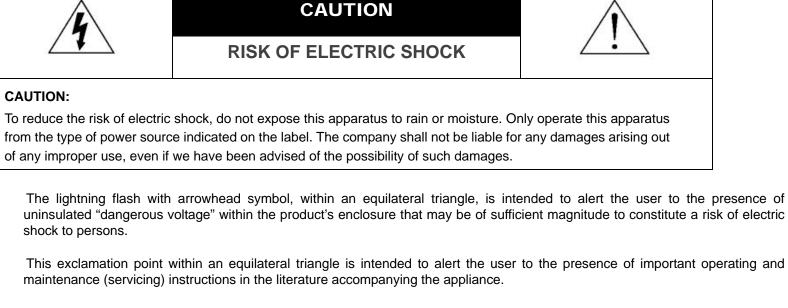
# User Manual

- Intelligent Video Surveillance
- GUI Display with USB Mouse Control

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

For the actual display & operation, please refer to your DVR in hand.

# **IMPORTANT SAFEGUARD**





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.

### Federal Communications Commission Interference Statement

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 user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

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#### Disclaimer

The information in this manual was current when released. 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.

#### Grounding

This is a Safety Class 1 Product (provided with a protective earthing ground incorporated in the power cord). The mains plug shall only be inserted in a socket outlet provided with a protective earth contact. Any interruption of the protective conductor inside or outside of the instrument is likely to make the instrument dangerous. Intentional interruption is prohibited.

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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:

http://download.dvrtw.com.tw/GPL/076D\_Series/arm-linux-2.6.tar.gz

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# **1. BEFORE USING THIS DVR**

# 1.1 Package Content

#### Standard Package

	Manual for IR Remote Controller
□ IR Remote Controller	□ DVR Quick Start
🗆 CD Manual	□ Adapter & Power cord
□ HDD screws	9 or 25 Pin DSUB Connector
□ USB Mouse	

#### Optional Accessory

 $\Box$  IR Receiver Extension Cable

# 1.2 Front Panel

#### 1) LED Indicators

- **U** DVR is powered on.
- HDD is reading or recording.
- An alarm is triggered.
- ( Timer recording is on.
- Under playback status.

### 2) <u>CH1 ~ 16 / 1 ~ 8 / 1 ~ 4</u>

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

# 3) 🗄

Press to show the 4 channel display mode.

#### 4) <u>SEQ</u>

Press to display each channel in full screen one by one starting from CH1. When the last channel is displayed, it will repeat from CH1 again. To exit this mode, press "SEQ" again.

#### 5) <u>SLOW</u>

In the playback mode, press to show slow playback.

6) <u>ZOOM</u>

Press to enlarge the picture of selected channel in the FRAME or FIELD recording mode.

7) LIST (Event List Search)

Press to quickly search the recorded files by event lists: RECORD / MOTION / ALARM / TIME / HUMAN DETECTION / IVS / STATISTIC, or select FULL to show all the event logs.

To quickly search the time you want, select "QUICK SEARCH". For details, please refer to "5.4.1 QUICK SEARCH" at page 21.

8) <u>SEARCH</u> (For AVC793C & 793CD Only)

Press to enter the time search menu. For details, please refer to "5.4.1 QUICK SEARCH" in the user manual.

9) <u>MENU</u>

Press "MENU" to enter the main menu.

10) <u>ENTER</u>

Press "ENTER" to confirm the setting.

11) <u>PLAY (⊳)</u>

Press to playback the latest recorded data.

## 12) II ( $\blacktriangle$ ) / $\blacksquare$ ( $\triangledown$ ) / $\twoheadleftarrow$ ( $\blacktriangleleft$ ) / $\ggg$ ( $\blacktriangleright$ ) Press $\blacktriangle$ / $\bigtriangledown$ / $\blacklozenge$ / $\blacklozenge$ to move up / down / left / right. In the playback mode: Press "II " to pause playback. Press "■" to stop playback. Press "▶" to fast forward. 13) AUDIO (SLOW + ZOOM) Press "SLOW" + "ZOOM" to select live or playback audio from audio channel 1~4. Live audio from audio channel 1~4 Playback audio from audio channel 1~4 ൽ (indicated in white). (indicated in yellow). Audio channel unselected 14) P.T.Z. ( + SEQ) Press " $\blacksquare$ " + "SEQ" at the same time to enter / exit the PTZ control mode.

15) USB port

There are two USB ports on the front panel, one for connecting your USB mouse for mouse control, and the other one for connecting your USB flash drive for video backup.

Note: It's not allowed to have two USB mice or two USB flash drives connected on the front panel.

**Note:** For the compatible USB flash drive list, please refer to "APPENDIX 3 COMPATIBLE USB FLASH DRIVE LIST" at page 61.

# 1.3 Rear Panel

- <u>75Ω / HI-IMPEDANCE</u> (For AVC799B & 797B Only) When using Loop function, please switch to HI-IMPEDANCE. When you don't use Loop function, please switch to 75Ω.
- <u>VIDEO IN (1 ~ 16 / 1 ~ 8 / 1 ~ 4)</u>: Connect to the video connector of a camera.
   <u>VIDEO LOOP (1 ~ 16 / 1 ~ 8)</u>: 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.

- AUDIO IN (1~4)
   Connect to the audio connector of a camera if the camera supports audio recording.
- **Note:** To make a video backup with audio, make sure the camera which supports the audio function is connected to the video-in channel and audio-in channel. For example, the audio data from audio CH1 will be recorded with the video data from video CH1.
- 4) <u>AUDIO OUT</u>

Connect to a speaker with 1 mono audio output.

Note: To know how many audio outputs your DVR supports, please refer to its specifications.

5) MONITOR

Connect to a CRT monitor for video output.

**Note:** While connecting to a CRT monitor, it's also supported to connect to a LCD monitor simultaneously for dual video output.

6) <u>CALL</u>

Connect to a monitor specific for sequence display.

7) <u>VGA</u> Connect a LCD monitor directly.

**Note:** While connecting to a LCD monitor, it's also supported to connect to a CRT monitor simultaneously for dual video output.

## 8) <u>IR</u>

Connect the IR receiver extension line for remote control.

9) <u>EXTERNAL I/O</u>

This port is used to connect external devices (such as speed dome cameras or external alarm, etc).

10) <u>LAN</u>

Connect to Internet by LAN cable.

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

Connect to the supplied adapter.

12) Dower Switch

Switch to "I" to turn on the power, and "O" to turn off the power.

# 2. CONNECTION AND SETUP

Before the DVR is powered on, make sure you have installed a hard disk and connected at least one camera. For details, please refer to the following sections.

**Note:** The DVR is designed to automatically detect the video system of the connected cameras (NTSC or PAL). To make sure the system detection is correct, please check if the cameras are connected to the DVR and power-supplied before the DVR is powered on.

# 2.1 SATA HDD Installation

A SATA HDD must be installed before the DVR is powered on.

**Note:** It's recommended to clear all data in the hard disk when the DVR is powered on and the date & time are set correctly to ensure the recorded data are not mixed with other data previously saved in the same hard disk. For details, please refer to "2.5 Clear Hard Disk" at page 8.

#### > For AVC799B & AVC797B

Step1: Loose the screws on the upper cover and open the upper cover of the DVR.

Note: The DVR cover is made of metal. Please be careful with its edge when you remove the cover.

Step2: There are two HDD brackets for this DVR as indicated on

the right picture.

2-1 To install on the first bracket

Remove the bracket, and align the screw holes of the bracket with the HDD's screw holes. Make sure the PCB side of the HDD is facing up.

Fasten the HDD to the bracket, and connect the power connector and data bus connector to the HDD. Then, replace the bracket to DVR.

2-2 To install on the second bracket

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

Align the screw holes of the bracket with the HDD's screw holes. Make sure the PCB side of the HDD is facing up. Then, fasten the HDD to the bracket.





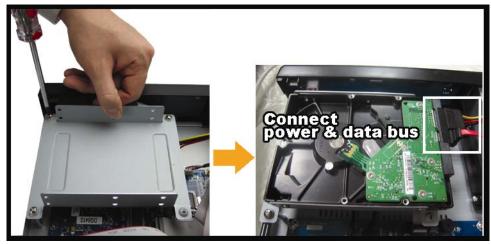
Step3: Close the upper cover of the DVR, and fasten all the screws you loosened in Step1.

#### For AVC794B, AVC794C, AVC793C & AVC793CD

Step1: Remove the screws on the top cover of DVR, and remove the top cover.

Step2: Remove the HDD bracket. Then, with the PCB side facing up, connect the compatible HDD to the power connector and data bus connector.

Step3: Put the compatible HDD in the bracket, and fasten it with the supplied screws, two for each side.

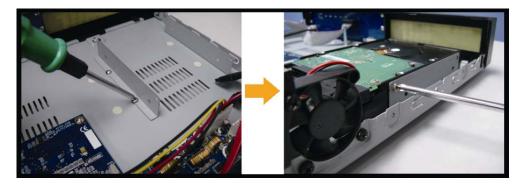


Step4: Replace the bracket back to the DVR.

**Note:** Step5 ~ 7 are applicable for AVC794B, AVC794C & AVC793C Only.

- Step5: For installing another HDD, find the supplied HDD brackets in the package, and fix them onto the DVR base.
- Step6: With the PCB side facing up, connect the compatible HDD to the power connector and data bus connector.

Step7: Then, put the HDD in the bracket, and fasten it with the supplied screws, two for each side.



Step8: Replace the top cover and fasten the screws you loosened in Step1.

# 2.2 Camera Connection

The cameras must be connected and power-supplied before the DVR is powered on. Connect the camera with the indicated power supply. Then, connect the camera video output to the DVR video input port with a coaxial cable or RCA cable with BNC connectors.

Note: For detailed DVR video input ports, please refer to "1.3 Rear Panel" at page 2.

## 2.2.1 Normal Camera Connection

Note: For detailed camera installation and connection, please refer to its own user manual.

1) Connecting to DVR video input

Connect the camera video output to the DVR video input port with a coaxial cable or RCA line with BNC connector.

2) Connecting to DVR audio input (Optional)

Connect the camera audio output to the DVR audio input port with a coaxial cable or RCA cable with BNC connectors.

3) Connecting to power

Connect the camera with indicated power supply and make sure it's power-supplied.

#### 2.2.2 DCCS Camera Connection

Note: For AVC799B, only channel 1 ~ 4 support DCCS camera connection; For AVC797B, only channel 1 & 2 support DCCS camera connection; For AVC794B, AVC794C, AVC793C and AVC793CD, only channel 1 supports DCCS camera connection.

1) Connecting to DVR video input

Connect the camera video output to the DVR video input port with a coaxial cable, or a RCA cable with BNC connectors.

2) Connecting to power

Connect the camera with indicated power supply.

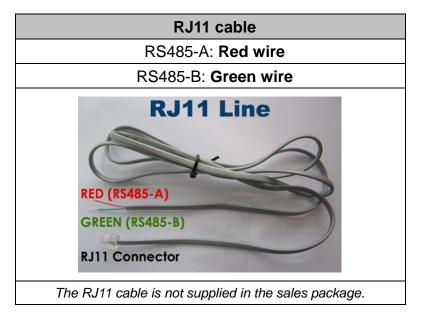
3) Configuring camera parameters (For zoom lens control cameras only)

Set camera parameters when the DVR is powered on. For details, please refer to the camera user manual.

## 2.2.3 PTZ Camera Connection

The following description is taking our brand's PTZ camera as an example.

For detailed PIN / port connection, please refer to "APPENDIX 2 PIN CONFIGURATION" at page 58. For DVR setting to control the PTZ camera, please refer to "5.5.8 DEVICES" at page 30. For detailed PTZ camera control and operation, please refer to its own user manual.



9 PIN D-Sub Connector	25 PIN D-Sub Connector	
RS485-A: <b>PIN 8</b>	RS485-A: <b>PIN 12</b>	
RS485-B: <b>PIN 9</b>	RS485-B: <b>PIN 24</b>	
Solder Side of 9-pin D-Sub connector RS485-A: PIN8 / RS485-B: PIN9	Solder Side of         25-pin D-Sub connector         RS485 - A: PIN12 / RS485 - B: PIN2 4         (1) 12 / RS485 - B: PIN2 4	
D-Sub connector is supplied with the DVR package.		

#### STEP 1: Get a RJ11 cable 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 cable connection with the DVR.

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

Remove one end of the insulating coating of the RJ11 cable 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 cable and the speed dome camera together.

Twist the RS485-A (red) and RS485-B (green) wires of the RJ11 cable 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 cable to DVR.

Solder the RS485-A (red) and RS485-B (green) wires of the RJ11 cable to the corresponding pins on the solder side of the 9 or 25 PIN D-Sub connector (as shown above).

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

Go to "ADVANCED CONFIG"  $\rightarrow$  "DEVICES" 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.

ADVANCED CONFIG			
CANERA	CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8 CH9 CH10 CH11 <		
DETECTION ALERT	DEVICE PTZ ID 000		
NETWORK	PROTOCOL NORMAL		
DISPLAY RECORD	RATE 2400		
DEVICES DCCS			
IVS NOTIFY			
EXIT			

# 2.3 DVR Power On

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. The power LED will be on.

**Note:** Before the DVR is powered on, make sure the cameras are connected and power-supplied for the detection of the camera video system to be correct.

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

# 2.4 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 power it on for at least 48 hours continuously after the date & time is set correctly. It helps to prevent DVR time from resetting after the disconnecting of DVR power. If the DVR time resets after the disconnecting of DVR power, for example, caused by a power outage, the battery might run out and please replace the battery as described in "APPENDIX 6 DVR BATTERY REPLACEMENT" at page 65.

Right-click to enter the DVR password with the password keypad. The default administrator password is 0000. The status will be changed from  $\bigcirc$  (key lock) to  $\bigotimes$  (administrator). Then, right-click to show the main menu, and select "QUICK START"  $\rightarrow$  "TIME SETUP" to set the date & time.

