Dear users, as this machine feature is set professionally. Please read this system user manual before using.

4 / 8 CHANNEL AHD

MOBILE DVR OPERATION MANUAL



Thank you for using this product, differences between the various models or product upgrades cause the appearance or functionality in this manual are different, please prevail in kind or contact the manufacturer. The contents of this manual will be updated without prior notice!

Statement

This manual is intended for 4/8 HD MDVR series product description may not accurate enough in some technical details, If you appear in the course of inconsistency kind in this manual at all to prevail in kind or technical support inquiries. This manual will be updated from time to time, without prior notice.

Attention of using

1、 Installation Environment

- To extend equipment life, the equipment installed in the vehicle vibration weaker parts if possible;
- To ensure proper cooling equipment, the installation should avoid poorly ventilated location (such as a vehicle trunk), while in the same plane on the device should maintain a distance of about 15cm and other objects;
- The machine should be installed horizontally, please note that when installing the device waterproof, moisture-proof, lightning protection, while maintaining the vehicle is stationary, in order to prevent damage to equipment falling;

To ensure the equipment is safe, the machine, cameras, cables and other accessories should be placed in the position of the driver and the passenger is not easy to contact.

2、 Avoid electric shock and fire

- The machine uses 12V-36V DC power supply, note the polarity when wiring, avoid short circuits
- When connecting another external device, set the unit is powered off;
- Remember not to touch the power supply and the device with wet hands;
- Do not spill liquid on the device, so as not to cause a short circuit or fire inside the machine;
- Do not place any other equipment on the upper of the camera;
- non-professionals do not disassemble the cabinet, to avoid damage and electrical shock;

3、 Transport and Handling

- To ensure that in the process of transportation equipment from accidental damage, in the handling or transportation equipment, please pay attention gently, it is best to use the original packaging and carton.
- Move the machine or no charged component replacement, otherwise it will damage the equipment

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1. Product introduction

1.1 Product overview

The MDVR is a support for 4/8 road analog audio and video recording and playback of vehicle mounted HD hard disk video recorder, while its own network functions. Products using DSPS ARM dual core processor, built-in Linux embedded operating system, and combined with the IT field of the most advanced H.264/H.265 video codec, 4G/5G network, GPS positioning, WiFi and other technologies. Set power protection technology, hard disk damping technology, hard disk heating technology, vehicle width voltage design in a body, and can be widely used in buses, logistics vehicles, school buses, police cars, financial escort vehicles, gas Refueller vehicle monitoring.

Product characteristics:

- To support the H.264/H.265 image compression encoding。
- support 4/8 analog audio and video recording and playback at the same time。
- head by air video interface, high reliability, strong seismic effect。
- can be built 4G / 5G networks, GPS,2.4G WiFi module。
- To adopt UPS power protection technology patent, to cut off the external power supply can work for 3~8 seconds, to prevent accidental damage to video files。
- The SD card supports 2 built-in SD card, maximum support 512G capacity。
- The hard disk machine built-in 2.5 inch hard disk, 2TB OR 4TB disk support professional。
- Has good scalability, with 1 RS485 interfaces OR 1 RS232 interfaces。
- 12V-36V wide voltage DC power supply, 12V power supply output voltage support。
- To support the hard disk heating technology。

1.2 Specifications

Item	Parameter	SD MDVR	HDD MDVR
System	Operating Language	Chinese/English	
	Operating	Graphical menu interface (OSD menu)	

	Interface		
	Password Security	Two level managements: user password/admin password	
Video	Video Input	support 4/8CH D1/720P /1080P AHD camera record and playback simultaneously	support 4/8CH D1/720P /1080P AHD camera record and playback simultaneously
	Video Output	2ch video output (one is AV, one is VGA)	
	Video Display	Support 1-9ch	Support 1-9ch
	Video Standard	PAL,NTSC automatic recognition	
	Image Compression	H.264/H.265 Main profile	H.264/H.265 Main profile
Audio	Audio input	4/8ch RCA	4/8ch RCA
	Audio Output	1ch RCA（one AV）	
	Record mode	audio and video are recording simultaneously	
Image processing and storage	Image Format	D1/720P/1080p optional	D1/720P/1080P optional
	Video standard	ISO14496-10	
	Video Bitrates	CIF: 1536Kbps ~ 128Kbps	
		HD1/D1: 2048Kbps ~ 400Kbps	
		960H: 2048Kbps ~ 400Kbps	
		720P: 4096Kbps ~ 400Kbps	
		1080P:2048Kbps~ 8192Kps	
		8 levels image quality optional, 1 is the highest, 8 is the lowest	
	Audio Bitrates	40Kbps	
	Data Storage	SD Card up to 512G	Maximum support 4T hard disk/SSD
Alarm	Alarm input	4 alarm inputs, can be set up low-level alarm less than 1V / high-level alarm up to 5V	
	Alarm output	1CH alarm output, output 12V high-level	
Communication Interface	RS485 port	Support 1*RS485 port （Scalable）	
	RS232 port	Support 1*RS232 port	
	RJ45 port	1*RJ45，Scalable	1*RJ45，Scalable
	USB port	1*USB	1*USB

Wireless communication	4G	Built-in 4G communication module (FDD-LTE/TDD-LTE)optional
	WiFi	Built-in WIFI communication module（2.4GHz optional）Scalable
GPS	Support built-in GPS module，can write into encode stream with Geographical coordinates speed, etc.	
Transducer	Built-in accelerometer G-Sensor（options）	
Supporting software	PC port playback analysis	Playback video file in the PC port, and analyze the vehicle information in the file simultaneously
	CMS management software	Carry our many functions by wireless network, such as video previewing, GPS Uploading, Alarm Uploading and Parameter Configuration
Software update	Local machine support SD card port and CMS platform updating	Local machine support USD2.0 port and CMS platform updating

Product Electrical Parameters：

Power input	+12～+36V	12V ~ 36V, before use to ensure car battery supply voltage; long-term over 36V, the machine will burn.
Power output	12V	12V (+/- 0.2V), the maximum electric current: 2A
ACC detection	≤4V	take off
	≥10V	take on
Video input impedance	75Ω	Each video input impedance: 75Ω
Video output voltage	2Vp-p	2VP-P CVBS outputs an analog signal, a display device input need 75Ω impedance to adapt to it.
I / O Interface	Under 1V	Low alarm
	Above 5V	High level alarm
Operating temperature	-40℃～60℃	In a well-ventilated environment
Machine size	150*14.7*45mm	185*168*62mm

1.3 Mainframe Introduction



SD card Status Indicator

HDD Status Indicator

1.3.1 SD machine and hard disk drive LED indicator and statusdescription

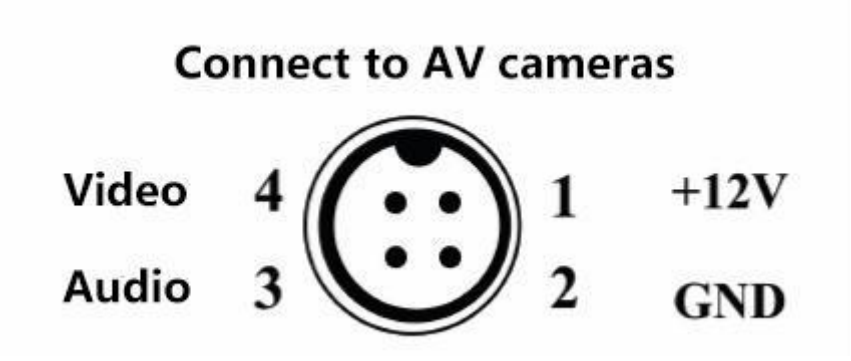
- 【**PWR**】Power input status indicator. The light indicates that the system power supply is working properly;
- 【**SD1**、**SD2**】SD card work indicator. If the indicator light SD card is working properly. OFF means no SD card or SD card abnormal; SD card slot for recording video data, profile updates and upgrades.
- 【**HDD**】Hard working indicator light. The light is always on. No hard disk or hard disk exception;
- 【**CMS**】Network indicator light, the success of the network when the network is bright, not registered or failed to register;
- 【**GPS**】When the lamp is positioned to the GPS signal, the lamp is bright, and the lamp is not positioned or failed.
- 【**REC**】Video work indicator. LED light indicates that the current is being recorded.
- 【**Panel Lock**】Control device switch machine, boot the lock and SD card or hard disk, anti-plug;
- 【**SIM**】4G/5G phone card slot;
- 【**USB port**】Used to copy video data or upgrade.
- 【**IR**】Remote control input for receiving remote control signals.

1.3.2 Back panel definition

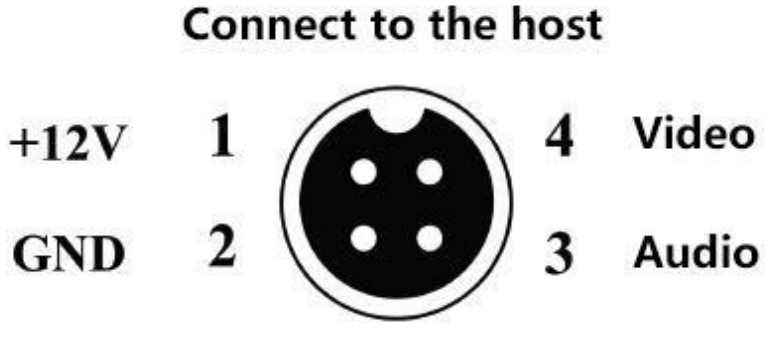
- 【**DC12-36**】Power connector, red wire to the positive power supply vehicle; black wire to the vehicle power supply negative signal line yellow line for the ACC. When you need to set the ignition timing recording or video, then the vehicle ACC line.
- 【**NET**】RJ45 cable interface;
- 【**I/O**】14PIN interface: with 4 road alarm input, 1 output, 1 12V output, 2 way GND, 1 road RS232 (TX, RX), 1 road RS485.
- 【**AV IN 1~4**】audio and video input interface
- 【**3G/4G**】3G/4G antenna interface
- 【**WIFI**】WIFI antenna interface
- 【**GPS**】GPS antenna interface.

1.3.3 Audio and video interface

Host interface definition:



Camera air head interface definition:



1.3.4 The main button of the remote control



Menu	When a password is set in the video recorder, press the LOGIN key to enter the password. As the system does not restore and reset function, please remember the password.
INFO	Information view
Four image segmentation key Numeric keys 1,2,3,4	Under the supervision of the screen for the four screen and the switch between the single screen; press the screen image segmentation key to display the 4 screen, if it is to press the corresponding digital 1/2/3/4 display channel 1 channel 3 channel 2 - channel 4
RETURN	The return on a sub menu, the final exit to exit the setup menu and to monitor screen
PAUSE/STEP	Playback of image data when the pause playback and single step release key, every time you can play a step, press the button to return to normal playback speed
FRAME	Press this key to be able to carry out the frame
PLAY	Start playing key (search to the video file and select, press this key to play)
FWD	Fast forward playback video material, there are four files: 2X, 4X, 8X, 16X
REW	Rewind playback image data, there are four files: 2X, 4X, 8X, 16X
NEXT	Turn over to the next page / next file during playback
PREV	The player turned over to the last page / file
PTZ function keys	Auto, preset, call, zoom +, zoom, zoom, focus +, focus -, aperture +, aperture -, PTZ, PRESET, RECALL, BRUSH
F1、F2、F3	F1 is the function test key

2. Equipment and installation (take the hard disk machine as an example)

2.1 Equipment Installation

Step1：Open the key

Turn the electronic lock of the front panel and screw it in the hard disk box.



Step2：Hard disk installation

The hard disk is arranged in the hard disk box in accordance with the following operation steps and fixed.



Have to screwed tight on both sides of the screw after installed hard disk, the electronic lock is locked.

Step3：Install SIM and SD card

According to the panel logo, corresponding to the installation of SIM card and SD card. The communication configuration of the machine, insert the appropriate SIM card supports three 3G: WCDMA (China Unicom) and EVDO (China Telecom) TD-SCDMA (China Mobile). It supports two types of 4G: TDD-LTE or FDD-LTE. Note: SD card is mainly used for video backup hard drive failure.



Step4： Lock electronic lock

All devices (HDD\ SD card \SIM card) installed, the electronic lock will be locked in a locked state, otherwise it will lead to the device can not boot.

Step5： Installation of GPS, 4G/5G, WiFi antenna

GPS, 4G / 5G, WiFi panel antenna is connected to the appropriate location after MDVR would look like, and reasonable wiring, the signal less susceptible to outside interference

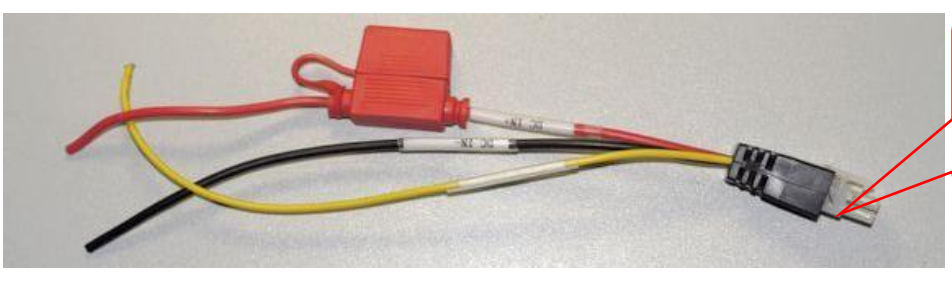
Step6： Corded

A: switch mode is set to "ignition" Power Connection:

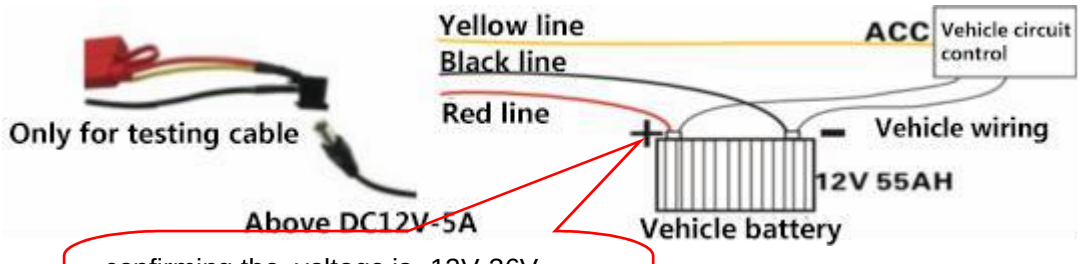
When the System Management - Power Management - Power mode, the mode switch is set to "fire" the 6PIN white plug to the rear panel MDVR 6PIN power input, the red and black cable directly connected to the car's battery or level out after a total power of Insurance after the red to positive, black to the negative. Yellow line is connected to the car ignition ACC switch (ie, starter motor car before the position switch), when you open the car keys, the device will automatically start when the vehicle key is automatically shut off.

