HD CCTV DVR USER MANUAL

■ 1080P Video Recording

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

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

Complete user manual download: www.surveillance-download.com/user/t204.swf

IMPORTANT SAFEGUARD



CAUTION



RISK OF ELECTRIC SHOCK

CAUTION:

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



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



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



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



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



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

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.

Trademark Acknowledgements



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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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Do not expose this product to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the product.

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The GPL Code used in this product is released without warranty and is subject to the copyright of the corresponding author.

Further source codes which are subject to the GPL-licenses are available upon request.

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/DVR/GM8210/linux-3.3-fa.tgz

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1. HARDWARE OVERVIEW

Note: The functions on the front panel and rear panel may vary, depending on the model you have.

1.1 Package Content

Standard Package	
□ DVR	☐ HDD screws
☐ Adapter & power cord	☐ Quick Start
> Optional Accessories	
☐ I/O terminal block	☐ IR Remote Controller
☐ USB Mouse	

1.2 Front Panel

1) LED Indicators

() DVR is powered on.

The hard disk is reading or recording.

An alarm is triggered. (For selected models only)

Timer recording is on. (For selected models only)

Under playback status. (For selected models only)

2) CH1 ~ 16 / 1 ~ 8 / 1 ~ 4

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) SLOW

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) PLAY

Press to playback the latest recorded data.

8) LIST (Event List Search)

Press to quickly search the recorded files by event types, or select FULL to show all the event logs.

To quickly search the time you want, select "QUICK SEARCH". For details, please refer to "5.4.2 Event Search" at page 18.

9) ENTER

Press "ENTER" to confirm the setting.

10) MENU

Press "MENU" to enter the main menu.

11) <u>▲ (II / PAUSE) / ▼ (■ / STOP) / ⊲ (∢ / REW) / ▶ (</u> / FF)

Press ▲ / ▼ / ◀ / ▶ to move up / down / left / right.

In the playback mode:

Press "▲" to pause playback.

Press "▼" to stop playback.

Press "▶" to fast forward.

Press "◀" to fast rewind.

12) AUDIO (SLOW + ZOOM)

Press "SLOW" + "ZOOM" to select live or playback audio from audio channel 1~4.

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

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

Audio channel unselected

13) P.T.Z. (# + SEQ)

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

14) 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 5 COMPATIBLE USB FLASH DRIVE LIST" at page 66.

1.3 Rear Panel

1) VIDEO IN: Connect to the video connector of a camera.

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.

2) AUDIO IN

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.

For 16CH models, the audio CH1 \sim CH4 are corresponding to video CH1 \sim CH4 respectively.

3) AUDIO OUT

Connect to a speaker with 1 mono audio output.

4) <u>HDMI</u>

Connect to the HDMI port of the monitor which supports HDMI video output.

Note: Dual video outputs via both VGA and HDMI ports are supported.

5) <u>VGA</u>

Connect to the VGA port of the monitor which supports VGA video output.

Note: Dual video outputs via both VGA and HDMI ports are supported.

6) IR (For selected models only)

Connect the IR receiver extension line for remote control.

7) eSATA (For selected models only)

This port is used to connect a storage device supporting eSATA interface; for instance, an external hard disk or a disk array.

Note: Please purchase a disk array supporting Linux system to ensure your DVR to work properly.

Note: If the disk array is not connected or detected well, check the mode of your disk array, or do a reset default on your disk array and try again.

8) <u>EXTERNAL I/O (For selected models only)</u>

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

9) <u>LAN</u>

Connect to Internet by LAN cable.

10) DC IN

Connect to the supplied adapter.

11) VIDEO OUT

Connect to a CRT monitor for main monitor output.

12) Power Switch (For selected models only)

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, connected at least one camera and a HDMI monitor. 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 Hard Disk Installation

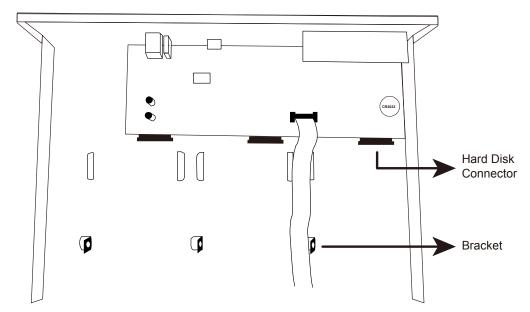
At least a hard disk is necessary for the recorder to save video footage, and firmware upgrade might be failed if there's no hard disk installed in this recorder.

Either of the following two types of hard disk installation is applicable for your DVR model. Please check the instructions below to see which installation method is the right one for your DVR to install a hard disk.

Type 1

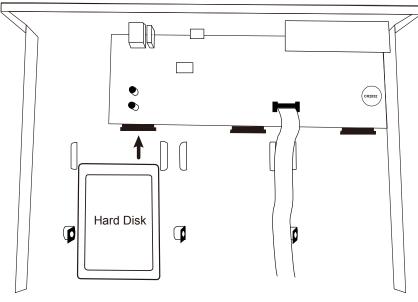
Note: Here takes an 8CH model as an example of how to connect a hard disk to your device. To know how many hard disks could be installed, please refer to the specifications of your device.

Step1: Remove the top cover, and find the hard disk connector and bracket in the device.

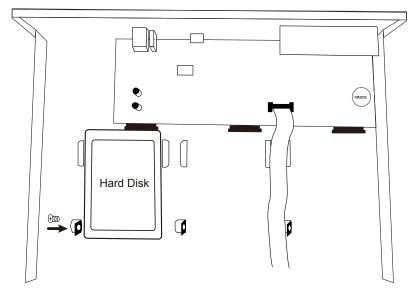


Step2: Get a compatible hard disk. With the PCB side facing down, insert the hard disk to one of the hard disk connector.

Note: To use a green hard disk, use **ONLY** the hard disk designed especially for surveillance to ensure the device works properly.



Step3: Fasten the hard disk to the bracket by securing the screw on the bracket.

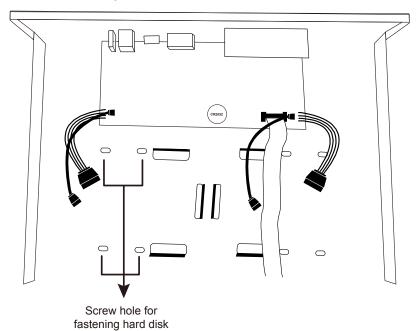


Step4: Replace the top cover and fasten the screws you loosened in Step1.

➤ Type 2

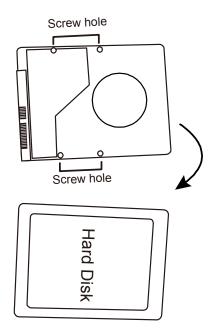
Note: Here takes an 8CH model as an example of how to connect a hard disk to your device. To know how many hard disks could be installed, please refer to the specifications of your device.

Step1: Remove the top cover, and find where to install a hard disk.



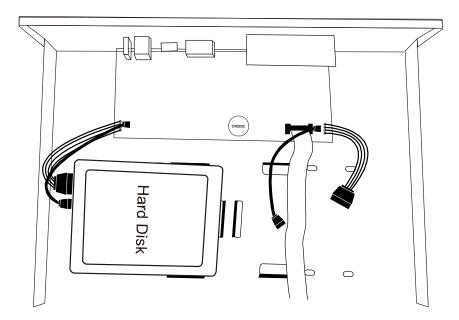
Step2: Get a compatible hard disk. With the PCB side facing down, find the screw holes on the DVR base, and place the hard disk in the DVR.

Note: To use a green hard disk, use **ONLY** the hard disk designed especially for surveillance to ensure the device works properly.



Step3: Align the screw holes on the DVR base and the hard disk. Then, fasten the hard disk o the DVR base with the supplied screws from the bottom side of the DVR.

Step4: Connect the data bus and power cable for the hard disk.



Step5: Replace the top cover and fasten the screws you loosened in Step1.

2.2 Camera Connection

Install the camera on the wall or ceiling based on your installation environment and camera type. For installation details, please refer to the user manual of your camera.

2.2.1 Normal / Motorized Lens Camera

1) Connecting to DVR video input

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

2) Connecting to DVR audio input (Optional)

Connect the camera audio output to the DVR audio input port with an RCA cable.

3) Connecting to power

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

2.2.2 Speed Dome Camera

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

Note: The RS485 wiring is not needed when your DVR and speed dome camera are both our HD CCTV series. If yes, please go to **STEP 5** directly for PTZ camera setting.

Note: Speed dome camera connection for non-HD CCTV series is available only for selected DVR models.

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.

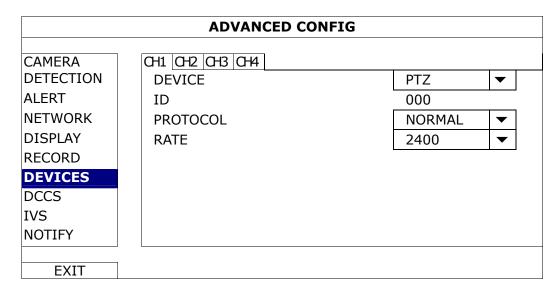
STEP 4: Connect the other end of the RJ11 cable to DVR.

Solder the RS485-A (red) and RS485-B (green) wires of the RJ11 cable to the corresponding pins on the DVR rear panel.

STEP 5: Set the camera at the DVR side.

Right click to show the main menu in the live view, and go to "♠" (ADVANCED CONFIG) → "DEVICES" to set the camera.

- a) Select the device to "PTZ".
- b) Set the ID to the value the same as the one set in the 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 camera. The default baud rate of the camera is 2400.



2.3 External Device Connection

Some DVR models support external device connection with RS485 and alarm I/O ports, allowing users to connect control devices such as a keyboard controller, or connect alarm devices such as a magnetic contact or buzzer.

Check the user manual of your external device to know which pin(s) should be used, and connect it to the corresponding pins on the DVR rear panel.

2.4 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.

If your device has a power switch on the rear panel, turn it to "—". The power LED will be on. If your device doesn't have a power switch on its rear panel, the power is on once the power source is connected.

Note: Before the DVR is powered on, make sure (1) the cameras are connected and power-supplied for the detection of the camera video system to be correct, and (2) a HDMI monitor is connected to the DVR for correct video output detection.

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

3. FOR INITIAL USE

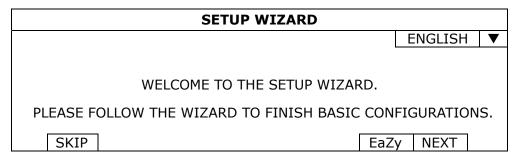
For the first time to power on this device, you might be prompted to:

- Go through the setup wizard
- Clear hard disk
- Change default user name and password

3.1 Setup Wizard

The setup wizard is prompted to guide you finishing the most common settings you might need to do.

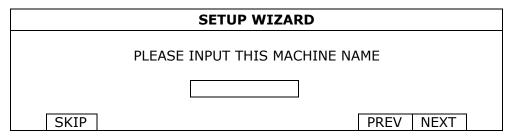
Note: It's okay to skip the wizard. You can configure the following settings later in their respective menus.



Choose "EaZy" (EaZy Networking) to directly go to the EaZy Networking setting page, and refer to "APPENDIX 9 EAZY NETWORKING" at page 71 for details.

Note: To configure network setup by using EaZy Networking later, please go to "QUICK START" → "EaZy".

Or select "NEXT" to go to the next step.



Name the device. If you don't want to name the device, just skip to the next step.

Note: To name the device later, please go to "SYSTEM" → "SYSTEM INFO".



Change the default user name and password. If you don't change the user name and password here, you're not able to go to the next step. This step is compulsory.

Note: To change or edit user name and passwords, please go to "SYSTEM" \rightarrow "ACCOUNT".



Set the date and time.

If you don't want to set the date and time now, just skip to the next step. However, it's necessary to keep the date and time right to ensure the accuracy of the recorded data.

Note: To set the date and time later, please go to "QUICK START" → "TIME SETUP" ("6.1.2 TIME SETUP" at page 23). When the date and time are changed, you'll be prompted to clear the hard disk(s). Select "YES" to erase the previous recorded data, or there might be data disorder and you wouldn't find the footage you need.



Configure if you want to connect this device to an NTP server to get the right time online.

Note: To set the date and time later, please go to "QUICK START" \rightarrow "TIME SETUP" ("6.1.2 TIME SETUP" at page 23).

SETUP WIZARD	
NETWORK TYPE	STATIC ▼
IP	192.168.1.10
GATEWAY	192.168.1.1
NETMASK	255.255.255.0
PRIMARY DNS	8.8.8.8
SECONDARY DNS	168.95.1.1
PORT	80
SKIP	PREV NEXT

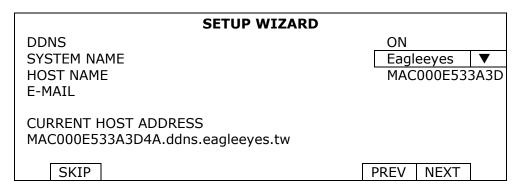
Configure network setup by using the traditional method. For details, please download www.surveillance-download.com/user/network setup/network setup recorder.pdf.

Note: To configure network setup by using the traditional method later, please go to "ADVANCED CONFIG" → "NETWORK" ("NETWORK" at page 35).

	SETUP WIZARD
SMTP SERVER PORT MAIL FROM SSL ENCRYPTION VERIFY PASSWORD USER NAME PASSWORD	Smtp.gmail.com 465 manager@gmail.com ON ON manager@gmail.com ●●●●●
SKIP	PREV NEXT

Configure event notifications by email.

Note: To configure email notifications later, please go to "ADVANCED CONFIG" \rightarrow "NETWORK" -> "EMAIL" ("E-MAIL" at page 35).

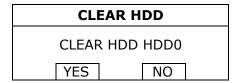


Enable DDNS if needed.

Note: To enable the DDNS later, please go to "ADVANCED CONFIG" \rightarrow "NETWORK" \rightarrow "DDNS" ("NETWORK" at page 35).

3.2 Clear Hard Disk

When this device is powered on, hard disk detection will be on, and you'll be prompted to clear the hard disk(s):

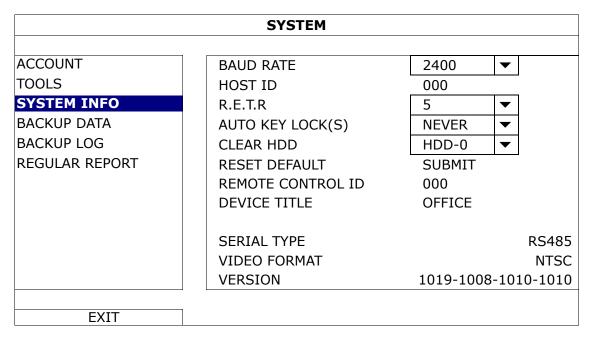


Please choose "YES" to clear the connected hard disk(s), or this device will not detect hard disks properly for video recording.

It might take some time to clear the connected hard disk(s). When it's done, you'll see the remaining hard disk capacity on the top right corner of the screen.

Note: It's necessary to clear hard disks in order to format the connected disks to the right format to save video data. The format used for this device can **NOT** be read directly on a PC. Please do not install the hard disk directly to a PC and try to copy the video data saved in the hard disk. The video data might be impaired.

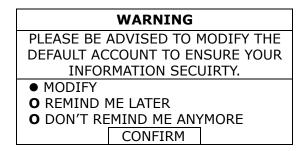
To change later, right click to show the main menu, and select (SYSTEM) → "SYSTEM INFO" → "CLEAR HDD". The DVR will reboot when hard disk data are cleared.



