

**Network Hardware Compression
H.264 Stand Alone**

Digital Video Recorder

User Guide



Safety Precautions

Power

- Voltage usage: 200V-240V AC. Should be connected to the ground. Confirm the voltage before using.

- When not in use, ensure that the machine is switched off and the power plug is not plugged into the AC outlet.

Caution

- There are two modes of video output: BNC and VGA.

Switch on and shut down

- Check out the connection of system and power before switching on.
- Stop recording and playing before switching off the power.

Safety

This DVR is an indoor equipment .In order to avoid electrical shock, do not expose the DVR to rain or damp environment.

- Turn off the power supply immediately should any foreign liquid or material enters the DVR set. Ask a qualified technician or assistance before restarting it.
- This is a precisely calibrated DVR. User should not try to repair this machine without any qualified technical assistance.
- Should you need to reposition the DVR, ensure that the player stops playing/recording or the HDD will damage.

DVR Setup Tips

- Place the DVR in a well-ventilated area. Please ensure that there is enough space around the DVR so that the vents are not blocked.
- Do not place the DVR near a heat source, direct sunlight or in a wet environment.

Installing the HDD

Line jump: Please ensure that the method is correct before installing the HDD.

Data line: check whether data line link is correct, HD must be inserted into the bottom parallel.

- 1HDD Installation: set HDD jumper as the master, plug IDE line into the first IDE slot near the front panel, and then connect the power cable and the data line with HDD .
- 2 HDDs Installation: set one HDD jump to the master and the other to

slave, connect the same connection for the power line and data line to each HDD.

- 3 HDDs Installation: finished 2 HDDS' lining , jump the third HDD as the master, plug it into the second IDE with data line.
- 4 HDDs Installation: finished 3 HDDS' lining , jump the third HDD to the slave, plug it into the second IDE with data line.
- 5 HDDs Installation: finished 4 HDDS' lining , jump the third HDD as the master, plug it into the third IDE with data line.
- 6 HDDs Installation: finished 5 HDDS' lining , jump the third HDD to the slave, plug it into the third IDE with data line.
- 7 HDDs Installation: finished 6 HDDS' lining , jump the third HDD as the master, plug it into the forth IDE with data line.
- 8 HDDs Installation: set four jump to the master and the other four to the slave, a master HDD and a slave HDD to one group, make the 8 HDDs into 4 groups, connect the same team connect power line and material line to each one.

Clear HDD

- When you use a new HD, you should format the HD before clearing. The correct order is as follow: clear assistant disc→clear master disc→out setting →save→turn off→restart→ other setting.

Copyright Advice

- If you wish to record television programs or reproduce VCD/ DVDs, please remember not to infringe the copyright laws of your country.

This is a common manual suitable for 4/8/16 channel DVR

The characteristic and the function of this DVR

Characteristic:

- Use PHILIPS (PNX1500/1700 CMOS DSP chip), offer more high compression and definition.
- The PSOS in this DVR is completely different from PC.
- Quick startup, auto protects and auto resume.
- The operation is fast, convenient, and the operating is similar to VCR.

Function:

System mode

- Professional operating system PSOS, completely PC independent, avoid virus infection completely, stable, no delay.
- Independent module design, more system stability.
- Can operate in multiple languages

Compression

- Adopt the H.264 compression method; compresses the picture processing with higher definition.
- The audio adopts the G.729 compression, producing higher quality audio result.
- Synchronous compression of the audio and video.
- Fix code and variable code compression.

Vision

- BNC and VGA output.
- Each channel:25fps /s(PAL)/30fps (NTSC) (QUAD), real-time compression.
- Support images display at the same time, or one by one.
- Support the alert switch to single image function
- Adjustable Live/Playback image contrast, brightness, and saturation.
- Each image name can be selected.

Recording

- High definition in image, also can be adjust from CIF to 1/2CIF, fixation/variable code setting.
- Video and audio record at the same time, the parameter of each channel can be setting singly; a numeral from 0.1 pieces/ seconds-30 the pieces/ seconds can adjust.
- Recording Mode: Manual, Auto, Alert, and Motion detect.

- 8 menus in image also can set the code flow by operator.

Motion and detect

- Each image can set 48 dynamic states to detect the district
- Each image can set 1-4 the intelligent degree.

Saving

- Install big capacity HDD, Unlimited capacity of HDD, unlimited rotate speed.
- Overwrite
- Auto alert setting for surplus content.
- Record before alert function, store in EMS memory
- Dormancy function is set to reduce the quantity of heat and prolong the use.

Search

- Search for the exact time/date/list.
- Search on 1 HD singly, also display the list corresponding.
- Normal/alert record search.
- Dairy

Playback

- No sound output while having another image being played.
- Video and audio play at the same time.
- PLAY function: forward, review, pause, single, upside, downside, head segment, whist.

Edition information

- Type, the edition number, date of edition
- Host capacity, recording information (normal/alert), and recording time.
- Work disc, way of cover and time

VFD vision

- Time, record mark, image quality mark, guard mark, the scheduling symbolize, HDD read and write mark, play, forward, network mark, alert and channel mark, pause.

Water Mark (optional)

- can increase the false defend mark according to the customer.

Alert

- The time of alert output can be set.
- The type of alert input NC/NO can be set.
- Alert can be cleared with manual, remote control and network.

- Buzzer off/on can be set.
- Video shade or lost alert function.

Network Function

- Support 10/100M TCP/IP
- The privileged person can change the parameter of video and control in center through network control software.
- IE browser (file name: IE Play)
- Down cope certify through network control software.
- Support WEB skim

Save Files Protection

- Adopt 128 data encrypt
- 3 grade passwords protection, manager password, user password, and operator password.