B: switch mode is set to "timing" or product testing when the power supply connection mode:

When the System Management - Power Management - boot mode, the mode switch is set to "timed" or when the device is used in a non-vehicle environments (such as bus stations, logistics transit stations and other monitoring systems) or product tested, the red and yellow lines Ningchengyigu positive power supply, separate black then negative.



This terminal is connected DVD power connector on the back panel



confirming the voltage is 12V-36V Before

burnout if exceed the voltage.

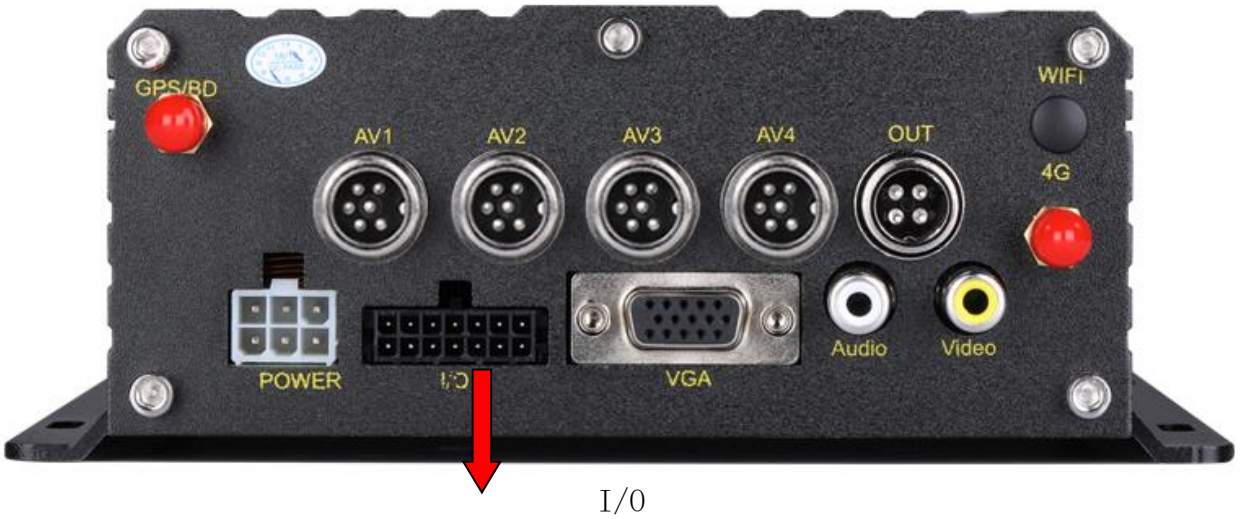
DVR power cord recommendations directly connected to the vehicle battery positive and negative, then finished after the battery or fuse box, connect the power of positive and negative. Ban connecting the vehicle to the ground as a metal conductor, or will cause a host of negative glitch normal operation, the positive and negative power supply line diameter must be used φ1.5mm or more. Installing the System in accordance with the size of the holes in the vehicle mounted horizontally equipment suitable location.

Step7: display output device connection

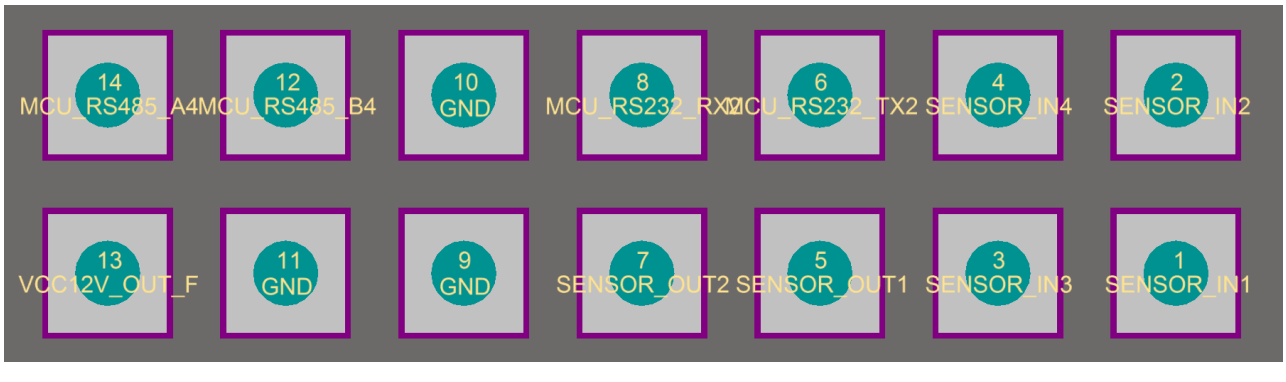
This product supports 1-way and 2-way VGA CVBS video output

Step8: alarm input and output

lineA: alarm sensor input wiring

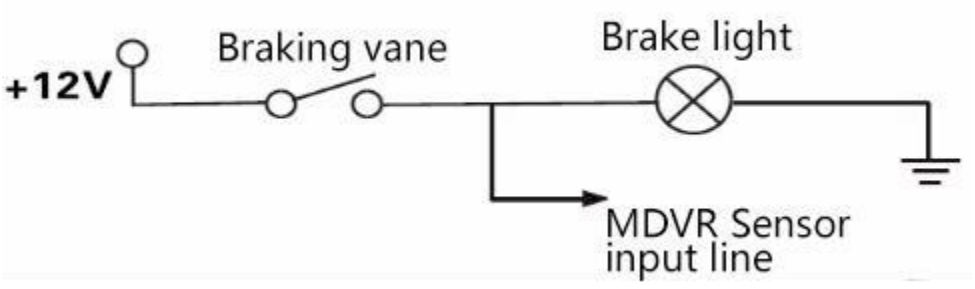


I/0



Received in external sensors will need to set the alarm mdvr panel I / O sensor corresponding to the eight external alarm input port, the external alarm input must be connected to the corresponding sensor switch equipment, such as door magnet power supply, emergency switch button, steering lamp switch, brake lamp etc., the connection schematic diagram as follows.

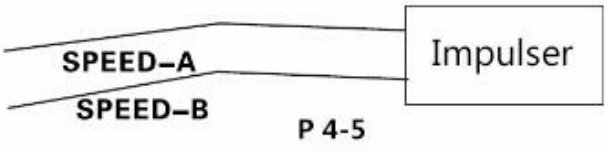
Example: The following is a block diagram showing the blade brake depressing the brake, it is possible to detect a high level, otherwise, it detected low. So when the brake device can trigger an alarm.



B: Speed alarm wiring

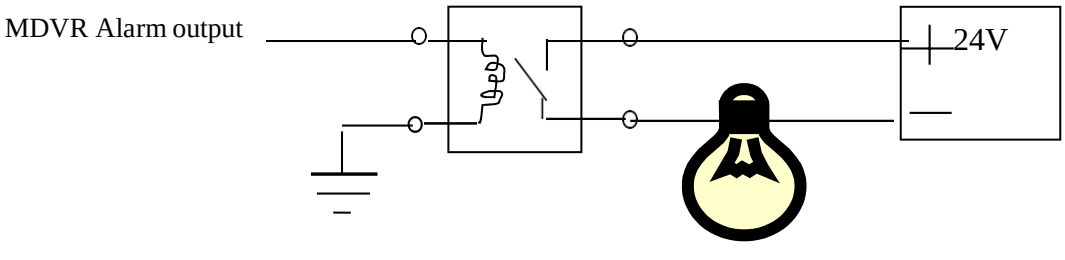
A: If the vehicle speed is selected to obtain GPS requires GPS signals normally, only the system menu - related setting speed settings to achieve the alarm function - alarm settings.

B: if you choose to get speed from the vehicle, it is necessary to pick up the speed pulse sensor to achieve the alarm function. Pulse sensor received SPEED-A and SPEED-B two lines of our device port. The connection schematic diagram is as follows:



C: alarm output connection

The unit provides an alarm output, using the level of the output current 200MA drive an external alarm device. If you want to compare the driving power of the device, it must be connected to external relays, refer to the following connection diagram.



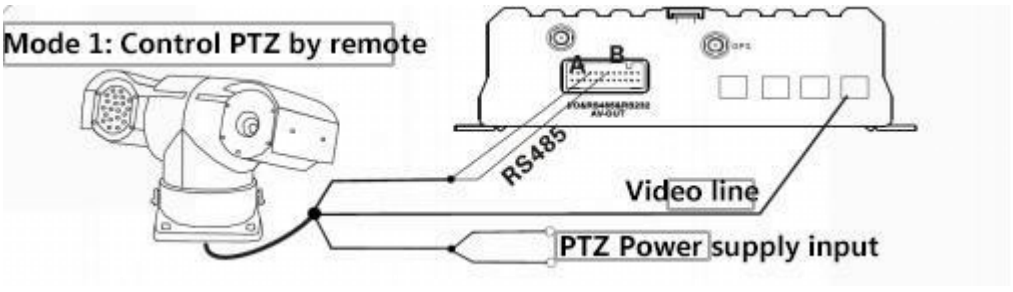
Setp9: RS232/RS485 device access

This product provides one RS232 serial port and 1 RS485 input, the user can choose according to the actual needs of sensors required, OBD, walkie-talkies and other uses RS232 or RS485 serial communication devices. When you install the first external device power lines, communication lines and supporting shipping 30pin I / O port lines correspond connected, then after receiving the car MDVR panel 30PIN I / O ports, the final installation of the probe and external device wiring that is reasonable can.

Step10: connect with PTZ camera or camera

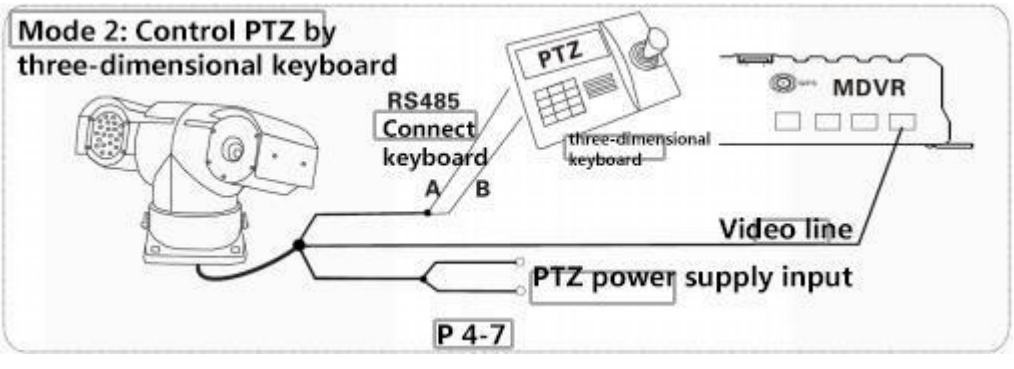
Connect the camera to the video input connector head aviation; PTZ camera PTZ control method according to points, connecting head has the following three ways:

- The first way: the RS485A and RS485 PTZ RS485B on the computer attached to the control line, video cable to the host video input, then in addition to the power head. While the peripheral settings PTZ and PTZ data corresponding to the data, you can use the remote control PTZ.



Users connected PTZ set parameters, then the head of the channel to be selected to head with the remote control, for example, the head connected to the channel 2, then on the monitor screen to switch to Channel 2 in order to maximize control it.

- The second way: the head of the RS485 control lines directly connected to the three-dimensional control of the keyboard, video cable to connect to the host video input, respectively, to the head and three-dimensional keyboard power supply, keyboard, and then set the parameters and the corresponding head. So that it can control the PTZ through a three dimensional keyboard, compared to remote control operation more convenient and efficient.



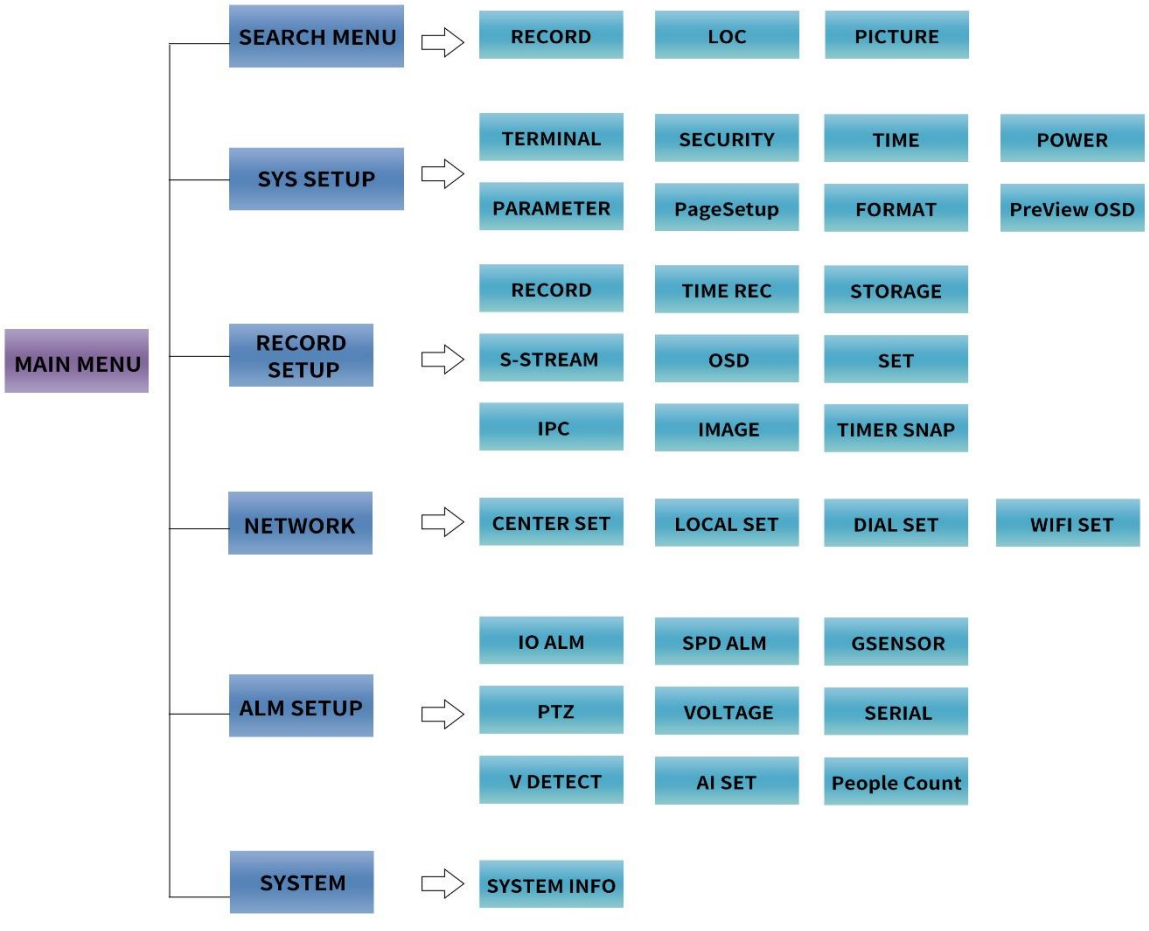
- The third way: the first two integrated wiring, both connected to the host vehicle and then three-dimensional control of the keyboard, so you can pan, tilt control in two ways, even platform can also be controlled remotely.