3.3 Change User Name and Password

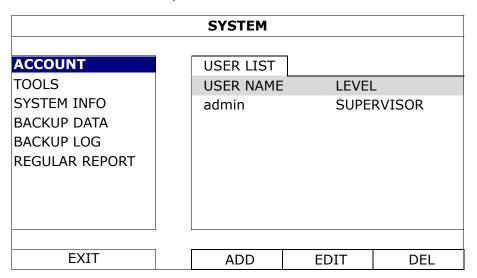
It's highly recommended to change the user name and password of this device to keep your account safe. Otherwise, any person could access this device if he knows the default user name and password.

If you didn't go through the setting wizard at the first place, you'll be prompted to change the user name and password:



Choose "MODIFY" to start the change immediately.

To change later, right click to show the main menu, and select (SYSTEM) → "ACCOUNT" to change the default user name and password of SUPERVISOR.



4. USER INTERFACE

4.1 DVR Access

Connect your USB mouse to one of the USB ports on the DVR front panel, and check if there's a mouse icon (*\varphi) on the screen, indicating the USB mouse is detected properly.

Move your mouse to enter the DVR password with the password keypad. The default user name and password are both "admin". The status will be changed from (key lock) to (unlock).

Note: You may configure four different user levels to have different access privileges in "SYSTEM" → "ACCOUNT". For details, please refer to "5.2 User Level Creation" at page 15.

Password Input



4.2 Live Page



4.2.1 DVR Status

Note: Certain icons are for selected models only.

<u>_</u>	Key lock	<u></u>	Key unlock
2	Overwrite on	2	Overwrite off
	Internet disconnected		Internet connected
	Local connection	♡	USB mouse connected
œ	USB flash drive / device connected	<i>₩</i>	No USB device connected
	IVS on		
(Timer record on	(Timer record off
	PTZ mode on	G	PTZ mode off
	Sequence mode on	中	Sequence mode off

4.2.2 Channel Status

Note: Certain icons are for selected models only.

	Live audio on		Audio off		Audio playback on	6	Audio playback off
•	Recording		PTZ control	€ }}	Motion event		Alarm event
€	PIR event	2	Virtual fence event		One way pass event	♦	Scene Change event

4.2.3 Record-related Icons

1) Manual Recording

By defaults, manual recording is on (●) when the DVR is powered on and a hard disk is installed.

2) Event Recording

The event icons, $^{\$}$ / $^{\bullet\bullet}$ / $^{\bullet}$ / $^{\bullet}$ / $^{\bullet}$ / $^{\bullet}$, show on the channel status bar when their respective events occur and the related record function is on.

3) Timer Recording

When timer recording is on, you will see "9" on the screen.

4) HDD Overwritten

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

Note: To disable this function, right click to display the main menu in the live view, and go to " \mathbb{Q} " (ADVANCED CONFIG.) \rightarrow "RECORD" \rightarrow "OVERWRITE".

4.3 Quick Menu Bar

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

Quick Menu: Open





Click to show the channel switch panel and select the channel you want.



Click to display the playback control panel, and click to play the latest recorded video clip, or click to enter the search list.



Switch to the channel you want first, and click \searrow 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 .

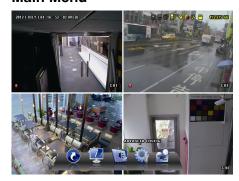


Click to show the power off panel to either halt or reboot the system.

4.4 Main Menu

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

Main Menu



	QUICK START	Click to set the status display, image settings, and date & time.
i	SYSTEM	Click to set the system configurations.
1	EVENT INFORMATION	Click to enter the event search menu.
	ADVANCED CONFIG	Click to set CAMERA, DETECTION, ALERT, NETWORK, DISPLAY, RECORD, DEVICES*, DCCS, IVS* and NOTIFY*.
	SCHEDULE SETTING	Click to set timer for record, motion detection, alarm (in and out)*, Push Video*, and buzzer.

^{*} For selected models only

5. FREQUENTLY-USED FUNCTIONS

5.1 Key Lock / Unlock

To lock or unlock local operation, click (unlock) or (lock) on the DVR status bar to change the status to (lock) or (unlock).

To unlock local operation, you'll be prompted to enter the user name and password to access.

Note: The default user name and password are both "admin", which is the highest user level.

Note: Different user level has different access privilege for certain DVR functions. Please refer to "5.2 User Level Creation" at page 15.

5.2 User Level Creation

Note: This function is available only for "SUPERVISOR".

To create different user account for different access privilege, click (SYSTEM), and select "ACCOUNT" to enter "USER LIST".

	SYSTEM		
ACCOUNT	USER LIST	7	
TOOLS	USER NAME	LEVE	L
SYSTEM INFO	admin	SUPE	RVISOR
BACKUP DATA	power	POWE	ER USER
BACKUP LOG	normal	NORN	1AL
REGULAR REPORT	guest	GUES	ST
EXIT	ADD	EDIT	DEL

Different user level has different access privilege for certain functions as described below:

	Function		User I	_evel	
		SUPERVISOR	POWER	NORMAL	GUEST
■ DVR status					
<u>A</u> / A	Key lock / unlock	√	✓	✓	✓
■ Channel status					
(), (Live audio on / off	✓			
() / (Playback audio on / off	√			
	PTZ Control	✓	✓		
■ Quick menu ba	r		_		
< G₩	Channel Selection	✓	✓	✓	
	Playback	✓	✓		
	Digital Zoom	✓	✓	✓	✓
(4)	Power	✓			

	Function	User Level			
		SUPERVISOR	POWER	NORMAL	GUEST
■ Main menu					
(Quick Start	√			
j	System	✓			
IE	Event Information	√			
	Advanced Config.	√			
	Schedule Setting	√			
■ Playback cont	rol				
>>	Fast Forward	√	✓		
	Fast Rewind	✓	✓		
	Play / Pause	✓	✓		
	Stop	✓	✓		
>>>	Slow Playback	✓	✓		
14 / >1	Previous / Next Hour	✓	✓		
	Quick Search	√	✓		

5.3 PTZ Control



Note: This function is available only for "SUPERVISOR" and "POWER USER". To know more details, please refer to "5.2 User Level Creation" at page 15.

Note: For our brand's HD CCTV motorized camera series, click wight only show specific icons for focal length and focus adjustment. For details, please refer to its own user manual.

In the full view

In the split view, click the channel you want to switch to the full screen mode, and click to show the PTZ control panel.



	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 the arrow keys (▲ / ▼ / ◀ / ▶) to more the camera lens up / down / left /right.
6,6	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.

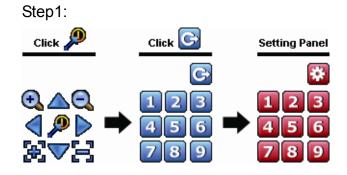
	Zoom in / out max	Click to zoom in on the image to the largest / zoom out on the image to its original size.
e , e	Zoom in / out	Click to zoom in / out the image.
	Focus near / far	Click to adjust the focus of the image.
	Auto mode	Click to activate the auto function. Before using it, you need to assign a specific function that will be enabled when " " is clicked. For details, please refer to the user manual of the camera.
7 0	Preset point	Click to enter the PTZ preset point you want to see.
	Auto tracking	Click to start auto tracking when your speed dome camera supports this function.
	Manual Focus	This function is used to memorize the focus parameters you've made after you use / / / to manually adjust the focal length and focus. The next time when you move to the same focal length, the camera will use the parameters as the ones for Auto Focus.
	Auto Focus	Click to automatically adjust the focus of the camera.

In the split view

Click on the channel status bar to display the panel as follows:

	△ / ▽ / ⊲ / ▷	Up / Down / Left / Right	Click to move your selection up / down / left / right, or change settings.
	e , e	Digital zoom in / out	Click to zoom in / out the camera image digitally.
	8 / 2	Focus near / far	Click to adjust the focus of the image.
	9	Preset point	Click to display the preset point panel for preset point viewing or setting. For details, please refer to the section below.

How to set a preset point:

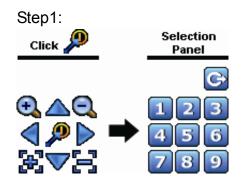


Step2: Click ♠ or ♠ to the proper ratio you need, and click ♠ / ▼ / ♠ to move to the point you want to configure as a preset point.

Step3: Click the numbering you want to configure for this point, and wait till you see (command sending) appearing and disappearing on the DVR status bar.

Step4: Repeat from Step1 again to set other points if needed, or click to return to the preset point selection panel.

How to go to a preset point:



Step2: Select the numbering within which saves the camera view you want to see, and wait till you see (command sending) appearing and disappearing on the DVR status bar.

5.4 Playback

Note: This function is *NOT* available for "GUEST". Please refer to "5.2 User Level Creation" at page 15.

Click on the quick menu bar to display the playback control panel, and click to play the latest recorded video clip, or click 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.

5.4.1 Playback Control

Foot Forward		Increase the speed for fast forward. Click once to get 4X speed forward and click		
*	Fast Forward	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		
4	rasi Kewillu	twice to get 8X speed, etc., and the maximum speed is 32X.		
) / ii	Play / Pause	Click to play the latest recorded video clip immediately, and click again to 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.		
>> Slow Playback	Slow Blowbook	Click once to get 1/4X speed playback, and click twice to get 1/8X speed		
	Slow Flayback	playback.		
	Previous /	Click to jump to the next / previous time interval in an hour, for example, 11:00 ~		
Next Hour	12:00 or 14:00 ~ 15:00, and start playing the earliest event video clip recorded			
	Nextrioui	during this whole hour.		
AOP Denost	Popost	Click to set point A and point B in a video clip, and the system will play only the		
AOB	Repeat	specified range in that clip.		
±	Backup	Click to open the backup menu for video backup.		

5.4.2 Event Search

Click to quickly search the recorded files by event types, or select FULL to show all the event logs. To quickly search the time you want, select "QUICK SEARCH".

5.4.3 Audio Playback

In the playback mode, click \P or \P on the channel status bar to play or mute audio recording.

Note: To make a video backup with audio, or play a recording 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. For 16CH models, the audio CH1 ~ CH4 are corresponding to video CH1 ~ CH4 respectively.

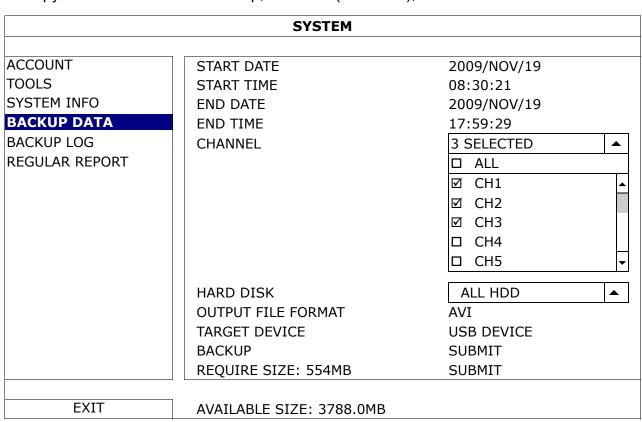
5.5 Video Backup

Note: This function is available for "SUPERVISOR". For details, please refer to "5.2 User Level Creation" at page 15.

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 5 COMPATIBLE USB FLASH DRIVE LIST" at page 66.

Note: Video backup could be made via a USB flash drive or the Internet. It's **NOT** allowed to connect the hard disk to your PC directly for it may impair the recorded data saved in the hard disk.

To copy video data for video backup, click (SYSTEM), and select "BACKUP DATA".



Step1: Select the time within which includes the video data you want to backup.

Step2: Select the channel(s) within which includes the video data you want to backup.

Step3: In "OUTPUT FILE FORMAT", select the output video format: DEFAULT / AVI.

■ When "DEFAULT" is selected, the footage is saved to ".dv5", and you can only open it with our own video player on PC. For details, please check "5.6 Video Playback on PC (.dv5)".

Note: It's recommended to save the file to the default format for security reasons. Only specific video player supports the default format and not everyone can see the video footage.

■ When "AVI" is selected, the footage will be converted to "avi", and you can open it with any media player which supports the "avi" format on PC.

Step4: In "TRAGET DEVICE", select "USB DEVICE" for video backup.

Step5: In "REQUIRE SIZE", select "SUBMIT" to know the file size of the selected footage.

Step6: In "BACKUP", select "SUBMIT" to start copying footage to your USB flash drive, and wait till the backup successful message appears.

5.6 Video Playback on PC (.dv5)

For video backup with the format ".dv5", you can only use our own player to play.

Note: It's **NOT** allowed to remove the hard disk installed in the DVR and connect it directly to your PC to check recorded video clips. It might impair the files saved in the hark disk, causing the loss of those files even when the disk is replaced back to the DVR.

To play ".dv5" video on your PC:

Step1: Insert the USB flash drive with recorded data into your PC.

Note: The supported PC operating systems are Windows 8, Windows 7, Windows Vista & Windows XP. Step2: Find the program "PLAYER.EXE" in the USB flash drive, and double-click it to install.

Note: "PLAYER.EXE" can also be downloaded from www.surveillance-download.com/user/t204.swf.

Step3: Run the program, VideoPlayer, and browse to where you save the recorded data.

Step4: Select the file you want to start video playback

5.6.1 Convert the file format to AVI

To convert the video file format to AVI, click "AVI" from the playback panel to start file conversion.

Note: The recorded audio (if any) will be removed when the file format is converted to AVI.

Note: If the footage includes data for multiple channels, click to a specific channel for this function to work properly.



5.7 Digital Zoom



Switch to the channel you want to zoom in, and move to the left side of the screen to show the quick start bar.

Click 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.



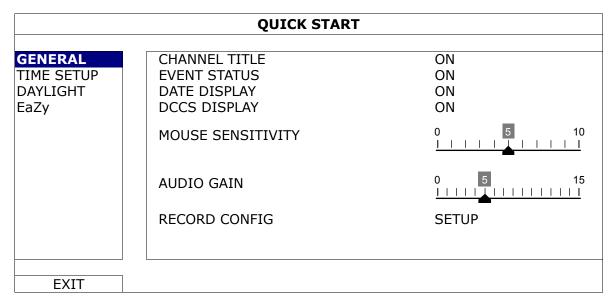
To exit this mode, right-click anywhere on the screen.

Note: You need to exit the zoom mode first to use other DVR functions.

6. MAIN MENU

6.1 QUICK START

6.1.1 GENERAL



1) CHANNEL TITLE

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

2) EVENT STATUS

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

Note: For details about each event icon, please refer to "4.2 Live Page" at page 12.

3) DATE DISPLAY

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

4) DCCS DISPLAY

Select to display the OSD or not (ON / OFF) when users are using specific camera functions.

Note: This function is available only when the connected HD CCTV camera is the same brand as this recorder.

5) MOUSE SENSITIVITY

Select the mouse sensitivity. The higher the value, the more sensitive the mouse.

6) AUDIO GAIN

Select the level to enhance the audio signals. The higher the value, the stronger the signals.

7) RECORD CONFIG

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.

Note: The I.P.S. section is based on NTSC system.

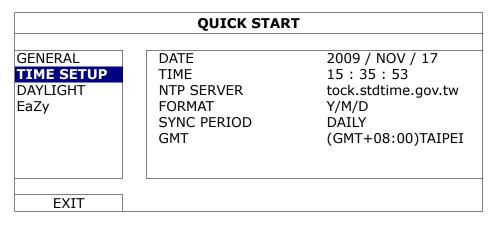
QUICK START				
MANUAL RECORD	EVENT RECORD	TIMER RECORD		
CHANNEL	IMAGE SIZE	I.P.S.	QUALITY	BITRATE
ALL	FHD(1080P)	240	SUPER BEST	2064
			r	
				EXIT

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

Note: The available options for IMAGE SIZE depend on the recorder you have.

