H.264 Network DVR

User Manual

Please read instructions thoroughly before operation and retain it for future reference.

IMPORTANT SAFEGUARD



CAUTION:

To reduce the risk of electric shock, do not expose this apparatus to rain or moisture. Only operate this apparatus from the type of power source indicated on the label. The company shall not be liable for any damages arising out of any improper use, even if we have been advised of the possibility of such damages.

Graphic Symbol Explanation



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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



All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly "lead-free" and without the hazardous substances cited in the directive.



The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste. Contact your local dealer for procedures for recycling this equipment.



This apparatus is manufactured to comply with the radio interference requirements.

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We are pleased to provide our modifications to the Linux Kernel, as well as a few new commands, and some tools to get you into the code. The codes are provided on the FTP site, and please download them from the following site or you can refer to your distributor:

ftp://ftp.dvrtw.com.tw/GPL/AV074/

Disclaimer

We reserve the right to revise or remove any content in this manual at any time. We do not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of this manual. For the actual display & operation, please refer to your DVR in hand. The content of this manual is subject to change without notice.

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Version

Firmware: 1083-1028-1009-1013-02-0000; Video Viewer: 0099

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1. OVERVIEW

1.1 Product Description

This H.264 DVR series greatly maximizes the video quality and minimizes the file size (expand the storage capacity) with the feature of H.264 video compression technology. To quickly backup, the DVD writer (optional) and USB port are built in for your convenience, or the network backup is also available. It also supports the connection to the SATA HDD & keyboard controller for your easy operation.

1.2 Features

H.264 Video Compression Technology

- · At the local site, the file size is minimized and the record time is lengthened
- At the remote site, with the features of small file size and low bit rate, it will be more adaptive to different kinds of network environment compared with conventional codec designs

Graphical & Multi-language OSD

• Remote Independent Operation

Allows single-channel viewing of live displays without changing display settings on the licensed software AP provided

Free Upgrade to Advanced Functions

Allows you to upgrade DVR functions without any charges

Multiplex Operation

· Allows live display, record, playback, backup, and network operations at the same time

• Excellent Image Quality and Performance

• The CIF image quality is excellent for clear and detailed image

Intelligent Motion Trigger Recording

- R.E.T.R. (Remote Event Trigger Recording)
- Activates event recording automatically when alarm is triggered, and sends alerts with images to the designated e-mails / FTP address
- Customizable security settings are achieved with the advanced motion detection, the scheduled motion detection recording (with 4 individually adjustable parameters), and the quick search function
- Supports pre-alarm recording (8MB)

Backup Devices

· Supports USB 2.0 flash drive, DVD writer (optional), and network

Remote Surveillance

• Supports remote surveillance up to 20 users simultaneously with the licensed software "Video Viewer", Internet Explorer / Mozilla Firefox web browser, and QuickTime player.

Covert Recording

Blank screen replaces live displays to achieve covert recording

A/V Support

- For 16CH & 8CH: Supports 4 audio-in, 2 audio-out to record sounds For 4CH: Supports 4 audio-in, 1 audio-out to record sounds
- Supports VGA output to monitor (VGA interface built-in / output resolution up to 1600 x 1200)

General

- Supports SATA HDDs
- · Supports IR remote controller and keyboard controller
- · System auto recovery after power failure
- Supports PTZ camera operations through RS-485, and PTZ Hot Point function
- Supports daylight saving function
- · Supports manual / timer / motion / alarm / network recording
- Supports TCP/IP, PPPoE, DHCP and DDNS network connection.

1.3 Specifications

MODEL	16CH	8CH	4CH
Video System		NTSC / PAL (auto detection)	
Video Compression Format		H.264	
Video Input	16 Channels	8 Channels	4 Channels
(Composite video signal 1 Vp-p 75Ω BNC)	10 Chainleis	o Chailleis	4 Channels
Video Loop Output (Composite video signal 1 Vp-p 75Ω BNC)	16 Channels	8 Channels	4 Channels
Video Output (BNC)		in Monitor Output: for stable disp Monitor Output: for sequence dis	5
Video Output (VGA)		A output for LCD monitor (up to 1	
Audio Input	4 Channe	els (Mono)	4 Channels (Mono)
Audio Output	2 Channe	els (Mono)	1 Channel (Mono)
Multiplex Operating	Supports live display,	record, playback, backup, and n	· · · ·
Maximum Recording Rate (Frame)	120 IPS @ 704×480 <ntsc> 100 IPS @ 704×576 <pal></pal></ntsc>	60 IPS @ 704×480 <ntsc> 50 IPS @ 704×576 <pal></pal></ntsc>	30 IPS @ 704×480 <ntsc> 25 IPS @ 704×576 <pal></pal></ntsc>
	240 IPS @ 720×240 <ntsc></ntsc>	120 IPS @ 704×240 <ntsc></ntsc>	60 IPS @ 704×240 <ntsc></ntsc>
Maximum Recording Rate (Field)	200 IPS @ 720×288 <pal></pal>	100 IPS @ 704×288 <pal></pal>	50 IPS @ 704×288 <pal></pal>
	480 IPS @ 360×240 <ntsc></ntsc>	240 IPS @ 360×240 <ntsc></ntsc>	120 IPS @ 352×240 <ntsc></ntsc>
Maximum Recording Rate (CIF)	400 IPS @ 360×240 <ntsc> 400 IPS @ 360×288 <pal></pal></ntsc>	240 IPS @ 360×240 <ntsc> 200 IPS @ 360×288 <pal></pal></ntsc>	100 IPS @ 352×240 <ntsc></ntsc>
Popording Mode	C	200 IPS @ 360×288 <pal></pal>	9
Recording Mode	-		
Recording Quality Options Pre-alarm Recording		Super Best, Best, High & Norma	1
		YES (8 MB) SATA	
HDD Type			Accommodates up to two
HDD Storage * HDDs are optional ** Supports up to 1TB per HDD	Accommodates up to two SATA HDDs SATA HD * For the model writer built-in, SATA HDD is s		
HDD Quick Cleaning	Delete H	DD Data Efficiently (1TB within 2	
Quick Search		ime / Motion / Alarm search mod	,
USB Flash Drive Backup	YES		
DVD Writer Backup	Selected Models Only		
Playback on PC	Windows Media Player compatible		
Network Transfer Format	H.264		
Ethernet	10/100 Base-T.		
Network Protocol	TCP/IP, PPPOE, DHCP and DDNS (Dynamic IP)		
Network Surveillance Interface		iewer" / Internet Explorer & Firefo (20 users on-line simultaneously	
Remote Independent Operation		YES	,
Network Alarm Notification		E-mail and FTP server	
CMS (Central Management System)	YES	(Maxmium: 16 different IP addre	sses)
R.E.T.R. (Remote Event Trigger Recording)		YES	
Operating System for Network		Windows Vista / XP / 2000; Apple Mac	
IR Remote Control		YES	
Multilingual OSD		YES	
Motion Detection Area		16 × 12 grids per channel	
Motion Detection Sensitivity	4 adius	stable parameters for accurate de	etection
PTZ Control		Pelco-D / Our own protocol	
External Alarm	16 inputs, 1 output	8 inputs, 1 output	4 inputs, 1 output
Picture Zoom		2X digital zoom	
Key Lock (Password Protection)	-		
		VES	
Video Loss Detection		YES	
Video Loss Detection		YES	
Camera Title		YES Supports up to 6 letters	s
Camera Title Video Adjustable		YES Supports up to 6 letters Hue / Color / Contrast / Brightnes	
Camera Title Video Adjustable Date Display Format		YES Supports up to 6 letters Hue / Color / Contrast / Brightnes W/DD, DD/MM/YY, MM/DD/YY, a	
Camera Title Video Adjustable Date Display Format Daylight Saving		YES Supports up to 6 letters Hue / Color / Contrast / Brightnes M/DD, DD/MM/YY, MM/DD/YY, a YES	
Camera Title Video Adjustable Date Display Format Daylight Saving Power Source (±10%)	YY/MI	YES Supports up to 6 letters Hue / Color / Contrast / Brightnes M/DD, DD/MM/YY, MM/DD/YY, a YES DC 19V	Ind Off
Camera Title Video Adjustable Date Display Format Daylight Saving Power Source (±10%) Power Consumption	<64 W	YES Supports up to 6 letters Hue / Color / Contrast / Brightnes M/DD, DD/MM/YY, MM/DD/YY, a YES DC 19V <64 W	vnd Off < 42 W
Camera Title Video Adjustable Date Display Format Daylight Saving Power Source (±10%) Power Consumption Operating Temperature	۲۲/MI <64 W 0°C ~40°C	YES Supports up to 6 letters Hue / Color / Contrast / Brightnes M/DD, DD/MM/YY, MM/DD/YY, a YES DC 19V <64 W (32°F~104°F)	nd Off < 42 W 10℃ ~ 40℃ (50°F~104°F)
Camera Title Video Adjustable Date Display Format Daylight Saving Power Source (±10%) Power Consumption Operating Temperature Dimensions (mm)**	۲۲/MI <64 W 0°C ~ 40°C 432(W) × 90	YES Supports up to 6 letters Hue / Color / Contrast / Brightnes M/DD, DD/MM/YY, MM/DD/YY, a YES DC 19V <64 W (32°F~104°F) (H) × 326(D)	 < 42 W < 40 ℃ (50 °F ~104 °F) 375(W) × 61(H) × 281(D)
Camera Title Video Adjustable Date Display Format Daylight Saving Power Source (±10%) Power Consumption Operating Temperature	۲۲/MI <64 W 0°C ~ 40°C 432(W) × 90	YES Supports up to 6 letters Hue / Color / Contrast / Brightnes M/DD, DD/MM/YY, MM/DD/YY, a YES DC 19V <64 W (32°F~104°F)	 < 42 W < 40 °C (50 °F ~104 °F) 375(W) × 61(H) × 281(D)

* The specifications are subject to change without notice.

□ HDD bracket screws (spare parts)

DSUB PIN connector

AAA size battery * 2

1.4 Package Contents

Digital video recorder (DVR)

- Adapter and power cord
- □ quick start & IR remote control manual
- CD-ROM (including manual & licensed software "Video Viewer")

Note: Before using the IR remote control, please install the batteries first.

2. FRONT AND REAR PANELS

2.1 Front Panel

1) LED Indicators

- HDD is reading or recording.
- (**U** DVR is powered on.
- An alarm is triggered.
- Timer recording is on.
- Under playback status (For 4CH model only).
- HDD is full (For 16CH / 8CH models only).
- 2) <u>MENU</u>

Press "MENU" to enter the main menu.

3) <u>ENTER</u>

Press "ENTER" to confirm the setting.

4) <u>SLOW</u>

Under the playback mode, press "SLOW" to show slow playback.

5) <u>ZOOM</u>

Press "ZOOM" to enlarge the picture of selected channel (under the live mode).

6) <u>H</u>

```
Press "
"
to show the 4 channel display mode.
```

7) <u>SEQ</u>

Press "SEQ" to activate the call monitor function and press "SEQ" again to escape the call monitor mode.

8) <u>POWER</u>

Press to turn on / off the DVR. (Under the recording mode, please stop recording before turning off the DVR).

9) <u>CH1 ~ 16 / CH1 ~ 8 / CH1 ~ 4</u>

Press the channel number buttons to select the channel to display.

10) <u>PLAY</u>

Press to playback the recorded data.

11) ▲ (PAUSE/+) / ▼ (STOP/-) / ◀ (REW) / ► (FF)

Press ▲ / ▼ / ◀ / ► to move the cursor up / down / left / right.
Under the playback mode, press " PAUSE" to pause playback.
Under the playback mode, press "STOP" to stop playback.
Under the playback mode, press "FF" to fast forward.
Under the playback mode, press "REW" to fast rewind.

12) AUDIO (SLOW + ZOOM)

Press "SLOW" + "ZOOM" to select live or playback sounds of the audio channels.

- Live audio of the 1st audio channel
- Playback audio of the 1st audio channel
- Live audio of the 2nd audio channel 🚽 🦣 Playback audio of the 2nd audio channel
- Live audio of the 3rd audio channel
- Live audio of the 4th audio channel
- The audio channel is not selected.

13) <u>P.T.Z. (+ SEQ)</u>

Press " \blacksquare " + "SEQ" at the same time to enter / exit the PTZ control mode.

In the PTZ control mode,

- * Zoom in: Press "SEQ"
- * Zoom out: Press "⊞"
- * Adjust PTZ angle: Press ▲ / ▼ / ◀ / ►

14) MENU + ENTER

Press "MENU" + "ENTER" on the DVR front panel to lock keys and to log in another username.

15) LIST (Event List Search)

To quick search the recorded files by event, press to show all types of the event lists.

16) <u>SNAP</u>

Press "SNAP" to take a snapshot.

Note: Before taking a snapshot, insert a compatible USB flash drive into the DVR USB port for snapshot saving. For the compatible USB flash drive list, please refer to "APPENDIX 3 COMPATIBLE USB FLASH DRIVE BRAND" at page 68.

17) EJECT (Selected Models Only)

Press "EJECT" to open / close the DVD Writer.

18) <u>USB</u>

Supports firmware / OSD upgrade and file backup.

- Playback audio of the 3rd audio channel
- Playback audio of the 4th audio channel
- I 🧌 Playback audio of the 3
- nannel 🍓 Playback audio

2.2 Rear Panel

16CH



8CH

•



4CH

•



1) <u>75Ω / HI-IMPEDANCE</u>

When using Loop function, please switch to HI-IMPEDANCE. When you don't use Loop function, please switch to 75Ω .

2) <u>INPUT $(1 \sim 16 / 1 \sim 8 / 1 \sim 4)$ </u>: Connect to video sources, such as cameras.

LOOP $(1 \sim 16 / 1 \sim 8 / 1 \sim 4)$: Video output connector.

- **Note:** The DVR will automatically detect the video system of the camera, please make sure that the cameras are properly connected to the DVR and power-supplied before the DVR is turned on.
- 3) MONITOR

Connect to a CRT monitor for video output.

4) <u>CALL</u>

Connect to a call monitor.

5) <u>Audio IN</u>

Connect to audio sources, such as cameras equipped with the audio function. When users start recording, the audio input will also be recorded with corresponding video channel.

Note: The audio source connected to the "Audio 1" will be recorded with the video of the "CH1". The audio source connected to the "Audio 2" will be recorded with the video of the "CH2". The audio source connected to the "Audio 3" will be recorded with the video of the "CH3". The audio source connected to the "Audio 4" will be recorded with the video of the "CH4". Connect to a monitor or speaker with 1 mono audio output.

7) <u>VGA</u>

Connect to a LCD monitor directly.

8) <u>IR</u>

Connect the IR receiver extension line for remote control.

9) <u>RS485</u> (For 16CH & 8CH Models Only)

Connect to external devices (such as speed dome cameras) with RS485-A and RS485-B wires.

10) EXTERNAL I/O

Insert the supplied 15 / 25 PIN DSUB to this port for connecting external devices (external alarm, etc). For detailed I/O port PIN configuration, please refer to "APPENDIX 1 PIN CONFIGURATION" at page 64.

11) <u>LAN</u>

Connect to Internet by LAN cable.

12) LINK / ACT LED light:

When the Internet is activated, the LED light will be on.

13) <u>DC 19V</u>

Connect to the supplied adapter.

3. CONNECTIONS AND SETUP

3.1 SATA HDD Installation

The SATA HDDs must be installed before the DVR is turned on.

- **Note:** The following description takes a 4CH DVR model **WITHOUT** a DVD writer built-in as an example. For the 4CH DVR model with a DVD writer built-in, please ignore STEP2.1.
- STEP1: Remove the screws on the top cover of DVR, and remove the top cover.

There are two places to install HDDs for this DVR: one is on the right, and the other one is on the left.



STEP2: Turn the DVR real panel facing you.

- 2.1. To install the HDD on the right (For the DVR model without a DVD writer built-in only):
 - a) Find the two HDD brackets in the accessory pack, and fix them onto the DVR base.



b) Get a compatible SATA HDD, and connect it to the power connector and data bus connector.





c) Put the HDD to the DVR, and have the SATA HDD fixed in the DVR.



- 2.2. To install the HDD on the left side:
 - a) Remove the HDD bracket as indicated below.



 b) Get a compatible SATA HDD. Slide the HDD to the bracket, and fix it with two screws for each side. There are three screw holes per side on the bracket, and you can choose two of them to secure the HDD.





c) Connect the HDD to the power connector and data bus connector.





d) Screw the HDD bracket back to the DVR base.



STEP3: Replace the top cover and fasten the screws you loosened in STEP1.





3.2 Camera Connection

The cameras must be connected and power-supplied before the DVR is turned on. Connect the camera with the indicated power supply. And then connect the camera video output to the DVR video input port with a coaxial cable or RCA lines with BNC connectors (**The DVR will automatically detect the video system of the camera**).

Note: For detailed DVR video input / output ports, please refer to "2.2 Rear Panel" at page 6. For detailed camera operation, please refer to its own manual.

3.2.1 Regular Camera Connection

- 1) Connect the camera with indicated power supply.
- 2) Connect the camera video output to the DVR video input port with a coaxial cable and BNC connector.

3.2.2 Speed Dome Camera Connection

The following description is taking our brand's speed dome camera as an example. For detailed PIN / port connection, please refer to "APPENDIX 1 PIN CONFIGURATION" at page 64; for DVR setting to control the speed dome camera, please refer to "7.1.8 Remote" at page 30.



15 PIN D-Sub Connector	RS-485 Port
RS485-A: PIN 11	RS485-A: PIN 2
RS485-B: PIN 10	RS485-B: PIN 3
Solder Side of 15-pin D-Sub connector RS485-A: PIN11 / RS485-B: PIN1 0	2: RS485-A 3: RS485-B
D-Sub connector is supplied with the DVR package.	Example of RS485 port on the DVR rear panel.

