



USER MANUAL

16 CHANNEL NETWORK VIDEO RECORDER



INSTRUCTION MANUAL

To obtain the best performance and ensure device function correctly, please read this instruction manual carefully and completely.

FCC Compliance

USER-INSTALLER CAUTION: YOUR AUTHORITY TO OPERATE THIS FCC VERIFIED EQUIPMENT COULD BE VOIDED IF YOU MAKE CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE TO PART 15 OF THE FCC RULES.

NOTE: THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

THIS CLASS A DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

WARNINGS, CAUTIONS & COPYRIGHT

WARNINGS

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MISTURE.

DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		

Explanation of Graphical Symbols

	The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of insinuated "dangerous voltage" within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral rhombus is intended to alert the user to the presence of important operating and maintenance (servicing) instruction in the literature accompanying the product.

USERS OF THE SYSTEM ARE RESPONSIBLE FOR CHECKING AND COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND STATUTES COIPCERNING THE MONITORING AND RECORDING OF VIDEO AND AUDIO SIGNALS. ULTRAK SHALL NOT BE HELD RESPONSIBLE FOR THE USE OF THIS SYSTEM IN VIOLATION OF CURRENT LAWS AND STATUTES.

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THE TRADEMARKS MENTIONED IN THE MANUAL ARE LEGALLY REGISTERED TO THEIR RESPECTIVE COMPANIES.

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1 INTRODUCTION

1.1 FEATURE

- H.264 hardware video compression
- Recording rate up to 120 FPS @ D1
- Support Mega Pixel IPcam for each channel.
- Real-time Display & Playback.
- Support each channel backup
- Support CMS (Central Management System)
- Powerful mobile surveillance function, support Android phone & i-Phone
- Audio : 4 in & 1out/ Audio Backup / Audio Streaming
- Individual recording setup & function for each channel
- Support Privacy Mask
- HDD damaged block detection & temperature alarm system (HDD S.M.A.R.T)
- DVR log function (ex. user login/ logout) for device safety management
- Up to four online clients for independent remote control; individual live-time, play-back & time-search function available

1.2 SPECIFICATION

MODEL	NEXXA16
VIDEO	
MODE	Multiplex
LIVE-TIME RESOLUTION	720 x 480 (NTSC) 720 x 576 (PAL)
LIVE-TIME DISPLAY RATE	16 x 30 Frame / Sec (NTSC) 16 x 25 Frame / Sec (PAL)
IPCAM RESOLUTION	Up to 1920 x 1080 (2 M-pixel)
IPCAM FRAME RATE	Up to 30 FPS @ NTSC per CH
SPLIT SCREEN	1, 4, 9, 16
VIDEO INPUT	BNC x 8
VIDEO OUTPUT (BNC)	BNC x 8
VIDEO OUTPUT (VGA)	Yes
VIDEO OUTPUT (HDMI)	Yes
AUDIO	
AUDIO INPUT	RCA x 4
AUDIO OUTPUT	RCA x 1

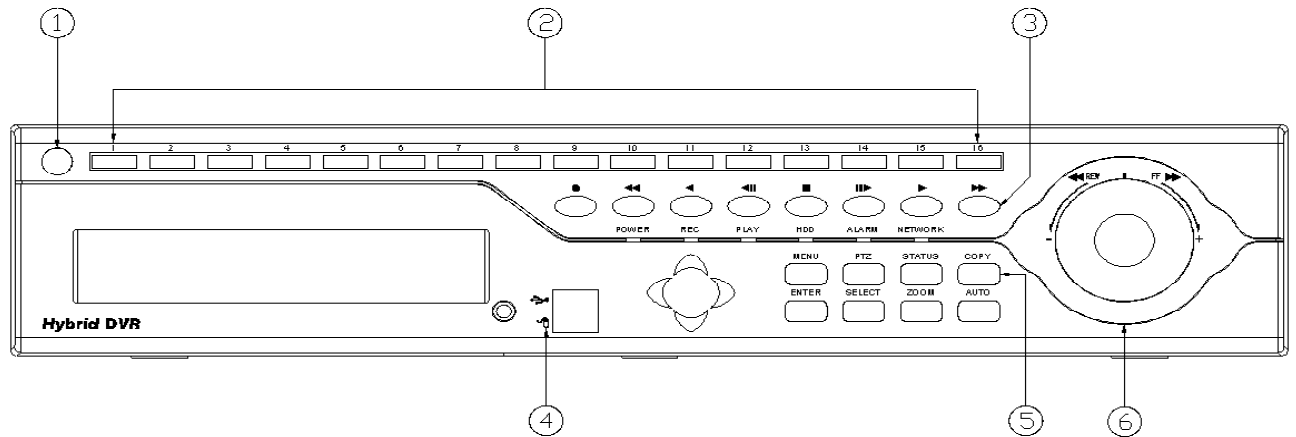
AUDIO BACKUP	Yes
AUDIO STREAMING	Yes
RECORDING	
COMPRESSION TYPE	H.264
RECORDING RESOLUTION (D1)	720 x 480 (NTSC) / 720 x 576 (PAL)
RECORDING RESOLUTION (Half D1)	720 x 240 (NTSC) / 720 x 288 (PAL)
RECORDING RESOLUTION (CIF)	360 x 240 (NTSC) / 360 x 288 (PAL)
RECORDING RATE (D1)	720 x 480 up to 120 PPS (NTSC) 720 x 576 up to 100 PPS (PAL)
RECORDING RATE (Half D1)	720 x 240 up to 240 PPS (NTSC) 720 x 288 up to 200 PPS (PAL)
RECORDING RATE (CIF)	360 x 240 up to 240 PPS (NTSC) 360 x 288 up to 200 PPS (PAL)
IPCAM RECORDING RATE	Up to 30 FPS @ NTSC per CH
RECORDING MODE	Manual / Schedule / Alarm
PLAYBACK & SEARCH	
PLAYBACK SPEED	Fast Forward X 2 x4 X 8 X 16 X32 Fast Backward X 2 x4 X 8 Picture by Picture Playback Pause
TIME SEARCH	Yes
EVENT SEARCH	Yes
EVENT LIST	10000 records per H.D.D (Maximum)
OSD & CONTROL INTERFACE	
TITLE	8 Characters
ON SCREEN DISPLAY & SETUP	Time / Date / Setup Menu
GRAPHIC USER INTERFACE (GUI)	Yes
DVR CONTROL PANEL	Yes
MOUSE	Yes
IR REMOTE CONTROLLER	Yes
SUPPORT IE 、 FIREFOX & SAFARI	Yes
PLAYER	Yes
STORAGE & BACKUP DEVICE	
INTERNAL HDD SUPPORT	SATA HDD x 4
EXTERNAL USB BACKUP DEVICE (PAN DRIVE, HDD, BURNER)	Yes

INTERNAL DVD BURNER BACKUP	No
NETWORK	
ETHERNET	Yes (1G)
ETHERNET COMPRESSION FORMAT	H.264
IE REMOTE CONTROL	Yes
DDNS	Yes
E-MAIL & FTP	Yes
NETWORK IP	Static/ DHCP/ PPPoE/DDNS
MULTI-REMOTE CLIENT	Yes (4 Clients at the same time available)
ALARM	
ALARM INPUT	16 In
ALARM OUTPUT	2 Out (NO/ NC)
MOTION DETECTION	Yes
MOTION DETECTION SENSITIVITY	1~10
VIDEO LOSS DETECTION	Yes
ALARM RECORDING	Yes
BUZZER	Yes
SETUP & OTHER FUNCTIONS	
DST	Yes
EACH CHANNEL BACKUP	Yes
WATER MARK	Yes
PRIVACY MASK	Yes
PTZ CONTROL	Yes
RS-485	Yes
DIGITAL ZOOM	Yes
PASSWORD CONTROL	Two levels, one for system and the other for HDD format
KEY-LOCK	Yes
MULTI-LANGUAGE	Yes
FIRMWARE UPDATE	USB Host & Update on line
OTHERS	
POWER INPUT	AC 100V~240V
DIMENSIONS (W x H x D)	430mm (W) × 88mm (H) × 382mm (D)
OPERATION TEMPERATURE	0 - 45 °C

*** SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE**

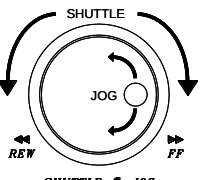
2 HARDWARE OVERVIEW

2.1 FRONT PANEL

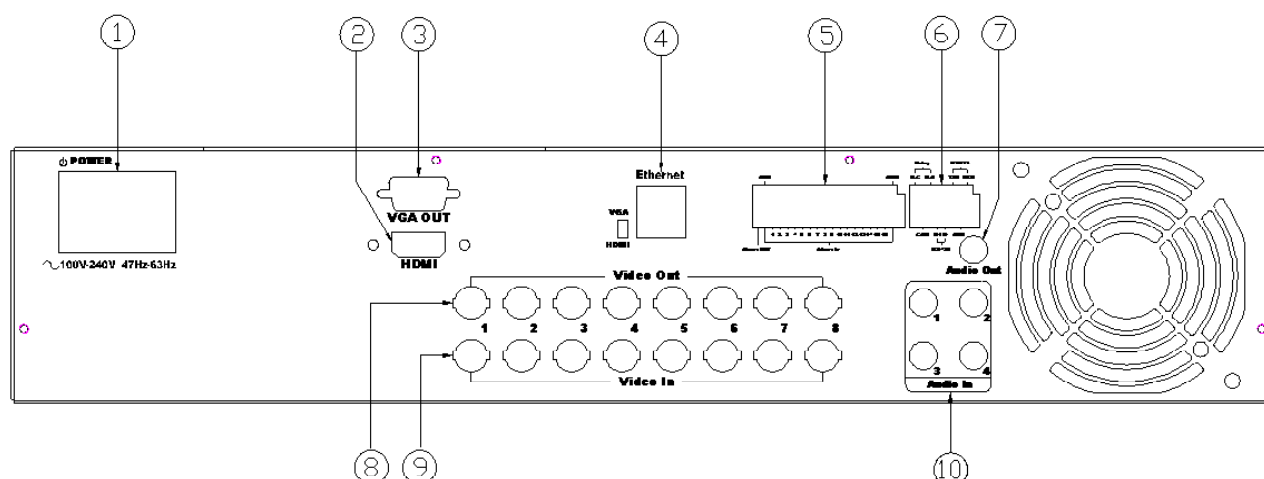


HBR-16AF01

HYBRID DVR OPERATION

NO.	LABEL	OPERATION	PTZ
1		IR Sensor For Remote Control.	
2	1-16	Press The Button To Display No.1~No.16	
3	CONTROL PANEL	Record, Playback And Control Button.	
4		USB Mouse Connector	
5	FUNCTION KEYS	Menu, ptz, hard disk status, Copy, Enter, Select, Zoom, Auto keys.	
6	SHUTTLE & JOG	 Shuttle: Fast Forward ×2 ×4 ×8 Fast Backward ×2 ×4 ×8 Jog: Picture By Picture Playback	

2.2 BACK PANEL



NO.	LABEL	OPERATION
1	POWER	Power switcher: AC100V~AC240V / 47-63Hz input.
2	VIDEO OUT (HDMI)	HDMI connector
3	VIDEO OUT (VGA)	VGA connector. Connect it to LCD monitor.
4	ETHERNET	RJ-45 connector for network.
5	ALARM	16 pin alarm input connector/ 2 pin GND connector/ 1 pin alarm reset.
6	RS-232/ RS-485/ RELAY OUT	2 pin RS-232 connector, 1pin GND connector/ 2 pin RS-485/ 2 pin Relay connector, 1 pin COM connector
7	AUDIO OUT	Audio output.
8	VIDEO OUT (BNC)	Video output with BNC connector.
9	VIDEO IN	Video input with BNC connector.
10	AUDIO IN	Audio input x 4.

2.3 CAMERA & MONITOR LOOPING

Here recommend link cameras by sequence to avoid unexpected image broken, from CH1, CH2, CH3, CH4.....

2.4 EXTERAL ALARM

There are three types of alarms that the system can be configured to handle. They are Motion detection Alarm, External Alarm, Video Loss Alarm, and HDD Temperature Warning.

A. Motion detection Alarm and External Alarm:

When motion detection or External Alarm was triggered, there are 4 possible actions will be taken.

- a. Monitor will display corresponding full screen alarm channel, it will switch automatic mode to manual mode if buttons pressing activity occurred in 5 seconds.
- b. Relays can be activated by motion detection or external alarm when turning on.
- c. External alarm will be recorded in the event list. Motion detection can be set to yes or no.
- d. On the top right of the channel which the alarm triggered, the icons pop up to remind the user.  stands for motion detection alarm.  stands for external alarm.

B. Video Loss Alarm:

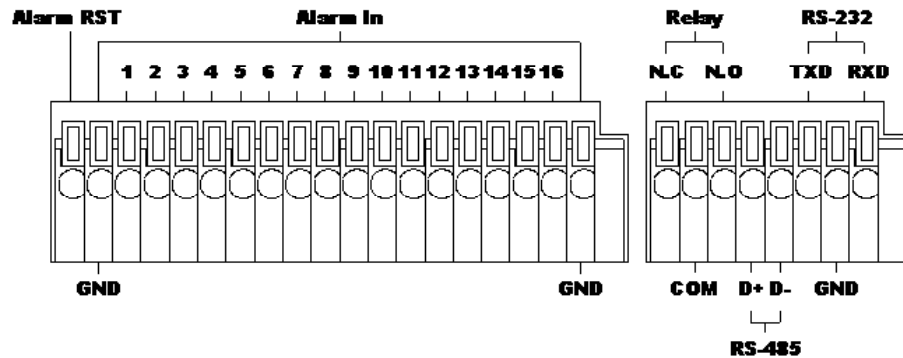
The default setting of Video Loss alarm is enabled and cannot be changed. Although buzzer action can be disabled, an ALM record will still be added to the Event List that indicates the precise time of video loss. On the top right of the channel which the alarm triggered, the icon  pop up to remind the user.

C. HDD Temperature Warning

If the HDD temperature is over than the safe temperature (can be set up by user), the buzzer start sounding to remind the user.

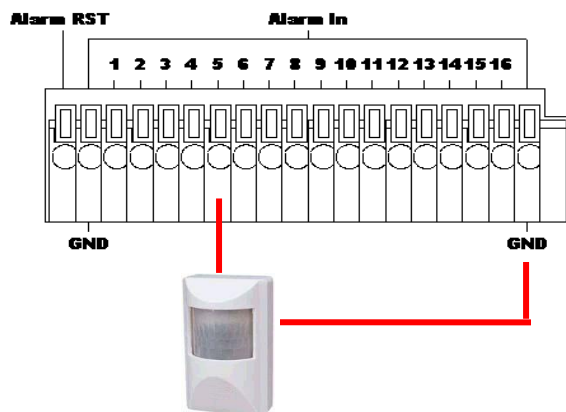
D. Alarm in connector

Alarm 1~16 is the receiver of external alarm. D+ and D- is used for RS-485. TXD, RXD, and GND is for RS-232. N.C, N.O, and COM is for relay output connection.

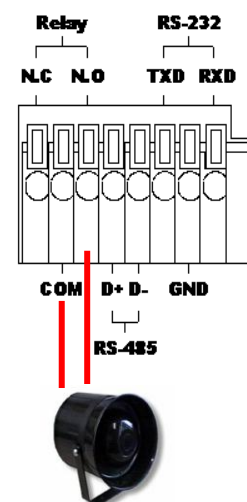


RS-485 D+	RS-485 sends +/ receives +
RS-485 D -	RS-485 sends -/ receives -
RS-232 TXD	RS-232 Transmit Data
RS-232 RXD	RS-232 Receive Data
GND	Ground
ALARM IN 1-16	Camera alarm input.
Alarm RST	Alarm Reset
N.C	Relay N.C.
N.O	Relay N.O.
COM	Common

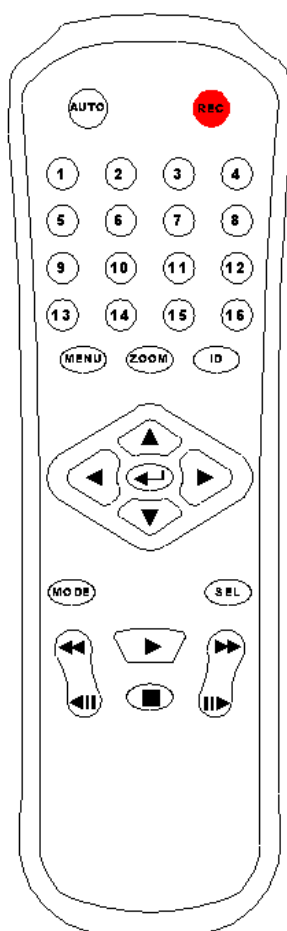
EX1 : Connect GND & Alarm to external IR detector.



EX2 : Connect N.O & COM to external siren.