IMAGE SIZE	The pixels of the image, for example, FHD(1080P) = 1920 x 1080.	
	The more the pixels, the clearer the image but the more the file size.	
I.P.S.	Image per second. The more the I.P.S., the more fluent the video but the more the	
	file size.	
QUALITY	Image quality.	
BITRATE	It is used to set the upper limit of the transmission number per second. The value is	
	from 256 to 4096.	
	The value set here is related to the image size. For example, here are the	
	recommended values:	
	■ FHD(1080P) => 2048	
	■ HD(720P) => 1024	
	The more the value, the bigger the file size, but the system stability might go down.	
	The less the value, the smaller the file size, but the image quality might go down.	

6.1.2 TIME SETUP



1) DATE

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

2) TIME

Set the current time in HOUR: MIN: SEC.

3) NTP SERVER

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

Note: This function works only when this device is configured to the Internet.

4) FORMAT

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

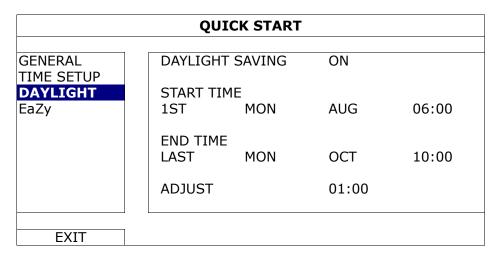
5) SYNC PERIOD

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

6) <u>GMT</u>

Select your time zone.

6.1.3 DAYLIGHT



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.

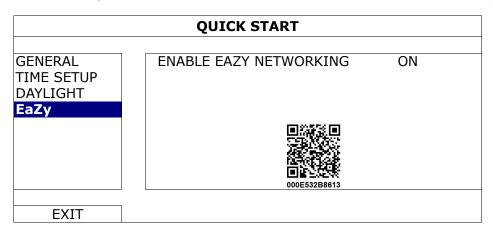
3) ADJUST

Set the time in HOUR: MIN.

6.1.4 EaZy (For selected models only)

EaZy Networking is a cloud service to connect your devices to the Internet automatically through our free mobile app, EagleEyes, in a few steps without going through the complicated network setup including port forwarding.

For details, please refer to "APPENDIX 9 EAZY NETWORKING" at page 71.

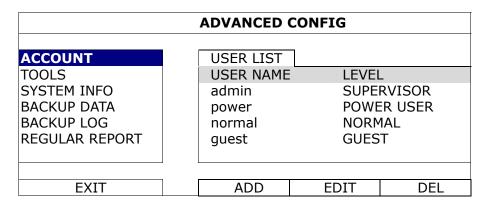


6.2 SYSTEM

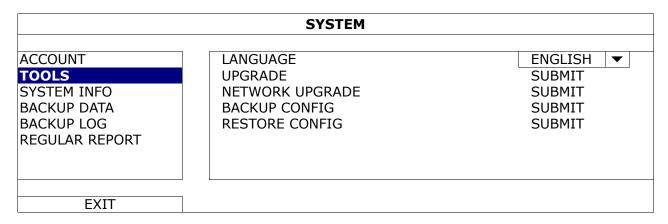
6.2.1 ACCOUNT

This function is used to create a new user account, or modify or delete an existing account for different access privilege.

Note: For details about available local operations of each user level, please refer to "5.2 User Level Creation" at page 15.



6.2.2 TOOLS



1) LANGUAGE

Select the language of the OSD.

2) UPGRADE

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 5 COMPATIBLE USB FLASH DRIVE LIST" at page 66.

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.

3) <u>NETWORK UPGRADE</u>

Click "SUBMIT" for perform system upgrade via Internet.

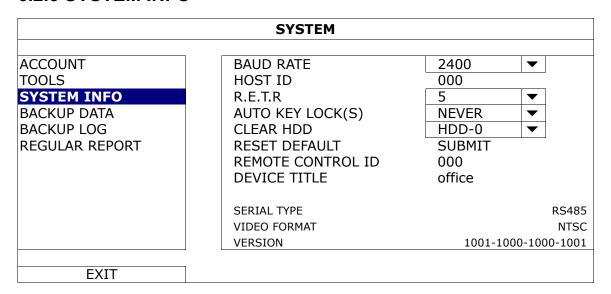
Note: This function requires Internet access. Please make sure this recorder is connected to Internet before using this function.

4) BACKUP CONFIG / RESTORE CONFIG

To save the DVR current configurations for later use, such as restoring after DVR upgrade or applying to another DVR, 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".

6.2.3 SYSTEM INFO



1) BAUD RATE

Set the baud rate of the DVR (2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200).

Note: This function is used when an external controller is connected to this DVR and further configurations should be made for this DVR to work with the controller. For details, please check the user manual of the external controller.

2) HOST ID

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

Note: This function is used when an external controller is connected to this DVR and further configurations should be made for this DVR to work with the controller. For details, please check the user manual of the external controller.

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(S)

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

5) CLEAR HDD

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) RESET DEFAULT

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

7) REMOTE CONTROL ID

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) DEVICE TITLE

Enter a title for this device.

9) SERIAL TYPE

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

10) VIDEO FORMAT

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

11) VERSION

Here shows the firmware version information.

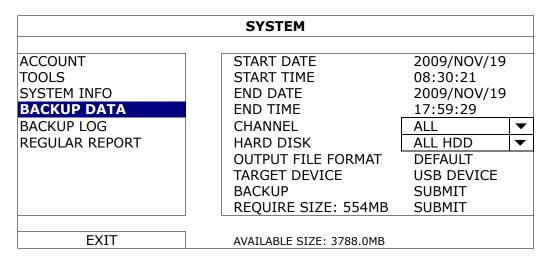
6.2.4 BACKUP DATA

Note: It's **NOT** allowed to remove the hard disk installed in the DVR and connect it directly to your PC to check video footage. It might impair the files saved in the hard disk, causing the loss of those files even when the disk is replaced back to the DVR.

Note: This function is available only when a hard disk is installed.

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 5 COMPATIBLE USB FLASH DRIVE LIST" at page 66.



1) START DATE / START TIME

Select the start date & time.

2) END DATE / TIME

Select the end date & time.

3) CHANNEL

Click to select the channel(s).

4) HARD DISK

Select the hard disk containing the video data you need or "ALL HDD".

5) OUTPUT FILE FORMAT

Select the file format for backup video: "DEFAULT" or "AVI".

■ When "DEFAULT" is selected, the copied video is saved to ".dv5", and you can only open it with our own video player on PC. For details, please check the next section, "Video Playback on PC (.dv5)".

Note: It's recommended to save the file to the default format for security reasons. Only specific video player supports the default format and not everyone can see the video footage.

■ When "AVI" is selected, the copied footage will be converted to "avi", and you can open it with any media player which supports the "avi" format on PC.

6) TARGET DEVICE

Select the device you want to use for video backup: "USB DEVICE".

7) BACKUP

Click "SUBMIT" to start backup.

8) REQUIRE SIZE

To know the size of the expected backup video before backup, click "SUBMIT" to start calculating.

Video Playback on PC (.dv5)

For video backup with the format ".dv5", you can only use our own player to play.

Note: It's **NOT** allowed to remove the hard disk installed in the DVR and connect it directly to your PC to check recorded video clips. It might impair the files saved in the hark disk, causing the loss of those files even when the disk is replaced back to the DVR.

To play ".dv5" video on your PC:

Step1: Insert the USB flash drive with recorded data into your PC.

Note: The supported PC operating systems are Windows 8, Windows 7, Windows Vista & Windows XP.

Step2: Find the program "PLAYER.EXE" in the USB flash drive, and double-click it to install.

Note: "PLAYER.EXE" can also be downloaded from www.surveillance-download.com/user/t204.swf.

Step3: Run the program, VideoPlayer, and browse to where you save the recorded data.

Step4: Select the file you want to start video playback.

Convert the file format to AVI:

To convert the video file format to AVI, click "AVI" from the playback panel to start file conversion.

Note: The recorded audio (if any) will be removed when the file format is converted to AVI.

Note: If the footage includes data for multiple channels, click to a specific channel for this function to work properly.



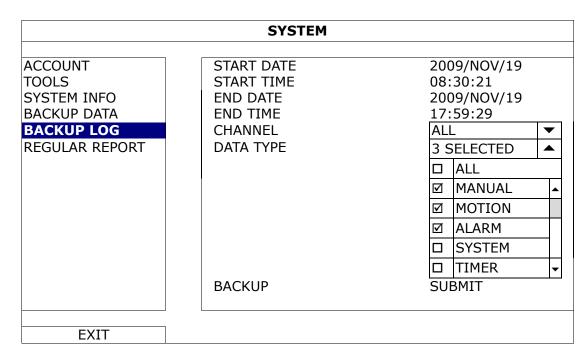
6.2.5 BACKUP LOG

This function is used to export event logs for quick checking or backup. A .csv file will be exported to your USB flash drive. You can open it with a text editor to see the logs.

Note: This function is available only when a hard disk is installed.

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 5 COMPATIBLE USB FLASH DRIVE LIST" at page 66.



1) START DATE / START TIME

Select the start date & time.

2) END DATE / TIME

Select the end date & time.

3) CHANNEL

Click to select the channel(s).

4) <u>DATA TYPE</u>

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

Note: The event types available depend on the model you have.

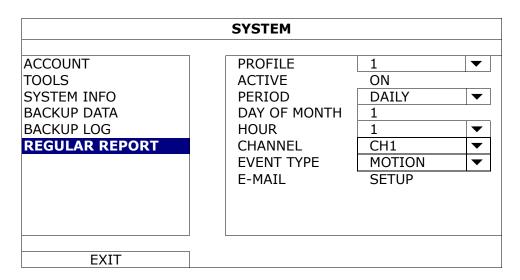
5) BACKUP

Click "SUBMIT" to start backup. You'll see a log file (.csv) in the flash drive. You may open it with any txt editor, such as NotePad.

6.2.6 REGULAR REPORT

This function is used to send event reports to the specified E-mail address. Users could configure up to 5 profiles to receive different reports about specific channels at different time.

Note: This function is available only when a hard disk is installed, and the DVR is connected to Internet.



Step1: Select the profile you want to configure, and enable it.

Step2: Select the frequency to send reports in "PERIOD": DAILY / MONTH / WEEK.

Step3: When MONTH or WEEK is selected, select which date or day from "DAY OF MONTH" or "DAY OF WEEK".

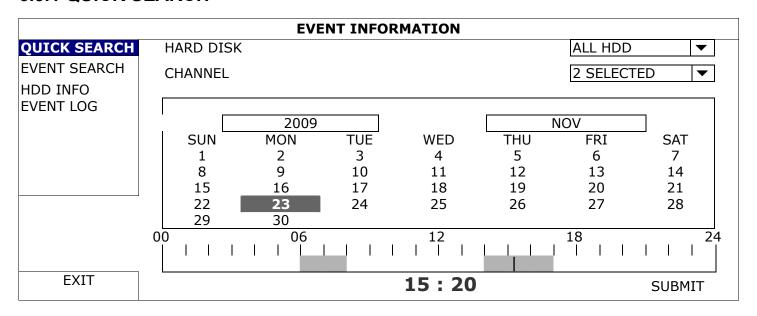
Step4: Then, select which time you want to receive reports, which channel(s) you want to see, and which event type(s) you want to see (ALARM / MANUAL / MOTION / SYSTEM / TIMER / INFLOW / OUTFLOW / VIRTUAL FENCE / ONEWAY / SCENE CHANGE).

Step5: Configure the email address to receive reports.

Note: The sender E-mail should be configured in "ADVANCED CONFIG" → "NETWORK" → "E-MAIL" for this function to work properly. For details, please refer to "E-MAIL" at page 35.

6.3 EVENT INFORMATION

6.3.1 QUICK SEARCH



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

Step2: Select the year and month including the video data you want to search from the calendar, and the date with recorded data will be highlighted.

Note: To select the year and month, move your mouse to the display bar. Then, click and hold to drag up or down.

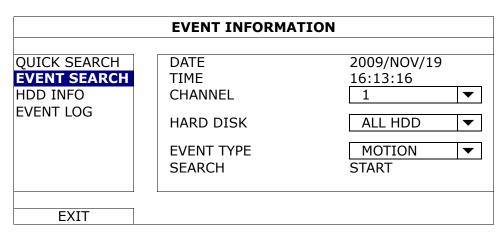
Step3: Select the date you want from the calendar, and the time with recorded data will be highlighted from the time scale bar.

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 "5.4 Playback" at page 18.

6.3.2 EVENT SEARCH



1) DATE / TIME

Select the specific time period that you want to search.

2) CHANNEL

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) EVENT TYPE

Select the event type you want to search, or select "ALL" to choose all events.

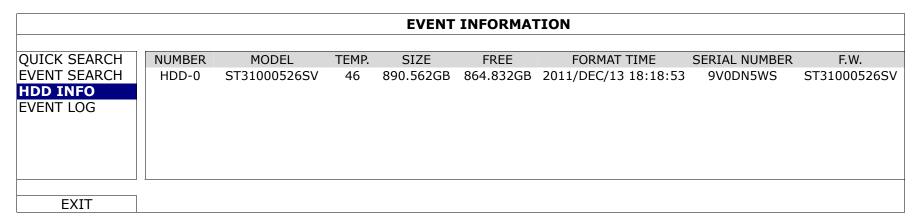
Note: Some events are available only for selected models.

5) <u>SEARCH</u>

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

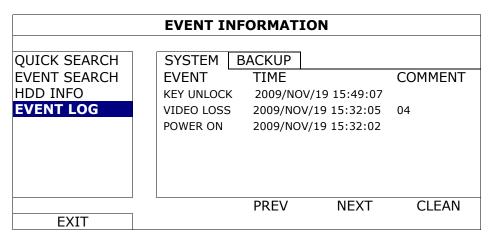
6.3.3 HDD INFO

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



6.3.4 EVENT LOG

You can check all system events (SYSTEM) and backup logs (BACKUP), or clear all log records.



6.4 ADVANCED CONFIG

6.4.1 CAMERA

ADVANCED CONFIG			
CAMERA	CH1 CH2 CH3 CH4		
DETECTION	BRIGHTNESS	128	
ALERT	CONTRAST	128	
NETWORK	SATURATION	128	
DISPLAY	HUE	128	
RECORD	COV.	OFF	
DEVICES	REC	ON	
DCCS	TIME STAMP DISPLAY	ON	
IVS	CHANNEL TITLE	CH1	
NOTIFY	REC AUDIO	ON	
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 "6.4.5 DISPLAY" at page 36.

3) REC

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) TIME STAMP DISPLAY

Enable this function and the recording time will be shown on the video during video playback.

5) CHANNEL TITLE

Click the channel title column to change the channel title (up to 12 characters). The default title is the channel number.

6) REC AUDIO

Enable or disable audio recording for the selected channel if the connected camera supports audio recording.

6.4.2 DETECTION

	ADVANCED CONFIG	
CAMERA DETECTION ALERT NETWORK DISPLAY RECORD DEVICES DCCS IVS NOTIFY	CH1 CH2 CH3 CH4 LS SS TS MOTION ALARM AREA PRIVACY MASK (For selected models only) INTERNAL ALARM (For selected models only)	07 03 02 OFF OFF EDIT EDIT ON
EXIT		

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) MOTION

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

5) ALARM

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

6) AREA

Click "EDIT" to set the motion detection area.

