

Dual Streaming

H.264 Multiplex 4CH/8CH Network DVR Support 3G/3.5G mobile phone/PDA

(Symbian/Windows Mobile/iPhone/Blackberry)

Support Mouse

User Manual



V1.3

FC CE

CAUTION

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. PLEASE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING

TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

NOTE: This equipment has been tested and found to comply with the limits for a Class "A" digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the users will be required to correct the interference at their own expense.

FCC Caution: To assure continued compliance, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This Class A digital apparatus meets all the requirements of the Canadian Interference Causing Equipment Regulations.

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PRECAUTIONS

- Please refer all work related to the installation of this product to qualified service personnel or system installers.
- Do not operate the appliance beyond its specified temperature, humidity or power source ratings.

Use the appliance at temperatures between $0^{\circ}\text{C} \sim +45^{\circ}\text{C}$ (32°F ~ 113°F) and humidity below 85%.

The input power source for this appliance is between $90 \sim 264$ VAC, $47 \sim 63$ Hz.

Performance and lifetime of hard disk drives are easily affected by heat (used at high temperature). It is recommended to use this appliance at temperature between $+20^{\circ}$ C $\sim +30^{\circ}$ C $(68^{\circ}\text{F} \sim 86^{\circ}\text{F})$

■ Handle the hard disk drives with care.

It is possible to damage them if they are moved while their motors are still running. Do not move them just after turning the power on or off (for around 30 seconds).

Protect the hard disk drives from static electricity.

Do not stack them or keep them upright.

Do not use an electric screwdriver to fix them.

- Clean only with dry cloth.
- Do not block any ventilation openings.
- Do not use the appliance near any heat sources such as radiators, heat registers, stoves or other apparatus that produce heat.
- Protect the power cord from being stepped on or pinched particularly at plugs, convenient receptacles and the points where they exit from the apparatus.
- Do not drop metallic parts through slots. This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.
- Handle the appliance with care. Do not strike or shake, as this may damage the appliance.
- Do not expose the appliance to water or moisture, nor try to operate it in wet areas. Do take immediate action if the appliance becomes wet. Turn the power off and refer servicing to qualified service personnel. Moisture may damage the appliance and also cause electric shock.
- Do not use strong or abrasive detergents when cleaning the appliance body. When the dirt is hard to remove, use a mild detergent and wipe gently.
- Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.
- Please make a note of your settings and save them. This will help when you are required to change the system configuration, or when unexpected failure or trouble occurs.
- Distributing, copying, disassembling, reverse compiling, reverse engineering, and also exporting in violation of export laws of the software provided with this product, is expressly prohibited.

Table of Content

0.Quick	Reference	to	Start	this	DVR	and	Change	6
Notice	•••••							8
1.Produc	t Overview	•••••	• • • • • • • • • • • • • • • • • • • •	•••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	•••••	8
	tures							
2. Panels	And Remote	Contr	oller	• • • • • • • • • • • • • • • • • • • •	•••••	• • • • • • • • • • • • • • • • • • • •	•••••	9
	ont Panel······							
	ck Panel······							
	mote Controlle							
	vare Installatio							
3.1 Ba	sic Connection	s	•••••	• • • • • • • • • • • • • • • • • • • •	•••••	•••••	• • • • • • • • • • • • • • • • • • • •	14
3.2 Ha	rd Disk Installa	ation	•••••		•••••	• • • • • • • • • • • • • • • • • • • •		14
3.3 PT	Z Control Con	nectio	ns		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		15
4. Power-	-on DVR and ove View Screen	Ouck	Start	• • • • • • • • • • • • • • • • • • • •	•••••	·····-		16
4.1 Liv	ve View Screen		•••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		16
4.2 Ma	ain Menu(Tools	Bar)		•••••	• • • • • • • • • • • • • • • • • • • •			17
4 3 Fo	rmat HDD······	• • • • • • • •	• • • • • • • • • • • • • • • •	• • • • • • • • • • • •		• • • • • • • • • • • • •	•••••	19
4 4 Vi	deo Record·····	• • • • • • • • • •						2.1
4.5 Vi	deo Plavback…	• • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	•••••	23
4 6 Vi	deo Backun·····	• • • • • • • •	• • • • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	24
4.7 Pla	ay Backup Vide	eo on l	PC					24
4 8 PT	'Z Control······	• • • • • • • •		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •		•••••	27
5. DVR S	Setting	• • • • • • • •						27
5 1 Me	enu Tree & One	erate…		• • • • • • • • • • • • • • • • • • • •				29
5 2 Sv	stem Setting						• • • • • • • • • • • • • • • • • • • •	29
5.2	.1 Language ·····							29
5.2	.2 Video Standa	ard	•••••					29
5.2	.3 VGA Setting	,	•••••					$\frac{1}{29}$
5.2	.4 Time Format	, 						$\frac{1}{29}$
	.5 Time Setting							
5.2	.6 Password Se	, tting 2	and what	if forgot	tten			31
5.2	.7 Create/Delet	e Use	r Account	t and As	sign its a	uthoritie	<u>.</u> S	33
5 3 Re	cord Setting							33
5.5 100	.1 Video Chann	el						33
5.3	.2 Record Sche	dule…		• • • • • • • • • • • • • • • • • • • •				34
5.3	.3 Video Qaulit	<i></i>	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		34
5.3	.4 Record Fram	y i Rate			• • • • • • • • • • • • • • • • • • • •			34
5.3	.5 Record Sour	r 10000	•••••				• • • • • • • • • • • • • • • • • • • •	34
	.6 OSD Setting							
5.3. 5.3	.7 Record Reso							
	.8 Dual streami							
	deo Setting	101					15 <i>)</i>	36
J.4 VI	.1 Video Chann							36
5.4. 5.1	.1 Video Chain .2 PTZ Protoco	1	•••••	• • • • • • • • • • • • • • • • • • • •	•••••	•••••	•••••	
	.2 PTZ Protoco							
J.4.	.JIIL Duau N	all						$\mathcal{I}_{\mathcal{O}}$

5.4.4 PTZ ID·····	36
5.4.5 Color Setting······	36
5.4.6 Motion Detection & Region	37
5.4.7 Privacy Mask(Mosaic)	
5.4.8 Motion, Video Lost and Channel Name(Video-Advanced	37
Setting)	- 38
5.5 Net Setting	38
5.5.1 Network(Static IP/DHCP)······	39
5.5.2 Http Port······ 5.5.3 Command Port·····	. 39
5.5.3 Command Port·····	39
5.5.4 Media Port·····	. 39
5.5.5 PPPoE/DDNS(Net-Second Page)······	41
5 5 6 F-Mail Server (Net-Third Page)	42
5.6 Alarm Input/Output Setting	42
5.6.1 Alarm Input Channel	. 42
5.6.2 Alarm Input Type	43
5.6.2 Alarm Input Type	43
5.6.4 Alarm-Advanced(Alarm E-mail, Schedule and Zoom Out)	44
5.7 Maintenance	. 44
5.7.1 Log View······	• 45
5.7.2 Software Upgrade······	45
5 7 3 HDD Manage	46
5.7.4 HDD Capacity	. 46
5.7.5 Hardware Version·····	• 46
5.7.6 Software Version·····	46
5.7.7 Software Release Date	47
5.8 Save & Exit	48
6. Web Browser Operation(IE Browser Only)	48
6.1 Enable Download Un-Signed ActiveX control 6.2 Web Browser Main Screen	· 48
6.2 Web Browser Main Screen	50
6.3 Alarm Notification······	- 51
6.4 Device Parameters Setting	55
6.5 Video Files Playback & Download ······	. 55
6.5.1 Video Files Playback·····	. 56
6.5.2 Download Video Files	. 56
6.5.3 Device Log······	. 57
7. 3G/3.5G Mobile Phone/PDA Support ·····	57
7.1 Windows Mobile PDA 7.2 Nokia/Samsung/LG Symbian S60 3 rd Phone 7.2 2.0 (2.5 G iPl G	58
7.2 Nokia/Samsung/LG Symbian S60 3rd Phone	60
7.3 3G/3.5G iPhone Series 8.Appendix	. 61
8.Appendix·····	61
Appendix A – HDD Canacity Estimater	• 62
Annendix B – Compatible HDD List······	62
Appendix C – Compatible USB portable DVD Burner List······	62
Appendix D – What is inside the CD······	

O. Quick Reference to Start this DVR and Change Notice

Please Refer to the Manual inside the CD for details, the hard copy is only for reference

Change Notice:

This user manual used for **software version after 1.3.0**, released date after 2009.12.17, updated as follows:

- Include some new 4CH/8CH faceplates buttons function description Chapter 2.1
- Link DVR with new software version find "Remote Access -> Before Logging On" on the next page.
- Add new recording resolution setup(<u>Chapter 5.3.7</u>) and change spec.(<u>Chapter 1.1</u>)
- Add remote control function/Keypad for PTZ control(<u>Chapter 4.8</u>) and start/stop time setup for Backup and Playback(<u>Chapter 4.5</u>)
- Create/Delete User Account and Assign its authorities(<u>Chapter 5.2.7</u>) or by IE(<u>User→User account and authority setting</u>)
- Add Talk Back function for IE and Alarm Zoom Out(Chapter 5.6.4)

Before Turning On The System

- Please install **SATA HDD** in the Hard Disk Tray. (Chapter 3.2 and Appendix B)
- Please refer to Chapter 3 for all connections.
- To use the remote controller (Chapter 2.3)

After Turning On The System

- Please wait for about 40 seconds for the system to start up.
- Please login the system (<u>Chapter 4</u>), and then physically format the HDDs (<u>Chapter 4.3</u>). (Please note that the HDDs cannot be used for recording if they are not formatted yet.)
- Please refer to Chapter 4 for all basic operations.
- Please refer to <u>Chapter 5.2</u> to setup the system correctly, esp. for NTSC/PAL, Record Resolution, Time & Language.
- Please refer to <u>Chapter 4.4</u> and <u>Chapter 5.3</u> for recording setting.
- Please refer to <u>Chapter 4.5</u>, <u>Chapter 4.6</u>, <u>Chapter 4.7</u> to search, playback, and archive the recorded video/audio.
- Please refer to <u>Chapter 5.4.6/5.4.8</u> for motion Detection, <u>Chapter 5.4.7</u> for Privacy Mask(Mosaic), and <u>Chapter 5.6</u> for Alarm setting
- Please refer to <u>Chapter 3.3</u> for PTZ camera connection, <u>Chapter 4.8</u> and <u>Chapter 5.4</u> to set up and control the PTZ cameras correctly.
- Please refer to <u>Chapter 5.5</u> for Network Setting including DHCP/Static IP/PPPoE, ports no., DDNS and E-mail Server
- Please refer to Chapter 6 for remote access via internet or intranet from PC/Laptop
- Please refer to Chapter 7 for remote access via internet or intranet from mobile phone
- Please refer to Appendix A for the estimated recording time.
- Please refer to <u>Appendix B</u> and <u>Appendix C</u> for the compatible HDD/USB portable DVD Burner List

