

Mini Car Digital SD Card Recorder

User Manual



Before installing and using, be sure to read the Manual, then you will properly use and protect your machine. The first part of the statement concerns the matters to be attention to before installing and using.

➤ **Attention**

- To protect your rights, before using and installing, please carefully read the contents of the manual.
- This product is used for car inside, in order to prevent short-circuit or the risk of electric shock, do not make the machine on the rain or humidity environment.
- Event of any solid or liquid into the machine, please disconnect the power of the machine immediately, and ask the qualified technical staff to check, then restart it.
- The product is high-tech equipment; machines can not be repaired by users even very small original part. Once failure occurs, please ask for the qualified technical personnel, or contact with the dealer. Do not repair it by users themselves.

➤ **Installation Environment**

- 8-36V DC power supply, please confirm the local power supply before power on.
- If the machine were not used for a long time, please completely disconnect the video's power supply.
- Please select the appropriate location for the installation of the machine, where the air can flow freely around the machine to avoid overheating or water inflow.
- Machine can not be installed near the radiators, or near the ventilation road which is near heat, or directly under sunshine, or too much dust, or rain water, or near the area where the mechanical vibration or impact happens.

➤ **Package List**

Name	Quantity
Dual SD card Mobile DVR	1
User Manual	1
Certificate of approval	1
Remote Control (not include battery)	1
Connecting Cable	3

Note: When the specification or parameters changes, no other announcement in addition.

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1 Product Overview

The four-channel embedded digital SD card video recorder is designed for car safety. It uses embedded processor and embedded operating system, combined with video / audio compression / decompression, GPS, car recorder, and the capacity SD card storage technology to confirm the high intelligence and high stability. Widely used for bus, ship, train, and other areas of security.

2 Basic functions

2.1 Audio/Video Compression Format

The video adopts latest IS014496-10 (H.264) video compression technology, high compression rate to ensure a better image quality under less storage; the audio adopts G711 compression method, output a better voice with low distortion.

2.2 Audio/video recording mode

- Compression format
The audio video data are stored through special files, encrypted to prevent data loss under frequent power failure circumstances.
- Compression stream
Image quality with 8 levels and adjustable (192kbps--2.0Mbps/channel) to meet different requirements.
- Storage
Support 2x 128GB SD card, auto overwritten and cycle storage.

2.3 Image quality when monitoring, recording, playback

- Resolution
960H:Monitoring: 960*576/CH; Recording: 960*576/CH; Playback: 960*576/CH
720P: Monitoring: 1280*720/CH; Recording: 1280*720/CH; Playback: 1280*720/CH
- Frequencies
The monitoring, recording and playback are all with 25fps
- Horizontal resolution for monitoring

More than 270TV lines per channel.

- Horizontal resolution for playback

More than 270TV lines per channel.

2.4 Total Resources

4CH 960H:

- Support 4 channels 960H(960*576) simultaneous recording, total 100fps.
- Support 4 channels 960H(960*576) simultaneous playback, total 100fps.

4CH 720P:

- Support 4 channels 720P(1280*720) simultaneous recording, total 100fps.
- Support 4 channels 720P(1280*720) simultaneous playback, total 100fps.

2.5 Audio video synchronous recording

- Record and playback the audio/video/GPS positioning data simultaneously. The information can be checked by CMS software which can be installed on computer.

2.6 Access detection

- When after open motion detecting video recording equipment in camera detects movement, the monitoring area can start recording, trigger the alarm, warning area size, location, number, area and alert in sensitivity or removal of alert, and other functions, can be set up.

2.7 Signal loss alarming function

- When the video signal gets lost, the device will send alarm signal via internet. Responding in less than 5 seconds with log information. NOTE this function will not work when a channel is not in recording status or if a channel is displaying in full screen.

2.8 Alarm linkage

- Support 4CH alarm input (8-36v high level voltage to trigger); 1CH alarm out (by relay, max. 500mA, switch ON);When the alarm is triggered, the audio recording will be started automatically

(30-330s, adjustable). Alarm out will close for (5s-900s, adjustable) and send alarming signal, responding in less than 1s.

2.9 Alarm pre-recording

- Alarm video mode, alarm pre - recorded more than 5 s video, audio, positioning data.

2.10 Full duplex

- Under full loading status, users can index, playback the recorded data with no frame loss.

2.11 Malfunction alarming function

- When the DVR fail to work, the alarm switch is ON, showing alarm information for 6 minutes at least.

2.12 Self-test the status and self-recovery

- When in working status, the "RUN" indicator will constantly flashes and check the device. Recovery will take no more than 3 minutes when device crashes.

2.13 Front-end device control and multi-channel monitor and switch

- The DVR can control PTZ cameras through default protocols (RS-485, PELCO-D, 9600 baud rate), 4 channels real time, switchable to monitoring mode.

2.14 Networking

- Combining the CMS software. With built-in 3G module, the car can be monitored remotely.

2.15 Data backup

- To backup the SD data into computer via SD card reader;
- Downloading the SD data remotely through network.
- Transfer the SD card data to computer, download and play the media via our unique DVR player

software. Users can also switch the SD files into universal AVI format to make it workable in other players.

2.16 Authority, encryption, data safety

- Enter the DVR by password, default for “6666”. Data is stored in a special file system to ensure it's encrypted and safe..

2.17 Log function

- The log includes the alarming and malfunction information, stored into SD card. It can be checked via computer.

3 Features

3.1 Operating system

- Embedded Linux operating system, high stable, free from virus.
- English/Chinese menu switchable.
- Graphical user interface

3.2 Compression format

- H.264 format: more excellent frame rate, quality image output

3.3 Monitoring and Recording

- Monitor: 4CH 960H (960*576) 、4CH 720P (1280*720)
- Record: PAL 100fps, NTSC 120fps, full real-time 4CH CIF, HD1,D1,960H,720P recording.
- Record mode: by alarm, schedule, manual, motion detection.
- Support 4CH video and 4CH audio meanwhile recording.
- Record image quality: 8 levels adjustable
- Video recorded in special file system to ensure lifespan and safety of SD card.
- Reliable evidence with unchangeable audio/video data.

3.4 Index and Playback

- Index and playback by time.

- Support 4CH audio, 1CH video (any channel can be chosen), index and playback at the same time, support amplifying in one channel.
- Data only played by DVR playback software

3.5 SD card storage and data backup

- Support two SD cards, with each 128GB max.
- The SD card data can be backed up via PC software.

3.6 Control

- Dual MCU control, to ensure DVR stability.
- Support remotely control by remote controller

3.7 Others

- Upgrade through USB or SD card, easy maintainance.
- Protect by password, to avoid data damage.
- Delayed shutdown: default for 5s, adjustable
- Anti-pulse and low voltage protection
- Real-time timer
- Anti-shock for the PCB panel and parts.
- Watch dog function to avoid system crush.

