M598V-4&8CH HDD MDVR

User manual

Directory

Preface

Thank you for using the Video Surveillance End User Manual. Please read this manual carefully before using it to understand the performance, purpose and use of this product. The content of this manual will be updated from time to time, and the updated content will be added in the new version of this manual, if there is any discrepancy between the description of the product in the manual and the actual product, the actual product shall prevail. You encounter problems during use or have good suggestions for our products, please contact us, we will give support to the problems you encounter in use, and we express our heartfelt thanks for your suggestions!

Product Introduction

This series of products is a multi-performance car hard disk recorder, using the international mainstream video H.264, 265 main profile coding format, audio G.726 encoding, high compression ratio, clear image, small disk space, unique UPS technology (equipped with Farad capacitor), using wide power supply 10-36V DC input, support large-capacity 2TB hard disk, USB backup, small appearance, ultra-low power consumption, simple operation and installation, strong stability, widely used in the mass market.

Typical applications

This product can be used for video surveillance or remote monitoring, suitable for ordinary or special vehicles, such as buses, logistics vehicles, trucks, long-distance buses, taxis, oil tankers, cars, school buses, police cars, patrol cars, etc. It mainly collects the video signal obtained by the front end through the dedicated car camera, and then transmits the video compression and image storage through a special video cable to the hard disk or SD card of the MDVR host. It can also remotely monitor or be monitored video recording, such as 3G/4G module, WIFI module also supports downloading video files in remote clients.

Section 1 Technical parameters and precautions

1.1. Features

Feature Highlights:

- Industrial-grade design, small appearance, ultra-low power consumption, easy installation, strong stability;
- Military-grade highly reliable aviation head input and output interface, easy installation and insertion, stronger seismic performance;
- Professional on-board power supply design, 10-36V DC wide voltage input; Overload undervoltage short circuit reverse connection and other protection circuits, suitable for all kinds of vehicles;
- It adopts international mainstream video H.264, 265 main profile encoding format and audio G.726 encoding, with high compression ratio, clear image and small disk space occupation;
- Provide 12VDC power output, which can provide constant voltage power supply for multiple peripheral devices such as cameras and small screens;
- Abnormal restart function protection of watchdog, which can better protect the machine and video;
- Support 2T large-capacity hard disk, which can completely resist data damage caused by vibration dust on the car;
- Exclusive pre-allocated dedicated file system technology to solve the file fragmentation caused by repeated erasing and writing, and ensure the integrity of data;
- Flame-out time-lapse recording function (time can be set up to 24 hours);
- Power failure protection function under accident, using professional UPS technology to ensure the integrity of video files under unexpected power failure, convenient for accident inquiry;
- The supporting client platform provides real-time monitoring, monitoring intercom, playback, video, high-definition screenshots and other functions;;
- Support mobile phone remote monitoring, support mobile phone 3G/4G call function;
- It has a variety of upgrade methods such as SD card, hard disk, U disk and platform remote upgrade, and adopts partition backup technology to upgrade without crashing;
- Support the simultaneous use of multiple algorithms such as passenger flow statistics, DMS, ADAS, and BSD;
- Ultra-simple system interface, smooth operation, intuitive and easy to understand functions;

1.2. Specifications

project	Device parameters	Performance indicators
system	Operational language	Chinese. English, Others (customizable)
	Operation interface	Graphical menu operation interface (OSD menu)
	Password security	Two-level management of user password and administrator password
Video	Video input	4/8 video input
	Video output	There are two video output modes of VGA and aviation head interface
	Video resolution	Support 1080P. 720P, D1, HD1, CIF, etc
	Video loop recording	Support SD card automatic loop recording and loop overlay (auto default)
	Video mode	Support boot recording, timing recording, alarm (trigger) recording
	Image compression	H264/H265
display	Preview features	Supports single and multi-view
	OSD overlay display	Channel name, time, recording status, resolution, license plate, GPS information, etc
alarm	IO alarm	4 IO alarm inputs with alarm linkage function
Communication interface	RS232 interface	1CH RS232, expandable card machine, oil sensor, LED advertising screen, etc
	RS485 interface	1-way 485 interface, expandable gimbal
AI capabilities	Passenger flow	1 Gate passenger flow statistics
		2 door passenger flow statistics
		3 passenger flow statistics
		4 passenger flow statistics
	DMS	Fatigue (closed eyes, hatcher) detection alarm
		Receiving and receiving phone calls to detect alarms
		Face loss detection alarm
		Distraction detection alarm
		Smoking detection alarm
	ADAS	Occlusion camera detection alarm
		Lane departure detection alarm
		Pedestrian detection warning
		Vehicle distance detection and warning
platform	Remote monitoring platform	Real-time monitoring, monitoring intercom, playback, video, high-definition screenshots, GPS data, alarm data upload
other	power consumption	≤10W
	Operating temperature	-20℃ to +70℃
	Operating humidity	20% to 80%
	size	180 （D）* 140（W）* 60（H） mm
	net weight	Bare metal: 1.119KG
	Power input	DC +10V - +32V

Section 2 Product Interface Definition and Function Description

2.1. Front Panel Description

2.1.1. Indicator function description

【LOC】Power Status LED: Solid LED ─ The system is live

【REC】System Boot LED: Solid LED ─The device is booting normally

【HDD】Hard drive indicator: LED on - hard drive loaded successfully. LED blinking – indicates that the card is recording or reading and writing

【SD】SD indicator: LED on - SD card loaded successfully. LED blinking—Indicates that the card is recording or reading and writing

【NET】.NET LED: LED on ─The network loads successfully

【GPS】GPS status light: LED blinking ─GPS loaded successfully

2.1.2. Other Definitions

【SIM】SIM card: Used to insert the traffic card

【SD】SD card: Used to insert the SD card

【LOCK】Hard disk lock: locked, host boot

【OPEN】Hard disk lock: unlock, main shutdown, can remove the hard disk

2.2. Rear panel description

2.2.1. Back panel definition

【DC12-36V】Power interface: DC- on the left, DC+ on the right, ACC below

【AV1】-【AV4】Camera 1-4 channel input interface

【AV7-8】Camera 7-8 channel input interface

【AV5-6】Camera 7-8 channel input interface

【IPC IN】Network interface: Connect the network cable interface

【INTERCOM】Intercom handle interface

【AV OUT】Aviation head video output interface

【IO】IO/232/485 interface

【VGA】VGA video output connector

【3G/4G】3G/4G antenna interface

【WiFi-M】WIFI antenna interface

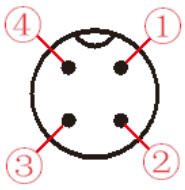
【GPS】GPS antenna interface

【IR】External extension cable remote control interface

2.2.1.1 IO port definition

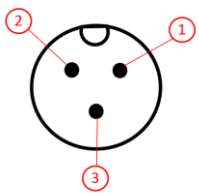
Pins	definition	Pins	definition
1	RS232-TX	2	RS232-RX
3	RS485-A	4	RS485-B
5	Alarm input 4	6	Alarm input 3
7	Alarm input 2	8	Alarm input 1
9	Alarm output 2	10	Alarm output 1
11	+12V	12	GND

2.2.1.2 Definition of four-core aviation head



Four-core aviation head pin definition	
Pin number	Signal definition
1	+12V
2	GND
3	Audio signal
4	Video signal

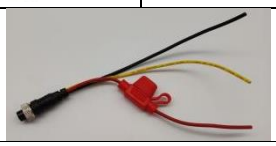
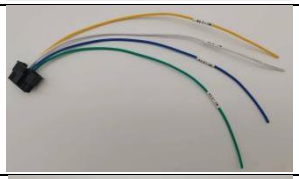
2.2.1.3 Definition of three-core power supply aviation head



Three-core aviation head pin definition	
Pin number	Signal definition
1	DC+
2	DC-
3	ACC

Section 3 Equipment Installation Guide

3.1Accessories introduction

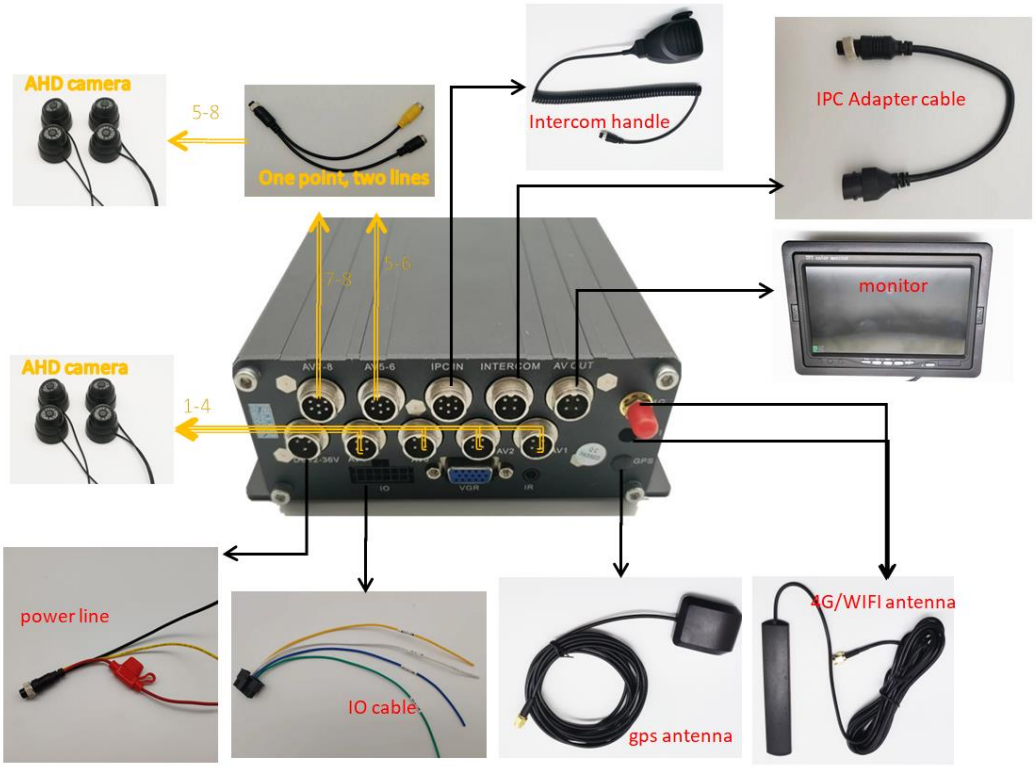
serial number	project	Image
1	host	 
2	Power cord	
3	4G/WIFI antenna	
4	GPS antenna	
5	remote control	
6	key	
7	IO alarm line	
8	4 to 6 connecting cable	
9	One point 2 lines	
10	Aviation head to double AV line	
11	Aviation head to IPC	

3.2List of accessories for each function

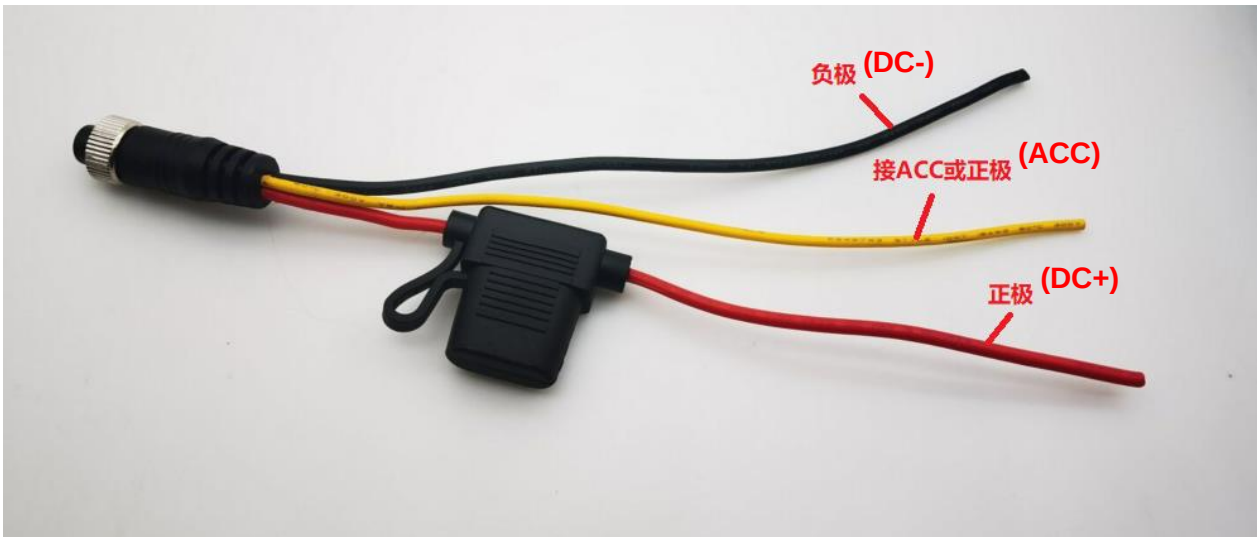
After unpacking, check the device for damage or deformation. If so, do not install the device and get in touch with the supplier. Accessories will change according to customer customization needs, please carefully inspect the device and its accessories.

serial number	name	quantity	remark	机型		
				Normal monitoring	1door passenger flow	2door passenger flow
1	host	1	8-way machine	1PCS	1PCS	1PCS
2	Power input cable	1		1PCS	1PCS	1PCS
3	4G antenna	1		1PCS（Matching）	1PCS（Matching）	1PCS（Matching）
4	WIFI antenna	1		1PCS（Matching）	1PCS（Matching）	1PCS（Matching）
5	GPS antenna	1		1PCS（Matching）	1PCS（Matching）	1PCS（Matching）
6	remote control	1		1PCS（Matching）	1PCS（Matching）	1PCS（Matching）
7	key	1		1PCS	1PCS	1PCS
8	IO alarm line	1		1PCS	1PCS	1PCS
9	4 to 6 connecting cables	1		0PCS	1PCS	2PCS
10	One point 2 lines	1		2PCS	1PCS	0PCS
11	Aviation head to double AV line	1		1PCS	1PCS	1PCS
12	Aviation head to IPC	1		1PCS	1PCS	1PCS

3.2.1Wiring diagram of each fitting



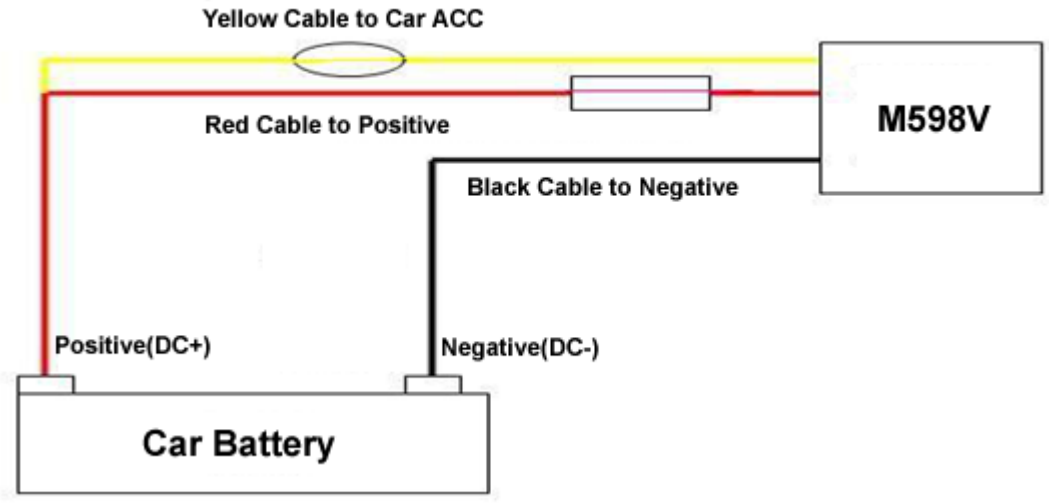
3.3Power wiring definition:



The host power cord contains red, black, and yellow wires. The red and black lines can be directly connected to the car battery, the red wire is connected to the positive electrode, the black wire is connected to the negative electrode, and the yellow wire is connected to the car ignition signal line (ACC line). If tested indoors, the red wire and the yellow wire can be docked to the positive electrode, the black can be docked to the negative pole, and the adapter power supply needs to use 12V 3A or more or adjustable DC power supply.

1. Check before plugging in: a. Whether the power cord is connected correctly; b. Whether the lock is closed. After plugging in, the device can start normally, after normal start, the front panel power indicator LOC and PWR red light are on, after 5 seconds, the SD detection light lights up for 3 seconds and then goes out, and the NET detection light forms a continuous state after starting, that is, normal boot.

