

4ch Million Pixels SD Mobile DVR

USER MANUAL

Version 3.0



CATALOGUE

1	Parts list.....	4
2	Product introduction	5
2.1	Product features.....	5
2.2	Main Functions.....	6
2.3	Parameter Sheet.....	7
2.4	Front Panel	9
2.5	4CH MDVR Back Panel.....	10
2.6	8CH MDVR Back Panel.....	11
2.6.1	Audio/Video Interface Definition	11
2.6.2	Power Input interface pin description	12
2.6.3	I/O Interface Definition	12
2.7	Remote Controller	13
3	Device Installation.....	14
3.1	Power Cable Connection.....	14
4	Operation Interface Setup	15
4.1	User Loading.....	15
4.2	System Main Menu.....	15
4.3	Search.....	16
4.1.1	Video Search	17
4.1.2	Log Query	18
4.1.3	Picture Search	18
4.4	System Setup.....	18
4.4.1	Terminal Setup	19
4.4.2	User Management	20
4.4.3	Time Set.....	20
4.4.4	Power Management.....	20
4.4.5	Parameters Management	21
4.4.6	FORMAT	22
4.5.	REC Setup.....	22
4.5.1	Basic Setup.....	22
4.5.2	Main Stream.....	23
4.5.3	Sub-stream	24
4.5.4	Time Record Setup.....	24
4.5.5	Storage management	25
4.6.	Network Set.....	25
4.6.1	Center Setup.....	26
4.6.2	Local Network Setup.....	27
4.6.3	3/4G Setup	27
4.6.4	WIFI Setup.....	28
4.7.	Alarm Setup.....	28
4.7.1	IO Alarm	29

4.7.2	Speed Alarm.....	29
4.7.3	Acceleration	30
4.7.4	Motion Detection	30
4.7.5	Voltage Alarm	31
4.7.6	Serial Port Set.....	32
4.7.7	PTZ.....	32
4.8.	System Info	33
5	FAQ.....	33
5.1.	Common problem.....	33
5.2.	GPS related FAQ	34
5.3.	3G Wireless Module related FAQ	34
5.4.	Client Software FAQ	35
5.5.	Other related questions	35

Introduction

The manual is about the features and specifications of one kind of car DVR, it is an integration of “4 monitoring and recording”, “Million Pixels Digital&Analog mixed car DVR”, “wireless data transmission”.

In the manual it describes the functions and considerations of the modules, the connector signal definitions in the back panel, the interface definition and user's operations. More details, please check following directory.

State:

This manual may exist any technical describe inaccurate or misprint, also the contents will be update unscheduled without notice, new contents will be added in next version;

We're subject to improve or update product description or program, if any difference, all depend on real goods, please understand.

1 Parts list

No	Name	Quantity	Unit	Device Type		
				Basic	Basic+GPS/BD	Basic+Gps/BD+3/4G
1	MDVR	1	set	✓	✓	✓
2	Remote Control	1	pcs	✓	✓	✓
3	Power input wire	1	pcs	✓	✓	✓
4	AV input wire	4	pcs	✓	✓	✓
5	AV output wire	1	pcs	✓	✓	✓
6	Keys	2	pcs	✓	✓	✓
7	GPS antenna	1	pcs	✗	✓	✓
8	3G/4G antenna	1	pcs	✗	✗	✓
9	8CH patch cord	4	pcs	✓	✓	✓
10	Specification	1	pcs	✓	✓	✓
11	Guarantee	1	pcs	✓	✓	✓
12	Certification	1	pcs	✓	✓	✓

Profile Display:



2 Product introduction

2.1 Product features

H.264 Compression Mode, Support 4CH real-time 720P Million Pixels AHD input and Analog Standard Definition camera input, or 2CH HD input + 2CH SD input; Exclusive pre-allocate DVR Special File System Technology, Solving repeatedly wipe cause file fragmentation, solving SD card file system collapse, data loss and cannot find SD card and file garbled, ensure the integrity of the data. 8-33V Adaptive Wide Voltage input, Super Low Power Consumption Design; SD card storage (maximum support two pieces 128GB SD card.) It can be completely resist car Vibration, Dust and others cause data corruption; Support GPS/BD/G-SENSOR ; High Reliability Aviation plugs, High Cost Performance with reliable stability, simple and clear operation menu .

- HIS Solution, H.264 Compression Mode, Many stream recording, 4CH Video+2CH Audio Input, Compatible with **4CH 720P/960P Mega Pixels Analog High Definition Camera input /2CH AHD High Definition + 2CH Standard Definition mixed input / 4CH Analog Standard Definition Camera input.**
- Real-time HD Video Recording, 720P/D1/HD1/CIF for Optional, Adjustable Frame Rate Quality.
- **Professional Power Design for all kinds of Vehicles, 8-36V DC; Wide Voltage, Over-load, Over-voltage, Short Circuit, Reverse Protection, Suitable for all kinds of vehicles.**
- Support DC 12V/2.5Amp output, it can offer power for cameras, mini monitor and some peripheral device.
- **HDD + SD card Data record storage (maximum support 2TB 2.5" hard disk and 128GB SD card.)** It can be completely resist car Vibration, Dust and others cause data corruption;
- Watchdog Abnormal will trigger Restart Protection Function . It can better protect Device and Video.

- **Exclusive pre-allocate DVR Special File System Technology**, Solving repeatedly wipe cause file fragmentation, and ensure the integrity of the data.
- **By accidents power-off protection function**. Unique UPS Technology ensures the integrality of record when power failure occurs, even can for 10-15s.
- Flame out Time-lapse Video Recording Function (Highest support long delay time 24 hours.)
- Auto Recording, Time Recording, Alarming Recording Modes for Different Request.
- Display vehicle traffic status, Vehicle numbers ,Route, Super-low speed vehicle Information, Convenient management.
- Support GPS/BD, G-sensor Modules Extension.
- **3channels RS232 +2channel RS485**.
- Superior network function, can configure menu through IE, support mobile SMS to configure parameters and obtain device information.
- Support Video&Audio monitoring, 2-way Intercom, PTZ control, manually Alarm, Overspeed, Geo Fence etc through remote control platform
- **8CH alarm inputs** (Doors, lights, steering, braking, reversing and all types can be configured), Can support kinds of response linkages.
- **2CH alarm output**, Support the linkage acousto-optic alarm, cut off fuel oil/power, etc .
- Support Local Auto-photo when alarm input, device pictures preview function;
- All Aviation plugs, Super stable, High Anti-shock, Easy installation Plug in and out.
- Unique WINDOWS 8 interface, Easily Smart GUI Interface, Fluent system interface is intuitive and perfect.
- **Support SD card Remote Software Upgrade/OTA remote upgrade automatically**, partition backup technology upgrade don't crash.
- Can be batch functional customization according to customer's requirements;
- Dimension and Weight Dimension : 112(W) x36(H) x138(D) mm , Weight: 360g

2.2 Main Functions

Main	Sub-Item	Instructions
Recording Sub-System	Video Channel	4Channel video + 4Channel Audio recording synchronously;
	Resolution	Support 4*720P(1280*720), 4*D1(704*576), 4*HD1(704*288), 4*CIF (352*288) ; Each channel is individually adjustable.
	Image Quality	0-7 levels, 0 is the highest level.
	OSD	Overlays information such as date time and vehicle ID
	Loop Rec	Support SD card loop recording, loop cover previous video
	Record Mode	Timed recording, alarm trigger recording and manual recording
	Preview	Support 1 channel and 4 channels preview. Support enlarge video image when alarm trigger and video rear view trigger ;
	Disk overwritten	Space pre-allocated Support disks overwritten function.
Playback	Video Search	Search video files anytime per day, type(n/a)

System	Playback	Support 1 to 4 channels playback.
		Support forward and backward play at the speed of: x2 ,x4,x8,x16.
		Support alarm spot search and time search.
GUI	Graphical User Interface	Setup system parameters with the remote control.
Alarm	Input	8 channels electrical level alarm input for optional Alarm linkage recording\Active request the intercom\One-key phone calling functions,etc.
	Output	Max support 2ch level output
Optional functions	GPS Positioning	Built-in GPS/BD module: can sync record GPS information, trace replay.
	PTZ Control	Support Pelco-D protocol 485 PTZ remote/local control, preset.
	Serial Expand	Support LED Advertisement Panel\Oil Sensor\POS\Bus Station Broadcaster\Car OBD,ect.external devices.
	G-Sensor	G-sensor,Record vehicle real-time status.
	TTS Voice Broadcast	Support TTS voice broadcast function.
	Network	Can expand WIFI module,support 801.2b/g/n, 801.2a/c Built-in EVDO/WCDMA/TD-LTE/FDD-LTE,etc, 3G/4G module.
Others	ON/OFF	System delay-time power on/off;
	File System	DVR special file recording System Technology,Exclusive car record file system,space pre-allocate,4ch single file Record,cyclic covering: To avoid the storage of the media causes file fragments, with high reliability and high stability;

