

Stand Alone Type

USER'S MANUAL

DVR

Safety Precautions



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of insulated dangerous Voltage with in the product's enclosure that may be sufficient magnitude to constitute risk of electrical shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.



Attention: installation should be performed by qualified service Personnel only in accordance with the National Electrical Code or applicable local codes.



Power Disconnect: Units with or without ON-OFF switches have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON-OFF switch is the ON position. The power cord is the main power disconnect for all units.



CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instruction.

Warranty and Service

During the warranty period (one year for Hard Disk), we will repair or replace the hard disk free of charge.

Be sure to have the model number, serial number and vendor stick on hard disk for service representative.

About this document

Before installing stand alone DVR, be sure to thoroughly review and follow the instructions in this Users Manual. Pay particular attention to the parts that are marked NOTICE. Also, when connecting with external application, first turn the power OFF and follow manual instructions for appropriate installation.

Before reading this document

1. This document is intended for both the administrator and users of stand alone DVR Model.
2. This manual contains information for configuring, managing and using stand alone DVR Model.
3. To prevent fire or electrical shock, do not expose the product to heat or moisture.
4. Be sure to read this manual before using stand alone DVR Model.
5. For questions and technical assistance of this product, contact your local dealer.

► Strong recommendation on installation of the DVR unit

1. Check electricity at the place you want to install the DVR unit is stable and meets our electricity requirements. Unstable electricity will cause malfunction of the unit or give critical damage to the unit.
2. Several chips on the mainboard of the DVR unit and hard disk drive inside the unit generate heat, and it must be properly discharged.
Do not put any objects just beside exhaust port (fan) on the left side of the unit and do not close up an opening (fresh air in-take) on the right side of the unit.
3. Put the DVR unit at well-ventilated place and do not put heat-generating objects on the unit. When it is installed inside 19 inch mounting rack together with other devices, please check built-in ventilation fan of the rack is properly running.

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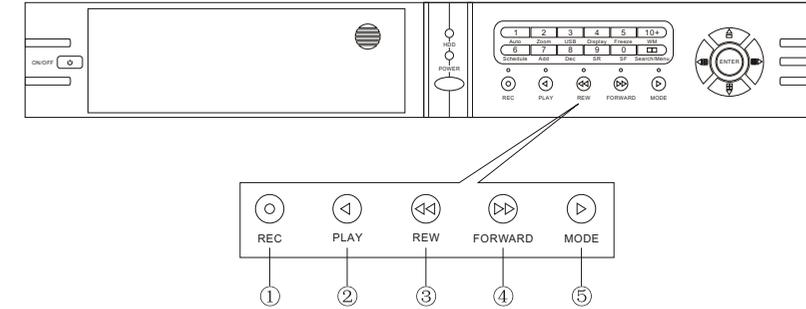
Feature And Function

1 Feature and Function

- Video input: 8/16channels; Video output: 3channels.
- Audio input: 4channels; Audio output: 2channels.
- 4 alarm input and 1 relay alarm output.
- Compression mode: M-JPEG.
- Supports network view.
- Supports USB backup.
- Compatible with NTSC and PAL format.
- Supports zooms, auto function, watermark security.
- Four optional levels of image quality: very high, high, normal, low. Record and playback frame rate changeable for recording.
- Supports alarm recording, time recording.
- Supports loss and motion detection functions.
- Multi-function searches: be able to distinguish different alarm records and time records from ordinary records; be able to search by time, by segment or by event.
- Supports various playback modes: pause, several fast forward and backward play modes.
- Equipped with remote device and PTZ control enables (RS485).
- Triplex operation can play back and search while it is recording.
- 480frame (NTSC), 400frame(PAL) per second for view, 120frame (NTSC), 100frame(PAL) per second for recording.
- One ATA-100 Hard Disk Interface, supports Over 200G Byte.

Unit Description of Front Panel

2 Unit Description of Front Panel



2.1 RECORDING/PLAYING CONTROL BUTTONS AREA

1. REC: It is manual recording button. Push this button to record video to hard disk, Re-push this button, it will stop recording. So, this button is the switch button of manual recording and stopping recording operation, recording and stop will work simultaneously on 16 channels. This button doesn't work in schedule mode.

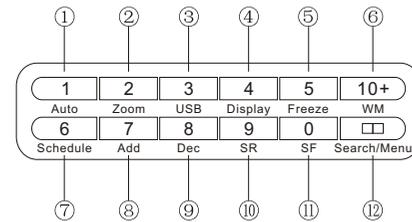
2. PLAY: Push this button to start playing the video stored in hard disk, Re-push this button, it will stop playing. So, this button is the switch button of playing video and stopping playing operations. Play and stop will work simultaneously on 16 channels. This button doesn't work while time recording and alarming recording.

3. REW: fast backward button. Push this button to start fast backward playing till push play button to start normal playing.

4. FORWARD: fast forward button. Push this button to start fast forward playing till push play button to start normal playing the fast forward has five speeds;each time you push the button will change the speed from slow to fast and then back to slow.

5. MODE: mode change key,push this key to change to shift mode, RE-push to change to normal mode.

2.2 Function Control Area



1. Auto/1: Auto key, in shift mode,push this button, The DVR will be in auto dwell state, it dwells according to the time set in auto sequence set menu,you can set the dwell time of each channel. Push this button to quit this mode. If not in shift mode,push this button to see big picture of channel 1. While inputting numbers, this button is used as number key of 1.

2. Zoom/2: Zoom key, in shift mode,push this button, the DVR will be in zoom mode, please refer to zoom operation in user guideline for details, push zoom button again to cancel zoom operation. If not in shift mode, push this button to see big picture of channel 2. While inputting numbers, this button is used as number key of “2”.

3. USB/3: USB key, in shift mode, push this button, the DVR will start USB backup, please refer to USB backup operation in user guideline for details, push USB button again to cancel USB backup. If not in shift mode, push this button to see big picture of channel 3, while inputting numbers, this button is used as number key of “3”.