4 Technical Parameters

Items	Device parameters	Performance index	
Name	Product Name	4CH 960H Mini SD Mobile DVR	4CH 720P Mini SD Mobile DVR
System	Operation System	Linux	
	Operation Interface	Graphical Interfaces, Chinese/English optional	
	File System	Proprietary Format	
	System Privileges	User Password	
Video	Video Input	4ch Independent Input: 1.0Vp-p, 75Ω.Both B&W and Color Cameras	
	Video Output	1 Channel PAL/NTSC Output, 1.0Vp-p, 75Ω, Composite Video Signal	
		1 Channel VGA Support 1920*1080 , 1280*720 , 1024*768 Resolution	
	Video Display	1 Or 4 Screen Display	
	Video Standard	PAL:25frames/Sec;NTSC:30frames/Sec	
System Resources	PAL:100 Frames; NTSC:120 Frames		
Audio	Audio Input	Four Channels Independent Input 600Ω	
	Audio Output	1 Channel(4 Channels Can Be Convert Freely)	
	Basic Output Level	1.0—2.2V	
	Distortion Plus Noise	≤-30dB	

	Recording Mode	Sound And Image Synchronization	
	Audio Compression	G711	
Digital Processing & Storage	Image Compression	H.264 Fixed Code Stream	
	Image Format	PAL: 4*960H (960*576) NTSC:4*960H (960*480)	PAL:4*720P (1280*720) NTSC: 4*720P (1280*720)
	Video Stream	192Kbps-2.0Mbit/s (channel)	
	Video Taking Up Of Hard Disk	CIF:85M-394MByte/hour D1、960H:85M-675MByte/hour	720P:85MB-900MByte/hour
	Playback Resolution	PAL: 1 or 4*960H(960*576) NTSC: 1 or 4*960H(960*480)	PAL: 1 or 4*720P (1280*720) NTSC: 1 or 4*720P (1280*720)
	Audio Bitrate	4KByte / s / channel	
	Audio Taking Up Of Hard Disk	14MByte / hour / channel	
	SD Storage	Double SD card storage, Support Max 2* 128GB	
	Image Quality	Eight Grades to Choose	
Alarm	Alarm in	4 Channels Independent Input. High Voltage Trigger	
	Alarm out	1 Channels Independent output	
	Move Detect	available	
Network Interface	Wire line Access	Can Expand One 6pin Ethernet Port	
	Wifi	Can Expand One Wifi Module Outside, 802.11 B/G/N	
	3G/4G	Can Expand One FDD-LTE/TD-LTE/WCDMA/CDMA2000 Module Inside	
GPS Interface	GPS	Can Expand GPS Module Inside	
Extend Interface	RS232	Extensible,it is convenient to connect with other vehicle equipment	
	RS485	Extensible,it is convenient to connect with other vehicle equipment and PTZ Camera	
	Intercom	Can Expand Intercom Moduel Inside	
	G-Sensor	Can Expand G-Sensor Moduel Inside	
	Canbus	not support, need to customize	
Others	Power Consumption	DC8-36V 5% 8W (without SD)	
	Working Temperature	-20℃ ~ +85℃	
	Clock	Built-In Clock, Calendar	
Packaging	Product Size	132(L)*119(W)*40(H)mm	
	Product Weight	0.6KG(without SD)	

Optional functions:

Basic Type (Pin Aviation Connector)

+A: GPS Function

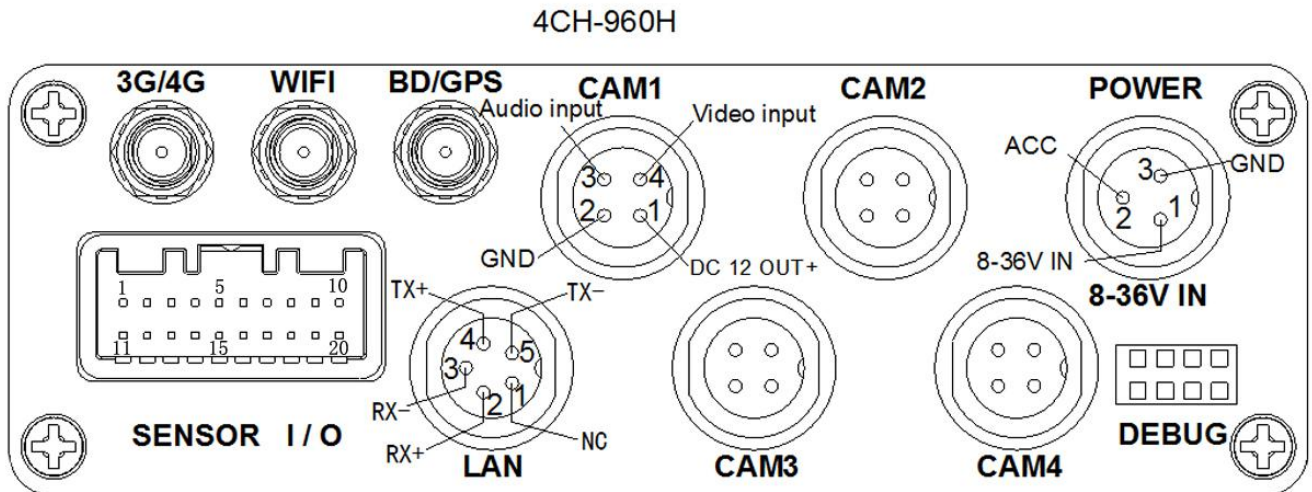
+B: 3G/4G Function

+E: Lan Port

+W: Wifi Function

5 Instruction of Installation

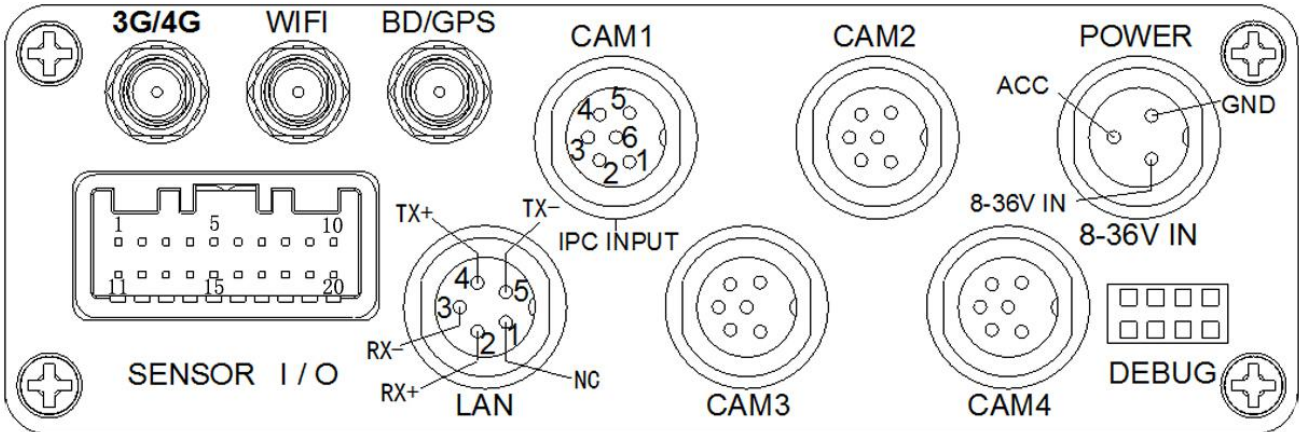
5.1 Instruction of External Interface Wiring



SENSOR Interface definition:

1 VGA_R_OUT	8 A-OUT	15 Alarm input2
2 VGA_G_OUT	9 V-OUT	16 Alarm input3
3 VGA_B_OUT	10 DC12V OUT+	17 Alarm input4
4 RS485+	11 VGA-VS	18 Switch signal A
5 RS485-	12 VGA-HS	19 Switch signal B
6 RS232(TX)	13 GND	20 GND
7 RS232(RX)	14 Alarm input1	

4CH-NVR-720P



SENSOR Interface definition:

1 VGA_R_OUT	8 A-OUT
2 VGA_G_OUT	9 V-OUT
3 VGA_B_OUT	10 DC 12V+
4 RS485+	11 VGA-VS
5 RS485-	12 VGA-HS
6 RS232(TX)	13 GND
7 RS232(RX)	14 Alarm input1

IPC Interface definition:

15 Alarm input2	1 DC 12V+
16 Alarm input3	2 DC 12V-
17 Alarm input3	3 RX+
18 Switch signal A	4 RX-
19 Switch signal B	5 TX+
20 GND	6 TX-

Remarks:


- If the power supply is 12V, then the current of 12V output can be just 1A. So if there are more than 3pcs cameras, we suggest customers to get power for other cameras from the 12V vehicle power directly or use Our special car power supply.
- 3G/4G 、 LAN interface are optional interface, available only when you listed in the order for this interface.
- Ports:

DEBUG: testing port

LAN: Network port

SENSOR: alarm port

5.2 Instruction of SD Card Installation

Unlock the main board with key, make sure the “arrowhead” point to the left “turn on”  and then switch it to the “turn off”.

