



HD NETWORK VIDEO RECORDER SERIES



User Manual
DN-16114 • DN-16118

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This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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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.

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

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

<http://download.dvrtw.com.tw/GPL/NVR/T-Series/linux.tar.gz>

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1. HARDWARE OVERVIEW

1.1 Front Panel

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

1) LED indicators

Alarm or 	An alarm event occurs.
Internet or 	The device is connected to Internet.
e-SATA	An external disk array is connected.
 *	This device is power-supplied.
 *	This device is connected to LAN.
Record*	Recording is on.
HDD*	Hard disks are installed in the device and connected well.

* For Selected models only

2) USB port ()

Insert a compatible USB flash drive for video backup.

Note: For the compatible list of USB flash drives, please refer to "APPENDIX 1 COMPATIBLE USB FLASH DRIVE LIST" at page 35.

3) Mouse port ()

Insert a mouse for function operation.

1.2 Rear Panel

1) eSATA

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

Note: Please purchase a disk array supporting Linux system to ensure your device works properly. For the compatible list, please refer to "APPENDIX 7 DISK ARRAY COMPATIBLE LIST" at page 41.

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.

2) HDMI

This port is used to connect the monitor, which supports HDMI interface.

Note: Direct connection to the monitor, which supports VGA or composite interface, is not supported. Please prepare a converter in advance.

3) WAN (or INTERNET)

This port is used to connect your device to Internet.

4) DC IN

Connect the device to power with the regulated adapter.

5) (Power switch)

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

6) AUDIO OUT (for selected models only)

Connect to a speaker.

7) Video Input (w/PoN) (for selected models only)

They are used to connect IP cameras locally. This device supports PoN (power-over-network), which could provide power to all connected cameras. No power adapters are needed for cameras.

8) Video Input (w/PoE) (for DN-16080, DN-16081, DN-16082, DN-16083, DN-16084 & DN-16085)

They are used to connect IP cameras locally. This device supports PoE (power-over-ethernet), which could provide power to all connected cameras. No power adapters are needed for cameras.

9) EXTERNAL I/O (for selected models only)

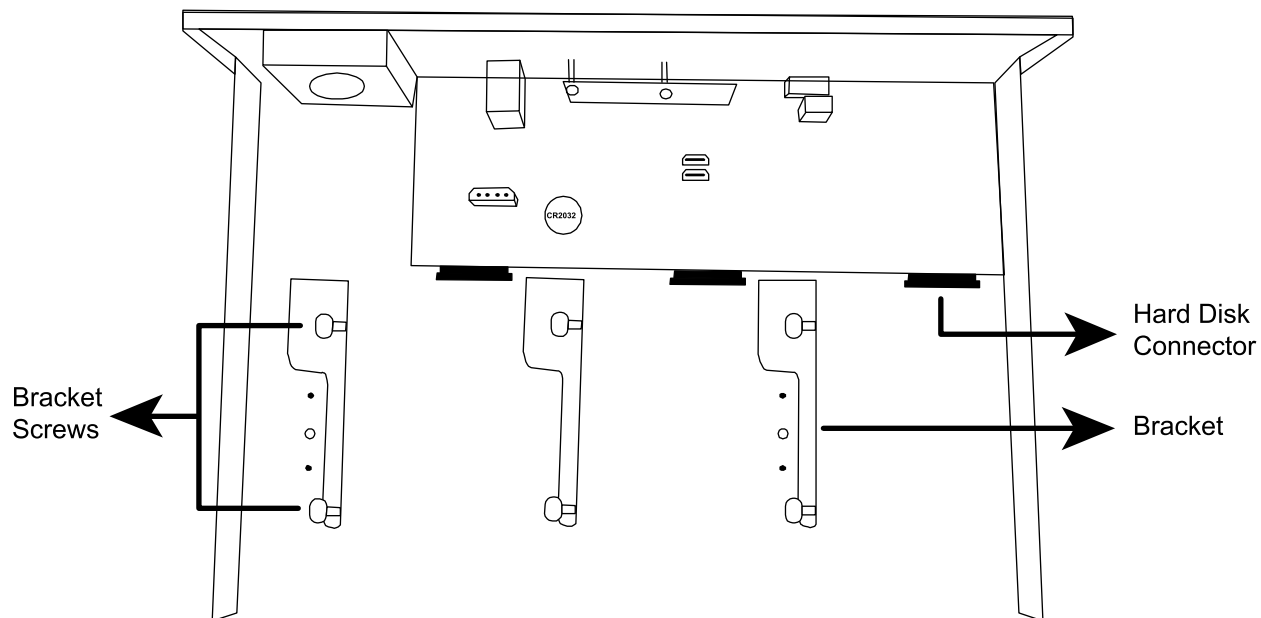
Insert the supplied external I/O block, and users are able to connect external devices.

2. CONNECTION

2.1 Hard Disk Installation

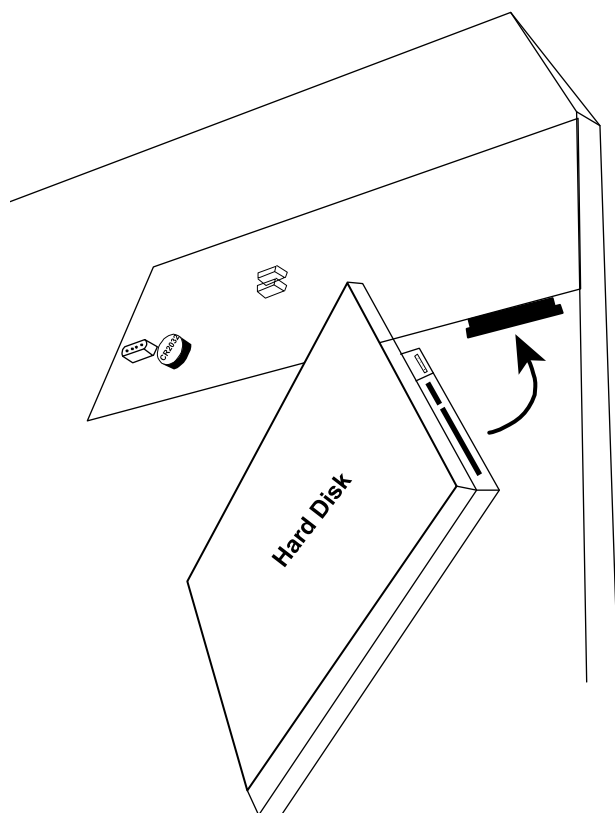
A hard disk is necessary for the recorder to save video footage, and firmware upgrade might be failed if there's no hard disk installed in this recorder.

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

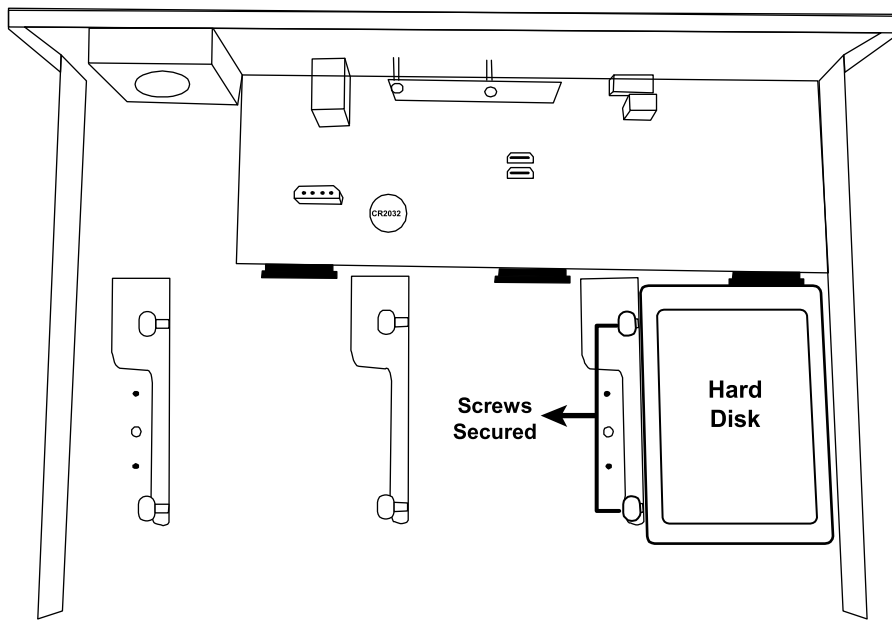


Step2: Get a compatible hard disk. With the PCB side facing down, insert the hard disk to one of the hard disk connector.

Note: It's not recommended to use a green hard disk with this device to make sure it works properly.



