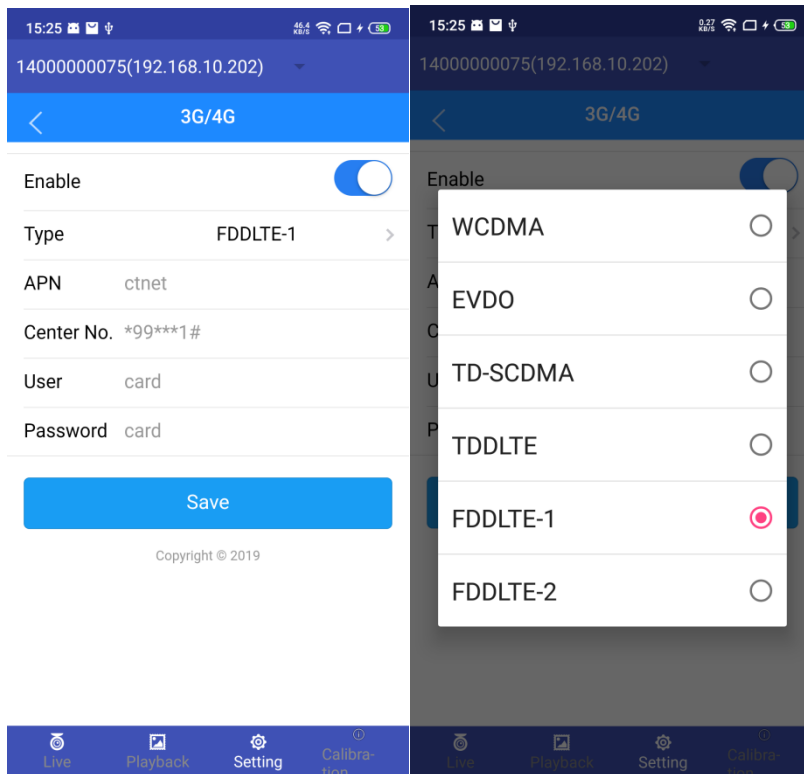
**FTP settings:** Enter the FTP settings page, Set the IP address, port, status port, user name and password to connect to the FTP server.

Select the transmission code stream type (main code stream / sub code stream), audio / video, network connection mode (WiFi/4G/Wired) and storage type corresponding to the device.



**3.2 3G/4G** : insert the SIM card into the device, set the enable switch, select the dialing type, and enter the user name and password;After the SIM is recognized, the configuration information will change.

(Chinese customers only need to turn on the enable switch,SIM card type/ user name/ password will be automatically read and saved by the device),

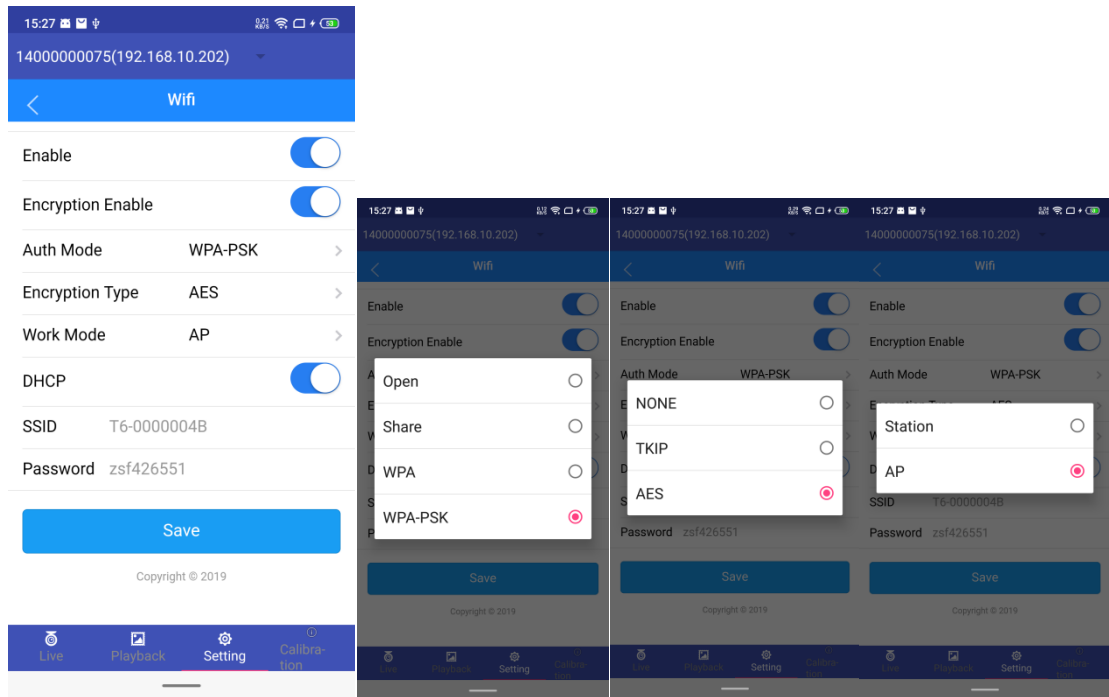


**3.3 WiFi** : WiFi enable switch, encryption enable, select authentication mode, encryption

type, working mode, DHCP enable, input SSID and password.

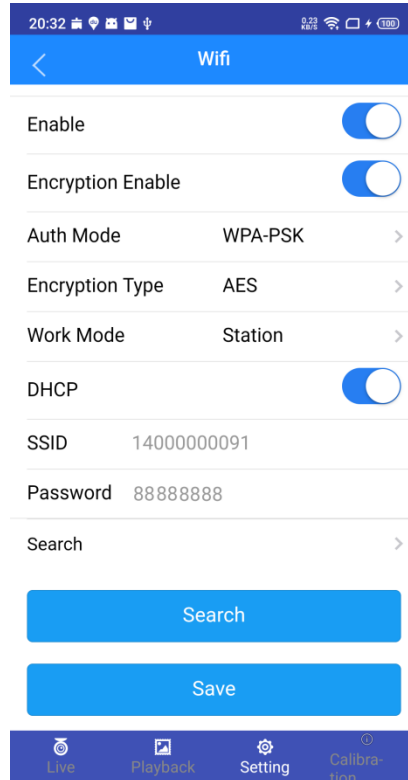
**AP mode** (device hotspot is open). Select user name and password to save, open mobile WiFi, and app can search the device.

Mobile phones and devices are directly connected through hotspots.

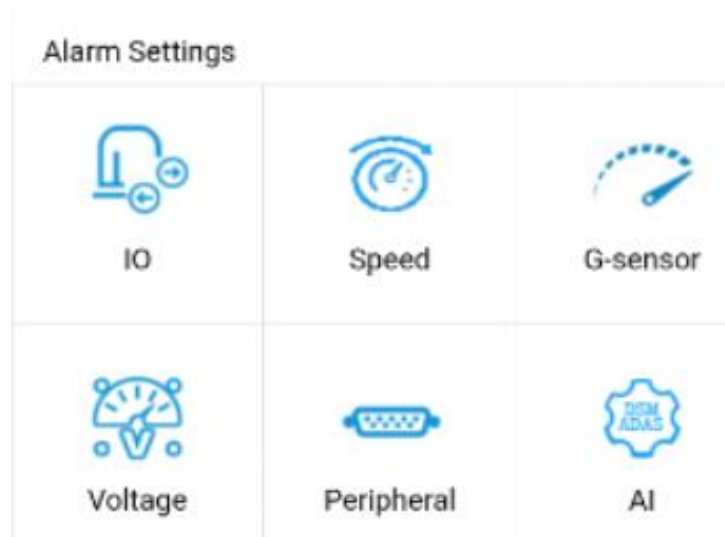


**Note: Please do not use station mode when there is no output screen display!!!** If the station mode is set in TViewer App, the device will not be searched by mobile WiFi. If you encounter this problem, please contact the staff;

**Station mode:** Turn off DHCP (display IP, gateway and mask settings), click the "search" button, wait for WiFi to be displayed in the search bar, SSID is automatically filled in, and the password needs to be changed manually.