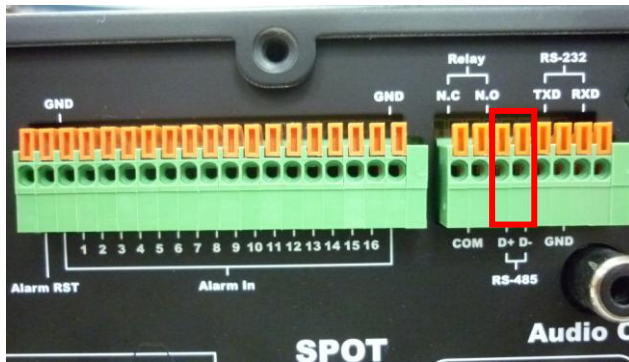
2.5 IR REMOTE CONTROL



ITEM	
AUTO	Press AUTO to switch channel by channel automatically.
SEL	Press this button to select the different assembled of camera formats or perform PTZ functions. Moreover, under the 16 split screen and full screen modes, press this button for switching Audio ON/ OFF.
.REC	Press REC to start recording & again to stop.
1-16	Press the button to select the channel for full screen.
	Fast backward
	Picture by picture backward play
	Picture by picture forward play
	Fast forward
	Play video forward
MODE	Split Screen Switch
ID	**ID setup to control DVRs
	Switch split screen & Move upward or increase.
	Switch split screen & Move right or increase.
	Switch split screen & Move downward or decrease.
	Switch split screen & Move left or decrease.
	To enter item or make choose.
MENU	To into or exit main menu
STOP	Stop play and playback

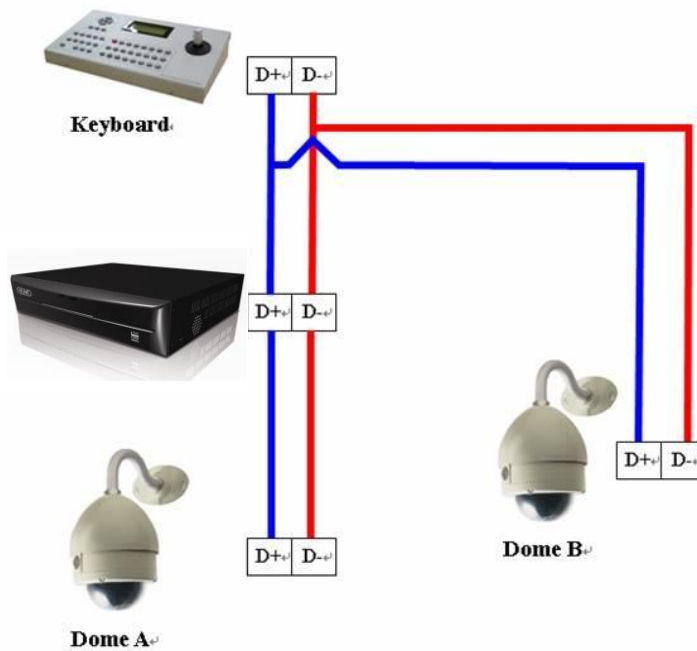
2.6 PTZ (PAN, TILT AND ZOOM) CAMERA

Following diagram for DVR connect between PTZ camera & joystick controller, for DVR to control PTZ camera please make sure the CAMERA ID, BAUDRATE (default at 9600 bps) and RS-485 cable.



(16CH Model)

Under “Two Core” connection, controller can control speed dome without integrated protocol into DVR. Moreover, one keyboard can connect MAX 256 units of speed dome.



3 SYSTEM SETUP

3.1 MENU SETUP INTERFACE(GUI)



A.  CAMERA SETUP



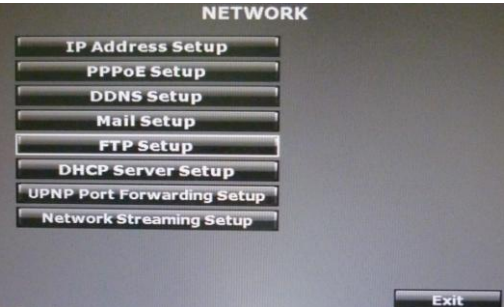
C.  ALARM SETUP



B.  RECORD SETUP



D.  NETWORK SETUP





E. AUTHORITY SETUP

AUTHORITY

☒ HDD Format (Require Password Confirmation)

☐ Anonymous User Login

☐ Password Protection

☐ Keyboard Lock

User Management

Save Cancel



F. DISK MANAGEMENT

DISK

Overwrite Mode OFF

Hard Disk Full Warning 20%

Auto Deletion ON

Reserve Day 1

Storage Information

Format HDD

Save Cancel



G. SYSTEM SETUP

SYSTEM

NVR Name HNR-

NVR ID 0

Language English

Date Format YYYY-MM-DD

Version K1104-V1.0.04

Software Update Configure Setup

Time Setup Daylight Saving Time

Status Display Setup Monitor Adjust

Save Cancel

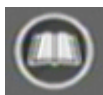


H. EXIT

3.2 LIVE VIEWING AND POP-UP MENU



NOTE : The pop-up menu can be activated by moving the mouse cursor to the bottom of the live viewing screen.



A. GUI MENU BAR

With live viewing mode, press this button to get into the GUI menu.



B. DISK INFORMATION

With live viewing mode, press this button to display disk information.



C. DIGITAL ZOOM

In the live full screen mode, left-click the button of the mouse to pull a range to zoom in or zoom out the image. User can right-click the button of the mouse to disable this function. (NOTE: Using the mouse to operate digital zoom can zoom in to max. 16 times.) Moreover, user can also use ZOOM key on the front panel to perform this function. (First, click ZOOM Key and then click ▲▼◀▶ key to select zoom in or zoom out position. Finally, click ENTER key to complete the setting. Moreover, click ZOOM Key again can disable digital zoom function. Using the panel key to perform zoom in function is fixed at 2 times.)



D. PTZ CONTROLLER

Within live-viewing mode, Clicks this button to get into the PTZ setup menu. User can right-click the button of the mouse to exit PTZ Setup.

NOTE : Only for the camera supported PTZ function.

PTZ CONTROL



Press the minimization icon then the control panel becomes smaller:



Move the mouse and the arrow will follow the mouse and change direction. In this mode user can click on the live view to control direction instead of the direction key on control panel.

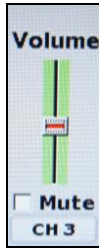
When a analog camera is connected, you can set up by clicking the tools icon:





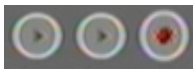
E. **AUDIO VOLUME**

Press this button, and the audio volume control board will pop up.



F. **DISPLAY CONTROL**

Within live-viewing or playback mode, use display control to switch the camera channel.



G. **RECORD AND PLAYBACK CONTROL**

Same as front panel controller and remote controller.



H. **SOUND OUTPUT / PTZ CONTROL**

There are little icon on the right top of the live vide of every channel. Click  to enable the sound output. Click  to PTZ call out the control board. Note that if those functions are not support by the camera linked, you will not see the corresponding icons.

The sound options do not affect the audio recorded into playback video. As long as the audio setup is enabled, the playback video includes audio even the sound output here is turned off.

3.3



CAMERA SETUP



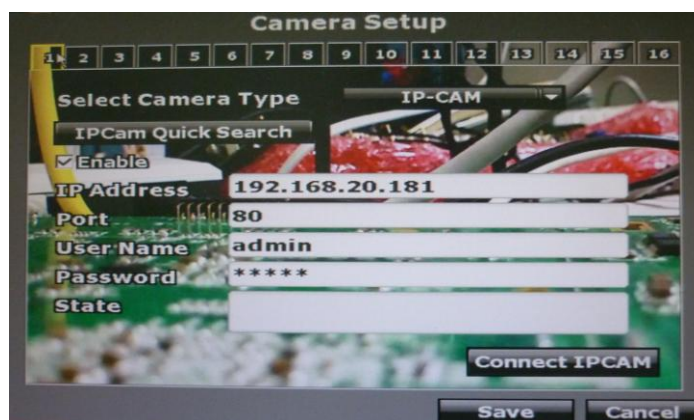
A. Camera Setup

Hybrid DVR can connect two various cameras, analog camera or IP-Cam.

Camera Type in Analog-CAM



Camera Type in IP-CAM



A-1. IPCam Quick Search



Press the “IPCam Quick Search” button and click “Search Device” button in the following, HYBRID DVR will search the IPCAM devices which IP address are setup as the same domain as HYBRID DVR IP address. Moreover, click the IPCam device which from the list can import the device information to the channel automatically without any manual key-in step.

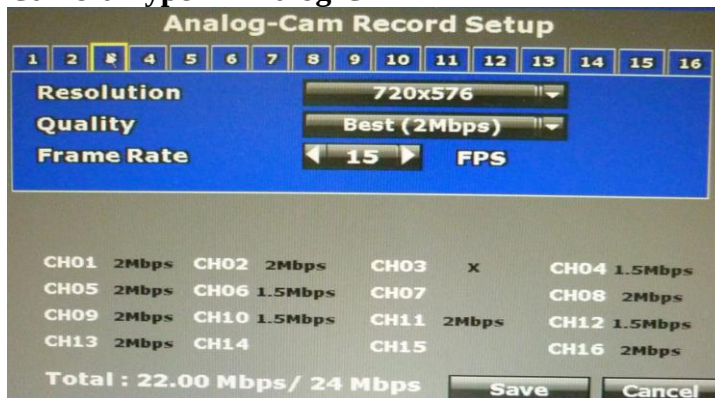
1. Enable : Click the checkbox to decide performing the connection or not.
2. IP Address : Insert the IP address of the connecting device.
3. Port : Insert the port number of the connecting device.
4. User : Insert the user name of the connecting device.
5. Password : Insert the password of the connecting device.
6. State : After click the “connect IPCAM” button to test the IPCAM device, the connection state will reveal among this column.

A-2. Connect IPCAM : After insert the IPCAM related information, click this button to test the connection circumstances.

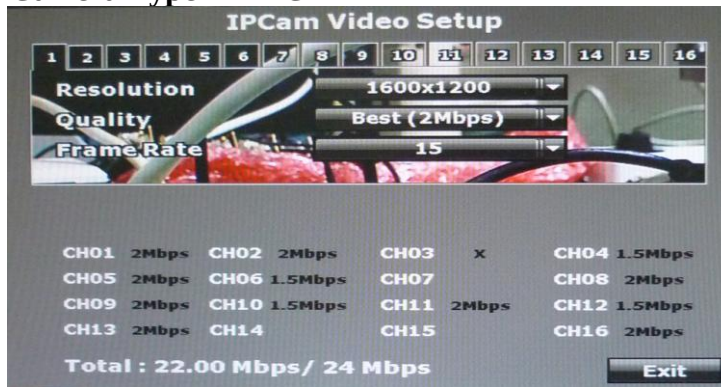
Note: To the camera connected via ONVIF protocol, the PTZ control function is not supported.

B. Video Setup

Camera Type in Analog-CAM



Camera Type in IP-CAM



B-1. Resolution

Click drop down list to change the resolution of connecting device.

B-2. Quality

Click drop down list to change the image quality. (Currently, the maximum quality of the 16CH HYBRID DVR is 24M/bps)

B-3. FrameRate

Click drop down list to change the frame rate of connecting device.

C. IPCam Image Setup

Camera Type in Analog-CAM



Camera Type in IP-CAM



C-1. Display

Use the mouse to enable or disable the camera display on the screen or not.

C-2. Title

Use the mouse to setup the title of connecting IP device.

C-3. Contrast

Press ◀ or ▶ to change contrast level. The adjustment value is between 0~255

C4. Brightness

Press ◀ or ▶ to change brightness level. The adjustment value is between

0~255

C-5. Hue

Press ◀ or ▶ to change hue level. The adjustment value is between 0~255

C-6. Saturation

Press ◀ or ▶ to change saturation level. The adjustment value is between 0~255

C-7. Sharpness

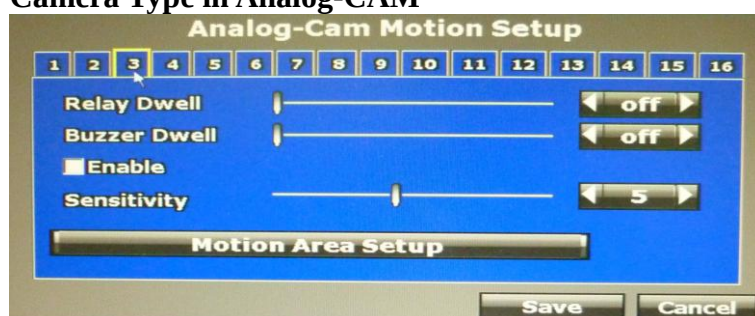
Press ◀ or ▶ / mouse wheel to change sharpness level. The adjustment value is between 0~15

C-8. Switch Dwell

Press ◀ or ▶ to change auto switch second. The value is between 0~99 sec.

D. Motion Setup

Camera Type in Analog-CAM



D-1. Relay Dwell

Press ◀ or ▶ to change the relay time or disable relay function.

D-2. Buzzer Dwell

Press ◀ or ▶ to change the buzzer time or disable buzzer function.

D-3. Enable Motion Detection

Click the checkbox to decide enable or disable motion detection.

D-4. Sensitivity

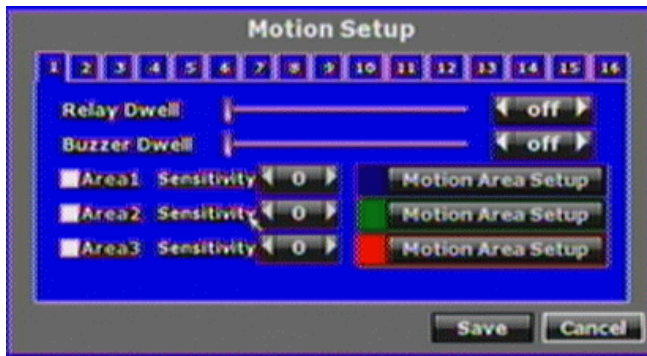
Press ◀ or ▶ to change sensitivity level.

D-5. Motion Area Setup

Press **Motion Area Setup** to setup motion area.



Camera Type in IP-CAM



D-6. Relay Dwell

Press ◀ or ▶ to change the relay time or disable relay function.

D-7. Buzzer Dwell

Press ◀ or ▶ to change the buzzer time or disable buzzer function.

D-8. Area1 Sensitivity

Press ◀ or ▶ to change the sensitivity of setup motion area in Area1. Click “Motion Area Setup” and drag a blue area for motion detection.

D-9. Area2 Sensitivity

Press ◀ or ▶ to change the sensitivity of setup motion area in Area2. Click “Motion Area Setup” and drag a green area for motion detection.

D-10. Area3 Sensitivity

Press ◀ or ▶ to change the sensitivity of setup motion area in Area3. Click “Motion Area Setup” and drag a red area for motion detection.

E. Privacy Setup

Camera Type in Analog-CAM



Camera Type in IP-CAM



E-1. Area1

Tick the “Area1” box and click “Area Setup” to drag a blue area for masking.

E-2. Area2

Tick the “Area1” box and click “Area Setup” to drag a green area for masking.

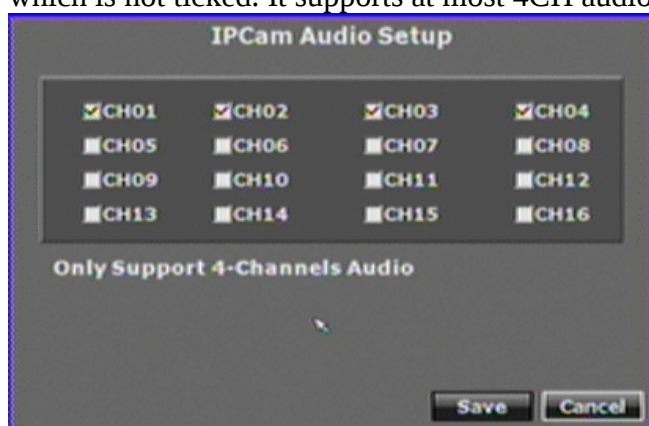
E-3. Area3

Tick the “Area1” box and click “Area Setup” to drag a red area for masking.

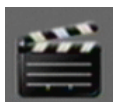


F. Audio Setup

The channel ticked means the sound from camera will be recorded into the playback video. Vice versa. No sound will be recorded in the playback video of the channel which is not ticked. It supports at most 4CH audio record.



3.4



RECORD SETUP



A. Post-Alarm Record Time

Press ◀ or ▶ to switch the recording time of post-alarm. The adjusting value is from 5~99 sec.

B. Mobile Streaming Setup

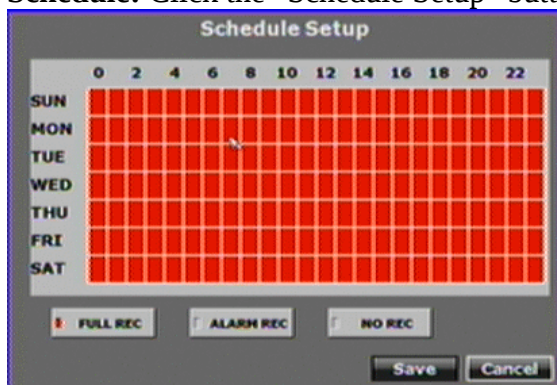
Press on to record the streaming for mobile viewing.

C. Record Mode

Use the drop down list to switch the recording mode. There are manual, schedule and alarm trigger three varieties of mode.

Manual: Click  and  button on the right bottom of live viewing to start and stop the manual record.

Schedule: Click the “Schedule Setup” button to set the schedule recording time.



Alarm trigger: When the alarm trigger is detected, it start recording as the alarm setting.