2.2 Applications and solutions Connection

This product can be used for video surveillance or remote monitoring, suitable for general or special vehicles, it is mainly through special car camera collection front-end video signal, and then through a special video cable transmission to MDVR host for video compression and image processing is stored in the hard disk. And real-time positioning of the vehicle position by GPS module, 3G/4G module will be uploaded to the remote server, and can support in the remote client download video files, so as to realize vehicle remote real-time monitoring.The following is practical application model of this product in the process of actual use may according to the different models and external equipmen

3. Menu Structure

The user through a series of menus to control the operation of the vehicle-mounted device. The following diagram describes a simple menu structure：

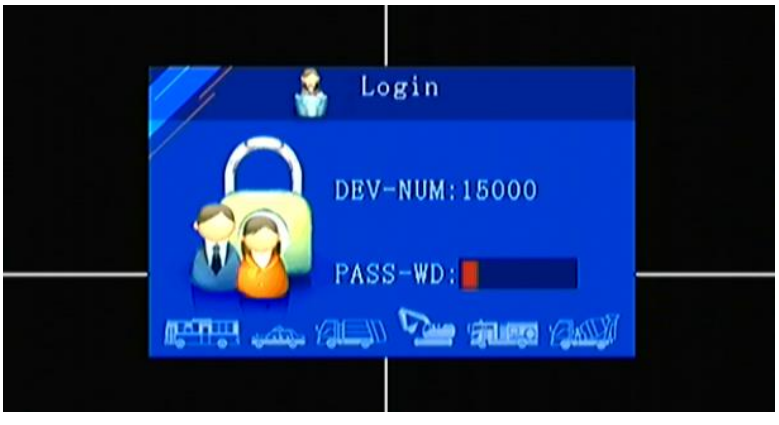


3.1 System Operation

3.1.1 User login

Note：If the password is switch off, press on the remote control [LOGIN] key to enter the menu interface.

After the host is turned on, press the [LOGIN] button on the remote control, enter the login page, for example as following



Password：Ordinary user and administrator passwords, as a normal user password, can only enter the Find and Browse, can not enter the Setup menu to set parameters. Administrator password, you can set the parameters.

Specifications: The initial password of ordinary users is 111111, Administrator super password consultation with sales manufacturer!



The main menu includes: inquiry, system settings, video settings, network settings, alarms and peripherals, system information

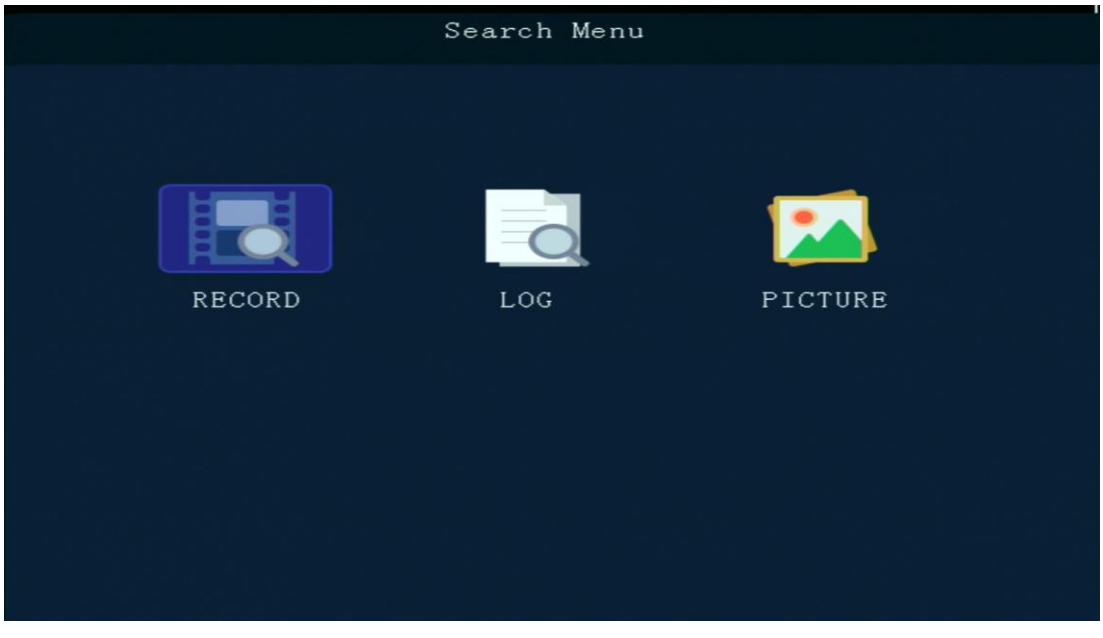
Note：1. All of the following settings submenu, have to be confirmed after the entry into force of [Save], otherwise it is set invalid.

2. CheckBox □is filled that means to select a certain function, unfilled said they did not select a feature

3. Enter the menu interface (including video query), stop recording equipment。

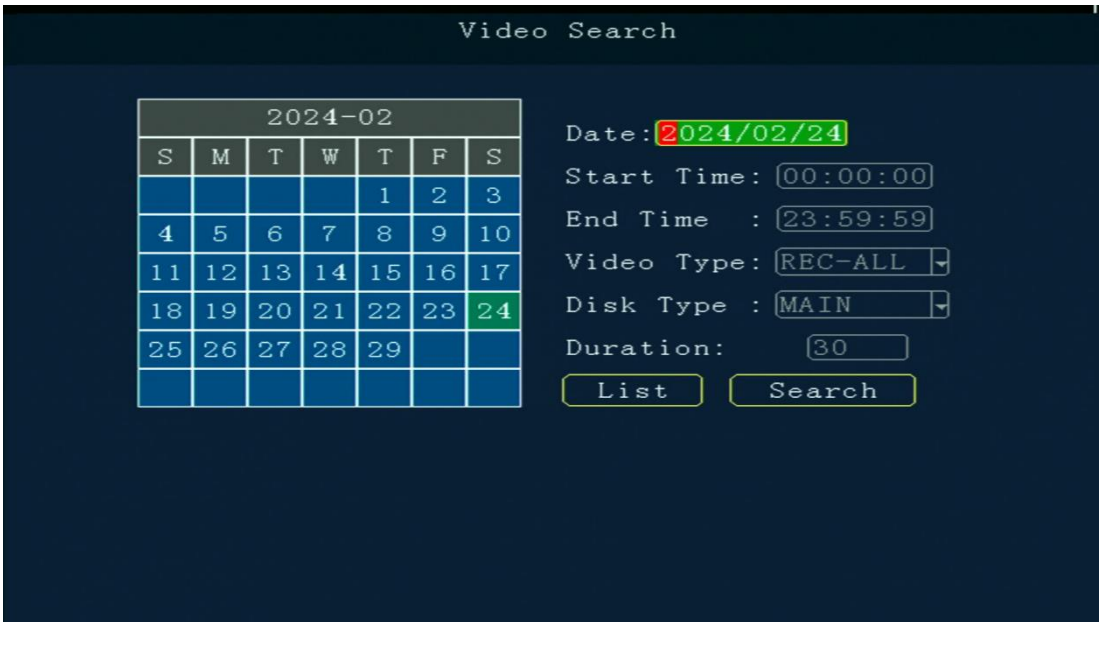
4. Press the number keys on the remote control to directly enter numbers。

3.1.2 Search



Searching menu includes: video search, log search and image search.

3.1.3 Video Searching



Date： press number keys to input the date, it defaults for the day.

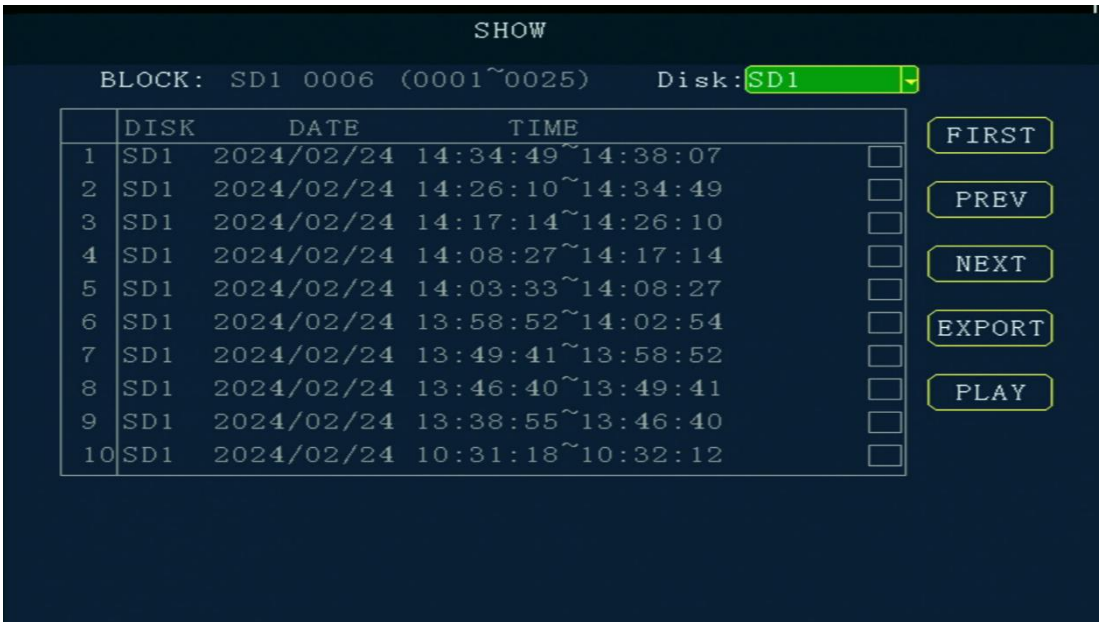
Start time：press number keys to input the time, it defaults for 00:00.

End time：press number keys to input the time, it defaults for 23：59.

Video Type：press【Enter】to select：All/Alarm. it defaults for all.

Disk Type：press【Enter】to select: main disk / mirror disk / disk backup. it defaults for main disk.

Search：Move to the "Search" button，press【Enter】, then enter the search results interface.



Press the arrow keys to select the information you want to view the video, press [] to start playing the video data key, press the [Return] key to return to the previous level.

Select the video file you want to view and press [Enter] key to check the video to be backed up.

Press the arrow keys to select "Home", "Previous", "Next", "Last", press [Enter] key to display the information page.

Press the arrow keys to select "Select All", "anti-election", "Backup"

Export: Export Press [Enter] Alternatively, the selected video file to a USB device extrapolation inside.

Note: If the selected period no video file interface prompt: "! This day there is no video file"

3.1.4 Log search

Log management record power on/off, GPS timing, alarm event information, including event date, event time, event name.

Date Search: Press number keys to enter the date, default is today.

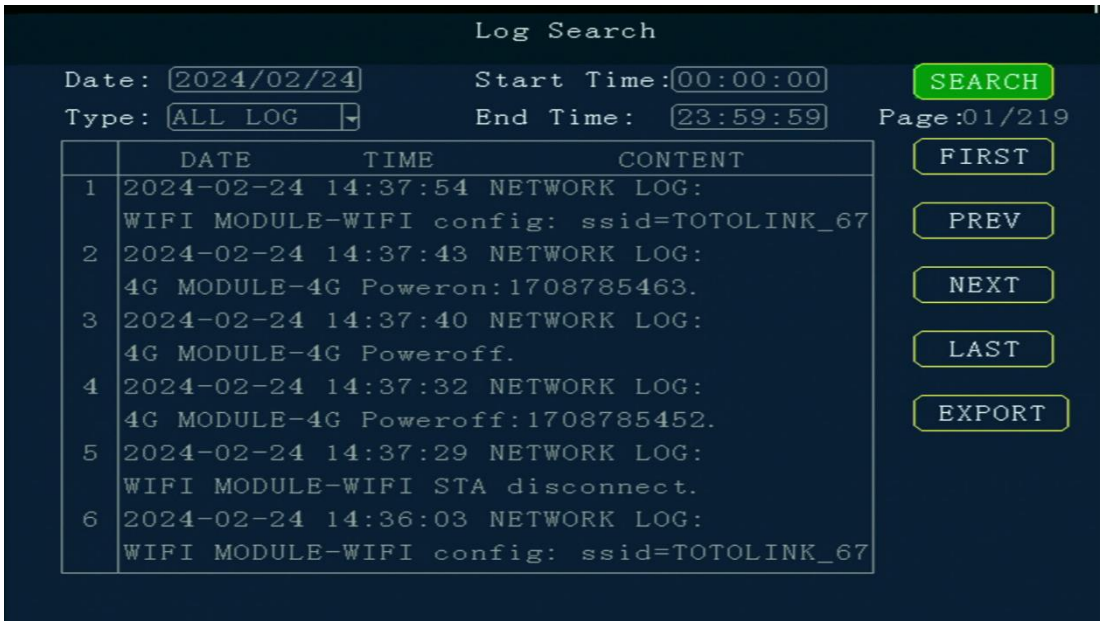
Log Type: Press [Enter] to select: All log/ System log / Alarm log / Operation log. Default is all log.