Note: The lock in the main board can also control the power. When the main board is locked, it also means the machine starts. So before turn it on, please make sure all the cables in the system are well connected. Otherwise the power in the car once connected, it will damage the machine.

6 Instruction of Using

6.1 Instruction of Front Panel











- **LED**
 - ✓ **PWR LED:** lighting while work starts. Power LED on.
 - ✓ **GPS LED:** GPS working LED indicator
 - ✓ **4G LED:** 3G working LED indicator
 - ✓ **SD1 LED:** When recording, playing, backup, LED is flashing
 - ✓ **SD2 LED:** When recording, playing, backup, LED is flashing
 - ✓ **WIFI LED:** when wifi module is running the LED is on.
- **Key and Other Descriptions**
 - ✓ IR: infrared receiving window.
 - ✓ LOCK: while removing the hard drive, use the key to unlock in order to remove the hard drive, unlock after machine's auto-disconnects the power, the power auto-connect after being locked.
 - ✓ 1: SD card1 slot
 - ✓ 2: SD card2 slot
 - ✓ AV OUT: Audio/ Video output, Voice intercom input

✓ :MIC input

6.2 Instruction of Remote Control Operation


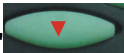
- : Record
- : ①Lead to menu; ②Return key
- : Enter the submenu to do the settings and also confirm the settings
- : For playback on the mobile DVR
- : ①Stop when record and playback; ②Delete key
- : Pause/Play when playback
- : Into PTZ control mode.
- : Mute key, to turn on or turn off audio output when playback videos with audio.(The audio input of the playback device must be connected to the audio output of the DVR.)
- : Fast-forward when video playback, play speed can be x2, x4, x8, press one time is x2, press two times is x4, and press 3 times is x8.
- : ① Exit when video playback or backup. ② Exit from PTZ mode.
- : Character shortcut key: Press A-B to get all characters
- :①Upward for MENU selection. ②"UP" direction for PTZ control mode.
- :①Downward for MENU selection. ②"Down" direction for PTZ control mode.
- : ①Towards to left for MENU selection or MENU setup. ②"Left" direction for PTZ control mode.

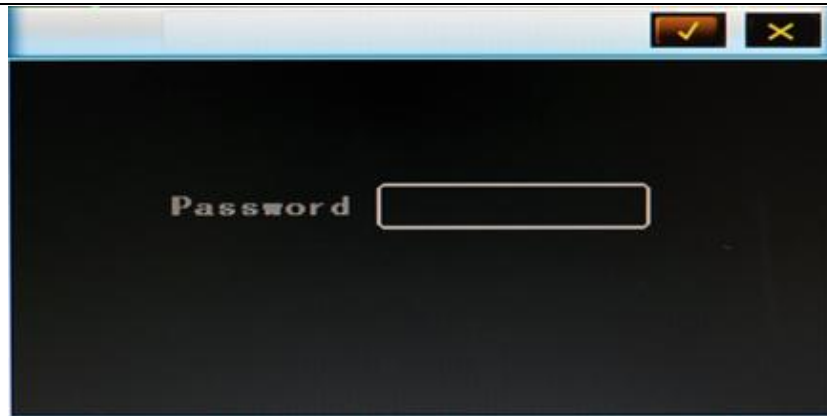



- : ① Towards to right for MENU selection or MENU setup. ② "Right" direction for PTZ control mode.
- : ① screen zoom the first channel video when surveillance, record
② Enter password or set system password.
③ shortcut keys, press the first key shortcut to switch the number 1, press the second key shortcut to switch the capital letter a, press the third key shortcut toggles the lowercase letters a, press the up and down keys to change value.
- : ① screen zoom the second channel video when surveillance, record ② Enter password or set system password.
- : ① screen zoom the third channel video when surveillance, record ② Enter password or set system password.
- : ① screen zoom the fourth channel video when surveillance, record and playback ② Enter password or set system password.
- : Enter password or set system password.
- : Enter password or set system password.
- : Enter password or set system password.
- : Enter password or set system password.
- : Enter password or set system password.
- : ① 4 channel display when surveillance, record and playback. ② Enter password or set system password.

Remark: When the DVR is in alarm condition, the remote control is invalid.

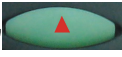




6.3 Menu Setting Instruction:

First press "" key, next press "" to enter the default password "6666",

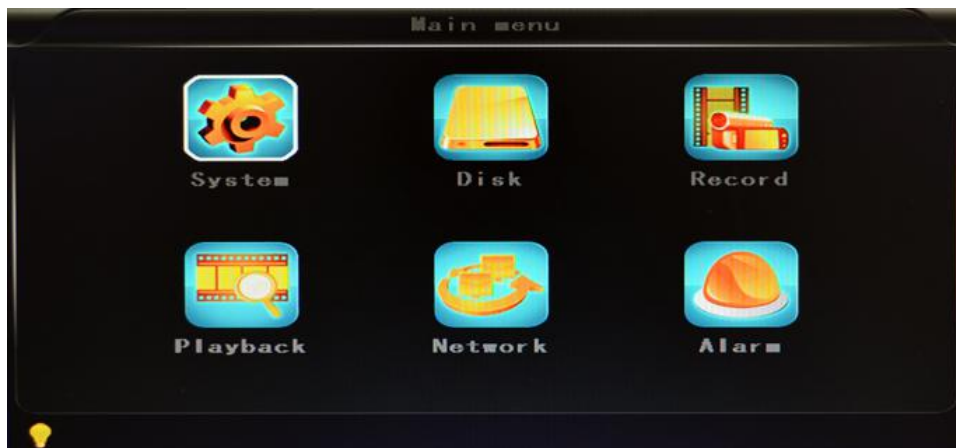


then press "" to enter the main menu interface;

There are "System", "Disk", "Record", "Playback", "Network" and "Alarm" options, select the option by

pressing these buttons ", ", ", ", then press "" to enter.

Basic Settings: includes options of "system setting", "PTZ setting", "system info", "vehicle info" ..



- **System Setting:** " Setup" and "Info "



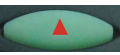
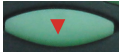
- **Setup:** Set the System time, Car Number, TV system, Language, etc.




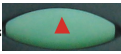
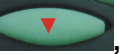


- **Date format:** Offer 3 display methods like "y/m/d, m/d/y, d/m/y" for personal habit.
- **Daylight saving time:** suitable for according countries or areas.
- **Date:** Adjust the date of HDD recorder
- **Time:** Adjust the time of HDD recorder
- **Time zone:** differs by countries, e.g: China for UTC+08
- **Language:** Set "Chinese" or "English", have to restart the DVR after setting.
- **Video Mode:** Set "PAL" or "NTSC", have to restart the DVR after setting.
- **Delay Time:** DVR Time-lapse turn off function after the car ignition off, the default time is 5S, and 30s,60s,120s,300s,600s,1200s,1800s,3600s,7040s all could be set, have to restart the DVR after setting.
- **Speed unit:** KM/H and M/H, e.g: China is KM/H
- **Amplifying channel:** Choosing which channel to see when power on each time. This is also useful when backing the car.
- **Password:** Enter the default password before changing the new password(**Note: You have to enter the original password after press "OK", otherwise the DVR will keep staying in the changing password status, and the remote control will not work.**)


- **New password:** Enter the new password


Operating Way:

Enter the menu, press ", 

to select the options ,then press "

to enter the modification mode, adjust the number by pressing ", , , 

", press "

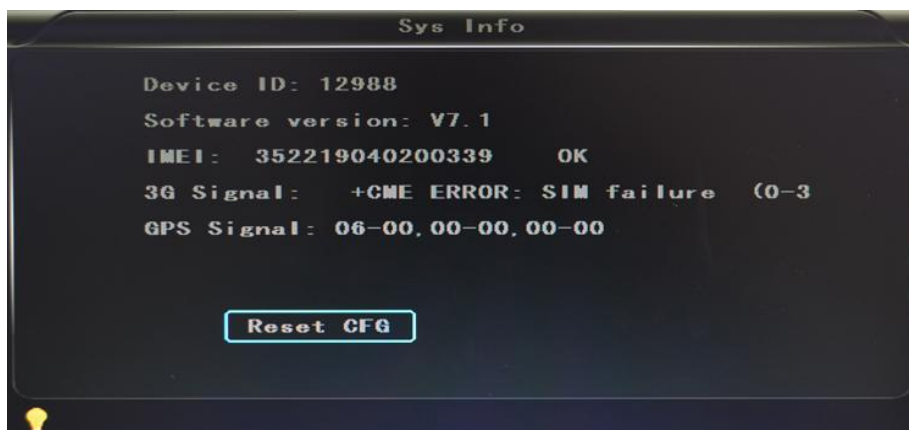
to save after adjustment. Press "

"key to exit after all settings done.