Login/Logout The System

- Logout : **MENU(Setting)** → SAVE → Logout
- Login: Power on or after Logout

Setup The System

- Format HDD : MENU(Setting) → <Maintenance> → <HDD Manage>→Click [>>] → [Formatting] to start HDD format..
- Change Language, Time, NTSC/PAL, Record Resolution, Password, User Auority : MENU(Setting) → <System>
- Setup PTZ: **MENU(Setting)** → < Camera>
- Setup Network: **MENU(Setting)** →<Net> →<Network> Static IP/DHCP, or **MENU(Setting)** →<Net> →<Next Page> for PPPoE/DDNS
- Change Network Port: **MENU(Setting)** →<Net> →<Network> for Http/Command/Media Ports, **MENU(Setting)** →<Net> →<Next Page> for Mobile Port
- Set up E-mail Server: **MENU(Setting)** →<Net> →<Network> →<Next Page>→<Next Page>

Basic Operations

- Change Split Window : CH1 ~ Ch4 / □/⊞, or 1 ~ 8/⊞/⊞ in the remote control
- Move Focus : **△**, **▼**, **⊲**, **▶**

Remote Access -> Before Logging On

- User's computer need download ActiveX components for web access at the first time connect to DVR. If user's Internet explorer prohibits the download action then please manually enable the download of un-signed ActiveX in IE.
- Download unsigned ActiveX controls → Enable or Prompt Initialized and script ActiveX controls not marked as safe → Enable or Prompt
- If the PC has used I.E. to access earlier software version of DVR, please delete "DVR4204 Client Control" in the C:\WINDOWS\Downloaded Program Files, and "CCLangEn4204.dll", "ClientControl4204.dll" in the C:\WINDOWS\system32 of your PC, and link DVR with new software again.

Remote Access -> IE Operations

- Please note that the PC user must have system administrator password for the PC; otherwise, the process will fail, and an error dialog will be shown. For the Windows Vista, please turn off the UAC function, source info: http://technet.microsoft.com/en-us/library/cc709691.aspx
- Please refer to Chapter 6 for details

Remote Access -> Mobile Player

- These DVRs have mobile player software for 3G/3.5G mobile phone/PDA(Windows Mobile/iPhone/Nokia/Blackberrry), please refer to <u>7. 3G/3.5G Mobile Phone/PDA Support</u> for more details.
- For limited upload bandwidth of internet that DVRs connect, or limited streaming capability of some mobile phone/PDA, you have to adjust bandwidth of DVR to internet, please refer to 5.3.8 Dual Streaming for Network(Record- Advanced Setting) or 6.4 Device Parameters Settings Channel → Camera setting, Sub Bitstream, Subcode (from IE) for more details

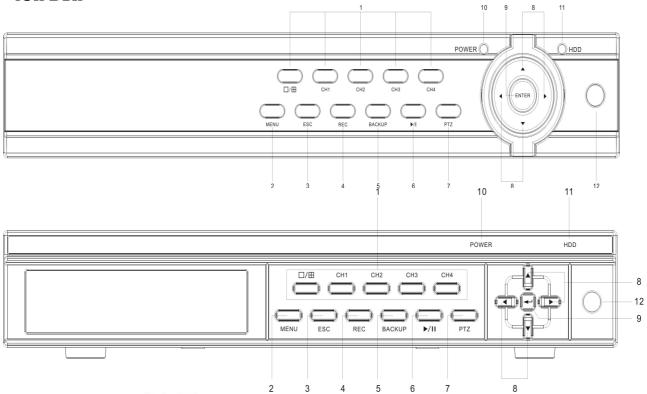
1. Product Overview

1.1 Features

Model	4 Channel	8 Channel
Video Format	PAL/NSTC	
Video Compression	H.264 Baseline Compression	n
Video Input	BNC 4 Input / 1 Output	BNC 8 Input / 1 Output
Audio Compression	G.726 8Kx16bit ADPCM Mor	no
Audio Input	RCA 4 Input / 1 Output	RCA 8 Input / 1 Output
Alarm Type	Motion detection, Sensor In Lost	put, Relay Output , Video
Sensor In/Out	4CH Input / 1CH Output	4CH Input / 1CH Output
Display Frame Rate	Each Channel PAL: 25 FPS,	NTSC: 30 FPS
Recording Resolution and Frame Rate	PAL: CIF 100FPS/352×288 2CIF 50FPS/704×288 D1 25FPS/704×576 NTSC:CIF 120FPS/352×240 2CIF 60FPS/704×240 D1 30FPS/704×480	PAL: CIF 200FPS/352×288 2CIF 100FPS/704×288 D1 50FPS/704×576 NTSC:CIF 240FPS/352×240 2CIF 120FPS/704×240 D1 60FPS/704×480
Playback Resolution and Frame Rate	1CH/4CH PAL: CIF 100FPS/352×288 2CIF 50FPS/704×288 D1 25FPS/704×576 NTSC:CIF 120FPS/352×240 2CIF 60FPS/704×240 D1 30FPS/704×480	
	Power-on Auto Record, Scho	edule Record
Record method	(Manual Record, Motion Det Support Privacy Mask(Mosa	
HDD Interface	SATA Interface support 200	0GB
Network Protocol	TCPIP/ DHCP/DNNS/PPPoE/	E-Mail
Network Function	IE Browser Live Monitor, Co Video, Playback, and Mobile	Phone Surveillance
USB 2.0 Interface	Mouse / Potable Mobile HDE Burner/ Firmware Upgrade)/ Flash Drive/ DVD
Playback method	Normal Play, Fast Forward,	Backward, Single Step
Network Interface	RJ45 10M/ 100M Ethernet A	
PTZ Protocol	PELCO-P ,PELCO-D, Samsur	ng, Panasonic
Video Backup	AVI, MPEG4 or H.264 Raw	
Power Adapter	DC 12V Adapter/3.5A	
consumption	10~15W	
Temperature	10℃~+40℃	
Humidity	10%~90%	
Dimension	315(W) x 224 (D) x 52 (H)	mm

2. Panels and Remote Controller

2.1 Front Panel (**Please take actual front panel as quasi-**): 4CH DVR



1. CH1 ~ Ch4 / □/⊞

Direct switch to single camera window or 4 camera windows

2. MENU

Press this button to display the main menu.

3. ESC

Exit window or switch the tool bar(main menu) and status bar

4. REC

Start or Stop manual record function.

5. Backup

Open video search and backup menu

6. Play/Pause (►/Ⅱ)

Open video search and playback menu. press to pause playback.

7. PTZ

Open camera selected with PTZ operation menu.

8. ◀ ▶ ▲ ▼

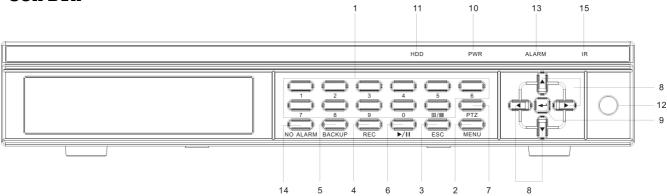
Arrow Buttons. Press, to move to selection box, press, to select submenu parameters.

9. Enter

Confirm operation.

- 10. Power LED
- 11. HDD LED
- 12.IR Window

8CH DVR



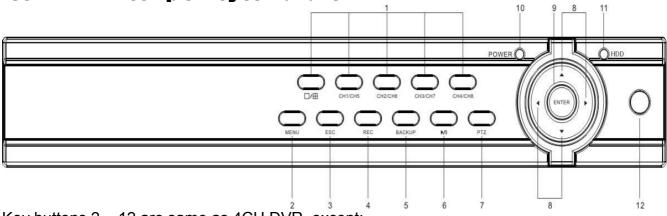
Key buttons 2 ~ 12 are same as 4CH DVR, except:

1. 1~8/田/田

Direct switch to single channel window, or 9 camera windows.

- 13. ALARM LED: indicate alarm happened
- 14. NO ALARM: Cancel Alarm and Buzzer
- **15. IR LED**

8CH DVR with complex key combination

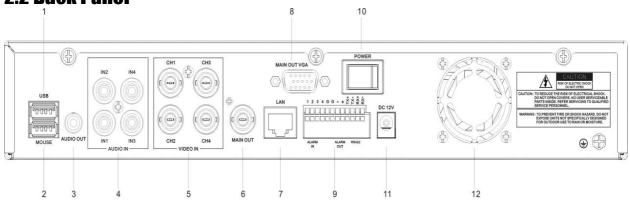


Key buttons 2 ~ 12 are same as 4CH DVR, except:

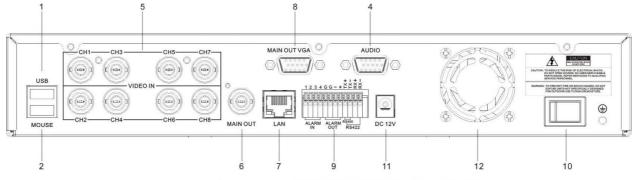
1. Complex keys - CH1/CH5, CH2/CH6, CH3/CH7, CH4/CH8, H/ (Channel 1/Channel 5, Channel 2/Channel 6, Channel 3/Channel 7, Channel 4/Channel 8 toggle switch button, and also button switch between 1/9 camera windows

Please note —/ or —/ is for Start time and Stop time setting of playback or back up in schedule record(Chapter 4.5 Video Playback

2.2 Back Panel



Back Panel diagram for 4CH H264 DVR(1xfixed HDD)



Back Panel diagram for 8CH H264 DVR(1xfixed HDD)

1. USB connector

Connect backup devices like flash drive, portable HDD or DVD burner

2. Mouse Connector

Connect USB mouse.

3. Audio Output Connectors

1 channel audio output, RCA (2Vp-p,600Ω) for 4CH DVR

4. Audio Input Connectors (AUDIO IN 1-4/1-8)

4 channel audio input, RCA (2Vp-p,600Ω) for 4CH H264 DVR; or connector for 8CH H264 DVR to connect Audio cable(8CH Audio Input+ 1CH Audio Output)

5. Video Input Connectors (1-4/1-8)

4 or 8 channel video input, BNC (1Vp-p, 75Ω)

6. Video Main Output Connector

DVR system screen output, BNC (1Vp-p,75 Ω)

7. Ethernet Connector

RJ-45 10/100 Base-T Ethernet network.