QUICK START				
GENERAL TIME SETUP	DATE TIME	2009 / NOV / 17 15 : 35 : 53		
EXIT				

# 2.5 Clear Hard Disk

It's recommended to clear all data in the hard disk for the first time to use this DVR to ensure the recorded data are not mixed with other data previously saved in the same hard disk.

Right-click to show the main menu, and select "SYSTEM"  $\rightarrow$  "SYSTEM INFO"  $\rightarrow$  "CLEAR HDD". The DVR will reboot when HDD data are cleared. For details, please refer to "5.3.2 SYSTEM INFO" at page 19.

SYSTEM				
TOOLS SYSTEM INFO BACKUP DATA (USB) BACKUP LOG (USB)	BAUD RATE HOST ID R.E.T.R AUTO KEY LOCK CLEAR HDD RESET DEFAULT REMOTE CONTROL ID SERIAL TYPE VIDEO FORMAT VERSION	2400 000 5 NEVER HDD-0 SUBMIT 000 RS485 NTSC 1019-1008-1010-1010		
EXIT				

# 2.6 Password Setting

Right-click to show the main menu, and select "SYSTEM"  $\rightarrow$  "TOOLS" to change the DVR password.

There are two user levels: ADMIN & OPERATOR. For details, please refer to "5.3.1 TOOLS" at page 18.

SYSTEM				
TOOLS SYSTEM INFO BACKUP DATA (USB) BACKUP LOG (USB)	LANGUAGE ADMIN PASSWORD OPERATOR PASSWORD UPGRADE BACKUP CONFIG RESTORE CONFIG	ENGLISH SETUP SUBMIT SUBMIT SUBMIT		
EXIT				

# 3. GUI DISPLAY WITH USB MOUSE CONTROL

**Note:** The graphical OSD shown in this document is taking AVC799B, AVC797B, AVC794B & AVC794C as an example. AVC793C(D) is using another set of graphical OSD. To know details about the other set, please refer to "APPENDIX 7. GRAPHICAL OSD TABLE" at page 66.

# 3.1 Connect USB Mouse

Connect your USB mouse to one of the USB ports on the DVR front panel, and check if there's a mouse icon (<sup>®</sup>) on the screen, indicating the USB mouse is detected properly.

Move your mouse to enter the DVR password with the password keypad. The default administrator password is **0000**. The status will be changed from (key lock) to (administrator), and the quick menu bar appears on the left side of the screen.

Note: There are two user levels for DVR access which can be set in the main menu "SYSTEM" → "TOOLS". For details, please refer to "5.3.1 TOOLS" at page 18.





# 3.2 Quick Menu Bar

Move to the arrow mark to extend the quick menu bar and show the five functions as follows:

#### Quick Menu: Open

Сн

۲

	Сн	Click to show the channel switch panel and select the channel you want. For details, please refer to "3.2.1 Channel Switch" at page 10.
	$\bigcirc$	Click to display the playback control panel, and click to play the latest recorded video clip, or click is to enter the search list. For details, please refer to "4.3 Playback" at page 13.
	٩	Switch to the channel you want first, and click $\bigcirc$ to enter the zoom-in mode. In this mode, click and drag the red frame on the bottom left of the screen to move to the place you want to see. To exit this mode, click $\boxtimes$ .
	Ø,	Click to select the audio channel you want: In the live mode, only the live audio channels can be selected. In the playback mode, live and playback audio channels can be selected.
	<b>d</b> 000	Click to enter the PTZ mode and show the PTZ camera control panel. For details, please refer to "3.2.2 PTZ Control Panel" at page 10.
	I	Click to show the power off panel to either halt or reboot the system.

# 3.2.1 Channel Switch

Click <sup>CD</sup> on the quick menu bar to display the panel as follows:

CHANNEL CONTROL	1~16	Video Channel Number	Click to switch to the channel you want in full screen.
1     2     3     4       5     6     7     8       9     10     11     12       13     14     15     16	þ	Sequence Display	Click to display each channel in full screen one by one starting from CH1. When the last channel is displayed, it will repeat from CH1 again. When this function is on, will be shown on the status bar.
		Quad Display	Press to show the 4-channel display mode.
		9-Cut Display	Press to show the 9-channel display mode.
		16-Cut Display	Press to show the 16-channel display mode.

## **3.2.2 PTZ Control Panel**

Click on the quick menu bar to display the panel as follows:



	Camera Menu	Click to enter the camera main menu. For details about each camera menu, please refer to its own user manual.
4	Enter	Click to confirm your selection / enter the menu.
🔺 / 🔽 / 🛋 / 🕨	Up / Down / Left / Right	Click to move your selection up / down / left / right, or change settings.
<b>()</b>	Iris + / Iris -	This two buttons are designed for the PTZ camera which uses Pelco-D to control. To know the actions after clicking Iris + and Iris -, please refer to the camera's user manual.
+/-	Zoom in / out max	Click to zoom in on the image to the largest / zoom out on the image to its original size.
	Zoom in / out	Click to zoom in / out the image.
🕃 / 🚍	Focus near / far	Click to adjust the focus of the image.
	Auto mode	Click to activate the auto function. Before using it, you need to assign a specific function that will be enabled when "AUTO" is clicked. For details, please refer to the user manual of the PTZ camera.
A	Preset point	Click to enter the PTZ preset point you want to see.

**Note:** In the PTZ control mode, hot point is supported to move the camera view to the specified point after a click.

# 3.3 Main Menu

Right-click anywhere on the screen to show the main menu as follows, and right-click again to exit.

For details about each menu and its sub-menus, please refer to "5. MAIN MENU' at page 15. For details about the menu structure, please refer to "APPENDIX 5 MAIN MENU STRUCTURE" at page 63.

#### Main Menu

~	QUICK START	Click to set the status display, image settings, and date & time.
10	DATE SETUP	Click to set the date display and daylight saving.
10	SYSTEM	Click to set the system configurations.
E	EVENT INFORMATION	Click to enter the event search menu.
	ADVANCED CONFIG	Click to set CAMERA, DETECTION, ALERT, NETWORK, SNTP, DISPLAY, RECORD, DEVICES, DCCS, IVS* & NOTIFY*.
	SCHEDULE SETTING	Click to set record timer, detection timer & alarm timer.
		Image: Description   Image:

\* Available for AVC799B, 797B, 794B & 794C only.

# 4. BASIC OPERATION

# 4.1 Live Page



lcon	Function	lcon	Function	lcon	Function
0	Live audio channel (1~4)	•	Playback audio channel (1~4)		Audio channel off
0	Digital zoom on	Ð	Digital zoom off	0	Timer recording
ß	Network disconnected	喩	Internet connected	Ø	LAN connected
$\bigotimes$	USB mouse connected	Ŷ	USB flash drive / device connected	ø	No USB device connected
<u> </u>	Key lock	6	PTZ mode on	<b>\$</b> 5	HDD overwrite
<b>()</b>	Administrator	þ	Operator	þ	Sequence
20	Recording	8	Alarm event	\$	Motion event
<b>S</b>	Virtual fence event	٩	One way pass event	<b>\$</b>	Scene Change event
\$	Human detection event	À	Flow counting enabled	đ	Smart zoom
8 8 8 8	Record mode: Frame	ł	Record mode: Field		Record mode: CIF
	DCCS connection OK	<b>₽</b> ×	DCCS connection failed		

# 4.2 Record Icon

1) Manual Recording

By defaults, manual recording is on  $(\mathbb{R})$  when the DVR is powered on and a HDD is installed.

2) Event Recording

The event icons, \$ / ••• / \$ / \$ / \$ / \$ / \$, show on the screen when their respective events occur and the related record function is on.

3) <u>Timer Recording</u>

When timer recording is on, you will see """ on the screen.

4) HDD Overwritten

Be defaults, the HDD overwritten function is set to ON, and "(\$)" will be shown on the screen.

# 4.3 Playback

Click " V" on the quick menu bar to display the playback control panel, and click I to play the latest recorded video clip, or click I to enter the search list.



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

*	Fast Forward	Increase the speed for fast forward. Click once to get 4X speed forward and click
	1 dot 1 of ward	twice to get 8X speed, etc., and the maximum speed is 32X.
	Fast Rewind	Increase the speed for fast rewind. Click once to get 4X speed rewind and click
	rast Rewind	twice to get 8X speed, etc., and the maximum speed is 32X.
/		Click to play the latest recorded video clip immediately, and click again to pause.
	Play / Pause	In the pause mode, click 🔛 once to get one frame forward, and click 🗹 to get
		one frame rewind.
	Stop	Click to stop the video playback.
>>>		Click once to get 1/4X speed playback, and click twice to get 1/8X speed
	Slow Playback	playback.
	Dravieve /	Click to jump to the next / previous time interval in an hour, for example, 11:00 ~
	Previous /	12:00 or 14:00 ~ 15:00, and start playing the earliest event video clip recorded
	Next Hour	during this whole hour.
AB	Denest	Click to set point A and point B in a video clip, and the system will play only the
	Repeat	specified range in that clip.
	Backup	Click to open the backup menu for video backup.

# 4.3.1 Playback Control

# 4.3.2 Event Search

Click Discrete Click Click Control of the second of the se

To quickly search the time you want, select "QUICK SEARCH". For details, please refer to "5.4.1 QUICK SEARCH" at page 21.

# 4.3.3 Audio Playback

In the playback mode, click 0 on the quick menu bar as many times as needed to select live or playback audio from audio channel 1~4.

1

Live audio from audio channel 1~4 (indicated in white).

Playback audio from audio channel 1~4 (indicated in yellow).

Audio channel unselected

**Note:** To make a video backup with audio, make sure the camera which supports the audio function is connected to the video-in channel and audio-in channel. For example, the audio data from audio CH1 will be recorded with the video data from video CH1.

# 4.4 User Level Switch

In the key lock mode (<sup>(C)</sup>), move your USB mouse to display the password input keypad. There are two user levels for accessing the DVR: Administrator (<sup>(C)</sup>) & Operator (<sup>(C)</sup>).

When the administrator password is entered, 😤 will be shown on the status bar of the screen and all operations are allowed. The default administrator password is 0000.

When the operator password is entered,  $\triangle$  will be shown on the status bar of the screen, and the main menu is **NOT** allowed to access. The operator user level needs to be set in the main menu "SYSTEM"  $\rightarrow$  "TOOLS".

To switch between these two user levels, click the current user level icon to switch to the key lock mode, and move your mouse to show the password input keypad, and enter the password of the user level you want.

# **4.5 VGA Output Resolution Support**

Users are allowed to change the resolution depending on their display monitor.

**Note:** For AVC794C, AVC793C and AVC793CD, this function appears only when "PRIORITY" is set to "DISPLAY FIRST". For details, please refer to "5.1.1 GENERAL" at page 15.

Right-click to display the main menu, and select "ADVANCED CONFIG"  $\rightarrow$  "DISPLAY".

	ADVANCED CONFIG				
CAMERA	DE-INTERLACE (For AVC799B & 797B Only)	OFF			
DETECTION	FULL SCREEN DURATION	03			
ALERT	QUAD SCREEN DURATION (For AVC799B & 797B Only)	03			
NETWORK	CALL SCREEN DURATION	03			
DISPLAY	DISPLAY COVERT	ON			
RECORD	HDD DISPLAY MODE	HDD SIZE			
DEVICES	ALPHA BLENDING	200			
DCCS	VGA OUTPUT	1600 x 1200			
IVS	VGA DEINTERLACE (For AVC799B, 797B & AVC794B Only)	ON			
NOTIFY	COMPOSITE DEINTERLACE (For AVC799B, 797B & AVC794B Only)	ON			
EXIT					

Move to "VGA OUTPUT", and select the VGA resolution you want. There are three options as follows:

- 1024 x 768 (default)
- ➤ 1280 x 1024
- ➤ 1600 x 1200

**Note:** For AVC794C, AVC793C and AVC793CD, this function appears only when "PRIORITY" is set to "DISPLAY FIRST". For details, please refer to "5.1.1 GENERAL" at page 15.

**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.

# 5. MAIN MENU

Right-click anywhere on the screen to show the main menu as follows, and right-click again to exit. For details about the menu structure, please refer to "APPENDIX 5 MAIN MENU STRUCTURE" at page 63.

#### Main Menu

×	QUICK START	Click to set the status display, image settings, and date & time.
12	DATE SETUP	Click to set the date display and daylight saving.
i	SYSTEM	Click to set the system configurations.
K	EVENT INFORMATION	Click to enter the event search menu.
	ADVANCED CONFIG	Click to set CAMERA, DETECTION, ALERT, NETWORK, DISPLAY, RECORD, DEVICES, DCCS, IVS* & NOTIFY*.
	SCHEDULE SETTING	Click to set record timer, detection timer & alarm timer.

\* Available for AVC799B, 797B, 794B & 794C only.

# **5.1 QUICK START**

## 5.1.1 GENERAL

QUICK START			
GENERAL	CHANNEL TITLE	ON	
TIME SETUP	EVENT STATUS DATE DISPLAY	ON ON	
	DCCS DISPLAY	ON	
	MOUSE SENSITIVITY	-          +	
	PRIORITY (For AVC794C, 793C & 793CD Only)	RECORD FIRST	
	RECORD CONFIG	SETUP	
EXIT			

1) CHANNEL TITLE

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

2) <u>EVENT STATUS</u>

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

Note: For details about each event icon, please refer to "4.1 Live Page" at page 12.

3) <u>DATE DISPLAY</u>

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

- <u>DCCS DISPLAY</u>
   Select to display the DCCS icon or not (ON / OFF).
- 5) MOUSE SENSITIVITY

Select the mouse sensitivity by 9 levels.

#### 6) PRIORITY (For AVC794C, AVC793C & 793CD Only)

This function is used to reallocate the system sources to live display, record, and remote access. There are three options for this function: RECORD FIRST / NETWORK FIRST / DISPLAY FIRST.

RECORD FIRST: When this option is selected, Full D1 at real-time record on all channels is available, but the frame rate for remote monitoring will be decreased, and the VGA output resolution is fixed to 1024 x 768.