2.3 Parameter Sheet

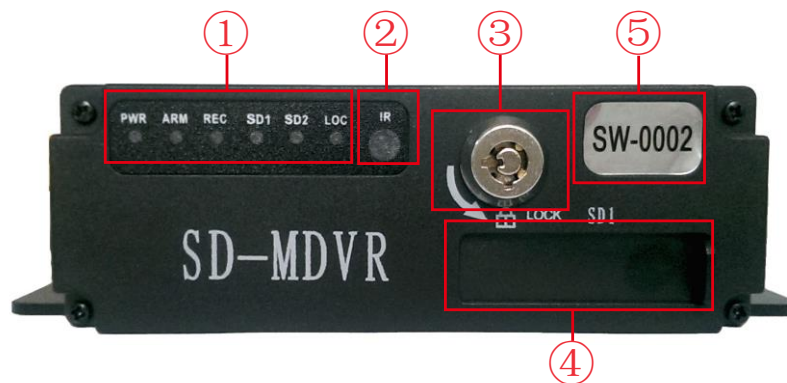
Item		Parameter
OS		Linux
Language		Chinese/English/Others (can be customized)
Video Compression		H.264 Compression Mode
OSD		Overlays information such as date time and vehicle ID
GUI	Graphical User Interface	Can connect to external LED screen. Setup system parameters with the remote control.
Video Record System	Video Input	4CH 720P AHD/ 4CH standard definition /2CH high definition+2CH standard definition mixed video input ,aviation plug.
	Video Output	1CH CVBS+ VGA output for optional, 1.0Vp-p, 75Ω, aviation plug.
	Preview	Support 1 channel and 4 channels preview.,Support Manual/Alarm Trigger full screen preview
	Resolution	720P/D1/HD1/CIF, MAX:4 channels of 720P
	Video Quality	0-7 levels, 0 is the highest level, 7 is the lowest level.

	Video Standard	PAL: 100f/s , CCIR625 line,50field; NTSC: 120f/s, CCIR525 line,60field; CIF: 256Kbps ~ 1.5Mbps, 8 level video quality optional; HD1: 600Kbps ~ 2.5Mbps, 8 level video quality optional; D1: 800Kbps ~ 3Mbps, 8 level video quality optional; 720P: 4Mbps-6Mbps, 8 levels video quality optional
	Record Mode	The default setting is auto recording after power on. Timed recording, alarm trigger recording and manual recording are supported.
Audio	Audio Input	4CH ,Aviation Plug
	Audio Output	2CH,Front port is earphone port ,rear port connects to BNC connector. The output level: 1V - 2V
	Compression	G.726 compression, 8KB/s speed
Alarm Input		8CH IO Alarm Input, 1CH AD input, pulse speed input; Support alarm linkage function
Alarm Output		2CH Relay Alarm Output, Support the linkage acousto-optic alarm, cut off fuel oil/power,etc
Communication Interface		1CH RS232, support extension device, such as POS machine, Oil Feul sensor, LED advertising screen , etc.
		1CH 485 interface, can connect PTZ,etc.
Wireless transfer		Support Built-in 3G/4G network, WCDMA,CDMA2000,TDD-LTE,FDD-LTE... Support Built-in/External WIFI,Compatible with GPRS,EDGE
Position		Support Built GPS/BD Module,can make playback analysis of vehicle routing
G-Sensor		Support G-sensor
Video Storage	Storage	2pieces SD Card,each max 128GB SD Card, mirror recording to protect data from loss
	Upgrade	Support USB flash disk updating,SD card upgrade , OTA remote upgrade automatically
	File Format	H.264 General video format
	File System	Special FAT32 File System
	USB	Front panel supports USB port, support USB flash disk upgrade to backup; hard disk box USB port, can back up video data
Video Playback	Video Search	Search video by Record Time/Record Type etc
	Playback	Max support 4CH Replay /Stop/Fast Forward/Fast Reverse at same time
		Support x 2,x4,x8,x16. fast forward or fast backward play
Safety Management		User/Admin 2 Levels Different Passwords , support screen lock
Extension Functions	TTS Voice Broadcast	Support the TTS Voice Broadcast function
	Serial Port Extension	Support kinds of Access Equipment such as LED Advertising, PTZ control, Oil Fuel Sensor,etc.

Voltage & Power Consumption	Power Management	Adaptive wide power input, support Wide Voltage, Over-load、 Over-voltage、 Short Circuit、 Reverse Protection..Support Time Setting/Delay power off
	Voltage Input	DC:+8V ~ +33V
	Voltage Output	+12V@2A
	Power-off Protection	UPS Technology,All video information can be saved automatically when the power is cut off, and make sure that all the files can not be damaged.
	Power Consumption	Normal Working <5W Stand-by Status <0.5W
Working Environment	Temperature	-20℃ to +70℃
	Humidity	20% to 80%
others	Size	140(W) x42(H) x142(D) mm
	Net Weight	440g

***** Above parameters any changes,please refer to actual product *****

2.4 Front Panel



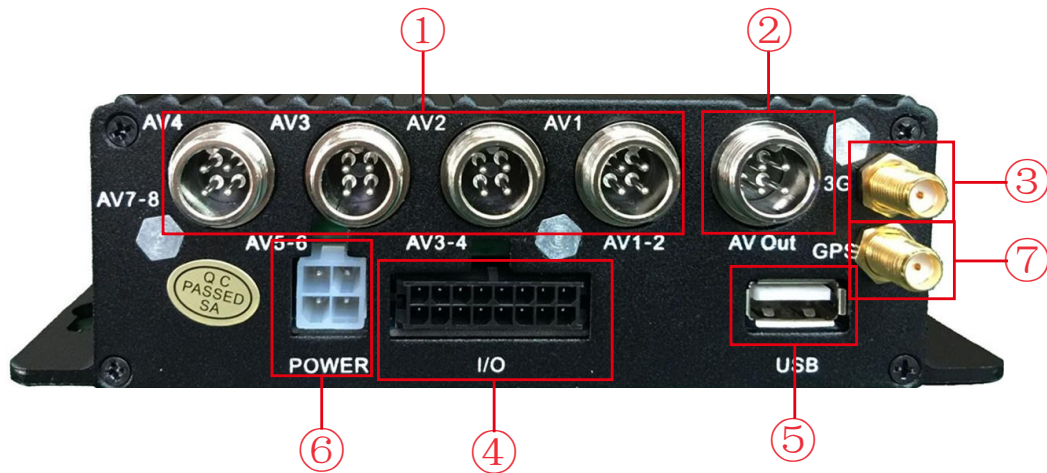
Front Panel items introduction

Item	Name	Silk screen	Functional Specification
Φ	LED Indicators	PWR	Power Indicator LED, LED on means powered has connected.
		ARM	Alarm Indicator LED, LED on means alarm event is happening.
		REC	Video Recording Indicator LED.LED means In the recording
		SD1	SD card 1 Indicator LED, LED ON—Card exists but not recording, LED FLASH—Card 1is recording, LED OFF—Card does not exist
		SD2	SD card 1 Indicator LED, LED ON—Card exists but not recording, LED FLASH—Card 2 is recording, LED OFF—Card does not exist
		LOC	SD Lock Indicator LED, LED ON—SD Lock is open.

②	IR Remote Receiver	IR	Infrared remote control receiving hole
③	SD Lock	LOCK	It's used for unload hard disk. Device will power off automatically if power on when HDD lock is open.
④	SD card slot	SD	It's used for unload SD card or SIM card
⑤	Label		Equipment Type Label

** Status LED will alternate loop flash when device power on, it will quick loop flash when device is upgrading **

2.5 4CH MDVR Back Panel

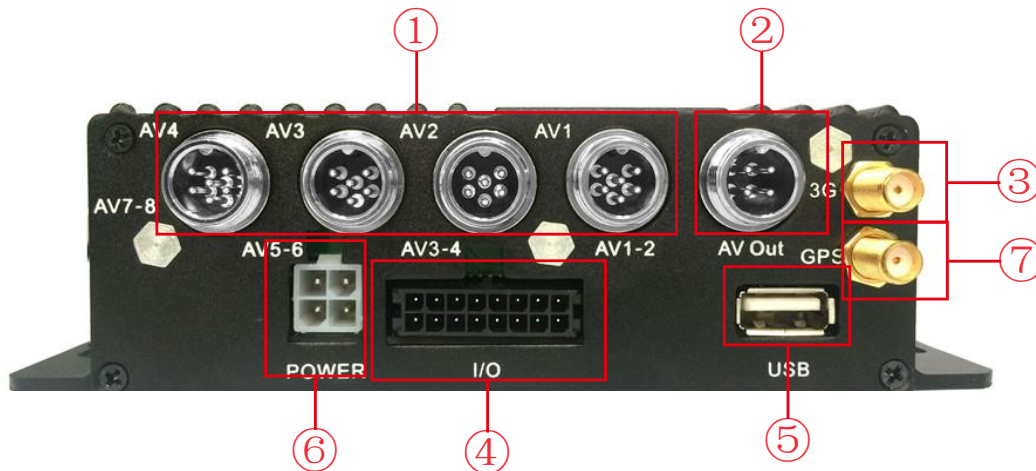


4CH MDVR Back Panel items introduction:

Item	Name	Silk screen	Functional Specification
①	Video&Audio Input interface	AV1-AV4	1-4Channels, with DC 12V output,
②	Video&Audio Output interface	AV OUT	Video&Audio output interface, with DC 12V output
③	3G Antenna Port	3G	
④	I/O	SENSOR	With alarm input&output、 serial port etc.A more detailed definition see chapter 1.6.4
⑤	USB Interface	USB	It's used to import or export data or upgrade
⑥	Power Input interface	POWER	Input Voltage DC 8-33V, Red cable connect power positive, Black cable connect power negative;

			Yellow line ACC signal cable.
⑦	GPS Antenna Port	GPS	

2.6 8CH MDVR Back Panel



8CH MDVR Back Panel items introduction:

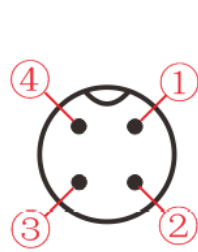
Item	Name	Silk screen	Functional Specification
①	Video&Audio Input interface	AV1-2	1,2 Channel Video&Audio Input interface, with DC 12V output
		AV3-4	3,4 Channel Video&Audio Input interface
		AV5-6	5,6 Channel Video&Audio Input interface
		AV7-8	7,8Channel Video&Audio Input interface
②	Video&Audio Output interface	AV OUT	Video&Audio output interface, with DC 12V output
③	3G Antenna Port	3G	
④	I/O	SENSOR	With alarm input&output,serial port etc.A more detailed definition see chapter 2.6.3
⑤	USB Interface	USB	It's used to import or export data or upgrade
⑥	Power Input interface	POWER	Input Voltage DC 8-33V, Red cable connect power positive, Black cable connect power negative; Yellow line ACC signal cable.
⑦	GPS Antenna Port		

2.6.1 Audio/Video Interface Definition

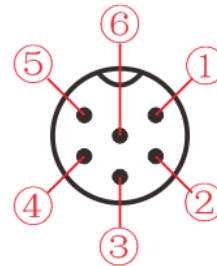
The 4CH MDVR support channel AV1~ AV4, it's Video&Audio Input interface use 4 Pin aviation plug, and the 8CH MDVR support channel AV1~ AV8, it's Video&Audio Input interface use 6 Pin aviation plug.

Their Video&Audio Output interface arm the same, use 4 Pin aviation plug. The aviation plug can adapt severe environment in the vehicles.

PIN DESCRIPTION



4 Pin aviation plug



6 Pin aviation plug

4 Pin aviation plug		6 Pin aviation plug	
PIN	FUNCTION	PIN	FUNCTION
1	+12V	1	+12V
2	GND	2	Video Input
3	Audio Input/output	3	Audio Input
4	Video Input/output	4	Video Input
		5	Audio Input
		6	GND

2.6.2 Power Input interface pin description

Pin Configurations	PIN	FUNCTION
<p>A diagram showing a 4-pin power input interface. It consists of a 2x2 grid of pins. The pins are numbered 1, 2, 3, and 4. Pin 1 is at the top-left, pin 2 is at the top-right, pin 3 is at the bottom-left, and pin 4 is at the bottom-right.</p>	1	Power-
	2	Power+
	3	ACC
	4	NC

2.6.3 I/O Interface Definition

I/O Port pin configurations

1	3	5	7	9	11	13	15
2	4	6	8	10	12	14	16

PIN DESCRIPTION

PIN	FUNCTION	PIN	FUNCTION
1	RS232-TX	2	RS232-RX
3	RS485-A	4	RS485-B
5	Alarm in8	6	Alarm in 7
7	Alarm in 6	8	Alarm in 5
9	Alarm in 4	10	Alarm in 3
11	Alarm in 2	12	Alarm in 1

13	Alarm out 2	14	Alarm out 1
15	+12V	16	GND

2.7 Remote Controller

	Power and Standby Button,Reserved	
	To endter system setting	
【0—9】 Number Key	【0—9】 Key: In the setting mode,0-9 is uses to select the number of menu items.In playback mode,the keys to select single channel playback.	
	Delete Button	
	Multi Channel Display Button,press this button can switch between multi channels and single channel display	
	Direction button,When Operating menu, press this button to move cursor.	
	Exit button,	
	Forward buton,In play mode,Press this button to select 2/4/8/16 times speed to play forward .	
	Rewind buton,In play mode,Press this button to select 2/4/8/16 times speed to play backward.	
	Stop button	
	PAUSE/STEP button	
	In normal mode, press this button enter play mode directly	

3 Device Installation

3.1 Power Cable Connection

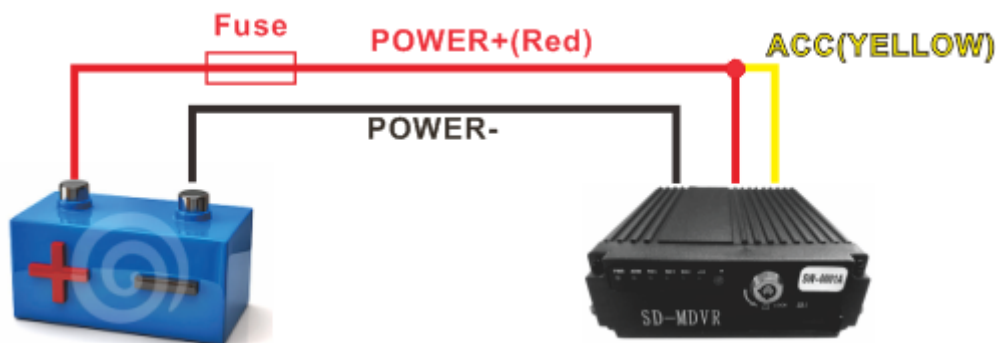
This MDVR use DC power supply, Wide operating range 8 to 33V

★ Use ignition switch to control video record delay time working



Red wire connect positive of the car battery, black wire connect negative, while yellow wire connect independent ignition switch or independent positive.

★ Do not use ignition switch to control video record delay time working (Office Test also using this mode)



The red and yellow wire connect together to connect the battery positive, Black wire to connect the battery negative .

❖ Attention

1. The recorder is DC power supply; please attention the positive and negative polar.
2. The voltage is 8V~36V. Do not insert voltage that beyond this range. Under low voltage the recorder doesn't work, under high voltage will be harm to the recorder.
3. Please make sure the recorder is connect with the car power directly. Do not connect with the generator, the instantaneous voltage will harm to the recorder.
4. The initial power will beyond 30W when the DVR connect with the Camera (the consumed power is different due to the connect with different device), the power supply must beyond 30W.

5. The power cables must can stand beyond 60W.(For example, when the output voltage of car is 12V,the power cables must can bear 5A or more).
6. Please put the cover on the cables, the cover must be wear-resistant, heat-resistant, water-proof, grease-proof, in case of short circuit and open circuit.
7. Please install a 10A fuse box near the battery output positive polar for fear of the short circuit will damage the power supply.

4 Operation Interface Setup

4.1 User Loading

When the password switch is set to “Off”: The host start and press [OK] key, will direct access to the main menu..

When the password switch is set to “On”: Move the cursor to “landing” column, Press [OK] key, then can enter the main menu.