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

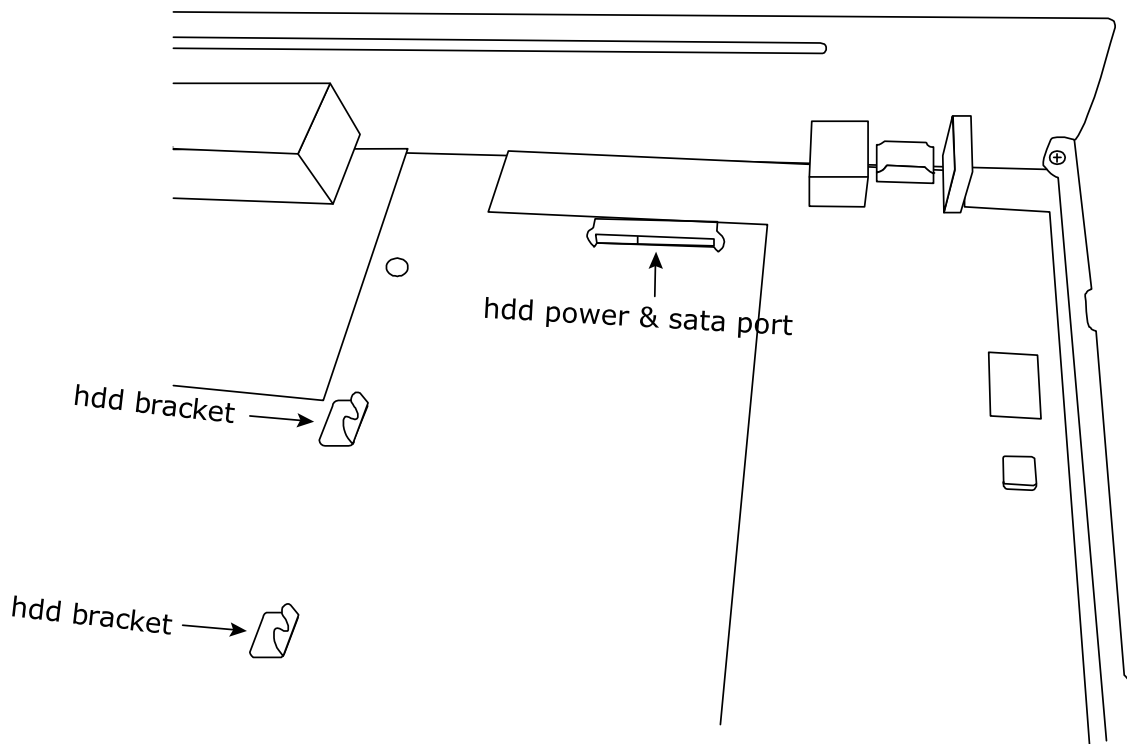


Step4: Replace the top cover and fasten the screws you loosened in Step1.

■ Type 2

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

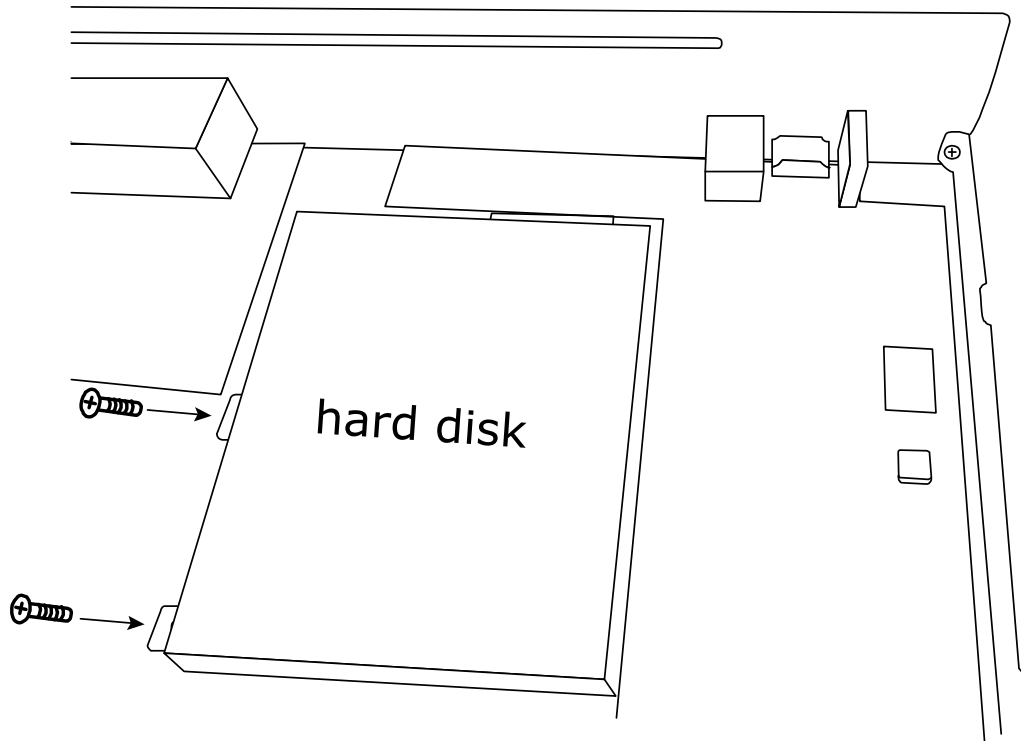
Step1: Remove the top cover, and find the hard disk connector and bracket in the device.



Step2: Get a compatible hard disk. With the PCB side facing down, align the hard disk with the hard disk power & sata port, and insert the hard disk.

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

Note: You may find screws in the sales package.



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

2.2 Camera IP Configurations by LAN

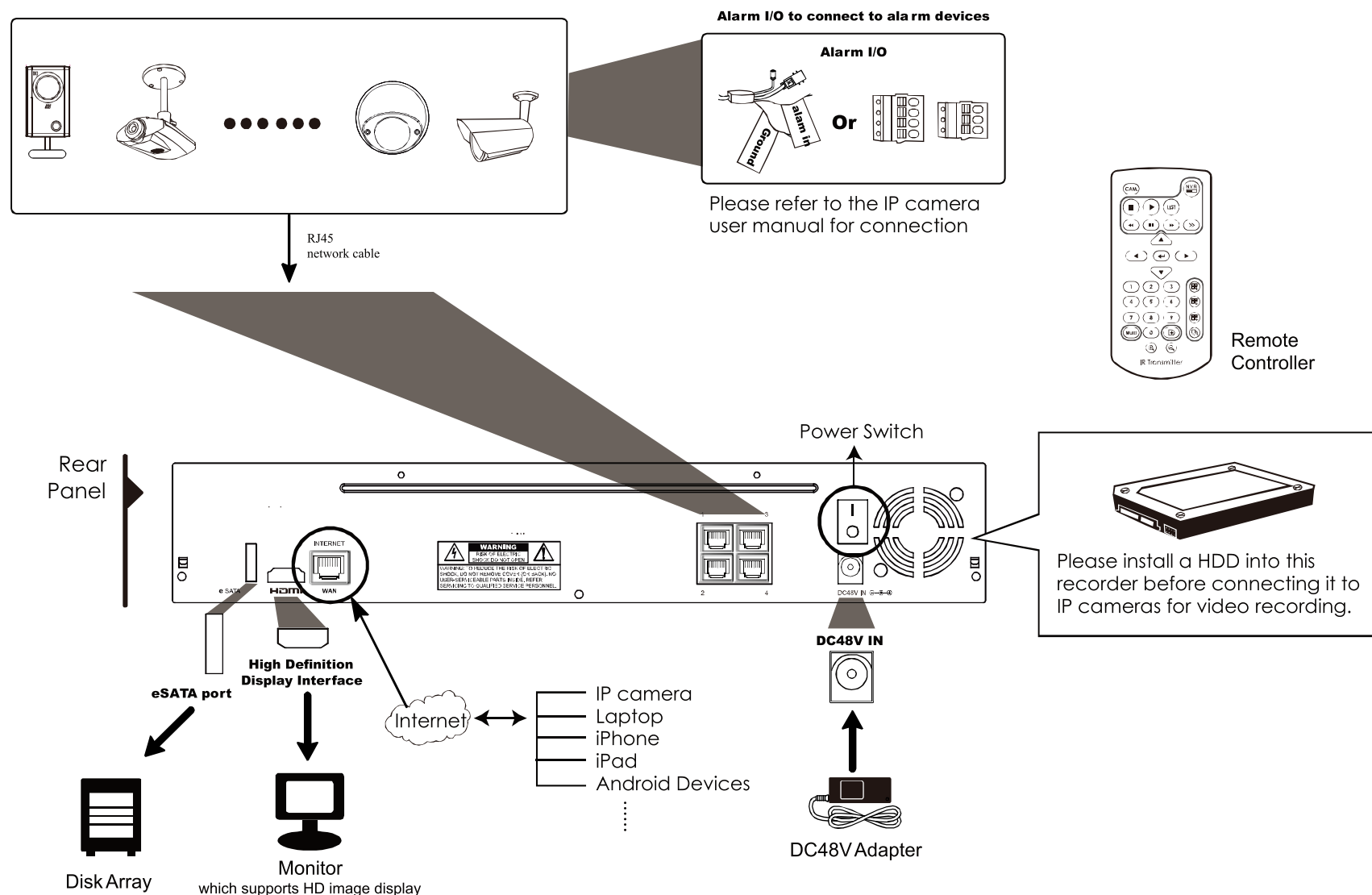
2.2.1 AUTO Mode

Auto mode is to simplify the complicated network settings within three minutes. The connection mode of the LAN port is "AUTO" by default. This mode is suitable when the LAN port of the device is connected to a hub.