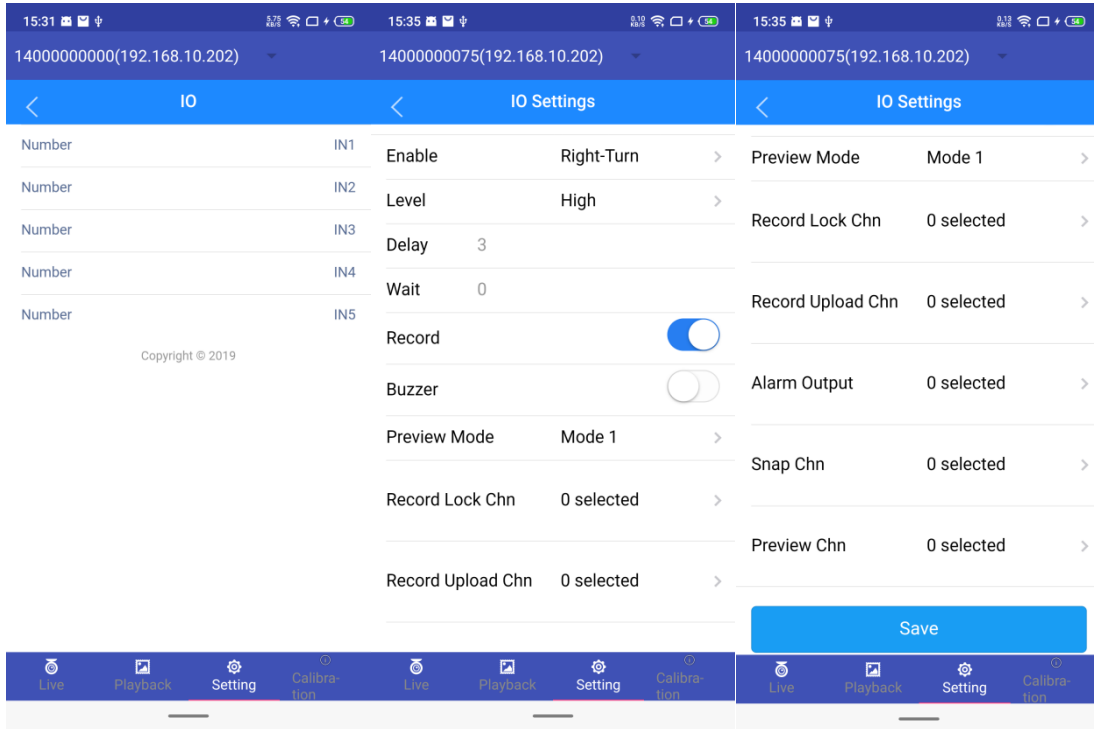
## 7.4. Alarm Settings



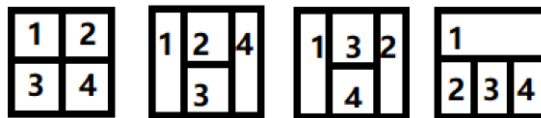
**4.1 IO** : The IO quantity is determined by the product. Click to enter the IO alarm setting page.

**IO settings:** set IO function, trigger alarm level, delay, anti shake and alarm linkage settings.

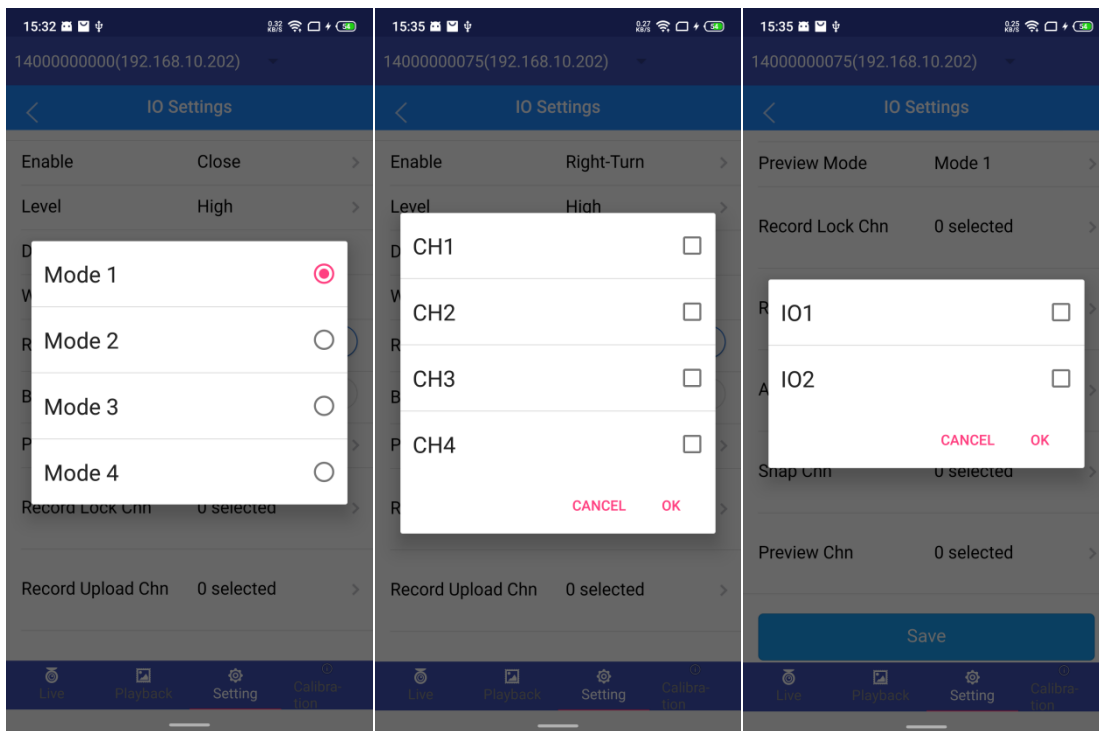
**High level:** the alarm can be triggered only when the in line is connected to the high voltage line. The low level can be triggered as long as the equipment is powered on.



**Alarm linkage** (common to all alarms): set video switch, buzzer switch. Preview mode: there are 4 modes available; Mode1~4, such as:



Selection of record lock channels, record upload channels, snap channels (capture upload), preview channels, Alarm output IO port selection.



**4.2 Speed** : set the speed signal source, pulse coefficient and speed unit. Click the alarm type to enter the alarm setting page.

**Speed settings:** set enable switch, limit value (not 0, the threshold value of overtime parking is time unit / s, and other types are speed values), delay time, anti shake value and alarm linkage (item 4.1 Alarm linkage), The high-speed warning value cannot be greater than the high-speed alarm value.