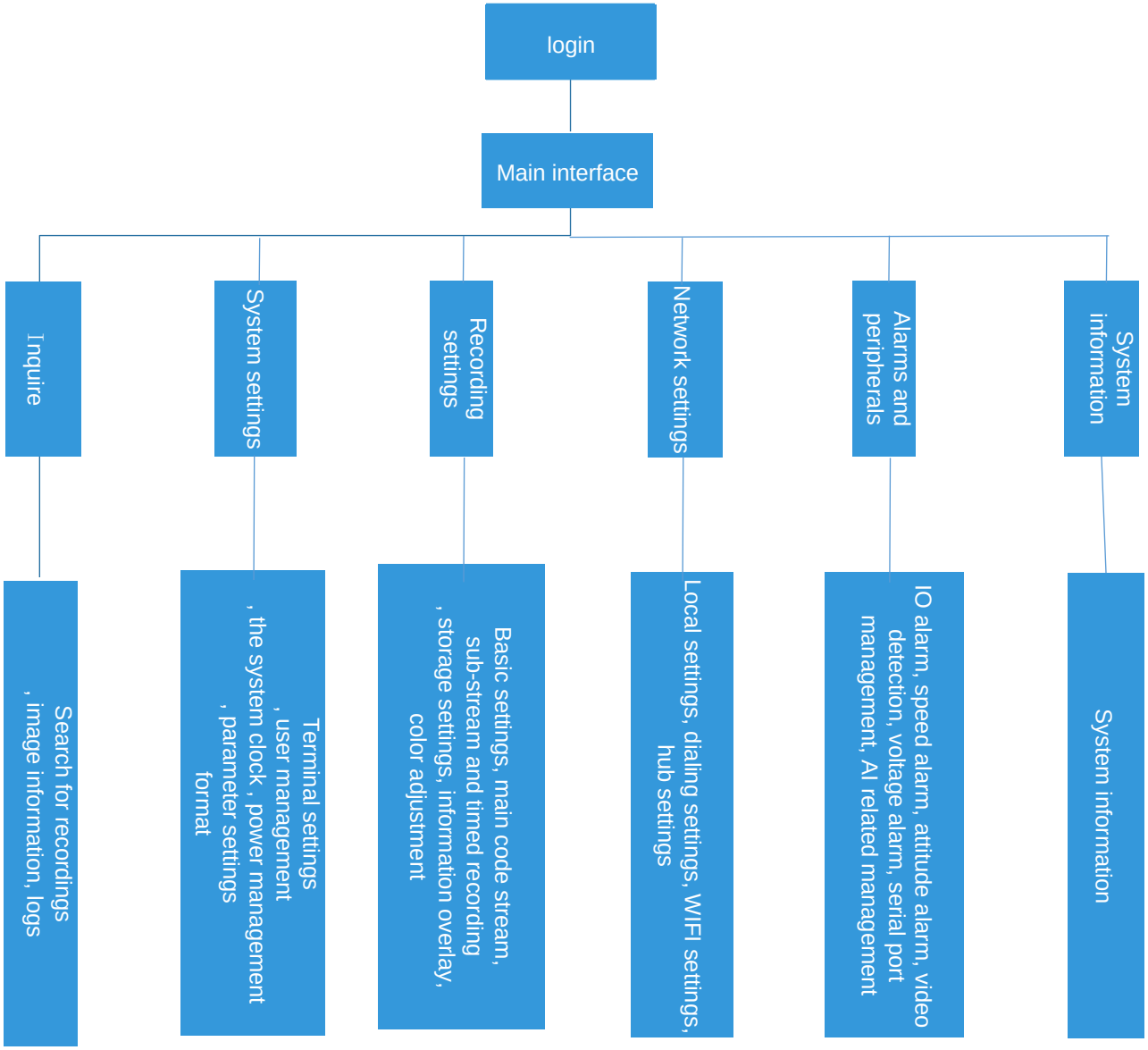
2. Connect the output line AV-OUT to the display screen and connect the corresponding equipment to the terminal. Confirm that the connection is correct. The following figure shows the actual installation of power wiring:



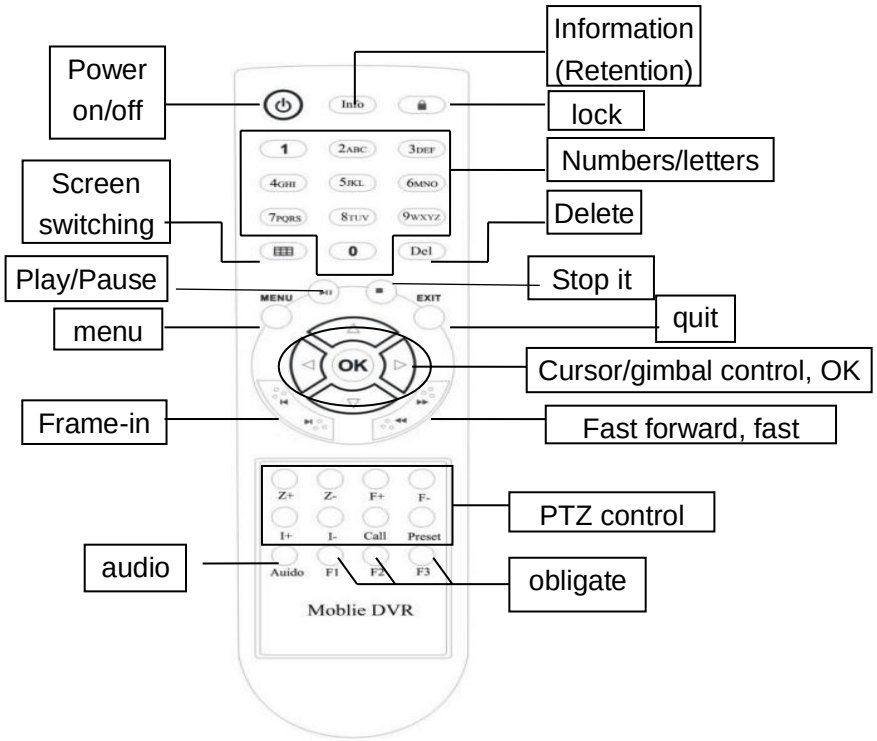
Note: Connect the accessories and power supply according to the above wiring diagram, and the front panel lock can be turned to the LOCK position before the host can start

Section 4 Menu Function Operation Instructions

4.1 Menu structure



4.2 Description of the remote control



4.2.1Remote control button definition

【⏻】: Turn on the key
【Info】: Information (System Short)
【🔒】:press this key to lock the remote input after exiting the menu
【▦】: Switch between 1~4 screens. The number keys 1~4 can also do this
【Del】:Delete key
【Numbers/letters】Enter a key to enter numeric values to select single-channel preview
【MENU】Start/Login/Exit menu
【EXIT】Return to the previous menu
【△】Previous project
【▽】Next project
【◁】Modify the contents of the current item/previous subkey
【▷】Modify the contents of the current item/the next subkey
【OK】Confirm key/execute
【⏯】:Play/Pause key (reserved)
【■】: Stop key (reserved)
【▸▸】: Fast forward key. 1/2/4/8/60x speed
【◂◂】: Rewind key. 1/2/4/8/60x speed
【⏭】： Frame-in key (reserved)

4.3 System operation and settings

- All submenu settings must take effect after confirming [Save], otherwise the settings are invalid
- Log in successfully to enter the menu interface (including recording query), and the device stops recording
- Some parameter settings need to be restarted after saving to take effect, please exit to the preview screen and the device will automatically restart
- Digital input can be entered directly by pressing the number keys on the remote control or using the soft keyboard. Character and pinyin input must be realized through a software disk

4.3.1 Power on preview

The default boot is 8 screens, showing the system time, each channel displays the channel name, and the red dot is the recording logo, indicating that the recording is being recorded. The upper right corner will record the change in passenger flow.

4.3.2 The user logs on

- Set the password switch on, press the [MENU] key will pop up the login menu, the device number is displayed by default, to enter the password to distinguish the user's identity, the password input is correct to automatically enter the menu

interface;

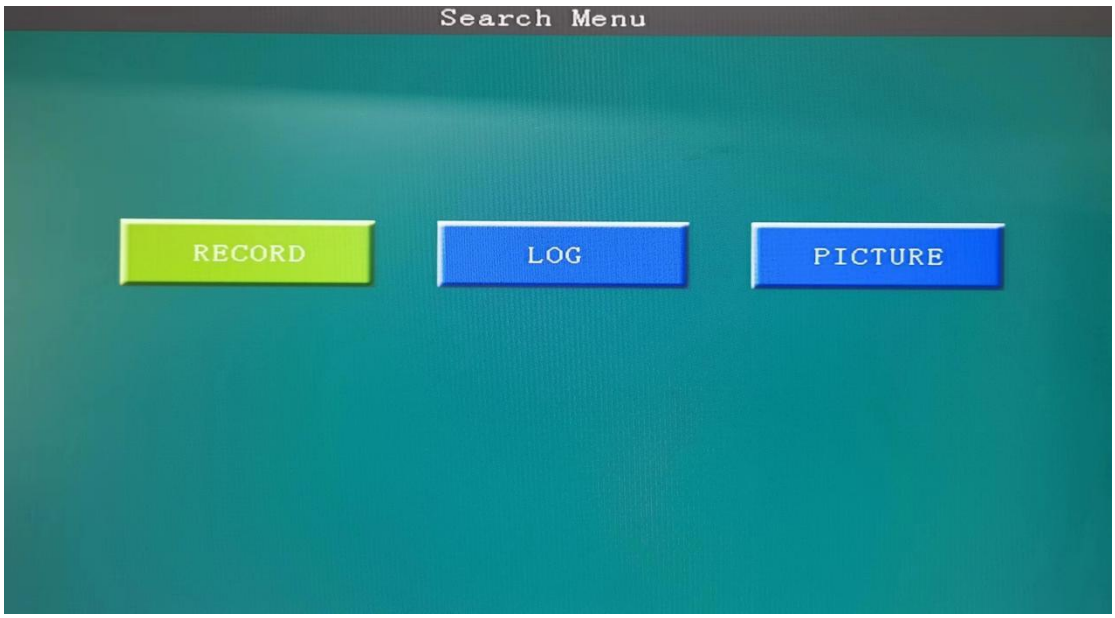
- Distinguish user identities by password, divided into administrators and ordinary users, administrator identity has all permissions, ordinary users restrict permissions can only be viewed and cannot be modified; Administrator default password: 111111, normal user default password: 888888;
- The password switch set is turned off, press the login key to enter the menu interface directly, and the login interface will not pop up.

4.3.3 menu

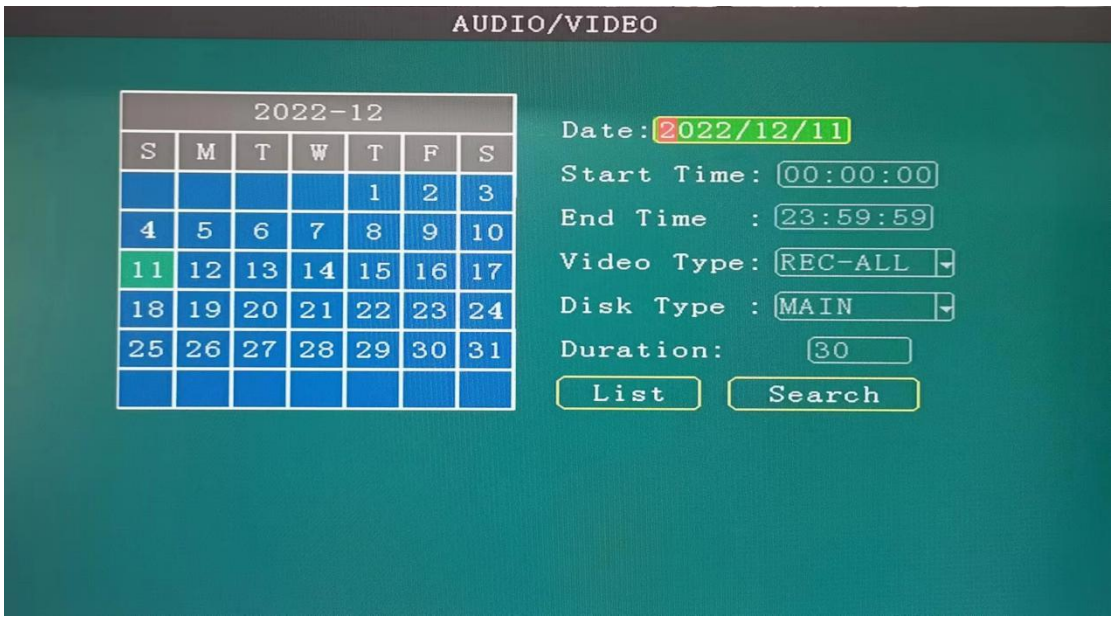
Main menu: Displays all main settings: query, system management, recording settings, network settings, alarms and peripherals, system information

4.3.3.1 Inquire

The query menu includes submenus: video search, log query, image search

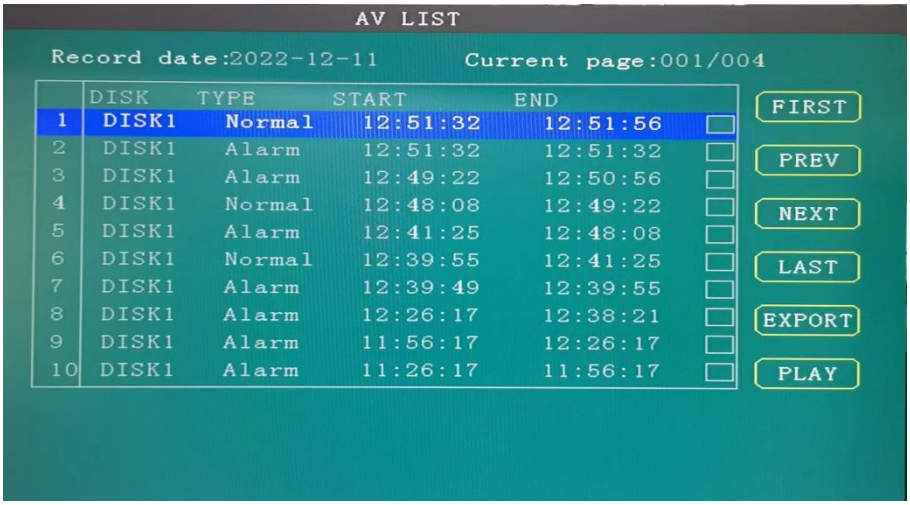


A、Video Search: Play back the local recording



- Monthly calendar: The number on the date table is green, indicating that there is a video file for that day
- Video Type: All Recordings / Various Types of Alarm Recordings
- Storage medium: main disk/mirror disk/spare disk
- You can enter a date and time period to search for recording files

As shown in the following figure, an example diagram is displayed for the search results

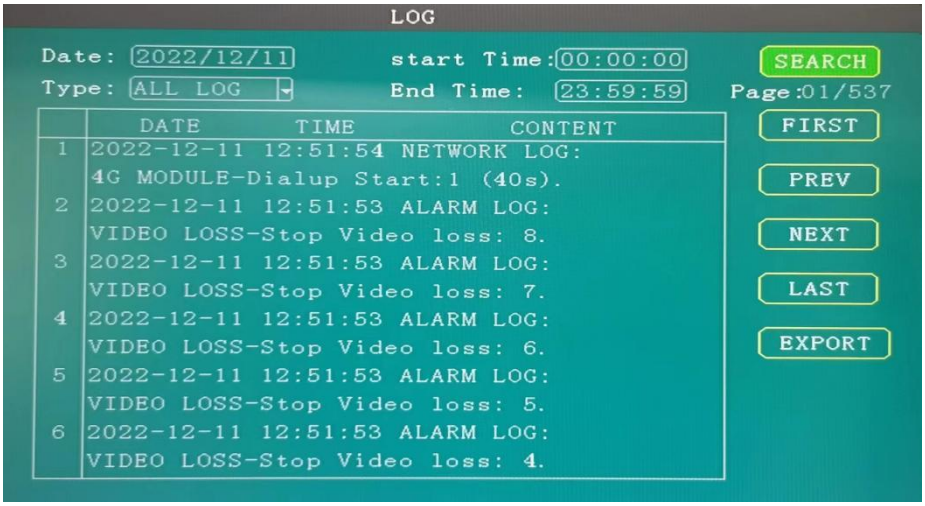


- One file includes 8 channels of recording data, eight-channel video synchronous playback, and the interface displays the start and end time of the recording file and the

recording type (normal/alarm recording)