8. VGA Connector (optional for 4CH)

Connect VGA/LCD monitor

9. Alarm Input Connectors (ALARM IN 1-4, 5-6 Ground)

Connect to external sensor device

Alarm Output Connectors (ALARM OUT 7-8)

Connect to external sensor device

RS-422 Connector (9-12) RS-485 Connector (9-10, TX+, TX-)

Support PTZ camera control

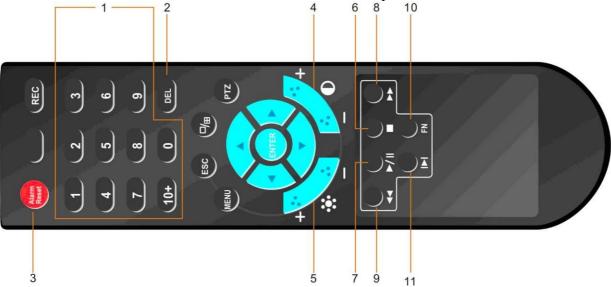
10. Power Switch

11. Power Input Socket (12V DC)

12. Fan

2.3 Remote Controller

The remote controller is an accessory to ease the user's operations. You can do all the operations by the remote controller instead of the buttons on the front panel.



1. Alpha-numeric Buttons (1-9, 0, 10+)

Press these buttons for camera selection in most circumstances. These buttons can also be used to enter text and number

2. DEL Button (DEL)

In text editing mode, this button is used as "del" key.

3. Alarm Reset Button

Press this button to cancel alarm activation; click this button will pop a message to show the present alarm information.

4. Contrast Button

Adjust image contrast up(+)/down(-).

5. Brightness Button

Adjust image brightness up(+)/down(-).

6. Stop Button (■)

Press this button to stop the playback.

7. Play/Pause Button (►/॥)

Press this button to search and play the recorded images, or pause the playback.

8. Fast Forward Button (►►)

Press this button for fast forward playback.

9. Fast Backward Button (◀)

Press this button for fast backward playback.

10. Function Key(FN)

Start time and Stop time setting for playback or back up in schedule record(Chapter 4.5 Video Playback)

11. Single Step Button (►)

Press this button to play the recorded images frame by frame.

The Other Buttons

Each of the other buttons corresponds to one of those buttons on the front panel. Please refer to the descriptions in <u>Section 2.1.</u> Front Panel

3. Hardware Installation

3.1 Basic Connections

■ Cameras

Connect the camera output to video input connector in real panel of the DVR. The video input interface is standard BNC connector, 1Vp-p, $75\ \Omega$.

■ Audio Connector

The audio input interface is standard RCA socket, 2Vp-p, 600Ω .

The audio input resistance is a little bit high; please use active sound collection device or active microphone. And the audio signal cable should keep away from the interference of strong electromagnetism and electric field.

■ Monitor

Connect the main output connector to a monitor. Use BNC-to-RCA connector to work with Audio/Video RCA cable.

■ Power

Use adapter come along with DVR, plug 12V_{DC} output connector into the power socket.

■ Alarm Input/output

Please refer to Chapter 5.6.2.

■ Ethernet

Connect the Ethernet connector to a standard twisted-pair Ethernet cable for remote access via LAN or internet

■ USB 2.0

Support Mouse, USB Flash Drive, USB portable HDD, USB portable DVD Burner. **Only support FAT32 file system**.

3.2 Hard Disk Install

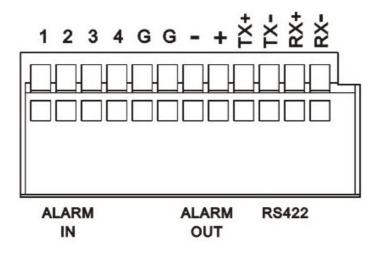
HDD must be formatted by DVR system before it can be used to record. PS. Do not format HDD by PC.

Please refer to Section 4.3 Format HDD to format the HDD.



3.3 PTZ Control Connections

Connect the PTZ control interface to RS485 T_x+ and T_x- interfaces of rear panel.



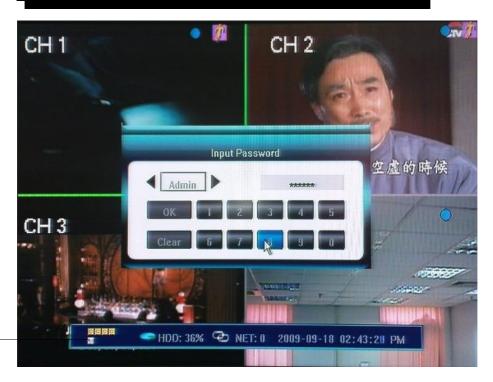
and IDs			
<u>and IDS</u>			

4. Power-on DVR and Quick Start

Power-on the DVR and wait for system program loading. The DVR will buzz and "NO Hard Disk" appears when no hard disk installed in DVR.

First window will request to select user account and password to operate DVR system.

Default password of Admin is [888888] User is [666666]



Status Bar



Tools Bar

DVR system status bar at the bottom of the screen. Right-click mouse key or press [Enter] at front panel will open [Tools Bar] for system setting and operating.

4.1 Live view screen

Single Channel display

When in 4/9 splits view mode, the window with highlight **green border** is the current selected one. User can use mouse or press [Direction] buttons to switch to another channel. If the audio output device is connected, the audio can also be monitor together with video. User can select to display a single particular channel by pressing the corresponding [Numbers] buttons 1~8.

When in single split view mode, user can enter into 4/9 splits view mode by pressing button directly, or reverse.

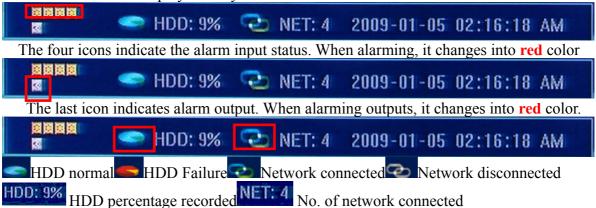
♦ Channel Status Display

Indication of "motion detection" / "common recording" / "alarm recording" and etc. will be displayed on the <u>right upper corner of each split screen</u>. The details are as follows:

- Indicates "motion detection".
- Blue indicates "common recording"
- Green indicates "motion detection triggered recording"
- Red indicates "alarm triggered recording"
- Grey indicates "manual recording"

◆ Peripheral alarm input / alarm output/HDD/Network display

Indication will be displayed on system status bar:



4.2 Main Menu(Tools Bar)

Right click mouse or press 【Enter】 button in preview mode, the Tool Bar shown as below will appear:



: Search, playback and backup record files : PTZ operation

: Cancel alarm notification. Click this button will pop a message to show the present alarm information.

: To switch screen display mode - "Single camera" → "Quad 4 camera" → "9 camera"

To adjust the screen, 8 pixels per unit can be adjusted as follows:



: To reduce or increase screen in vertical direction.

: To reduce or increase screen in horizontal direction.

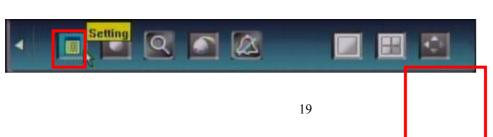
: To move the screen up, down, left, right

: To zoom out the screen to largest and show in central.

4.3 Format HDD

Login DVR system as [Admin] account.

Select <Tool Bar> \rightarrow <Setting> \rightarrow <Maintenance> \rightarrow <HDD Manage> item. Click [>>] to open HDD Manage window.





HDD information will display on the windows if DVR detection HDD correctly. Click [Formatting] to start HDD format.



4.4 Video Record

The priority of manual record is higher than schedule. If the record schedule is conflict with manual record, the manual record will be processed firstly until the manual record being canceled. Record types include "common recording" / "alarm triggered recording" / "motion detection triggered recording" / "alarm & motion detection triggered recording".

- Blue indicates "common recording"
- Green indicates "motion detection triggered recording"
- Red indicates "alarm triggered recording"
- Grey indicates "manual recording"

Manual Record

Please select <Tool Bar> → <Manual Record> to let the specific channel record or not. Press • button to start/stop recording manually.



The video recorded manually is named "common recording"

Schedule Record

Please select <Tool Bar $> \rightarrow <$ Setting $> \rightarrow <$ Record $> \rightarrow <$ Record Schedule> to set. The setting screen is shown as the figure below:



- 1 · The current recording channel number
- 2 · The record schedule
- 3 · Description of record type

System provides a recording option for 24 hours every day and Sunday through Saturday every week. Unit is hour. One grid indicates one hour.

Move highlight icon to a time grid using 【Direction】 buttons.

Specify the recording type by repeat pressing [Enter] button or double left clicking mouse, (the color of the grid will change relevantly).

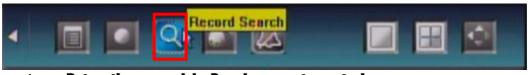
Select OK to confirm settings. The settings will take effect after being saved.

When motion detection & alarm recording is selected, the motion detection sensitivity and area should be set ahead. Please refer to 5.4.6 Motion Detection Settings for details.

When alarm recording is selected, the alarm triggering settings should be set ahead. Please refer to <u>5.4.7 Event Handling</u> for details.

4.5 Video Playback

Specify the date/time and channel number by selecting <Tool Bar>—<Record Search>. The searching results will be list on the screen in responding different colors so as to distinguish different record types.



◆ Date & time search by Panel or remote control



Move highlight icon to relevant selection box using 【【】, 【】 buttons.

Move highlight icon to date/time selection box, modify time using 【▲】, 【▼】 buttons. Move highlight icon to channel selection box, press 【Enter】 button to select it or cancel selection.

After setting time, channel number, move highlight icon to Search using 【【】, 【▶】 buttons, and press 【Enter】 button to start searching recorded video.

Move highlight icon to som in/zoom out timeline.

If the timeline is out of screen, please move highlight icon to and press [Enter] button to display the part out of screen.

After searching over, by remote control, <u>press [FN]</u> button will move to timeline to select start time, then press [FN] button again to select stop time, after that, press [FN] button to finish the

Date & time search by Mouse

User can mouse click to specify time. <u>First left-click on timeline will mark</u> <u>[start time]</u> and <u>there will have a vertical line show up</u>, <u>second left-click will mark</u> <u>[stop time]</u>. Mouse right-click will clear all marked time.

Playback Control





- Back backwards, the available speeds are 8X, 16X
- Fast forward, the available speeds are 1X, 8X, 16X, 1/2X and 1/4X.
- . Pause
- **!** Stop playing.
- **!** Go to next frame.
- Elick to switch from single camera to 4/9 camera.

4.6 Video Backup

Select <Tool Bar>→<Record Search> to search, backup and playback the specific record files you

needs. Set the start time and stop time as describe in 4.5 Video Playback Record Search 2009 mon 00:00 08:00 channel1 channel2 channel3 channel4 stop 04:16 start 01:04 Backup Device USB DISK 0 **Backup Format** Backup Backup Device USB CDROM **Backup Format**

Click [Backup] to enter into the backup screen. System will detect all the backup devices available and display them. **Backup device can use USB flash drive, USB portable HDD and USB DVD Burner.**

Only support FAT32 file system for USB flash and HDD

Please select the suitable device and record type according to requirement first, and click [Backup] to start save audio/video. If there is no backup device found, a prompt tip will appear to remind users of connecting USB device well.

