

4CH Mobile DVR USER MANUAL

M705 Series

Ver. 2.0

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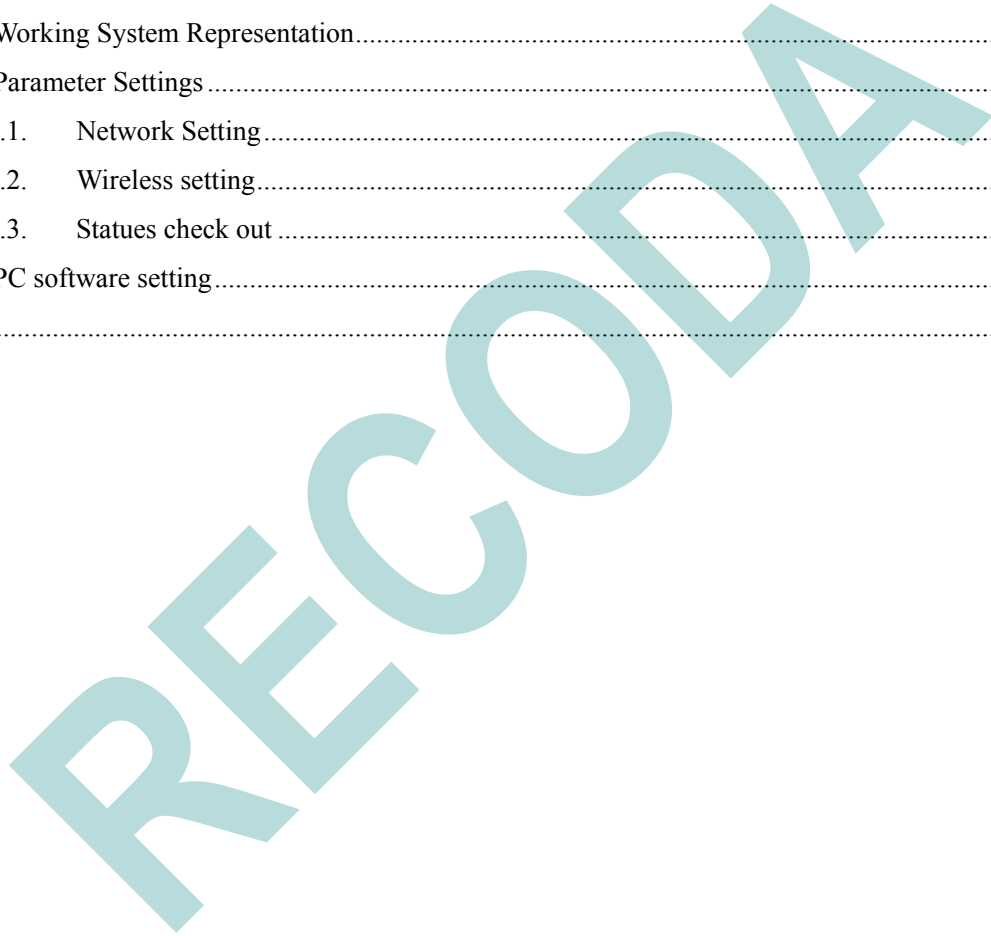
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1. System Introduction

1.1. Features

- H.264 main profile Video compression format; Support 1 to 4 channels video input.
- Adopt 10bit video decoder processor to ensure picture quality, and each video channel is attached with an independent video decoder to avoid disturbing from each other.
- Industrial grade design: all electronic components conform to industrial standard through the entire design, including the special connectors dedicated for mobile DVR.
- Built-in GPS, G sensor (optional).
- Built-in wireless module like 3G (EVDO, HSPA, HSDPA), GPRS, WiFi (optional).
- Support IP call function (optional).
- G.726 audio compression, 4CH audio input, 1CH audio output.
- With the special UPS technology, the DVR will work for another 10 to 15 sec after power failure, which makes the device shut down normally and keep the file safe
- Real time recording: 100f/s (PAL); 120f/s (NTSC). Recording resolution: CIF/ 2CIF/ D1 optional, maximum support 2CH of D1 + 2CH of CIF.
- 6CH alarm input (Level input), 1CH alarm output (Relay output)
- RS232 interface for remote control; RJ45 10M/100M Ethernet port.
- Video recording mode: Auto, alarm, timed and manual recording.
- The video file format is ASF. The file can be played by general media player VLC or our customized software which support 1 channel or 4 channels synchronous playback
- Storage: Maximum 1pcs 2.5" hard disk with removable hdd housing plus 1pcs 32 GB SD card. Support HDD heater function, and SD card connector import from Japan
- Quick start-mode: the device will turn to working in 25 sec after power on. Other start- or close- mode including ACC on, timed turn on/off, manual boot/shutdown the device.
- Voltage supply range is from 8V to 36V, the DVR is compatible with the most of vehicles. Power output is 12V/1.5A.
- Energy- efficient design, the power consumption is less than 5W with normal operating state.
- With anti-vibration and anti-high temperature protection, the quality of video files is always guaranteed
- Operating temperature: -25°C to +70°C
- All materials and PCB production conform to RoHs standard.
- Elegant and industrial design: Mini size, for easy installation, more concealing.

Dimensions: 160(W) x200(H) x62(D) mm

Weight: 2200g

1.2. Appearance










Front view:



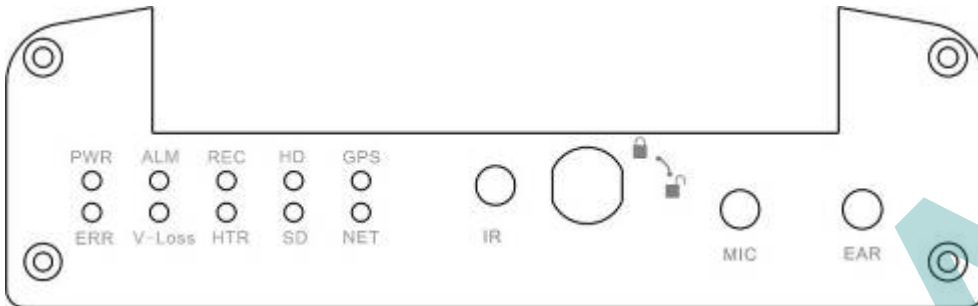
Back view:



1.3. Remote Control

KEY	Function	Picture
	To activate the device	
【LOGIN】	To enter system settings.	
【0-9】	【0-9】 : Under the configuration mode, 0~9 stand for numbers; under the playback mode, 1, 2, 3 and 4 are for switching between related single channel, and the number 5 is for 4 channels synchronous playback	
【-】【+】	For data setting	
【DEL】	Backspace	
【EXIT】	Return to the previous interface	
【ENTER】	Enter button	
	up, down, left, right left and right buttons are use for decreasing or increasing volume	
【GOTO】	Select time period for playing video	
【INFO】	To display system info under monitoring mode	
	With the backward playing button, the video files can be played with 2/4/8/16 times speed. Press 'play' button to get a normal speed play.	
	Play button	
	With the forward playing button, the video files can be played with 2/4/8/16 times speed forwardly. Press 'play' button to get a normal speed play.	
	Record button	
	Stop button is to stop the normal playing and return back to the playlist interface	
	Pause button. Pause the normal playing.	
【F1】	For M705B only. Under monitoring mode, it is used to display the info of G-sensor, GPS, wireless module, SIM card, dial-up and so on.	
【F2】	Single channel monitor, display terrace situation	
【F3】	Reserve	

1.4. Front panel



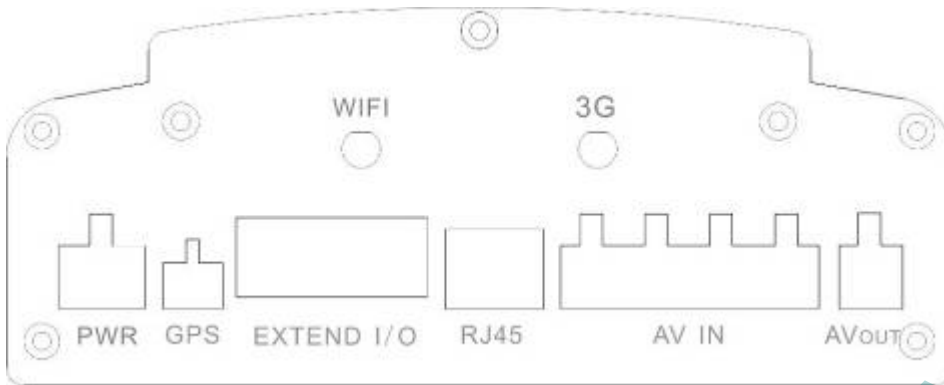
1.4.1. LED indicators:

- **【PWR】** Power LED: LED light means system has powered on
- **【ALM】** Alarm LED
- **【REC】** Record LED: LED Light means device is recording
- **【HD】** HDD, **light on means load successfully. Lights off means load failure. Flicker means video recording.**
- **【GPS】** GPS signal
- **【ERR】** Error prompt
- **【V-Loss】** Video Loss
- **【HTR】** Heater
- **【SD】** SD card. **Light on means load successfully. Lights off means load failure. Flicker means video recording.**
- **【NET】** Network

1.4.2. Others

- **【IR】** Infrared receiving terminal
- **【LOCK】** HDD Lock, device cannot to start without lock
- **【MIC】** MIC input
- **【EAR】** EAT output

1.5. Back panel



- **【PWR】** Power connector
- ^[2] **【GPS】** GPS antenna connector
- **【EXTEND I/O】** Extend I/O connector
- **【RJ45】** Network connector
- **【AV IN】** AV input connector
- **【AV OUT】** AV output connector
- ^[2] **【WIFI】** WIFI antenna connector
- ^[2] **【3G】** 3G antenna connector

[2]: GPS 、 WIFI and 3G antenna use for device M705B

2. Specifications

Function	Item	Description
Recording System	Channel	1-4 channels
	Resolution	Support CIF、HD1、D1 resolution, compatible with 2CH of D1 & 2CH of CIF. fps: 1 to 25f/s/ch adjustable (PAL) or 30f/s/ch (NTSC) .
	Video Quality	1-5 levels, 1 is the highest level and 5 is the lowest level.
	OSD	Overlays information such as date time and vehicle ID, vehicle number
	SD card REC	Support two SD card recycle recording. Automatically switch to the other one when the first SD card was full, and the data will be automatically overwritten .
	Recording Mode	The default setting is auto recording after power on. Timed recording and alarm recording are supported.
	Preview	Support 1 channel and 4 channels preview.
	Disk Data	Support SD cards overwritten function.

	overwritten	
Playback System	Video Search	Search video files anytime per day, type(n/a) and target SD card.
	Playback	Support 1 to 4 channels playback. Support forward and backward play at the speed of: x 2,x4,x8,x16.
GUI	Graphical User Interface	Setup system parameters with the remote control.
Alarm	Input	Support up to 6 channels alarm input. Pre-record 10 seconds ahead of the alarm. Record duration after alarm can be set in system
	Output	Support up to 1 channels alarm output, level signal.
Optional Function	GPS	GPS module can be built-out device M705B, the GPS info will be recorded synchronous; M705A Support external GPS module
	Network	RJ45 Ethernet port. Selectable with innor 3G wireless transfer, WCDMA, EVDO, HSPA, TD-CDMA.ETC. (GPRS, EDGE, WiFi for customized) , with M705B.
		M705B supports several wireless modules such as 3G and WIFI
	G Sensor	Built in G-sensor is available with M705A and M705B
Others	Power Settings	System auto power on/off: 1,Vehicle acc on/off--system auto power on after acc on, system power off according to the delay time (up to 240min, default 5min) after acc off. 2,Preset time---Only according to time preset table.
	Power-off protection	With the power-off protection, all data can be saved safely and the recording can be closed normally after power failure.