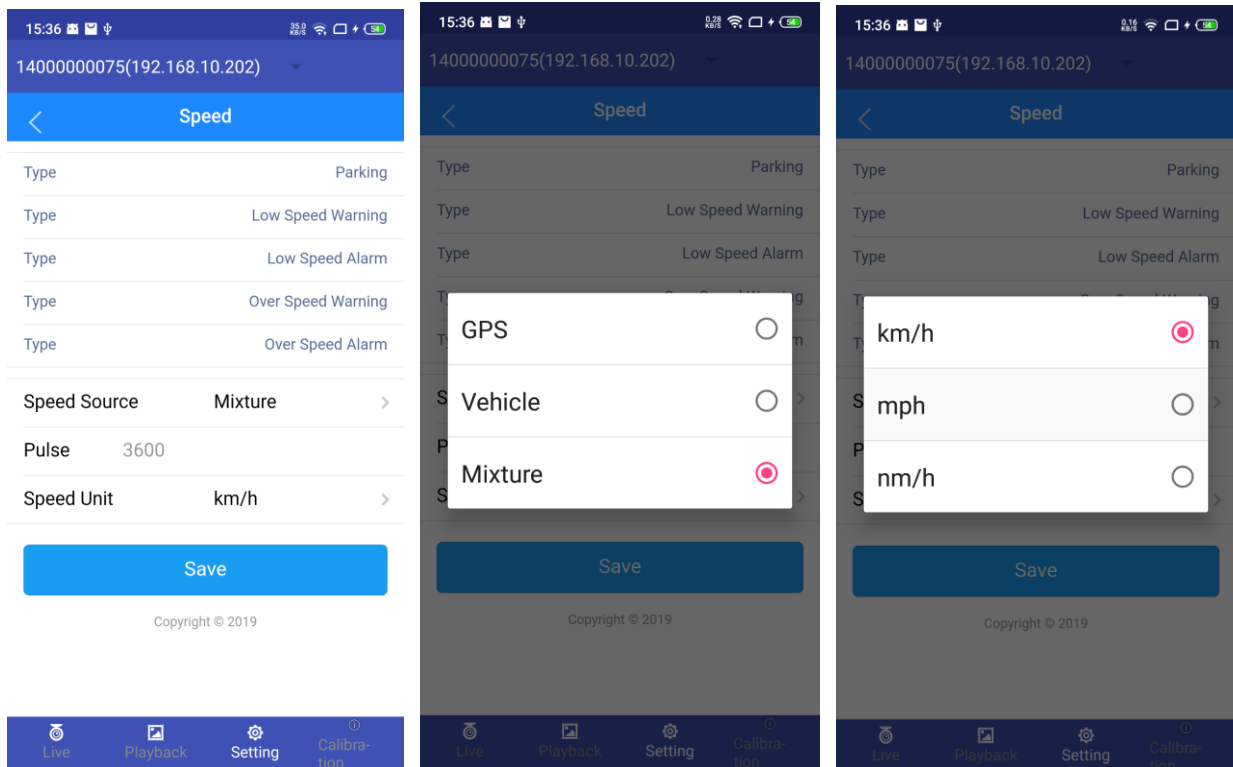
Enable: Level 1, Level 2, all; For example, Speed is set to 30km/h and Classification is set to 50km/h. If the current speed is between 30 and 50km/h, it is reported to the platform as level 1. If the current speed is greater than 50km/h, it is reported to the platform as level 2.

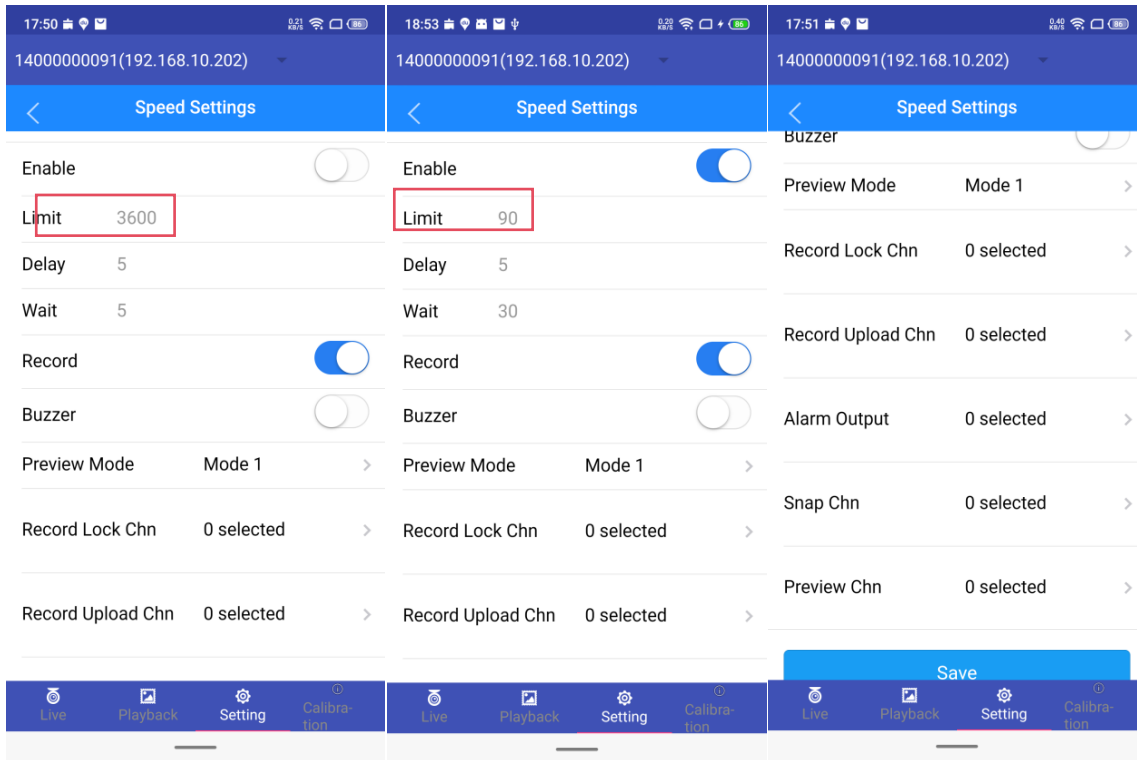
Speed, classification: The value of speed is less than the value of the classification, "speed" default 30 can be set, "classification" default 50 can be set.

Interval: Indicates the interval for broadcasting a voice. The unit is seconds (s). The default interval is 10s.

Volume: Level 8; The bigger the number, the louder the sound;

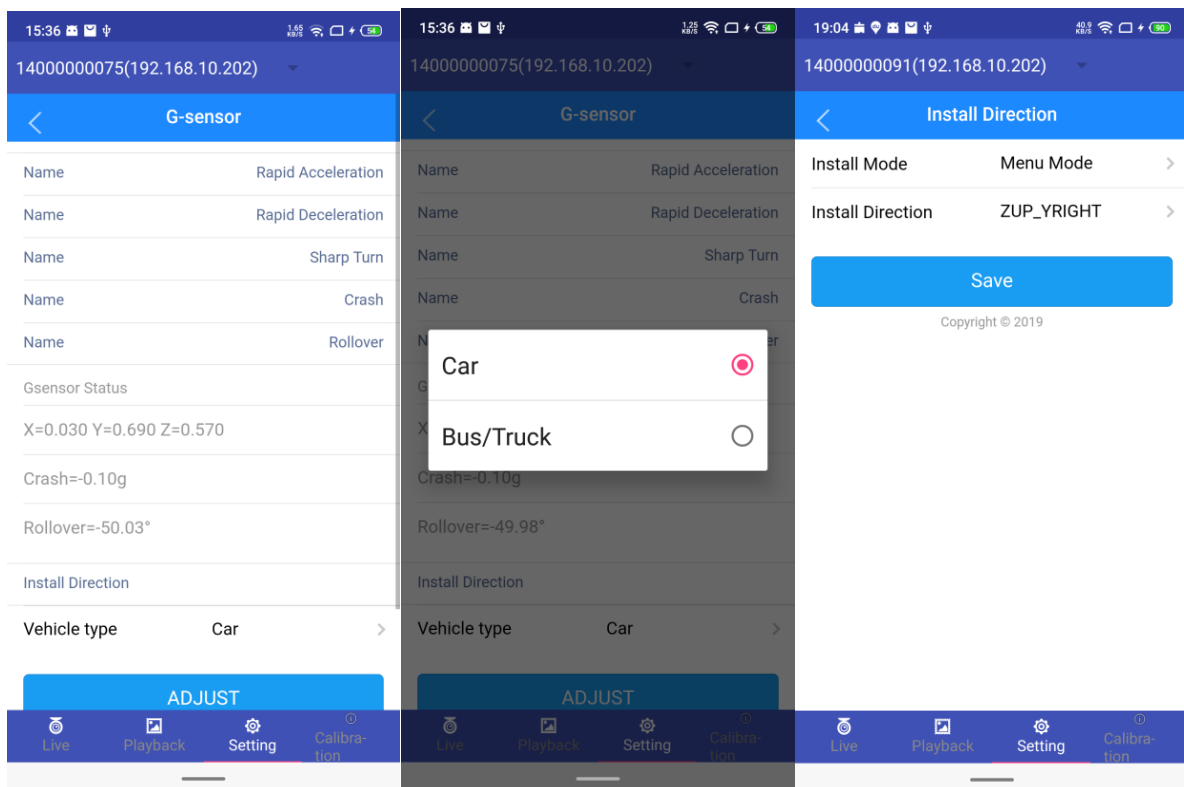
Sensitivity: Grade 10; The smaller the number, the more sensitive the detection, setting the sensitivity, can effectively prevent false positives, false positives;