- NETWORK FIRST: When this option is selected, real-time remote monitoring will be available, but Full D1 real-time recording on all channels will not be available, and the VGA output resolution is fixed to 1024 x 768.
- DISPLAY FIRST: When this option is selected, three VGA output resolutions will be available to choose (1024 x 768 / 1280 x 1024 / 1600 x 1200), but Full D1 real-time recording on all channels and real-time remote monitoring will not be available.

#### 7) <u>RECORD CONFIG</u>

Click "SETUP" to enter the setting page individually for manual record, event record and timer record.

- a) Select the record type you want to set.
- b) In "CHANNEL", select "ALL" to apply the changes here to all channels.

QUICK START				
MANUAL EVENT	TIMER			
CHANNEL	IMAGE SIZ	ZE I.P.S.	QUALITY	
ALL	CIF	100	SUPER BEST	
			EXIT	

Note: The I.P.S. section is taking the PAL system as an example.

Or, select "BY CHANNEL" to set the image size, image per second & image quality individually for each channel.

QUICK START				
MANUAL	EVENT TIMER			
CHANNEL	IMAGE SIZ	E I.P.S.	QL	JALITY
CH1	CIF	25	SL	IPER BEST
CH2	CIF	25	SL	IPER BEST
CH3	CIF	6	HI	GH
CH4 FIELD		25	SL	IPER BEST
AVAILABLE IPS: CIF 69 / FIELD 34 / FRAME 17				
			APPLY	EXIT
		_		

## 5.1.2 TIME SETUP

	QUICK START				
GENERAL TIME SETUP	DATE TIME	2009 / NOV / 17 15 : 35 : 53			
EXIT					

1) <u>DATE</u>

Set the current date. The default display format is YEAR – MONTH – DATE (Y-M-D).

Note: To change the date display format, please refer to "5.2.1 DATE INFO".

2) <u>TIME</u>

Set the current time in HOUR : MIN : SEC.

# **5.2 DATE SETUP**

## 5.2.1 DATE INFO

DATE SETUP				
DATE INFO DAYLIGHT	DISPLAY DATE OF MODE FORMAT	TEXT MODE Y/M/D		
EXIT				

1) DISPLAY DATE OF MODE

Show the date display mode.

2) <u>FORMAT</u>

Select one date format from the following three options: Y/M/D, M/D/Y or D/M/Y.

## 5.2.2 DAYLIGHT

DATE SETUP					
DATE INFO	DAYLIC	GHT SAVIN	G	OFF	
DAYLIGHT					
	START	START TIME			
	1 <sup>st</sup>	MON	AUG	06:00	
	END T	END TIME			
	LAST	MON	OCT	10:00	
	ADJUST 01:00				
EXIT					

Depending on the time zone you're in:

1) DAYLIGHT SAVING

Select to enable (ON) or disable (OFF) this function.

## 2) START TIME / END TIME

Set the start time and end time.

## 3) <u>ADJUST</u>

Set the time in HOUR : MIN.

# 5.3 SYSTEM

## 5.3.1 TOOLS

SYSTEM				
TOOLS SYSTEM INFO BACKUP DATA (USB) BACKUP LOG (USB)	LANGUAGE ADMIN PASSWORD OPERATOR PASSWORD UPGRADE BACKUP CONFIG RESTORE CONFIG	ENGLISH SETUP SUBMIT SUBMIT SUBMIT		
EXIT				

### 1) <u>LANGUAGE</u>

Select the language of the OSD.

#### 2) ADMIN PASSWORD

Click "SETUP" to change the administrator password. The default administrator password is **0000**. When you're prompted to enter the DVR password, enter the administrator password, and <sup>2</sup>/<sub>2</sub> will be shown on the status bar of the screen and all operations are allowed.

#### 3) OPERATOR PASSWORD

Click "SETUP" to set or change the operator password. .

When you're prompted to enter the DVR password, enter the operator password, and A will be shown on the status bar of the screen and the main menu is **NOT** allowed to access.

4) <u>UPGRADE</u>

Save the upgrade files obtained from your installer or distributor in a compatible USB flash drive, and insert it into the USB port at the front panel. Then, click "SUBMIT" to start upgrading.

**Note:** Before using the USB flash drive, please use your PC to format the USB flash drive to FAT32 format first. For the list of compatible USB flash drives, please refer to "APPENDIX 3 COMPATIBLE USB FLASH DRIVE LIST" at page 61.

**Note:** After upgrading firmware, it's recommended to clear all HDD data for the system to work more stably. Before clearing all HDD data, please remember to make video backup.

## 5) BACKUP CONFIG / RESTORE CONFIG

To keep the current configurations after DVR upgrade, insert a compatible USB flash drive into the USB port, and select "SUBMIT" in "BACKUP CONFIG" to copy the current DVR configurations to a file "System.bin" and save to your USB flash drive.

To restore the DVR configurations, insert the USB flash drive including "System.bin" to the USB port, and select "SUBMIT" in "RESTORE CONFIG".

## 5.3.2 SYSTEM INFO

SYSTEM			
TOOLS SYSTEM INFO BACKUP DATA (USB) BACKUP LOG (USB)	BAUD RATE HOST ID R.E.T.R AUTO KEY LOCK CLEAR HDD RESET DEFAULT REMOTE CONTROL ID SERIAL TYPE VIDEO FORMAT VERSION	2400 000 5 NEVER HDD-0 SUBMIT 000 RS485 NTSC 1010-1005-1006-1007	
EXIT			

#### 1) BAUD RATE

Set the baud rate of the DVR (2400 / 9600 / 19200 / 38400 / 57600 / 115200).

#### 2) <u>HOST ID</u>

Set the ID of the DVR (000  $\sim$  254).

#### 3) <u>R.E.T.R</u>

Select the timeout in minute after which the R.E.T.R. function will be activated (3 / 5 / 10 / 30).

#### 4) AUTO KEY LOCK

Set the time-out in second after which the key lock function is activated (NEVER / 30 / 60 / 120).

#### 5) <u>CLEAR HDD</u>

Select the HDD you want to clear, and click "YES" to confirm or "NO" to cancel.

It's recommended to clear all data in the hard disk when:

- It's the first time to use this DVR to ensure the recorded data are not mixed with other data previously saved in the same hard disk.
- The DVR firmware is upgraded for the system to work more stably. Before clearing all HDD data, please remember to make video backup.
- DVR date and time are changed accidentally when 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.

#### 6) <u>RESET DEFAULT</u>

Click "SUBMIT" to reset all settings as default, and select "YES" to confirm or "NO" to cancel. The DVR will reboot after reset.

#### 7) <u>REMOTE CONTROL ID</u>

This function is available when users need to control two or more DVRs with one IR remote controller. The ID set here is used to identify the DVR the remote controller is going to control. Please also read the user manual of the IR remote controller for details.

8) SERIAL TYPE

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

#### 9) <u>VIDEO FORMAT</u>

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

10) <u>VERSION</u>

Here shows the firmware version information.

into your USB flash drive

# 5.3.3 BACKUP DATA (USB) / (DVD)

Insert a compatible USB flash drive to the USB port at the front panel, or press **A** to eject the DVD writer and place a DVD-R or CD-R to it.

Note: Before using the USB flash drive, please use your PC to format the USB flash drive to FAT32 format first. For the list of compatible USB flash drives, please refer to "APPENDIX 3 COMPATIBLE USB FLASH DRIVE LIST" at page 61.

Note: "BACKUP DATA (DVD)" is only available for AVC793CD.

		SYSTEM		
BAC BAC	DLS TEM INFO <b>XUP DATA (USB)</b> KUP DATA (DVD) KUP LOG (USB)	START DATE       2009/NOV/19         START TIME       08:30:21         END DATE       2009/NOV/19         END TIME       17:59:29         CHANNEL       Ø 01       02       03       04         Ø 05       06       07       08         Ø 09       10       11       12         Ø 13       14       15       16         HARD DISK       ALL HDD       SUBMIT         BACKUP       SUBMIT       SUBMIT		
	EXIT	AVAILABLE SIZE: 3788.0MB		
1)	START DATE / STAR			
2)	END DATE / TIME Select the end date &	ND DATE / TIME elect the end date & time.		
3)	<u>CHANNEL</u> Click to select the channel(s).			
4)	HARD DISK Select the hard disk containing the video data you need or "ALL HDD".			
5)	BACKUP Click "SUBMIT" to start backup.			
6)	<u>REQUIRE SIZE</u> To know the size of the expected backup video before backup, click "SUBMIT" to start calculating			
	Backup File Playback			
	• • • •	cess, a file player installer "PLAYER.EXE" will also be copied into your USB the message "CHECK PLAYER" shown on the screen.		

Note: The maximum number of CD-R or DVD-R backup files in the CD or DVD is 41.

Insert your USB flash drive or place the CD or DVD into the DVD-ROM drive of your PC. Install the file player "PLAYER.EXE", and double click a backup file to play it directly in your PC and see if the backup is successful.

Note: The supported PC operating systems are Windows 7, Vista & XP.

# 5.3.4 BACKUP LOG (USB)

This function is used to backup the record log.

Insert a compatible USB flash drive to the USB port at the front panel.

**Note:** Before using the USB flash drive, please use your PC to format the USB flash drive to FAT32 format first. For the list of compatible USB flash drives, please refer to "APPENDIX 3 COMPATIBLE USB FLASH DRIVE LIST" at page 61.

SYSTEM				
TOOLS	START DATE	2009/NOV/19		
SYSTEM INFO	START TIME	08:30:21		
BACKUP DATA (USB)	END DATE	2009/NOV/19		
BACKUP DATA (DVD)	END TIME	17:59:29		
BACKUP LOG (USB)	CHANNEL	☑ 01 □ 02 □ 03 □ 04		
		☑ 05 □ 06 □ 07 □ 08		
		☑ 09 □ 10 □ 11 □ 12		
		☑ 13 □ 14 □ 15 □ 16		
	DATA TYPE	SETUP		
BACKUP SUBMIT				
EXIT				

1) START DATE / START TIME

Select the start date & time.

2) END DATE / TIME

Select the end date & time.

3) <u>CHANNEL</u>

Click to select the channel(s).

4) DATA TYPE

Click "SETUP" to select the event type you want: MANUAL / MOTION / ALARM / SYSTEM / TIMER / HUMAN DETECTION / INFLOW / OUTFLOW / VIRTUAL ENCE / ONEWAY / SENCE CHANGE, or select "SELECT ALL" to choose all event types.

5) <u>BACKUP</u>

Click "SUBMIT" to start backup. You'll see a log file (.csv) in the flash drive.

# **5.4 EVENT INFORMATION**

#### **5.4.1 QUICK SEARCH**

	EVENT INFORMATION							
<b>QUICK SEARCH</b>	HARD DISK					ALL HD	D	
EVENT SEARCH	CHANNEL				☑ 01	□ 02  □	103 🗆 04	
HDD INFO					☑ 05	□ 06 □	07 🗆 08	
EVENT LOG					☑ 09		I11 □12	
					☑ 13		I 15 □ 16	_
		2009		NC	VC			
	SUN	MON	TUE	WED	THU	FRI	SAT	
	1	2	3	4	5	6	7	
	8	9	10	11	12	13	14	
	15	16	17	18	19	20	21	
	22	23	24	25	26	27	28	
	29	30						
	00	06		12		18	2	24
EXIT	•	15 : 20				SUBMIT		

Step1: Select the hard disk and channel including the video data you want to search.

- Step2: Select the month including the video data you want to search from the calendar, and the date with recorded data will be highlighted.
- Step3: Select the date you want from the calendar, and the time with recorded data will be highlighted from the time scale bar.

Step4: To immediately play the video clip, click "SUBMIT".

To choose the start time for video playback, move your mouse cursor to the highlighted time, and click to confirm the time when the time display below is the time you want. The video playback is activated right away when you confirm the time.

Note: For video playback operations, please refer to "4.3 Playback" at page 13.

# 5.4.2 EVENT SEARCH

EVENT INFORMATION				
QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	DATE TIME CHANNEL HARD DISK EVENT TYPE SEARCH	2009/NOV/19 16:13:16 1 ALL HDD MOTION START		
EXIT				

### 1) DATE / TIME

Select the specific time period that you want to search.

2) <u>CHANNEL</u>

Select the video channel you want to search.

3) HARD DISK

Select the hard disk including the video data you want to search, or select "ALL HDD".

4) <u>EVENT TYPE</u>

Select the event type you want to search: MOTION / ALARM / HUMAN DETECTION / INFLOW / OUTFLOW / VIRTUAL FENCE / ONE WAY PASS / SCENE CHANGE.

5) <u>SEARCH</u>

Click "START" to start search and play the video data immediately.

## **5.4.3 HDD INFO**

You can check the remaining capacity of the connected HDD in this device.

EVENT INFORMATION				
QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	HDD NUMBER HDD-0	HDD SIZE 1.197GB		
EXIT				

# 5.4.4 EVENT LOG

You can check all the event information (event type, time and channel), or clear all log records.

EVENT INFORMATION				
QUICK SEARCHEVENTTIMECOMMENEVENT SEARCHKEY UNLOCK2009/NOV/19 15:49:07VIDEO LOSS2009/NOV/19 15:32:0504EVENT LOGPOWER ON2009/NOV/19 15:32:022009/NOV/19 15:32:022009/NOV/19 15:32:02				
EXIT		PREV	NEXT	CLEAN

# **5.5 ADVANCED CONFIG**

## 5.5.1 CAMERA

ADVANCED CONFIG						
CANERA	CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8 CH9 CH10 CH11 ◀ ►					
DETECTION	BRIGHTNESS 128					
ALERT	CONTRAST 128					
NETWORK	SATURATION 128					
DISPLAY	HUE 128					
RECORD	COV. OFF					
DEVICES	REC ON					
DCCS	CHANNEL TITLE EDIT					
IVS						
NOTIFY						
EXIT						

#### 1) BRIGHTNESS / CONTRAST / SATURATION / HUE

Click the current value to manually adjust the brightness/contrast/saturation/hue of each channel here.

2) <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.