**A. Alarm Trigger Setup****A-1. Alarm Auto Switch**

Use the drop down list to switch the alarm auto switch. When the alarm is triggered, the screen will switch to full screen, split screen (16CH split screen) or disable.

A-2. Video Loss Detection

Use the drop down list to switch the video loss detection. When the video loss is detected, the alarm will trigger.

A-3. Ext Alarm Detection

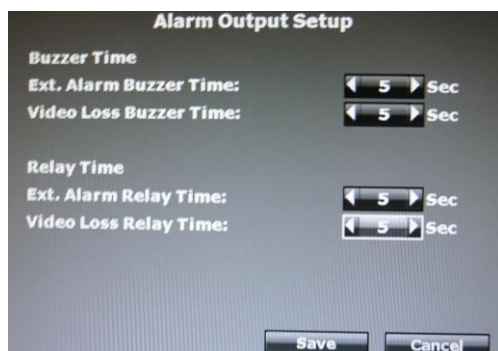
Use the drop down list to switch the Ext Alarm Detection. When the external alarm is detected, the alarm will trigger.

A-4. Ext Alarm Mode

Choose normally open or normally close according to the external device type.

A-5. HDD Temp. Warning

Use the drop down list to turn on or off the HDD Temp. Warning. When the HDD temperature is too high, the alarm will trigger.

B. Alarm Output Setup

This control item separates into two parts, “Buzzer Time” and “Relay Time”. User can press ◀ or ▶ to switch ext. alarm buzzer time and video loss buzzer time in “Buzzer Time” option. The adjustment value is from 5 to 99 seconds. Moreover, among “Relay Time” option, the user can press ◀ or ▶ to switch ext. alarm relay time and video loss relay time. The adjustment value is from 5 to 99 seconds as well.

C. Alarm Event Setup

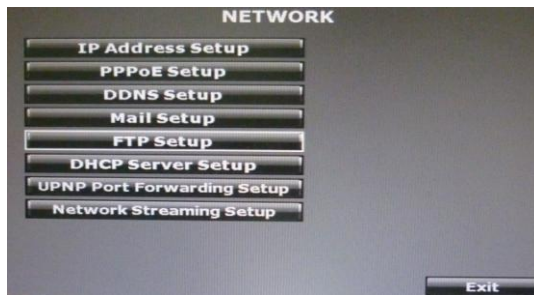


There are seven sort of events can be selected. When the selected items are happened and triggered, the alarm will be activated.

3.6



NETWORK SETUP



A. IP ADDRESS SETUP

Press ◀ or ▶ to setup HYBRID DVR IP address.



A-1. IP Mode

Press drop down list to change IP mode to STATIC IP or DHCP.

A-2. IP Address

Use the virtual keypad to setup the HYBRID DVR IP ADDRESS.

A-3. Network

Use the virtual keypad to change SUBNET MASK.

A-4. Gateway

Use the virtual keypad to change Default GATEWAY.

A-5. DNS1

Use the virtual keypad to change DNS.

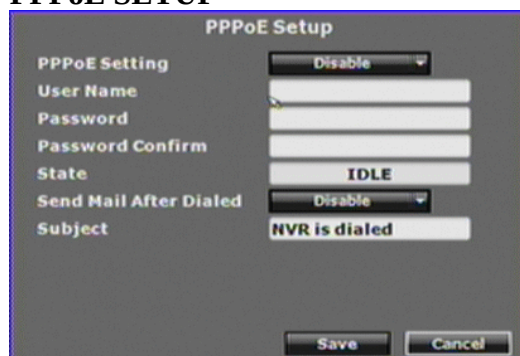
A-6. DNS2

Use the virtual keypad to change OTHER DNS.

A-7. WebPage Port

Use the virtual keypad to change the IE browser port.

B. PPPoE SETUP



B-1. PPPoE Setting

Press the drop down list to enable or disable PPPoE.

B-2. User Name

Insert the user name (ADSL account) which provided from local ISP.

B-3. Password

Insert the password which provided from local ISP.

B-4. Password Confirm

Insert the password again to confirm the password.

B-5. State

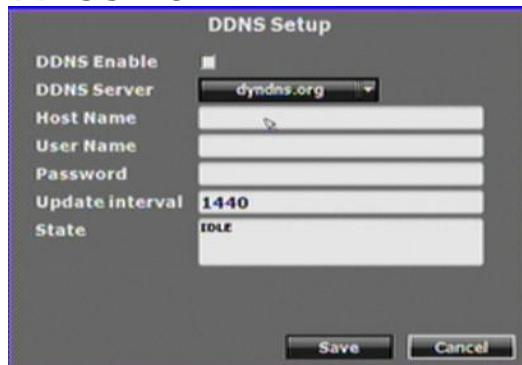
Present the current status of PPPoE function.

B-6. Send Mail After Dialed

Click the drop down list to enable or disable the function.

B-7. Subject

Insert the mail subject when dialed successfully.

C. DDNS SETUP**C-1. DDNS Enable**

Click the checkbox to enable or disable DDNS function.

C-2. Provider

Click the drop down list to select DDNS provider.

C-3. Host Name

Insert the registered host name in the selected provider.

C-4. User Name

Insert the registered user name in the selected provider.

C-5. Password

Insert the registered password in the selected provider.

C-6. Update Interval

A period of time to update IP address.

C-7. State

The state after apply for DDNS.

Updating: Information update.

Idle: Stop service.

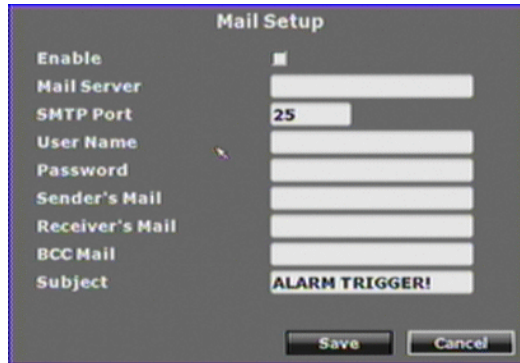
DDNS registered successfully, now log by

<http://<username>.ddns.camddns.com>: Registered successfully.

Updating Failed, the name is already registered.

Updating Failed, please check your internet connection.

D. MAIL SETUP

A screenshot of the 'Mail Setup' dialog box. It has a title bar 'Mail Setup'. Inside, there are several fields: 'Enable' with a checked checkbox, 'Mail Server' with an empty text box, 'SMTP Port' with '25' entered, 'User Name' with an empty text box, 'Password' with an empty text box, 'Sender's Mail' with an empty text box, 'Receiver's Mail' with an empty text box, 'BCC Mail' with an empty text box, and 'Subject' with 'ALARM TRIGGER!' entered. At the bottom are 'Save' and 'Cancel' buttons.

Enable	☒
Mail Server	
SMTP Port	25
User Name	
Password	
Sender's Mail	
Receiver's Mail	
BCC Mail	
Subject	ALARM TRIGGER!

D-1. Enable

Use the checkbox to enable or disable the Mail Server function.

D-2. Mail Server

The IP address of Mail Server

D-3. SMTP Port

The port of SMTP (known as Simple Mail Transfer Protocol). (Default value is 25)

D-4. User Name

The user name while log in to the mail server.

D-5. Password

The password while log in to the mail server.

D-6. Sender's Mail

The sender's account when send the mail via this mail server.

D-7. Receiver's Mail

The receiver's mail address.

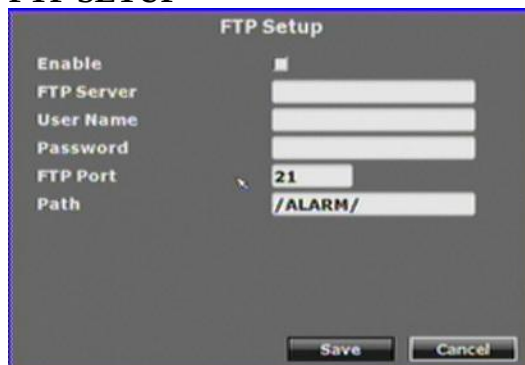
D-8. BCC Mail

The receiver's mail address for Bcc Mail.

D-9. Subject

The subject while sending the mail.

E. FTP SETUP

A screenshot of the 'FTP Setup' dialog box. It has a title bar 'FTP Setup'. Inside, there are several fields: 'Enable' with a checked checkbox, 'FTP Server' with an empty text box, 'User Name' with an empty text box, 'Password' with an empty text box, 'FTP Port' with '21' entered, and 'Path' with '/ALARM/' entered. At the bottom are 'Save' and 'Cancel' buttons.

Enable	☒
FTP Server	
User Name	
Password	
FTP Port	21
Path	/ALARM/

E-1. Enable

Use the checkbox to enable or disable FTP Server.

E-2. FTP Server

The IP address of FTP Server.

E-3. User Name

The username while log in to the ftp server.

E-4. Password

The password while log in to the ftp server.

E-5. FTP Port

The port number of file transmission. (Default value is 21)

E-6. Path

The ftp path where the user wants to reserve the information.

F. DHCP Server Setup

The screenshot shows the 'DHCP Server Setup' menu. It contains four items: 'Enable' with a checked checkbox, 'Start IP Address' with a text field containing '192.168.1.20', 'End IP Address' with a text field containing '192.168.1.100', and 'Lease Time' with a spinner set to '10' and the unit 'Day'. At the bottom are 'Save' and 'Cancel' buttons.

F-1. Enable

Use the checkbox to enable or disable DHCP Server function. When the function is activated, the HYBRID DVR can be treated as the DHCP server. The HYBRID DVR will assign or distribute one of the IP address which is according to the setup IP address range (start and end IP Address.) to the connecting IPCAM (setup DHCP function as well).

F-2. Start IP Address

Use the virtual keypad to insert the start IP Address of DHCP server.

F-3. End IP Address

Use the virtual keypad to insert the end IP Address of DHCP server.

F-4. Lease Time

Press ◀ or ▶ to change the lease time of DHCP server.

G. UPNP Port Forwarding Setup

The screenshot shows the 'UPNP Port Forwarding Setup' menu. It contains three items: 'Enable' with a checked checkbox, 'External HTTP Port' with a text field containing '80', and 'External RTSP Port' with a text field containing '554'. At the bottom are 'Save' and 'Cancel' buttons.

G-1. Enable

Use the checkbox to enable or disable UPNP port setup.

G-2. External HTTP Port

Use the virtual keypad to insert the external http port.

G-3. External RTSP Port

Use the virtual keypad to insert the external rtsp port.

H. Network Streaming Setup



For Network Viewing, the Hybrid DVR provides two compression formats.

H-1. Main Streaming

Users view the H.264 video playback via Internet browser. Selecting the option can save the disk space while spend more time when loading the video.

H-2. Sub Streaming

Other than the original H.264 video, the Hybrid DVR saves a copy of M-JPEG video used for Network Viewing. If it takes long time when loading the video on the web, selecting sub streaming here may make it faster. However, to store both the H.264 and M-JPEG video, more disk space must be consumed.



AUTHORITY SETUP



A. HDD Format

Use the checkbox to enable or disable the authority of HDD Format function. If enable this function, the user has to insert password while performing HDD format.

B. Anonymous User Login

Use the checkbox to enable or disable the authority of anonymous user login. If enable this function, the user does not have to insert the username/ password and can view the live image via IE browser.

C. Password Protection

Use the checkbox to enable or disable the authority of password protection.

D. Keyboard Lock

Use the checkbox to enable or disable the operation of control bar which is in the right hand side of live view. The control bar can not work when keyboard lock is activated.

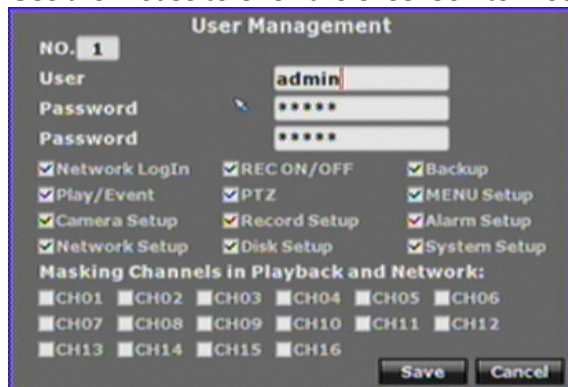
E. User Management

Among this item, user can setup the user management permission and the user authority management.

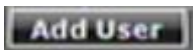


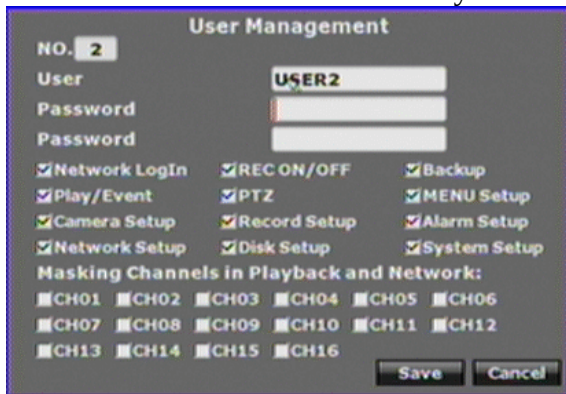
E-1. Permission

Use the mouse to click the checkbox to modify and alter the user authority.



E-2. Add User

After click  button, the setup page will present in the following.
The user can distribute the authority and the permission for the new user.



The image shows a 'User Management' dialog box. At the top, it says 'NO. 2'. Below that, there are fields for 'User' (containing 'USER2'), 'Password', and another 'Password' field. A grid of checkboxes follows, organized into three columns. The first column contains: Network LogIn, Play/Event, Camera Setup, Network Setup. The second column contains: REC ON/OFF, PTZ, Record Setup, Disk Setup. The third column contains: Backup, MENU Setup, Alarm Setup, System Setup. Below the checkboxes is a section titled 'Masking Channels in Playback and Network:' followed by a grid of checkboxes for channels CH01 through CH16. At the bottom right are 'Save' and 'Cancel' buttons.

NO.	2	
User	USER2	
Password		
Password		
☒ Network LogIn	☒ REC ON/OFF	☒ Backup
☒ Play/Event	☒ PTZ	☒ MENU Setup
☒ Camera Setup	☒ Record Setup	☒ Alarm Setup
☒ Network Setup	☒ Disk Setup	☒ System Setup
Masking Channels in Playback and Network:		
☐ CH01	☐ CH02	☐ CH03
☐ CH04	☐ CH05	☐ CH06
☐ CH07	☐ CH08	☐ CH09
☐ CH10	☐ CH11	☐ CH12
☐ CH13	☐ CH14	☐ CH15
☐ CH16		

Save Cancel

3.8



DISK MANAGEMENT

DISK

Overwrite Mode: OFF

Hard Disk Full Warning: 20%

Auto Deletion: ON

Reserve Day: 1

Storage Information

Format HDD

Save Cancel

A. Overwrite Mode

Click the drop down list to enable or disable overwrite function.

B. Hard Disk Full Warning

Click the drop down list to change value to 20/ 15/ 10 or 5% with non-overwrite mode. When LEFT RATIO is below the setting, it will enable AUDIBLE ALARM (If AUDIBLE ALARM of BUZZER of ALARM SETUP is ON).

C. Auto Deletion

Click the drop down list to enable or disable auto deletion function.

D. Reserve Day

Use ◀ or ▶ to setup the reserve day. While enable auto deletion function, the data will be removed when reserve day is exceed the setting. The value can be setup between 1~30 days

E. Storage Information

The information of storage device will present in this page.

Storage Information

Hard Disk Device List:

DISK	CAPACITY	LEFT	TEMP.
NON			
NON			
NON			
NON			

USB Device List:

DISK	CAPACITY	LEFT
NON		

Exit

F. Format HDD

Insert the user name and password while performing HDD format function.

User Login

User: [Text Field]

Password: [Text Field]

[Text Field]

LOGIN

Cancel

3.9



SYSTEM SETUP

A. System Name

Use the virtual keypad to insert the name of the HYBRID DVR.

B. System ID

Use ◀ or ▶ to setup the HYBRID DVR ID. The adjustment value is between 0~32

C. Language

Use the drop down list to change the HYBRID DVR language. Currently, there are English, Traditional Chinese and Simplified Chinese three options.

D. Date Format

Use the drop down list to change DATE. There are DD/MM/YYYY, YYYY/MM/DD and MM/DD/YYYY three modes.

E. Version

The firmware version of the HYBRID DVR will show in this column.

F. Software Update

Click  button to perform firmware updating.

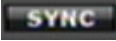
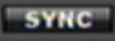
G. Configure Setup

Click the checkbox to select which item can be setup by the user. The user can also load the setting to factory default, load the configure from USB and backup configure to USB.

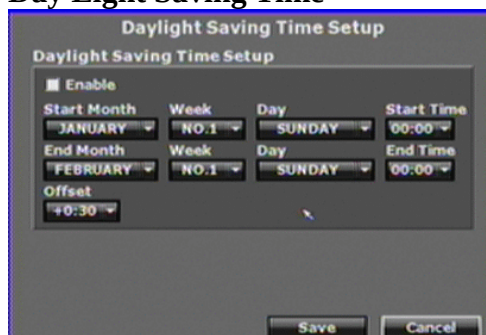


H. Time Setup



Click  button within “Time” block can adjust and synchronize the time of the HYBRID DVR as the system time of the PC. Moreover, if the user clicks the enable checkbox and  button within the NTP Setup block, the time of the HYBRID DVR will synchronize as the NTP Server.