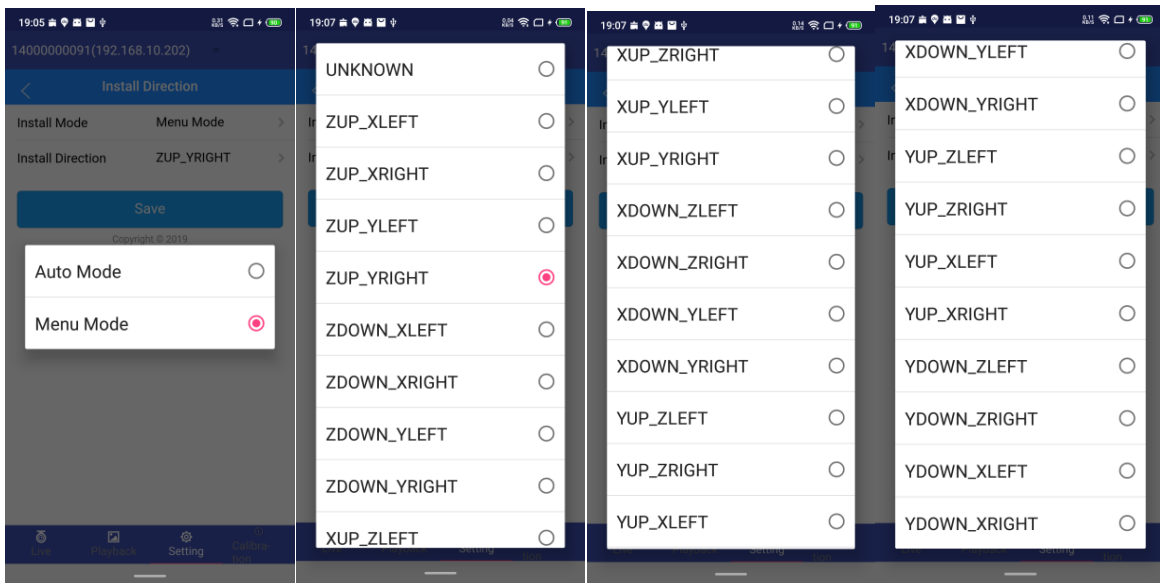


**4.3 G-sensor** : display attitude type and acceleration value, and set installation direction and vehicle type(Car or Bus/Truck). after installing the equipment, click the "Adjust" button, the calibration acceleration value in the current installation direction is 0, and the subsequent floating is about 1.

**Installation direction:** Click to enter the installation direction setting page



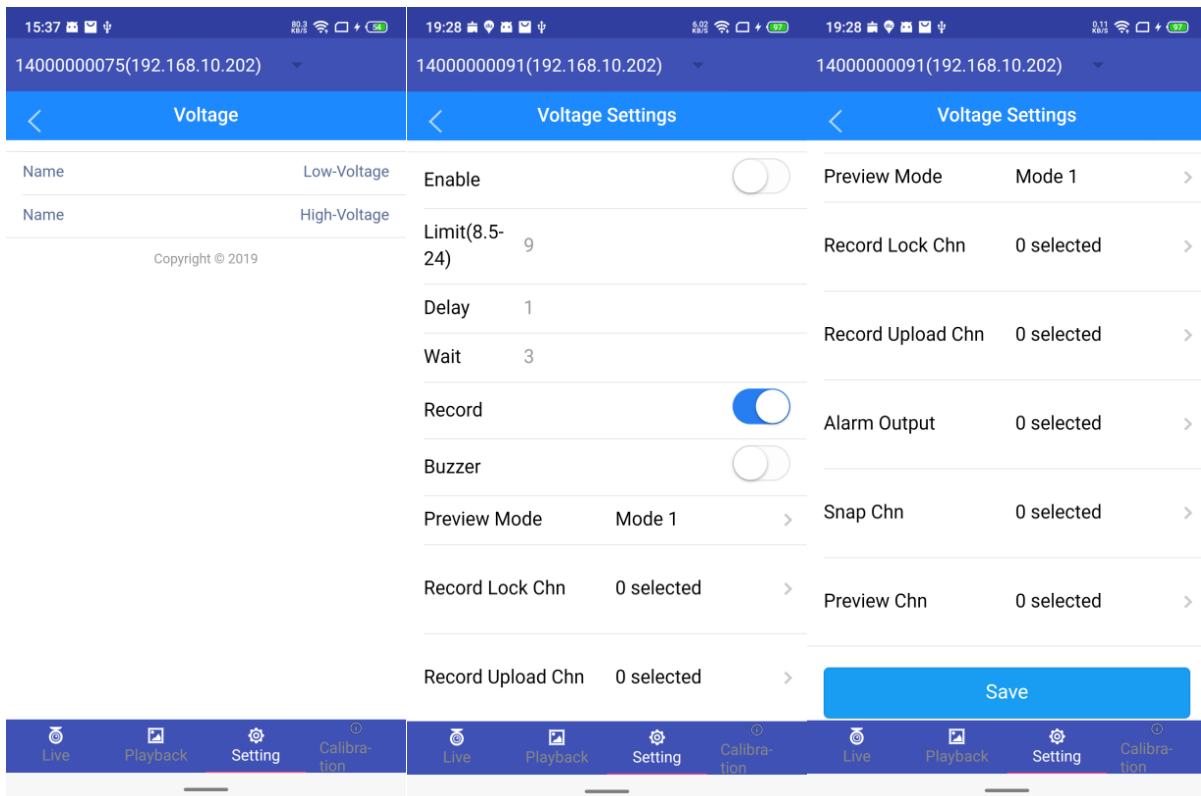
Select up, down, left and right directions and click save. After saving successfully, you need to calibrate manually on the attitude alarm page.



#### 4.4 Voltage : Click LV / HV to enter the voltage alarm setting page.

Voltage settings: set enable switch, threshold (low voltage: 8.5-24, high voltage: 12-36), delay time, anti shake value and alarm linkage (item 4.1 Alarm linkage)

