

EH6000H series

EH6108H⁺/EH6216H⁺

User's Manual



FCC NOTICE (Class B)



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Federal Communications Commission Statement

NOTE- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

European Community Compliance Statement (Class B)



This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2004/108/EC.

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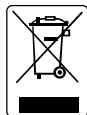
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Battery Safety Information

- Store the batteries in a cool dry place.
- Do not dispose of used batteries in domestic waste. Dispose of batteries at special collection points or return to point of sale if applies.
- Remove the batteries during long periods of non-use. Always remove exhausted batteries from the remote control. Battery leakage and corrosion can damage this remote control, dispose of batteries safely.
- Do not mix old and new batteries.
- Do not mix different types of batteries: alkaline, standard (carbon-zinc) or rechargeable (nickel-cadmium).
- Do not dispose of batteries in a fire. The batteries may explode or leak.
- Never short circuit the battery terminals.

**WARNING**

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE

**CAUTION**

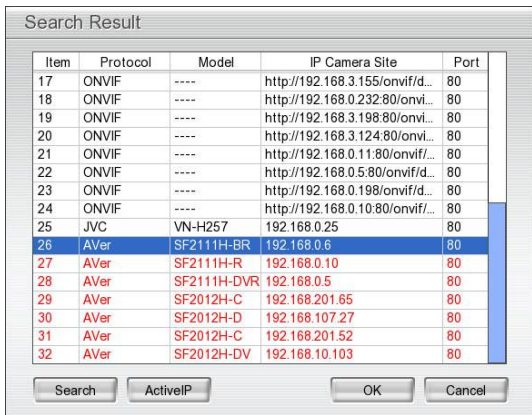
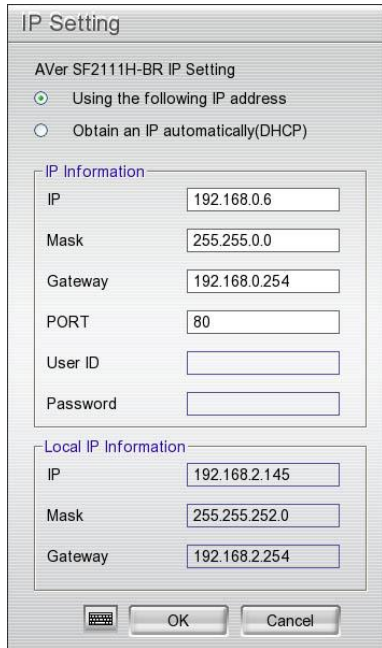
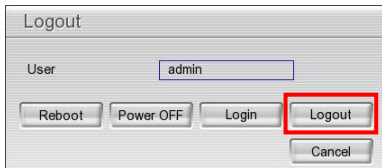
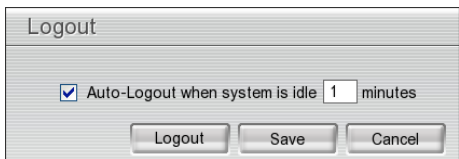
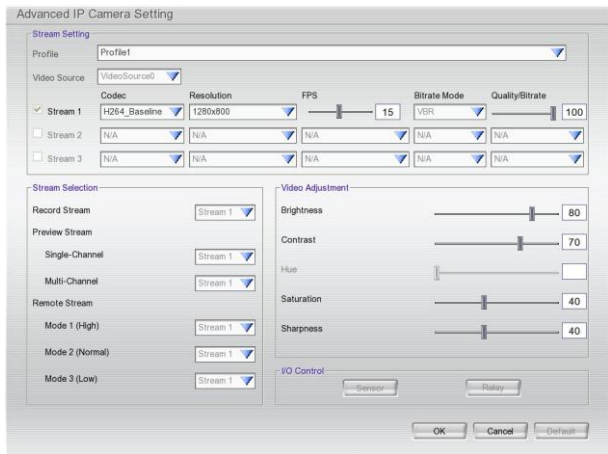
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Manual Updates

Following are listed the new functions for the version **X9.03.24.00.07a** and **above** of EH6000H series surveillance software.

Function	Description
Plug and Play (Camera Setting)	DVR system supports AVer IP camera series to connect to DVR system without any configuration; user can use “search device” function to find the AVer series IP camera on your LAN network.
Active IP (Camera Setting)	Allows user to configure the AVer IP camera series on DVR system; user doesn't need to connect to IP camera on PC to configure the IP camera setting.  
Logout	Allows user to set a system idle time to log out DVR system automatically. The idle time period range is 1 to 60 minutes.  
ONVIF IP camera advanced setting (Camera Setting)	The DVR system supports IP camera's detail setting on the IP camera is using ONVIF protocol to connect it. 

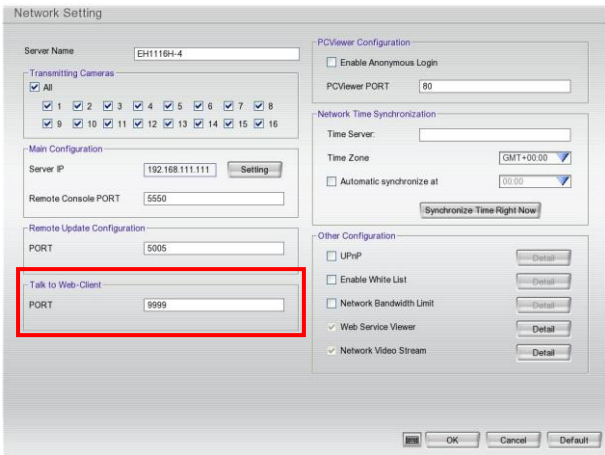
Function	Description
Two way audio port is configurable (Network Setting)	Allows user to modify the port number for two-way audio. 
Provides local information to CMS server	The DVR system will transmit the DVR local information (IP, name of DVR, CPU usage, free HDD capacity, recording status, video loss status, and estimate recording day...etc) to CMS server. User can check the information that provides by DVR system at DVR Status on CMS server.
Two-way audio on PCViewer	The two-way audio function is available on PCViewer. 
User setting function (Remote setup)	The user setting function is available on Remote Setup. 

Table of Contents

Manual Updates	4
Chapter 1 Introduction	1
1.1 Package Content	1
1.1.1 EH6108H+	1
1.1.2 EH6216H+	2
1.1.3 Optional Accessories	2
1.2 Front Panel	3
1.2.1 EH6108H ⁺ /EH6216H ⁺	3
1.2.1.1 To Cut and Save the Portion of the Recorded Video	6
1.3 Back Panel	7
1.3.1 EH6108H+ (HDMI supported)	7
1.3.2 EH6108H+ (None HDMI)	8
1.3.3 EH6216H+ (HDMI supported)	9
1.3.4 EH6216H+ (None HDMI)	10
1.4 Setting Up the DVR Unit	11
1.4.1 Installing the Hard Disks	11
1.4.2 Connecting Devices	14
1.4.2.1 EH6108H+	14
1.4.2.2 EH6216H+	16
1.4.3 Sensor, Relay and RS485 pinhole allocation	18
1.4.3.1 Sensor Pin Definition	18
1.4.3.2 Relay Pin Definition	18
1.4.3.3 RS485 Pin Definition	19
1.5 Familiarizing the Remote Controller Buttons	20
1.6 Upgrading the DVR System Firmware	23
1.6.1 USB Recovery	23
1.6.2 Local UI Upgrading	26
1.6.3 Remote ISP Upgrading	29
Chapter 2 Using the DVR Software	32
2.1 The Way to Operate DVR	32
2.1.1 First Time Using the DVR Unit	32
2.1.2 Using the Virtual Keyboard	33
2.2 Familiarizing the Buttons in Preview Mode	34

2.2.1	To Setup DVR System Logout Time	37
2.2.2	Setting Up and Using the Emap	38
2.2.3	Familiarizing the Buttons in PTZ Camera Controller	39
2.2.3.1	Setup the Analog PTZ Camera	40
2.2.3.2	Setup the IP PTZ Camera	41
2.2.4	Using Event Log Viewer	42
2.2.4.1	Using POSViewer	43
2.3	Familiarizing the Buttons in Playback Mode	44
2.3.1	To Cut and Save the Portion of the Recorded Video	47
2.3.2	To Bookmark a Video Section	47
2.3.3	To Search Using Visual Search	48
2.3.4	To Search Using the Event Search	50

Chapter 3 Customizing the DVR System.....51

3.1	System Setup	51
3.2	Camera Setup	57
3.2.1	To Setup IP Camera(Fixed Mode)	57
3.2.2	To Setup IP Camera(Flexible Mode)	61
3.2.2.1	Using Search Device to Connect IP Camera	67
3.2.3	To Setup Analog Camera	69
3.2.4	To Setup Camera from the Remote DVR(Fixed Mode)	70
3.2.5	To Setup Camera from the Remote DVR(Flexible Mode)	71
3.3	Recording Setup	74
3.3.1	Setup IP Camera Record Setting	74
3.3.2	Setup Analog Camera Record Setting	75
3.4	Network Setup	78
3.5	Schedule Setting	82
3.6	Backup Setup	83
3.6.1	Using QPlayer to Playback Backup Video	85
3.6.2	To Cut and Save the Portion of the Recorded Video	87
3.6.3	To Search Using the Visual Search	88
3.6.4	To Search Using the Event Search	88
3.6.5	To Search Using the Intelligent Search	89
3.7	Sensor Setting	90
3.8	Relay Setting	91
3.9	Alarm Setting	92
3.10	User Setup	99

Chapter 4 Using the Remote Programs	101
4.1 Familiarizing the Buttons in PCViewer	102
4.1.1 PCViewer Screen	102
4.1.2 PCViewer Control Panel	104
4.1.3 Playback Mode Control Panel	106
4.1.4 To Setup Remote System Setting	108
4.1.4.1 System Setting	108
4.1.4.2 Camera Setting	110
4.1.4.3 Record Setting	114
4.1.4.4 Network Setting	118
4.1.4.5 Alarm Setting	120
4.1.4.6 User Setting	125
4.2 Familiarizing the Buttons in Remote Console	127
4.2.1 To Setup Remote Console Setting	129
4.2.2 Familiarizing the Buttons in PTZ Camera Controller	130
4.3 Using the Remote Playback	131
4.3.1 Familiarizing the Buttons in Local Playback	133
4.3.1.1 To Cut and Save the Wanted Portion of the Recorded Video	135
4.3.1.2 To Search Using the Visual Search	136
4.3.1.3 To Search Using the Intelligent Search	136
4.3.2 Familiarizing the Buttons in RealTime Playback	137
4.3.3 Familiarizing the Buttons in Download and Playback	139
Chapter 5 Using the Web Tools	141
5.1 Remote Setup	141
5.1.1 To Add DVR server	141
5.1.2 To Setup Remote System Setting	142
5.2 Remote Backup	143
5.2.1 To back up the recorded data from the DVR server	143
Appendix A Registering Domain Name	146
Appendix B Network Service Port	148

Chapter 1 Introduction

1.1 Package Content

1.1.1 EH6108H⁺



- ☐ (1) DVR unit
 - EH6108⁺ with HDMI interface
 - EH6108H⁺ w/o HDMI interface

i EH6108H⁺ supports DVD-ROM or HDD tray that depends on user has purchased.

- ☐ (2) USB optical mouse
- ☐ (3) Quick User Guide
- ☐ (4) Software CD (User Manual included)
- ☐ (5) Screws for HDD installation
- ☐ (6) Power adaptor
- ☐ (7) Power Cord
 - * The power cord varies depending on the standard power outlet of the country where it is sold.
- ☐ (8) SATA cables
- ☐ (9) Audio cable(Red cable: 8CH audio in/Black cable: 1CH Spot out &1CH TV out)

1.1.2 EH6216H⁺

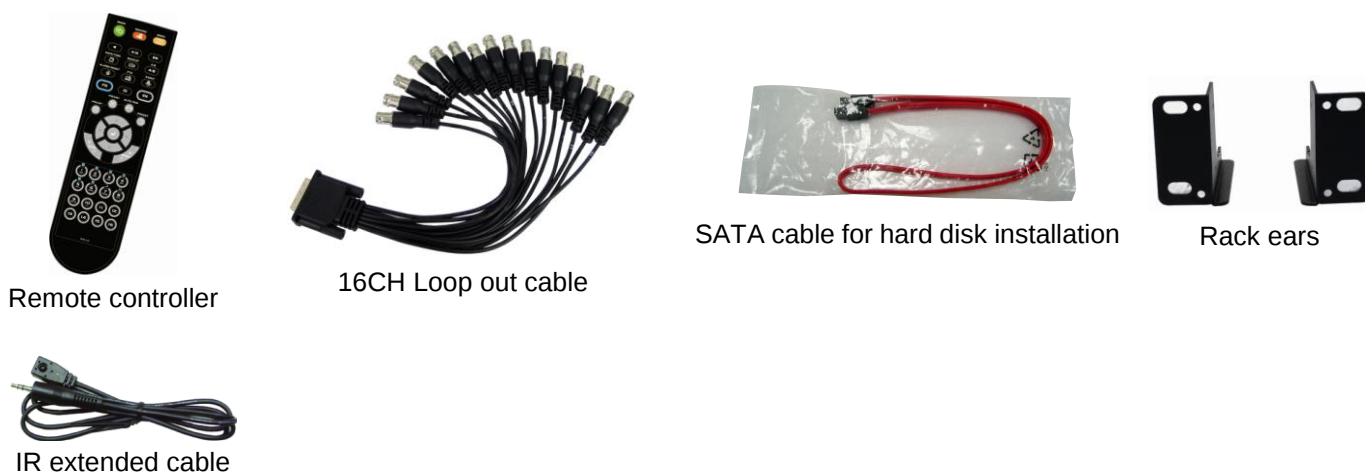


- ☐ (2) DVR unit
 - EH6216⁺ with HDMI interface
 - EH6216H⁺ w/o HDMI interface

i EH6216H⁺ supports DVD-ROM or HDD tray that depends on user has purchased.

- ☐ (2) USB optical mouse
- ☐ (3) Quick User Guide
- ☐ (4) Software CD (User Manual included)
- ☐ (5) Screws for HDD installation
- ☐ (6) Power adaptor
- ☐ (7) Power Cord
 - * The power cord varies depending on the standard power outlet of the country where it is sold.
- ☐ (8) SATA cables
- ☐ (9) Audio cable(Red cable: 16CH audio in/Black cable: 1CH Spot out &1CH TV out)

1.1.3 Optional Accessories



Remote controller

16CH Loop out cable

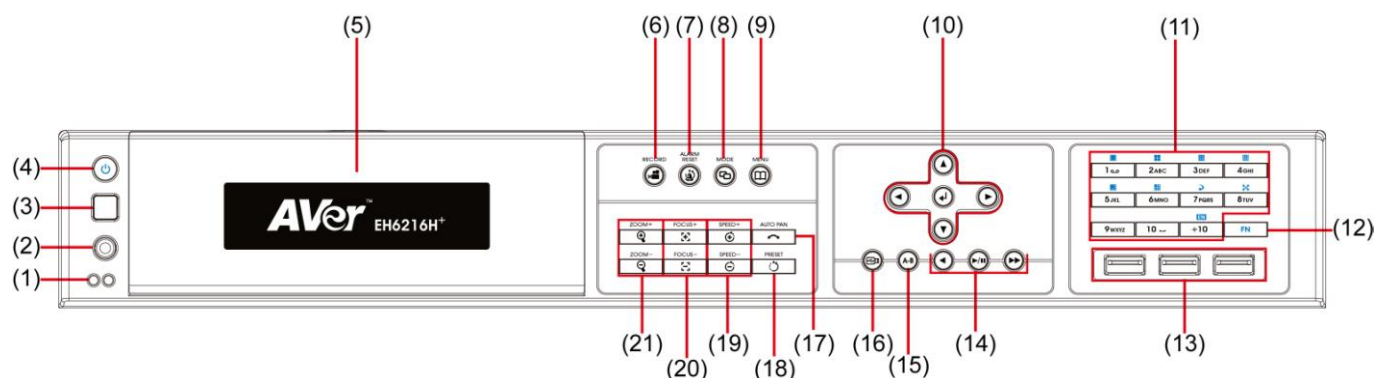
SATA cable for hard disk installation

Rack ears

IR extended cable

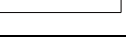
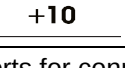
1.2 Front Panel

1.2.1 EH6108H⁺/EH6216H⁺



Name	Function
(1) System indicator	- Power indicator (left): System power status indicators. Lights when the system is running. - Record indicator (right): When DVR system is recording, the light will keep flashing.
(2) IR Sensor port	For extended IR sensor cable connection(optional)
(3) IR Sensor	Receive signal from the remote controller to operate the DVR unit
(4) Power	Power ON/OFF DVR unit
(5) DVD-ROM/HDD Tray	- DVD-ROM: To backup the recorded file to DVD±R/DVD±RW disk - HDD Tray: To install one hard disk. i - CD-R/RW is not supported. - EH6108H⁺ and EH6216H⁺ support DVD-ROM or HDD tray that depends on user has purchased.
(6)	To start recording video
(7)	To reset alarm status
(8)	Switch to playback mode or preview mode
(9)	Call out system setup menu on preview mode
(10) Control Buttons	Move to left direction on cursor control To move PTZ camera lens to left in PTZ mode
	Move to right direction on cursor control To move PTZ camera lens to right in PTZ mode
	Move to up direction on cursor control To move PTZ camera lens to up
	Move to down direction on cursor control To move PTZ camera lens to down
	Confirm or make a selection