The types of record video include H.264 Raw, MPEG4 and AVI for USB Flash Drive and portable HDD(need external power supply), and only MPEG4 for USB DVD Burner, when backup in MPEG4 types, the special video decoder components will also be backed up into USB & DVD Disc together automatically. After player plug is installed, the stored video files can be played only by Windows Media Player.

4.7 Play Backup Video on PC

Before playback the backup video files, user must install decoder components for windows media player. User can find the compressed files "WMP_MediaFilter.rar" inside USB flash disk or CD/DVD. Uncompressed the WMP_MediaFilter.rar and execute "InstallFilter.bat" to install the decoder components.

After install the decoder components, user can use Windows Media Player to playback the video; please note you don't have to install this component for playback every time, it is one time installation. We also provide "MP4Player" to play back MPEG4 format, please refer to Utility inside the CD with the package.

For H264 format playback, you may go to www.videolan.org/vlc to download vlc binaries player according to your operation system

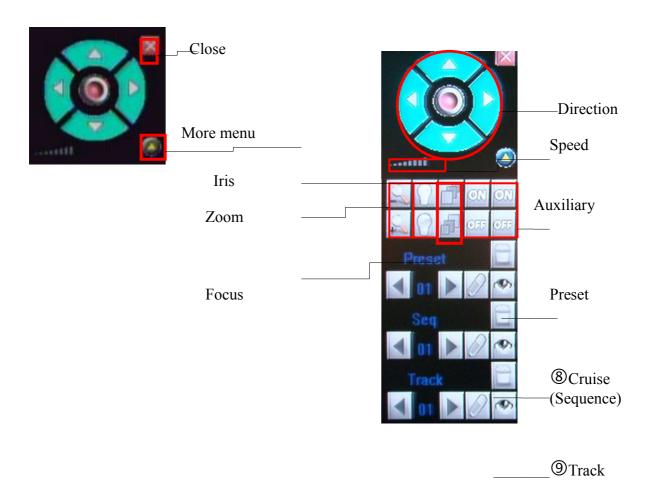
4.8 PTZ Control

♦ Local Operate

Select single camera view and press <PTZ> button in front panel. Press direction key to move highlight and press <Enter> to set the action. Press icon to open more menu, and please refer to next page for functions descriptions



Mouse operation is quite easy for PTZ control, just click and move, by remote control or keypad, should press "Enter" key after any function keys such as ◀, ▶, ♠, ▼ pressed to make it active.



Internet explorer web browser Operate

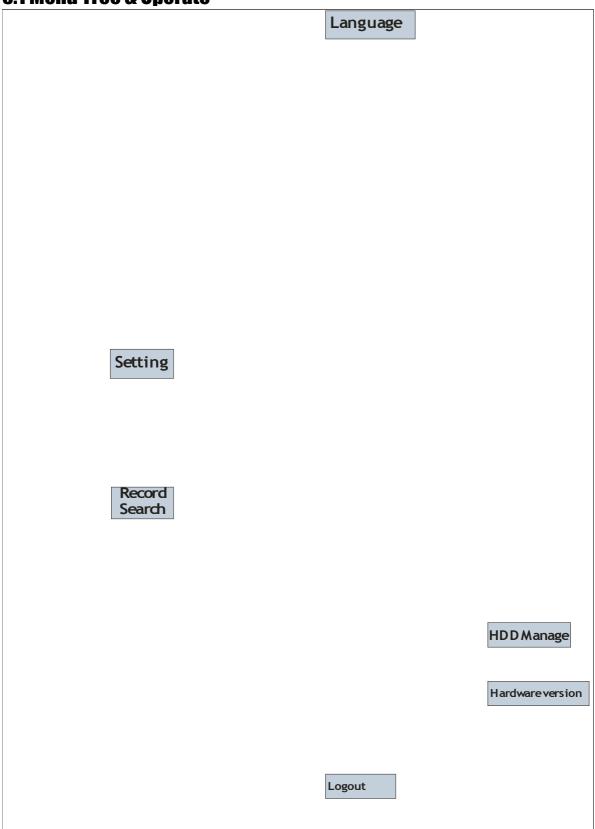


ſ	NO.	Name	Description		
İ		Direction	Click the arrow icons to control direction of		
			PTZ. Click the center icon to call		
			sequence or run scanning. Please refer to the		
			PTZ manual for details of PTZ scanning		
ļ			mode.		
ļ		Speed	Set the turning speed of PTZ camera.		
		Zoom	Click to zoom in/zoom out (it is disabled for		
ļ		Zoom	cameras with automatic focus).		
			Click to make the image brighter or darker (it		
		Iris	is disabled for cameras with automatic iris		
			adjustment).		
		Focus	Click to focus-in and focus-out (it is disabled		
ļ		1 ocus	for cameras with automatic focus).		
Auxiliary Open/close auxiliaries.		Open/close auxiliaries.			
			Click to open and click to close.		
			Different functions respond to different		

		motocola The aveilienies in al. 1. 1. 1.		
		protocols. The auxiliaries include light, rain brash, and power etc. please refer to PTZ manual for details.		
	Preset	Preset is to set camera position, focus, zooming, and iris position, and then mark them in numbers for later calling. 1. Select the preset number you want to name as. 2. Position the camera as desired position including direction, focus, iris and zoom value. 3. Click on the set button call preset: 1. Select the preset number you want to call. 2. Click on the go-to button Clear/reset preset: Select the preset number you want to		
		clear/reset. Click on the clear button.		
8	Cruise (Sequence)	Cruise is a running route of camera that passes through multiple presets. Set sequence: 1. Select preset number you want to call. 2. Click on set button 3. Repeat step 1 and 2 to add the other presets till finishing. 4. Click on run button Clear sequence: Click on button to clear sequence.		
9	Track is a continuous running roucamera. Set track: 1. Click on to start setting. 2. Move camera as the track aryou want it to run. 3. Click on again to finish set 4. Click on to run track again to stop running. NOTE: Whether Track is support			
		is depending on the type of PTZ.		

5. DVR Setting

5.1 Menu Tree & Operate



General Operations

Press [MENU] button to enter into system setting screen.

Press **[•]** button to start/stop recording manually.

Press button to play record file.

Press 【PTZ】 button to enter into PTZ control screen.

Menu Selection

The highlight menu is the current active one. User can move highlight icon to the menu needed using \(\bigcap\), \(\bigcap\) button, and press \(\bigcap\) Enter \(\bigcap\) button to confirm selection, or press \(\bigcap\) ESC \(\bigcap\) to return to upper menu.

Menu Operation

Use 【▲】, 【▼】 to move highlight for configure items. Press 【◀】, 【▶】 button to change parameter. Use mouse to input via on-screen keyboard or input value from remote controller.

Press (>>) open sub menu, and (ESC) return upper menu.

◆ Save/Exit

User can click × button on the right upper corner, or single right click mouse, or press **LESC** button to enter into the Save & Exit screen. You can select exit directly or exit after being saved.

5.2 System Setting



5.2.1 Language

Change DVR menu text and OSD language, there are Traditional Chinese, Simplified Chinese, English, Germany, Hungarian, Italian, Japanese, Portuguese, Russian, Spanish, and etc.....

**Take effect immediately **

5.2.2 Video Standard

Change DVR and camera video system, NTSC or PAL system.

**Take effect after being saved. **

5.2.3 VGA Setting

Switch different VGA output resolution.

5.2.4 Time Format

Switch time format between 12-Hours or 24-Hours.

**Take effect immediately **

5.2.5 Time Setting

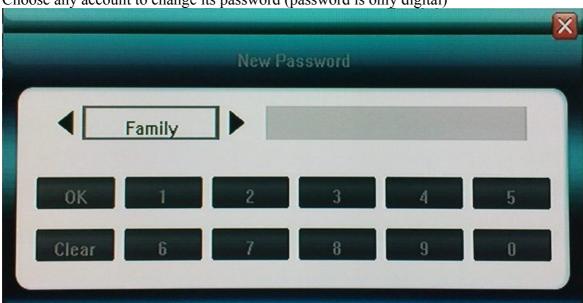
Adjust date and time of DVR.

**Take effect immediately **

In order to avoid record files' time confusion, you'd better stop recording before modifying system time

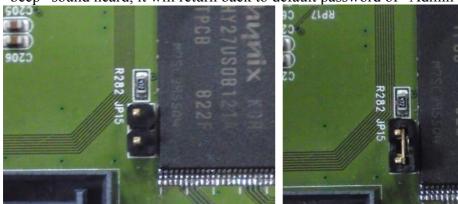
5.2.6 Password Setting and what if forgotten

Choose any account to change its password (password is only digital)



Default password of Admin is [888888] User is [666666]

If password forgotten, turn off the machine, open this DVR case, find the JP15 jumper, it is near the faceplate; power on the machine, find some jumper cap to make it closed(short) and hold it until "beep" sound heard, it will return back to default password of "Admin" and "User" account.



5.2.7 Create/Delete User Account and Assign its authorities(Advanced

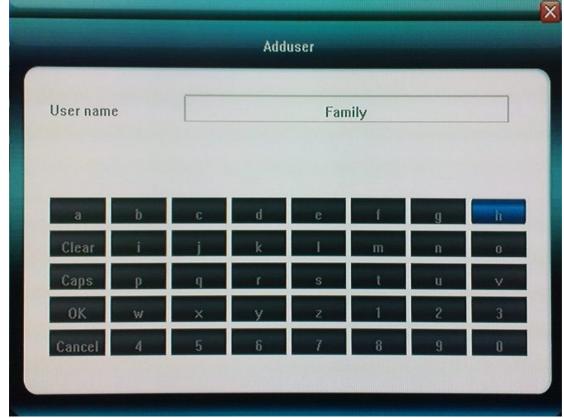
Setting): Click "Advanced Setting" of "System", enter the following setup:



◆ Add User Account

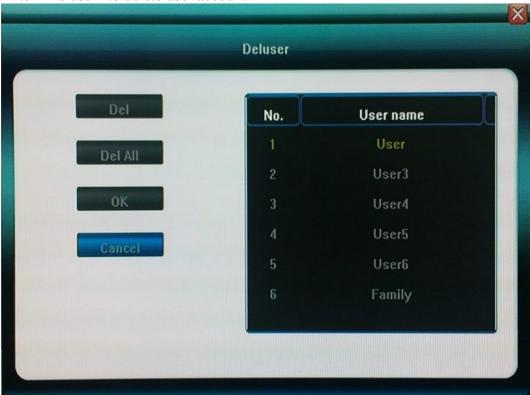
Enter "Adduser" to add user account, most 7 users accounts can be produced, and there will be

warning message if exceed.