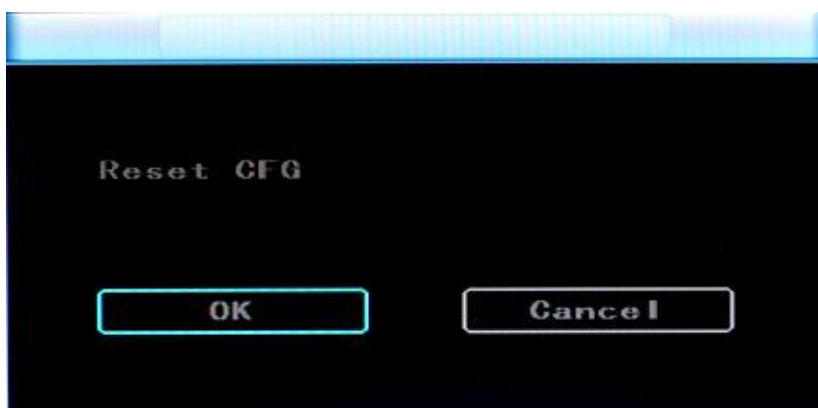
- **PTZ settings:** Adjust and control the camera with external PTZ device.



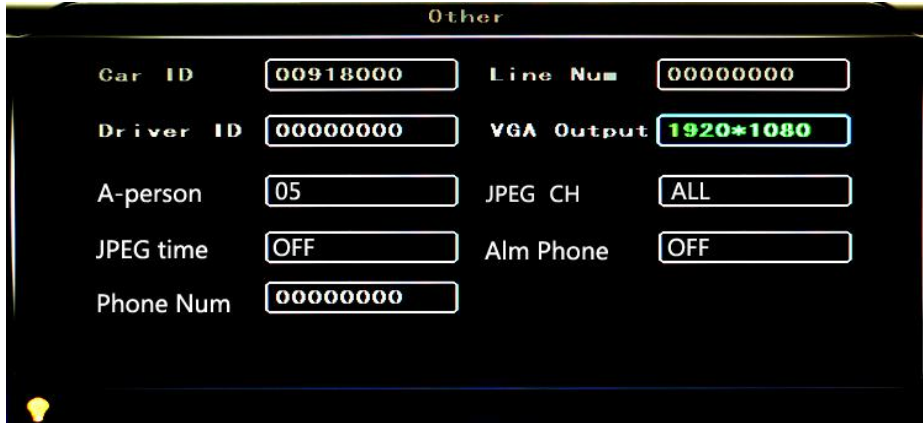
- ✓ Protocols: default PELCO-D, support PELCO-D.PELCO-
- ✓ Bit rate: under RS485 port: 2400bps,4800bps,9600bps,38400bps,57600bps
- ✓ Channel-Address: Channel one-Device address
- ✓ Channe2-Address: Channel two-Device address
- ✓ Channe3-Address: Channel three-Device address
- ✓ Channe4-Address: Channel four-Device address
- **System Info:** Display DVR hardware code number, software version information(only view, couldn't be changed); Reset the Factory Settings



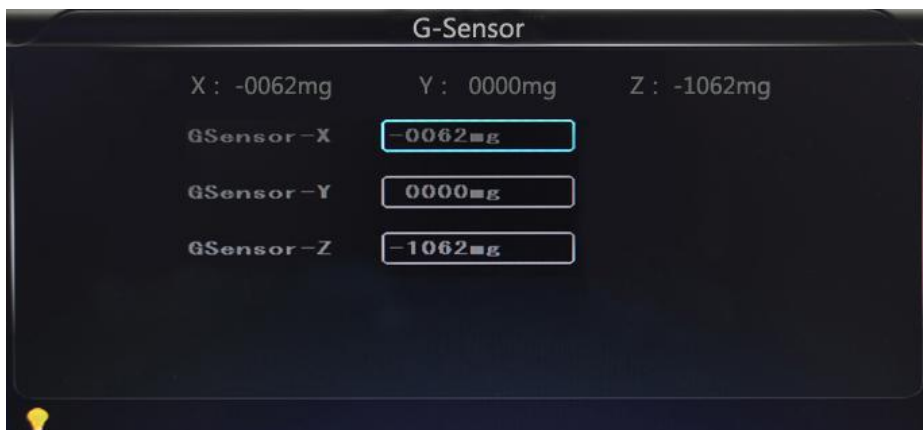
- ✓ Device encoding: only for this DVR, the code is unique.
- ✓ Software version: the version No. of DVR software.
- ✓ IMIE: IMIE No. of 3G network or module
- ✓ Strength Of 3G signal: strength value:99, unknown: 0-31
- ✓ Strength Of GPS signal: AA-BB(AA: GPS No.;BB: GPS strength. Show signal strength of max.3 satellite each cycling time.
- ✓ Reset the Factory Settings:
- ✓ Select "Reset CFG", there is a Reset interface after press "OK", confirm to Reset ,cancel to return the original interface.



- Car information: details of car plate number, route and driver code.

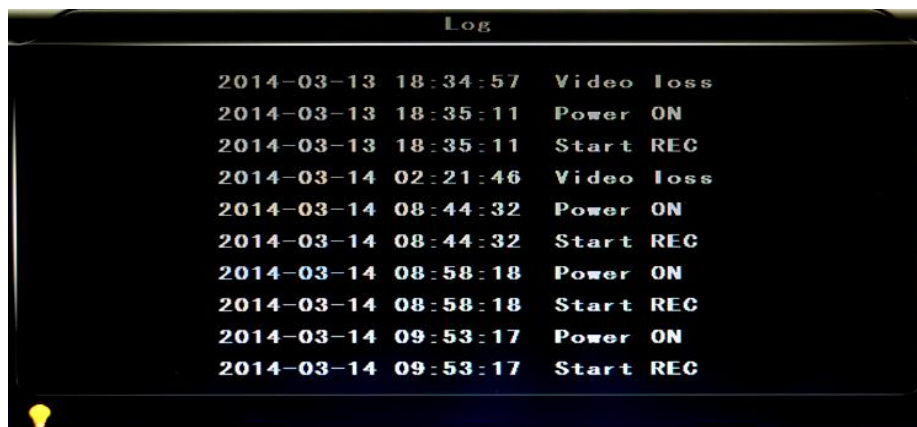


- Car plate number: can be showed by English, Chinese simplified language, Numbers or common symbols.
- Route: the driving route and code
- Driver code: set up the driver code information
- G-sensor:



- GSensor-X: 0000mg(default value, this value will change accordingly if the X direction gravity accelerated speed value is changeable)
- GSensor-Y: 0000mg(default value, this value will change accordingly if the Y direction gravity accelerated speed value changeable)
- GSensor-Z: 0000mg(default value, this value will change accordingly if the Z direction gravity accelerated speed value is changeable)