- **Note:** To hide the wording "COV." When this function is on, go to "DISPLAY", and set "DISPLAY COVERT" to "OFF". For details, please refer to "5.5.6 DISPLAY" at page 28.
  - 3) <u>REC</u>

Select if you want to enable recording for the selected channel (ON / OFF).

- **Note:** When this function is disabled, no manual, event or timer recording will be activated even if any of these three record functions is set to "ON".
  - 4) <u>CHANNEL TITLE</u>

Click "EDIT" to input the channel title (up to six characters). The default title is the channel number.

# 5.5.2 DETECTION

ADVANCED CONFIG						
CANERA	CH1 CH2 CH3 CH4 CH5 CH6	6 CH7 CH8 CH9 CH10 CH11 -				
DETECTION	LS	07				
ALERT	SS	03				
NETWORK	TS	02				
DISPLAY	MOTION	OFF				
RECORD	ALARM	OFF				
DEVICES	AREA	EDIT				
DCCS						
IVS						
NOTIFY						
EXIT						

### 1) 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.

2) SS (Spatial Sensitivity)

"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.
  - 3) TS (Time of Sensitivity)

"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.

4) <u>MOTION</u>

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

5) <u>ALARM</u>

Select N.C./ N.O depending on your installation need. The default alarm value is OFF.

6) <u>AREA</u>

Click "EDIT" to set the motion detection area.

There are  $16 \times 12$  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.

## 5.5.3 ALERT

ADVANCED CONFIG					
CANERA	EXT. ALERT	ON			
DETECTION	INT. BUZZER	OFF			
ALERT	KEY BUZZER	ON			
NETWORK	VLOSS BUZZER	ON			
DISPLAY	MOTION BUZZER	ON			
RECORD	ALARM BUZZER	ON			
DEVICES	HDD BUZZER	ON			
DCCS	ALARM DURATION (SEC)	5			
IVS	HDD NEARLY FULL (GB)	5			
NOTIFY					
	L				
EXIT					

## 1) <u>EXT. ALERT</u>

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

#### 2) INT. BUZZER

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

Note: When this item is set to "OFF", item 3) to item 7) 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) <u>VLOSS BUZZER</u>

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) <u>ALARM BUZZER</u>

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)

Select the duration time for alarm buzzer in second (5 / 10 / 20 / 40).

#### 9) HDD NEARLY FULL (GB)

If HDD BUZZER is enabled, select the duration time for buzzer notifications when the hard disk available capacity is 5/10/15/20 GB left.

#### 5.5.4 NETWORK

#### **NETWORK**

> **STATIC** 

ADVANCED CONFIG				
CANERA	NETWORK SNTP FTP E-MAIL DDNS			
DETECTION ALERT	NETWORK TYPE         STATIC           IP         192.168.001.010			
NETWORK DISPLAY	GATEWAY         192.168.001.254           NETMASK         255.255.255.000           DEMARY         1/2 201.201			
RECORD DEVICES	PRIMARY DNS         168.095.001.001           SECONDARY DNS         139.175.055.244			
DCCS IVS	PORT 0080			
NOTIFY				
EXIT				

#### 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.

## > PPPOE

**Note:** When PPPOE configuration is completed, please move to "DDNS" to configure the DDNS service.

ADVANCED CONFIG				
CANERA DETECTION	NETWORK     SNTP     FTP     E-MAIL     DDNS       NETWORK     TYPE     PPPOE			
ALERT NETWORK DISPLAY	IP         192.168.001.010           GATEWAY         192.168.001.254           NETMASK         255.255.200			
RECORD DEVICES DCCS	PRIMARY DNS         168.095.001.001           SECONDARY DNS         139.175.055.244           PORT         0080			
IVS NOTIFY	USER NAME OFFICE PASSWORD OFFICE			
EXIT				

### 1) <u>NETWORK TYPE</u>

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

#### 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.

4) USER NAME / PASSWORD

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

## > DHCP

**Note:** When DHCP configuration is completed, please move to "DDNS" to configure the DDNS service.

ADVANCED CONFIG			
CANERA	NETWORK SNTP FTP E-MAIL DDNS		
DETECTION	NETWORK TYPE DHCP		
ALERT	IP 192.168.001.010		
NETWORK	GATEWAY 192.168.001.254		
DISPLAY	NETMASK 255.255.200		
RECORD	PRIMARY DNS 168.095.001.001		
DEVICES	SECONDARY DNS 139.175.055.244		
DCCS	PORT 0080		
IVS			
NOTIFY			
EXIT			

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.

# <u>SNTP</u>

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

ADVANCED CONFIG								
CANERA DETECTION ALERT <b>NETWORK</b> DISPLAY RECORD DEVICES DCCS IVS NOTIFY	NETWORK SNTP FTP E-MAIL DDNS GMT (GMT + 8:00) TAIPEI NTP SERVER tock.stdtime.gov.tw SYNC PERIOD OFF							
EXIT								

### 1) <u>GMT</u>

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

### 2) <u>NTP SERVER</u>

Click to change the default NTP server to another server they're familiar with, or keep the default NTP server.

#### 3) <u>SYNC PERIOD</u>

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

# <u>FTP</u>

When this function is enabled and an event occurs, a html file including a link will be sent to the specified FTP site. Click the link to access to this DVR and check the event recording.

ADVANCED CONFIG									
CANERA DETECTION ALERT	NETWORK SNTP FT FTP ALERT USER NAME	P E-MAIL DDNS ON MANAGER							
NETWORK DISPLAY RECORD DEVICES DCCS IVS NOTIFY	PASSWORD SERVER PORT DIRECTORY	●●●●●● 192.168.2.32 0021 UPLOAD							
EXIT									

## E-MAIL

When this function is enabled and an event occurs, a html file including a link will be sent to the specified E-mail address. Click the link to access to this DVR and check the event recording.

ADVANCED CONFIG								
	· · · · · · · ·							
CANERA	NETWORK SNTP FTP	E-MAIL DDNS						
DETECTION	E-MAIL ALERT	ON						
ALERT	SMTP SERVER	SMTP.GMAIL.COM						
NETWORK	PORT	465						
DISPLAY	MAIL FROM	MANAGER						
RECORD	SSL ENCRYPTION	ON						
DEVICES	VERIFY PASSWORD	ON						
DCCS	USER NAME	MANAGER						
IVS	PASSWORD	•••••						
NOTIFY	RECEIVER	SETUP						
	· · · · · · · · · · · · · · · · · · ·							
EXIT	]							

#### 1) <u>E-MAIL ALERT</u>

Select "ON" to enable this function, or "OFF" to disable this function.

#### 2) <u>SMTP SERVER</u>

Enter the SMTP server address provided from your e-mail system supplier.

#### 3) <u>PORT</u>

Enter the port number provided from your e-mail system supplier. If this column is left blank, the e-mail server will use port 25 to send e-mails.

#### 4) MAIL FROM

Enter the sender's name.

#### 5) SSL ENCRYPTION

Select "ON" if your e-mail server is using SSL encryption to protect your e-mail content from unauthorized access.

#### 6) <u>VERIFY PASSWORD</u>

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

#### 7) USER NAME / PASSWORD

Enter the "user name" and "password" when "VERIFY PASSWORD" is set to "ON".

8) <u>RECEIVER</u>

Select "SETUP" to add up to 15 e-mail addresses of the assigned recipients.

#### **DDNS**

You need to additionally set DDNS when your network type is PPPOE or DHCP.

We have our own DDNS server for quick DDNS service configuration. You don't need to additionally apply a DDNS service.

- To use our own DDNS server, select "default" in "SYSTEM NAME".
- The default host name is the MAC address of the DVR.
   Then, note down the whole address under "CURRENT HOST ADDRESS", such as MAC000E5318B3F0@ddns.dvrtw.com.tw. This is the default IP address used to access your DVR remotely.

**Note:** Please at least use the default address to access your DVR remotely once. This is to ensure our DDNS server has your DVR registered. Then, you may change the host name to a more meaningful name to memorize later here.

**Note:** If you want to additionally apply a DDNS service instead of using ours, please refer to <u>http://www.surveillance-download.com/user/CMS.pdf</u> and check "Appendix 2" for details.

ADVANCED CONFIG								
CANERA DETECTION ALERT <b>NETWORK</b> DISPLAY RECORD DEVICES DCCS IVS NOTIFY	NETWORKSNTPFTPE-MAILDDNSDDNSONSYSTEM NAMEdefaultHOST NAMEMAC000E5318B3F0EMAILEMPTY							
	CURRENT HOST ADDRESS							
EXIT	MAC000E5318B3F0@ddns.dvrtw.com.tw							

## 5.5.6 DISPLAY

ADVANCED CONFIG							
CAMERA	DE-INTERLACE (For AVC799B & AVC797B Only)	OFF					
DETECTION	FULL SCREEN DURATION	03					
ALERT	QUAD SCREEN DURATION (For AVC799B & AVC797B Only)	03					
NETWORK	CALL SCREEN DURATION	03					
DISPLAY	DISPLAY COVERT	ON					
RECORD	HDD DISPLAY MODE	HDD SIZE					
DEVICES	VIDEO OUTPUT (For AVC794C, AVC793C & AVC793CD Only)	BOTH					
DCCS	ALPHA BLENDING	200					
IVS	VGA OUTPUT	1024 X 768					
NOTIFY	VGA DEINTERLACE (For AVC799B, AVC797B & AVC744B Only)	ON					
	COMPOSITE DEINTERLACE (For AVC799B, AVC797B & AVC744B Only)	ON					

1) DE-INTERLACE (For AVC799B & AVC797B Only)

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.

#### 2) FULL SCREEN DURATION

Select the full screen dwell duration time in second (03 / 05 / 10 / 15).

3) QUAD SCREEN DURATION (For AVC799B & AVC797B Only)

Select the quad screen dwell duration time in second (03 / 05 / 10 / 15).

4) CALL SCREEN DURATION

Select the duration time in second for the CALL monitor function (03 / 05 / 10 / 15).

5) <u>DISPLAY COVERT</u>

Select "ON" or "OFF" to display or hide the wording "COV." When covert recording is activated in "CAMERA".

6) HDD DISPLAY MODE

Select "SIZE" to show the remaining HDD capacity for recording in GB, or "TIME" to show the remaining recording time.

7) VIDEO OUTPUT (For AVC794C, AVC793C & AVC793CD Only)

Select "BOTH" if you want to output images on both LCD and CRT monitors; select "VGA" if you want to output images on a LCD monitor; select "COMPOSITE" if you want to output images on a CRT monitor.

#### 8) <u>ALPHA BLENDING</u>

Click to manually adjust the transparent level of the main menu.

9) <u>VGA OUTPUT</u>

Select the VGA resolution you want. There are three options as follows:

➤ 1024 x 768 (default) ➤ 1280 x 1024 ➤ 1600 x 1200

**Note:** For AVC794C, 793C and AVC793CD, this function appears only when "PRIORITY" is set to "DISPLAY FIRST". For details, please refer to "5.1.1 GENERAL" at page 15.

**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.

- 10) <u>VGA DEINTERLACE (For AVC799B, 797B & 794B Only</u>) Select to enable or disable the de-interlace function when you have VGA output (ON / OFF).
- 11) COMPOSITE DEINTERLACE (For AVC799B, 797B & 794B Only)

Select to enable or disable the de-interlace function when you have composite output (ON / OFF).

### 5.5.7 RECORD

**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.

ADVANCED CONFIG								
CAMERA DETECTION ALERT NETWORK DISPLAY	MANUAL RECORD EVENT RECORD TIMER RECORD PRE-ALARM RECORD OVERWRITE	ON ON ON ON						
RECORD DEVICES DCCS IVS NOTIFY	EVENT RECORD ALL CH KEEP DATA LIMIT (DAYS) RECORD CONFIG	OFF OFF SETUP						
EXIT								

1) MANUAL RECORD

Set the manual recording function on / off.

2) EVENT RECORD

Set the event recording function on / off.

3) TIMER RECORD

Set the timer recording function on / off.

#### 4) <u>PRE-ALARM RECORD</u>

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 an alarm / motion event is triggered.

#### 5) <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.

#### 6) EVENT RECORD ALL CH

Select to record all channels (ON) or record the channel with an event only (OFF) for any event.

#### 7) KEEP DATA LIMITS (DAYS)

Assign the maximum recording days from 01 to 31 after which all the recorded data will be removed, or select "OFF" to disable this function.

#### 8) <u>RECORD CONFIG</u>

Click "SETUP" to enter the setting page individually for manual record, event record and timer record. For details, please refer to "5.1.1 GENERAL" at page 15.

### 5.5.8 DEVICES

ADVANCED CONFIG												
CANERA DETECTION ALERT NETWORK DISPLAY RECORD DEVICES DCCS IVS	CH1 ( DEV ID PRC RAT		CH3	1				PT 00	Z DRMA	CH11		
NOTIFY												
EXIT												

#### 1) <u>DEVICE</u>

For the PTZ camera, select "PTZ".

For a zoom lens control camera:

The DVR will detect it automatically and display its model number here.

To configure the parameters for a zoom lens control camera, please refer to "5.5.9 DCCS" at page 32. Different zoom lens control cameras might have different parameter settings. For details, please refer to their own user manuals.

2) <u>ID</u>

Click the current value to set the ID number (0 ~ 255) for the connected PTZ camera if necessary.

Make sure the ID setting of the camera is the same as the setting here, or the DVR will not be able to control the device.

**Note:** To know the default ID of the PTZ camera, please refer to its user manual.

3) <u>PROTOCOL</u>

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

4) <u>RATE</u>

Select the baud rate for the connected PTZ camera (2400 / 4800 / 9600 / 19200 / 57600 / 115200). Make sure the baud rate setting of the camera is the same as the setting here, or the DVR will not be able to control the device.

Note: To know the default baud rate of the PTZ camera, please refer to its user manual.