Note: SETTING Path:  (ADVANCED CONFIG) → NETWORK → LAN → MODE.

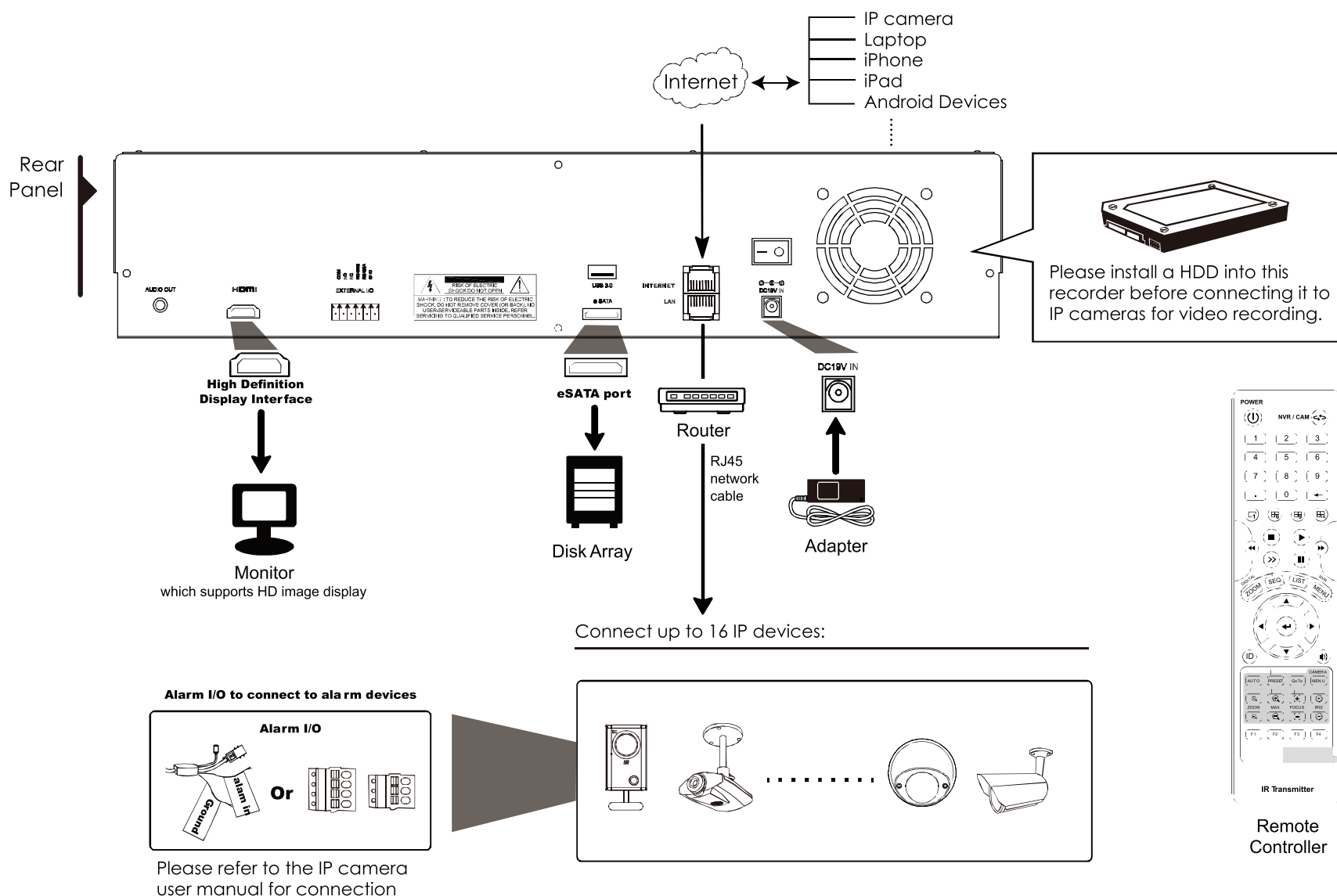
Type 1

Connect IP cameras as many as your recorder supports:



Note: For access this recorder remotely with your mobile device or laptop, you need to connect this recorder to Internet. For details, please get the setup manual from the supplied CD or from www.surveillance-download.com/user/network_setup/network_setup_recorder.pdf.

Type 2



Note: For access this recorder remotely with your mobile device or laptop, you need to connect this recorder to Internet. For details, please get the setup manual from the supplied CD or from www.surveillance-download.com/user/network_setup/network_setup_recorder.pdf.

The recorder will **automatically** configure the IP address of a camera connected by LAN if:

- The connected IP camera is our brand's IP camera.
- Reset the IP camera to default value (the default IP configuration method of the camera is "DHCP").
- The camera is powered on before the recorder is powered on.

If the recorder **doesn't** configure the IP address of your camera automatically as described above, your IP camera might **NOT** be:

- Our brand's IP camera.
- Set to "DHCP" as its default IP configuration method.

To solve this, use our brand's IP camera, and reconfigure its IP address to 10.1.1.xx (xx ranges from 11 ~ 253), in the same network segment as the recorder.

- a) Move your mouse to the left to call the quick bar, and select "🔍". You'll see the list of every connected IP camera with its connection status to this recorder and MAC address.
- b) Select the IP address which is not used, and select "SETUP".

IP SEARCH			
IP	PORT	MAC	STATUS
10.1.1.12	88	00:0e:53:e5:9a:f1	CONNECTED TO CH1
10.1.1.13	88	00:0e:53:a6:91:18	CONNECTED TO CH2
10.1.2.14	88	00:0e:53:a5:9f:a2	UNUSED
10.1.1.15	88	00:0e:53:e1:4e:k5	CONNECTED TO CH3
10.1.1.16	88	00:0e:53:s5:3e:h6	CONNECTED TO CH4
10.1.1.17	88	00:0e:53:e6:4b:26	CONNECTED TO CH5

↶	CONNECT	SETUP	EXIT
---	---------	-------	------

- c) Select "DHCP" in "NETWORK TYPE".
- d) Click "APPLY" and "EXIT" to save your changes.

SETUP	
NETWORK TYPE	DHCP
IP	10.1.1.14
PORT	88
USER NAME	admin
PASSWORD	*****
NETMASK	255.0.0.0
GATEWAY	10.1.1.10
PRIMARY DNS	168.95.1.1

APPLY	EXIT
-------	------

- e) The recorder will then detect the IP camera and display images soon.

2.2.2 Static / DHCP Mode

Note: SETTING Path:  (ADVANCED CONFIG) → NETWORK → LAN → MODE.

When the LAN port of the recorder is connected to a router (not a hub), you can:

- Choose “Static” when you know the network segment of your router.
For example, the IP address of your router of *192.168.0.1*, and the network segment of your router will be *192.168.0.xx* (xx is ranged from 2 ~ 254).
You can assign the IP address of the connected IP camera(s) by yourself.
- Choose “DHCP” when your router supports the DHCP function, and you do not know the network segment of your router.
The IP address of the connected IP camera(s) will be assigned by your router.

2.3 Manual Connection Setup

Note: SETTING Path:  (ADVANCED CONFIG) → CONNECTION.

To manually assign the address of your camera connected locally, click “URI” to modify.

ADVANCED CONFIG			
CONNECTION	CHANNEL	URI	CONFIG
CAMERA	CH1	ONVIF://10.1.1.22:8080	SETUP
DETECTION	CH2	ONVIF://10.1.1.14:88	SETUP
ALERT	CH3	PANASONIC://10.1.1.30:88	SETUP
NETWORK	CH4	VIVOTEK://10.1.1.12:88	SETUP
DISPLAY			
RECORD			
EXIT			

Note: To configure this recorder to access other IP camera connected remotely for live viewing or video backup, you need to connect this recorder to Internet first. For details, please get the setup manual from the supplied CD or from www.surveillance-download.com/user/network_setup/network_setup_recorder.pdf.

3. USER INTERFACE

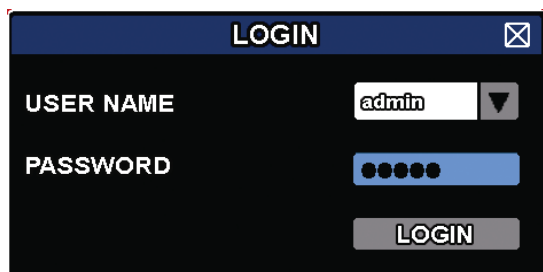
3.1 Local Access

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

Move your mouse to enter the 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 "4.3 User Level Creation" at page 13.

Password Input



3.2 Local

3.2.1 Device Status

Note: The functions shown may vary based on the model or the access user level you use.

	Key lock		Key unlock
	Channel lock		Channel unlock
	USB flash drive / device connected		No USB device connected
	Timer record on		Timer record off
	Overwrite on		Overwrite off
	Sequence mode on		Sequence mode off
	PTZ mode on		PTZ mode off
	Backup event queued and USB flash drive needed		USB flash drive full
	CPU loading		

Network Status:

	(WAN) Internet connected		(WAN) Internet disconnected
	(WAN) Local connection		
	(LAN) Auto mode –Mbit/s		(LAN) Auto mode – Gbit/s
	(LAN) DHCP / Static IP mode		(LAN) Camera disconnected







3.2.2 Channel Status

Note: The functions shown may vary based on the model or the access user level you use.