- LOG information




- User action log, alarm logging, equipment status log

- **Disk:** Check and format



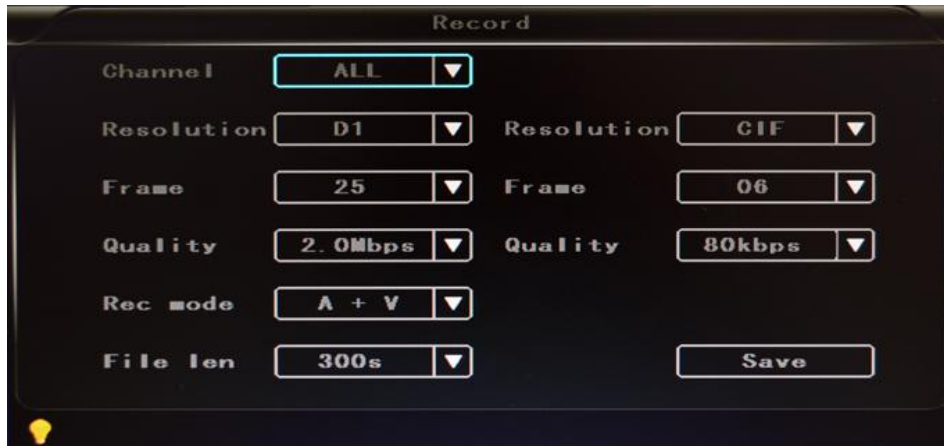
- **Disk Name:** Display the system recognized HDD name
- **Total Size:** Display the total size of HDD
- **Free Size:** Display the remaining Capacity of HDD
- **Format:** Format HDD(only format the head files of HDD)

Select this item, there is a format interface after press “

All data will be lost

OK **Cancel**

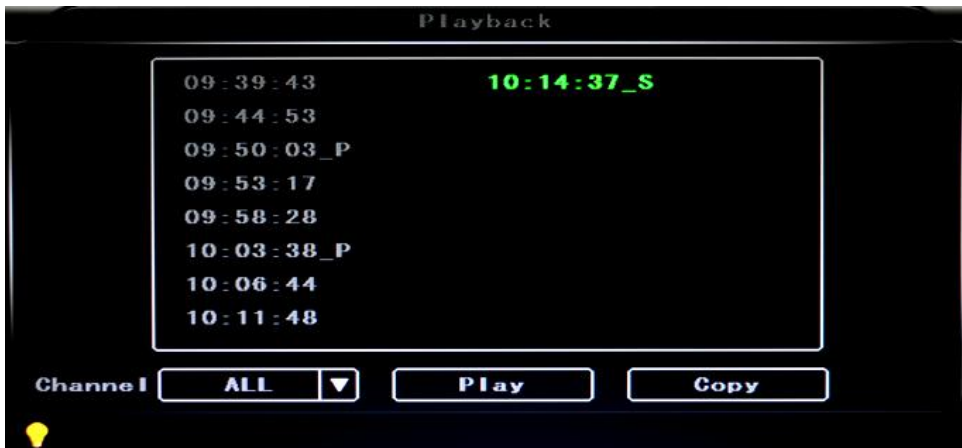
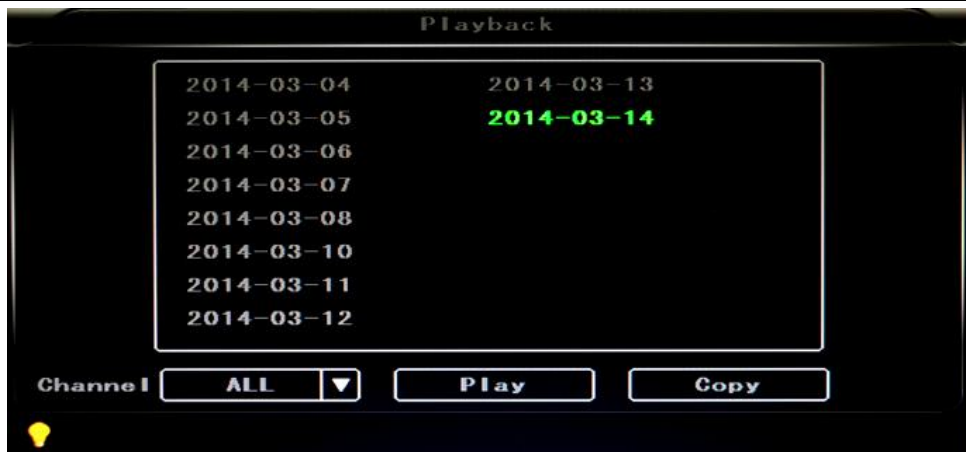
- **Record:** the video files setting



- **Channel:** select the channel setting (the information of each channel could be set independently)
- **Resolution:** CIF/HD1/D1/720P;
The left side is the local storage information,
The right side is network transmission information; local "CIF,HD1,D1,720P" is optional, only "CIF" for network transmission
- **Frame:** 1-25/30fps
The left side is local storage information,
The right side is network transmission information.
- **Quality:** Video quality setting
The left side is the local video quality(total 8 grade, LOWEST—HIGHEST)
The right side is the network transmission quality(total 9 grades,
32kbps/48kbps/64kbps/80kbps/112kbps/144kbps/192kbps/256kbps/384kbps)
- **Rec mode:** VIDEO ,Audio +Video (A+V) ,No record (N)
- **File Len:** the packaged video files length setting
(300/600/900/1200/1500/1800/2100/2400/2700/3000/3300/3600s optional)
- **Save:** save after finished video parameter setting (have to restart the DVR after setting.)

The operating method is similar to the "basic settings" operating

- **Playback:** the recorded video Playback



There are video date in the menu, it will display the vide time after enter the date, choose the playback time range as needed, press “Play” or click the interface “Playback “button to replay the video. Said is power outage file suffix "_P", suffix "_S" indicates an alarm trigger video files.

- **Channel:** 1CH/4CH Video playback; video playback on each channel or full screen, playback and record simultaneously
- **Playback:** Select the video files and channel to replay
- **Backup:** Select the HDD video files backup to USB Disk

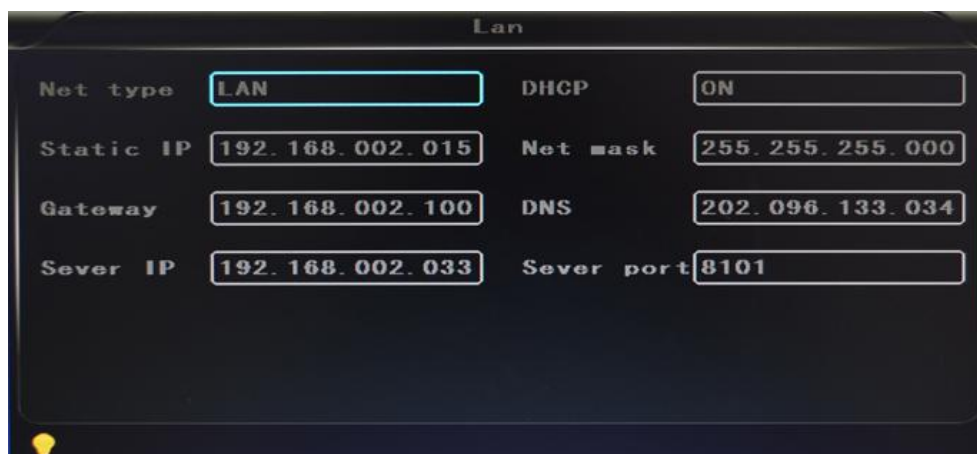
The operating method refers to “local video playback instruction”

■ Network Setting: LAN, 3G, WIFI



- ✓ **LAN:** connecting via RJ45
- ✓ **3G:** insert 3G SIM card into the slot
- ✓ **WIFI:** connecting the network of WIFI
- ✓ **IPC:** To connect the IPC camera Settings

● Local Network Setting (LAN) :



- ✓ **Network Type:** LAN / 3G-WIFI optional
- ✓ **DHCP:** Automatically get the IP address(in order not conflict with the LAN, pls enable ON, and also enable DHCP on the router, P.S, only one DHCP server can be enable in one LAN)
- ✓ **Static IP:** setup under LAN and WIFI mode
- ✓ **Net mask:** Subnet mask under LAN or WIFI mode
- ✓ **Gateway:** gateway under LAN or WIFI mode
- ✓ **DNS:** Pls input when the server IP is DNS, and not necessary when IP is static.
- ✓ **Server IP:** If the units login on our server, pls use 122.013.152.212, and if the units login on your own server, pls use yours.
- ✓ **Server Port:** Keep it as default of 8101

- **3G Network Setting:**

- ✓ **Net type:** select 3G-WIFI if you are going to use 3G mode.
- ✓ **DHCP:** ON



- ✓ Access into **"Network"→"3G"**



- ✓ **APN:** Access Point Name
- ✓ **Dialup Num:** Get this info from your carrier
- ✓ **User Name:** Fill in if you have
- ✓ **Password:** Fill in if you have

Note: Pls make sure you select the proper SIM card fit for 3G module.