User interface ports

- Graphic interface ports, the operation is simple, convenient
- Front panel control
- IR remote control.
- Network control

Back up

- Through network
- Through USB2.0
- Through CD/DVD - RW

Upgrade

- Through USB2.0
- Through network

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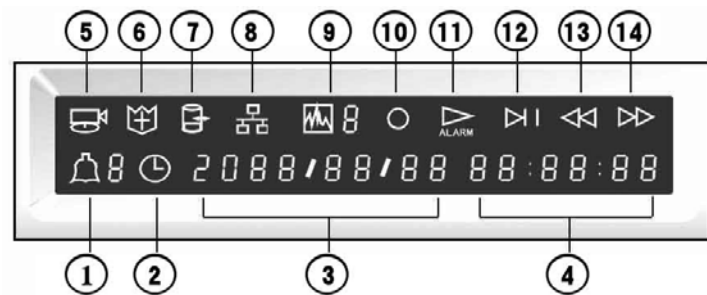
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System connection

■ Front of the panel



VFD



- | | |
|-------------|-----------|
| ① Alert LED | ⑧ Network |
| ② Time LED | ⑨ Quality |
| ③ Date | ⑩ Record |
| ④ Time | ⑪ Play |
| ⑤ P .T. Z | ⑫ Step |
| ⑥ Alert | ⑬ Review |
| ⑦ HDD | ⑭ Forward |

■ Back panel and connection terminal



- ① Audio input 1~16
- ② Audio output 1
- ③ Video input 1~16
- ④ Video output 1
- ⑤ VGA interface
- ⑥ Net connect RJ45
- ⑦ RS232 interface
- ⑧ Alert input/output signal and RS-485 signal terminal. the order from left to right is: alert output 1,2;alert input 1~16;earth;RS-485
- ⑨ Fan base
- ⑩ Power line plug

System operation

■ Record operation

Record operation can be divided into Manual, Auto, Alert, Motion detect, and the combination operation of above.

Manual

- “ record setting”, Press button “quantity” .
- press “ ● ” start record, 4/816-channel start record at the same time, the mark of record appear on the VFD and monitor.
- manual belong to the normal record.
- Press “ ● ” stop manual record.

Alert Record

- The parameter in" the alert records image the enactment".(the related system setting chapter for details see)
- Press "guard" make the system be placed in the warning.
- The alert record can start with motion and detect. If you want to use this function, please choose the window of “motion and detect” on the list in advance, and setting “alert”.
- The alert record can stop after press “record” button only.
- The length of alert record is confirmed by “TIME BEFORE” “TIME AFTER”.
- While recording, there is a red signal on the left of VFD and monitor. The buzzer won't stop until press “clear”.

Motion Detect

- Setting the parameter in” Motion Detect” column.
- Starting the detect record must press the “guard” before, but there is any other operation before the normal detect record.
- The time of normal detect is decided by “record time” in motion setting; the time of alert record is decided by “alert record setting” in “before/after alert”.

Scheduling record

- Setting the parameter of scheduling record in "the setting scheduling" column.
- Press" scheduling" on the front panel, the signal “⊕ ” will show on the left of the VFD display area and screens
- Press" scheduling “and input manager's password to cancel the scheduling of record.

Combination record

- The combination record can be use according to need. Such as the scheduling detects record, it needs to combine the scheduling record setting and detect record setting.

■ **Play/ search**

**You can use IE browser software or one to one specific software.
one-one specific display software:**

- **Play, Press “▶” on the front panel to play, the signal will show on the left top corner of the VFD and screen. Press it again to stop running, and the signal disappears.**
- **The image played is always the one that stopped last time or recorded recently.**
- **It can play one by one. Press “play” again will play normally. The forward/review button can turn the speed, press “play” will renew.**
- **Press up and down can choose the segment of same type. A head and a tail operation can repeat.**
- **4/8/16 images can replay at the same time or either one image replays in full screen. The up, down, left, right button can choose single image, press menu will renew.**
- **Searching play**

User guide


■ Switch on

- Check safety precautions before switching on.
- Check the conjunction of system, input, output and the power supply before switching on.
- Confirm the image standard (NTSC/PAL) and monitors are to specifications.
- When all confirmed, check the exterior equipments.
- If the DVR is shut down improperly, no OSD mark will appear when switching on, and the monitor image is black. The system will sort the HDD automatically, After sorting, it will continue to play the recording. The information in HDD will affect the time of dislocation and arrangement, please wait patiently.
- If the system has already set the schedule recording and the system is just about to reach the schedule time, the system will automatically start the schedule recording according to the parameter.

■ Shut down

- Warning: Do not shut down the DVR when it is recording or playback. (Otherwise the system will start the automatic renew next time.)
- Press “ = “ to stop recording or press “4” to stop playing before shutting down, or return the system setting list and set the system in stopping alert, then turn left the power control lock to shut off the machine. Do not shut off the power supply when the system is under recording backup; otherwise the recordings will be lost.
- Pull out the power cable from the AC outlet if the DVR is not used for a long time.

■ Normal recording

- Connect all power supplies of related equipments before recording, ensure the system has video input.
- Press “information” to look into the remaining space of HDD, if the memory space is not enough, do erase, backup or overwrite.
- Check "recording parameter" to set the image quality before recording. Also you can press “quality” button to change image quality. Warning: image quality cannot be changed when the system is recording.
- Press “” to start recording, the indicator will light. Press “display” key, red indicators for quality, the current date and time will show on the monitor. Press “display” again, the state of HDD will show on monitor.
- Don not start recording in the process of system setting. If you really want to, first move the cursor to “back” in system setting

window ,withdraw from the system-setting window, then press “record” to start recording.