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

7) PRIVACY MASK

You can cover certain areas on the camera image with privacy masks.

Note: Up to 4 areas could be added.

PRIVACY MASK				
NAME	FUNCTION	MOSAIC COLOR	TRANSPARENCY	
1	OFF		0%	
2	ON		25%	
2	OFF		0%	
2	OFF		0%	
	-		•	
			EDIT	

Select one existing profile, and choose "EDIT" to modify it.

■ EDIT

PRIVACY MASK - EDIT	
FUNCTION	ON
MOSAIC COLOR	
TRANSPARENCY 50%	
MASK AREA	SETUP
APPLY	

Item	Description
MOSAIC SIZE	Choose the mosaic size of the privacy mask. The options are: 8x8, 32x32, and 64x64.
MOSAIC COLOR	Select the color for the privacy mask.
TRANSPARENCY	Select the transparency for your privacy mask. The options are: 0%, 25%, 50%, and 100%.
MASK AREA	Select "SETUP" to enter the area selection page. To exit, right click on the mouse.

8) INTERNAL ALARM (For selected models only)

This function is available only when an HD CCTV camera with a PIR sensor built-in is connected to this device. You could enable or disable the PIR detection here.

Note: To know which camera could work with this function, please check with your installer or distributor.

6.4.3 ALERT

	ADVANCED CONFIG			
CAMERA DETECTION	EXT. ALERT INT. BUZZER	ON 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	•	1
IVS	HDD NEARLY FULL (GB)	5	•	1
NOTIFY	HDD OVERHEAT ALERT (°C)	60	•	<u> </u>
EXIT				

1) EXT. ALERT

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) VLOSS BUZZER

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

5) MOTION BUZZER

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

6) ALARM BUZZER

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

7) HDD BUZZER

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

8) ALARM DURATION (SEC)

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.

10) HDD OVERHEAT ALERT (°C)

Select the temperature alert for your hard disk to be aware of the possible overheat of your hard disk.

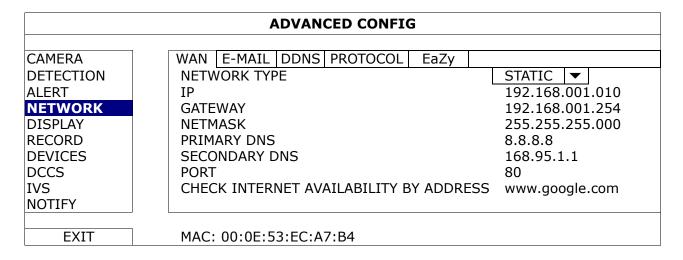
6.4.4 NETWORK

NETWORK

- WAN is used to connect this recorder to Internet for remote access from anywhere as long as Internet access is available.
- **DDNS** is used when the Internet access is available.

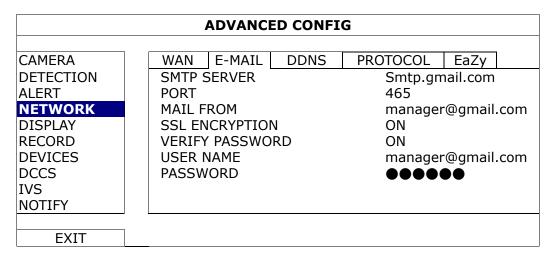
Note: For more details about these two functions and network configurations, please get the setup manual from

www.surveillance-download.com/user/network setup/network setup recorder.pdf.



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.



1) SMTP SERVER

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

2) PORT

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.

3) MAIL FROM

Enter the email address which will be used to send Email notifications.

4) SSL ENCRYPTION

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

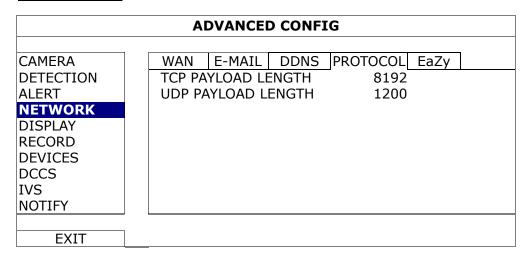
5) VERIFY PASSWORD

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

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

Enter the "user name" and "password" to access the email address entered in "MAIL FROM" when "VERIFY PASSWORD" is set to "ON".

PROTOCOL



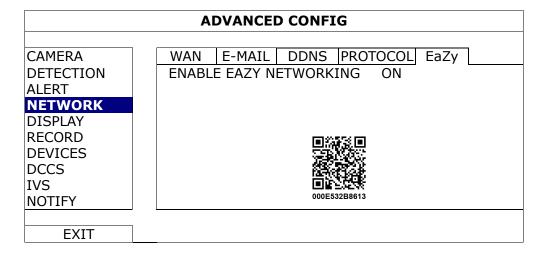
TCP PAYLOAD LENGTH / UDP PAYLOAD LENGTH

Configure the payload length from 100 ~ 10000.

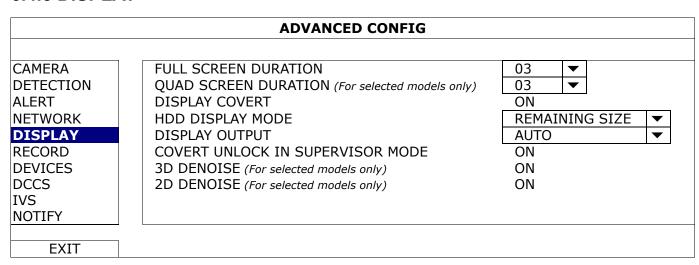
The higher the value, the larger data packet is carried, and the longer time is needed for the video to display. The lower the value, the less data packet is carried, and the more possibility you might see video lag.

EaZy (For selected models only)

This function is used to connect this recorder to Internet by using EaZy Networking. For details, plase refer to "APPENDIX 9 EAZY NETWORKING" at page 71.



6.4.5 DISPLAY



1) FULL SCREEN DURATION

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

2) QUAD SCREEN DURATION (For selected models only)

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

3) DISPLAY COVERT

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

4) HDD DISPLAY MODE

Select "REMAINING SIZE" to show the remaining HDD capacity for recording, "REMAINING TIME" to show the remaining recording time, or "DAYS KEPT" to show how many recording data are saved in day.

5) <u>DISPLAY OUTPUT</u>

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

> AUTO (default)

> 1920 x 1080

> 1024 x 768

Note: To have the best image quality on your monitor, make sure (1) the selected DVR output resolution is supported by your monitor, and (2) the 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 monitor.

6) COVERT UNLOCK IN SUPERVISOR MODE

Enable this function to allow the supervisor user to see live view even when the channel is set "COV." to "ON" in "ADVANCED CONFIG" → "CAMERA".

7) 3D DENOISE

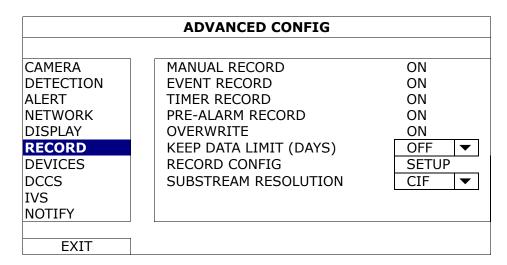
3D denoise analyzes successive pictures to decrease the noise dramatically, but the moving objects might be shown as blurred.

8) <u>2D DENOISE</u>

2D denoise analyzes only a single picture to decrease the noise. The moving objects can remain smooth edges, but the effect might be limited.

6.4.6 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.



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) PRE-ALARM RECORD

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

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

5) **OVERWRITE**

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

6) KEEP DATA LIMITS (DAYS)

Assign the maximum recording days from 1 to 31 after which all the recorded data will be removed, or select "OFF" to disable this function.

7) RECORD CONFIG

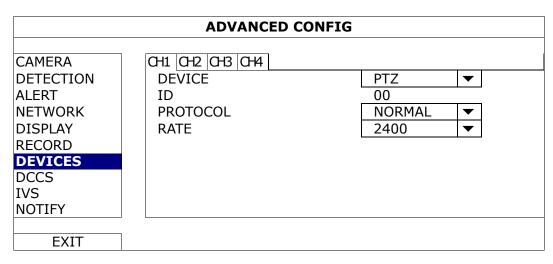
Click "SETUP" to enter the setting page individually for manual record, event record and timer record. For details, please refer to "6.1.1 GENERAL" at page 21.

8) SUBSTREAM RESOLUTION

Select the resolution for sub-streams: 4CIF / CIF.

Sub-streams are used for remote surveillance from a PC or mobile device. When the bandwidth is low, choose a lower resolution helps to quickly view the video, but the video quality might get low.

6.4.7 DEVICES



1) DEVICE

For the PTZ camera, select "PTZ".

2) <u>ID</u>

Click the current value to set the ID number (0 \sim 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) PROTOCOL

Select NORMAL (our protocol), P-D (PELCO-D), P-P (PELCO-P), S-T (SAMSUNG-T) or S-E (SAMSUNG-E) protocol.

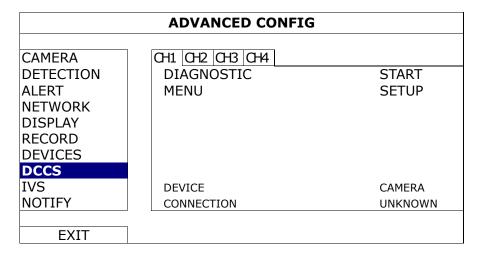
4) RATE

Select the baud rate for the connected PTZ camera (2400 / 4800 / 9600 / 19200 / 38400 / 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.

6.4.8 DCCS

This function is used for our brand's HD CCTV camera series. Users could access the setup menu of the camera itself for further configurations.



1) DIAGNOSTIC

When our brand's HD CCTV camera is connected, click "START" to ensure the DVR recognizes it. This function disappears when the DVR recognizes the camera properly.

2) MENU

Click "SETUP" to enter the camera's configuration page.

6.4.9 IVS

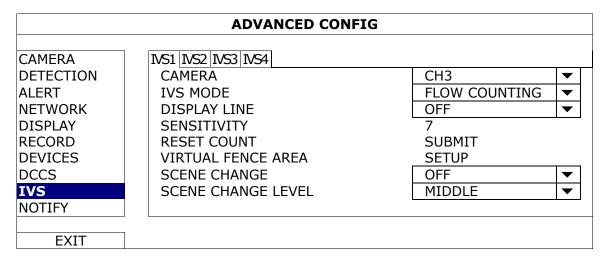
Note: This function is for selected models only.

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.



1) CAMERA

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

2) IVS MODE

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) **SENSITIVITY**

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

5) RESET COUNT

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

6) VIRTUAL FENCE AREA

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

Note: There are some tips to draw the detection line. For details, please check www.surveillance-download.com/user/IVS setup.pdf.

7) SCENE CHANGE

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 "�' will be also shown on the screen in addition to the motion icon "�".

8) SCENE CHANGE LEVEL

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

IVS APPLICATION

> 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: Click "APPLY" to 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 on the top left side.

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: Click "APPLY" to finish the IVS setting and return to the live view.

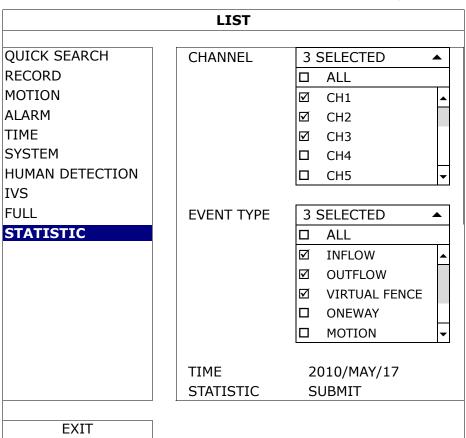
When anyone walks across the detection line, the system will determine his movement is in or out, and:

VIRTUAL FENCE	An event happens for anyone walking across the detection line, and "A" will be shown on the screen.
ONE WAY	An event happens for anyone walking from the opposite direction to the arrow mark, and "" will be shown on the screen.



IVS STATISTICS

Click " \longrightarrow " to enter the event search menu. Then, select "STATISTIC"



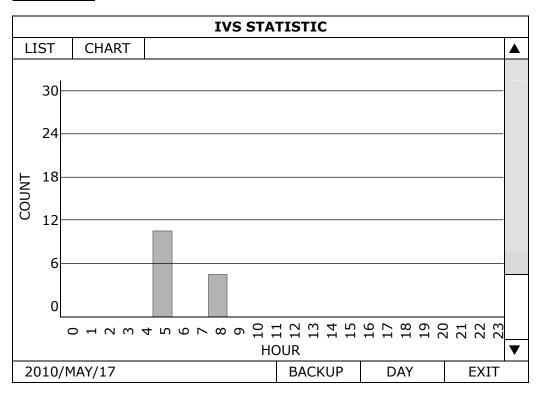
Set all the criteria you want to search, and click "SUBMIT" in "STATISTIC" to show the event statistics by DAY in LIST (default) or CHART.

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

List View

		IVS STA	TISTIC		
LIST	CHART				A
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			▼
2010/M	1AY/17		BACKUP	DAY	EXIT

Chart View



6.4.10 NOTIFY

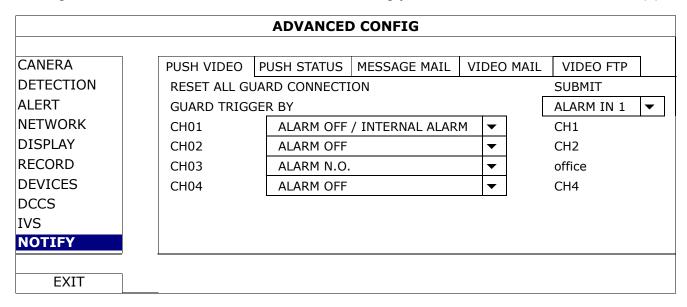
You can configure this DVR to send notifications for certain events to mobile devices with our mobile app, EagleEyes, installed, or to the specified E-mail address(es) or FTP site.

PUSH VIDEO

Before using this function, make sure:

- An external alarm is connected to the alarm-in port on the rear panel.
- You have an iOS or Android mobile phone or tablet.
- You have subscribed the mobile network service from your mobile service provider.
- The mobile app, EagleEyes, is installed in your mobile device. For details, please refer to "APPENDIX 3 MOBILE SURVEILLANCE VIA EAGLEEYES" at page 錯誤! 尚未定義書籤。.
- You have configured EagleEyes to access this DVR, and "Guard" is enabled. For details, please refer to "APPENDIX 4 SET PUSH VIDEO" at page 63.

You'll get an active event notification with video telling you the occurrence of alarm event(s).



1) RESET ALL GUARD CONNECTION

When there're more than 2 users who have the authority to enable Push Video on their mobile devices and configure its related settings, it might be confusing to know whose command is working. In this case, use this function could force the camera to discard all Push Video setup and reconfigure it.

2) GUARD TRIGGER BY

Specify which alarm device (alarm-in) should be used when GUARD is enabled from your iOS or Android mobile device.

3) ALARM TYPE

Select the external alarm type to "ALARM NO.", "ALARM N.C." and "INTERNAL ALARM".

4) <u>CH01 ~ 04</u>

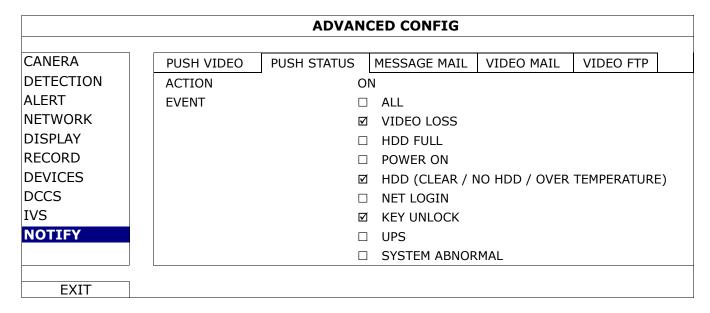
Enter the text you want to see when your iOS or Android mobile device receives Push Video. The default text is the channel number.