4. Display/4: Display key, in shift mode,push this button to display current information on the screen, push again this to clear the information display. If not in shift mode,push this button to see big picture of channel 4. While inputting numbers, this button is used as number key of “4”.

5. Freeze/5: Freeze key, in shift mode, push this button, the DVR will be in freeze mode, please refer to freeze operation in user guideline for details, re-push this button to quit freeze mode, If not in shift mode, push this button to see big picture of channel 5. While inputting numbers, this button is used as number key of “5”.

6. WM /10+: Watermark button, In shift mode, if the DVR is playing video, you can push this button to see the watermark of the picture, if the video was recorded by this DVR and has not been changed, there will be a watermark symbol in each picture, push watermark key again to clear the display. If not in shift mode, push this button and then push 1 to 6 to see big picture of channel 11 to channel 16.

7. Schedule/6: Schedule key, in shift mode, push this button to enter schedule

state, if the DVR is in schedule state, there will be a “S” symbol on screen, push again this button to quit schedule mode. If not in shift mode, push this button to see big picture of channel 6. While inputting numbers, this button is used as number key of “6” .

8. ADD/7: Add key, push this button to see big picture of channel 7. When in system setup menu, this is an increase button. While inputting numbers, this button is used as number key of “7” .

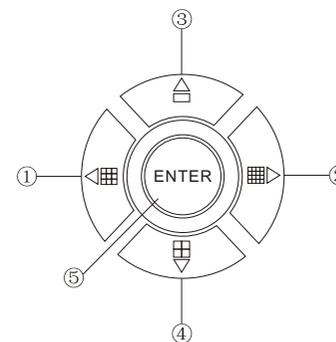
9. DEC/8: Decrease key, push this button to see big picture of channel 9. When in system setup menu, this is a decrease button. While inputting numbers, this button is used as number key of “9” .

10. SR/9: Single frame rewind button, in shift mode, while in playback state, long press this button can see single frame rewind, press play button to play normally. If not in shift mode, push this button to see big picture of channel 8. while inputting numbers, this button is used as number key of “9” .

11. SF/0: Single frame forward button, in shift mode, while in playback state, long press this button can see single frame forward, press play button to play normally. If not in shift mode, push this button to see big picture of channel 10. While inputting numbers, this button is used as number key of “0” .

12. Search/Menu: push this button to enter search menu, please refer search play in user guideline for details. Long press this key to enter menu (need password), in menu setup, push this key to quit current menu.

2.3 Channel Choosing Control Area



1. Nine pictures/left: Push this button to see nine pictures display, re-push this button to see eight pictures. While select menu items, push this button to move the cursor leftward.

2. Sixteen picture/right: Push this button to see sixteen pictures display, re-push this button to see thirteen pictures. While selecting menu items, push this button to move the cursor rightward.

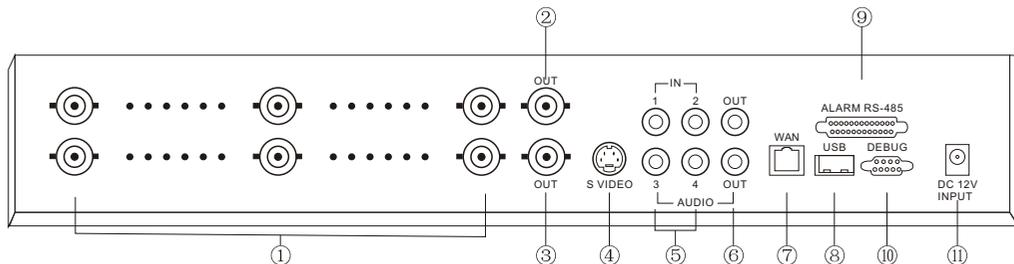
3. Big pictures/up: Push this button to see full screen, re-push this button to see the next channel. While selecting menu items, push this button to move up the cursor.

4. Four picture/down: Push this button to see four pictures display, re-push this button will display next four pictures. While selecting menu items, push this button to move down the cursor.

5. Enter: While selecting menu items, push this button to select the item. While playing video, push this button to pause the play, push play button to continue play.

Rear Panel and System Connection

3.rear Panel and System Connection

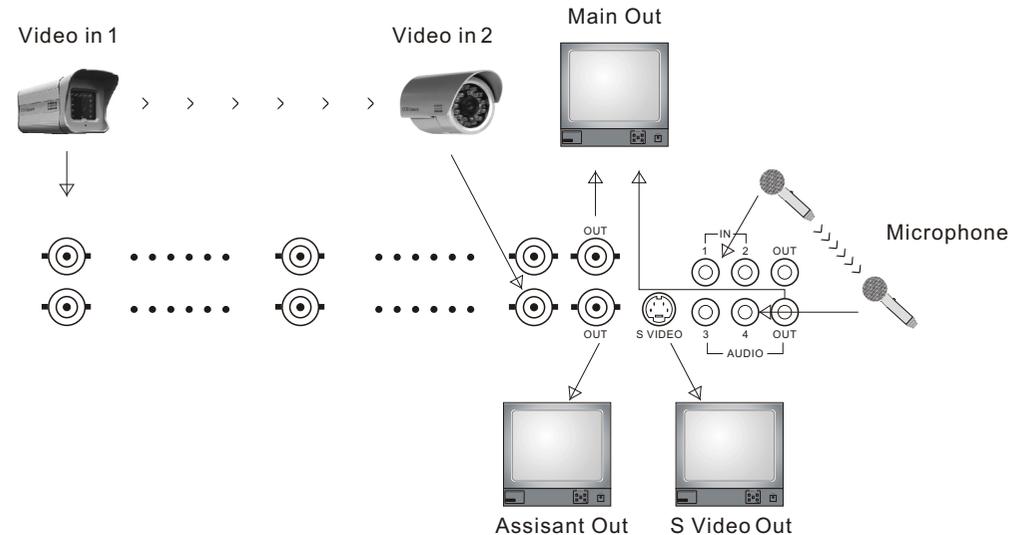


3.1 Back panel and connection terminals

The power cable and input, output signal terminals are all at the back of the machine, The connection to monitor, camera etc equipments are all carried out through the terminals and sockets on the back panel. the back view of the machine is illustrated as below. Each part of the back panel is illustrated as below: 1 .video input、 2. Main output 、 3. assistant monitor、 4. S-VIDEO、 5. audio input、 6. audio output、 7.net interface、 8. USB port 、 9. Alarm and RS-485 port define(1-12: sensor 1-sensor 12; 13, 20, 24, 25: GND,14-17: sensor 13-sensor16, 18:RS-485, A 19: RS-485B,21: COM,22: NC, 23: NO)10,debug port、 11. Power.