- If HDD is full when the system is recording, and the system has already set auto overwritten, the system will overwrite from the beginning. If the system has set under manual recording, and the early alert has not to been set to "0", there will be alert. The video recorder continues to record after the alert is cleared. It will stop recording when HDD is full and show a signal for advice.
- If the manual recording is useless when the system has started the schedule recording, the alert recording can interrupt these two.
- To start secret recording, first enter “recording parameter setting”, then set “YES” in the “secret recording”.
- Set “YES” in the “Audio” from “recording parameter setting”, the audio and video will record at the same time; set “NO”, the system will record without audio.
- For details of parameter setting, please read “recording parameter setting” in the “system setting”.

■ Alert record

- Refer to page 16 for parameters of alert settings.
- Press “guard” to change the system into warning mode.
- The alert record can start with motion detection, If you want to use this function, please choose “Motion and detect” in advance list.
- The alert record can be stopped after pressing “record” button only.
- The length of alert record is confirmed by “Time before” “Time after”.
- While recording, there is a red signal on the left of VFD and monitor. The buzzer won’t stop until “clear” is pressed.

■ Motion Detect

- Set the parameter in “Motion Detect”.
- Press “guard” to start motion detection recording.
- The time of normal detect is decided by “record time” in motion setting; The time of alert record is decided by “alert record setting” in “before/after alert”.

■ Scheduled recording

- Set the parameter of scheduling record in "the setting scheduling".
- Press" scheduling" on the front panel, the sign “ 1” will show on the left of the VFD display area and monitor screen.
- Press" scheduling “and input manager's password to cancel the scheduled recording.

When the power is shut off, the schedule recording cannot be used.

If the time when you start power lock is just in the schedule record period,

press schedule”, and the system will start recording automatically.

If the machine is dual-operation, when the system is playing and the time has reached the schedule, schedule recording will start as background.

For further information, please read, “schedule recording parameter setting” in “system setting”.

■ Play/search

- When the video recorder stops recording, press “play” and the video recorder will start to play.
- Press “play” while the video recorder is recording then playback is active while recording is in the background. Pressing “play” when the video recorder stops recording, the video recorder always begins from where the recording stopped last time or the latest recording, no matter the recording is a normal recording or an alert recording.
- When the recording finishes playing but no “play” have been pressed, the video recording will automatically play from the very beginning. For example, if the latest is a normal recording, the video recorder will play the first normal recording; if it is an alert recording, the video recording will play the first alert recording. It only stops when you press “play”.
- When the video recording is being played, press “pause” and the performance will stop for a while. Press “pause” again, the next recording will be played. Continually press “pause”, it will play the recordings one by one sequentially .Press “play” and it will play normally
- Press “play” when the video recorder is forwarding or reviewing, it will play normally from the current position from forwarding or reviewing.
- Continually press 8 or 7, and the system will have 6 levels of forwarding and 5 levels of reviewing speed.

■ Multi-Function System

In system, playing and recording are independent. When recording and playing are performing at one time, you can stop either one for totally independent.

When user starts to record as the video record is playing, nothing will appear on the screen except the recording indicator. If system stops playing, the recording will appear on the screen from the background. When the video recorder starts to play as it is recording, the playing will appear on the screen, the recording as the background.

Searching while the video recording is playing, whether it is recording or not. When the screen quality of recording and playing is set “better” or above, the system will guarantee the quality of recording (as the background). Then, the picture appearing on the screen may be not quite clear. But this does not mean the real quality of the playback recording. Stop recording on the background in order to get to know the quality of the playback recording.

Notes: Avoid operating multi-function system unless it is necessary; especially avoid frequently searching and playing for a long time when it is recording, which is harmful to the HDD.

■ Password

- Password is used to protect the performance of “option”, thus to protect the setting and the operation of video recorder. If the wrong password has been keyed in one for three times, the system will alert for 3 minutes.
- There are two kinds of password: manager’s (the default is 88888888) and operator’s (the default is 66666666). The manager’s level is higher than the operator’s, so the manager can change the operator’s password and decide (endow) what settings and operations the operator can do. Through “authority”, the manager decides what settings and operations the operator can do.
- The manager’s and operator’s password can be set and modified in “authority”, after keying in the old password. The new password should be keyed-in twice for acceptance.
- You can choose any eight numbers from 0 to 9 as the password, and key in through the number keys in the front panel. The password should have 8 numbers.
- The system does not the password. In the “authority”, leave the “new key” and “retype” into the blank panel, which will make the operation of video recorder open to everyone. When the manager’s password is cancelled, the operator’ password is useless. Therefore, the system cannot keep the operator’s password without the manager’s password.
- The system can keep the manager’s password without the operator’s password. Keep the operator’s “new key” and “retype” blank, then, the operator’s password is cancelled. But user cannot operate the system as an operator.
- To set a new password when the system has no password before, remember to keep the “old key” blank, otherwise the new password won’t be accepted.
- The manager provides all the rights to the operator in the “authority” and allows the operator to set and manage all the items, which means the manager and the operator have different passwords, but only the manager has the right to set “system” in the “option”.
- When the system has the password, each time you press “option”, the “input key” window will appear. Only when the right password is keyed in, the system system-setting menu will appear. Different levels of menus will appear when different levels of password have been inserted.
- Besides system operating password, there are passwords for stopping guard and stopping scheduled recording.