# 5.5.9 DCCS

ADVANCED CONFIG												
CH1 CH2 CH3 CH4 DIAGNOSTIC MENU		H8 CH9 START SETUP	CH10	CH11								
DEVICE CONNECTION		AVK523 OK										
	CH1 CH2 CH3 CH4 DIAGNOSTIC MENU DEVICE	CH1 CH2 CH3 CH4 CH5 CH6 CH7 C DIAGNOSTIC MENU DEVICE	CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8 CH9 DIAGNOSTIC START MENU SETUP DEVICE AVK523	CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8 CH9 CH10 DIAGNOSTIC START MENU SETUP DEVICE AVK523	CH1       CH2       CH3       CH4       CH5       CH6       CH7       CH8       CH9       CH10       CH11         DIAGNOSTIC       START         MENU       SETUP         DEVICE       AVK523	CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8 CH9 CH10 CH11 ◀ DIAGNOSTIC START MENU SETUP DEVICE AVK523						

#### 1) <u>DIAGNOSTIC</u>

Click "START" to start examining the DCCS signal transmission between the DVR and the camera. The result will display in "CONNECTION".

#### 2) <u>MENU</u>

Click "SETUP" to configure the connected zoom lens control camera.

Different zoom lens control cameras might have different parameter settings. For details, please refer to their own user manuals.

# **Note:** While configuring the camera parameters, the DVR will switch to the corresponding channel, and you can simultaneously preview the effects for the settings.

#### 3) <u>DEVICE</u>

Here shows the model number of the camera.

#### 4) <u>CONNECTION</u>

Here shows the examining result for DCCS signal transmission between the DVR and camera. The message is as follows:

MESSAGE SHOWN	MEANING
CHECKING	The DVR is checking the DCCS signal transmission between the DVR and camera.
ОК	The signal transmission is fine and the DCCS function works properly.
FAIL	The signal transmission is too weak or not available for the DCCS function to work properly.

#### 5.5.10 IVS

Note: This function is not available for AVC793C and AVC793CD.

Note: Before using the IVS function, make sure the event record function is enabled on your DVR.

IVS, Intelligent Video Surveillance, is the advanced application for motion detection, but more precise and smarter. It can be applied to different situations with one of the following three modes: FLOW COUNTING, VIRTUAL FENCE, and ONE WAY.

When anyone crosses the detection line (virtual fence), the recording will be on.

**Note:** Four camera channels are supported for this function. For AVC799B and AVC797B, users are allowed to select four camera channels randomly to use this function; for AVC794B & 794C, all the four camera channels are supported.

ADVANCED CONFIG										
CANERA	IVS1 IVS2 IVS3 IVS4									
DETECTION	CAMERA (For AVC799B & AVC797B only)	CH3								
ALERT	IVS MODE	FLOW COUNTING								
NETWORK	DISPLAY LINE	OFF								
DISPLAY	SENSITIVITY	07								
RECORD	RESET COUNT	SUBMIT								
DEVICES	VIRTUAL FENCE AREA	SETUP								
DCCS	SCENE CHANGE	OFF								
IVS	SCENE CHANGE LEVEL	MIDDLE								
NOTIFY										
EXIT										

#### 1) CAMERA (For AVC799B & AVC797B only)

Select the camera channel that you want to use the IVS function.

#### 2) <u>IVS MODE</u>

Select one of the following three modes depending on your environment:

MODE	DESCRIPTION
FLOW COUNTING	A virtual detection line is set to detect the moving direction of pedestrians for flow counting.
VIRTUAL FENCE	A virtual detection line is set to detect intruders crossing the detection line, and an alarm will be triggered.
ONE WAY	A virtual detection line is set to detect intruders from the specified direction, and an alarm will be triggered.

#### 3) DISPLAY LINE

Select to display the detection line for IVS on the screen or not.

4) <u>SENSITIVITY</u>

Set the sensitivity for IVS from 00 ~ 15. The larger the value, the more sensitive the IVS will be.

5) <u>RESET COUNT</u>

Click "SUBMIT" to reset the flow counting number to 0 when the IVS mode is set to "FLOW COUNTING" and activated.

#### 6) <u>VIRTUAL FENCE AREA</u>

Click "SETUP" to draw the detection line for IVS, and set the detection direction. This area setting is the detection base for IVS MODE.

**Note:** There are some tips to draw the detection line. For details, please check <u>www.surveillance-download.com/user/IVS\_setup.pdf</u>.

#### 7) <u>SCENE CHANGE</u>

Select "ON" to trigger a motion event when the camera is sensed to be moved and the camera scene is changed. At the same time, the icon " $\Im$ " will be also shown on the screen in addition to the motion icon " $\Im$ "

#### 8) SCENE CHANGE LEVEL

Set the detection sensitivity for "SCENE CHANGE" to "HIGH", "MIDDLE" or "LOW".

### FLOW COUNTING

Step1: Go to "VIRTUAL FENCE AREA" to draw a detection line with your mouse, and decide the detection direction by selecting "REVERSE".



Step2:Finish the IVS setting and return to the live view. The IVS icon ""will be shown on the status bar. Click it to show the flow counting panel as follows.

When anyone walks across the detection line, the system will determine his movement is in or out, and add one count to the corresponding channel on the flow counting panel.

IN	People coming from the opposite direction to the arrow mark.
OUT	People coming from the same direction as the arrow mark.



# VIRTUAL FENCE and ONE WAY

Step1: Go to "VIRTUAL FENCE AREA" to draw a detection line with your mouse, and decide the detection direction by selecting "REVERSE".



Step2: Finish the IVS setting and return to the live view.

When anyone walks across the detection line, the system will determine his movement is in or out, and:

VIRTUAL FENCE	An event happens for anyone walking across the detection line, and "
ONE WAY	An event happens for anyone walking from the opposite direction to the arrow mark, and " <sup>(1)</sup> " will be shown on the screen.



### **IVS STATISTICS**

Press "LIST" on the DVR front panel, or click " $\checkmark$ "  $\rightarrow$  " $\square$ " to enter the event search menu. Then, select

#### "STATISTIC"

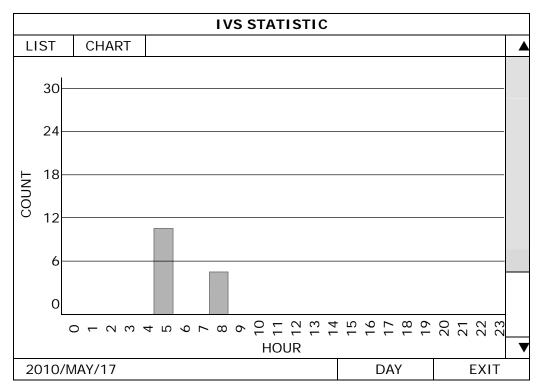
Set all the criteria you want to search, and click "SUBMIT" in "STATISTIC" to show the event statistics by DAY in LIST (default) or CHART.

- > To check the statistics in the bar chart, click "CHART".
- > To switch to the MONTH or YEAR view, click "DAY" at the bottom.

#### List View

		IVS STATI	STIC	
LIST	CHART			
HOUR		COUNT		
00:00 -	- 00:59	0		
01:00 -	- 01:59	0		
02:00 -	- 02:59	0		
03:00 -	- 03:59	0		
04:00 -	- 04:59	0		
05:00 -	- 05:59	10		
06:00 -	- 06:59	0		
07:00 -	- 07:59	0		
08:00 -	- 08:59	5		
09:00 -	- 09:59	0		$\checkmark$
2010/N	1AY/17		DAY	EXIT

#### **Chart View**



#### 5.5.11 NOTIFY

#### Note: This function is not available for AVC793C and AVC793CD.

This network camera supports instant event notifications to your iPhone. When a man is detected by an external human detection sensor, the camera will immediately receive the alarm signal and send to your iPhone.

		ADVANCED CONFIG	G	
CANERA				
DETECTION	GUARE	)		ON
ALERT	CH1	LOBBY	CH9	CH9
NETWORK	CH2	LIVING ROOM	CH10	CH10
DISPLAY	CH3	ENTRANCE	CH11	CH11
RECORD	CH4	MEETING ROOM	CH12	CH12
DEVICES	CH5	CH5	CH13	CH13
DCCS	CH6	CH6	CH14	CH14
IVS	CH7	CH7	CH15	CH15
NOTIFY	CH8	CH8	CH16	CH16
EXIT				

#### 1) <u>GUARD</u>

Select to enable or disable Push Notification function (ON / OFF). Select to activate the Push Notification function (ON / OFF). Or it could also be activated later from iPhone.

Note: For details about DVR operations from iPhone, please visit <u>http://www.eagleeyescctv.com</u>.

#### 2) <u>CH1 ~ 16 / CH1 ~ 8 / CH1 ~ 4</u>

Enter the text you want to see when your iPhone receives Push Notification. The default text is the channel number.

### **5.6 SCHEDULE SETTING**

#### **5.6.1 RECORD**

Select "ON" to enable record timer, and select the day and time for this function.

		SCHE	DUL	E SEI	ΤΙΝΟ	G			
RECORD DETECTION ALARM	RECORD SUN MON TUE WED THU FRI SAT	₹ 4 • • • • • • • • • • • • • • •	6				2N 16		
EXIT									

**X axis:** 0 ~ 24 hours. Each time bar is 30 minutes.

Yaxis: Monday ~ Sunday.

### **5.6.2 DETECTION**

SCHEDULE SETTING																										
RECORD	DETE	CTI	T NC	ΓIN	1ER											C	ΟN									
DETECTION		0	2		4		6		8		10		12	2	1	4	1	6		18		20	)	22		24
ALARM	SUN															н.			Ш							
	MON											Π				П		П								П
	TUE															П		П	Π							П
	WED											Π				IT		T.	Π							
	THU															HT.		ET.	Π	Г						П
	FRI															HT.		ET.	П							Ħ.
	SAT															Ħ		H	Ħ						T	Ħ.
	2711											1 1									1					
EXIT																										

Select "ON" to enable detection timer, and select the day and time for this function.

**X axis:** 0 ~ 24 hours. Each time bar is 30 minutes.

Yaxis: Monday ~ Sunday.

#### 5.6.3 ALARM

Select "ON" to enable alarm timer, and select the day and time for this function.

			SCHE	EDUL	E SE	ΓΤΙΝ	G					
RECORD DETECTION	ALARM T	IMER 2	4	6	8	10	12	C 14	DN 16	18	20	22 24
ALARM	SUN MON TUE WED THU FRI SAT											
EXIT												· · · · ·

**X axis:** 0 ~ 24 hours. Each time bar is 30 minutes.

Yaxis: Monday ~ Sunday.

# 6. REMOTE OPERATION

You can also control the DVR remotely via the supplied licensed software "Video Viewer", a web browser (such as Internet Explorer, Mozilla Firefox, Google Chrome or Safari), your mobile phone, and Apple's QuickTime player.

**Note:** For details about remote operations via your mobile phone, please visit <u>http://www.eagleeyescctv.com</u>.

#### 6.1 Supplied Licensed Software

The sections below describe frequently-used functions of the Video Viewer. For details about this software and network settings, please download its extended user manual from the following link: <a href="http://www.surveillance-download.com/user/CMS.pdf">http://www.surveillance-download.com/user/CMS.pdf</a>

#### 6.1.1 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 "Download The 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)

LAN is used when it's the first time to remotely access the DVR and you need to configure the network setting of your DVR based on your network type in advance.

a) Connect the DVR to your PC via a RJ45 network cable. The default DVR values are as follows:

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

- 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 "???" 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.
- d) Click "↓ → " T be key in the default IP address, user name, password, and port number of the DVR you intend to connect.

OR

Click " $\bigcirc$ "  $\rightarrow$  " $\bigcirc$ " 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 " $\bigcirc$ ".

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

#### Remote Connection (via Internet)

When the network configuration of your DVR is completed, you can access your DVR remotely via Internet.

- a) Double-click " 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 " U → " E to key in the IP address, user name, password, and port number of the DVR you intend to connect.

OR

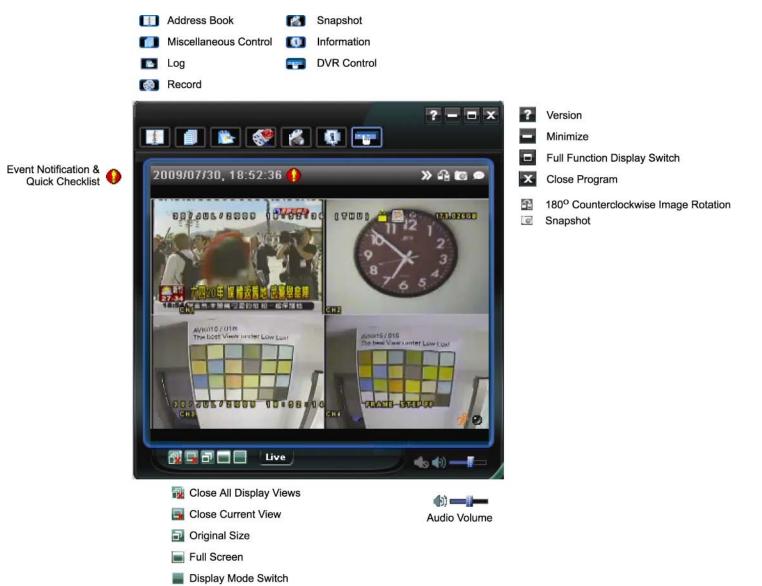
Click "  $\bigcirc$  "  $\rightarrow$  "  $\bigcirc$  " to search the available IP address(es) of other DVR(s) under the same domain as your PC's IP address. The found address(es) will be listed, and can be added into the address book by clicking "  $\bigcirc$ ".

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

#### 6.1.2 Control Panel Overview

Two control panels are available and can be switched depending on your use habit.

### Simplified Version (Default)



# Full Function Version



#### Main Button Overview

Button		Function	Description		
Simplified	Full Function	Function	Description		
	<b>f</b>	Address Book	Click to show the predefined IP address(es). You can add, respectively.		
			\$	Remote Config	Click to go into the detailed DVR setting.
		Miscellaneous Control		Record Setting	Click to go to the detailed record setting.
				Custom Setting	Click to choose the language of this program. The language change will take effect when this program is closed and executed again.
-		Log Click to view all event and recording logs, search the date, or playback the recording of the selected log.			
() / () / () / () / () / () / () / () /	œ, œ	Record / Record Stop	/ Record Stop Click to start / stop the manual recording.		o the manual recording.
K	O	Snapshot	Click to take a snapshot of the current view. The snapshot will be sa in the path you specified in "Record Setting".		
<b>Q</b>	Ø	Information	Click t	o show the	current network connection details.
		DVR Control	Click t	o go to the [	OVR control panel to operate the DVR remotely.