3.2 Video and Audio Connection

The DVR can support up to 8/16 cameras video input at the same time.



The DVR can connect 4 channels' audio input, but you can only select one for recording. To display the DVR picture, the DVR video output signal should be transferred to your TV set or monitor. Any TV set that has a “video input” terminal is suitable for displaying the image. The figure above shows the video and audio signal line connection.

Note: at one time, you can only connect one audio input, which means, if you connect an audio to CH1, you cannot connect any CH2 to CH4.you should plug them out.

3.3 Alarm Connection

The DVR can support up to 16 alarm input and 1 alarm output.

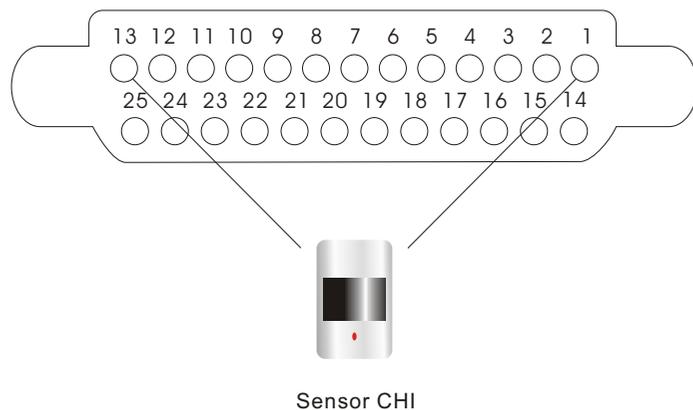
Alarm input: there are two types of alarm input.

1. Voltage output (5V and 0V).

A: In case sensor output high voltage (5V) normally and output low voltage when triggered (0V), then users must set DVR as low voltage alarm.

B: In case sensor output low voltage (0V) normally and output high voltage when triggered (5V), then users must set DVR as high voltage alarm.

Please refer to the picture below, channel 2 to channel 16 are the same as channel 1.

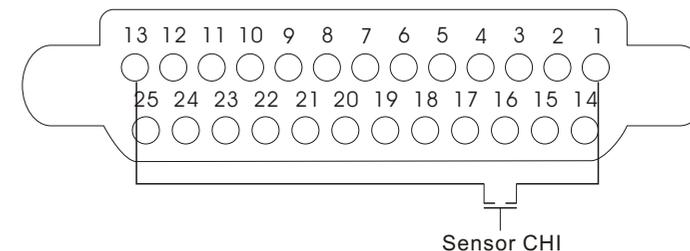


2. Open/Close output

A: N.O. Normal open, close when triggered. DVR must set as low voltage alarm.

B: N.C. Normal close, open when triggered. DVR must set as high voltage alarm.

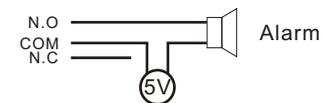
Please refer to the picture below, channel 2 to channel 16 are the same as channel 1.



Alarm output: There are three alarm output pin, the status of these pin are illustrated as below



There is an example for alarm output connection

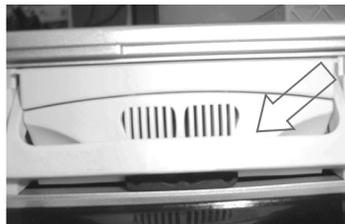


3.4 Hard Disk Connection

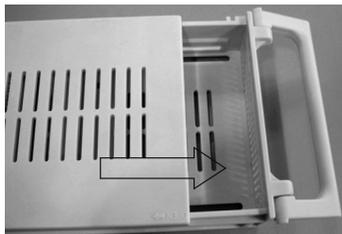
There are processing to install the hard disk.

Note: If the DVR comes with a HDD, skip the following steps.

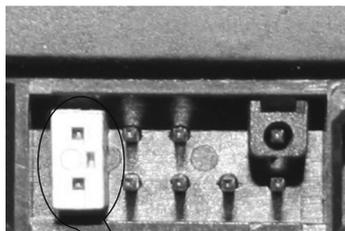
1. Push out the hard drive rack from the DVR side panel.



2. Open the top cover of the drawer.



3. Jump HDD to Master

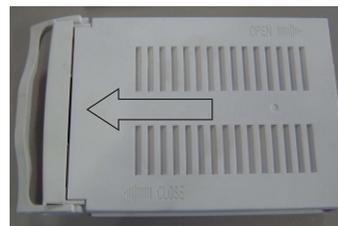


Jump to Master

4. Connect the ribbon cable (IDE) cable & power cable



5. Close the top cover of the drawer and put the hard drive drawer back into the DVR



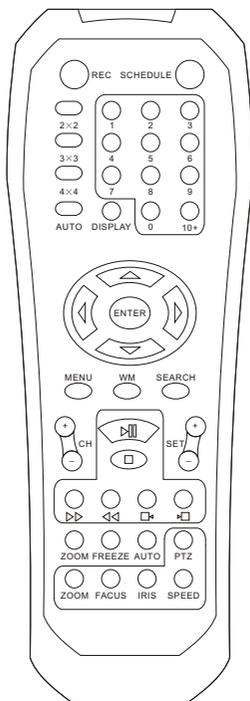
6. Lock the hard drive draw by turning the key clockwise



If you have another HDD, please jump that HDD to SLAVE, and open the machine, put the HDD to the HDD shelf, and then connect the power and digit cable

Remote Controller

4.remote Controller



- 0 ~10+: Select the channel (Full screen)
- 2x2: 2x2 Screen Mode
- 3x3: 3x3 Screen Mode
- 4x4: 4x4 Screen Mode
- USB: USB Storage Backup
- AUTO: Auto Sequence Mode
- ZOOM: 2X Zoom
- FREEZE: Freeze
- DISPLAY: Hard Disk Information
- MENU/EXIT: System Setup
- SEARCH: Time Search, Event Search and Start Stop Search
- ENTER: Enter Next Menu
- REC: Record
- WM: Watermark set
- PTZ: Control Speed dome

System Setup

5. System Setup

Before using the video recorder, the first step is to set up the system according to user's needs; otherwise the machine will run with the default settings.