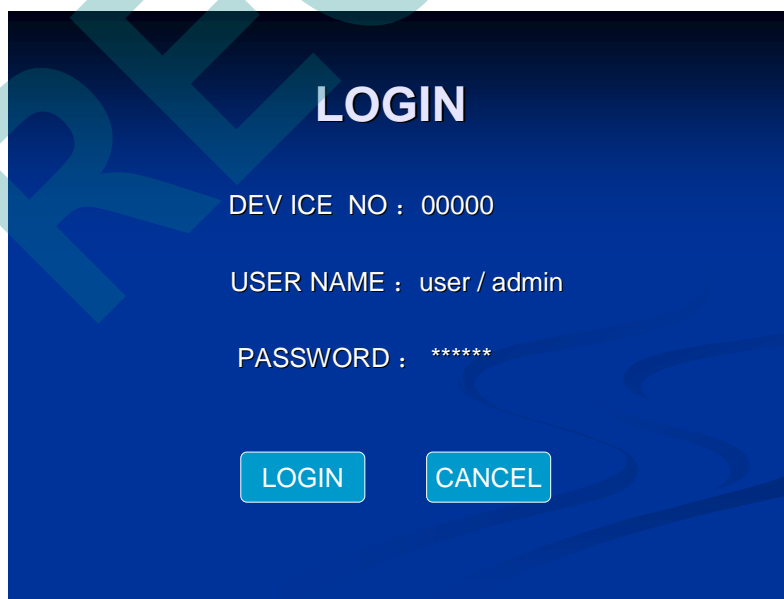
3. Technique Parameters

System	
Processor/System	Hisilicon Hi3512 H.264 main profile Linux(2.6)
Security	Two level password protections for administrators and users
OSD	Character-overlap on record video with date, vehicle ID
Video/Audio& Alarm	
Video Input/Output	Input: 4 CVBS, 1.0Vp-p, 75Ω; Output: 1 CVBS, 1.0Vp-p, 75Ω
Video Stream Standard	Standard ISO14496-10
Revi Function	1 channel or 4 channel revi mode
Audio Input/Output	Input: 4 channel Output: 1 channel
Audio Recording	Synchronized with video

Audio Compression	G.726 5KB/s
Alarm Input/Output	6 channels input;1 channel output
Video Recording	
Recording Resolution	D1/HD1/CIF, MAX:2 channels of D1 and 2 channels of CIF
Record Quality	1-5 levels, 1 is the highest level and 5 is the lowest level.
Record Mode	Default: Auto Record. Other modes: Timed and Alarm Record (Optional)
Record Storage	Maximum support one 32GB SD card and one 2.5 inch hard disk.
Record Search	Search Video Record according to record time, record mode and record storage device etc.
Record Playback	Max support 4 channels playback synchronous.
Others	
Communication Interface	RS232 interface for remote control; RJ45 10M/100M Ethernet port.
Wireless Transfer	Built-in 3G (WEVDO,CDMA200,TD-SCDMA) or optional GPRS,WIFI and EDGE
Module	GPS and G-Sensor built-in
Temperature/Humidity	Normal Temperature: 0°C ~ +50°C Heater: -25°C ~ +50°C Humidity: 20% to 80%

4. GUI

4.1. Login



Factory Default Username: admin

Factory Default Admin Password: 888888

Factory Default User Password: 111111

Attention: If the administrator closed **security setting**, you will directly go to the main menu without login.

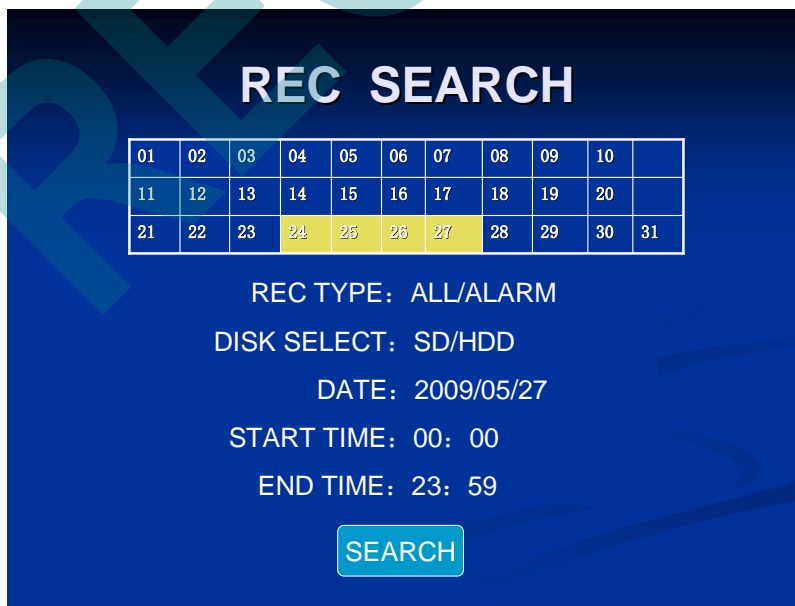
4.2. System Main Interface

The main interface will be displayed on the screen when you login successfully, it contains



4.3. Video Records Playback

Select 'Playback' icon with left/right/up or down key and press 'enter' key to get below interface



Note:

System will highlight the valid recording info in yellow color

"REC TYPE": press the **【Enter】** button to select All or Alarm. The default setting is All.

"DISK SELECT ": press the **【Enter】** button to select the SD card. The default setting is SD1.

"DATE": Default is current day. Press digit keys to reset

"START TIME": Press digit keys to setup the start time, default setting is 00:00.

"END TIME": Press digit keys to setup the end time, default setting is 23:59.

"SEARCH": Take cursor move to "SEARCH" and press the **【Enter】** key to see the result.



- Press direction keys to view recording information, press **【Enter】** to play , press **【ESC】** to return back;
- Press direction keys to select "FIRST", "UP", "NEXT", "LAST", and press **【ENTER】** to enter the corresponding page.

4.4. System Settings



4.4.1. Basic Settings



“DATE TYPE”: year/month/day, day/month/year or month/day/year. Press **【ENTER】** to select.

“TIMEZONE”: **Default GM+08, can selectable with **【-】****【+】** or **【ENTER】****

"DATE": Alterable with number button.

"TIME": The same setup as “DATE”.

"OPR TIMEOUT": All system Interface closed time, default time is 30s, range 30s—3600s. Press digit keys to setup the operating closing time.

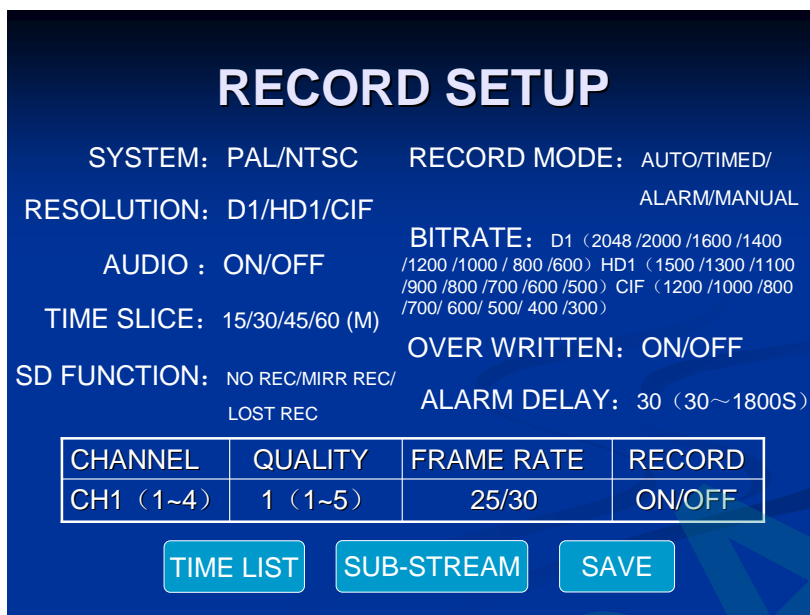
"DEV NUM": It refers to the device ID. Press digit keys to setup the ID. While the client uses only one remote control for multi device, please setting with different device number and password. Device number should be 5 number, rename please push 'DEL' to clear up the record, end enter the new device number.

"COMPANY NAME", "VEHICLE NO", "DRIVER NAME", "LINE NUM": Press **【Enter】** key to get the keyboard window displayed, and use left/right/up/down/enter key to setup.

Select “SAVE” and press **【ENTER】** to save the settings.

4.4.2. Recording Settings

Recording data setting



"SYSTEM ": Press **【ENTER】** key to select PAL or NTSC

"RECORD MODE": AUTO / Timed / Manual, default AC record, press **【ENTER】** to select.

"RESOLUTIONS": Press the **【ENTER】** to select D1, HD1 or CIF, default D1. Please note 4 channels will be set Synchronously, e.g. if you set “CIF”, the CIF resolution will apply to all channels; However if you set the resolution as D1, this setting will apply to ch1 and ch2+ CIF will apply to ch3 and ch4. The resolution doesn't relate with the below “Channel” “Quality” “Frame Rate” “Record” directly. Default **1600KBPS**, alterable with **【ENTER】** or **【-】【+】**.

"AUDIO ": Audio recording On / Off switch, press the **【ENTER】** to select.

"AUDIO INPUT": LINE IN / MIC, press the **【ENTER】** to select.

"TIME SLICE": There are 4 types of time period for continued recording, they are 15/30/45 and 60 minutes. Press the **【ENTER】** key to modify this setting.

"CHANNEL", "QUALITY", "FRAME RATE", "RECORD": Those four keys are for the configuration of every single channel, press the **【ENTER】** key to set up.

"OVERWRITTEN": Overwritten on/off switch. Press the **【ENTER】** key to select.

"ALARM DELAY ": Set alarm delay between 30 seconds ~ 1800 seconds, press digit keys to setup

"GOP": I-frame interval. Press digit keys to set

"BITRATE": Press digit keys to select. Default 1600kbps, alterable with **【ENTER】** or **【-】【+】**

"TIME LIST": 2 time periods can be set for a day; the DVR will automatically make video records according to the setting. This function is available only with the timed recording mode. Press the **【ENTER】** key to enter below setting interface.

SD card: cannot recording/ mirror recording/ recording loss, please press **【ENTER】**

1) Cannot recording: The device can only recording against HDD, if the HDD is full, the SD card cannot save the video record.

2) Mirror recording: main stream recording on HDD, sub-stream recording on SD card at the same time

(There are three situations that may lead video record failure:

1. While HDD do not record, the SD card cannot have video record
2. SD card is not available
3. HDD is not available, SD card cannot record)

3) data loss: HDD error or HDD not available, SD card main stream record.

Attention: HDD priority while both HDD and SD card is available.

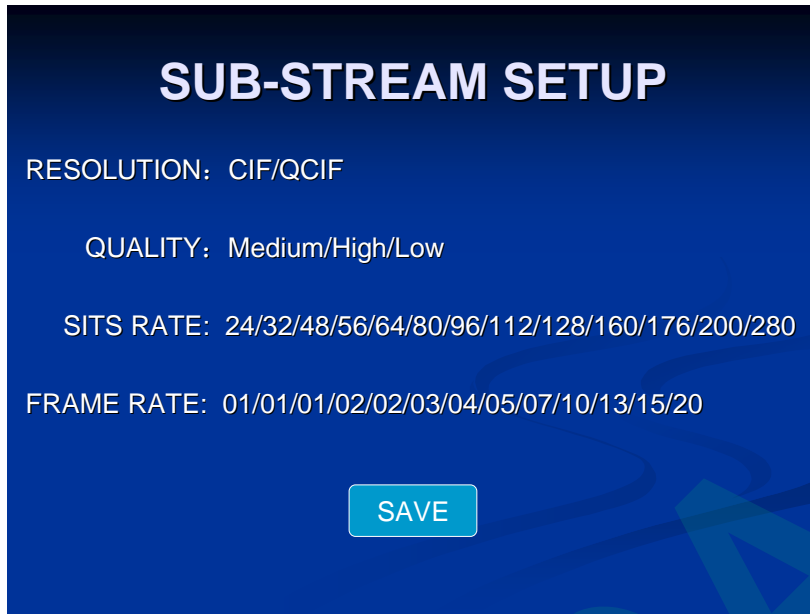
Four channel, image quality from level 1 to level 5, the highest is level 1, the lowest is level 5, Frame rate PAL: 1-25 frame, NTSC: 1-30 frame., the frame rate can be choose to open or closed while recording.



Note: System will auto start recording within the period in “Timed” setup.

