

C series DVR Systems User's Installation And Operation Manual Edition R1.0

Welcome

Thank you for purchasing our DVR!

This manual is designed to be a reference tool for the installation and operation of your system.

Here you can find information about the C series DVR's features and functions, as well as a detailed menu tree.

Before installation and operation, please read the following safeguards and warnings carefully!

Important Safeguards and Warnings

Do not place heavy objects on the DVR.

Do not let any solid or liquid fall onto or infiltrate the DVR.

Please keep the units fans clean. Before cleaning the fans please turn off the DVR.

Do not disassemble or repair the DVR by yourself. Do not replace the components by yourself.

Environment

Avoid placing the unit in direct sunlight. Keep it away from sources of heat.

Do not install the DVR in damp environment.

Do not use the DVR in smoky or dusty environment.

Please insure the DVR level installation in a stable workplace.

Please install in ventilated area.

Use within the rating input and output scope.

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1 Production Introduction

1.1 Product overview

This DVR uses standard H.264mp video compression format and G.711A audio compression format which insures the high quality image, low error coding ratio and single frame playing. It uses TCP/IP network technology which achieves the strong network communication ability and telecommunication ability.

The series DVR can be used individually or online applied as a part of a safety surveillance network. With the professional network video surveillance software it achieves the strong network communication ability and telecommunication ability.

1.2 Main functions

Real-time surveillance

Analog interface and VGA interface (VGA interface is equipped selectively)

Surveillance function through monitor or display

Storage

Non-working hard disk dormancy processing which is convenient to radiate heat, reduce power and extend the life-span

Special storage format which insures the data safety

Compression

Real-time compression by individual hard disk which insures the audio and video signal stable synchronization

Backup

Video and audio is saved via a SATA connected hard drive inside the unit. Video can be pulled off of the machine via a USB stick or via the net

Playback

Individual real-time video recording as well as searching, playback, network surveillance, recording check, downloading and so on

Multi-playback mode

Net operating

Through net tele-surveillance in the real time

Tele-PTZ control

Tele-recording check and real-time playback

Alarm linkage

Multi-route relay alarm output which is convenient for the alarm linkage and light control at the spot

Protecting circuits at the alarm input and output interface which protects the main machine from damage

Communication interface

RS485 interface which fulfills the alarm input and PTZ control

Standard ethernet network interface which fulfills the telecommuting function

intelligent operating

Mouse action function

Fast copy and paste operating for the same setting

2 Open-package check and cable connections

2.1 Open-package check

First, please check whether there is any visible damage to the package. The protective materials used for the package of the DVR can protect it from most accidental damage caused during transport.

Next, please open the box and remove the plastic protective materials. Check whether there is any visible damage to the DVR's exterior.

The serial number label in the real panel is very important. Please DO NOT REMOVE IT from the machine. Doing so will make it impossible to identify your unit with the manufacturer.

2.2 Hard disk installation



① Remove the cover screws



② Remove the cover



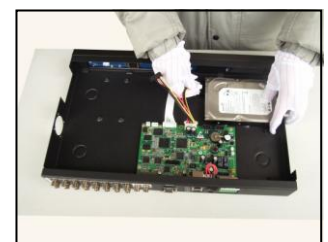
③ Attach hard drive screws



④ Attach hard drive screws



⑤ Connect the SATA cable



⑥ Connect the power cable

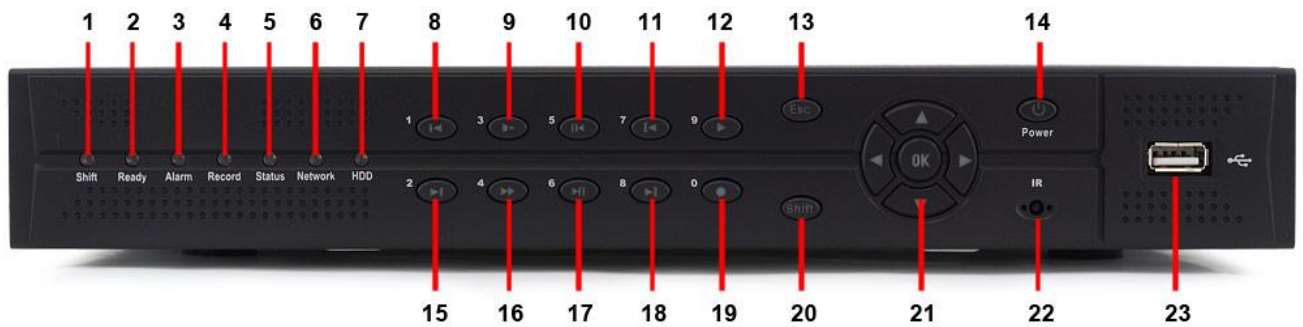


⑦ Replace the cover



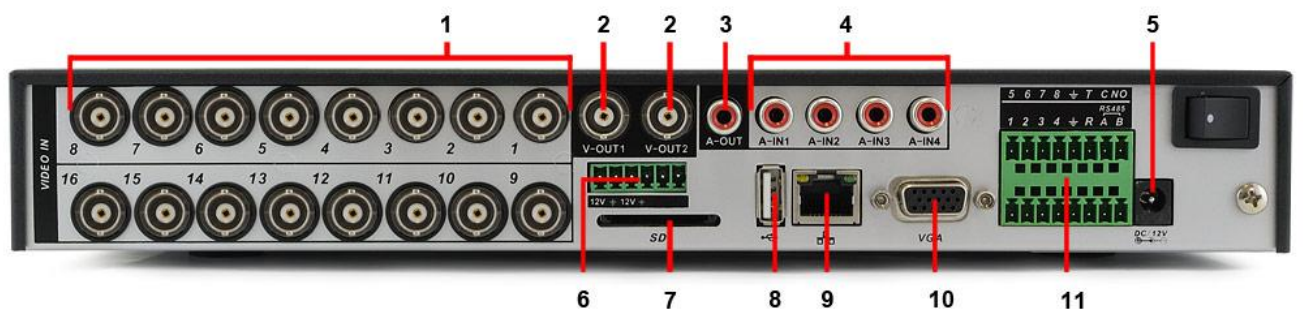
⑧ Insert the case screws

2.3 Front panel



- (1) Shift indicator light (2) Ready light (3) Alarm indicator light (4) Record indicator light
 (5) Status indicator light (6) Network Indicator Light (7) HDD light
 (8) Previous video file (9) Hold to rewind (10) Backward pause (11) Single Frame Backwards (in pause)
 (12) From the main video screen this button will bring up the playback window (13) Escape
 (14) Power Button (15) Next video file
 (16) Fast play (17) Pause/Play (18) Frame advance forward (in pause)
 (19) Brings up camera record mode options
 (20) Shift button (for switching from function to number) (21) Menu arrow keys and OK/Enter button
 (22) IR Eye (do not cover or block) (23) USB connection port

2.4 Rear panel



- (1) Video inputs (2) BNC video output (3) Audio output (4) Audio In
 (5) 12V Input (6) 12V power output (7) SD (8) USB input
 (9) Network port (10) VGA Out (11) Alarm & RS232 & RS485
 (12) 2 x 12V power output

2.5 Audio and video input and output connections

2.5.1 Video input connections

The video input port is BNC connector plug. The demand of input signal is PAL/NTSC BNC ($1.0V_{P-P}$, 75Ω).

Insure the transmission line stable

For video transmission, a high quality shielded RG-59 cable should be used. The length of the wire run to the camera should be no longer than 1000' as a rule of thumb. If the transmission distance is too far, you should adopt shielded twisted pair and an active video balun to transmit your video signal.

The video signal line should be away from the electromagnetic Interference such as 110V wires or stringing the cable over florescent lights.

Insure the connections are tight

Insure the video lines are connected properly and secured on tight so as not to cause improper video display.

2.5.2 Video output connections and options

The video output is divided into PAL/NTSC BNC ($1.0V_{P-P}$, 75Ω) and VGA output (selective configuration).

Things to keep in mind about your monitor:

- 1、Do not leave your monitor running 24 hours a day if avoidable.
- 2、Keep the computer display normal working by degaussing regularly.
- 3、Keep the monitor away from electromagnetic Interference if possible.

2.5.3 Audio signal input

The audio in port is a RCA connection with high input impedance.

The audio signal line should be firmly connected and kept away from the electromagnetic Interference. High voltage lines should be especially avoided.

2.5.4 Audio signal output

The output parameter of DVR audio signal is greater than 200mv $1K\Omega$ (BNC) which can be used to

connect to low impedance earphones, computer speakers or other standard audio input equipment. If the speakers and microphone cannot be isolated from each other, a howling phenomena is often exhibited. There are some methods to deal with the above phenomena.

- 1、 Adopt better directional microphone.
- 2、 Adjust the speaker volume to be under the threshold that produces the howling phenomena.
- 3、 Use fitment materials that absorb the sound to reduce reflection of the sound.

2.6 Alarm input and output connections

1 、 Alarm input

- A. Alarm input is grounding alarm input.
- B. When the alarm device is connected with two DVRs, or connected with DVR and other equipment, it should be isolated by a relay.

2 、 Alarm output

The alarm output cannot be connected with a high-power load (no more than 1A).

3 、 PTZ decoder connections

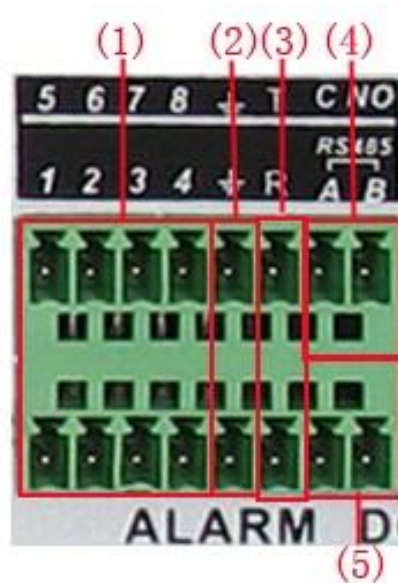
- A. The grounding of the PTZ decoder and DVR must be shared otherwise the common-mode voltage will lead to the PTZ control failure.
- B. Avoid the introduction of high voltage to the input.
- C. In the outlying end connect 120Ω resistance paralleled to reduce the inflection and insure the signal quality.
- D. The 485 AB lines of DVR cannot connect with other 485 output equipments paralleled.
- E. The voltage between the AB lines of the input must be less than 5V.

4、 Front equipment grounding note

Bad grounding can lead to the burnout of the chip.

5、 Alarm input type unlimited

The DVR alarm output port is normally open



(1) Alarm input (2) grounding (3) RS232 (4) alarm output (5) RS485

parameter	meaning
G	grounding
C1、NO1	Alarm output interface(normally open)
T、R	RS232 port
A、B	485communication interface which is connected with the recording control equipments such as the decoder

2.6.1 Alarm input port specification

1 channel alarm input. Alarm input type unlimited.

The grounding and the com port of the alarm sensor are parallel (The alarm sensor is externally powered).

The ground of the alarm and the DVR should be shared.

The NC port of the alarm sensor must be connected with the DVR alarm input port.

2.6.2 Alarm output port specification

1 channel alarm output. An external power source will be needed to power your alarm device.

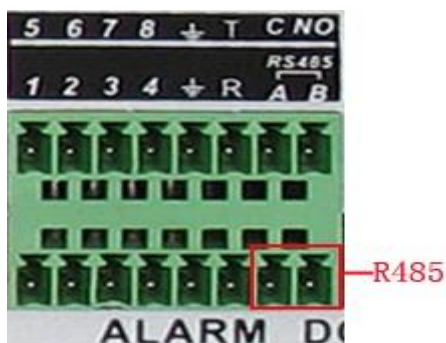
Please refer to the relay relevant parameters to avoid overloading the DVR.

2.6.3 Alarm output port relay parameters

Type: JRC-27F		
Interface material	silver	
rating (resistance load)	Rating switch capacity	30VDC 2A, 125VAC
	maximal switch power	125VA 160W
	maximal switch voltage	250VAC, 220VDC
	maximal switch current	1A
isolation	Homo-polarity	1000VAC 1minute
	Inhomo-polarity	1000VAC 1 minute
	Interface and winding	1000VAC 1 minute
Surge voltage	Homo-polarity	1500VAC (10×160us)
Turn-on time	3ms max	
Turn-off time	3ms max	
longevity	mechanical	50×106 MIN (3Hz)
	electric	200×103 MIN (0.5Hz)
Environment	-40~+70°C	

2.7 PTZ Camera connections

- 1、Connect the 485 lines of the PTZ camera with the DVR 485 interface.