I. Day Light Saving Time



After enable the daylight saving time function, the user can use the drop down list to select the start time and the end time of daylight saving time. After complete the setting, please click  button to reserve the setting.

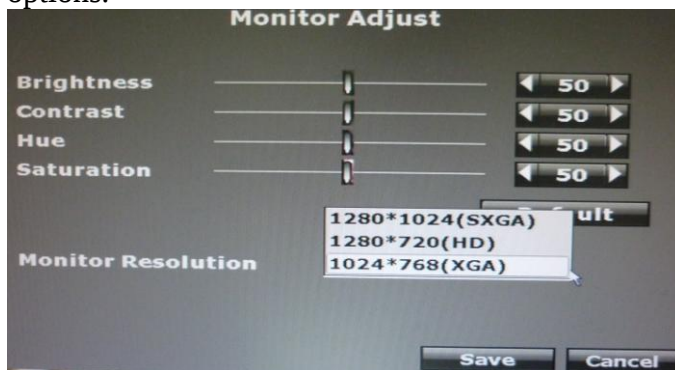
J. Status Display Setup

Use the mouse to click the options, which is including “Date and Time Display”, “Record Information Display” and “Camera Title Display”.



K. Monitor Adjust

User can use ◀ or ▶ to adjust the monitor related setting within this page, there are “Brightness”, “Contrast”, “Hue” and “Saturation” four options can be set. You can also adjust Resolution here by selecting “1280*720”, 1024*768, or “1920*1080(HDMI) / 1280*1024(VGA).” The video output interface, HDMI or VGA, affects the resolution options.



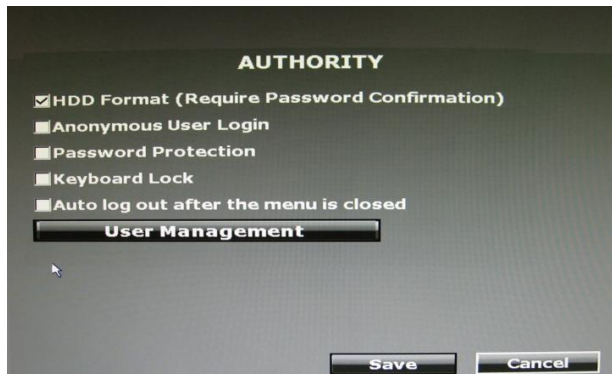
3.EX



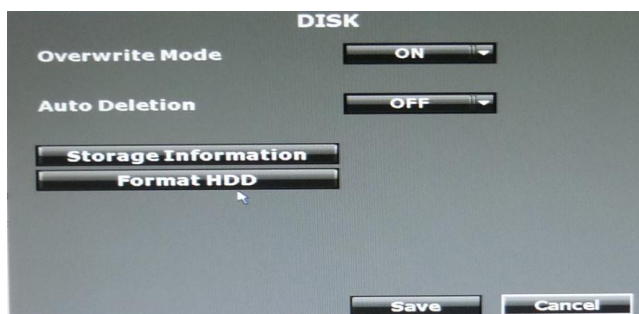
DEBUG MESSAGE

The purpose of the following procedure is to export a HDD debug message file. If user has problems with the DVR, the technical person can analysis the file and might find the cause of problem.

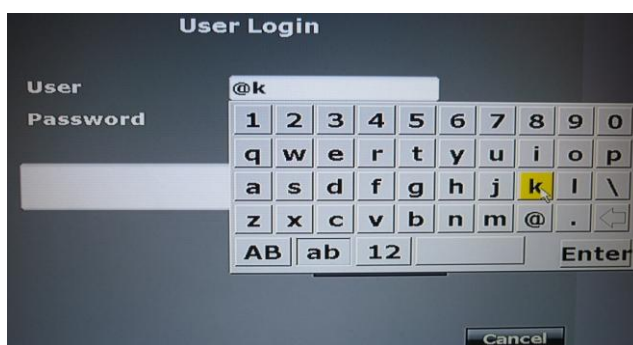
- Plug in a USB disk.
- Enter the Authority Setup page and make sure the option “HDD Format (Require Password Confirmation)” is ticked.



- Enter the Disk Setup page. Click “Format HDD”.



- Key in “@k” in the user name column to login. No password is required.



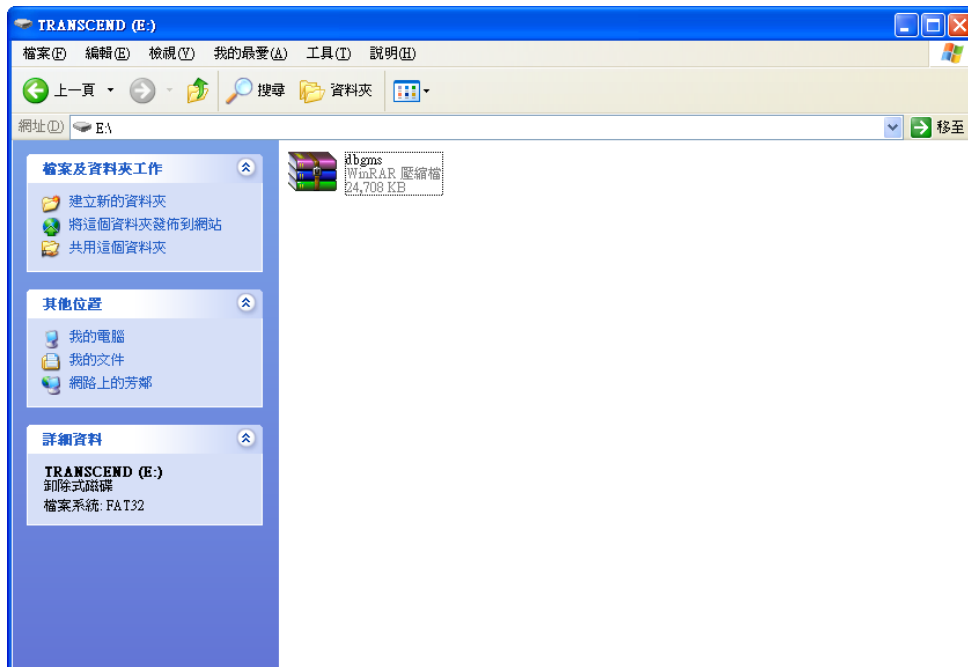
- The screen turns to Advance Setup page. Click download. It takes about 10 seconds to export the file.



- When the downloading is complete, a message pops up to remind the user. Click” OK”.



- Now the debug message file should have been in your USB disk. Please send the file” dbgms.tar” to your dealers technician.



4 HYBRID DVR PLAYBACK



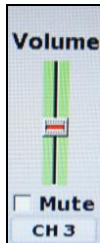
Note: Under playback mode, it will output sound when switch to full screen mode.

A. RECORD BACKUP

With playback mode, press this button to backup record (.da0 video backup) and press this button again to finish backup. For performing the single image backup (.jpg single image backup), press  first and then click this button to backup the necessary image.

B. AUDIO VOLUME

Press this button, and the audio volume control board will pop up.



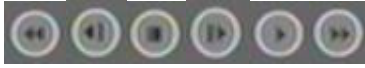
C. DISPLAY CONTROL

Within playback mode, use display control to switch the camera channel.

D. DIGITAL ZOOM

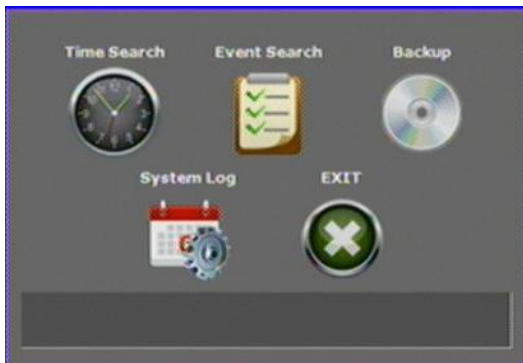
In the live full screen mode, left-click the button of the mouse to pull a range to zoom in or zoom out the image. User can right-click the button of the mouse to disable this function. (NOTE: Using the mouse to operate digital zoom can zoom in to max. 16 times.) Moreover, user can also use ZOOM key on the front panel to perform this function. (First, click ZOOM Key and then click ▲▼◀▶ key to select zoom in or zoom out position. Finally, click ENTER key to complete the setting. Moreover, click ZOOM Key again can disable digital zoom function. Using the panel key to perform zoom in function is fixed at 2 times.)

E.



RECORD AND PLAYBACK CONTROL

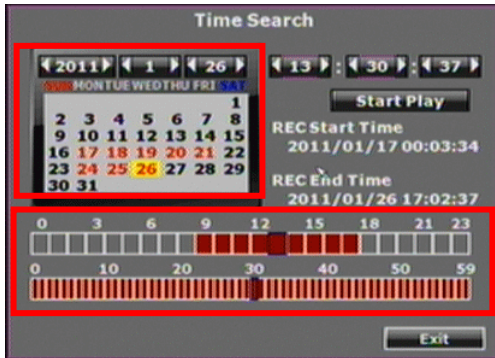
Same as front panel controller and remote controller.





4.1 TIME SEARCH

Select the start of playback time and then click **Start Play** button to playback the recorded data. If the time contains the recorded data, the time point within this page will become red.



4.2 EVENT SEARCH

After entry to the event search page, user can click the event log item which shown on the list to start playback. Moreover, the user could click **Event Filter** button to select the specific event option to filter the event option that shown on the list.



4.3



BACKUP

After click the backup button, the user could use drop down list to select the storage device, and the backup time selection mode, Time Mode/ Hours Mode. After that, click **Backup Now** button to start backup.

TIME MODE

Click ◀ or ▶ to select the start and end backup time.

Backup

REC Start Time: 2012/04/11 16:15:13
REC End Time: 2012/04/16 18:14:04

Media Device: NO Free Size:

Start Time: 2012 / 4 / 16 18 : 14 : 0
End Time: 2012 / 4 / 16 18 : 14 : 0

Backup Size:

Select Channel:

☒ CH 1	☒ CH 2	☒ CH 3	☒ CH 4
☒ CH 5	☒ CH 6	☒ CH 7	☒ CH 8
☒ CH 9	☒ CH 10	☒ CH 11	☒ CH 12
☒ CH 13	☒ CH 14	☒ CH 15	☒ CH 16

Check Device Backup Exit

Moreover, among “Select Channel” option, use the mouse to select the channel which is going to backup.

Backup

REC Start Time: 2012/04/11 16:15:13
REC End Time: 2012/04/16 18:14:04

Media Device: NO Free Size:

Start Time: 2012 / 4 / 16 18 : 14 : 0
End Time: 2012 / 4 / 16 18 : 14 : 0

Backup Size:

Select Channel:

☒ CH 1	☒ CH 2	☒ CH 3	☒ CH 4
☒ CH 5	☒ CH 6	☒ CH 7	☒ CH 8
☒ CH 9	☒ CH 10	☒ CH 11	☒ CH 12
☒ CH 13	☒ CH 14	☒ CH 15	☒ CH 16

Check Device Backup Exit

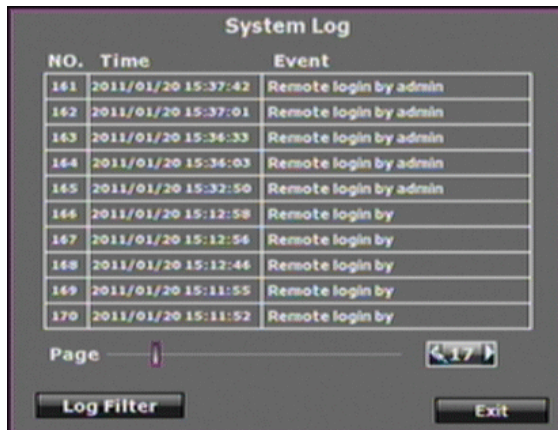
4.4



SYSTEM LOG

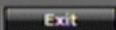
System log is reserved all of the system record. The maximum storage quantity is 2000.

Click  button to perform the further data filter action. After complete the specific item selection, please click  button to reserve the setting. While return to the system log page, it will only reveal the specific selection items.



NO.	Time	Event
161	2011/01/20 15:37:42	Remote login by admin
162	2011/01/20 15:37:01	Remote login by admin
163	2011/01/20 15:36:33	Remote login by admin
164	2011/01/20 15:36:03	Remote login by admin
165	2011/01/20 15:32:50	Remote login by admin
166	2011/01/20 15:12:58	Remote login by
167	2011/01/20 15:12:56	Remote login by
168	2011/01/20 15:12:46	Remote login by
169	2011/01/20 15:11:55	Remote login by
170	2011/01/20 15:11:52	Remote login by

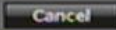
Page  17 

After click  button



Log Filter	
☒ Console Login	☒ Remote Login
☒ Add user	☒ Remove user
☒ Hard Disk Format	☒ Hard Disk Full Warning
☒ Load Default	☒ Load configure from USB
☒ PPPoE IP	☒ DHCP IP

5 BACKUP PLAYBACK

SYSTEM REQUIREMENT

CPU: Intel Celeron 1.6G

MEMORY: 256MB.

VGA: 32MB

VGA RESOLUTION: 1024 x 768.

OS: Windows XP / 2000 or above

SUGGESTED REQUIREMENT

CPU: Intel P4 2.8G

MEMORY: 512MB or above

VGA: 64MB or above

VGA RESOLUTION: 1024 x 768

OS: Windows XP / 2000 or above

NETWORK BANDWIDTH: Upload Speed is 256kbps or above

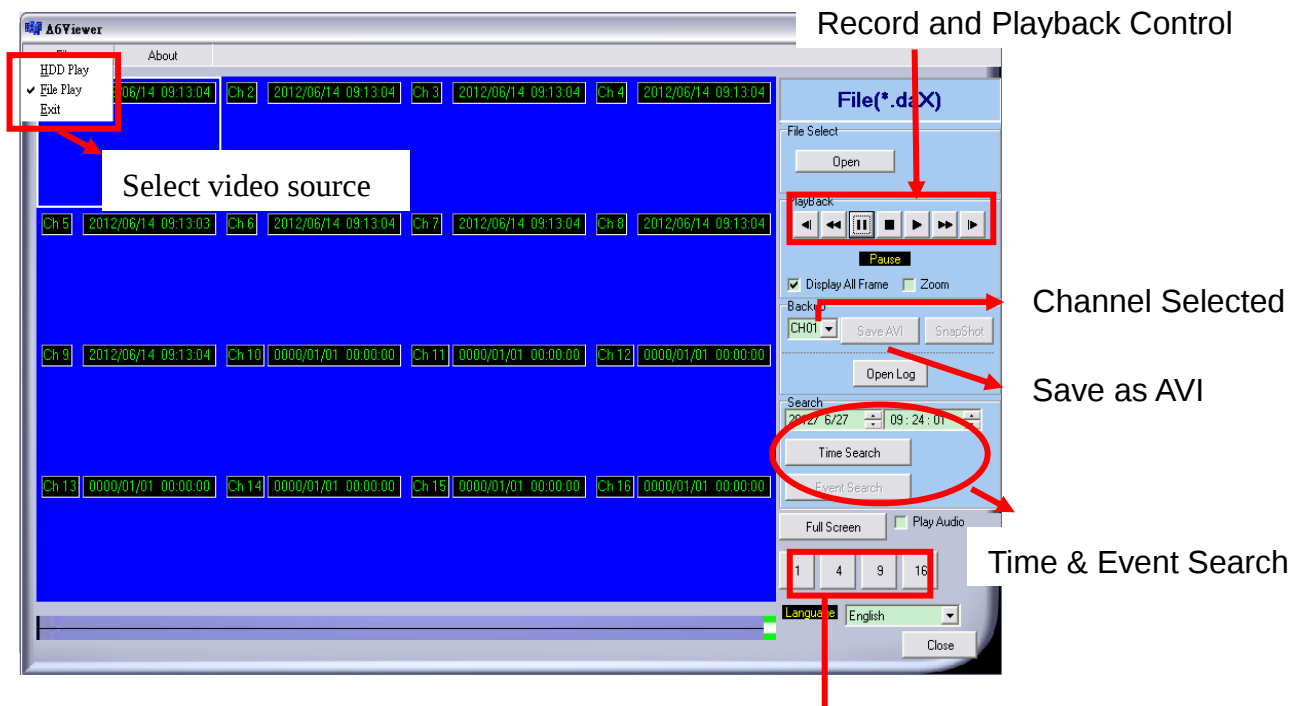
5.1 MAIN SCREEN SETTING



The player (A6Viewer.exe) is used to play the DVR backup video. A6Viewer.exe can be attained from the attached CD or via the Internet; moreover, while performing USB backup and DVD-RW backup, the software will be built automatically as well.

A. MAIN SCREEN

Open the A6Viewer. Use Overlay mode can improve the system resource performance.