	Auto search on		Auto search off		Original size		Fit to screen
	Live audio on		Audio off		Audio playback on		Audio playback off
	Recording		PTZ control		Alarm event		Motion event
	Live information		Playback information		Digital zoom		Channel Playback
	Quick camera control						






3.2.3 Quick Operation

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

	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.
	Click to open the IP search window and check the current connection status of each channel.
	Click to show the power off panel to either halt or reboot the system.










3.2.4 Main Menu

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

	QUICK START	Click to set the status display, image settings, and date & time.
	SYSTEM	Click to set the system configurations.
	EVENT INFORMATION	Click to enter the event search menu.
	ADVANCED CONFIG	Click to set CONNECTION, CAMERA, DETECTION, ALERT, NETWORK, DISPLAY, RECORD, and NOTIFY*.
	SCHEDULE SETTING	Click to set record timer and event timer.





* For selected models only

3.2.5 Playback Panel

	Fast Forward	Increase the speed for fast forward.
	Fast Rewind	Increase the speed for fast rewind.
	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	Click once to get 1/4X speed playback, and click twice to get 1/8X speed playback.
	Previous / Next Hour	Click to jump to the next / previous time interval in an hour, for example, 11:00 ~ 12:00 or 14:00 ~ 15:00, and start playing the earliest event video clip recorded during this whole hour.
	Quick Search	Click to enter the quick search menu for specific record data search.

4. FREQUENTLY-USED FUNCTIONS

4.1 Key Lock / Unlock

To lock or unlock local operation, click  (unlock) or  (lock) on the device 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 functions. For details, please refer to "4.3 User Level Creation" at page 13.


4.2 IP Device Search

Note: This function is available only for "SUPERVISOR". To know more details, please refer to "4.3 User Level Creation" at page 13.

Click  (IP Search) to start searching IP camera(s) connected in the same network segment as the recorder (i.e. 10.1.1.xx by default).

You'll see the list of every connected IP camera with its connection status to this recorder and MAC address.

IP SEARCH				
IP	PORT	MAC	PROTOCOL	STATUS
10.1.1.12	88	00:0e:53:e5:9a:f1	AVTECH	CONNECTED TO CH1
10.1.1.13	88	00:0e:53:a6:91:18	AVTECH	CONNECTED TO CH2
10.1.1.14	88	00:0e:53:a5:9f:a2	AVTECH	UNUSED
10.1.1.15	88	00:0e:53:e1:4e:k5	ONVIF	CONNECTED TO CH3
10.1.1.16	88	00:0e:53:s5:3e:h6	ONVIF	CONNECTED TO CH4
10.1.1.17	88	00:0e:53:e6:4b:26	ONVIF	CONNECTED TO CH5
10.1.1.18	88	00:0e:53:g2:3b:e7	AVTECH	CONNECTED TO CH6

	CONNECT	SETUP	EXIT
---	---------	-------	------

To fix the camera IP address, or allow the recorder to assign an IP address to your IP camera, select "SETUP", and select "STATIC IP" or "DHCP" for "NETWORK TYPE".

Click "APPLY" and "EXIT" to save your changes.

SETUP	
NETWORK TYPE	DHCP
IP	10.1.1.14
PORT	80
USER NAME	admin
PASSWORD	*****
NETMASK	255.0.0.0
GATEWAY	10.1.1.10
PRIMARY DNS	168.95.1.1

APPLY	EXIT
-------	------

To connect to another IP camera, select the unused IP camera from the IP search list, and select "CONNECT". Select the channel you want to display the camera images, and click "SAVE" to start connection.

CONNECT	
IP	10.1.1.14
PORT	88
CHANNEL	CH5
USER NAME	admin
PASSWORD	*****
<input type="button" value="SAVE"/> <input type="button" value="CANCEL"/>	



















4.3 User Level Creation

















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

To create different user account for different access privilege, right-click to show the main menu, select "SYSTEM", and select "ACCOUNT" to enter "USER LIST".

SYSTEM			
ACCOUNT	USER LIST		
TOOLS	USER NAME	LEVEL	
SYSTEM INFO	admin	SUPERVISOR	
BACKUP SCHEDULE	power	POWER USER	
	normal	NORMAL	
	guest	GUEST	
EXIT	ADD	EDIT	DEL

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






Function	User Level			
	SUPERVISOR	POWER	NORMAL	GUEST
Screen control				
Quick channel switch by mouse-click	✓	✓	✓	
Recorder status				
 /  Key lock / unlock	✓	✓	✓	✓
 /  Channel switch lock / unlock	✓			
Channel status				
 /  Auto search on / off	✓			
 /  Live audio on / off	✓			
 /  Playback audio on / off	✓			
 /  Original size / Fit to screen	✓			
 /  Live / Playback information	✓			
 Digital zoom	✓	✓		
 Single channel playback	✓	✓		
 DPTZ Control	✓	✓		
 Quick camera control	✓			

	Function	User Level			
		SUPERVISOR	POWER	NORMAL	GUEST
■ Quick operation					
	Channel Switch	✓	✓	✓	✓
	Playback	✓	✓		
	IP Search	✓			
	Power	✓			
■ Main menu					
	Quick Start	✓			
	System	✓			
	Event Information	✓			
	Advanced Config.	✓			
	Schedule Setting	✓			
■ Playback control					
	Fast Forward	✓	✓		
	Fast Rewind	✓	✓		
	Play / Pause	✓	✓		
	Stop	✓	✓		
	Slow Playback	✓	✓		
	Previous / Next Hour	✓	✓		
	Quick Search	✓	✓		

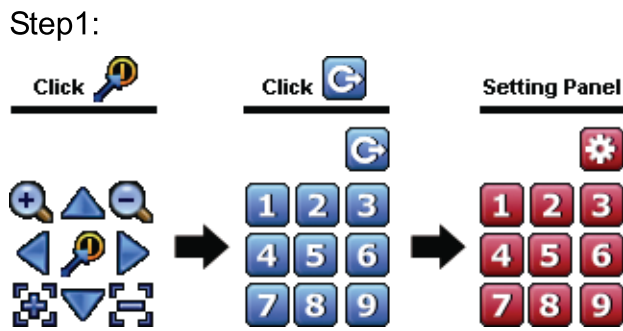
4.4 PTZ Control (1CH mode)

Note: This function is available only for "SUPERVISOR" and "POWER USER". To know more details, please refer to "4.3 User Level Creation" at page 13.

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.
		Digital zoom in / out	Click to zoom in / out the camera image digitally.
		Focus near / far	Click to adjust the focus of the image.
		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:

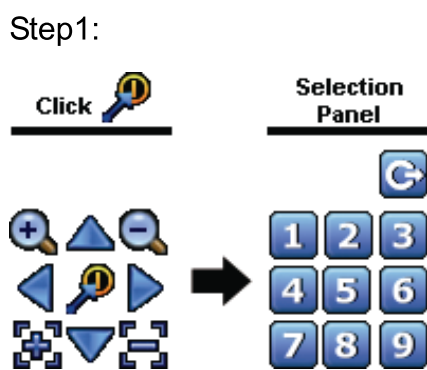


Step2: Click or to the proper ratio you need, and click / / / to move to the point you want to configure as a preset point.

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

4.5 Event Search

Note: This function is not available for "NORMAL" and "GUEST". For details, please refer to "4.3 User Level Creation" at page 13.

In the playback control bar, click to enter the search list.

EVENT INFORMATION

QUICK SEARCH	HARD DISK	ALL HDD																																										
RECORD	CHANNEL	2 SELECTED																																										
MOTION	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">2009</div> <div style="border: 1px solid black; padding: 2px;">NOV</div> </div> <table style="width: 100%; text-align: center; border-collapse: collapse;"> <thead> <tr> <th>SUN</th><th>MON</th><th>TUE</th><th>WED</th><th>THU</th><th>FRI</th><th>SAT</th></tr> </thead> <tbody> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> <tr> <td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr> <tr> <td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td></tr> <tr> <td>22</td><td style="background-color: #cccccc;">23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr> <tr> <td>29</td><td>30</td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>		SUN	MON	TUE	WED	THU	FRI	SAT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					
SUN	MON	TUE	WED	THU	FRI	SAT																																						
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22	23	24	25	26	27	28																																						
29	30																																											
	00 06 12 18 24																																											
EXIT	15 : 20	SUBMIT																																										

- To quickly search the time within which might include the recorded data you want to see:
 - Select the channel(s) and month you want to search. You'll see the date(s) with recorded data is highlighted.
 - Select the date you want to search. You'll see the time with recorded data is highlighted from the timeline bar.
 - Click the time to start playback.
- To search the recorded data by event, select RECORD / MOTION / ALARM / TIME, or select FULL to show all the event logs. Select the log you want to start playback.

Note: During video playback, you might click to check the recorded data details, or click to play the recorded audio (if any) on the channel you want.

4.6 Video Backup

Note: This function is available for "SUPERVISOR". For details, please refer to "4.3 User Level Creation" at page 13.

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 1 COMPATIBLE USB FLASH DRIVE LIST at page 35.