Sub-streaming set:

Cursor move to “Sub-streaming” and press **【ENTER】** key enter to the following interface,



"Resolution": CIF/ QCIF selectable.

Image quality: Medium/ High/ Low

"Bit Rate": 24/32/48/56/64/80/96/112/128/160/176/200/280 bits. Press **【ENTER】** key to enter

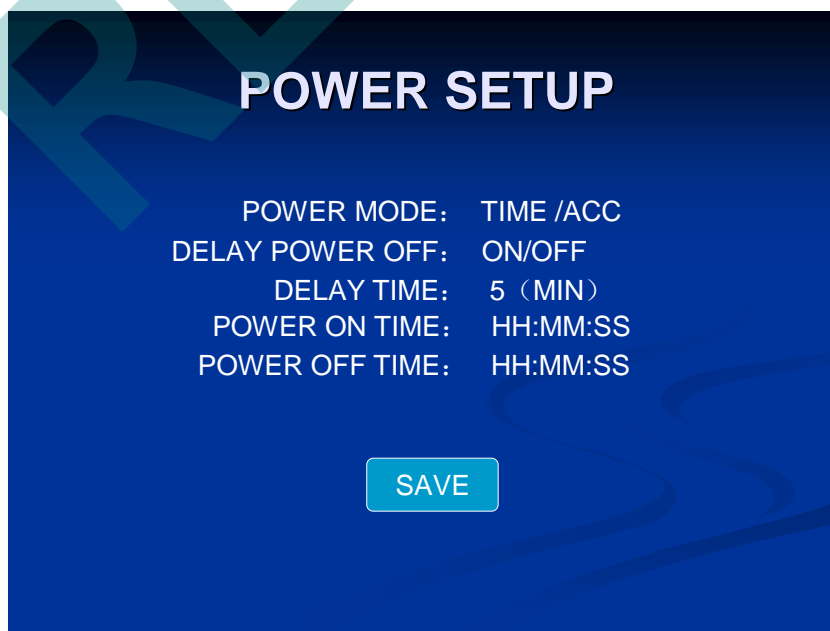
Default is 96 bit, press **【ENTER】** key to enter

"Frame Rate": 01/01/01/02/02/03/04/05/07/10/13/15/20 frame

Default is 10f, press **【ENTER】** key to enter.

Click 'SAVE' to save the configuration.

4.4.3. Power Management



"Power mode": start up and shut down mode by pressing **【ENTER】** key to select.

- TIME: DVR will auto power on/off according to the preset time table.
- ACC: System will auto power on/off according to vehicle acc switch on/off signal.

"DELAY POWER OFF": When this function is on, the DVR will continue making record for a while as per the configuration. When this function is off, the DVR will shut down when ACC is off. Press 'enter' key to select.

"TIME": off--Shut down system at once. Press **【ENTER】** key to select.

"DELAY TIME": Press digit keys to select. The range is between 3 and 240mins. Use key **【Del】** to cancel, number button to enter in.

"POWER ON TIME": Press digit keys to select.

"POWER OFF TIME": Press digit keys to select.

4.4.4. Alarm Settings

ALARM SETUP				
INPUT	ENABLE	PWL	RECORD	FUNCTION
I /01	ON	HIGH	ON	LEFT/RIGHT
I /02	ON	HIGH	OFF	MIDDLE
I /03	ON	LOW	ON	BRAKE
I /04	OFF	LOW	OFF	FRONT
I /05	OFF	HIGH	ON	POSTERN
I /06	OFF	LOW	OFF	BACKING
OUTPUT	ENABLE	PWL		
RELAY OUTPUT	OFF	HIGH		

SAVE
SPEED
G-SENSOR
MOVE DETECT

- Alarm input
Support 6ch alarm input.

"ENABLE": switch on/off.

ON---Enable alarm input;

OFF---Disable alarm input. Press the **【ENTER】** key to select on or off to enable or disable alarm input.

"Level Setting ": Setup input alarm level signal. HIGH---high electrical level input signal will enable alarm. Press 'enter' to set the level. High or low level can be set with input signal; open or close can be set with output signal.

"RECORD": ON---Enable alarm recording; OFF---Disable alarm recording. Press the **【ENTER】** to select on or off to enable or disable recording.

- Alarm output
Support 1ch alarm outputs.

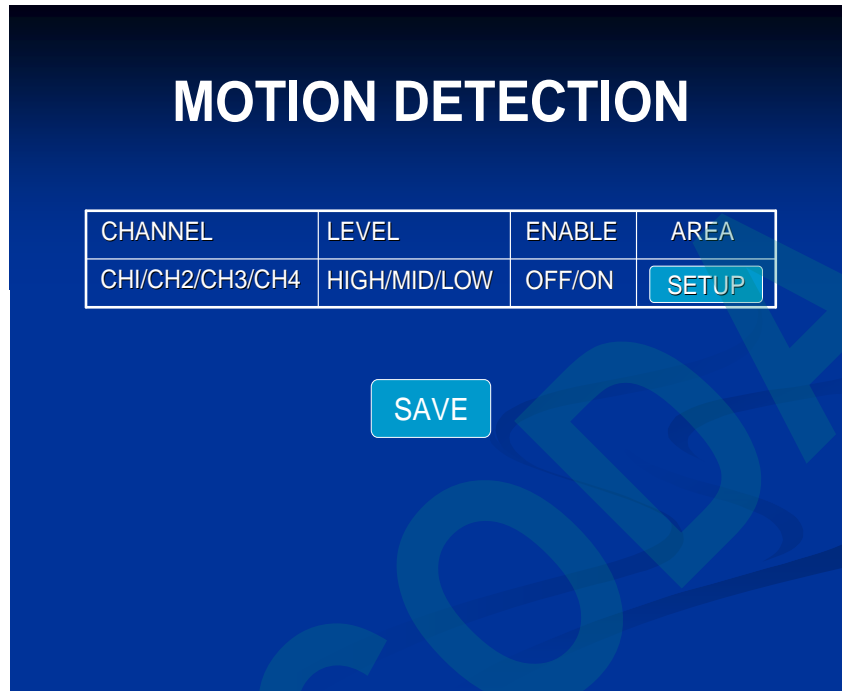
"ENABLE": On/Off switch.

ON---Enable alarm output;

OFF---Disable alarm output. Press the **【ENTER】** key to select.

PWL: power level output for alarm. High stands for high power level output and low refers to low power level output. Select and press “SAVE” to save all setup.

- MOVE SET (Motion Detection)



Channel Number: CH1/CH2/CH3/CH4, press **【ENTER】** key input

Level: HIGH/MID/LOW. Press **【ENTER】** input

ENABLE: ON/OFF. Press **【ENTER】** input

ENABLE ON: start alarm record and records alarm journal when alarm

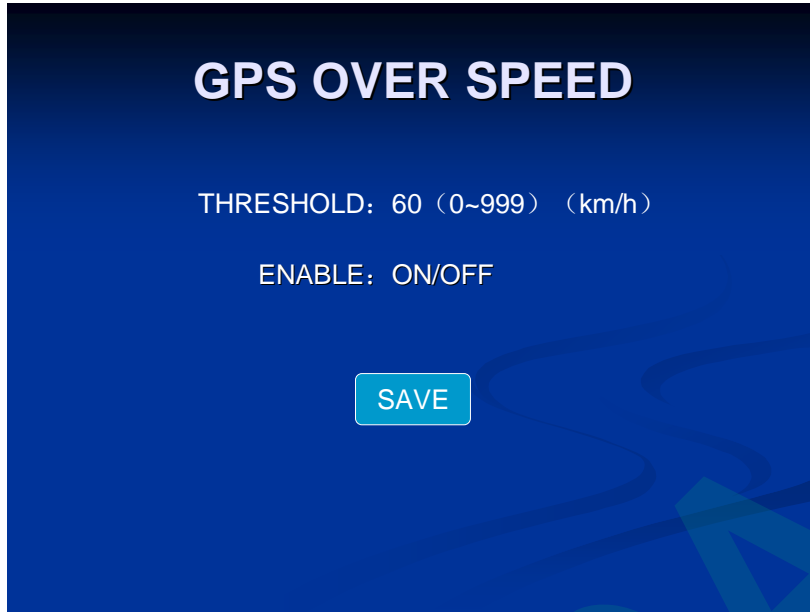
ENABLE OFF: Don't start alarm record and don't records alarm journal when alarm

AREA SET: Press **【ENTER】** key to setup

Remark: After complete setup, please press “SAVE” to save all settings

- OVER SPEED

Move cursor to “over speed” and press **【ENTER】** key to enter to over speed alarm interface as below:



THRESHOLD: 0~60km/h, input range 0-999. Key **【Del】** to cancel.

ENABLE: Press **【ENTER】** key to set-up

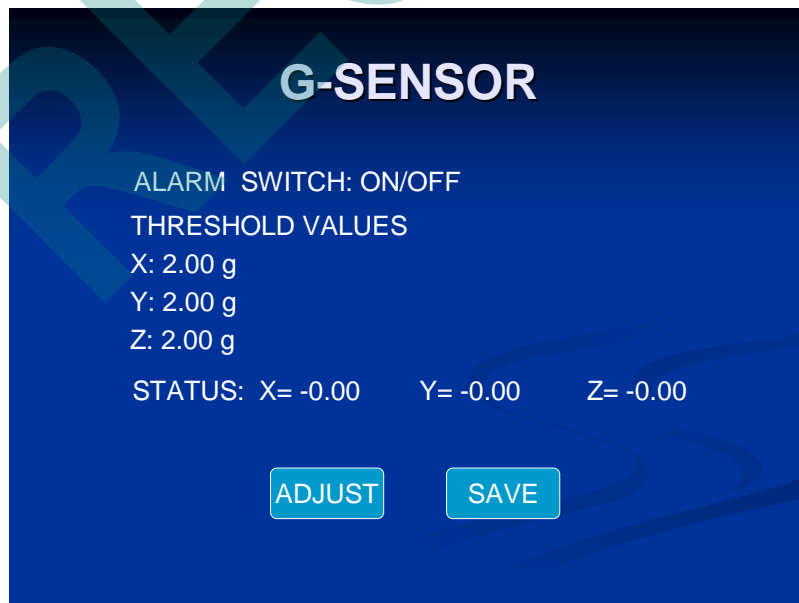
ENABLE ON: To start alarm record and records alarm journal when GPS speed overran threshold

ENABLE OFF: Never to start alarm record and records alarm journal when GPS speed overran threshold

Remark: After complete setup, please press “SAVE” to save all settings

- G SENSOR

GSENSOR setup, Press the **【ENTER】** key to enter below setting interface for G-sensor configuration:



“LIMIT”: Limit value for X/Y/Z, Minimum value is 0.00g and Maximum value is 9.99g, press digit keys to

setup.

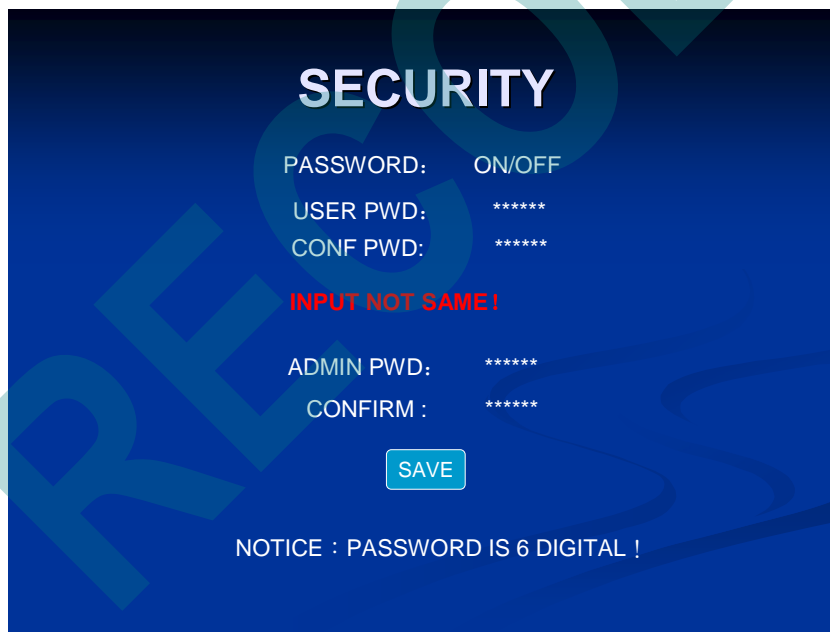
“ALARM”: G-Sensor alarm OPEN/CLOSE setup, press **【ENTER】** to set it.

