4CH MINI Mobile DVR USER MANUAL

Ver. 1.1

Contents

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).
- 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.
- Support 1 channel audio input, 1 channel microphone or audio line in. G.726 compression.
- 4 channels alarm input/ 2channels alarm 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 capacity: two 32GB SD card (the default selection is one SD card support).
- Quick start-mode: the device will turn to working in 20 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℃ to +70℃
- All materials and PCB production conform to RoHs standard.
- Elegant and industrial design: Mini size, for easy installation, more concealing.
  Dimensions: 112(W) x36(H) x138(D) mm
  Weight: 0.45KG;

1.2. Appearance

Front view:

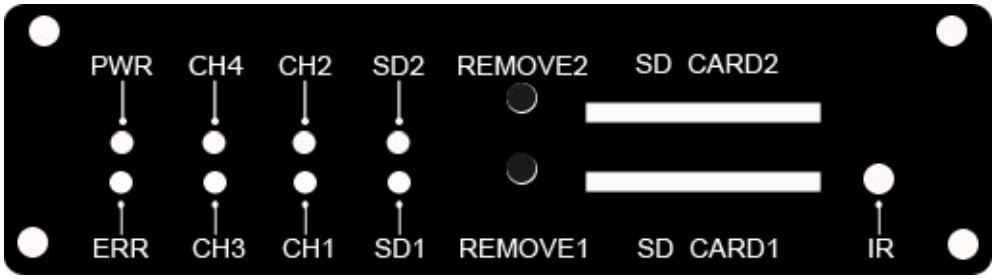
Back view:

1.3. Remote Control

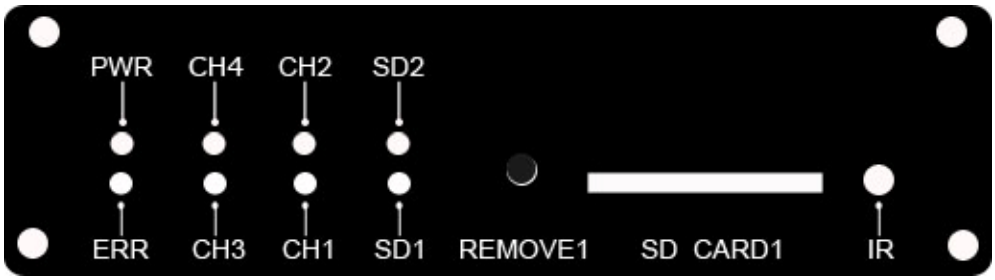
KEY	Function	Picture
	To activate the device	
【LOGIN】	To enter system settings.	
【0－9】	【0－9】: Under the configuration mode, 0~9 stand for numbers; under the playback mode, 1, 2, 3 and 4 are for switching between related single channel, and the number 5 is for 4 channels synchronous playback	
【－】【＋】	For setting date and time	
【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.	
	Reserved	
	Stop button is to stop the normal playing and return back to the playlist interface	
	Pause button. Pause the normal playing.	
【F1】	Under monitoring mode, it is used to display the info of G-sensor, GPS, wireless module, SIM card, dial-up and so on.	
【F2-F3】	Reserved	

1.4. Front panel

The front panel for the device which supports two SD card:



The front panel for the device which supports one SD card:



1.4.1. LED indicators:

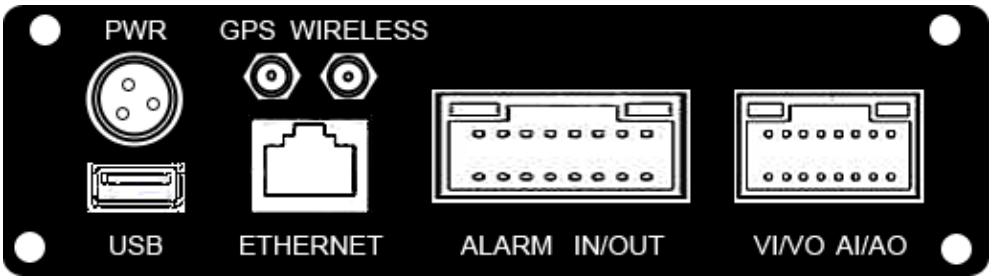
- 【PWR】Power indicator.
- 【ERR】Error indicator: LED on－No SD cards
- 【CH1－CH4】Video input indicators
- 【CH1】LED blinks indicating that the system firmware is being upgraded.
- 【SD1,SD2】SD card status Indicator:
  LED on－SD card works；
  LED off－no SD card or SD card doesn't work;
  LED blinks－recording.

1.4.2. SD card:

User must format new SD Card before use.

- 【REMOVE1,REMOVE2】when the device is working, press the RMOVE key for 3 seconds until the LED was off, then the SD cards can be moved safely. SD cards will resume work if they were not removed in 15 seconds..

1.5. Back panel



- 【PWR】Power Supply connector
- 【GPS】GPS antenna connector
- 【WIRELESS】WIRELESS antenna connector
- 【USB】USB1.1 port
- 【ETHERNET】LAN port.
- 【ALARM IN/OUT】Alarm input and output connector
- 【VI/VO AI/AO】Audio and video input and output connector

Remark: GPS and wireless transmission functions are available with M603B.

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	1-4 levels, 1 is the highest level and 4 is the lowest level.
	OSD	Overlays information such as date time and vehicle ID
	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 overwritten	Support SD cards overwritten function.
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 backword 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 4 channels alarm input.
		Pre-record 15 seconds ahead of the alarm. Record duration after alarm can be set in system
	Output	Support up to 2 channels alarm output, level signal.
Optional Function	GPS	GPS module can be built-in device M603B, the GPS info will be recorded synchronous
	Network	RJ45 Ethernet port.
		M603B supports several wireless modules such as 3G and WIFI
	G Sensor	Built in G-sensor is available with M603B
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.

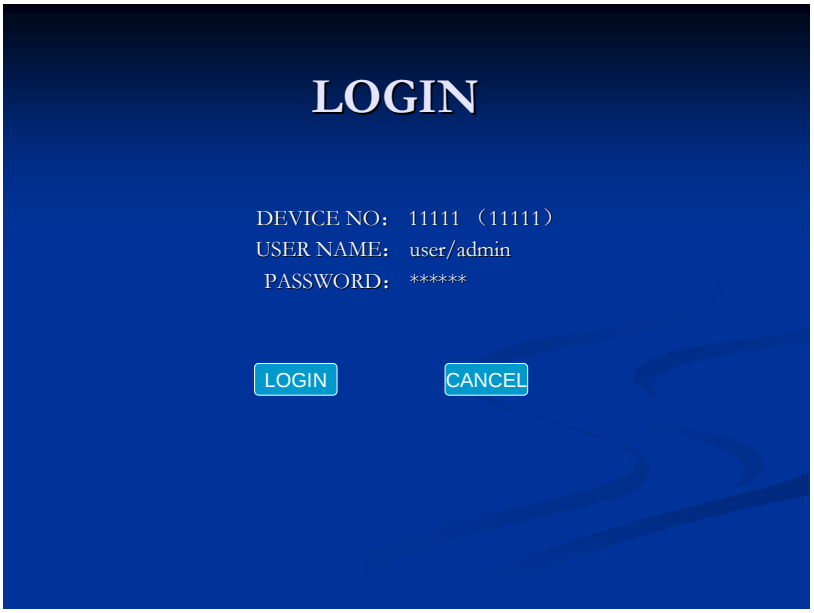
3. Technique Parameters

	Item	Description
System	Processor	Hisilicon Hi3511
	Operating system	Linux(2.6)
	Signal format	PAL/NTSC
	GUI	Yes
	Security	Two level password protections for administrators and users
Video	Input	4 CVBS, 1.0Vp-p, 75Ω
	Output	1 CVBS, 1.0Vp-p, 75Ω
	Play channels	1 channel or 4 channels synchronous play
	Recording speed	PAL: 25Frame/s ,CCIR625 line,50 field NTSC: 30Frame/s,CCIR525 line,60 field
Audio	Input	Mic or line in, 1 channel
	Output	1 channel output
	Output voltage	1V ~2V
	Audio recording	Synchronized with video
	Audio compression	G.726
video recording	Video compression	H.264,（VBR）/ (CBR)
	Recording Resolution	D1/HD1/CIF, MAX:2 channels of D1 and 2 channels of CIF
	Video stream standard	ISO14496-10
	Audio stream standard	G.726
	Bit rate	CIF: 256Kbps ~ 1.5Mbps, 4 quality level support, HD1: 600Kbps ~ 2.5Mbps, 4 quality level support D1: 800Kbps ~ 3Mbps, 4 quality level support
	Video Frame rate	PAL 1~25/s/ch,NTSC 1~30/s/ch
	Audio frame rate	5KB/s