Note: For video backup, please use USB flash drive or back your data up over the Internet. It's not recommended to connect the HDD to your PC directly.

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

SYSTEM				
ACCOUNT				
TOOLS				
SYSTEM INFO				
BACKUP SCHEDULE				
EXIT	ADD	DEL	SELECT ALL	

BACKUP	
BACKUP TYPE	DATA ▼
START DATE	2013/JAN/04
START TIME	15:36:32
END DATE	2013/JAN/04
END TIME	15:40:32
CHANNEL	Select All ▼
HARD DISK	All HDD ▼
BACKUP	SUBMIT

Step1: Select the type of information you want to backup. "DATA" is video footages, and "LOG" is record logs.

Step2: Select the time within which includes what you want to backup.

Step3: Select the channel(s) and hard disk within which includes what you want to backup.

Step4: In "BACKUP", select "SUBMIT" to start backup to your USB flash drive, and wait till the backup successful message appears.

4.7 Video Playback on PC

The backup file is the unique video format for security reasons, and you can only use our own player to play.

To play video backup on your PC:

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

Note: The supported PC operating systems are 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/h0401.swf.

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

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

4.7.1 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 backup video includes data for multiple channels, click to a specific channel for this function to work properly.



5. MAIN MENU

Note: This menu is available only for "SUPERVISOR". To know more details, please refer to "4.3 User Level Creation" at page 13.

Note: The menu shown here takes a 4CH model as an example. The actual display may vary.

5.1 QUICK START

5.1.1 GENERAL

QUICK START		
GENERAL	CHANNEL TITLE	ON
TIME SETUP	EVENT STATUS	ON
SIMULATION	DATE DISPLAY	ON
	MOUSE SENSITIVITY	0 5 10 ■■■■■▲■■■■■
	RECORD CONFIG	SETUP
EXIT		

- 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 "3.2 Local" at page 10.

- 3) DATE DISPLAY
Select to display the date or not (ON / OFF).
- 4) MOUSE SENSITIVITY
Select the mouse sensitivity by 10 levels.
- 5) RECORD CONFIG
Click "SETUP" to enter the setting page individually for manual record, event record and timer record.

Note: The options selectable for "IMAGE SIZE" and "I.P.S." depends on the camera you're intended to connect.

Note: The "IMAGE SIZE" options for 8CH model is up to 1280 x 720.

■ MANUAL & TIMER

QUICK START						
MANUAL	EVENT	TIMER				
CHANNEL	PROFILE	TYPE	IMAGE SIZE	QUALITY	I.P.S.	
CH1	PROFILE-1	H264	720 X 480	0 5 10 ■■■■■▲■■■■■	30	
CH2	PROFILE-1	H264	1280 x 1024	0 5 10 ■■■■■▲■■■■■	30	
CH3	PROFILE-1	H264	1280 x 1024	0 5 10 ■■■■■▲■■■■■	30	
CH4	PROFILE-1	H264	1280 x 1024	0 5 10 ■■■■■▲■■■■■	30	
						EXIT

■ EVENT

QUICK START				
MANUAL	EVENT	TIMER		
CHANNEL	IMAGE SIZE	QUALITY	I.P.S.	EVENT
CH1	720 X 480	0 5 10 ■■■■■▲■■■■■	30	MOTION
CH2	1280 x 1024	0 5 10 ■■■■■▲■■■■■	30	MOTION / ALARM
CH3	1280 x 1024	0 5 10 ■■■■■▲■■■■■	30	MOTION / ALARM
CH4	1280 x 1024	0 5 10 ■■■■■▲■■■■■	30	MOTION
				EXIT

5.1.2 TIME SETUP

QUICK START		
GENERAL	DATE	2009 / NOV / 17
TIME SETUP	TIME	15 : 35 : 53
SIMULATION	NTP SERVER	Tock.stdtime.gov.tw
	SYNC PERIOD	DAILY
	GMT	(UTC+08:00)TAIPEI
EXIT		

1) DATE

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

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

2) 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.

4) SYNC PERIOD

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

5) GMT

Select your time zone.

5.1.3 SIMULATION

“SIMULATION” is where you can see CPU loading and performance when certain functions are enabled and how the number of online users affects the performance of the device.

QUICK START		
GENERAL	LIVE PARAMETER SETUP	SETUP
TIME SETUP	MANUAL RECORD SETUP	SETUP
SIMULATION	EVENT RECORD SETUP	SETUP
	TIMER RECORD SETUP	SETUP
	RECORD TIMER	OFF
	EVENT TIMER	OFF
	MAX ONLINE USER NUMBER	5
	HDD SIZE (GB)	1000
	MANUAL 444G: 0DAY10HOUR	
	EVENT 444G: 0DAY10HOUR	
	TIMER 444G: 0DAY10HOUR	
EXIT		

5.2 SYSTEM

5.2.1 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 “4.3 User Level Creation” at page 13.

ADVANCED CONFIG			
ACCOUNT	USER LIST		
TOOLS	USER NAME	LEVEL	
SYSTEM INFO	admin	SUPERVISOR	
BACKUP SCHEDULE	power	POWER USER	
	normal	NORMAL	
	guest	GUEST	
EXIT			
	ADD	EDIT	DEL

5.2.2 TOOLS

SYSTEM		
ACCOUNT	LANGUAGE	ENGLISH
TOOLS	UPGRADE	SUBMIT
SYSTEM INFO	NETWORK UPGRADE	SUBMIT
BACKUP SCHEDULE	BACKUP CONFIG	SUBMIT
	RESTORE CONFIG	SUBMIT
EXIT		

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 1 COMPATIBLE USB FLASH DRIVE LIST” at page 35.

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

Note: Before remote firmware update, please install a hard disk into your recorder first to make sure the firmware update works properly.

3) NETWORK UPGRADE

Click “SUBMIT” for perform system upgrade via Internet.

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

4) BACKUP CONFIG / RESTORE CONFIG

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

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

5.2.3 SYSTEM INFO

SYSTEM		
ACCOUNT	AUTO KEY LOCK(S)	NEVER
TOOLS	CLEAR HDD	HDD-0
SYSTEM INFO	RESET DEFAULT	SUBMIT
BACKUP SCHEDULE	REMOTE CONTROL ID	000
	DEVICE TITLE	HOME
EXIT	VERSION	1001-1000-1001-1001

1) AUTO KEY LOCK(S)

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

2) CLEAR HDD

Select the hard disk 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 recorder to ensure the recorded data are not mixed with other data previously saved in the same hard disk.
- The firmware is upgraded for the system to work more stably. Before clearing all data, please remember to make video backup.
- The 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.

3) RESET DEFAULT

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

5.2.4 BACKUP SCHEDULE

This function is used to copy recorded video data or logs from the recorder to a USB flash drive. You might arrange several backup events in the schedule if you want, and the backup starts when a compatible USB flash drive is inserted to this recorder.

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 1 COMPATIBLE USB FLASH DRIVE LIST” at page 35.

Note: The backup video can be played on the PC. For details, please refer to “4.7 Video Playback on PC” at page 16.

Note: Data backup could be done via a USB flash drive or over the Internet. It's not recommended to connect the hard disk to your PC directly. The data might get lost and can't be repaired even when the hard disk is replaced back to the recorder.

SYSTEM				
ACCOUNT	TIME	SIZE	TYPE	STATUS
TOOLS	<input type="checkbox"/> 2013/03/26 14:08:54 ~ 2013/03/26 14:11:54	90MB	DATA	WAITING
SYSTEM INFO				
BACKUP SCHEDULE				
EXIT	ADD	DEL	SELECT ALL	

To add a backup event

Step1: Select "ADD" to show the backup page.

BACKUP	
BACKUP TYPE	DATA ▼
START DATE	2013/JAN/04
START TIME	15:36:32
END DATE	2013/JAN/04
END TIME	15:40:32
CHANNEL	Select All ▼
HARD DISK	All HDD ▼
BACKUP	SUBMIT

Step2: In the backup page, select "DATA" if you need to copy video footages; select "LOG" if you want to copy record logs.

Step3: Select the time, channel(s) and hard disk in which save the data you need.

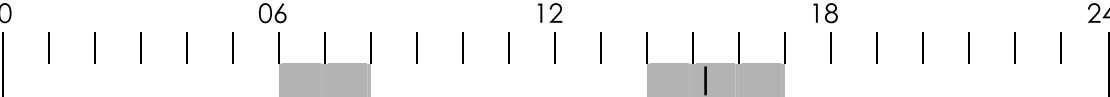
Step4: Select "SUBMIT" to put this backup event into the schedule.

To remove a backup event

Select the event you want to delete in the backup schedule, and click "DEL".

5.3 EVENT INFORMATION

5.3.1 QUICK SEARCH

EVENT INFORMATION																																																		
QUICK SEARCH	HARD DISK ALL HDD ▼																																																	
EVENT SEARCH	CHANNEL 2 SELECTED ▼																																																	
HDD INFO																																																		
EVENT LOG																																																		
	<table border="1"><thead><tr><th colspan="3">2009</th><th colspan="4">NOV</th></tr><tr><th>SUN</th><th>MON</th><th>TUE</th><th>WED</th><th>THU</th><th>FRI</th><th>SAT</th></tr></thead><tbody><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr><tr><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr><tr><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td></tr><tr><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr><tr><td>29</td><td>30</td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>	2009			NOV				SUN	MON	TUE	WED	THU	FRI	SAT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					
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29	30																																																	
	00 06 12 18 24																																																	
																																																		
EXIT	15 : 20 SUBMIT																																																	

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

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

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

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

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

Note: For video playback operations, please refer to "3.2.5 Playback Panel" at page 11.