STEP 1: Get a RJ11 line with the proper length to your connection.

Different RJ11 connector may have different wire layout, so the connection might be different. If you cannot control the DVR after connection, please reverse the RJ11 line connection with the DVR.

STEP 2: Remove one end of the insulating coating of the RJ11 line.

Remove one end of the insulating coating of the RJ11 line to find the RS485-A and the RS485-B wires, and remove the insulating coating to reveal the naked wires for further connection.

STEP 3: Twist the RS485-A and RS485-B wires of the RJ11 line and the speed dome camera together.

Twist the RS485-A (red) and RS485-B (green) wires of the RJ11 line to the RS485-A (brown) and

RS485-B (orange) wires of the speed dome camera. To protect the naked wires, use the insulation tape to cover on the twisted wires.

STEP 4: Connect the other end of the RJ11 line to DVR.

When there's an RS485 port on the DVR real panel

Connect the other end of the RJ11 line without removing the insulating coating directly to the RS485 port on the DVR real panel.

When there's an external I/O port on the DVR real panel

Solder the RS485-A (red) and RS485-B (green) wires of the RJ11 line to the corresponding pins on the solder side of the 15 PIN D-Sub connector (as shown in the picture above).

STEP 5: Set the speed dome camera at the DVR side.

Go to "ADVANCE" \rightarrow "REMOTE" to set the speed dome camera.

- a) Select the device to "PTZ".
- b) Set the ID to the value the same as the one set in the speed dome camera. The default ID of the camera is 000.
- c) Select the protocol to "NORMAL".
- d) Set the baud rate to the value the same as the one set in the speed dome camera. The default baud rate of the camera is 2400.

REMOTE					
TITLE	DEVICE	ID	PROTOCOL	RATE	
CH1	PTZ	000	NORMAL	2400	
CH2	CAMERA	000	NORMAL	2400	
СНЗ	CAMERA	000	NORMAL	2400	
CH4	CAMERA	000	NORMAL	2400	
CH5	CAMERA	000	NORMAL	2400	
CH6	CAMERA	000	NORMAL	2400	
CH7	CAMERA	000	NORMAL	2400	
CH8	CAMERA	000	NORMAL	2400	
СН9	CAMERA	000	NORMAL	2400	
CH10	CAMERA	000	NORMAL	2400	
Next					
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING					
†↓ SELECT ← BACK → NEXT ← ENTER					

3.3 Power Setup

This device should be operated only with the type of power source indicated on the manufacturer's label. Connect the indicated AC power cord to the power adapter, and plug into an electrical outlet. Press "POWER", and the LED " \mathcal{O} " will be on as blue. It takes approximately 10 to 15 seconds to boot the system.

Note: To ensure that your DVR works constantly and properly, it's recommended to use an UPS, Uninterruptible Power Supply, for continuously operation. (Optional)

3.4 Date and Time Setting

Before operating your DVR, please set the date and time on your DVR FIRST

Note: Please DO NOT change the date or time of your DVR after the recording function is activated. Otherwise, the recorded data will be disordered and you will not be able to find the recorded file to backup by time search. If users change the date or time accidentally when the recording function is activated, it's recommended to clear all HDD data, and start recording again.

Note: For the first time to use the DVR, please charge the DVR for at least 48 hours continuously after the date & time is set correctly.

Press "MENU" and enter the password to go to the quick-start menu list. The default admin password is 0000.

Move to t	love to the icon 🚧 and you can set the date / time / daylight saving in this menu list.					
			QL	JICK START	Г	
		CHANNEL T EVENT STA DATE DISPL	TUS			ON ON ON
		IMAGE SIZE QUALITY IMAGE PER				CIF BEST 120
	6	RECORD TI DETECTION				OFF OFF
	E	DATE FORMAT DAYLIGHT S	SAVING		2008 / APR / 23	11 : 20 : 45 Y / M / D OFF
	VANCE	†∔ SELECT	← BACK	→ NEXT	← ENTER	

3.5 Password Setting

Press "MENU" and enter the password to go to the quick-start menu list. Then, move to "ADVANCE" to enter the advanced setting menu.

In the "ADVANCE" menu, move to "(SYSTEM INFO). Select "PASSWORD" and press "ENTER" to enter the submenu to set the password (four digits).

	SYSTEM IN SERIAL TYPE	RS485
F	BAUD RATE	2400
التخل	HOST ID	0
	PASSWORD	XXXX
E \$3	RESET DEFAULT	RESET
	CLEAR HDD	HDD-MASTER-1
	UPGRADE	START
	R.E.T.R. (MIN)	05
	AUTO KEYLOCK (SEC)	NEVER
	LANGUAGE	ENGLISH
\sim	VIDEO FORMAT	PAL
ð	VERSION	1083-1028-1009-1013-02-0000
	ISULT YOUR INSTALLER FOR AD	

4. BASIC OPERATION

4.1 Live Page

In this live page of the DVR, you can see the live viewing of 1- / 4- / 9- / 16-cut screen.



4.2 Recording

When the HDD overwrite function is activated, this device will overwrite 8GB data from the oldest for continuous recording without notice.

1) <u>Continuous Recording Icon</u>

When the DVR is properly connected with camera, you can see the icon "

2) Event Recording Icon

When the motion / alarm detection is activated, once motion or external alarm happens, you will see the icon " 🗞 " (motion) or " 🚧 " (external alarm) on the screen.

3) <u>Timer Recording Icon</u>

When the timer record is activated, you will see the icon "O" (timer) on the screen.

Note: The audio source connected to the "Audio 1" will be recorded with the video of the "CH1". The audio source connected to the "Audio 2" will be recorded with the video of the "CH2". The audio source connected to the "Audio 3" will be recorded with the video of the "CH3". The audio source connected to the "Audio 4" will be recorded with the video of the "CH4"

Note: A new log will be added in the system log when the HDD data is overwritten or the recording starts after DVR reboots.

4) HDD Overwritten Icon

The HDD overwritten function can be set to ON / OFF. When this function is enabled (ON), the is icon will display on the monitor screen.

4.3 Playback

Press "PLAY" on the DVR control panel, and the device will playback the latest recorded video.

Note: There must be at least 8192 images of recorded data for playback to work properly. If not, the device will stop playback. For example, if the IPS is set to 30, the recording time should be at least 273 seconds (8192 images / 30 IPS) for the playback to work properly.

Note: The playback at the local site might not be so smooth if there's any remote surveillance simultaneously going on.

1) Fast Forward / Fast Rewind

You can increase the speed for fast forward and rewind on this device. In the playback mode: Press "FF" once to get 4X speed forward and press twice to get 8X speed, etc. And the maximum speed is 32X. Press "REW" once to get 4X speed rewind and press twice to get 8X speed, etc. And the maximum speed is 32X.

Note: During playback, the image size of the recording (Frame, FIELD or CIF) will be shown on the screen.

2) Pause / Image Jog

Press "PAUSE" to pause the playback. In the Pause mode: Press "FF" once to get one frame forward. Press "REW" once to get one frame rewind.

3) <u>Stop</u>

Press "STOP" under playback mode, and the screen will return to live monitoring mode.

4) Slow Playback

¢۵

Press "SLOW" to get 1/4X speed playback and press twice to get 1/8X speed playback.

5) Audio Playback (SLOW + ZOOM)

Use "SLOW" + "ZOOM" to select the live or playback sound of the audio channels.

- Live audio of the 1st audio channel
- Live audio of the 2nd audio channel
- Live audio of the 3rd audio channel
 Live audio of the 4th audio channel

The audio channel is not selected.

- Playback audio of the 1st audio channel
- Playback audio of the 2nd audio channel
- channel 🛛 🦣 Playback audio of the 3rd audio channel
 - Playback audio of the 4th audio channel
- **Note:** If you want to make a video backup with audio, please connect audio cameras to the channels which support the audio function (CH1, CH2, CH3 and CH4).

4.4 Key Lock and Unlock

1) Key Lock On

Press "MENU" + "ENTER" on the DVR front panel to lock keys. Or set the time-out after which the key lock function is activated (Never / 10 SEC / 30 SEC / 60 SEC). Please refer to "7.2 System Info" at page 30.

2) Key Lock Off

Enter the DVR password to exit "Key Lock" mode.

Note: For the password setting, please refer to "3.5 Password Setting" at page 12.

4.5 Upgrade

Firmware / Multilanguage OSD Upgrade

- 1) Use USB to upgrade firmware or OSD
 - Step 1. Format the USB memory device as FAT 32 format first.
 - Step 2. Get the upgrade files from your distributor, and save the upgrade files in your USB flash device (do not change the file name).
 - Step 3. Insert your USB flash drive into the USB port. Wait till the DVR detects your USB flash drive.
 - Step 4. Press "MENU", and move to "ADVANCE" \rightarrow " \bigcirc " (SYSTEM INFO). Select "UPGRADE" \rightarrow "START", and press "ENTER".
 - Step 5. Select "YES", and press "ENTER" to confirm the upgrade.
- 2) Use AP software to remotely upgrade firmware or OSD
 - Step 1. Save the upgrade files at your PC (do not change the file name), and log into the Video Viewer.
 - Step 2. Click " []]" (Miscellaneous Control) to show the miscellaneous control panel. In the miscellaneous control panel, click " []]" (Tools) on the miscellaneous control panel to enter the upgrade window.
 - Step 3. Enter the user name, password, IP address and port number of the DVR.
 - Step 4. Click "Firmware" or "Language" tab as needed, and click "Add" to select the firmware or OSD files to upgrade.
 - Step 5. Click "Update Firmware" or "Update Language" button to start the upgrade.

Note: For remote upgrade details, please see "Tools" at page 55.

4.6 Search

1) Search by List

Press "LIST" on the DVR control panel to show the list for all types of the recorded files. Choose the item you want to view, and press "ENTER" to start playback.

2) <u>Search by Time</u>

In the "[S]" (EVENT INFO) menu list, move to "QUICK SEARCH", and press "ENTER" to enter the quick search menu. You can search any specific events by time (Year / Month / Day / Hour / Min) and directly play the file you find.

5. MAIN MENU

5.1 Menu Configuration

		STATUS	
			EVENT STATUS
			DATE DISPLAY
		550055	
	8-8	RECORD	QUALITY
QUICK START MENU			IMAGE PER SECOND
		TIMER	RECORD TIMER
			DETECTION TIMER
			DATE
	17	DATE	FORMAT
			DAYLIGHT SAVING
			CAMERA
			DETECTION
			ALERT
		ADVANCE CONFIG	NETWORK
			SNTP
			DISPLAY
			RECORD
			REMOTE
			SERIAL TYPE
			BAUD RATE
			HOST ID
			PASSWORD
ADVANCED MENU		SYSTEM CONFIG	RESET DEFAULT
	63		CLEAR HDD
			UPGRADE
			R.E.T.R. (MIN)
			AUTO KEYLOCK (SEC)
			VERSION
		EVENT LOG	EVENT SEARCH HDD INFO
			EVENT LOG
		BACKUP	USB BACKUP
			DISK BACKUP (Selected Models Only)

5.2 Menu Operation Instruction

ITEM	FUNCTION
QUICK START MENU:	View & change the settings of the quick start menu items.
MENU	Enter / exit the quick start menu
▲ ▼	Make the selection / Change the setting
↓	Go to the upper layer or sub-layer / Make the selection
ENTER	Confirm the password entering
ADVANCED MENU:	In the quick start menu, move to "▼", and press "▼" to enter the advanced setting menu.
ENTER	Go to the sub-layer of the advanced menu
MENU	Under the sub-layer of the advanced setting menu, use this button to confirm the settings and go back to the upper layer.
→ NEXT	Move to this item and press ENTER to go the next page.
← BACK	Move to this item and press ENTER to go the previous page.
	Other operations in the advanced menu are the same as in the quick start menu.

6. QUICK START MENU

Press MENU" and enter the password to go to the quick-start menu list. The default admin password is 0000. Users can change the password later. Please refer to the section "7.2 System Info" at page 30.

6.1 Status

In this menu list, you can check and change some display settings.

Move to , and you will see the following screen:

	QUICK STAR	Г	
	CHANNEL TITLE EVENT STATUS DATE DISPLAY		ON ON ON
	IMAGE SIZE QUALITY IMAGE PER SECOND		CIF BEST 100
ъ	RECORD TIMER DETECTION TIMER		OFF OFF
Ø	DATE FORMAT DAYLIGHT SAVING	2008 / APR / 24	10 : 20 : 24 Y / M / D OFF
	↑↓ SELECT ← BACK → NEXT	← ENTER	

The submenu items are described below:

1) CHANNEL TITLE

Select to display the channel title or not (ON / OFF).

2) EVENT STATUS

Select to display the symbols of the event or not (ON / OFF).

DATE DISPLAY 3)

Select to display the date or not (ON / OFF).

6.2 Manual Record

In this menu list, you can set record settings.

	55555
Move to	

, and you will see the following screen:

	QUICK STAR	Г	
	CHANNEL TITLE EVENT STATUS DATE DISPLAY		ON ON ON
	IMAGE SIZE QUALITY IMAGE PER SECOND		CIF BEST 100
5	RECORD TIMER DETECTION TIMER		OFF OFF
	DATE FORMAT DAYLIGHT SAVING	2008 / APR / 24	10 : 29 : 00 Y / M / D OFF
ADVANCE	†↓ SELECT ← BACK → NEXT	← ENTER	

The submenu items are described below:

1) IMAGE SIZE

Select one of the image sizes: FRAME, FIELD or CIF.

2) <u>QUALITY</u>

Select one of the 4 quality options: SUPER BEST, BEST, HIGH and NORMAL.

3) IMAGE PER SECOND

Select the images per second for MANUAL RECORD.

Take 16CH model as an example:

NTSC	IPS	PAL	IPS
FRAME	15, 30, 60, 120	FRAME	12, 25, 50, 100
FIELD	30, 60, 120, 240	FIELD	25, 50, 100, 200
CIF	60, 120, 240, 480	CIF	50, 100, 200, 400

Note: For different model's actual recording IPS, please see "1.3 Specifications" at page 2.

6.3 Timer

In this menu list, you can schedule different sets of time for recording and detection function.

Move to 🙆, and you will see the following screen	ļ	Move to	6	and you	will see	the f	following	screen	:
--	---	---------	----------	---------	----------	-------	-----------	--------	---

	Q	JICK START	-	
	CHANNEL TITLE EVENT STATUS DATE DISPLAY			ON ON ON
	IMAGE SIZE QUALITY IMAGE PER SECOND			CIF BEST 100
6	RECORD TIMER DETECTION TIMER			OFF OFF
Ø	DATE FORMAT DAYLIGHT SAVING		2008 / APR / 24	10 : 29 : 00 Y / M / D OFF
▼ ADVANCE	↑↓ SELECT ← BACK	→ NEXT	← ENTER	

The submenu items are described below:

1) RECORD TIMER

Use ▲ / ▼ to change the setting (ON / OFF). When it's set to "ON", press "ENTER" to go to its submenu for further settings.



X axis 0 ~ 24 hours. Each time interval within a square is two hours (divided into four 30-minutes).

Yaxis Monday ~ Sunday.

Operation Move to the start time point, and press enter to set the start time point (marked in red color). Then, press ▲ / ▼ / ◀ / ► to set the timer-recording schedule. After setup, press "ENTER" again to create an ending time point (marked in yellow color) and press "MENU" to exit.

2) DETECTION TIMER

Use ▲ / ▼ to change the setting (ON / OFF). When it's set to "ON", press "ENTER" to go to its submenu for further settings.



X axis 0 ~ 24 hours. Each time interval within a square is two hours (divided into four 30-minutes).Y axis Monday ~ Sunday.

Operation Move to the start time point, and press enter to set the start time point (marked in red color). Then, press ▲ / ▼ / ◀ / ► to set the timer-recording schedule. After setup, press "ENTER" again to create an ending time point (marked in yellow color) and press "MENU" to exit.

Note: This function here is only for event record timer setup and activation. For motion detection function setup and activation, please refer to section "7.1.2 Detection" at page 23.

6.4 Date

In this menu list, you can set up the system date and time for this device.

Note: Please DO NOT change the date or time of your DVR after the recording function is activated. Otherwise, the recorded data will be disordered and you will not be able to find the recorded file to backup by time search. If users change the date or time accidentally when the recording function is activated, it's recommended to clear all HDD data, and start recording again.

Note: For the first time to use the DVR, please charge the DVR for at least 48 hours continuously after the date & time is set correctly.

Press "MENU" to enter the main menu list. Move to , and you will see the following screen:

	QUICK STAR	Γ	
	CHANNEL TITLE EVENT STATUS DATE DISPLAY		ON ON ON
	IMAGE SIZE QUALITY IMAGE PER SECOND		CIF BEST 100
5	RECORD TIMER DETECTION TIMER		OFF OFF
E	DATE FORMAT DAYLIGHT SAVING	2008 / APR / 23	11 : 20 : 45 Y / M / D OFF
▼ ADVANCE	↑↓ SELECT ← BACK → NEXT	← ENTER	

The submenu items are described below:

1) <u>DATE</u>

Set the current date and time. The default order is "YEAR – MONTH – DATE HOUR : MIN : SEC".

2) <u>FORMAT</u>

Select one date format from the following 3 options: Y-M-D, M-D-Y, D-M-Y.

3) DAYLIGHT SAVING

Use the \blacktriangle / \blacktriangledown to specify whether to use daylight-saving time (ON / OFF). When it's set to "ON", press "ENTER" to go to its submenu for further settings.

DAYLIGHT SAVING					
START TIME END TIME ADJUST	4TH - SUN - MAR 4TH - SUN - OCT				
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING ↑↓ SELECT ← BACK → NEXT ← ENTER					

Set the start time and end time, and adjust the daylight saving time in hour. The above example means during the daylight-saving time period (starting from the 4th Sunday of March and ending on the 4th Sunday of October), the system time will plus one hour. After setup, press "ENTER" again to create an ending time point and press "MENU" to exit.