	Storage capacity	Support two (SDHC) SD card, the max capacity is 32G for each. File system: FAT32
Alarm	input	4Ch input
	output	2Ch output
Communication Interface	RS-232	Yes
	RJ45	10M/100M Ethernet
GPS	Embedded GPS module	Optional
PC Viewer	PC playback software	Yes
Firmware upgrade	Upgrade with SD card	Yes
Others	Power input	DC:+8V ~ +36V
	Power output	+12V@1.5A；+5V@1.5A
	Operating temperature	-25℃ to +70℃
	Humidity	20% to 80%

4. GUI

4.1. Login



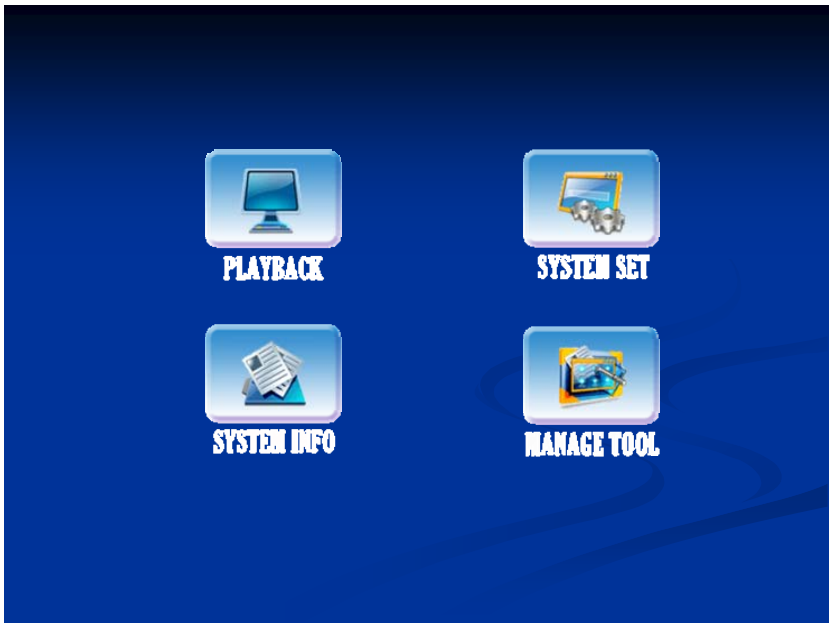
Factory Default Username: admin

Factory Default Admin Password: 888888

Factory Default User Password: 111111

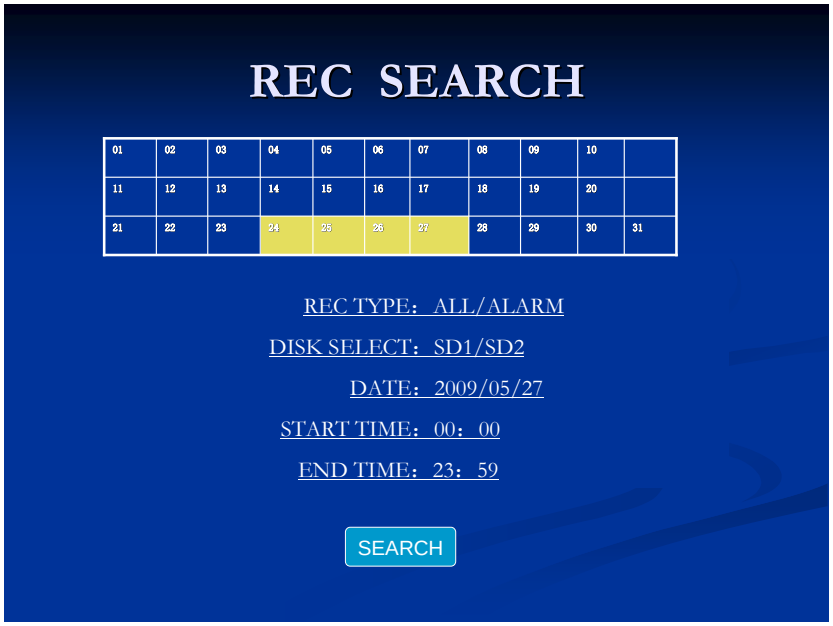
4.2. System Main Interface

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 curser 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.

"DATE": system date, press 【ENTER】and then press【－】or【＋】 to setup, press【ENTER】again to confirm the settings. Press left/right to select year/month/day and repeat above steps.

"TIME": The same setup as "DATE".

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

"DEV NUM": It refers to the device ID. Press digit keys to setup the ID.

"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

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

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

"RESOLUTIONS": Press the【ENTER】to select D1, HD1 or CIF. 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.

"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

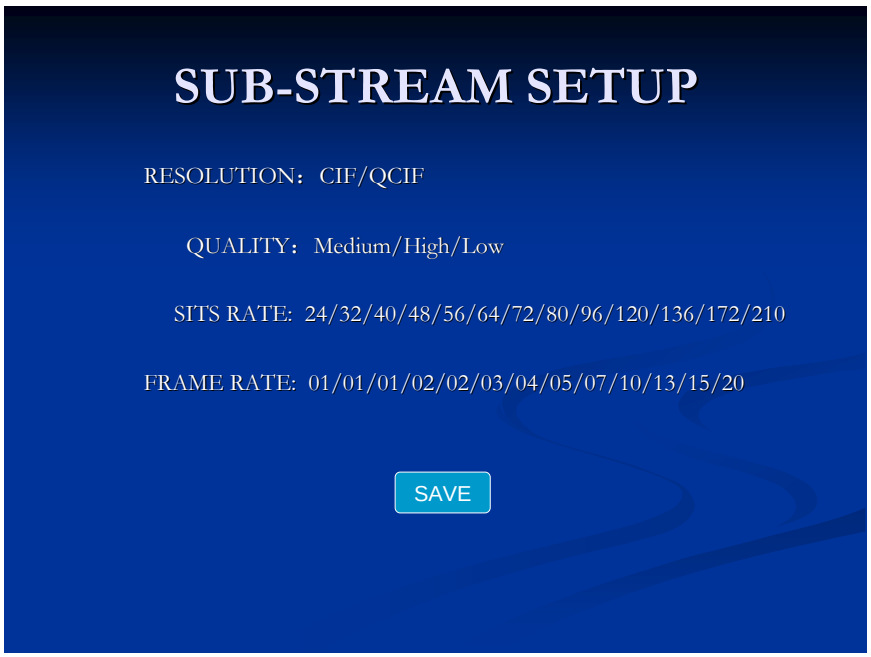
“BITRATE”: Press digit keys to select.

"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.

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

4.4.3. Sub-Stream Settings

Press the【ENTER】key to enter below setting interface.



"Resolution": The default is CIF.

"Bit Rate": 16/24/32/40/48/56/64/72/80/96/128/160/200 bits.

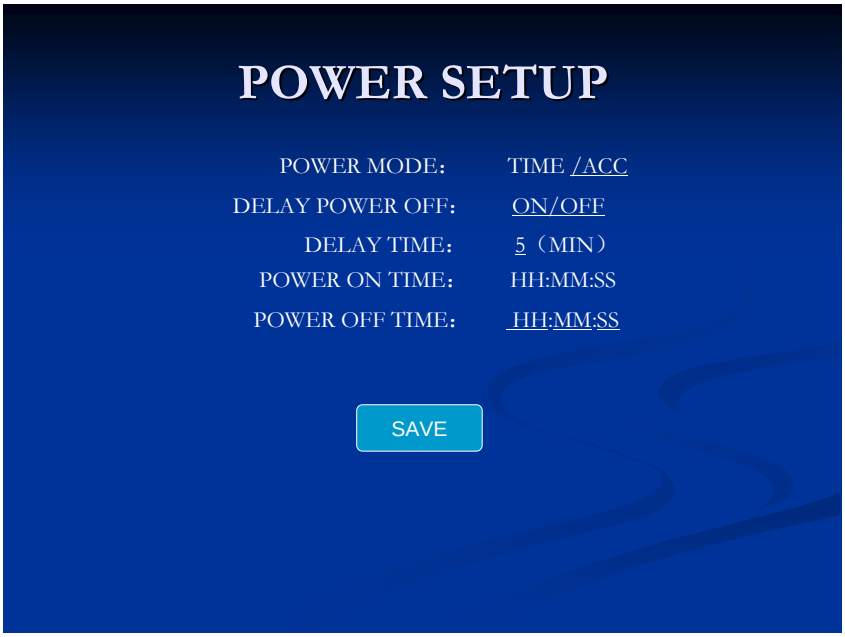
Default is 96 bit, press 【ENTER】 key to enter

"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.

4.4.4. 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 300mins.

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

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

4.4.5. Alarm Settings

- Alarm input

  Support 4ch 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 2ch alarm outputs.