Start Time: Press the number keys to enter the time, default is 00:00.

End Time: Press the number keys to enter the time, default is 23:59.

Search: Press [Enter] to select, search the log information from the start time to the end time.

Press the arrow keys to select "Home", "Previous", "Next", "Last", press [Enter] to display the information page.



3.1.5 Picture search

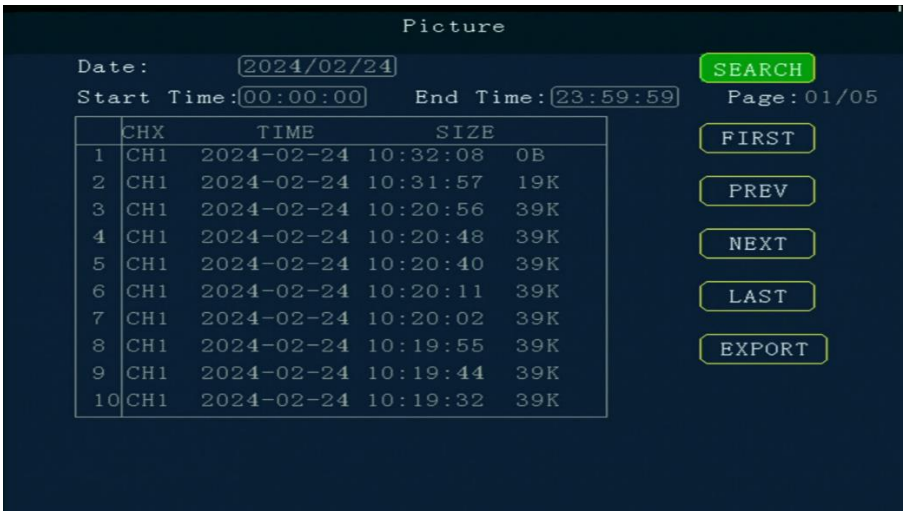
Search Date: Press number keys to enter the date, default is today.

Start Time: Press the number keys to enter the time, default is 00:00.

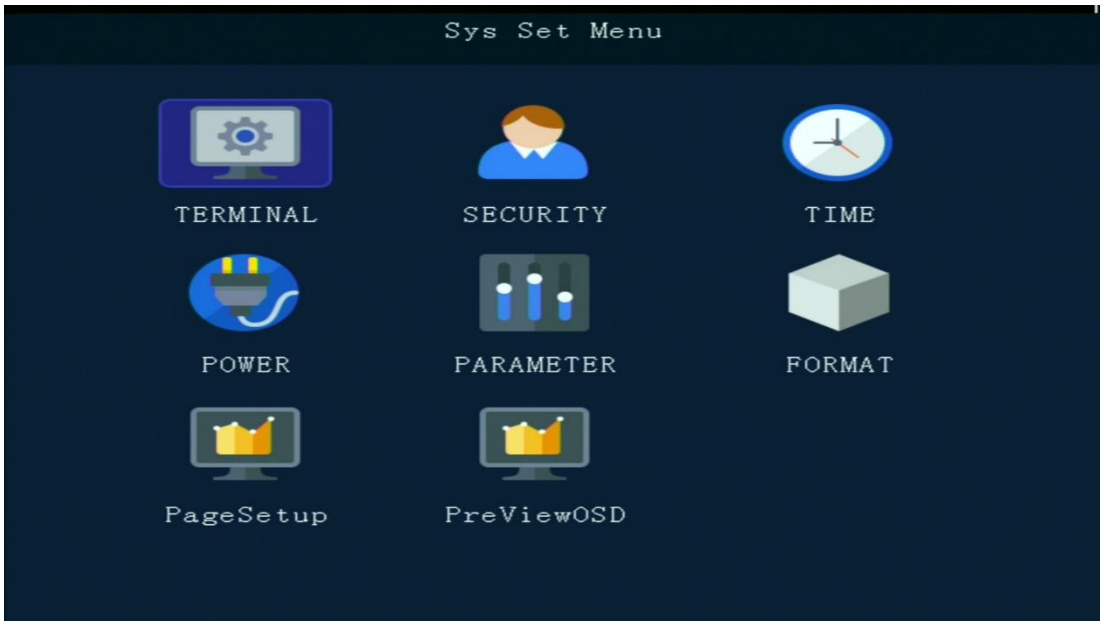
End time: Press the number keys to enter the time, default is 23:59.

Search: Press [Enter] to select, search the log information from the start time to the end time.

Press the arrow keys to select "Home", "Previous", "Next", "Last", press [Enter] key to display the information page.



3.2 System setting



System setup menu includes: Terminal, User, Time, Power, Parameter and Format,Pagasetup,PreViewOSD.

3.2.1 Terminal

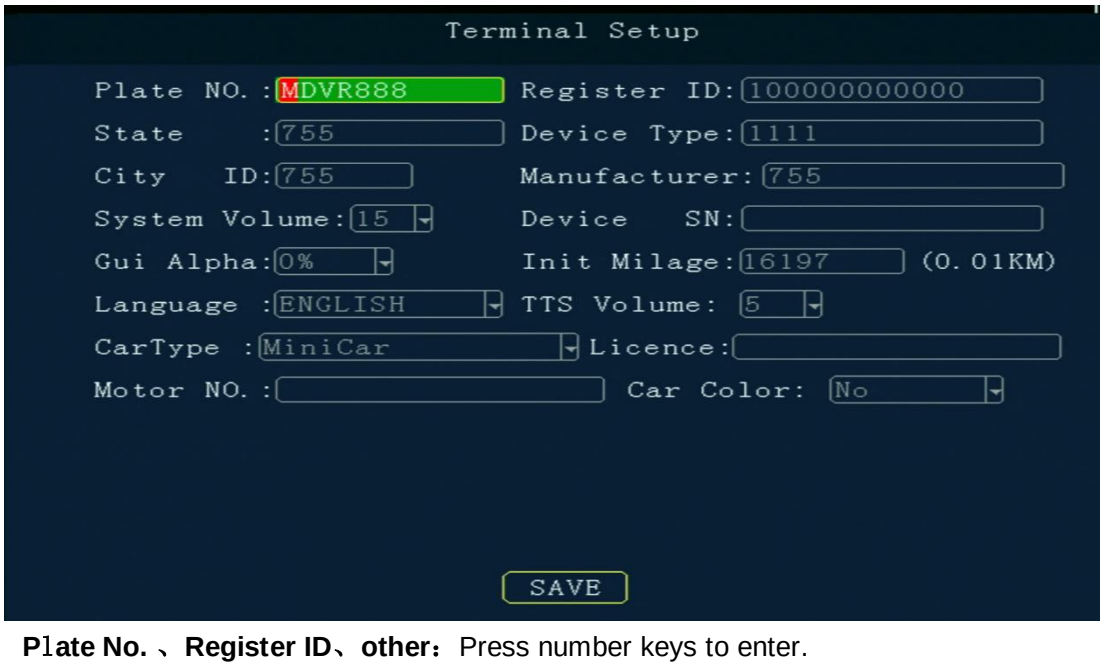


Plate No.、Register ID、other： Press number keys to enter.

Language： press【Enter】to select.
TTS Volume: The volume level of AI voice playback

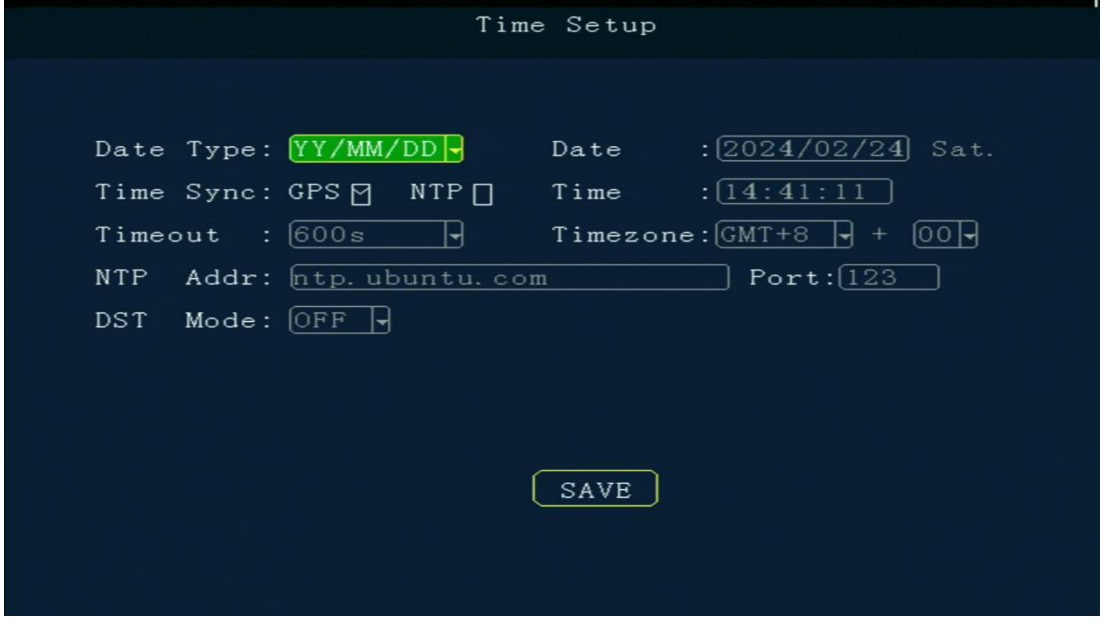


Password：press【Enter】：On/Off

On: Login with Admin password can setting the User / Admin password; login by user password can only set a user password, admin/user password must be the same with [confirm] at below

Off: Can not setup password. When entering the menu, directly into the main menu without login

3.2.3 Time setup



Date Type: Use for selecting the data type, year - month - day, day - month - year month - day - years. Press [ENTER] to select.

Time Sync: Press [Enter] to select: Off / GPS / NTP, default is GPS.

Time out: Setup Menu Waiting Time, once overtime, it will automatically log off the current user, return to the monitoring mode. Press [Enter] to select: 1 minute / 2 minutes / 5 minutes / 10 minutes,

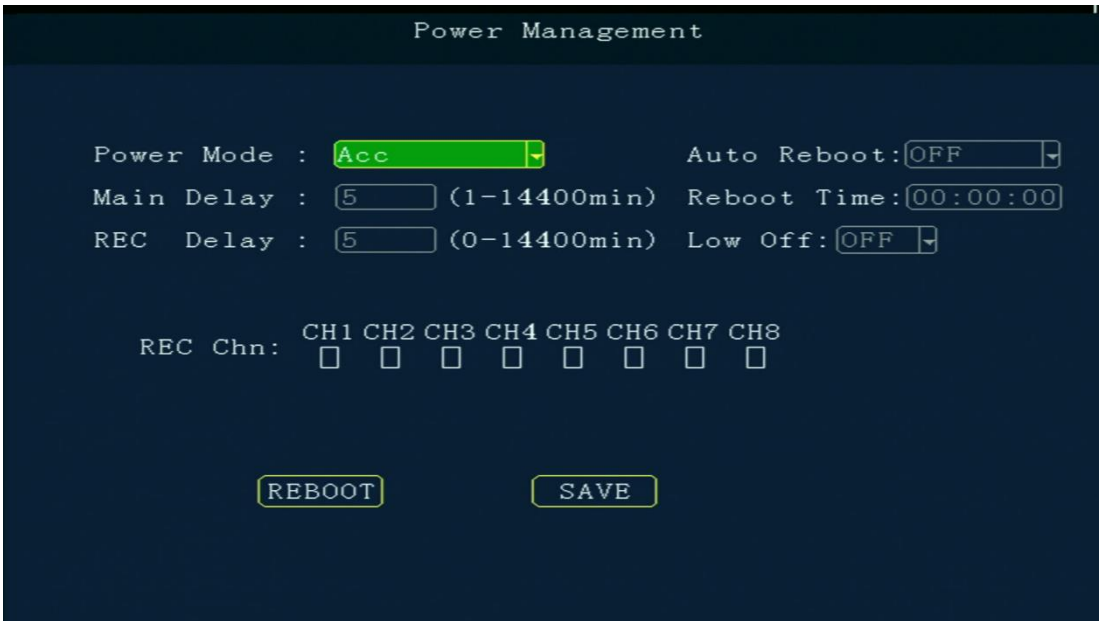
default is 1 minute.

Date: To modify current system date, press number keys to enter.

Real Time: To modify current system time, press number keys to enter.

Time Zone: Press [Enter] to select a time zone, default is GMT + 08.

3.2.4 Power Management



timing mode / Acc mode, the default is Acc. In Acc mode you can set delay off time after flameout

Power Mode: To set Power ON/Off mode, press [Enter] to select. Acc mode / timing mode.

Timing mode: on/off by the user set the period.

Acc mode: on/off by the vehicle key signal.

Delay off: Device still working after the power off time, automatically power off at delay off time, press [DEL] to clear the current number, press the number keys to change.