7. ADVANCED MENU

Note: The following menu display takes 16CH DVR as an example, and some display may differ from the actual display when users are using a 8CH or 4CH DVR.

Press "MENU" and enter the password to go to the quick-start menu list. Then, move to "ADVANCE" to enter the advanced setting menu. The default admin password is 0000. Users can change the password later. Please refer to the section "7.2 System Info" at page 30.

It is recommended that consult your installer to setup this advanced menu.

7.1 Advanced Configuration

In this menu list, you can check or change CAMERA / DETECTION / ALERT / NETWORK / SNTP / DISPLAY / RECORD / REMOTE settings.

Move to "¹, and you will see the following screen:

	ADVANCE CONFIG					
	CAMERA DETECTION ALERT					
B	NETWORK SNTP DISPLAY					
	RECORD REMOTE					
a						
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING ↑↓ SELECT ← BACK → NEXT ← ENTER						

7.1.1 Camera

In this submenu, you can make advanced camera settings, such as changing the camera title, or adjust the brightness. Move to "CAMERA", and press "ENTER". You will see the following screen:

			CAMER	A		
TITLE	BRIG	CONT	SATU	HUE	COV.	REC
CH1	128	098	128	128	OFF	ON
CH2	128	098	128	128	OFF	ON
CH3	128	098	128	128	OFF	ON
CH4	128	098	128	128	OFF	ON
CH5	128	098	128	128	OFF	ON
CH6	128	098	128	128	OFF	ON
CH7	128	098	128	128	OFF	ON
CH8	128	098	128	128	OFF	ON
CH9	128	098	128	128	OFF	ON
CH10 NEXT	128	098	128	128	OFF	ON
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING ↑↓ SELECT ← BACK → NEXT ← ENTER						

The submenu items are described below. While you changing the camera setting, you can *preview* the changing on the screen.

1) <u>TITLE</u>

You can change the default camera naming here. The default title is the channel number. Move to the camera title you want to change, and press "ENTER" on the control panel of the DVR to access the character selection screen. Assign a new name to the camera up to six characters (letters or symbols or numbers).

2) BRIG / CONT / SATU / HUE

You can adjust the brightness/contrast/saturation/hue of each channel here. The default value of CONT is 098, and others are 128. The value is adjustable from 0 to 255.

3) <u>COV</u>

Select if you want to mask the selected channel under recording (ON / OFF). When this function is activated, the wording "COV." will be shown on the channel screen.

4) <u>REC</u>

Select if you want to enable recording for the selected channel (ON / OFF). When this function is activated, the symbol " 💭 " will be shown on the channel screen.

7.1.2 Detection

In this submenu, you can set up detection-related functions. Move to "DETECTION", and press "ENTER". You will see the following screen:

			DE	TECTION			
TITLE	DET	AREA	LS	SS	TS	RE	ALARM
CH1 CH2	OFF OFF	SETUP SETUP	07 07	03 03	02 02	10 10	OFF OFF
CH3	OFF	SETUP	07	03	02	10	OFF
CH4	OFF	SETUP	07	03	02	10	OFF
CH5	OFF	SETUP	07	03	02	10	OFF
CH6	OFF	SETUP	07	03	02	10	OFF
CH7	OFF	SETUP	07	03	02	10	OFF
CH8	OFF	SETUP	07	03	02	10	OFF
CH9	OFF	SETUP	07	03	02	10	OFF
CH10 NEXT	OFF	SETUP	07	03	02	10	OFF
PLEASE CO ↑↓ SELECT		UR INSTALLE ⟨ → NEXT	R FOR AD ↩ ENTE		ÎNG		

The submenu items are described below:

1) <u>TITLE</u>

Show the camera title of each channel set in "CAMERA".

2) <u>DET</u>

Select if you want to activate the motion detection function for the selected channel (ON/OFF).

3) <u>AREA</u>

There are 16×12 grids per camera for all channels. Pink blocks represent the area that is not being detected while the transparent blocks are the area under detection.

Press "ENTER" on the control panel of the DVR to set the detection area. You will see similar screens as the following:

ADVANCED MENU



Transparent blocks are the area

under detection.



Press ▲ / ▼ to choose the height of the area.



Press "ENTER" to confirm the start





You can also set up multi-detection



Press ◀ / ► to choose the width of



When the motion is triggered, you will grids are flashing.

4) LS (Level of Sensitivity)

"LS" is to set the sensitivity of comparing two different images. The smaller the value is, the higher sensitivity for motion detection. The highest sensitivity setting is 00, and the lowest sensitivity setting is 15. The default value is 07.

5) <u>SS (Spatial Sensitivity)</u>

"SS" is to set the sensitivity for detecting the size of one object (the number of the grids) on the screen. The smaller the value is, the higher sensitivity for motion detection.

The highest sensitivity setting is 00, and the lowest sensitivity setting is 15. The default setting is 03.

Note: The default setting of SS is 03, which means once an object is detected more than 3 grids, the system will get triggered. So the value of SS must be less than the number of grids that you set up for the motion detection area.

6) <u>TS (Time of Sensitivity)</u>

"TS" is to set the sensitivity regarding how long one object stays in the detection area and triggers the recording. The smaller the value is, the higher sensitivity for motion detection.

The highest sensitivity setting is 00, and the lowest sensitivity setting is 15. The default setting is 02.

7) <u>RE (Reference)</u>

"RE" is to set a reference for detection. The default value is 10, which means the DVR will compare 10 continuous images at one time according to the sensitivity of LS, SS, TS simultaneously.

The bigger the value is, the higher sensitivity for motion detection. The highest sensitivity is 61.

8) <u>ALARM</u>

Select N.C./ N.O. for the alarm polarity. The default alarm value is OFF.

7.1.3 Alert

In this menu list, you can set alerts for different kinds of situations, such as when HDD is full. Move to "ALERT", and press "ENTER". You will see the following screen:

ALERT	
EXT. ALERT	ON
INT. BUZZER	ON
KEY BUZZER	ON
VLOSS BUZZER	ON
MOTION BUZZER	ON
ALARM BUZZER	ON
HDD BUZZER	ON
ALARM DURATION (SEC)	05
HDD NEARLY FULL (GB)	05
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING ↑↓ SELECT ← BACK → NEXT ← ENTER	

The submenu items are described below:

1) EXT. ALERT

Select to enable or disable the sound when any external alarm is triggered (ON / OFF).

2) <u>INT. BUZZER</u>

Select to enable or disable the sound (ON / OFF) for all the internal buzzers: KEY BUZZER, VLOSS BUZZER, MOTION BUZZER, and ALARM BUZZER.

Note: When this item is set to OFF, item 3) to item 6) will be disabled even though they are set to ON.

3) KEY BUZZER

Select to enable or disable the sound when pressing the buttons on the front panel (ON / OFF).

4) VLOSS BUZZER

Select to enable or disable the sound when video loss happened (ON / OFF).

5) MOTION BUZZER

Select to enable or disable the sound when any motion alarm is triggered (ON / OFF).

6) ALARM BUZZER

Select to enable or disable the sound when any internal alarm is triggered (ON / OFF).

7) HDD BUZZER

Select to enable or disable the sound (ON / OFF) when the HDD remaining capacity reaches to the value set in "HDD NEARLY FULL (GB)".

8) ALARM DURATION (SEC)

Press \blacktriangle / \triangledown to set the duration time of alarm recording in second (5 / 10 / 20 / 40).

9) HDD NEARLY FULL (GB)

If HDD BUZZER is enabled, press \blacktriangle / \blacktriangledown to have a buzzer notification when the HDD available capacity is 5/10/15/20 GB left.

7.1.4 Network

In this menu list, you can set up the network.

Move to "NETWORK", and press "ENTER" to enter the submenu. You will see the following screen:

NETWORK	
NETWORK TYPE	STATIC
IP	192 . 168 . 001 . 080
GATEWAY	192 . 168 . 001 . 080
NETMASK	255 . 255 . 255 . 000
PRIMARY DNS	168 . 095 . 001 . 001
SECONDARY DNS	139 . 175 . 055 . 244
PORT	0080
PLEASE CONSULT YOUR INSTALLER FOR AI	DVANCE SETTING
↑↓ SELECT ← BACK → NEXT ← ENT	ER

The submenu items are described below:

· STATIC

1) <u>NETWORK TYPE</u>

Select the network type as STATIC and set all the information needed in the DVR.

2) NETWORK INFORMATION (IP / GATEWAY / NETMASK)

Key in all the network information obtained from your ISP (Internet Service Provider).

3) DNS (PRIMARY DNS / SECONDARY DNS)

Key in the IP address of the domain name server obtained from your ISP (Internet Service Provider).

4) <u>PORT</u>

The valid number ranges from 1 to 9999. The default value is 80. Typically, the TCP port used by HTTP is 80. However in some cases, it is better to change this port number for added flexibility or security. See the example below:

STATIC	
NETWORK TYPE	STATIC
IP	192 . 168 . 001 . 080
GATEWAY	192 . 168 . 001 . 080
NETMASK	255 . 255 . 255 . 000
PRIMARY DNS	168 . 095 . 001 . 001
SECONDARY DNS	139 . 175 . 055 . 244
PORT	0800
PLEASE CONSULT YOUR INSTALLER FOR ↑↓ SELECT ← BACK → NEXT ← EN	

• PPPOE

1) <u>NETWORK TYPE</u>

Select the network type as PPPOE.

2) <u>USER NAME / PASSWORD</u>

Set "username" and "password" subscribed from your ISP supplier

3) DNS (PRIMARY DNS / SECONDARY DNS)

Key in the IP address of the domain name server obtained from your ISP (Internet Service Provider).

4) <u>PORT</u>

The valid number ranges from 1 to 9999. The default value is 80. Typically, the TCP port used by HTTP is 80. However in some cases, it is better to change this port number for added flexibility or security.

See the example below:

PPPOE	
NETWORK TYPE	PPPOE
USER NAME	ac123456
PASSWORD	tech123456
IP	000 . 000 . 000 . 000
GATEWAY	000 . 000 . 000 . 000
NETMASK	000 . 000 . 000 . 000
PRIMARY DNS	168 . 095 . 001 . 001
SECONDARY DNS	139 . 175 . 055 . 244
PORT	0080
PLEASE CONSULT YOUR INSTALLER FOR ↑↓ SELECT ← BACK → NEXT ← EN	

Note: The PPPOE function needs to have one "username" and one "password" subscribed from one ISP supplier and a "DDNS account" to transforming the dynamic IP corresponding to a specific "Hostname". For detailed PPPOE settings, please refer to "Network" at page 48. For detailed DDNS settings, please refer to "DDNS" at page 49.

· DHCP

1) <u>NETWORK TYPE</u>

Select the network type as DHCP.

2) DNS (PRIMARY DNS / SECONDARY DNS)

Key in the IP address of the domain name server obtained from your ISP (Internet Service Provider).

3) <u>PORT</u>

The valid number ranges from 1 to 9999. The default value is 80. Typically, the TCP port used by HTTP is 80. However in some cases, it is better to change this port number for added flexibility or security.

See the example below:

DHCP			
NETWORK TYPE	DHCP		
IP	000 . 000 . 000 . 000		
GATEWAY	000 . 000 . 000 . 000		
NETMASK	000 . 000 . 000 . 000		
PRIMARY DNS	168 . 095 . 001 . 001		
SECONDARY DNS	139 . 175 . 055 . 244		
PORT	0800		
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING ↑↓ SELECT ← BACK → NEXT ← ENTER			

Note: This DHCP function needs to be supported by a router or a cable modem network with DHCP services and a "DDNS account" to transforming the dynamic IP corresponding to a specific "Hostname".

For detailed DHCP settings, please refer to "Network" at page 48.

For detailed DDNS settings, please refer to "DDNS" at page 49.

7.1.5 SNTP

In this menu list, you can set to synchronize your DVR time with the networked computer systems.

Note: Before using this function, please connect your DVR to Internet.

Move to "SNTP", and press "ENTER" to enter the submenu. You will see the following screen:

DISF	PLAY
GMT NTP SERVER SYNC PERIOD	(GMT+08:00) TAIPEI tock.stdtime.gov.tw DAILY
PLEASE CONSULT YOUR INSTALLER ↑↓ SELECT ← BACK → NEXT ←	

1) <u>GMT</u>

Select your time zone. There are 75 time zones for you to choose.

2) <u>NTP SERVER</u>

Users can change the default NTP server to another server they're familiar with.

3) SYNC PERIOD

Select to synchronize the DVR time everyday (DAILY), or turn this function off (OFF).

7.1.6 Display

In this menu list, you can set up the settings of display.

Move to "DISPLAY", and press "ENTER" to enter the submenu. You will the following screen:

DISPLAY			
DE-INTERLACE	ON		
QUAD DWELL DURATION (SEC) (Selected Models Only)	03		
FULL SCREEN DWELL DURATION (SEC)	03		
VGA OUTPUT	1024 x 768		
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SI ↑↓ SELECT ← BACK → NEXT ← ENTER	ETTING		

The submenu items are described below:

1) <u>DE-INTERLACE</u>

Select to enable or disable the de-interlace function (ON / OFF).

Note: If you set the recording image size as "FRAME", please TURN ON de-interlace function. If you set the recording image size as "CIF", please TURN OFF the de-interlace function.

- QUAD DWELL DURATION (SEC) (Selected Models Only)
 Set the quad dwell duration time (3 / 5 / 10 / 15 seconds).
- 3) <u>FULL SCREEN DWELL DURATION (SEC)</u>

Set the full screen dwell duration time (3 / 5 / 10 / 15 seconds).

4) <u>VGA OUTPUT</u>

Select the VGA output resolution. There are seven options for your choice: 800 x 600 / 1024 x 768 (default) / 1280 x 1024 / 1440 x 900 / 1400 x 1050 / 1680 x 1050 / 1600 x 1200 **Note:** To have the best image quality on your LCD monitor, make sure (1) the selected DVR VGA output resolution is supported by your monitor, and (2) the VGA output settings on both the LCD monitor and DVR are consistent.

If the image is not positioned or scaled properly, please go to your monitor's menu for adjustment. For details, please refer to the user manual of your LCD monitor.

7.1.7 Record

In this menu list, you can set up the settings of display.

Note: Please DO NOT change the date or time of your DVR after the recording function is activated. Otherwise, the recorded data will be disordered and you will not be able to find the recorded file to backup by time search. If users change the date or time accidentally when the recording function is activated, it's recommended to clear all HDD data, and start recording again.

Move to "DISPLAY", and press "ENTER" to enter the submenu. You will the following screen:

RECORD		
MANUAL RECORD ENABLE	ON	
EVENT RECORD ENABLE	ON	
TIMER RECORD ENABLE	ON	
EVENT RECORD IPS	100	
TIMER RECORD IPS	100	
PRE-ALARM RECORD	ON	
OVERWRITE	ON	
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING ↑↓ SELECT ← BACK → NEXT ← ENTER		

The submenu items are described below:

1) MANUAL RECORD ENABLE

Set the manual recording function on / off.

2) EVENT RECORD ENABLE

Set the event recording function on / off.

3) TIMER RECORD ENABLE

Set the timer recording function on / off.

4) EVENT RECORD IPS

Select the images per second for EVENT RECORD (Recording that is triggered by alarm or motion). Take 16CH model as an example:

NTSC	IPS	PAL	IPS
FRAME	15, 30, 60, 120	FRAME	12, 25, 50, 100
FIELD	30, 60, 120, 240	FIELD	25, 50, 100, 200
CIF	60, 120, 240, 480	CIF	50, 100, 200, 400

Note: For different model's actual recording IPS, please see "1.3 Specifications" at page 2.

5) TIMER RECORD IPS

Select the images per second for TIMER RECORD (Recording that is activated according to the scheduled time). Take 16CH model as an example:

NTSC	IPS	PAL	IPS
FRAME	15, 30, 60, 120	FRAME	12, 25, 50, 100
FIELD	30, 60, 120, 240	FIELD	25, 50, 100, 200
CIF	60, 120, 240, 480	CIF	50, 100, 200, 400

Note: For different model's actual recording IPS, please see "1.3 Specifications" at page 2.

6) PRE-ALARM RECORD

Select to enable or disable the pre-alarm function (ON / OFF).

When pre-alarm and event recording functions are both activated, the DVR will record 8MB data before any alarm / motion is triggered.

7) <u>OVERWRITE</u>

Select "ON" to overwrite previous recorded data in your HDD when the HDD is full. When this function is on and the HDD is full, the DVR will clear 8GB data from the oldest for continuous recording without notice.

7.1.8 Remote

In this menu list, you can set up remote devices to work properly. Move to "REMOTE", and press "ENTER". You will see the following screen:

REMOTE				
TITLE	DEVICE	ID	PROTOCOL	RATE
CH1	PTZ	000	NORMAL	2400
CH2	CAMERA	000	NORMAL	2400
CH3	CAMERA	000	NORMAL	2400
CH4	CAMERA	000	NORMAL	2400
CH5	CAMERA	000	NORMAL	2400
CH6	CAMERA	000	NORMAL	2400
CH7	CAMERA	000	NORMAL	2400
CH8	CAMERA	000	NORMAL	2400
CH9	CAMERA	000	NORMAL	2400
CH10	CAMERA	000	NORMAL	2400
NEXT				
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING				
↑↓ SELECT ← BACK → NEXT ← ENTER				

The submenu items are described below:

1) <u>TITLE</u>

Show the camera title of each channel set in "CAMERA".

2) <u>DEVICE</u>

Select the device type (CAMERA / PTZ) according to the connected camera for each channel.