Here is a example for Chinese carrier.

	WCDMA	EVDO
APN:	3gnet	card
Dialup Num:	*99#	#777
User name:	3gnet	card
Password:	3gnet	card

- **WIFI Setting:**

- ✓ **Net type:** Select 3G-WIFI when the type is under LAN.
- ✓ **DHCP:** ON



The screenshot shows the LAN configuration interface. The title is "Lan". The "Net type" is set to "3G-WIFI". The "DHCP" option is set to "ON". The "Static IP" is "192.168.002.015", "Net mask" is "255.255.255.000", "Gateway" is "192.168.002.100", "DNS" is "202.096.133.034", "Sever IP" is "192.168.002.033", and "Sever port" is "8101".

- ✓ Access Network setup → "WIFI"



The screenshot shows the WIFI configuration interface. The title is "WIFI". The "SSID" is "HESI", "Password" is "hesi88866", "Certificate" is "WPA-PSK", and "Encryption" is "CCMP TKIP".

- ✓ **SSID:** WIFI router device name.
- ✓ **Password:** using password for SSID
- ✓ **Certificate:** Support both "WPA-PSK" and "WPA2-PSK"
- ✓ **Encryption:** Support both "CCMP" and "TKIP"
- ✓ Access router, check its "WIFI" encryption.



The screenshot shows the "WIRELESS SECURITY MODE" settings. It includes a text block explaining wireless security features: "To protect your privacy you can configure wireless security features. This device supports three wireless security modes, including WEP, WPA-Personal, and WPA-Enterprise. WEP is the original wireless encryption standard. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server." Below the text, the "Security Mode" is set to "WPA-Personal".

SETUP COMPLETE!

Below is a detailed summary of your wireless security settings. Please print this page out, or write the information on a piece of paper, so you can configure the correct settings on your wireless client adapters.

Wireless Band : 2.4GHz Band
Wireless Network Name (SSID) : dlink
Security Mode 2 : Auto (WPA or WPA2) - Personal
Cipher Type : TKIP and AES
Pre-Shared Key :
c47086bee2659742883d5bb36da53356e51407f1635855aa7cbef92b5598bf6c

Notes:

Pls make sure the router WIFI encryption keep the same with the setup in MDVR if the units use WIFI.

● IPC Setting

Channel CH1 Time Sync ON
IPC Addr 192.168.002.096 IPC Port 80
User Name admin Password admin
Search Save
192.168.2.190:80 192.168.2.96:80 Search IPC end!

- ✓ **Channel:** main channel , different channel set can choose
- ✓ **Time Sync:** turn on/off means if open the time synchronization between ipc and device
- ✓ **IPC Addr:** put and modify ipc address when the ip camera and device in one network area
- ✓ **IPC Port:** the device port which connect with ip camera
- ✓ **User Name:** the user name which connect with ip camera
- ✓ **Password:** the user names password
- ✓ **Search:** it is can serch the local network ipc when click the serch button
- ✓ **Save:** click the save button to keep the sets after set

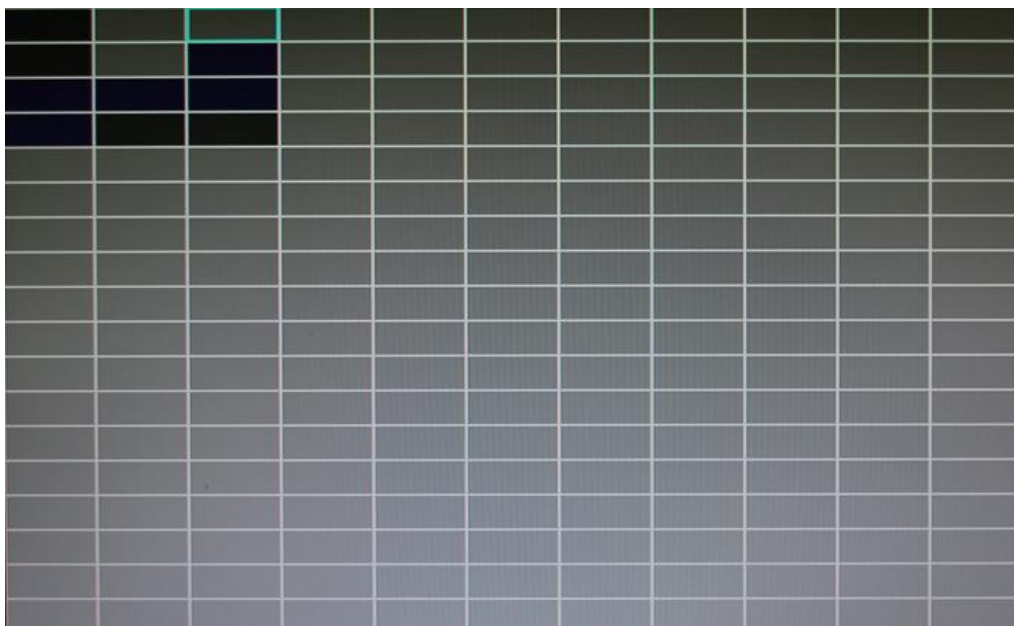
Note: the network type must be changed to LAN when connect with ipc

- Alarm :



- **Alarm REC:** Alarm-triggered video duration (30-330s optional, 30s unit)
- **Positioning Interval:** GPS Data upload interval, used with other system interface
- **Alarm out:** Alarm output time (5s-900s)
- **Over speed:** Set the over speed alarm value
- **Motion Detect:** Open and close motion detect record and motion detect sensitivity selection such as “off”, “high”, “medium”, “low”. Opening motion detect recording, also need to set the icon “S”(alarm record) for time range of the detect record in “Record Setting” status except select “High”, “Medium”, “Low”. “High”, “Medium”, “Low” is the grade of detect sensitivity, higher grade, record easier.

- **DET AREA**



: High sensitivity
 : Low sensitivity
 : No detect

- **Record Sequence:** Set the record mode of the different time range

White blank: no record

Red blank: record


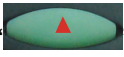


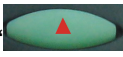





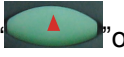





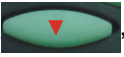









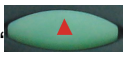
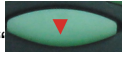
S blank: Alarm record

If the record mode set to "continuous recording" or alarm recording, the remote control stop key



"will not work.

6.4 DVR Video Playback Instruction


Enter the main menu, move to "search/playback" option, press  to enter, next press the key  or  to select the playback date, then press  key to display the video files of the selected date (file named by the record time), same press  or  again to select the time to play. If your required time is not available in the current page, press  or  key to the next page, till you find the required time, then press  key to move the option "play channel", again press  to select the playback channel. If you need to reselect the files, press keys  or  to repeat the previous steps to select again, then press . Press  or  to select the replay channel, then press  or press  to button "playback", next press  to replay, the system will switch to the video playback status, you can see the playback video in the selected channel. Press , , ,  keys to switch the channel, and press  back to the quad screen. Press  to stop, press again for replay. Press  to exit and back to 4ch record status, press  and back to the "search/playback" interface, then press  or  to select other video playback.