Name	Function
	- Channel camera selection number in playback and preview mode. For the channel over 10, press  +10, then press  1 ~  6 MNO - Press  FN, and then press  +10 can switch to character mode. - Press  FN button can switch to different screen display modes ( 1 ~  6 MNO). - Press  PRESET and number button, to set the preset position in the PTZ mode.
(11) Number buttons	- Switch to character mode. - Press  FN to switch to FN mode (The word “FN” is displayed in the left bottom corner on screen). Then, press  +10 to enter EN mode (The word “EN” is displayed in the left bottom corner on screen). User can press the character button and press rapidly to find the character that wants to enter.  FN + 10   1 : backward/delete button  2 ABC : abcABC  3 DEF : edfDEF  4 GHI : ghiGHI  5 JKL : jklJKL  6 MNO : mnoMNO  7 PQRS : pqrPQRS  8 TUV : tuvTUV  9 WXYZ : wxyzWXYZ  10  : space button

Name	Function
(12) 	A functional key for multiple system control. Press  to switch to FN mode (The word “FN” will show up in the left bottom corner on screen). Press  button again to exit FN mode (The “X” will show up in the left bottom corner on screen).  +  : Switch to single screen display mode  +  : Switch to QUAD display mode  +  : Switch to 9 split screen display mode  +  : Switch to 16 split screen display mode  +  : Switch to one single and 8 split screen display mode  +  : Switch to one single and 13 split screen display mode  +  : Enable/disable auto scan  +  : Switch to full screen mode  +  : Switch to characters mode
(13) USB 2.0 port	3 x USB 2.0 ports for connecting USB device, ex: USB pen drive, external hard disk, mouse...and so on.  The USB backup device must be in FAT32 format.
(14) Playback buttons	 To playback video at faster speed  To start playback To pause playback  To rewind the recorded video
(15) 	Set a video segment to playback repeat (see Chapter 1.2.1.1).
(16) 	To backup recorded video file to USB storage device(pen drive or external hard disk) and DVD-ROM.
(17) Auto Pan	AUTO PAN  To enable auto pan function
(18) Preset	PRESET Adjust the PTZ lens to the position that user wants. And then, press  with number button to setup the PTZ camera preset position.
(19) Speed + / Speed -	SPEED +  To speed up movement of PTZ camera lens SPEED -  To speed down movement of PTZ camera lens
(20) Focus + / Focus -	FOCUS +  To focus in PTZ camera lens FOCUS -  To focus out PTZ camera lens

Name	Function
(21) Zoom + / Zoom -	ZOOM+
	 To zoom in view of PTZ camera lens
	ZOOM-
	 To zoom out view of PTZ camera lens

1.2.1.1 To Cut and Save the Portion of the Recorded Video

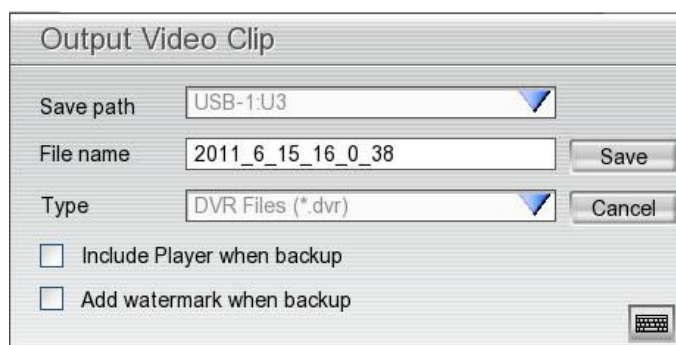
1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click  to set the begin mark.



2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click  to set the end mark. To cancel segmentation, click  button again.



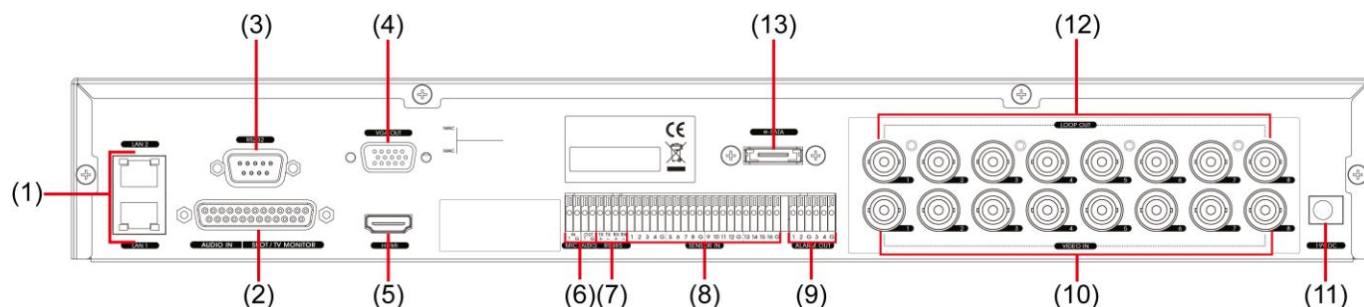
3. Click **Export** button and select **Output Video Clip** to save the wanted portion. User can rename the **File name**. Mark “**Include Player when backup**” option to include a Qplayer application in backup file for palyback backup video clip later on. Mark “**Add watermark when backup**” option to have watermark protection on backup file and user can have watermark exam on Qplayer application.



4. Click **Save** to save the video clip. User should see a folder named “**backup**” on your USB storage device.
5. To playback the backup video clip, using Qplayer application that is included in backup folder.

1.3 Back Panel

1.3.1 EH6108H⁺ (HDMI supported)



Name	Function
(1) LAN 1/LAN 2 port	For Gigabit Ethernet connection
(2) Audio IN/SPOT/TV Monitor	- Audio input (red connector): 8 channels(stick 1~8 on cable only). To connect with camera's audio cable. - Spot Monitor (sticker 2 on cable): 1 spot output. Outputs the analog video signals to Spot monitor when receive the alarm events. - TV output (sticker 1 on cable): 1 TV output. Output the video signal to a TV.
(3) VGA Out	Output the video signal to a CRT or LCD monitor
(4) RS232 port	For POS device connection
(5) HDMI port	Output the video signal to TV/HDMI monitor.
(6) MIC/Audio	MIC: To connect the microphone. Audio: For audio output device connection, such as speaker.
(7) RS485	For analog PTZ camera connection (also see Chapter 1.4.3).
(8) Sensor In	Support up to 16 sensor devices
(9) Relay Out	Support 4 relay devices (Relay: 1A @ 125V AC/30V DC).
(10) Video Loop Out	Output the analog video signal to a CCTV monitor.
(11) 19V DC connector	Connect the power adaptor into this port.
(12) CH1~ 08	Input the video camera signal and display it on channel 1~ 08.
(13) eSATA port	For connecting with HDD or RAID.

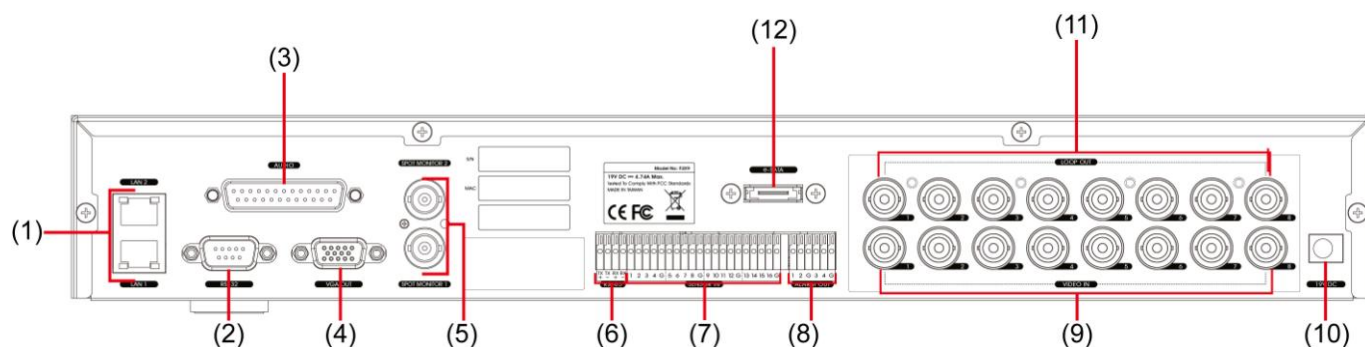


The audio input and output device has its own power supply is necessary.



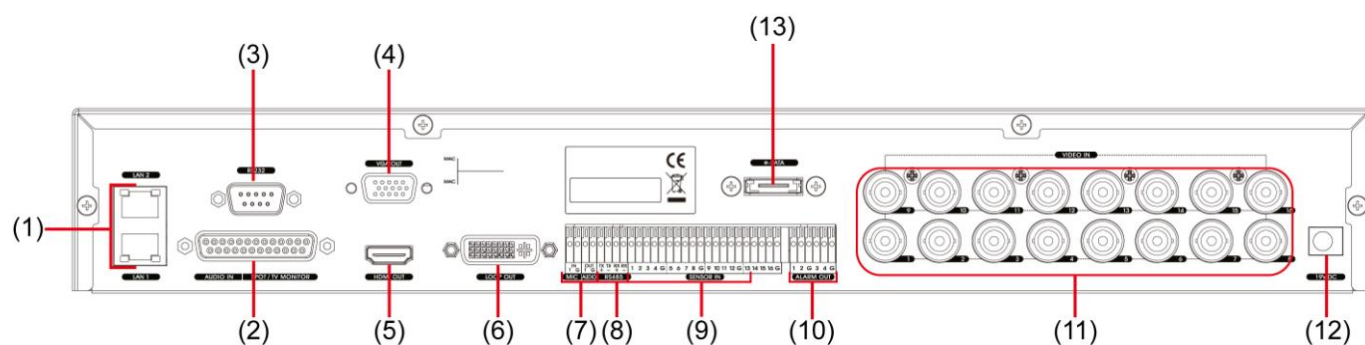
When connecting eSATA device, please make sure the DVR has installed hard disk to reduce abnormal situation occurs.

1.3.2 EH6108H⁺ (None HDMI)



Name	Function
(14) LAN 1/LAN 2 port	For Gigabit Ethernet connection
(15) RS232 port	For POS device connection
(16) Audio port	Input/output audio signal to audio input/output device. - Audio input: 8 channels - Audio output: 1 channel - Microphone input: 1 channel
i The audio input and output device has its own power supply is necessary.	
(17) VGA Out	Output the video signal to a CRT or LCD monitor
(18) SPOT Monitor 1/2	Output the analog video signal to SPOT monitor when receive the alarm events
(19) RS485	For analog PTZ camera connection (also see Chapter 1.4.3).
(20) Sensor In	Support up to 16 sensor devices
(21) Relay Out	Support 4 relay devices (Relay: 1A @ 125V AC/30V DC).
(22) CH1~ 08	Input the video camera signal and display it on channel 1~ 08.
(23) 19V DC connector	Connect the power adaptor into this port.
(24) Video Loop Out	Output the analog video signal to a CCTV monitor.
(25) eSATA port	For connecting with HDD or RAID.
i When connecting eSATA device, please make sure the DVR has installed hard disk already to reduce abnormal situation occurs.	

1.3.3 EH6216H⁺ (HDMI supported)



Name	Function
(1) LAN 1/LAN 2 port	For Gigabit Ethernet connection
(2) Audio IN/SPOT/TV Monitor	- Audio input (red connector): 16 channels (sticker 1~16). To connect with camera's audio cable. - Spot Monitor (sticker 2 on cable): 1 spot output. Outputs the analog video signals to Spot monitor when receive the alarm events. - TV output (sticker 1 on cable): 1 TV output. Output the video signal to a TV.
(3) VGA Out	Output the video signal to a CRT or LCD monitor
(4) RS232 port	For POS device connection
(5) HDMI port	Output the video signal to TV/HDMI monitor.
(6) Video Loop Out	Output the analog video signal to a CCTV monitor.
(7) MIC/Audio	MIC: To connect the microphone. Audio: For audio output device connection, such as speaker.
(8) RS485	For analog PTZ camera connection (also see Chapter 1.4.3).
(9) Sensor In	Support up to 16 sensor devices
(10) Relay Out	Support 4 relay devices (Relay: 1A @ 125V AC/30V DC).
(11) CH1~ 16	Input the video camera signal and display it on channel 1~ 16.
(12) 19V DC connector	Connect the power adaptor into this port.
(13) eSATA port	For connecting with HDD or RAID.

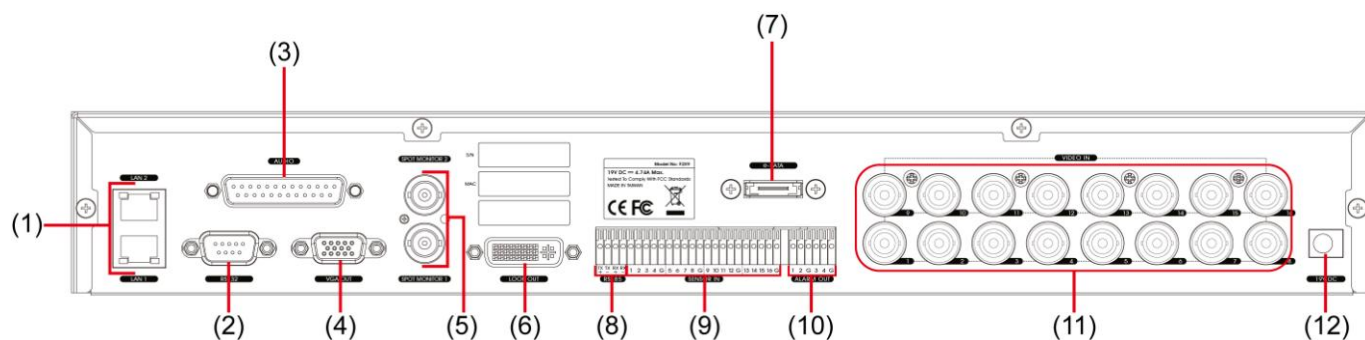


The audio input and output device has its own power supply is necessary.



When connecting eSATA device, please make sure the DVR has installed hard disk to reduce abnormal situation occurs.

1.3.4 EH6216H⁺ (None HDMI)



Name	Function
(14) LAN 1/LAN 2 port	For Gigabit Ethernet connection
(15) RS232 port	For POS device connection
(16) Audio port	Input/output audio signal to audio input/output device. - Audio input:16 channels - Audio output: 1 channel - Microphone input: 1 channel
i The audio input and output device has its own power supply is necessary.	
(17) VGA Out	Output the video signal to a CRT or LCD monitor
(18) SPOT Monitor 1/2	Output the analog video signal to SPOT monitor when receive the alarm events
(19) Video Loop Out	Output the analog video signal to a CCTV monitor.
(20) eSATA port	For connecting with HDD or RAID.
i When connecting eSATA device, please make sure the DVR has installed hard disk to reduce abnormal situation occurs.	
(21) RS485	For analog PTZ camera connection (also see Chapter 1.4.3).
(22) Sensor In	Support up to 16 sensor devices
(23) Relay Out	Support 4 relay devices (Relay: 1A @ 125V AC/30V DC).
(24) CH1~ 16	Input the video camera signal and display it on channel 1~ 16.
(25) 19V DC connector	Connect the power adaptor into this port.

1.4 Setting Up the DVR Unit

1.4.1 Installing the Hard Disks



The external USB hard disk only supports on file backup. Please **do not** use the external USB hard disk for recording purpose.

User can install up to 3 SATA hard disks inside the DVR unit if it is necessary.

Follow the illustrated instructions below to install the hard disk:

1. Loosen all screws (2 side and back) and push the cover backward and lift.
2. Loosen the screws of holder in order to take out the hard disk rack.



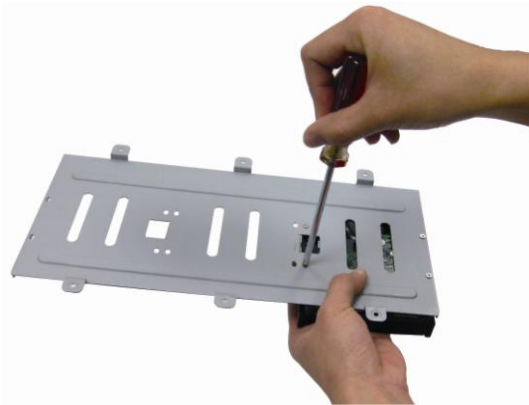
3. Loosen all the screws of hard disk plate.



4. The hard disk plate can be installed 3 hard disks. User can choose the position and place the hard disk on it.



5. Turn the plate and hard disk over carefully and screw the hard disk on the plate. If hard disk cannot match to the screw hole, then, you may adjust the hard disk position to match the screw hole.



6. Plug the SATA cable into SATA connector on the PC board.

[Note]

1. SATA 5 is for DVD player.
2. SATA 4 is for e-SATA interface
3. 1st HDD is suggested to install on SATA 6.
4. The number of SATA connector is displayed nearby SATA connector.