- Alarm Open: Open alarm recording and alarm files will be recorded when X/Y/Z value over than “Limit value” under record statuses
- Alarm Close: Close alarm recording and alarm files will not be recorded when X/Y/Z value over than “Limit value” under record statuses

“CHECK”: Adjust X/Y/Z current values when user start up device at first time, Press the **【ENTER】** key to confirm. After “CHECK”, X/Y/Z value will be “0”

Remark: Please do remember to click “SAVE” to save data after setting.

4.4.5. Security Settings



Password setting:

"PASSWORD": ON---Enable password; OFF---Disable password, press the **【ENTER】** key to select.

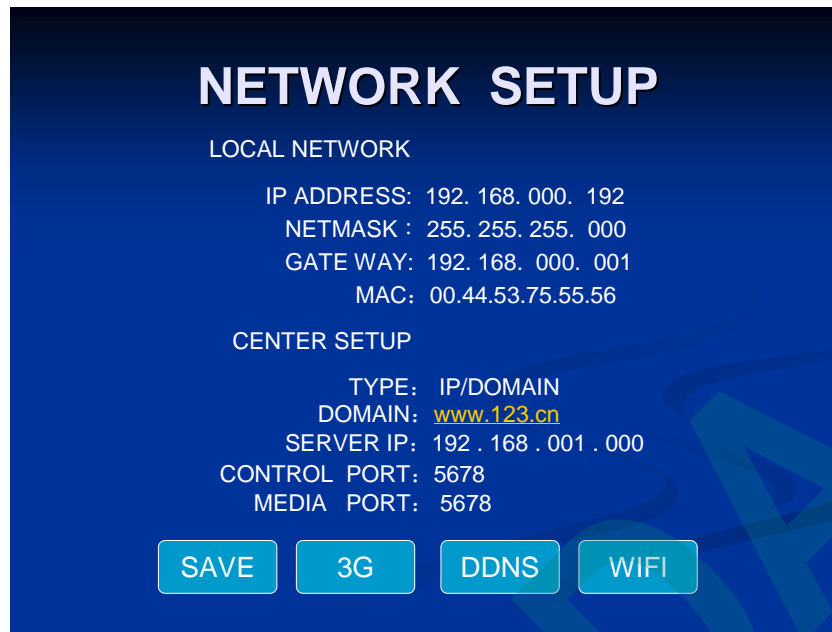
Select and press “SAVE” to save the configuration. Administrator Password should be same as User’s.

Attention: Multi device have AC recording at the same time, please separate name the device and use different password. The Device ID can be set in the menu of basic setting.

4.4.6. Network Settings:

Network parameters should be set on the device. The system will detect devices without any further setting if

the configuration is correct



“Local Network”

LAN CONNECT: Set up IP address, net mask, gateway, MAC address etc. and please set the server IP in same with net mask’s, Please make a reference on the above picture

WAN CONNECT: No need set up network on PC

“CENTER SET”

LAN CONNECT: Server IP must keep same with device’s and the port number is “5678”

WAN CONNECT:

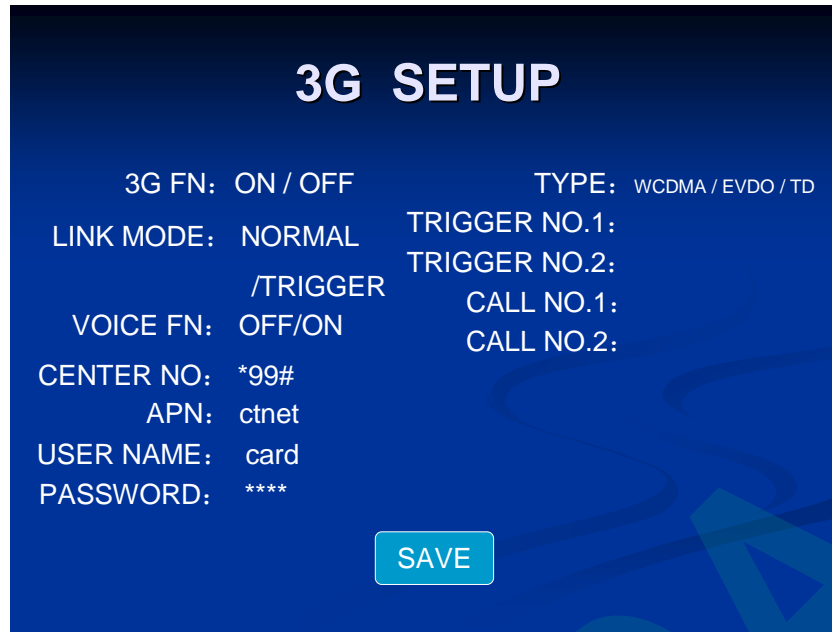
“SERVER IP”: Set up WAN IP

“PORT NUMBER”: If user get online via router, make a port mapping is necessary, the port number is “5678”

“DOMAIN”: If user use dynamics IP, user can apply a DDNS account and then to set up DOMAIN (for example: www.123.cn)

- 3G wireless settings

Press **【ENTER】** key to enter the following interface:



“WIRELESS”: ON—enable wireless; OFF—Disable wireless, press the **【ENTER】** key to select.

“TYPE”: WCDMA—WCDMA module; EVDO—EVDO module, TD-TD module press the **【ENTER】** key to select.

“APN”: APN CMWAP, Press the **【Enter】** key to enable the keyboard window, then use left/right/up/down/ enter key to setup.

“CENTER NUM”: Center number, Press the **【Enter】** key to pop out keyboard window, then use left/right/up/down/ enter key to setup.

“USER NAME”: Press the **【Enter】** key to pop up keyboard window, then use left/right/up/down/ enter key to setup.

“PASSWORD”: Press the **【Enter】** key to pop up keyboard window, then use left/right/up/down/ enter key to setup.

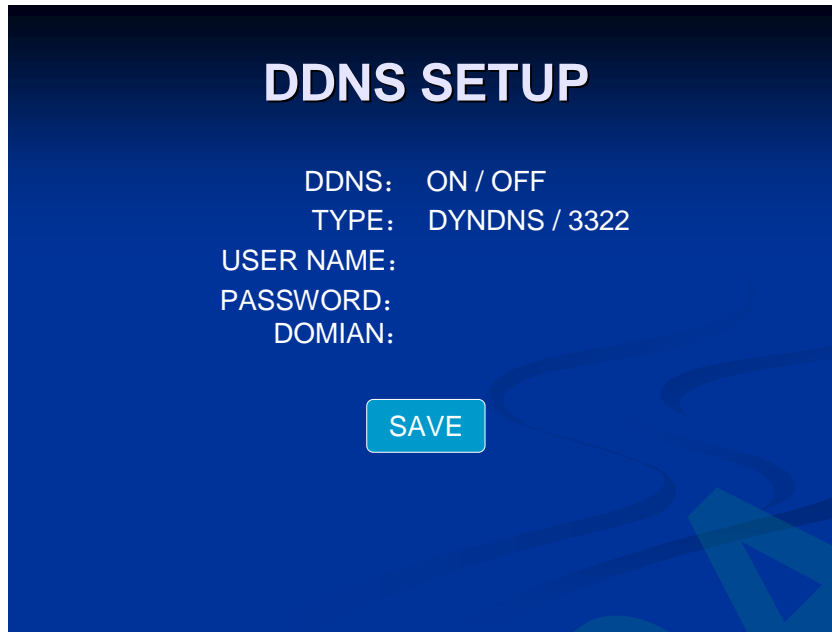
Click “SAVE” to save all setup.

Link mode: touch off mode., call the device – dial up to get on line, send the SMS – off line. Trigger number create with digit.

Phonetic function: select on/ off with button **【Enter】** . Call No. creates with digit.

● DDNS

"DDNS": Cursor to the " DDNS ", Press the **【ENTER】** key to enter below interface.



DDNS: Close / Open, with **【Enter】** key to select.

“TYPE”: DYNDNS/3322, with **【Enter】** key to select.

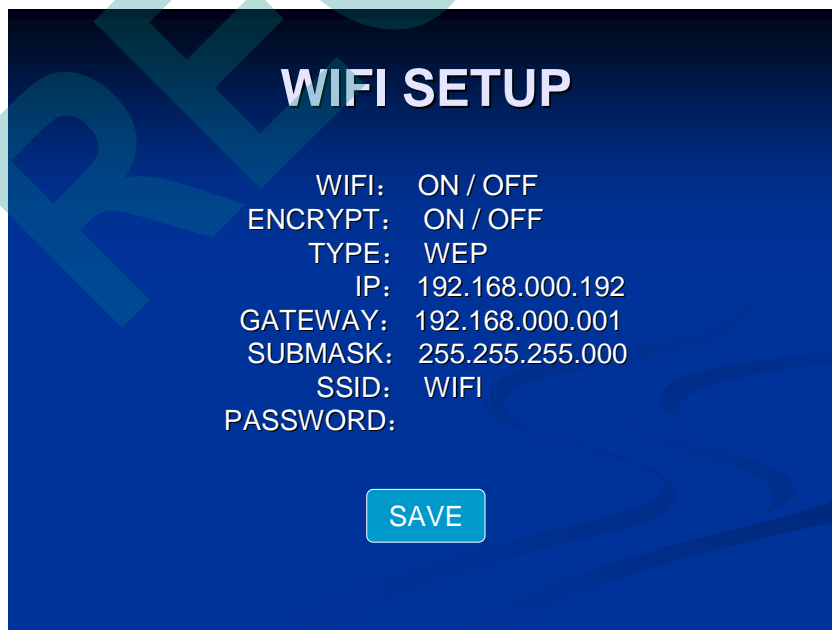
"User Name", "Password": user name and password for setting DDNS, press **【Enter】** key to enter, then enter to the keyboard interface, move the cursor and input corresponding letter through press **【Enter】** key.

“DOMAIN”: With press **【Enter】** key to input matched domain and enter to key interface, choose the correct letters by moving cursor and then press **【Enter】** to input them

Click the “SAVE” after complete setup

- **WIFI SET**

Move cursor to “WIFI” and then press **【ENTER】** to enter to the following interface



WIFI: Choose ON or OFF with **【Enter】** key

ENCRYP: Choose ON or OFF with **【Enter】** key

ENCRYP TYPE: Default WEP. Choose the type NONE/SHARED/WPAPSK/WPA2PSK/WPANON with

【Enter】 key

IP Address:

Gateway:

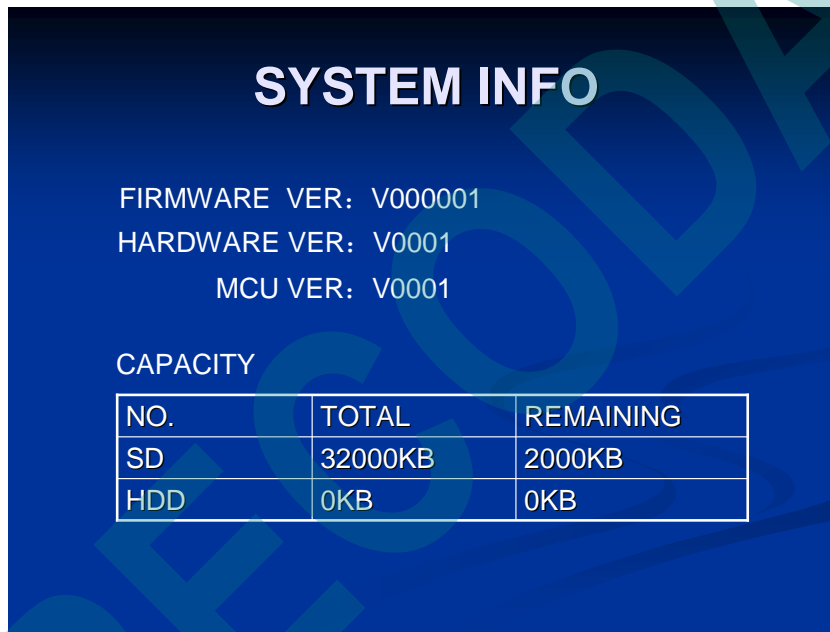
SUBMASK:

SSID:

PASSWORD:

Remark: After complete setup, please press “SAVE” to save all settings and all above settings must match with router.