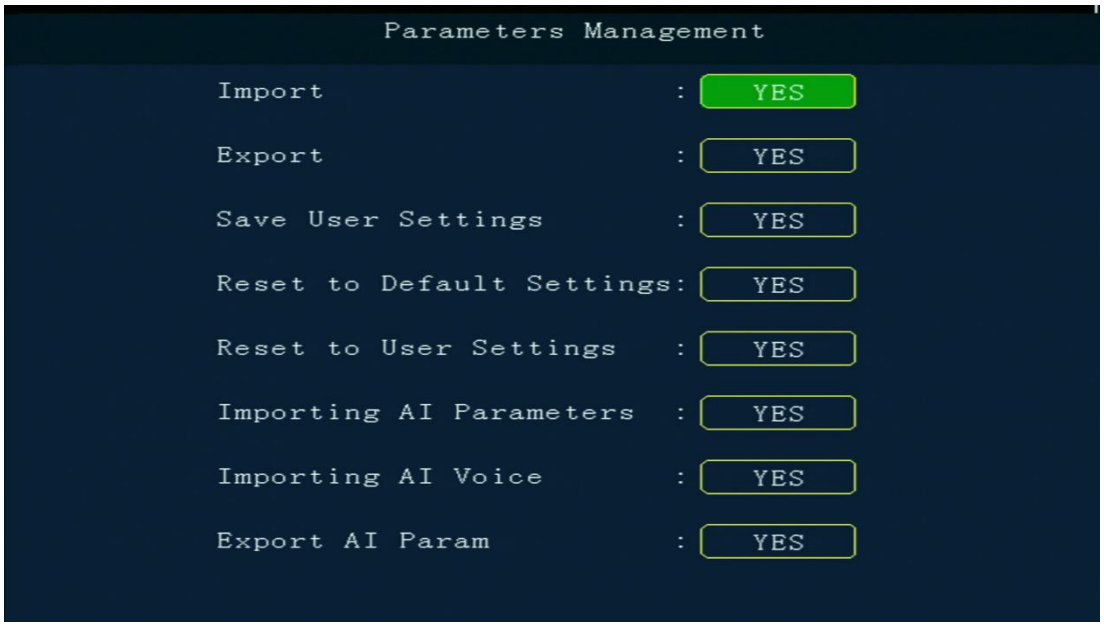
Power on: setup power on time under timing mode.

Power off: setup power off time under timing mode.

Note:

There is no size difference between the time of timing power on and off, the whole time period is circulatory.

3.2.5 Parameters Management



Parameters import: Import configuration information on the current SD card to the current device.

Parameters Export: Export all the configuration information of the current device to the SD card.

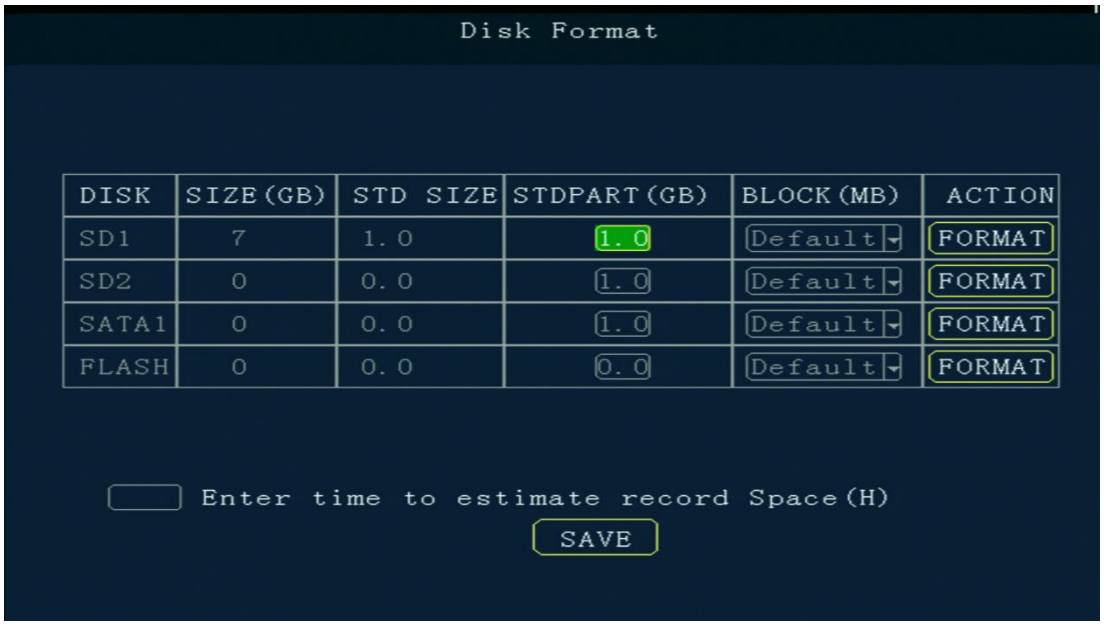
Default Setting: Save all configuration information for the current user.

Factory settings: Restore all device parameters to factory default, This operation will clear all device settings.

User settings: Restore all device parameter setting to saved user's setting

Note: please use Parameters import and Parameters export function when install multiple devices to make sure every devices configuration are same.

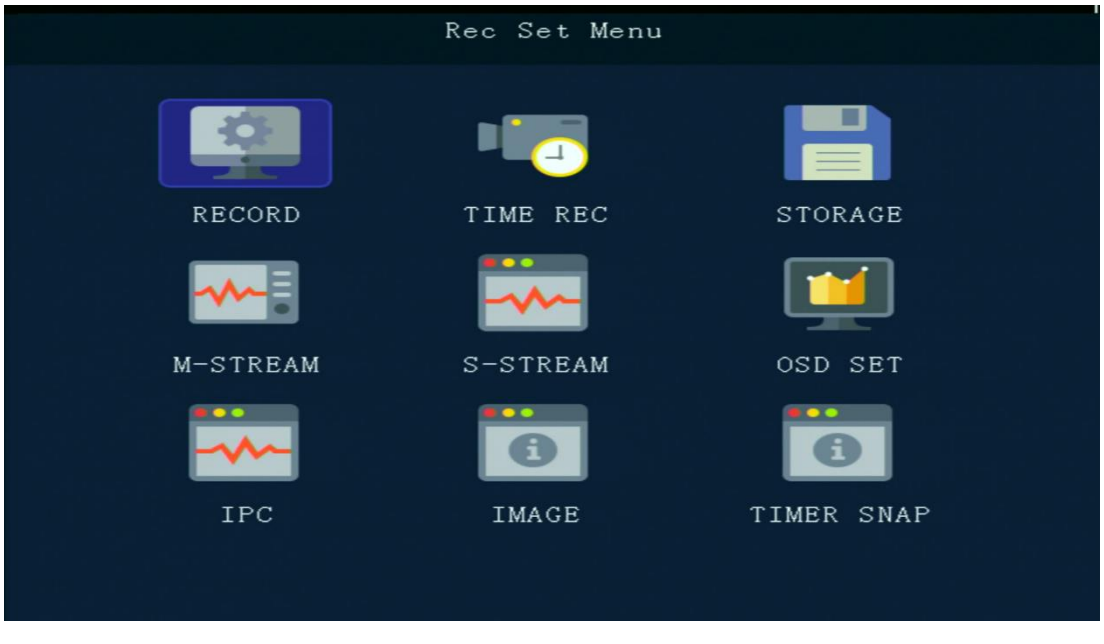
3.2.6 Disk Format



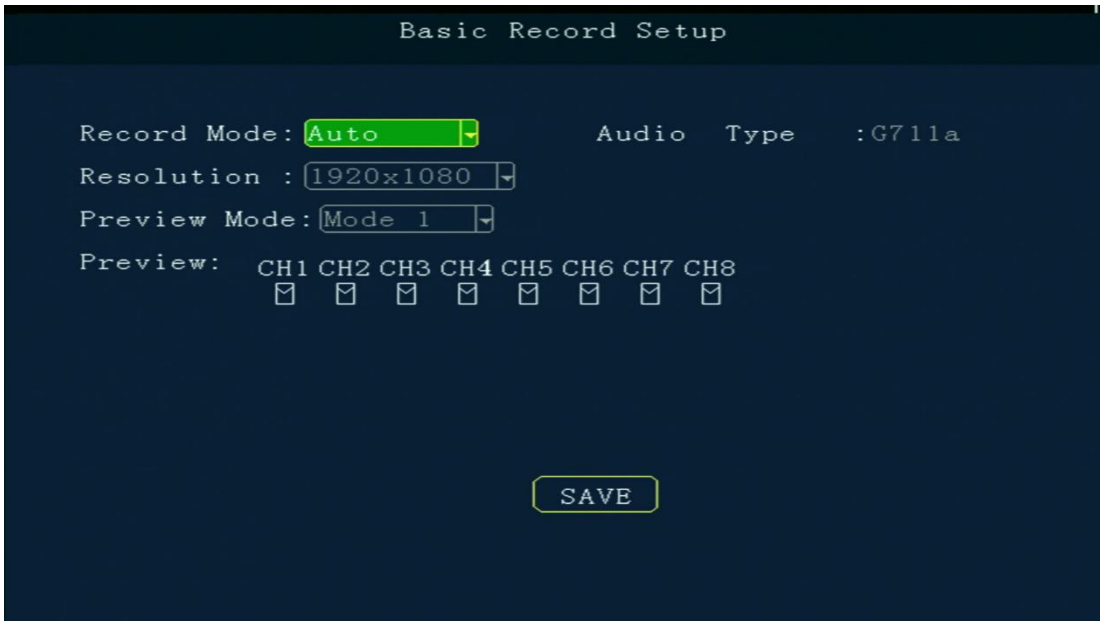
When formatting, you can choose to encrypt the video channel. When the video is played back, it cannot be played without a password.

Press the arrow keys to select DISK1 (SD) OR DISK2 (HDD)
[Enter] to select the Format button.

3.3 Recording set Menu



3.3.1 Basic Record setup



Record SYSTEM： Auto.

Resolution : Select the output resolution of the display screen.

Preview Mode: Multi channel display, allowing for the selection of different combinations for display.
Preview: Select the channel to display.

3.3.2 Main stream

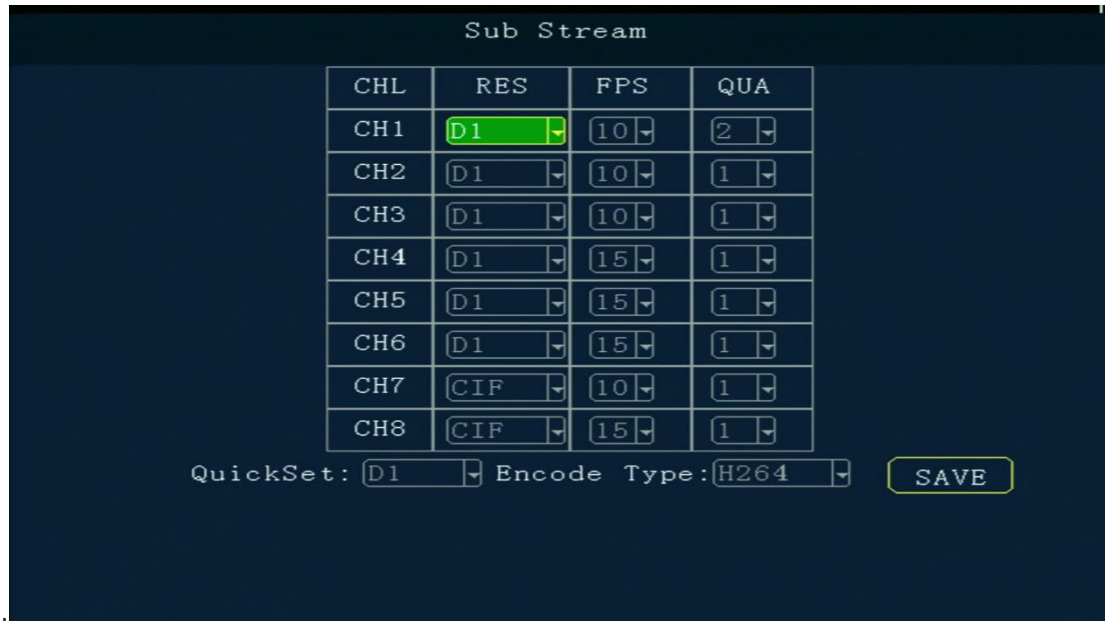


ENABLE: press [Enter] to select: On / Off.
Res: Press [Enter] to select: D1 / HD1 / CIF / 720P/1080P
FPS: Press [Enter] to select: 1-25

QUA: Press [Enter] to select: 0-7
AUDIO: Press [Enter] to select: On / Off
FILP: Press [Enter] to select: On / Off
Shortcut options: Setup all channels resolution simultaneously, press [Enter] to select: D1 / HD1 / CIF / 720P.
Type: H.264 or H.265

3.3.3 Sub stream

In the sub-stream setup interface, its settings related to the CMS platform is clear and smooth. The higher Resolution, bit rate and frame rate. the video is clearer and smoother, but the space occupied is bigger, also need higher network bandwidth requirements.



Resolution: Press [Enter] to select: D1/HD1/CIF

Frame rate: Press [Enter] to select: 10-25

Picture Quality: Press [Enter] to select: 2-7

Type: H.264 or H.265

3.3.4 Timer recording



Setting the startup time and end time of timing record, press number keys to enter.

3.3.5 Storage setting



Pre-recorded: Press number keys to enter, 0 to 60 seconds.

Alarm delay: Press number keys to enter, 120 to 3600 seconds.

Alarm file: Set the alarm file saving time, press number keys to enter, 3 to 45 days.

Disk and Usage: Press [Enter] to select: No / Record / mirror record.

3.3.6 OSD Set



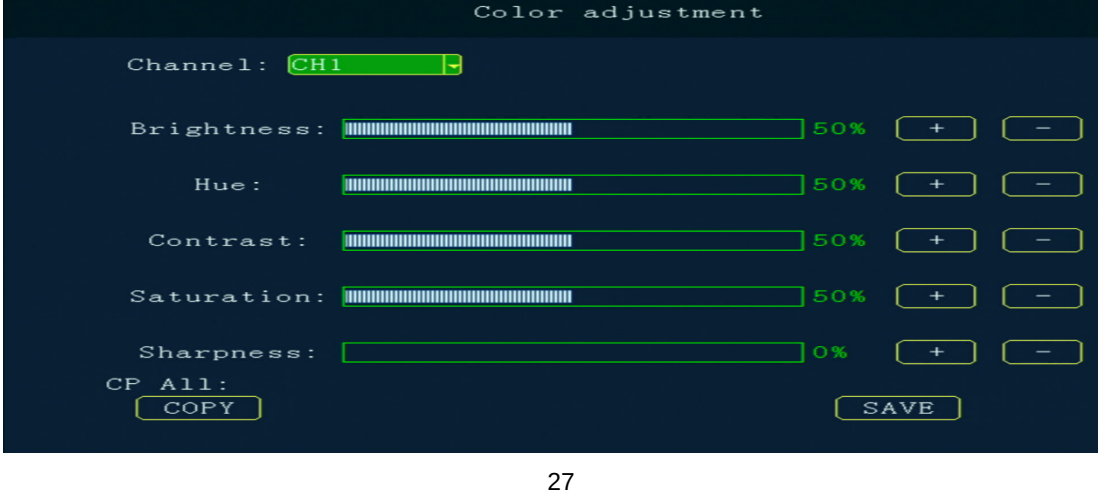
Time: Press [Enter] to select Enable: on / off, press number keys to enter the X and Y coordinates.