3) <u>ID</u>

Set the ID number (0 ~ 255) for a PTZ camera. After connecting to a PTZ camera correctly, the default ID of the PTZ camera will be shown on the screen.

4) <u>PROTOCOL</u>

Select NORMAL (our protocol), P-D (PELCO-D) or P-P (PELCO-P) protocol.

5) <u>RATE</u>

Set the baud rate of each channel (2400 / 4800 / 9600 / 19200 / 57600 / 115200). For the connected cameras, such as PTZ and speed dome cameras, etc., please make sure their baud rate setting is the same as the setting here.

7.2 System Info

In this menu list, you can check or change some system settings.

Move to "We and you will see a similar screen as the following:

SYSTEM INFO			
	SERIAL TYPE	RS485	
	BAUD RATE	2400	
	HOST ID	0	
	PASSWORD	XXXX	
E .3	RESET DEFAULT	RESET	
	CLEAR HDD	HDD-EXT-252	
-	UPGRADE	START	
	R.E.T.R. (MIN)	05	
1	AUTO KEYLOCK (SEC)	NEVER	
	LANGUAGE	ENGLISH	
	VIDEO FORMAT	PAL	
	VERSION	1083-1028-1009-1013-02-0000	
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING			
↑↓ SELECT	← BACK → NEXT ← EN1	ER	

The submenu items are described below:

1) SERIAL TYPE

Here shows the serial type of the DVR (RS-485).

2) BAUD RATE

Set the baud rate of the DVR (2400 / 9600 / 19200 / 38400 / 57600).

3) HOST ID

Set the ID of the DVR (0 ~ 254).

4) PASSWORD

Reset the password for accessing the DVR system. You can set the password up to 4 digits.

5) <u>RESET DEFAULT</u>

Press "ENTER" to reset all settings as default, and select "YES" to confirm or "NO" to cancel.

6) <u>CLEAR HDD</u>

Select the HDD. Press "ENTER" and select "YES" to confirm to clear HDD or "NO" to cancel.

7) UPGRADE (For upgrading firmware / OSD)

Before using the USB flash drive, please use your PC to format the USB flash drive to FAT32 format first. Save the upgrade file in a compatible USB flash drive, and insert it into the USB port at the front panel. Then, press "ENTER" and select "YES" to confirm upgrade or "NO" to cancel.

Note: For the list of compatible USB flash drives, please refer to "APPENDIX 2 RECORDING TIME TABLE" at page 67.

8) <u>R.E.T.R. (MIN)</u>

Select the timeout after which the R.E.T.R. function will be activated (03 / 05 / 10 / 30).

• R.E.T.R. On

Press the R.E.T.R. key on the IR remote controller to enable the timeout function. Key in the password, and the R.E.T.R. delay icon "FFF" (in green background) will be shown on the screen. When the RETR function is activated, the R.E.T.R. on icon "FFF" (in red background) will be shown on the screen.

• R.E.T.R. Off

Press any key (except "POWER") and enter the password to turn off the RETR function.

9) AUTO KEYLOCK

Set the time-out in second after which the key lock function is activated (Never / 10 / 30 / 60).

10) LANGUAGE (Multilingual OSD)

Select the language of the OSD.

11) <u>VIDEO FORMAT</u>

Here shows the information of the DVR video format (NTSC / PAL).

12) VERSION

Here shows the firmware version information

7.3 Event Info

In this menu list, you can quickly search the recorded file by time or event, and check all the HDD and event information (event type, time and channel).



	QUICK SEARCH EVENT SEARCH HDD INFO		
B	EVENT LOG		
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING ↑↓ SELECT ← BACK → NEXT ← ENTER			

7.3.1 Quick Search

In this menu list, you can search any specific events by time and directly play the file you find. Move to "QUICK SEARCH", and press "ENTER". You will see a similar screen as the following:

TIME SEARCH				
DATE	2008 / APR / 24			
SEARCH HDD		ALL HDD		
START				
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING				
↑↓ SELECT ← BACK → NEX	T ← ENTER			

The submenu items are described below:

1) <u>DATE</u>

Select the specific time period (YEAR / MONTH / DAY / HOUR / MIN) that you want to search.

2) SEARCH HDD

Change to the HDD you want to search if there are more than one HDD in your DVR by pressing ▲ / ▼.

3) <u>START</u>

Move to "START" and press "ENTER" to search and directly playback the recorded files.
7.3.2 Event Search

Move to "EVENT SEARCH", and press "ENTER". You will see the following screen:

EVENT SE	EARCH	
DATE	2008 / JUN / 17	22 : 48 : 00
CHANNEL		01
EVENT		MOTION
SEARCH HDD		ALL HDD
START		
PLEASE CONSULT YOUR INSTALLER ↑↓ SELECT ← BACK → NEXT		ETTING

The submenu items are described below:

1) <u>DATE</u>

Set the date and time you want to search for events.

2) <u>CHANNEL</u>

Press \blacktriangle / \blacktriangledown to select the channel.

3) <u>EVENT</u>

Select the event type: MOTION or ALARM.

4) <u>SEARCH</u>

Change to the HDD you want to search if there are more than one HDD in your DVR by pressing ▲ / ▼.

5) <u>START</u>

Move to "START" and press "ENTER" to search and directly playback the recorded files.

7.3.3 HDD Info

In this menu list, you can view the remaining capacity of all the connected HDDs in this device. Move to "HDD INFO", and press "ENTER". You will see a similar screen as the following:

HDD INFO						
HDD NUM	HDD SIZE (GB)	HDD NUM	HDD SIZE (GB)			
HDD-MASTER-1 HDD-MASTER-2	233 NO HDD	HDD-SLAVE-1 DISK-RW	NO HDD NO DISK			
PLEASE CONSULT YOUR INSTALLER FOR ADVANCE SETTING ↑↓ SELECT ← BACK → NEXT ← ENTER						

7.3.4 Event Log

In this menu list, you can view all the event information (event type, time and channel) or clear all log records. Move to "EVENT LOG", and press "ENTER". You will see a similar screen as the following:

		EVENT LOG	6		
EVENT		TIME		COMMENT	
NET LOGIN		2008 / APR / 24	10:36:50		
NET LOGIN		2008 / APR / 24	10:33:12		
NET LOGIN		2008 / APR / 24	10:28:15		
KEY UNLOCK		2008 / APR / 24	10:27:14		
VLOSS		2008 / APR / 24	10:23:34	04	
VLOSS		2008 / APR / 24	10:23:34	03	
VLOSS		2008 / APR / 24	10:23:34	02	
VLOSS		2008 / APR / 24	10:23:34	01	
POWER ON		2008 / APR / 24	10:23:30		
KEY UNLOCK		2008 / APR / 23	14:37:30		
PREV	NEXT	CLEAN			
PLEASE CONS	SULT YOUR IN	ISTALLER FOR AD	VANCE SETTING	6	
↑↓ SELECT	← BACK →	NEXT 🛏 ENTE	ĒR		

7.4 Backup

In this menu list, you can choose to make a copy for a specified period time to a compatible USB flash drive for your own purpose.

The backup file can be played directly in your PC via the supplied licensed software "Video Viewer" or Internet Explorer browser. For detailed Video Viewer playback, please refer to the section "Playback Screen" at page 58.

Move to Move t



7.4.1 USB BACKUP

Before making USB backup, please check if:

a) The USB flash drive is supported by your DVR. If not, the message "USB ERROR" will be shown on the screen.

For the list of the compatible USB flash drives, please refer to "APPENDIX 3 COMPATIBLE USB FLASH DRIVE BRAND" at page 68.

- b) The format of your USB flash drive must be "FAT 32". If not, please format it to "FAT 32" in your PC.
- c) There is no data in the USB flash drive. If yes, it's recommended to clear all data in the USB flash drive before starting the backup.

Note: When USB backup starts, it's not allowed for OSD menu operation or network backup in order to keep the consistency of the video data.

Note: You can backup up to 2GB video data for one-time USB backup. To backup more data, please set the time & channel(s) you want, and start USB backup again.

Move to "USB BACKUP", and press "ENTER". You will see a similar screen as the following:

	USB BA	ACKUP		
START TIME	2008 / APF	R / 24		13:00:05
END TIME	2008 / APF	R / 24		13:10:05
AVAILABLE SIZE				1960.0MB
CHANNEL	🛛 01	02	03	04
	☑ 05	06	07	08
	₩ 09	☐ 10	11	☐ 12
	13	14	15	☐ 16
HDD NUM				ALL HDD
START				
PLEASE CONSULT YOUR IN			SETTING	
↑↓ SELECT ← BACK →	NEXT ┙	ENTER		

The submenu items are described as below:

1) START TIME

Select the start time of the backup.

2) <u>END TIME</u>

Select the end time of the backup.

3) AVAILABLE SIZE

Display the available capacity in the inserted USB flash drive.

4) <u>CHANNEL</u>

Select channels by pressing "ENTER" to change the symbol in front of the channel number.

Symbol " \square " means that this channel is selected to backup.

Symbol " 🗌 " means that this channel is not selected to backup.

5) <u>HDD NUM</u>

Press "ENTER" to select the HDD containing the data you need.

6) <u>START</u>

Press "ENTER" to start copying the chosen data to the USB flash drive.

7.4.2 DISK BACKUP (Selected Models Only)

Before making disk backup, please check if the type of your CD or DVD is CD-R or DVD-R. The maximum number of backup files in the CD or DVD is 41.

Note: During the backup process, a file player will also be copied into your disk, and you will see a message "BACKUP PLAYER" shown on the screen.

Move to "DISK BACKUP", and press "ENTER". You will see a similar screen as the following:

	DISK BA	ACKUP		
START TIME	2008 / APF	R / 24		19:00:05
END TIME	2008 / APF	R / 24		21:00:05
AVAILABLE SIZE				3.79 GB
CHANNEL	🗹 01	02	03	04
	☑ 05	06	07	08
	₩ 09	☐ 10	🗌 11	<u> </u>
	13	☐ 14	15	☐ 16
HDD NUM				ALL HDD
START				
PLEASE CONSULT YOUR IN		OR ADVANCE	SETTINGS	
↑↓ SELECT ← BACK →	NEXT ┙	ENTER		

The submenu items and their functions are almost the same as USB BACKUP. For the description of the submenu items, please refer to the previous page.

The process below describes how to make a disk backup:

- a) Press "EJECT" to open the disk tray. Put the CD or DVD into the DVD writer, and press "EJECT" again to close the disk tray.
- b) Go to "DISK BACKUP", and set the start time, end time, channels and HDD.
- c) Move to "START", and press "ENTER" to start backup.While disk backup is processing, users will see the backup completed percentage on the screen.
- d) After disk backup is completed, "BACKUP SUCCESS" will be prompted on the screen. Press "EJECT" to eject the disk tray and get your disk.
- e) Put the CD or DVD into the DVD-ROM drive of your PC. Install the file player "PLAYER.EXE", and double click any backup file to play it directly in your PC and see if the backup is successful.

Note: The supported PC operation systems are Windows Vista, XP & 2000.

8. REMOTE OPERATION

You can also control the DVR remotely via the supplied licensed software "Video Viewer", Internet Explorer web browser, and Apple's QuickTime player.

8.1 Supplied Licensed Software

8.1.1 Installation & Network Connection

1) Install the software

Step1: Place the supplied CD into your CD-ROM or DVD-ROM drive. The program will be automatically run.



Step2: Click "Licensed Software AP" to install Video Viewer, or click "Download Latest Version" under "Licensed Software AP" to download the latest version of Video Viewer from the Internet.

Step3: follow the on-screen instructions to finish the installation. When the installation is completed, a shortcut icon "" will be placed on your PC desktop.

2) Network Connection

- Local Connection (via LAN)
 - a) Connect the DVR to your PC via a RJ-45 network line. The default DVR IP address is "192.168.1.10", and the default user name and password are both "admin".
 - b) Set the PC's IP address as "192.168.1.XXX " (1~255, except 10) in order to make the PC and DVR under the same domain.
 - c) Double-click "???" icon on your PC desktop to enter the control panel. By defaults, the "Address Book" (
 - d) Click " (Address Book) \rightarrow " (Add) button to key in the default IP address, user

name, password, and port number of the DVR you intend to connect.

OR

Click " \square (Search) \rightarrow " \square " (Refresh) to search the available IP address(es) of other DVR(s) under the same domain as your PC's IP address. The found address(es) will be listed, and

can be added into the address book by clicking " (Add into address book).

For details, please see "**E**Q**E**" (Search) at page 42.

e) Double-click the IP address you just added into the address book to log in.

The default DVR values are as follows:

Item	Default Value
IP address	192.168.1.10
User name	admin
Password	admin
Port	80

- Remote Connection (via Internet)
 - a) Double-click "???" icon on your PC desktop to enter the control panel. By defaults, the "Address Book" panel will be displayed on the right side of the control panel.
 - b) Click " (Address Book) → " (Add) button to key in the IP address, user name, password, and port number of the DVR you intend to connect.

Click " (Search) \rightarrow " (Refresh) to search the available IP address(es) of other DVR(s) under the same domain as your PC's IP address. The found address(es) will be listed, and can be added into the address book by clicking " (Add into address book). For details, please see " (Search) at page 42.

c) Double-click the IP address you just added into the address book to log in. When you're logged in, the "Event" panel will be shown by defaults.

8.1.2 Control Panel

OR

After setting up the network information, login user name and password, double-click "???" on the PC desktop to open and log into the control panel. You will see a screen similar to the following with 7 major sections:



Button	Function	Description
N/A	Image Display	The place where the images are displayed.
IN/A	inage Display	For details, please see "Image Display" at page 41.
-	Address Book	Click this button to show the predefined IP address(es). You can add, remove or search the
and a	AUGUESS BOOK	IP address to log in the DVR remotely.

		Two sub-functions are available for this button: Address Book and Search.
		For details, please see "Address Book et all and a set of a set o
	Miscellaneous Control	Click to show the main operation functions: audio channel selection, manual record enabling, snapshot, record setting, DVR setting, upgrade firmware, and find event logs. For details, please see "Miscellaneous Control ¹ at page 42.
S / S	Record On / Off	Click it to start / stop video recording manually.
1	Snapshot	Click to take a snapshot of the current view. The snapshot will be saved in the path you specified in "Record Setting". Please refer to "Record Setting" at page 44 for details.
Q	Information	Click this button to show the current network connection details. For details, please see "Information "at page 58.
	DVR Control	Click this button to go to the DVR control panel to operate the DVR remotely. For details, please see "DVR Control" at page 59.

8.1.3 General Operation

Record

To record remotely at the same time when any event alarm is triggered at the DVR side, click " \blacksquare " (Miscellaneous Control) \rightarrow " \blacksquare " (Record Setting) to go to the "Record Setting" page.

	1011			Prev/Post Event R	ecord Time
Manual	🛛 Schedul	e 🛛 🕅 Motio	on 🗆 Alarm	Prev.	Sec.
Hard D	isk Overwrite			Post -	Sec.
Record Ti	ime Range				
Weekly	Custom		Schedule	🚃 Alarm	Motion
+ -		0 1 2 3	4 5 6 7 8	9 10 11 12 13 14 15	16 17 18 19 20 21 22 23
	Sun		*****		
	Mon				
	T				
	Tue				
1	Wed				
1	Wed				
1	Wed				
	Wed				
	Wed Thu Fri Sat				
	Wed Thu Fri Sat				
Record P Drive	Wed Thu Fri Sat ath Tobal(MB) 76300	Free(MB) 40004	Rearve(MB)	Video Path Critempvideol	Picture Path Citterspicture/
Record P Drive	Wed Thu Fri Sat ath Total(MB)	Fire(MB)	Rezerve(MB)	Video Path	Picture Path.

In the "Record Setting" page, you can set the following items:

- Record type
- Hard disk overwriting
- Pre- / post-alarm record time
- Record time setting
- Record path

If "Manual" is checked, click " (Record) on the main control panel to start the manual recording immediately, and the recordings will be saved in the specified location.

If "Motion" and / or "Alarm" are checked, the recording function will also be enabled at the remote side when any event is triggered at the DVR side, and the recordings will be saved in the specified location.

For details, please see "Record Setting" at page 44.

Playback

To play a recording, click " (Miscellaneous Control) \rightarrow " (Status List), and select the "Record" tab or

"Backup" tab. A list of all the recordings will be shown by defaults, and you can also sort out the logs you want to

speed up the search time.

For details, please see "Status List" at page 57.