◆ Delete User account

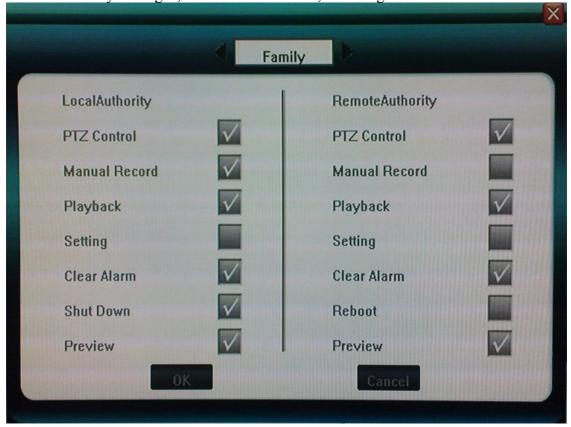
Enter "Deluser" to delete user account



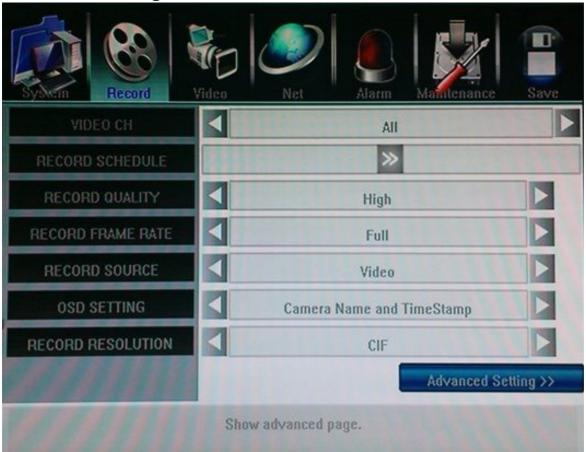
Authority Manage

Operation of DVR for "User" account can be defined by system. There are two conditions to apply restriction, **Local operation** and **Remote access**. By default the user account is not allowed to operate DVR setting.

Enter "Authority Manage", choose User account, and assign its authorities.



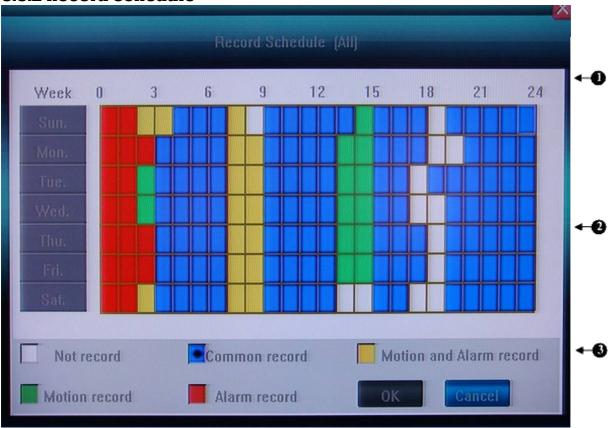
5.3 Record Setting



5.3.1 Video Channel

Select channel number for apply record setting. Select [ALL] for apply to all channels.

5.3.2 Record Schedule



- 1 · The current recording channel number
- 2 · The record schedule
- 3 · Description of record type

System provides a recording option for 24 hours every day and Sunday through Saturday every week. Unit is hour. One grid indicates one hour.

Move highlight icon to a time grid using 【Direction】 buttons.

Specify the recording type by repeat pressing [Enter] button or double left clicking mouse, (the color of the grid will change relevantly).

Select OK to confirm settings. The settings will take effect after being saved.

When motion detection & alarm recording is selected, the motion detection sensitivity and area should be set ahead. Please refer to 5.4.6 Motion Detection Settings for details. When alarm recording is selected, the alarm triggering settings should be set ahead. Please refer to 5.4.7 Event Handling for details; the recording time would be 30 sec. when motion detect or alarm

5.3.3 Video Quality

Select quality level for record audio/video. The pre-define selection from Best 768kbps → High 640kbps → Mid 512kbps → Low 384kbps or user define. User can manually input bit rate for recording. (Kbit/s)

5.3.4 Record Frame Rate

Select recording frame rate per second. The pre-define selection from Full (30/25fps) \rightarrow 15 fps \rightarrow 7fps \rightarrow 3fps \rightarrow 1 fps or user define.

5.3.5 Record Source

Two type selection of recording, Video with audio or Video only.

Only select "Video with audio", can hear the sound via internet or playback

5.3.6 OSD Setting

Define OSD (On Screen Display) string. The options have as following

- 1) Camera's Name and Time Stamp
- 2) Camera Name
- 3) Time Stamp
- 4) None

Only select "Time Stamp", can see time display when playback

5.3.7 Record Resolution

Choose record resolution of the channel selected, and must choose the same resolution for all channels

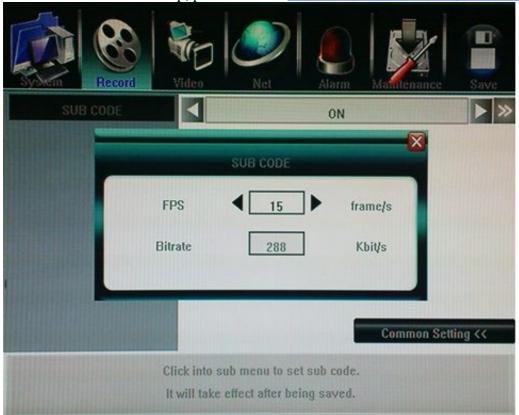
- 1) CIF(352 x 240, or 352 x 288)
- 2) Half D1(704 x 240, or 704 x 288)
- 3) D1(704 x 480, or 704 x 576)

Please note 4CIF=2 Half D1=D1, so that "Record Frame Rate" would be reduced automatically even you set up as "Full".

5.3.8 Dual Streaming for Network(Record-Advanced Setting)

SUB CODE

By default, DVR use recording streaming for IE Browser viewer and mobile streaming. Enable sub code can customize the frame rate and bitrate for IE client viewer and mobile streaming in case of limited upload bandwidth, and they can be setup independently for every channel. For IE set up, please refer to **Channel Camera setting**, **Sub Bitstream**, **Subcode**



5.4 Video Setting



5.4.1 Camera Channel

Select camera channel for apply camera setting. Select [ALL] for apply to all channels.

5.4.2 PTZ Protocol

Select PTZ device protocol. Support CLT-618, JY2000, Philip, Pelco-D, Pelco-P, Panasonic, Samsung, SYYT, TD500, Tiandy, VIDO, VTS, YAAN, Yiboer and etc.

5.4.3 PTZ Baud Rate

Select PTZ device baud rate. Support 1200, 2400, 4800, 9600.

5.4.4 PTZ ID

Select PTZ device ID. From 0~255

5.4.5 Color Setting

Adjust camera color attribute, by default the value is 8.

• Brightness: $1 \sim 16$

● Contrast: 1 ~ 16

● Hue: 1 ~ 16

• Saturation: $1 \sim 16$

5.4.6 Motion Detection & Region

Sensitivity of motion detection

There are three level sensitivity of motion detection.

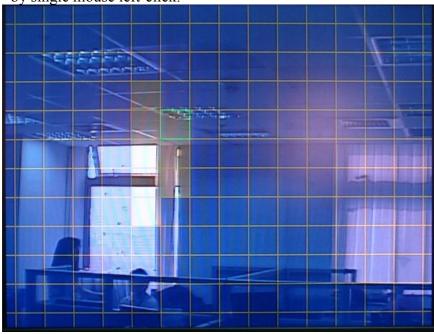
Highest →Normal → Low or Disable

Configure motion detection by region.

Press [>>] on screen to pop up sub windows for region setting.

There are totally 16 x 12 individual blocks for a camera view. Each block can be turn on or off

by single mouse left-click.



5.4.7 **Privacy Mask(Mosaic)**

Each camera can define multiple regions for privacy protection. Click [>>] open sub windows and use mouse define the privacy regions. Each privacy region will show only gray color in live view windows

and being recorded. Support Maximum 4 regions.



5.4.8 Motion, Video Lost and Channel Name(Video- Advanced Setting)

- **♦** Motion Handling
- ♦ Video Lost handling



User can pre-define correspond action while DVR handling the event such as motion detection, video list, alarm input trigger. Following is the action list,

- Record: Start record immediately
- Alarm Out: Set the Alarm output enable
- Buzzer: Set the Buzzer enable
- E-mail: Send E-mail with Snapshot picture
- UPLOAD: upload these events to CMS server(Future growth)



Motion Detect

Video Loss

◆ **Channel Name Setting** – at most 16 characters, but only can display 11 characters

5.5 Net Setting

5.5.1 Network(Static IP/DHCP)

DVR support two methods to acquire IP address,

- Automatic acquire IP address by DHCP client model.
- Manual assign IP address by Static IP model.

PPPoE for ADSL dial-up network are supported, please click Next Page.



5.5.2 Http Port

By default is port:80, user can specify different port number.

5.5.3 Command Port

By default is port:5050, user can specify different port number.

5.5.4 Media Port

By default is port:6050, user can specify different port number.

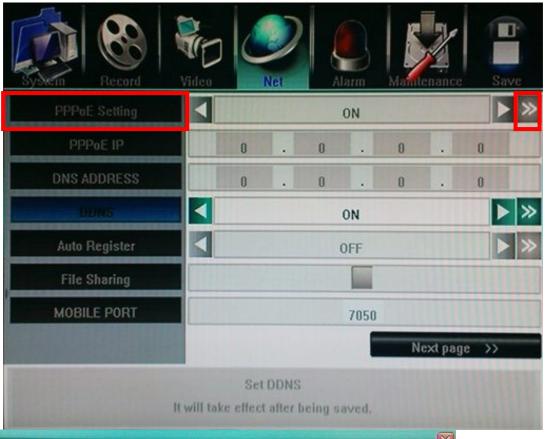
If DVR installed behind a Router to share a single public IP address. Be sure to configure the "Port Forwarding" or "Virtual Server" for those three network port and Mobile surveillance Port:7050; you may surf http://portforward.com for more information.