■ HDD password

- The information in our system HDD has been protected by password. Therefore, HDD cannot be read in computers and video recordings produced by other manufactures.
- The password in HDD cannot be changed. A HDD has only one password, and master and slave (or the backup disc) cannot use different passwords.
- You can choose any eight numbers from 0 to 9 as the passwords, with the default 88888888. Although HDD password is similar to operating password, the two are different in their functional usage.
- The password can only be set when “format disc” is pressed. Only by keying in the old password can you format HDD, The password is also a protection to the operation of “format disc”.
- You can set a new password whenever you format HDD. You can leave blank the “new key” and “retype”, so that there is no password.

■ The choice and format of disc

- The memory in our system is HDD. Without HDD extender, the system can install eight HDDs (the capacity of HDD may be different.) When installing the second HDD, please set it “slave” as the instruction of the manufacture. Otherwise, the system won't work.
- The second HDD can work as an “assistant disc” to store information and operate. The choice of HDD is set through “choose working disc”. When the slave is confirmed as the working disc, the playing and searching will be operated in slave, but the recording is still on the master.
- “Format disc” is similar to initial format, which means all the information in the disc will be lost. After inputting the right old password, you can format HDD.
- Before formatting master, you can change the password, which will be in effect when you reuse HDD. The slave should use the same password.

■ System setting

- The user can do system setting through “menu” key. If the system has password, when you press “menu”, “input password” will appear. Only after inputting the right password will the system setting menu appear.
- The system has two levels of password, the manager and the operator, they have different setting menus.
- Every item in the system setting menu has its own setting window. Every item is through “menu” and the four direction keys below the “menu” key. The up and down keys are used to choose from different items; the left and right keys are used to move in the chosen item. If the chosen item has several options, the left and right keys are used to make


different options. The number item is set by the number keys in the front panel. After the setting, press “menu” to confirm it.

- The system setting won't be lost when the power is off.

■ Display

- After power on, the symbol of the manufacturer will appear for about 5 seconds. If the power is abnormally off when the system is recording, then no symbol will appear. HDD will work by itself and continue to record.
- Each key has its own indicators in the front panel to show the state.
- Press “display”, signs to show different states (the normal recording, the scheduled recording, the alert recording, play, pause, forward, review, etc.) will appear in the top left corner of the monitor, and signs to show the time and date in the top right corner of the screen (when the system is recording and stopping, it is the current time; when playing, it is the time of recording day.) Press “display” again, a list about the space of HDD and the remaining space of HDD will appear on the screen, all will disappear when pressing “display” again. “Display” key cannot be used when the system is setting.
- Press “information”, all informations about the state of HDD will appear on the screen, and disappear after 10seconds. Warning: Do not press “information” when the system is recording, playing or system setting.

■ Record searching

- Press “searching”, and the list will appear.
- Searching in the paragraph: move “

■ Quality with memory space & HDD with recording time

- The quality in our video recorder has eight levels: 1-7 levels and user-setting. The user –setting quality will take 1MB/h (the lowest quality) to 1600MB/h (the highest quality) of the disc space.
- Higher the quality, the more space it will take, and the video recording can record for much less time, so the user should choose the appropriate quality and quantity.
- The quality should be set before the recording. No change of quality setting during the system is recording!

- **The quality of the normal recording, scheduled recording and the alert recording is set independently in different windows (Scheduled recording is set every day.); or they are set by continually pressing “quality” when the system is not recording.**

System setting

Before using video recording, set the system according to own needs, otherwise the video recorder will perform following the settings in the factory. (For further information, please read “system management”)

Enter menu

(1) In the live monitor, press “menu” in the front panel. If the system has password, “Please Input password” will appear, as below:

Please Input Password:



(2) There are two levels operating password: manager’s (super users) and operator’s (users). The default for the manager is 88888888, and for the operator is 66666666.

(3) How to use system setting menu

- a. Press “menu” when the system has no password, or input the right operator’s password in the “input password” interface, the “system” menu will appear, as below.



Setting



Record



Play




Backup



Information



Exit

- b. In “system”, move “

■ Setting


Choose “setting” after you enter with password, and press “Menu” button then you will enter to the following window:



(1) General

Choose “general” in the system setting menu, and press “Menu” button then you will enter to the following window:



1. Time and date setting: set the recording time. Press the “” keys and input the year, month, date, hour, minute, and second to check the time. After that, press ”Done” and the time setting gets into effect at once.
2. Time Zone: the default is “CMT+8”.
3. Video system: PAL and NTSC can be used.
4. Language: English, Chinese can be choosed. Or other languages you can request.
5. panel Lock: Select "yes", when you don't operate it for some time, the panel will be locked automatically. If you don't need this function, select not.
6. Format Device: Hard disk formatting options, moving the cursor to the "Done" key, press the "menu" button. prompted for confirmation "Do you want to format the hard drive," then press "implementation" .
7. Upgrade: USB/network
8. Default Recovery: Select “yes”, the system will restore all parameters to the factory default, user configuration parameters will be lost.
9. HDD Data Recovery: To prevent users from misoperation due to the loss of data, video and data recovery of function. The former secretary importation key to hard disk formatting is consistent password Then implementation, System will prompt "is recovering data ..." After the success of restoring system will be "finished recover data" suggest that At this time the loss of data will be restored back.
 Note : Data recovery function is used to remedy data loss, can not guarantee 100% is correct of the returned data.
10. ID: number the video recordings in order to facilitate the management of several recordings.