5.1 Setup Menu

When in setup mode, push upward button or downward button, the cursor will move among the set table items, continuous pushing will make the cursor move among the options one by one, and it can recur. The selected one will display in yellow color.

While choosing digital fields, e.g. Year, month, day, hour, minute, second etc. Push leftward button or rightward button, the cursor can move leftward or rightward among the several digits of one field, continuous pushing will make it move among digits one by one, and it can recur.



Please push leftward or rightward button to change the value that the cursor on, push "ENTER" button to enter sub menu and push menu button to return to previous menu.

Long press the menu/search button on the keyboard or press the remote controller to enter the Setup Main Menu. You can show password input box according setting of password set. If you fault password input 3 times, then you

can't enter the setup menu. Default password is "0000" .



If you enter the correct password, the main menu will display as below.

5.2 System Setup



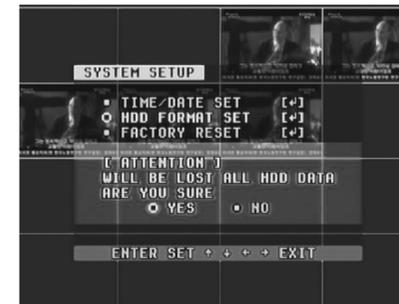
Push "ENTER" button to enter sub menu
 PLAY REPEAT: Set the Playback Repeat
 VIDEO SYSTEM: Set the NTSC/PAL
 BUZZER SOUND: Set the Buzzer On/Off

1 Time/Data Set



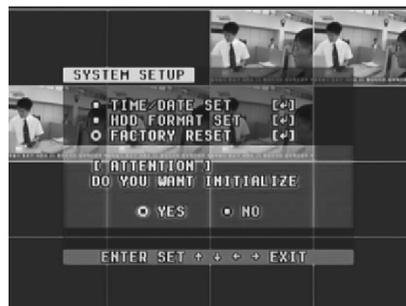
Set the date and time.
 DATE: Set the date
 TIME: Set the time
 FORMAT: Set the time display format (USA, EURO and Asia Users)
 DISPLAY: Set the time display on/off
 LOCAL: Set the time display position

2 HDD Format Set



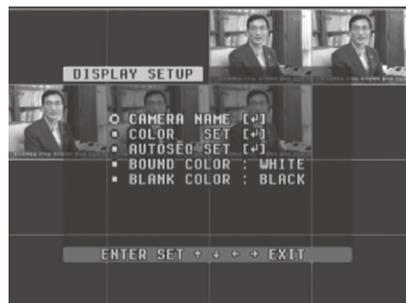
Format the hard disk
 Select "YES" to format the hard disk. And all video on the HDD will loss.

3 Factory Reset



Initialize all the setup; the DVR will reset to default.

5.3 Display Setup



BOUND COLOR: Set the Color of Video Boundary (BLACK / WHITE / GRAY).

BLANK COLOR: Set the Background Color of Loss Video (BLACK / WHITE).

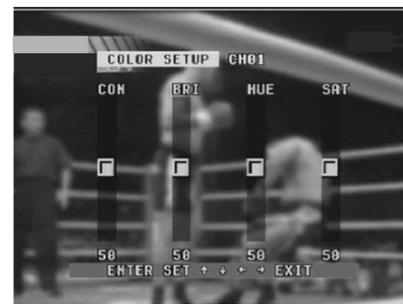
1 Camera Name Set



When the cursor moves to camera name , please push enter button, the camera name setup window will appear, which is illustrated as below.

Each channel's name is the combination of eight characters. Push upward or downward button to elect each character, push rightward or leftward button to modify each character, and then push enter button to save this name.

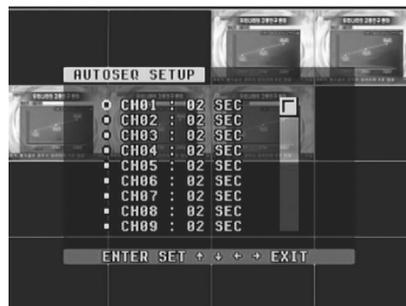
2 Color Set



When the cursor moves to color set , please push enter button, the color setup window will appear, which is illustrated as below.

CON: picture contrast
BRI: picture brightness
HUE: picture hue
SAT: picture saturation

3. Auto Sequence Set



Set the Display Time of Auto Sequence. Please push enter button, the auto sequence setup window will appear, which is illustrated as below.

Set the time of the relevant channel. Time can be set in the range from 0 to 99 seconds.

5.4 Record Setup



Over Write: if set to “YES” , the DVR will automatically overwrite the HDD from the beginning when the HDD is full. If set to “NO” , the DVR will automatically stop recording when the HDD is full. If there are two HDD in the DVR, when the MASTER HDD is full, the video will be stored to the SLAVE HDD, and when the SLAVE HDD is also full. the DVR will overwrite the MASTER HDD if set this to yes, otherwise it will stop recording.

Rec Speed: the recording frame rate of the DVR, factory default setting is 30F/secretary for NTSC (25F/SEC for PAL), Which means DVR records the events at the speed of 30 shots of frames per second, The higher the record frame rate, the more natural look will be displayed on the screen when you playback. The lower the record frame rate, the more you can save the space on the hard disk. The highest frame rate is 120F/SEC (PAL is 100F/SEC) when the resolution is in 320 sizes.

Rec Quality: There are four different video quality settings: LOW、LOW+、HIGH and HIGH+. The higher the video quality, the clearer images when you playback. The lower the video quality, the more you can save the space on the hard disk drive.