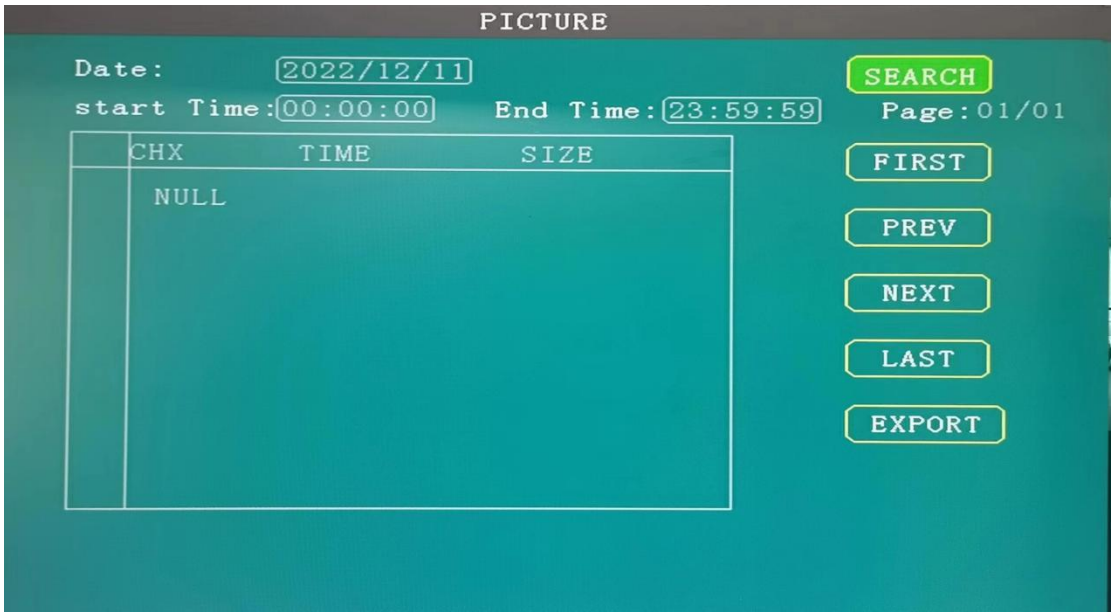
- When there is no video input, the recording will still be normal, and the playback will be black with a date time display
- Playback method: Select the playback file, use the remote control [OK] key to tick, and then click the playback function
- Export: Insert USB, then select the video file to be exported, use the remote control [OK] key to tick, press the export function to export, export the video requires user management to open password login

B、Log queries



- Start and end time: select search to view logs by entering the time;
- Log category: alarm/status/system/storage/operation/network log, etc.;
- Log export: plug in the USB and click the log export button to export the log;

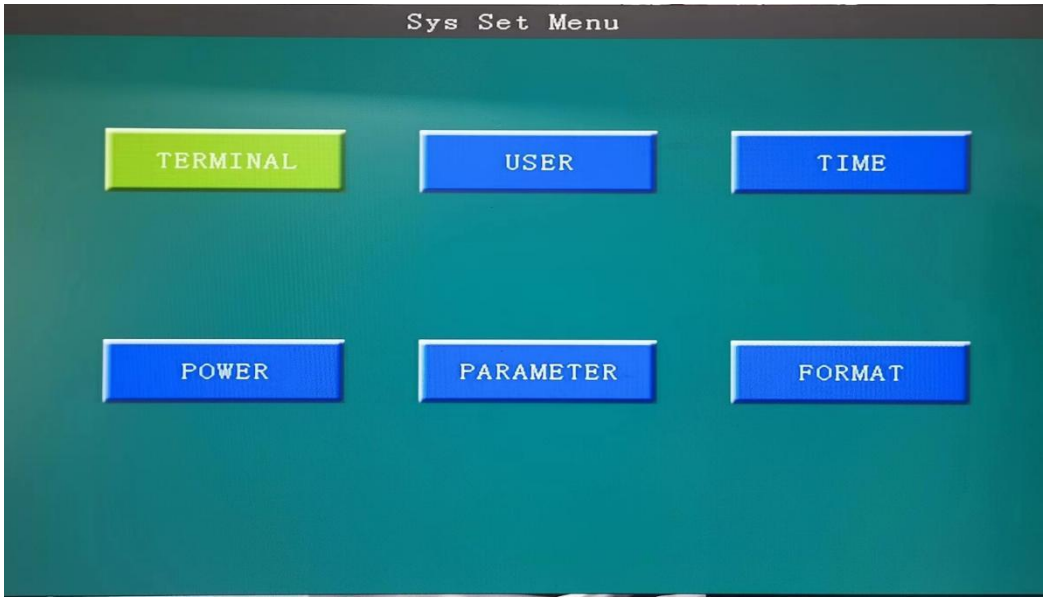
C.Image query



- Start and end time: select search to view pictures by entering the time;
- Select the image file and press [OK] to open the image file;
- Export pictures: plug in the USB, click the Export All button to export pictures;

4.3.3.2 System administration

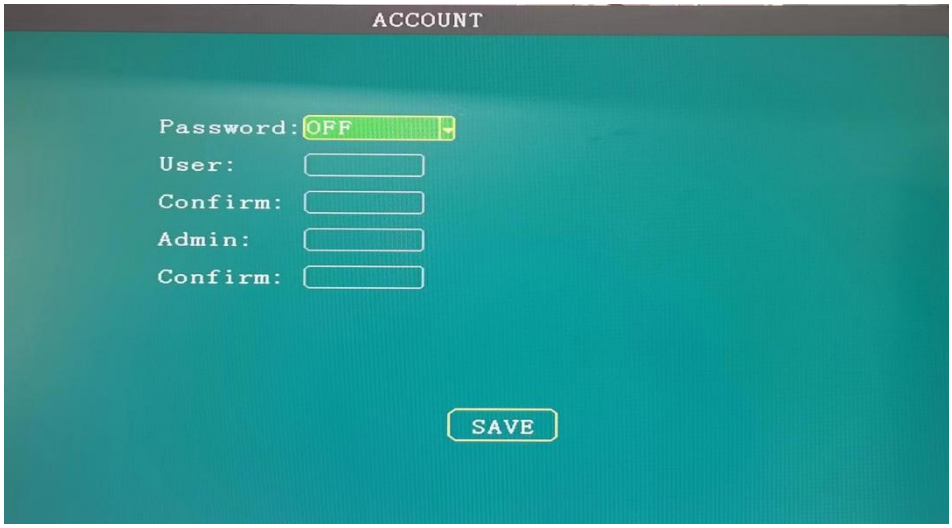
System settings include: terminal settings, user management, system clock, power management, parameter settings, formatting



A. Terminal settings

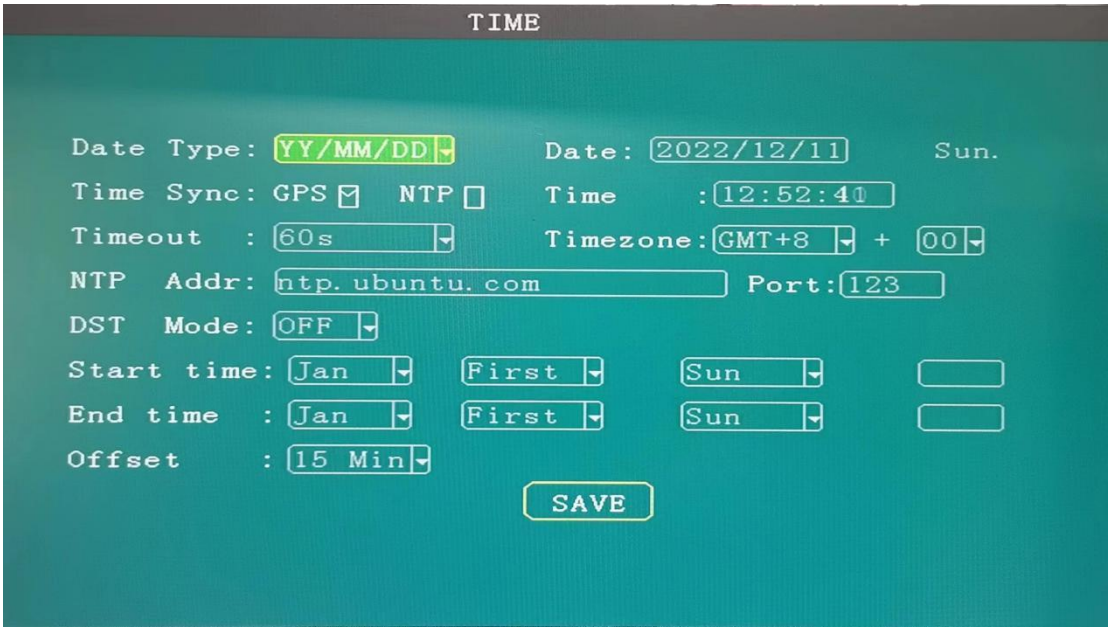
- Device Number: Displays the serial number of the device (i.e. the ID number used when the device goes online)
- Language: Chinese/English/Russian (other languages can be customized)
- Other settings can be set according to your needs
- Input method: Press OK key to bring up the keypad, you can enter Chinese, letters, numbers and punctuation marks

B.User management: Log in to password settings



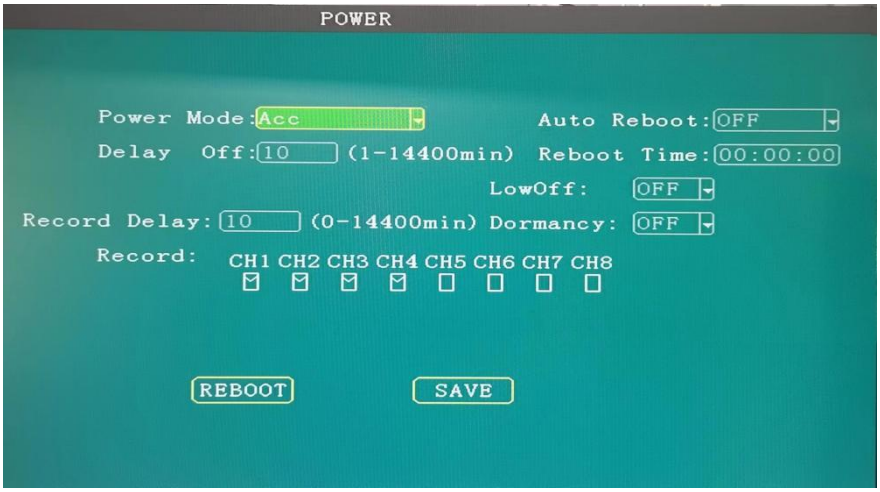
- Enable: on/off; Select Off without entering a password, and press the [LOGIN] key to successfully log in to the setting interface
- Select Enable, you need to set the user password and administrator password separately, the password is 6 digits, and the two password settings cannot be the same; Administrator password default: 111111; User password default: 888888
- The administrator password has all permissions, and the user password only has the view function and cannot set parameters

C.Time setting: Complete the time setting



- Date format: Three formats, namely year/month/day, month/day/year, day/month/year, press the [OK] key to switch
- Date: Displays according to the selected date format, which can be manually proofread with the number keys
- Calibration time: GPS/NTP/off, GPS: GPS signal is valid, system time has error automatic calibration;
- NTP, network calibration, automatically updates the system time from the NTP server when connected to the network.
- Time: divided into hours, minutes and seconds, manual proofreading with number keys
- Timeout exit (30~3600s): After successful login, if the remote key value is not received within the set time, exit to the preview screen
- Time zone: China defaults to East 8, GMT+8.
- Daylight saving time: on/off, set the start and exit time of daylight saving time according to different regions;
- Offset time: the time difference into daylight saving time;

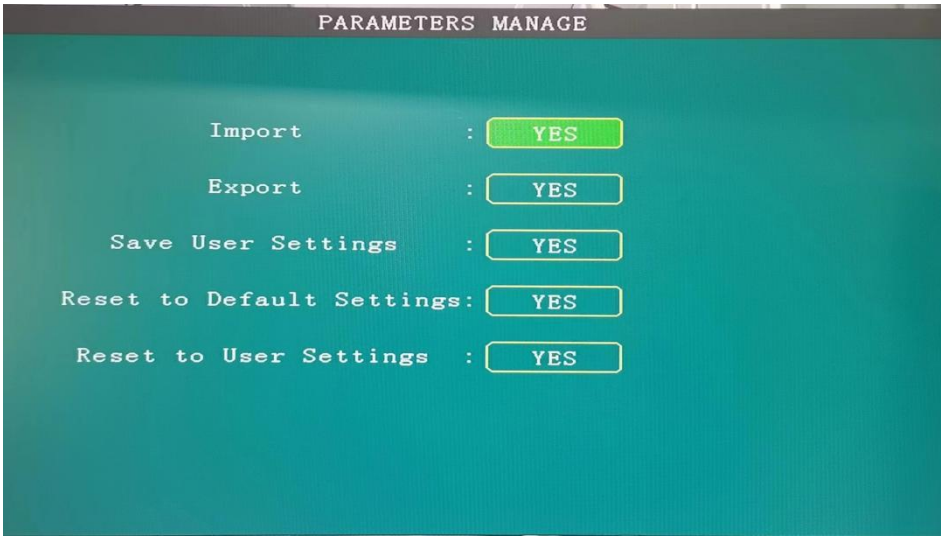
D. power management



- Power on and off mode: ignition mode/timing mode; Press [OK] to toggle the selection
- Ignition mode: car key control device on and off, car key open device start, car key off device into standby state、
- Timing mode: reach the timed boot time set by the device, the device is powered on and works normally; When the shutdown time set by the device is reached, the device stops working and shuts down automatically
- Main power delay shutdown: ACC countdown shutdown time
- Flame-out delay video: In ignition mode, the device maintains the recording state after the car is turned off, and the time-delay recording time is set time (up to 24 hours)
- Automatic maintenance: This maintenance time is recommended when working for a long time 24 hours. It's time for equipment to be maintained

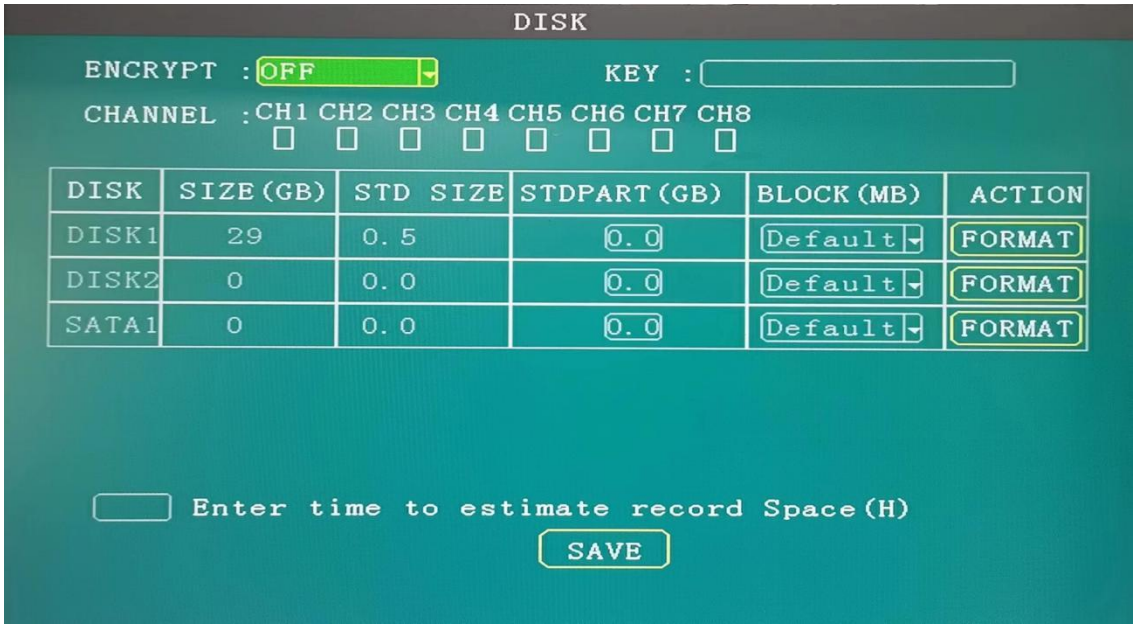
  It will automatically reboot once and will take about 50S

E. Parameter management:



- Parameter export: export the parameters set in the host to the memory card, this parameter can be used to import to other devices in batches;
- Parameter Import: Import the parameter settings from the memory card to the terminal device to simplify batch setup
- Save user settings: save user settings to the memory card;
- Factory reset: Restore the current parameters to factory parameters；
- Restore user settings: restore the current user settings to factory settings;