Plate: Press [Enter] to select Enable: on / off, press number keys to enter the X and Y coordinates.

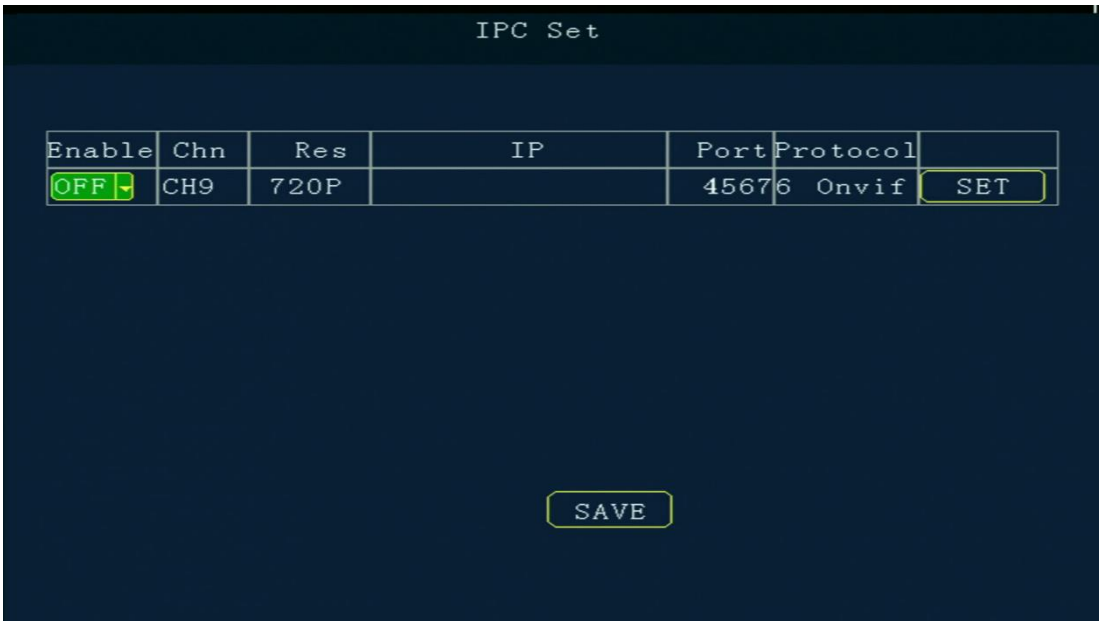
GPS: Press [Enter] to select Enable: on / off, press number keys to enter the X and Y coordinates.

Alarm: Press [Enter] to select Enable: on / off, press number keys to enter the X and Y coordinates.

3.3.7 IMAGE (Image color settings)

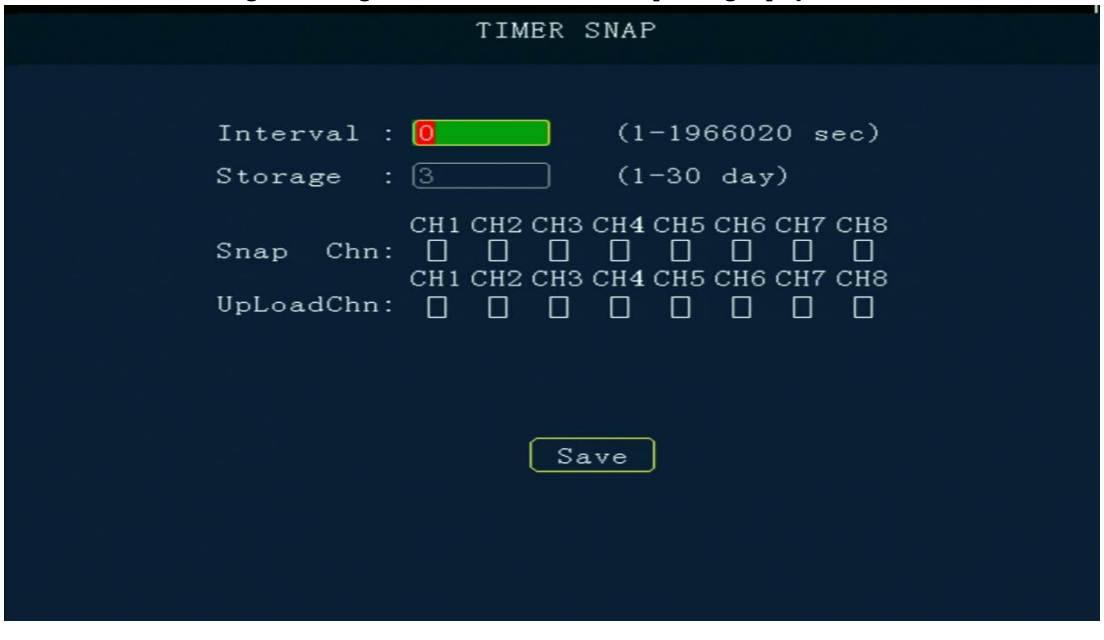


3.3.8 IPC (Subsequent updates)



3.3.9 TIMER SNAP

Channel image timing can be used to set photography rules based on time intervals。

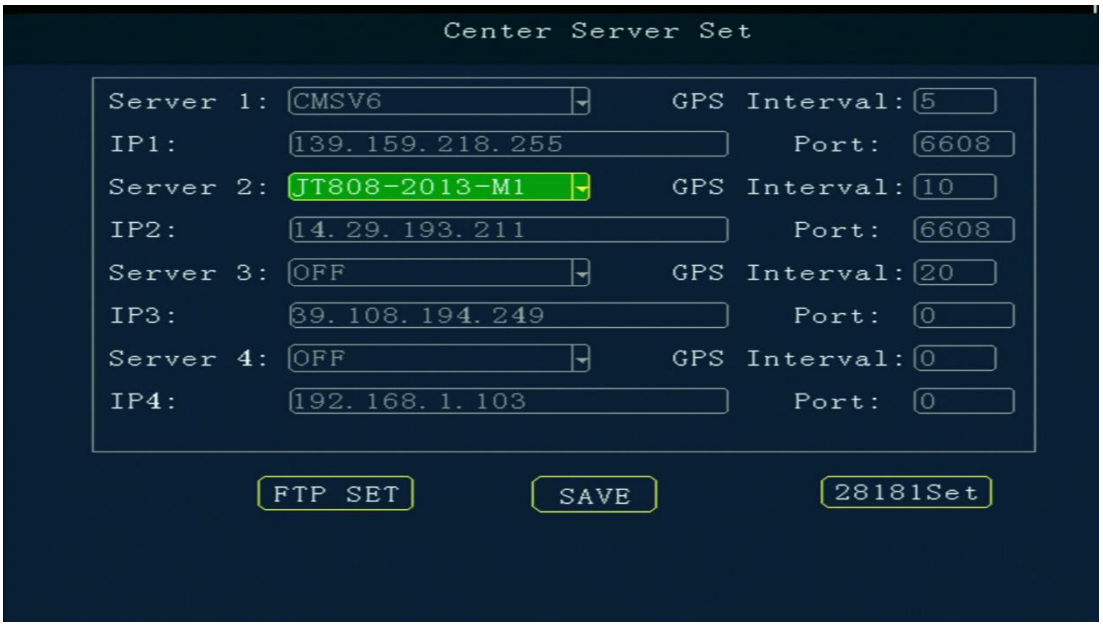


3.4 Network Setting



Network Setup menu includes: Center settings, Local settings, Dial settings and WiFi settings.

3.4.1 Center Set



Server IP: Device via 4G/5G or Wifi network registered platform to get Internet IP address.
AI enabled devices using the JT808 protocol

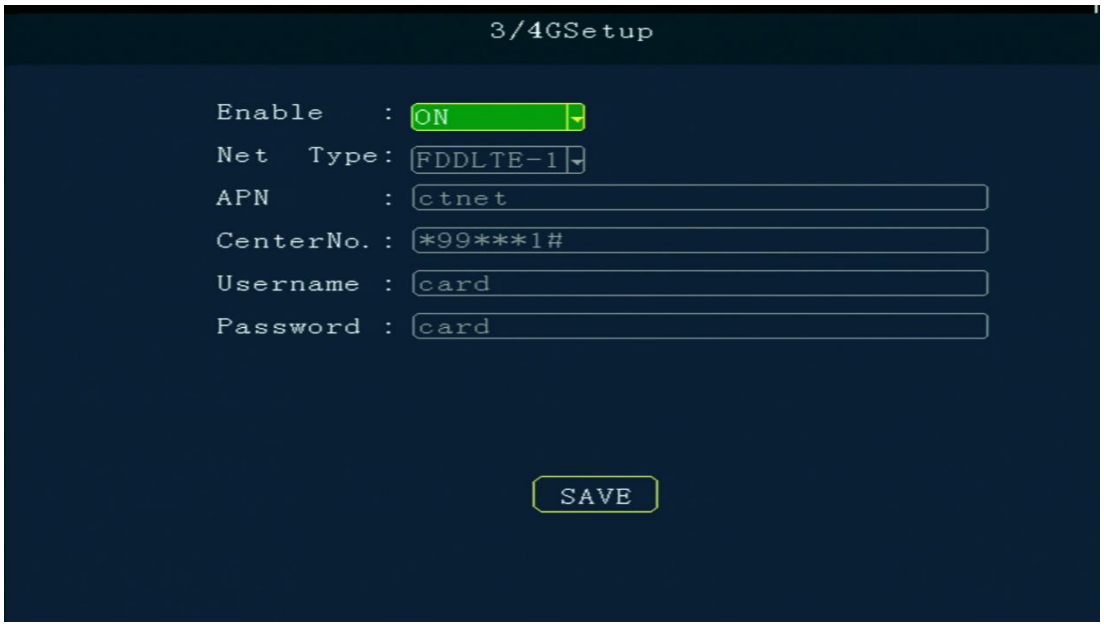
3.4.2 Local Network Setup



Link Type: Press [Enter] to select: Local Network / External WiFi / Peripherals.

Local network IP: IP address of the device is set with the central server, the same network segment, set the mask, gateway, MAC address.

3.4.3 Dial settings



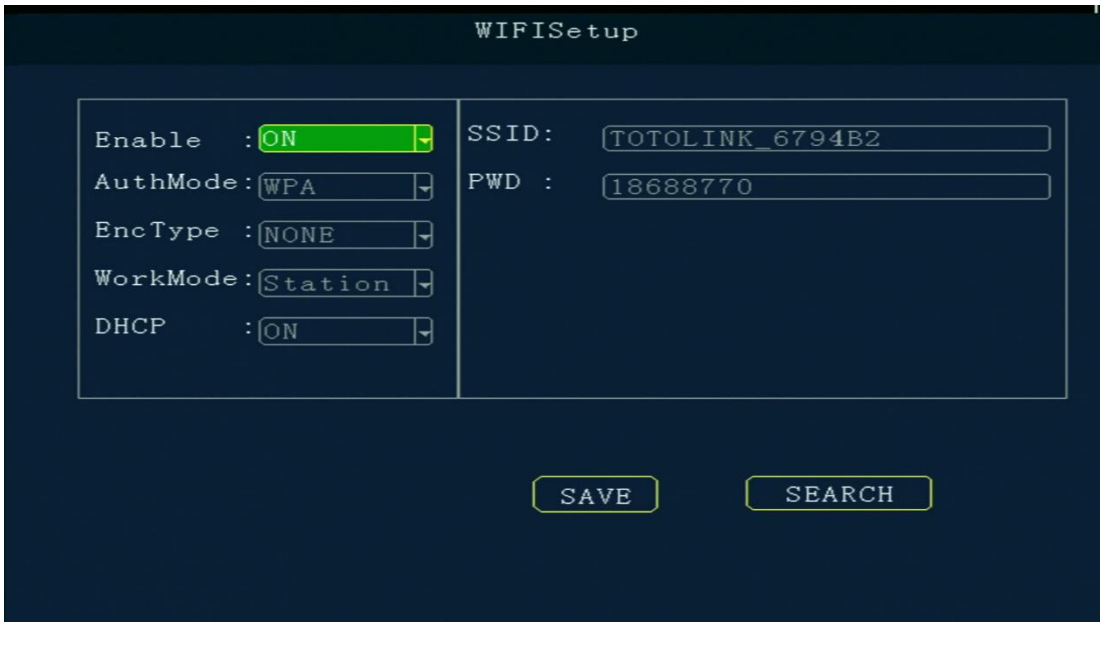
Enable: Press [Enter] to select: On / Off.

Net Type: Press [Enter] to select: WCDMA / EVDO / TD-SCDMA / TDDLTE / TDDLTE-1 / TDDLTE-2.

APN, Center No.: Press [Enter] to enter the keyboard interface, move the cursor press the Enter key to select the corresponding letters.

User name, Password: set up a wireless service user name and password, use [Enter] to enter the keyboard interface, move the cursor press the Enter key to select the corresponding letters.

3.4.4 WiFi settings



WIFI Enabled: Press [Enter] to select: On / Off.

Enable Encryption: Press [Enter] to select: On / Off.

Authentication Mode: Press [Enter] to select: Open / Shared / WPA / WPA-PSK.

Encryption Type: Press [Enter] to select: NONE / WEP / TKIP / AES.

SSID, password, IP address, gateway, mask, and corresponding to router settings.