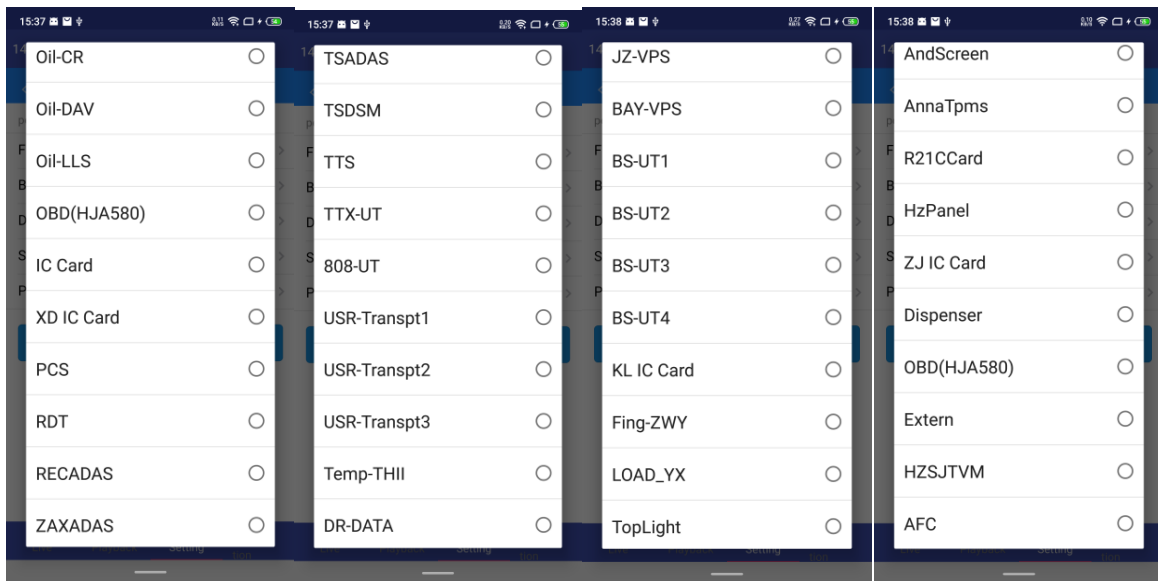
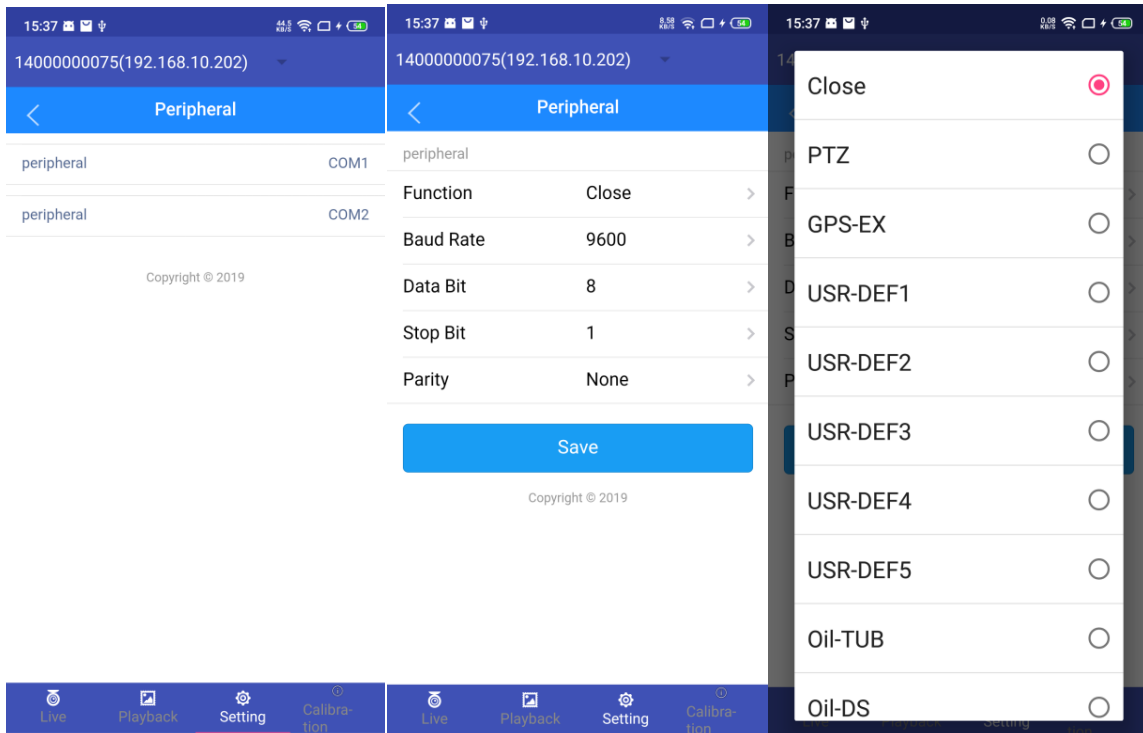
Serial port setting:

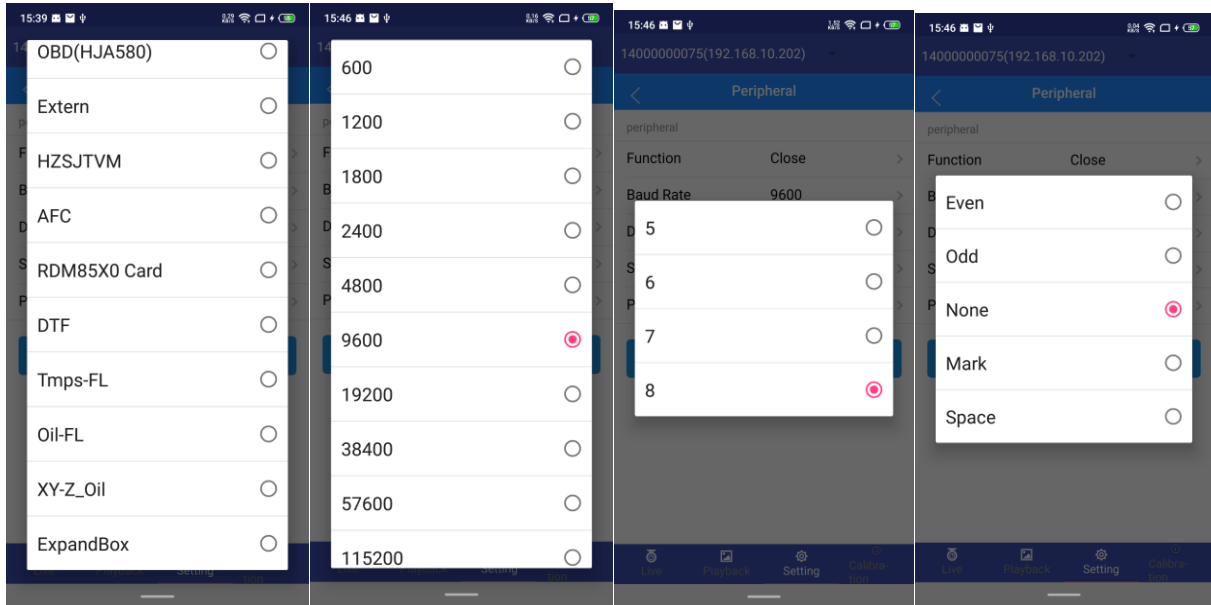


**4.5 Peripheral :** Click the COM number to enter the peripheral setting page.

**Peripheral settings:** Set serial port peripherals function, for example: PTZ, etc, baud rate, data bit, stop bit and check bit (which shall be consistent with the printing setting of the connected serial port)

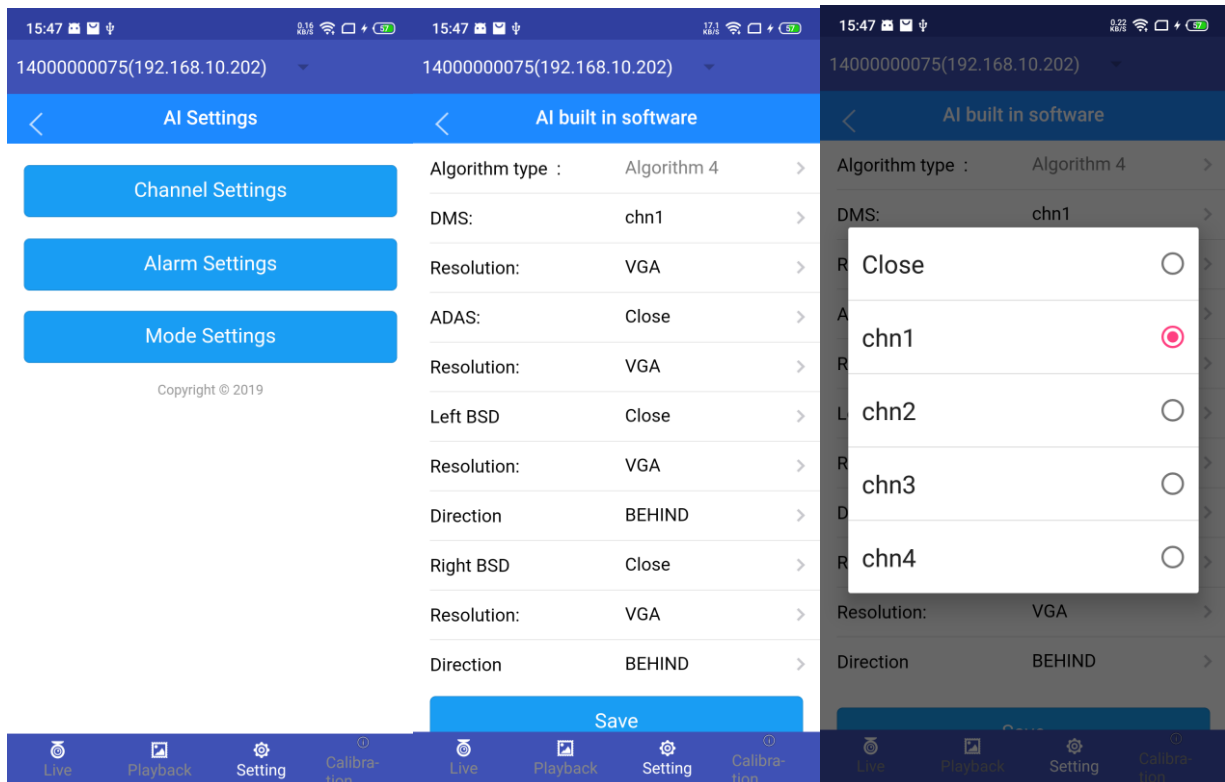
**PTZ control:** click the channel to enter the PTZ control page and set the protocol type, address code (0-63) and preset bit (0-255)