F.format：



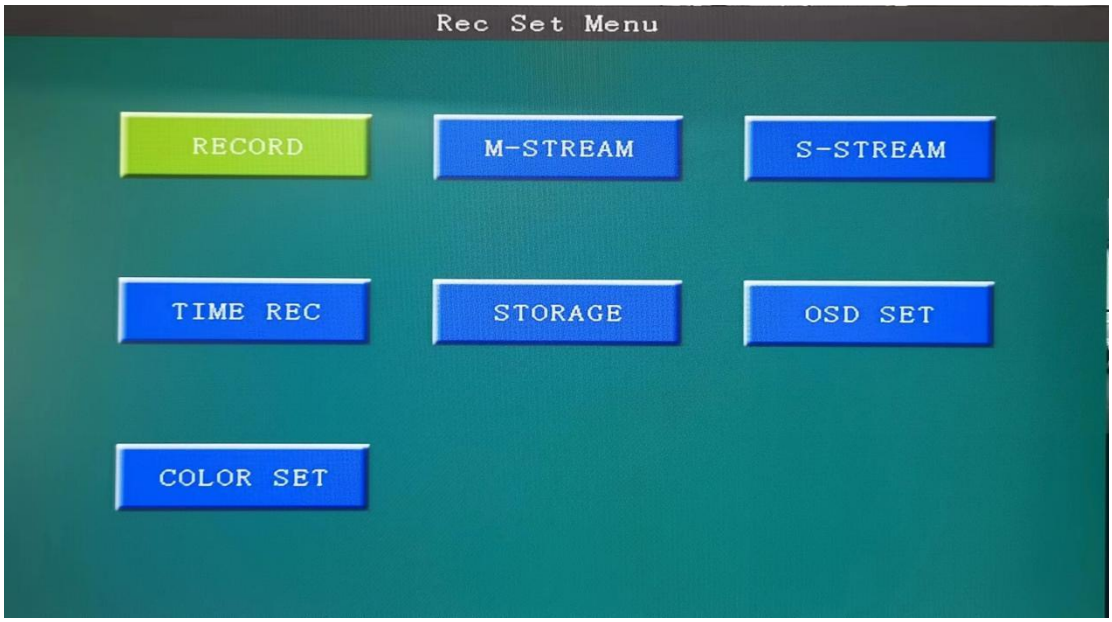
- Formatted SD card is FAT32 format, which will allocate disk space and allocation, reduce the number of disk reads and writes, protect the disk and increase the service life;
- Note: The format operation erases the data on the SD card/hard drive;

Format steps: 1. The device enters the main menu and selects System Management;

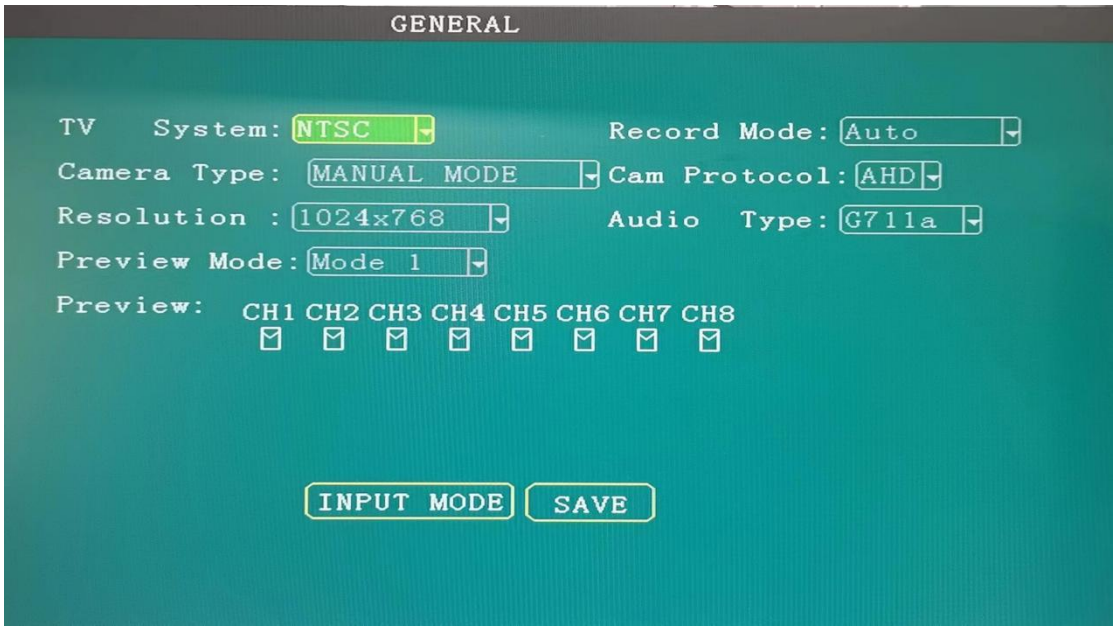
2. Select the format function and press the OK key to enter;
3. Click the Confirm button in the pop-up selection box.

4.3.3.3 Recording settings

Video settings: basic settings, main code stream, sub-code stream, timed recording, storage settings, information overlay, color adjustment



A.Basic settings：



- Video format: PAL, NTSC
- Video mode: boot recording, timing recording, alarm recording, three video modes press the [OK] key to switch optional

Boot recording: After the device is turned on, recording will start automatically

Time-lapse recording: Enables recording during the set time-lapse recording period, and will not record during other time periods

Alarm recording: When an alarm is generated, the device turns on recording, and does not record if no alarm is generated

- Input type: manual mode, automatic mode

Manual mode: You can manually set the camera of any resolution (enter input mode setting)

Automatic mode: fixed to 8CH 1080P

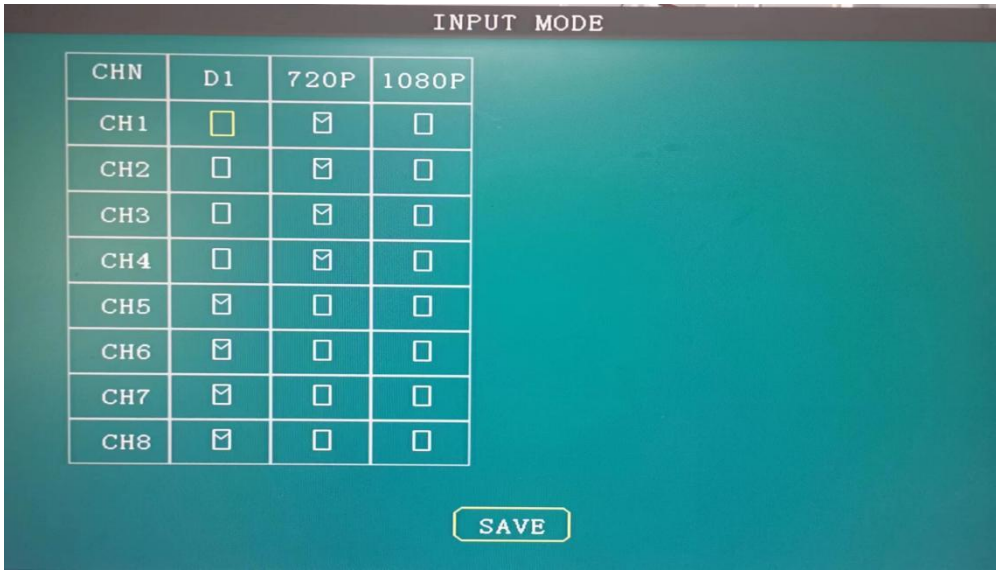
- Camera types: AHD, CVI, TVI

AHD：Analog HD camera

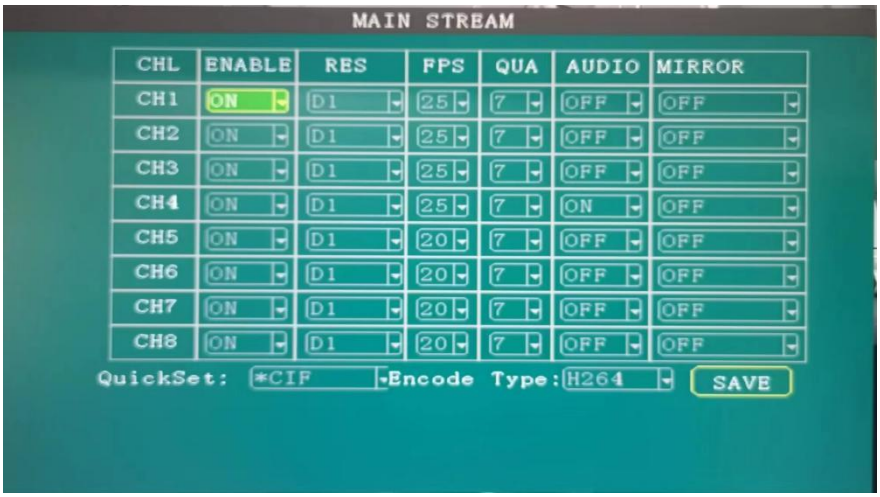
CVI: HD composite video HD camera

TVI：HD video transmission interface camera

- Audio format: Default G726
- Display resolution: output signal resolution rate (use the default)
- Preview mode and channel: You can check the corresponding channel according to your needs
- Input mode: D1, 720P, 1080P camera can be used arbitrarily, and the camera can be freely selected according to your needs

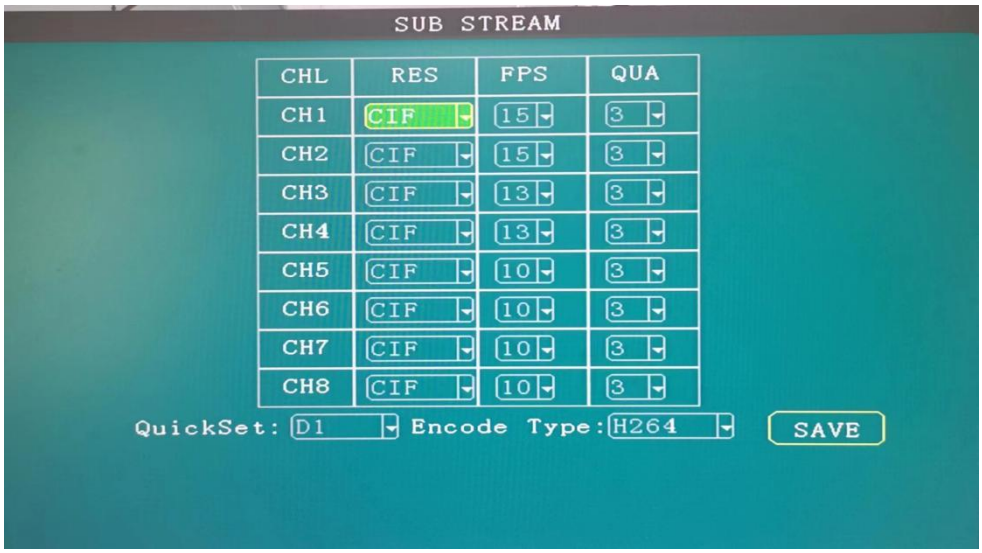


B.Main code stream:



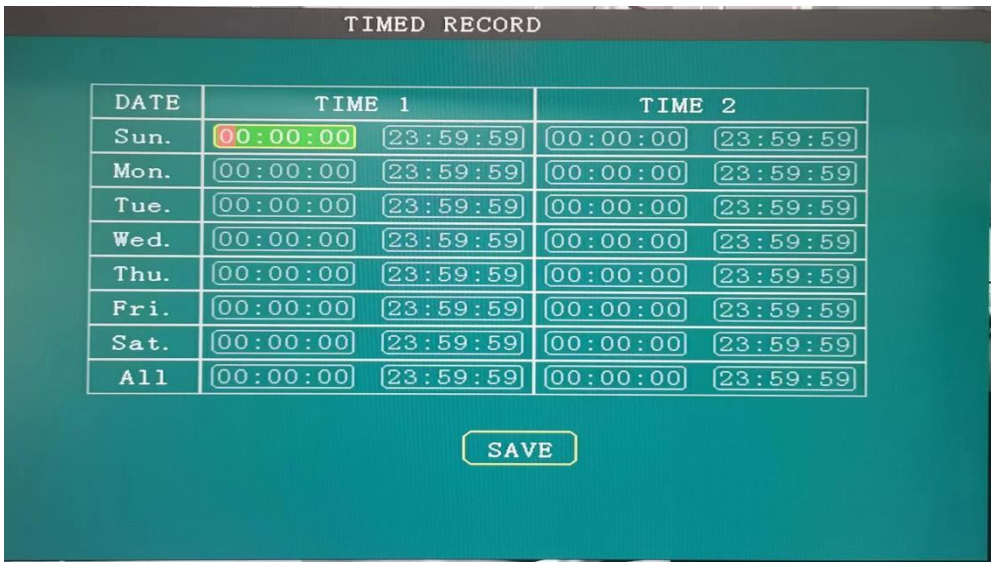
- Main stream: Video storage device置
- Enable: On: Indicates that the recording function is enabled for this channel；
  Off: This means that the recording function is disabled for the channel and no logging is recorded
- Resolution: 1080P, 720P, D1, HD1, CIF, for example, under PAL: 720P resolution is 1280*720
- Frame rate: indicates the number of frames recorded per second, PAL system is 1~25 frames per second, NTSC system is 1~30 frames per second
- Picture quality: the clarity of the picture, divided into 1~8 levels, level 1 picture quality is the highest
- Audio recording: On/off, indicating whether to record audio at the same time as recording video
- Mirroring: You can set the camera image screen
- Encoding type: optional H264, H265

C.Substream：



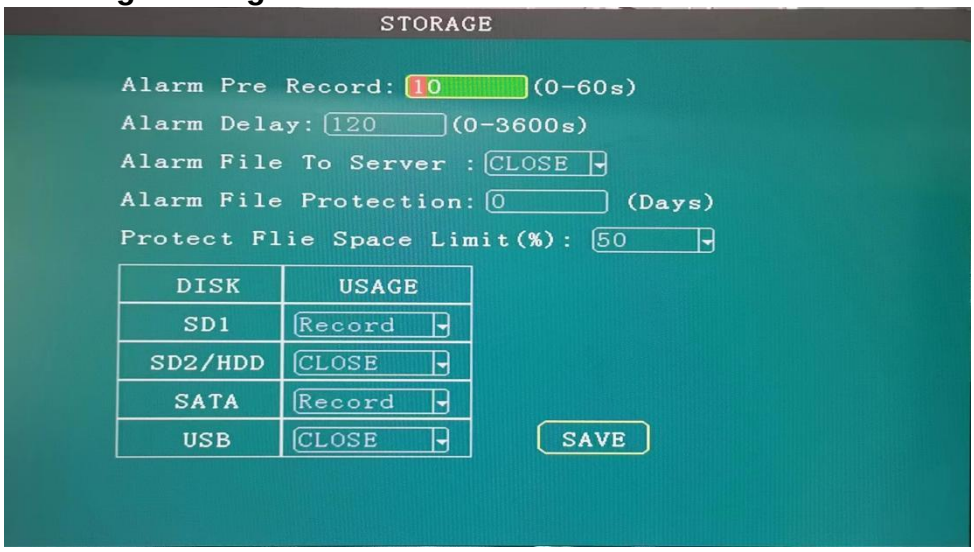
- Substream: Network transmission data settings
- Resolution: Optional CIF/HD1/D1
- Frame rate/image quality/recording: Set interface parameters with the main bitstream
- Encoding type: optional H264, H265

D.Time-lapse recording：



- Note: When setting time-lapse recording, you need to meet both the settings of the day and the settings of each day
- You can set up to 2 recording periods on the day
- Every day: The time period you set is valid for 7 days, Monday through Sunday
- Time period setting: The time period start time cannot be greater than the end time

E.Storage management：



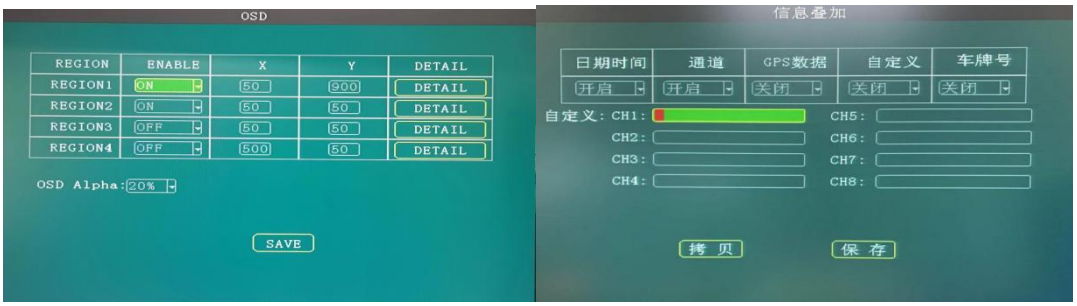
- Storage method: hard disk and SD card
- Usage: Master video, mirror recording, backup recording