- 2、Connect the video line with the DVR video input.
- 3、Power the PTZ camera.

3 Basic operation

Note: The button in gray display indicates an inactive function and not supported on some models.

3.1 Powering the DVR

Plug the power supply in and turn on the power supply switch located on the back of the machine. After the startup you will hear a beep. The default setting of video output is multiple-window output mode. .

Note: 1. Make sure that the input voltage corresponds with the switch of the DVR power supply.

2. The power supply demands 110V power. It is suggested that you attach the unit to a UPS if possible.

3.2 Turning the machine off

There are two methods to turn off the DVR. Entering [main menu] and choosing [turn off] in the [turn off the system] option is called soft switch, or flipping the power supply switch on the back which is called a hard switch.

Illumination:

1、 Auto resume after power failure

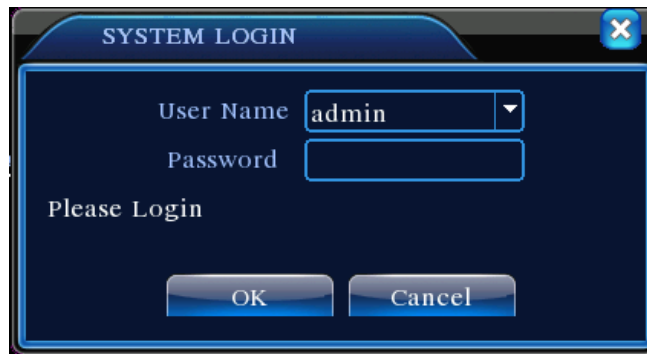
If the DVR is shut down abnormally, it will automatically resume recording once power is restored.

2、 Replacing the hard disk

Before replacing the hard disk, the power supply switch in the real panel must be turned off.

3.3 System Login

To log into the machine, right click anywhere in the background to bring up a list of options. Some of the options will require a login and password. By default, there are 2 login names, **ADMIN**, and **GUEST** with no password used.



Picture 3.1 System Login

Password protection: If the password input is wrong three times, the alarm will start. If the password is input wrong five times, the account will be locked. (Through reboot or after half an hour, the account will be unlocked automatically).

For your system security, please modify your password after first login.

3.4 Preview

You can right click your mouse to switch between the windows.

The system date, time and channel name are shown in each viewing window. The surveillance video and the alarm status are shown in each window.





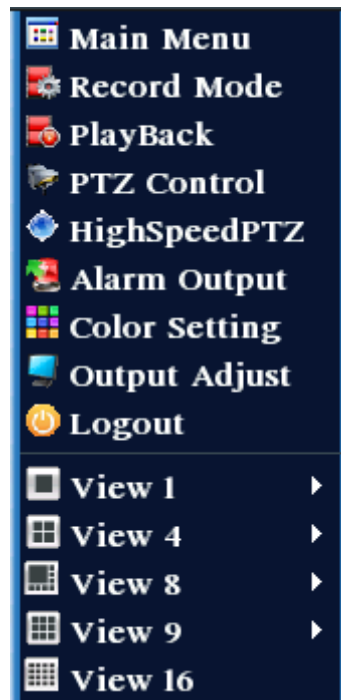
1		Recording status	3		Video loss
2		Motion detect	4		Camera lock

Table 3.1 Preview icon

3.5 Desktop shortcut menu

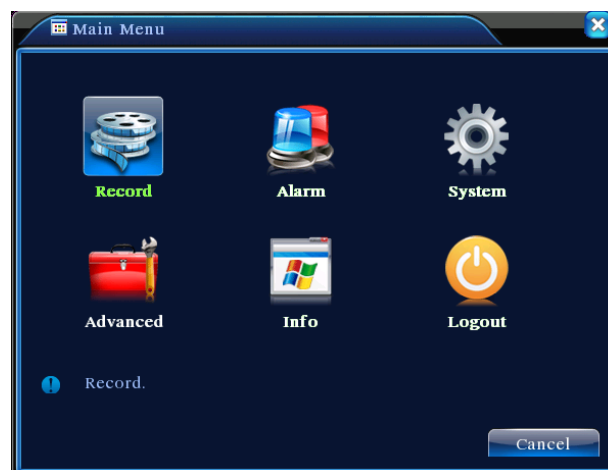
In preview mode you can right click mouse to get a desktop shortcut menu. The menu includes: **main menu, record mode, playback, PTZ control, High Speed PTZ, Alarm Output, color Setting, Output adjust, Logout, view1/4/8/9/16 screens.**



Picture 3.2 Shortcut Menu

3.5.1 Main menu

When you login, the system main menu is shown as below.



Picture3.3 Main Menu

3.5.2 Playback

There are two methods for you to play the video files in the hard disk.

- 1、 In the desktop shortcut menu.
- 2、 Main menu>Record->Playback

Note: The hard disk that saves the video files must be set as read-write or read-only state. (4.5.1)



Picture 3.4 video playback

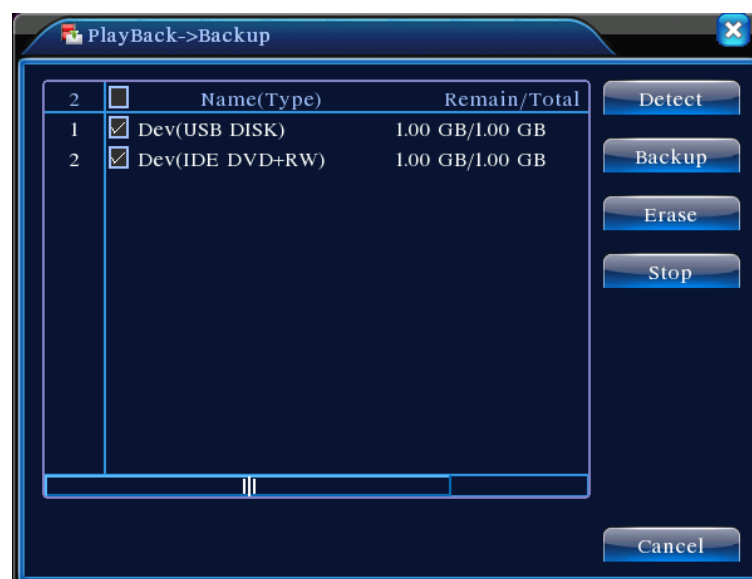
- | | | |
|-----------------|---------------------|---------------------|
| 1. Listed files | 2. File information | 3. File searching |
| 4. File backup | 5. Operation hint | 6. Playback control |

【Listed files】 Look up the listed files that accord with the searching criteria.

【File information】 Look up the found file information.

【File backup】 Backup the chosen file. Click the button and operate as followed.

Note: The storage must be installed before the file backup. If the backup is terminated, the already backup can playback individually.



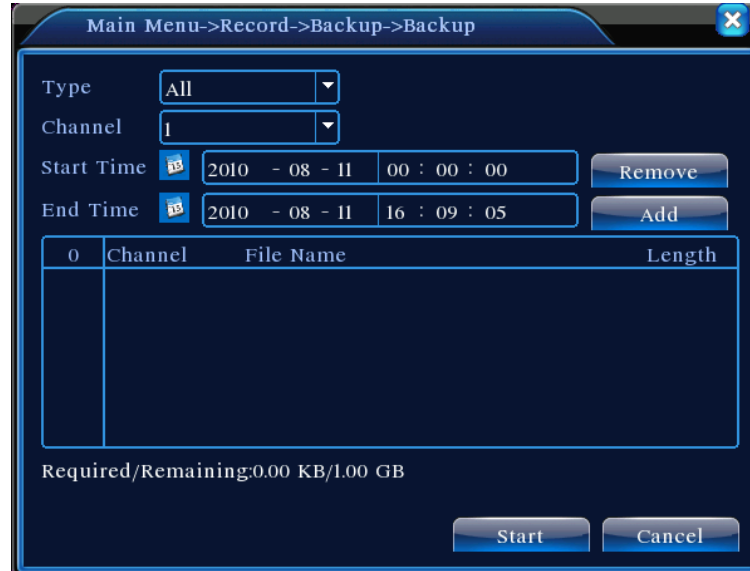
Picture 3.5 detect the storage

Detect: Detect the storage connected with the DVR such as hard disk or universal disk.

Erase: Choose the file to delete and click erase to delete the file.

Stop: Stop the backup.

Backup: Click the backup button and the dialog box will pop up. You can choose the backup file according to the type, channel and time.



Picture 3.6 recording backup

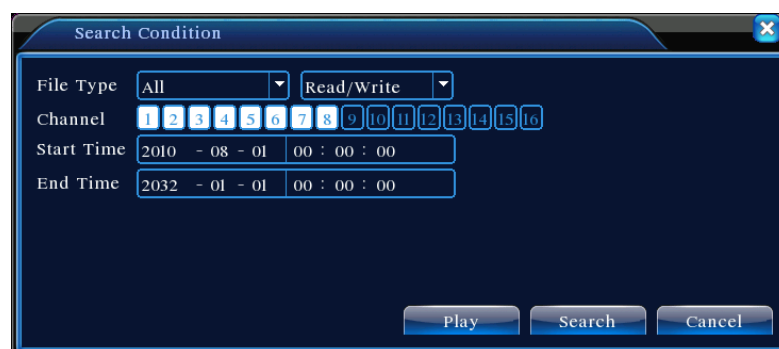
Remove: Clear the file information.

Add: Show the file information satisfying the set file attributes.

Start/Pause: Click the play button to start the backup and click the pause button to stop the backup.

Cancel: During backup you can exit the page layout to carry out other functions.

【File searching】 Search the file according to the search parameters.



Picture 3.7 file searching

File type: Set the searching file type.

Channel: Select the channel(s) you wish to search.

Start Time: Set the time you wish to start your search at.

【Playback control】 Refer to the following sheet for more information.













Button	Function	Button	Function
	Play/pause		Backward
	Stop		Slow play
	Fast play		Previous frame
	Next frame		Previous file
	Next file		Circulation
	Full screen		

Table 3.2 Playback control key

Note: Frame by frame playback is only performed in the pause playback state.

【Operation hint】 Display the function of the cursor place.

Special functions:

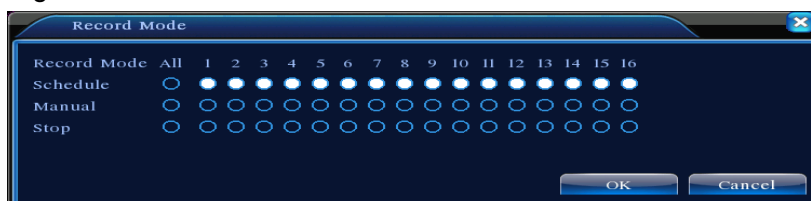
Accurate playback: Input the time (h/m/s) in the time column and then click play  button. The system will start playback from the search time entered.

Local zoom: When the system is in single-window full-screen playback mode, you can drag your mouse in the screen to select a section and then left click mouse to zoom in. Right click mouse to exit.

3.5.3 Record Mode

Please check current channel status: “○” means it is not in recording status, “●” means it is in recording status.

You can use desktop shortcut menu or click [main menu]> [recording function]> [recording set] to enter the recording control interface.



Picture 3.8 Record Mode

【Schedule】 Record according to the configuration.

【Manual】 Click the all button and the according channel is recording no matter the channel in any state.

【Stop】 Click the stop button and the according channel stops recording no matter the channel in any state.

3.5.4 Alarm output

Please check current channel status: “○” means it is not in alarm status, “●” means it is in alarm status.

You can use the desktop shortcut menu or click [main menu]> [alarm function]> [alarm output] to enter the alarm output interface.



Picture 3.9 alarm output

【Configuration】 Alarm output is enabled or disabled according to the configuration selected.

【Manual】 Click the all button and the according channel is alarming no matter the channel in any state.

【Stop】 Click the stop button and the according channel stops alarming no matter the channel in any state.

3.5.5 PTZ control

The functions include: PTZ direction control, step, zoom, focus, iris, setup operation, tour between spots, trail patrol, boundary scan, assistant switch, light switch, level rotation and so on.

Note1. Decoder a (B) line connects with DVR a (B) line. The connection is right.



2. Click [main menu] >[system configuration] >[PTZ setup] to set the PTZ parameters.



3. The PTZ functions are decided by the PTZ protocols.





Picture 3.10 PTZ setup

【Speed】 Set the PTZ rotation speed. Default range: 1 ~ 8.

【Zoom】 Click  /  button to adjust the zoom multiple of the camera.

【Focus】 Click  /  button to adjust the focus of the camera .

【Iris】 Click  /  button to adjust the iris of the camera.