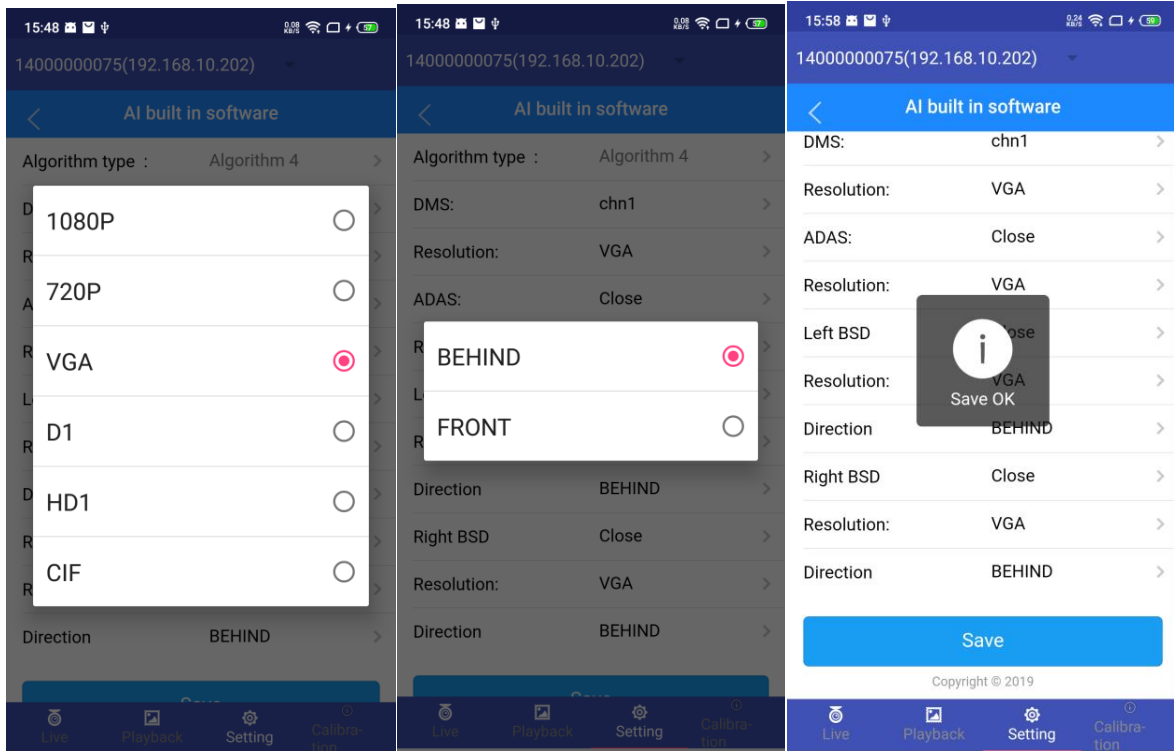




**4.6 AI setting:** Channel settings, Alarm settings and Mode settings.

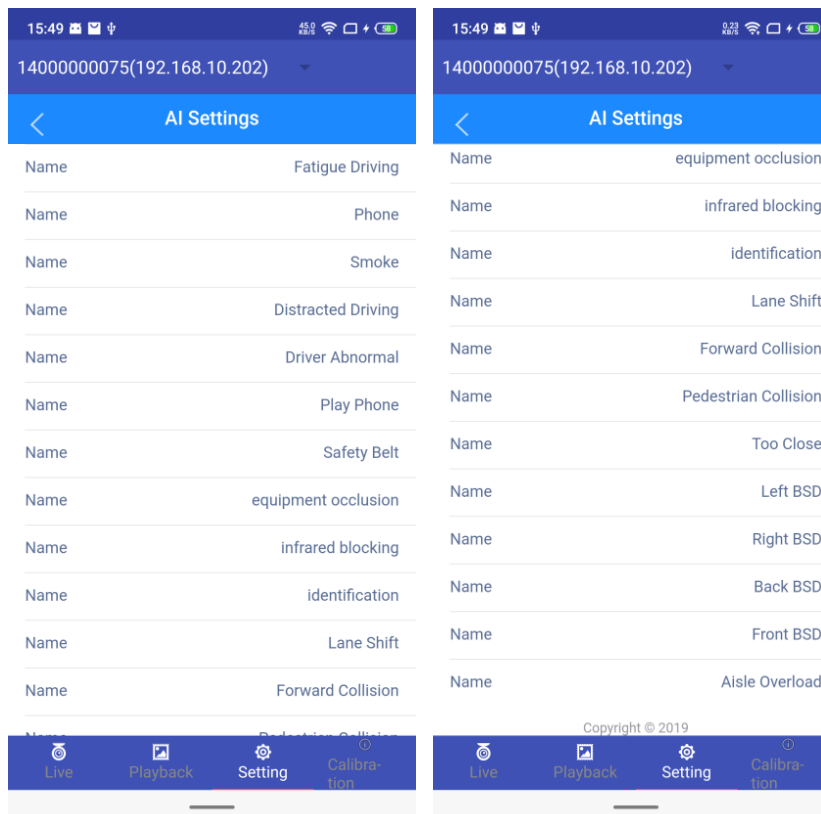
**AI built in software:** Displays the AI algorithm type (automatically recognized and cannot be changed). Setting channel functions are DSM or ADAS, channel resolution, Channel, orientation and channel resolution of left and right blind areas.

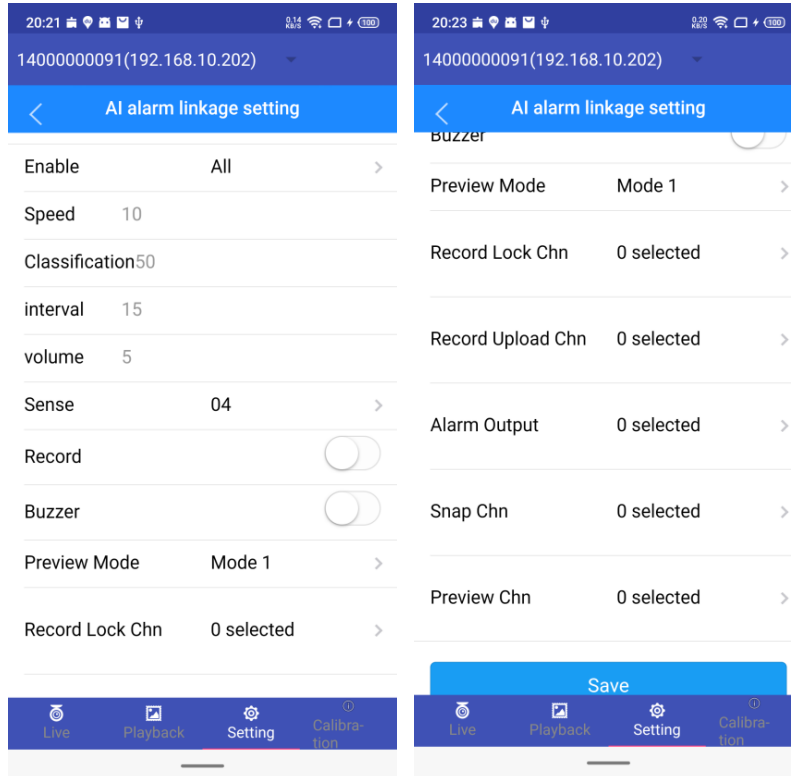




**Alarm settings:** fatigue driving, making phone calls, smoking, distracted driving, abnormal driver, lane offset, forward collision, pedestrian collision, too close vehicle distance (ADAS).