6.5 Video Backup

Our company System support 2 video backup ways.

- 1) Connect the USB disk to the DVR's USB port for backup (Ports on Demand) ; Operating method as follows:


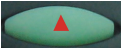




- Connect USB disk to the DVR's USB port (FAT32 format, backup Max.20G);
- On the video playback interface,select the backup video files first,then move to“backup”option,and press “OK”to backup, “COPY END”display after backup finished,the USB disk could be taken away,then press“”to exit if no other operations.

- If you need to backup another files,press“”to repeat the previous steps to backup.

2) Take the SD card out from DVR, then connect the SD reader to the PC, you can check the video playback on PC via the installed our company's local playback analysis software .(Suitable for large amount data backup, simple and flexible. The proprietary data files also could be converted to the common format, suitable for different reading demands). Specifics refer to the local playback analysis software instruction).

6.6 PTZ control

This function just used to has PTZ function models。 Operations are as followings:

When DVR is working, click“”, entre“PTZ control”mode,If DVR has connect with screen, then on screen's left above would show “PTZ”,click“”, “”, “”, “”, PTZ would scroll as it shows, the ptz camera would rotate after each command by clicking ptz icon in the cms or operating the control board; Control over if wanna quit at all, click“”。

6.7 Video Data Volume

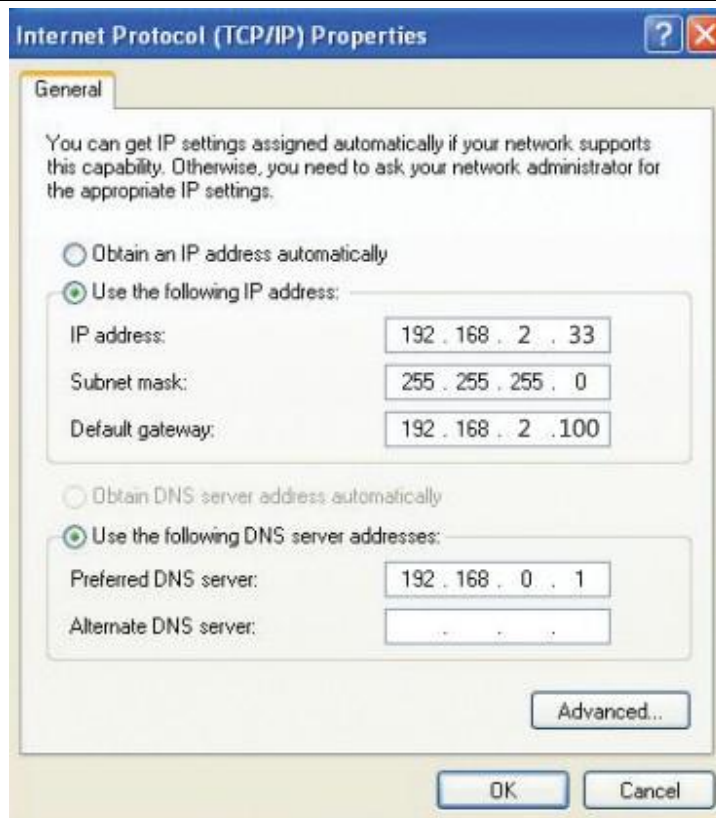
The required volumes of video and video-related settings , please see the following table:

VIDEO QUALITY	Total Record Frame	Data Size Per Hour
HIGHEST	100 frame	3.6GB
HIGHER	100 frame	2.65GB
HIGH (default)	100 frame	2.1GB
BETTER	100 frame	1.8GB
NORMAL	100 frame	1.35GB
LOW	100 frame	0.9GB
LOWER	100 frame	0.55GB
LOWEST	100 frame	0.335GB

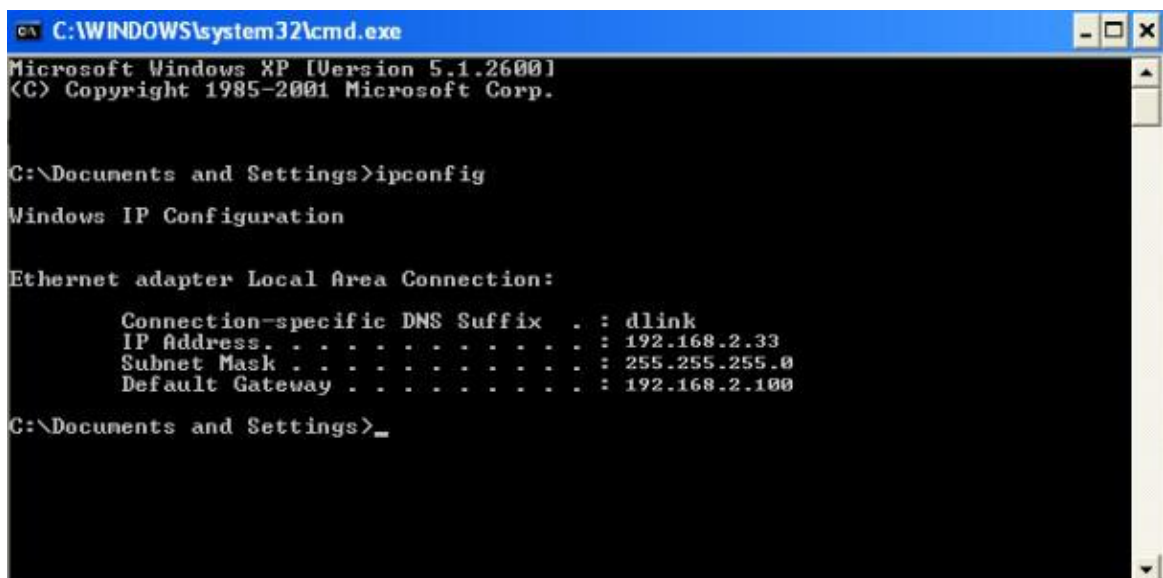
Note: Based on users matching conditions to apply the appropriate drive and related settings.

6.8 Extranet Port Mapping

- ✓ Install the CMS server in LAN, Pls refer to the manual how to install CMS server.
- ✓ First, make sure the PC which installed the server use **Static Public IP**, not automatically get.



- ✓ Access into “Program”→”Run”→”CMD”, fill in “ipconfig”→”Enter” to see if the server IP has been set successfully.



- ✓ Open the file of “DVR_Server.cfg” in the server installation path, can check whether the ports have been set successfully.
Port: 8001, 9001, 8101


```

DVR_Server.cfg - 记事本
文件(F) 编辑(E) 格式(O) 查看(V) 帮助(H)

[Server]
Server_port=8001
Client_port=9001
TCPServer_port=8101
UserName_Num=1
UpdatePass=0
GpsPlayer_dis=30
[SendGPS]
Gps_IP=127.0.0.1
Gps_Port=9009
Gps_Stauts=2
debug_status=0
[UserName00]
Name=admin
Password=admin
MaxNum=0

Ln 16, Col 2

```

- ✓ Access into router→”Advanced”→”Port forwarding “

D-Link

DIR-835 // SETUP ADVANCED TOOLS STATUS SUPPORT

PORT FORWARDING RULES :

This option is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network. This feature allows you to enter ports in various formats including, Port Ranges (100-150), Individual Ports (80, 68, 888), or Mixed (1020-5000, 689).