5.3.2 EVENT SEARCH

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

- 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: MOTION / ALARM / HUMAN DETECTION.
- 5) SEARCH
Click "START" to start search and play the video data immediately.

5.3.3 HDD INFO

You can check the information of the connected hard disk(s) in this device.

EVENT INFORMATION	
QUICK SEARCH	NUMBER MODEL °C SIZE FREE FORMAT TIME SERIAL NUMBER F.W.
EVENT SEARCH	HDD-0 ST31000526SV 46 890.562GB 864.832GB 2011/DEC/13 18:18:53 9V0DN5WS ST31000526SV
HDD INFO	
EVENT LOG	
EXIT	

5.3.4 EVENT LOG

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

EVENT INFORMATION	
QUICK SEARCH	SYSTEM BACKUP
EVENT SEARCH	EVENT TIME COMMENT
HDD INFO	KEY UNLOCK 2011/NOV/19 15:49:07
EVENT LOG	VIDEO LOSS 2011/NOV/19 15:32:05 04
	POWER ON 2011/NOV/19 15:32:02
	PREV NEXT CLEAN
EXIT	

5.4 ADVANCED CONFIG

5.4.1 CONNECTION

To manually assign the address of your camera connected locally, click “URI” to modify.

ADVANCED CONFIG			
CONNECTION	CHANNEL	URI	CONFIG
CAMERA	CH1	AVTECH://ip_office.ddns.eagleeyes.tw:80	SETUP
DETECTION	CH2	ONVIF://10.1.1.14:88	SETUP
ALERT	CH3	AVTECH://10.1.1.30:88	SETUP
NETWORK	CH4	AVTECH://10.1.1.12:88	SETUP
DISPLAY			
RECORD			
EXIT			

Then, click “SETUP” to enter the access information of the camera:

CONFIG-CH1	
CACHE TIME (MSEC)	0 5 20▲.....
VENDOR	AVTECH
DEVICE	IPCAM(FIXED)
PROFILE	PROFILE-3
TYPE	H264
IMAGE SIZE	720 X 480
QUALITY	0 5 10▲.....
I.P.S.	30
AUDIO	ON
RESOLUTION LIST	Select All
EXIT	

Step1: Click “DEVICE” to detect and make sure the access information you’re intended to connect is correct.

Step2: Select the image size, image quality, and I.P.S.

Note: The options selectable for “IMAGE SIZE” and “I.P.S.” depends on the camera you’re intended to connect.

Note: The “IMAGE SIZE” options for 8CH model is up to 1280 x 720.

Step3: (Optional) For the camera with audio recording, select “ON” or “OFF”.

Step4: (For selected models only) Assign the resolution you could choose based on you need. This change will affect the resolution options you could choose for live viewing and recording.

5.4.2 CAMERA

ADVANCED CONFIG				
CONNECTION	CH1	CH2	CH3	CH4
CAMERA	BRIGHTNESS			128
DETECTION	CONTRAST			128
ALERT	SATURATION			128
NETWORK	HUE			128
DISPLAY	COV.			OFF
RECORD	REC			ON
NOTIFY	REC AUDIO			ON
	CHANNEL TITLE			EDIT
	PORT FORWARD			81
	ENABLE PORT FORWARD			ON
EXIT				

1) BRIGHTNESS / CONTRAST / SATURATION / HUE

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

2) COV.

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

Note: To hide the wording "COV." when this function is on, go to "DISPLAY", and set "DISPLAY COVERT" to "OFF". For details, please refer to "5.4.6 DISPLAY" at page 30.

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) REC AUDIO

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

Note: This function is available only when your connected device supports audio recording.

5) CHANNEL TITLE

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

6) PORT FORWARD / ENABLE PORT FORWARD

These two functions are used when you only want to see a single channel of this recorder remotely.

a) Set the port number for the channel in "PORT FORWARD". The default value for CH1 is 81, and the default value for CH2 is 82... etc. If you want to change the port number to other value, the range is from 1 ~ 65535.

b) Select "ON" in "PORT FORWARD ENABLE".

The address of the channel will be "http://recorder_address:port_number". Enter the address in Internet Explorer, and see if you can access the device connected channel individually.

Note: The user name and password are still required to access the device connected to the channel. Make sure you know the user name and password to access the device. For details, please refer to its user manual.

5.4.3 DETECTION

ADVANCED CONFIG				
CONNECTION	CH1	CH2	CH3	CH4
CAMERA	ALARM			OFF
DETECTION	SENSITIVITY			0
ALERT	MOTION			ON
NETWORK	AREA			EDIT
DISPLAY	INTERNAL ALARM			ON
RECORD				
NOTIFY				
EXIT				

1) ALARM

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

2) SENSITIVITY

Select the detection sensitivity of the selected channel, the lower the value, the higher the sensitivity.

3) MOTION

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

4) 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.

Note: To exit area setting and return to the detection page, right click your mouse.

5) INTERNAL ALARM (For selected camera models only)

This function appears only when the camera connected supports human detection.

Select "ON" to enable human detection, or "OFF" to disable it.

5.4.4 ALERT

ADVANCED CONFIG				
CONNECTION	EXT. ALERT			ON
CAMERA	INT. BUZZER			OFF
DETECTION	KEY BUZZER			ON
ALERT	VLOSS BUZZER			ON
NETWORK	MOTION BUZZER			ON
DISPLAY	ALARM BUZZER			ON
RECORD	HDD BUZZER			ON
NOTIFY	ALARM DURATION (SEC)	5	▼	
	HDD NEARLY FULL (GB)	5	▼	
	HDD OVERHEAT ALERT (°C)	60	▼	
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.

5.4.5 NETWORK

There are two RJ45 ports on the rear panel: WAN and LAN.

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

Note: For more details about these three functions and network configurations, please get the setup manual from the supplied CD or from www.surveillance-download.com/user/network_setup/network_setup_recorder.pdf.

ADVANCED CONFIG	
CONNECTION	WAN LAN E-MAIL DDNS NETWORK MONITOR
CAMERA	NETWORK TYPE DHCP ▼
DETECTION	IP 192.168.1.112
ALERT	GATEWAY 192.168.1.254
NETWORK	NETMASK 255.255.255.0
DISPLAY	PRIMARY DNS 168.95.1.1
RECORD	SECONDARY DNS 139.175.55.244
NOTIFY	PORT 88
EXIT	

E-MAIL

Configure your E-mail account here to send event notifications to the E-mail address(es) specified in "NOTIFY".

Note: To know the SMTP server and port number you should use, please check with your E-mail service provider.

ADVANCED CONFIG	
CONNECTION	WAN LAN E-MAIL DDNS NETWORK MONITOR
CAMERA	SMTP SERVER SMTP.GMAIL.COM
DETECTION	PORT 465
ALERT	MAIL FROM MANAGER
NETWORK	SSL ENCRYPTION ON
DISPLAY	VERIFY PASSWORD ON
RECORD	USER NAME MANAGER
NOTIFY	PASSWORD ●●●●●●
EXIT	

NETWORK MONITOR

Check the network activity of this recorder.

ADVANCED CONFIG																
CONNECTION	WAN LAN E-MAIL DDNS NETWORK MONITOR															
CAMERA																
DETECTION																
ALERT																
NETWORK																
DISPLAY																
RECORD																
NOTIFY	<table border="0"> <thead> <tr> <th></th> <th>WAN</th> <th>LAN</th> </tr> </thead> <tbody> <tr> <td>RECEIVING</td> <td>289 Bytes/s</td> <td>5.91 MB/s</td> </tr> <tr> <td>SENDING</td> <td>285 Bytes/s</td> <td>134.68 KB/s</td> </tr> <tr> <td>TOTAL RECEIVING</td> <td>22.58 MB</td> <td>2.55 MB</td> </tr> <tr> <td>TOTAL SENT</td> <td>8.39 MB</td> <td>2.4 MB</td> </tr> </tbody> </table>		WAN	LAN	RECEIVING	289 Bytes/s	5.91 MB/s	SENDING	285 Bytes/s	134.68 KB/s	TOTAL RECEIVING	22.58 MB	2.55 MB	TOTAL SENT	8.39 MB	2.4 MB
	WAN	LAN														
RECEIVING	289 Bytes/s	5.91 MB/s														
SENDING	285 Bytes/s	134.68 KB/s														
TOTAL RECEIVING	22.58 MB	2.55 MB														
TOTAL SENT	8.39 MB	2.4 MB														
EXIT																

5.4.6 DISPLAY

ADVANCED CONFIG			
CONNECTION	FULL SCREEN DURATION	03	▼
CAMERA	QUAD SCREEN DURATION <i>(For selected models only)</i>	03	▼
DETECTION	DISPLAY COVERT	ON	
ALERT	HDD DISPLAY MODE	REMAINING SIZE	▼
NETWORK	BRIGHTNESS	128	
DISPLAY	CONTRAST	128	
RECORD	SATURATION	128	
NOTIFY	CH COVERT IN SUPERVISOR MODE	ON	
EXIT			

- 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 in GB, or "REMAINING TIME" to show the remaining recording time.
- 5) BRIGHTNESS / CONTRAST / SATURATION
Click the current value to manually adjust the brightness/contrast/saturation/ of the screen.