【Direction control】 Control the PTZ rotation. 8 directions of control is supported. (4 directions only if you are using just the front panel buttons)

【Set】 Enter the function operation menu.

【Page switch】 Switch between different pages.

Special functions:

1、Preset

Set a location for the preset, calls the preset points, PTZ automatically turns to the setting position

1) Preset option

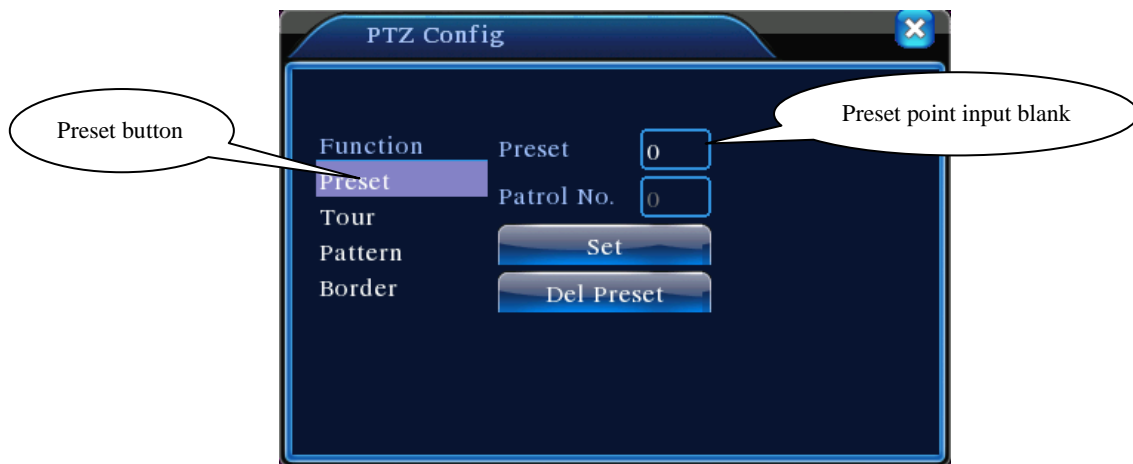
Setting a preset location for the presets is done as follows:

Step1: in Picture 3.10, click the directional buttons until the camera is in the position you want to set as a preset. Click the Settings button: refer to enter Picture 3.11.

Step 2: Click the Preset button, and then type in the preset number in (i.e. preset position number 1).

Step 3: Click the Set button to save your choices.

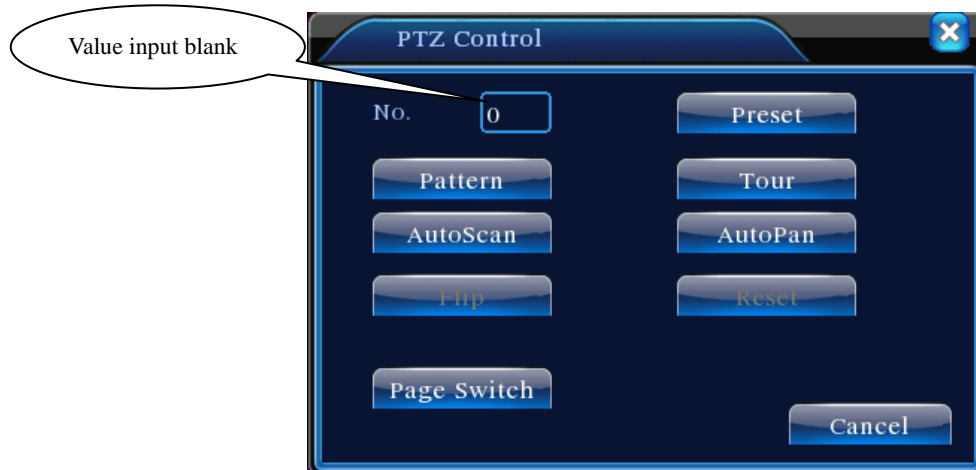
Clear Preset: Input preset points, click Remove button, remove the preset.



Picture 3.11 Preset Settings

2) Preset Point Calling

In Picture 3.10, click Page Shift button, enter PTZ control interface as shown in Picture 3.12. In the input blank, write the preset point you wish the camera to turn to, then click preset button. The PTZ should turn to the corresponding preset point.



Picture 3.12 PTZ Control

2、Cruise between Points

Multiple preset points can be connected to form a “cruise” or a “tour”. This will make the PTZ jump from point to point in a continuous cycle.

1) Cruise between Points Settings

Before setting up a tour, you must have all of your presets already set up. The setup procedure is as follows:

Step1: In Picture 3.10, Click the “set” button.

Step 2: Refer to picture 3.13 Select the Tour button. In the patrol number section put a 1. This means you are setting up tour number 1. You can have multiple tours set up if you wish.

Step 3: In the preset number field type in the first preset location you wish the camera to pan to then hit “add preset”.

Step 4: Repeat steps 1 and 2, until you have selected all of the presets you want in the tour.

REMEMBER: The order you input your presets is the order the camera will cycle thru them. If you make a mistake just select “Del Tour” and start over.

Step 5: Once you exit out of this screen and back to picture 3.10. Once there, click the page switch button until you are in the PTZ control window displayed in figure 3.12. Input the tour number you wish the camera to run then hit the tour button. The camera should start cycling thru all of the presets in the tour you selected.

Remove Preset: You can delete presets from the system by pressing the Preset button, typing in the preset number and hitting delete.

Remove Tour: Select the tour function on the left (picture 3.13) Input the number where it says Patrol No., then select delete tour.



Picture 3.13 Cruise between Points Settings

3、Scan

PTZ also can work on the preset scan line repeatedly.

1) Scan setup

Step1: **THIS FUNCTION IS NOT AVAILABLE IN THIS MODEL.**



Picture 3.14 Scan Setup

4、Boundary Scan

1) Boundary Scan setup

THIS FUNCTION IS NOT AVAILABLE IN THIS MODEL.



Picture 3.15 Boundary Scan Setup

3.5.6 Color setting

Set the selective image parameters (current channel for single window display and cursor place for multi-window display). You can use the desktop shortcut menu and enter the interface. The image parameters include: tonality, brightness, contrast, saturation. You can set different parameters at different time sections.



Picture 3.18 Color Setting

3.5.7 Output Adjust

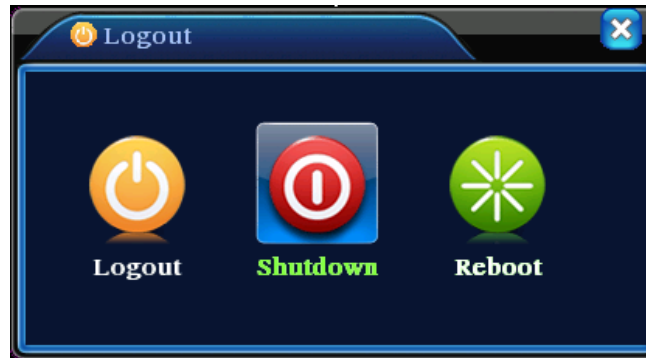
Adjust TV output area parameters. You can use the desktop shortcut menu or enter [main menu]> [management tools]> [Output adjust].



Picture 3.19 Output Adjust

3.5.8 Logout

Logout shut down the system or reboot up. You can use the desktop shortcut menu or enter [main menu].



Picture 3.20 Logout/Shutdown/Reboot the system

【logout】 Quit the menu. Offer password next entrance.

【shut down】 Quit the system. Turn off the power supply.

When press the shut down button, there is schedule hint. After three seconds, the system is shut down. Cancel midway is of no effect.

【reboot】 Quit the system. Reboot up the system..

3.5.9 Window switch

Preview in single window/four windows/eight windows/nine windows/sixteen windows according to your choice.

4 Main menu

4.1 Main menu navigation

Main menu	Sub menu	Function
Record	Config	Set the recording configuration, recording type, recording time section
	playback	Set recording look-up, recording play, video file storage
	backup	Detect or format backup equipment, back the selective files
Alarm	Motion detection	Set motion detect alarm channel, sensitivity, area, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol
	Video blind	Set camera mask alarm channel, sensitivity, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol
	Video loss	Set video loss alarm channel, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol
	Alarm input	Set alarm input channel, equipment type, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol
	Alarm output	Set alarm mode: configuration, manual, shut down
System configuration	General configuration	Set system time, data format, language, hard disk full time operation, machine number, video format, output mode, summertime, stay time
	Encode configuration	Set main(assistant)coding parameter: code mode, resolving ability, frame rate, code stream control, image quality type, code stream value, frame between value, video/audio enable
	Network configuration	Set basic network parameters, DHCP and DNS parameters, network high speed download
	NetService	PPPOE、NTP、Email、IP purview、DDNS parameter

	GUI display	Set channel name, preview hint icon state, transparency, cover area, time title, channel time fold
	PTZ configuration	Set channel, PTZ protocol, address, baud rate, data bit, stop bit, check
	Serial port Configuration (RS232)	Set serial port function, baud rate, data bit, stop bit, check
	Tour	Set channel switching intervals for main or spot monitors
Management tools	Hard disk management	Set appointed hard disk as read-write disc, read-only disc or redundant disc, clear data, resume data and so on
	User management	Modify user, team or password. Add user or team. Delete user or team.
	Online user	Break the connection with the already login user. Lock the account after break until booting up again.
	TV adjust	Adjust TV upside, downside, nearside, starboard distance
	Automatic maintenance	Set automatic reboot system and automatic deleting files.
	Restore	Resume setup state: common setup, code setup, recording setup, alarm setup, network setup, network service, preview playback, serial port setup, user management
System information	Hard disk information	Display hard disk capability and recording time
	Code stream statistics	Display code stream information
	Log information	Clear all log information according to the log video and time
	Edition information	Display edition information
Shut down		Logout, shut down or reboot

4.2 Record

4.2.1 Record Config

Set the recording parameters in the surveillance channel. The system is set to record on motion detection only when you first start it up. You can enter [main menu]> [recording function]> [recording setup] to make changes.

Note: There is at least one read-write hard disk. (refer to chapter 4.5.1)



Picture 4.1 Record Config

【Channel】 Choose the corresponding channel number to set the channel. Choose the all option to set the entire channels.

【Redundancy】 Choose the redundancy function option to implement the file double backup function.

Double backup is writing the video files in two hard disks. When you do the double backup, make sure that there are two hard disks installed. One is read-write disk and the other is redundant disk. (refer to 4.5.1)

【Length】 Set the time length of each video file. 60minutes is default value.

【PreRecord】 Record 1-30 seconds before the action. (time length is decided by the code stream)

【Record mode】 Set video state: schedule, manual or stop.

Schedule: Record according to the set video type (common, detection and alarm) and time section.

Manual: Click the button and the according channel is recording no matter the channel in any state.

Stop:Click the stop button and the according channel stops recording no matter the channel in any state.

【Period】 Set the time section of common recording, The recording will start only in the set range.

【Record type】 Set recording type: regular, detection or alarm.

Regular:Perform the regular recording in the set time section. The video file type is “R”.

Detect:Trigger the “motion detect”, “camera mask” or “video loss” signal. When above alarm is set as opening recording, the “detection recording” state is on. The video file type is “M”.

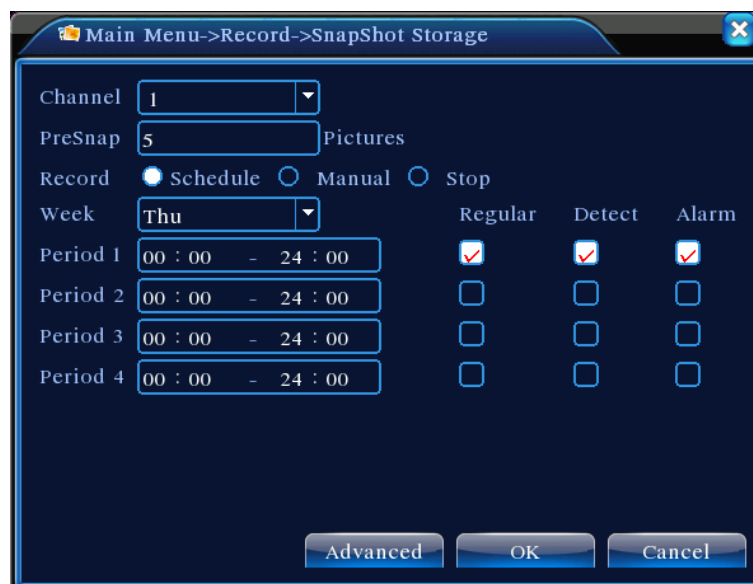
Alarm:Trigger the external alarm signal in the set time section. When above alarm is set as opening recording, the “detection recording” state is on. The video file type is “A”.