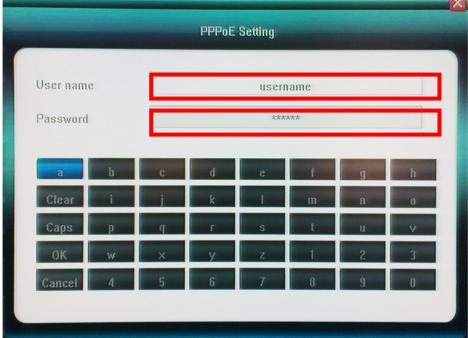
surveillance port:7050 must open/allow to upload to WAN interface if DVR installed behind a Firewall server; for port no., please refer to http://www.iana.org/assignments/port-numbers for more information

5.5.5 PPPoE/DDNS(Net-Second Pagel

◆ PPPoE Setting

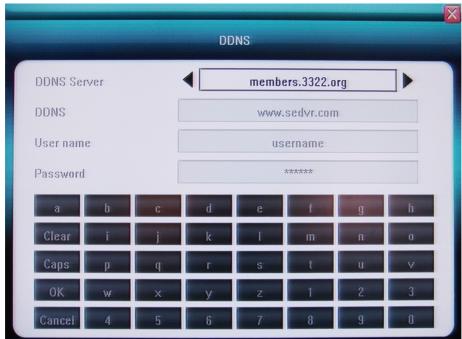
Click $[\![>>]\!]$ to open sub window and input ADSL account and password from Internet Service Provider.





◆ DDNS

Click [>>] to open sub window and input DDNS account and password from DDNS Service Provider. User must apply DDNS service account at first.

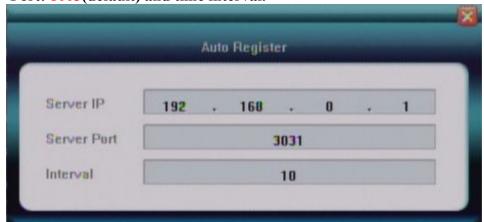


update.ods.org
www.justlinux.com
www.hn.org
members.3322.org
members.dyndns.org
www.EZ-IP.net
members.dhs.org

www.easydns.com
www.dyns.cx
www.zoneedit.com
members.3322.org(static)
members.dyndns.org(static)
www.penguinpowered.com
egi.tzo.com

◆ Auto Register

DVR can configure to automatically register to CMS, input CMS Server IP address, Server Port: 8003(default) and time interval.



File Sharing

Check to activate files sharing function, then able to visit video files in DVR HDD via network neighborhood.

How to visit shared files:

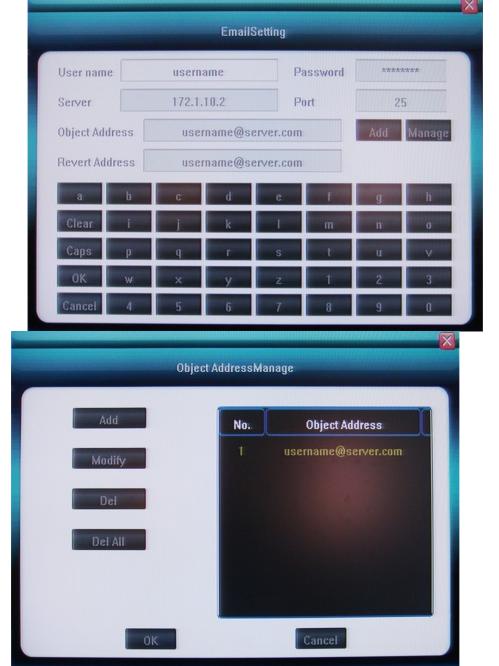
Double click network neighborhood, input $\$ IP address, such as $\$ 192.168.10.220, to enter the login page, type in the super authority "Admin" and password, the shared files can be accessible now, click into folder of "videoout" to check video files.

♦ MOBILE PORT

By default is port: 7050, user can specify different port number, please refer to <u>7. Mobile Phone</u> Support for details.

5.5.6 E-Mail Server(Net-Third Pagel

User can add multiple e-mail address of recipients for alarm notification. Input standard SMTP mail server IP address. Please make sure you have user account and password in advance.



5.6 Alarm Input/Output Setting 5.6.1 Alarm Input Channel



Select alarm input channel for apply record setting. Select [ALL] for apply to all channels.

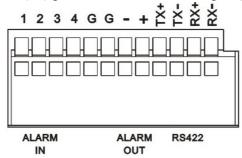
5.6.2 Alarm Input Type

The alarm input attribution includes N/O. and N/C.

Each camera has one input pin on Terminal Block at the real panel.

User must use voltage output type sensor to connect alarm input interface.

Sensor device output **POSITIVE** (+) pin connect to DVR's input pin (1~4 pin) Sensor device output **GROUND** (-) pin connect to DVR's G pin (5~6) pin



N/O.: Normally open. Sensor must constant output low level voltage. If output voltage change from Low level to High level then DVR will be triggered.

N/C.: Normally connected. Sensor must constant output High level voltage. If output voltage change from High level to Low level then DVR will be triggered.

Maximum high level voltage is $5V_{\text{DC}}$

5.6.3 Event Handling

The alarm triggered event handling include: record/alarm output/PTZ preset /Buzzer sound output/Upload alarm to CMS.

Note1: if user wants to set alarm triggered record, please set the record schedule first at "Record Schedule".

Note2: if user wants to set alarm triggered PTZ, please select the channel number first, and then to set (only preset 1 can be selected)

Note3: Event handling sound / report to alarm center need to be set in IE explorer. Please refer to Chapter 6.3

5.6.4 Alarm-Advanced Setting(Alarm E-mail, Schedule and Zoom Out)

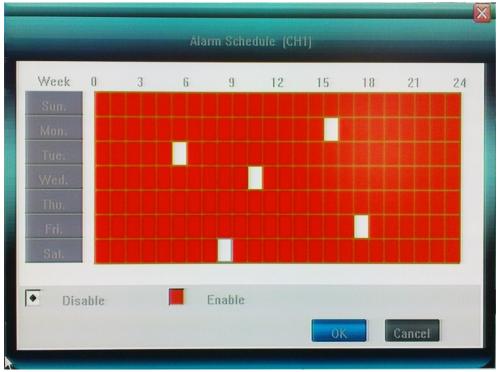
◆ Alarm E-mail

Check "E-mail" box will enable the e-mail notification when alarm triggered.



◆ Alarm Schedule

Click [>>] to open sub window for alarm schedule setting. User can enable/disable alarm output by weekly schedule.



Alarm Zoom Out

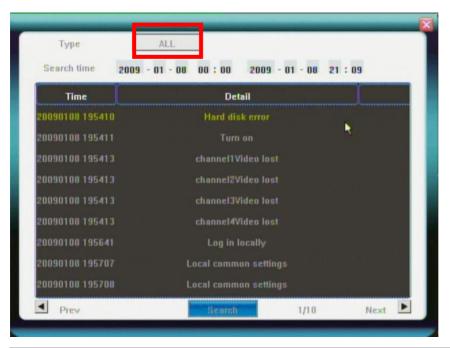
Set the time interval for channels pop out display while alarmed(Motion and Sensor)

5.7 Maintenance



5.7.1 Log View

- 1. Select the type of log to be searched: All/ Operation/ Exception/ Alarm.
- 2. Select the time scope to be searched.
- 3. Click Search to display the detail information of log.



Note: The maximum number of logs supported currently is 3000. The storage mode adopts overwrite mode: continuously overwrite the oldest data when the database is full.

5.7.2 Software Upgrade

The upgrade modes supported now are USB & IE Remote Software:

USB: Please make sure the USB device is connected correctly and the upgrade applications have already being copied into **USB root directory**. Please follow the prompts to operate. After accomplishing upgrade, press confirm button to restart.

5.7.3 HDD Manage

HDD must be formatted by DVR before start recording audio/video.

Click [>>] to open sub window and format the HDD by DVR.



HDD information will display on the windows if DVR detection HDD correctly. Click [Formatting] to start HDD format.



HDD information will display on the windows if DVR detection HDD correctly. Click [Formatting] to start HDD format

5.7.4 HDD Capacity

Show DVR current HDD capacity status.

5.7.5 Hardware Version

Show DVR current hardware version.

5.7.6 Software Version

Show DVR current software version.

5.7.7 Software Release Date

Show DVR current software release date.

5.8 Save Setting



5.8.1 Save & Exit

Save all setting and exit menu.

5.8.2 Exit

Exit menu without save setting.

5.8.3 Restore defaults

Reset all configuration to factory default

The system language, time, camera PAL/NTSC system, and network settings (IP address, subnet mask, gateway, HTTP port) will not be recovered by restoring to factory defaults.

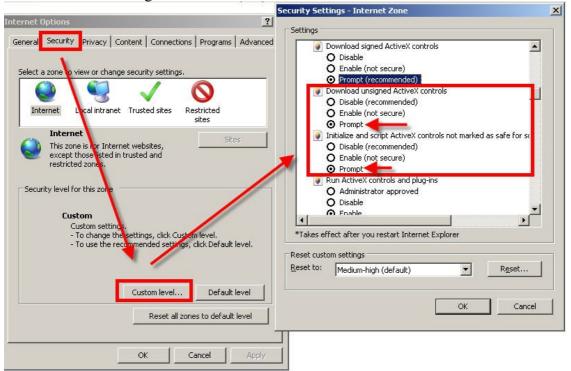
5.8.4 Logout

Save all setting and exit menu.

6. Web Browser Operation (IE Browser only)

6.1 Enable Download Un-singed ActiveX Control

User's computer need download ActiveX components for web access at the first time connect to DVR. If user's Internet explorer prohibits the download action then please manually enable the download of un-signed ActiveX in IE.



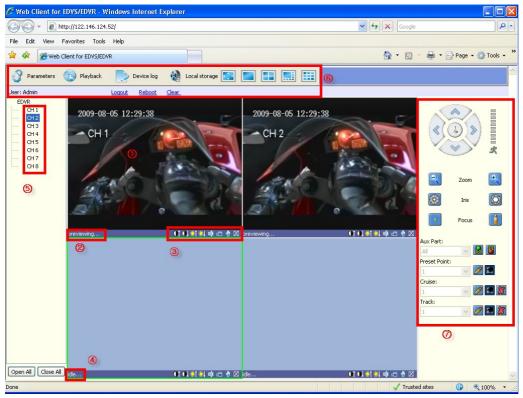
Download unsigned ActiveX controls → Enable or Prompt
Initialized and script ActiveX controls not marked as safe → Enable or Prompt

6.2 Web Browser Main Screen

Open IE browser, input IP address of the DVR, the Login windows will appear.



Check "Automation Open All Preview" to watch all cameras after login.



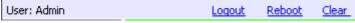
- 1 Camera view window, 1 camera/ 4 cameras / 8 cameras
- 2 Camera view is previewing 1
- 3 Camera view tools
 - **!** Adjust image contrast up/down.
 - Adjust brightness up/down.
 - Start/stop voice monitoring(<u>Chapter 5.3.5</u>). The icon will turn to green when recording.
 - Eart/stop recording. The icon will turn to green when recording.
 - Click to snapshot.
 - Stop preview.

Click Local Storage to set the storage directory of record files and pictures captured.