(2) Network

Choose “Network” in the system setting menu, and press “Menu” button then you will enter to the following window:



1. IP Address: DVR IP address.
2. Mask: DVR mask.
3. Gateway: For remote access, the general set to router's IP address.
4. Server: Alarm input information and upload images of SEVER receiving end of the IP address, when VCRs have the report, Alarm will upload images and information to the designated computer, but also for the upgrading of network addresses.
5. Network Protocol: TCP/IP, UDP optional. TCP/IP default.

Note: You should make sure all the setting are correct, then you can visit this DVR through web.

(3) P.T.Z

Choose “PTZ” in the system setting menu, and press “Menu” button then you will enter to the following window:



1. Com Type: 485 serial port and optional serial port 232. DVR through RS485 interface with external decoder keyboard; through RS232 serial communications with the ATM machine card number superimposed achieve functional.
2. Baud Rate: 2400,4800,9600 ,19200 ,optional
3. Device: Decoder, keyboard, sx326, addcard optional. some options with external video equipment line and set up the correct parameters can be used
4. Communication Protocol: System Preferences procedures 9 decoder Protocol----"llw", "panasonic" "pelco-d", "pelco-p", "lilin", "neon" "pelco-d yaan", "pelco-d sfd," "pelco-d jj"
5. Decoder Step: Step value of the adjustable range of 1-8.
6. Decoder Address: In this input is connected to all the address decoder in the first address to contain a number of decoders, it must address decoder for continuous picture and the serial number which corresponds, in some addresses provided the first, Users can choose through the sequential control platforms to operate.

(4) Display

Choose "Display" in the system setting menu, adjust the screen brightness, saturation, contrast.

(5) Channel

Choose "Channel" in the system setting menu, and press "Menu" button then you will enter to the following window:



Manually set up the video picture, each channel to be a separate set, when using a single screen for video, the passage of a separate set quality will take effect.

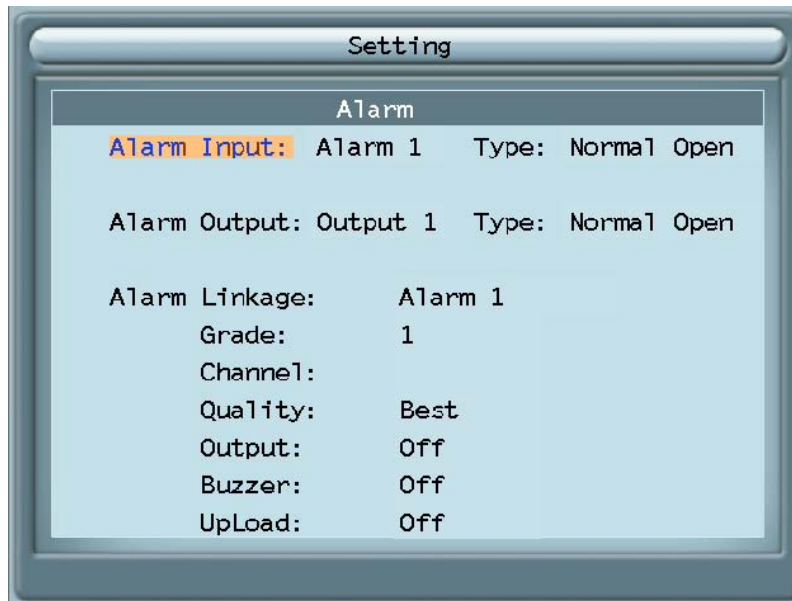
1. Channel: All, channel1, channel2, channel3, channel4, channel5, channel6, channel7, channel8, channel16 optional.
2. Audio: Select "on", the audio can be recorded together with the video, otherwise, there is no sound.
3. Local Bit Rate: the quality of recording has five levels: Best, Superior, Medium, Normal, Manual, User frame rate: the range is 0.1ps/second to 30ps/second

Normal	Medium	Superior	Best	Manual
200MB/H	300 MB/ H	350 MB/ H	400 MB/ H	1-4000 MB/H

4. Enable: when the user has chosen either one from the eight pictures without pressing the "setting effect", the system will play eight pictures instead of one.
5. Manual Quality: You can set the quality video bitstream by yourself. 1-4000MB/ hours.
6. Channel Identified: The user can name the cameras through this function. According to the actual application, the user choose the names: in the air (no name), "screen" "hall", "staircase", "door" and "ATMs", "prospects", "Treasury" "lobby" correspondingly . These names are from the System of Preferences procedures. For example: 1-screen staircase a screen 2-hall 2. Location : screen names for the establishment of the corresponding images of the location, "position A" (middle), "Position B" (screen), "Location C" (lower left), "position D" (lower right) choice of four locations

(6) Alarm

Choose “Alarm” in the system setting menu, and press “Menu” button then you will enter to the following window:

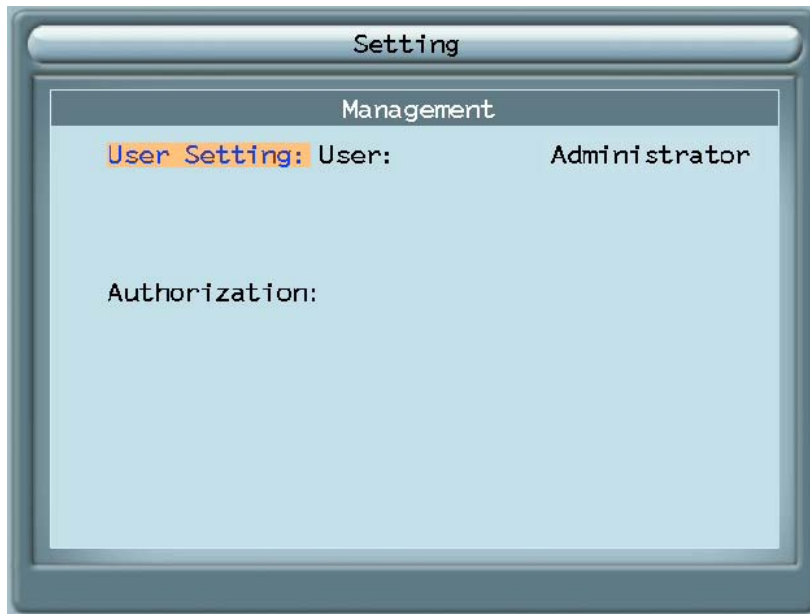


Alert setting is used to set the alert mechanism and the working parameter of the alert.

1. Alarm input: Alarm input 1-16 behind the plate with the warning alarm input terminals of 1,2,3,4 ... 16 correspondingly.
2. Alarm output: Alarm output 1-4 behind the plate with the warning alarm input terminals of 1,2,3,4 correspondingly.
3. Type: With two options, open and close. The default is open.
4. Alarm Linkage: You can choose the alert input number here.
Grade: You can set the priority of alert (1 to 8). No 1 is the lowest.
Channel: Correspond to the picture of alert input.
Quality: Quality of the alert picture.
Output: It is alert output.
Buzzer: It is the switch of buzzer. The default is close, which means the alert outputs without any sound.
Upload: You can set whether upload the alert picture or not. The default is close. (Optional)

(7) Management

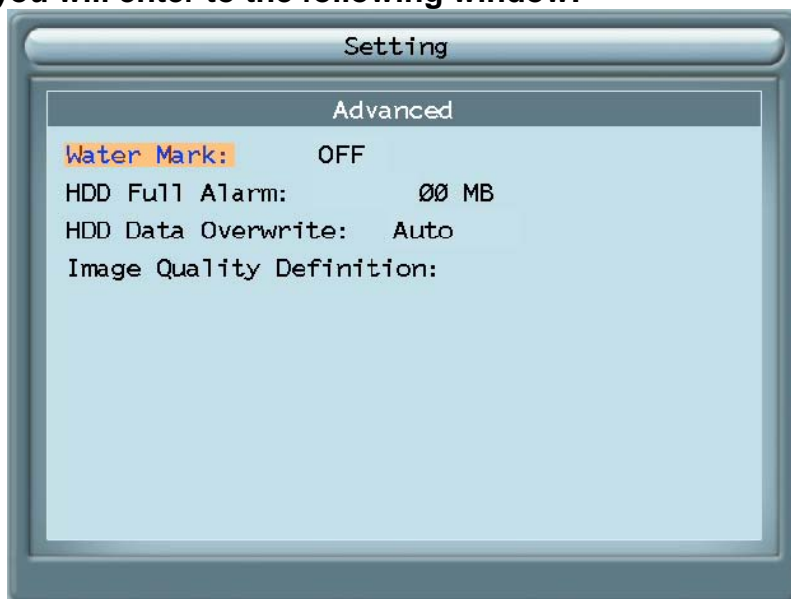
Choose “Alarm” in the system setting menu, and press “Menu” button then you will enter to the following window:



1. **User Setting:** There are two choices: “Manager’s password” and “operator’s password”. The manager has the right to decide the operator’s system operation password and operation.
2. **Old key, new key:** the manager can change the old key and reset the operator’s operation key.
3. **Authorization:** It is used for the manager to set the rights of operator. In default, the operator only gets the right of “recording searching”.
4. **Attention:** Be careful to authorize in order to keep the video recording work well.

(8) Advanced

choose “Advanced” in the system setting menu, and press “Menu” button then you will enter to the following window:



1. **Water Mark:** You can request a water mark according to your need.
2. **HDD full Alarm:** when “manual overwrite” or “no overwrite” is chosen, the system can set HDD full pre-alert. The buzzer will ring when the remaining space matches the setting space.
3. **HDD Data Overwrite:** It means how to deal with the information when HDD is full. It has three options: “auto overwrite”, “manual overwrite”, and “no overwrite”. If you choose “auto overwrite”, when HDD is full, the system will stop recording, “HDD is full” appear with the buzzer ringing.
4. **Image Quality Definition:** Best, Superior, Medium, Normal, optional, the default stream.

■ Record

Choose “Record” after you enter with password, and press “Menu” button then you will enter to the following window:



(1) Schedule

Choose “Schedule” in the system setting menu, and press “Menu” button then you will enter to the following window:



The user can set the recording time separately during a week.

1. **Begin,end:** Input the beginning and ending time you want to record. From Monday to Sunday,00:00 to 24:00.
2. **Qual:** You can set the pictures' quality here.
3. **Chan:** You can choose which channel to set here.
4. **Apply:** There are two choices: Disable and enable.
5. **Auto Guard:** "In time", "Out time", and "off" three options.