Resolution: The record picture size of the DVR, there are two modes: 360 and 720, default is 360. In 720 mode, the record picture is twice bigger than in 360 mode, in 360 mode the REC speed is 120F/SEC (PAL is 100F/SEC) and the maximal REC speed in 720 mode is 60F/SEC (PAL is 50F/SEC).

PB Speed: The frame rate of playback, default is NO USE, which means the same as record.

1 Audio CH Set



When the cursor moves to audio CH Set, please push enter button, the audio CH setup window will appear, which is illustrated as below. There are four audio input channels, for each channel you can select anyone of the 16 channels. Although there are four audio input channels, you can only record one channel's audio at the same time, so, for the right audio set, you have to select one channel in these four channels in the Record Setup menu.

2 Rec CH Set



When the cursor moves to REC CH Set, please push enter button, the REC CH setup window will appear, it is different for 720 size and 360 size, in 720 size, the window is illustrated as below, push upward and downward buttons to select channel, push leftward or rightward button to change the setting, if the channel is setting OFF, this channel will not be recorded in recording mode. If the resolution is set 360 size, the REC CH Setup window is not accessible. Set Record ON/OFF for the relevant channel.

5.5 Network Setup

When the cursor moves to Network Setup, then push enter button, the network setup menu Window will appear, which is illustrated as below.

If a PC View software from Internet is connected to the DVR. You can't access this menu unless you disconnect the PC View.



IP MODE: the DVR has 2 IP mode, STATIC IP and DHCP, if you select STATIC IP, you have to set the IP address manually, if you select DHCP mode, the DVR will automatically get the IP address.

For STATIC IP, push upward or downward button to move the cursor among the digits, you can push rightward or leftward button to modify the digits, also, when select a digit, you can push enter button then push leftward or

rightward button to select each bit of the digit, and then push rightward or leftward button to modify the bit of this digit, push enter to save your change.

NETWORK ENV: the DVR has three types of different network conditions: LOCAL, EXTER_LAN, EXTER_WAN, if in local network, please select LOCAL, if for internet use, please choose EXTER_LAN, if the internet condition is not very good, please select EXTER_WAN.

VIDEO PORT: the video transmits port for the computer.

COMMAND PORT: the command transmits port for the computer.

If you change any of the **Video Port** and **Command Port** or **MAC address**, you have to restart the DVR to use the “net viewer” software.

Note: if you have changed the MAC address, you can't see the “MAC ADDR SET”

1. N/w Enable Set



If you set the channel OFF, this channel will not transmit to the network, so if you want to see a channel from network, you have to set this channel on.

2. Mac Set

When the cursor moves to MAC set then push enter button. The MAC set window will appear which is illustrated as below.



If you have more than one DVR in a local area network, you have to set each DVR to have an exclusive MAC address, but remember that you have only one chance to modify the MAC address, once you have changed the MAC address, this menu will not appear.

5.6 Sensor Setup

When the cursor moves to sensor set then push enter button. The sensor set window will appear which is illustrated as below.



Alarm Enable: alarm trigger switch, it can be set to off, NC or N.O. If users set it to off, the DVR will ignore the alarm input.

Motion Enable: motion alarm switch, it can be set to on or off. If users set it to off, the motion alarm will be ignored.

Motion Level: motion sensitivity level, if the figure in the picture is small, please set to high of very high, the default is normal.

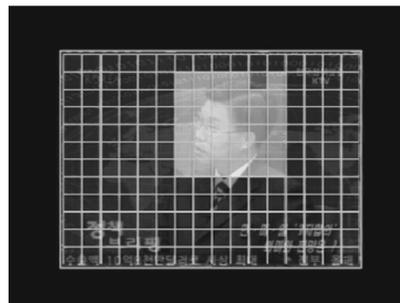
Buzzer Time: buzzer sound time when there is a sensor or motion alarm.

SENSOR RECTIME: when a motion or sensor alarm occurs, the DVR record lasts time, the default is 1 minute.

Note: users should press schedule button after setting up the parameters so to activate the settings.

1 Motion Area Set

Turn the Motion Block ON/OFF.



When the cursor moves to Alarm set, then push enter button, the alarm setup window will appear, which is illustrated as below. Please push upward, downward, leftward, rightward buttons to move the cursor and push enter button to change, long push enter change all value the same as you selected.

5.7 Schedule Set

When the cursor moves to Schedule Set, please push enter button, the schedule setup window will appear, which is illustrated as below.

You change a recording schedule during a week using this setup, from Monday to Sunday, you can set a period time in each day.



START: start record time

STOP: stop record time

SUN SAT: Select the weekday for recording (00:00-23:59)

5.8 Usb Backup



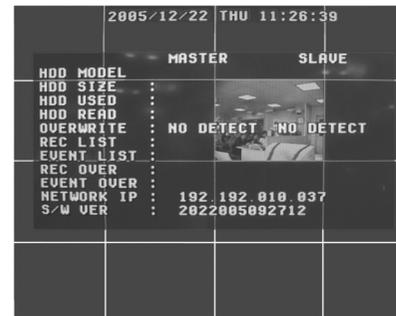
Set the USB BACKUP.

Plug in the USB device, and press enter button, you can see the below picture.

There are two types of backup mode: STILL and MOVIE, in STILL mode you can backup Picture and in MOVIE mode you can backup video.

5.9 Storage Info

Storage information shows the information on hard disk.



MODEL: Model Number of the Hard Disk

CAPACITY: Total capacity

USED SIZE: Space used

OVER WRITE: The number of times overwritten

5.10 Protocol Set

Set the right protocol, you can control the SPEED DOME by the DVR.

When the cursor moves to Protocol Set, then push enter button, the protocol set window will appear, which is illustrated as below. Push upward or downward button to move the cursor, and push rightward or leftward to change the value.



CHANNEL SEL: select the channel that is connected to the speed dome, which you want to control.

BAUDRATE: Can be changed from 1200bps to 19200bps. The default is 2400bps.

DOM ADDR: The address of the speed dome, changeable from 0x00 to 0xff.