### 6.1.3. General Operation

#### **Record**

To record remotely at the same time for any event or alarm at the DVR side, click "figure" or "figure"  $\rightarrow$  "figure" to go to the "Record Setting" page.

	✓ Timer	🔽 Motic	on 🗆 Alarm	Prev/Post Event Recor	d Post-Record
Overw	rite Hard Disl	3			
Record T	ime Range				
Weekly	Custom		Timer	💻 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				
3					
	Tue				
	Tue Wed				
,					
,	Wed				
,	Wed Thu				
	Wed Thu Fri Sat				
	Wed Thu Fri Sat				
Record P Drive	Wed Thu Fri Sat ath Total(MB) 29996	Free (MB) 10867	Reserve(MB) 2048	Video Path C:\tempvideo\	Picture Path C:\temppicture\
Record P Drive	Wed Thu Fri Sat Path Total(MB)	Free(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
- Record time setting
- Record path

If "Manual" is checked, click " or " 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.

#### **Playback**

To play a recording, click "**L**, or "**D**, 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.

Ra	nge nge Unit On	e Week 💌 🔤	rev. Ne:	xt Record Type I User	A 1	larm
	Start Time:		<b>÷</b> ▼	Motion	R B	ETR
	End Time:	2010/11/27	<u> </u>			
Record	Backup Event				Qu	ery
Event	IP	Start Time	End Time	File Path	Reserve	Error
User	192.168.1.12	09/23/08 20:41:07	09/23/08 20:41:07	C:\tempvideo\20080923204107_off:		Г
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:		

To immediately play a recording, select a log from the list, and click "Play", or double-click the selected log.

### Network Backup

Click " $\blacksquare$ "  $\rightarrow$  " $\blacksquare$ ", or click " $\blacksquare$ " to go into the "Backup" page as follows, and you can select a specific time range or event to make a video backup remotely.

The file(s) you backup will be from the currently selected IP address.

HDD Number:	MASTER-	1 - Chann	el: 🔽 C	ні 🗆 сна 🗆 сна 🛛	Г СН4 Г СН5 Г СН6 Г СН7 Г СІ
t Calendar		Г	сна 🗆 с	н10 Г СН11 Г СН1	2 T CH13 T CH14 T CH15 T CH16
	NO.	Event	CH	Time	1
	1	MOTION	4	2010/11/24 17:56:41	1
Reload	2	MOTION	3	2010/11/24 17:56:38	Event Filter:
nciuau	3	MOTION	4	2010/11/24 17:54:01	Erentinen
	4	MOTION	4	2010/11/24 17:51:42	
	5	MOTION	3	2010/11/24 17:51:40	System, Manual, Timer, Alarm 🔻
Prev. Page	6	MOTION	4	2010/11/24 17:46:42	· · ·
Tietti age	- 7	MOTION	4	2010/11/24 17:43:57	
	8	MOTION	3	2010/11/24 17:43:50	
	9	MOTION	3	2010/11/24 17:43:26	
Next Page	10	MOTION	4	2010/11/24 17:43:23	
1.1 PARTS 11 P. P. P.		MOTION	Å	2010/11/24 17:42:32	
	12	MOTION	4	2010/11/24 17:41:34	
	13	MOTION	3	2010/11/24 17:40:55	
	14	MOTION	4	2010/11/24 17:40:26	
	15	MOTION	4	2010/11/24 17:40:15	
	16	MOTION	4	2010/11/24 17:39:17	
	17	MOTION	4	2010/11/24 17:38:22	
	18	MOTION	4	2010/11/24 17:37:24	
	19	MOTION	4	2010/11/24 17:36:23	
	20	MOTION	3	2010/11/24 17:36:21	
Start Time:	2010/11/2	2 15:14:47	-	End Time:	2010/11/22 16:14:47
File Path:	E:\down	load			

Function	Description
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	<ul> <li>Select an event log from the event list. This list shows all logs in the specified DVR from the latest to the earliest.</li> <li>&gt; To quickly find the events you need, check or uncheck the event type "System" / "Manual" / "Alarm" / "Motion", and select the log you want.</li> <li>&gt; To view the earlier or later logs that are not shown in the current page, click "Prev. Page" or "Next Page".</li> <li>• To refresh the event list, click "Reload".</li> </ul>
File Path	Assign the location where the backup files are saved.

Function	Description
Simultaneous Playback	To view the backup images simultaneously when the download process is in progress, select the checkbox "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 the checkbox "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.

#### Firmware Upgrade

This function is used to grade your DVR for function scalability.

**Note:** Before using this function, make sure you have the correct upgrade files provided by your installer or distributor.

Step1: Click "[1]]", and select the IP address of your device in the address book.

Step2: Click " Sever" to show the upgrade page, "Update Server". 1. Address Book Address Port Comment REC 192108110 80 192108110 80 3. Update Server

Step3: Click "Add" to browse to the upgrade files.

Current version: 1008-1 Tirmware Language Log			×
33- ;		Add	Remove
C:\1008-1003-1004-1002 C:\1008-1003-1004-1002 C:\1008-1003-1004-1002 C:\1008-1003-1004-1002 C:\1008-1003-1004-1002	fboot_4.bin kernel_4.bin		
Config. File	Upgrade Firmware		

Step4: Click "Upgrade Firmware" to start firmware upgrade.

**Note:** It takes a few minutes to finish the upgrade process. Do not disconnect the power during firmware upgrade, or the upgrade may be failed. The device will reboot after the upgrade.

Step5: Select the IP address of the device and click " again to check if the firmware is upgraded.

#### 6.1.4. E-Map

Video Viewer is also a Central Management System (CMS) software, which allows network device control & management for up to 16 devices simultaneously.

**Note:** Before using this function, make sure Video Viewer is connected to all the devices (up to 16) you want to monitor.

E-Map is **ONLY** available when the control panel is switch to the full function version.

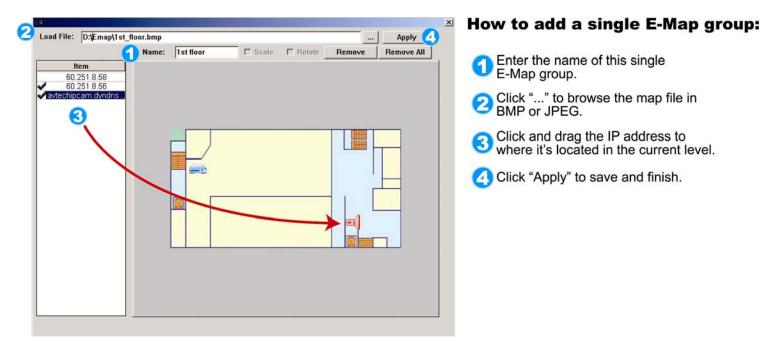
How to Add an E-Map Group

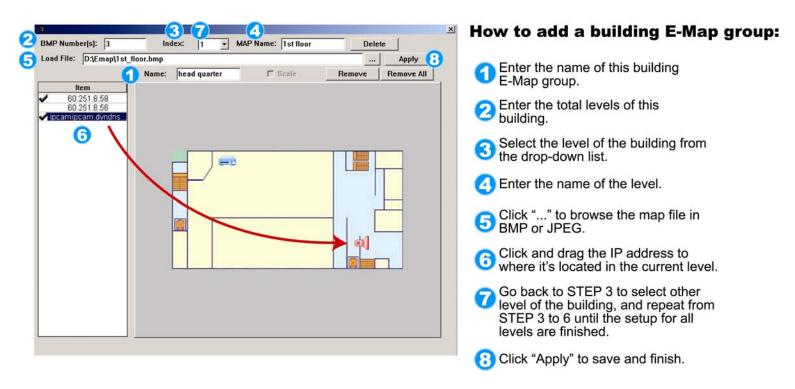
**Note:** To know where the buttons are, please refer to "Simplified Version (Default) at page 40, and "Full Function Version" at page 41.



STEP2: Right-click to show the shortcut menu on the top-left panel, and select the E-Map group you want to add. There are three E-Map groups you can add: Google E-MAP, Single E-MAP, and Building E-MAP.







STEP3: When the E-Map group is created, you will see the tree on the top-left panel, showing all the devices you've added to this group.



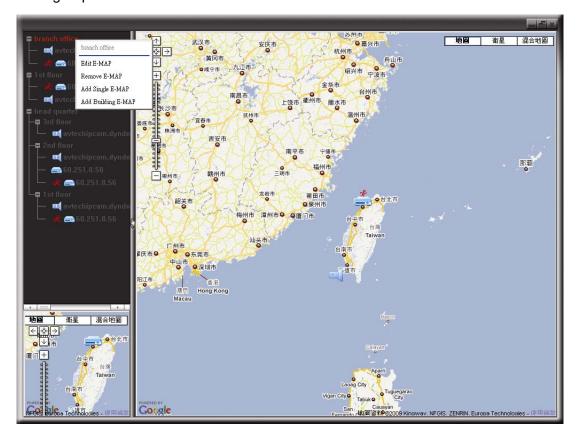
lcon	Description
	The connected device is camera. When it's selected, it will become red.
	The connected device is DVR. When it's selected, it will become red.
£	For any motion or alarm event, it will appear on the screen to catch your attention. To know what's happening quickly, double-click the device icon on the E-Map to show the live view.

# How to Edit / Remove an Existing E-Map Group

For Google E-Map Group

Right-click on the group name to show the shortcut menu list, and select "Edit E-MAP" or "Remove E-MAP" as needed.

You can also add a single E-Map group (Add Single E-MAP) or Building E-Map group (Add Building E-MAP) into the existing Google E-Map group.



# ➢ For Single E-Map Group

Right-click on the group name to show the shortcut menu list, and select "Edit E-MAP" or "Remove E-MAP" as needed.



#### For Building E-Map Group

Right-click on the group name to show the shortcut menu list, and select "Edit Building E-MAP" or "Remove E-MAP" as needed.

■ branch office → ■ avtechipcam.dyndns.c			113	
- 🥠 🚍 60.251.8.56 📮 1st floor			- EALINE	
				-
head quarter     head quarter		attractioner somer un	1000	
Edit Building E-MAP				
- avtecmpcannuynun				
← (⇒ 60.251.8.58 ← )∯ (⇒ 60.251.8.56				
└─ Ist floor ─ ■ avtechipcam.dyndn				1
🖵 📌 🚍 60.251.8.56	_		ſ	
	1	-		
	X			- 66
	The second se			
<b>1 Pibn 1</b>				
「「「」				

To edit or remove a certain level of the building E-Map group, right click on the level name, and select "Edit E-MAP" or "Remove E-MAP" as needed.



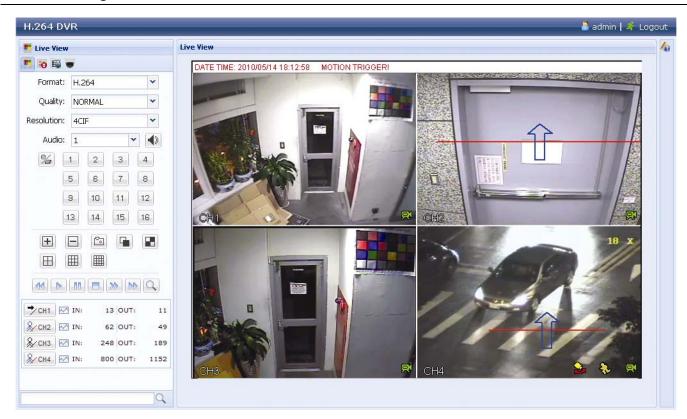
# 6.2 Web Browser

You can view the images or operate your DVR with a web browser, for example, Microsoft Internet Explorer.

Note: The supported PC operating systems are Windows 7, Vista & XP.

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".