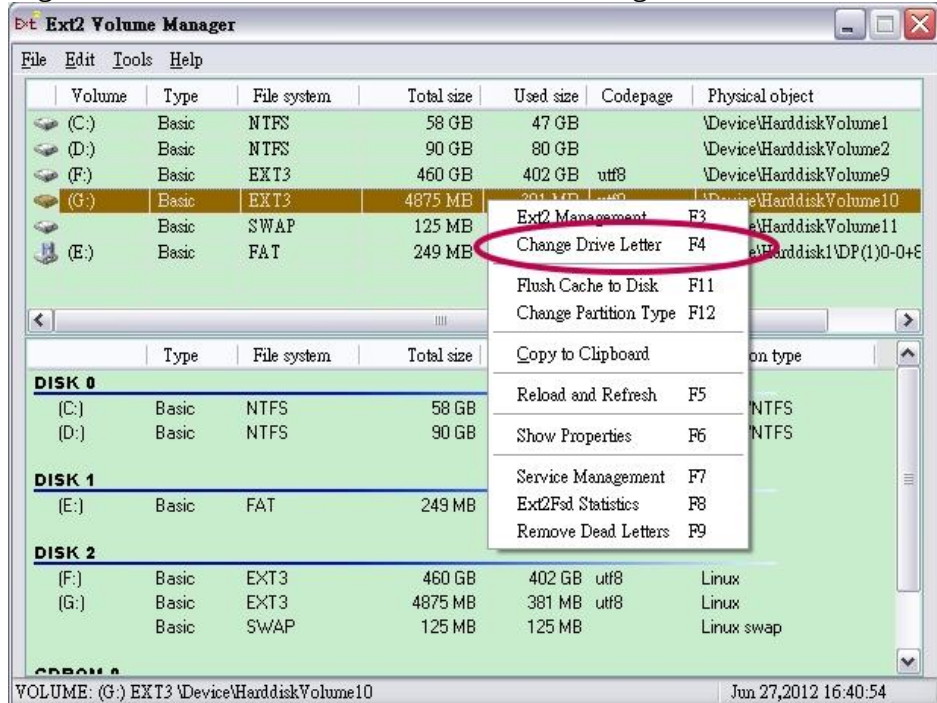


1, 4, 9, 16 Channels Divide Screen

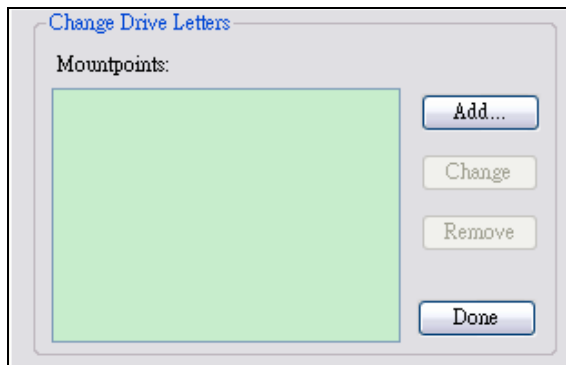
B. HDD PLAY

1. Remove the DVR HDD and connect it to the PC. The DVR HDD is Linux format, so the Windows system may not know it. Please use the software “Ext2Fsd” to assign a drive letter to the HDD. “Ext2Fsd” is in the attached CD or can be downloaded from the Internet.

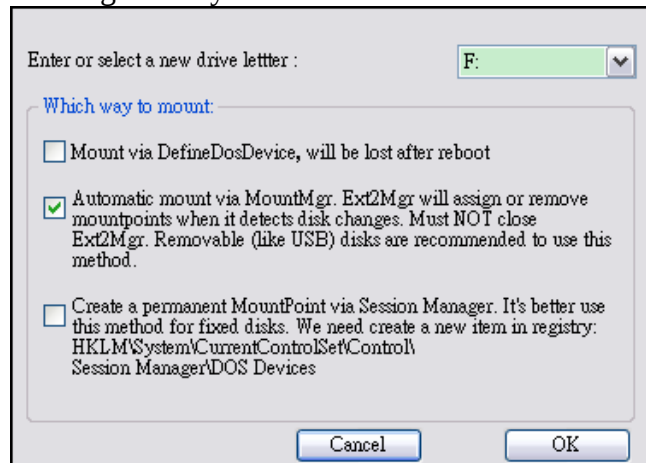
- Start the Ext2Fsd, and it will detect all the disks connected with your PC. Right-click on the DVR HDD and choose “Change Drive Letter”.



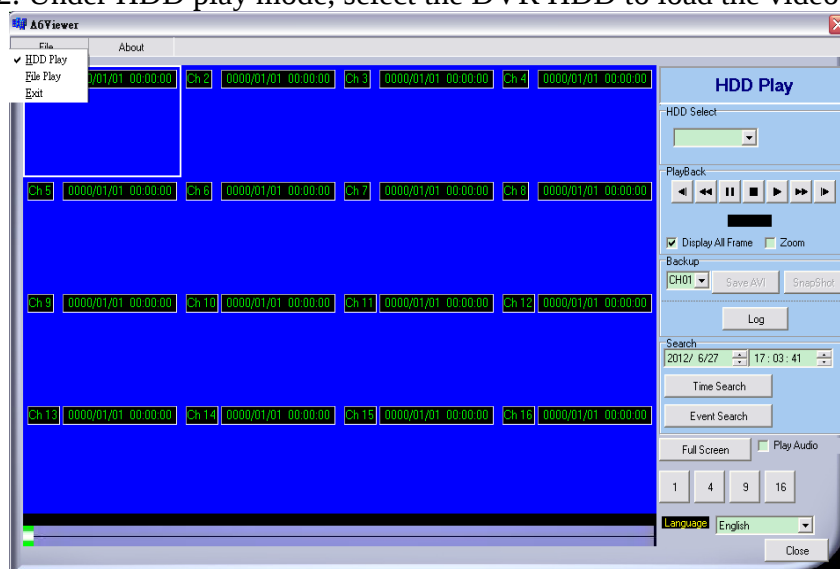
- Click “Add”



- Assign a letter to the HDD, then click OK so that the HDD get the letter and can be recognized by the Windows.

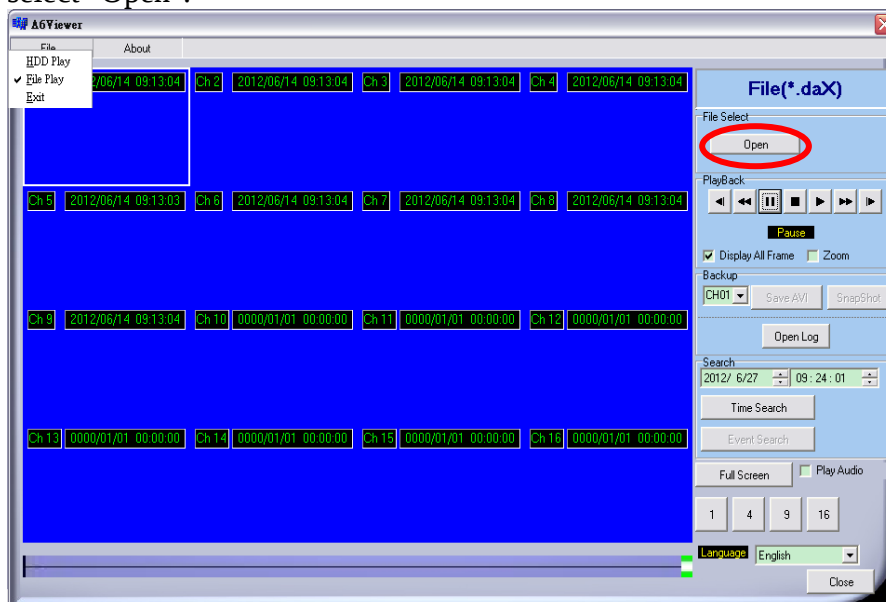


2. Under HDD play mode, select the DVR HDD to load the video file in the HDD.

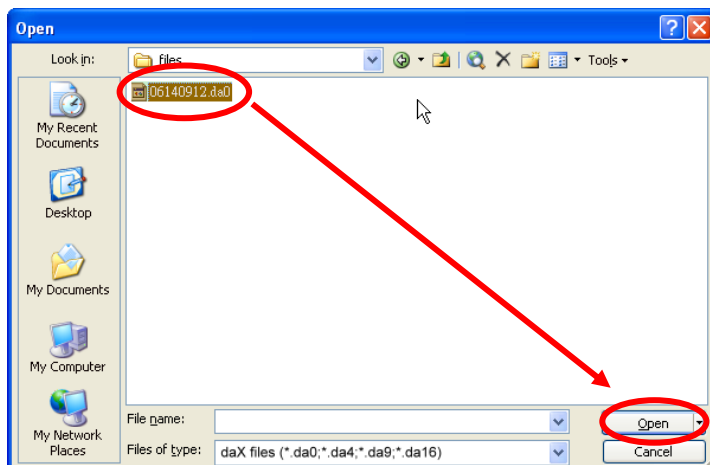


C. File Play

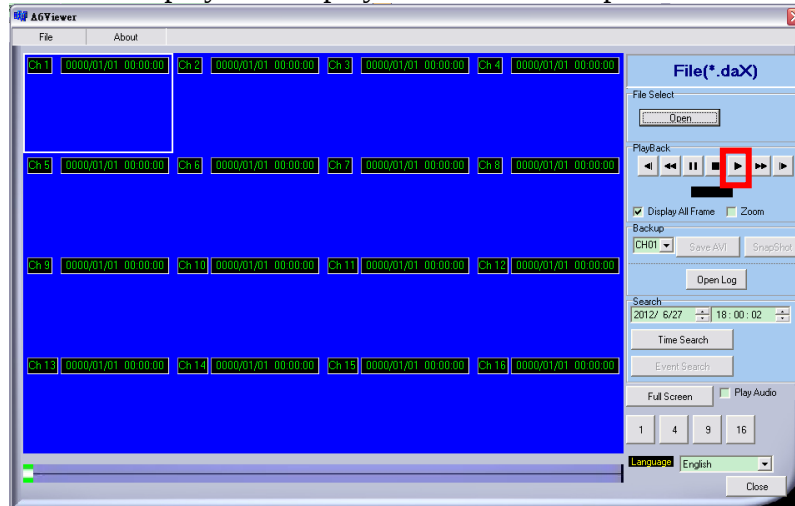
1. You can use A6Viewer to open a single video backup file. Under file play mode, select "Open".



2. Choose the path that the .daX file is reserved and pick the file to playback.



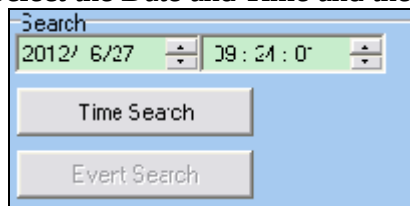
3. Press the play icon to play the video or still picture.



5.2 PLAYBACK OPERATION

A. TIME SEARCH

Select the Date and Time and then click  to play the film.



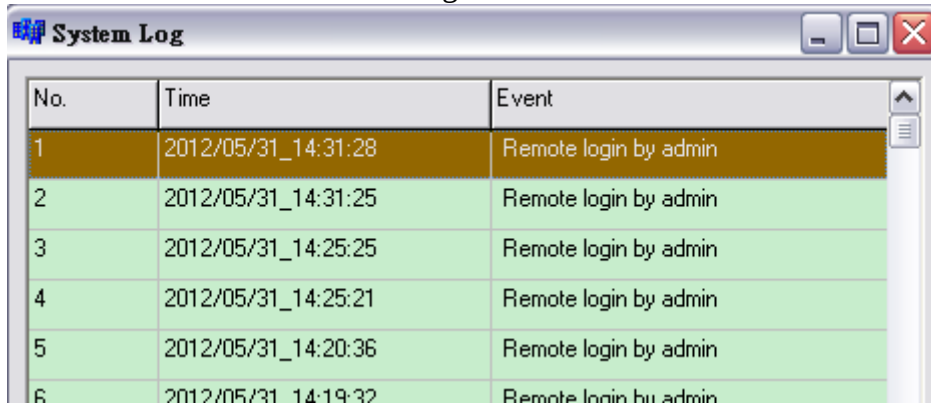
B. EVENT SEARCH

It will display all the events which are reserved within the DVR HDD after press  (Shown in the following) and double click left button of mouse to trigger event.

Num	Channel	Time	Type
1	255	2008/02/25_09:53:29	POWER ON
2	255	2008/02/25_09:53:38	POWER ON
3	255	2008/02/25_09:54:56	POWER ON
4	255	2008/02/25_09:56:09	POWER ON
5	255	2008/02/25_09:58:05	POWER ON
6	255	2008/02/25_10:02:45	POWER ON
7	255	2008/02/25_10:13:05	POWER ON
8	255	2008/02/25_10:15:33	POWER ON
9	255	2008/02/25_10:35:06	POWER ON
10	255	2008/02/25_10:37:42	POWER ON
11	255	2008/02/25_10:47:21	POWER ON
12	255	2008/02/25_10:49:25	POWER ON
13	255	2008/02/25_10:51:11	POWER ON
14	255	2008/02/25_10:54:16	POWER ON
15	255	2008/02/25_10:58:08	POWER ON
16	255	2008/02/25_11:00:02	POWER ON
17	255	2008/02/25_11:04:15	POWER ON
18	255	2008/02/25_11:05:35	POWER ON
19	255	2008/02/26_10:28:44	POWER ON

C. LOG

Click  and select a log file to read it.

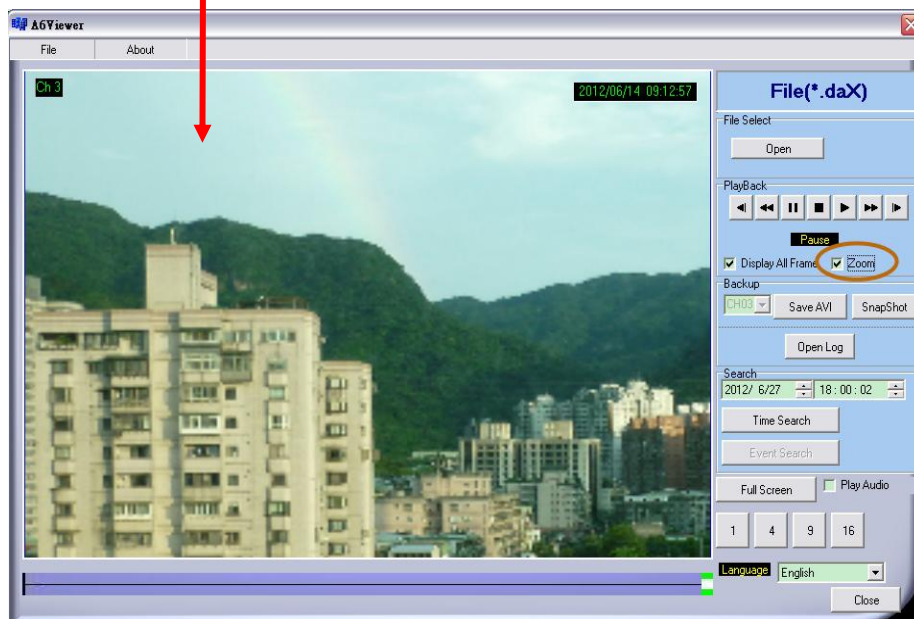
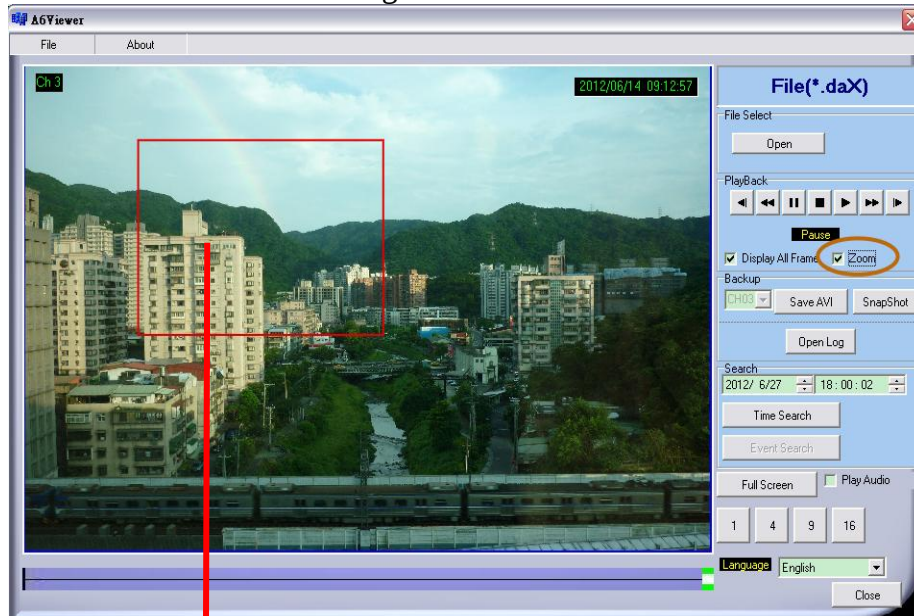


The System Log window displays a table of events. The first row is highlighted in orange, and the subsequent five rows are highlighted in green. The table has three columns: No., Time, and Event.