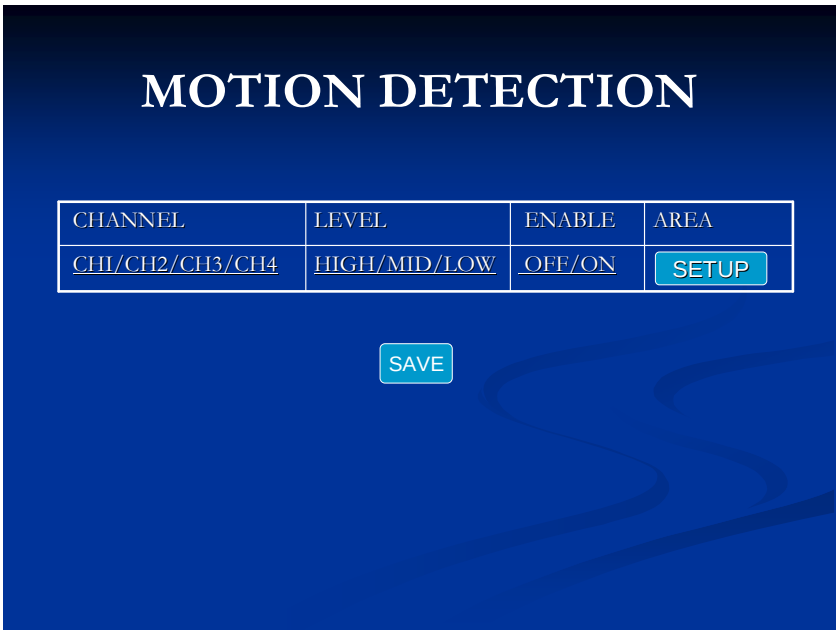
"ENABLE": On/Off switch.

ON---Enable alarm output;

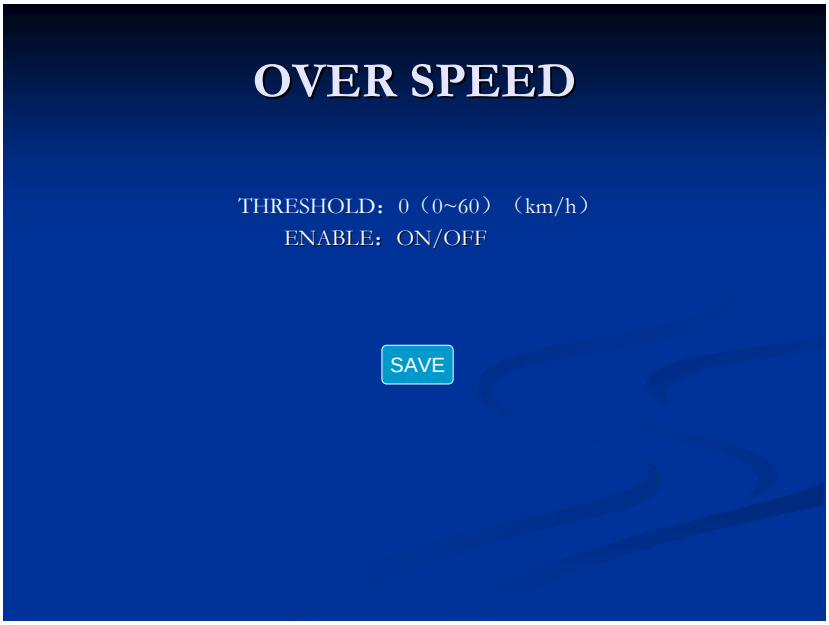
OFF---Disable alarm output. Press the 【ENTER】 key to select.

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 DETECT

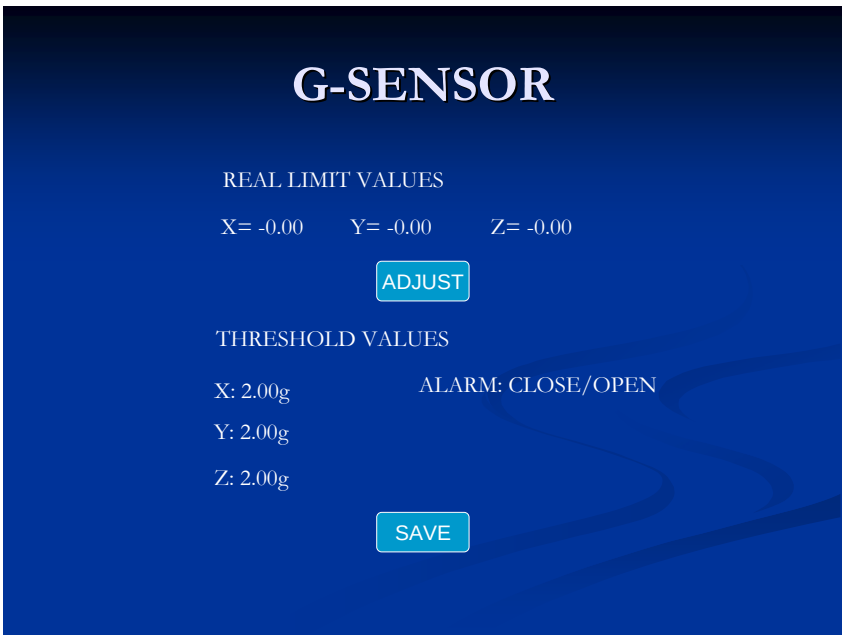


- SPEED
-



- G-SENSOR（This functions is available with M603B）

G-SENSOR 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.

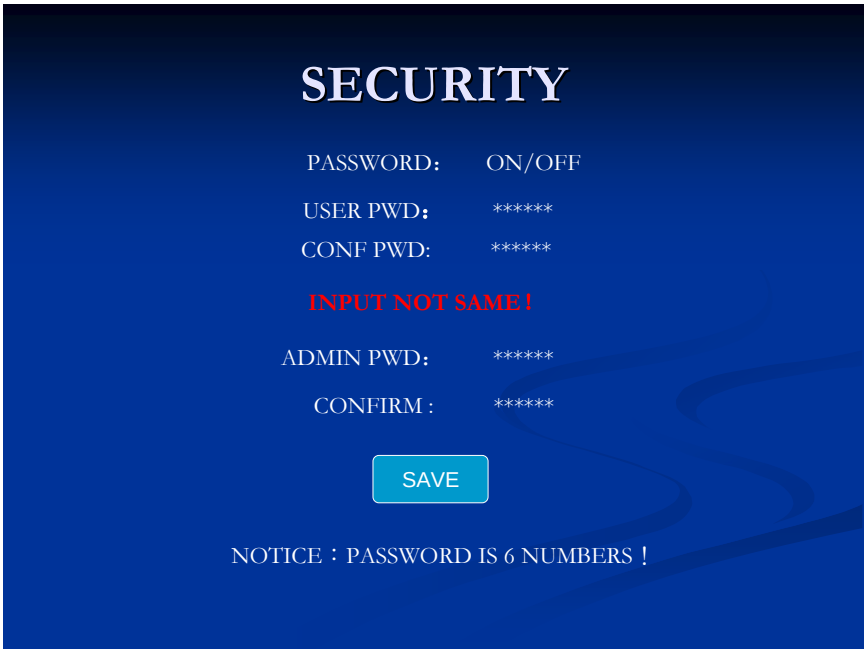
"ALARM": G-Sensor alarm OPEN/CLOSE setup, press 【ENTER】to set it.

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

"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.

4.4.6. 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.

4.4.7. Network Settings:

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

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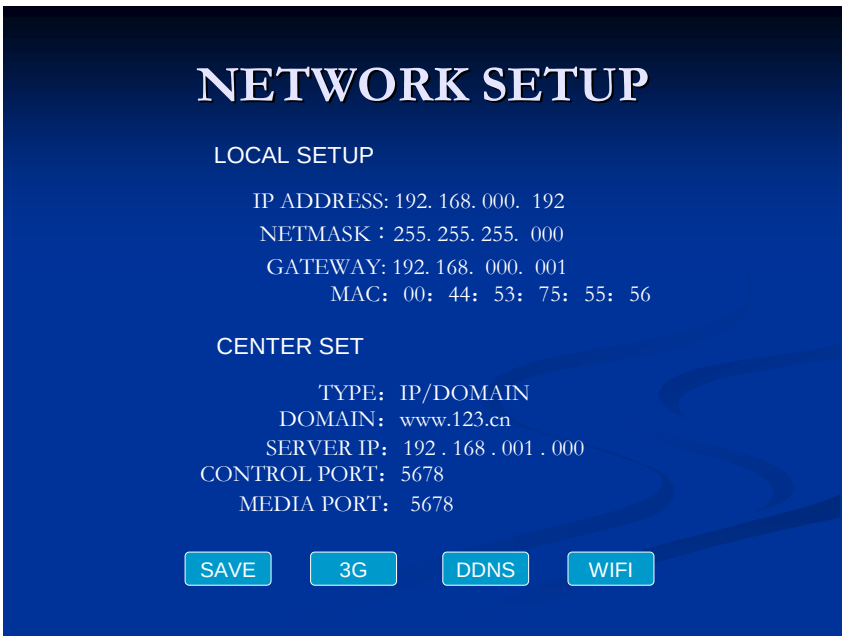


- Local network: RJ45 for LAN

  Setup device IP address, mask and gate way.