Time F		ine Day	- I	Prev.	lext	Record Type		larm
	2008/九月 /09	- HE	To:	2008/ 九月 /15		Motion		ETR
	Backup Event			,			Qu	ery
Event	IP		urt Time	End Time		File Path	Reserve	Error +
Motion	192.168.1.12	09/09	08 20:21:50	09/09/08 20:22:0	5 C.'tempvideo	20080909201710 Liv	-	
Motion	192.168.1.12	09/09/	08 20:20:36	09/09/08 20:22:0	5 C.'tempvideo	20080909201710 Liv		
Motion	192.168.1.12	09/09	08 20:17:47	09/09/08 20:22:0	5 C.'tempvideol	20080909201710_Liv		
User	192.168.1.12	09/09	08 20:17:10	09/09/08 20:17:10	C/tempvideo	20080909201710_Liv		
User	192.168.1.12	09/09	08 20:15:33	09/09/08 20:16:3	5 C:\tempvideo	20080909201533_Liv		
User	192.168.1.12	09/09	08 20:15:30	09/09/08 20:15:3	2 C:tempvideo	20080909201530_Liv		
Motion	61.222.50.174	09/09	08 19:35:13	09/09/08 19:35:20) C:\tempvideo	20080909193513_Liv		
Motion	61.222.50.174	09/09	08 19:35:04	09/09/08 19:35:0	B C:\tempvideol	20080909193504_Liv		
Motion	61.222.50.174	09/09	08 19:33:39	09/09/08 19:33:43	5 C:/tempvideol	20080909193339_Liv		
Motion	61.222.50.174	09/09	08 19:33:16	09/09/08 19:33:15	C:\tempvideol	20080909193316_Liv		
Motion	61.222.50.174	09/09/	08 19:32:56	09/09/08 19:33:0	C (tempvideo)	20090909193256_Liv		
Motion	61.222.50.174	09/09	08 19:32:44	09/09/08 19:32:44	B C:\tempvideo	20080909193244_Liv		
Motion	61.222.50.174	09/09	08 19:31:33	09/09/08 19:32:3	2 C:/tempvideol	20080909193133_Liv		
Motion	61.222.50.174	09/09	08 19:31:20	09/09/08 19:31:2	5 C:\tempvideo	20080909193120_Liv		
Motion	61.222.50.174	09/09/	08 19:31:13	09/09/08 19:31:1	7 C:tempvideo	20080909193113_Liv		
Motion	61.222.50.174	09/09	08 19:31:06	09/09/08 19:31:12	2 C:\tempvideol	20080909193106_Liv		
Motion	61.222.50.174		08 19:30:41	09/09/08 19:30:4		20080909193041_Liv		
Motion	61.222.50.174	09/09	08 19:30:18	09/09/08 19:30:2	B C.'tempvideo	20080909193018_Liv		_ Jř
Tota	I Records:	43	Delete	Delete All	Play	Repair	Ap	ply

To immediately play a recording, select a log from the list, and click "Play", or double-click the selected log. Then, the playback control panel will be shown at the bottom of the main control panel similar to the following.



For the playback control panel details, please see "Playback Screen" at page 58.

Network Backup

Click "IIII" (Miscellaneous Control) \rightarrow "IIII" (Backup) to go into the "Download" page as follows, and you

can select a specific time range or event to make a video backup remotely. For details, please see "Backup" at

page 43.

📴 Backup						
IP Address:	192.168.1.10		Relo	ad	Prev. Pag	e Next Page
Port:	80		□ 5	System	🗹 Man	ual 🗖 Alarm
User Name:	admin		П	imer	Mot	ion
Description	*****		NO.	Event	CH	Time
Password:			1	MOTION	1	2008/08/28 20:53:28
		-	2	MOTION	1	2008/08/28 20:50:05
HDD Number:	MASTER-1 - Refresh		3	MOTION	1	2008/08/28 20:48:14
			4	MOTION	1	2008/08/28 20:47:53
Channel:	1		5	MOTION	1	2008/08/28 20:46:20
			6	MOTION	1	2008/08/28 20:44:38
Start Time:	2008/08/28 20:42:31		7	MOTION	1	2008/08/28 20:44:03
			8	MOTION	1	2008/08/28 20:43:20
End Time:	2008/08/28 21:42:31		9	MOTION	1	2008/08/28 20:42:31
End lime:	2008/08/28 21:42:31		10	MOTION	1	2008/08/28 20:42:12
	-	_	11	MOTION	1	2008/08/28 20:41:54
File Path:	c:\download\		12	MOTION	1	2008/08/28 20:41:40
			13	MOTION	1	2008/08/28 20:41:19
Simultaneous Play	thack		14	MOTION	1	2008/08/28 20:40:27
I* Official Coust ray	DUCK		15	MOTION	1	2008/08/28 20:39:20
			16	MOTION	1	2008/08/28 20:14:49
			17	MOTION	1	2008/08/28 19:51:09
			18	MOTION	1	2008/08/28 19:43:27
Downlo	ad Cancel		19	MOTION	1	2008/08/28 19:41:59

8.1.4 Detailed Functions

Image Display

You can see the 3 kinds of display views here, and a few buttons are available.



Button	Function	Description
		If you want to switch among the live view, playback view and download view, click the blue tab "Live1", "Play1" or "Download" to make a switch.
	Live / Playback	Live1: When you are logged in, this tab with the live view is displayed by defaults.
Live1 Play1 Dowr	/ Download Display Switch	Play1 : When a video clip is selected in "Status List" and played, this tab with the palyback view is displayed.
		Download : When the downloaded video clip is selected in "Status List" and played, this tab with the downloaded video clip is displayed.
P	Original Size	Click to return to original size of the monitoring view.
	Expand All Views	To see all views in the image display area if you have many views and do not want to switch each view by clicking the blue tab described above, click to choose a proper split view (1-cut / 4-cut / 6-cut / 9-cut / 13-cut / 16-cut) which best suits your needs.
		The selected view will be indicated with a red frame around it.
x	Close	Click to close the current image display view. If the last image display view is closed, you will be logged out automatically.
1	Close All	Click to close all the image display views.

Address Book



This view is displayed when Video Viewer is activated for you to log in / out the DVR from the current address list, or search the available IP address as follows:



> (Address Book)

Click to view the pre-defined DVR access details.

To log in, choose one IP address from the address list, and click the address twice; to log out, click the connected IP address twice.

Tip: You can also click "X" or "w" in the image display section to log out or log out all. For details, please refer to "Image Display" at page 41.

You can also create new IP address information, or modify or remove the current IP address information.

Button	Function	Description
	Add	Click to directly add one IP address for login. Key in the DVR access information needed, and click "Apply" and "Close".
	Edit	Select one current IP address from the address list, and click this button to modify the DVR access information as needed.
	Remove	Select one IP address from the address list, and click this button to delete it.
N/A	REC	When the video viewer is connected to more than one device, and not all devices are necessary to enable the manual record function, check REC for the connected device(s), and its manual record function will be on.

Search)

Click to search and view the available IP address (es) for the DVR connection. You can choose one address to add into the address book, edit the details, or update the address list.

Button	Function	Description
	Add into address book	Select from the available IP address list, and click this button to add the selected address to the address book.
	Setting	Select from the available IP address list, and click this button to edit the setting.
S	Refresh	Click to update the available IP address list.

Miscellaneous Control

Click " (Miscellaneous Control) on the control panel and 7 functions are available as follows:



Button	Function	Description
I n i	Color Setting	Click this button to adjust the brightness / contrast / hue / saturation for a single channel or the whole channels. For details, please see "Color Setting" at page 43.
46	Backup	To make a video backup remotely, click this button, and you will go to the download setting page. For details, please see "Backup" at page 43.
	Record Setting	Click to go to the detailed record setting. Please refer to "Record Setting" at page 44 for details.
-2	Dvr Setting	Click to go into the detailed DVR setting. Please refer to "Dvr Setting" at page 46 for details.
8	Tools	Click to update the firmware version, multilingual OSD and boot display of your DVR remotely. Please refer to "Tools" at page 55 for details.
<i>•</i>	Status List	Click to view all event and recording logs, search the desired log(s) by date, or playback the recording of the selected log. For details, please refer to "Status List" at page 57.

> Color Setting

Click "Line" to go into the "Color Setting" page, and you can adjust the brightness / contrast / hue / saturation for a single channel or all channels.

	Color Setting	x
1 🔻		-
Brightn	ess	
Contra	Ist	
Hue		1.+
 Satur	ation	+

Choose the desired channel from the drop-down list, and click and drag the slider to make adjustment. Click " To apply the change to the selected channel, or " Type" to apply to all channels.

To restore to default values, click "

Note: You need to be a supervisor to operate this function. For details, please see "Account" at page 47.

Backup

Click "Click "Click" (Backup) to go into the "Download" page, and you can select a specific time range or event to make a video backup remotely.

Note: You need to be a supervisor to operate this function. For details, please see "Account" at page 47.

📴 Backup						
IP Address:	192.168.1.10 💌		Relo	ad b	Prev. Pag	e Next Page
Port:	80		5 🗆	System	🔽 Mar	ual 🗆 Alarm
User Name:	admin		Г	imer	Mot	ion
D b	****		NO.	Event	CH	Time
Password:			1	MOTION	1	2008/08/28 20:53:28
		-	2	MOTION	1	2008/08/28 20:50:05
HDD Number:	MASTER-1 - Refresh		3	MOTION	1	2008/08/28 20:48:14
		_	4	MOTION	1	2008/08/28 20:47:53
Channel:	1		5	MOTION	1	2008/08/28 20:46:20
			6	MOTION	1	2008/08/28 20:44:38
Start Time:	2008/08/28 20:42:31		7	MOTION	1	2008/08/28 20:44:03
			8	MOTION	1	2008/08/28 20:43:20
End Time:	2008/08/28 21:42:31		9	MOTION	1	2008/08/28 20:42:31
Enu mile.	2008/08/28 21:42:31		10	MOTION	1	2008/08/28 20:42:12
			11	MOTION	1	2008/08/28 20:41:54
File Path:	c:\download\		12	MOTION	1	2008/08/28 20:41:40
			13	MOTION	1	2008/08/28 20:41:19
Simultaneous Play	hack		14	MOTION	1	2008/08/28 20:40:27
i onnancous i ray	buck		15	MOTION	1	2008/08/28 20:39:20
			16	MOTION	1	2008/08/28 20:14:49
			17	MOTION	1	2008/08/28 19:51:09
			18	MOTION	1	2008/08/28 19:43:27
Downloa	d Cancel		19	MOTION	1	2008/08/28 19:41:59

Function	Description
IP Address / Port / User Name / Password	Check if the network connection information of the DVR within which contains the video data you need is correct.
HDD Number / Channel	Specify the hard disk (HDD Number) and channel number (Channel) within which have the video data you need.
Download by Time	Specify the time range within which has the video data you want in the "Start Time" and "End Time" columns.
Download by Event	 Select an event log from the event list. This list shows all logs in the specified DVR from the latest to the earliest. To quickly find the events you need, check or uncheck the event type "System" / "Manual" / "Alarm" / "Motion", and select the log you want. To view the earlier or later logs that are not shown in the current page, click "Prev. Page" or "Next Page". To refresh the event list, click "Reload".
File Path	Assign the location where the backup files are saved.
Simultaneous Playback	To view the backup images simultaneously when the download process is in progress, select Simultaneous Playback.
	You will see the backup images while the images are being downloaded to the PC or notebook.
	To simply backup images without previewing, deselect Simultaneous Playback. You will only see a message box indicating the total time needed, the current status and the saving location.
Download / Cancel	Click "Download" to start or "Cancel" to discard the video backup.

Record Setting

Click "Click "to go into the "Record Setting" page and you can set the following items:

- Record type
- Hard disk overwriting
- Pre- / post-alarm record time
- Record time setting
- Record path

cord Or	n/Off			Prev/Post Even	t Record Time
Manual	Schedu	le 🔽 Motio	on 🗆 Alarm	Prev.	J Sec.
Hard [)isk Overwrite			Post	Sec.
lecord T	ime Range				
Veekly	Custom		Schedule	💻 Alarm	Motion
		0 1 2 3		9 10 11 12 13 14	15 16 17 18 19 20 21 22 23
	Sun				
	Mon				
	Tue				
	Wed				
	Thu				
	Fri				
	Sat				
ecord F	Path				
Drive	Total(MB)	Free (MB)	Reserve(MB)	Video Path	Picture Path
C:	76308	46064	2048	C:\tempvideo\	C:\temppicture\
E:	78528	41019	2048	E/\	EA
F:	131061	85301	2048	FA	FA

Record type

In this section, you can select which type of the recording will be enabled. There are 4 options: Manual / Schedule / Motion / Alarm.

Hard disk overwriting

To overwrite the recorded data from the earliest to the latest when the hard disk is full, check "Hard Disk Overwrite" checkbox.

Pre- / post-alarm record time

Select the pre-/post-alarm recording time from 0 sec. to 10 sec.

Record time setting

There are two ways to set the record time: Weekly and Custom.

Weekly

Click "Weekly" tab, and you will see a weekly time table indicating the week days (Mon ~ Sun) and hours $(0 \sim 24)$, similar to the figure below:

Record Time Range	
Weekly Custom	드 Schedule 📁 Alarm 📰 Motion
+ -	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Sun	
Mon	
Tue	
Wed	
Thu	
Fri	
Sat	

X axis: 0 ~ 24 hours. Each time interval within a square is 15 minutes.

Y axis: Monday ~ Sunday.

Operation: You can set the record schedule for 3 record types as needed in this time table:

1st timeline – Schedule I recording, indicated in yellow,

2nd timeline -- Alarm recording, indicated in magenta, and

3rd timeline -- Motion recording, indicated in cyan.

Click and hold the start time point, and drag to the end time point to set the record time range.

Custom

Click "Custom" tab, and you can set a more specific record time range for the 3 record types: Schedule, Motion, and Alarm.



How to add a new time setting:

- i. Check the record type you want to schedule the recording.
- ii. Set the start time (From) and end time (To).
- iii. Click "Add" to add the time range you just set into the schedule table. Before adding the time range, you will be prompted to confirm as follow:

Information	×
One item will be	added:
Type: Motion From: 2008/08/ To: 2008/08/	28 4:04:28 PM 28 10:04:28 PM
Are you sure?	
(OK)	Cancel

iv. Check if the information shown is correct. Click "OK" if the information is correct. Click "Cancel" if the information is wrong.

How to modify / delete a current time setting:

Record Time Rang						
Heekly Custom						
🗆 Schedule	Motion	☐ Alarm		Add	Delete	Update
			Туре	Start Tim	e	End Time
Fre	om:					
2008/ 41	G. /28 16:04:28	÷₹				
land						
Т	o:					
00001.011	0.100.00.04.00					
2008/ AU	G. /28 22:04:28	÷				

- 1. Select the schedule setting you want to modify from the schedule table. The setting will be displayed in the left setting panel.
- 2. Modify the setting in the left setting panel, and click "Update".
- 3. You will be prompted to confirm the setting. Click "OK" if the information is correct. Click "Cancel" if the information is wrong.
- 4. To delete one schedule setting, select it, and click "Delete".

Record Path

Select and view the location for saving the recorded video and snapshot pictures.

To change the saving path for the recorded video clips or snapshots, check the drive you want, click the cell of "Video Path" or "Picture Path" twice, and select a new path for saving the video clips or snapshots.

> Dvr Setting

Click " to view, set or modify the DVR setting. All the changes you make here will be applied to the

connected DVR.

Note: You need to be a supervisor to operate this function. For details, please see "Account" at page 47.

General

In "General" and its sub-menus, "Log", "Account" and "Online User", you can view and set some common settings, such as the turbo step, make account setting, and check the information for all current on-line users.

Server setting . 192.10	JU.1.12	
General	General	
- Account - OnLineUser		
- Network	Firmware Version:	1227-1012-1032-1018-M1-6C1B
DDNS FTP		00.0E-E2-0D-0D-DD
MAIL Video	MAC Address:	00:0E:53:0D:9B:BD
⊡- Dvr Camera	Title:	-#
Device Detection	nue.	office
Record Record Timer	Turbo Step:	
Alert	Turbo Step.	
OK		
Cancel		
Apply		

In "General", you will see the following items:

Item	Description
Firmware Version	Display the current firmware version of your DVR.
MAC Address	Display the MAC address.
Title	Provide a title for this DVR. Only 16 characters are allowed.
Turbo Step	Speed up the menu selection from 1 to 30.
	Ex: If the value of the turbo step is set to 5, one mouse-click will function as 5 mouse-clicks when you click
	one of the buttons 존 / 💟 / 🚺 in the DVR control panel.

🔶 Log

In "General" \rightarrow "Log", you can view the system event log(s) of the connected DVR for reference. To check the previous / next page if there are more than one page, click "Prev. Page" / "Next Page". To refresh the event list, click "Reload"; to clear all log(s), click "Clean".

Log	General :: Log				
Account	Reload	Prev. Page	Next Page	Clear	n
- OnLineUser	Event	CH	Time	Message	
DDNS	Remote Login	0	2008/09/22 18:19:16	admin	
- FTP	Remote Login	0	2008/09/22 16:29:43	admin	
MAIL	Key Unlock	0	2008/09/22 14:51:11		
Video	Power On	0	2008/09/22 14:37:58		
Dvr	Video Loss	4	2008/09/22 14:37:56		
Camera	Video Loss	3	2008/09/22 14:37:56		
	Video Loss	2	2008/09/22 14:37:55		
Device	Video Loss	1	2008/09/22 14:37:54		
Detection	Power On	0	2008/09/22 14:37:51		
Record	Power On	0	2008/09/19 22:30:35		
- Record Timer	Key Unlock	0	2008/09/19 22:30:25		
- Alert	Power On	0	2008/09/19 22:23:43		
Display	POWER ON FRE	MOTE LOGIN	DDNS PPPO		
ок					
	🔽 FTP 🔽 EMAIL	R	7 RESET DEFAULT		
Cancel					

Account

In "General" \rightarrow "Account", you can create a new account for login, or delete or modify the existing account setting.

• To add an account, click "New", and fill in the following columns. Then, click "Apply" to save your setting and create a new account.