No.	Time	Event
1	2012/05/31_14:31:28	Remote login by admin
2	2012/05/31_14:31:25	Remote login by admin
3	2012/05/31_14:25:25	Remote login by admin
4	2012/05/31_14:25:21	Remote login by admin
5	2012/05/31_14:20:36	Remote login by admin
6	2012/05/31_14:19:32	Remote login by admin

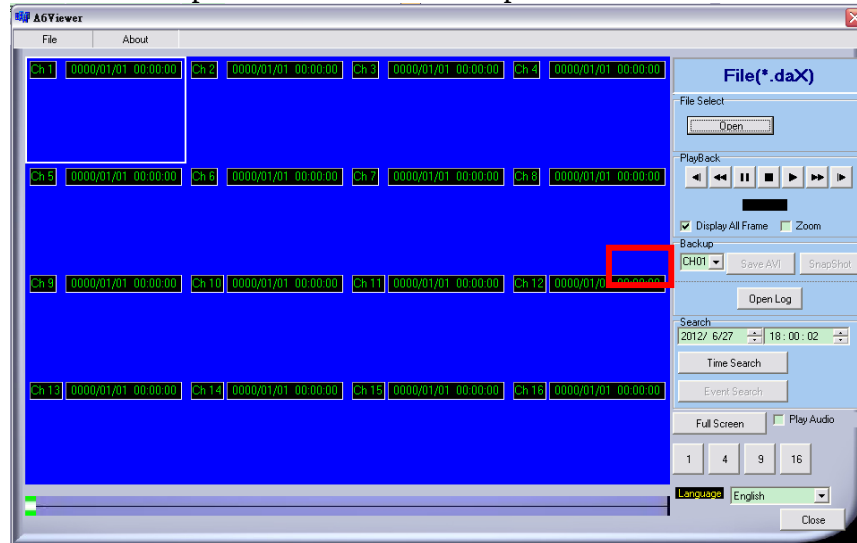
D. ZOOM

Tick the “Zoom” box and drag an area on the screen. Click the area to zoom in.



E. BACKUP FILE TO AVI

1. Please select specific channel to backup.



2. During video playback mode please press AVI bottom **Save AVI** to start.
3. Make up a filename and path than press **Save** bottom to start AVI backup.
4. Press AVI bottom **StopAVI** to finish backup.

6 NETWORK VIEWING & PLAYBACK

SYSTEM REQUIREMENT

CPU: Intel Celeron 1.6G

MEMORY: 256MB.

VGA: 32MB

VGA RESOLUTION: 1024 x 768.

OS: Windows XP / 2000

SUGGESTED REQUIREMENT

CPU: Intel P4 2.8G

MEMORY: 512MB or above

VGA: 64MB or above

VGA RESOLUTION: 1024 x 768

OS: Windows XP / 2000

NETWORK BANDWIDTH: Upload Speed is 256kbps or above

6.1 IP ADDRESS SETUP ON PC SITE

Install cameras inside in LAN or use network cable to connect with PC. This is for IPInstallerEng.exe to set up IP address of cameras. If OS is Windows XP SP2 or above, the following Windows Security Alert will popup. Then, please click on **Unblock**.



Then, IPInstallerEng.exe will popup:

HYBRID DVR default IP address is 192.168.1.220

IP Installer V2.2

Device lists:

Server Name	IP Address
IP-Camera	192.168.001.239
IP-Camera	192.168.001.225
DVR	192.168.001.220
IP-Camera	192.168.003.233
熱機中_860	192.168.001.218
SHOWROOM 810	192.168.001.155
IP_Camera_rince	192.168.001.160
IP_Camera (POE)	192.168.001.226
IP-Camera	192.168.003.248
IP-Camera	192.168.003.246
Web_Server	192.168.003.222
Web_Server	192.168.003.221
SHOWROOM_16MS	192.168.001.158

Static DHCP

Name: DVR

IP: 192 168 1 220

Netmask: 255 255 255 0

Gateway: 192 168 1 254

DNS 1: 168 95 1 1

DNS 2: 168 95 192 1

Port1: 80

MAC: 00:0F:0D:10:6B:B2

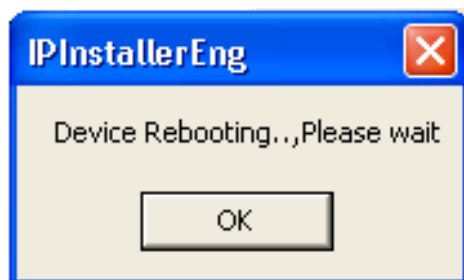
Search Device Submit

To Change Device Name, IP address, and Gateway:
 1. Select the device on the left side.
 2. Change network parameter on the right side.
 3. Press Submit button.
 4. Press "Search Device" to re-search again.
 5. Double click the device to open it.

Exit

NOTE: Please input correct network parameters without blank spaces.

On Device Lists, it lists all servers. Click on one server and then its IP setting will show on the right side. After editing the parameters and clicking on Submit, the following dialogue box will popup. And, it will reboot the device with new parameters.

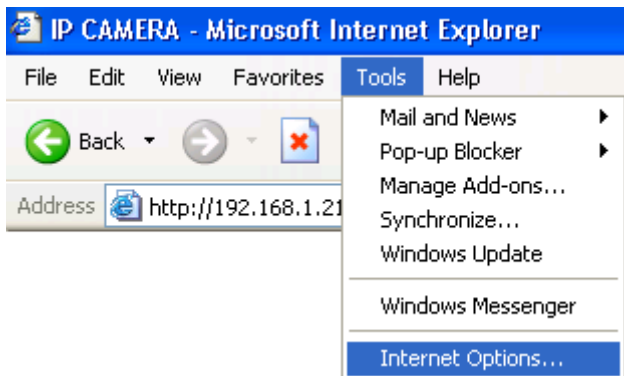


6.2 OPTIONAL MICROSOFT INTERNET EXPLORER SETUP

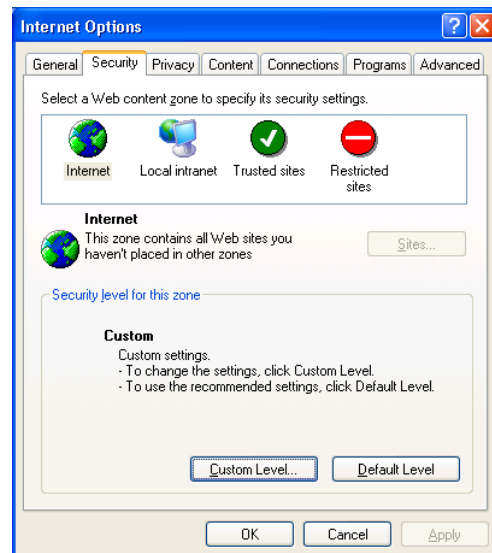
OPTION 1: DISABLE ACTIVEX WARNING

- A. IE → Tools → Internet Options → Security → Custom Level → Security Settings → Download unsigned ActiveX controls → Enable or Prompt (recommend).
- B. IE → Tools → Internet Options → Security → Custom Level → Security Settings → Initialize and script ActiveX controls not marked as safe → Enable or Prompt (recommend).

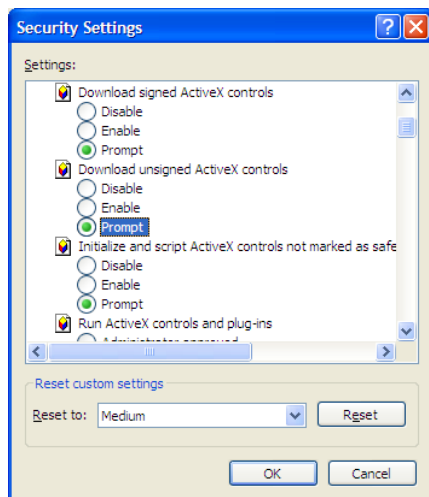
1



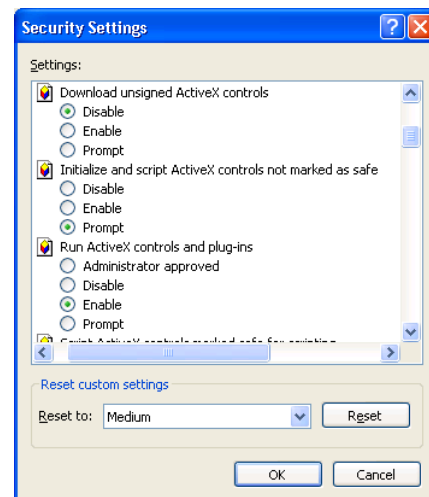
2



3



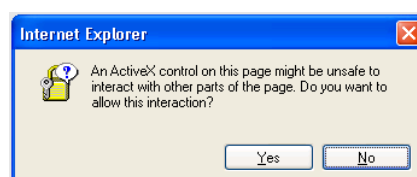
4



5

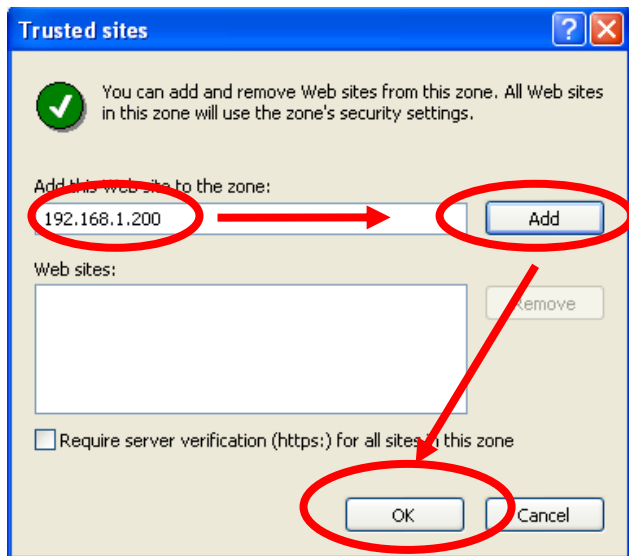
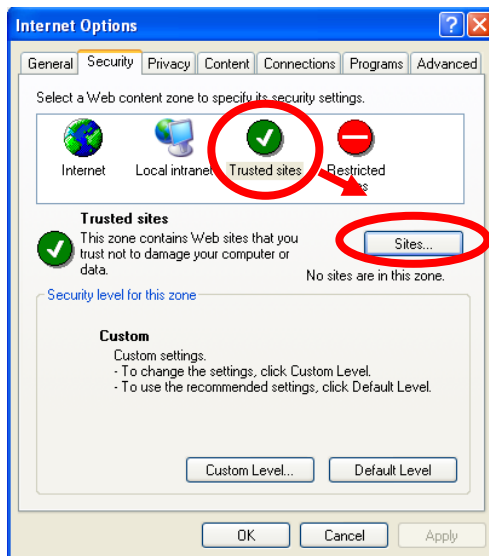
Above three options are all based on select as the prompt.

As indicated in the dialogue box. Please select "YES."



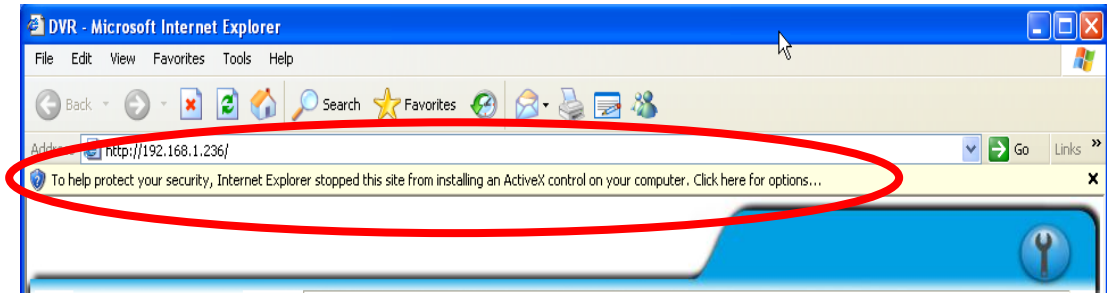
OPTION 2: ADD TO TRUSTED SITES

IE → Tools → Internet Options → Security → Trusted sites → Sites

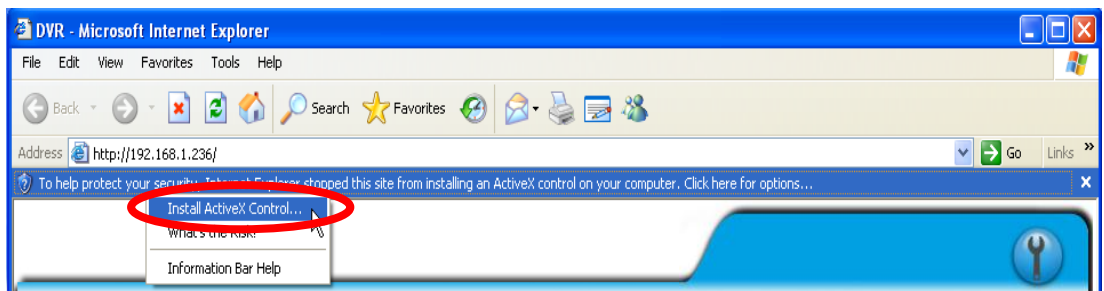


6.3 LOGIN

A. INSTALL ACTIVEX

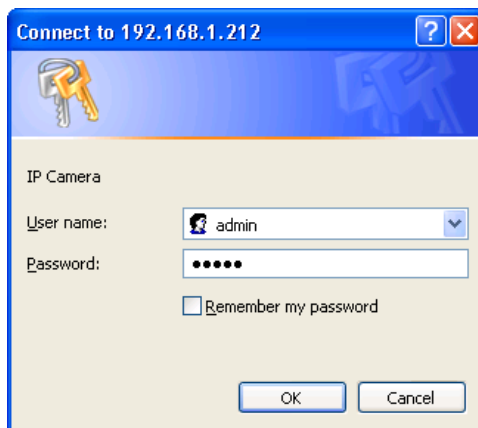


B. START INSTALL ACTIVEX



C. ACCOUNT & PASSWORD LOGIN

After IP setup and connect to network or LAN, type IP address on IE Browser directly. The following User name & Password Login window will popup.