4.5. System Info



"FIRMWARE VER": Software version number.

"HARDWARE VER": Hardware version number.

"MCU VER": Single-chip version number.

"SD NUM": Name of SD card.

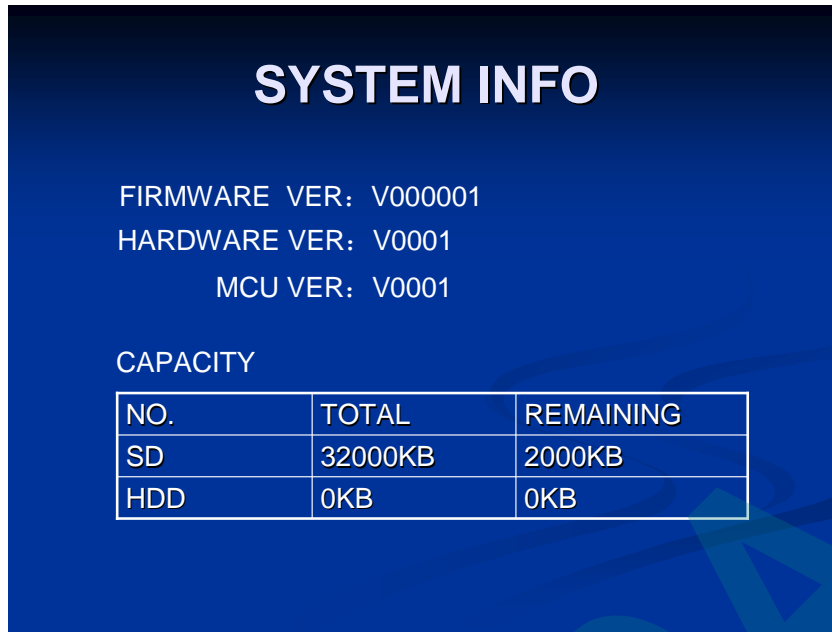
“Number”: Display SD and HDD.

“Total CAPACITY”: Display SD Card and Hard disk’s capacity

“LEFT CAPACITY”: Display SD Card and Hard disk’s left capacity

4.6. Management Tools

Management tools include log manager, disk manager, system default settings and system upgrade



4.6.1. Log Management



Log manager will record the alarm info including date, time and name

"START TIME": press digit keys to set up the start time for an inquiry of a log

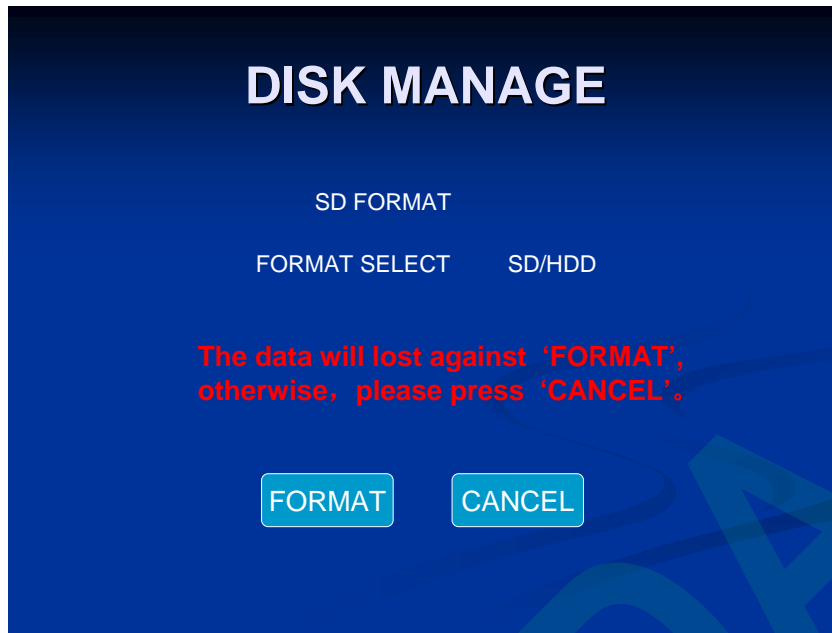
"END TIME": Until what time to search the logo, press digit keys to setup.

"SEARCH": press the enter key to search all log info in this time period. Press the direction keys to select

"FIRST", "UP", "NEXT", "LAST ", and press the **【ENTER】** key go to corresponding page.

Select the page with direction button, key **【ENTER】** to confirm.

4.6.2. SD Card Management

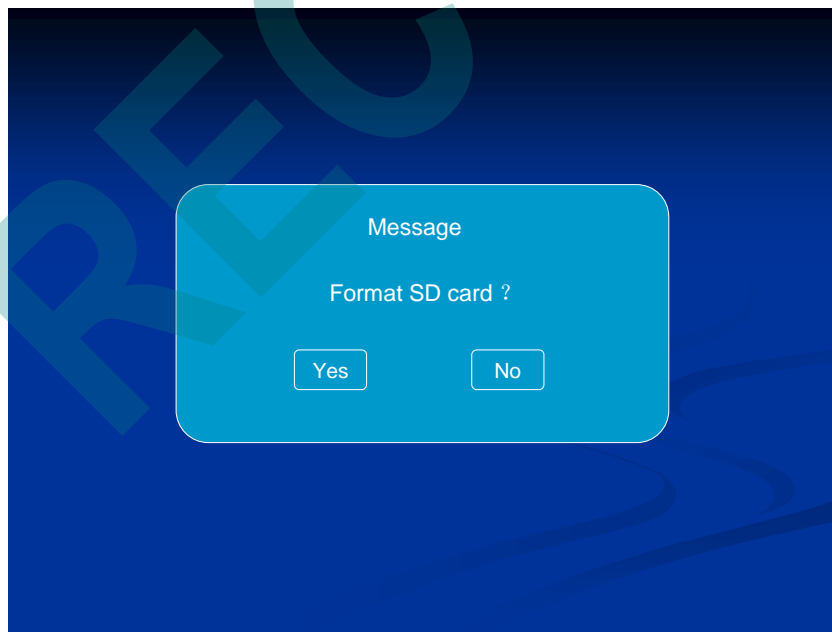


Disk management is used to format the SD cards.

"SD SELECT": to select SD1 or HDD by pressing the 'enter' key.

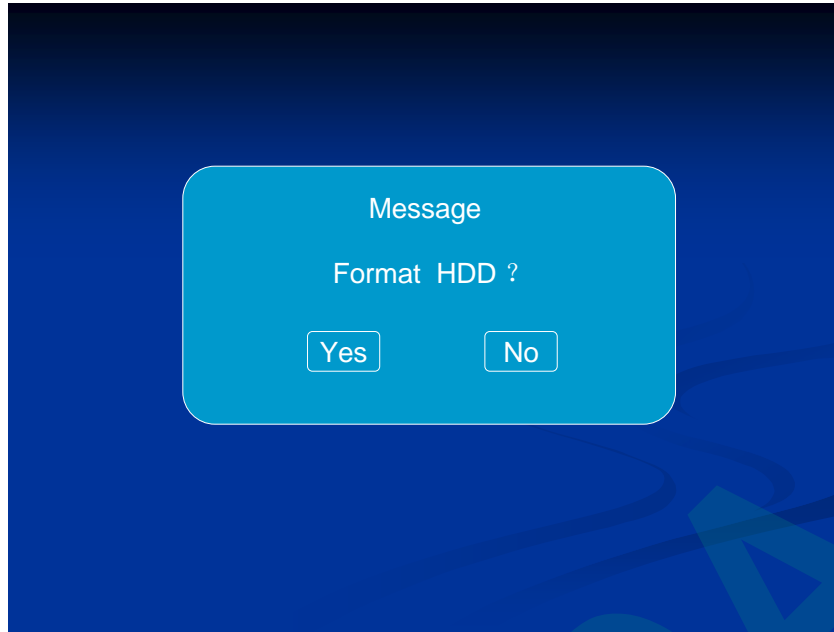
"CANCEL": Cancel disk management operations, and return back to the management tool interface.

"FORMAT": Select the format button, and press the enter key to enable below window for formatting SD cards:



"Yes": press the **【ENTER】** key to start formatting.

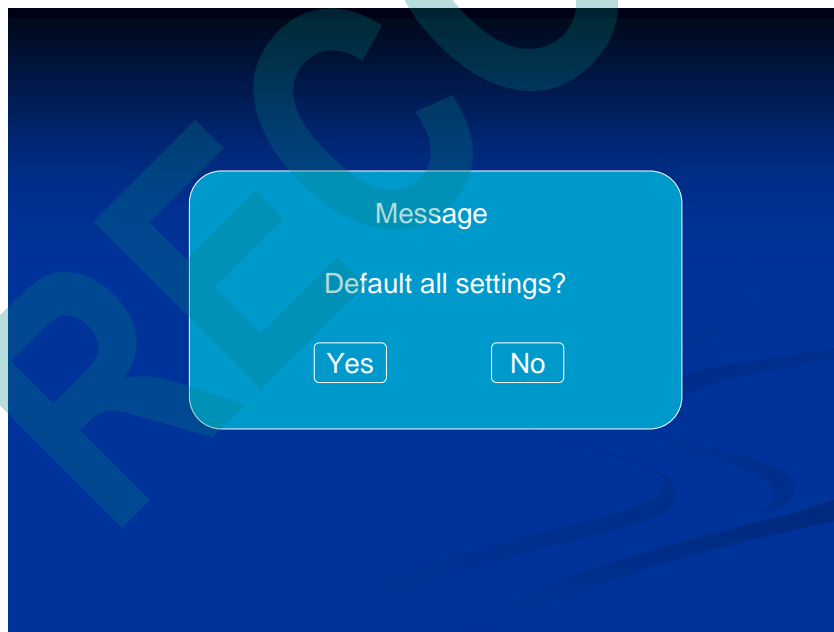
"No": Cancel formatting and return back to the disk management interface.



"Yes": press the **【ENTER】** key to start formatting.

"No": Cancel formatting and return back to the disk management interface.

4.6.3. Default Settings



RESTORE TO FACTORY DEFAULTS

"Yes": Press the **【ENTER】** key to recover all parameters to the original default settings.

"No": Cancel this operation and return back to the management tool interface.

4.6.4. Config Management

Import and export config file



Import Configuration: Import the “DVR.CFG” file into device from the SD card or HDD

Export Configuration: Export the “DVR.CFG” file from device to the SD card or HDD

4.6.5. System Upgrade



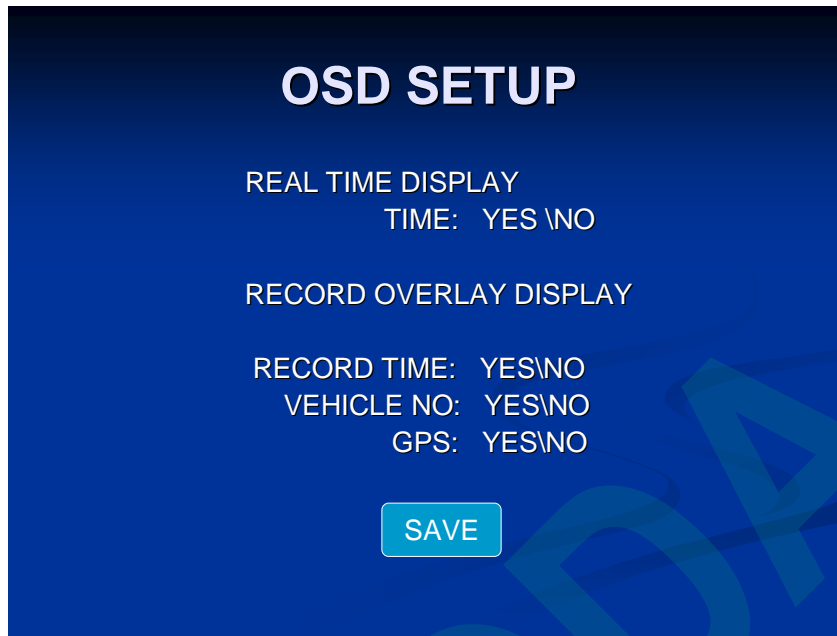
System current version: Select matched version according to upgrade type

Upgrade type: Press **【Enter】** to choose the type, such as Application program, bootstrap program, kernel program

Upgrade from: SD card or Hard disk

Remark: Upgrade type should be match with select way

4.6.6. OSD Setup



Record time overlay: Yes/ No, select with button **【ENTER】** .