(2) Detect

choose "Detect" in the system setting menu, and press "Menu" button then you will enter to the following window:



1. **Channel:** channel1, channel2, channel3, channel4, channel5, channel6, channel7, channel8, channel16 optional. All channels can be set up independently
2. **Record Type:** Normal and Alarm optional, That is to detect the type

of election report, When choosing Alarm, DVR be deployed at state

3. **Detect Type:** Video Lost and Video cover option.
4. **Detect Sensitivity:** seven levels (highest, higher, high, middle, low, lower and lowest) to choose from according to different live environment.
5. **Cover Sensitivity:** seven levels to choose from according to different live environment.
6. **Record Duration:** You can set the time of detect recording.
7. **Detect Area:** The live picture was divided into 48 areas. User can select the whole 48 areas be detected or not by pressing “yes” or “no”, and also can set some of them detected according to his own need.

(3) Alarm

Choose “Alarm” in the system setting menu, and press “Menu” button then you will enter to the following window:



Alarm setting is used to set the alarm mechanism and the working parameter of the alarm.

1. **Pre-Alarm Record:** It is to set the length of the recording before the alarm.
2. **Post-Alarm Record:** It is to set the length of the recording after the alarm.
3. **AI-Output Delay:** It is to set the period of time for alarm output. The window default is 99 minutes. The user has to clear the alert manually, otherwise the buzzer will continually ring when there is something special.
4. **AI-Upload IP:** Upload report showed that the center of the IP
5. **AI-Upload Delay:** After pressing “guard”, the system will function only in the set period of time.

(4) Secret

Choose “Secret” in the system setting menu, and press “Menu” button then you will enter to the following window:



1. Channel: all, channel1, channel2, channel3, channel4, channel5, channel6, channel7, channel8, channel16 optional. All channels can be set up independently.
2. Screen Protection: Disable.
3. Secret Record: when the secret-record is chosen, the screen will have a certain picture, and the user cannot see the real live picture.

■ Play

Choose “Play” in the system setting menu, and press “Menu” button then you will enter to the following window:



It is used to search the recording information. The user can choose the following options to search the information.

1. **Channel:** Channel1, channel2, channel3, channel4, channel5, channel6, channel7, channel8, channel16 optional. All channels can be set up independently
2. **Record Type:** choose the mode of recording information (normal or alert)
3. **Time Period:** Input the beginning and end time of the recording.
4. **Search Type:** Two options: fast searching and full searching.
Fast searching: it can search very fast, but sometimes it cannot find the whole information because of missing.
Full searching: it is slow, but it will find any information saved.
5. **Play:** After finishing the above parameter, press “Play” and the video recording will search for the information and play it.

■ Backup

choose “Backup” in the system setting menu, and press “Menu” button then you will enter to the following window:



(1) Local Backup

choose "Local Backup" in the system setting menu, press "Menu" and enter the following window:



1. Backup Device: USB, CD-RW can be used as backup facilities.
2. Operation mode: backup the information according to the period of time, by inputting the beginning time to the end.
3. Record Type: Normal, Alarm and all, three options.
4. Channel: channel1, channel2, channel3, channel4, channel5, channel6, channel7, channel8, optional. 8 channels can be set up independently

USB backup: You can use the USB port, insert a 512 M USB for example, then format is as "FAT", enter to menu, choose "Backup",--Device(USB), put in the period you want to backup, then press "Down". Then it finished.

CD-RW backup: The same to USB backup.

Note : USB devices prior to the use of aircraft must pc formatted as a FAT file format.

(2) Network Download

Network download is disable on DVR, but function on client software.

Method: Open your clients software, then knock the picture with right key of the mouse, choose " play connect DVR", then choose the right IP ,and the next step will be the period of recording, choose which you want to backup ,then save. It's ok.

■  **Information**

Choose “information” in the system setting menu, and press “Menu” button then you will enter to the following window:



(1) Hardware

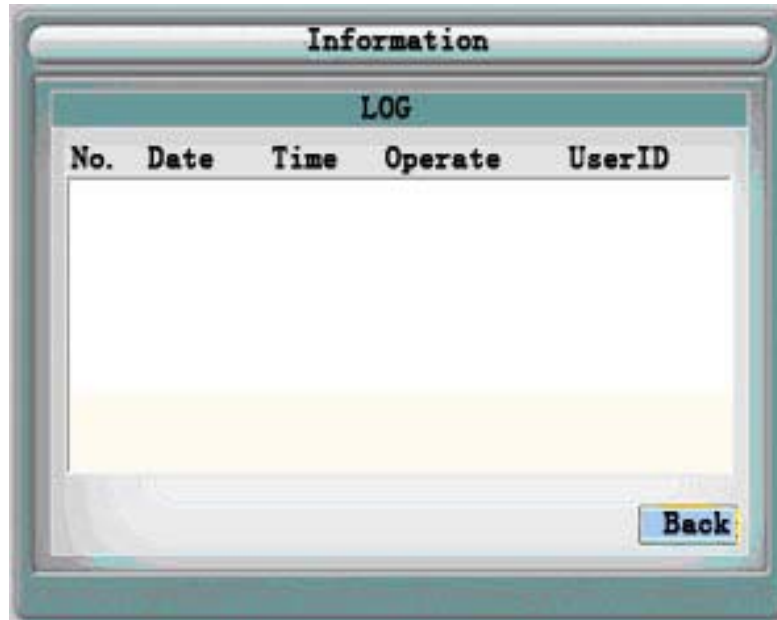
Choose “Hardware” in the system setting menu, press “Menu” and enter the following window:



Showing DVR version and system information, including DVR models, procedures version and the date, hard disk capacity, the remaining capacity,

(2) LogMesg

choose “LogMesg” in the system setting menu, press “Menu” and enter the following window:



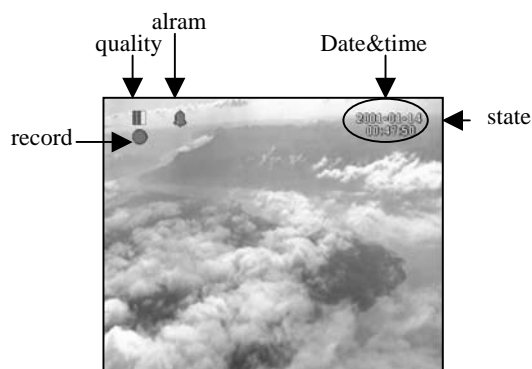
DVR provided a log function, which is used to record all the video operations of manager or operator, and the DVR itself in a state of change (such as the police or have mobile detection videos would be recorded in the log).