  Attention: IP address conflict with other host computer.

- Center setup

  Server IP: Set the IP address same as PC client.

  Type: IP/DOMAIN

  DOMAIN: Default is www.123.cn.

  Control port: Default is 5678.

  Media port: Default is 5678.

- 3G wireless transmission settings (this is available with M603B)

Press 【ENTER】 key to enter the following interface:

“WIRLESS”: 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.

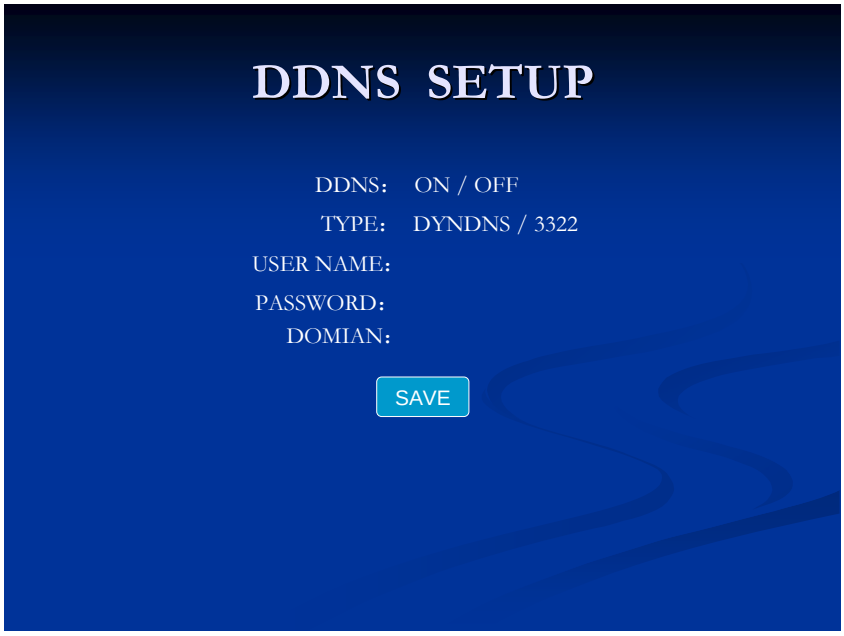
“USER NAME”: Press the【Enter】 key to pop up keyboard window, then use left/right/up/down/ enter key to setup.

“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.

- DDNS

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



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

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

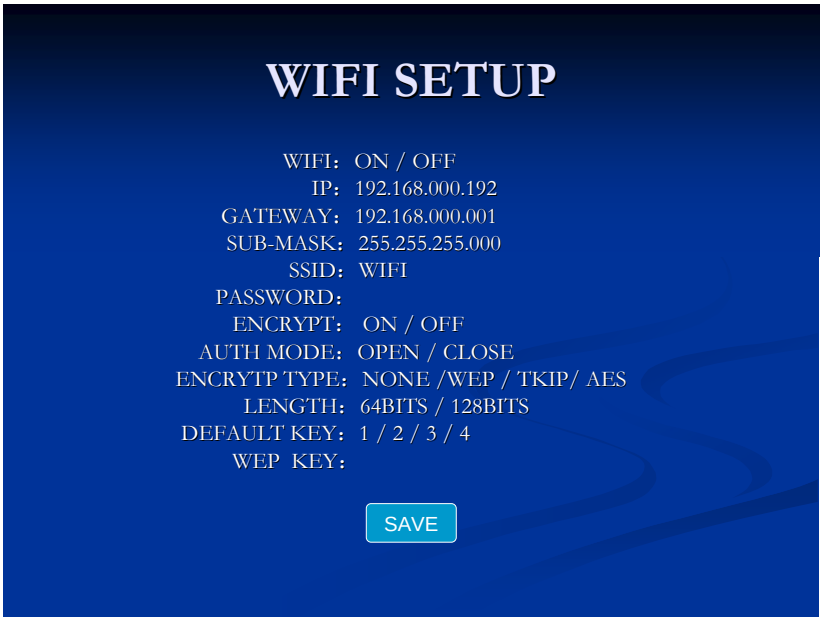
Click the “SAVE” after complete setup

Password:

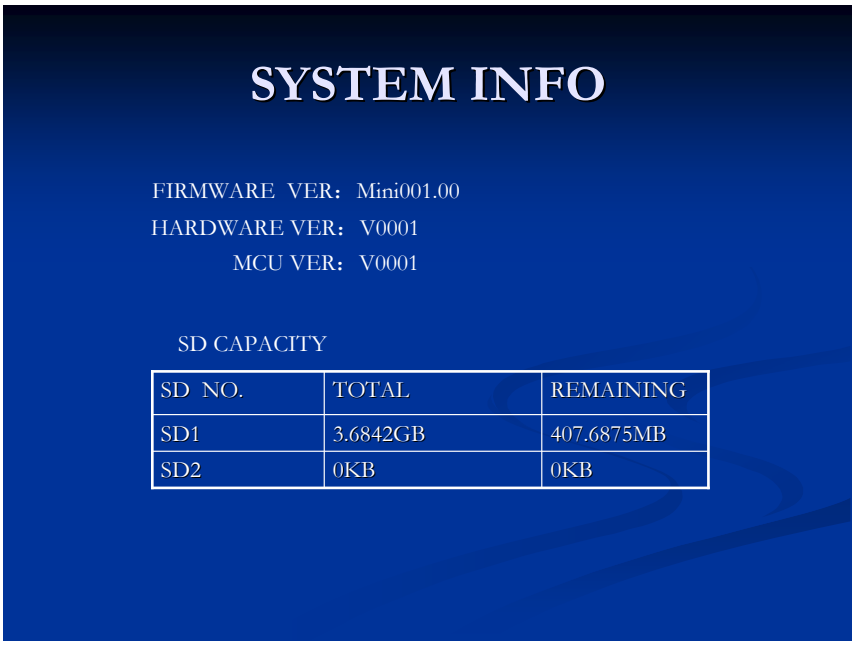
Domian:

- WIFI

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



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.

"TOTAL ": the total capacity of SD card.

"Remaining ": The remaining space of SD cards

4.6. Management Tools

Management tools include log manager, disk manager, system default settings, CFG manager and PTZ manager. .

4.6.1. Log Management

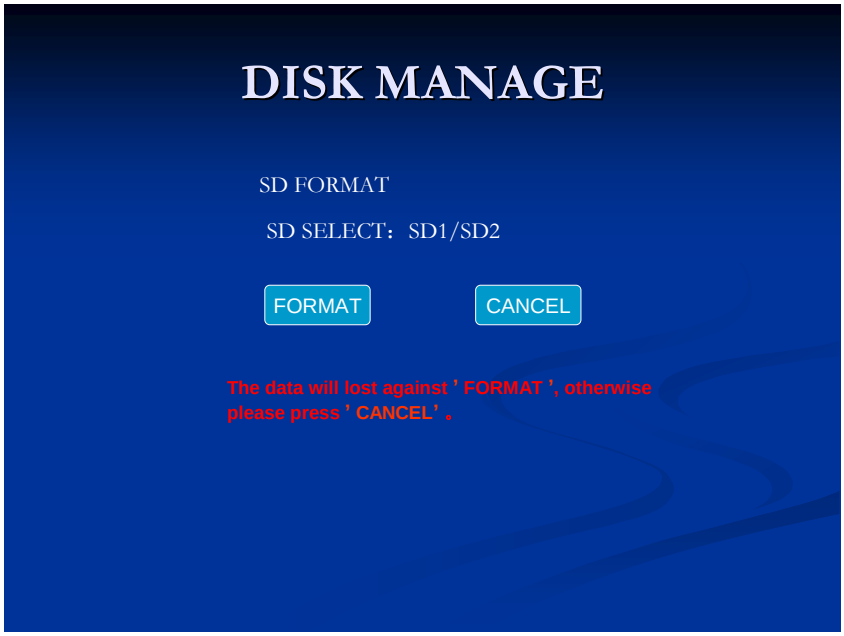
Log manager will record the alarm info including date, time and name

“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.