Note: Refer to chapter 4.3 to set corresponding alarm function.

4.2.2 Snapshot Storage

Setup snapshot parameters for different channels. At first time it's set for 24hours snapshot continuously, pls go to Main Menu->Record->Snapshot Storage for appropriate settings.

Note:If normal snapshot storage, please setup Snap at Main Menu -> Advanced ->Snapshot (please refer to chapter 4.5.1 HDD Manage)



Picture 4.2

【Channel】 Select the related channel to set,click "all" to set all channels.

【Presnap】 Setup Pre-snap picture quantity before recording, Default is 5 pieces.

【Record】 Set record status, "Schedule", "Manual" and "Stop"

Schedule: Realise snapshot according to record type(regular, detect and alarm) and period.

Manual: No matter what the present channel is in a state, Once choose "manual" button, it will have snapshot at related channels.

Stop: No matter what the present channel is in a state, Once choose "stop" button, it will stop snapshot at related channels.

【Period】 Set normal record period, it only startup Snapshot Storage at set period.

【Type】 Three types: regular, detect and alarm

【Record type】 Three types: regular, detect and alarm

Regular: snapshot at set period

Detect snapshot at set period when motion detect, video blind and video loss which are preset for snapshot enable.

Alarm: snapshot at set period when alarm in which is preset for snapshot enable.

Note: for related alarm function, please refer to chapter 4.3.

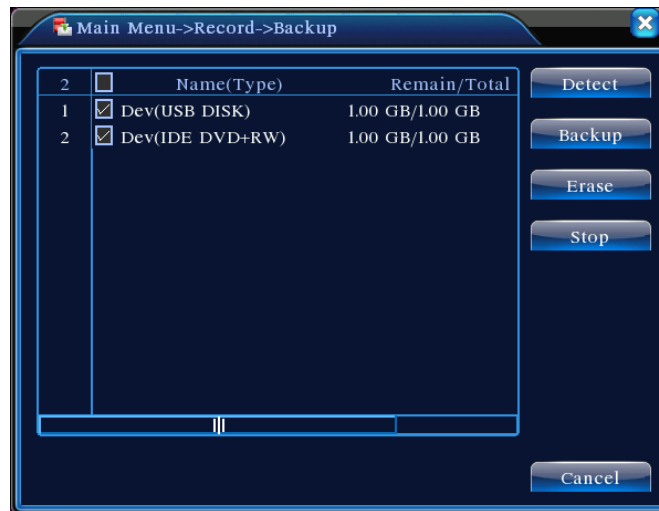
4.2.3 Playback

Refer to chapter 3.5.2.

4.2.4 Backup

You can back up the video files to external storage through setup.

Note: The storage must be installed before the file backup. If the backup is terminated, the already backup can playback individually.



Picture 4.3 Backup

【Detect】 Detect the storage connected with the DVR such as hard disk or universal disk.

【Erase】 Choose the file to delete and click erasure to delete the file.

【Stop】 Stop the backup.

【Backup】 Click backup button and the dialog box is popped up. You can choose the backup file according to the type, channel and time.



Picture 4.4 File Backup

Remove: Clear the file information.

Add: Show the file information satisfying the set file attributes.

Start/pause: Click the play button to start the backup and click the pause button to stop the backup.

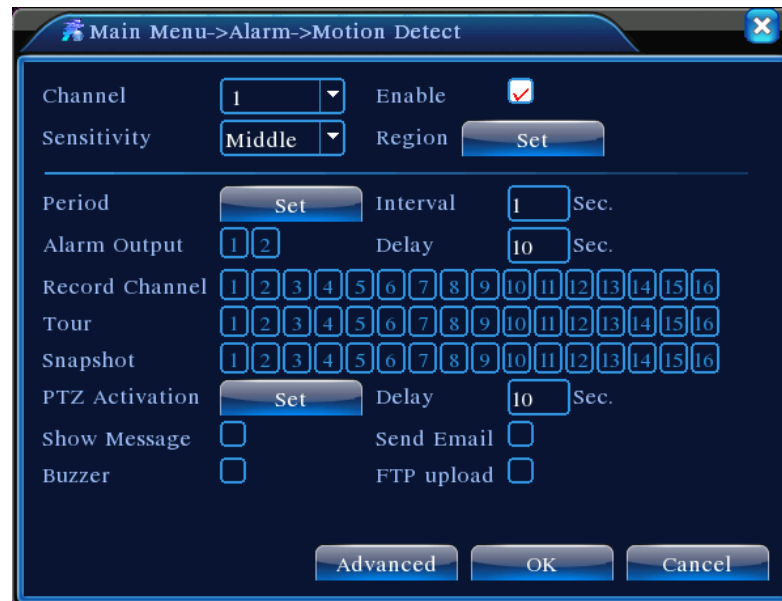
Cancel: During backup you can exit the page layout to carry out other functions.

4.3 Alarm Function

Alarm functions include: motion detect, video blind, video loss, alarm input and alarm output.

4.3.1 Motion Detect

When system detects the motion signal that reaches the set sensitivity, the motion detect alarm is on and the linkage function is turned on.



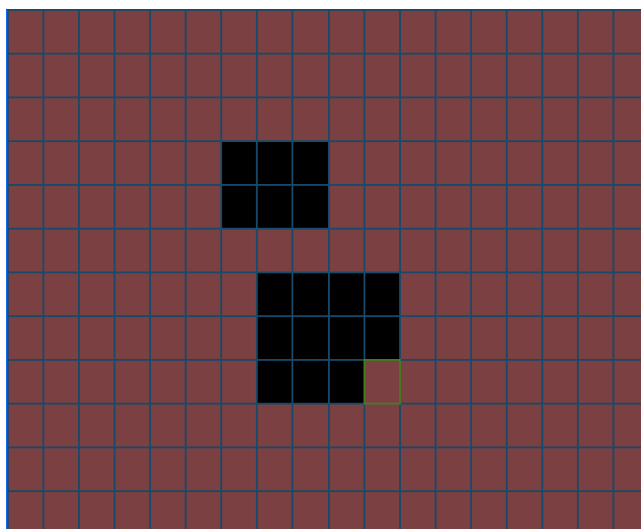
Picture 4.4 Motion Detect

【Channel】 Choose the set motion detect channel.

【Enable】 ☒ means that the motion detect function is on.

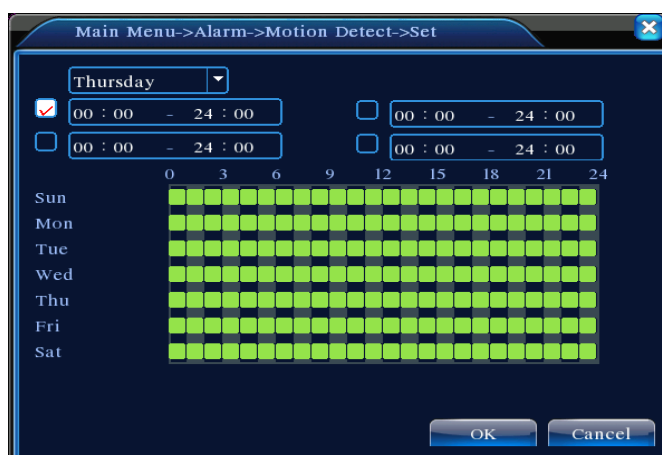
【Sensitivity】 Choose in the six options according to the sensitivity.

【Region】 Click setup and enter the set area. The area is divided into PAL22X18. Green block means the current cursor area. Yellow block means the dynamic detect defensive area. Black block means the unfenced area. You can set the area as followed, Drag the mouse and draw the area.



Picture 4.5 Region

【Period】 Trigger the motion detect signal in the set time section. You can set according to week or set uniformly. Each day is divided into four time sections.■ means the set valid.



Picture 4.6 set the time section

【Interval】 Only one alarm signal is turned on even there are several motion detect signals in the set interval.

【Alarm output】Start the external equipment of corresponding linkage alarm when the motion detect alarm is turned on.

【Delay】 Delay a few moments and stop when the alarm state is turned off. The range is 10~300 seconds.

【Record channel】 Choose the recording channel (multiple option supportive). Trigger the video signal when the alarm is turned on.

Note:Set in the [recording setup] and perform the linkage recording. Start detecting video files in the corresponding time section.

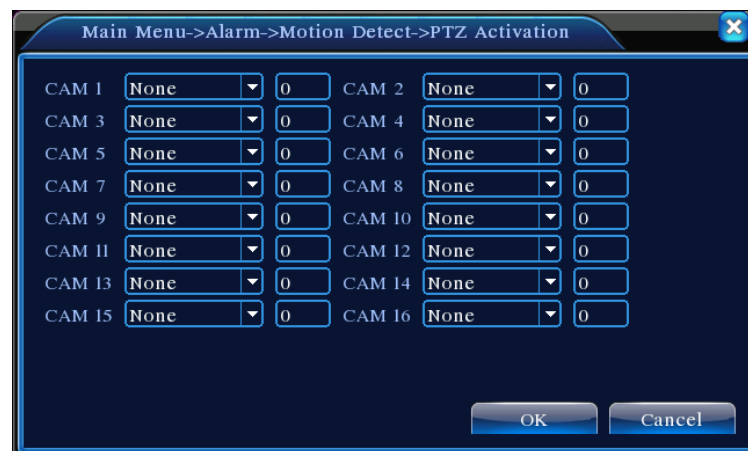
【Tour】 ■ means that the selective channel is single window alternate patrol preview. The interval is set in the [Main Menu]>[System] > [Tour].

【Snapshot】 Choose record channels, when alarm triggers, System triggers related channels for snapshot signal.

Note: For Snapshot activation, please go to set period, detect and alarm enable at Main Menu->Record->Record Config,

【PTZ Activation】 Set the PTZ activation when the alarm is turned on.

Note: PTZ activation is set in the [shortcut menu] >[PTZ control]. Set the patrol between spots, trail patrol and so on.



Picture 4.8 PTZ Activation

【Delay】 When alarm is stopped, recording will last some seconds(10~300sec),then stop.

【Show message】 Pop the alarm information dialog box in the local host computer screen.

【Send EMAIL】 ■ means sending an email to user when the alarm is turned on.

Note:Set in the [NetService] and send email.

4.3.2 Video Blind

When the video image is influenced by the environment such as bad brightness or reaching the set sensitivity parameter, the camera mask function is turned on and the linkage function is turned on.



Picture 4.9 Video Blind

Set method: refer to chapter 4.3.1. Motion detect

Note:"Advanced" button is the same as right click.

4.3.3 Video Loss

When the equipment cannot obtain the channel video signal, the video loss alarm is turned on and the linkage function is turned on.



Picture 4.10 Video loss

Set method: refer to chapter 4.3.1. Motion detect

Note:"Advanced" button is the same as right click.

4.3.4 Alarm input

When the equipment obtains the external alarm signal, the alarm function is turned on.



Picture 4.11 Alarm input

Set method: refer to chapter 4.3.1. Motion detect

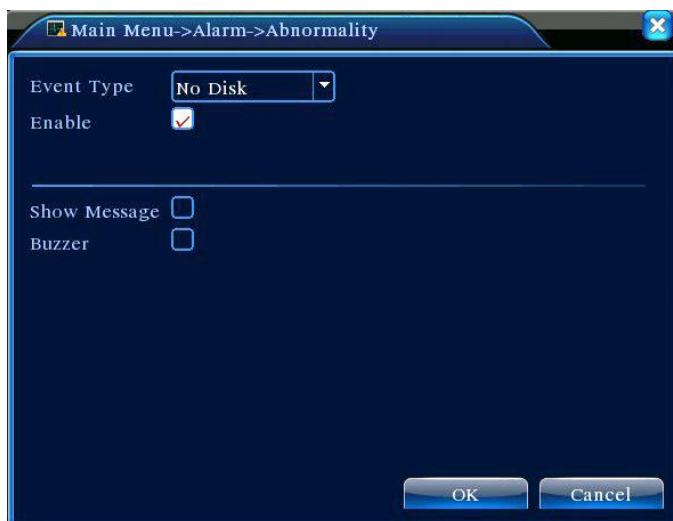
Note: "Advanced" button is the same as right click.

4.3.5 Alarm output

Refer to chapter 3.5.4.

4.3.6 Abnormal

Analyzing and inspecting current software and hardware of the device: When some abnormal events happened, the device will make a relative answer such as show message and buzzer.