7. Plug the power cable and SATA cable into hard disk. And then, screw the plate inside the DVR unit.



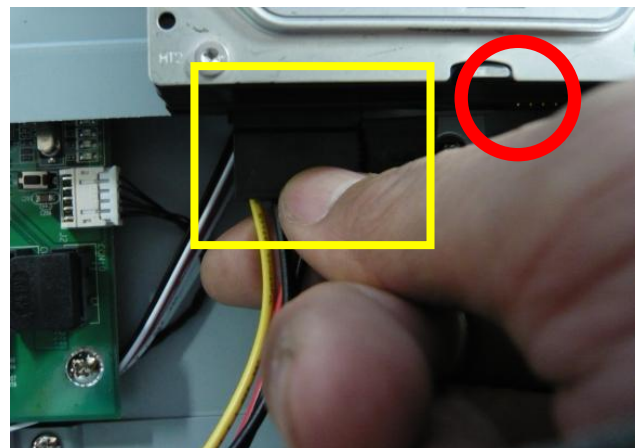
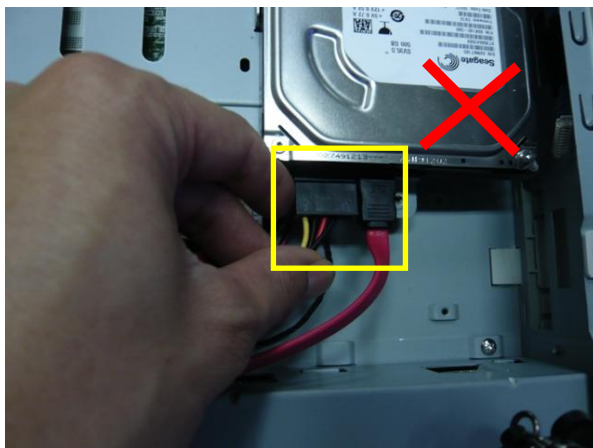
8. Plug the SATA cable into the left side hard disk.



i User can leave un-plug the SATA cable of the left side HDD for screwing plate inside the DVR more easily later.



When user remove power cable from hard disk, please **DO NOT** pull the power cable straight way. Please pull out the power cable by moving power connector to left and right side and slowly pull out the power cable from hard disk.



9. Screw the holder on the DVR unit.



10. Push the cover forward and secure the cover.

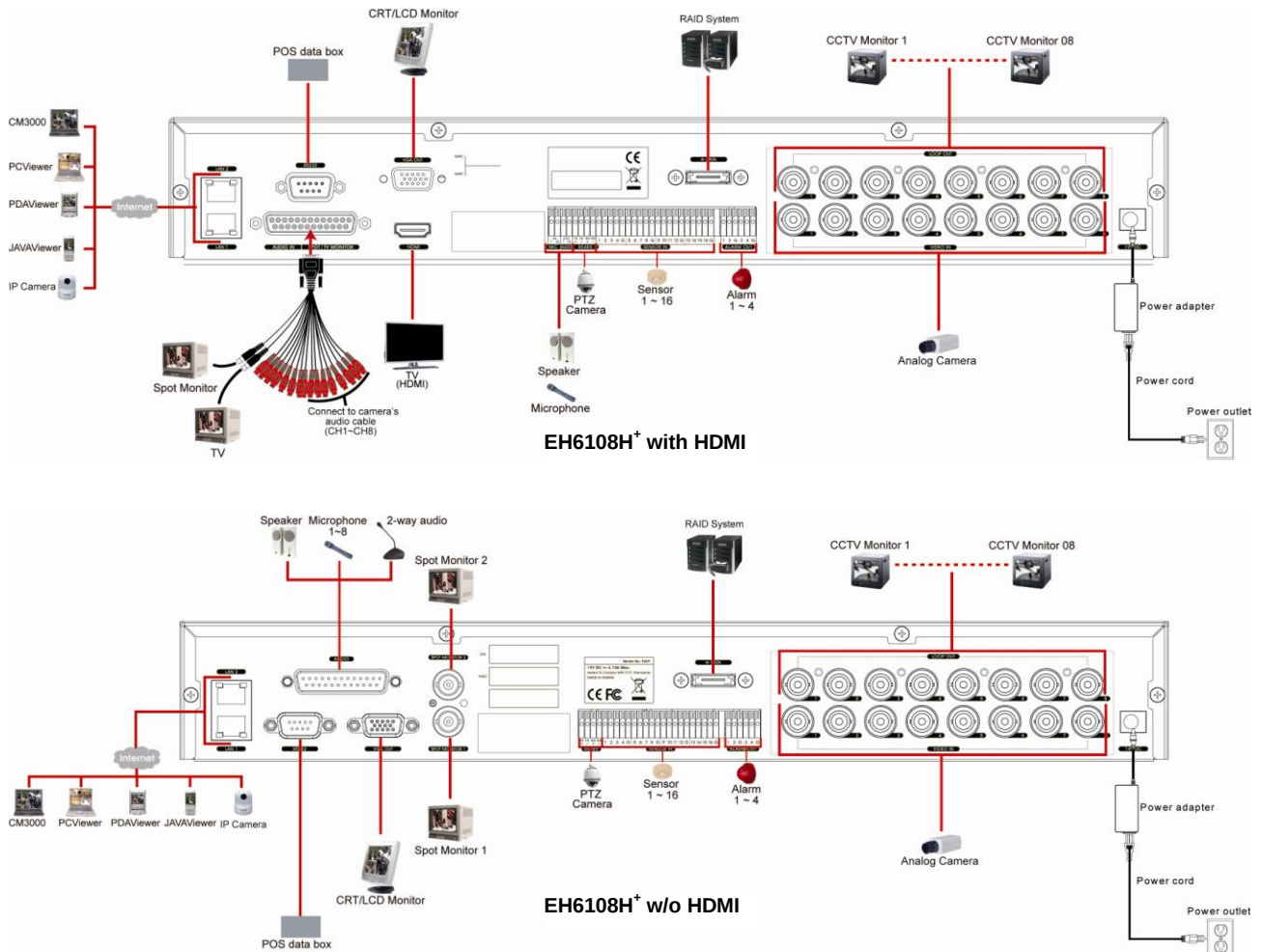


11. You may now connect all the cables and power on the DVR unit.

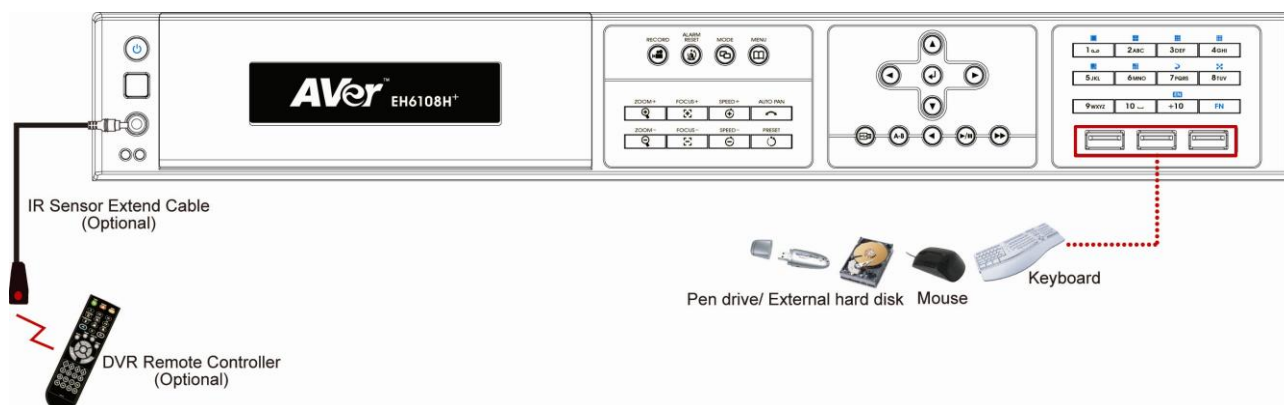
1.4.2 Connecting Devices

1.4.2.1 EH6108H⁺

The back panel of the DVR unit, user can connect up to 8 cameras in both analog and IP camera. The DVR unit also can connect 16 sensor devices, 4 alarm devices, and output video to a TV or CRT/LCD monitor. Follow the illustration below to make the connection:



For backup recorded video, plugging the pen drive or external hard disk through USB port that are located at front panel of DVR unit, and then, use the bundled software enables user to transfer, playback and segment the video. Follow the illustration below to make the connection:



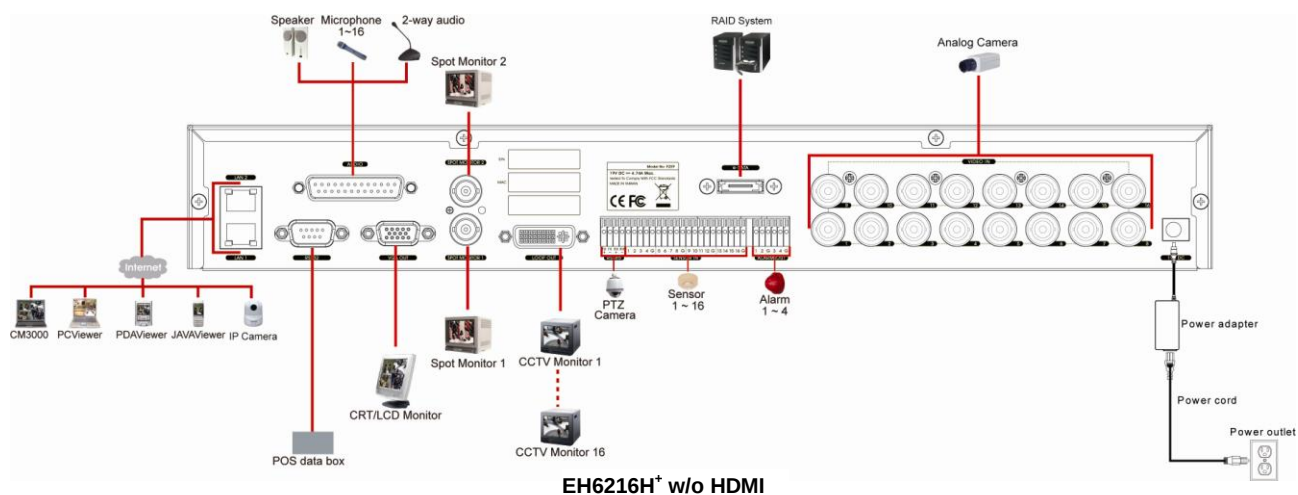
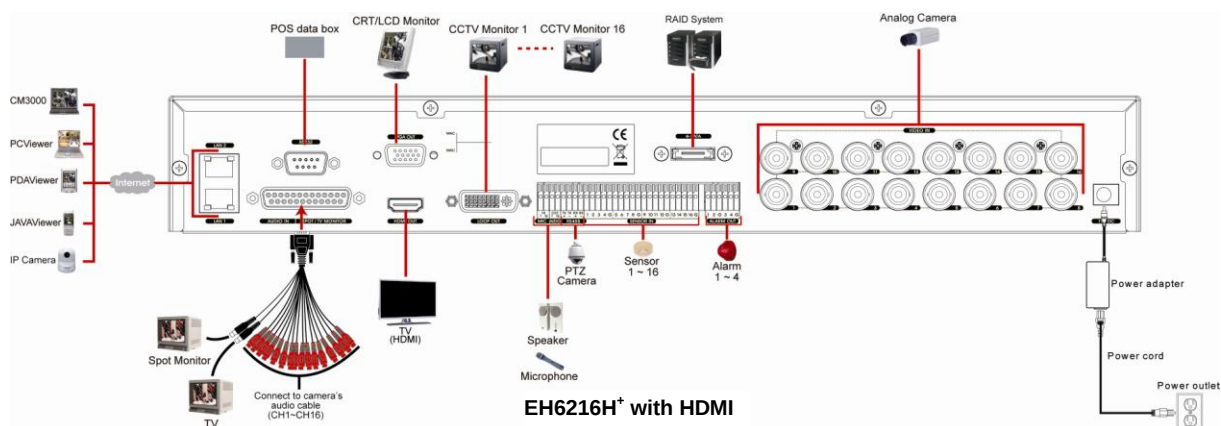
Pen drive and external hard disk must be FAT32 format.



- All connected devices have its own power supply is necessary.
- DVR unit can connect 8 cameras in both of analog and IP cameras.

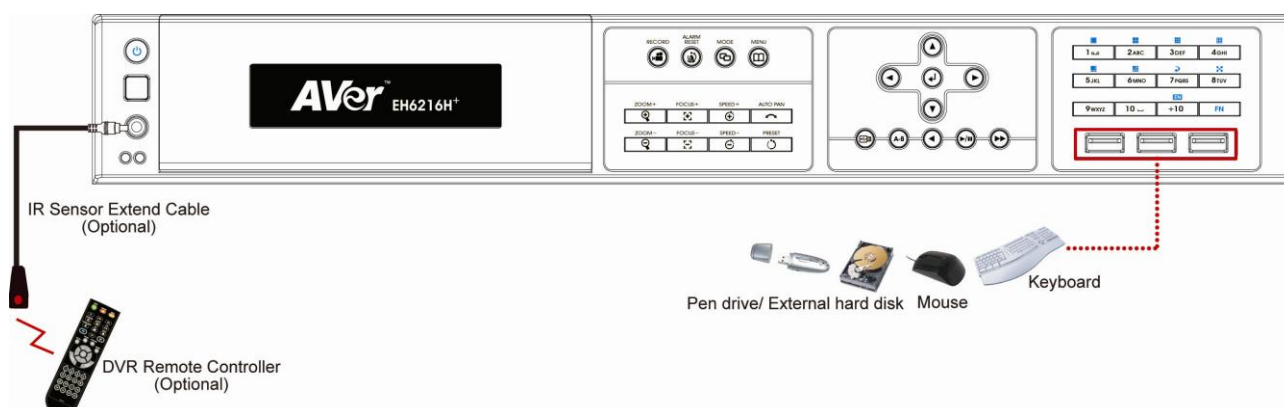
1.4.2.2 EH6216H⁺

The back panel of the DVR unit, user can connect up to 16 cameras in both analog and IP camera. The DVR unit also can connect 16 sensor devices, 4 alarm devices, and output video to a TV or CRT/LCD monitor. Follow the illustration below to make the connection:



For backup recorded video, plugging the pen drive or external hard disk through USB port that are located at front panel of DVR unit, and then, use the bundled software enables user to transfer, playback and segment the video.

Follow the illustration below to make the connection:



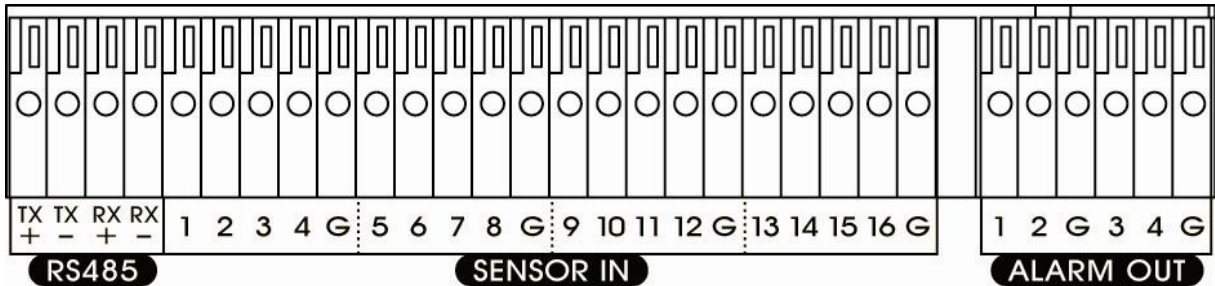
Pen drive and external hard disk must be FAT32 format.



- All connected devices have its own power supply is necessary.
- DVR unit can connect 16 cameras in both analog and IP cameras.

1.4.3 Sensor, Relay and RS485 pinhole allocation

The Sensor and Alarm enable you to connect 16 sensor inputs, 4 relay outputs and PTZ cameras. Just connect the external sensor, relay, and PTZ camera pin directly to the pinhole. Check the table below and locate which pinhole is assigned to sensor input and relay output.



1.4.3.1 Sensor Pin Definition

Sensor Pin #	Definition	Sensor Pin #	Definition
1	Sensor 1 signal	9	Sensor 9 signal
2	Sensor 2 signal	10	Sensor 10 signal
3	Sensor 3 signal	11	Sensor 11 signal
4	Sensor 4 signal	12	Sensor 12 signal
G	Sensor ground	G	Sensor ground
5	Sensor 5 signal	13	Sensor 13 signal
6	Sensor 6 signal	14	Sensor 14 signal
7	Sensor 7 signal	15	Sensor 15 signal
8	Sensor 8 signal	16	Sensor 16 signal
G	Sensor ground	G	Sensor ground

1.4.3.2 Relay Pin Definition

Relay Pin #	Definition
1	Relay signal(N/O)
2	Relay signal(N/O)
G	Relay ground
3	Relay signal(N/O)
4	Relay signal(N/O)
G	Relay ground

1.4.3.3 RS485 Pin Definition

When connect PTZ camera through RS485 interface, please refer to the following pin definition to connect the DVR and PTZ.