  Master video: the main storage object, priority storage

  Mirror recording: After the video is saved, the screen is mirrored

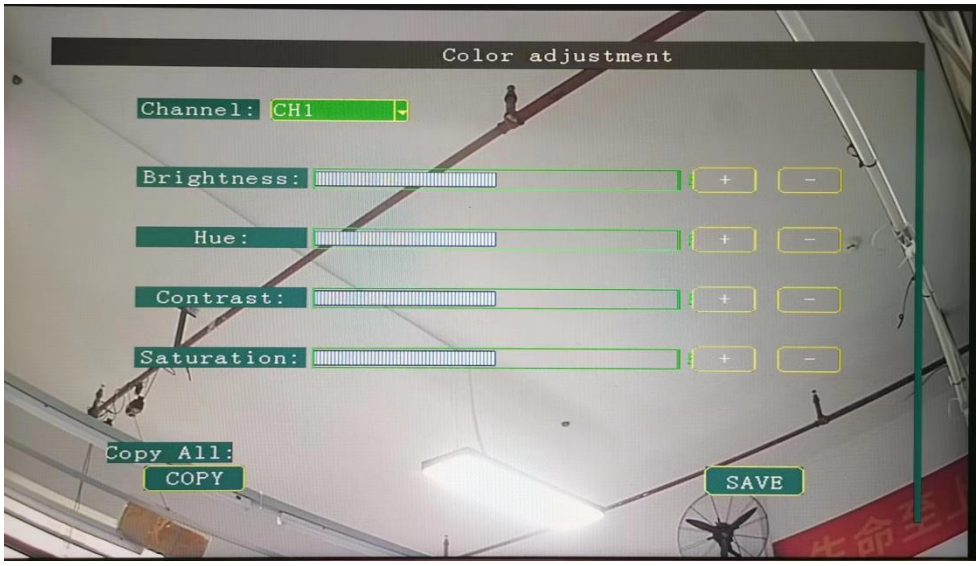
  Backup recording: The backup recording of the main video does not affect the main recording
- Note: When a single memory card is set to backup recording or mirror recording, the device will not record recording

F.Information overlay：



- OSD overlay: contains 4 identical overlay templates, and the coordinates of the overlay template can be modified according to requirements;
- Enable: on/off, whether this information needs to be superimposed;
- X/Y coordinates: set the position of the overlay information displayed on the screen;

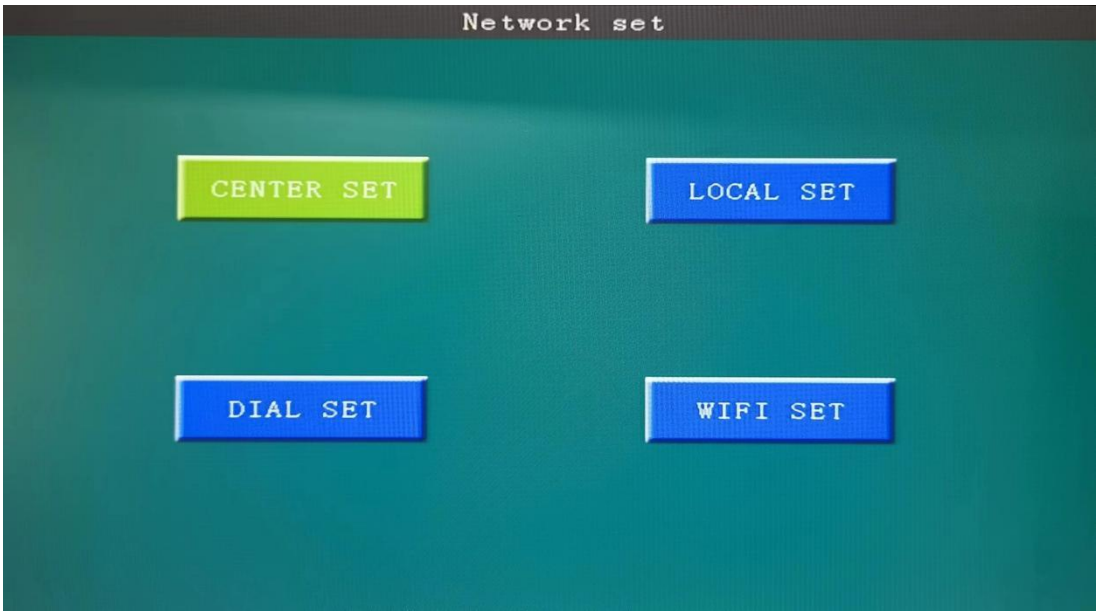
G.Color adjustment：



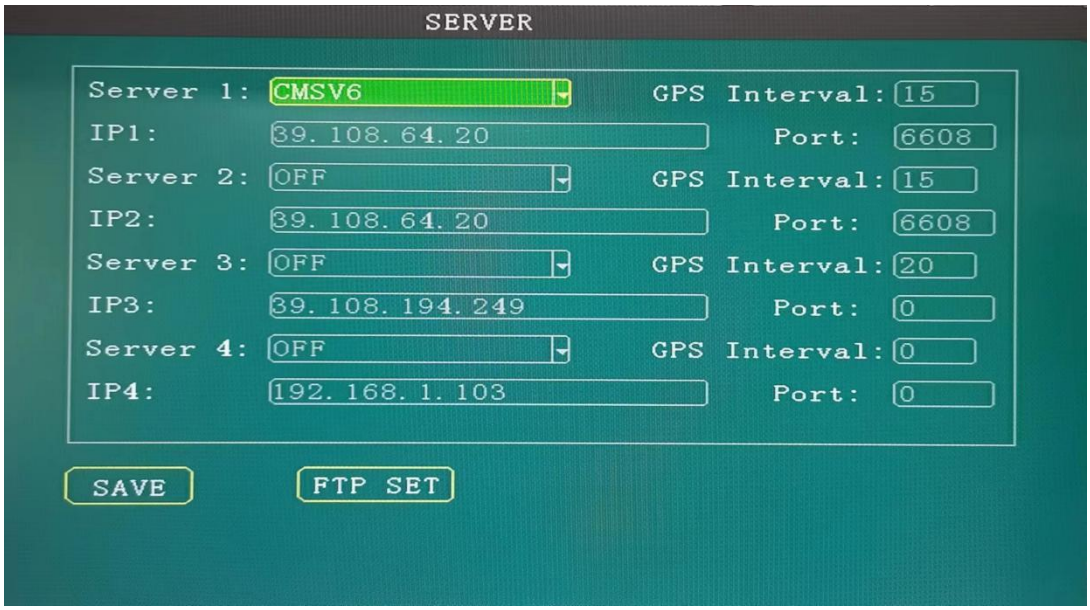
- The color of the individual channels can be adjusted according to your needs: brightness, hue, contrast, saturation

4.3.3.4 Network settings

Network settings include: center settings, local settings, dialing settings, WIFI settings

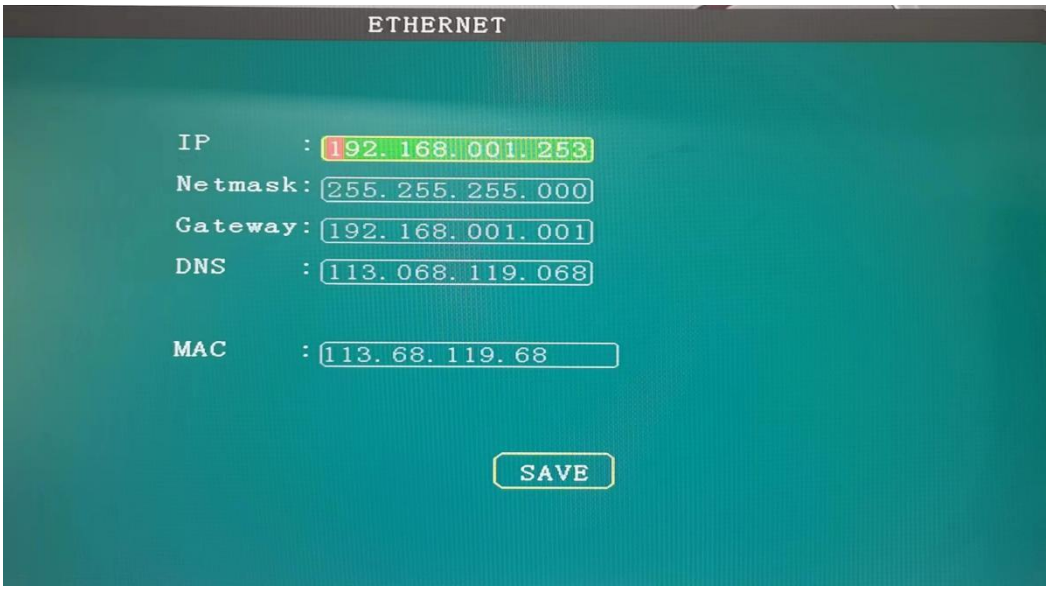


A. Center Settings: Connect to the center server settings



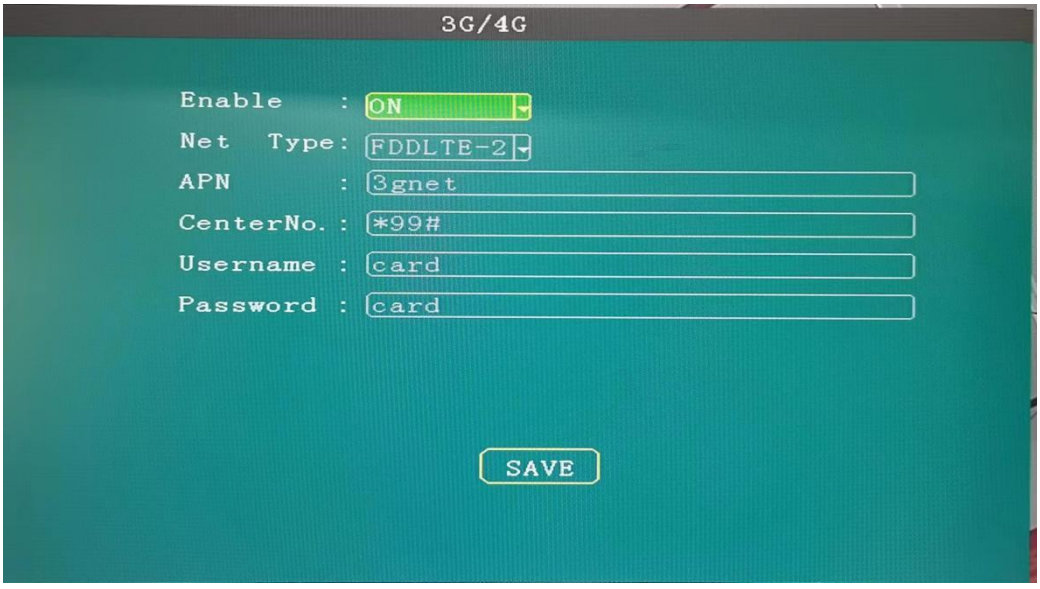
1. Central protocol: with 4 center protocols (that is, up to 4 data platforms can be online at the same time)
2. The agreement includes: Tongtianxing private agreement, ministry standard agreement, third-party transparent transmission, etc
3. Central IP: The network DVR host uses 3G/4G/WIFI to report to the IP where the platform center server is located: public network fixed IP
4. Port: Set as the port of the gateway server, usually defaults to port 6608
5. GPS upload interval: GPS data upload platform interval time

B.Local settings:



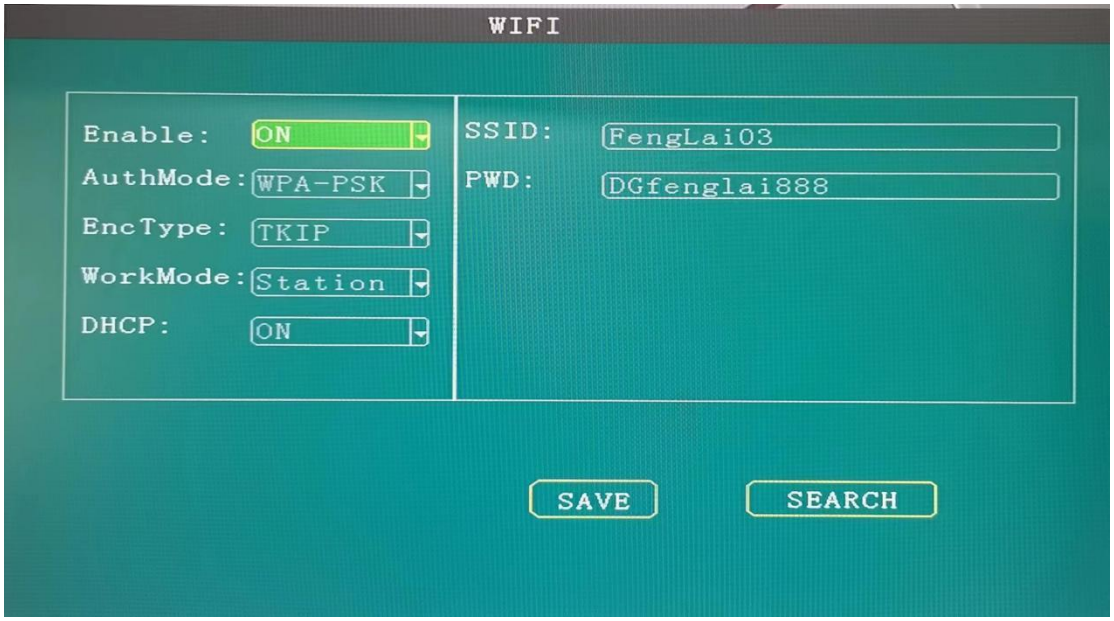
- IP: Internet Protocol address (usually set: 192.168.001.XXX)
- Mask: The default is 255.255.255.000
- Gateway: A device that connects two network segments using different protocols together (required as a router gateway when the local connection is online)

C.Dial-up settings：



- Enable: Turn on/off 3G/4G function (4G module needs to be installed.)）
- Type: including 3G/4G mobile, Unicom, telecom (put in the SIM card, the system will automatically recognize the settings);
  WCDMA: Unicom 3G EVDO: Telecom 3G TD -SCDMA: Mobile 3G
  TDDLTE: Mobile 4G FDDLTE-1: Telecom 4G FDDTE-2: Unicom 4G

D.WIFI settings：



- WIFI enable: Turn on/off, terminal with WIFI module, optionally turn on WIFI enable
- Authentication Mode: Select the encryption method of the wireless route to which you want to connect
- SSID: The name of WIFI
- Password: The password for WIFI
- WIFI use: divided into two modes: Station and AP hotspot

  Station：Normal WIFI mode

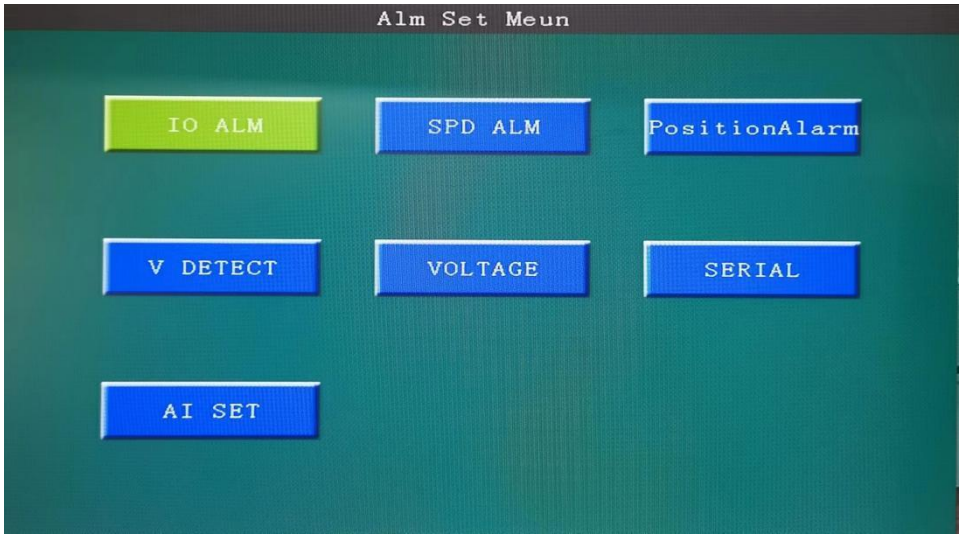
  steps：Turn on Enable, set the WIFI purpose to Station, and then directly enter the WIFI name and password on the SSID;

  AP：Turn on the AP hotspot, and the mobile phone can search for hotspots through WIFI.