WorkMode: Station or AP(wifi hot)

3.5 Alarms and Peripherals



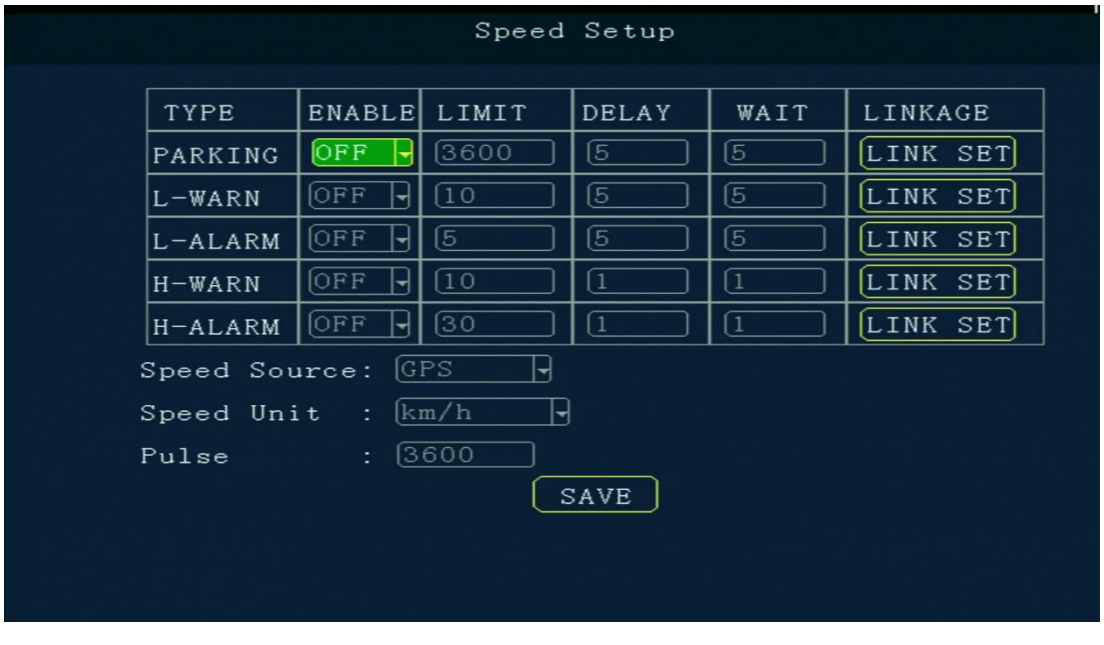
3.5.1 IO Alarm



Enable: Press [Enter] key to select: off / emergency / front door / middle door / back door / driver door / other doors / low beam light / high beam light / turn right light / turn left light / brake / back .

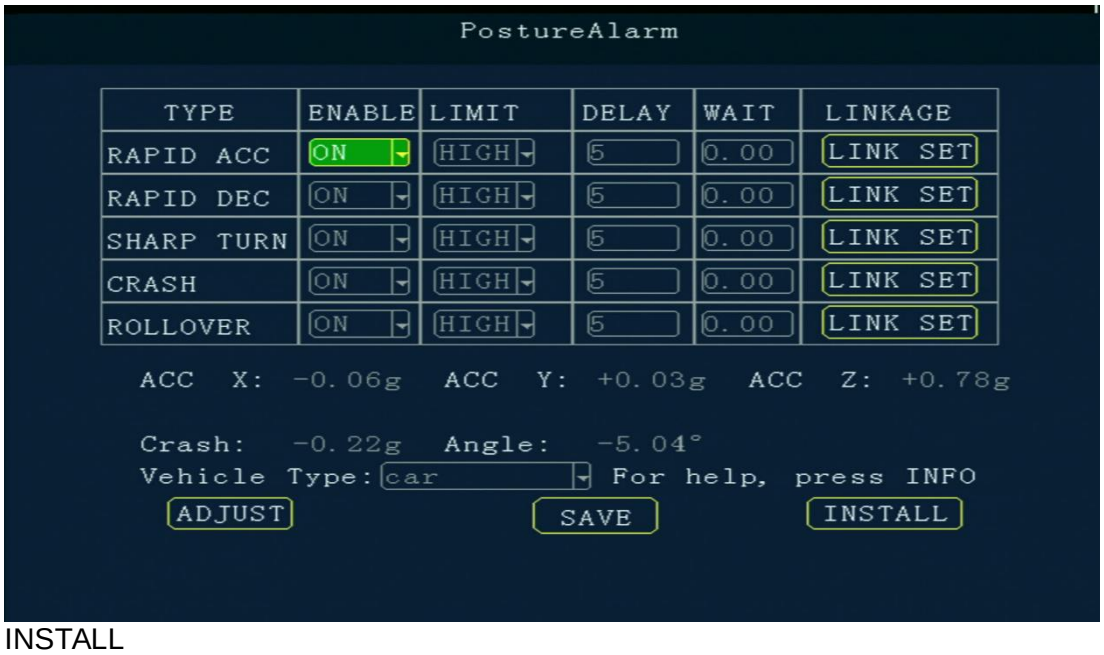
Level: Press [Enter] to select: high / low.
Delay: The duration of the action is set in seconds before triggering the alarm.
WAIT: After the action stops, the alarm only stops when the set time is maintained.
Linkae: Alarm linkage can be set: taking photos, recording videos, IO OUT output 12V, display and other functions.

3.5.2 Speed Alarm Setup

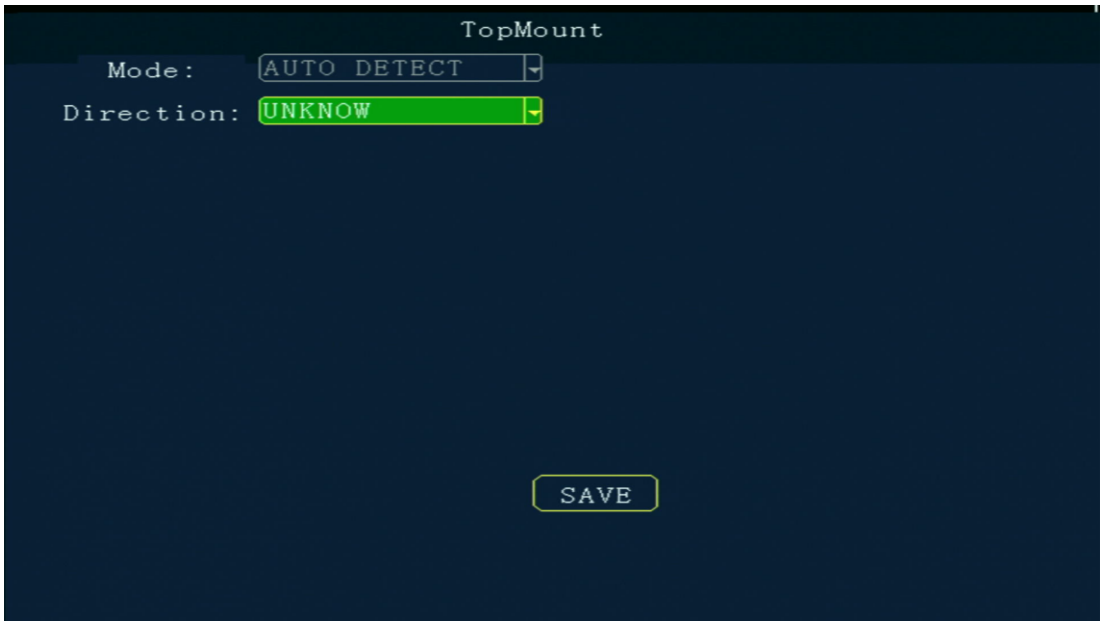


LIMIT: Trigger speed.
Delay: The duration of the action is set in seconds before triggering the alarm.
WAIT: After the action stops, the alarm only stops when the set time is maintained.
Linkae: Alarm linkage can be set: taking photos, recording videos, IO OUT output 12V, display and other functions.

3.5.3 GSENSOR



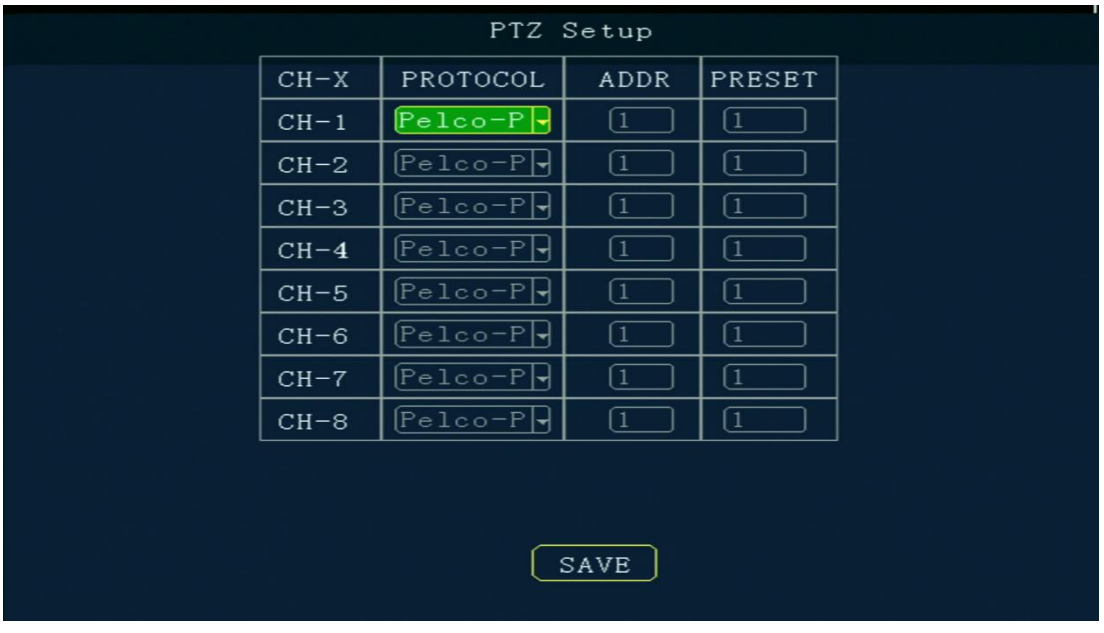
INSTALL



LIMIT: Press [Enter] to select: high .
Delay: The duration of the action is set in seconds before triggering the alarm.
WAIT: After the action stops, the alarm only stops when the set time is maintained.
Linkae: Alarm linkage can be set: taking photos, recording videos, IO OUT output 12V, display and other functions.

TopMount: Installation mode, as the installation direction of the device cannot be confirmed, automatic recognition can be used. After about 10 minutes of driving, the device will automatically collect driving information and confirm the direction of the installation angle

3.5.4 PTZ

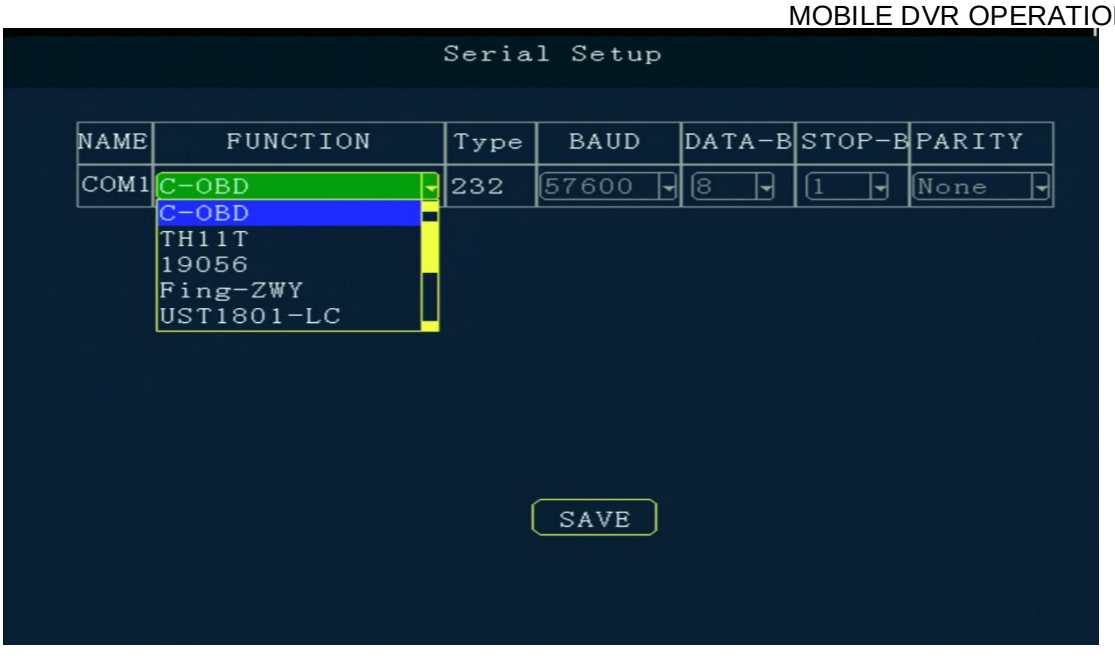


3.5.5 VOLTAGE



LIMIT: The set value is the voltage value V .
Delay: The duration of the action is set in seconds before triggering the alarm.
WAIT: After the action stops, the alarm only stops when the set time is maintained.
Linkae: Alarm linkage can be set: taking photos, recording videos, IO OUT output 12V, display and other functions.