PUSH STATUS

Before using this function, make sure:

- You have an iOS or Android mobile phone or tablet.
- You have subscribed the mobile network service from your mobile service provider.
- The mobile app, EagleEyes, is installed in your mobile device. For details, please refer to "APPENDIX 3 MOBILE SURVEILLANCE VIA EAGLEEYES" at page 錯誤! 尙未定義書籤。.
- You have configured EagleEyes to access this DVR, and "Guard" is enabled. For details, please refer to "APPENDIX 4 SET PUSH VIDEO" at page 63.

You'll get a text message telling you the occurrence of selected system event(s).



Step1: Switch "ACTION" to "ON".

Step2: Select the system event(s) you want to get notified via your mobile device.

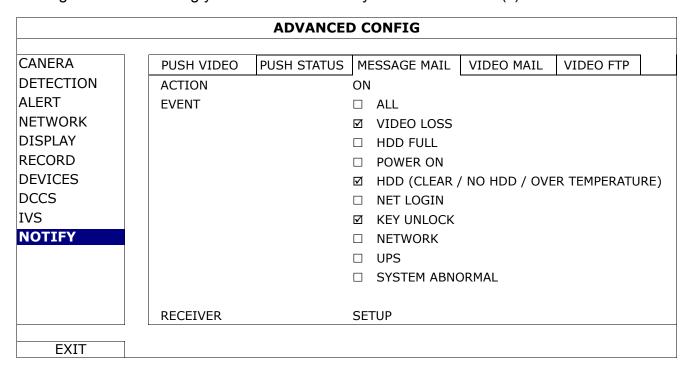
Step3: Enable "GUARD" in EagleEyes on your mobile device, and try to trigger a system event to see if you'll get Push Status.

MESSAGE MAIL

Note: For E-mail notifications, make sure you have configured an E-mail account in "NETWORK" → "E-MAIL" to send the notifications.

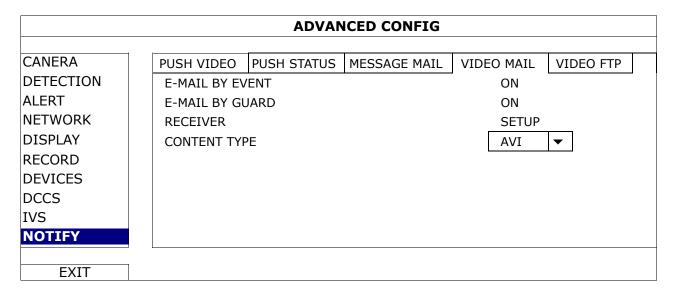
Enable this function in "ACTION", select the event type(s) you want to send notifications in "EVENT", and add the E-mail address(es) to which you want to send notifications in "RECEIVER".

You'll get an E-mail telling you the occurrence of your selected event(s).



VIDEO MAIL

Note: For E-mail notifications, make sure you have configured an E-mail account in "NETWORK" → "E-MAIL" to send the notifications.



1) E-MAIL BY EVENT

Select to receive email notifications when any event occurs.

2) E-MAIL BY GUARD

Select to receive email notifications only when Push Video and Push Status events occur.

3) RECEIVER

Click "Setup" to enter the email address(es) of the person(s) to receive email notifications.

4) CONTENT TYPE

Select which type of notifications you want to receive: LINK or AVI.

- For LINK, you'll receive an html file. For details, please refer to the next section "How to check video footage by I INK"
- For AVI, you'll receive a file of video footage in the "AVI" format.

How to check video footage by "LINK"

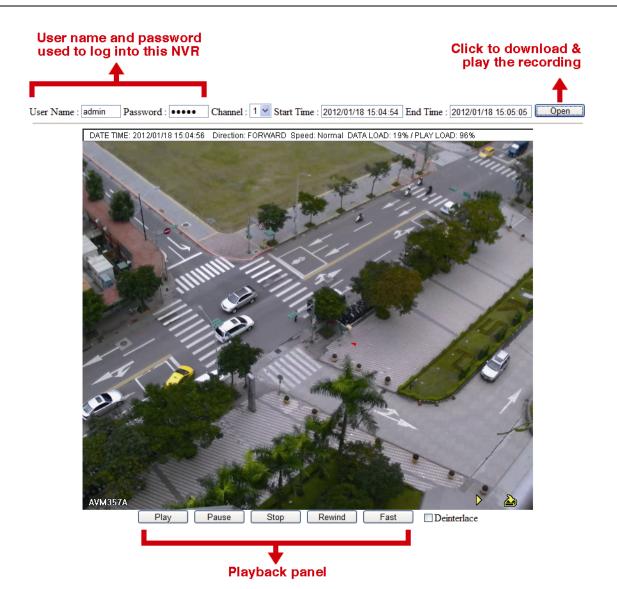
Step1: Open the html file received.

Note: Please accept and install ActiveX control on your computer. It's recommended to use Internet Explorer to open the HTML file.

Step2: Enter the user name and password to log into this DVR, and select the channel you want.

Step3: Click "Open" to download the footage to your computer and play.

Note: The footage download and playback will be failed if either of your DVR and PC is not connected to Internet.



VIDEO FTP

		ADVAN	ICED CONFIG			
CANERA	PUSH VIDEO PUSH	STATUS	MESSAGE MAIL	VIDEO MAIL	VIDEO FTP	
DETECTION	UPLOAD BY EVENT			ON		•
ALERT	UPLOAD BY GUARD			ON		
NETWORK	USER NAME			office		
DISPLAY	PASSWORD			•••••	•	
RECORD	SERVER			211.75.	33.2144	
DEVICES	PORT			25		
DCCS	DIRECTORY			video		
IVS	CONTENT TYPE			AVI	▼	
NOTIFY				<u> </u>		
	L					
EXIT						

1) UPLOAD BY EVENT

Select to get event notifications uploaded when any event occurs.

2) UPLOAD BY GUARD

Select to get event notifications uploaded only when Push Video and Push Status events occur.

3) <u>USER NAME / PASSWORD / SERVER / PORT / DIRECTORY</u>

Enter the information needed for FTP uploading.

4) CONTENT TYPE

Select which type of notifications you want to receive: LINK or AVI.

- For LINK, you'll receive an html file. For details, please refer to the next section "How to check video footage by LINK".
- For AVI, you'll receive a file of video footage in the "AVI" format.

How to check video footage by "LINK"

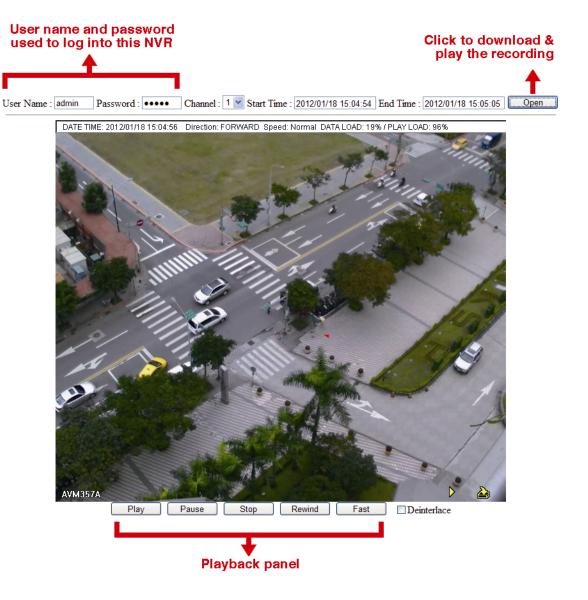
Step1: Open the html file received.

Note: Please accept and install ActiveX control on your computer. It's recommended to use Internet Explorer to open the HTML file.

Step2: Enter the user name and password to log into this DVR, and select the channel you want.

Step3: Click "Open" to download the footage to your computer and play.

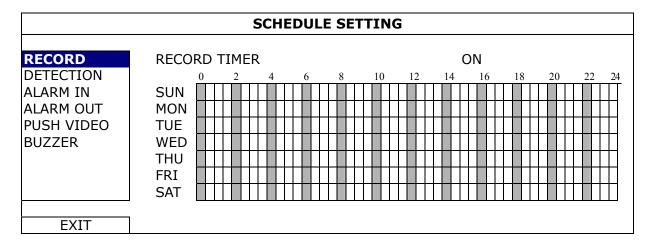
Note: The footage download and playback will be failed if either of your DVR and PC is not connected to Internet.



6.5 SCHEDULE SETTING

6.5.1 RECORD / DETECTION / ALARM IN / ALARM OUT / PUSH VIDEO / BUZZER

Select the timer type you want to configure (RECORD / DETECTION / ALARM IN / ALARM OUT / PUSH VIDEO / BUZZER), choose "ON" to enable the timer, and select the day and time for this function.



X axis $0 \sim 24$ hours. Each time bar is 30 minutes.

Y axis Monday ~ Sunday.

7. REMOTE OPERATION

7.1 Web Browser

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

Note: The supported PC operation systems are Windows 8, Windows 7, Windows Vista & Windows XP.

Note: To use Mozilla Firefox or Google Chrome for remote access, please go to Apple's official website (http://www.apple.com) to download and install QuickTime first.

Note: The illustration below is just for your reference and may be different from what you actually see. Some functions and buttons are for selected models or certain user levels only.

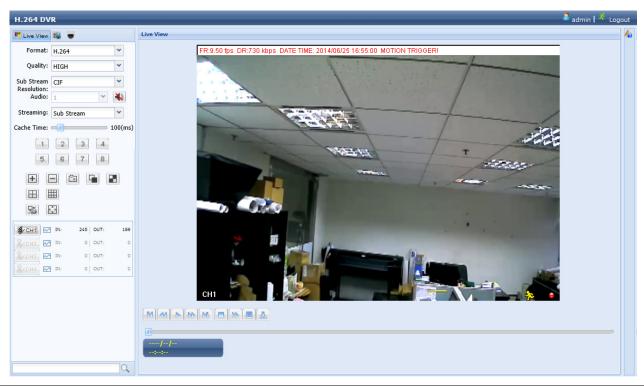
Step 1: Key in the IP address used by this device in the URL address box, such as 60.121.46.236, and press Enter. You will be prompted to enter the user name and password to access the device.

If the port number this device used is NOT 80, you need to key in the port number additionally. The format is *ipaddress:portnum*.

For example, for the 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, and click "OK". You will see a similar screen as the following when the login information is correct.

Note: The default user name and password for remote access are both "admin".



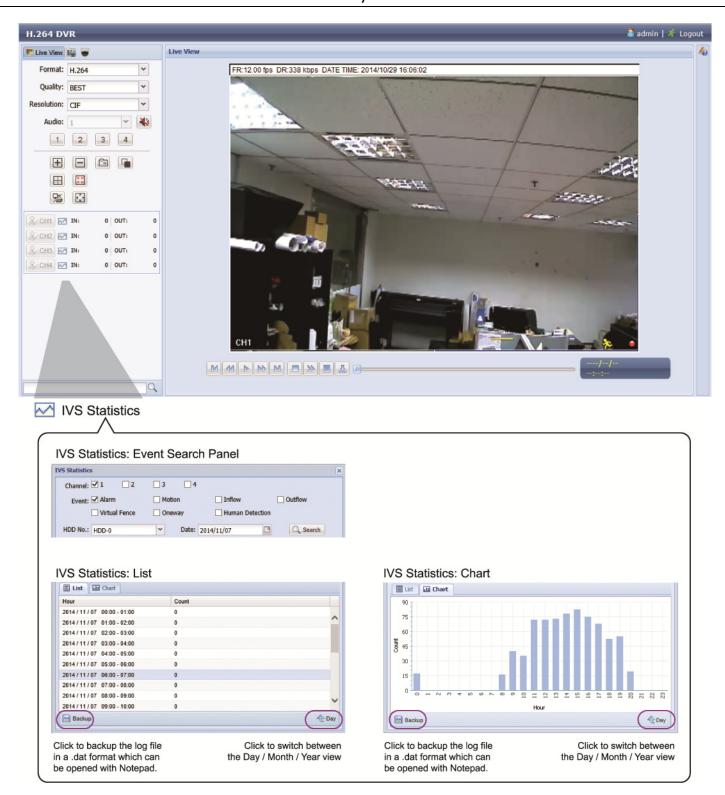
Icon	Description
<u> </u>	Click to go to the live view of the DVR.
	Click to go to the detailed DVR setting.
•	Click to enter the PTZ mode. This function is also used for our band's HD CCTV motorized camera series to adjust its focal length and focus remotely. For details, please refer to "7.1.2 PTZ Panel" at page 52.
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.

lcon	Description
Sub Stream Resolution	4 CIF / CIF Select the sub stream resolution (4CIF: 704*480 / CIF: 352*240) for live display.
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.
	means mute.
	To disable the mute status, click this icon again and select the audio channel you want.
Streaming	This function shows only when a single channel is selected. Choose the stream resolution for live display.
	When "Sub Steam" is selected, the resolution will be the one selected in "Sub Stream Resolution"; When "Recording" is selected, the resolution will be the one selected in "DVR" -> "DVR" -> "Record"> "Manual".
Cache Time	Select the cache time from 0 ~ 800ms.
	The higher the value, the more time it's going to be needed to wait for the image to show, but the better the image quality will be.
Channel Control	
Channel Selection	Click one of the number to switch to the channel you want to see in full screen.
(1 ~ 16 / 1 ~ 8 / 1 ~ 4)	
H / E	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 " → "General".
1	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.
25	Click to enable local desktop display remotely. An individual window will pop up to show the local view. All operations available at the local side could be done independently and remotely in this window.
	Click to switch the display to full screen.
Event Search & Playback	
41	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 32X.
DD	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 32X.
•	Click to play the current video clip.
-00-	Click to pause the video playback.
	Click to stop the video playback.
.DD	Click to play the video clip slowly, once to get 4X slower, twice get 8X slower.
	Click to enter the record list and search and footage you need.
	Click to enter the backup menu and copy the footage you need to your PC.
∆	Note: To play the backup file (.avc), go to "F" -> "General" -> "Configure", and download the player to install.
IVS Panel*	
<u></u> \$∕сн1	This button is enabled only when the IVS mode is enabled. Click to show the detection line.
~	Click to enter the IVS statistics page. For details, please refer to "7.1.1 IVS Statistics" at page 51.

^{*} For selected models only

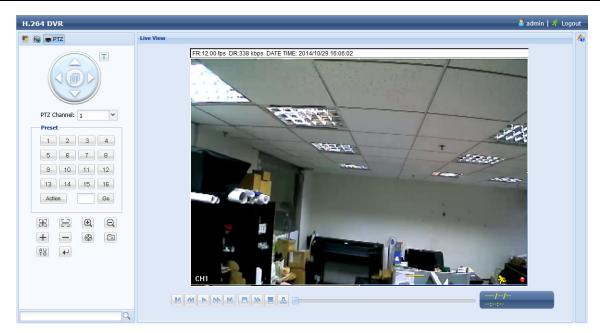
7.1.1 IVS Statistics

Note: This function is for selected models only.



7.1.2 PTZ Panel

Note: This function is for selected models only.