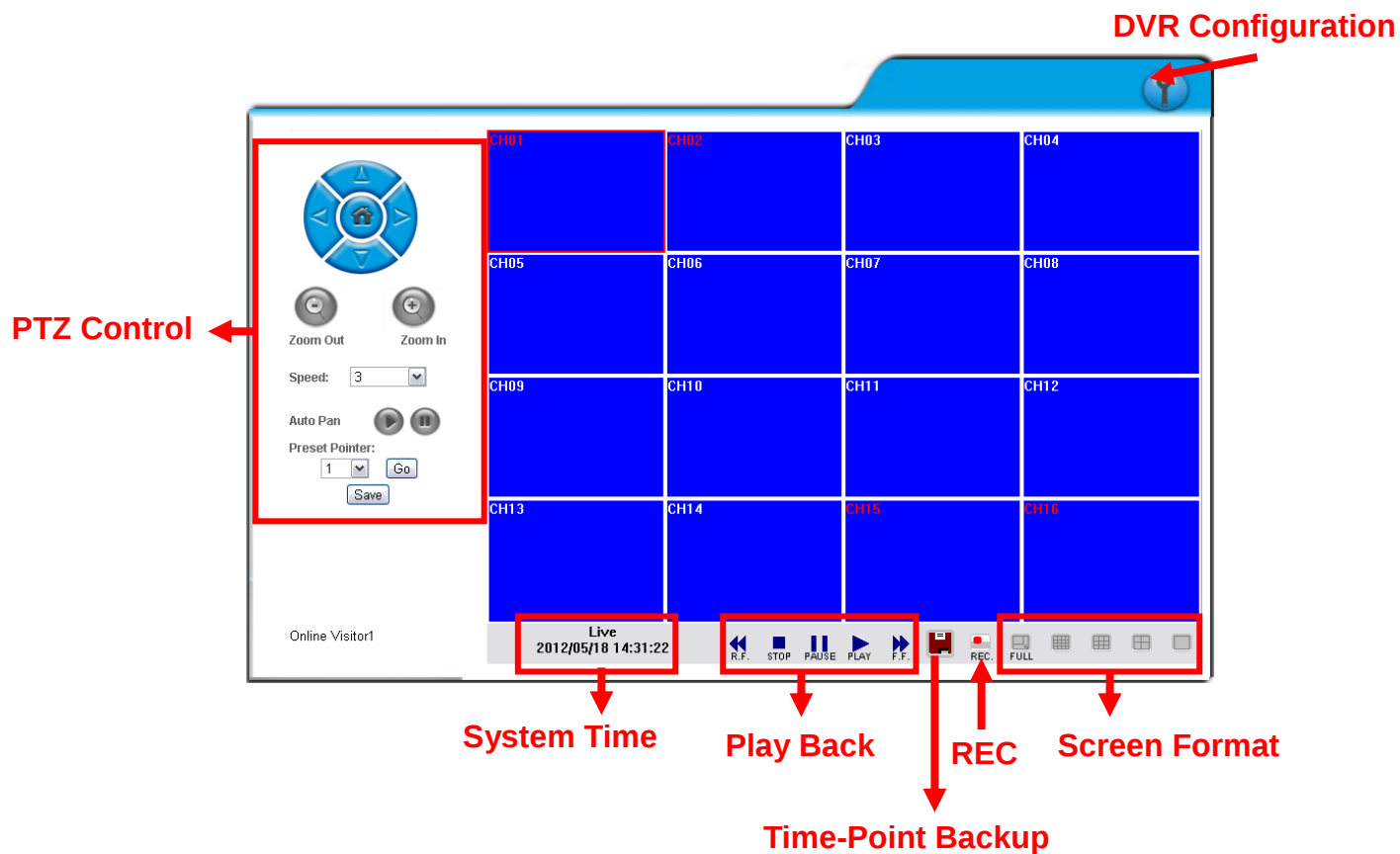


Default user name: admin

Default password: admin

6.4 REMOTE CONTROL

LIVE VIEWING

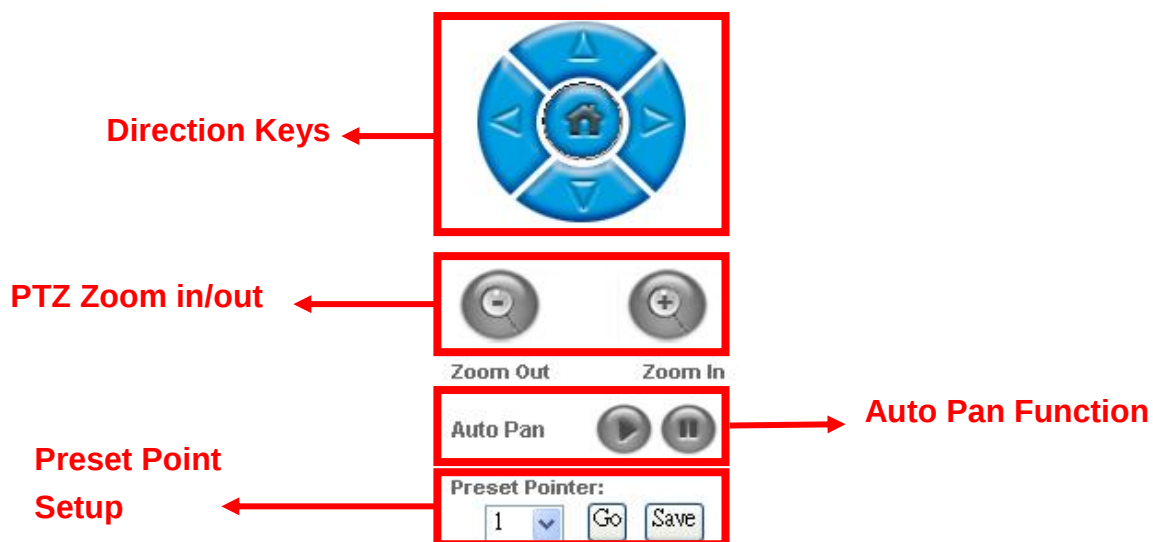


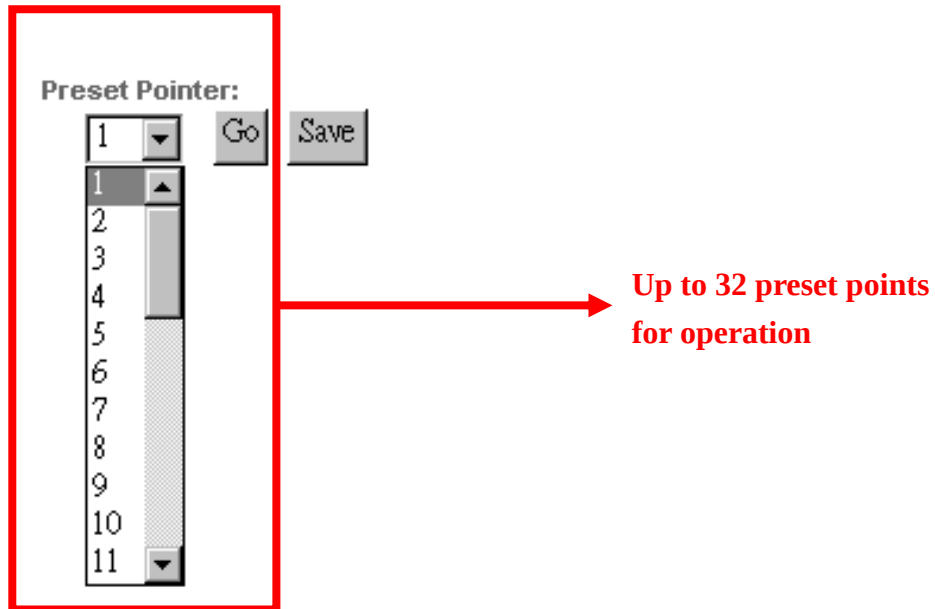
A. HYBRID DVR Configuration

Get into HYBRID DVR network menu.

B. PTZ Control

PTZ control function panel





C. SYSTEM TIME

Live viewing mode: The current live viewing time.

D. SCREEN FORMAT

Switch screen format and click twice to switch different channels with full screen.

E. REC.

Click to start record the live video to the PC or storage device. The saved file is *.da16 file.

F. Playback

Click and select time playback or event playback.

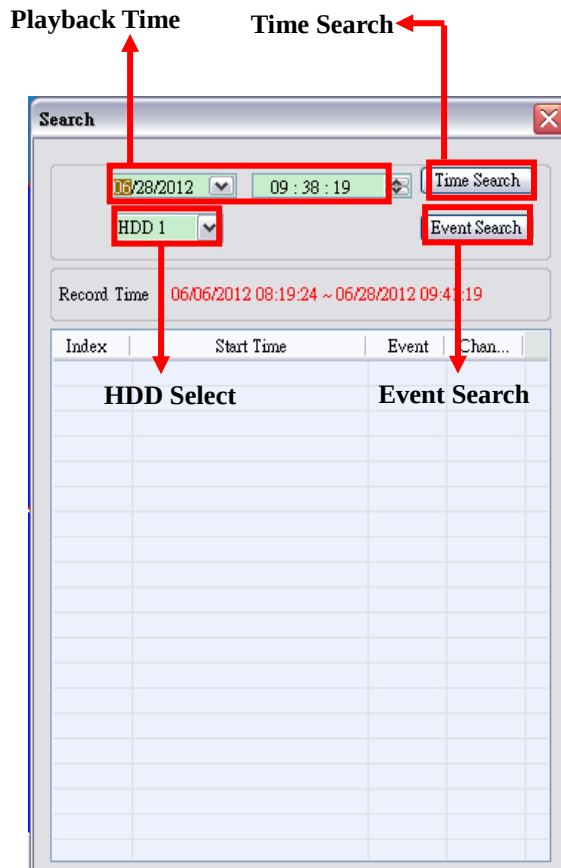
G. Time-Point Backup

Click to select backup time point. The saved file is *.da0 file.

PLAYBACK by TIME SEARCH & EVENT SEARCH



Click **PLAY**, and the playback window will popup



A. HDD Select

User can select HDD1 or HDD2 for playback

B. Playback Time

User can select the time then press “Time Search” for playback.

C. Time Search

User can select the time then press “Time Search” for playback.

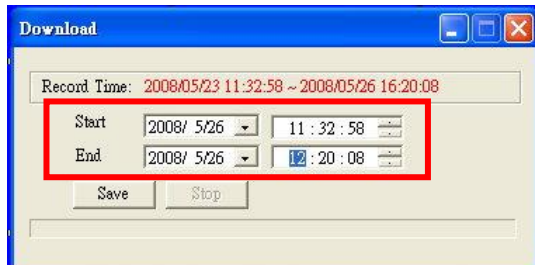
D. Event Search

User can select event item by pressing “Event Search” for playback.

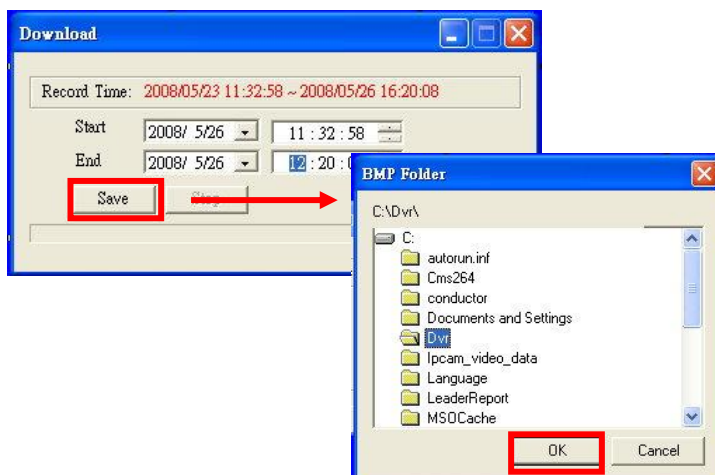
TIME-POINT BACKUP

Click  to operate Time-Point backup.

First, select Start and End backup time which have to among the Record Time.

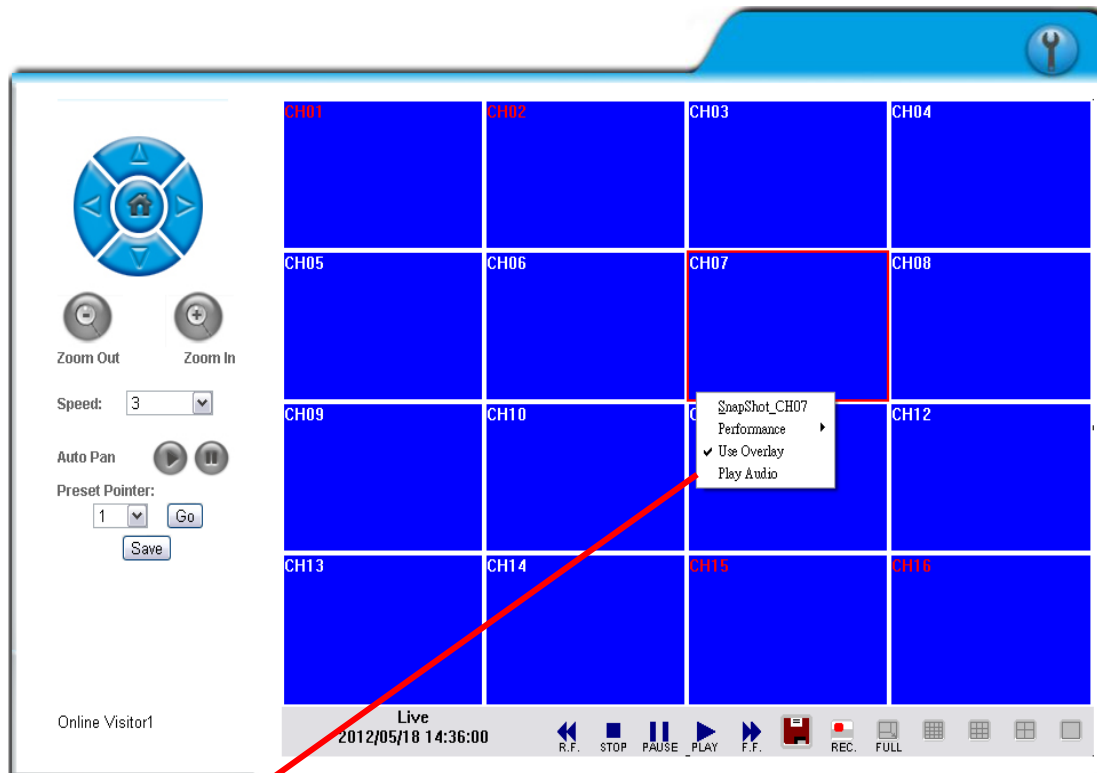


Then, click **Save** button to select the position on PC where the user is going to backup the data. After that, press **OK** button to start the backup.



Finally, double-click the left button of the mouse to open the saved backup file. The backup file will named as the time when start to backup, such as, (20080526113258.da0) will be 2008/05/26 11:32:58.

OTHER FUNCTIONS



User can use other functions by clicking the left of mouse

A. Snapshot:

User can save any single picture from image.

B. Performance:

User can select image quality (high, medium & low).

C. Use Overlay:

User can use Overlay function. The function can save system resource and promote the efficacy.

D. Play audio:

User can play audio function by channel.

Note: remote user can receive audio from HYBRID DVR. However, there's no influence on sound recording of playback video whether the audio is played or not.

6.5 CONFIGURE

A. System - System Information

System Information	
Server Information	
Server Name:	DVR-16
MAC Address:	00:0f:0d:00:12:00
NTP Setting	
Time zone:	GMT-12:00
NTP Server:	198.123.30.132
Apply	

A-1 SYSTEM INFORMATION

SERVER NAME: This name will show on the IP Installer.

MAC ADDRESS: The MAC address.(cannot be revised)

A-2 NTP Setting

TIME ZONE: It can only be modified via adjust “DATE” and “TIME SETUP”
“in the DVR Menu).

NTP SERVER: Revise the time of DVR via different NTP Server.

B. SYSTEM – USER MANAGEMENT

User Management			
Authority Setting			
HDD Format Password Check	☐ Enable	☒ Disable	Apply
Anonymous Login	☐ Enable	☒ Disable	
Password Protection	☐ Enable	☒ Disable	
User List			
Username	Modify	Remove	Add User
admin	Edit		

User Management provides 3 levels of limits of authority: Administrator (the highest), User, and Guest.

Administrator: Possessing the highest level of authority to operate full functions within network.

User: Having Live Image and Video Playback authority. Moreover, PTZ controlled is included as well.

Guest: Only have Live Image authority.

Default administrator account: Username: admin Password: admin

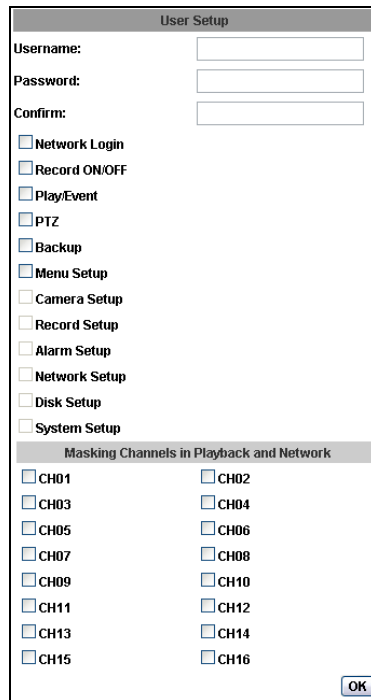
B-1 ANONYMOUS USER LOGIN:

YES: Accept anonymous user login without password as guest login.

NO: Anonymous login unacceptable.

B-2 USER MANAGEMENT:

Add: Key in the Username and Password. The manager can give authority to the new user by tick at the choice below. (Ex. Ticking at “PTZ” allows the new user to control the PTZ). You can apply the authority setting to the channel you choose. The new user has no authority in those channel that are not selected.



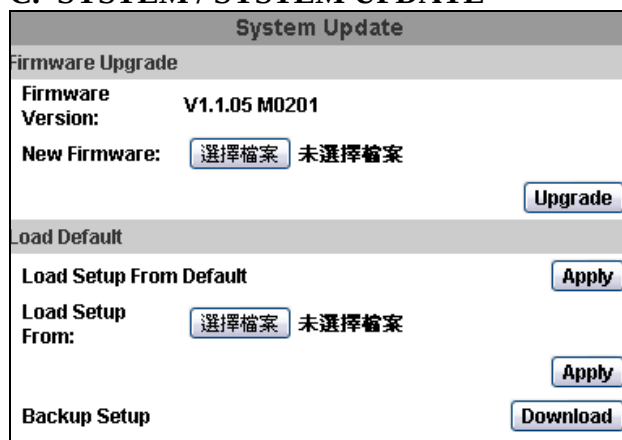
The 'User Setup' dialog box contains the following elements:

- Fields for Username, Password, and Confirm.
- A list of permissions with checkboxes: Network Login, Record ON/OFF, Play/Event, PTZ, Backup, Menu Setup, Camera Setup, Record Setup, Alarm Setup, Network Setup, Disk Setup, and System Setup.
- A section titled 'Masking Channels in Playback and Network' containing a grid of checkboxes for channels CH01 through CH16.
- An 'OK' button at the bottom right.

Modify: Click on selected User name on User List and the following window will popup. After inputting Password and Confirm Password, click on **OK**.

Remove: Click on selected User name on the user list and click on **Remove**.

C. SYSTEM / SYSTEM UPDATE



The 'System Update' dialog box contains the following sections and controls:

- Firmware Upgrade:** Shows 'Firmware Version: V1.1.05 M0201'. It has a 'New Firmware:' section with '選擇檔案' (Choose File) and '未選擇檔案' (No file selected) buttons, and an 'Upgrade' button.
- Load Default:** Has a 'Load Setup From Default' button and an 'Apply' button.
- Load Setup From:** Has a 'Load Setup From:' section with '選擇檔案' (Choose File) and '未選擇檔案' (No file selected) buttons, and an 'Apply' button.
- Backup Setup:** Has a 'Download' button.

Firmware Upgrade:

Click on the “Browse” button to select the latest firmware and then press “Upgrade” button to upgrade the firmware.

Load Default:

Click "Browse" to choose a file. You can load setup from your computer if you ever clicked "Download" and saved the settings before.

ActiveX Updating:

The ActiveX control should be also updated when you update the DVR/NVR firmware. Use the tool in the attached CD to uninstall the old ActiveX control so that the newest version can be registered.

- Automatic Uninstall

Please follow the steps:

1. After updating the DVR/NVR firmware, close the web browser.



2. Run the file "unreg" in the CD to automatically remove the existing ActiveX component "WATCH_16R" from your PC.

3. Log in the DVR/NVR via web browser again, and the browser will require you to install the new version of ActiveX control.

- Manual Uninstall

If the tool does not work, please follow the steps to uninstall ActiveX control manually.



1. Look for the files "KConfig.ocx" and

"WATCH_16R.ocx" in one of the possible paths:

"C:\WINDOWS\Downloaded Program Files"

"C:\WINDOWS\W16R"

"C:\WINDOWS\system32\WATCH_16R"

2. "Start" -> "Run" -> Key in: regsvr32(The path of KConfig.ocx) /u -> Click "OK"

Ex.: regsvr32 C:\WINDOWS\system32\WATCH_16R\KConfig.ocx /u



3. "Start" -> "Run" -> Key in: regsvr32(The path of WATCH_16R.ocx) /u -> Click "OK"

Ex.: regsvr32 C:\WINDOWS\system32\WATCH_16R\WATCH_16R.ocx /u



4. Log in the DVR/NVR via web browser again, and the browser will require

you to install the new version of ActiveX control.