🔯 Server Setting : 192.168	3.1.12			×
General	General :: Account			
	User Name admin	User Level	Life Time	
□- Network DDNS FTP MAIL Video □- Dvr Camera	amm	Supervisor		
Device Detection Record				
Record Timer Alert	User Name: User Level: Sum	danini	Password:	*****
Display OK	User Level. Sup	ervisor New Delete	Life Time:	INFINITE 💌
Cancel	L		1770	
Apply	Max User(s):	10 🗆 Anonyr	nous Viewer Login	Update
📴 Server Setting : 192.16	8.1.12	•		X
⊡-General Log	General :: Account			
Account OnLineUser Network	User Name admin	User Level Supervisor		Time NI TE
DDNS FTP MAIL Video D-Dvr Camera				
Device Detection				
Record Record Timer Alert	User Name:	Interneger	Password:	*****
Display OK	User Level: Pow	ver User	Life Time:	1 HOUR 💌
Cancel		Cancel Delete	Apply	
Apply	Max User(s):	20 🔽 Anony	mous Viewer Login	Update

Column	Description				
User Name	Set a user name that will t	be used for remote	login. The user na	ame allows up to 16	characters.
Password	Set the password that will	be used for remot	e login. The passw	vord allows up to 16	characters.
User Level	Set the security level of ar user levels: Supervisor, Po			ontrol different AP fu	nctions. There are 4
	For the functions each lev	el is allowed to us	e, please see the i	nformation below:	
		Supervisor	Power User	Normal User	Guest
	Address Book	●	•	•	•
	Miscellaneous Control				
	Color Setting	●	X	X	X
	Backup	●	X	X	X
	Record Setting	•	•	•	lacksquare
	Server Setting	●	X	X	X
	Tools	●	X	X	X
	Status List	•	•	•	•
	Record	●	•	•	•
	Snapshot	•	•	•	•
	Information	•	•	•	•
	Dvr Control	•	•	•	X

- To modify an existing account, select the account you want, change the setting, and click "Save".
- To remove an existing account, select the account you want, and click "Delete".
- To save your changes, click "Save".
- To define the maximum account creation number, key in the number in "Max User(s)" column from 1 to 20, and click "Update".

OnLineUser

In "General" \rightarrow "Online User", you can check all the online user information. To update the user information, click "Refresh".

Server Setting : 192.168.1.1	2			
🖃 General 🛛 🕞 Ge	neral :: OnLineUser			
Log Account OnLineUser Network	Online User Ir	formation:		Refresh
···· FTP	User Name	User Level	IP Address	Media Type
MAIL Video	admin	Supervisor	192.168.1.196	MPEG_AUDIO
⊡ Dvr	occinilar	Supervisor	152.100.1.150	MIDO_NODIO
Camera				
Device				
Detection				
Record				
Record Timer				
Alert				
Display				
ОК				
Cancel				
Apply				

Network

In "Network" and its sub-menu, "DDNS", you can set the DVR network configuration. The network configuration allows the DVR to connect to the LAN or Internet.

🔯 Server Setting : 192.16	58.1.12	×
General Log Account OnLineUser	Network IP Type: © Static IP © PPPOE © DHCP	
DDNS 	Static IP Server IP: 192 . 168 . 1 . 12	
⊡- Dvr Camera Device Detection Record Record Timer	Gateway: 192 168 1 254 NetMask: 255 255 0 Web Port: 80 0 0	
Alert Display OK	PPPOE User Name: Password: ****	
Cancel Apply		

Select the network type you will be using for DVR connection. There are 3 network connection types: Static IP, PPPOE and DHCP. For details about each connection type, please refer to "7.1.4 Network" at page 26.

Note: PPPOE and DHCP network connection types are required to apply the DDNS service to get a "Hostname" to correspond to a dynamic IP address. Please refer to "DDNS" at page 49 for details.

DDNS

You need to apply a DDNS account before setting PPPOE or DHCP connection. DDNS is a service for transforming the dynamic IP corresponding to a specific "host name". Go to a website which provide free DDNS services and apply a host name.

Openeral Network :: DDNS Orac count OnlineUser ONS Server1: 168 . 95 . 1 . 1 ONS Server2: 139 . 175 . 55 . 244 DNS Server2: 139 . 175 . 55 . 244 DNS: © On Oprice DDNS: Device System Name: Detection User Name: User Name: manager
Account OnLineUser DNS Server1: 168 . 95 . 1 . 1 • Network • FIP • MAIL • Video DNS Server2: 139 . 175 . 55 . 244 • Video DDNS: • On • On • Video DDNS: • On • Off • Device Device user Name: manager
DNS DNS Server2: 139.175.55.244 FTP MAIL Video DDNS: On Output DDNS: On Camera System Name: dyndns Device Detection User Name:
Video DDNS: O n O Off ⊡ Dvr □ Device System Name: dyndns ▼ □ Device □ Device □ Device □ Device
Detection User Name' manager
Record Timer Password:
OK Hostname: manager.dyndns.org
Cancel Verify Code:
Apply

DDNS Apply:

- a). Go to a website which provide the free DDNS service, for example, http://www.dyndns.org.
- b). Create an account in DynDNS.
- c). After creating one account, users will receive a confirmation E-mail within a few minutes. To complete the registration, please follow the instructions received.
 Users must complete these steps within 48 hours to complete the registration. If the confirmation E-mail was not received within an hour, request "password reset"
 - (http://www.dyndns.org/account/resetpass/).
- d). Use the DDNS username and password to log into the DynDNS.
- e). Create a host name:

After login, click "Account" \rightarrow "My Service" \rightarrow "Add Host Services" \rightarrow "Add Dynamic DNS Host". Enter and choose a host name, and click "Add Host". Then, your DDNS host name is created.

Add Host Services Add Host Services Dynamic DNS (2, Add Dynamic DNS) Prop Outburns Conste DNS Dynamic DNS (2, Add Dynamic DNS) Dynamic DNS (3, Add Dynamic DNS) Dynamic DNS (4, Add Dynamic DNS) Dynamic DNS (4, Add Dynamic DNS) Dynamic DNS Dyna	🖉 🛃 höpenborre dyndmaap	hoconative-ion/hosts/s	(1)tel		2	- 1985 #\$ " G lugh 🗠	t
Add Host Services Add Host Services Add Host Services Dynamic DNS (C Add Denamic DNS)(C Add Denamic DNS)(🎯 DynD	NS		<u> </u>			2
Add Host Services Add Host Services		About	Services	Account Suss	on News		
Services Ourit Upgrades Proposed Billion Construction Dynamic DNS (Construction Construction Dynamic DNS (Construction Construction Dynamic DNS (Construction Dynamic DNS (Con	Account	Add Hos	t Services	e			
	Services	Auditos			4		
Austive DRIS New Dynamic DNS SM Host Austive Services Austive Services IP Address: IP Address: IP Add	ourt Upgrades			Dynamic DNS (2) And D	namic DNSHest		
Consis dd Zoro Services dot Zoro S	such orthotoria						
dd Zene Services Aasta data dd Zene Services data dd Zene Services data DF Address: PADDress: PADDres	cursive DINS		100				
Asth IP Address: IP I	cursive DRIS		Ne				-
22 Hist Services (Synchro Sr Sak CNS Sak CNS Nohiog Mail Exchanger (optional): Wrebi-top (Synchro Sr Same-host org pame-host org pame	Zones		Ne	w Dynamic DNS SM H	lost	linter m N	-
taki: DNS gama-bost.org gotdrs.com gotdrs.co	tonos dd Zone Services 4sets		Ne	W Dynamic DNS SM H	lost MeutteatNania	dyndra org	
Webidep Webidep sund Nun Extring sunt Settings	A Zones do Zone Services Hosts do Host Services		Ne	W Dynamic DNS SM H Hostname: IP Address:	Veuttestiuneu 21175.8496	dyndris org dyndris tv	*
advode Monitoring goddie.cog podrie.cog nam-radio-op.net	A Zones dd Zone Services Hosts ad Host Services Spanic DNS Indic DNS		Ne	W Dynamic DNS SM H Hostname: IP Address: Enable Wildcard:	Veuttestiuneu 21175.8496	dyndria dig dyndria tv dyndria tw game-host org	5
turn Settings harm-radio-to net	Zonas dd Zone Services Hasta 33 Host Services ynamic DNS taic DNS kotHog		Ne	W Dynamic DNS SM H Hostname: IP Address: Enable Wildcard:	Veuttestiuneu 21175.8496	Syntros org dyntins tw dyntins tw game-host org game-sover.cc setmyip com	31.5
	tanes 35 Zene Services Jasta 35 Hist Services anamic DNS Jakic DNS kok Hog AVrebi-top		Ne	W Dynamic DNS SM H Hostname: IP Address: Enable Wildcard:	Veuttestiuneu 21175.8496	Syntra tra dyntra tra dyntra tra sama-tost tra sama-tost cra setmyp com sotars com	31.5

FTP

If the FTP notification function is activated, the DVR will upload the captured images to the specified FTP site once alarm-trigger or motion-trigger recording happened. Please enable the function of FTP notification in the "Alert" menu first.

📴 Server Setting : 192.16	8.1.12			×
📮 General	Network :: FTP			
Log Account				
OnLineUser	Use	r Name:	manager	
- Network				
FIP	Pas	ssword:	******	
MAIL Video			-	
		Port:	21	
···· Camera				
Device Detection	S	erver:	192.168.1.6	
Record				
Record Timer Alert	Dir	ectory:	event	
Display				
OK				
Cancel				
Apply				

FTP Notification Function:

- a. Enter the detailed FTP information.
- b. After finishing the setting, click "APPLY" to confirm.
- MAIL

If the e-mail notification function is activated, the DVR will send an e-mail notification to the specified recipients once alarm-trigger or motion-trigger recording happened. Please enable the function of e-mail notification in the "Alert" menu first.

📴 Server Setting : 192.16	58.1.12	×
Server Setting: 192.16 General ContineUser Network FIP Video DVS Camera Device Device Detection Record Timer Alert	Network :: MAIL Server: 192.168.1.6 Mail From: manager@tech.com Verify Password Verify: © Yes C No User: manager Password: ******* Email Address Mail Account	X
Display	ceo@tech.com Add	
ОК		
Cancel	Delete	
Apply		

Mail Notification Function:

a. Add the recipients' E-mail accounts in "Mail Account" column.

Please type the entire E-mail address in the "Mail from" column to ensure E-mails will not be blocked by SMTP.

For detailed information (SMTP server, username and password), please check with your E-mail service supplier.

b. Some mail servers are required to verify the password. Please enter the "user name" and "password".

c. After finishing the setting, click "APPLY" to confirm. Note: Mail addresses can be added up to 4.

Video

In "Video", you can set the video web transmission size and quality, and the frame rate for transmitting.

🔤 Server Setting : 192.16	168.1.12	×
🖃 General	Video	
Log		
Account		
OnLineUser		
DDNS	JPEG: 4CIF V HIGH V	
FTP	JPEG: 4CIF HIGH	
MAIL		
<mark>Video</mark> ⊡- Dvr		
Camera		
Device	MPEG: CIF 💌 NORMAL 💌	
- Detection		
Record Record Timer		
Alert	5 P	
Display	FrameRate: FULL 💌	
ОК		
Cancel		
Calicer		
Apply		

Function	Description
JPEG	Choose the image size (4CIF / CIF) and picture quality (BEST / HIGH / NORMAL / BASIC) when the web transmission format is JPEG.
H264	Choose the image size (4CIF / CIF) and picture quality (BEST / HIGH / NORMAL / BASIC) when the web transmission format is MPEG.
FrameRate	Choose the frame rate for transmitting (FULL, 1/2, 1/3, 1/4, 1/5, 1/10, 1/15, 1/20, 1/25, 1/30).

Dvr

In "Dvr" and its sub-menus, "Camera", "Device", "Detection", "Record", "Record Timer", "Alert" and "Display," you can set DVR general functions, such as the host ID, the record schedule, alerts, motion detection, and text or icon display, etc.

📴 Server Setting : 192.16	8.1.12	×
General	Dvr	
Account OnLineUser	Host ID: 12 (0~254)	
- Network	System Type: C NTSC @ PAL De-interlace: @ On C Off	
FTP MAIL	Daylight Saving	
- Video	⊙On COff Adjust: 01:00 ÷	
Camera. Device	Start: Aug. 🔻 First Week 💌 Mon. 💌 06:00 🚊	
Detection Record	End: Oct. 💌 Last Week 💌 Mon. 💌 10:00 🚊	
Record Timer Alert	Menu Operation	
OK	AutoKeyLock: 30 Seconds	
Cancel	Serial Port Type: RS485 V Baud Rate: 2400 V	
Apply		

Function	Description
Host ID	Set the host ID from 0 to 254. The default value is 0.
System Type	Display the current system type (NTSC / PAL). It's automatically detected.
De-interlace	Choose to reduce (ON) or ignore (OFF) the vibration of the paused picture.
Daylight Saving	Specify whether to use daylight saving time (ON / OFF). If this function is enabled, set the time period (START / END), and adjust the daylight saving time in hours (ADJUST).
Menu Operation	Select the time-out in seconds after which the DVR keys will be automatically locked when no one is operating the DVR for a period of time (0 / 30 / 60 / 120). The default value is 30.
Serial Type	Display the serial type (RS485) used by this DVR. It's automatically detected.
BaudRate	Choose a baud rate used by this DVR from the drop-down list (2400 / 9600 / 19200 / 38400 / 57600 / 115200). The default value is 2400.

Camera

In "Dvr" \rightarrow "Camera", you can specify a channel to enable the recording function by selecting the check

box "Record", choose to activate the "Covert Recording" function by selecting the check box "Cover", and rename the channel title which will be displayed in the live view screen by double-clicking the channel title.

Server Setting : 192.16 E- General	Dvr :: Camera	_				
Log		_				
Account						
OnLineUser		CH	Title	Cover	Record	
Network		1	CH1			
DDNS		2	CH2		বব	
FTP		3	CH3			
MAIL		4	CH4			
Video					I	
Dvr					I	
Camera					I	
Device					I	
- Detection					I	
Record					I	
- Record Timer					I	
Alert					I	
Display					I	
	ī				I	
OK					I	
	1					
Cancel						
Apply	1					

Device

Select the device type (CAMERA / PTZ) according to the connected cameras for each channel. Click "Edit" or double click the item to enter the setting box.



Function	Description
DEVICE	Choose either normal camera or PTZ camera.
ID	Set the ID number (0 ~ 255) of the connected PTZ camera.
PROTOCOL	Choose "NORMAL" or "P-D" protocol. It is recommended to select PELCO-D protocol for the
	connected PTZ camera of other brands. Please choose Normal if it's our own PTZ camera
RATE	Set the baud rate of each channel (2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200).

Detection

Select the desired channel, and click "Edit" or double click the item to enter the motion detection sensitivity and area-setting page.

- General Log	Dvr :: Detection									
Account OnLineUser		CH	DETECT	LS	SS	TS	RE	ALARM		
Network		1	ON	7	3	2	10	OFF OFF		
FTP		2 3	OFF OFF	7	3	2	10 10	OFF		
MAIL Video		4	OFF	7	3	2	10	OFF		
Dvr				-	-					
Camera										
- Device										
Detection										
Record Record Timer										
Alert										
	1									
OK					-					
OK										
					Ed					



Please see the description below for each function:

Function	Description
DETECT	Enable (ON) or disable (OFF) the function of "Motion Detection".

Function	Description
	If this function is enabled, you might need to set the motion detection sensitivity or simply keep the default values. For details, please see the description below.
Motion Detection Sensitivity (LS / SS / TS / RE)	Set the detection sensitivity in 4 different adjustable parameters (LS / SS / TS / RE). For details about each parameter, please refer to "7.1.2 Detection" at page 23.
Alarm	Select N.C. (normal closed) / N.O. (normal opened) / OFF for the alarm polarity. For N.C. / N.O. contact details, please refer to "APPENDIX 1 PIN CONFIGURATION" at page 64.
Motion Detection Setting Area	Set the motion detection area by selecting the area grids with your mouse. Pink grids represent the area that is not being detected while the transparent grids are the area under detection. You can set multiple areas under detection. Click "—" (Clear All) to set the whole area undetected.
	Click "+" (Select All) to set the whole area under detection.
Apply / Return	To save the setting, click "Apply" and return to "Server Setting" window.
	To discard the setting, click "Return" to directly return to "Server Setting" window without saving.

Record

In "Dvr" \rightarrow "Record", you will see the following items for DVR record settings.

📴 Server Setting : 192.16	58.1.10	×
General General General General General General General OnLineUser OnlineU	Dvr :: Record Image Size: CIF Quality: BEST Manual Record	~
ОК		
Cancel Apply	verwrite: r Yes C No	

Function	Description
Image Size / Quality	Choose the image size (FRAME / FIELD / CIF) and quality (BEST / HIGH / NORMAL / BASIC).
Manual Record / Event Record / Timer Record	Select the record type that the DVR will take recording (Yes / No), and select the IPS setting for the selected record type.
Pre-Alarm Record	Check this option if you want to enable the pre-alarm recording function.
	When any alarm is triggered, the DVR will record 8MB video data before the alarm event is actually happened.
Overwrite	Select "Yes" to enable the HDD overwrite function when the HDD is full, or "No" to disable this function.
	When this function is on, and the recording and the pre-alarm function are activated, the DVR will overwrite 8GB data from the oldest for continuous recording without notice.

Record Timer

In this menu list, you can set the record schedule for normal recording or motion recording.



Select this checkbox to allow the record timer setting to be applied to the connected DVR. If this checkbox is deselected, the setting will not be applied to the connected DVR even when you click "Apply" and "OK".

Routine / Motion

Click "Routine" tab to select the time range for continuous recording, or "Motion" tab to select the time range within which the recording will be on when any movement is detected.

Time Table

Find the day and time you want to enable the recording. Then, click to select the time interval(s). Each interval represents 30 minutes.

To enable the recording all the time, click "+"; to clear the record timer setting, click "-".

Alert

In "Alert", you can set the DVR to beep for notification when there's any alert happened. Check the buzzer option you want, and set how long the beep sound will be lasted.

🔯 Server Setting : 192.16	8.1.12		×
- General	Dvr :: Alert		
Log Account			
OnLineUser	Ext Alert:	v	
DDNS			
FTP	Buzzer Enabled:	N	
MAIL Wideo	Motion Buzzer:	ঘ	
⊡ Dvr		12	
···· Camera ···· Device	Alarm Buzzer:		
Detection			
Record	Video Loss Buzzer:	N	
Alert	Key Input Buzzer:	ঘ	
Display		le.	
ОК	Notified by:	🔽 Email	E FTP
Cancel			
Apply	Duration:	5 🗾	

Function	Description
Ext Alert	Check this option to enable the external alert.
Buzzer Enabled	This option must be checked for "Motion Buzzer", "Alarm Buzzer", "Video Loss Buzzer", and "Key Input Buzzer" to take effects.
Motion Buzzer / Alarm Buzzer / Video Loss Buzzer / Key Input buzzer	Check one of these 4 options, and you will hear the beep sound when any movement is detected / the alarm is triggered / video loss occurs / any DVR key is pressed.
Notified by	Select the notification method when any event occurs: Email or FTP.
Duration	Set the alert and buzzers to beep for 5 / 10 / 20 / 40 seconds.