4.6.2. SD Card Management

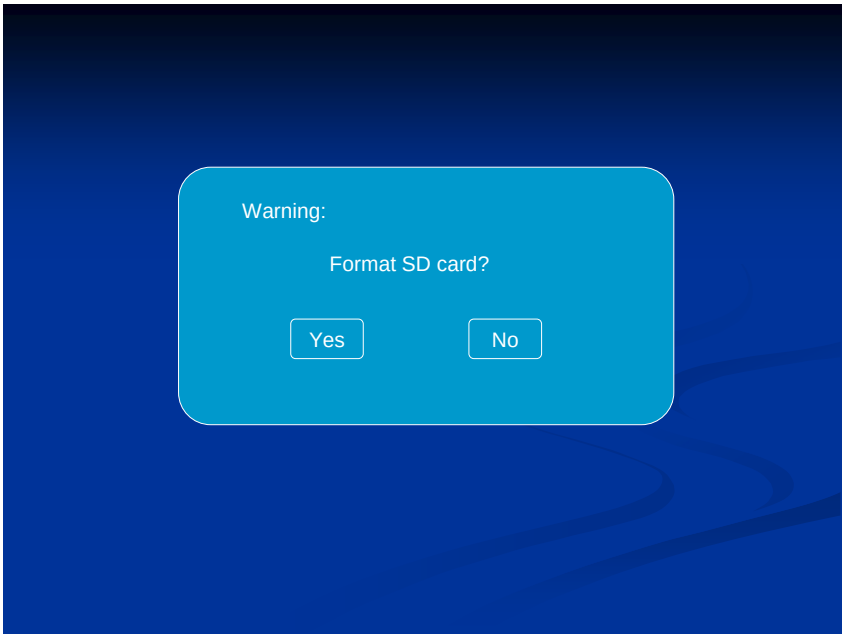


Disk management is used to format the SD cards.

"SD SELECT": to select SD1 or SD2 by pressing the 'enter' key.

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

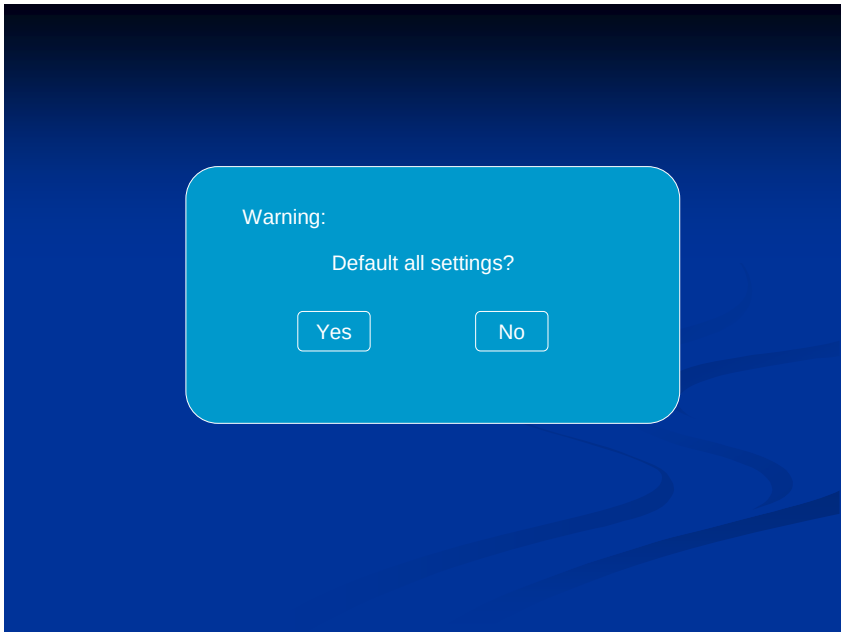
"FORMAT": Select the format button, and press the enter key to enable below window for formatting SD cards:



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

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

4.6.3. Default Settings



"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.

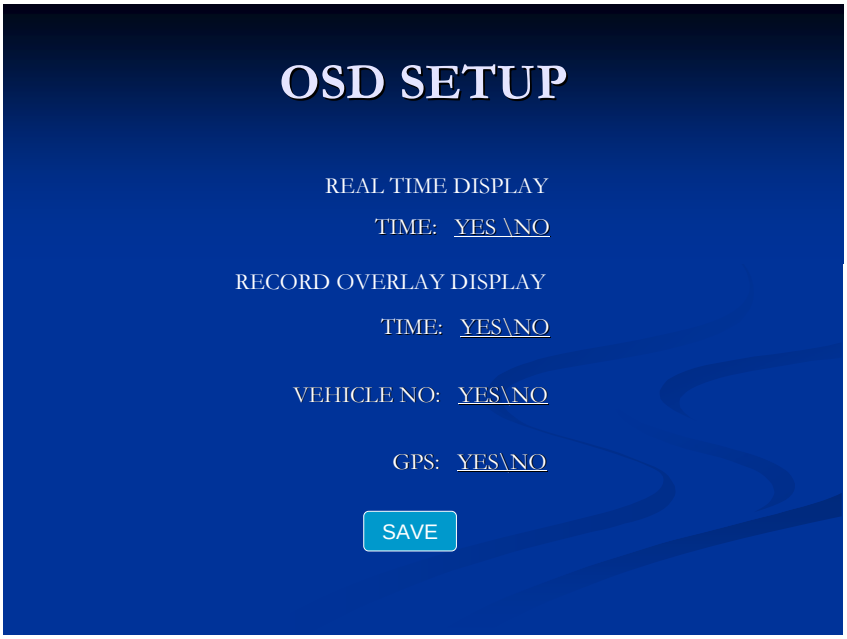
4.6.4. Config Management

Import and export config file

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

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

4.6.5. PZT Management



5. Device Installation

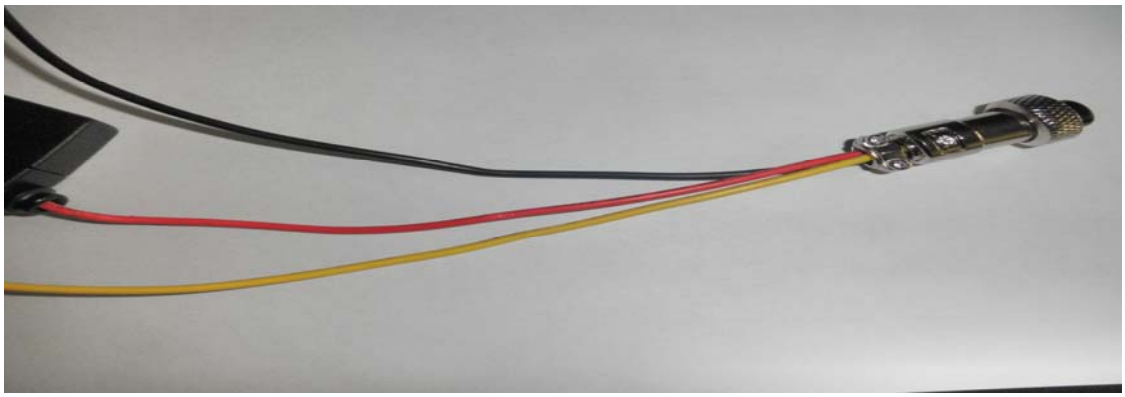
5.1 Cable Definition

5.1.1 Power Cable

Black color cable: connect with cathode on battery in vehicle

Red color cable: connect with anode on battery in vehicle

Yellow color cable: connect with ignition in vehicle.



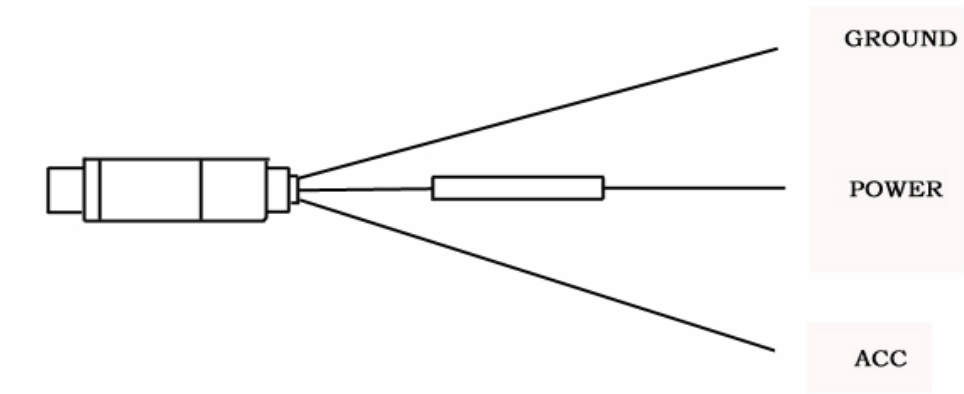
Notes:

1: Please make sure the battery voltage range within 12-24V, otherwise device will break down when voltage more than 24V