The administrator default password is 111111(or device number –before changed the password available);

User default password is 000000, only have query permissions;

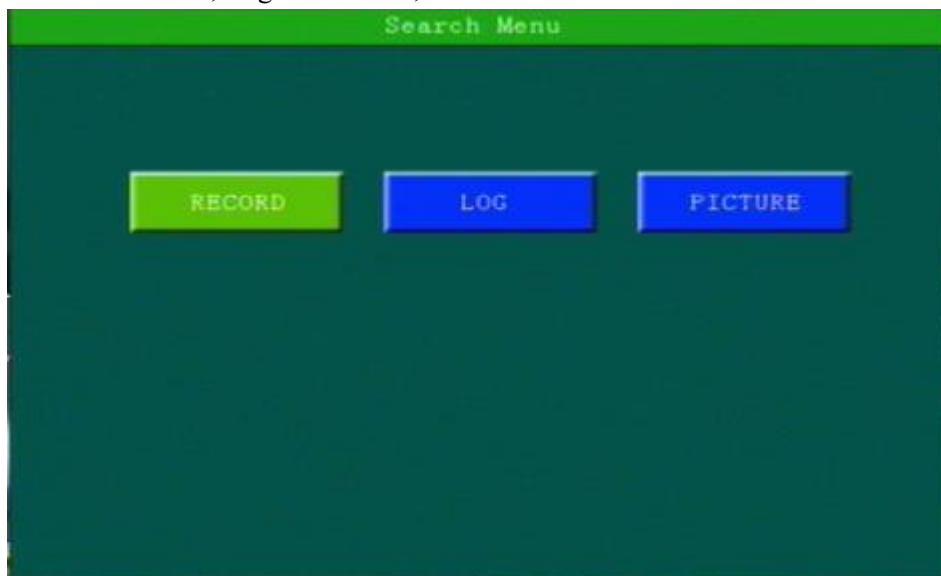
4.2 System Main Menu

The main menu includes: Search, System setup, Rec setup, Network setup, Alarm setup and Peripheral, System Information, as below:

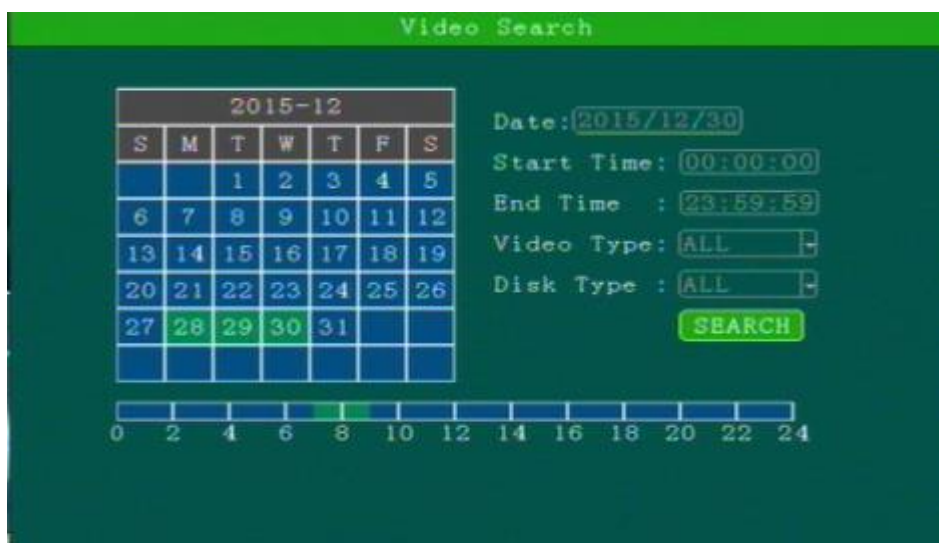


4.3 Search

Query menu includes: Record, Log and Picture,



4.1.1 Video Search



**** Green color display indicates current day and time exist video file ****

“Search Date”: Press the number key to enter date, default is current date.

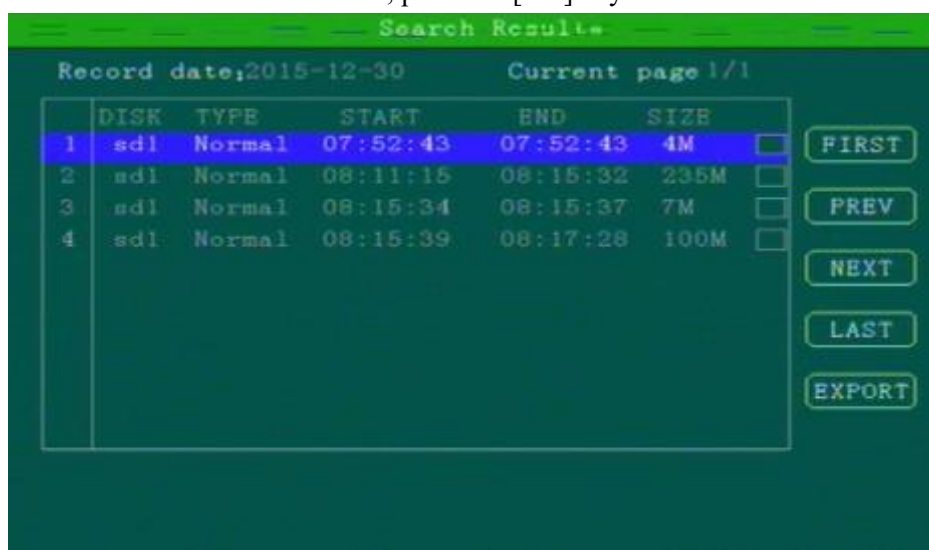
“Start Time”: Press the number key to enter date, default is 00:00.

“End Time”: Press the number key to enter date, default is 23:59.

“Record Type”: Press the [OK] button to select the query type: All videos \Alarm recording. Default is All videos.

“Storage Media”: Press the [OK] button to select: all disks, disk 1, disk 2.

“Search”: Move the cursor to “Search” button, press the [OK] key to enter the search results interface.

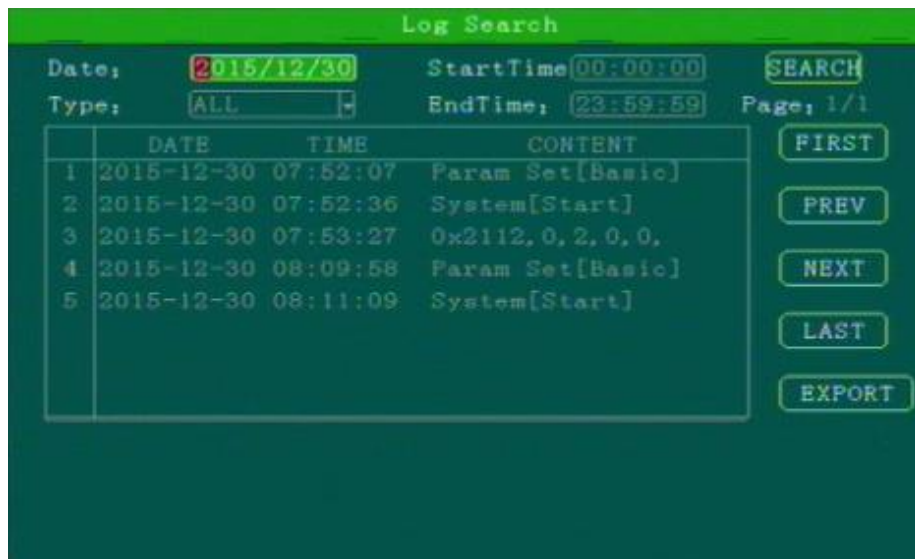


Press the arrow keys to select the video you want, press the **+** **-** keys to quickly flip, press **◀** **▶** to turn to first page or last page, press the play button to play the video, press [ESC] key to return to the previous menu.

Press the arrow keys to select “Home”, “Previous”, “Next”, “Last” and press [OK] button to display the next page information.

4.1.2 Log Query

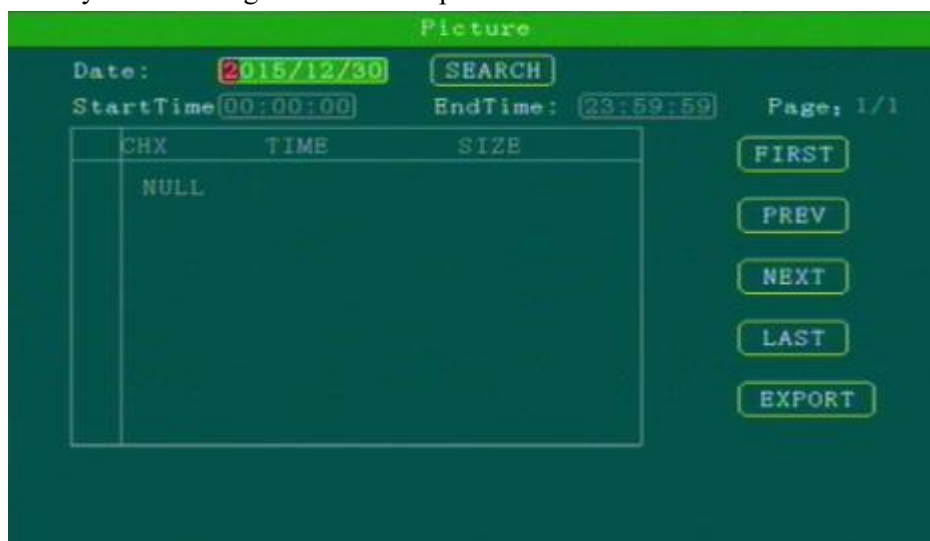
This menu is to query device operation and working log , you can choose the same type log via log categories.



When select a single log, press the **+** **-** keys to quickly flip over, and press **⏪** **⏩** to turn to first page or last page.

4.1.3 Picture Search

This menu is mainly for searching the screenshot pictures.