Picture 4.12 Abnormal

- 【Event Type】 selecting abnormality you want to inspect
- 【Enable】 Select it to make sure abnormal function workable
- 【Show message】 Automatically alarm cue dialog box come out of the main screen
- 【Buzzer】 Device will have two long nosie “di di” while alarm is happening

4.4 System setup

Set the system parameters such as **General, Encode, NetWork, NetService, GUI display, PTZ config, RS232 and Tour setup.**

4.4.1 General



Picture 4.13 General setup

【System time】 Set the system data and time.

【Date format】 Choose the data format: YMD, MDY, DMY.

【Date Separator】 Choose list separator of the data format.

【Time Format】 Choose time format: 24-hour or 12-hour.

【Language】 English, French, Portuguese, Russian, Italian, S-Chinese, T-Chinese, Spanish, Thai, Greek, Japanese, German, Polish.

【HDD full】 Choose stop record: Stop recording when the hard disk is full.

Choose overwrite: Cover the earliest recording files and continue recording when the hard disk is full.

【DVR No.】 Only when the address button in the remote controller and the corresponding DVR number is matched, the remote operation is valid.

【Video Standard】 PAL or NTSC.

【Auto Logout】 Set the latency time in 0-60. 0 means no latency time.

【DST】 Choose the summer time option and pop the dialog box as followed.



Picture 4.14 DST (week)



Picture 4.15 DST (date)

4.4.2 Encode setup

Set the video/audio code parameter: video file, remote monitoring and so on. Set every independent channel's coding parameter in the left part, and set the combine encode parameter in the right part.

Note: Combine encode introduces video compression technique which combines and compresses multi-channel's video to a special channel. Applying for multi-channel playback simultaneously, Dial-up multi-channel real-time monitor, mobile monitor and so on.



Picture 4.16 Encode setup

【Channel】 Choose the channel number.

【Compression】 Standard H.264 main profile.

【Resolution】 Resolution type:D1/ HD1/CIF / QCIF.

【Frame Rate】 P:1 frame/s~25 frame/s; N: 1 frame/s~30 frame/s

【Bit Rate Type】 You can choose limited code stream or variable code stream. When you choose the variable code stream there are six image quality options.

【Bit Rate】 Set the code stream value to modify the image quality. The larger code stream value the better image quality.

D1 (1000~1500kbps) ,CIF (384~1500kbps) , QCIF(64~512kbps)

【Video/Audio】 When the icons are all in reverse displayed, the video file is video and audio multiplex stream.

Combine Enable

【Combine Enable】 When the icons are all in reverse displayed, opening combination coding functions.

【Mode】 multi-channel playback is used in all channels playback simultaneously, and the narrowband transmission is used in multi-channel real-time remote monitoring simultaneously at narrowband state, especially used in mobile monitor.

4.4.3 Network setup



Picture4.17 Network

【Net Card】 You can choose cable network card

【DHCP Enable】 Obtain IP address automatically(not suggested)

Note: DHCP server is preinstalled.

【IP address】 Set the IP address. Default: 192.168.1.10.

【Subnet mask】 Set the subnet mask code. Default: 255.255.255.0.

【Gateway】 Set the default gateway. Default: 192.168.1.1.

【DNS setup】 Domain Name Server. It translates the domain name into IP address. The IP address is offered by network provider. The address must be set and reboot then it works.

【TCP port】 Default: 34567.

【HTTP port】 Default: 80.

【HS Download】

【Transfer Policy】 There are three strategies: self-adaption, image quality precedence and fluency precedence. The code stream will adjust according to the setup. Self-adaption is the tradeoff between the image quality precedence and fluency precedence. Fluency precedence and self-adaption are valid only when the assistant code stream is turned on. Otherwise image quality precedence is valid.

4.4.4 Net Service

Choose the network service option and click the set button to configure the advanced network functions or double click the service button to configure the parameters.



Picture 4.18 NetService

【PPPoE setup】

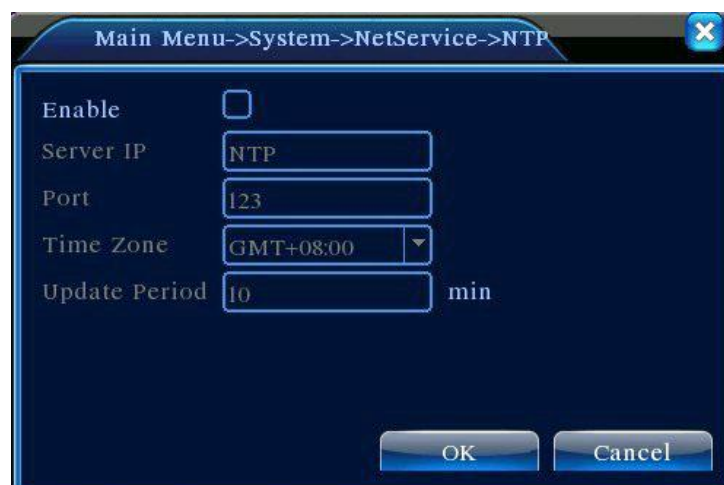


Picture4.19 PPPOE

Input the user name and password that ISP (Internet service provider) provides. After saving it reboot up your system. Then the DVR will build a network connection based on PPPoE. The IP address will change into dynamic IP address after above operation is well done.

Operation: After PPPoE dialing successfully look up the IP address in the [IP address] and obtain the current IP address. Then use this IP address to visit the DVR through user port.

【NTP setup】



Picture 4.20 NTP

The NTP server must be installed in the PC.

Host computer IP: Input the IP address installed NTP server.

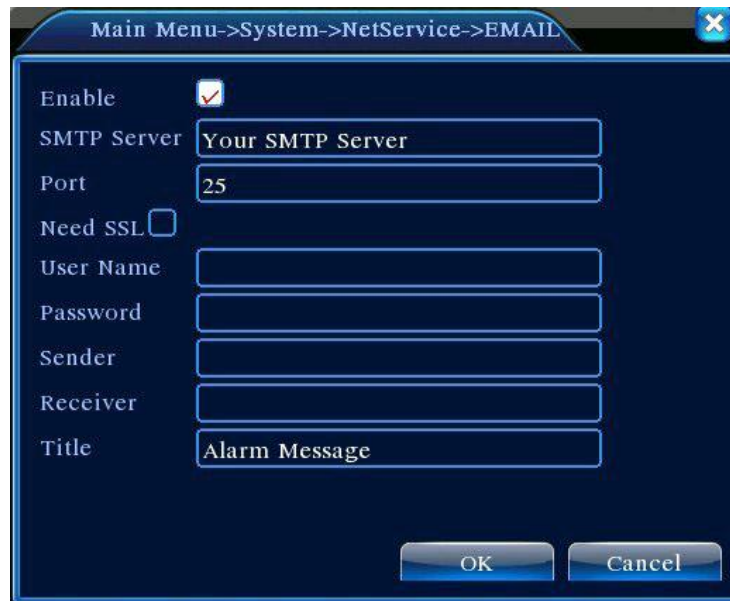
Port: Default: 123. You can set the port according to NTP server.

Time zone: London GMT+0 Berlin GMT +1 Cairo GMT +2 Moscow GMT +3 New Delhi GMT +5 Bangkok GMT +7 Hongkong Beijing GMT +8 Tokyo GMT +9 Sydney GMT +10 Hawaii GMT-10 Alaska GMT-9 Pacific time GMT-8 American mountain time GMT-7 American mid time GMT-6 American eastern time GMT-5 Atlantic time GMT-4 Brazil GMT-3 Atlantic mid time GMT-2.

Update Period: The same with the NTP server check interval. Default: 10minutes.

【EMAIL setup】

If the alarm is turned on or the alarm linkage photos are taken, send an email about the alarm information and the photos to appointed address.



Picture 4.21 EMAIL

SMTP server: Email server address. It could be an IP address or domain name. Domain name can be translated only if it is the correct DNS configuration.

Port: Email server port number.

SSL: Decide whether using Secure Socket Layer protocol to login.

User Name: Apply the email server user name.

Password : Input the password corresponding to the user.

Sender: Set the email sender address.

Receiver: Send the email to appointed receivers when the alarm is turned on. You can set three receivers at most.

Title: You can set as you wish.

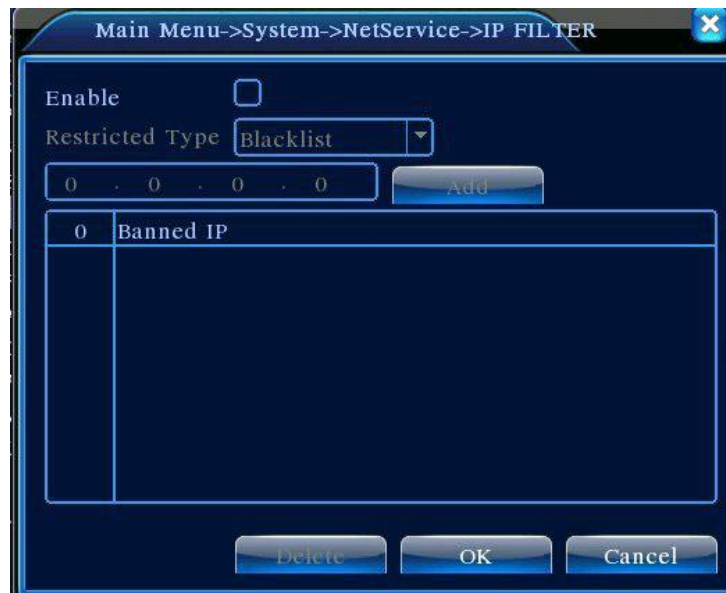
【IP Filter setup】

When choosing the white list, only the listed IP address can connect the DVR. The 64 IP addresses are supportive in the list.

When choosing the black list, the listed IP address cannot connect the DVR. The 64 IP addresses are supportive in the list.

You can delete the set IP address by √ in the options.

Note: When the same IP address is in the white and black list at the same time, the black list precedence is higher.



Picture 4.22 IP IP FILTER

【DDNS】

It is the abbreviation of dynamic domain name server.

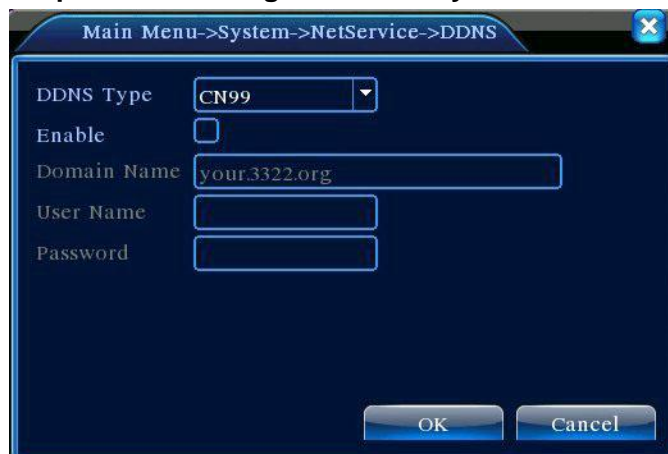
Local domain name: Provide the domain name registered by DDNS.

User name: Provide the account registered by DDNS.

Password: Provide the password registered by DDNS.

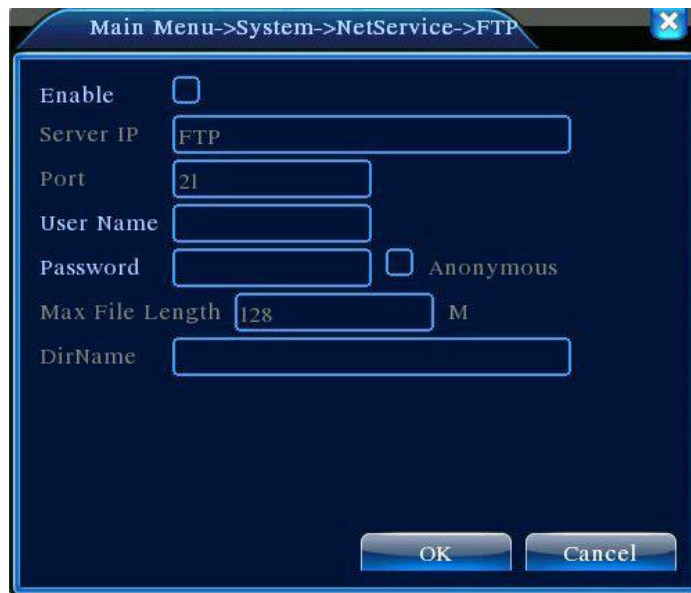
When the DDNS is successfully configured and start, you can connect the domain name in the IE address column to visit.