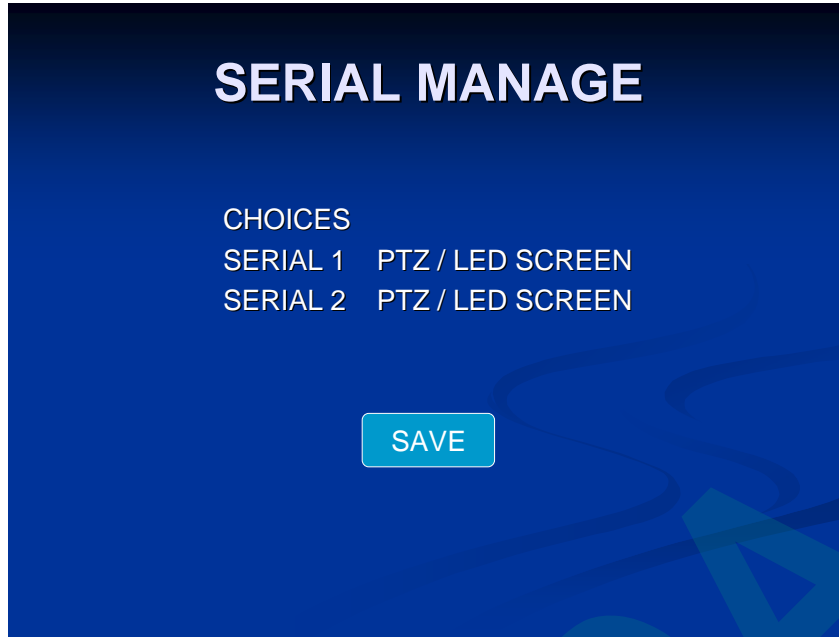
Preview time overlay: Yes/ No, select with button **【ENTER】** .

Vehicle Number overlay: Yes/ No, select with button **【ENTER】** .

GPS overlay on the record: Yes/ No, select with button **【ENTER】** .



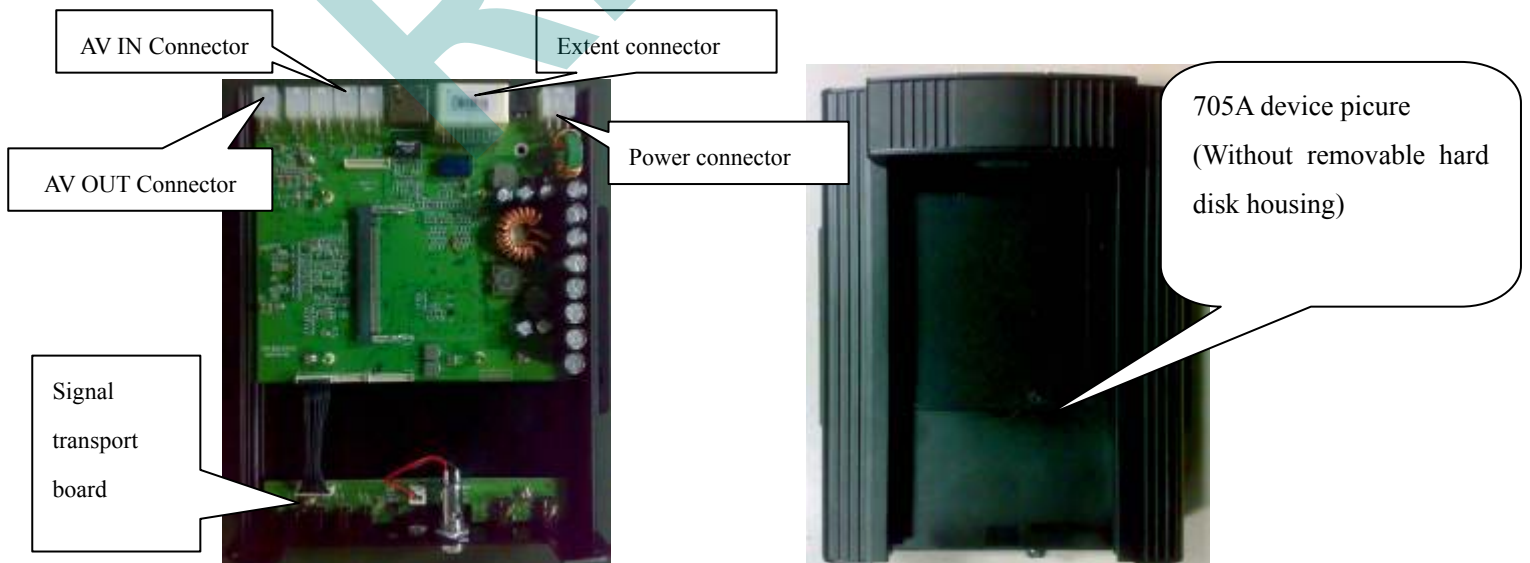
4.6.7. PTZ Manage



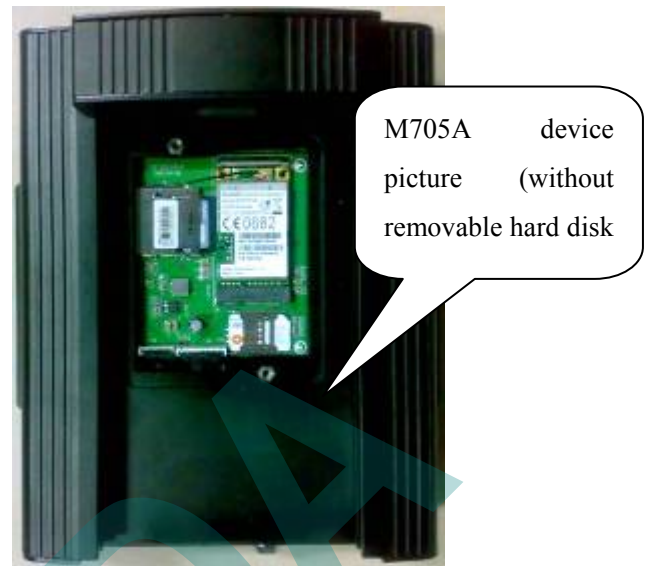
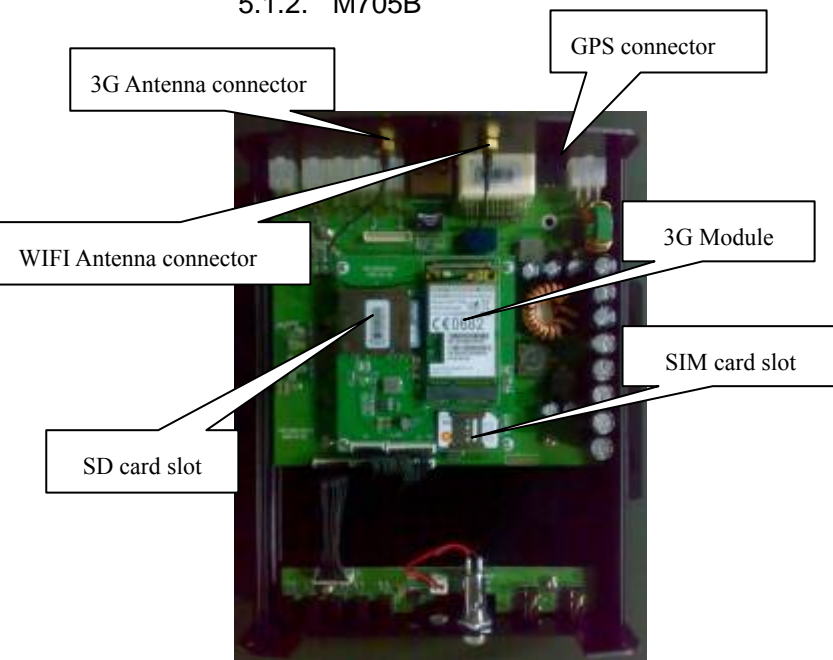
5. Installation guideline

5.1. M705A and M 705 B Pictures

5.1.1. M705A



5.1.2. M705B



5.2. Cables

5.2.1. Power Cable



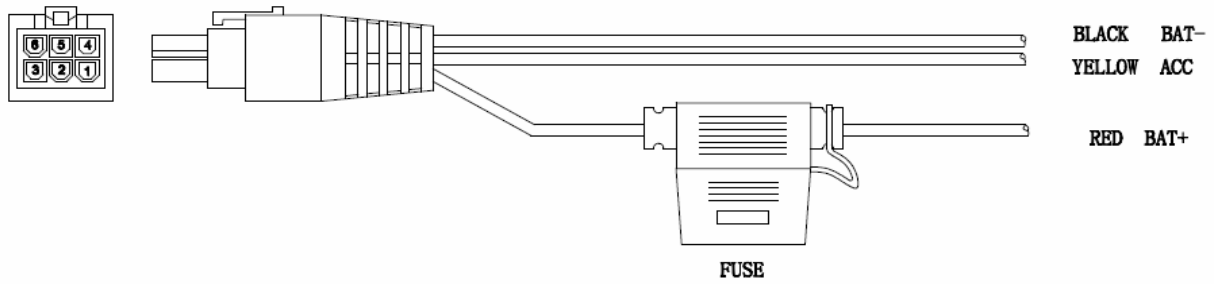
It is power cable picture. The red and black cable should be connect to the power level in vehicle. Pay attention to the color. The red one connect to anode and the black one connect to the cathode, the yellow cable connect to ignition cable when switch mode set up in ignition mode

The device will power on when vehicle switch on by key automatically, When vehicle switch off by key the device will be power off as well.

Remark:

- 1) Please make sure the power level voltage between 12V—24V
- 2) Please make sure insulate all cables after complete connect cables
- 3) Yellow cable must be connected with ignition cable
- 4) MDVR Can not make ground strap connection, it must get the anode and cathode from power level. The

diameter of anode and cathode cables must over than $\Phi 1.5$



Cable color	Name	Explanation
Black	BAT-	It is ground cable
Red	BAT+	It is power cable
Yellow	ACC	It is ACC cable