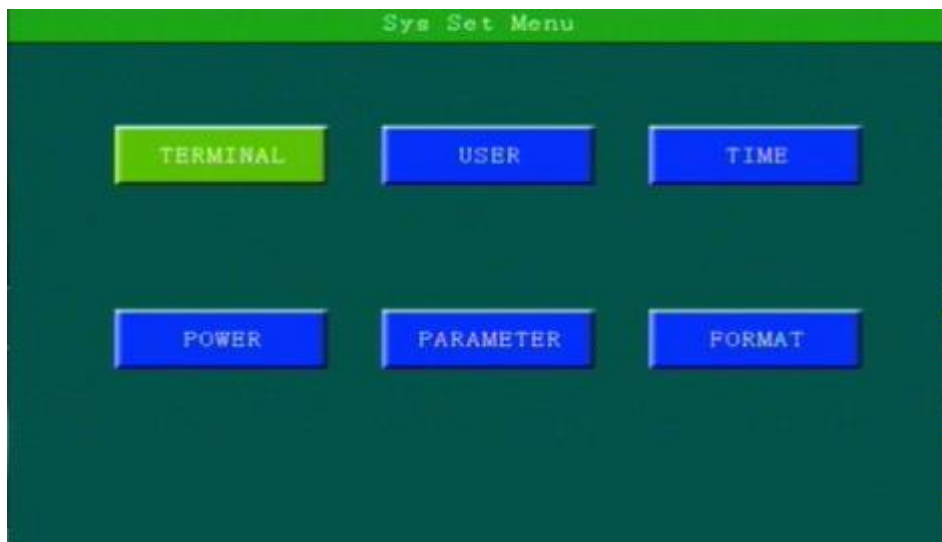


Zoom up single full screen will auto screen capture by default , it will be triggered by the alarm linkage or manually operate.

**** Pictures and device log all save in the second partition ****

4.4 System Setup

Under System Setup menu includes: Power, time setup, user setup, terminal setup (menu setup and modifying need to choose save to take effect)



4.4.1 Terminal Setup

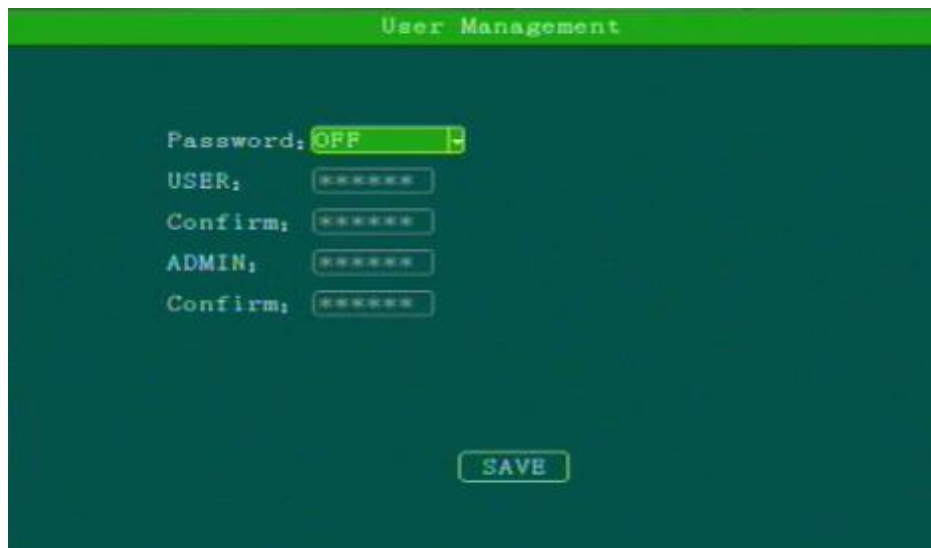
The screenshot shows a form titled "Terminal Setup" with a green header. The form contains several input fields and a "SAVE" button. The fields are arranged in two columns:

Dev ID:	<input type="text" value="13400"/>	Terminal:	<input type="text"/>
Phone NO:	<input type="text" value="13400"/>	FactorID:	<input type="text"/>
Plate NO:	<input type="text"/>	TerminID:	<input type="text"/>
Province:	<input type="text"/>	City ID:	<input type="text"/>

At the bottom center of the form is a "SAVE" button.

By remote control input settings: device number, phone number, license plate number, the provincial domain ID, the City ID, terminal type, manufacturer ID, terminal ID, the device management (data in accordance with the Department of standards, Chinese input can use the soft keyboard input)

4.4.2 User Management



“Password Enable”: You can enable or disable password authentication to access the menu. Modify or setup password of users and the administrator by remote control.

**** ADMIN Pass : 111111, USER Pass : 000000 ****

4.4.3 Time Set

This menu is to setup device parameters, such as date and time, etc.



“Date Type”: Different date format for choosing.

“Date”: Press the number keys to enter current date.

“Time Synchronization”: calibration mode: GPS, NTP and other school models available.

“Time Zone”: Setup the time zone of the location of the device

“Timeout”: optional remote control does not operate the exit time

“Real Time”: Press the number key to enter the current time

4.4.4 Power Management

This menu is to setup Power management modes and power distribution.



“Power mode”:press the number keys to select the type, the default is ignition mode.

“Delay Off”: Press the number keys to enter the time, the default is 5 minutes, can be set to 1440 minutes

“Screen time”: Press the number keys to enter the time, the default is 60 minutes, can be set to 0-1440 minutes

“Power On”: Press the number key to enter time, setup the timer start time

“Power Off”: Press the number key to enter time, setup the timer off time

4.4.5 Parameters Management



“Import”:Import parameters from HDD or SD Card to current device.Import the system configuration parameters which has set up and restore the factory settings to the factory states

“Export”:Export current device parameters to HDD or SD Card;

“Default”:Default to factory setting; This operation will clear all the setting on the device.

If quantity Devices with same setting,please using Parameter Export/Import for configuration, after setting one device, export these parameters to U-Disk or SD Card then import to other rest devices to be fast setting.

4.4.6 FORMAT

Format Disk choice, device will reboot disk after confirming, log and pictures and other related info will be reserved.

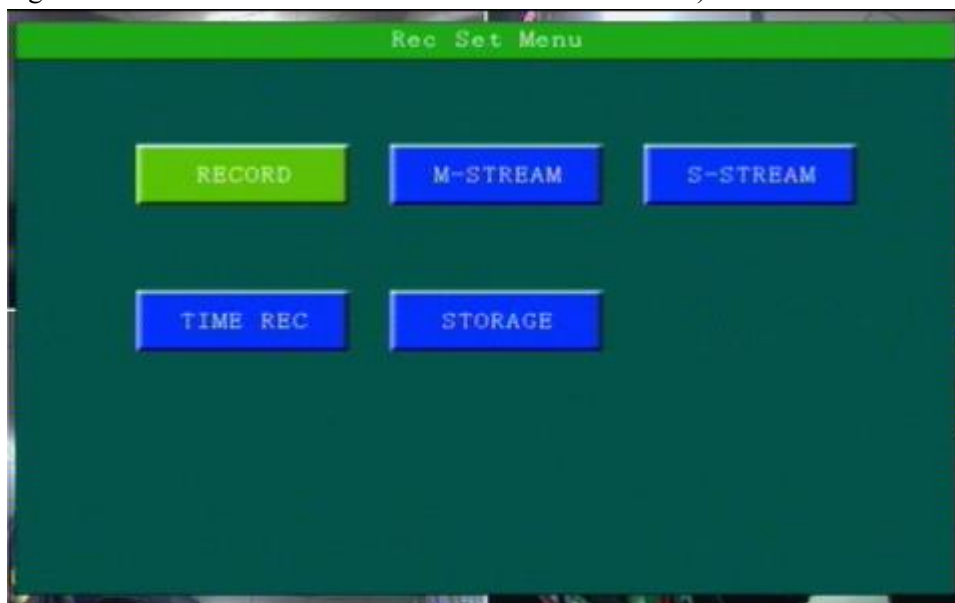


Attention:

Device will format automatically when it starts, new SD card, can be formatted on the computer, in general, it doesn't need format disk in DVR by manual.

4.5. REC Setup

Recording setup menu includes: basic setup, Main stream, Sub stream, time recording, Storage management(configuration and modification must select Save to take effect)



4.5.1 Basic Setup

This menu is to setup the basic video, audio and video parameters and can change into standard definition, AHD high definition and mixed mode.



“Video Type”: PAL / NTSC, press [OK] key to select.

“Record Mode”: Auto / timer / alarm recording, press [OK] key to select.

“Camera Type “: Can switch the status of standard definition , high definition or mixed camera input.

“Resolution”:Set the resolution of VGA output.

“ Layout” : optional: Single, 2-channel, 4 grids, nine grids and other video channel layout.

“Packket time”:The time of a single record file.

Attention :

If the camera type and DVR setting mode(AHD HD/Analog/Mixture) don't match, then it will show “video lost”, In Mixture mode, 1,2CHANNEL is AHD high definition input, 3,4CHANNEL is analog standard definition input;

4.5.2 Main Stream



This manual is to setup the code stream and definition of video channel.