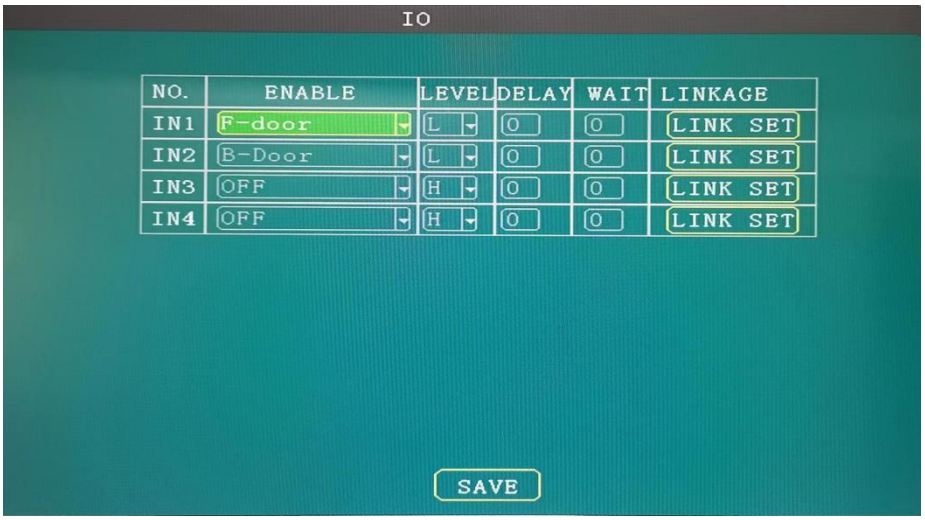
  steps：Turn on enable, WIFI use is set to AP hotspot mode, the mobile phone can find the hotspot through WIFI search (the SSID and password in the device are the hotspot account password);
- Get SSID: Automatically search for WIFI account, enter the account password to access the Internet；

4.3.3.5 Alarms and peripherals

Alarms and peripherals include: IO alarm, speed alarm, attitude alarm, video detection, voltage alarm, serial port management, AI related settings

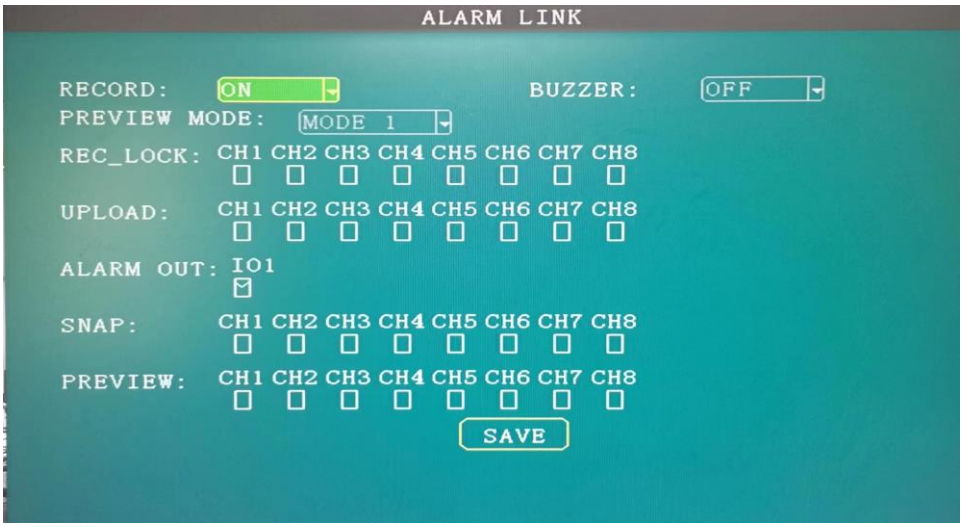


A、I/O alarm:



- Enable: open/close the alarm function, the alarm function includes: opening and closing doors, turn signals, brakes, reversing, far and near light alarms and a series of alarm settings；
- Level: level trigger, default low level, 0~4V; Default high level, 4~25V; IN1-8 triggers the alarm by switching the high and low levels;
- Delay: After the alarm is over, delay the release of the alarm state to prevent frequent alarm status;
- Anti-shake: The alarm status needs to be continuously set for a set time before it can be judged as an alarm to prevent false triggering of the alarm;

Linkage Settings: Set alarm details (as shown below)

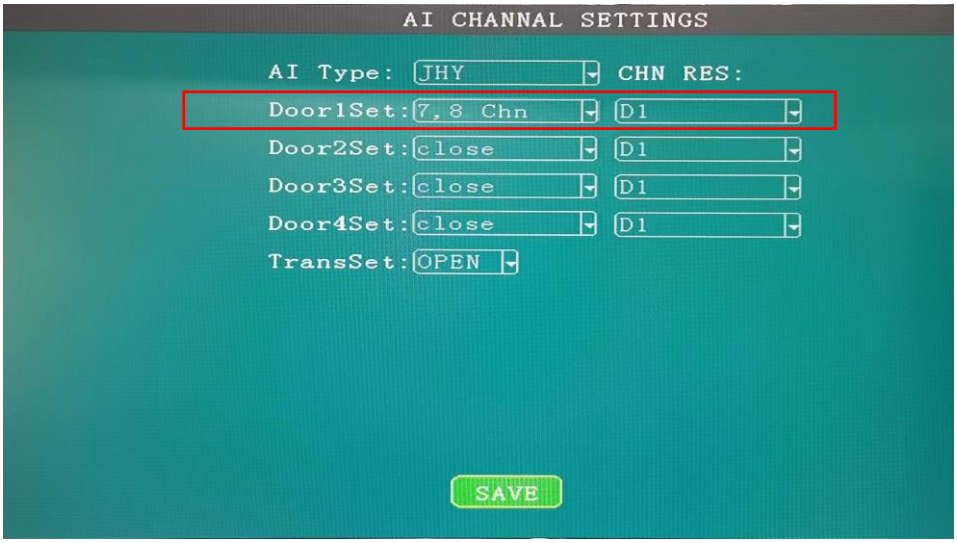


- Video switch: Turn on/off the alarm recording generated by the alarm state；
- Video locking: When an alarm occurs, the checked channel should be recorded；
- Video Reporting: Select the video channel to upload to the server；
- Capture upload: Capture an image and send it to the server；
- Preview channel: When alarmed, the display enlarges the preview video pass

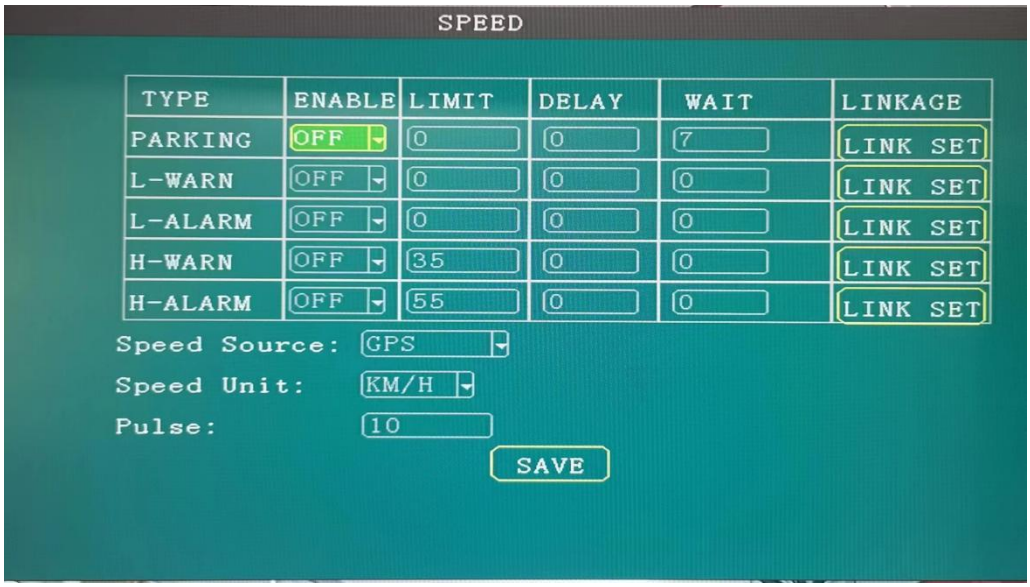
Example: Opening and closing the door alarm：

steps：1. Enter the IO alarm function and enable the selection of the front door (optional);

2. The level is set to high/low (selected according to the situation) level;
3. 3. Set the delay to 0;
4. The stabilization setting is 3;

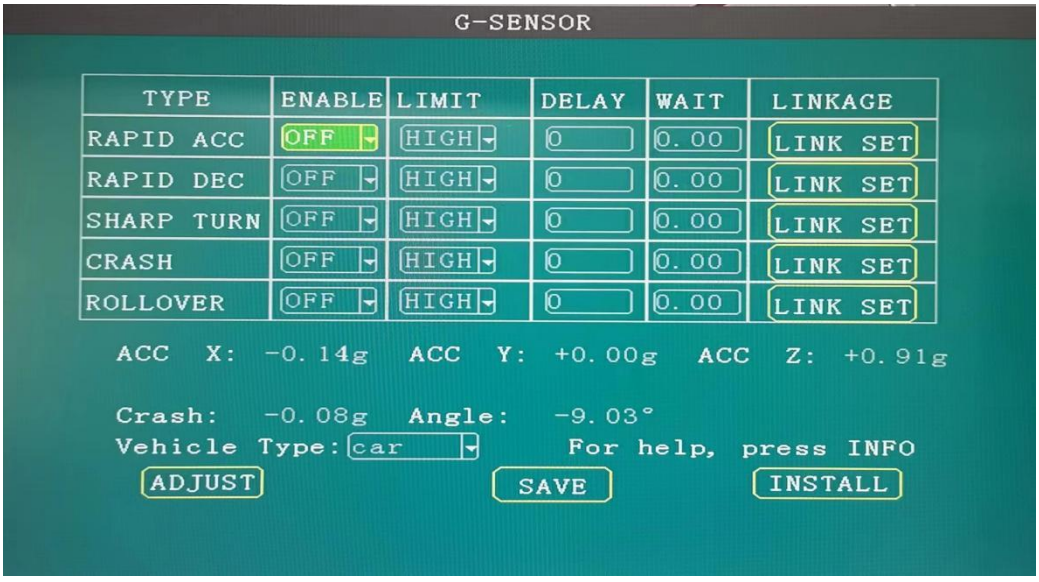


B.Speed alarm：



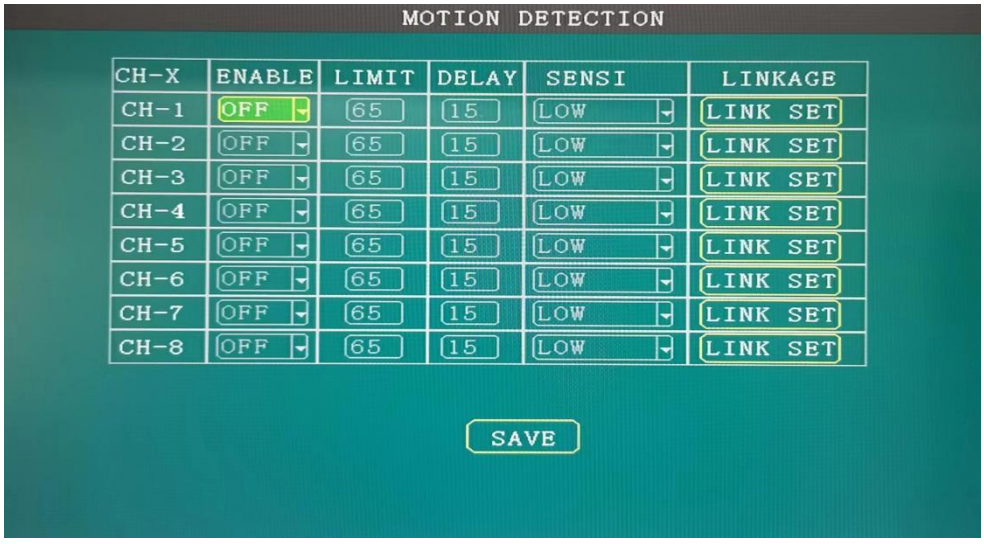
- High Speed: Speed exceeding the set threshold generates a high speed alarm
- Low speed: Speed below the set threshold value generates a low speed alarm
- Enable: on/off, whether to detect overspeed alarm
- Threshold: set the range of ultra-high speed and low speed;
- Delay: After the alarm is over, delay the release of the alarm state to prevent frequent alarm state anti-shake:
- Anti-shake: The alarm status needs to be continuously set for a set time before it can be judged as an alarm to prevent false triggering of the alarm；
- Linkage: For detailed settings, refer to IO alarm linkage (the **same** setting method)；

C. Attitude alarm:



- Attitude alarm: do a separate detection alarm for the acceleration three-dimensional X, Y, and Z axes, and when the terminal is installed, you can choose to correct the current position；
- Calibration: real-time display of the size of the X, Y, Z axis, press the calibration button in the appropriate direction to set the reference value;
- Installation direction: set the current direction of the equipment, and correctly display the status when the vehicle rolls over, rolls over and other accidents;
- Enable: on/off, whether to detect overspeed alarm；
- Sensitivity: alarm trigger sensitivity setting, sensitivity points: high, medium, low;
- Time delay: After the alarm is over, delay the alarm state for a certain period of time to prevent too frequent alarms；
- Anti-shake: The alarm status needs to be continuously set for a set time before it can be judged as an alarm to prevent false triggering of the alarm;
- Linkage: For detailed settings, refer to IO alarm linkage (the same setting method)；

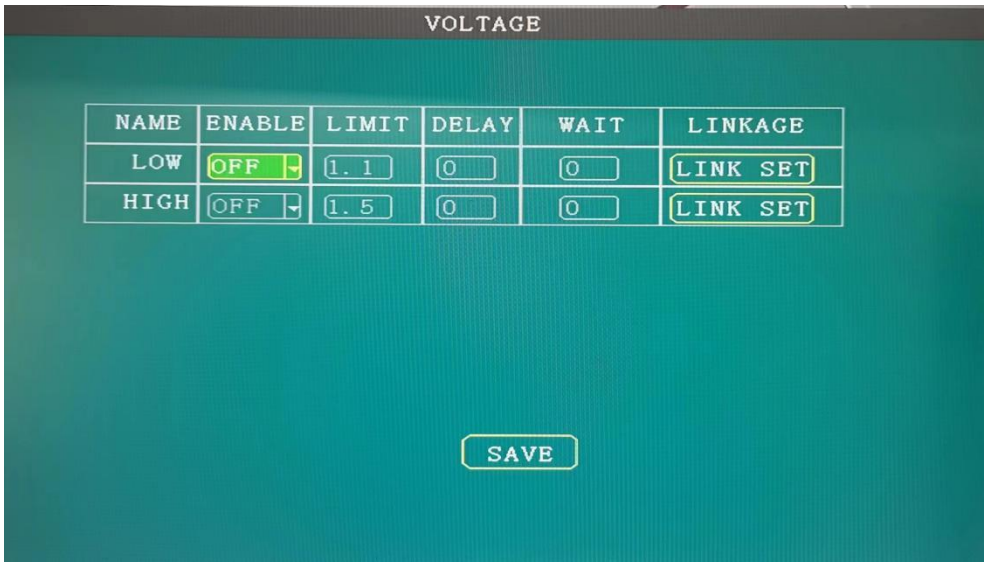
D.Video detection：



Video detection: It is mainly used to set the alarm status when the camera is blocked or a moving object is detected.