- 4 Camera view is idle.
- 5 Available Camera list
- 6 Tools Bar Parameters Talk-back Playback Device log Local storage []

The description of icons from left to right is:

- Parameters: configure device parameters(set up), please refer to <u>6.4 Device Parameters</u> Settings
- Talk-back: Future growth
 - Playback: Search and playback record files, please refer to <u>6.5 Video Files Playback & Download</u>
 - Device log: View logs and export them, please refer to 6.5.3 Device Log
- Local storage: Set the storage directory of record files.
- Talk-Back: use channel 1 only, please open PC microphone and speakers
 Click to switch camera view modes among full-screen, single split view mode and 4/9 splits view mode.



Current Account, Log-out, restart device, Clear alarm

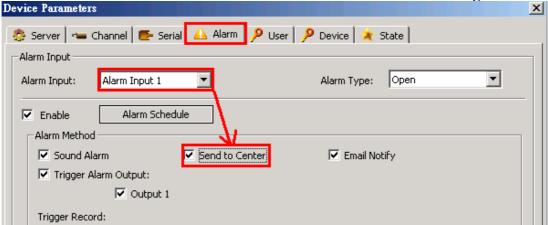
7 PTZ Control Please refer to 4.8 PTZ Control

6.3 Alarm Notification

When network connection is broken or abnormal, the alarm notification of "No heartbeat of device, please check the network!" will be displayed in the right up side of the main **screen**. After recovery of network, the preview will be displayed automatically.

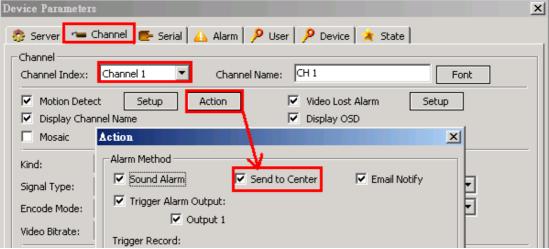
When alarms of remote notification occur, the alarm notification with alarm input number contained such as "Device alarm: IO alarm, IO input x" will be displayed in the right up

side of the main screen. Enable this function in Device Parameters setting.



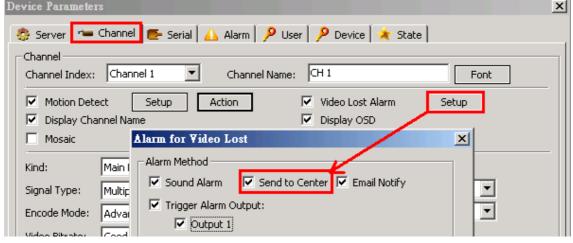
When alarms of motion detection with remote notification occur, the alarm notification with the alarm channel number contained such as "Device alarm: motion detection, channel X"

will be displayed in the right up side of the main screen.



When alarms of video loss with uploading to center occur, the alarm notification with the alarm channel number contained such as "Device alarm: video loss, channel x" will be

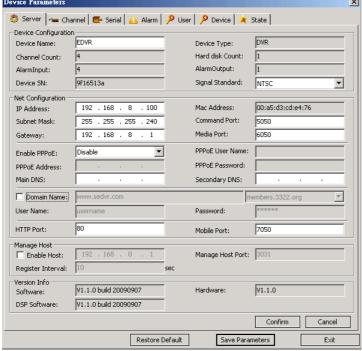
displayed in the right up side of the main screen.



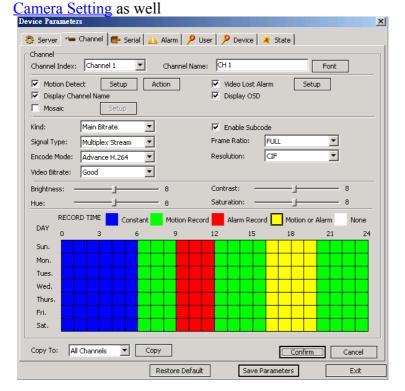
6.4 Device Parameters Settings



◆ Server→Network setting, video system – please refer to <u>5.5 Net Setting</u> as well Device Parameters

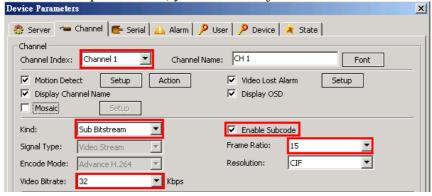


lack Channel \rightarrow Camera setting, Record setting – please refer to <u>5.3 Record Setting</u> and <u>5.4</u>



◆ Channel → Camera setting, Sub Bitstream, Subcode – please refer to <u>5.3.8 Dual Streaming for Network(Record- Advanced Setting)</u> as well

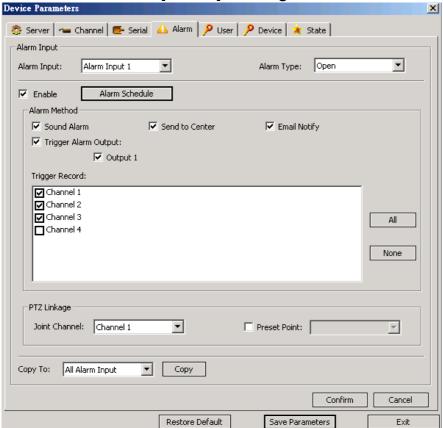
For limited upload bandwidth of internet that DVRs connect, or limited streaming capability of some mobile phone/PDA, you have to adjust bandwidth of DVR to internet.



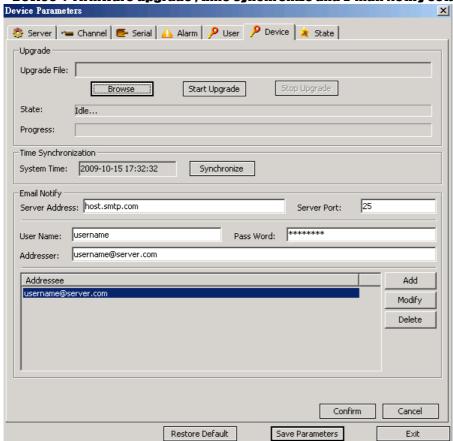
◆ Serial→PTZ Setting



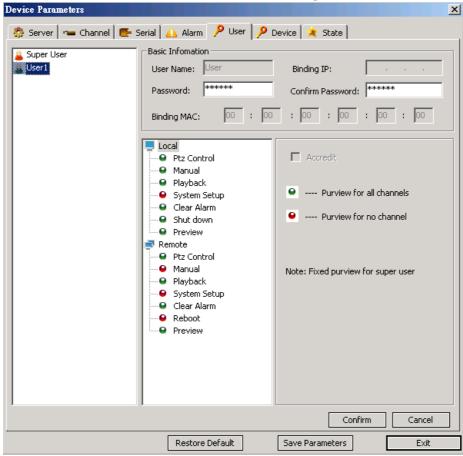
♦ Alarm → alarm input / output setting



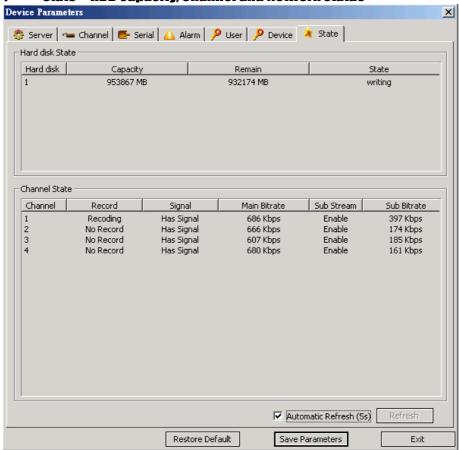
◆ Device→Firmware upgrade , time synchronize and E-mail Notify setup



♦ User→User account and authority setting



♦ State – HDD capacity, Channel and Network status



6.5 Video Files Playback & Download 6.5.1 Video Files Playback

Click Playback, the playback screen will appear. It includes video files search, playback and video files download.



♦ Video Files Search

The file search part is on the right upper side of the screen, please set target, type, start time and end time there. Then click Qurey to start searching. The result will list on the table. Specify the files in the table list and click on the playing control button or download button to do the relevant operations.



♦ Video File Playback

The play control screen is on the left side of the screen. It includes image display area, play control bar, and channel information.

Click Play, the record files selected will be displayed in time order. The progress of playing is shown as the figure below:



The playing control bar is shown as the figure below. The descriptions of all these icons from

left to right are as follows:



Play; Pause; Stop; Go to next frame; Fast play option (The speed of playing will be doubled by each clicking. It includes: 2X, 4X, 8X, and 16X); Slow play option (The speed of playing will be half down by each clicking. It includes 1/2X, 1/4X, 1/8X, and 1/16X); Enhance contrast; Reduce contrast; Enhance brightness; Reduce brightness; Open/close voice; Go to previous file; Go to next file

and is enabled only when multiple record files being selected to play); Snapshot (the storage directory can be set on the pop-up screen by clicking Local Storage).

The information of the record file selected will be displayed in the area shown as the figure below. It includes device's IP address, current play speed, channel number and start/end time of the record file.



6.5.2 Download Video Files

Click to set the storage directory of the video file. Click Download to start downloading.

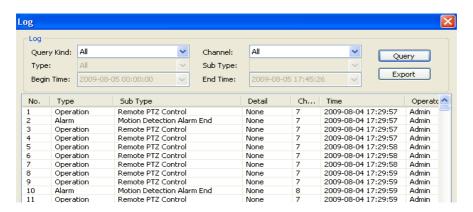
Please refer to Chapter 4.6 for playback downloaded video by Windows Media player.

6.5.3 Device Log

Click Logs, the screen of device logs will appear. There are four options for choosing: All, according to time, according to type, according to time and type.

To search logs, please select the search mode and channel number needed first and then click Query to progress.

Click Export to export logs in html format.



7. 3G/3.5G Mobile Phone/PDA Support

To streaming from 3/3.5G mobile phone or PDA, you have to open the mobile port of DVR, the default setting is 7050, please refer to 5.5.5 PPPoE/DDNS(Net-Second Page] or IE 6.4

Device Parameters Settings Server Network setting, video system

For limited upload bandwidth of internet that DVRs connect, or limited streaming capability of some mobile phone/PDA, you have to adjust bandwidth of DVR to internet, please refer to 5.3.7 Dual Streaming for Network(Record- Advanced Setting) or 6.4 Device Parameters

Settings - Channel→ Camera setting, Sub Bitstream, Subcode (from IE) for more details

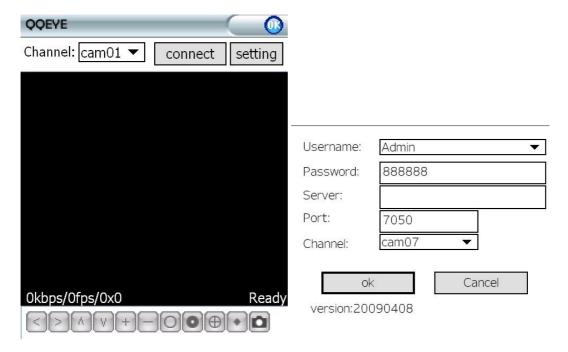
You may find the Windows Mobile 5.0/6.0/6.1 PDA(amplayersetup.CAB) and Symbian S60 3rd (**P_s60_3rd_en.sisx**) softwares from the CD inside the DVR package or visit your DVR website to download by IE – http://xxx.xxxx.xxxx/download.html

Note: User's mobile phone must apply internet connection service at first, such as 3G or 3.5G service. Please contact mobile company for detail.