- “Enable”: open or close the channel of pre-recording function, press [OK] key to select.
- “Resolution”: CIF, HD1, D1 and 720P resolution for choosing, press [OK] key to select.
- “FPS”: 1-25 frame (P standard), 1-30 frame (N standard) channel recording frame rate for choosing.
- “Image quality” setup video quality under different resolution, 4-speed adjustable.
- “Audio” setup the audio recording on or off.

According to the storage space and quality requirements, the resolution of each channel and stream can be configured individually

4.5.3 Sub-stream

This menu is used to set the parameters of the transmission stream.

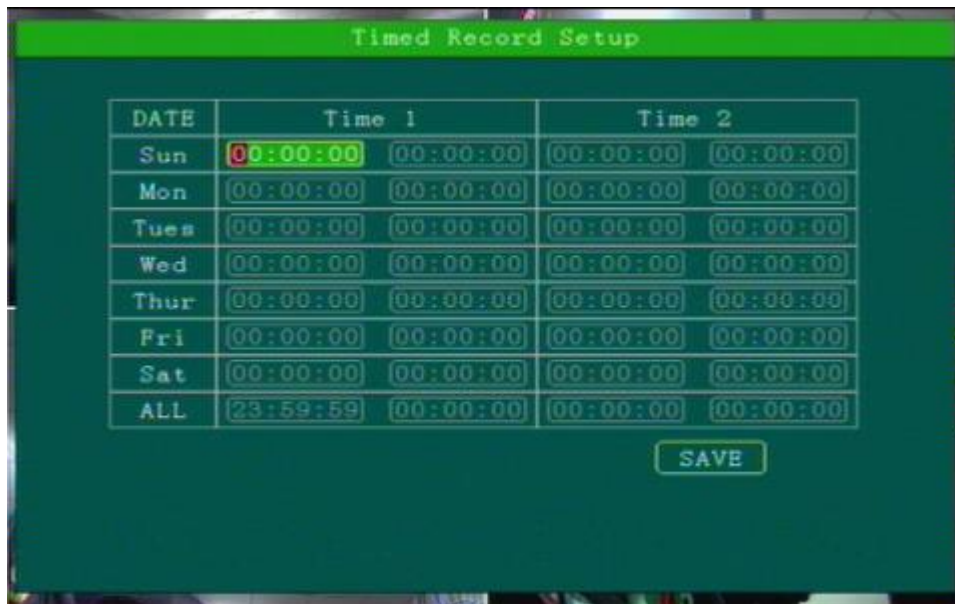


- “Resolution” Setup the transmission resolution, press [OK] key to enter.
- “FPS” Setup the transmission time frames, press [OK] key to enter.
- “Image quality” setup transmission quality grade, press [OK] key to enter.

Sub-stream is the code stream which device upload via 3G/4G, high definition main code stream can be chose in the client-side platform

4.5.4 Time Record Setup

Setup the timer recording time periods, everyday can be set to two periods.



Move the cursor to “Timing Recording” and press [OK] button to set up the following timing list.

Timer recording start time is before the end time.

4.5.5 Storage management



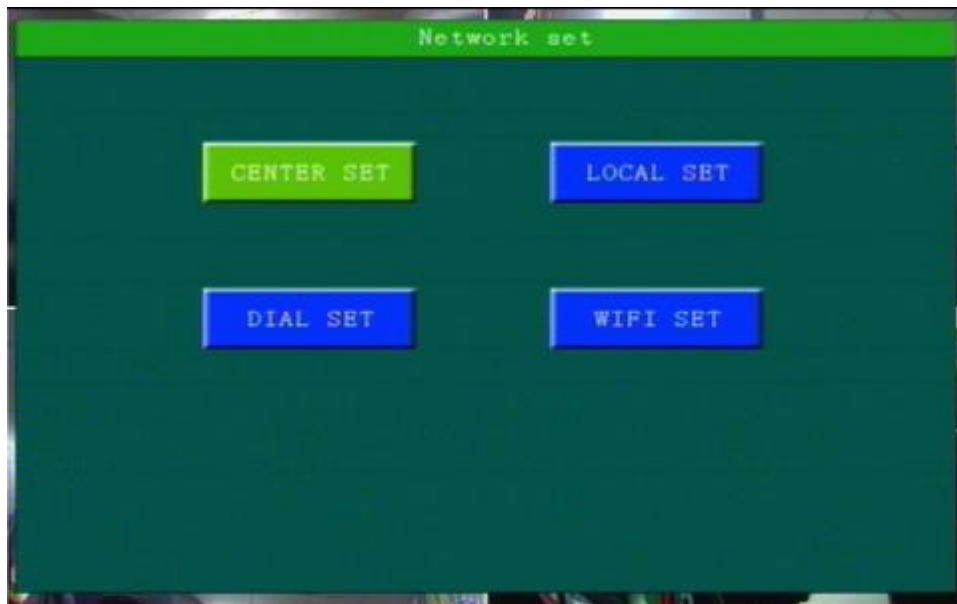
“pre-recorded”: pre-recorded alarm recording time of 0-60 seconds to setup, press number keys to setup.

“Alarm delay”: alarm delay recording time, 120-3600 seconds to set up, press number keys to setup.

“Alarm Fime”: The storage time of alarm file, 3-45 days to set up, press number keys to setup.

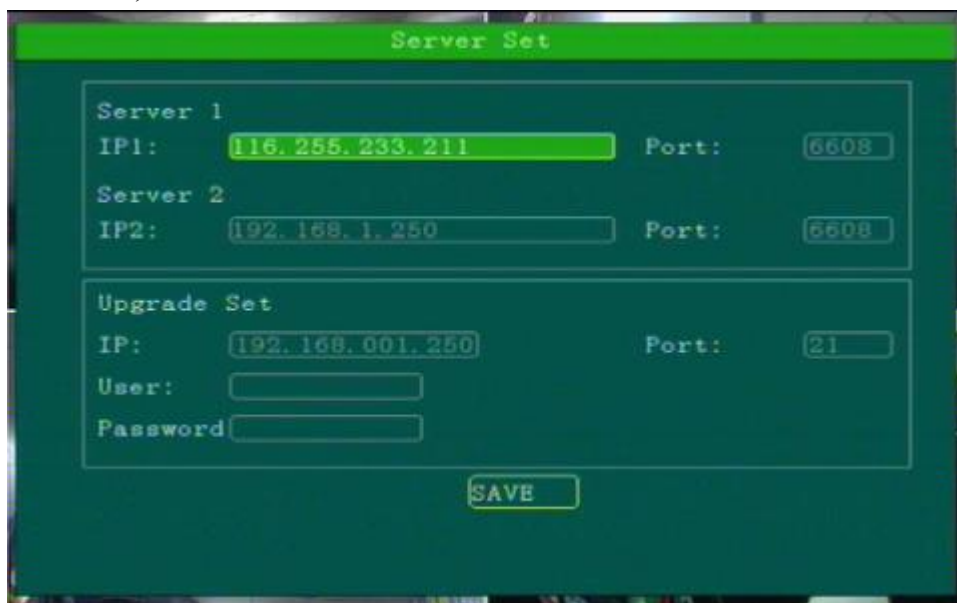
4.6. Network Set

Including: Center setup, Local Network , dialing setup, WIFI setup.



4.6.1 Center Setup

Set Server IP and Port ;



“Monitoring Center”:Set 3G /4G Video Center IP or domain,port information etc,

“Network Type”:Set 3G network type, IP address/Domain optional;

“Center IP”:3G Server IP/Domain setup. Press right key to enter keyboard interface,input the numbers via remote controller,then press [OK] for setting,;

“Port”:Communication port between 3G device and Server,must be same with server configuration;

Remind:

In “ Info “ interface, W connected : it means device connected server already; B connected : it means device connected ministerial standard platform already, Connected : it means two platforms both connected device successfully.

4.6.2 Local Network Setup

Device Local Network setup



“IP”\”Mask”\”Gateway”\ “DNS1” \”DNS2”\”MAC”:IP,Mask,Gateway,MAC setting for LAN network testing.

Attention:

When net cable directly connect to the device, only can use 4PIN definition net cable (please see more definition in the addenda), otherwise it will lead device dead.