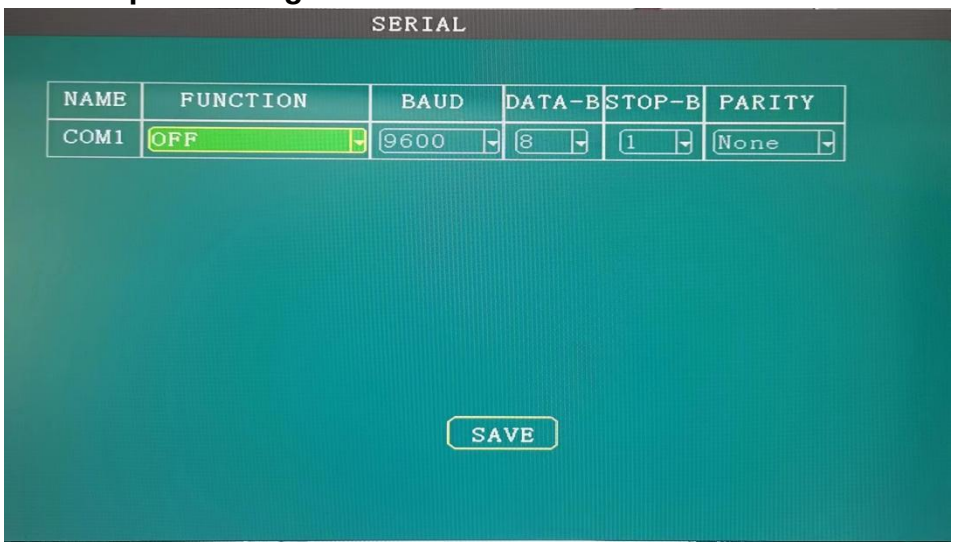
- Threshold: from 1 to 99, the lower, the more sensitive;
- Time delay: After the alarm is over, delay the alarm state for a certain period of time to prevent too frequent alarms;
- Sensitivity: alarm trigger sensitivity setting, sensitivity points: high, medium, low
- Linkage: For detailed settings, refer to IO alarm linkage (the setting method is the same);

E.Voltage alarm:



- Low voltage alarm: A low voltage alarm is generated when the detected voltage falls below the threshold
- High voltage alarm: If the detected voltage is higher than the threshold value, a high voltage alarm is generated
- Enable: on/off, whether to detect voltage alarm
- Threshold: Set the range of high and low voltage alarms
- Delay: After the alarm is over, delay the alarm state for a certain time and then cancel the alarm state to prevent too frequent alarms
- Anti-shake: The alarm status needs to be continuously set for a set time before it can be judged as an alarm to prevent false triggering of the alarm;
- Linkage: For detailed settings, refer to IO alarm linkage (the same setting method)；

F.Serial port management：



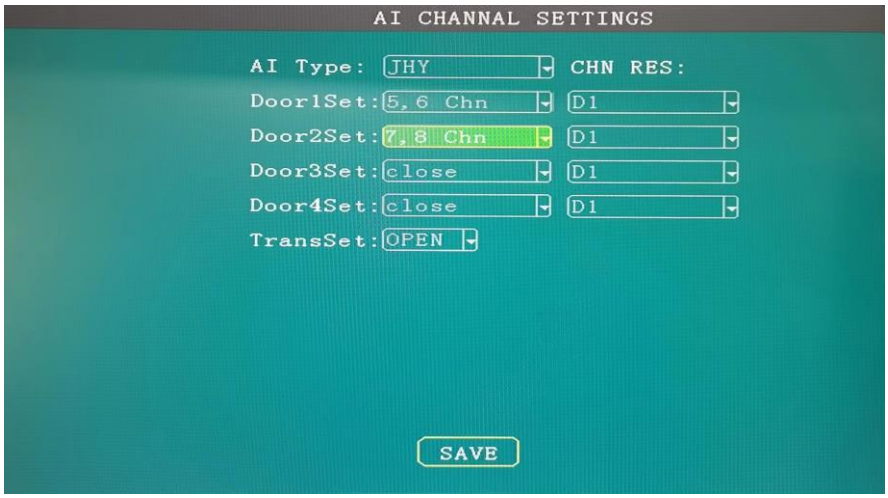
- Serial port setting: Through the serial port external device, the device data of two different signals is connected in series. This device supports one RS485 and two RS232 serial ports;
- Baud rate, data bit, stop bit, check digit: usually provided by external devices, set according to external device requirements;
- Peripherals: external devices (external new equipment, need to modify the program docking equipment)

G.AI alarm menu interface (passenger flow version)：

AI functions are divided into: passenger flow statistics, DMS, ADAS, BSD (DMS, ADAS, BSD need to be authorized separately, there is a separate instruction manual)

AI alarm menu: built-in software, driver information (no setting required for passenger flow version), alarm setting (no setting required for passenger flow version), mode setting (no setting required for passenger flow version)

Built-in software：



Passenger flow version: After entering, set the interface for the passenger flow

People counting: The people flow algorithm is already integrated into the device, but one or more 3D binocular cameras need to be configured for people counting.

Passenger flow personnel statistics are divided into four types: 1, 2, 3 and 4.

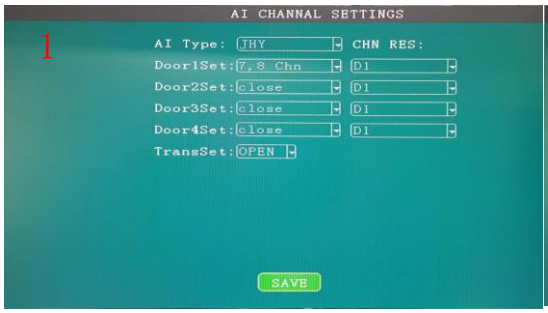
A passenger flow setting method:

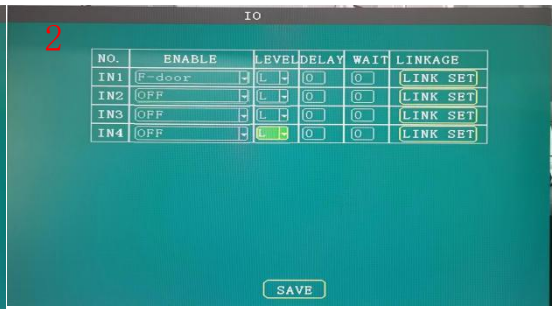
1.Open the AI built-in software page channel 1 and set it to 7-8Chn (Figure 1 below);

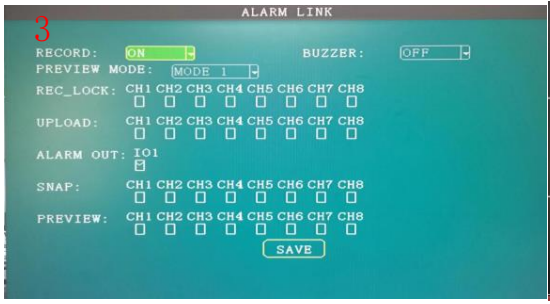
2.Enter the IO setting, enable set to front door alarm, level is low, delay is set to 0, anti-shake is set to 0 (Figure 2 below);

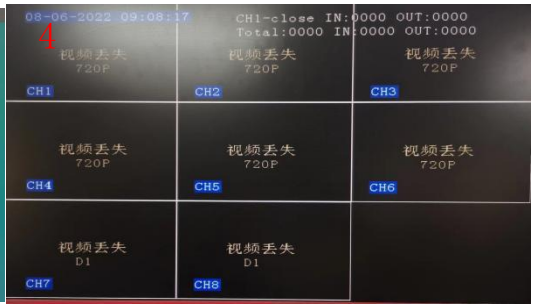
3.Enter the linkage settings and uncheck all channels on the preview channel (Figure 3 below)；

4.Wait for the device to restart the data, the passenger flow data appears on the first interface, and the setting is completed (Figure 4 below)；









Two door passenger flow setting method：

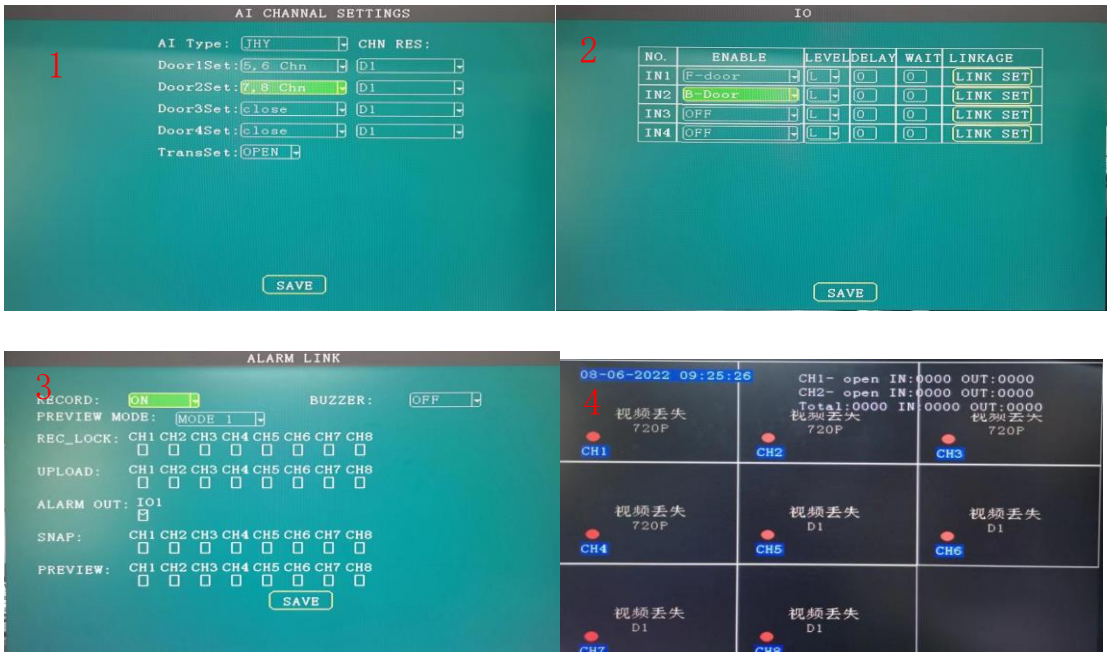
1.Open the AI built-in software page, set channel 1 to 5-6Chn, channel 2 to 7-8Chn (Figure 1 below);

2.Enter the IO setting, the enable item IN1 is set to the front door alarm, the level is low, the delay is set to 0, and the anti-shake is set to 0，

The enable item IN2 is set to the backdoor alarm, the level is low, the delay is set to 0, and the anti-shake is set to 0 (Figure 2 below);

3.Enter the linkage settings and uncheck all channels on the preview channel (Figure 3 below);

4.Wait for the device to restart the data, the passenger flow data appears on the first interface, and the second door setting is completed (Figure 4 below);



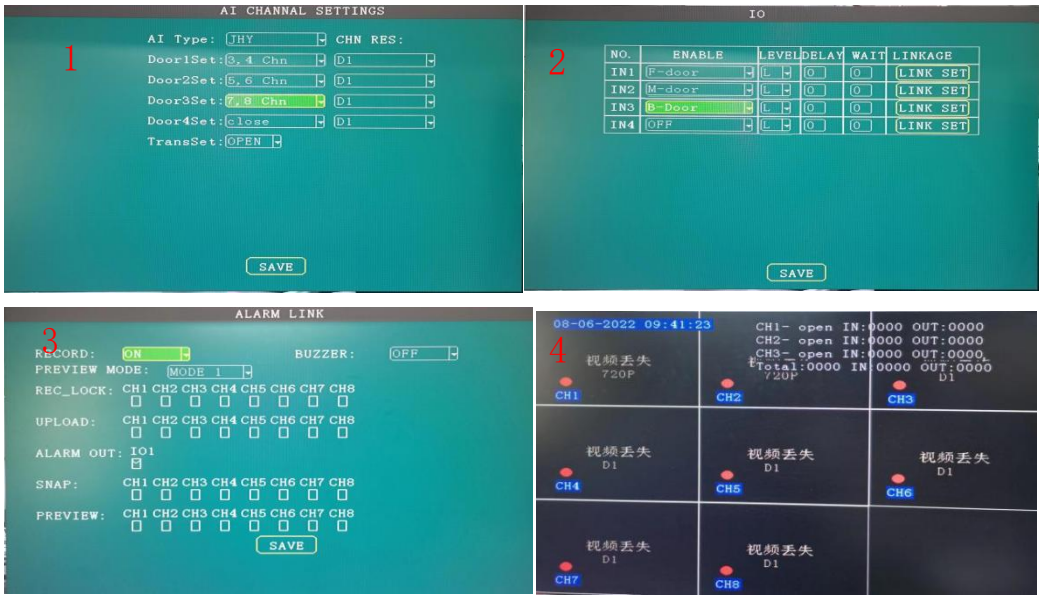
Three door passenger flow setting methods:

1.Open the AI built-in software page, set channel 1 to 3-4Chn, channel 2 to 5-6Chn, channel 3 to 7-8Chn (See Figure 1 below);

2.Enter the IO setting, the enable item IN1 is set to the front door alarm, the level is low, the delay is set to 0, and the anti-shake is set to 0; The enable item IN2 is set to the middle door alarm, the level is low, the delay is set to 0, and the anti-shake is set to 0; The enable item IN3 is set to the backdoor alarm, the level is low, the delay is set to 0, and the anti-shake is set to 0 (Figure 2 below);

3.Enter the linkage settings and uncheck all channels on the preview channel (Figure 3 below)；

4.Wait for the device to restart the data, the passenger flow data appears on the first interface, and the three door settings are completed (Figure 4 below);



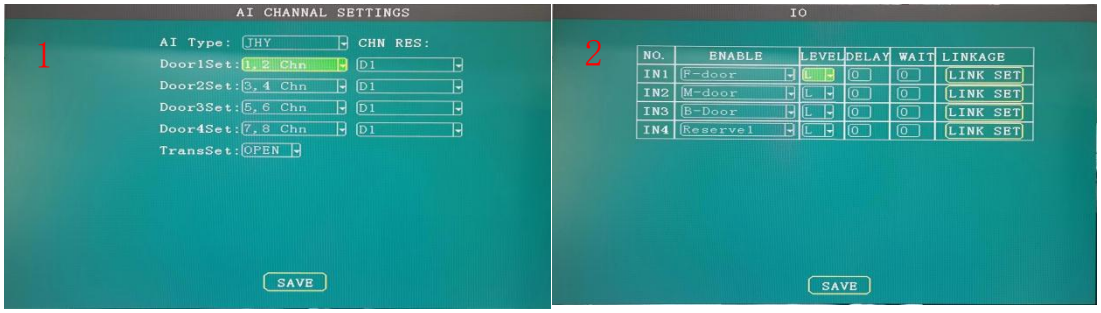
Four ways to set up passenger flow：

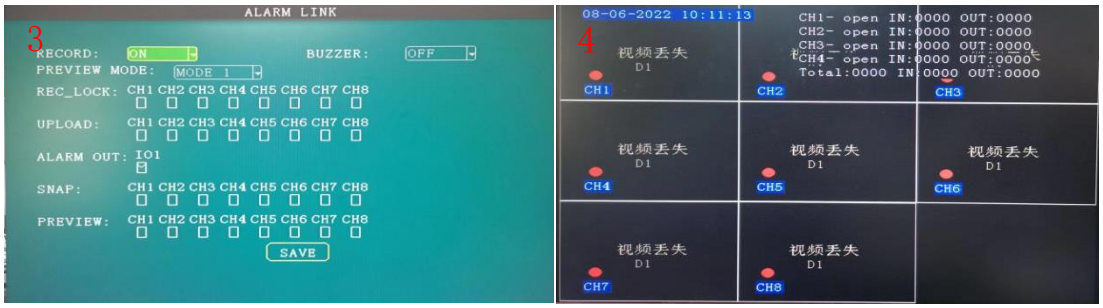
1.Open the AI built-in software page, and set channel 1 to 1-2Chn; Channel 2 is set to 3-4Chn; Channel 3 is set to 5-6Chn; Channel 4 is set to 7-8Chn (Figure 1 below);

2.Enter the IO setting, the enable item IN1 is set to the front door alarm, the level is low, the delay is set to 0, and the anti-shake is set to 0; The enable item IN2 is set to the middle door alarm, the level is low, the delay is set to 0, and the anti-shake is set to 0; The enable item IN3 is set to backdoor alarm, the level is low, the delay is set to 0, and the anti-shake is set to 0; The enable item IN3 is set to reserve, the level is low, the delay is set to 0, and the stabilization is set to 0 (Figure 2 below);

3.Enter the linkage settings and uncheck all channels on the preview channel (Figure 3 below);

4.Wait for the device to restart the data, the passenger flow data appears on the first interface, and the three door settings are completed (Figure 4 below);





note：The passenger flow data in the upper right corner of the homepage can be turned on/off (as shown below)，method：

1.Press the OK button on the remote control on the home page, click Confirm (close passenger flow data), click Cancel (open passenger flow data);

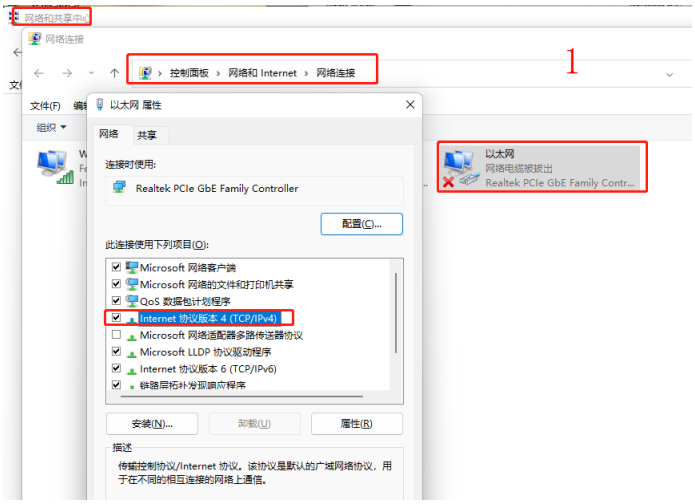
2. Right-click on the homepage, click Confirm (close passenger flow data), click Cancel (open passenger flow data);

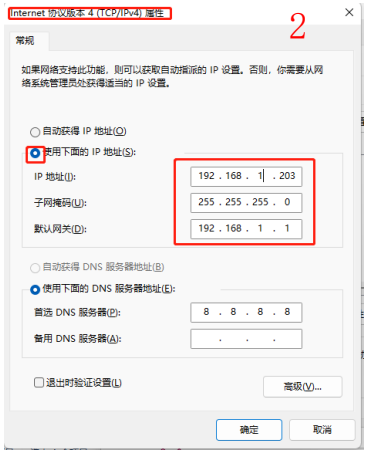
The following describes how to connect the passenger flow device to the computer settings：

A.Set up computer network settings

1. Open the computer network center settings, enter the Ethernet settings, and double-click Internet Protocol version 4 (as shown in Figure 1);