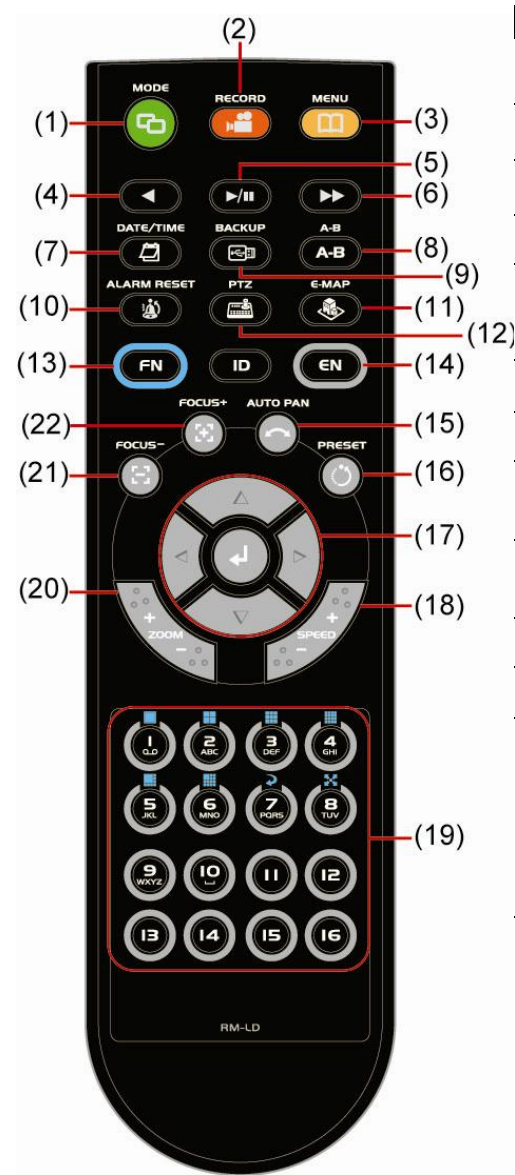
Pin #	DVR site	PTZ site
TX+	RS485 TX+ signal	RS485 RX+ signal
TX-	RS485 TX- signal	RS485 RX- signal
RX+	RS485 RX+ signal	RS485 TX+ signal
RX-	RS485 RX- signal	RS485 TX- signal



If user uses the 2 wires for the PTZ camera connection, please connect to the RS-485 TX+ and TX- of the DVR site.

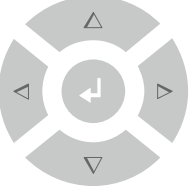
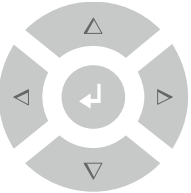
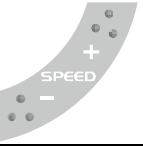
1.5 Familiarizing the Remote Controller Buttons

Use the Remote controller to operate the DVR unit.



Name	Function
(1)	Switch to playback mode
(2)	Start recording video
(3)	To call out system setup menu
(4)	To rewind the recorded video
(5)	To start playback To pause playback
(6)	To playback video at faster speed
(7)	To select the time and date of playback file
(8)	Set a playing recorded video from A point to B point segment and repeat playing on surveillance screen
(9)	To backup recorded video file to USB storage device(pen drive or external hard disk) and DVD-ROM.
(10)	To reset alarm status
(11)	Switch to Emap mode
(12)	Switch to PTZ mode. Press + channel number (~) can switch to PTZ control mode if the selected camera is a PTZ camera and the PTZ function is enabled.

Name	Function
(13)	A functional key for multiple system control - Press to enable FN modes (The word “FN” will show up in the left bottom corner on screen). - To exit FN modes, press again (The “X” will show up in the left bottom corner on screen). + : Switch to single screen display mode + : Switch to QUAD display mode + : Switch to 9 spilt screen display mode + : Switch to 16 spilt screen display mode

Name	Function
(13) FN	FN +  : Switch to one single and 7 + 1 spilt screen display mode
	FN +  : Switch to one single and 12 + 1 spilt screen display mode
	FN +  : Enable/disable auto scan
	FN +  : Switch to full screen
 FN +  ~  doesn't have any functions.	
(14) EN	- Switch to character mode. - Press EN to enter EN mode (The word "EN" will show up in the left bottom corner on screen). User can press the character button and press rapidly to find the character that wants to enter. Press EN button again to exit EN mode (The "X" will show up in the left bottom corner on screen).
	 : backward/delete button
	 : mnoMNO
	 : abcABC
	 : pqrsPQRS
	 : defDEF
	 : tuvTUV
	 : ghiGHI
	 : wxyzWXYZ
	 : jklJKL
	 : space button
(15) 	To enable auto pan function
(16) 	To move the PTZ camera to the preset position. Press  + number button.
(17) 	 To move PTZ camera to left
	 To move PTZ camera to right
(17) 	 To move PTZ camera to up
	 To move PTZ camera to down
	 Confirm or make a selection
(18) 	Speed + : To speed up movement of PTZ camera lens
	Speed - :To speed down movement of PTZ camera lens

Name		Function
(19)		~ - As a number key for entering password in playback and preview mode - Channel camera selection number in playback and preview mode
	+	As a preset position with at PTZ control mode
	+	With button can switch to different screen display modes and enable auto scan and full screen. (see also Chapter 1.7 #(16))
(20)		Zoom + : To zoom in view of PTZ camera Zoom - :To zoom out view of PTZ camera
(21)		To focus out PTZ camera lens
(22)		To focus in PTZ camera lens
The button doesn't support at this version.		

1.6 Upgrading the DVR System Firmware



Please make sure your DVR model before download DVR firmware. Wrong DVR model's firmware may cause the DVR system break down.

1.6.1 USB Recovery

Save the firmware on USB pen drive and through the USB port on DVR unit to upgrade the firmware of DVR system.

1. Download the firmware from website <http://surveillance.aver.com/> >> **Support** >> **download Center** >> **Embedded hybrid DVR** >> **EH6108H+/EH6216H+** >> **firmware**. Then, click **Search** button to search firmware. After firmware has found, select the file named “EH6216H_Firmware_USB_*” to download it.

[Note] The firmware version is supported version **05c** and **above**.

The screenshot shows the AVer website's download center. The navigation menu includes 'solutions', 'resource', 'support', 'partner', and 'contact'. The 'download center' is selected. The search process is guided by three numbered steps:

- Step 1: series** - Select 'Embedded hybrid DVR' from the dropdown menu.
- Step 2: product** - Select 'EH6108H+ \ EH6216H+' from the dropdown menu.
- Step 3: item** - Select 'firmware' from the dropdown menu.

After clicking the 'search' button, the results table is displayed:

language	OS	description	date	download
		EH6108H+ \ EH6216H_Firmware_Local_ISP_X9.02.24.02.04d	2011/10	download
		EH6108H+ \ EH6216H_Firmware_Remote_ISP_X9.02.24.02.04d	2011/10	download
		EH6108H+ \ EH6216H_Firmware_USB_X9.02.24.02.04d	2011/10	download

The footer contains links for 'solutions', 'support', 'company', and 'check us out', along with social media icons and a copyright notice: 'Copyright © 2011 AVer Information Inc. All rights reserved.'.

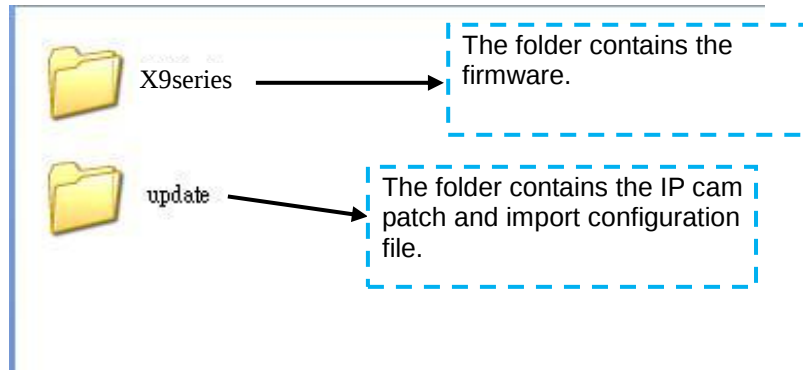
2. After download the firmware file, un-zip the file and save on USB pen drive.

[Note] Copy the entire firmware file folder into USB pen drive.

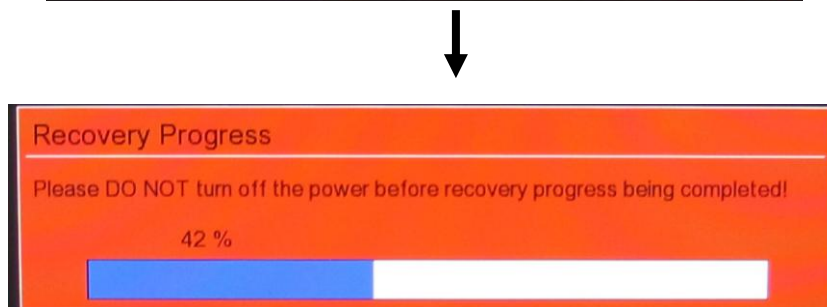
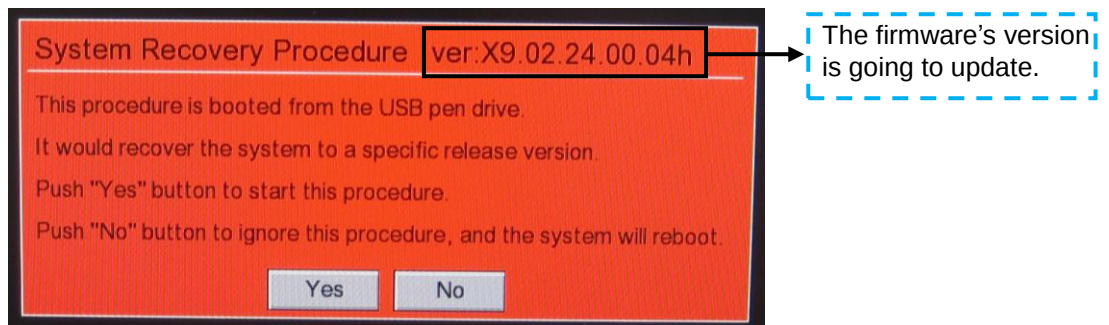
3. Then, create a folder named **Update** and copy the IP camera patch file that user can download from web site <http://surveillance.aver.com/> same as downloading the firmware file and import configuration file that user has export from DVR system. The name of import file must to be "**import.cfg**".

[Note]

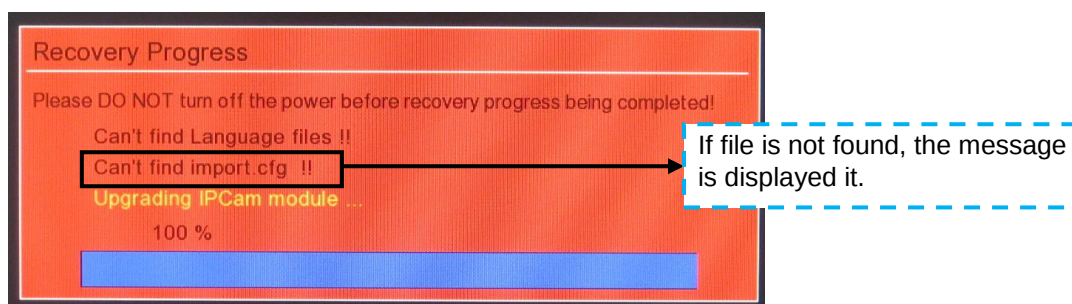
- a. The update folder is saved in the same directory as firmware file folder.
- b. If user don't need to import configuration file or upgrade IP camera patch in different version, the update folder is not necessary to create at this point.



4. Un-pug the USB mouse from DVR unit.
5. Next, plug the USB pen drive to **left side** of USB port on DVR unit. Then, power on DVR unit. While the DVR is reading file, the screen is black. Please wait for a System Recovery Procedure window to show up.
6. When System Recovery Procedure window show up, click **Yes** to continue it. If user wants to cancel the firmware upgrade procedure, click **No**.



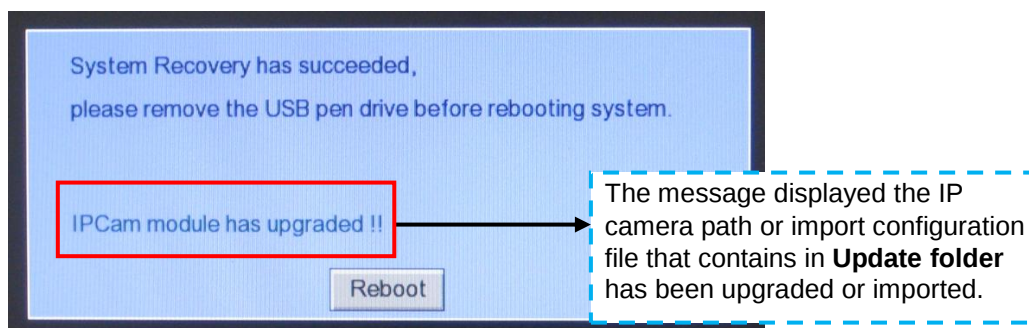
7. After firmware upgrade is completed, the DVR system will check the files of Update folder and if configuration file and IP camera patch file has found, then, the import and upgrade procedure will be processed.



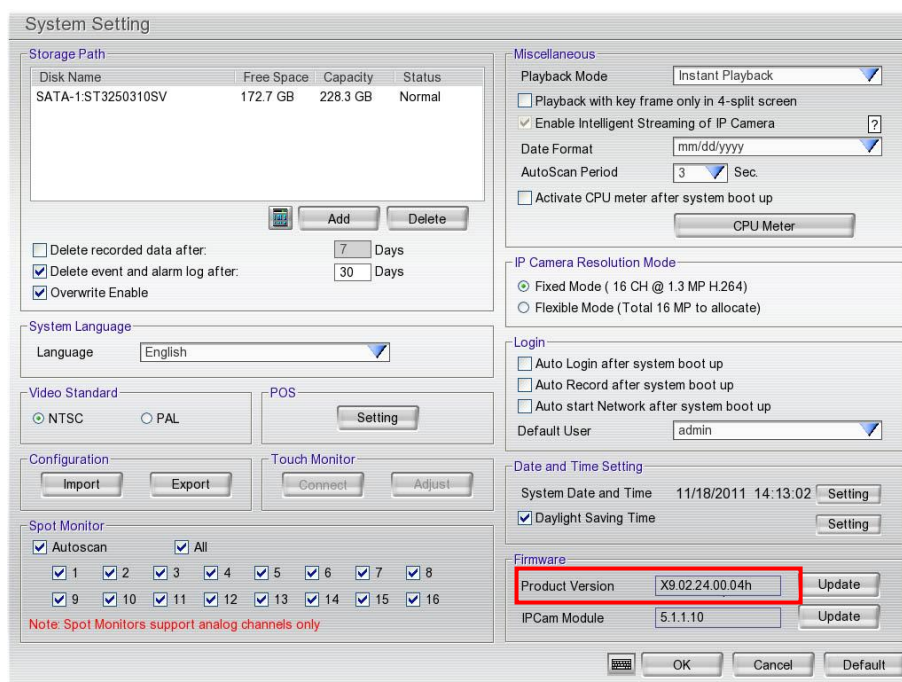
8. After all procedures have completed, the Reboot window is show up. Click **Reboot** button and remove the USB pen drive from DVR unit to restart DVR system.



- The DVR system will reboot automatically if Reboot button hasn't been click for a period time.
- Remember to remove USB pen drive after click reboot button; otherwise, the DVR system will start upgrade process again.



9. After reboot, user can go to **Setup >> System** to check the version of firmware and make sure the upgrade process is successful.



1.6.2 Local UI Upgrading

Upgrade the DVR system firmware through **Update** button in System Setting window.

[Note]

- ✧ When upgrading DVR firmware, the IP camera patch file is upgrading at the same time.
- ✧ When upgrading IP camera patch file, only IP camera patch file is upgraded.

1. Download the firmware from website <http://surveillance.aver.com/> >> **Support** >> **download Center** >> **Embedded hybrid DVR** >> **EH6108H+/EH6216H+** >> **firmware**. Then, click **Search** button to search firmware. Select the file named “**EH6216H_Firmware_Local_ISP_***” to download it. After download the firmware file, unzip it and save the firmware file on USB pen drive.

[Note] Firmware file is “*.bin” file type.