Save Settings Don't Save Settings

24 -- PORT FORWARDING RULES

Name	IP Address	Application Name	Ports to Open	Schedule	Inbound Filter
<input type="checkbox"/>	0.0.0.0	<< Application Name	TCP 0	Always	Allow All
<input type="checkbox"/>	0.0.0.0	<< Computer Name	UDP 0	Always	Allow All
<input type="checkbox"/>	0.0.0.0	<< Application Name	TCP 0	Always	Allow All
<input type="checkbox"/>	0.0.0.0	<< Computer Name	UDP 0	Always	Allow All
<input type="checkbox"/>	0.0.0.0	<< Application Name	TCP 0	Always	Allow All
<input type="checkbox"/>	0.0.0.0	<< Computer Name	UDP 0	Always	Allow All

Helpful Hints...

Check the **Application Name** drop down menu for a list of predefined applications. If you select one of the predefined applications, click the arrow button next to the drop down menu to fill out the corresponding field.

You can select a computer from the list of DHCP clients in the **Computer Name** drop down menu, or you can manually enter the IP address of the LAN computer to which you would like to open the specified port.

Select a schedule for when the rule will be enabled. If you do not see the schedule you need in the list of schedules, go to the **Tools --> Schedules** screen and create a new schedule.

- ✓ Add the ports of 8001, 8101, 9001 to the port forwarding.

DIR-835
SETUP
ADVANCED
TOOLS
STATUS
SUPPORT

VIRTUAL SERVER

PORT FORWARDING

APPLICATION RULES

QOS ENGINE

NETWORK FILTER

ACCESS CONTROL

WEBSITE FILTER

INBOUND FILTER

FIREWALL SETTINGS

ROUTING

ADVANCED WIRELESS

WI-FI PROTECTED SETUP

ADVANCED NETWORK

GUEST ZONE

IPv6 FIREWALL

IPv6 ROUTING

PORT FORWARDING RULES :

This option is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network. This feature allows you to enter ports in various formats including, Port Ranges (100-150), Individual Ports (80, 68, 888), or Mixed (1020-5000, 689).

24 -- PORT FORWARDING RULES

	Name	Ports to Open	Schedule
<input checked="" type="checkbox"/>	DVR Application Name	TCP 9001	Schedule Always
<input checked="" type="checkbox"/>	IP Address 192.168.2.33 Computer Name	UDP 9001	Inbound Filter Allow All
<input checked="" type="checkbox"/>	DVR Application Name	TCP 8101	Schedule Always
<input checked="" type="checkbox"/>	IP Address 192.168.2.33 Computer Name	UDP 8101	Inbound Filter Allow All
<input checked="" type="checkbox"/>	DVR Application Name	TCP 8001	Schedule Always
<input checked="" type="checkbox"/>	IP Address 192.168.2.33 Computer Name	UDP 8001	Inbound Filter Allow All
<input type="checkbox"/>	 Application Name	TCP 0	Schedule Always
<input type="checkbox"/>	IP Address	UDP	Inbound Filter

Helpful Hints...

Check the **Application Name** drop down menu for a list of predefined applications. If you select one of the predefined applications, click the arrow button next to the drop down menu to fill out the corresponding field.

You can select a computer from the list of DHCP clients in the **Computer Name** drop down menu, or you can manually enter the IP address of the LAN computer to which you would like to open the specified port.

Select a schedule for when the rule will be enabled. If you do not see the schedule you need in the list of schedules, go to the **Tools -- Schedules** screen and create a new schedule.

- a) **Name:** fill in a name for MDVR port.
 - b) **Ports to Open:** 8001, 8101, 9001
 - c) **IP Address:** Server IP address
 - d) **Inbound Filter:** TCP、UDP、Allow ALL, Pls select "Allow All"
 - e) **Schedule:** select "Always"
- ✓ Fill in the ports, and click" **Save settings**".

SETUP	ADVANCED	TOOLS	STATUS
PORT FORWARDING RULES : This option is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network. This feature allows you to enter ports in various formats including, Port Ranges (100-150), Individual Ports (80, 68, 888), or Mixed (1020-5000, 689). <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>			
24 -- PORT FORWARDING RULES			
<input checked="" type="checkbox"/>	Name DVR	<< Application Name >>	Ports to Open TCP 9001 Schedule Always
	IP Address 192.168.2.33	<< Computer Name >>	UDP 9001 Inbound Filter Allow All
<input checked="" type="checkbox"/>	Name DVR	<< Application Name >>	Ports to Open TCP 8101 Schedule Always
	IP Address 192.168.2.33	<< Computer Name >>	UDP 8101 Inbound Filter Allow All
<input checked="" type="checkbox"/>	Name DVR	<< Application Name >>	Ports to Open TCP 8001 Schedule Always
	IP Address		UDP

- ✓ After the port mapping settings, find the “**IP Address**” in the WAN, the IP Address is your CMS server IP. login the server IP on the CMS client to access.

DIR-835	SETUP	ADVANCED	TOOLS	STATUS
DEVICE INFO LOGS STATISTICS INTERNET SESSIONS ROUTING WIRELESS IPV6 IPV6 ROUTING	DEVICE INFORMATION All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.			
GENERAL Time : Friday, August 12, 2011 7:29:58 PM Firmware Version : 1.00 , 12, Aug, 2011				
WAN Connection Type : DHCP Client Cable Status : Disconnected Network Status : Disconnected Connection Up Time : N/A <input type="button" value="DHCP Renew"/> <input type="button" value="DHCP Release"/> MAC Address : 00:01:23:45:67:8a IP Address : 188.38.223.87 Subnet Mask : 255.255.255.0 Default Gateway : 188.38.223.87 Primary DNS Server : 202.96.128.166 Secondary DNS Server : 202.96.134.133 Advanced DNS : Disabled				

Notes: When extranet access into LAN server, it need do mapping on the router. Then extranet can access into WAN IP.

- ✓ Change the Server IP to the related one, Access into MDVR
 “menu”→”Network setting”→”LAN”→”Server IP”→XXX.XXX.XXX.XXX



6.9 Domain binding setting

After finished the server set up and the port mapping, you can login via network IP.

There are two ways to access the network as follow.

ADSL dial-up: It will assign a different dynamic IP address for each dial

Leased line: It will assign a static IP address, and you can access directly

So, when set up the server with the way of ADSL dial-up, you can binding DDNS via domain in order to prevent the distribution of different dynamic IP in each dial.

Note 1 : DDNS is used to mapping the dynamic IP address to a static DNS. Client program will send the dynamic IP to the server program when the user access the network, then the server program will provide the DNS server to realize dynamic DNS.

Note 2 : If the dynamic domain name is free, you will temporarily unable to access via the free domain name when things going wrong with the the domain name service provider's server.

The related parameters below is for routers test. Please refer to actual network environment when installation.

- ✓ Access into router setup, select "Dynamic DNS" to check the related setup.

The screenshot shows the D-Link router's web interface. The top navigation bar includes 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration options, with 'DYNAMIC DNS' selected. The main content area is titled 'DYNAMIC DNS' and contains the following text:

The DDNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your host name to connect to your game server no matter what your IP address is.

Sign up for D-Link's Free DDNS service at www.DLinkDDNS.com.

Buttons for 'Save Settings', 'Don't Save Settings', and 'Reboot Now' are visible.

The 'DYNAMIC DNS SETTINGS' section includes:

- Enable Dynamic DNS :
- Server Address : << Select Dynamic DNS Server
- Host Name :
- Username or Key :
- Password or Key :
- Verify Password or Key :
- Timeout : 576 (hours)
- Status : Disconnected

Helpful Hints... To use this feature, you must first have a Dynamic DNS account from one of the providers in the drop down menu. More...

- Enable Dynamic DNS:** Enable ON if you need to use DDNS
- Server Address:** Fill in accordingly
- Username or Key:** Fill in applied user name
- Password or Key:** Fill in password
- Verify Password or Key:** confirm the password
- Timeout:** Timeout setting
- Status:** Status of connection

Notes: DDNS need to be applied by customers if necessary.

- ✓ Fill in the user name and password, use DDNS login, it shows connect successfully if login properly, and will display the applied the DNS.

Notes: Pls refer to the Oray for the DNS apply.

- ✓ After DNS binding, you can access into server via DNS.