2. Enter the protocol version 4 properties and manually set the IP and gateway (usually the gateway defaults to 192.168.1.1; The default IP address is: 192.1687.1.XXX) (Figure 2 below)





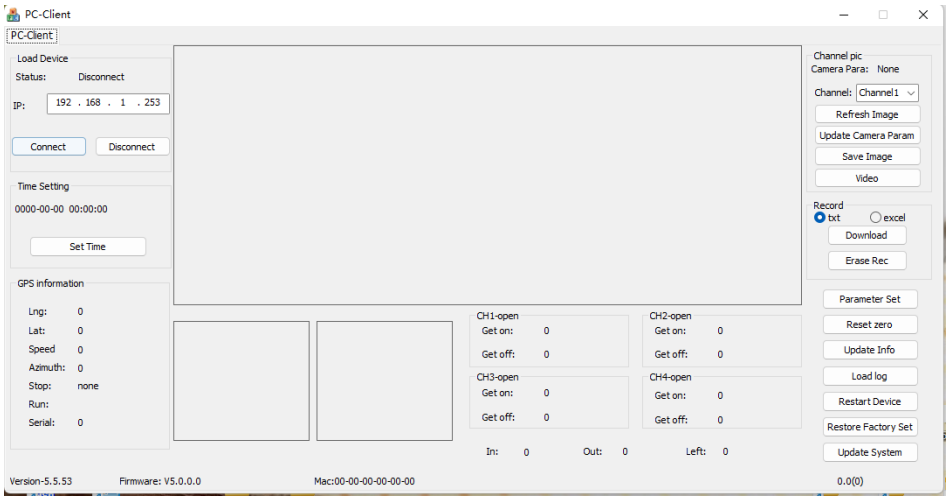
B.Set the network settings of the DVR device

1. The device enters the menu, selects network settings, enters local settings, the IP default setting is 192.168.1.253 (consistent with the computer passenger flow client), and the gateway is set to 192.168.1.1 (the passenger flow client is usually the default gateway) (as shown below)

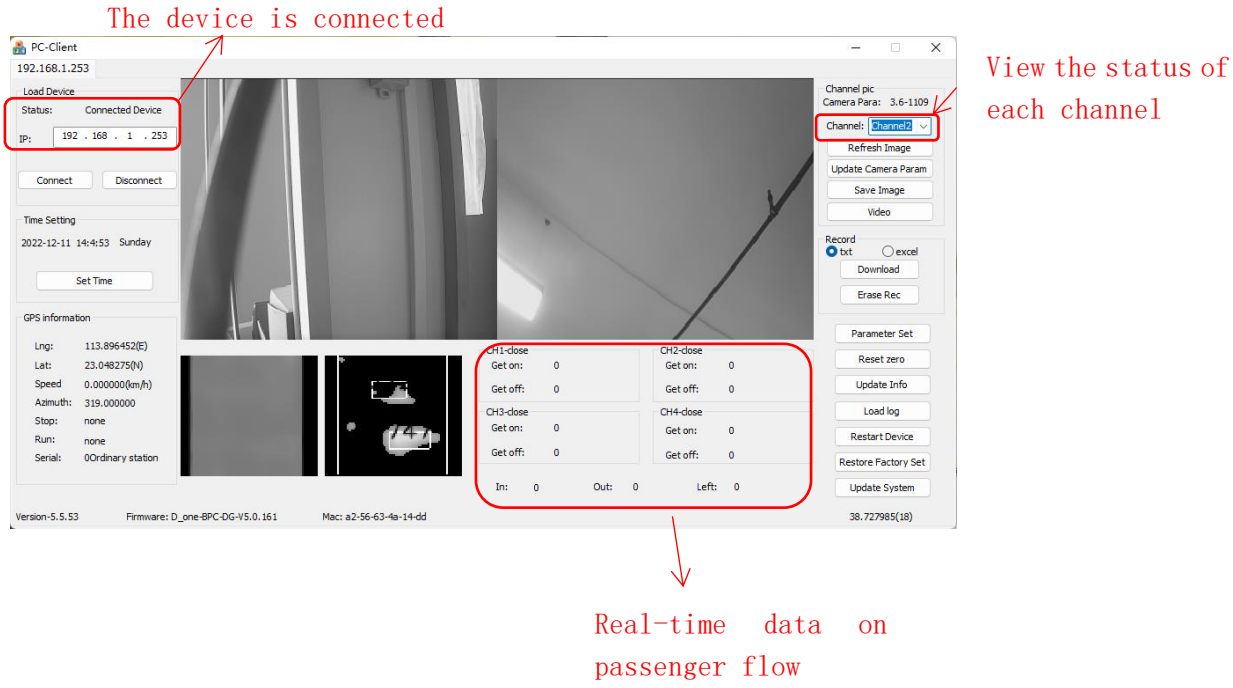
C.PC client settings

1.Open the passenger flow software (Figure 1 below);

2. Enter the IP (default is 192.168.1.253) and click Login to connect (Figure 2 below)



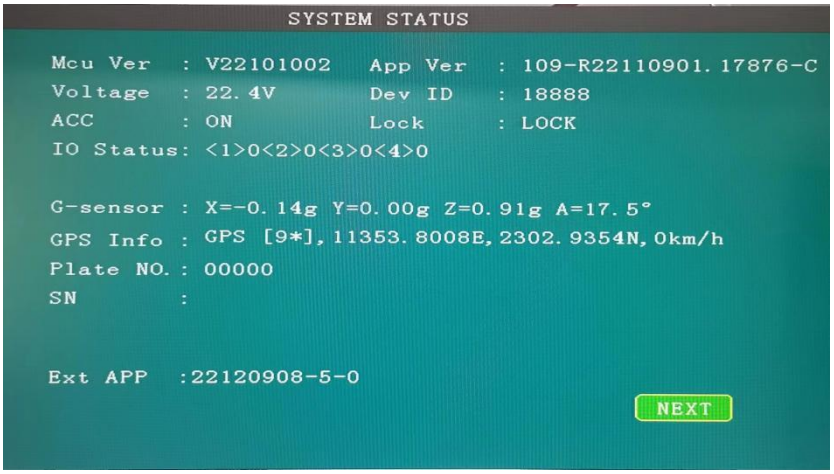
3. Successfully connect to the client and view the picture of each channel (as shown below)



4.8 System information：

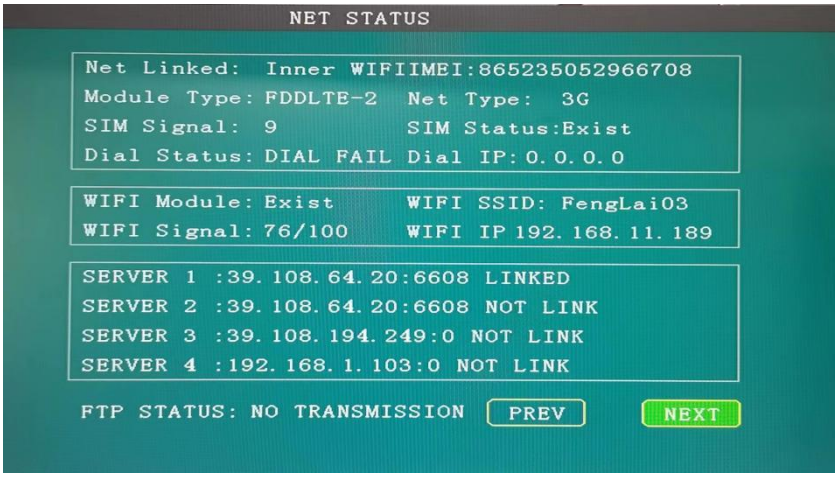
The first page of the system information interface：

It is mainly to view the status of MCU, flash, IO status, GPS signal and so on



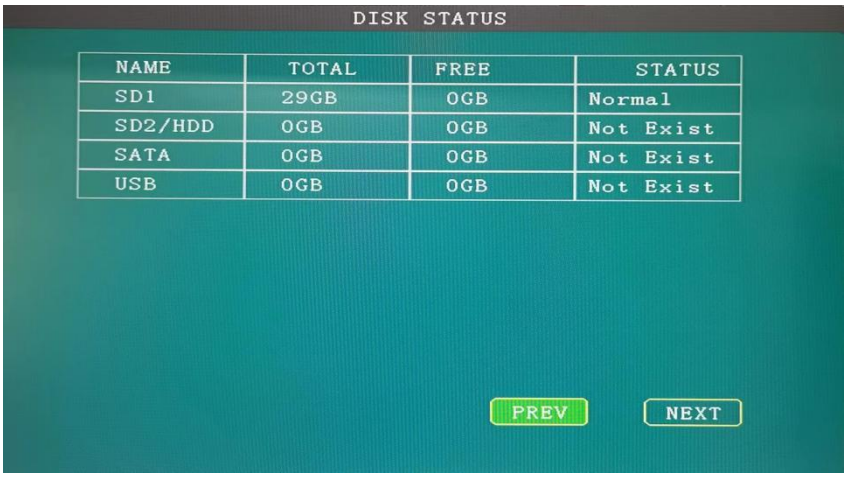
The second page of the system information interface:

It mainly checks the online status of 4G and wifi, and the online status of the device



The third page of the system information interface：

It mainly checks the read status of SD card and HDD



Section 5 Appendices and Frequently Asked Questions

5.1 The vehicle quickly reports to the server：

Note: Hosts without WIFI and 4G module capabilities are not valid as described below and do not need to be escalated to the platform

Step 1：According to the corresponding module, choose to install the SIM card and connect the WIFI antenna

Step 2: Power on to enter the menu, select System Management, enter the terminal settings and enter the device ID (device number in the terminal settings), modify the corresponding license plate number；

Step 3: Select Network Settings from the main menu, enter the Center Settings, select CMSV6 in the Hub 1 protocol, and enter the corresponding IP and port.

Step 4: (4G online) Select network settings in the main menu, enter the dialing settings, turn on enable, and the system will automatically identify the module type;

Step 5 (wifi online) Select network settings in the main menu, enter WIFI settings, turn on enable, select Station for wifi use, and enter the wifi account and password.

5.2 IO serial port use：

The device has 4 alarm inputs and 2 alarm output interfaces. Alarm input detection are level detection, can be connected to a variety of vehicle driving status, such as brakes, steering, doors, reversing, etc., alarm button, as shown in Figure 2-8, when the brake pad is stepped down, MDVR can detect high level, reverse low level, alarm output are level output, driving capacity of 200mA, if connected to a larger power device, must be connected to an external relay, alarm output wiring diagram as shown in Figure 2-9:

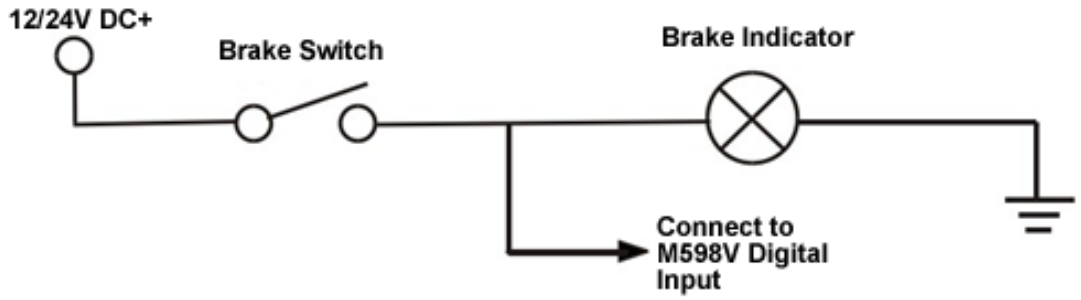


Figure 2-8

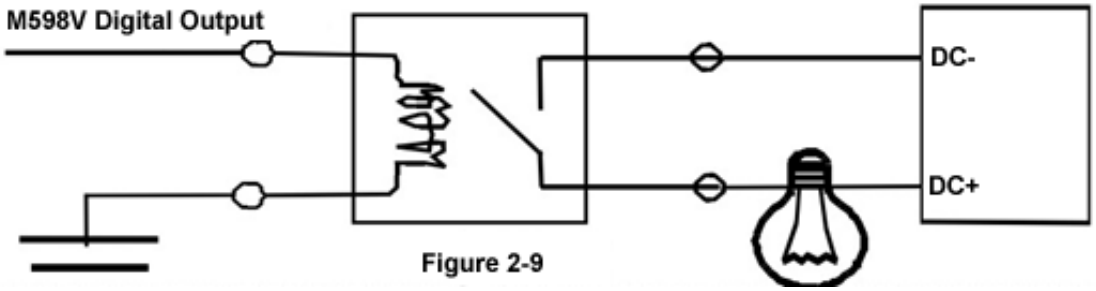


Figure 2-9

5.3 Host software local upgrade instructions：

①. Copy the upgrade file to the SD card or U disk, insert the SD card or USB flash drive into the device, power on the device, the device will be automatically upgraded after the device starts, and the system will automatically restart after the upgrade is completed, and the version number can be viewed in the system information interface after restarting.

②. Note: Do not power off the device during the upgrade process, the SD card or hard disk that is inserted into the device for the first time will be formatted once.

5.4 Common problems and solutions：

5.4.1Why not record after the device is turned on?

① .Please check whether the device has an SD card, system information - NextDisk and video information, see if SD and HDD are present.

② .Check the recording settings - storage settings to confirm whether the

purpose column is the main recording.

③ .Please check whether the recording settings - main stream settings are enabled.

5.4.2 Why does the device often restart when installed in the car?

①. Frequent restarts: the device is repeatedly online and offline; The video recording is intermittent and discontinuous

②. Causes frequent restarts：

a. The vehicle power supply is unstable, please measure the input voltage of the equipment when there is a problem with the equipment, because the probability of the equipment often restarting due to this situation is more common in practical applications

b. Storage disk failure, format the storage disk while preserving the data or replace the storage disk

c. Setting problems, timing power on/off, voltage setting, etc.

d. If there is a problem with the software or hardware of the device, please remove the hard disk or SD card of the storage device, and the device will still restart when the power supply is normal, please inform the technical support personnel of the software version number, and return to the factory for repair if necessary

5.4.3 Why doesn't the camera produce images?

① Check the device recording settings - basic settings - input mode to see if the resolution rate is consistent with the camera used.

② If a channel does not produce video, change the camera position, restart when necessary, and check whether there is a problem with the camera or the channel.

5.4.4 Why can't I watch videos on the platform?

①Check whether the device is normally online.

②To confirm whether the network signal is good or not, look at the network dial-up value in the system information (INFO key).

③ The server is being maintained or stopped working, contact the platform staff.

④ Check whether there is still a fee for the SIM card.

5.4.5 Why is the monitor pictured?

①Confirm whether the display aviation headline is docked correctly

②Check that the monitor has the switch on

③Check whether the monitor V1/V2 is switched incorrectly

④Check if the recording settings - basic settings - display resolution settings are correct

5.4.6 Is the red dot in the lower left corner of the passage or has a crescent?

① No red dot means no recording, it may be that the SD card or hard disk does not exist, and the video cannot be recorded without storage media

② If the red dot changes to a crescent, there is a video loss, there is a problem with the video disk, you can save the video and format the video disk, or the coding capacity of the video disk is limited, you can change the resolution of the main code stream to D1

5.4.7 Why can't I see GPS location information on my device?

① . Check whether the module status on the device is present, and if not, contact customer service。

② . Check whether the GPS antenna is misaligned with the 4G/WIFI antenna

③ Check whether the GPS antenna is connected, the antenna should be placed in a wide and unobstructed place to have a signal, the vehicle will not receive the signal when it passes through the tunnel or there are tall buildings and large trees blocking during driving, which is normal

④ GPS antennas are placed horizontally, preferably outside the car, away from electronic devices, to prevent interference

5.4.8 The device is online, why can't I see the vehicle positioning information?

① . Please check on the platform if the device number is the device you want to view。

② . The GPS signal on the device can only upload valid positioning information to the platform if it receives normally, so please check whether the GPS signal on the device is displayed normally, same as above。

5.4.9 4G dialing unsuccessful?

①. Check the status of System Information 4, press the INFO key of the remote control, and view the second page of System Information。

②. Check whether the antenna is connected and the 4G signal strength

③. Check the status of the SIM card, whether the SIM card has enabled the Internet function, if you need to make a call, you need to activate the voice function; As well as the charges, whether there are arrears, whether the IoT card is directed traffic, or the SIM card cannot replace the device。

5.4.10 The device is running normally, why can't I connect to the backend server?

① . Connect to the platform server through 3G/4G, first confirm whether the 3G/4G dialing is successful, and check the second page of system information.

② . Through the WIFI connection platform, first confirm whether the WIFI dialing is successful, please check the second page of system information。

③ . Check whether the server IP and port set on the device are correct, and whether the report ID conflicts with other vehicles

④ . Whether the backend server is running normally and whether other vehicles are online