3.5.6 SERIAL



Function: Select the type of external device

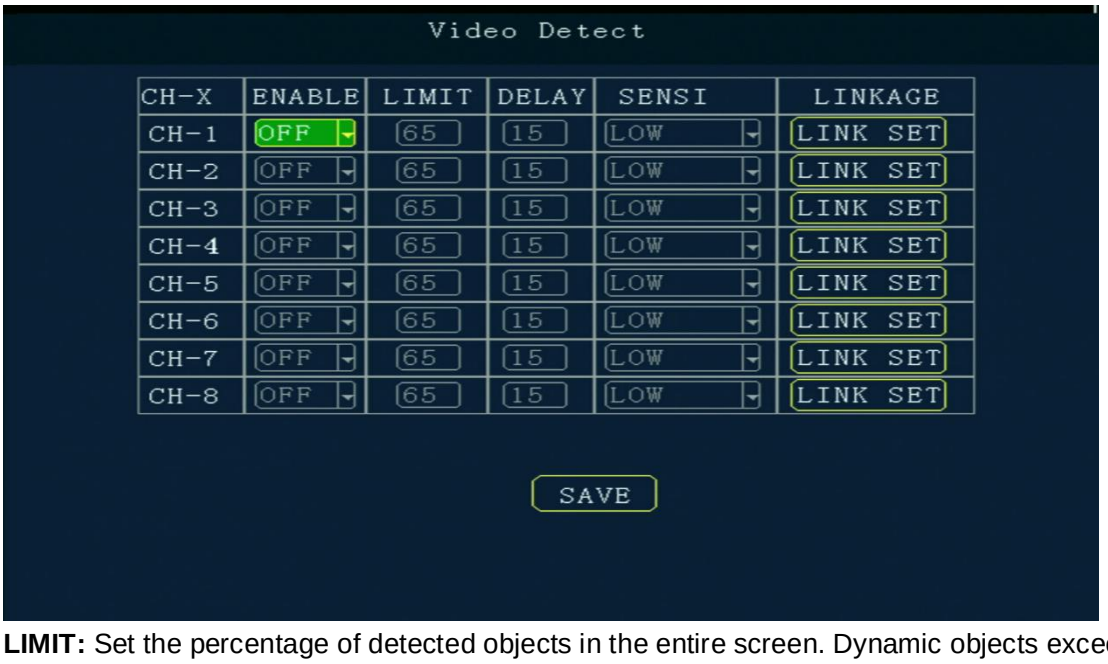
Baud Rate: Press [Enter] to select: 600/1200/1800/2400/4800/9600/19200/38400/57600/115200

Data Bit: Press [Enter] to select：6/7/8

Stop Bit: Press [Enter] to select: 1/1.5/2

PARITY: Press [Enter] to select: Even/Odd/None/Mark/Space

3.5.7 V DETECT



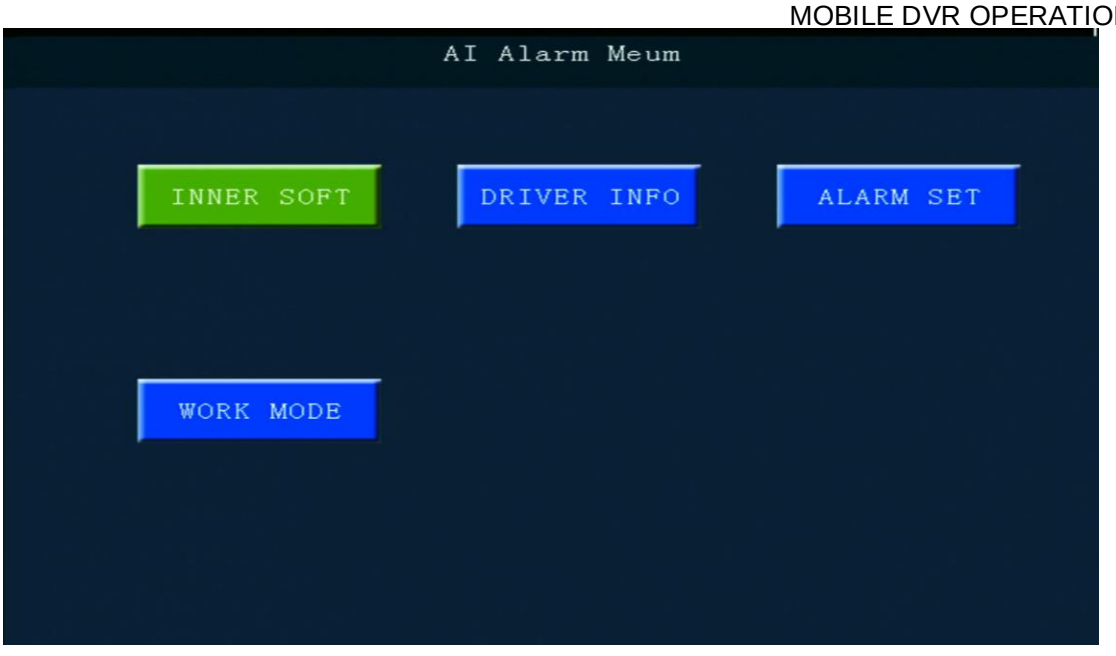
LIMIT: Set the percentage of detected objects in the entire screen. Dynamic objects exceeding this percentage will trigger video detection .

Delay: The duration of the action is set in seconds before triggering the alarm.

SENSI: sensitivity.

Linkae: Alarm linkage can be set: taking photos, recording videos, IO OUT output 12V, display and other functions.

3.5.8 AI SET (Devices with AI functionality are suitable for this feature。)



3.5.8.1 INNER SOFT



Multiple AI functions can be authorized: DMS, ADAS, BSD. Set different AI functions corresponding to channels。

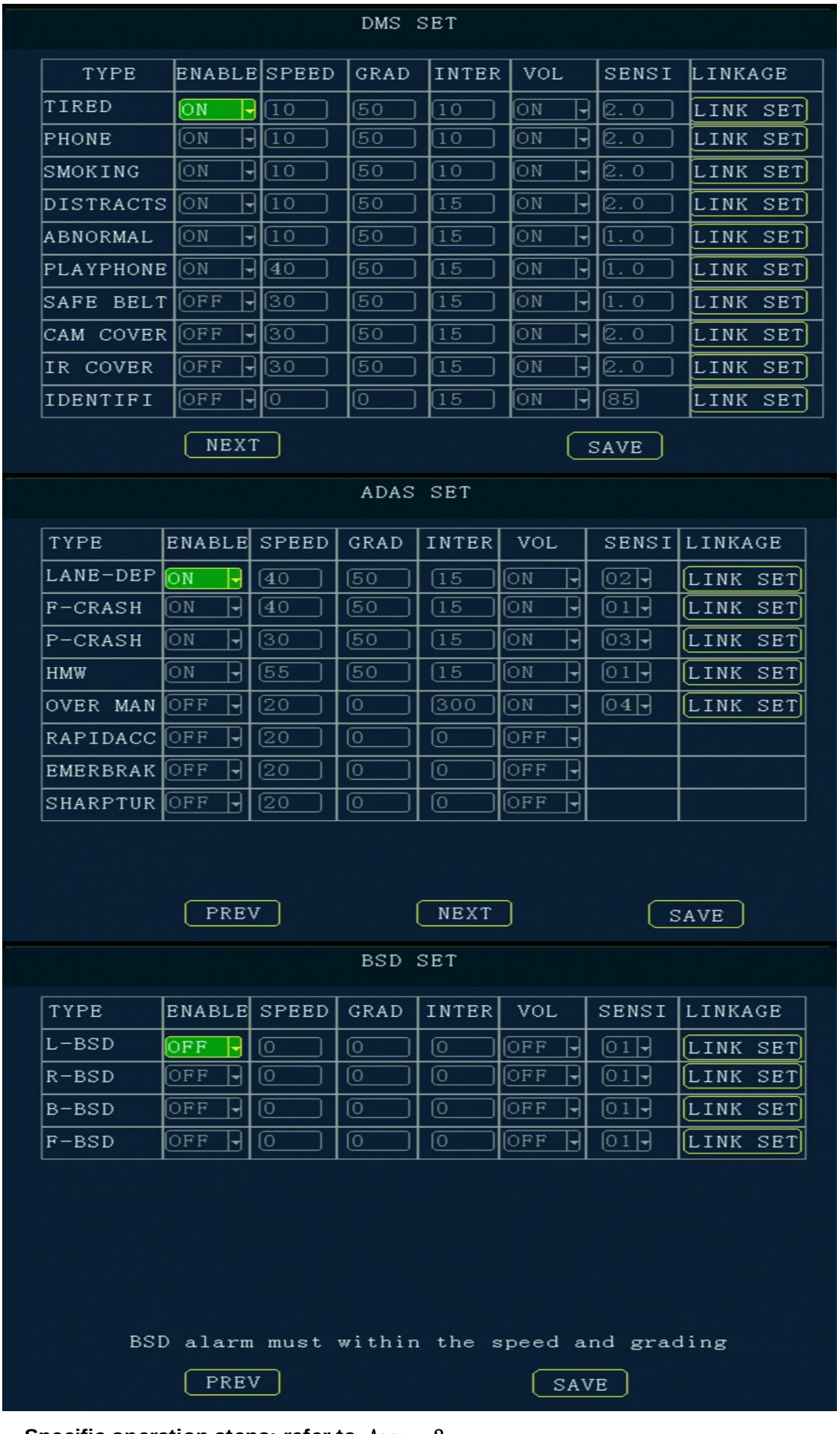
3.5.8.2 DRIVER INFO

Used to set the driver's facial information, multiple driver facial image information can be added. After enabling this function, it can detect whether the driver is a driver on the list, prevent drivers outside the list from driving, and ensure the safe use of the vehicle. Usually, this function can be set with some special features, such as testing drivers who are not on the list and will not be able to start the vehicle.

Specific operation steps: refer to Annex 1

3.5.8.3 ALARM SET

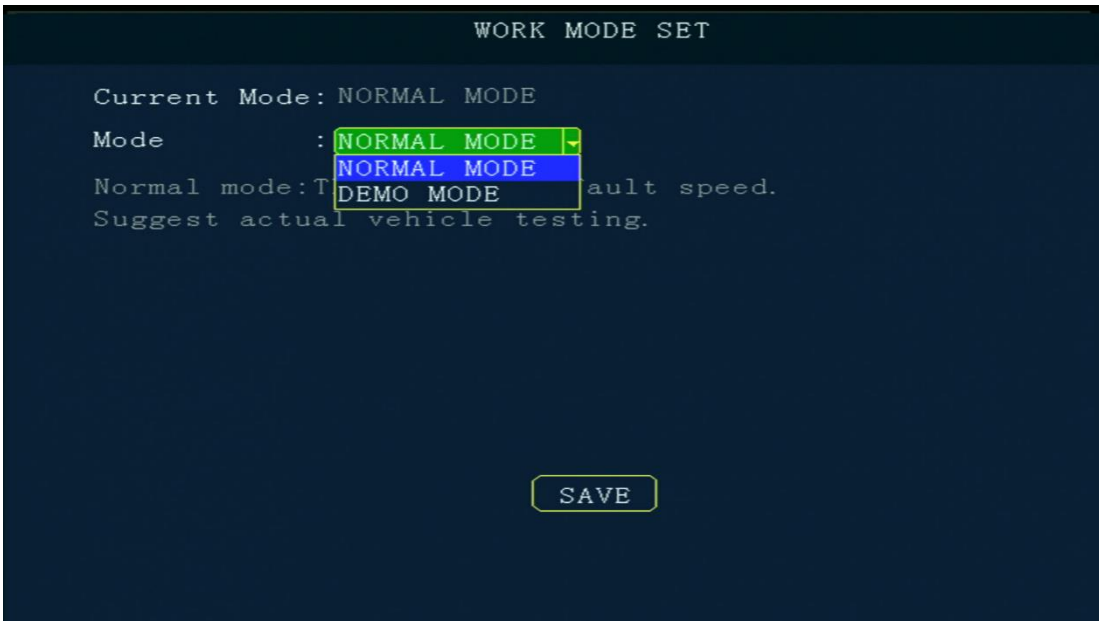
DSM (Fatigue Driving Detection), ADAS (Vehicle Road Warning Detection), and BSD (Blind Spot Detection) are detailed functional settings for each AI function. Can set parameters such as time interval, sensitivity, speed triggering, alarm linkage, etc。



Specific operation steps: refer to Annex 2

3.5.8.4 WORK MODE

AI can be set to different working modes: Normal mode and Demo mode.



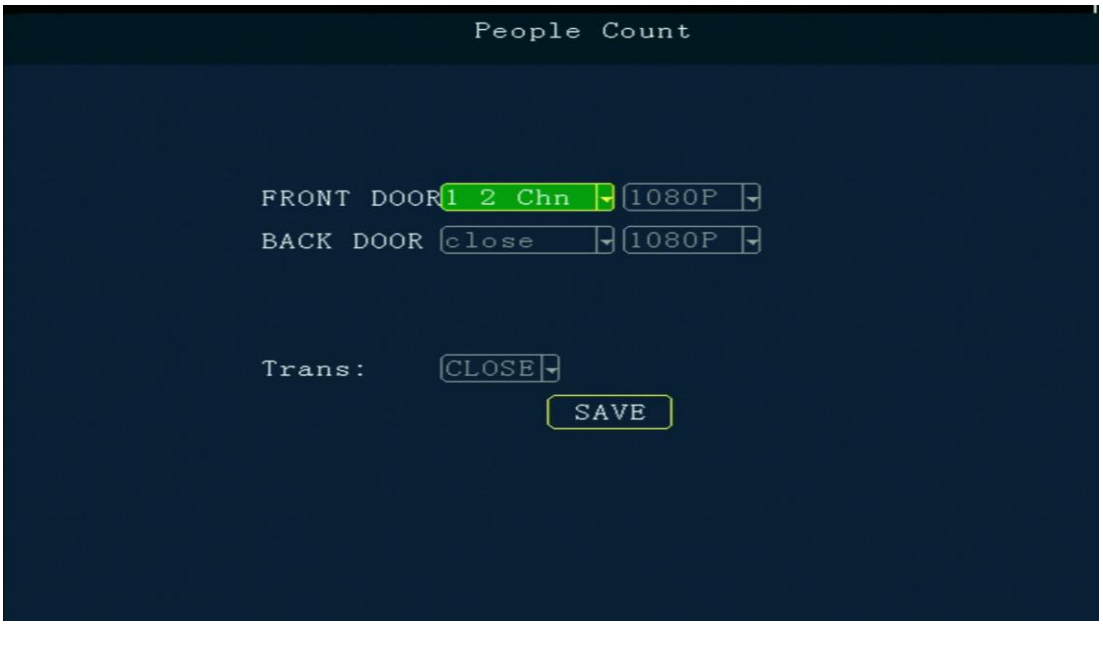
Normal mode: The device is already installed on the vehicle, and the vehicle must reach the speed value of each AI function while driving in order for this function to start testing work. That is to say, the GPS function must be used normally in order to ensure the normal detection and activation of various AI functions.

Demo mode: This mode can be set when the device is in the company's testing environment. The setting mode has automatically set the speed value for each function to around 80 KM/H. In this mode, through testing, you can configure the functional parameters you want to achieve.

Specific operation steps: refer to Annex 3

3.5.9 Pople Cont

This function is mainly used to count the number of passengers getting on and off the bus. To use this feature, specific person count camera devices must be used together. This camera needs to be consulted with the sales factory for procurement。



Specific operation steps: refer to 4

3.6 SYSTEM INFO

From the parameters of the system information, it is possible to prepare and know the operation status of the equipment. Convenient installation and after-sales service.