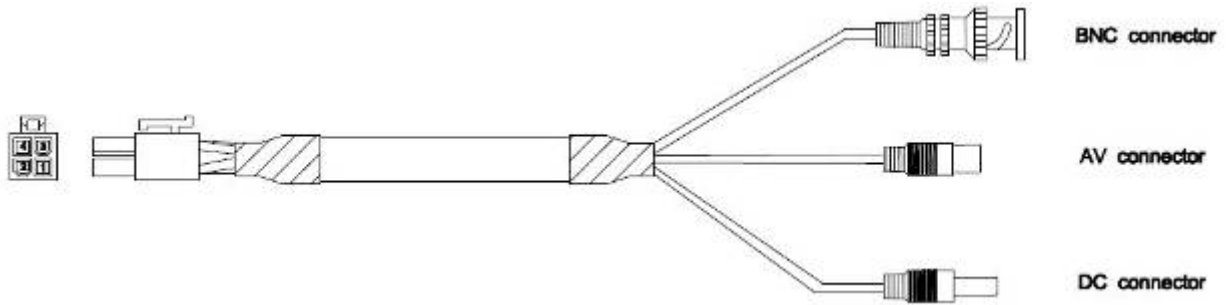
5.2.2. GPS Antenna



5.2.3. AV input /output cable

It is picture for AV input/output cable

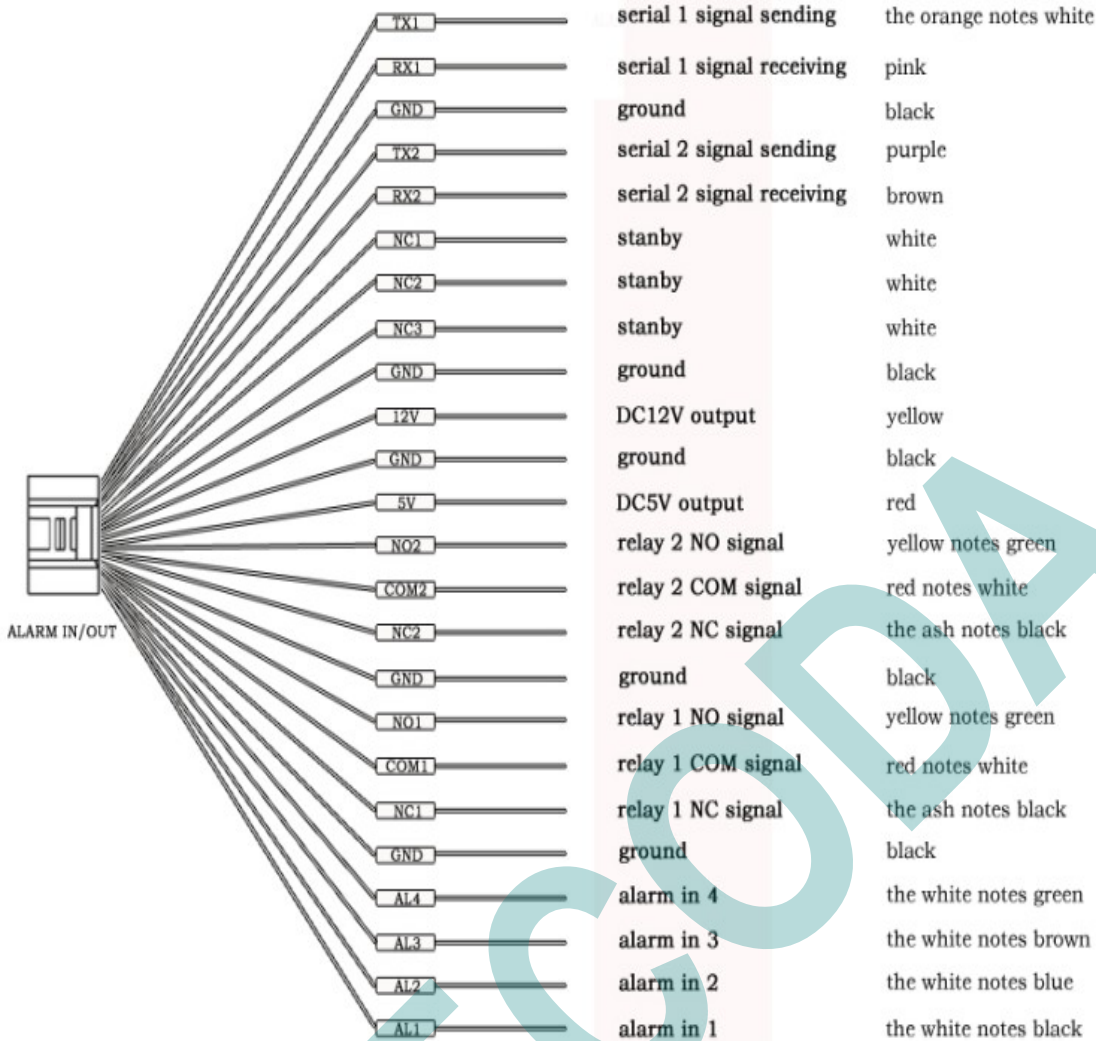




Connector	Name	Explanation
Video input	VIN1~VIN4	4 video input with BNC connector
AV output	VOUT	1 video output with BNC connector
Audio input	AIN1~AIN4	4 audio input with BNC connector
Power output	DC	12 V power output with DC connector

5.2.4. Alarm input and output cable





6. Device Upgrade Guideline

6.1. M705X-RFS-*****.crc (Document system) upgrade

1. Copy the files to SD card or at Hard disk and please be sure that make the file copied completely
2. Insert SD card or Hard disk when device in disconnect electricity statuses
3. Enter to the system, choose management and then select upgrade types, upgrade via SD card or Hard disk , and start upgrade after choose
4. The LCD will show that “System is upgrading, please do not make the device power off”
5. When device upgrade complete, it will re-start and go back to monitoring statuses

6.2. M705X-APP-*****.crc (Application program) upgrade

Upgrade same as 6.1

6.3. MCU upgrade

1. Make the upgraded file to be copied to SD card or at hard disk, then change the file name as Boot_flash.bin. please be sure that make the file copied completely
2. Insert SD card or Hard disk when device in disconnect electricity statues
3. It will upgrade automatically after device power on.
4. Check out the updated version through press “INFO” key on remote control, or via “System Info” in device menu to check it.

Remark:

- ① Please make sure never do any operation during upgrading
- ② Make sure all the all the upgraded files are in SD card or hard disk. Power must be off before upgrade
- ③ If user have to upgrade device again, please be noted that the same version cannot be upgraded to it
- ④ The correct upgrade sequence is file system upgrade, application program upgrade and the last one is MCU upgrade
- ⑤ When device re-start during upgrading, it means upgrade has finished automatically.

6.4. Edition number

Press key **【INFO】** on the remote control, enter in the menu ‘System info’ to check the edition.

6.5. Restore to factory default

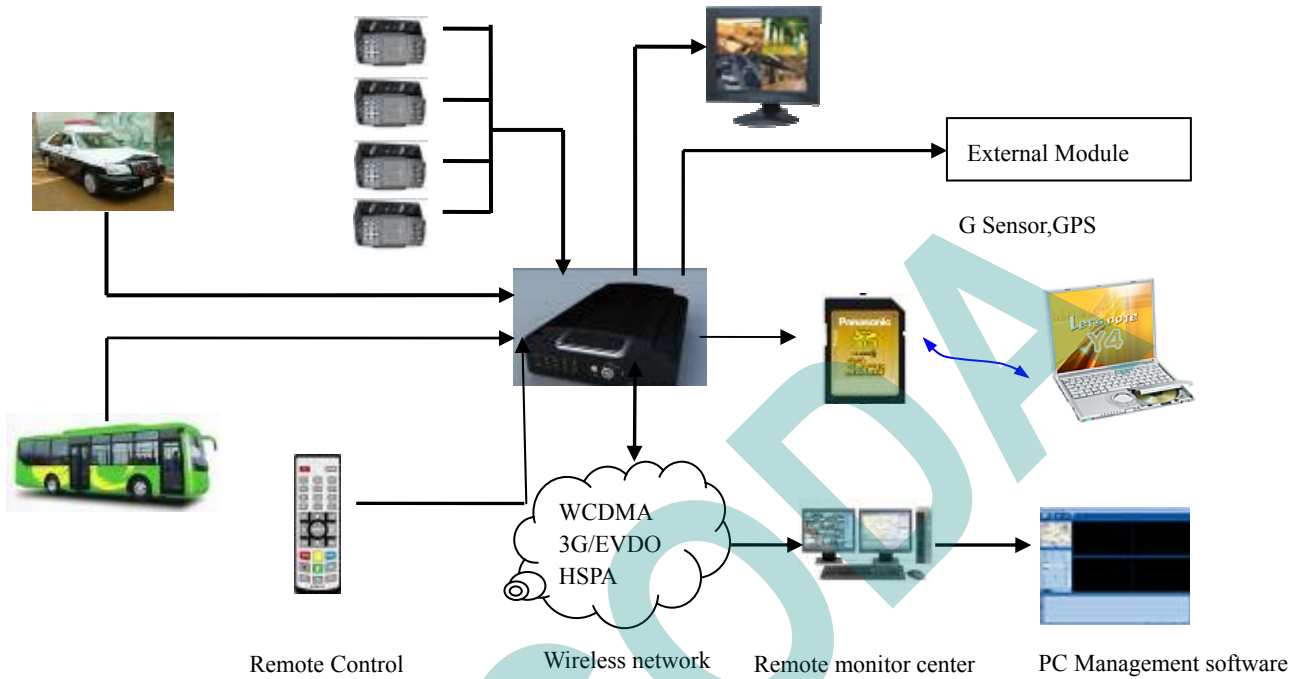
Enter in management menu, restore to factory default, the device will restart to the monitor state.

Attention: :

- ① While the device upgrade, please make sure not to have any other operation;
- ② Make sure the upgrade file is saved in SD card or HDD, also the device should be power off before upgrade;
- ③ The upgrade sequence is: File system, Application system, SCM;
- ④ The device will restart against upgrade finished.
- ⑤ Device had restored to factory default.