PROTOCOL: The protocol that DVR control speed dome, including PELCO-P PELCO-D NEON LILIN, default is PELCO-P.

User's Guideline

6. User's Guideline

6.1 Start the machine

Before starting the machine, please make sure all the items in the Safety Precautions at the beginning of this manual are fulfilled.

Before starting the machine, please check the system connection, input and output equipment connection.

Please be sure the video-recorder's input video (NTSC/PAL) and the monitor (NTSC/PAL) meet the demands.

Start exterior equipment after checking over.

Insert the removable hard disk case to the end, and lock it up (turn right the hard disk lock); connect the power, the machine start to work.

6.2 Turn off the machine

Normally turn off the machine when the system shutdown, which means do not to turn off the machine while playing or system setting up, especially not to turn off the machine while recording.

Push recording button to stop recording or push playing button to stop playing or exit from system setup menu, then turn off the power.

If do not use the video recorder for a long time, should pull out the power line from the electrical outlet.

6.3 Normal Recording

Connect the power to all related equipments; ensure that there is video input.

Push display button to check spare space of the hard disk, if there is no much space, please think whether to change hard disk first or select overwriting mode.

Check recording parameter setup before recording; select video quality, frame rate. You can not change record setting during the process of recording.

Manual recording belongs to normal recording. Under the manual mode (nonschedule status), here pushing record button will record all channels' video.

Push the record button to begin recording, sixteen channels will start simultaneously rec-

-ording. While in normal recording mode, push record button, and enter the right password, it will stop recording.

During the process of recording, if the hard disk is full, and the system is set to automatic overwrite, then the recording will not be interrupted, and it begins to overwrite the earliest recorded area; if the system is set to overwrite disable, it will stop recording.

6.4 Alarm Recording

Alarm recording is not started by manually pushing record button, the entire recording started by manually pushing the record button are normal record.

Alarm recording can be activated by alarm input signal or motion, so it must to check whether the connection of alarm input equipment is correct, stable and reliable, and the alarm set is right, please refer to sensor setup.

The prerequisite condition of whether the alarm recording can be activated by exterior input signal or the motion is that the system must be set on schedule, also, in the menu of alarm setup, for exterior input alarm, alarm enable of that channel must set to "ON", for motion alarm, motion enable of that channel must set "ON", and set the right area for motion detect.

Under the state of off-schedule, system will never start alarm recording. Setting schedule on or off is achieved through pushing the schedule button on the front panel, but not through system setup menu and window. Under schedule-on situation, the character "S" will display on the screen.

Alarm video recording can not stop by pushing record button, but can stop by removing schedule. Because once the system is set on schedule, the schedule cannot be removed randomly, so there is a password protection to remove schedule, only after inputting correct password, you can take schedule off.

Check alarm recording setup before recording; confirm the video quality and the frame rate, the record setting cannot change during recording process.

As long as the alarm input signal is effective, the alarm recording continues, When the alarm input signal loses efficacy, the time set up by "A/M REC TIME" becomes effective, and when the time goes out, the alarm recording automatically stops. In course of this, if you want to manually stop alarm recording, the only way is to remove schedule (answer the password).

6.5 Time Recording

Time recording starts and stops recording automatically according to the prearranged time period. It is applied to fixed timetable, for example, the periodical work time recording (of off time recording) with fixed start/stop time.

To start time recording function, besides making record schedule setup beforehand, must push down the schedule button on the front panel to set schedule on. While pushing down this button, the schedule symbol "S" will be displayed on the screen without pushing the schedule button, the time recording parameter setup will not work.

The prerequisite condition of whether the time recording takes effective is system must be set on schedule.

In time record state, you can push again schedule button then enter password to stop time recording.

Because time recording is correlated closely with time, so before using this function should previously adjust the time.

6.6 Playback

Push play button, system begins to play the images recorded

In the process of playing of fast backward playing, pushing play button will begin normal playing from the current place.

In the process of fast forward playing or fast backward playing, re-pushing play button can resume play. Continuously.

In the process of fast forward playing or fast backward playing, push play button will begin normal playing from the current place.

Continuous pushing forward button will change the fast-forward among five levels of speed (X2, X4, X8, X16, X32) circularly. Continuous pushing reward button will change the fast backward among four levels of speed (X2, X4, X8, X16) circularly.

During playback mode, long press single frame rewind button will play backward frame by frame; long press single frame forward button will play forward frame by frame. Push play button to play normally.

Push again play button will stop playing.

6.7 Search play

Push search button, search play window will display on the screen

TIME SEARCH: search play by input time.

EVENT SARCH: search play by event list.

RECORD SEARCH: search play by segment

Push upward and downward buttons to move cursor, then push enter button to enter submenu you select, push search button to quit from search menu.

6.8 Time search

When the cursor moves to Time Search, then push enter button, the time search window will appear. The red block means there has video at that time.

Push leftward and rightward buttons to move the cursor among year, month, day, hour and minute, if you select the year and push enter button you will select month and so it is with day and hour, Push add and DEC butons to modify the time. If you select the minute and that minute has a red

block then you can push enter button to play the video from that time you selected.

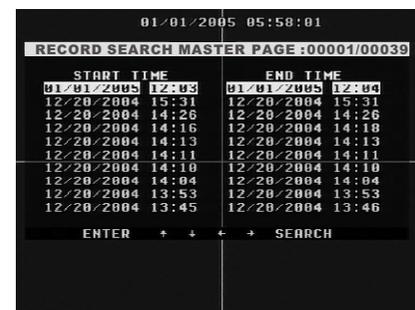
6.9 Event Search

When the cursor moves to Event Search, then push enter button, the event search window will appear, which is illustrated as below.

There are four types of event list: MOTION, ALARM, SCHEDULE and NETWORK. MOTION means motion alarm recording, Alarm means sensor alarm recording, SCHEDULE means time Recording, NETWORK means network recording.

Push upward and downward buttons to move the cursor among the event list, push leftward and rightward buttons to see previous or next page, push enter button to play the segment you select. Push search button back to Search Play menu.