The screenshot shows the AVer website's download center. The navigation bar includes links for solutions, resource, support, partner, and contact. The main content area is titled 'download center' and features a sidebar with service links. The search process is highlighted with numbered annotations: 1. Selecting 'Embedded hybrid DVR' in the 'step1. series' dropdown. 2. Clicking the 'search' button. 3. Selecting the 'EH6216H_Firmware_Local_ISP_X9.02.24.02.04d' file in the search results table.

step1. series

- please select
- Pure NVR
- Embedded hybrid DVR**
- Hybrid DVR
- Hybrid capture card
- Mobile DVR
- IP camera
- Analog DVR
- Accessories
- Software applications
- Discontinued

step2. product

- please select
- EH1116H-4 Nano
- EH1004H-4 Nano/1008H-4 Nano
- EH6108H+/EH6216H+**
- EH5108H/5216H Series
- IVH3216 Touch/3216 Touch II

step3. item

- please select
- patches
- release notes
- hardware recommendations
- software
- firmware**
- quick guide
- manual

search

results

language	OS	description	date	download
		EH6108H+\EH6216H_Firmware_Local_ISP_X9.02.24.02.04d	2011/10	download
		EH6108H+\EH6216H_Firmware_Remote_ISP_X9.02.24.02.04d	2011/10	download
		EH6108H+\EH6216H_Firmware_USB_X9.02.24.02.04d	2011/10	download

solutions

- hybrid DVRs
- embedded hybrid DVRs
- hybrid capture cards
- IP cameras

support

- technical support
- warranty & repair
- product registration
- download center

company

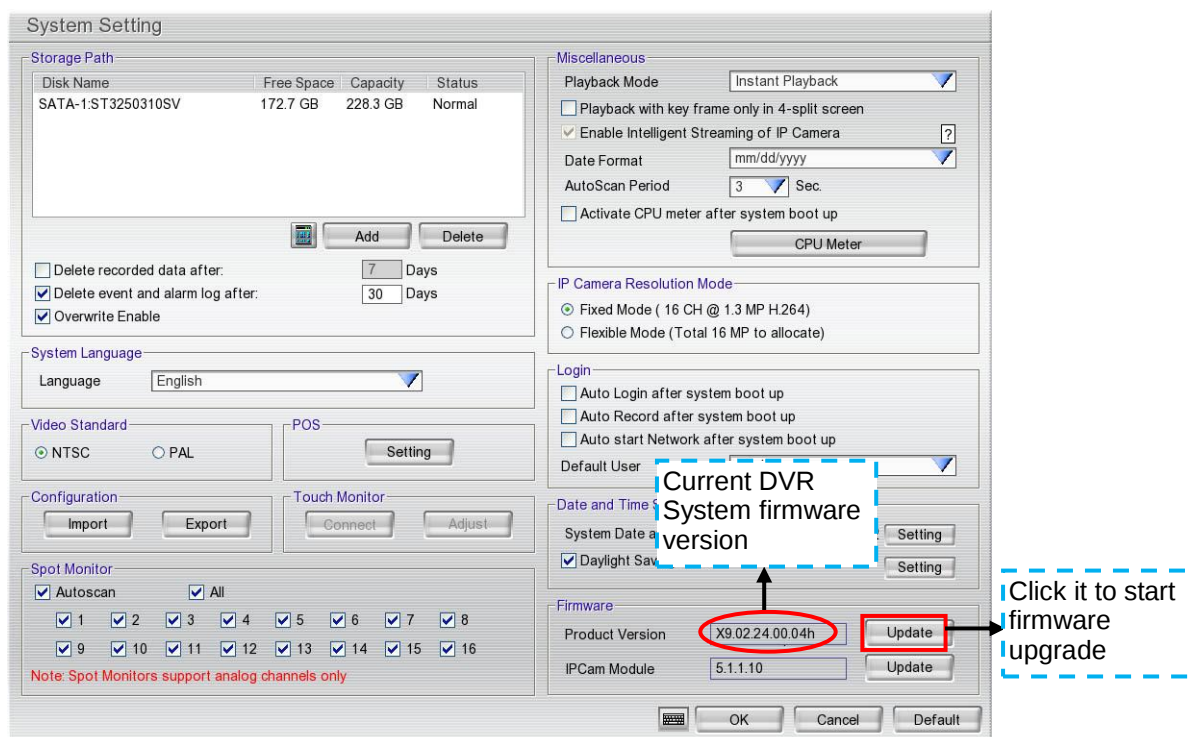
- about us
- news
- awards
- investor relation

check us out

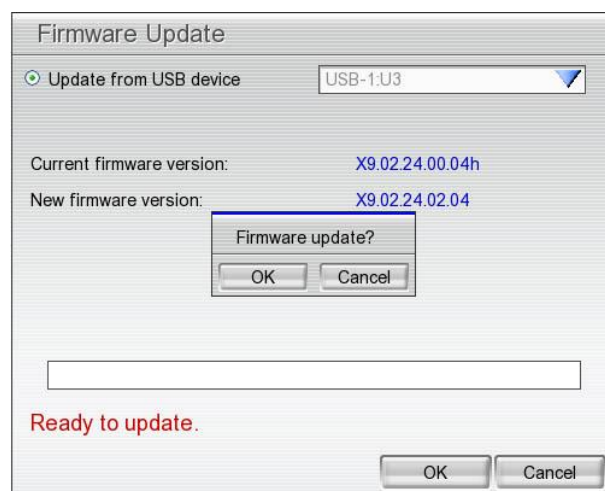
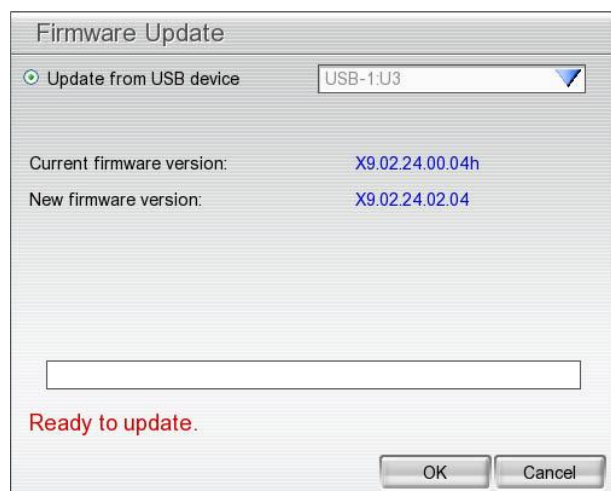
YouTube Facebook Twitter RSS

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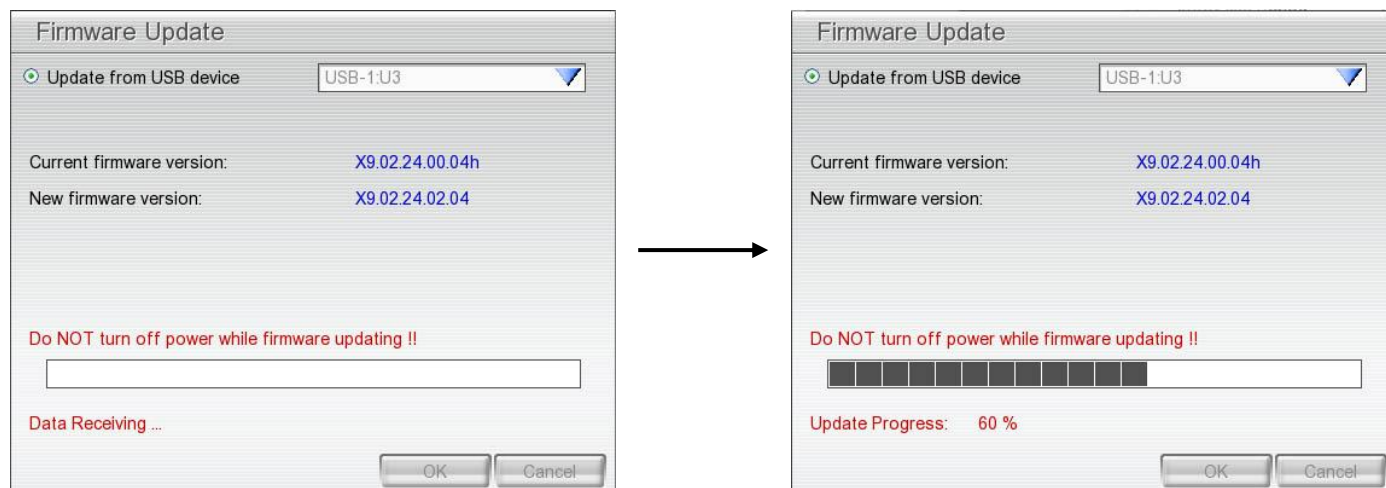
2. Plug the USB pen drive to USB port on DVR unit. Then, click **Setup >> System** and click Update button.



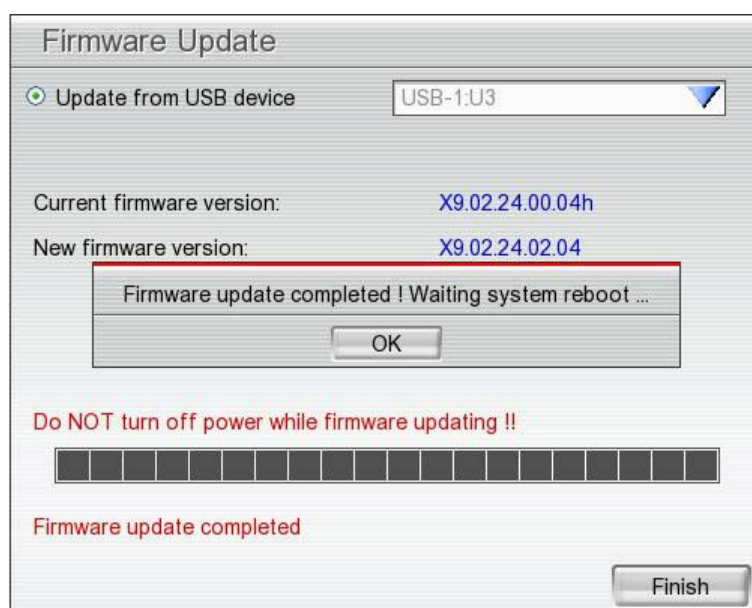
3. After click update button, Firmware Update dialog is shown up and DVR system has detected the firmware file on USB pen drive and ready for upgrading procedure. User can check the firmware version to make sure the firmware is newer than current version. Click **OK** to start upgrading procedure.



4. Wait for a while, DVR system is starting to upgrade firmware.



5. After upgrade is completed, click **OK** and DVR system will reboot automatically.



1.6.3 Remote ISP Upgrading

User can upgrade the DVR firmware from remote PC.

[Note]

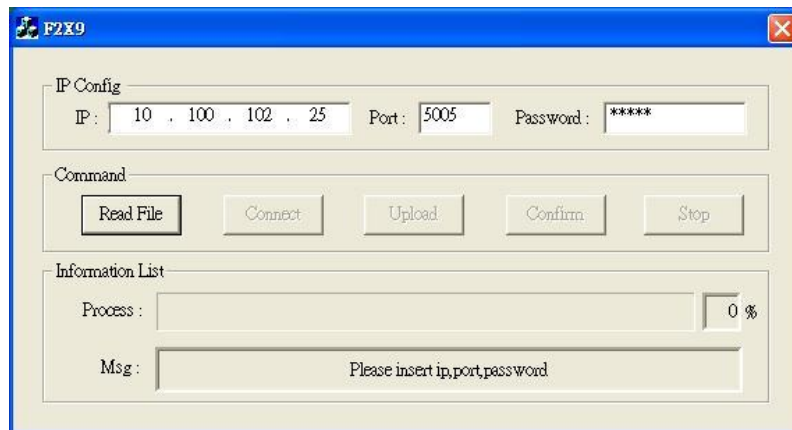
- ✧ The PC that uses to upgrade DVR firmware must can connect to DVR system through LAN or WAN network.
- ✧ The DVR hard disk needs to have 250MB free spec.

1. Download the firmware from website <http://surveillance.aver.com/> >> **Support** >> **download Center** >> **Embedded hybrid DVR** >> **EH6108H+/EH6216H+** >> **firmware**. Then, click **Search** button to search firmware. Select the file named “**EH6216H_Firmware_Remote_ISP_***” to download it. After download the firmware file, unzip it and save the firmware file on PC. The firmware file contents one ISP application and DVR firmware file.

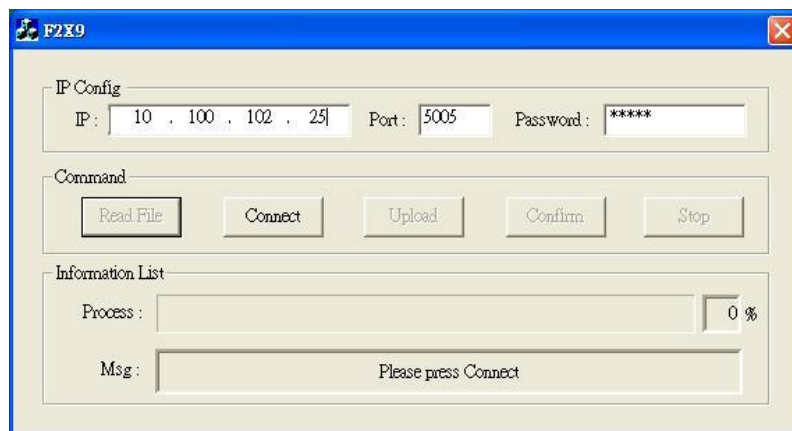
The screenshot shows the AVer website's download center. On the left, a sidebar lists various services, with 'download center' highlighted. The main content area is titled 'download center' and features a search interface. A red box labeled '1' highlights the 'surveillance products' dropdown menu. Below this, three columns are visible: 'step1. series' (with 'Embedded hybrid DVR' selected), 'step2. product' (with 'EH6108H+/EH6216H+' selected), and 'step3. item' (with 'firmware' selected). A red box labeled '2' highlights the 'search' button. Below the search filters, a table of results is shown. A red box labeled '3' highlights the row for 'EH6108H+\EH6216H_Firmware_Remote_ISP_X9.02.24.02.04d', which is the file to be downloaded.

language	OS	description	date	download
		EH6108H+\EH6216H_Firmware_Local_ISP_X9.02.24.02.04d	2011/10	Download
		EH6108H+\EH6216H_Firmware_Remote_ISP_X9.02.24.02.04d	2011/10	Download
		EH6108H+\EH6216H_Firmware_USB_X9.02.24.02.04d	2011/10	Download

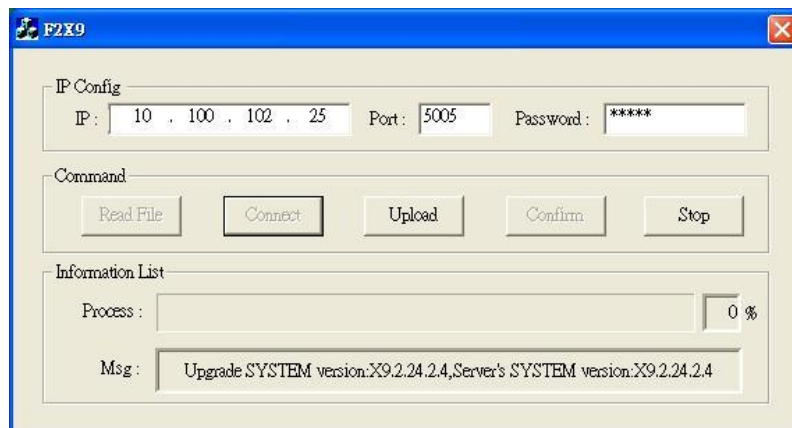
2. Run the ISP application on PC and enter the DVR's IP address, Port (Remote Update Configuration port in Network setting), and Password (admin password). Then, Click **Read File** button and locate where firmware file is.



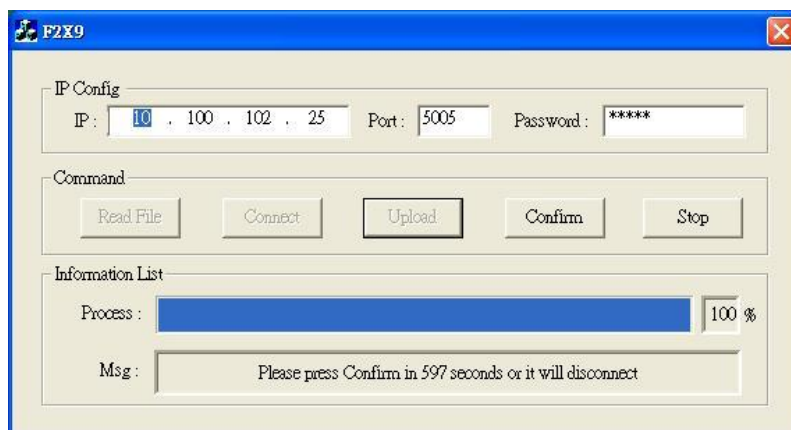
3. Click **Connect** button to connect with DVR system.



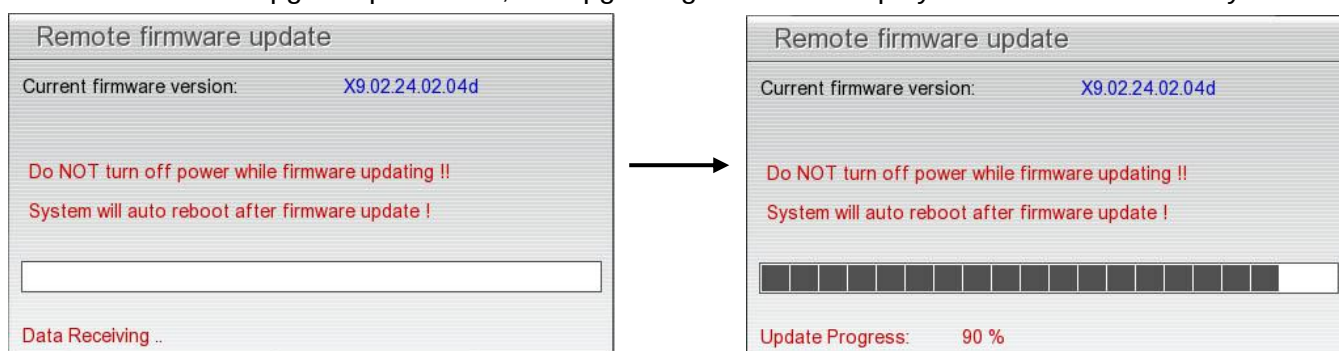
4. After connected with DVR system, click **Upload** button to upload the firmware to DVR system.