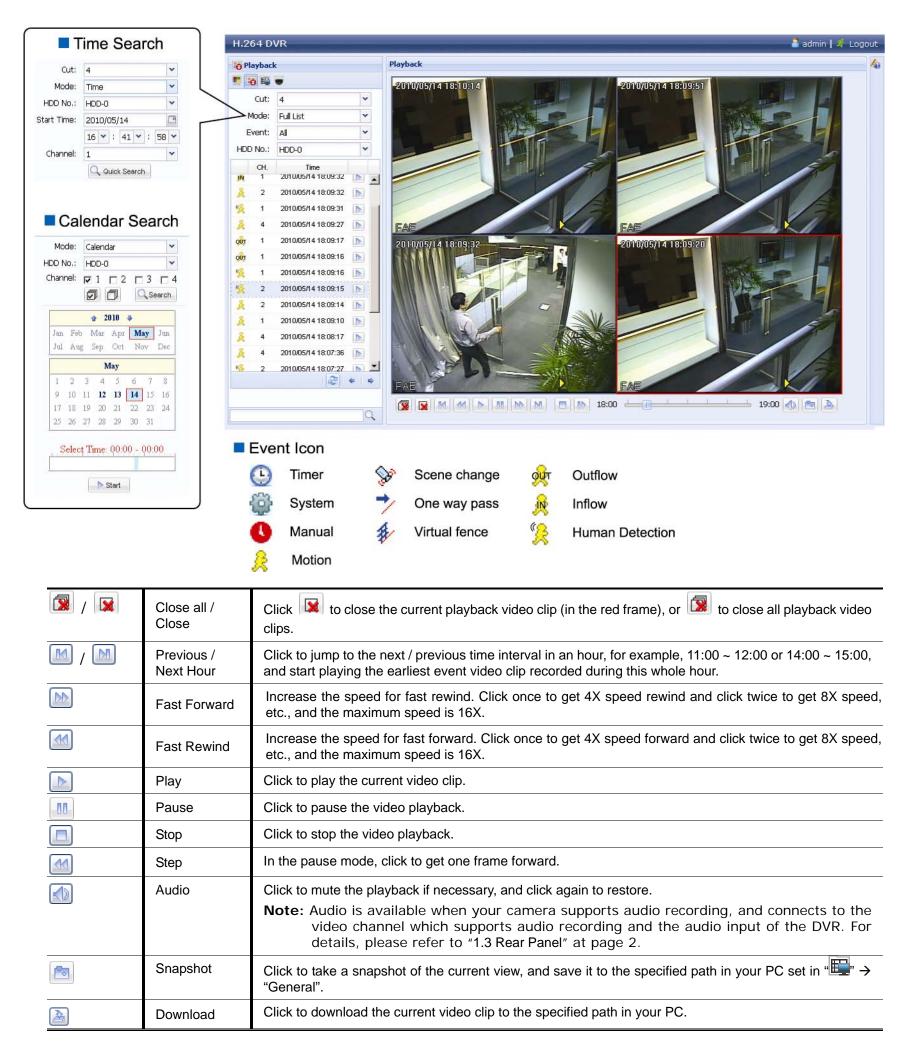
- Step 2: Enter the user name and password, the same as the ones used at AP login, and click "OK". You will see a similar screen as the following when the login information is correct.
- **Note:** The buttons shown below may vary depending on different user level or the web browser you used to log in.



lcon	Description
	Click to go to the live view of the DVR.
	Click to enter the playback panel where you can search or select the event you want to play and download to your PC simultaneously. For details, please refer to "6.2.1 Event Playback & Download" at page 52.
Click to go to the detailed DVR setting.	
	Click to enter the PTZ mode.
Video / Audio Control	
Format	H.264 / QuickTime
	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.
Quality	BEST / HIGH / NORMAL / BASIC
	Select the image quality.
Resolution	<u>4 CIF / CIF</u>
	Select the image resolution (4CIF: 704*480 / CIF: 352*240)
Audio	Select the audio channel you want for listening to the live audio.
	Note: Your camera must support audio recording, and connect to the video channel which supports audio recording and the audio input of the DVR. For details, please refer to "1.3 Rear Panel" at page 2.

lcon	Description
	Note: Market Mar
	To disable the mute status, click this icon again and select the audio channel you want.
Channel Control	
P/4	Click to enable the remote independent operation. This icon will turn to blue, and only the available function icons will be shown.
	Note: This button shows only for 16CH and 8CH models.
Channel Selection (1~16 / 1~8 / 1~4)	Click one of the number to switch to the channel you want to see in full screen.
±, =	Click to go to the previous / next channel, or change setting.
	Click to take a snapshot of the current view, and save it to the specified path in your PC set in " $\blacksquare$ " $\rightarrow$ "General".
<b>F</b> / <b>F</b>	Click to display four channels at a time.
	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.
⊞,⊞,∭	Click to show 4-cut / 9-cut / 16-cut display.
Playback Control	
	Increase the speed for fast rewind. Click once to get 4X speed rewind and click twice to get 8X speed, etc., and the maximum speed is 16X.
	Increase the speed for fast forward. Click once to get 4X speed forward and click twice to get 8X speed, etc., and the maximum speed is 16X.
	Click to play the current video clip.
00	Click to pause the video playback.
	Click to stop the video playback.
	Click to play the video clip slowly, once to get 4X slower, twice get 8X slower.
Q	Click to display the quick video search panel. Users are allowed to search by time or event, and playback the selected log immediately.
IVS Panel	
IVS channels 1~4	The button is enabled only when a channel is selected to enable the IVS function, and a IVS function is selected. Click to show the detection line.

### 6.2.1 Event Playback & Download



# 6.2.2 IVS Statistics

264 DVR	🚨 admin   🎸 Lo
Live View	Live Yiew
<b>10</b>	DATE TIME: 2010/05/14 18:12:58 MOTION TRIGGER!
Format: H.264 ♥ Quality: NORMAL ♥ solution: 4CIF ♥ Audio: 1 ♥ ♥ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 ♥ ● © ● ● ● 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 ♥ ● 0 0 0 0 0 0 0 0 0 CH16 ♥ TN: 0 0 CH1	HAE IN SIGE HAE IN SIGE HAE IN SIGE HAE IN SIGE HAE IN SIGE
IVS Statistics           IVS Statistics: Event Sean           IVS Statistics:           Channel:         IP 1           IP 10         11           Event:         Alarm           Virtual Fence         Oneway           HDD No.:         HDD-0           IVS Statistics:         List           IVS Statistics:         IVS           IVS Statistics:         IVS           IVS Statistics:         IVS	× + □5 □6 □7 □8

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# **APPENDIX 1 SPECIFICATIONS**

		AVC	799B	AVC797B	
Video System			NTSC / PAL (	auto detection)	
Video Compression Format		H.264			
Video Input (composite video signal 1 Vp-p 75 $\Omega$ BNC)		16 cha	innels	8 channels	
Video Loop Output (composite video signal 1 Vp-p 7	5Ω <b>BNC)</b>	16 cha	innels	8 channels	
Video Output (BNC)	Main Monitor		For stab	le display	
	Call Monitor	For sequence display			
Video Output (VGA)		Bui	Built-in (Output resolution up to 1600 x 1200)		
Audio Input / Output			4 audio inputs, 2 a	udio outputs (Mono)	
Maximum Recording Rate	Frame	704×480 pixels with 704×576 pixels wit		704×480 pixels with 60 IPS <ntsc> / 704×576 pixels with 50 IPS <pal></pal></ntsc>	
	Field	704x240 pixels with 704x288 pixels with		704x240 pixels with 120 IPS <ntsc> / 704x288 pixels with 100 IPS <pal></pal></ntsc>	
	CIF	352×240 pixels with 352×288 pixels with		352×240 pixels with 240 IPS <ntsc> / 352×288 pixels with 200 IPS <pal></pal></ntsc>	
DCCS Support		CH1	~ 4	CH1 & 2	
IVS Support			YES (4 d	channels)	
Image Quality Setting		9	SUPER BEST / BES	ST / HIGH /NORMAL	
Hard Disk Storage		Accommo	dates 2 SATA HDD	os (1 HDD capacity up to 2TB)	
Quick Search		Time / Motion / Alarm search mode			
SATA Interface		Built-in			
Recording Mode		Manual / Timer / Motion / Alarm / Remote			
Multiplex Operation		Live display / record / playback / backup / network operations			
USB Mouse Control			Y	ES	
Motion Detection Area		16 × 12 grids per camera for all channels			
Motion Detection Sensitivity	1	3 adjustable parameters for accurate detection			
Pre-alarm Recording		YES			
Backup Device		USB 2.0 flash drive / Network			
Web Transmitting Compres	sion Format	H.264			
Network Live Audio		YES		ES	
Ethernet		10/100 Base-	F. Supports remote	control and live view via Ethernet	
		CMS:	Our self-develop	ed and free software, "Video Viewer"	
Web Interface (Operating System:		Web Browser:	Internet Explorer Safari & Opera	, Mozilla Firefox, Google Chrome,	
Windows 7 / Vista / XP)		Media Player:	QuickTime		
		Max. on-line user: 10			
Network Protocol		TCP/IP, PPPOE, DHCP and DDNS			
Remote Independent Operation		YES			
Event Notification		FTP / E-Mail			
R.E.T.R. (Remote Event Trigger Recording)		YES		ES	
IR Remote Control		YES (IR receiver built-in)			
Mobile Surveillance		YES (including iPhone, BlackBerry, Windows Mobile, Symbian & Android)			
Picture Zoom		2X digital zoom			
PTZ Control		YES			

APPENDIX 1 SPECIFICATIONS

	AVC799B	AVC797B
Alarm I/O	16 inputs, 1 output	8 inputs, 1 output
Key Lock (Password Protection)	YES	
Local User Level	Administrate	or & Operator
Video Loss Detection	Y	ES
Camera Title	Supports up	to 12 letters
Video Adjustable	Hue / Saturation / Contrast / Brightness	
Date Display Format	YY/MM/DD, DD/MM/YY & MM/DD/YY	
Daylight Saving	YES	
Power Source (±10%)	DC	19V
Power Consumption (±10%)	< 6	4 W
Operating Temperature	erature 10°C ~ 40°C (50°F~104°F)	
Dimensions (mm)**	432(W) × 90(H) × 326(D)	
System Recovery	System auto recovery after power failure	
Optional Peripherals	Keyboard controller	

 $^{\ast}$  The specifications are subject to change without notice.  $^{\ast\ast}$  Dimensional Tolerance:  $\pm 5 \text{mm}$ 

			AVC794B	AVC794C	AVC793C	AVC793CD
Video System			NTSC / PAL	(auto detection)		
Video Compression Format		H.264				
Video Input (composite video signal 1 Vp-p 75Ω BNC)		4 channels				
Video Output (BNC)	Main	Monitor	For stable display			
	Call	Monitor	For sequence display			
VGA Output (VGA)	•		Bui	lt-in (Output resolu	ition up to 1600 x 1	200)
Audio Input / Output	-			4 audio inputs, 1 audio output (Mono)		
Maximum Recording Rate Frame		704×480 pixels with 30 IPS <ntsc> / 704×576 pixels with 25 IPS <pal></pal></ntsc>	704×480 704×57	pixels with 120 IPS 6 pixels with 100 IF	S <ntsc> / PS <pal></pal></ntsc>	
		Field	704×240 pixels with 60 IPS <ntsc> / 704×288 pixels with 50 IPS <pal></pal></ntsc>	vith 60 IPS <ntsc> / 704×240 pixels with 120 IPS <ntsc> / 4×288 pixels 704×288 pixels with 100 IPS <pal> vith 50 IPS</pal></ntsc></ntsc>		
		CIF	352×240 pixels wit	h 120 IPS <ntsc< td=""><td>&gt; / 352×288 pixels v</td><td>with 100 IPS <pal></pal></td></ntsc<>	> / 352×288 pixels v	with 100 IPS <pal></pal>
DCCS Support				C	CH1	
IVS Support			YES (4 cł	nannels)	1	10
Image Quality Setting			S	SUPER BEST / BE	ST / HIGH /NORM/	AL
Hard Disk Storage (One HDD capacity up	p to 2T	B)	2 SATA HDDs 1 SATA HDD		1 SATA HDD	
Quick Search			Time / Motion / Alarm search mode			
SATA Interface			Built-in			
Recording Mode			Manual / Timer / Motion / Alarm / Remote			
Multiplex Operation			Live display	/ / record / playbac	k / backup / networ	k operations
USB Mouse Control				Y	ΈS	
Motion Detection Area	-				amera for all channe	
Motion Detection Sens	sitivity		3 adjustable parameters for accurate detection			
Pre-alarm Recording				Y	ΈS	
Backup Device			USB 2.0 flash drive / Network 2.0 flash dri		DVD Writer / USB 2.0 flash drive / Network	
Web Transmitting Cor	npress	ion Format	H.264			
Network Live Audio			YES			
Ethernet			10/100 Base-	Γ. Supports remote	e control and live vie	ew via Ethernet
			CMS: Our self-developed and free software, "Video View		re, "Video Viewer"	
Web Interface (Operating System:		Web Browser:	Internet Explorer, Mozilla Firefox, Google Chrome, Safari & Opera		oogle Chrome,	
Windows 7 / Vista / XP)			Media Player: QuickTime			
			Max. on-line user: 10			
Network Protocol		TCP/IP, PPPOE, DHCP and DDNS				
Remote Independent Operation		YES				
Event Notification		FTP / E-Mail				
R.E.T.R. (Remote Event Trigger Recording)		YES				
IR Remote Control			YES (IR receiver built-in)			
Mobile Surveillance			YES (including iPhone, BlackBerry, Windows Mobile, Symbian & Android)			
Picture Zoom			2X digital zoom			
		1				

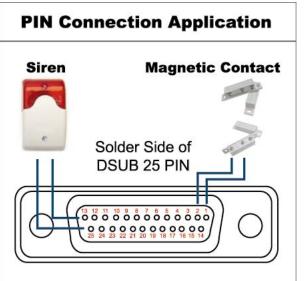
APPENDIX 1 SPECIFICATIONS

	AVC794B	AVC794C	AVC793C	AVC793CD
PTZ Control	YES			
Alarm I/O		4 inputs	, 1 output	
Key Lock (Password Protection)		Y	ES	
Local User Level		Administrate	or & Operator	
Video Loss Detection		Y	ES	
Camera Title	Supports up to 12 letters			
Video Adjustable	Hue / Saturation / Contrast / Brightness			
Date Display Format	YY/MM/DD, DD/MM/YY & MM/DD/YY			
Daylight Saving	YES			
Power Source (±10%)	DC 19V			
Power Consumption (±10%)	< 42 W			
Operating Temperature	<b>10</b> °C ~ <b>40</b> °C ( <b>50</b> °F~104°F)			
Dimensions (mm)**	343(W) × 59(H) × 223(D)			
System Recovery	System auto recovery after power failure			e
Optional Peripherals		Keyboard	l controller	

 $^{\ast}$  The specifications are subject to change without notice.  $^{\ast\ast}$  Dimensional Tolerance:  $\pm5\text{mm}$ 

# **APPENDIX 2 PIN CONFIGURATION**

#### • For 16CH Model



#### Siren:

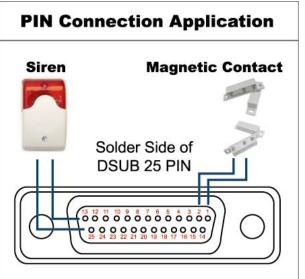
When the DVR is triggered by alarm or motion, the COM connects with NO and the siren with strobe starts wailing and flashing.

#### 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.PINAlarmCorresponding video channelPIN 21CH1PIN 33CH3PIN 45CH5PIN 57CH7PIN 69CH9PIN 711CH11PIN 813CH13PIN 915CH15		
10~11	PIN OFF	NA		
12	RS485-A			
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		
15~22	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.PINAlarmCorresponding video channelPIN 152CH2PIN 164CH4PIN 176CH6PIN 188CH8PIN 1910CH10PIN 2012CH12PIN 2114CH14PIN 2216CH16		
23~23	PIN OFF	NA		
24	RS485-B			
25	EXTERNAL ALARM COM	Under the normal operation, COM disconnects with NO. But when any alarm is triggered, COM connects with NO. with NO. Attention: The voltage restriction is under DC24V 1A.		