Note: The DNS setup must be configured correctly in the network setup.



Picture 4.23 DDNS setup

【FTP setup】 FTP is available only when alarm happens, or alarm activates record and snapshot, it will upload related record and snapshot pictures to FTP server.



Picture 4.24 FTP setup

【Enable】 Click Enable, then all settings will be available

【Server IP】 IP address for FTP server

【Port】 Domain Port of FTP, default 21

【User Name】 User name of FTP

【Password】 Password of user

【Max File Length】 Max length for upload files at every packed, default 128M

【DirName】 Directory of uploading files

【Wireless Config】 ADSL through 3G net card, use CMS to view and configure the device



Picture 4.25 Wireless Config

【Enable】 Choose Enable to make all settings available

【Type】 Dial type, default AUTO

【Wireless AP】 3G access point

【Dial Number】 3G Dial Number

【User Name】 User name of 3G

【Password】 Password of dial user

【IP Address】 IP address, got from dial

【Mobile Monitor Setup】

To view the DVR via remotely, please make a router mapping of this port and use CMS to monitor and operate it by protocol.



Picture 4.26 Mobile Monitor Setup

【Enable】 Select it to make sure abnormal function workable

【Port】 It's a port of mobile monitoring which you need to make a router mapping of if want to visit it by mobile

【UPNP】UPNP protocol can auto port forwarding on router, make sure UPNP is running on router before use it.



Picture 4.27

【Enable】Choose Enable to make sure all UPNP settings available

【HTTP】Route will automatically distribute HTTP port for the device, when IE viewing, it need this port (eg. 60.12.9.26:66)

【TCP】Router will automatically distribute TCP port for the device, when monitoring via CMS, it need this port.

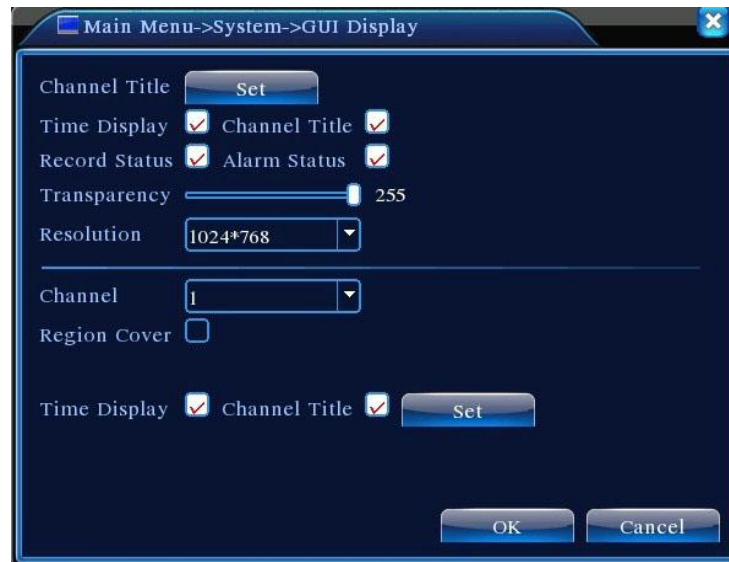
【MobilePort】Router will automatically distribute Mobile Port for the device, when mobile monitor, it need this port.

4.4.5 GUI Display

Configure the video output parameters including the front output mode and code output mode.

Front output: In the local preview mode include: channel title, time display, channel title, record status, alarm status, bit rate info, transparency and region cover.

Code output: In the network surveillance and video file mode include: channel title, time display, channel title, record status, alarm status, bit rate info, transparency and region cover.



Picture 4.28 GUI Display

【Channel Title】 Click the channel name modify button and enter the channel name menu. Modify the channel name. The 16 Chinese characters and 25 letters are supportive.

【Time Display】 means the selective state. Display the system data and time in the surveillance window.

【Channel Title】 means the selective state. Display the system channel number in the surveillance window.

【Record Status】 means the selective state. Display the system recording status in the surveillance window.

【Alarm Status】 means the selective state. Display the system alarm status in the surveillance window.

【Bitrate info】 means the selective state. The ninth window displays the code stream information in the nine-window preview status.

【Transparency】 Choose the background image transparency. The range is 128~255.

【Resolution】 set display resolution.

【Channel】 Choose the set code output channel number.

【Region Cover】 means the selective state. Click the cover area button and enter the corresponding channel window. You can cover the arbitrary using mouse. (Black region is for output)

【Time display】 and 【Channel Title】

4.4.6 PTZ setup

The screenshot shows a window titled "Main Menu->System->PTZ Config". It contains two columns of settings: "PTZ Device" and "RS485 Device". The "PTZ Device" column has fields for Channel (1), Protocol (PELCOD), Address (1), Baudrate (9600), Data Bits (8), Stop Bits (1), and Parity (None). The "RS485 Device" column has fields for Address (1), Baudrate (9600), Data Bits (8), Stop Bits (1), and Parity (None). At the bottom right are "OK" and "Cancel" buttons.

PTZ Device		RS485 Device	
Channel	1		
Protocol	PELCOD	NONE	
Address	1	1	
Baudrate	9600	9600	
Data Bits	8	8	
Stop Bits	1	1	
Parity	None	None	

Picture 4.29 PTZ setup

【Channel】 Choose the dome camera input channel.

【Protocol】 Choose the corresponding dome protocol. (PELCOD as an example)

【Address】 Set as the corresponding dome address. Default: 1. (Note: The address must be consistent with the dome address.)

【Baudrate】 Choose the corresponding dome baud rate length of the PTZ camera. Default: 115200.

【Data bits】 Include 5-8 options. Default: 8.

【Stop bits】 Include 2 options. Default: 1.

【Parity】 Include odd check, even check, sign check, blank check. Default: void.

4.4.7 RS232 setup



Picture 4.30 RS232 setup

【Serial Port Function】 Common serial port is used to debug and update program or set up specific serial port.

【Baud rate】 Choose the corresponding baud rate length.

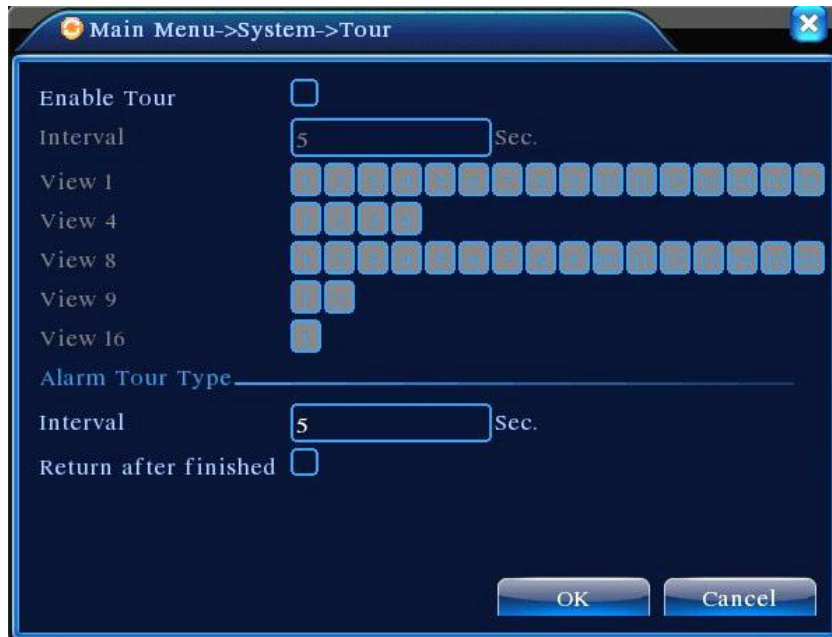
【Data bits】 Include 5-8 options.

【Stop bits】 Include 2 options.

【Parity】 Include odd, even, mark, space.



4.4.8 Tour setup

Set the patrol display. ■ Means that the tour mode is turned on. You can choose the single window, four windows, nine windows; sixteen windows patrol display or single display.



Picture 4.31 tour setup

【interval】 Set the patrol switch interval. The set range is 5-120 seconds.

Note:  /  means turn off/on the patrol.

4.5 Advanced

4.5.1 HDD Manage

Configure and manage the hard disk. The menu displays current hard disk information: hard disk number, input port, type, status and overall capability. The operation include: setup the write-read disk, read-only disk, redundant disk, hard disk format, resume default. Choose the hard disk and click the right function button to execute.

Note: Read/Write Disk: The equipment can write or read data.

Read-only Disk: The equipment can read data but cannot write data.

Redundant Disk: Double backup the video files in the write-read disk.



Picture4.32 HDD Manage

4.5.2 Account

Manage the user accounts

- Note:** 1. The character length is 8 bytes at most for the following user and user team name. The blank ahead or behind the character string is invalid. The middle blank in the character string is valid. Legal characters include: letter, number, underline, subtraction sign, dot.
2. There is no limit in the user and user group. You can add or delete the user group according to user definition. The factory setup include: user\admin. You can set the team as you wish. The user can appoint the rights in the group.
3. The user management include: group/ user. The group and user name cannot be the same. Each user only belongs to one group.



Picture 4.33 Account

【Modify User】 Modify the existing user attribute.

【Modify Group】 Modify the existing team attribute.

【Modify Password】 Modify the user password. You can set 1-6 bit password. The blank ahead or behind the char string is invalid. The middle blank in the char string is valid.

Note: The user who has the user control rights can modify his/her own or other users password

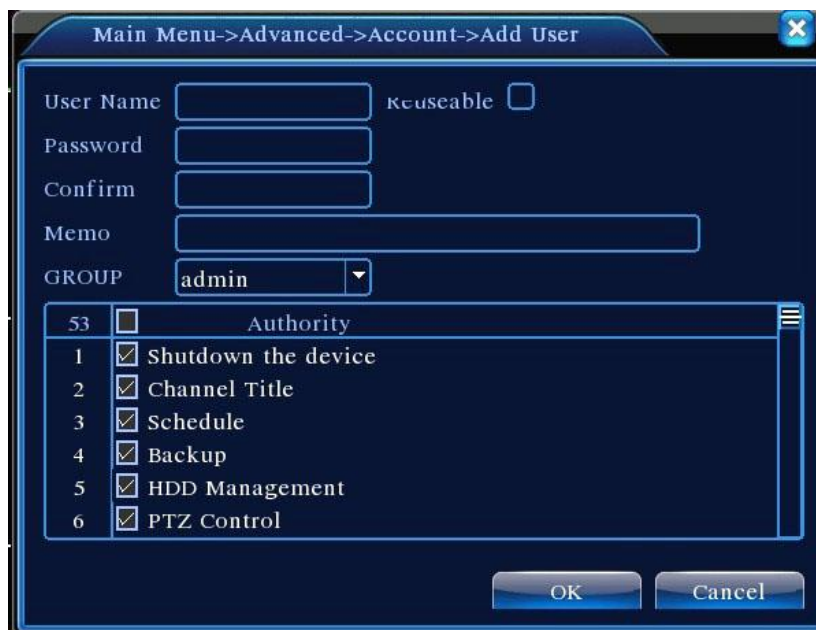


Picture 4.34 Modify Password

【Add user】 Add a user in the team and set the user rights. Enter the menu interface and input the user name and password. Choose the team and choose whether cover using the user. Cover using means that the account can be used by multiple users at the same time.

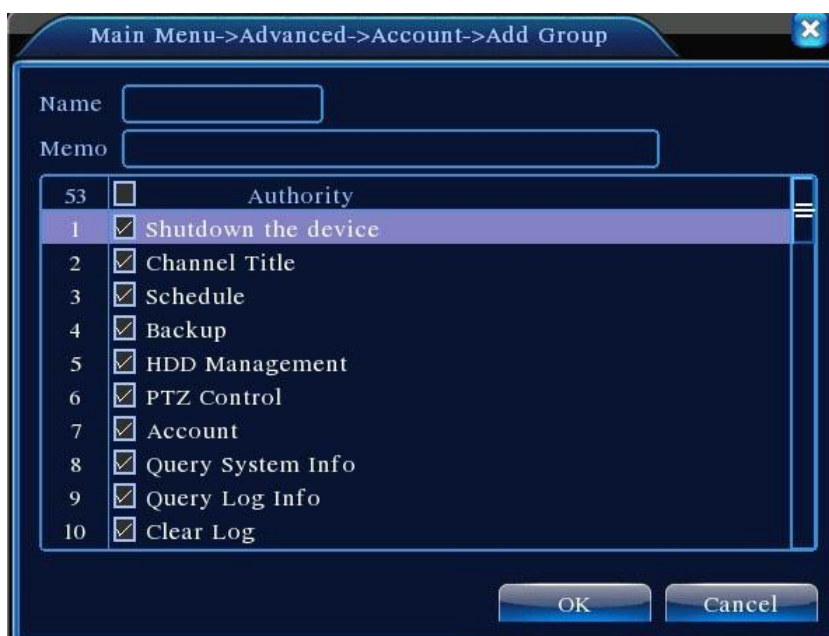
Once the team is selected, the user rights is the subclass of the team.