Display

In "Display", you can choose whether to display some text indication or icons, set the channel display switch time-out, set the DVR time remotely, and select the date format (Y-M-D / M-D-Y / D-M-Y).

General Dvr :: Display Log Account OnLineUser Title: Network DDNS FTP Event: Wateo Quick Status: Dvr Camera Device Full Sequence Duration: Device Full Sequence Duration: Record Quad Sequence Duration: Alert Quad Sequence Duration: OK Server Time: Apply Date Format:	🔯 Server Setting : 192.16	8.1.10	×
→ Log → Log → Account → OnLineUser → Network → → Network → → FTP Event: → MAIL → Video ⊖ Dvr ○ Camera → Detection → Record		Dvr :: Display	
OnLineUser Title: Image: Control of the second			
Network P DDNS FTP WAIL Video Quick Status: V Camera Device Device Full Sequence Duration: Record Record limer Alert Quad Sequence Duration: OK Server Time: Date Format: © Y-M-D		Tial - 1	-
DDNS -FTP Event: V -FTP Quick Status: V -Camera Device Quick Status: V -Device Full Sequence Duration: 3 V -Record Timer Quad Sequence Duration: 3 V -Display OK Server Time: 2008/12/08 18:37 V OK Date Format: © Y-M-D C M-D-Y D-M-Y		Hue.	M
MAIL Video Dvr Quick Status: Device Full Sequence Duration: Detection Full Sequence Duration: Record Quick Status: Alert Quick Sequence Duration: OK Server Time: Quick Status: Video	DDNS		
Video Quick Status: Image: Camera Device Full Sequence Duration: 3 Image: Camera Device Full Sequence Duration: 3 Image: Camera Record Timer Quad Sequence Duration: 3 Image: Camera OK Server Time: 2008/12/08 18:37 Image: Camera OK Server Time: 2008/12/08 18:37 Image: Camera		Event:	
Ovr Quick Status: Camera Device Detection Record Record Timer Alert Display OK Server Time: 2008/12/08 18:37 OK Date Format:			
Camera Device Device Detection Record Record Alert Display OK Server Time: 2008/12/08 18:37 OK Cancel Date Format:		Quick Status:	
Detection Full Sequence Duration: 3 Record Quad Sequence Duration: 3 Alert Quad Sequence Duration: 3 OK Server Time: 2008/12/08 18:37 Cancel Date Format: © Y-M-D			
Record Record Record Quad Sequence Duration: Display 3 OK Server Time: 2008/12/08 18:37 - Cancel Date Format: © Y-M-D		Full Seguence Duration:	
Record Timer Quad Sequence Duration: 3 Alert Display OK Server Time: 2008/12/08 18:37 - Cancel Date Format: © Y-M-D		Fun Sequence Duration:	3
Alert Quad Sequence Duration: 3 OK Server Time: 2008/12/08 18:37 Cancel Date Format: © Y-M-D C M-D-Y			
OK Server Time: 2008/12/08 18:37 Cancel Date Format: © Y-M-D C		Quad Sequence Duration:	3 🔹
Cancel Date Format: © Y-M-D C M-D-Y C D-M-Y	Display		
Cancel Date Format: © Y-M-D C M-D-Y C D-M-Y	OK	Server Time:	2008/12/08 18:37
Date Format: • Y-M-D O M-D-Y O D-M-Y			,
	Cancel	Date Format	CAND CNDA CDNA
when	Apply		
	мини		

Function	Description
Title	Select to display the channel title in the live view.
Event	Select to display the event symbol in the live view.

Quick Status	Select to display the quick status in the live view.
Full Sequence Duration /	Set the time-out in seconds (3 / 5 / 10 / 15) after which the channel display will be switched
Quad Sequence Duration	by one channel (Full Sequence Duration) or by four channels (Quad Sequence Duration).
	Note: "Quad Sequence Duration" is disabled for the 4CH DVR model.
Server Time	Set the DVR time remotely.
Date Format	Choose the date display format appropriate to your location (Y-M-D, M-D-Y and D-M-Y).

> Tools

Click " to upgrade your DVR (Update Server), or select the language of the video viewer (Language).

Note: You need to be a supervisor to operate this function. For details, please see "Account" at page 47.

Note: Do not disconnect the power of your DVR while the upgrade process is in progress, or the DVR functions may not work properly or be unable to use.

• Update Server

3 update options are available for this function: Firmware, Language and Logo.

Before performing any update, finish the following settings first:

- 1) Choose the IP address of the DVR whose firmware needs to be updated from the drop-down list, or click "Search" to find.
- 2) Key in the user name, password and port number used to access your DVR remotely.
- 3) Select the update option (Firmware / Language / Logo) you want. For details, please see the description below.
- Firmware

To upgrade your DVR firmware remotely, click "Firmware" tab, and follow the steps below:

21001			
Update Server Language	e		
IP Address:	192.168.1.12 💌	Search	Port: 80
User Name:	admin	Password:	****
Firmware Language L	ogo		
Current version: 1227	7-1012-1032-1018-	A1-6C1B	
		(Add	Remove
G:¦xml_4.bin G:¦Applmg_4.bin			
	Update Firm	nware	
Configure File			I
System Backup:			Backup

- a). In the "Firmware" section, you will see the current firmware version. To upgrade the firmware version of your DVR, click "Add" to locate and select the firmware file. The file will be shown in the firmware list.
- b). If you want to backup your system before upgrading the firmware version of your DVR, select "System Backup" in the "Configure File" section, click "..." to specify the location for saving system backup, and click "Backup" to start the backup process.
- c). To start upgrading the DVR firmware, choose the file from the firmware list, and click "Update Firmware" to start the upgrade process.
- Language

To update the DVR OSD language, click "Language" tab, and follow the steps below:

Tools			
Update Server Lang	uage		
IP Address:	192.168.1.12 💌	Search	Port: 80
User Name:	admin	Password:	****
Firmware Language	Logo		
		Add	Remove
		Auu	Reinove
G:\GlyphData_de G:\StringInfo_de			
	Update Langua	ge	

- a). Get the language files you want to update from your distributor.
- b) Click "Add" to locate and select the files needed. The files will be shown in the list. If you add the wrong file, select it and click "Remove".
- c). To start updating the OSD language, choose the files from the list, and click "Update Language" to start the upgrade process.

• Logo

To replace the logo shown in the DVR boot display, click "Logo" tab, and follow the steps below:

Update Server Language IP Address: 192.168.1.12 Search Port: 80 User Name: admin Password: ***** Firmware Language Logo Add Remove
User Name: admin Password: ***** Firmware Language Logo Add Remove
Firmware Language Logo
Add Remove
G:\logo.bmp
Update Logo

a). Prepare a graphic file in the "BMP" format for replacement.

Note: Use the image software to set the image size to 320 * 240, and save the image as an 8-bit (64-color) image in the "BMP" format.

- b) Click "Add" to locate and select the graphic file. The file will be shown in the list. If you add the wrong file, select it and click "Remove".
- c). To start updating the logo, choose the file from the list, and click "Update Logo" to start the upgrade process.
- Language

This software is available in English / Chinese / French / German / Portuguese / Spanish / Japanese. Select a language from the drop-down list, and click "Apply". You will be prompted to restart the application for this change to take effect.

Tools
Update Server Language
Language: German
Apply

Status List

Click "The specific log(s) by date or by record type.

There are three types of logs: Record, Backup and Event. To playback the recorded data for a specific record or backup log, select the log, and double-click to start the video playback.

From:	2008/ SEP. /23	· To:	2008/ 九月 /23	Here Motion	⊠ R	ETR.
ecord	Backup Event				Qu	ery
Event	IP	Start Time	End Time	File Path	Reserve	Error 4
User	192.168.1.12	09/23/08 20:41:07	09/23/08 20:41:07	C:\tempvideo\20080923204107_off:		
User	192.168.1.12	09/23/08 20:36:45	09/23/08 20:36:45	C:\tempvideo\20080923203645_off:		
User	192.168.1.12	09/23/08 20:18:56	09/23/08 20:41:07	C:\tempvideo\20080923201856_off:		
User	192.168.1.12	09/23/08 20:13:22	09/23/08 20:36:45	C:\tempvideo\20080923201322_off:		
Motion	192.168.1.12	09/23/08 20:05:30	09/23/08 20:05:35	C:\tempvideo\20080923200530_off:		
Motion	192.168.1.12	09/23/08 20:05:30	09/23/08 20:05:35	C:\tempvideo\20080923194836_off:		
Motion	192.168.1.12	09/23/08 20:05:30	09/23/08 20:05:35	C:\tempvideo\20080923195524_off:		
User	192.168.1.12	09/23/08 19:55:24	09/23/08 20:18:56	C:\tempvideo\20080923195524_off:		
User	192.168.1.12	09/23/08 19:48:36	09/23/08 20:13:22	C:\tempvideo\20080923194836_off:		
User	192.168.1.12	09/23/08 19:32:55	09/23/08 19:55:24	C:\tempvideo\20080923193255_off:		
User	192.168.1.12	09/23/08 19:24:51	09/23/08 19:48:36	C:\tempvideo\20080923192451_off:		
User	192.168.1.12	09/23/08 19:10:26	09/23/08 19:32:55	C:\tempvideo\20080923191026_off:		
User	192.168.1.12	09/23/08 19:01:05	09/23/08 19:24:51	C:\tempvideo\20080923190105_off:		
User	192.168.1.12	09/23/08 18:47:57	09/23/08 19:10:26	C:\tempvideo\20080923184757_off:		
Motion	192.168.1.12	09/23/08 18:46:17	09/23/08 18:46:28	C:\tempvideo\20080923183720_off:		
Motion	192.168.1.12	09/23/08 18:46:17	09/23/08 18:46:28	C:\tempvideo\20080923182528_off:		
Motion	192.168.1.12	09/23/08 18:46:17	09/23/08 18:46:28	C:\tempvideo\20080923184617_off:		
User	192.168.1.12	09/23/08 18:37:20	09/23/08 19:01:05	C:\tempvideo\20080923183720_off:		
Total	Records:	133 Delete	Delete All	Play Repair	App	l vic

For detailed playback operation, please refer to "Playback Screen" at page 58.

Function	Description
Time Range	To find the specific logs, set the time range (From / To), and the range unit here.
Record Type	Select the record type you want to search (User / Alarm / Motion / RETR).
Query	Click to start sorting the logs specified.
Delete / Delete All	 Click "Delete" to remove the selected log(s), or click "Delete All" to clear the current log list. Tip: To select more logs all at once, press and hold the "Ctrl" key on your keyboard, and click to select the logs you want to remove.
Play	Click to play the selected record log. The playback panel will be shown for your further operation. For playback details, please refer to Playback Screen" at page 58.
Repair	Click to fix the log with errors.
Close	Click "Close" to quit this window.

Playback Screen

When you select and play the recorded data for a specific log in " \square " (Status List) \rightarrow "Record" or

"Backup", you will immediately go into the playback mode, and the following playback panel appears. For the function of each part on the panel, please refer to the following description.



NO.	Function	Description
1	Playback / Download Info Display	This area shows the detailed playback / download information, such as the file name, record date and time, and the speed, etc.
0	Playback Operation	This area is enabled only when the playback is started. (Rewind) / (Forward) / (Stop) / (Pause) / (Play) (Rewind / Forward Click once to get 2X fast rewind / forward, twice to get 4X, three times to get 8X, and four times to get 16X the highest.
3	De-Interlace	Click to reduce the vibration of the paused picture.
4	Playback Progress Bar	This area shows the playback progress and the progress percentage.

Information

To view the current network connection details, click this button.



DVR Control

When Video Viewer is connected to the DVR, this DVR control panel will be enabled, and you can control the DVR remotely. For the function of each button, please refer to the following description.

Note: The control panel below is taking 16CH DVR model as an example. Some buttons may not be enabled for 8CH or 4CH DVR models.



Function	Description
Channel Selection	Click the channel No. (depending on the DVR model you have) to see the live view of the selected channel.
	Click to switch the 4-cut channel display.
	Click to see the 9-cut channel display.
	Click to see the whole 16 channels.
	You can also click " " or " " " to go to the previous / next channel of the selected channel.
Digital Zoom	Click of to zoom in / out the selected channel image.
Full Sequence /	Quad Sequence
Quad Sequence	Click to display the 4 quad display modes one by one.
	The 1 st view is CH1, CH2, CH5 & CH6, the 2 nd view is CH3, CH4, CH7 & CH8, the 3 rd view is CH9, CH10, CH13 & CH14, and the 4 th view is CH11, CH12, CH15 & CH16.
	When the 4 th view is displayed, it will start from the 1 st view again.
	To exit from this display mode, click any other channel display button.
	Note: This button is disabled for 4CH DVR model.
	Full Sequence
	Click to display each channel one by one, starting from CH1. When the last channel is displayed, it will start from CH1 again.
	To exit from this display mode, click any other channel display button.
Search	Click " Click " Click " Click " Click "
	You can check all the logs here, and select one of them to payback.
Playback	(Stop) / 🛄 (Pause) / 🎑 (Rewind) / 💽 (Play) / ဲ (Slow Playback) / 💌 (Forward)
	Rewind / Forward Click once to get 4X fast rewind / forward, twice to get 8X, three times to get 16X, and four times to get 32X the highest. Slow Playback Click once to get 4X slow playback and twice to get 8X slow playback.
Menu and Arrow Keys	Click "O (Menu) to enter the menu / exit the menu mode.

~59~

Function	Description
	Click the arrow keys to move the cursor and make the selection:
	/ I have up / down to select the previous / next menu or sub-menu function, or change the setting.
	/ Nove left / right to the previous / next sub-menu items.
Network Independent	Click it to activate / inactivate the network independent function. The related buttons will turn to
On/Off	blue.
Enter	Click "Cellick "Cellic Click "Cellic Click "Cellic Click "Cellic Click "Cellic Click "Cellic Click" Cellic Click "Cellic Click"
R.E.T.R.	Click to activate the R.E.T.R. function.
R.E.T.R. Audio	When 💼 is selected and activated, the R.E.T.R. audio function will be on (🔝), too. If you don't want to
	activate this function, click the red icon again to disable this function (
Event Search	Click event search mode.

8.2 IE Web Browser

You can view the images or operate your DVR with IE web browser.

Note: The supported PC operation systems are Windows 2000 and Windows XP and Vista

- Step 1: Key in the IP address used by your DVR in the URL address box, such as 60.121.46.236, and press Enter. You will be prompted to enter the user name and password to access the DVR.
 If the port number your DVR used is NOT 80, you need to key in the port number additionally. The format is *ipaddress:portnum*. For example, for IP address 60.121.46.236 and port No. 888, please key in "http://60.121.46.236:888" into the URL address box, and press "Enter".
- Step 2: Enter the user name and password, the same as the ones used at AP login, and click "OK". You will see a similar screen as the following when the login information is correct.

Note: The buttons and functions described below are taking 4CH DVR model as an example.



NO.	Function	Description
1	Home	Click ogo to the main page of the DVR
2	Config.	Click Sector Click
3	PTZ	Click 😡 to enter the PTZ mode.
4	Channel Selection	Click one of the number to switch to the channel you want to see in full screen.
5	Selection	Click 🖽 or 🖃 to go to the previous / next channel, or change setting.
6	Display Mode	 Click to show 4-cut display. Click to display each channel one by one, starting from CH1. When the last channel is displayed, it will start from CH1 again. To exit from this display mode, press any other channel display button.
7	Menu and Arrow Keys	 Click to enter the menu / exit the menu mode. Move up / down to select the previous / next menu or sub-menu function, or change the setting. Move left / right to the previous / next sub-menu items.
8	Event	Click 🗉 to enter the playback search settings screen.

REMOTE OPERATION

NO.	Function	Description
9	Snapshot	Click I to take a snapshot for the current view, and open another browser window to display the captured image.
10	Key Lock	Click 🗐 to enable the DVR key lock function. To unlock the DVR, key in your password, and press 🖳
11	Enter	Click to confirm the setting or enter your selection.
12	Digital Zoom	Click 💴 to zoom in / out the selected channel image.
13	Search	Click 🔟 to enter the DVR full search menu. You can check all the logs here, and select one of them to payback.
14	Playback control buttons	 (Stop) / (Play) / (Rewind) / (Forward) / (Pause) / (Slow Playback) <u>Rewind / Forward</u> Click once to get 4X fast rewind / forward, twice to get 8X, three times to get 16X, and four times to get 32X the highest. <u>Slow Playback</u> Click once to get 4X slow playback and twice to get 8X slow playback.
15	Web Transmission	H.264 / M-JPEG / QuickTime (Depending on the model you have) QuickTime is Apple Inc.'s multimedia software. You need to have QuickTime installed in you operation system first. When "QuickTime" is selected, you will be promoted to enter the user name and password to access the server of the DVR.
16	Change Quality	BEST / HIGH / NORMAL / BASIC Click to change the image quality.
17	Change Resolution	<u>4 CIF / CIF</u> Click to change the image resolution (4CIF: 704*480 / CIF: 352*240)
18	Remote Independent Operation Off / On	Click it to disable / enable the network independent function.

8.3 Quick Timer Player

You can also use the QuickTime player to remotely log into the DVR and check the live view only.