#### For 8CH Model



#### Siren:

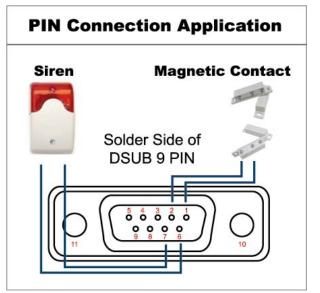
When the DVR is triggered by alarm or motion, the COM connects with NO and the siren with strobe starts wailing and flashing.

#### 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	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.PINAlarmCorresponding video channelPIN 21CH1PIN 33CH3PIN 45CH5PIN 57CH7	
6 ~ 11	PIN OFF	NA	
12	RS485-A		
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	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.PINAlarmCorresponding video channelPIN 152CH2PIN 164CH4PIN 176CH6PIN 188CH8	
19~23	PIN OFF	NA	
<b>2</b> 4	RS485-B		
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.	

#### • For 4CH Models



#### 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	
1~4	ALARM INPUT	Connect ALARM INPUT (PIN1 – 4) and GND (PIN5) connector with wires. Once an alarm is triggered, the DVR will start recording and the buzzer will be on.         PIN       Alarm       Corresponding video channel         PIN 1       1       CH1         PIN 2       2       CH2         PIN 3       3       CH3         PIN 4       4       CH4	
5	GND	GROUND	
6	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.	
7	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.	
8	RS485-A		
9	RS485-B		
10~11	GND	GROUND	

# **APPENDIX 3 COMPATIBLE USB FLASH DRIVE LIST**

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 "FAT32".

**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
Transcend	JFV35	4G
	JFV30	8G
Kingston	DataTraveler	1G
PQI	U172P	4G
Apacer	AH320	2GB
	AH320A	8GB
	AH220	1GB
	AH320	4GB
A-data	RB-18	1GB
Sandisk	Cruzer Micro	2G
	Cruzer Micro	4G
	Cruzer4-pk	2G
Netac	U208	1G
MSI	F200	4G
SONY	Micro Vault Tiny 2G	2G
	Micro Vault Tiny 4G	4G
	Micro Vault Tiny	1G

# APPENDIX 4 COMPATIBLE SATA HDD LIST

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

MANUFACTURER	MODEL	CAPACITY	ROTATION
Seagate	ST3320613AS	320GB	7200 rpm
	ST33500320AS	500GB	7200 rpm
	ST3500410SV	500GB	7200 rpm
	ST3750330AS	750GB	7200 rpm
	ST31000340AS	1TB	7200 rpm
	ST31000528AS	1TB	7200 rpm
	ST31000525SV	1TB	7200 rpm
	ST315000341AS	1.5TB	7200 rpm
	ST32000542AS	2TB	7200 rpm
WD	WD3200AAKS	320GB	7200 rpm
	WD5000AACS	500GB	7200 rpm
	WD6400AAKS	640GB	7200 rpm
	WD7500AAKS	750GB	7200 rpm
	WD10EADS	1TB	7200 rpm
	WD10WADS	1TB	7200 rpm
	WD15EADS	1.5TB	7200 rpm
	WD15WADS	1.5TB	7200 rpm
	WD20EADS	2TB	7200 rpm
	WD20EVDS	2TB	7200 rpm
	WD20WADS	2TB	7200 rpm
Maxtor	STM3500320AS	500GB	7200 rpm
	STM3750330AS	750GB	7200 rpm
НІТАСНІ	HDT725032VLA360	320GB	7200 rpm
	HDS721010KLA330	1TB	7200 rpm
	HDS721010CLA332	1TB	7200 rpm
	HDS722020ALA330	2TB	7200 rpm

# **APPENDIX 5 MAIN MENU STRUCTURE**

	QUICK START	GENERAL	CHANNEL TITLE
			EVENT STATUS
			DATE DISPLAY
			DCCS DISPLAY
			MOUSE SENSITIVITY
			PRIORITY (For AVC794C, 793C & 793CD Only)
			RECORD CONFIG
		TIME SETUP	DATE
			TIME
$\frown$	DATE SETUP	DATE INFO	DISPLAY DATE OF MODE
10			FORMAT
The		DAYLIGHT	DAYLIGHT SAVING
	SYSTEM	TOOLS	
i	STSTEM	TOOLS	
0 0			ADMIN PASSWORD
			OPERATOR PASSWORD
			UPGRADE
			BACKUP CONFIG
			RESTORE CONFIG
		SYSTEM INFO	BAUD RATE
			HOST ID
			R.E.T.R.
			AUTO KEY LOCK
			CLEAR HDD
			RESET DEFAULT
			REMOTE CONTROL ID
			SERIAL TYPE
			VIDEO FORMAT
			VERSION
			VERSION
		BACKUP DATA (USB)	
		BACKUP DATA (DVD) (For 793CD Only)	
		BACKUP LOG (USB)	
	EVENT INFORMATION	QUICK SEARCH	
		EVENT SEARCH	
-		HDD INFO	
		EVENT LOG	
	ADVANCED CONFIG	CAMERA	BRIGHTNESS
	ADVANCED CONFIG	CAMERA	CONTRAST
			SATURATION
			HUE
			COV.
			COV. REC
			COV. REC CHANNEL TITLE
		DETECTION	COV. REC CHANNEL TITLE LS
		DETECTION	COV. REC CHANNEL TITLE LS SS
		DETECTION	COV. REC CHANNEL TITLE LS SS TS
		DETECTION	COV. REC CHANNEL TITLE LS SS TS MOTION
		DETECTION	COV. REC CHANNEL TITLE LS SS TS MOTION ALARM
			COV. REC CHANNEL TITLE LS SS TS MOTION ALARM AREA
		DETECTION	COV. REC CHANNEL TITLE LS SS TS MOTION ALARM AREA EXT. ALERT
			COV. REC CHANNEL TITLE LS SS TS MOTION ALARM AREA EXT. ALERT INT. BUZZER
			COV. REC CHANNEL TITLE LS SS TS MOTION ALARM AREA EXT. ALERT INT. BUZZER KEY BUZZER
			COV. REC CHANNEL TITLE LS SS TS MOTION ALARM AREA EXT. ALERT INT. BUZZER KEY BUZZER VLOSS BUZZER
			COV. REC CHANNEL TITLE LS SS TS MOTION ALARM AREA EXT. ALERT INT. BUZZER KEY BUZZER VLOSS BUZZER MOTION BUZZER
			COV. REC CHANNEL TITLE LS SS TS MOTION ALARM AREA EXT. ALERT INT. BUZZER KEY BUZZER VLOSS BUZZER MOTION BUZZER ALARM BUZZER
			COV. REC CHANNEL TITLE LS SS TS MOTION ALARM AREA EXT. ALERT INT. BUZZER KEY BUZZER VLOSS BUZZER MOTION BUZZER ALARM BUZZER HDD BUZZER
			COV. REC CHANNEL TITLE LS SS TS MOTION ALARM AREA EXT. ALERT INT. BUZZER KEY BUZZER VLOSS BUZZER MOTION BUZZER ALARM BUZZER HDD BUZZER ALARM DURATION (SEC)
		ALERT	COV.RECCHANNEL TITLELSSSTSMOTIONALARMAREAEXT. ALERTINT. BUZZERKEY BUZZERVLOSS BUZZERMOTION BUZZERALARM BUZZERHDD BUZZERHDD BUZZERALARM DURATION (SEC)HDD NEARLY FULL (GB)
			COV.RECCHANNEL TITLELSSSTSMOTIONALARMAREAEXT. ALERTINT. BUZZERKEY BUZZERVLOSS BUZZERVLOSS BUZZERMOTION BUZZERALARM BUZZERHDD BUZZERHDD BUZZERALARM DURATION (SEC)HDD NEARLY FULL (GB)NETWORK
		ALERT	COV.RECCHANNEL TITLELSSSTSMOTIONALARMAREAEXT. ALERTINT. BUZZERKEY BUZZERVLOSS BUZZERMOTION BUZZERALARM BUZZERALARM BUZZERALARM DURATION (SEC)HDD NEARLY FULL (GB)NETWORKSNTP
		ALERT	COV.RECCHANNEL TITLELSSSTSMOTIONALARMAREAEXT. ALERTINT. BUZZERKEY BUZZERVLOSS BUZZERMOTION BUZZERALARM BUZZERHDD BUZZERHDD BUZZERALARM DURATION (SEC)HDD NEARLY FULL (GB)NETWORKSNTPFTP
		ALERT	COV.RECCHANNEL TITLELSSSTSMOTIONALARMAREAEXT. ALERTINT. BUZZERKEY BUZZERVLOSS BUZZERMOTION BUZZERALARM BUZZERHDD BUZZERALARM DURATION (SEC)HDD NEARLY FULL (GB)NETWORKSNTPFTPE-MAIL
		ALERT	COV.RECCHANNEL TITLELSSSTSMOTIONALARMAREAEXT. ALERTINT. BUZZERKEY BUZZERVLOSS BUZZERMOTION BUZZERALARM BUZZERHDD BUZZERALARM DURATION (SEC)HDD NEARLY FULL (GB)NETWORKSNTPFTPE-MAILDDNS
		ALERT	COV.RECCHANNEL TITLELSSSTSMOTIONALARMAREAEXT. ALERTINT. BUZZERKEY BUZZERVLOSS BUZZERMOTION BUZZERALARM BUZZERHDD BUZZERALARM DURATION (SEC)HDD NEARLY FULL (GB)NETWORKSNTPFTPE-MAIL
		ALERT	COV.RECCHANNEL TITLELSSSTSMOTIONALARMAREAEXT. ALERTINT. BUZZERKEY BUZZERVLOSS BUZZERMOTION BUZZERALARM BUZZERHDD BUZZERALARM DURATION (SEC)HDD NEARLY FULL (GB)NETWORKSNTPFTPE-MAILDDNS

	ADVANCED CONFIG	DISPLAY	CALL SCREEN DURATION
	ADVANCED CONFIG	DISPLAT	DISPLAY COVERT
			HDD DISPLAY MODE
			VIDEO OUTPUT (For AVC794C, 793C & 793CD Only) ALPHA BLENDING
			VGA OUTPUT
			VGA DEINTERLACE (For AVC799B, 797B & 794B Only)
			COMPOSITE DEINTERLACE (For AVC799B, 797B & 794B Only)
	ADVANCED CONFIG	RECORD	MANUAL RECORD
			EVENT RECORD
			TIMER RECORD
			PRE-ALARM RECORD
			OVERWRITE
			EVENT RECORD ALL CH
			KEEP DATA LIMIT (DAYS)
			RECORD CONFIG
		DEVICES	
		DCCS	
		IVS	CAMERA (For AVC799B & 797B Only)
		(For AVC799B, 797B and 794B only)	IVS MODE
			DISPLAY LINE
			SENSITIVITY
			RESET COUNT
			VIRTUAL FENCE AREA
			SCENE CHANGE
			SCENE CHANGE LEVEL
		NOTIFY (For AVC799B, 797B, 794B & 794C only)	GUARD
-	SCHEDULE SETTING	RECORD	
		DETECTION	
		ALARM	

# **APPENDIX 6 DVR BATTERY REPLACEMENT**

DVR time reset after power failure, for example, caused by a power outage, will cause the disorder of the recorded data, and users may have problems in searching the event clip they want. To keep the DVR time from resetting, a non-chargeable lithium battery, *CR2032*, is installed in the DVR.

However, the DVR time might still get reset when the DVR battery is low or even running out of power. If so, please replace the DVR battery, CR2032, **right away** as instructed below.

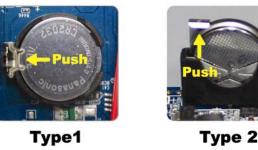
#### ➢ How to replace CR2032

**Note:** The lithium battery, CR2032, is a non-chargeable battery, and should be purchased separately. Please replace only with the same or equivalent type battery in case of danger.

Step1: Stop all DVR recording **immediately** to prevent the disorder of the recorded data. Then, back up the recorded data if necessary.

Step2: Power off the DVR, and disconnect the DVR power.

- Step3: Remove the DVR cover, and find the battery on the mainboard.
- Step4: Push the release as indicated below to remove the battery.



Step5: Get a new battery and install it to its slot on the mainboard.

- For Type 1, install it with the side of "CR2032" facing up as shown above.
- For Type 2, install it without the side of "CR2032" facing you as shown above.

Step6: Replace the DVR cover and connect to power.

Step7: Set DVR date & time, and resume recording. For details, please refer to "2.4 Date and Time Setting" at page 7, and "5.5.7 RECORD" at page 30.

# APPENDIX 7. GRAPHICAL OSD TABLE

	lcon		Click to go to
	OSD 1	OSD 2	Click to go to…
Main Menu	×	C	Quick Start
			Date Setup
	1 		System
	R		Event Information
		Yi	Advanced Config
	Ŵ	Θ	Schedule Setting
Quick Menu	Сн	СН	Channel Switch
Bar		$\mathbf{O}$	Playback Control
	્	$\odot$	Digital Zoom
	<b></b>	$\odot$	Audio
		3	PTZ Control
Playback Control	*	*	Fast Forward
	¥	*	Fast Rewind
	▶ / 💷	▶ / Ш	Play / Pause
			Stop
		>>>>	Slow Playback
	M / M		Previous / Next Hour
	AB	A⇔B	Repeat
			Backup
PTZ Control		Ē	Camera Menu
	4	<u></u>	Enter
	▲ / ▼ / ◀ / ▶		Up / Down / Left / Right
	9 / 9	()	Iris + / Iris -
	+/=	+ / -	Zoom in / out max
	๎ / 🔍	€, / Q,	Zoom in / out
	E / E	¥ / Ξ	Focus near / far
		(đ)	Auto mode
		, P	Preset point