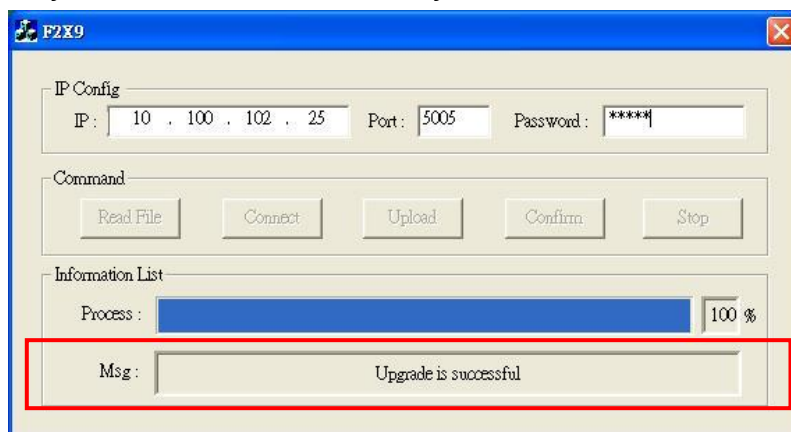
5. Then, click **Confirm** button to start upgrading procedure. If user wants to discontinue the upgrade procedure, click **Stop** button instead **Confirm** button.



6. After confirm the upgrade procedure, the upgrading window is displayed on screen at DVR system site.



7. Wait until the upgrade complete message is displayed on ISP application, the upgrade procedure is completed. The DVR system will reboot automatically.



Chapter 2 Using the DVR Software

2.1 The Way to Operate DVR

There are three ways can be managed the DVR unit:

1. Using mouse and keyboard

Connecting the mouse and keyboard through USB interface, user can manage the DVR unit easily. For the first time using DVR unit, mouse and keyboard is the best way to set up all DVR relevant configurations.

2. Using Remote Controller(Optional accessory)

After DVR unit has been setup, user can use remote controller to preview, playback, backup, reset alarm, output video and so on functions.

3. Using Front Panel button

It's an optional way to operate DVR unit. Front panel button function acts as same as remote control.



For the first time using DVR unit, using mouse and keyboard to setup all configurations.

2.1.1 First Time Using the DVR Unit

1. Connect the mouse and keyboard to DVR unit (through USB interface).
2. Power on the DVR unit.
3. For security purpose, the DVR system would require you to enter User ID and Password before it can be accessed. (If this is the first time, enter the default ID **[admin]** and password **[admin]**).



4. The hard disk must be formatted before user can use it with DVR unit. Following the below steps to format the hard disk.



- Before formatting hard disk, please stop all operations on DVR system.
- While formatting hard disk, the CPU usage will be near to 100% and might slow down the DVR system response.

- a. Click **Setup** and enter the password
- b. Click **System** → **Add**

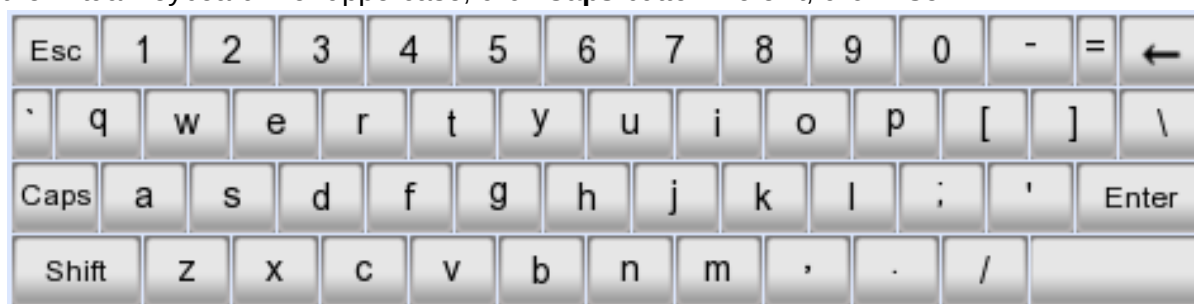
- c. Select the hard disk from device list.
 - d. Click **Format** button to start formatting
 - e. When formatting is done, click **OK**.
5. Setup the date and time in order to have correct recording time and date. Following the below steps to setup date and time:
 - a. Click **Setup** and enter the password
 - b. In **Date and Time Setting** section, click **Setting** button of **System Date and Time**.
 - c. Select the date and adjust the time, and then, click **OK**.
6. Following the below steps to connect the IP and analog camera.
 - **To connect analog camera**
 - a. Plug the analog camera video cable into DVR video port.
 - b. Click **Setup** → **Camera**
 - c. Select camera type as **Analog Camera**.
 - d. And then, enable the camera.
 - e. Click **Edit** button to edit name of camera and enter short description.
 - f. Adjust the bright, contrast, hue, and saturation of camera.
 - g. Enable **Deinterlace** function if necessary.
 - h. Finally, click **OK**.
 - **To connect IP camera**
 - a. Click **Setup** → **Camera**
 - b. Select camera type as IP Camera.
 - c. And then, enable the camera.
 - d. Click **Add IPCam** button.
 - e. Select using **Protocol** or **URL** to connect the IP camera. If user chooses the Protocol, please select **mode**, **video format**, **resolution**, and **channel** of IP camera. If user chooses the URL, please enter the complete URL address of IP camera.
 - f. Enter **ID** and **password** if IP camera's access authority is required.
 - g. Finally, click **OK**.
 - h. To connect another IP camera, follow the above steps.



DVR unit doesn't supply the power to connected external devices.

2.1.2 Using the Virtual Keyboard

User can use the Virtual Keyboard when the keyboard is not available. Just click  or right-click screen to call out the virtual keyboard. For uppercase, click **Caps** button. To exit, click **Esc**.



2.2 Familiarizing the Buttons in Preview Mode



Name	Function
(1) Exit	- Reboot: To restart the DVR system. It is required to enter the password - Power OFF: To shut down the DVR system. It is required to enter the password - Login: Using different ID to login to DVR system. - Logout: To set a system idle time and the DVR system will automatically logout system (see also Chapter 2.2.1). - Cancel: To return to DVR application.
Logout User admin Reboot Power OFF Login Logout Cancel	
(2) Split Screen Mode	Select from 6 different split screen types to view all the camera, or one camera over the other or alongside on a single screen. It also allows you to switch and view different camera number.
i - When you are in single screen mode, Right click and Drag a square on the area you want to enlarge. Right-click on screen again, the screen view will back to normal view. - When you are in full screen mode, partial enlarges does not support.	
(3) Record	Start/stop video recording.
(4) EMap	Display the map in each area, and the location of camera/ sensor/ relay and the warning (see also Chapter 2.2.2).
(5) Network	Enable/disable remote system access. This feature allows you to access DVR server from a remote location via internet connection.
(6) Setup	Configure the system settings. (see also Chapter 3)
(7) PTZ	Access PTZ control panel. (see also Chapter 2.2.3)

Name	Function
(8) Preview	Switch to Preview mode. This allows you to view live camera display.
(9) Playback	Switch to Playback mode. This allows you to view the recorded video file. (see also Chapter 2.3)
(10) Status bar	Display the recorded date, time, hard disk space and temperature of unit.
(11) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(12) Snapshot	Capture and save the screen shot in *.jpg format.



Please plug the USB pen drive to DVR server before press **Snapshot** button.

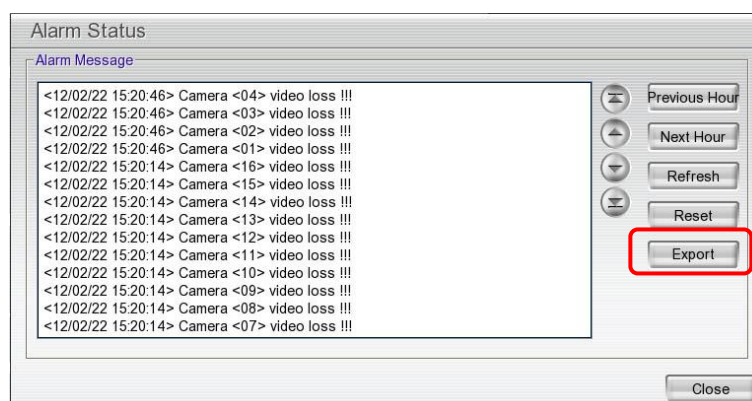
(13) Event log	Show the record of activities that take place in the system. (see also Chapter 2.2.4)
(14) AutoScan	Start/Stop video screen cycle switch.
(15) Full screen	View in full screen. To return, press the right button of the mouse or ESC on the keyboard or click the arrow icon.



Click it to exit from full screen mode.

When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.

(16) Alarm	Alert and display warning info. User can export the alarm log to USB pen drive in *.txt format. Click Export button and select Export Date and the type of Event log . Then, click Export button.
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(17) Virtual Keyboard	Click to enable virtual keyboard.
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Name	Function
(18) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.



The de-interlace function only support on analog camera channel in single screen display mode.

- (19) Turbo
- To improve the smoothness of live video. The default is enabled() , but in following situation:
- The channel is IPCam and is in 1 single screen.
 - The channel is remote DVR and is in 1 single screen.

Turbo function setup is independent for each channel. To turn off turbo function () , click turbo button.

[Note] In multiple split screen mode, the turbo button is gray out.



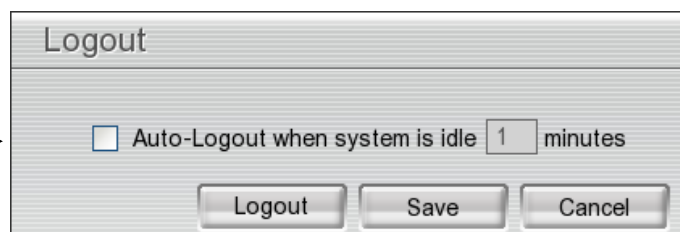
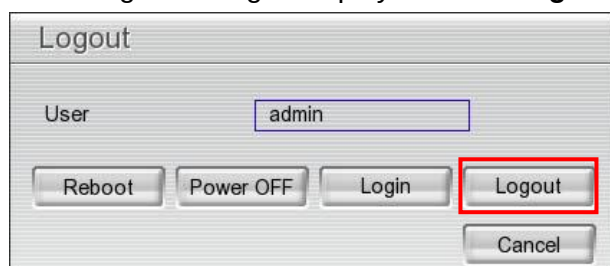
2.2.1 To Setup DVR System Logout Time

User can set a system idle time for DVR system to logout the system automatically. The idle time period range is 1 to 60 minutes.

1. In preview mode, click logout button.



2. A Logout dialog is displayed. Click **Logout** option.



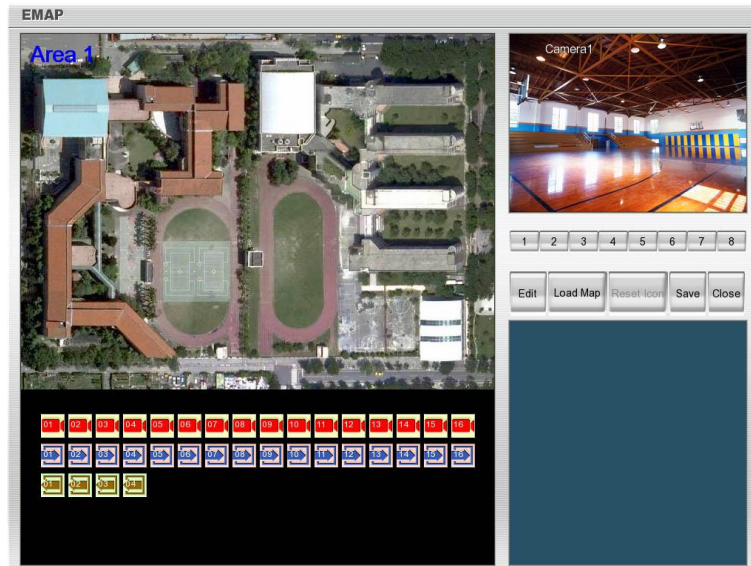
3. In Logout dialog, mark checkbox to enable logout function. Then, enter the system idle time in **minutes** column. The idle time period range is 1 to 60 minutes.
4. Next, click **Save** button to save the setting. To go back to previous dialog, click **Cancel**.
5. If user wants to logout to change login ID, click **Logout** button directly. Then, login with another user ID in Authorization dialog.
6. When the DVR system's idle time has met the time that use has setup, the DVR system will logout the DVR system automatically. The preview surveillance screen will turn to gray and user won't see any live video. The Authorization dialog is displayed for user to login the DVR system.
7. To view the live video, enter the user ID and password to login the DVR system again.

2.2.2 Setting Up and Using the Emap

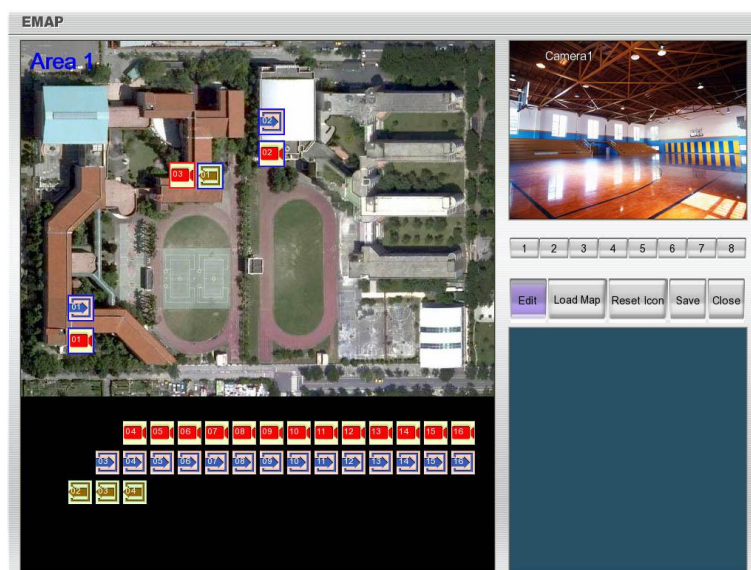
E-Map can hold up to 8 maps in *.jpg or *.bmp format. You may locate the camera, sensor and relay on the map.

To Set Up the Emap

1. Click **Emap**.
2. When the Emap screen appears, click the area number (1 to 8 buttons) on where you want to insert the map.



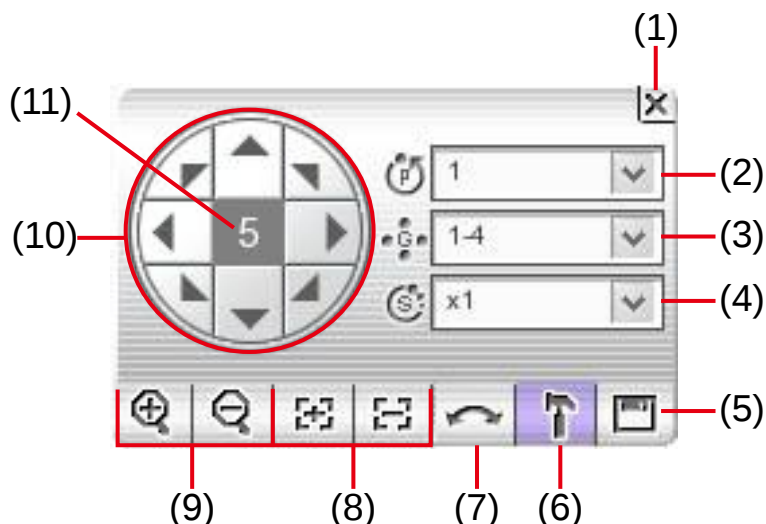
3. Click **Load Map** to insert the map. When the open dialog box appears, locate and select the map and click **Open**.
4. When the inserted map appears on the Emap screen, click **Edit**. You may now drag the camera, sensor, and relay icons to its place on the map. Icons on the map can be relocated anywhere. If you are going to locate the icon on the map to other area, you need to drag the icon to the black pane at the bottom of the Emap screen and then switch to the area on where you want to locate the icon. To bring all the icons back to the black pane at the bottom of the Emap screen, click **Reset** Icon.
5. When you are done, click **Save** button to save the new setting. To exit Emap screen, click **Close**.



To Use the Emap

1. Click **E-map**.
2. In the Emap screen, click the camera icon to switch on the area where the camera is located on the map and to display the video at the upper right corner of the Emap screen. At the lower right corner of the Emap screen, it lists all the warning message.
3. Click **Close** to exit Emap screen.

2.2.3 Familiarizing the Buttons in PTZ Camera Controller



Name	Function
(1) Close	Exit PTZ camera controller.
(2) Camera preset position number	Move the PTZ camera to the preset point.
(3) Group AutoPan	Select to automatically operate PTZ camera in group.
(4) Direction button moving speed	Adjust the moving speed of the PTZ camera lens. This speed will apply to the (10) Direction buttons' moving speed only.
(5) Save Camera preset position	Save the PTZ camera preset position number. Select the camera and click the preset position number and save it.
(6) Setup	Configure PTZ cameras.(see also Chapter 2.2.3.1 and Chapter 2.2.3.2)
(7) AutoPan	Operate the PTZ cameras automatically based on the selected camera group preset position number. User needs to select the (3) Group AutoPan , then, click (7)Auto Pan button.
(8) Focus +/-	Adjust the focus manually to produce clear image.
(9) Zoom +/-	Zoom in and out the image.
(10) Direction buttons	Adjust and position the focal point of the PTZ camera. The direction buttons is depended on the PTZ camera has supported.
(11) Camera ID pane	Display the PTZ camera number that is being operated.