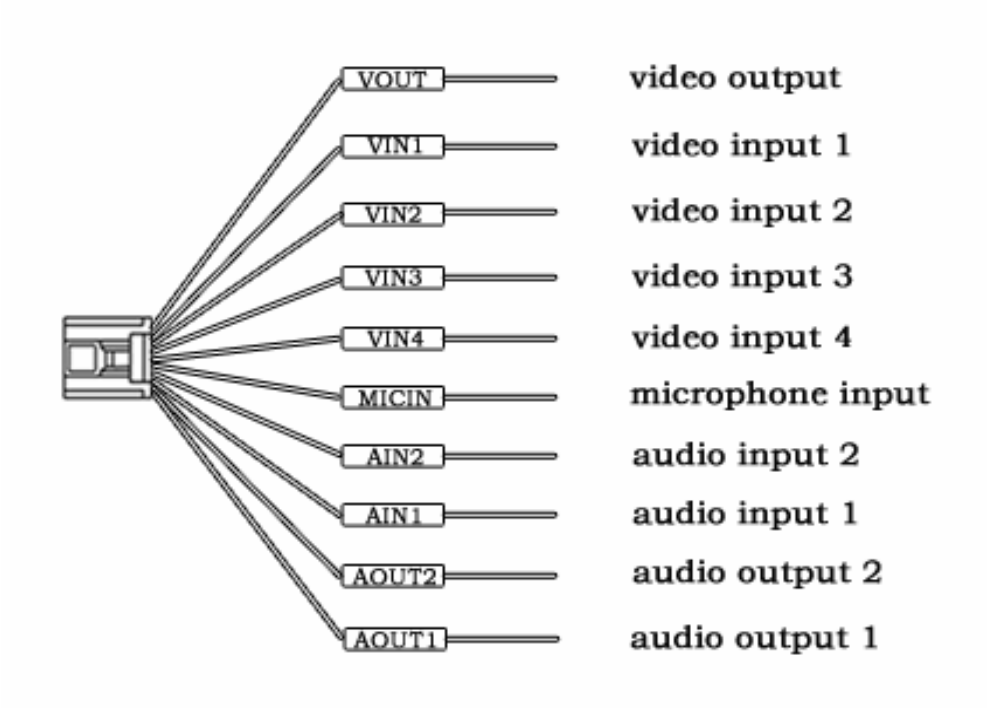
2: Please check out the three cables and make sure isolative between them after complete connection

3: Make sure connect the Black and Red cables with battery directly and never choose ground strap connection way as GND, otherwise device cannot work normally

4: The yellow cable must be connected to the ignition; otherwise device will not support ignition switch machines.

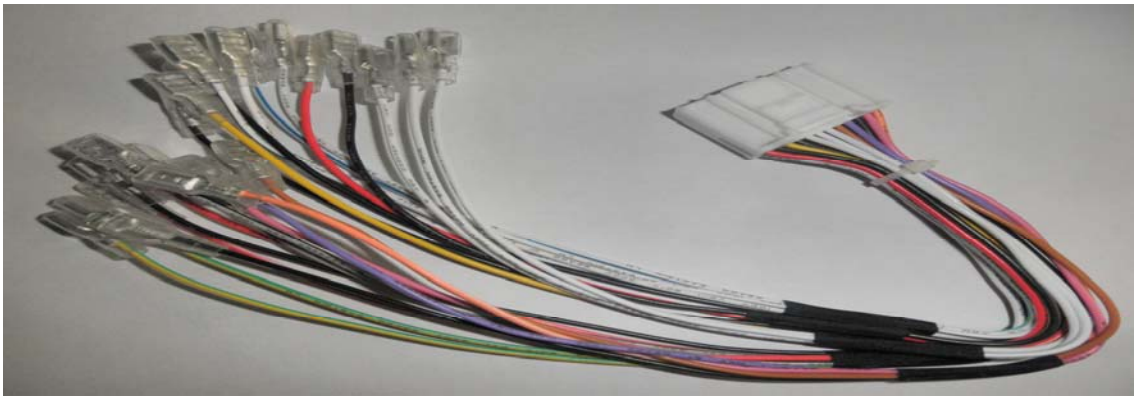


5.1.2 Audio/Video Input and Output Cable



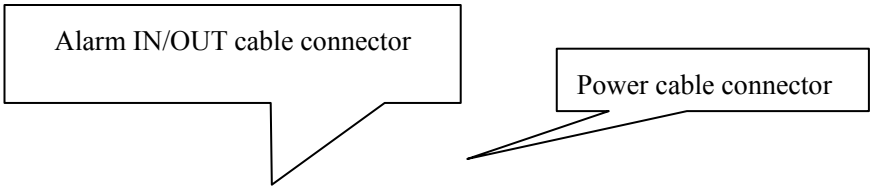
Connector	Name	Instruction
Video Input	VIN1~VIN4	4 VIN BNC connector
Video Output	VOUT	1 VOUT BNC connector
Audio Input	AIN1~AIN2	2 AIN BNC connector
Audio Output	AOUT1~AOUT2	2 AOUT PCA connector
MIC Input	MIC IN	1 MIC IN RCA connector

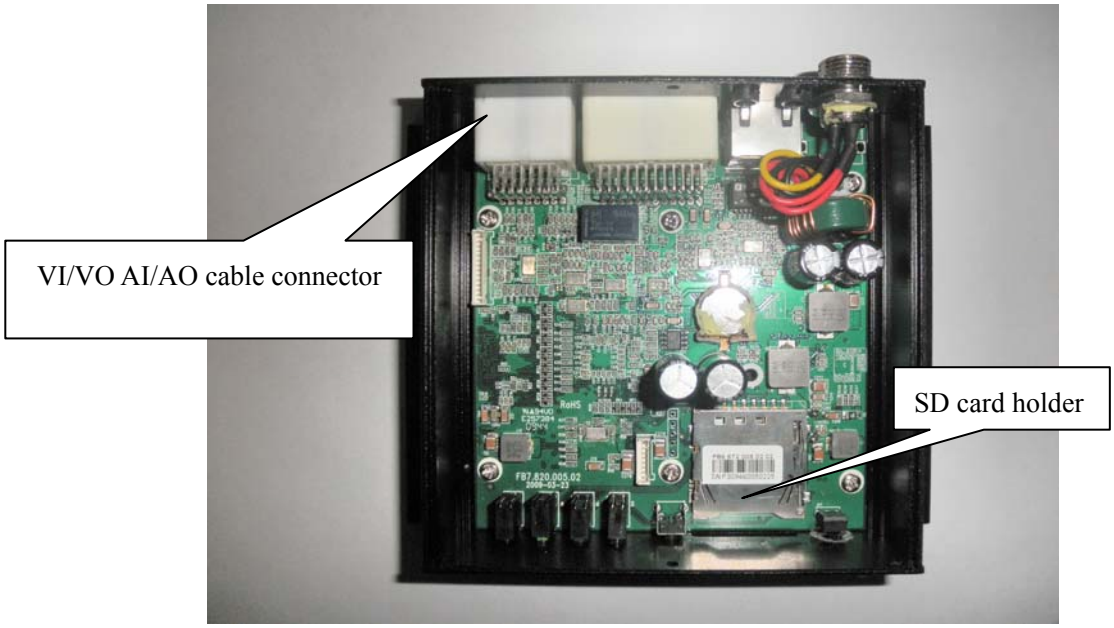
5.1.3 Alarm Input and Output Cable



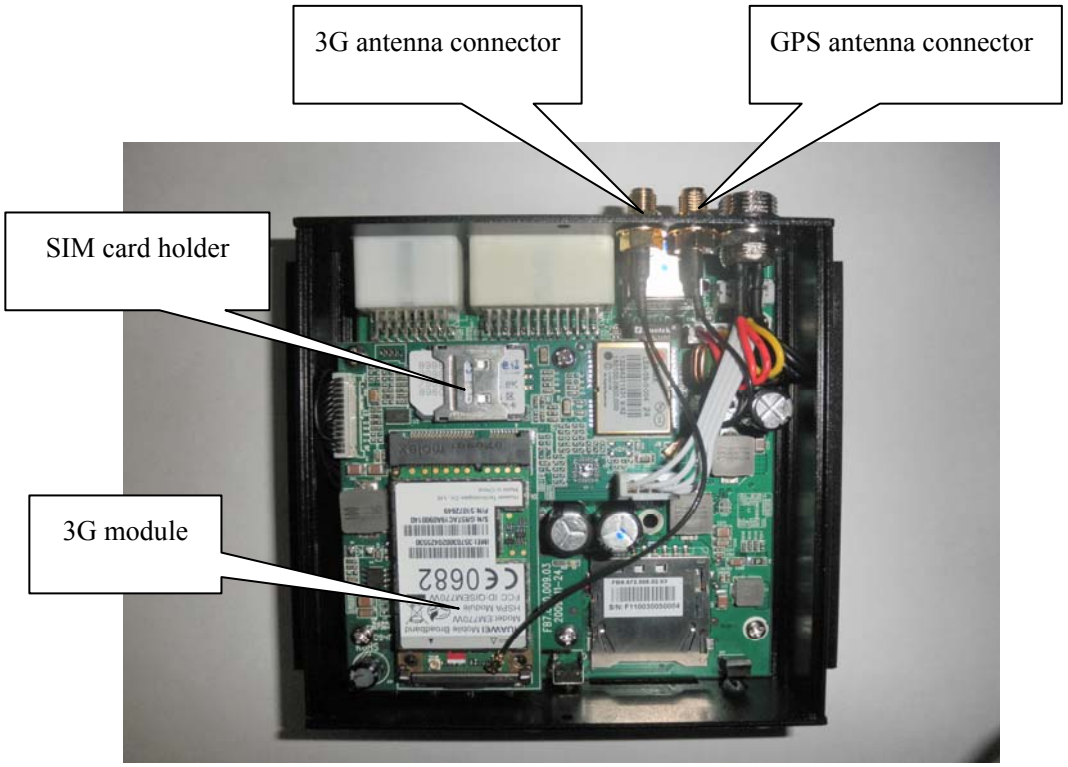
5.2. Main Board Outside View

5.2.1.DVRwithout 3G and GPS PCB





5.2.2. DVR with 3G and GPS PCB



6. Syestem Upgrade User Guideline

6.1. MU-MINI-RFS.crc（Record File System）Upgrade

1. Cope files into SD card. Make sure files were copied totally
2. Insert SD card into device before power on
3. Power on the device and all indicator except SD1 and SD2 will be light.
4. “LOADING” and “ERASING FLASH”showed on window, mainwhile PWR light one and CH1 indicator on front pannel flicking, it means upgrading.
5. Progress bar will be showed on the window (1%--100%). When the bar is full, it means upgrade complete.