4.6.3 3/4G Setup

3G/4G Network Configuration



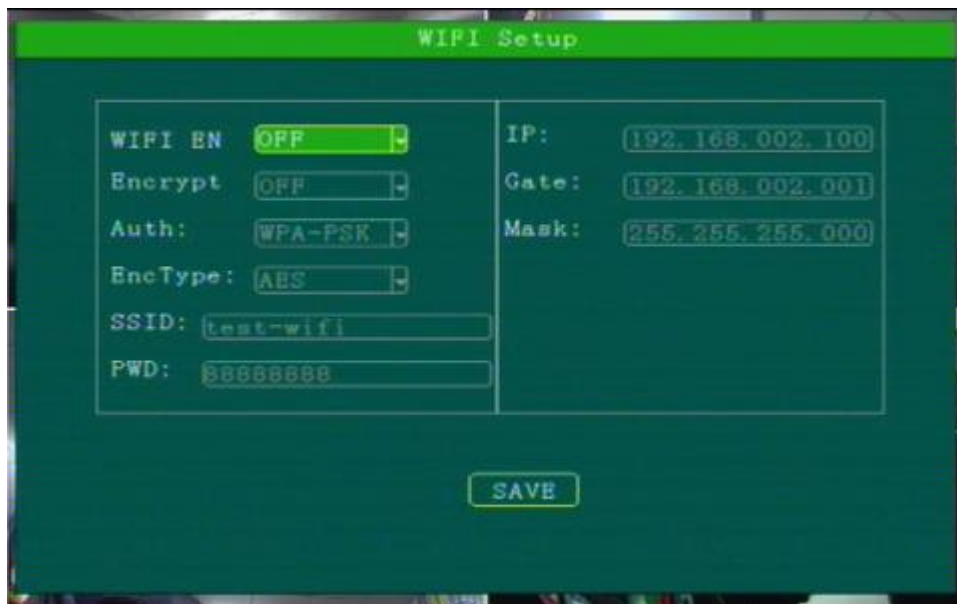
“Enable”:3G/4G On/Off Setting,Press [OK] for choosing;

“Type”:3G/4G Type setting,WCDMA\EVDO\TD-SCDMA\TD-LTE , FDD-LTE, press [OK] for choosing,

“APN”:Set 3G/4G APN,Press [OK] Input, enter into input page to set the information

“User”, “Password”:SIM Card Network Operation User and Password, Press [OK] for setting ;

4.6.4 WIFI Setup



“WIFI-EN”:WIFI On/Off Setting,Press [OK] for choosing;

“Encr-EN”: WIFI encryption ON/Off Setting,press [OK] for choosing;

“Au-Mode”: WIFI Authentication mode setting,Please choose same one with your router,

“Enc-Type”: WIFI Encryption type setting,Please choose the one same with your router,

“IP”\”Mask”\”Gateway”:WIFI IP/Mask/Gateway setting

“SSID”: Input Your WIFI SSID,

“PWD”: Same with your WIFI password,

According to the specific configuration of WIFI network environment, please pay attention to check the accuracy of the characters and the IP address.

IP address set by WIFI and local network can not be in the same network segment.

4.7. Alarm Setup

Including: IO,Speed, Acceleration, Motion Detection, Voltage, Serial Setting and PTZ.



4.7.1 IO Alarm

Each channel alarm enable/level/time delay/Linkage information setting;

NO	Enable	Level	Delay	Hold	Record	AlarmLink	Preview
IN1	Exigency	H	1	1	ON	OutPut1	CH1
IN2	F-door	H	1	1	ON	OutPut1	CH2
IN3	M-door	H	1	1	ON	OutPut1	CH3
IN4	B-Door	H	1	1	ON	OutPut1	CH4
IN5	OFF	H	1	3	OFF	OFF	NUL
IN6	OFF	H	1	3	OFF	OFF	NUL
IN7	OFF	H	1	3	OFF	OFF	NUL
IN8	OFF	H	1	3	OFF	OFF	NUL

“Enable”:Alarm Trigger enable on/off and alarm type, press [OK] for changing;

“Level”:Choose Alarm trigger level,High/Low Level optional,press [OK] for optional;

“ Delay”:When alarm trigger,if need delay alarm trigger,time can be set to reduce error alarm, press [OK] for changing;

“ Record”:Record set when alarm trigger, press [OK] for changing;

“ Linkage”:Linkage set when alarm trigger, press[OK] for changing;

“Preview”:when alarm trigger the Channel will be full screen for preview,can realize Car Reversing,Door open alarm etc, Press [OK] for changing;

4.7.2 Speed Alarm

High/Low Speed or illegal driving alarm can be set.



“ Speed Source”: The method to get speed, GPS/Pulse Signal Optional, Press [OK] for changing;

“ Pulse Number”:Must set Pulse factor for the standard if using Pulse to get car speed information,press Numbers for changing,can search vehicle data or constant speed by several times setting for a certain number

“ Unit”: Driving Speed Unit,Press [OK] For Changing Setting

“Timeout Parking””Low Speed Alarm””Low Speed Warning””High Speed Warning” :by Enable to open or close alarm function,Level setting for alarm trigger response speed and time; Delay: alarm time ;Record: if recording when alarm appear;Linkage: When alarm occurs if linkage with alarm output;

4.7.3 Acceleration

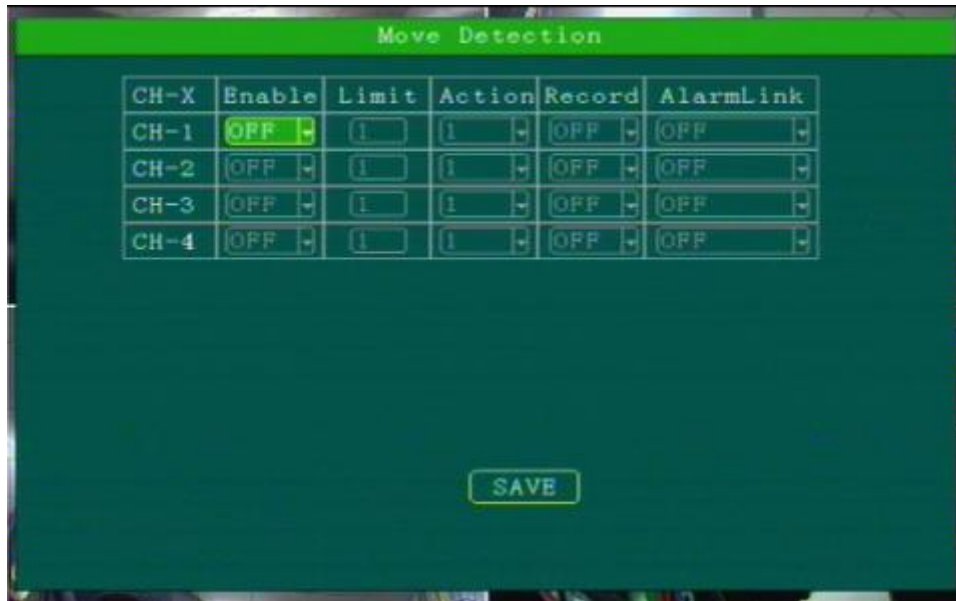
SET G-sensor information of alarm threshold and linkage actions.



Before configuration, need to calibrate the current state first, then modify the alarm threshold.

4.7.4 Motion Detection

This menu is to set the image changes and the parameters of the object in the video pictures.



“Threshold “: Main is area alarm percentage, generally set 1 or 2, representing 1% or 2% area change images move,it will trigger motion detection alarm.

“Sensitivity”： 0-7 levels, 0 is the highest level, 7 is the lowest level. Generally suggest to set 1, the bigger number you choose ,the lower the sensitivity will be, then it’s not easy to alarm as well.

Specific configuration parameters can depend on actual situation of the scene, such as illumination, detection area range and so on, to achieve the optimal effect.

4.7.5 Voltage Alarm

Low/High Voltage alarm.



Voltage abnormal delay shutdown: it means the voltage is kept below 8V, automatic shutdown time, this can effectively protect the battery, to avoid abnormal conditions caused by the battery voltage shortage, prolong the service life of the battery.

4.7.6 Serial Port Set

External Device parameter setting, can connect LED Advertisement/TTS/Oil/Sensor/POS etc ;



“Peripheral”:The external device type option,press [OK] For Changing;

“ Baud Rate”:Choose Baud Rate of external device,press [OK] for changing;

“ Data Bit”: Choose the Data bit of external device, press [OK] for changing;

“ Stop Bit”:Choose the Stop bit of external device, press [OK] for changing;

“ Check Bit”:Choose the Check bit of external device, press [OK] for changing;

“Control Bit”: Choose Control bit of external device, press [OK] for changing;