We recommend that the common user's right is lower than the advanced user.



Picture 4.35 add user

【Add Group】 Add a user team and set the rights. There are 36 different rights: shut down the equipment, real time surveillance, playback, recording setup, video file backup and so on.



Picture 4.36 Add Group

【Delete User】 Delete the current user. Choose the user and click delete user button.

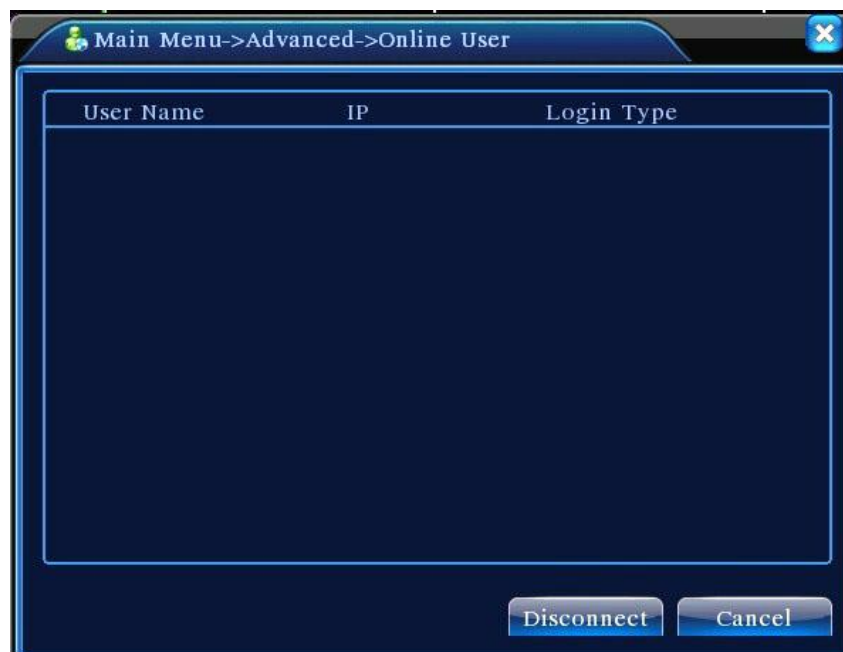
【Delete Group】 Delete the current group. Choose the group and click delete group button.



Picture 4.37 Delete Group

4.5.3 Online User

Look up the network user information in the local DVR. You can choose the network user and disconnect the connection. Then the user is locked until next boot-strap.



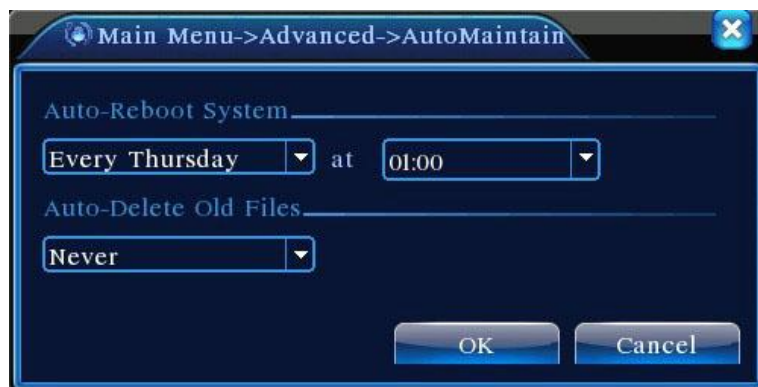
Picture 4.38 Online User

4.5.4 TV adjust

Refer to chapter 3.5.7 .

4.5.5 Auto Maintain

The user can set the auto reboot time and auto file deleting time limit.



Picture 4.39 Auto maintain

4.5.6 Restore

The system restore to the default setup. You can choose the items according to the menu.



Picture 4.40 Restore

4.5.7 Upgrade



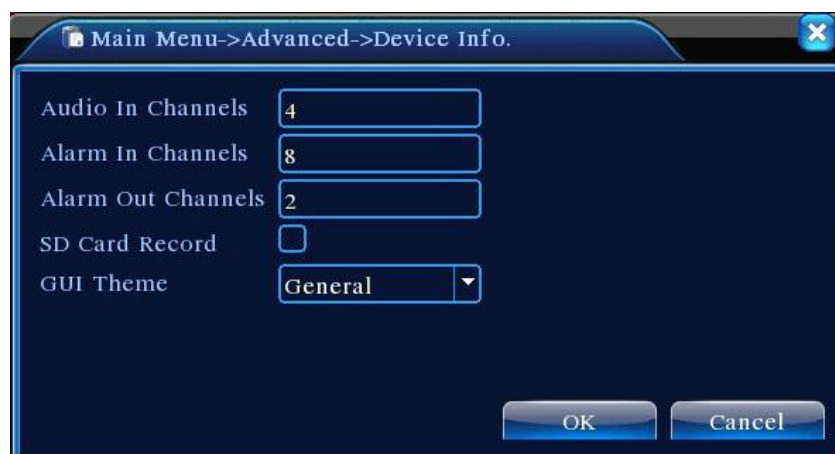
Picture 4.41 Upgrade

【Upgrade】 choose USB interface.

【Upgrade file】 choose the file which needs upgraded.

4.5.8 Device Info

Provide device interface info like audio in, alarm in/out to be conveniently used for user.



Picture 4.42 Device Info.

4.6 Info

4.6.1 HDD info

Display the hard disk state: hard disk type, overall capability, residual capability, the recording time and so on.



Picture 4.43 HDD Info

Clue:○ means that the hard disk is normal.

X - means that the hard disk is non-functional or damaged.

- means that there is no hard disk. If the user needs to change the damaged hard disk, you must shut down the DVR and take up all the damaged hard disks, then install a new one.

* behind serial number means the current working disk such as 1*. If the corresponding disk is damaged, the information will show "?".

4.6.2 BPS

Display the code stream (Kb/S) and hard disk capability (MB/H) in real time. It displays as the wave sketch map.

Main Menu->Info->BPS

Channel	Kb/S	MB/H	Channel	Kb/S	MB/H
1	1054	441	9	1043	440
2	1054	441	10	1043	440
3	1054	442	11	1043	440
4	1043	440	12	1043	440
5	1043	440	13	1043	440
6	1043	440	14	1043	440
7	1043	440	15	1043	440
8	1043	440	16	1043	440

Cancel

Picture 4.44 BPS

4.6.3 LOG

Look up system log according to the set mode.

Log information include: system operation, configuration operation, data management, alarm affair, recording operation, user management, and file management and so on. Set the time section to look up and click the look up button. The log information will display as a list. (one page is 128 items) Press **Page up** or **Page down** button to look up and press **delete** button to clear all the log information.

Main Menu->Info->LOG

Type: All

Start Time: 2010 - 08 - 12 00 : 00 : 00

End Time: 2010 - 08 - 13 00 : 00 : 00

Search

Next Page

30	Log Time	Type	LOG
1	2010-08-12 10:31:49	Reboot	2000- 0-00 00:00:00
2	2010-08-12 10:31:49	Log In	User default Log
3	2010-08-12 10:31:50	RecoverTime	2010-07-31 11:44:28
4	2010-08-12 10:32:30	Log Out	User default Log
5	2010-08-12 10:32:30	Log In	User admin Log
6	2010-08-12 10:32:38	Save Configuratio	Location
7	2010-08-12 10:32:38	Save Configuratio	Regular
8	2010-08-12 10:32:39	Shut Down	2010- 8-12 10:32:39

Remove

Cancel

Picture4.45 LOG

4.6.4 Version

Display the basic information such as hardware information, software edition, issue data and so on.



Picture 4.46 Version

4.7 Shut down system

Refer to chapter 3.5.8.

5. FAQ and maintenance

5.1 FAQ

Note: If the problem on your DVR is not listed, please contact your local vendor. The DVR system has a one year warranty service and technical support starting from the date of purchase. Contact your vendor for details of your warranty policy.

1、The DVR will not boot up normally.

Possible reasons are as followed:

- 1 The power supply is not correct
- 2 DC power supply line does not have a good connection or no power on AC wall outlet.
- 3 DC power supply is damaged.
- 4 The program updating is wrong.
- 5 The hard disk is damaged or the hard disk has bad sectors on its disk.
- 6 The front panel is damaged.
- 7 The main board of the DVR is damaged.

2、The DVR reboots automatically or stops working a few minutes after boot up.

Possible reasons are as followed:

- 1 The AC or DC input voltage is not stable or too low.
- 2 The hard disk is damaged or the hard disks have bad sectors on its disk plates.
- 3 Frontal video signal is not stable.
- 4 Bad heat radiator or too much dust or bad running circumstance for the DVR.
- 5 The hardware of the DVR is damaged.

3、System cannot detect hard disk.

Possible reasons are as followed:

- 1 The hard disk power supply line is not connected.
- 2 The data cables of the hard disk are damaged or loosely connected
- 3 The hard disk is damaged.
- 4 The SATA port of main board is damaged.

4、There are no video outputs in single channel, multiple channels and all channels.

Possible reasons are as followed:

- 1 The firmware program is wrong. Please update the firmware program.
- 2 The image brightness is all 0. Please restore the default setup.
- 3 There is no video input signal, you have a bad camera or the signal is too weak.
- 4 The channel protection or the screen protection is set.
- 5 The hardware of the DVR is damaged.

5、Real-time image problems such as the image color or the brightness distortion.

Possible reasons are as followed:

- 1 When using the BNC output, the option between the N mode or PAL mode is wrong and the image becomes black and white.
- 2 The DVR is not matched the monitor impedance.
- 3 The video transmission distance is too far or the loss of the video transmission line is too large.
- 4 The color and brightness setting of the DVR is wrong.

6、I cannot find the video files in local playback mode.

Possible reasons are as followed:

- 1 The data line of the hard disk is damaged.
- 2 The hard disk is damaged.
- 3 Update the different program with the original program files.
- 4 The video files to look up are already overwritten by the DVR system.
- 5 The recording is not on or may have been setup wrong.

7、The local video is not clear.

Possible reasons are as followed:

- 1 The image quality is too bad.
- 2 The reading program is wrong. Reboot up the DVR.
- 3 The data line of the hard disk is damaged.
- 4 The hard disk is damaged.
- 5 The hardware of the DVR is damaged.

8、There is no audio signal in the surveillance window.

Possible reasons are as followed:

- 1 There is no microphone connected to DVR.
- 2 There are no speakers connected to DVR.
- 3 The audio lines are damaged.
- 4 The hardware of the DVR is damaged.

9、 There is audio signal in the surveillance window but no audio signal in the playback state.

Possible reasons are as followed:

- 1 Setting issues: the audio option is not enabled or not setup right.
- 2 The camera channel is not connected with the right video.

10、 The time is wrong.

Possible reasons are as followed:

- 1 Setting of date/time is wrong.
- 2 The battery is in bad connection or the voltage is too low. You may need new battery.
- 3 The oscillation is damaged.

11、 The DVR cannot control the PTZ.

Possible reasons are as followed:

- 1 There is something wrong with the PTZ camera.
- 2 The setting, connection or the installation of the PTZ decoder is not correct.
- 3 The wiring connections are not correct.
- 4 The PTZ setting at the DVR is not correct.
- 5 The protocols of the PTZ decoder and the DVR do not matched.
- 6 The address of the PTZ decoder and the DVR does not match.
- 7 When multiple decoders are connected, the far port of the PTZ decoder RS485 line A (B) must have a 120Ω resistance to reduce the reflection otherwise the PTZ control is not stable.
- 8 The wiring distance is too far.

12、 The motion detect is not working,

Possible reasons are as followed:

- 1 The time range set is not correct.
- 2 The motion detect area setup is not correct.
- 3 The sensitivity is too low.

- 4 Limited by some hardware edition.

13、 I cannot login via web or CMS.

Possible reasons are as followed:

- 1 The system is windows 98 or Win me. We recommend updating to windows 2000sp4 or higher Version.
- 2 ActiveX is not setup right with your Internet Explorer Options.
- 3 The DirectX version is not higher than dx8.1. Update the display card driver.
- 4 Network connection failure.
- 5 Network setting issues.
- 6 Invalid password or user name.
- 7 The CMS is not matched the DVR program version.