Remark: After upgrade, the file in SD card will be deleted automatically.

6.2. MU-MINI-APP.crc（Application Program）Upgrade

1. Process same as above.

Remark: After upgrade, a new debugger information file will appear automatically in SD card.

6.3. MCU Upgrade

1. Process same as above.When MCU upgrade, SD1 indicator will be light..
2. “UPGREAD MCU” and “REBOOT！” will show in turn..
3. Device will restart automatically when upgrade complete.

6.4. Upgrade Check out

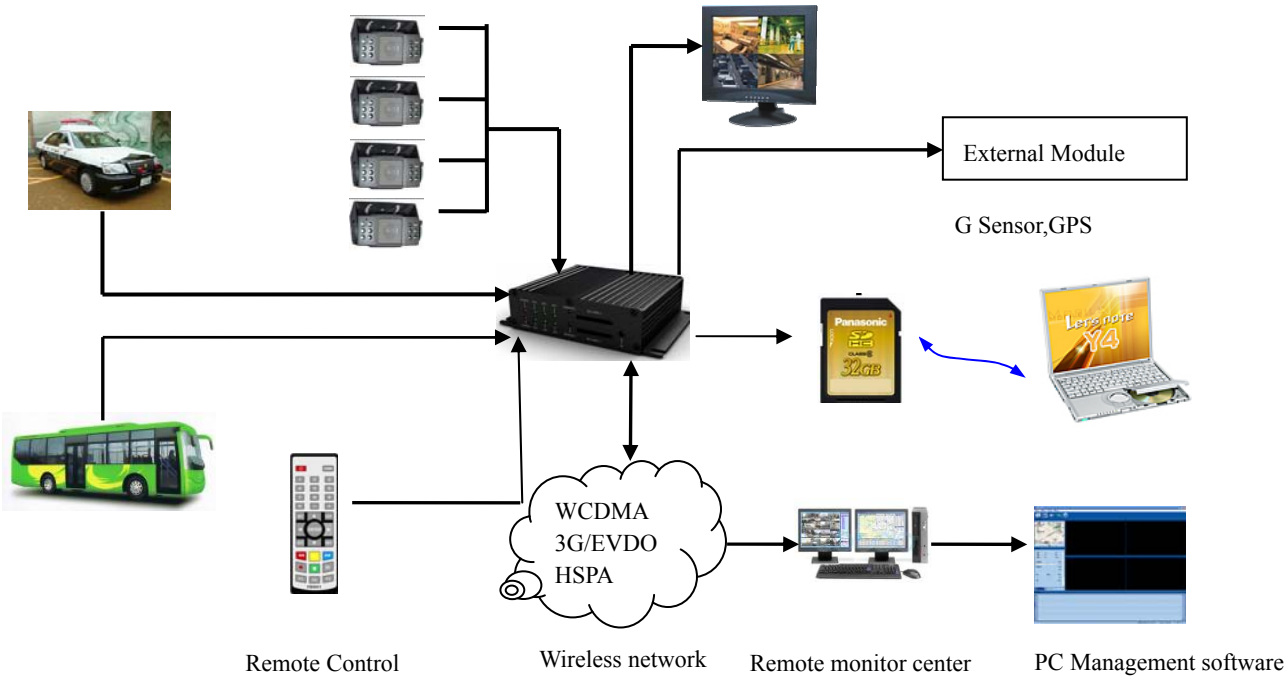
Go back to monitor window after upgrade, and then press “INFO’ on remote control or go to ‘System info” interface to check out upgraded version.

Note:

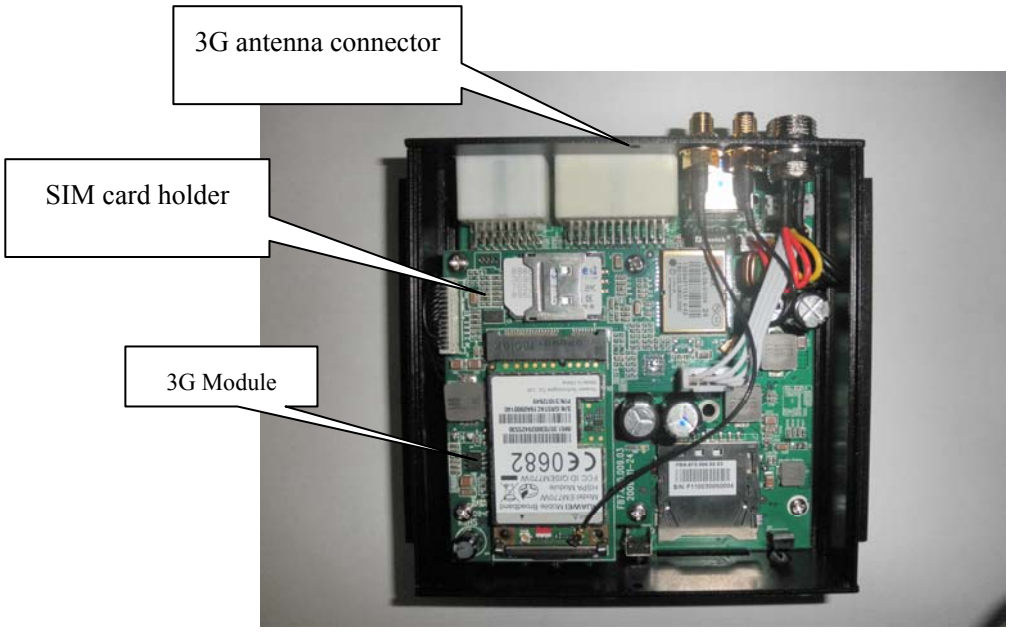
1) Make sure stop any operation during upgrading.
2) Make sure the file which need to be upgraded has been saved into SD card and device must be in “power off” statues before upgrade.
3) Upgrade step by step. The correct sequence is Record File System➔Application Program➔MCU.
4) Device will restart automatically when upgrade complete.

7. 3G User Guideline

7.1. Working principle representation

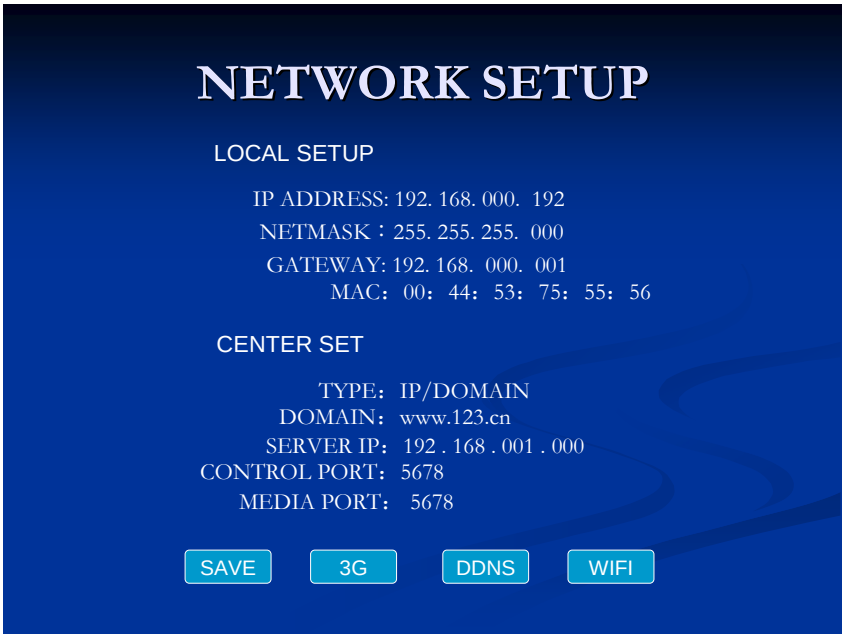


7.2. Installation Guideline



7.3. Parameter Settings

7.3.1. Network Setting



Picture 1

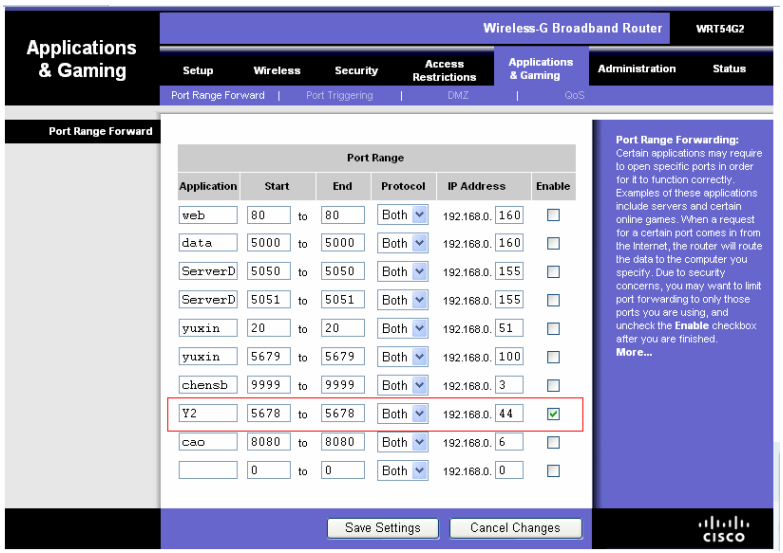
1） Server IP must be globe IP

2） Default Port is 5678.