2.2.3.1 Setup the Analog PTZ Camera

1. Select the channel of analog PTZ camera on Preview UI.
2. Click **PTZ** button from preview UI.
3. In the PTZ control panel, click **Setup** (see also [Chapter 2.2.3](#)).
4. When the PTZ Setup dialog box appears, select the camera number and check the **Use PTZ** box.



5. In the Connection Settings section, fill in the following selections. Then, click **Save** to keep the settings.
 - **COMPort:** The port that the PTZ camera is connected
 - **ID:** PTZ camera ID number
 - **Baud Rate:** Please refer to the user's manual of the PTZ camera to make sure the baud rate.
 - **Protocol:** Please refer to the user's manual of the PTZ camera to make sure what protocol is using.
6. In the **Preset Setting** section, use the control panel to adjust the position of the PTZ camera and select the preset number to assign a number for the PTZ camera current position. Set the **DwellTime** (1-60 sec) for how long the PTZ camera stays in that position before it moves to the next one. After is done, click **Save** to keep the **Preset Setting** settings.
7. **Restore AutoPan Time:** set a time period for restoring auto path function after the PTZ camera has been moved manually. Mark the check box and set the time period in second.
8. Repeat step 4 and 5, if you want to save another PTZ camera position.
9. After finished all configurations, click **OK** to exit. Click **Cancel** will exit and without saving the settings.

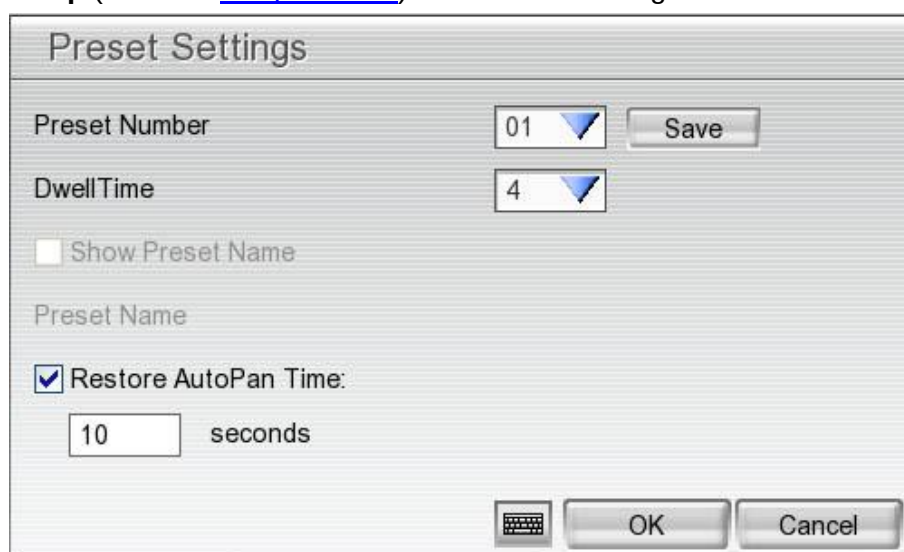
2.2.3.2 Setup the IP PTZ Camera

When IP PTZ camera has successful connected with the DVR system, user can use the PTZ function directly without any configuration. To make connection of IP PTZ camera, please refer to [Chapter 3.2.1](#).

In PTZ camera panel, user can setup the preset position of the camera. The number of preset positions are depend on the IP PTZ camera that user has connected. For example: A brand of IP PTZ camera only supports 4 preset positions. Therefore, user only can setup 4 preset positions on the DVR system. User can refer to the user's manual of the IP PTZ camera to make sure the number of the preset positions has supported.

Please follow the below steps to configure the preset position.

1. On Preview UI, select the channel that is an IP PTZ camera connection.
2. Click **PTZ** button from Preview UI and PTZ control panel will show up.
3. In the PTZ control panel, using the arrow button to adjust the position of IP PTZ camera.
4. And then, click **Setup** (see also [Chapter 2.2.3](#)). The Preset Settings window will show.



The image shows a 'Preset Settings' dialog box. It contains the following fields and controls:

- Preset Number:** A dropdown menu showing '01' and a 'Save' button.
- DwellTime:** A dropdown menu showing '4'.
- Show Preset Name:** An unchecked checkbox.
- Preset Name:** A text input field.
- Restore AutoPan Time:** A checked checkbox.
- Time Period:** A text input field showing '10' followed by the unit 'seconds'.
- Buttons:** A keyboard icon, an 'OK' button, and a 'Cancel' button.

5. Select the **Preset Number** to assign a number for the PTZ camera current position. And then, click **Save** to save the setting.
6. Set the **DwellTime** for how long the PTZ camera stays in that position before it moves to the next one.
7. Repeat step 3 to 6, if you want to save another preset position.
8. **Restore AutoPan Time:** set a time period for restoring auto path function after the PTZ camera has been moved manually. Mark the check box and set the time period in second.
9. Click **OK** to complete the setting.

2.2.4 Using Event Log Viewer

Show the record of activities that take place in the system. Click **Close** button to exit Event Log Viewer window.

Event Log Viewer

☐ EVENT ☐ OPERATION
☐ SYSTEM ☐ NETWORK ☒ ALL

Date: 2011/11/18

Page: 1

Time	Camera	Type	Event
2011/11/18 10:38:12		SYSTEM	Hard disk error(SATA-1:)! Please check your hard disk.
2011/11/18 10:38:28		OPERATION	Start Record (User)
2011/11/18 10:38:41	01	EVENT	Alarm Triggered (Motion Detected)
2011/11/18 10:39:09	04	EVENT	Alarm Triggered (Motion Detected)
2011/11/18 10:39:09	06	EVENT	Alarm Triggered (Motion Detected)
2011/11/18 10:39:11	02	EVENT	Alarm Triggered (Motion Detected)
2011/11/18 10:39:30	05	EVENT	Alarm Triggered (Motion Detected)
2011/11/18 10:39:31	03	EVENT	Alarm Triggered (Motion Detected)
2011/11/18 10:40:08		OPERATION	Enter Setup
2011/11/18 10:40:19		NETWORK	Change IP : 192.168.3.38
2011/11/18 10:40:23		NETWORK	Change IP : 10.100.91.42
2011/11/18 10:40:39		OPERATION	Enter Setup
2011/11/18 10:40:50	05	EVENT	Video Loss
2011/11/18 10:40:50	11	EVENT	Video Loss
2011/11/18 10:40:50	03	EVENT	Video Loss
2011/11/18 10:40:50	04	EVENT	Video Loss

POSViewer

1. Click the **Event Log** button on DVR system main interface. The Event log viewer window will show up.
2. Select the **Date** to view.
3. To filter the records, select and click the select button to display **Event, System, Operation, Network** or **All**.
4. Click button to go next page and click button to go to the last page. To go to previous page, click button. Click button will back to the first page. In **Page** column, it displays the current page number.
5. To view POS event log, click POSViewer bar to call out the POSViewer window (see also [Chapter 2.2.4.1](#)).
6. User can export the event log to USB pen drive in *.txt format. Click **Export** button and select **Export Date** and the type of **Event log**. Then, click **Export** button. The export event log file is in a Backup folder.



Please plug the pen drive to DVR unit before click export button.

Log Export Management

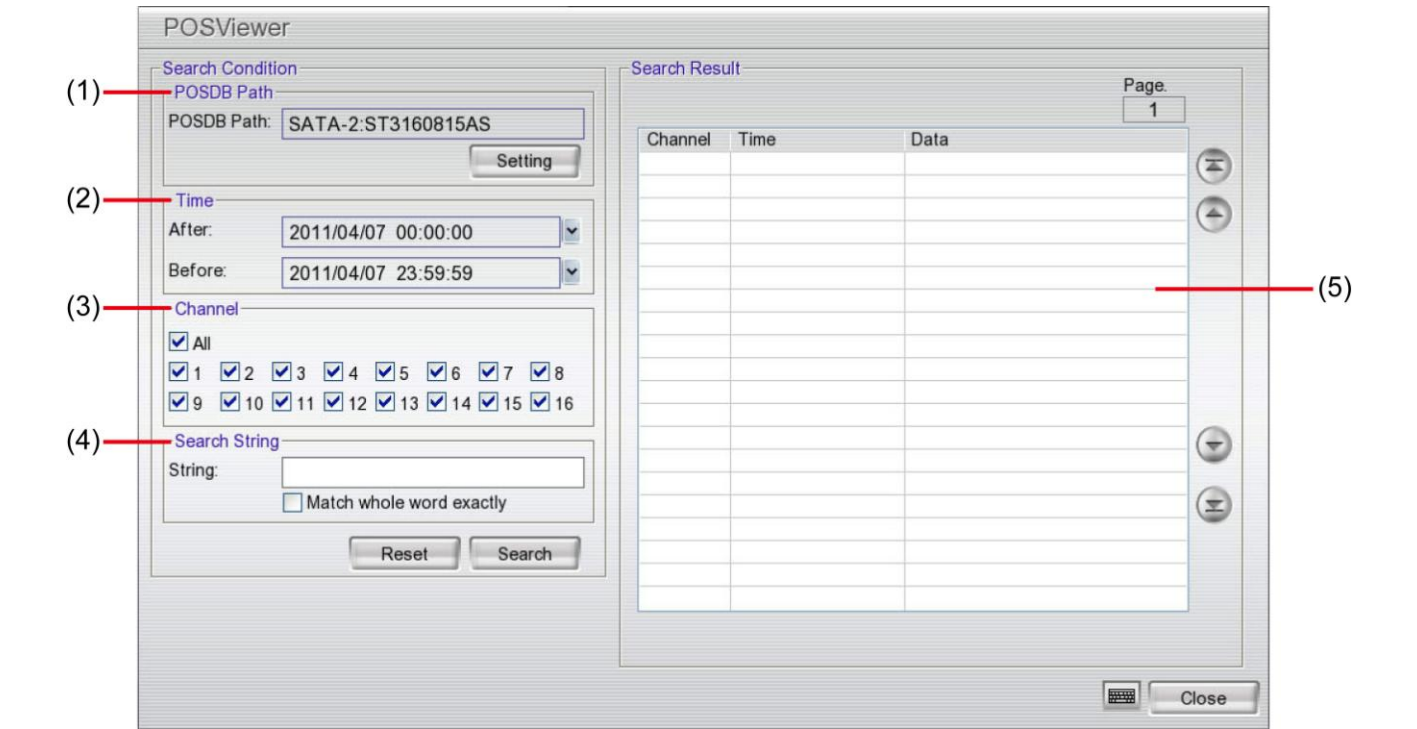
Export Path
Save path: USB-1:U3

Export Date
☐ All
Begin Time: 2011/12/12
End Time: 2011/12/12

Export Log
☐ All
☒ EVENT ☐ ALARM ☐ POS

2.2.4.1 Using POSViewer

To clear all setting, click **Reset** button. Click **Close** button will exit POS Viewer window.



Name	Function
(1) POSDB Path	The storage path for POS event log. Click Setting to change the storage path. POSDB Path Save path SATA-2:ST3160815AS OK Cancel
(2) Time Before/After	Set a time period before and after of POS event log.
(3) Channel	Select the POS event log of channel
(4) Search String	Enter specific key word or word string to search the POS event log. Mark the “ Match whole word exactly ” box if wants to find exactly key word or word string of POS event log. Click Search button to start searching.
(5) Search Result	Display the POS event log of search result. Click  button to go next page and click  button to go to the last page. To go to previous page, click  button. Click  button will back to the first page. In Page column, it displays the current page number.

2.3 Familiarizing the Buttons in Playback Mode

To switch in Playback mode, click **Playback** button at the lower right corner of Preview mode user interface.



Name	Function
(1) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the cameras or one camera over the other or alongside on a single screen.
i	- When you are in single screen mode, Right click and Drag a square on the area you want to enlarge. Right-click on the screen again, the screen view will back to normal view. - When you are in full screen mode, partial enlarges does not support.
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track. When in single screen playback mode, the colors in progress bar have different means. ■ Green color: a motion was detected and recorded ■ Blue color: is a general (always) recording file and no any event or motion happen during recording ■ Red color: the sensor was triggered while recording ■ Black color: no record file at the time period ■ Yellow color: the video loss happen while recording
i	The progress bar is designed and drawn based on key frame only.

Name	Function
(3) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
	The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.
(4) Playback Control Buttons	Begin: Move at the beginning of the recorded video file. Previous: Go back to the previous frame. Slower: Play the recorded video file at the reduce speed from 64x, 32x, 16x, 8x, 4x, 2x, 1x, 1/2X, 1/4X. Rewind: Wind back the recorded video file. Pause: Briefly stop playing the recorded video file. Play: Play the recorded video file. Faster: Play the recorded video file at the speed of 2x, 4x, 8x, 16x, 32x, or 64x. Next: Go to the next frame. End: Go to the end of the recorded video file.
(5) Date	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.
	The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.
(6) Preview	Switch to Preview mode.
(7) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(8) Status bar	Display the recorded date, time and play speed.
(9) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(10) Export	Export includes Snapshot, Output Video Clip, and Backup function. ■ Snapshot: Capture and save the screen shot either in *.jpg format. ■ Output Video Clip: Save the segmented file in *.dvr format to external USB storage device (see also Chapter 2.3.1). ■ Backup: Save the playback file to USB device or DVD-ROM disk(see also Chapter 3.6)
	Please plug the USB pen drive to DVR server before execute Export function (Snapshot, Output Video Clip, and Backup).
(11) Segment	Keep a portion of the recorded video (see also Chapter 2.3.1).
(12) Full screen	View in full screen. To return, press the right button of the mouse or ESC on the keyboard or click the arrow icon.



Click to exit from full screen mode

When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.

Name	Function
(13) Event log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or All.
(14) Bookmark	Mark a reference point when reviewing the recorded video file to which you may return for later reference (see also Chapter 2.3.2).
(15) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second(also see Chapter 2.3.3)
(16) Find Next	Search for the next event. You can use this when you are using Event Search function.
(17) Event Search	Search from the recorded activities that were recorded in event log (i.e., Sensor, Motion, Video Loss). (see also Chapter 2.3.4)
(18) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.



De-interlace function only support for analog camera channel in single screen display mode.

- (19) Turbo
- To improve the smoothness of live video. The default is enabled() , but in following situation:
- The channel is IPCam and is in 1-split screen.
 - The channel is remote DVR and is in 1-split screen.
- Turbo function setup is in depended for each channel. To turn off turbo function () , click turbo button.

[Note] In multiple split screen mode, the turbo button is gray out.



2.3.1 To Cut and Save the Portion of the Recorded Video

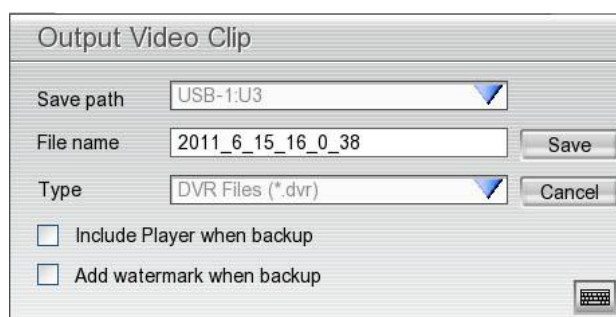
1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.



2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation, click **Segment** button again.



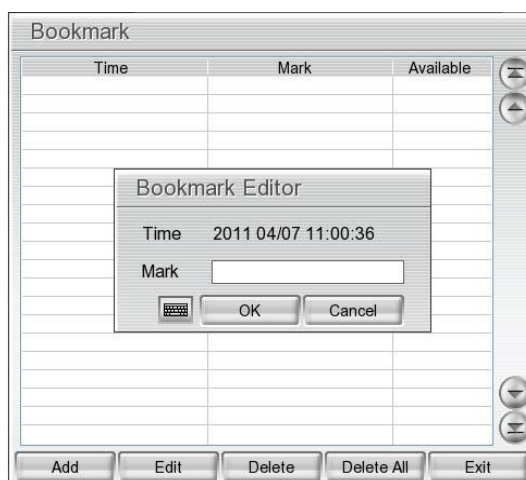
3. Click **Export** button and select **Output Video Clip** to save the wanted portion. User can rename the **File name**. Mark “**Include Player when backup**” option to include a Qplayer application in backup file for playback backup video clip later on. Mark “**Add watermark when backup**” option to have watermark protection on backup file and user can have watermark exam on Qplayer application.



4. In the **Save As** dialog box, locate on where user wants to save the file, type the filename, and select the video format.
5. To playback the backup video clip, using Qplayer application that is included in backup folder.

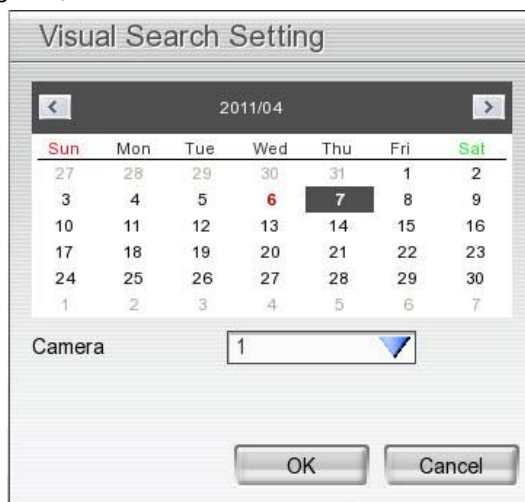
2.3.2 To Bookmark a Video Section

1. Click **Bookmark** button
2. In the Bookmark dialog box, you may do the following:
 - **Add** to create the new reference mark in the bookmark list.
 - **Edit** to change the mark description.
 - **Delete** to remove the selected reference mark in the list.
 - **Delete All** to remove all the reference marks in the list.
 - **Exit** to close Bookmark dialog box.
3. Select and click one in the bookmark list to review the file.