Function	Description
	Click to enter the camera main menu. For details about each camera menu, please refer to its own user manual.
▲ /▼/ ∢ /▶	Click the arrow keys (▲ / ▼ / ◀ / ▶) to more the camera lens up / down / left /right.
PTZ Channel	Select the channel which connects the PTZ camera or our brand's HD CCTV motorized camera you want to control.
Preset	Click on the preset point numbering to which you want your camera to move.
出, 吕	Click to adjust the focus of the image.
1 , 2	Click to zoom in / out the image.
+,-	Click to zoom in on the image to the largest / zoom out on the image to its original size.
*	Click to start auto tracking when your speed dome camera supports this function.
	Click to take a snapshot of the current view, and save it to the specified path in your PC set in "■" → "General".
AN	Click to activate the auto function. Before using it, you need to assign a specific function that will be enabled when "FU" is clicked. For details, please refer to the user manual of your PTZ camera or our brand's HD CCTV motorized camera.

7.2 Mobile Devices

Note: For more details about mobile surveillance via your mobile device, download the instructions of EagleEyes installation and configuration from www.surveillance-download.com/user/eagleeyes_quick.pdf.

EagleEyes is a mobile phone program used with our surveillance system for remote surveillance. It has several advantages:

- It's free (Except EagleEyes Plus for iPhone, EagleEyes Plus+ for Android, and EagleEyesHD Plus for iPad).
- It's compatible with several popular mobile platforms, such as iOS and Android.

7.2.1 Prerequisites

Before installing EagleEyes to your mobile device for remote surveillance, make sure you have checked the following:

- ✓ Your mobile platform is iOS or Android.
- ✓ Mobile Internet services are subscribed and available to use for your mobile device.

Note: You might be charged for Internet access via the wireless or 3G network. For the Internet access rate details, please check with your local network operator or service provider.

✓ You have noted down the IP address, port number, user name and password used to access your network camera from Internet.

7.2.2 Where to download

- For iOS users, please go to "App Store", and search "EagleEyes" to download.
- For Android users, please go to "Play Store", and search "EagleEyes" to download.

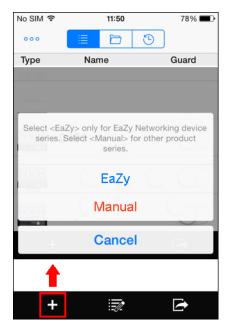
When the download is completed, *EagleEyes* will be installed automatically to the location where all applications are saved in your phone by default, or where you specify.

7.2.3 Manual Setup

Note: To know how to configure by EaZy Networking, please refer to "APPENDIX 8 EAZY NETWORKING" at page 71.

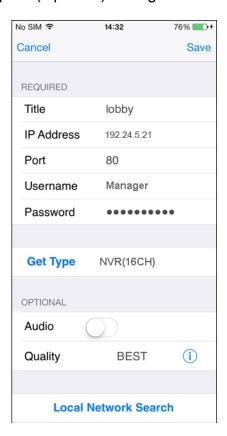
Step1: Open EagleEyes to go to the address book.

Step2: Then, click "+", and select "Manual" to go to the setting page.



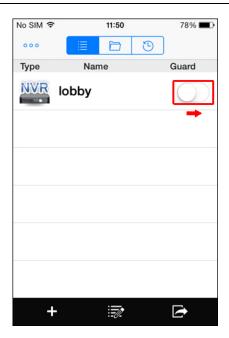
Step3: In the setting page, enter all the information needed to access this device in the "REQUIRED" column, and click "Get Type" to examine if the information you entered is correct. The device type will be detected properly.

Step4: (Optional) Configure the settings in the "OPTIONAL" column as needed.



Step5: Click "Save" to return to the address book. Enable "Guard" to receive Push Video / Push Status.

Note: Push Video / Push Status is for selected models only. Before enabling Guard, please make sure if your device supports this function.



Step6: Click on the item you just added in the address book to access and check the live view.

APPENDIX 1 SPECIFICATIONS

■ 4CH Models

			Model 1	Model 2	
▼ Video					
Video System			NTSC / PAL (auto detection)		
Video Compression Fo	Video Compression Format		H.264		
Video Input (Composite video signal 1 V	/p-p 75Ω	Σ BNC)	4 channels		
Video Output	BNC	;	YES		
	VGA	\	YES		
	HDN	ЛI	YES		
▼ Record & Backup					
Maximum Recording R	Rate	1080P	1920 x 1080 pixels with 60 IPS		
		720P	1280 x 720 pixe	els with 120 IPS	
		QHD	960 x 540 pixe	ls with 120 IPS	
		Frame	704×480 pixels with 120 IPS <ntsc></ntsc>	/ 704×576 pixels with 100 IPS <pal></pal>	
		Field	704x240 pixels with 120 IPS <ntsc></ntsc>	/ 704×288 pixels with 100 IPS <pal></pal>	
		CIF	·	/ 352×288 pixels with 100 IPS <pal></pal>	
Recording Mode			Manual / Timer / Mot	·	
Pre-alarm Recording			YE	ES	
Playback Channel			40	CH	
Quick Search			Time / Motion / Alarm search mode		
Backup Device			USB 2.0 flash drive / Network		
▼ Audio					
Audio Input			1 audio input		
Audio Output			1 audio output (Mono)		
▼ General					
Hard Disk Storage			Up to 2 SATA HDDs		
SATA Interface			YES		
eSATA Interface			YES (For external disk array connection)	NO	
Image Quality Setting			SUPER BEST / BEST / HIGH / NORMAL		
USB Mouse Control			YES		
Motion Detection Area			16 × 12 grids per channel		
Motion Detection Sens	sitivity		3 adjustable parameters for accurate detection		
Event Notification			Push Video / Push Status / FTP / E-Mail		
Picture Zoom			2X digital zoom		
PTZ Control			YES		
Alarm I/O			4 inputs (4 inputs for Push Video), 1 output	NO	
RS485			YES	NO	
IR Remote Control			YES (IR receiver built-in)		
Key Lock (Password Protection)		ion)	YES		
User Level			4 user levels for different access privilege		
Video Loss Detection			YES		
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		

	Model 1	Model 2				
▼ General						
Daylight Saving	YES					
Power Source (±10%)	DC12V / 3A					
Operating Temperature	10℃ ~40℃	(50°F~104°F)				
Dimensions (mm)***	375(W) × 61	(H) × 281(D)				
▼ Network						
Ethernet	10/100 Base-T. Supports remote	control and live view via Ethernet				
Network Protocol	TCP/IP, PPPOE, I	DHCP and DDNS				
▼ Remote Surveillance from PC						
Compatible Operating System	Windows	s & MAC				
Compatible Program	Web Browser: Internet Explorer, Mozilla Firefox	x, Google Chrome & Safari				
	Video Viewer: 16CH central management softw	ware for Windows and MAC operating systems				
	QuickTime: For both Windows and MAC operating systems					
Max. online users	10					
Web Transmitting Compression Format	H.264					
Network Live Audio	YE	ES				
Remote Independent Operation	YES					
Remote Event Download & Playback	YES					
▼ Mobile Surveillance						
Арр	Eagle	Eyes				
Compatible Devices	iOS & Android mobile devices					
Push Video	YES	NO				
Push Status	YE	ES				
▼ Others	▼ Others					
EaZy Networking	YE	ES				
IVA Support	YES (4 channels)	NO				
DCCS Support	YES					
Free DDNS service	YES					
Multiplex Operation	Live display / record / playback / backup / network operations					
System Recovery	System auto recovery after power failure					
Optional Peripherals	HDMI Matrix (HDM02)					

^{*} The specifications are subject to change without notice.
** 1 HDD capacity up to 3TB
*** Dimensional Tolerance: ±5mm

8CH Model

			Model 3	Model 4	Model 5	Model 6	
▼ Video							
Video System		NTSC / PAL (auto detection)					
Video Compression Format			H.2	264			
Video Input (Composite video signal 1 V	/p-p 75Ω	Ω BNC)	8 channels				
Video Output	BNC	,	YES				
	VGA	\	YES				
	HDN	11		YI	ES		
▼ Record & Backup							
Maximum Recording R	Rate	1080P	1920 x 1080 pixels with 120 IPS				
		720P	1280 x 720 pixels with 240 IPS				
		QHD	960 x 540 pixels with 240 IPS				
		Frame	704×480 pixel	s with 240 IPS <ntsc></ntsc>	/ 704×576 pixels with 2	00 IPS <pal></pal>	
		Field	704x240 pixels with 240 IPS <ntsc> / 704×288 pixels with 200 IPS <pal></pal></ntsc>				
		CIF	352×240 pixel	s with 240 IPS <ntsc></ntsc>	/ 352×288 pixels with 2	00 IPS <pal></pal>	
Recording Mode				Manual / Timer / Mot	tion / Alarm / Remote		
Pre-alarm Recording			YES				
Playback Channel			8CH				
Quick Search			Time / Motion / Alarm search mode				
Backup Device			USB 2.0 flash drive / Network				
▼ Audio							
Audio Input			4 audio inputs 1 audio input		o input		
Audio Output			2 audio outp	2 audio outputs (Mono) 1 audio output (Mono)		tput (Mono)	
▼ General							
Hard Disk Storage			Up to 3 SATA HDDs	Up to 2 SATA HDDs 1 SATA H		1 SATA HDD	
SATA Interface				YES			
eSATA Interface (For external disk arra	ay con	nection)	YES	NO			
Image Quality Setting			SUPER BEST / BEST / HIGH / NORMAL				
USB Mouse Control			YES				
Motion Detection Area			16 × 12 grids per channel				
Motion Detection Sens	sitivity		3 adjustable parameters for accurate detection				
Event Notification			Push Video / Push Status / FTP / E-Mail	Push Status / FTP / E-Mail			
Picture Zoom		2X digital zoom					
PTZ Control		YES					
Alarm I/O		8 inputs (8 inputs for Push Video), 1 output	8 inputs, 1 output	1 input,	1 output		
RS485		YES					
IR Remote Control		YES (IR receiver built-in) NO					
Key Lock (Password Protection)		YES					
User Level		4 user levels for different access privilege					
Video Loss Detection		YES					
Camera Title			Supports up to 12 letters				

	Model 3	Model 4	Model 5	Model 6		
▼ General						
Video Adjustable	Hue / Saturation / Contrast / Brightness					
Date Display Format		YY/MM/DD, DD/MM/YY & MM/DD/YY				
Daylight Saving		YI	ES			
Power Source (±10%)	DC19\	/ / 3.42A	DC12V / 3A	DC12V / 2A		
Operating Temperature		10℃ ~ 40℃	(50°F~104°F)	1		
Dimensions (mm)***	430(W) x 65	5(H) x 338(D)	375(W) × 77(H) × 273.8(D)	345(W) × 68.3(H) × 238.69(D)		
▼ Network						
Ethernet	Gigabi	t Base-T	10/100	Base-T		
Network Protocol		TCP/IP, PPPOE,	DHCP and DDNS			
▼ Remote Surveillance from PC						
Compatible Operating System		Windows & MAC				
Compatible Program	Web Browser: Internet Explorer, Mozilla Firefox, Google Chrome & Safari					
	Video Viewer: 16CH central management software for Windows and MAC operating systems					
	QuickTime: For both Windows and MAC operating systems					
Max. online users	10					
Web Transmitting Compression Format	H.264					
Network Live Audio	YES					
Remote Independent Operation	YES					
Remote Event Download & Playback	YES					
▼ Mobile Surveillance						
Арр	EagleEyes					
Compatible Devices	iOS & Android mobile devices					
Push Video	YES NO		NO			
Push Status	YES					
▼ Others						
EaZy Networking	YES					
IVA Support	YES NO					
DCCS Support	YES					
Free DDNS service		YI	ES			
Multiplex Operation	Live display / record / playback / backup / network operations					
System Recovery	stem Recovery System auto recovery after power failure					
Optional Peripherals		HDMI Matr	II Matrix (HDM02)			

^{*} The specifications are subject to change without notice.
** 1 HDD capacity up to 3TB
*** Dimensional Tolerance: ±5mm

■ 16CH Model

			Model 7	Model 8	
▼ Video					
Video System			NTSC / PAL (auto detection)		
Video Compression Fo	Video Compression Format		H.264		
Video Input (Composite video signal 1 V	p-p 75Ω	Ω BNC)	16 channels		
Video Output	BNC	;	YES		
	VGA	\	YE	ES	
	HDN	/I	YES		
▼ Record & Backup					
Maximum Recording R	Rate	1080P	1920 x 1080 pix	els with 480 IPS	
		720P	1280 x 720 pixe	els with 480 IPS	
		QHD	960 x 540 pixel	Is with 480 IPS	
		Frame	704×480 pixels with 480 IPS <ntsc></ntsc>	/ 704×576 pixels with 400 IPS <pal></pal>	
		Field	704x240 pixels with 480 IPS <ntsc></ntsc>	/ 704×288 pixels with 400 IPS <pal></pal>	
		CIF	352×240 pixels with 480 IPS <ntsc></ntsc>	/ 352×288 pixels with 400 IPS <pal></pal>	
Recording Mode			Manual / Timer / Mot	ion / Alarm / Remote	
Pre-alarm Recording			YE	ES	
Playback Channel			160	СН	
Quick Search			Time / Motion / Alarm search mode		
Backup Device			USB 2.0 flash drive / Network		
▼ Audio					
Audio Input			4 audio inputs	2 audio inputs	
Audio Output			2 audio outputs (Mono)	1 audio output (Mono)	
▼ General					
Hard Disk Storage			Up to 3 SATA HDDs		
SATA Interface			YES		
eSATA Interface			YES (For external disk array connection) NO		
Image Quality Setting			SUPER BEST / BEST / HIGH / NORMAL		
USB Mouse Control			YES		
Motion Detection Area			16 × 12 grids per channel		
Motion Detection Sens	itivity		3 adjustable parameters for accurate detection		
Event Notification			Push Video / Push Status / FTP / E-Mail	Push Status / FTP / E-Mail	
Picture Zoom			2X digita	al zoom	
PTZ Control			YES		
Alarm I/O			8 inputs (8 inputs for Push Video), 1 output 4 inputs, 1 output		
RS485			YES		
IR Remote Control			YES (IR receiver built-in)		
Key Lock (Password Protection)		ion)	YES		
User Level			4 user levels for different access privilege		
Video Loss Detection			YES		
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		

	Model 5	Model 6	
▼ General			
Daylight Saving	YES		
Power Source (±10%)	DC 19V / 3.42A		
Operating Temperature	10℃ ~ 40℃ ((50°F~104°F)	
Dimensions (mm)***	432(W) × 90	(H) × 326(D)	
▼ Network			
Ethernet	Gigabit Base-T. Supports remote	control and live view via Ethernet	
Network Protocol	TCP/IP, PPPOE, I	DHCP and DDNS	
▼ Remote Surveillance from PC			
Compatible Operating System	Windows	s & MAC	
Compatible Program	Web Browser: Internet Explorer, Mozilla Firefox	x, Google Chrome & Safari	
	Video Viewer: 16CH central management softw	ware for Windows and MAC operating systems	
	QuickTime: For both Windows and MAC operating systems		
Max. online users	10		
Web Transmitting Compression Format	H.264		
Network Live Audio	YES		
Remote Independent Operation	YES		
Remote Event Download & Playback	YES		
▼ Mobile Surveillance			
Арр	EagleEyes		
Compatible Devices	iOS & Android	mobile devices	
Push Video	YES	NO	
Push Status	YE	ES	
▼ Others			
EaZy Networking	YE	ES	
IVA Support	YES	NO	
DCCS Support	YES		
Free DDNS service	YES		
Multiplex Operation	Live display / record / playback / backup / network operations		
System Recovery	System auto recovery after power failure		
Optional Peripherals	HDMI Matrix (HDM02)		

^{*} The specifications are subject to change without notice.
** 1 HDD capacity up to 3TB
*** Dimensional Tolerance: ±5mm

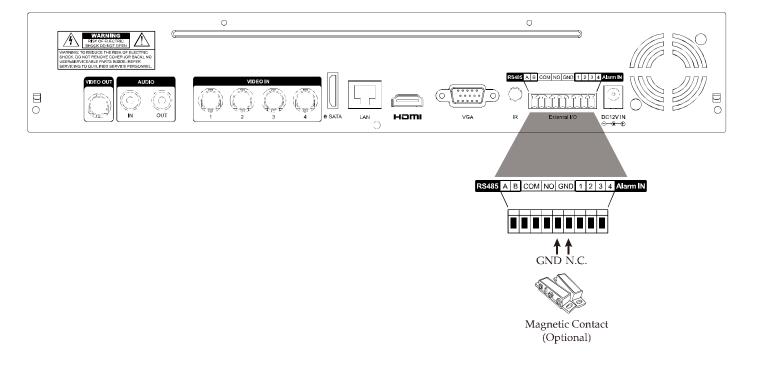
APPENDIX 2 PUSH VIDEO CONFIGURATION

Note: This function is for selected models only.