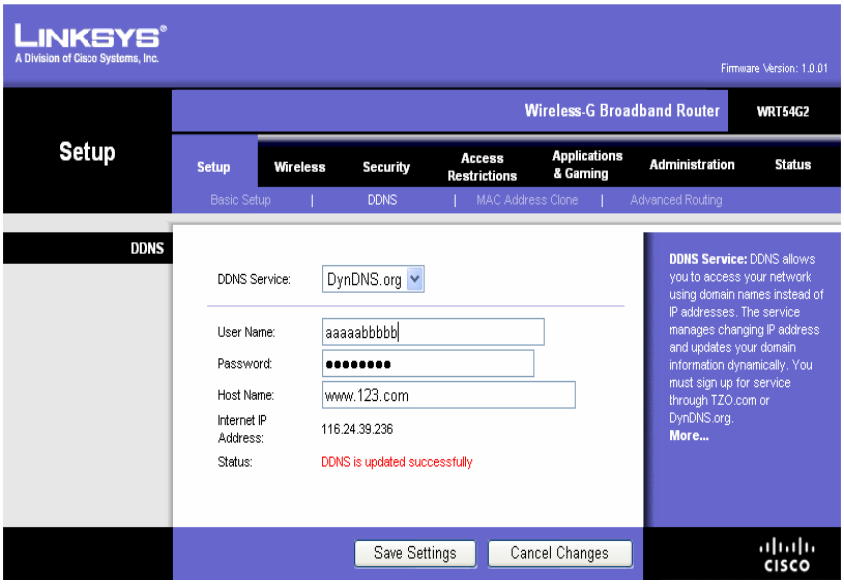
3） If the computer which running Fclient in local area network, Port map must be setting in router (Please make a reference in picture 2)

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

7.3.2. 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)

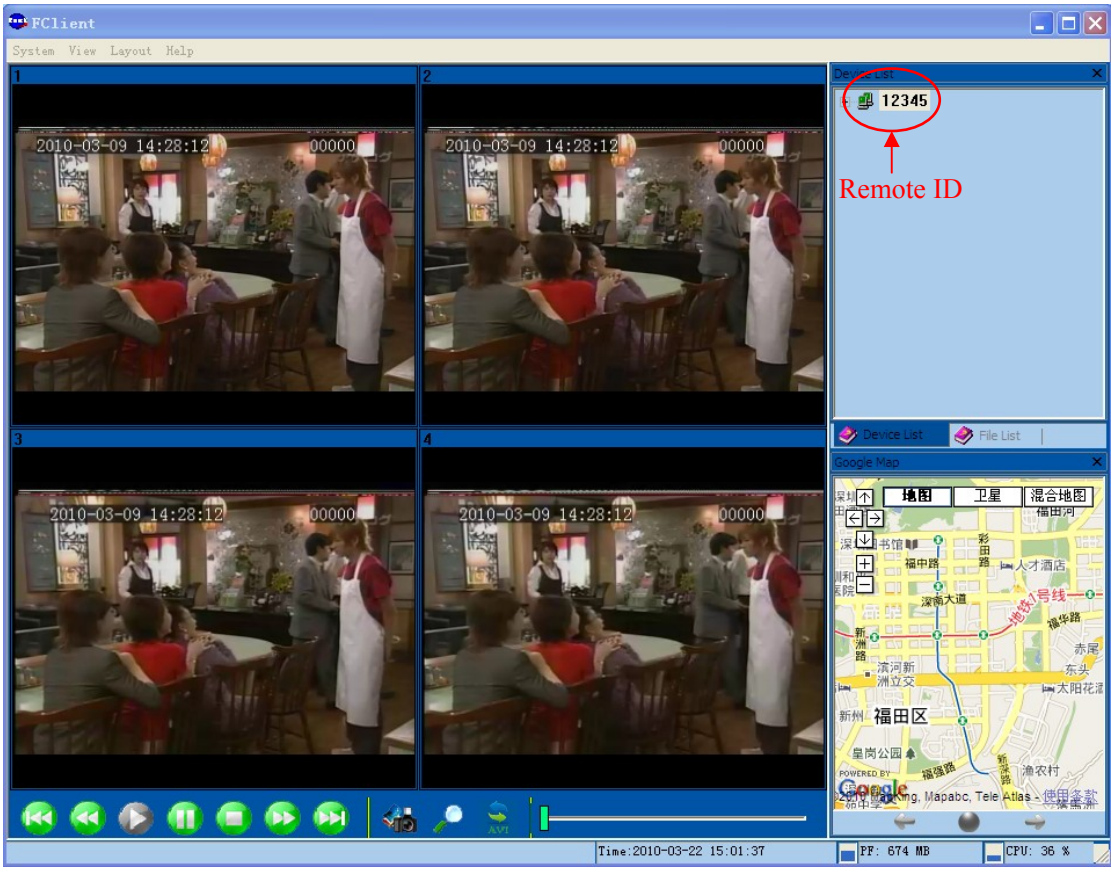
Picture 4

7.3.3. Statues check out

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

7.4. PC software setting

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



Picture 5

8. F.A.Q

8.1. Wireless Module

1) Q: How to setup network after choose the wireless module?

A: Please make a reference on eighteenth page in User Manual.

2) Q: When wireless module cannot work, how to solve it?

A: Go back to preview interface, and press F1 button on remote control to check out whether network has been dialed up. You can also check out whether SIM card in working statues, wireless module existent or not, and the other possibility is antenna not connect well.

3) Q: Why 3G can not transmit data?

A: Probably of the reason is as follows:

1) Didn't connect 3G antenna

2) Didn't insert SIM card;

3) Wireless and network setup in a wrong way

4) The PC setup not matches with 3G. For example, the gateway router have not port mapping.

5) Have never turn on PC play back tool.

Remark: For further more information about Network and Wireless setup, please make a reference on page eighteenth and nineteenth in User Manual.

4) Q: What kind of overwritten way use in device when two SD cards circularly recorded

A: Record one by one. When the first one has no capacity, the second one will start to record. If two pieces of SD card are full, the device will delete the record data start from the one which record on the earliest time.

5) Q: Whether can achieve the 3 G long range previews and local record carry on synchronously or not?

A: Real-time preview in control centre and save local record can be achieved.

6) Q: How about the 3G transmit speed?

A: It will depend on the bandwidth of each Country. Currently in China, 4 channels video can be transmitted at the same time, the best situation is 15f/s/ch.

7) Q: How long time delay when 3G long range previews?

A: It will depend on the bandwidth of each Country, the transmission delay within 5-20s in China.

8) Q: How to download record file through 3G?

A: User can download files manually.

9) Q: Whether can set record in system in a long range through 3G or not?

A: Sorry, it isn't realization currently.

10) Q: Is it the long range switch device operation?

A: Temporary nonsupport, but engineer can add this function into system according to customer's acquirement.

11) Q: Is it all right to support SDHC card?

A: Support SDHC card.

8.2. General Problems

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

Remark: For further more information about indicator, please make a reference on page sixth in User Manual.

Problem 5: 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 6: 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;

Remark: User can make a reference about Audio setup on page thirteenth in user manual.

Problem 7: 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.

Remark: Please make a reference on page thirteenth in user manual.

Problem 8: 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 9: Alarm output invalid.

Possible reason is as follows:

1) Cable connection in a wrong way.

2) System setting in a wrong way

Remarks: More information and user guidelines please find on page fifteenth in user manual

Problem 10: 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;

4) The software of device M603A nonsupport this function;

Problem 11: G-Sensor data abnormal.

The reason as below:

1) The software of device M603A nonsupport this function;

2) The G-Sensor damage;

3) User did not check the X/Y/Z data in system

Remarks: More information and user guidelines please find on page seventeenth in user manual

Problem 12: 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 13: 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 14: 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;