14、 The image is not clear or there is no image in network preview state or video file playback state.

Possible reasons are as followed:

- 1 Network is not stable.
- 2 The user machine is resource limited.
- 3 Choose the play-in-team mode in the network setup of DVR.
- 4 The region shelter or channel protection is set.
- 5 The user has no surveillance view right.
- 6 The real-time image of the hard disk recording machine itself is not clear.

15、 Network connection is not stable.

Possible reasons are as followed:

- 1 Network is not stable.
- 2 IP address is conflicted.
- 3 MAC address is conflicted.
- 4 The net card of the DVR is bad.

16、 There is something wrong with the USB backup or writing a CD.

Possible reasons are as followed:

- 1 The rewritable machine and the hard disk are shared the same data lines.
- 2 The data is too much. Please stop recording and backup.

- 3 The data exceeds the backup storage.
- 4 The backup equipment is not compatible.
- 5 The backup equipment is damaged.

17、 The keyboard cannot control the DVR.

Possible reasons are as followed:

- 1 The serial port of the DVR is not set correctly.
- 2 The address is not correct.
- 3 When multiple transformers are connected, the power supply is not large enough. Please give each transformer individual power supply.
- 4 The distance is too far.

18、 Alarm will not stop

Possible reasons are as followed:

- 1 The setting of the alarm is not correct.
- 2 The alarm output is turned on manually.
- 3 The input machine is damaged or the connections are not correct.
- 4 There are some problems for specific program edition, Please update the program.

19、 Alarm is not working.

Possible reasons are as followed:

- 1 The setting of the alarm is not correct.
- 2 The connection of the alarm is not correct.
- 3 The alarm input signal is not correct.
- 4 A alarm is connected with two loops synchronously.

20、 The remote controller is not working,

Possible reasons are as followed:

- 1 The remote control address is not correct.
- 2 The remote control distance is too far or the angle is too large.
- 3 The battery is used up.
- 4 The remote controller or the front panel of the recording machine is damaged.

21、 The storage time is not enough.

Possible reasons are as followed:

- 1 Video quality from camera is bad. The lens is too dirty. The camera is in backlighting option.
- 2 The hard disk capability is not enough.
- 3 The hard disk is damaged.

22、 The downloaded files will not play.

Possible reasons are as followed:

- 1 There is no media player.
- 2 There is no DX8.1 software or higher edition.
- 3 There is no DivX503Bundle.exe file to play AVI video files.
- 4 The DivX503Bundle.exe and ffdshow-2004 1012 .exe files must be installed in the windows PC system.

23、 I cannot remember the advanced code or network code in the local menu operation.

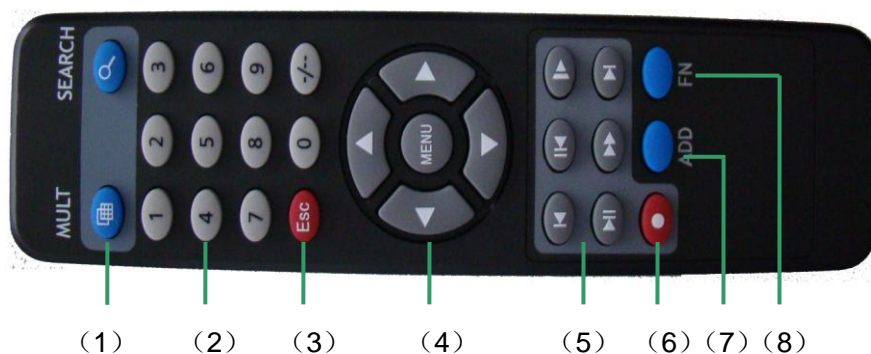
Please contact the local vendor.

5.2 Maintenance

- 1 Please use Air can spray to clean printed circuit boards, connectors, fans, machine box and so on regularly.
- 2 Please keep the grounding well done to prevent the video or audio signal interfered and the DVR from static or inductive electricity.
- 3 Do not connect/disconnect the video signal line or RS-232 port or RS-485 port with the power on.
- 4 Do not use the TV in the local video output port(VOUT) of DVR. It will damage the video output circuit easily.
- 5 Do not turn off the power switch directly. Please use the turn-off function in the menu or press the turn-off button in the panel (3 seconds or longer) to protect the hard disk.
- 6 Please keep the DVR away from heat and humid.
- 7 Please keep the DVR ventilated.

Please check the system and maintain regularly.

Appendix 1.Remote controller operation



Serial number	Name	Function
1	Multi-window button	Same function as Multi-window button in the front panel
2	Numeric button	Code input/number input/channel switch
3	【Esc】	Same function as 【Esc】 button in the front panel
4	Direction button	Same function as direction button in the front panel
5	Record control	Control the record
6	Record mode	Same function as “Record mode”
7	ADD	Input the number of DVR to control it
8	FN	Assistant function

Appendix 2. Mouse operation

*used right handed mouse as an example

The mouse in USB connection is supported.

Operation	Function
Double left click	Double click one item in the file list to playback the video
	Double click the playback video to zoom in or out the screen
	Double click the channel to make it full screen display double click again to resume the multi-window display
Left click	Choose the according function in the menu
Right click	Pop desktop shortcut menu in preview state
	Current shortcut menu in the menu
Press middle button	Add or subtract number in the number setting
	Switch the items in the combo box
	Page up or down in the list
Move mouse	Choose the widget or move the item in the widget
Drag mouse	Set the motion detect area
	Set the cover area

Appendix 3.Hard disk capability calculation

Make sure the hard disk installed to the DVR for the first time. Pay attention to the IDE hard disk lines connection.

1、 Hard disk capability

There is no limit for recording machine. We recommend 120G~250G size to keep better stability.

2、 Overall capability option

The hard disk capability formula is:

Overall capability (M) =channel number*time (hour) *capability in an hour (M/hour)

The recording time formula is:

$$\text{Recording time (hour)} = \frac{\text{overall capability (M)}}{\text{Capability in an hour (M/hour) *channel number}}$$

The DVR introduces the H.264 compression technology. Its dynamic range is very large so the hard disk capability calculation is based on the estimation values of each channel creating files in an hour.

Example:

For one piece 500G HDD, real time CIF for recording, it will keep recording for about 25 days.HDD spaces per channel is 200M/H, if 4channels real time CIF at 24hours recording uninterrupted, it can last:500G/(200M/H*24H*4ch)=26 days

Appendix 4. Technique parameters

	Type	4ch	8ch	16ch
System	Main processor	High performance embedded microprocessor		
	Operation system	Embedded LINUX operation system		
	System resource	synchronous multi-channel recording, synchronous multi-channel sub-code stream, synchronous multi-channel playback, synchronous network operation		
Interface	Operation interface	16 bit true color graphical menu interface, mouse operation supportive		
	display	1/4image display	1/4/8/9 image display	1/4/8/9/16 image display
Video	Video standard	PAL 625line,50 f/s;NTSC 525 line,60 f/s		
	Surveillance image quality	PAL, D1(704x576);NTSC, D1(704x480)		
	Playback image quality	PAL,D1(704x576);NTSC, D1(704*480)		
	Video compression	H.264 mp		
	Video control	6 options		
	Recording speed	100/120fps (D1)	200/240fps(CIF), 50/60fps D1	400/480fps CIF
	Motion detect	396(22x18) detection areas, multiple sensitivity		
Audio	Audio compression	G711A		
	Bidirectional Talk	Support		
Record	Recording mode	manual >alarm>motion detect>timing		
And	Playback	Any channels playback, multiple channels playback		

Playback	Search mode	Time searching, calendar searching, affair searching, channel searching, information searching		
Storage And backup	Space Occupation	Audio: 28.8MB/H Video:25~450MB/H		
	Recording storage	Hard disk, network		
	Backup mode	Network, USB flash,USB movable HDD,USB DVD-RW		
Port	Video input	4 BNC	8 BNC	16 BNC
	Video output	1 BNC, 1 VGA		
	Audio input	4 RCA		1 RCA
	Audio output	1 RCA		
	Alarm input	4ch		1ch
	Alarm output	1channel		
	Network port	RJ45 10M/100M		
	PTZ control port	1 RS485		
	USB port	2* USB2.0 ports		
	Hard disk port	1 SATA port		
Other	Power supply	12V/4A external power supply		
	Power consumption	<15W (without hard disk)		
	Working temp.	0°C~+55°C		
	Working humidity	10%—90%		
	Air pressure	86kpa—106kpa		
	Size	310(width)x215(depth)x45(height)mm		
	Weight	3kg (without hard disk)		
	Installation	Desktop		

Return Policy

Merchandise may be returned for a refund or exchange for 15 days from day of receipt as long as the equipment is still in "as new" condition. There is no return on Clearance items. A 15% restocking fee may apply. Shipping costs are not refundable.

"As New" means that all items must be undamaged and in their original cartons and packaging along with all accessories, documentation, and parts. No wires or pigtailed can be cut. The product exterior must be intact and unmarked. The original carton must be in another "shipping" box. No postmarks or labels shall be on the original box. Cable must be unopened (or still on reel).

A Return Merchandise Authorization (RMA) number must be obtained from Discount Security Cameras prior to the return of any merchandise. An RMA number is only valid for 14 days.

To request an RMA number, call (904) 855-1121.

Free and Discounted Product Offers

From time to time, DSC will offer a free or discounted product as a special offer along with another product. For example, we might offer a free monitor with a DVR system. In a case like this, if the product is returned (eg, the DVR system) then the free or discounted product must also be returned (eg, the monitor) in order to receive the full refund for the order. The free or discounted product must also be in 'as new' condition as described above. If the free or discounted product(s) is not returned with the rest of the order then DSC will charge the customer for the retail price of the free product (or the difference between the discounted price vs. the retail price of the discounted product) thereby reducing the amount that the customer would receive in the refund. For example, if a free monitor was not returned and the retail price of the monitor is \$129 then the refund to the customer would be reduced by \$129. Similarly, if a discounted monitor was not returned which was sold at \$59 that was normally \$159, then the refund to the customer would be reduced by \$100.

Package Offers

If a customer returns an item that was purchased as part of a package (and so paid a reduced package price) or using an order discount or coupon, DGP will calculate the correct amount to be refunded as follows:

The total cost of the items will be added up according to the price if each item was purchased separately. Then the percentage of discount will be calculated based on the price paid for the package.

For example, if the items in the package purchased separately is \$750 and the package price paid was \$699 then the percentage of discount was $1 - (699/750) * 100 = 6.8\%$.

In this example, if an item is returned, the amount credited would be the individual retail price - 6.8%. For example, if one camera was returned which costs \$79 individually, the refunded amount would be:

\$79 - 6.8% or
\$79 - (\$79 * .068) =
\$79 - \$5.37 = \$73.63

In this case, \$73.63 was the actual amount paid for the camera given the package or coupon price. If a restocking fee is charged it will be based on this actual amount paid (\$73.63 in this example). If you have any questions about this policy please feel free to call us.

Warranty

At Discount Security Cameras (DSC) we take pride in offering only the highest quality reliable products. In the rare event that a defect does occur we offer the following warranty:

All products are warranted by Discount Security Cameras for 1 year from date of purchase, except for Clearance items which are warranted for 90 days. If a product is defective we will repair or replace it. The customer is responsible for the shipping to send the product to us. We will pay for the shipping cost to return the product back to the customer.

The following situations void the product warranty: Removing the Microsoft Product License Tag and/or Serial number from the PC-based DVR and PTZ cameras; Opening the housing of any camera with a fixed lens. Cutting the connectors off on any equipment. Adding 3rd party software to a DVR without prior approval from our technical support department. Damage caused by nature such as flooding, winds, lightning and other similar events; fault of the installer or customer due to negligence (for example dropping or breaking the product, improper voltage, or improper installation causing damage; for example overheating due to lack of ventilation).

After 1 year (outside of the warranty), we will continue to support the product at the standard repair labor rate (currently \$65 per hour-minimum 2 hours) plus parts, if applicable, or phone technical support for \$65.00/hour. Out of warranty repairs are guaranteed for 30 days. Phone support is non-refundable.

Network systems can be complex and everyone's network is configured differently. For this reason Discount Security cannot be liable for any issues or problems resulting from support of network related issues. We recommend that for any network related issues, you involve the support of your local network support specialist.

RMA : All returns and warranty services require a valid Returned Merchandise Authorization Number (RMA#) issued by Discount Security Cameras. An RMA number is valid for 14 days (returned products must be received within 14 days from issuance of the RMA number). To request an RMA number, call (904) 855-1121.