A2.1 Alarm Sensor Connection

Connect the alarm sensor, such as magnetic contacts, to the alarm-in port on the DVR rear panel. Alarm-in 1 corresponds to video channel 1, alarm-in 2 corresponds to video channel 2, and so on.

Note: The voltage restriction for alarm-in device connection is under DC24V 1A.



A2.2 Configuration

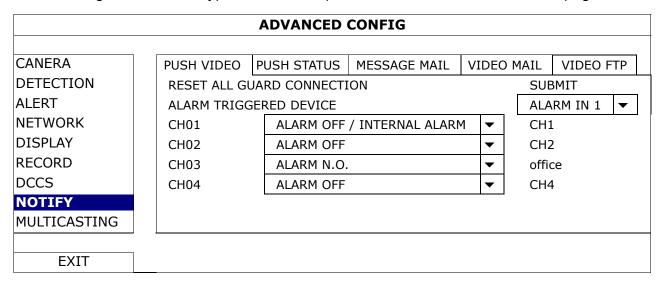
Before configuring Push Video, make sure:

- 1. The DVR system is set up as described in "2. CONNECTION AND SETUP" at page 4.
- 2. The DVR is connected to Internet.
- 3. You've installed the app, EagleEyes, on your iOS or Android mobile devices.

 For details, please refer to "APPENDIX 3 MOBILE SURVEILLANCE VIA EAGLEEYES" at page 錯誤! 尚未定義書籤。.

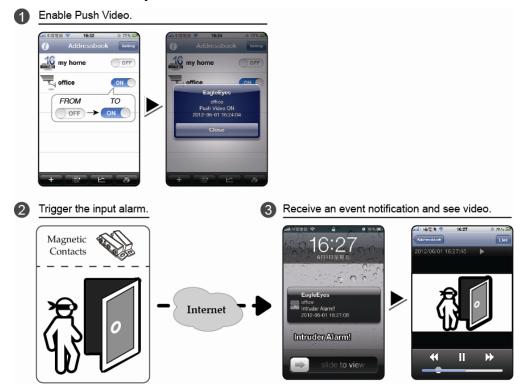
Step1: Right click to show the main menu.

Go to (ADVANCED CONFIG.) → "NOTIFY". In PUSH VIDEO, select the alarm device you want, and configure the alarm type. For details, please refer to "PUSH VIDEO" at page 43.



Step2: Open EagleEyes, and add this DVR to the EagleEyes address book.

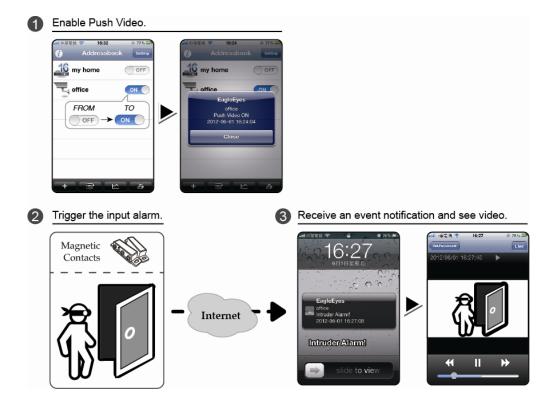
Step3: Enable Push Video as described below, and try to trigger your sensor to see if you can receive Push Video successfully.



APPENDIX 3 SET PUSH VIDEO

This DVR series supports instant event notifications to your iOS / Android mobile device with our self-developed program, "EagleEyes", installed. When a man is detected by an external alarm device, the DVR will immediately receive alarm signals and send to your iOS / Android mobile device.

Note: iOS and Android are the trademarks or registered trademarks of their respective holders.



A3.1 Prerequisite

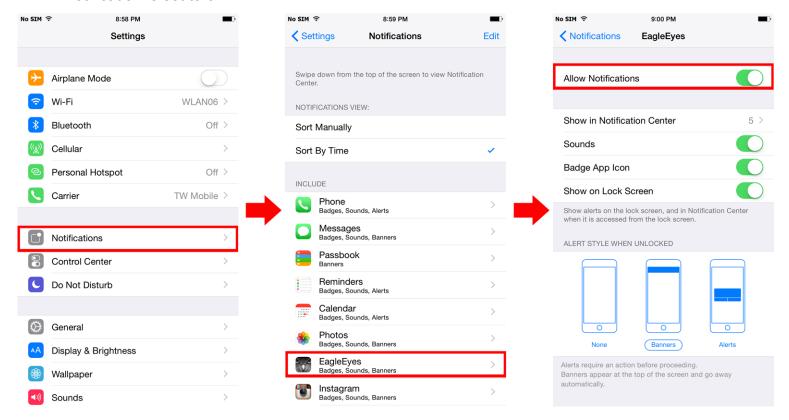
Before setting this function, make sure you have checked the following:

- ✓ You have an iOS or Android mobile device with our self-developed program, "EagleEyes", installed. For details, please refer to the previous chapter.
- ✓ An external alarm device is connected to the external I/O ports on the rear panel. Make sure a camera is also connected to record for alarm occurrences. To know which video channel corresponds to which alarm pin, please refer to "APPENDIX 2 PUSH VIDEO CONFIGURATION" at page 61.
- ✓ The event record function of your DVR is not disabled.
- ✓ The motion detection function of your DVR is not disabled.
- ✓ Your DVR is connected to Internet. For details, please refer to
 www.surveillance-download.com/user/network setup/network setup recorder.pdf.

A3.2 Enable Push Video

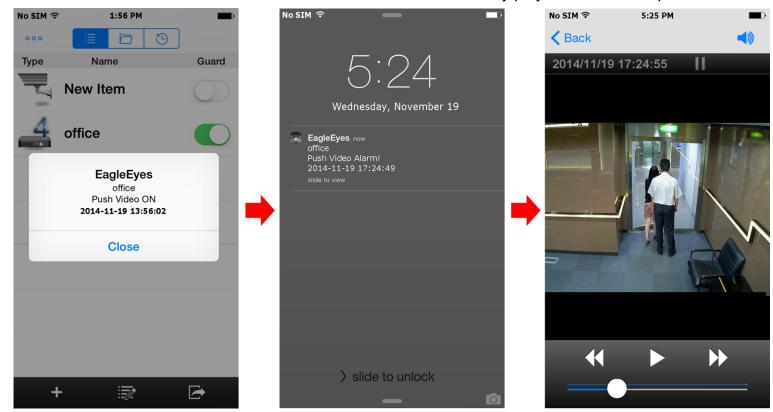
A3.2.1 From iOS Mobile Device (iPhone / iPad)

Step1: In the iPhone / iPad main menu, select "Settings" → "Notifications". Select "EagleEyes", and make sure the notification is set to on.



Step2: Open "EagleEyes", and switch "Guard" to "ON". You'll receive the message indicating that Push Video is on.

Step3: Return to the main page or standby page of iPhone / iPad. You'll receive event notifications when there's an alarm event. Follow the on-screen instruction to immediately play the recorded clip.



A3.2.2 From Android Mobile Device

In the address book, switch "Guard" from "OFF" to "ON".





APPENDIX 4 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, you will see 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	4GB
	JFV30	8GB
Kingston	DataTraveler	1GB
PQI	U172P	4GB
Apacer	AH320	2GB
	AH320A	8GB
	AH220	1GB
	AH320	4GB
A-data	RB-18	1GB
Sandisk	Cruzer Micro	2GB
	Cruzer Micro	4GB
	Cruzer4-pk	2GB
Netac	U208	1GB
MSI	F200	4GB
SONY	Micro Vault Tiny 2GB	2GB
	Micro Vault Tiny 4GB	4GB
	Micro Vault Tiny	1GB

APPENDIX 5 COMPATIBLE SATA HDD LIST

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

Note: It's necessary to install a hard disk first before firmware upgrade to ensure the upgrade process works properly.

Note: To use a green hard disk, use ONLY the hard disk designed especially for surveillance to ensure the device works properly.

Seagate*							
MODEL	CAPACITY	MODEL	CAPACITY				
Pipeline HD ST3500312CS	500GB	ST2000DM001	2TB				
Pipeline HD ST500VT000	500GB	ST2000VX004	2TB				
Pipeline HD ST1000VM002	1TB	ST3000VM002	3ТВ				
Pipeline HD ST1000VM002	1TB	ST3000VX004	3ТВ				
ST31000525SV	1TB	ST3000VX000	3ТВ				
ST31000340AS	1TB	ST4000VM000	4TB				
ST1000VX002	1TB	ST4000VX002	4TB				
ST2000VX000	2TB						
	W	/D					
MODEL	CAPACITY	MODEL	CAPACITY				
WD10PURX	1TB	WD30PURX	3ТВ				
WD20PURX	2TB	WD30EURX	3ТВ				
WD20EURS	2TB	WD30EFRX	3ТВ				
WD20EURX	2TB	WD40PURX	4TB				
WD20EFRX	2TB	WD40EURX	4TB				
WD2002FAEX	2TB	WD60EURX	6TB				
	TOSHIBA						
MODEL	CAPACITY	MODEL	CAPACITY				
DT01ACA050	500GB	DT01ABA200V	2TB				
DT01ABA050V	500GB	DT01ACA200	2TB				
DT01ABA100V	1TB	MD03ACA300V	3ТВ				
DT01ACA100	1TB	DT01ACA300	3ТВ				
MD03ACA200V	2TB	MD03ACA400V	4TB				

^{*} To know more details about SRS and its related support and service, please contact your local Seagate representative directly.

APPENDIX 6 MAIN MENU STRUCTURE

	QUICK START	GENERAL	CHANNEL TITLE
			EVENT STATUS
			DATE DISPLAY
			DCCS DISPLAY
			MOUSE SENSITIVITY
			AUDIO GAIN
			RECORD CONFIG
		TIME SETUP	DATE
			TIME
			NTP SERVER
			FORMAT
			SYNC PERIOD
			GMT
		DAYLIGHT	
		EaZy	
	OVOTEM		
i	SYSTEM	ACCOUNT	
		TOOLS	LANGUAGE
			UPGRADE
			NETWORK UPGRADE
			BACKUP CONFIG
			RESTORE CONFIG
		OVOTEMINEO	
		SYSTEM INFO	BAUD RATE
			HOST ID
			R.E.T.R.
			AUTO KEY LOCK(S)
			CLEAR HDD
			RESET DEFAULT
			REMOTE CONTROL ID
			DEVICE TITLE
			SERIAL TYPE
			VIDEO FORMAT
			VERSION
		BACKUP DATA	
		BACKUP LOG	
		BACKUP LOG REGULAR REPORT	
	EVENT INFORMATION	REGULAR REPORT	
	EVENT INFORMATION	REGULAR REPORT QUICK SEARCH	
R	EVENT INFORMATION	REGULAR REPORT QUICK SEARCH EVENT SEARCH	
K	EVENT INFORMATION	REGULAR REPORT QUICK SEARCH	
TE)	EVENT INFORMATION	REGULAR REPORT QUICK SEARCH EVENT SEARCH	
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	BRIGHTNESS
	EVENT INFORMATION ADVANCED CONFIG	REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO	BRIGHTNESS
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	CONTRAST
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	CONTRAST SATURATION
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	CONTRAST SATURATION HUE
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	CONTRAST SATURATION HUE COV.
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	CONTRAST SATURATION HUE
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	CONTRAST SATURATION HUE COV.
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION ALARM AREA
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION ALARM AREA PRIVACY MASK
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA DETECTION	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION ALARM AREA PRIVACY MASK INTERNAL ALARM*
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION ALARM AREA PRIVACY MASK INTERNAL ALARM* EXT. ALERT
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA DETECTION	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION ALARM AREA PRIVACY MASK INTERNAL ALARM* EXT. ALERT INT. BUZZER
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA DETECTION	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION ALARM AREA PRIVACY MASK INTERNAL ALARM* EXT. ALERT INT. BUZZER KEY BUZZER
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA DETECTION	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION ALARM AREA PRIVACY MASK INTERNAL ALARM* EXT. ALERT INT. BUZZER
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA DETECTION	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION ALARM AREA PRIVACY MASK INTERNAL ALARM* EXT. ALERT INT. BUZZER KEY BUZZER
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA DETECTION	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION ALARM AREA PRIVACY MASK INTERNAL ALARM* EXT. ALERT INT. BUZZER KEY BUZZER MOTION BUZZER
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA DETECTION	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION ALARM AREA PRIVACY MASK INTERNAL ALARM* EXT. ALERT INT. BUZZER KEY BUZZER VLOSS BUZZER MOTION BUZZER ALARM BUZZER
		REGULAR REPORT QUICK SEARCH EVENT SEARCH HDD INFO EVENT LOG CAMERA DETECTION	CONTRAST SATURATION HUE COV. REC TIME STAMP DISPLAY CHANNEL TITLE REC AUDIO LS SS TS MOTION ALARM AREA PRIVACY MASK INTERNAL ALARM* EXT. ALERT INT. BUZZER KEY BUZZER MOTION BUZZER

			APPENDIX 6 MAIN MENU STRUCTURI
		ALERT	HDD NEARLY FULL (GB)
			HDD OVERHEAT ALERT (°C)
		NETWORK	WAN
			E-MAIL
			DDNS
			PROTOCOL
			EaZy
		DISPLAY	FULL SCREEN DURATION
			QUAD SCREEN DURATION*
			DISPLAY COVERT
			HDD DISPLAY MODE
			DISPLAY OUTPUT
			COVERT UNLOCK IN SUPERVISOR MODE
			3D DENOISE
			2D DENOISE
		RECORD	MANUAL RECORD
			EVENT RECORD
			TIMER RECORD
			PRE-ALARM RECORD
			OVERWRITE
			KEEP DATA LIMIT (DAYS)
			RECORD CONFIG
			SUBSTREAM RESOLUTION
		DEVICES*	
		DCCS	
		IVS*	
		NOTIFY	PUSH VIDEO*
			PUSH STATUS
			MESSAGE MAIL
			VIDEO MAIL
			VIDEO FTP
-0	SCHEDULE SETTING	RECORD	
		DETECTION	
		ALARM IN	
		ALARM OUT	
		PUSH VIDEO	
		BUZZER	
		DOZZEN	

^{*}For selected models only

APPENDIX 7 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 with the side of "CR2032" facing up, and install it to the mainboard.

Step6: Replace the DVR cover and connect to power.