D. NETWORK – IP SETTING

IP Setting	
IP Assignment	
☐ DHCP	
☒ Static	
IP Address:	192.168.21.3
Subnet Mask:	255.255.255.0
Gateway:	192.168.21.254
DNS 1:	168.95.1.1
DNS 2:	168.95.192.1
Web Page Port:	80
UPNP Port Forwarding	
☐ Enabled	
External HTTP Port:	80
External RTSP Port:	554
Apply	

D-1 IP ASSIGNMENT

DHCP: In Dynamic Host Configuration Protocol (DHCP) mode, DHCP server will get setting done automatically.

STATIC IP: Please input IP address, Subnet Mask, and Gateway based on network environment.

D-2 UPNP PORT FORWARDING

When a router is used, you can enable this function to allow the user to link the device in the intranet. The default HTTP Port is 80 and RTSP Port is 554.

E. NETWORK – PPPoE

PPPoE

PPPoE Setting

☐ Enabled ☒ Disabled

Username:

Password:

IP Address:

Send mail after dialed

☐ Enabled

Subject: **Apply**

E-1 PPPoE SETTING

Click on Enabled to enable ADSL dial function.

Username: Username for ADSL account.

Password: Password for ADSL account.

After dialed successfully, new IP address will appear.

E-2 SEND MAIL AFTER DIALED

Click on Enabled to enable SEND MAIL AFTER DIALED function.

E-3 SUBJECT

Mail subject.

F. NETWORK / DDNS SETTING

DDNS

DDNS Setting

☐ Enabled ☒ Disabled

Provider:

Hostname:

Username:

Password:

Schedule Update: Minutes

State

Apply

Note:

1. Schedule Update: Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.
2. Please note that the hostname will be blocked by DynDNS.org if schedule update is more than once every 5 minutes to 60 minutes. In general, schedule update in every 1440 minutes is recommended.

Click on Enabled to enable DDNS function.

F-1 DYNDNS.ORG

DDNS

DDNS Setting

☒ Enabled ☐ Disabled

Provider: dyndns.org

Hostname:

Username:

Password:

Schedule Update: Minutes

State

Apply

DDNS SETTING - DYNDNS.ORG

PROVIDER: Select dyndns.org

HOSTNAME: The registered hostname in DYNDNS.ORG.

USERNAME: The registered username in DYNDNS.ORG.

PASSWORD: The registered password in DYNDNS.ORG.

SCHEDULE UPDATE: A period of time to update IP address.

STATE

1. Updating: Information update.
2. Idle: Stop service.
3. DDNS registered successfully, now log by
<http://<username>.ddns.camddns.com>: Registered successfully.
4. Updating Failed, the name is already registered.
5. Updating Failed, please check your internet connection.

F-2 DDNS.CAMNDS.COM

DDNS

DDNS Setting

☐ Enabled ☒ Disabled

Provider: ddns.camddns.com

Username:

Schedule Update: Minutes

State

Idle

Apply

Schedule Update: Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.

DDNS SETTING – DDNS.CAMDDNS.COM

PROVIDER: Select ddns.camddns.com

USERNAME: The registered username in DDNS.CAMDDNS.COM.

SCHEDULE UPDATE: A period of time to update IP address.

STATE

1. Updating: Information update.
2. Idle: Stop service.
3. DDNS registered successfully, now log by
http://<username>.ddns.camddns.com: Registered successfully.
4. Updating Failed, the name is already registered.
5. Updating Failed, please check your internet connection.

DDNS Setting Steps:

Press ① “ENABLE” option to enable DDNS function and select ②

“ddns.camddns.com” of the provider drop down list which is suggested to use. In the following, insert ③ the username which the user wants to apply

(i.e. **HYBRID DVR_GODDNS** in here). After that, click ④ “Apply” button to apply a DDNS domain name.

The screenshot shows the 'DDNS Setting' window. It has a title bar 'DDNS' and a subtitle 'DDNS Setting'. Below the subtitle, there are two radio buttons: 'Enabled' (selected) and 'Disabled'. To the left of the 'Enabled' radio button is a red number '1.'. Below the radio buttons, there are three fields: 'Provider:' with a dropdown menu showing 'ddns.camddns.com' (annotated with a red number '2.'), 'Username:' with a text box containing 'DVR_GODDNS' (annotated with a red number '3.'), and 'Schedule Update:' with a text box containing '60' and the label 'Minutes'. Below these fields is a 'State' section with a text box showing 'Updating...'. At the bottom right of the window is an 'Apply' button, which is highlighted with a red box and a red number '4.'.

Finally, the HYBRID DVR domain name ⑤ (**http://HYBRID**

DVR_GODDNS.ddns.camddns.com) will be shown on the state block.

DDNS

DDNS Setting

☒ Enabled ☐ Disabled

Provider: ddns.camddns.com

Username: DVR_GODDNS

Schedule Update: 60 Minutes

State

5. http://DVR_GODDNS.ddns.camddns.com

Apply

- NOTE:**
1. If the user selects another provider which is ddns2.ydsHYBRID DVR.com, all of the setting steps are the same with ddns.camddns.com setting.
 2. However, if dyndns.org provider is selected, please go to www.dyndns.org website to register the account first. The user has to fill in the username, password and hostname for applying the account. After the user applied the account successfully, the dyndns.org will give the user a complete DDNS domain name.
 3. If setting up IP schedule update too frequently, the IP may be blocked. In general, schedule update every day (1440 minutes) is recommended.

G. NETWORK / Mail & FTP

Click on “Motion” or “Alarm” option to enable Mail Setting and FTP Setting function.

Mail & FTP

Mail Setting: ☐ Motion ☐ Alarm

Mail Server:

SMTP Port: 25

Username:

Password:

Sender's Mail:

Receiver's Mail:

Bcc Mail:

Event Subject:

FTP Setting: ☐ Motion ☐ Alarm

FTP Server:

Username:

Password:

Port: 21

Path:

Apply

Mail Server: The IP address of Mail Server

SMTP Port: The port of SMTP (known as Simple Mail Transfer Protocol). (Default value is 25)

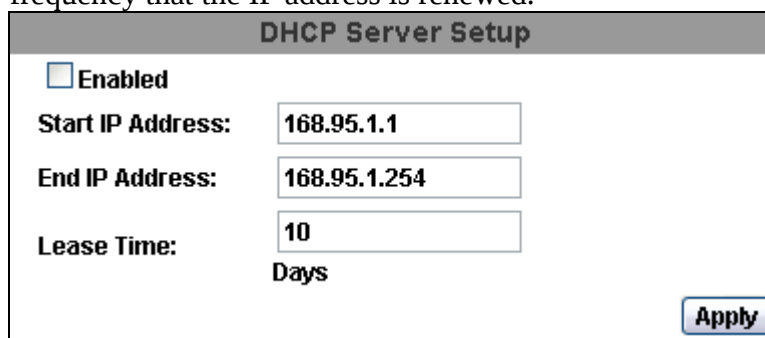
Username: The username while log in to the mail server.
Password: The password while log in to the mail server.
Sender's Mail: The sender's account when send the mail via this mail server.
Receiver's Mail: The receiver's mail address.
Bcc Mail: The receiver's mail address for Bcc Mail.
Event Subject: The subject of this mail. (Default value is ALARM MAIL)

FTP Server: The IP address of FTP Server.
Username: The username while log in to the ftp server.
Password: The password while log in to the ftp server.
Port: The port number of file transmission. (Default value is 21)
Path: The ftp path where the user wants to reserve the information.

Finally, click on **Apply** button to reserve the setting.

H. NETWORK / DHCP

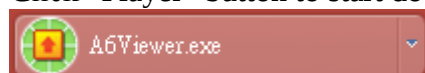
Assign the Start IP and End IP for DHCP. Key in lease time here to decide the frequency that the IP address is renewed.



The image shows a window titled "DHCP Server Setup". It contains a checkbox labeled "Enabled" which is currently unchecked. Below this are three input fields: "Start IP Address" with the value "168.95.1.1", "End IP Address" with the value "168.95.1.254", and "Lease Time" with the value "10". The "Lease Time" field has a unit label "Days" below it. An "Apply" button is located in the bottom right corner of the window.

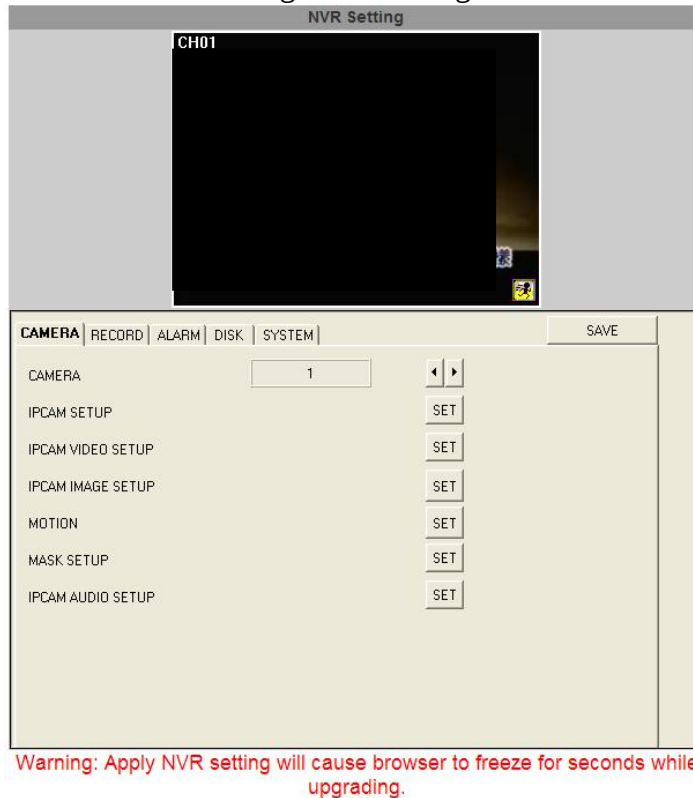
I. OTHERS / Player Downloaded

Click "Player" button to start download A6Viewer.exe to local PC.



J. OTHERS/ HYBRID DVR Setting

HYBRID DVR setting can be changed via the Internet.



NVR Setting

CH01

CAMERA | RECORD | ALARM | DISK | SYSTEM | SAVE

CAMERA 1 ◀ ▶

IPCAM SETUP SET

IPCAM VIDEO SETUP SET

IPCAM IMAGE SETUP SET

MOTION SET

MASK SETUP SET

IPCAM AUDIO SETUP SET

Warning: Apply NVR setting will cause browser to freeze for seconds while upgrading.

APPENDIX A: RECORDING TIME LAPSE (HOURS)

2TB					UNIT : Hours				
IMAGE QUALITY (Mbps)		LOW(0.25M)		MEDIUM(0.5M)		STANDARD(1M)		HIGH(1.5M)	
16CH		AVERAGE		AVERAGE		AVERAGE		AVERAGE	
		960		480		240		160	
4TB					UNIT : Hours				
IMAGE QUALITY (Mbps)		LOW(0.25M)		MEDIUM (0.5M)		STANDARD (1M)		HIGH (1.5M)	
16CH		AVERAGE		AVERAGE		AVERAGE		AVERAGE	
		1920		960		480		320	
6TB					UNIT : Hours				
IMAGE QUALITY (Mbps)		LOW(0.25M)		MEDIUM (0.5M)		STANDARD (1M)		HIGH (1.5M)	
16CH		AVERAGE		AVERAGE		AVERAGE		AVERAGE	
		2880		1440		720		480	
8TB					UNIT : Hours				
IMAGE QUALITY (Mbps)		LOW(0.25M)		MEDIUM (0.5M)		STANDARD (1M)		HIGH (1.5M)	
16CH		AVERAGE		AVERAGE		AVERAGE		AVERAGE	
		3840		1920		960		640	

* The value is for reference only

APPENDIX B: HDD COMPATIBLE TABLE

Brand	Model	Capacity	others
SEAGATE	ST380815AS	80 GB	7200 10
	ST3160815AS	160 GB	7200 10
	STM3250820AS	250 GB	7200 10
	ST3250310SV	250GB	SV35.3
	ST3400620AS	400 GB	7200 10
	ST3500320SV	500GB	SV35.3
	ST3500410SV	500GB	SV35.5
	ST3500320AS	500GB	7200 11
	ST3500418AS	500GB	7200 12
	ST3500312CS	500GB	Pipeline HD .2
	ST3750640AS	750 GB	7200 10
	ST3750330AS	750 GB	7200 11
	ST31000333AS	1TB	7200 11
	ST31000340AS	1TB	7200 11
	ST31000340NS	1TB	Barracuda ES.2
	ST31000340SV	1TB	SV35.3
	ST31000322CS	1TB	Pipeline HD .2
	ST31000525SV	1TB	SV35.5
	ST31000524AS	1TB SATA3	7200 12
	ST1500DL003	1.5TB SATA3	Barracuda LP
	ST31500341AS	1.5TB	7200 11
	ST32000542AS	2TB	Barracuda LP
	ST3320620AS	320 GB	7200
	ST3500413AS	500GB	7200
	ST3500320NS	500GB	7200
WD	WD1600AAJS	160 GB	7200 CB
	WD2500AAKS	250 GB	7200 CB
	WD2500AVVS	250 GB	7200 GP
	WD3200AVVS-73L2B0	320GB	7200 GP
	WD5000AACS	500 GB	7200 GP
	WD5000AVVS	500 GB	7200 GP
	WD5000AAKS	500GB	7200 CB
	WD5002ABYS	⁷³ 500GB	7200 RE

WD	WD5000AAKX	500GB SATA3	Caviar Blue
	WD5000AUDX	500GB SATA3	Green Power
	WD6400AAKS	640 GB	7200 BLUE
	WD6400AVVS	640 GB	7200 GP
	WD7500AACS	750GB	7200 GP
	WD7500AVVS	750GB	7200 GP
	WD10EACS	1TB	7200 GP
	WD10EADS	1TB	Caviar Green
	WD10EVDS	1TB	Green Power
	WD10EVVS	1TB	7200 GP
	WD10EARS	1TB	Caviar Green
	WD10EALX	1TB SATA3	Caviar Blue
	WD10EURX	1TB SATA3	Green Power
	WD15EADS	1.5TB	7200 GP
	WD15EARS	1.5TB	7200 GP
	WD15EURS	1.5TB	7200 GP
	WD5000AVDS-63U7B0	1.5TB	7200 GP
	WD15EVDS	1.5TB	7200 GP
	WD20EADS	2.0TB	7200 GP
	WD20EVDS-63T3B0	2.0TB	7200 GP
	WD20EARS	2.0TB	Caviar Green
	WD20EURS	2.0TB	7200 GP
	WD30EURS	3TB	CE-GP
	WD30EZRX	3TB	7200
HITACHI	HDS721616PLA380	160 GB	7200
	HDT725025VLA380	250 GB	7200
	HDT725032VLA360	320 GB	7200
	HDP725050GLA360	500 GB	7200
	HCP725050GLA380	500GB	7200
	HDT721010SLA360	1TB	7200
	HDS721010CLA332	1TB	7200
	HDS722020ALA330	2TB	7200
	HDS721050CLA362	500GB	7200

APPENDIX C: ERROR MESSAGE LIST

ERROR MESSAGE	ERROR STATUS & REASON	NOTE
DISK ACCESS ERROR!	H.D.D. Data structure Un-normal. Data does not record into HYBRID DVR or bad sector on HYBRID DVR H.D.D. Please install another H.D.D. and perform the record again.	
UPDATE FILE ERROR!	Please re-download the update file and update again.	
FIRMWARE UPGRADE FAILED	Please reboot the HYBRID DVR and upgrade the firmware. Please send the HYBRID DVR back to repair when HYBRID DVR is disability.	
MEDIA ACCESS FAIL!	The USB file format is incorrect (Please format the pen drive to FAT32) or Pen Drive is setup to ONLY READ mode (Please annul ONLY READ mode) when reserve the data by using Pen Drive. The data cannot be burn into CD/DVD disc. Please change another CD/DVD disc and backup the file in CD/DVD disc storage.	
NO FILE!	There is no upgrade file within Pen Drive or the name of upgrade file does not correspond with HYBRID DVR format. Please adjust the upgrade file name based on the following information. 16CH -> UpdateR.bin 08CH -> Update8.bin 04CH -> Update4.bin	
USB DEVICE NOT FOUND NO USB	Pen Drive undetected. Please Unplug the Pen Drive and plug it again.	
BACKUP START TIME ERROR	Backup start time error.	
BACKUPEND TIME ERROR	Backup end time error.	
DISK ERROR	The data cannot be burn into CD/DVD disc. Please change another CD/DVD disc and backup the file.	
FAN FAILED	Fan Error Warning.	
NO LOG DATA	No Events Record.	
SCHEDULE RECORD	The condition is caused by trying to stop recording when perform the schedule record. Please setup the record to manual mode and then stop the record.	
PLEASE SELECT ONE CAMERA	The message will be shown while using the ZOOM function under split screen condition. Please switch the screen into full screen mode and then operate the ZOOM function.	