5.4.7 RECORD

Note: Please DO NOT change the date or time of your recorder 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 hard disk data, and start recording again.

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

- 1) MANUAL RECORD
Set the manual recording function on / off.
- 2) EVENT RECORD
Set the event recording function on / off.
- 3) TIMER RECORD
Set the timer recording function on / off.

4) 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 recorder will record 8MB data before an alarm / motion event is triggered.

5) OVERWRITE

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

6) KEEP DATA LIMITS (DAYS)

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

7) RECORD CONFIG

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

For details, please refer to "5.1.1 GENERAL" at page 18.

5.4.8 NOTIFY

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

PUSH VIDEO (for selected models only)

Before using this function, make sure:

- The camera connected to this recorder is our ETS network camera series.
- You have iPhone®, iPad®, 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 4 MOBILE SURVEILLANCE VIA EAGLEEYES" at page 38.
- You have configured EagleEyes to access this recorder, and Push Video is enabled. For details, please refer to "錯誤! 找不到參照來源。" at page 錯誤! 尚未定義書籤。.

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

ADVANCED CONFIG				
CONNECTION CAMERA DETECTION ALERT NETWORK DISPLAY RECORD NOTIFY	PUSH VIDEO	PUSH STATUS	MESSAGE MAIL	VIDEO MAIL
	GUARD			ON
	CH01	ALARM N.C.	▼	CH1 alarm
	CH02	ALARM N.O.	▼	CH2
	CH03	ALARM OFF	▼	CH3
	CH04	ALARM OFF	▼	CH4
	EXIT			

Step1: Switch "GUARD" to "ON".

Step2: Select the channel number with our ETS network camera connected, and select the alarm type to "ALARM N.C.", "ALARM N.O.", or "INTERNAL ALARM" (shown only when the connected ETS camera has an alarm sensor built-in).

Step3: Customize the notification message you want to see after alarm type setting, or keep the default message, which shows only the channel numbering.

Step4: Enable "Push Video" in EagleEyes on your mobile device, and try to trigger an alarm event to see if you'll get Push Video.

PUSH STATUS (for selected models only)

Before using this function, make sure:

- You have iPhone®, iPad®, 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 4 MOBILE SURVEILLANCE VIA EAGLEEYES” at page 38.
- You have configured EagleEyes to access this recorder, and Push Video is enabled. For details, please refer to “錯誤! 找不到參照來源。” at page 錯誤! 尚未定義書籤。 .

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

ADVANCED CONFIG					
CONNECTION CAMERA DETECTION ALERT NETWORK DISPLAY RECORD NOTIFY	PUSH VIDEO	PUSH STATUS	MESSAGE MAIL	VIDEO MAIL	
	ACTION		ON		
	EVENT	<input type="checkbox"/> ALL <input checked="" type="checkbox"/> VIDEO LOSS <input type="checkbox"/> HDD FULL <input type="checkbox"/> POWER ON <input checked="" type="checkbox"/> HDD (CLEAR / NO HDD / OVER TEMPERATURE) <input type="checkbox"/> NET LOGIN <input checked="" type="checkbox"/> KEY UNLOCK <input type="checkbox"/> NETWORK <input type="checkbox"/> UPS <input type="checkbox"/> SYSTEM ABNORMAL			
EXIT					

Step1: Switch “ACTION” to “ON”.

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

Step3: Enable “Push Status” in EagleEyes on your mobile device, and try to trigger an alarm 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).

ADVANCED CONFIG					
CONNECTION CAMERA DETECTION ALERT NETWORK DISPLAY RECORD NOTIFY	PUSH VIDEO	PUSH STATUS	MESSAGE MAIL	VIDEO MAIL	
	ACTION		ON		
	EVENT	<input type="checkbox"/> ALL <input checked="" type="checkbox"/> VIDEO LOSS <input type="checkbox"/> HDD FULL <input type="checkbox"/> POWER ON <input checked="" type="checkbox"/> HDD (CLEAR / NO HDD / OVER TEMPERATURE) <input type="checkbox"/> NET LOGIN <input checked="" type="checkbox"/> KEY UNLOCK <input type="checkbox"/> NETWORK <input type="checkbox"/> UPS <input type="checkbox"/> SYSTEM ABNORMAL			
	RECEIVER	SETUP			
EXIT					

VIDEO 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 "E-MAIL ALERT", 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 motion events attached with a html file.

ADVANCED CONFIG				
CONNECTION	PUSH VIDEO	PUSH STATUS	MESSAGE MAIL	VIDEO MAIL
CAMERA	E-MAIL ALERT			ON
DETECTION	RECEIVER			SETUP
ALERT				
NETWORK				
DISPLAY				
RECORD				
NOTIFY				
EXIT				

How to check video recording

Step1: Open the html file attached.

Note: Please accept to install ActiveX control on your computer.

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


Step3: Click "Open" to download the motion recording to your computer and start playing.

User name and password used to log into this NVR

Click to download & play the recording

User Name : admin Password : ●●●● Channel : 1 Start Time : 2012/01/18 15:04:54 End Time : 2012/01/18 15:05:05

DATE TIME: 2012/01/18 15:04:56 Direction: FORWARD Speed: Normal DATA LOAD: 19% / PLAY LOAD: 96%



AVM357A

Deinterlace

Playback panel

5.5 SCHEDULE SETTING

5.5.1 RECORD

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

SCHEDULE SETTING															
<div style="background-color: #000080; color: white; padding: 2px; text-align: center; font-weight: bold;">RECORD</div> <div style="padding: 2px;">EVENT</div>	<div style="display: flex; justify-content: space-between;"> RECORD TIMER ON </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> 0 2 4 6 8 10 12 14 16 18 20 22 24 </div> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 10%; padding: 2px;">SUN</td> <td style="width: 240px; height: 15px;"></td> </tr> <tr> <td style="padding: 2px;">MON</td> <td style="width: 240px; height: 15px; background-color: #000080;"></td> </tr> <tr> <td style="padding: 2px;">TUE</td> <td style="width: 240px; height: 15px; background-color: #000080;"></td> </tr> <tr> <td style="padding: 2px;">WED</td> <td style="width: 240px; height: 15px; background-color: #000080;"></td> </tr> <tr> <td style="padding: 2px;">THU</td> <td style="width: 240px; height: 15px; background-color: #000080;"></td> </tr> <tr> <td style="padding: 2px;">FRI</td> <td style="width: 240px; height: 15px; background-color: #000080;"></td> </tr> <tr> <td style="padding: 2px;">SAT</td> <td style="width: 240px; height: 15px;"></td> </tr> </table>	SUN		MON		TUE		WED		THU		FRI		SAT	
SUN															
MON															
TUE															
WED															
THU															
FRI															
SAT															
EXIT															

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

Y axis: Monday ~ Sunday.

5.5.2 EVENT


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

SCHEDULE SETTING															
<div style="padding: 2px;">RECORD</div> <div style="background-color: #000080; color: white; padding: 2px; text-align: center; font-weight: bold;">EVENT</div>	<div style="display: flex; justify-content: space-between;"> EVENT TIMER ON </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> 0 2 4 6 8 10 12 14 16 18 20 22 24 </div> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 10%; padding: 2px;">SUN</td> <td style="width: 240px; height: 15px;"></td> </tr> <tr> <td style="padding: 2px;">MON</td> <td style="width: 240px; height: 15px; background-color: #000080;"></td> </tr> <tr> <td style="padding: 2px;">TUE</td> <td style="width: 240px; height: 15px; background-color: #000080;"></td> </tr> <tr> <td style="padding: 2px;">WED</td> <td style="width: 240px; height: 15px; background-color: #000080;"></td> </tr> <tr> <td style="padding: 2px;">THU</td> <td style="width: 240px; height: 15px; background-color: #000080;"></td> </tr> <tr> <td style="padding: 2px;">FRI</td> <td style="width: 240px; height: 15px; background-color: #000080;"></td> </tr> <tr> <td style="padding: 2px;">SAT</td> <td style="width: 240px; height: 15px;"></td> </tr> </table>	SUN		MON		TUE		WED		THU		FRI		SAT	
SUN															
MON															
TUE															
WED															
THU															
FRI															
SAT															
EXIT															

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

Y axis: Monday ~ Sunday.

APPENDIX 1 COMPATIBLE USB FLASH DRIVE LIST

Please upgrade the firmware of the recorder to the latest version to ensure the accuracy of the following table. If the USB flash drive is not supported by the recorder, 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 2 COMPATIBLE HARD DISK 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: It's not recommended to use a green hard disk with this recorder to make sure it works properly.