Step7: Set DVR date & time, and resume recording. For details, please refer to "6.1.2 TIME SETUP" at page 23, and "6.4.6 RECORD" at page 37.

APPENDIX 8 EAZY NETWORKING

EaZy Networking is a cloud service to connect your devices to the Internet automatically through our free mobile app, EagleEyes, in a few steps without going through the complicated network setup including port forwarding.

Note: EaZy Networking is not a free service. We will initially provide 2GB data allowance (approx. 2185 minutes) for free. When 2GB is up, the network transmission will be down to 1 FPS. To restore the fluency of live view, users need to subscribe a data plan from EagleEyes, or configure the network settings by themselves.

To connect this recorder to the Internet without using EaZy Networking, get the network setup manual from www.surveillance-download.com/user/t204.swf.

Note: Data allowance is consumed only when the device access is made via Internet, 3G mobile network, and the network different from the device is used.

EaZy Networking could be configured via EagleEyes on an iOS / android device, or via Internet Explorer.

Before using this function, make sure:

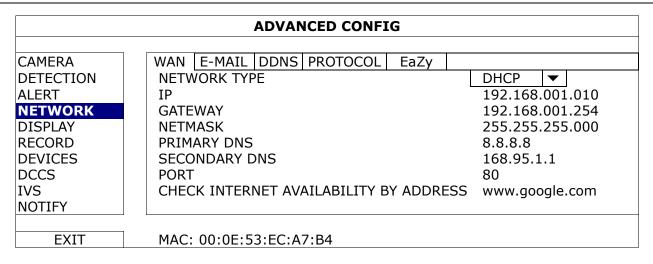
- This DVR is connected to a switch or router, and the switch or router is ready for Internet connection.
- The network icon on the top right corner is 🛂, not 🖳
- You have an iOS / Android mobile device with EagleEyes installed, or a PC / laptop with Internet Explorer installed.

A8.1 Via EagleEyes on iOS / Android Device

A8.1.1 Setup

Step1: Right-click to show the main menu, and select "NETWORK" → "WAN". Set "NETWORK TYPE" to "DHCP", and make sure the network icon on the top right corner is changed from to ...

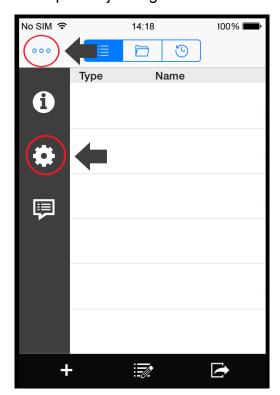
Note: If the setting is made via the Setting Wizard, the network type will be automatically switched to DHCP.

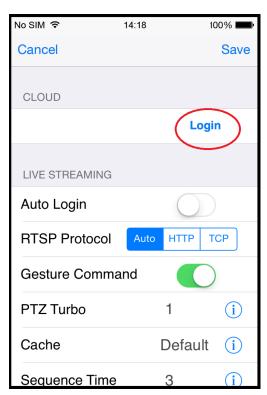


Step2: In the same menu, select "EaZy". Enable EaZy Networking, and leave this page open. You'll need to scan the QR code later.



- Step3: Open EagleEyes on your mobile device, and select "…" on the top left corner in the address book. Then, click "…".
- Step4: Click "Login" in the section of "Cloud" and register an account for "Cloud Service". If you've got an account, please just log in.

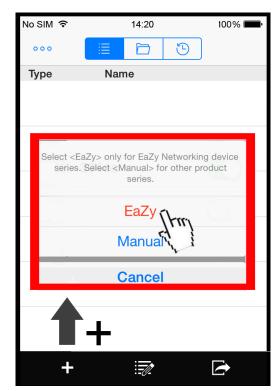


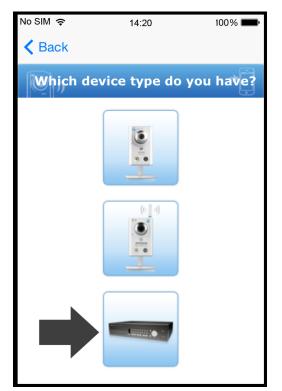


Step5: Go back to the address book and click "+" to add a new device.

There are two methods to add new devices, "EaZy" and "Manual".

Select "EaZy", and choose the DVR icon to continue.





Step6: Click "" in the section of "MAC address" to open the QR code scan page, and scan the QR code on the DVR screen mentioned in Step2. The MAC address will be filled automatically.

Fill in the Captcha code manually, and click "Apply".

Step7: Follow the on-screen instruction to finish the rest of the settings, and see if this device is added successfully to the address book as a cloud device.

At the same time, you'll be prompted to confirm if you want to remove the default user name and password.

- When the default user name and password are removed, you can **ONLY** use the user name and password of the cloud service to access this recorder locally and remotely. If you forget the user name and password of the cloud service, you could only reset the recorder and do all configurations again.
- When the default user name and password are kept, other people might be able to access this recorder if they know the default user name and password of this recorder.

Confirm if you want to keep the default account to continue, and return to the address book. You'll see the newly-added device in the address with a cloud icon on it.



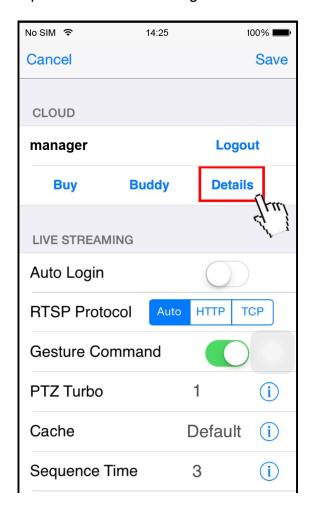


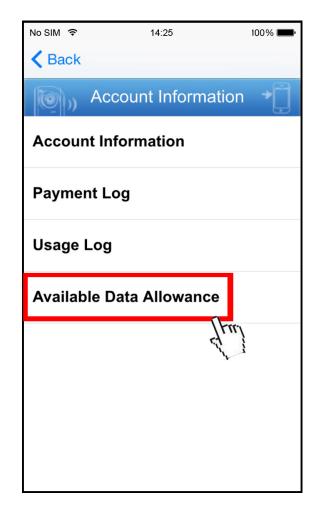
Step8: Click the newly-added device and see if you could access successfully.

A8.1.2 Checking Remaining Data Allowance

Step1: Log into the cloud service.

Step2: Select "Details" to go to account information, and select "Available Data Allowance".



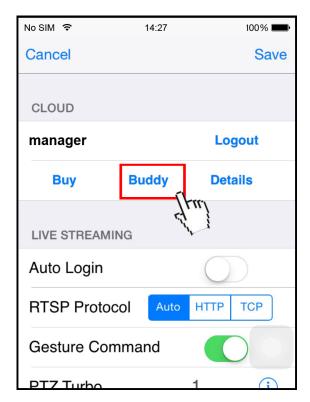


A8.1.3 Sharing Cloud Device Access to Other Account(s)

Note: One cloud device could be shared up to 30 cloud accounts, but the access to the device might be failed because it is still restricted to the maximum online user setup of the device.

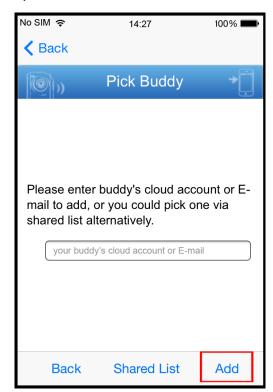
Step1: Log into the cloud service.

Step2: Select "Buddy" to go to the buddy sharing page. Then, choose the cloud device you want to share, and switch from "OFF" to "Share".





Step3: Enter the cloud account or the E-mail registered by the account, and select "Add".

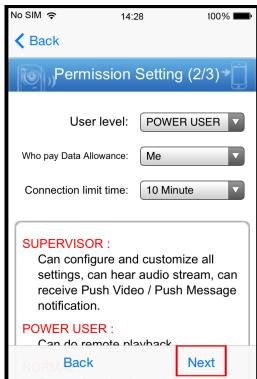


- Step4: Check again the account to which you want to share your cloud device, and select "Next" to confirm and continue.
- Step5: Specify the access permission of the specified account, which account's data allowance should be consumed after access successfully, and how long the account is allowed to stay after access successfully.
 - > Who should pay data allowance:

Who should pay data allowance	The order to consume data allowance
Me	The free data allowance provided by the device -> The additional data allowance shared to other account(s) by the owner -> The additional data allowance of the device's owner -> The data allowance shared to other account(s) by the buddy
Him / Her	The additional data allowance of the buddy -> The data allowance shared to other account(s) by the buddy

Note: When there's no data allowance to use, the network transmission will be down to 1 FPS. To restore the fluency of live view, users need to subscribe a data plan from EagleEyes, or configure the network settings by themselves.





Step6: Check again the configurations you made for the account to which you want to share your cloud device, and select "Share!" to confirm.



Step7: (Optional) Configure the data allowance shared to other accounts to use.

Step8: Return to the address book of EagleEyes. You'll see the device being shared is marked with an icon of two people.

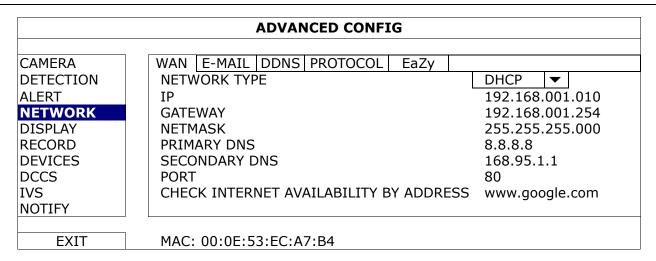
A8.2 Via Internet Explorer on PC / Laptop

Note: EaZy Networking setup via a web browser is only available on Internet Explorer.

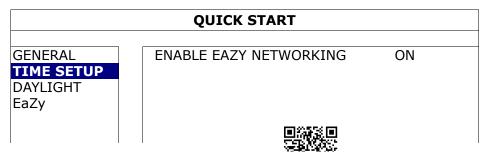
A8.2.1 Setup

Step1: Right-click to show the main menu, and select "NETWORK" → "WAN". Set "NETWORK TYPE" to "DHCP", and make sure the network icon on the top right corner is changed from 🔁 to 🦃.

Note: If the setting is made via the Setting Wizard, the network type will be automatically switched to DHCP.



Step2: In the same menu, select "EaZy". Enable EaZy Networking, and write down the MAC address starting with "000E53" under the QR code. You'll need it later.

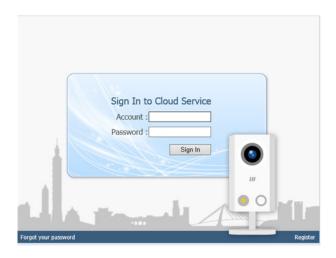




Step3: Open Internet Explorer on a PC / laptop, and enter https://ez.eagleeyes.tw.

In the login page, register an account for "Cloud Service". If you've got an account, please just log in.

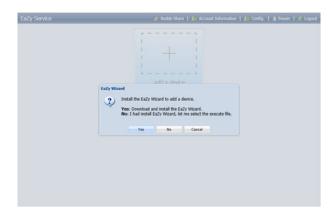
Note: You PC must be connected to Internet.



Step4: For the first time to access this website, you'll be prompted to install a plugin: *EaZy Control*. Please install this plugin to ensure the service works properly.

Note: If you're not prompted to install the plugin, please lower the security level of Internet Explorer, and try to log into he cloud service again.

Step5: Click "+" to add a new device and you'll be prompted to install a program, *EaZy Wizard*. Follow the instructions to install this program.



Step6: Enable EaZy Wizard, and click "Start" to go to the login page. Log into the cloud service.





Step7: Select the recorder picture, or choose "DVR / NVR" on the bottom right corner. Then, enter the MAC address you wrote down in Step2, and the security code.

Click "Apply" to continue.





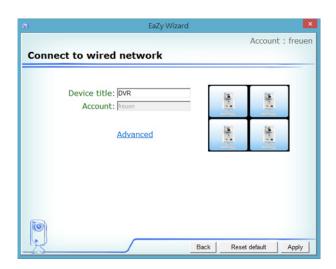
Step8: When your device is found, you'll be directed to the next page to change the device title if you want.

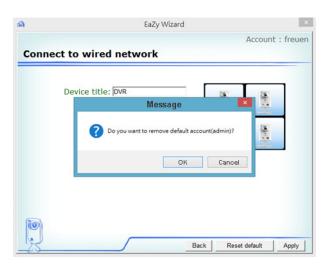
Note: The device name changed here will be fixed and can't be changed later.

Click "Apply" to continue. You'll be prompted to confirm if you want to remove the default user name and password.

- When the default user name and password are removed, you can **ONLY** use the user name and password of the cloud service to access this recorder locally and remotely. If you forget the user name and password of the cloud service, you could only reset the recorder and do all configurations again.
- When the default user name and password are kept, other people might be able to access this recorder if they know the default user name and password of this recorder.

Confirm if you want to keep the default account, and click "Apply" to continue and return to the main page.



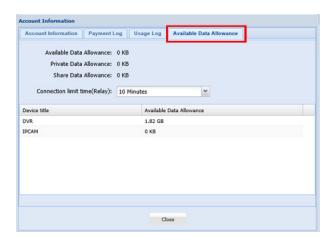


Step9: You'll see the newly-added device with a cloud icon on the main page. Click the device and see if you can access the device successfully.



A8.2.2 Checking Remaining Data Allowance

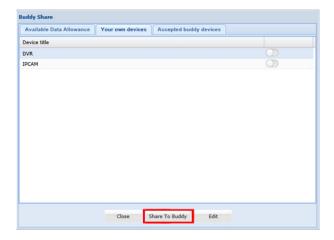
- Step1: Log into the cloud service.
- Step2: Select "Account Information" on the top right corner to go to account information, and select "Available Data Allowance".



A8.2.3 Sharing Cloud Device Access to Other Account(s)

Note: One cloud device could be shared up to 30 cloud accounts, but the access to the device might be failed because it is still restricted to the maximum online user setup of the device.

- Step1: Log into the cloud service.
- Step2: Select "Buddy Share" to go to the buddy sharing page. Then, choose the tag "Your own devices", and select "Share to Buddy".



Step3: Choose the cloud device you want to share, and click "Next" to enter the cloud account or the E-mail registered by the account you want to share with. Then, select "Add".





Step4: Check again the account to which you want to share your cloud device.

To add more accounts, select "Add"; to remove the existing account, select "Delete"; to continue buddy setup, select "Next".

Step5: Specify the access permission of the specified account, which account's data allowance should be consumed after access successfully, and how long the account is allowed to stay after access successfully.





Who should pay data allowance:

Who should pay data allowance	The order to consume data allowance
Me	The free data allowance provided by the device -> The additional data allowance shared to other account(s) by the owner -> The additional data allowance of the device's owner -> The data allowance shared to other account(s) by the buddy
Him / Her	The additional data allowance of the buddy -> The data allowance shared to other account(s) by the buddy

Note: When there's no data allowance to use, the network transmission will be down to 1 FPS. To restore the fluency of live view, users need to subscribe a data plan from EagleEyes, or configure the network settings by themselves.

- Step6: Check again the configurations you made for the account to which you want to share your cloud device, and select "Share!" to continue.
- Step7: (Optional) Configure the data allowance shared to other accounts to use.
- Step8: Return to the main page. You'll see the device being shared is marked with an icon of two people.





A8.3 Cloud Icons



Device connection ok



Device being shared to you and connection ok



Device shared to other account and connection ok



Device connection failed



Device being shared to you and connection failed



Device shared to other account and connection failed