If you want to change the HDD between MASTER HDD and SLAVE HDD, just push search key for a monment, then push enter key to change, push menu to give up.



6.10 Record Search

When the cursor moves to record search, then push enter button, the record search window will appear, which is illustrated as left.

All record segments are displayed here, push upward and downward buttons to move the cursor among the segment list, push leftward and rightward buttons to see previous or next page, push enter button to play the segment you select. Push search button back to Search Play menu.

If you want to change the HDD between MASTER HDD and SLAVE HDD, just push search key for a moment, then push enter key to change, push menu to give up.

6.11 Usb Backup.

Plug in the USB device, go to the menu of Backup set, check that if the USB device is detected or not, and the free space of the USB device is enough or not, select the backup mode, then quit the menu setup.

In shift mode, if you select "STILL" for the backup mode in the Backup Set menu, push the USB button, it begins to backup the main out picture to the USB device, there will be a "S" blinking on the screen, when is tip blinking the backup of the picture is done, you can plug the USB device out and see the picture on a computer.

If you select "MOVIE" for the backup mode in the Backup Set menu, push the USB button in shift mode, it begins to backup the main out video to the USB device from the moment, push USB button again to select the end of the backup video, there will be a "A" blinking on the screen, This may take a little time, and make sure the USB device has enough free space, if blinking stops, the backup is ok, you can see the video on a computer with netviewer software.

6.12 USB Update

Create a folder named "firmware" in the USB root directory, copy the update files to the folder, Plug in the USB device, go to the menu of Backup set, check that if the USB device is detected or not, go to the Firmware Update menu and select USB method, move to Update Start and press enter button, update will start, if you see picture below, update is ok.

Then reboot the DVR.

NOTE: do not shut down the DVR when the DVR is updating, it may cause fatal problem.

6.13 Zoom

In shift mode, press zoom button or press the zoom button on the remote controller, the DVR will be in zoom mode, which is illustrated as below.

Press upward, downward, leftward or rightward to move the zoom area, then push enter button to zoom, press zoom button again to cancel zoom operation.

6.14 Freeze

Press the Freeze button on the remote controller or keyboard, on the full screen mode. Press the Freeze button to pause a screen; on the other modes, press the Freeze button to see the Freeze menu. Here, select a channel number to freeze.

6.15 PTZ OPERATION

This DVR can control speed domes, which are connected to the DVR.

To control the speed dome, make sure all the lines are correctly connected, first you must set the right protocol, baud rates, and speed dome's address for each speed dome, please refer to protocol set.

PTZ can only be operated by remote controller, press the PTZ button on the remote controller, "PTZ" will be displayed on the screen, then select 1 to 16 to choose PTZ channel, the channel number will be displayed after "PTZ". You can press upward, downward, leftward, rightward button to move the speed dome, and press the button again or press enter to stop. If you press the IRIS button, the character "IRIS" will appear on the screen, please refer to the picture below, then you can press the "+" and "-" buttons to change the IRIS, the same to control the focus, zoom, and speed, also press enter button to stop.

Press the PTZ button one more time to exit from PTZ control mode.

Using The Network Viewer

7.using The Network Viewer

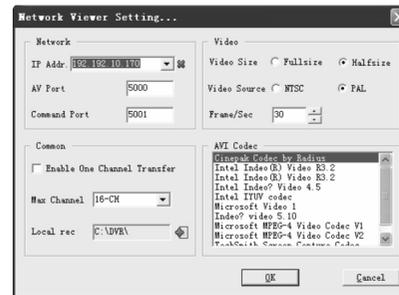
Use the PC view software, you can view the DVR through Internet, also, you can view and backup the video information on the HDD through a computer.

Open the software; you will see the window below:



7.1 Setting

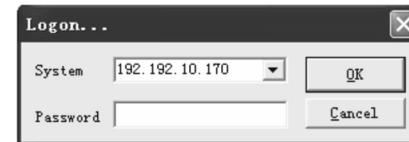
Please click  button, you will see the window below: enter the IP address and click “OK” button.



IP Address: Set the IP of the DVR
Port: Set the communication port and AV port

7.2 Viewer connect

Press  button, you can see the login box. Check the IP address again and input the password (default is:0000).



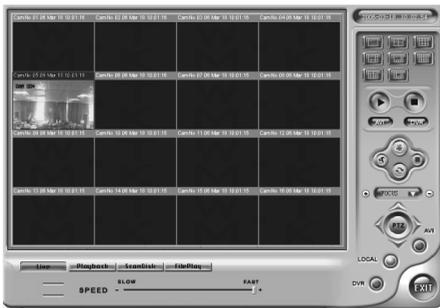
<Connect fail >



<Connect success>

7.3 Liveplay

You can select this button to see live picture, just click the play  button.



7.4 Playback

Click “Playback”, playback window will display. First, you have to select the HDD of the DVR. Click the “Get record list” or “Get event list”, if the DVR has record list, you can see the window below:



Index	Start time	End time	IBA
0	06/02/22 13:45:47	06/02/22 13:46:51	0x0001...
1	06/02/22 13:46:51	06/02/22 14:01:54	0x0001...
2	06/02/22 14:01:55	06/02/22 14:02:02	0x000a...
3	06/02/22 14:02:05	06/02/22 14:26:19	0x000a...
4	06/02/22 14:26:21	06/02/22 14:26:26	0x0018...
5	06/02/22 14:26:26	06/02/22 14:26:28	0x0018...
6	06/02/22 14:26:29	06/02/22 14:26:31	0x0018...
7	06/02/22 14:26:32	06/02/22 14:26:33	0x0018...
8	06/02/22 14:26:35	06/02/22 14:27:10	0x0018...

Double click the record list; you can see the playback video.
The event list operation is the same as record list operation.

7.5 Scandisk

Connect the HDD that used in the DVR to a PC and then select Scandisk, Scandisk window will display, click and select one HDD, then you can play all the video on the HDD.