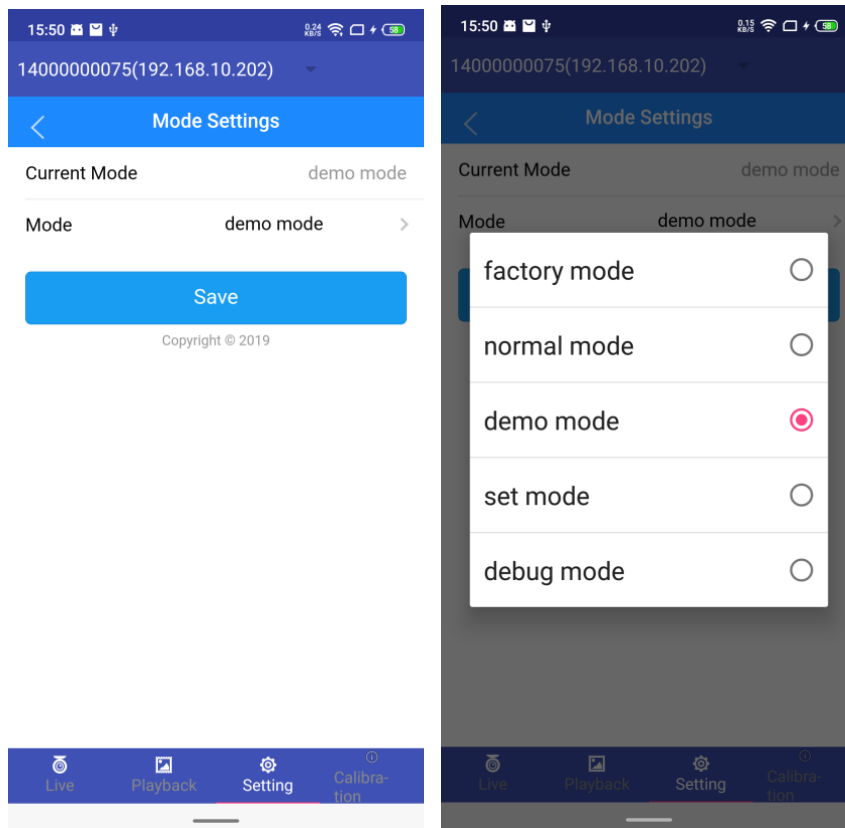
**AI alarm linkage settings:** Refer to item 4.1 Alarm linkage.



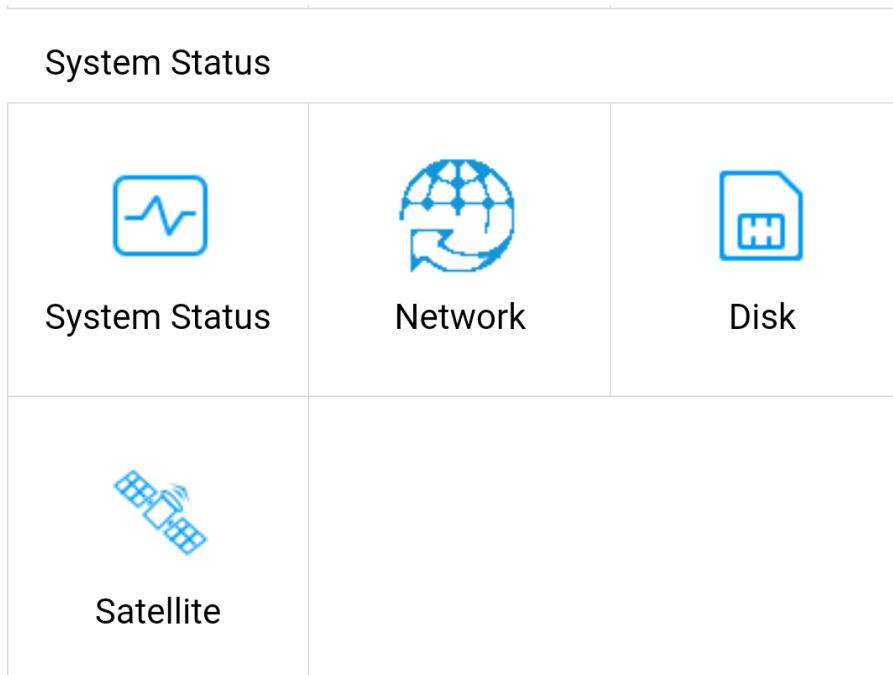


**Mode settings:** Set AI current mode(Normal and Demo), normal: actual driving mode; demonstration: Office demonstration, and the default speed of the program is 60 pulses.

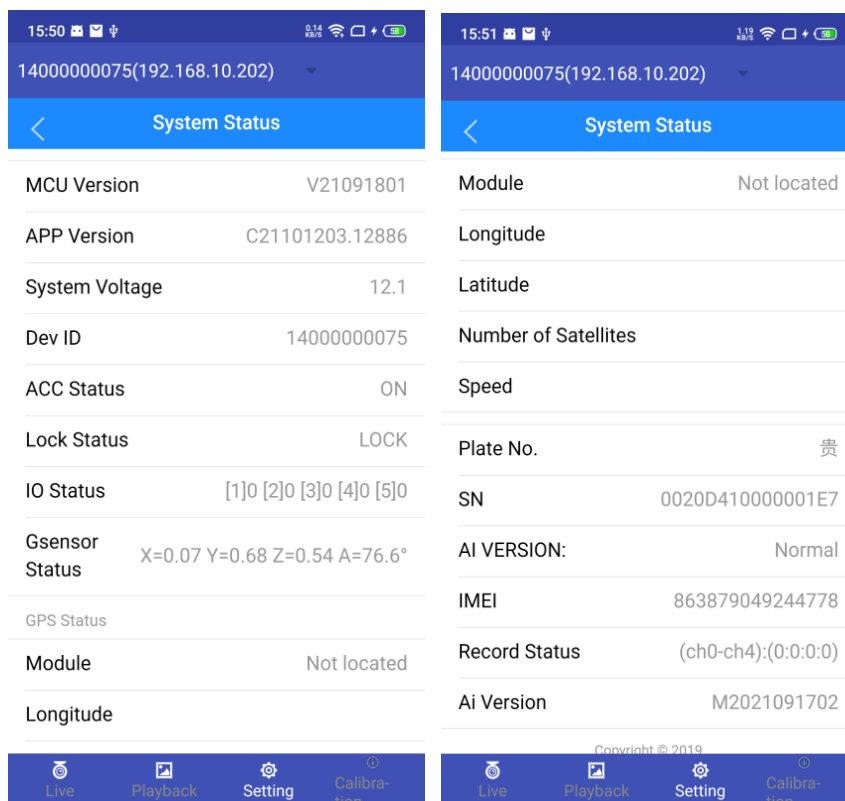
**Note:** At present, there are only these two modes(Normal and Demo).