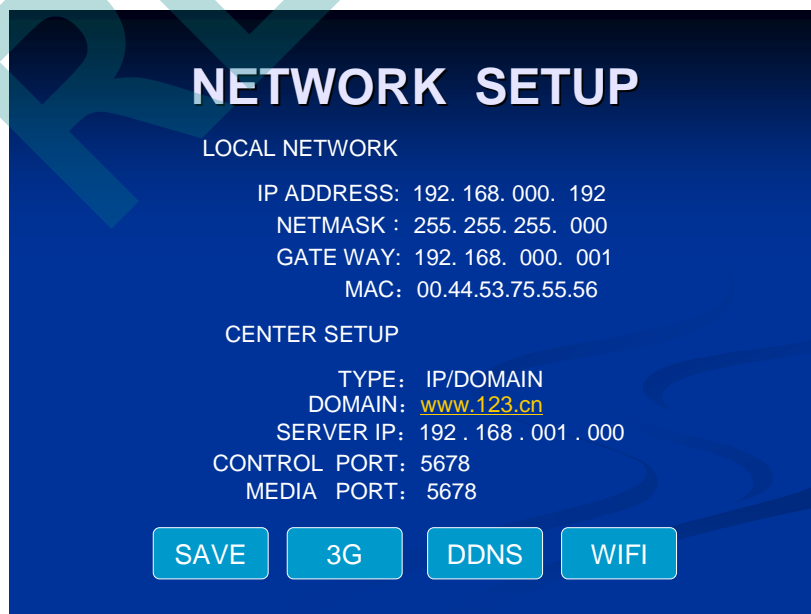
7. 3G User Guideline

7.1. Working System Representation



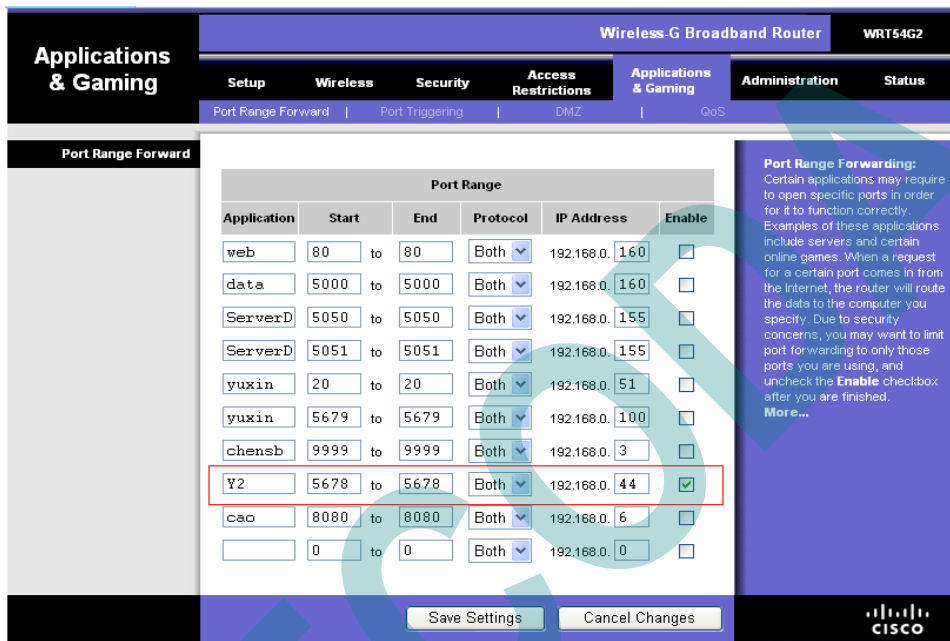
7.2. Parameter Settings

7.2.1. Network Setting

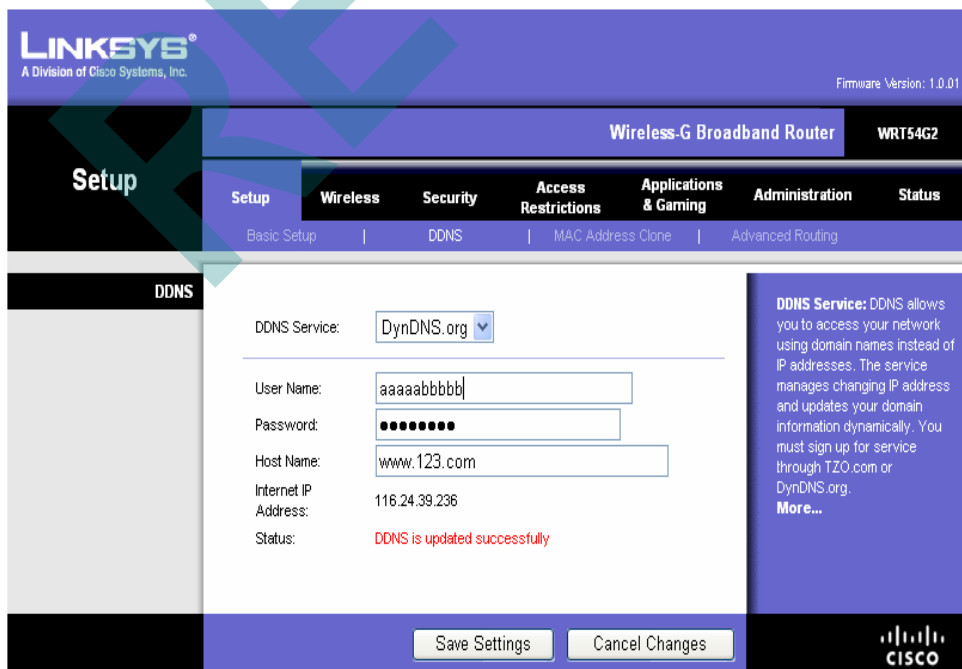


Picture 1

- 1) Server IP must be globe IP
- 2) Default Port is 5678.
- 3) If the computer which running Fclient in local area network, Port map must be setting in router (Please make a reference in picture 2)
- 4) There are two types IP setting: Domain and IP.
- 5) If customer set it as Domain, the user router must support DDNS. (Please make a reference in picture 3)



Picture 2

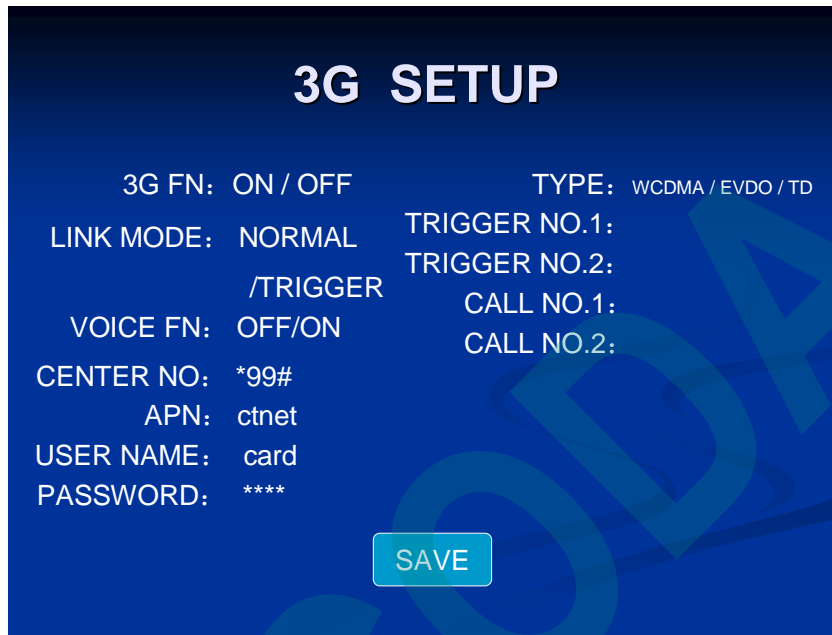


Picture 3

7.2.2. Wireless setting

There are 3 types: WCDMA, EVDO and TD.

When user set it, please make sure the type you select must be match with the type of 3G modules (Please make a reference in picture 3)



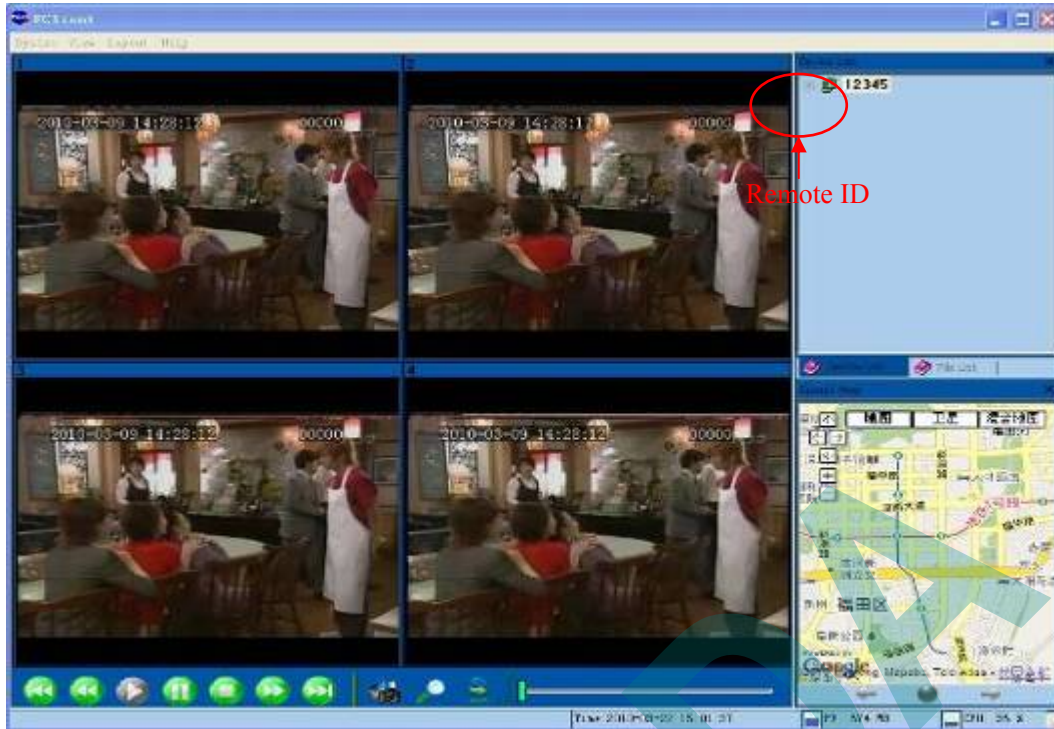
Picture 4

7.2.3. Statuses check out

7) Press F1 key on remote control under preview interface to check out current statuses. It will show the information about 3G modules. Such as whether 3G or SIM card exists or not. Signal and dial-up statuses (Please make a reference in picture 4)

7.3. PC software setting

Make Fclient software running first. When device dial-up successfully, it will connect automatically with server which set by user. Green color means connecting (Please have a reference in picture 5)



Picture 5

8. F.A.Q

Problem 1: The power indicator not bright after power on.

The following reasons will cause the power indicator not works:

- 1) Electric voltage isn't within the range of 8-36 V;
- 2) The fuse in power cable was burned;
- 3) ACC setting failure or ignition connects in a wrong way

Problem 2: ERR indicator keep on light.

The following errors will cause the ERR indicator keep on light.

- 1) Two SD cards didn't be inserted.
- 2) The system partition under abnormal statues, even the SD card be inserted, it also can cause the equipments can not be identified;
- 3) MCU not works;
- 4) SD card cannot read and write in normal;

Problem 3: Channel indicator not works

The following reasons will cause the Channel indicator not works:

- 1) No video signal input;
- 2) Cameras break down;

- 3) Indicator is damaged;
- 4) The system cannot be operated in normal.

Problem 4: SD card indicator not works or keep flicker

The SD card indicator has 3 medium statuses: OFF, ON and Flicker; respectively meaning as follows:

OFF: This SD card didn't be inserted or can not be identified by the equipments;

ON: This SD card existence, but it isn't the one that is recording image at present;

Flicker: This SD card exists and it is the one that is recording image at present;

Possible reason is as follows:

- 1) User doesn't setup record in system;
- 2) Two SD cards all have already recorded full, but overwritten function was "off" in system
- 3) Although Overwritten function was "on" in system, all the files in two SD card are alarm record ones. These files cannot be deleted automatically so SD card can not memory new record files

Problem 5: HDD indicator not works or keep flicker

The HDD indicator has 3 medium statuses: OFF, ON and Flicker; respectively meaning as follows:

OFF: This HDD didn't be inserted or can not be identified by the equipments;

ON: This HDD existence, but it isn't the one that is recording image at present;

Flicker: This HDD exists and it is the one that is recording image at present;

Problem 6: HDD and SD card indicator not works or keep flicker

- 1) No record task according to system set-up
- 2) SD card and HDD both record full and overwrite function be set in "OFF" statuses
- 3) The files are alarm record file, even overwrite function be set in "ON" statuses, after SD card and HDD both record full, the device cannot start make the new record

Problem 7: Video Lost in certain channel

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 equipments directly, may be the equipment's electric voltage isn't enough to make camera work as usual;
- 4) The cable that links this channel has problem

Problem 8: Record files have no audio

Probably of the reason is as follows:

- 1) Audio function setup in “OFF” mode in system
- 2) Use wrong input cables

Audio input including two types. One is LINE IN and the other one is MIC IN. It will be showed on Record setup interface in system. User must select one of them before make a record. The cable AIN1 and AIN2 match with LINE IN mode, however cable MICIN match with MIC IN mode.

- 3) Audio output cable didn't connect or connect in a wrong way;

Problem 9: Device cannot make a record successfully.

The following reasons might cause this problem:

- 1) Recode mode setup in a wrong way

There are 3 kinds of record mode: Auto, Timed and Alarm. Before recording, user must to setup record mode in system. If it was set in “Alarm” mode but has no alarm right now,” device will not make a record. If it was set in “Timed” mode but the current time not within timed period, same as above, device will not make a record as well.

- 2) Overwritten function was “OFF” and the capacity of SD card less than 500M, in this situation device will stop recording.
- 3) The ERR light of front panel shine. Can pass to look into a system information, If SD card space shows in “0” please check whether SD card has been formatted before use and inserts or not.
- 4) Record mode be set to “OFF” in each channel. Please press “Enter” button on remote control to switch “OFF” to “ON” mode before record, otherwise device will not make any record.

Problem 10: Alarm input invalid.

May be the following reason to cause this problem:

- 1) Alarm setup in a wrong way in system.
- 2) Alarm input cable did not connect to the device or cable not works
- 3) Alarm trigger signal to get an electric shock failure

Problem 11: Alarm output invalid.

Possible reason is as follows:

- 1) Cable connection in a wrong way.
- 2) System setting in a wrong way

Problem 12: GPS signal lost

GPS has no signal, probably of the reason is as follows:

- 1) Didn't connect GPS antenna;
- 2) The GPS antenna put indoors;

3) The GPS module damages;

Problem 13: G-Sensor data abnormal.

The reason as below:

- 1) The G-Sensor damage;
- 2) User did not check the X/Y/Z data in system

Problem 14: Can't playback files on PC successfully.

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.

Problem 15: Remote control not works:

Probably of the reason is as follows:

- 1) The remote control didn't pack battery;
- 2) The remote control damages;
- 3) The equipment breaks down;

Problem 16: During playback, the map doesn't show.

Possible reason is as follows:

- 1) Net cable did not connect to PC
- 2) Net works, but the computer can not get to the Internet;