<Scandisk Menu>

7.6 FilePlay

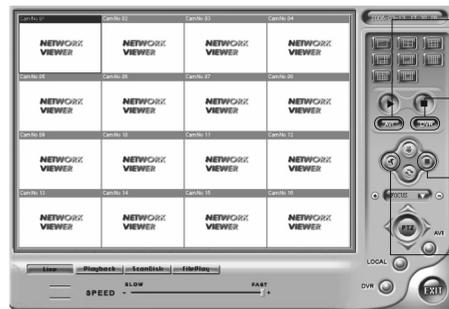
Press FilePlay button, you can see the below picture, press the open button to play the video file on the computer.



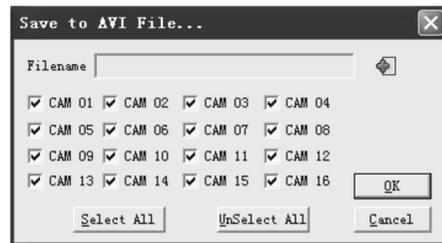
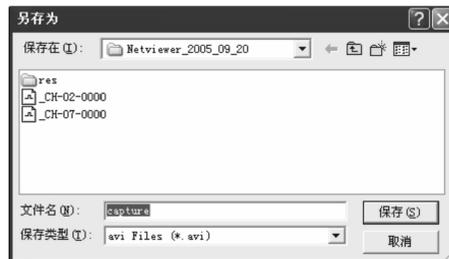
<Fileplay Menu>

7.7 Save to AVI

Save the video played on the current viewer to AVI.



- ▶ Press this button, you can See the below picture.
- ▶ Press this button, you can record the video by your computer.
- ▶ Press this button, you can stop the record process remotely.
- ▶ Press this button, you can start the record process remotely.



<Determine the file name and the location where the file is saved>

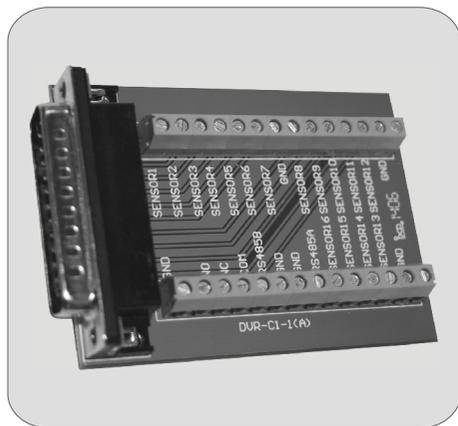
Click the Save to AVI button and determine the file name, the location and channels to save. Then AVI saving will start. Click the “Save” to AVI once more will stop saving.

Main standard & parameter chart

Item	Specification
Compressed picture	MJPEG
Video signal	NTSC/PAL
Video input	Composite:1.0Vp-p/75Ω,BNC×8/16
Video output	Composite:1.0Vp-p/75Ω,BNC×2 S-VIDEO
Audio input	-8Db 22KΩ,RCA connector×4
Audio output	-8Db 3KΩ,RCA connector×2
Alarm input	4
Alarm output	1
Record time	18-1680 hours/40G
Electron clock	Year/Month/Day; Hour/Minute/Second
Secrete function	Password protection
Update	USB
Power source	DC12V 5A
Environment temperature	Work temperature:+5℃~+70℃;humidity:<90% store temperature-20℃~+70℃;humidity:<95%
Weight	5.3kg(include power supply)
Exterior size	430mmX400mmX90mm

Notice: Sorry not inform in time of any changes to the standards and exterior sizes.

Appendix I



FUNCTION:

The alarm commutator is adopted 25-pin plug, which is used to rapidly connect external alarm equipment with DVR. It supports to control PTZ and install 16-CH sensors.

PROCESS OF CONNECTING:

- SENSOR #1-16 is sensor input terminal.
- GND is grounding terminal.
- RS485A & RS485B are provided to connect PTZ. (RS485A: Positive Terminal; RS485B: Negative Terminal)
- NO (Normal Open)& NC (Normal Close) are two normal types of alarm sensors.
- After installing sensors and PTZ, insert the plug of commutator into the "ALARM & RS485" port on DVR's rear panel to finish the installation.

Appendix II

Q: Why the DVR is not working after connected to powersupply?

- A: 1 Please make sure the power switch at the back-side of the DVR is On.
2 Please check if the password is correct and press enter.

Q: Why the DVR response very slow after boot up?

- A:1 The DVR system will check all the data on the hard-disk, this will slow the DVR loading speed.
2 Hard-Disk error will cause the system to check the hard-disk slowly.

Q: Why the DVR system will repeat reboot after switch is on?

- A:1 Hard-disk is not FAT32 format, or hard-disk has logic error will cause system reboot.
2 Please check if the color format(PAL/NTSC) in the record setting is correct, system will kee p rebooting if the DVR is set to PAL and the video input is NTSC.

Q: Why the DVR will freeze while playing back-up or check play-back information?

- A:1 Please make sure the hard-disk connection is correct.

Q: Why the monitor/TV is displaying only with black and white?

- A:1 Please make sure the DVR color format and the monitor/TV color format is same, please also check if the monitor/TV dose support the colorformat(PAL/NTSC).

Q: Why the live-view color is not displaying correct?

A:1 Please reboot the DVR, load factory setting and reset the color setting in the DVR menu.

Q: Why the monitor/TV does not have image?

A:1 Please check if the power supply is working, the video output is connected correctly.

2 Please check if the power switch is ON.

If the monitor is displaying "OFF", please set the Channel to on in DVR setting menu.

Q: Why the image is displaying jam-wave?

A:1 Please check if the video cord has short circuit problem.

2 Please remove other electricity device that is close to the system.

Q: Why the PTZ camera is not controllable.

A:1 Please check the PTZ cord is connected correctly to the DVR RS485 port.

2 Please check if the setting for PTZ camera is correct in the PTZ setting.

3 Please check if the PTZ camera address is the same in PTZ setting.

Q: Why the external alarm is not working?

A:1 Make sure the record setting in DVR system is set to alarm. Please check if the alarm output type is same as DVR alarm setting.

2 Please make sure the Motion Detection Sensitive is enabled.

3 Please make sure the external alarm is enabled in DVR setting.