- **Note:** QuickTime is Apple's multimedia software. You need to have QuickTime installed in you operation system first, and you can access the DVR to see the live view. If you have installed QuickTime, please skip Step 1.
- **Note:** The latest version of QuickTime is V6.4 at the time this manual goes to press, and the supported operation systems are Windows Vista / XP / 2000, and Apple Mac.
 - Step 1: Go to Apple's official website to download QuickTime. The website address is as follows: http://www.apple.com/quicktime/win.html
 - a). Click "Free Download" to go into the download page, and select to download the free player.
 - b). Leave your Email address, and click "Free Download Now" to download the latest QuickTime player.
 - c). When the download is completed, execute the "QuickTimeInstaller.exe" file, and follow the on-screen instructions to finish the installation procedure.
 - Step 2: Open your QuickTime player. Select "File" \rightarrow "Open URL in New Player...", and key in the URL address.



The URL format is "rtsp://ipaddress:portnum/live/h264" (For example, "rtsp://60.251.8.57:88/live/h264").

Open URL		
Enter an Internet URL to open:		
rtsp://60.251.8.57/live/h264		
	OK	Cancel

Click "OK" to continue.

Step 3: A pop-up window will appear and prompt you to enter the authentication information.

Key in the user name and password for accessing your DVR. The user name and password are the same as the ones you use to log into Video Viewer. If the information is correct, click "OK" to go on. If not, click "Cancel" to quit the accessing.

QuickTime Inte	emet Authentication	×		
Enter userna	me for Server at 60.251.8.57:			
Userid:	office	-		
o sena.				
Password:	*****			
		- 1		
	Cancel OK			

- Note: If you're not prompted to enter the authentication information, and the error message 10060 appears, go to "Edit" → "Preferences" → "QuickTime Preferences", and select "Streaming Transport" front he drop-down list. Select "Use HTTP", and keep the port ID as 80.
 - Step 4: When the login is successful, you will see the live view.

APPENDIX 1 PIN CONFIGURATION

• For 16CH DVR



Siren: When the DVR is triggered by alarm or motion, the COM connects with NO and the siren with strobe starts wailing and flashing.

Magnetic Contact: When the magnetic contact is opened, the alarm will be triggered and the recording is on.

PIN	FUNCTION	DESCRIPTION		
1	GND	GROUND		
2~9	ALARM INPUT	 Connect ALARM INPUT (PIN 2 9) and GND (PIN 1) connector with wires. Once an alarm is triggered, the DVR will start recording and the buzzer will be on. PIN 2 is Alarm 1. Once the alarm is triggered, the CH1 of the DVR will start alarm-triggered recording. PIN 3 is Alarm 3. Once the alarm is triggered, the CH3 of the DVR will start alarm-triggered recording. PIN 4 is Alarm 5. Once the alarm is triggered, the CH5 of the DVR will start alarm-triggered recording. PIN 5 is Alarm 7. Once the alarm is triggered, the CH7 of the DVR will start alarm-triggered recording. PIN 6 is Alarm 9. Once the alarm is triggered, the CH9 of the DVR will start alarm-triggered recording. PIN 7 is Alarm 11. Once the alarm is triggered, the CH11 of the DVR will start alarm-triggered recording. PIN 8 is Alarm 13. Once the alarm is triggered, the CH13 of the DVR will start alarm-triggered recording. PIN 9 is Alarm 15. Once the alarm is triggered, the CH15 of the DVR will start alarm-triggered recording. 		
10~12	PIN OFF	NA		
13 EXTERNAL ALARM NO triggered, COM connects with NO.		Under the normal operation, COM disconnects with NO. But when any alarm is triggered, COM connects with NO. Attention: The voltage restriction is under DC24V 1A.		
14	PIN OFF	NA		
15~22	ALARM INPUT	 Connect ALARM INPUT (PIN 15 – 22) and GND (PIN 1) connector with wires. Once an alarm is triggered, the DVR will start recording and the buzzer will be on. PIN 15 is Alarm 2. Once the alarm is triggered, the CH2 of the DVR will start alarm-triggered recording. PIN 16 is Alarm 4. Once the alarm is triggered, the CH4 of the DVR will start alarm-triggered recording. PIN 17 is Alarm 6. Once the alarm is triggered, the CH6 of the DVR will start alarm-triggered recording. PIN 18 is Alarm 8. Once the alarm is triggered, the CH8 of the DVR will start alarm-triggered recording. PIN 19 is Alarm 10. Once the alarm is triggered, the CH10 of the DVR will start alarm-triggered recording. PIN 20 is Alarm 12. Once the alarm is triggered, the CH12 of the DVR will start alarm-triggered recording. PIN 21 is Alarm 14. Once the alarm is triggered, the CH14 of the DVR will start alarm-triggered recording. PIN 22 is Alarm 16. Once the alarm is triggered, the CH14 of the DVR will start alarm-triggered recording. 		
23~24	PIN OFF	NA		
25	EXTERNAL ALARM COM	Under the normal operation, COM disconnects with NO. But when any alarm is triggered, COM connects with NO. Attention: The voltage restriction is under DC24V 1A.		

PIN Connection Application



Siren: When the DVR is triggered by alarm or motion, the COM connects with NO and the siren with strobe starts wailing and flashing.

Magnetic Contact: When the magnetic contact is opened, the alarm will be triggered and the recording is on.

PIN	FUNCTION	DESCRIPTION		
1	GND	GROUND		
2~5 ALARM INPUT alarm is triggered, the DVR will start rect PIN 2 is Alarm 1. Once the alarm is triggered, the CH1 o PIN 3 is Alarm 3. Once the alarm is triggered, the CH3 o PIN 4 is Alarm 5. Once the alarm is triggered, the CH5 o		Connect ALARM INPUT (PIN 2 – 5) and GND (PIN 1) connector with wires. Once an alarm is triggered, the DVR will start recording and the buzzer will be on. PIN 2 is Alarm 1. Once the alarm is triggered, the CH1 of the DVR will start alarm-triggered recording. PIN 3 is Alarm 3. Once the alarm is triggered, the CH3 of the DVR will start alarm-triggered recording. PIN 4 is Alarm 5. Once the alarm is triggered, the CH5 of the DVR will start alarm-triggered recording. PIN 5 is Alarm 7. Once the alarm is triggered, the CH7 of the DVR will start alarm-triggered recording.		
6 ~ 12	PIN OFF	NA		
13	EXTERNAL ALARM NO.	Under the normal operation, COM disconnects with NO. But when any alarm is triggered, COM connects with NO. Attention: The voltage restriction is under DC24V 1A.		
14	PIN OFF	NA		
15~18 ALARM INPUT an alarm is triggered, the DVR will start recording and the buz PIN 15 is Alarm 2. Once the alarm is triggered, the CH2 of the DVR will start alarm-tri PIN 16 is Alarm 4. Once the alarm is triggered, the CH4 of the DVR will start alarm-tri PIN 17 is Alarm 6. Once the alarm is triggered, the CH6 of the DVR will start alarm-tri		Connect ALARM INPUT (PIN 15 – 18) and GND (PIN 1) connector with wires. Once an alarm is triggered, the DVR will start recording and the buzzer will be on. PIN 15 is Alarm 2. Once the alarm is triggered, the CH2 of the DVR will start alarm-triggered recording. PIN 16 is Alarm 4. Once the alarm is triggered, the CH4 of the DVR will start alarm-triggered recording. PIN 17 is Alarm 6. Once the alarm is triggered, the CH6 of the DVR will start alarm-triggered recording. PIN 18 is Alarm 8. Once the alarm is triggered, the CH8 of the DVR will start alarm-triggered recording.		
19~24	PIN OFF	NA		
25 EXTERNAL ALARM COM triggered, 0		Under the normal operation, COM disconnects with NO. But when any alarm is triggered, COM connects with NO. Attention: The voltage restriction is under DC24V 1A.		

PIN Connection Application



Siren: When the DVR is triggered by alarm or motion, the COM connects with NO and the siren with strobe starts wailing and flashing.

Magnetic Contact: When the magnetic contact is opened, the alarm will be triggered and the recording is on.

PIN	FUNCTION	DESCRIPTION		
1~2	PIN OFF	NA		
3~6 ALARM INPUT		Connect ALARM INPUT (PIN 3 – 6) and GND (PIN 9) connector with wires. Once an alarm is triggered, the DVR will start recording and the buzzer will be on. PIN 3 is Alarm 1. Once the alarm is triggered, the CH1 of the DVR will start alarm-triggered recording. PIN 4 is Alarm 2. Once the alarm is triggered, the CH2 of the DVR will start alarm-triggered recording. PIN 5 is Alarm 3. Once the alarm is triggered, the CH3 of the DVR will start alarm-triggered recording. PIN 6 is Alarm 4. Once the alarm is triggered, the CH4 of the DVR will start alarm-triggered recording.		
7	Under the normal operation, COM connects with NC and disconnects from NO. But when any alarm is triggered, COM disconnects with NC and connects with NO. Attention: The voltage restriction is under DC24V 1A.			
8	NO	Under the normal operation, COM disconnects with NO. But when any alarm is triggered, COM connects with NO. Attention: The voltage restriction is under DC24V 1A.		
9	GND	GROUND		
10 RS485-B Using RS-485 serial communication signals, DVR can be controlled controller.		Using RS-485 serial communication signals, DVR can be controlled by keyboard controller.		
11 RS485-A Using RS-485 serial communication signals, DVR can be controlle controller.		Using RS-485 serial communication signals, DVR can be controlled by keyboard controller.		
12~14	PIN OFF	NA		
15 EXTERNAL ALARM COM Under the normal operation, COM disconnects with NO. But when triggered, COM connects with NO. Attention: The voltage restriction is under DC24V 1A.				

APPENDIX 2 RECORDING TIME TABLE (For 4CH Model Only)

The recording time below is tested under the PAL system, and the testing environment is a normal office, just for reference only.

For the recording time under the NTSC system, it'll be similar as the data below, and just for reference only.

The recording time may vary depending on the following three factors:

- Different camera resolution;
- Different picture complexity;
- Different frequency of the object movement

Record mode	Quality	IPS	MB/Hour	750GB Record Time (day)
		25	925	33.78
	SUPER BEST	12	650	48.08
		7	520	60.10
		3	445	70.22
		25	875	35.71
	BEST	12	620	50.40
		7	475	65.79
		3	421	74.23
FRAME		25	865	36.13
	HIGH	12	600	52.08
		7	450	69.44
		3	400	78.13
		25	768	40.69
		12	570	54.82
	NORMAL –	7	440	71.02
		3	385	81.17
		50	900	34.72
		25	800	39.06
	BEST –	12	580	53.88
	-	7	460	67.93
		50	890	35.11
		25	780	40.06
	HIGH –	12	540	57.87
	-	7	450	69.44
FIELD		50	865	36.13
		25	740	42.23
	NORMAL -	12	460	67.93
		7	440	71.02
		50	790	39.56
	-	25	720	43.40
	BASIC –	12	450	69.44
		7	430	72.67
		100	1010	30.94
		50	720	43.40
	BEST –	25	540	57.87
		12	455	68.68
		100	910	34.34
	-	50	635	49.21
	HIGH –	25	510	61.27
	-	12	435	71.84
CIF		100	875	35.71
	-	50	600	52.08
	NORMAL -	25	480	65.10
	-	12	480	74.40
		12	805	38.82
		50	570	54.82
	BASIC –	25	450	69.44
		12	410	76.22

APPENDIX 3 COMPATIBLE USB FLASH DRIVE BRAND

Please upgrade the firmware of the DVR to the latest version to ensure the accuracy of the following table. If the USB flash drive is not supported by the DVR, the "USB ERROR" message will be shown on the screen.

Note: Please use your PC to format the USB flash drive as "FAT 32".

Note: You can backup up to 2GB video data for one-time USB backup. To backup more data, please set the time & channel(s) you want, and start USB backup again.

MANUFACTURER	MODEL	CAPACITY
Apacer	AH320	2G
	AH320A	8G
	AH220	1G
	AH320	4G
A-data	RB-18	1G
Transcend	JFV35	4G
	JFV30	8G
Sony	Micro Vault Tiny	1G
Sandisk	Cruzer Micro	2G
	Cruzer Micro	4G
	Cruzer4-pk	2G
MSI	F200	4G
PQI	U172P	4G
Netac	U208	1G

APPENDIX 4 COMPATIBLE HDD BRAND

Please upgrade the firmware of the DVR to the latest version to ensure the accuracy of the following table.

MANUFACTURER	MODEL	CAPACITY	ROTATION	
	ST3320613AS	320GB	7200 rpm	
Socrato	ST33500320AS	500GB	7200 rpm	
Seagate	ST3750330AS	750GB	7200 rpm	
	ST31000340AS	1000GB	7200 rpm	
	WD3200AAKS	320GB	7200 rpm	
	WD5000AACS	500GB	7200 rpm	
WD	WD6400AAKS	640GB	7200 rpm	
	WD7500AAKS	750GB	7200 rpm	
	WD10EACS	1000GB	7200 rpm	
Maxtor	STM3500320AS	500GB	7200 rpm	
IVIAXIUI	STM3750330AS	750GB	7200 rpm	
Hitachi	HDT725032VLA360	320GB	7200 rpm	
	HDS721010KLA330	1000GB	7200 rpm	

APPENDIX 5 TROUBLESHOOTING

Please refer to the table below for easy troubleshooting. The table describes some typical problems and also their solutions. Please check them before calling your DVR dealer.

• FAQ (Frequently ask question)

Questions	Solutions		
No power	Check power cord connection.		
	Confirm that there is power supplied from the outlet.		
DVR is not working when pressing any button	You might be under "Key Lock" mode. Press any key and enter the password to exit		
	this mode.		
HDD detection failed	Replace with another HDD for testing.		
	Replace with another HDD cable for testing.		
Can't detect your USB flash drive	Replace with another USB flash drive for testing.		
	Format the USB flash drive as FAT 32 format and try again.		
No live video	Confirm the camera is power supplied.		
	Check the setting of the camera lens.		
	Check the monitor's video cable and connection.		
	Check the camera's video cable and connection.		
No recorded video	Check if the HDD is installed and connected properly.		
	Check the "MANUAL RECORD ENABLE" is set to "ON", and the record function in		
	the "CAMERA" menu is set to "ON", too.		
Timer recording is not working	Check if "TIMER RECORD ENABLE" option is set to "ON" and the timer schedule		
	has been arranged.		
Motion detection recording is not working	Check if "EVENT RECORD ENABLE" option is set to "ON".		
	Check the detection function "DET" is set to "ON".		
	Check the detection area "AREA" has been setup.		
Can't play the recorded data on my DVR	There must be at least 8192 images of recorded data for playback to work properly.		
	If not, your DVR will stop the playback.		
	For example, if the IPS is set to 30, the recording time should be at least 273		
	seconds (8192 images / 30 IPS) for the playback to work properly.		
Can't backup the video with audio	Make sure the audio cameras are connected to the DVR channels which support the		
	audio function.		
Can't view the DVR images over the network	Check the DVR firmware version.		
with IE web browser	Please choose to allow the web browser ActiveX or applet in the pop-out message.		
Failed to backup the recorded files of the DVR	You need to be a supervisor to operate this function. For details, please see "		
from remote PC side.	Account" at page 47.		
(For details, please see "Network Backup" at	Check if the network connection information is correct (IP Address / Port / User		
page 40.)	Name / Password).		
	Specify the hard disk (HDD Number) and channel number (Channel) within which		
	have the recorded data you need.		
Failed to upgrade the firmware / OSD file	Check the USB flash drive is format to FAT32.		
	Check the firmware / OSD is correct.		
Can't use the IR remote control	Check whether if the batteries are installed or not.		
	Aiming at the IR receiving zone to control the DVR operation.		

APPENDIX 6 RS485 PROTOCOL

Use PC keyboards to simulate DVR keypads.

Data: REMOTE PROTOCOL uses 8 bit data, 1 start bit, 1 stop bit.

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ACT (FFH)	СОН			N	STOP (7FH)
FUNCTION	CODE	ASCII	FUNCTION	CODE	ASCII
KEY_MENU	0x4D	М	KEY_SET_CHANNEL	0x6e	n
KEY_ENTER	0x0D	ENTER	KEY_DWELL	0x65	е
KEY_PLUS	0x6b	k	KEY_CH1	0x31	1
KEY_MINUS	0x6d	m	KEY_CH2	0x32	2
KEY_UP	0x55	U	KEY_CH3	0x33	3
KEY_DOWN	0x4E	N	KEY_CH4	0x34	4
KEY_LEFT	0x4C	L	KEY_CH5	0x35	5
KEY_RIGHT	0x52	R	KEY_CH6	0x36	6
KEY_POWER	0x57	W	KEY_CH7	0x37	7
KEY_REC	0x72	r	KEY_CH8	0x38	8
KEY_PLAY	0x50	Р	KEY_CH9	0x39	9
KEY_SLOW	0x53	S	KEY_CH10	0x41	А
KEY_ZOOM	0x5A	Z	KEY_CH11	0x42	В
KEY_KEY LOCK	0x4B	К	KEY_CH12	0x43	С
KEY_AUDIO	0x64	d	KEY_CH13	0x44	D
KEY_SEARCH	0x73	S	KEY_CH14	0x45	E
KEY_PTZ_MODE	0x70	р	KEY_CH15	0x46	F
KEY_PTZ_PRESET	0x71	q	KEY_CH16	0x47	G
KEY_PTZ_ZOOM_IN	0x69	i	KEY_EJECT_DVD	0x6a	j
KEY_PTZ_ZOOM_OUT	0x66	f	KEY_IRIS_NEAR	0x67	g
KEY_MODE	0x6f	0	KEY_IRIS_FAR	0x68	h
KEY_4 CUT	0x61	а	KEY_PTZ_LIGHT	0x6c	I
KEY_9 CUT	0x62	b	KEY_PTZ_WIPER	0x77	w
KEY_16 CUT	0x63	С			