4.7.7 PTZ

PTZ Camera parameter configuration



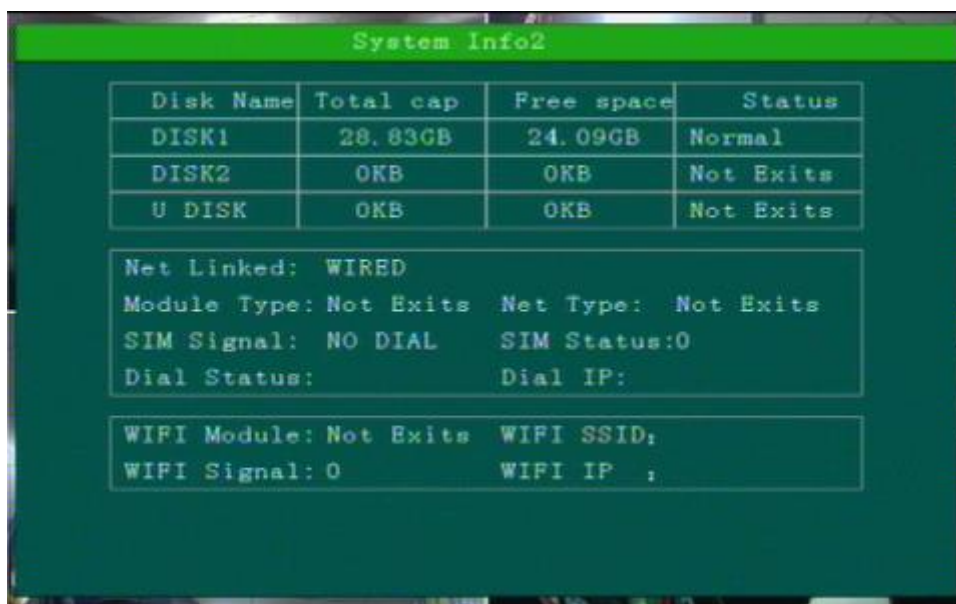
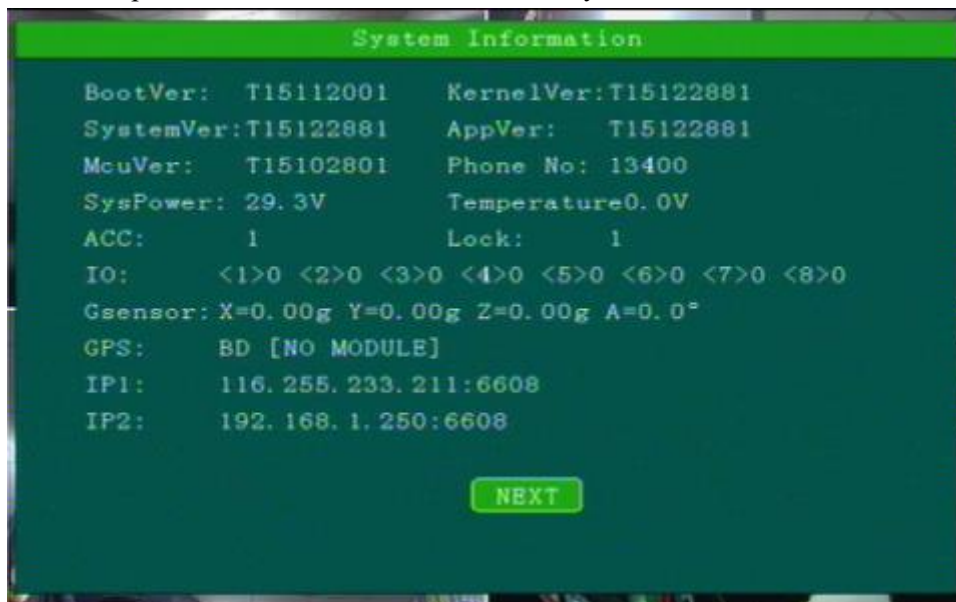
“ Protocol Type”:The Protocol of PTZ Camera support option,Press [OK] for changing;

“ ADD Code”:choose PTZ Camera Address code,press Number for changing;

“ Preset”:Choose PTZ Camera Preset code,press number for changing;

4.8. System Info

System Info have 2 parts for detail information;can view by menu or Press INFO.



5 FAQ

5.1. Common problem

Q:When Device issue appear,you are confused on how to solve it.

A:Check Device Item No & Firmware Version,sent back to us with detail description of issue.Our Technical Team will handle it.

More detail you described,easier for us to solve it quickly.

Q:Video Output Lost

- A:**1.Check situation of DVR:Device Input Power;Power Cable Connection;GND Connect to battery;fuse;RED & Yellow Cable of Power must connect together;
2.Check the Screen Power or Check if the Screen change to related AV Channel;
3.Check the connection of Video Output & Screen Cable;

Q:Device keep Rebooting

- A:**1)Check working power,if low power device will keep rebooting;
2) HDD/SD Card error, remove storage device and turn on device checking;

Q: If the video input interface of the device and camera is different.

A:The DVR is using 4 needle type port, the camera is BNC port or Aviation, if it is different, please use the X-over to connect, or connect according to the DVR Line sequence definition

Q:Device on with HDD but not recording;

- A:**1)Check SD/HDD if format;if not please enter Main GUI--System Set--Format,format HDD/SD Card;
2)If close Recording ,or set Timed Recording mode, if yes it won't recording if not the time set
3)If the HDD is connect well, if the HDD/SD light is on.

Q: Video files lost, or there is no video files at a certain period time.

- A:** 1. Analysis the lost video and ensure the lost time period.
2. Confirm if the DVR was opened at that time, such as crashed midway park, loading and unloading ect.
And the device didn't set the delay recording

Q: Can not control the Car PTZ, can not rotate to all direction.

A: If the agreement and Baud rate of the PTZ is setting right,if the address code is corresponding, if the video channel is setting to max when control the PTZ. Like if is control the first channel, then must set the first channel image to be max.

5.2. GPS related FAQ

Q: With GPS but no GPS coordinate Information

- A:**1)Check if GPS module exist;
2)Check GPS Antenna connection,suggest install on the outside place with strong signal;
3)If testing in office, suggest put GPS Antenna out of window;
4)If working environment not good will related to no GPS Information or wrong information;

Q:Deviation of GPS Location on Map?

A:The signal is effective if the GPS module has been positioning, there are so many reasons caused bias, government restriction, permissible error, GPS signal break off, The actual satellite map error occurred for the security, GPS Correction can solve the problem.

5.3. 3G Wireless Module related FAQ

Q:If using 3G ,what should we concern?

A:1)Choose inside wireless module WCDMA,EVDO,TD-SCDMA, relative module setting is different then SIM Card is different, please make sure the module is corresponding with the SIM Card.

- 2)If Server IP & Port set correct,if 3G signal strong for dialing;3G dialing successfully or not;
- 3)Check 3G Antenna connection,dialing will be failed if 3G signal too weak;
- 4)Check SIM Card 3G Flow

Q:When meet device offline or no video,what should be done first?

A:1)Press INFO key to enter the system Info page,check if SIM Card exist,3G signal and dialing status,Antenna connection,Check SIM Card 3G Flow,change to a new SIM Card check again;

- 2)3G Signal strong but dialing fail,check if center IP & Port set correct;
- 3)Check if Device ID already be occupied;

Q:3G Signal is intermittent, video get stuck ?

A:At present, signal coverage of the WCDMA and EVDO is very wide, but still there are some mountain area signal is weak, this will influence. Then check if the frame rate in Sub-stream setting is too high.

Q:WIFI Signal 60/100,connect failure;

A:General condition, connection is no problem when the signal intensity up to 60/100 if WIFI setup are right. If the device can not be found in LAN, then you should check if setting SSID and password, IP Address, besides, check the Encryption Type and authentication mode if setting according to requirements.

5.4. Client Software FAQ

Q:Device working but can not see Vehicle and video on client software

A: 1)Check if Center Server running and device Number if using;

2)Check Server IP and Port parameter setting;

3)Check is using 3G or WIFI for connecting, if 3G check the 3G Model WCDMA or EVDO and related SIM card,3G antenna connect normally/APN setting/Center No. setting;

If it still can not work,please offer the most detailed information to us for technical support

Q:Device Online but can not see video

A:1)Please set Low Sub-stream,when sub-stream set high it will effect the transmission because of the network;

2)Network environment not good;

Q: Device works well in the Client, but cannot see the video a period time later.

A:1.Check if connect to server successfully on device, if dialing probably SIM Card no 3G Flow,change another SIM card for testing;

2.Check if Device Number be changed,if yes,need add device to server again;

3.If still can not view video after previous 2 steps,please check if 3G module error;

5.5. Other related questions

Q: Video Lost in certain channel?

A: Possible reasons are as follows

1. This channel has no video input

2.The camera of this channel breaks down or work abnormality

- 3.If the camera takes an electricity power from the equipment directly, may be the equipment's electric voltage isn't enough to make camera work as usual;
d) The cable that links this channel has problem

Q: Can't playback files on PC successfully?

A: Possible reason is as follows:

1.Have never chosen a record file or document path; please choose the path that records file first before playback.

Q: Remote control not works?

A: Probably of the reasons are as follows:

- 1.The remote control didn't pack battery;
- 2.2.The remote control damages;
- 3.Device damages.

Q: During playback, the map doesn't show?

A: Possible reasons are as follows: Net cable did not connect to PC; Net works, but the computer can not get to the Internet;

Q: When SD card and HDD records, How is the record coverage?

A: SD card and HDD will record circularly for each other. When they are full, they will delete the original video records respectively.