7. 1 Windows Mobile PDA

Open accessory CD and find the "**amplayersetup.CAB**" for the surveillance software. Please refer to PDA user manual, copy *.cab into windows mobile pda Double click on *.cab can start install software into PDA. After install completed, user can find QQEYE in the application list.

Execute QQEYE program and click setting to setup IP address of remote DVR.





Input user name [Admin] and password. IP address of DVR and port:7050 for streaming data.

Click ok to save the setting.

In the main windows, click "connect" to login DVR and watch the steaming video from DVR.

At the bottom is the PTZ control and picture snapshot.

7. 2 Nokia/Samsung/LG Symbian S60 3rd Phone

Open accessory CD and find the "P_s60_3rd_en.sisx" for surveillance software. Please refer to user manual of mobile phone to install the software into mobile phone. While install the software, must set "software installation -ALL", and "Online Certificate check - off", ex. Main menu --> Applications --> App. mgr. (application management) --> Options --> settings --> software installation, set ALL --> Online Certificate check, set off

After installation competed, user can find the QQEYE icons at the application list. Execute QQEYE, First step is configuring the IP address of DVR, username, password.

Click icon to show the setup windows,

Server Address: DVR IP address

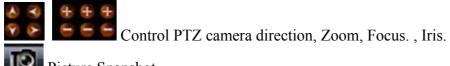
Serer Port:: 7050 Username: [Admin]

Password: By default are 888888 Save and return to main windows



Click icon to connect DVR immediately, after login DVR successfully, user can watch the remote video from mobile phone.





Picture Snapshot.



Mobile phone reference list:

ino phono rotoronoo nat.		
Nokia 5730 XpressMusic	\$60 3rd_FP2	11-Mar-09
Nokia N86 8MP	\$60 3rd_FP2	17-Feb-09
Nokia E55	\$60 3rd_FP2	16-Feb-09
Nokia E75	\$60 3rd_FP2	16-Feb-09
Nokia 6710 Navigator	\$60 3rd_FP2	16-Feb-09
Nokia 6720 Classic	\$60 3rd_FP2	16-Feb-09
Nokia 5630 XpressMusic	\$60 3rd_FP2	10-Feb-09
Nokia E63	\$60 3rd_FP1	12-Nov-08
LG-KT615	\$60 3rd_FP1	30-Oct-08
Samsung I7110	\$60 3rd_FP2	20-Oct-08
Nokia N79	\$60 3rd_FP2	21-Aug-08
Nokia N85	\$60 3rd_FP2	21-Aug-08
Samsung INNOV8	\$60 3rd_FP2	25-Jul-08
Nokia E66	\$60 3rd_FP1	16-Jun-08
Nokia E71	\$60 3rd_FP1	16-Jun-08
Samsung SGH-L870	\$60 3rd_FP2	28-May-08
Nokia 5320 XpressMusic	\$60 3rd_FP2	22-Apr-08
Samsung SGH-G810	\$60 3rd_FP1	11-Feb-08
Nokia 6220	\$60 3rd_FP2	11-Feb-08
Nokia N78	\$60 3rd_FP2	11-Feb-08
Nokia N96	\$60 3rd_FP2	11-Feb-08
Nokia 6210 Navigator	\$60 3rd_FP2	11-Feb-08
LG-KT610	\$60 3rd_FP1	10-Feb-08
Nokia N82	\$60 3rd_FP1	14-Nov-07
Samsung SGH-i560	\$60 3rd_FP1	16-Oct-07
Samsung SGH-i550	\$60 3rd_FP1	15-Oct-07
Samsung SGH-i450	\$60 3rd_FP1	14-Oct-07
Nokia E51	\$60 3rd_FP1	18-Sep-07
Nokia N95 8GB	\$60 3rd_FP1	29-Aug-07
Nokia N81	\$60 3rd_FP1	29-Aug-07
Nokia N81 8GB	\$60 3rd_FP1	29-Aug-07
Nokia 6121	\$60 3rd_FP1	18-Jun-07
Samsung SGH-i400	\$60 3rd_FP1	26-Apr-07
Nokia 6120	\$60 3rd_FP1	17-Apr-07
Nokia 5700	\$60 3rd_FP1	29-Mar-07
Nokia N77	\$60 3rd_INIT	12-Feb-07
Nokia E90	\$60 3rd_FP1	11-Feb-07
Nokia E61i	\$60 3rd_INIT	10-Feb-07
Nokia E65	\$60 3rd_INIT	09-Feb-07
Nokia 6110 Navigator	\$60 3rd_FP1	08-Feb-07
Nokia N76	\$60 3rd_FP1	08-Jan-07
Nokia N93i	\$60 3rd_INIT	08-Jan-07

Nokia 6290	\$60 3rd_FP1	28-Nov-06
LG KS10	\$60 3rd_FP1	09-Oct-06
Samsung SGH-i520	\$60 3rd_FP1	09-Oct-06
Nokia N75	\$60 3rd_INIT	27-Sep-06
Nokia N95	\$60 3rd_FP1	26-Sep-06
Nokia E62	\$60 3rd_INIT	09-Sep-06
Nokia 5500 Sport	\$60 3rd_INIT	09-May-06
Nokia N93	\$60 3rd_INIT	09-Apr-06
Nokia N73	\$60 3rd_INIT	09-Apr-06
Nokia N92	\$60 3rd_INIT	09-Nov-05
Nokia N71	\$60 3rd_INIT	09-Nov-05
Nokia N80	\$60 3rd_INIT	09-Nov-05
Nokia E70	\$60 3rd_INIT	09-Oct-05
Nokia E61	\$60 3rd_INIT	09-Oct-05
Nokia E60	\$60 3rd_INIT	09-Oct-05
Nokia 3250	\$60 3rd_INIT	13-Sep-05
Nokia N91	\$60 3rd_INIT	14-Apr-05

7. 3 3G/3.5G iPhone Series

Please use 2nd generation iPhone and go to their App Store, search the "APlayer", download and

install it, it is free; Execute APlayer program and click to setup IP address of remote DVR as below right screenshot

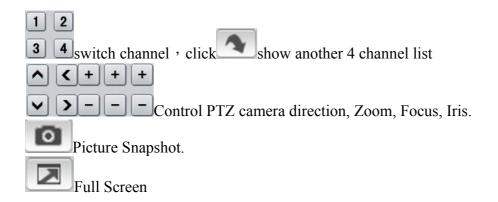
Server IP: DVR IP address

Port: 7050 by defaut Username: [Admin]

Password: By default are 888888 Save and back to main windows



Click icon to connect DVR immediately, after login DVR successfully, user can watch the remote video from mobile phone; the other icons function are as follows:



8. Appendix

Appendix A-HDD Capacity Estimate

1) Calculate the maximum capacity of the build-in hard disk.

Timing Recording:

Step 1: Calculate the maximum capacity of the hard disk needed in selected channel per hour, suppose as Si (MByte) (i is the channel number), and suppose the bit rate of the channel selected as D (Kbit/s). The formula of calculation is:

$$Si = (D*3600) / (8*1024) = D*0.439453125 MB$$

Step 2: Confirm the storage time length, suppose as T hours. The total maximum capacity of the hard disk needed in selected channel for T hours, suppose as St is:

Step 3: Confirm the total numbers of the channels, suppose as n. The total maximum capacity of the hard disk needed, suppose as Sc is:

Alarm Recording

Suppose the rate of alarming as α %. The capacity of the hard disk needed in alarm recording supposed as Sa is:

Sa = Sc *
$$\alpha$$
%

2) Calculate the compression bit rate for recording T hours.

Timing Recording

Step 1: Suppose the capacity of the hard disk as S, the total numbers of the channel as n. The capacity of hard disk needed per channel supposed as Di is:

$$Di = S / n$$

Step 2: Suppose the total recording time as T hours. The capacity of the hard disk needed per hour per channel supposed as Dt is:

$$Dt = Di / T$$

Step 3: The bit rate of all the channels supposed as Dc is:

$$Dc = Dt * (8*1024) / 3600 = Dt * 2.2756 (Kbit/s)$$

Alarm Recording

Step 1: Suppose the rate of alarming as α %, capacity of hard disk as S, the total numbers of the channel as n. The capacity of hard disk needed per channel supposed as Di is:

$$Di = (S/n) * \alpha\%$$

Step 2: Suppose the time length of recording as T (hours). The capacity of hard disk needed per hour per channel supposed as Dt is:

$$Dt = Di / T$$

Step 3: The bit rate of all channels supposed as Dc is:

Appendix B— Compatible HDD List

The other brand or model, please test by yourselves

Item	Model Number	Size(GB)	Drive
WD	WD5001ABYS	500	SATA
WD	WD5000AVVS	500	SATA
WD	WD7500AACS	750	SATA
WD	WD10EADS	1000	SATA
WD	WD15EADS	1500	SATA
WD	WD20EVDS	2000	SATA
HITACHI	HDS721075KLA330	750	SATA
HITACHI	HDT721010SLA360	1000	SATA
Maxtor	6V16010	160	SATA
Seagate	ST3250310SV	250	SATA
Seagate	ST3500320SV, ST3500320AS	500	SATA
Seagate	ST31000528AS	1000	SATA
Seagate	ST31500341AS	1500	SATA
Seagate	ST32000542AS	2000	SATA
Samsung	HD161HJ	160	SATA
Samsung	HD501LJ	500	SATA

Appendix C- Compatible USB portable DVD Burner List

The other brand or model, please test by yourselves

- * Sony DRX-S70U-R
- * HUGE USB Slim Portable Optical Drive
- * LG GE20LU10
- * Lite On eSAU108
- * Buffalo DVSM-P58U2/B

Appendix D— What is inside the CD

- * User Manual 4CH 8CH Multiplex H264 DVR User Manual Vx.x.doc in the root
- * MP4Player for back up MPEG4 files(USB, DVDRW, Internet) playback in PC
- * Mobile Phone software 1022 Windows Mobile 5.0/6.0/6.1 PDA(amplayersetup.CAB) and Symbian S60 3rd (**P_s60_3rd_en.sisx**) softwares, you can download from the DVR by IE http://xxx.xxxx.xxxx/download.html as well.