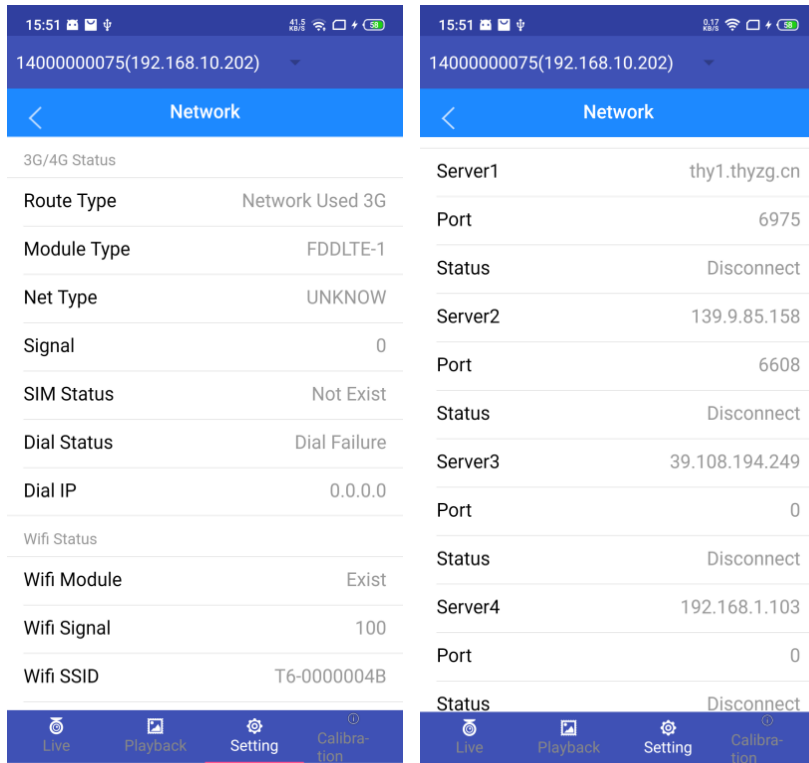
## 7.5. System Status



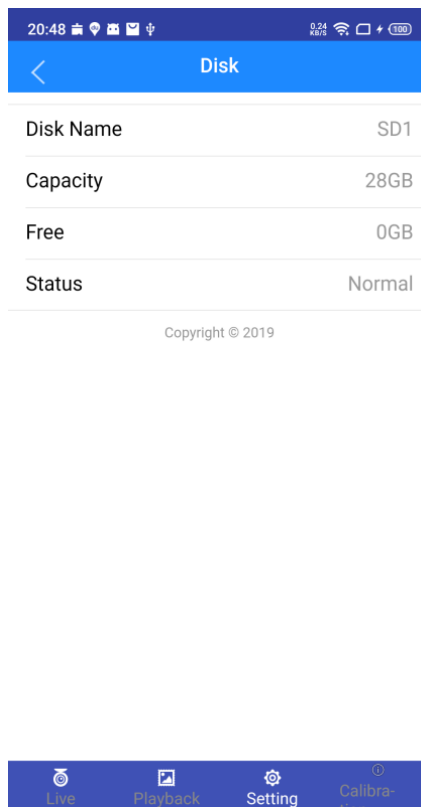
**5.1 System status :** Display MCU version, APP version, system voltage, equipment number, acc status, lock status, IO status, acceleration value status, GPS positioning status information, license plate number, good sequence, AI certification and other relevant information.



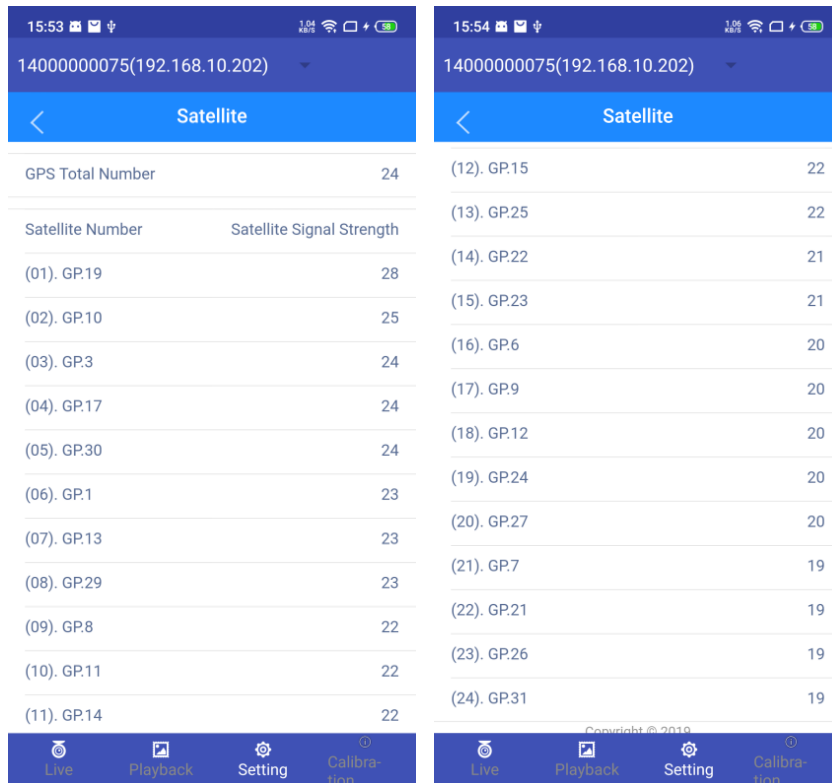
**5.2 Network** : Display the status information of current network, 4G, dial-up, WiFi and central connection 1-4.



**5.3 Disk** : Displays the disk name, total capacity, remaining space and status of all disks in the current device.

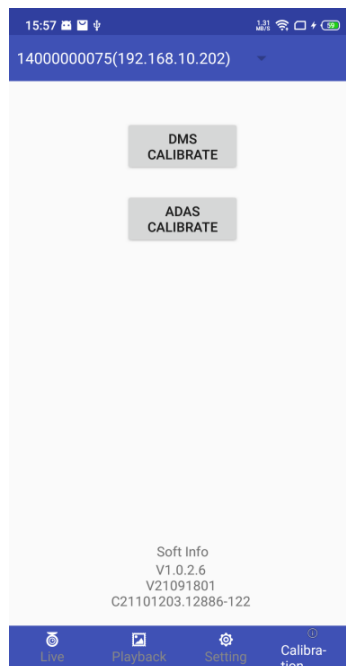


**5.4 Satellite** : Display the signal strength value received by GPS / BD / WiFi.

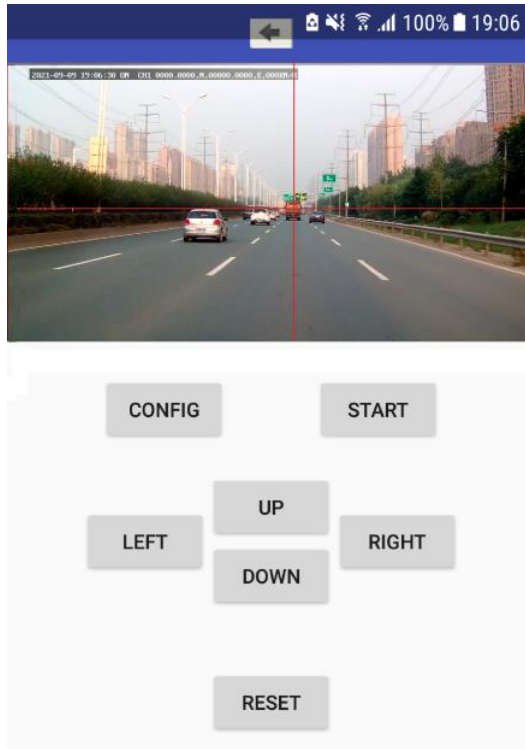


## 8. AI Calibration setting

Select the calibration menu. Click the “DMS calibrate” or “ADAS calibrate ” button under the App to enter the calibration page.



When ADAS is calibrated, ask the vehicle to go straight in the middle of the lane. The vertical line is the lane center line and the horizontal line is the horizontal line where the sky road ahead disappears. Point the cross line and adjust it by moving up / down / left / right. After calibration, click "calibration".



When DSM is calibrated, click the "calibration" button, the driver face the front and will automatically calibrate successfully in about 3 seconds.