Display of running state

The DVR can also show the date, time and the running state on the monitor screen.

■ Display of running state

There are some signals on the screen, as below:



① Different signals showing different working status of the DVR.

■ stopping

● recording

▶ playing

▶▶ forwarding

◀◀ reviewing

② Time/date display: The time is set manually before use, and will keep automatically. When the system is recording or stopping, it shows the current time; when the system is playing record, it shows the record time

③ Quality display: It shows the current recording quality in the picture, if in the playback status, it will show the playback picture's quality.

1 green square means "grade 1";

2 green square means "grade 2";

3 green square means "grade 3";

1 yellow square means "grade 4";

2 yellow square means "grade 5";

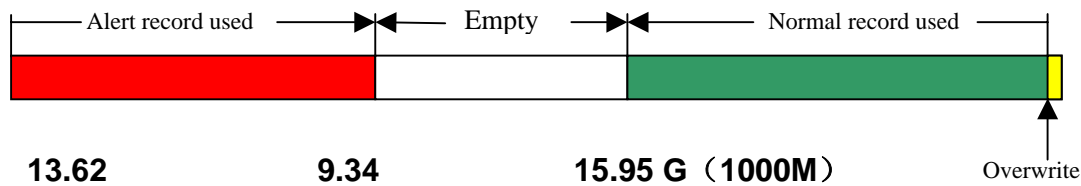
3 yellow square means "grade 6";

1 red square means "grade 7";

2 red square means "grade 8" This is "user-setting".

■ DISPLAY OF HDD USAGE

when the basic function of running and time has shown on screen, press "display" will appear a color signal to show the usage of HDD.



The color means the percent of the usage HDD; you should see according to the direction which arrow direct. The yellow means the way of overwrite. If no yellow appear, means the “auto overwrite” set as “no”. (The related system setting chapter for details sees).the numbers below means the capacity.

If HDD is full, the display is different. The red area will extend to right, and start overwriting the green area, when you set as “auto ”;the white area will be overwrite by red and green at the same time, when set “all”.

Function of P.T. Z

1、 Regardless this DVR in any state:

Press “P.T.Z” key, VFD will display  , Press ”P.T.Z 00” again, it will cancel the PTZ control,

2、 When the DVR under “PTZ 00” status:

First, enter the assistant setting in menu system, set relevant protocol about the decode, baudrate, primary address of decode, step range and other parameter.

Then enter to playing interface, control the PTZ according to clavier specifications as follows:

A, it can control 4/8/16 decodes, address is 1,2,3,4,5,6,7,8...16, You can use numeric keys to choice.

B, ”Schedule”, ”Search”, ”Quality”, ”Display”, ”Release”, ”Alert”, ”Lock”, ”Function” separate parallelism

IRIS+ IRIS- ZOOM+ ZOOM- FOCUS+ FOCUS- AUTO ON AUTO OFF

△(up) ▽(down) ◀ (left) ▶ (right) corresponding PTZ

Main standard and parameter

Channel	4 channel	8 channel	16 channel
Compression	H.264		
Video signal	PAL/NTSC		
Video input	1.0V p-p/75 Ω , BNC linker×4	1.0V p-p/75 Ω , BNC linker×8	1.0V p-p/75 Ω , BNC linker×16
Video output	1.0V p-p/75 Ω , BNC linker×2 VGA	1.0V p-p/75 Ω , BNC linker×1 VGA	1.0V p-p/75 Ω , BNC linker×16 VGA
Audio input	RCA linker×4	RCA linker×8	RCA linker×16
Audio output	RCA linker×2		
Alarm input	no voltage contact to close, always open or close, 4 channel input	no voltage contact to close, always open or close, 8 channel input	no voltage contact to close, always open or close, 16 channel input
Alarm output	no voltage contact to close, always open, 2 channel output	no voltage contact to close, always open, 4 channel output	
Alarm mode	Sensor Alarm; Motion Detect Alarm; Video loss alarm		
Network mode	10/100M Meet Ethernet port automatically, support LAN/WAN and ADSL Dynamic IP networks		
Backup mode	network, USB, CD/DVD-RW		
Resolution	vision: 704×576 Image: CIF 352×288 1/2D1 704×288		
Hard disk	2 IDE; Support 4 pieces HDD over 300G	4 IDE; Support 8 pieces HDD over 320G	
Code function	Set numeric password		
Power source	DC220V/50Hz, 180 W		
Power	50W (not include the hard disk)		
Environment temperature	Work Temperature: +5℃~+50℃; humidity: < 90% Store Temperature: -20℃~+70℃; humidity: < 95%		
weight	7 KG	7 KG	8.5 KG
Exterior size	435×96×375mm	432×96×375mm	432×96×461mm

Notice: Any changes won't notice.

Exterior size



Package contents

Description	Quantity
DVR	1
POWER CORE	1
ADAPTOR	1
USER GUIDE (CD)	1
REMOTE	1