MANUFACTURER	MODEL	CAPACITY	ROTATION
Seagate	ST250DN000	250GB	7200 rpm
	ST3320613AS	320GB	7200 rpm
	ST33500320AS	500GB	7200 rpm
	ST3500410SV	500GB	7200 rpm
	ST3750330AS	750GB	7200 rpm
	ST31000525SV	1000GB	7200 rpm
	ST31000340AS	1000GB	7200 rpm
	ST2000DM001	2TB	7200 rpm
	ST2000VX000	2TB	7200 rpm
	ST3000VX000	3TB	7200 rpm
WD	WD2500AAKX	250GB	7200 rpm
	WD2500AAKX	250GB	7200 rpm
	WD3200AAKS	320GB	7200 rpm
	WD5000AACS	500GB	7200 rpm
	WD5000AZRX	500GB	7200 rpm
	WD6400AAKS	640GB	7200 rpm
	WD7500AAKS	750GB	7200 rpm
	WD10EADS	1TB	7200 rpm
	WD10EALX	1TB	7200 rpm
	WD10EURX*	1TB	7200 rpm
	WD15EADS	1.5TB	7200 rpm
	WD20EADS	2TB	7200 rpm
	WD20EURS	2TB	7200 rpm
	WD2002FAEX	2TB	7200 rpm
WD20EARS	2TB	7200 rpm	
Maxtor	STM3500320AS	500GB	7200 rpm
	STM3750330AS	750GB	7200 rpm
HITACHI	HDT725032VLA360	320GB	7200 rpm
	HDS7211050DLE630	500GB	7200 rpm
	HDS721010KLA330	1000GB	7200 rpm
	HDS723020BLA642	2TB	7200 rpm

*For 4CH & 8CH models only

APPENDIX 3 BATTERY REPLACEMENT

The 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 device time from resetting, a non-chargeable lithium battery, CR2032, is installed in the device.

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

➤ How to replace CR2032

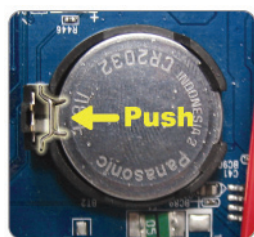
Note: The lithium battery, CR2032, is a non-chargeable battery, and should be purchased separately. Please replace only with the same or equivalent type battery in case of danger.

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

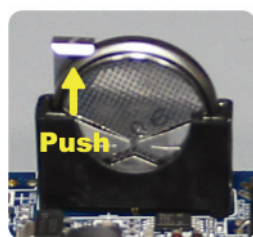
Step2: Power off the device, and disconnect the power.

Step3: Remove the device cover, and find the battery on the mainboard.

Step4: Push the release as indicated below to remove the battery.



Type1



Type 2

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

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

Step6: Replace the cover and connect to power.

Step7: Set the date & time, and resume recording.

APPENDIX 4 MOBILE SURVEILLANCE VIA EAGLEEYES

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®, and *EagleEyesHD Plus* for iPad®).
- It's compatible with several popular mobile platforms, such as iOS® and Android™.

It's easy to download, install and configure. For more details about configuring and operating this program, please visit our official website www.eagleeyesccctv.com.

A4.1 Prerequisites

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

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

Note: You might be charged for Internet access via wireless or 3G networks. 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.

A4.2 Where to download

Connect to www.eagleeyesccctv.com from your mobile device, and sign in.

Note: Please **DO NOT** try to download *EagleEyes* from your computer.

Select the mobile platform you're using to enter its individual download page.

Note: You can also find *EagleEyes* on "App StoreSM" / "Google PlayTM" from your iOS® / Android™ mobile devices.

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.

APPENDIX 5 PRODUCT SPECIFICATIONS

➤ 4CH NVR

		DN-16114
Hardware		
Video Input	4 LAN ports	
Video Output	HDMI	
Video Output Resolution	1920 x 1080	
HDD Storage**	One 3TB HDDs	
eSATA	YES (support up to 4-bay disk array with RAID 0 and 1)	
USB Ports	Two on the front panel: one for video backup to USB flash drive, and another for NVR control via a USB mouse	
IR Remote Control	YES	
Ethernet	LAN port	10/100Mbps with PON
	Internet (WAN) port	1000Mbps
Software		
Video Compression Format	H.264	
Local / Remote Display Mode	4CH	
Local / Remote Playback Mode	4CH	
Single Channel Playback	YES	
Recording Mode	Manual / Event / Alarm / Schedule	
Recording Throughput	Up to 120IPS @ 1280 x 1024, 32 Mbps	
Pre-alarm Recording	YES	
Quick Search	Time / Event	
Event Notification	Message Mail / Video Mail	
Security	4 user access levels with password	
Remote Access	(1) Internet Explorer on Windows operating system (2) EagleEyes on iOS & Android mobile devices (3) Our self-developed program, Video Viewer	
General		
Power Source (±10%)	DC 48V / 1.25A	
Power Consumption (±10%)	7.68W (without a hard disk and POE IP camera connected)	
Operating Temperature	10°C ~ 40°C (50°F ~ 104°F)	
Dimensions (mm)**	345 (L) x 225 (W) x 68.3 (H)	
Minimum PC Browsing Requirements	<ul style="list-style-type: none"> • Intel core i3 or higher, or equivalent AMD • 2GB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Windows Vista & Windows XP, DirectX 9.0 or later • Internet Explorer 7.x or later 	

* Specifications are subject to change without notice.

** Hard disks are optional

** Dimensional tolerance: ±5mm

➤ 8CH NVR

		DN-16118
Hardware		
Video Input		8 LAN ports
Video Output		HDMI output
Video Output Resolution		1920 x 1080
Audio Output		YES
HDD Storage**		One 3TB HDDs
eSATA		YES (support up to 4-bay disk array with RAID 0 and 1)
USB Ports		Two on the front panel: one for video backup to USB flash drive, and another for local control via a USB mouse
IR Remote Control		YES
Ethernet	PON 1~8 port	10/100Mbps with PON
	Internet (WAN) port	1000Mbps
Software		
Video Compression Format		H.264
Audio Compression Format		G711
Local / Remote Display Mode		8CH
Local / Remote Playback Mode		4CH
Single Channel Playback		YES
Recording Mode		Manual / Event / Alarm / Schedule
Recording Throughput		Up to 240 IPS @ 1280 x 720, 16 Mbps
Pre-alarm Recording		YES
Quick Search		Time / Event
Event Notification		Message Mail / Video Mail
Security		4 user access levels with password
Remote Access		(1) Internet Explorer on Windows operating system (2) EagleEyes on iOS & Android mobile devices (3) Our self-developed program, Video Viewer
Max. Online User		10
General		
Power Source (±10%)		DC 48V / 2.5A
Power Consumption (±10%)		13.7W (without a hard disk and POE IP camera connected)
Camera power supply over PON (Power-over-Network)		YES
Operating Temperature		10°C ~ 40°C (50°F~104°F)
Dimensions (mm)**		345 (L) x 225 (W) x 68.3 (H)
Minimum PC Browsing Requirements		<ul style="list-style-type: none"> • Intel core i3 or higher, or equivalent AMD • 2GB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Windows Vista & Windows XP, DirectX 9.0 or later • Internet Explorer 7.x or later

* Specifications are subject to change without notice.

** Hard disks are optional

** Dimensional tolerance: ±5mm

APPENDIX 7 DISK ARRAY COMPATIBLE LIST

This NVR series has an eSATA interface built-in for external disk array connection. Here's the compatible list for disk arrays.

Note: For the compatible hard disks used for those disk arrays listed below, please check their respective user manuals or official websites.

Brand	Model Number
Proware	EP-D501-AA
	EP-2123-UA-R
RAIDON	GT1650-SB3
	GR3630-SB3
STARDOM	DR5-WBS3

ASSMANN Electronic GmbH
Auf dem Schüffel 3 D-58513 Lüdenscheid, Germany

Hinweis: Bei falscher Installation und unsachgemäßem Gebrauch im Wohnbereich kann das Gerät Störungen bei Rundfunkgeräten und anderen elektronischen Geräten verursachen. Ein sachgemäßer Gebrauch liegt vor, wenn das Gerät, soweit durchführbar, mit geschirmten Anschlusskabeln betrieben wird (bei Netzwerkprodukten zusätzlich geschirmter Kabel der Kategorie 5e und höher). Das Gerät wurde getestet und liegt innerhalb der Grenzen für Computerzubehör der Klasse A gemäß den Anforderungen nach EN 55022. Warnung: Dieses Produkt entspricht der Prüfklasse A –es kann im Wohnbereich Funkstörungen verursachen; in diesem Fall kann vom Betreiber verlangt werden, angemessene Maßnahmen durchzuführen und dafür aufzukommen. Konformitätserklärung: Das Gerät erfüllt die EMV-Anforderungen nach EN 55022 Klasse A für ITE und EN 55024. Geräte mit externer oder eingebauter Spannungsversorgung erfüllen weiterhin die Anforderungen nach EN 61000-3-2 und EN 61000-3-3. Damit sind die grundlegenden Schutzanforderungen der EMV-Richtlinie 2004/108/EC erfüllt. Die CE-Konformität wurde nachgewiesen. Die entsprechenden Erklärungen sind beim Hersteller hinterlegt.