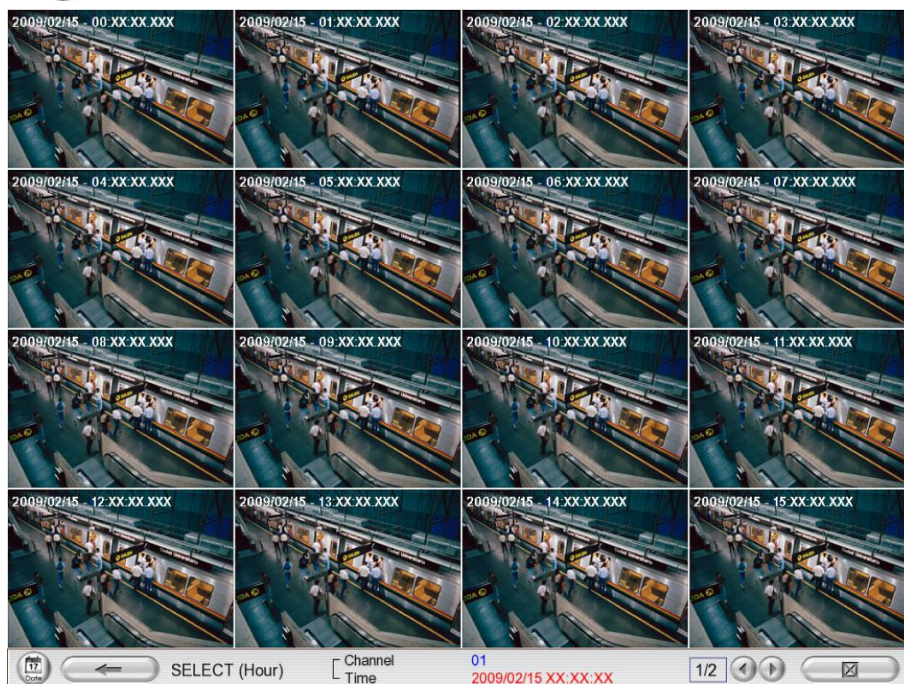


2.3.3 To Search Using Visual Search

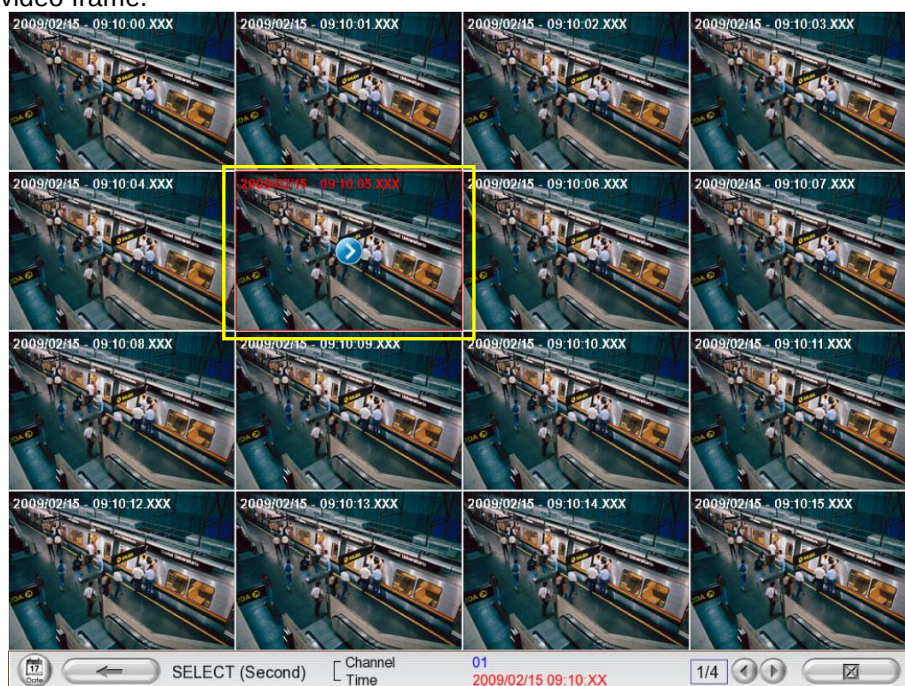
1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.



3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every Minutes of that hour, and every Seconds of that minute. Using and to go previous and next page of page. To go back last time section (hour, minute, or second), click . To close event search, click . Click to select different date of video for visual search.



4. On the time second screen, click the channel and playback button will appear. Click playback button to playback the selected channel video frame.



2.3.4 To Search Using the Event Search

1. Click on the video screen on where you want to search.
2. Click **Event Search**. The Event Search Setting dialog box would appear on the screen.



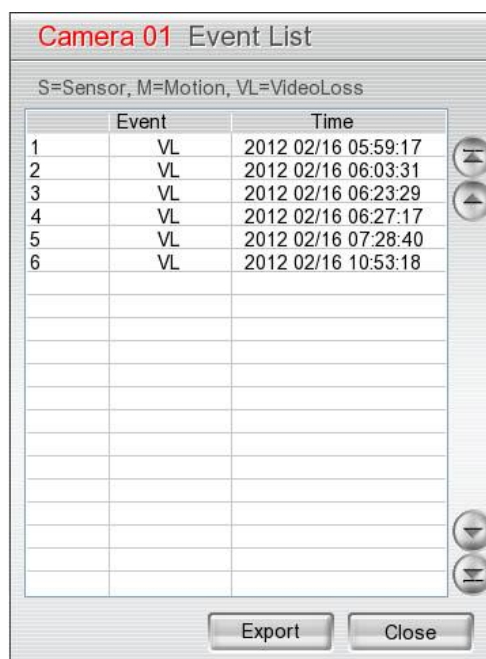
The 'Event Search Setting' dialog box contains two main sections. The 'Searching Condition' section has three checkboxes: 'Sensor', 'Motion', and 'Video Loss', all of which are currently unchecked. The 'Searching Duration' section includes 'Begin Time' and 'End Time' fields, both set to '2008/11/26' with a time of 'P.M.03:46:54'. Below these is a 'Searching Interval' set to '3' seconds. At the bottom are 'OK' and 'Cancel' buttons, along with a small icon on the left.

3. In the Event Search Setting dialog box, check the type of condition you want to search. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click .
4. You may also set to search and list all the result. In the **Search Duration** section, set the **Begin Time** and **End Time**. Set the **Searching Interval** time that system won't list out the same events in a period of time that user has setup. Then, click **OK** to start searching.



The DVR system will automatically set the date of **End Time** at 3 days later of **Begin Time**. If event data are less than 3 days, the DVR system will set End Time at current date. Time of End Time is adjustable.

5. When the Event list appear, click and select the item you want to view. User can export the event list to USB pen drive. Plug in the USB pen drive to the USB on DVR and click **Export** button in Event List window.



The 'Camera 01 Event List' window displays a table of events. Above the table, it says 'S=Sensor, M=Motion, VL=VideoLoss'. The table has two columns: 'Event' and 'Time'. It lists 6 events, all of type 'VL' (Video Loss), occurring on 2012 02/16. To the right of the table are navigation buttons (up, down, first, last). At the bottom are 'Export' and 'Close' buttons.

Event	Time
1	VL 2012 02/16 05:59:17
2	VL 2012 02/16 06:03:31
3	VL 2012 02/16 06:23:29
4	VL 2012 02/16 06:27:17
5	VL 2012 02/16 07:28:40
6	VL 2012 02/16 10:53:18

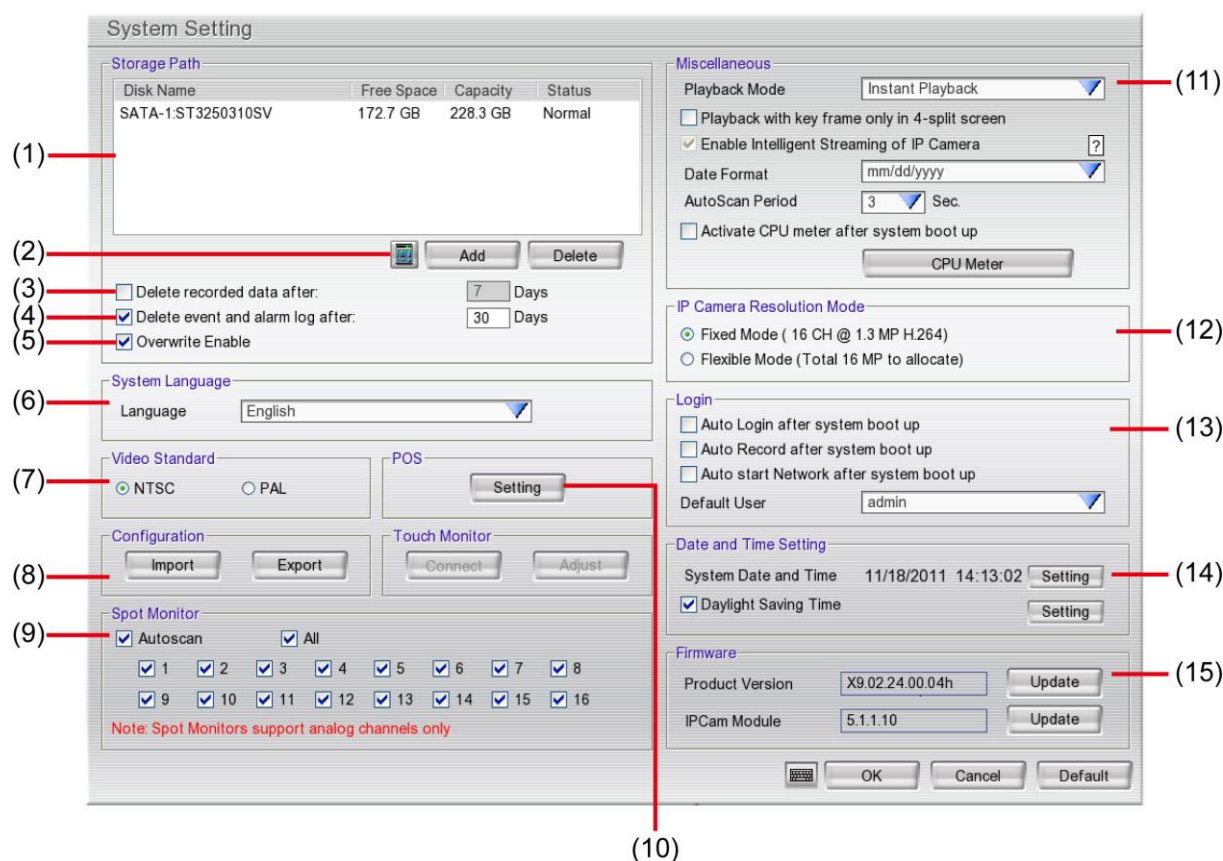
Chapter 3 Customizing the DVR System

In the Preview screen mode, click  button to customize your DVR. When the DVR configuration setup selection appears, select and click the buttons you want to change the setting.



3.1 System Setup

In the System Setting dialog box, click **OK** to accept the new settings, click **Cancel** to exit without saving.

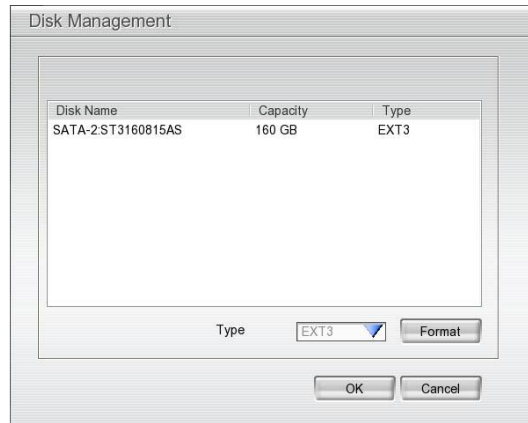


(1) Storage Path

Set the HDD on where to save the data. In case you have more than one storage device, the system automatically saves the data to the next storage device. To insert another storage device, click **Add** and select the storage path. To remove the selected path, click **Delete**. If the hard disk is the first time for DVR system, please format the hard disk before starting to use it. To format the hard disk, select the hard disk and click **Format** button.



- Before formatting hard disk, please stop all operations on DVR system.
- While formatting hard disk, the CPU usage will be near to 100% and might slow down the DVR system response.



(2) Hard Disk Calculator



Stop recording before using hard disk calculator function.

Estimate the hard disk recording capacity. The result of calculation is a rough value which only for reference. The hard disk record capacity will be varied by the real record quality and complexity of video scene.

Click  button, the hard disk calculator window will show up. **Total Recording time(Days)** is the current hard disk recording capacity. Enter the expect hard disk size or expect recording time in **Expected HD Size(GB)** or **Expected Record time(Days)**, and then click **Calculate** button. Click **OK** to exit the hard disk calculator window. The hard disk calculation is based on the recording setup and current hard disk capability.

Hard disk calculator

Total Recording time (Days)

HDD Calculator

Expected HD Size (GB)

Expected Recording time (Days)

The HDD size required for your application may vary from this calculated result due to varieties of surveillance scenes complexity and combinatorial settings used in the actual installation sites. It is user's responsibility to and determine appropriate HDD size for their application needs.

(3) Delete recorded data after

If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the number of days in **Days** text box.

(4) Delete event and alarm log after

If you want the system to automatically erase the event and alarm log after a certain days, enable the **Delete event and alarm log after** check box and enter the number of days in **Days** text box.

(5) Overwrite Enable

When there is not enough free space to record one hour data, the system automatically replaces the oldest data.

(6) Language

Customize the system to display the tool tips and dialogs based on the selected language. Default language is in English.

(7) Video Standard

Change and select the proper video system according to your camera video system. If the video system setting is wrong, the video would appear abnormal.

(8) Configuration

Backup a copy of all the settings and allows you to regain the same settings back. To save the current settings, click **Export**. To replace the settings with the one you have saved, click **Import**.



Please plug the USB pen drive to DVR server before **Import** or **Export** the configuration from or to USB pen drive.

(9) Spot Monitor

Select the camera user wants to display on spot monitor or select **All** for all cameras. Mark **Autoscan** to enable display to take turns automatically.

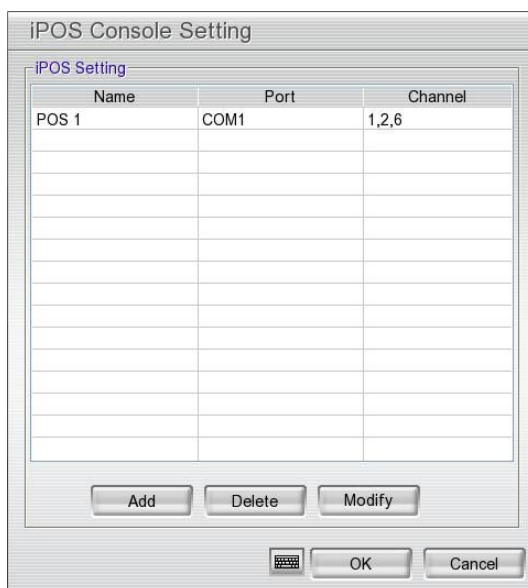
(10) POS



- Please using Databox device to connect POS machine with DVR unit in order to use POS function.
- POS and Mask function cannot be enabled at the same time.

Set from which camera screen to display the data from the POS equipment. Click **Setting**, to set the POS Console Setting.

1. In the POS Console Setting dialog box, click **Add** to set a new POS setting, **Modify** to change the POS setting, and **Delete** to remove the selected POS setting. Click **OK** to save and close POS Console Setting.



2. In the POS Mapping dialog box, click **OK** to accept the settings and **Cancel** to exit without saving the new setting.

The screenshot shows the 'iPOS Mapping' dialog box. It has several sections:

- POS** section:
 - (1) Name: A text box containing 'POS 2'.
 - (2) Protocol: A dropdown menu showing 'General'.
 - (3) Skip first: A spinner box set to '0' with the label 'line(s)'.
 - (4) Font Color: A row of color selection boxes (white, black, red, green, blue, yellow, magenta, cyan).
- Port Setting** section:
 - (5) Local: A dropdown menu showing 'COM2'.
 - Baud Rate: A dropdown menu showing '9600 bps'.
- Map to Channel** section:
 - (6) Max 4 Channels: A grid of checkboxes for channels 1 through 16. Channels 1, 2, 3, and 4 are checked.
- Text Filter** section:
 - (7) Eight text input boxes numbered 1 through 8 for filtering text.

 At the bottom are 'OK' and 'Cancel' buttons.

- (1) **Name:** Enter a name to identify the POS.
- (2) **Protocol:** Select the protocol.
- (3) **Skip first:** Set the number of lines you want to be removed.
- (4) **Font Color:** Select the text color of the POS data.
- (5) **Port Setting :** Select the **Local**(Com port) where it is connected and **Baud Rate**.
- (6) **Map to Channel:** Select to which camera number to display the transaction text.
- (7) **Text Filter:** Enter the word you want to be removed.

(11) Miscellaneous

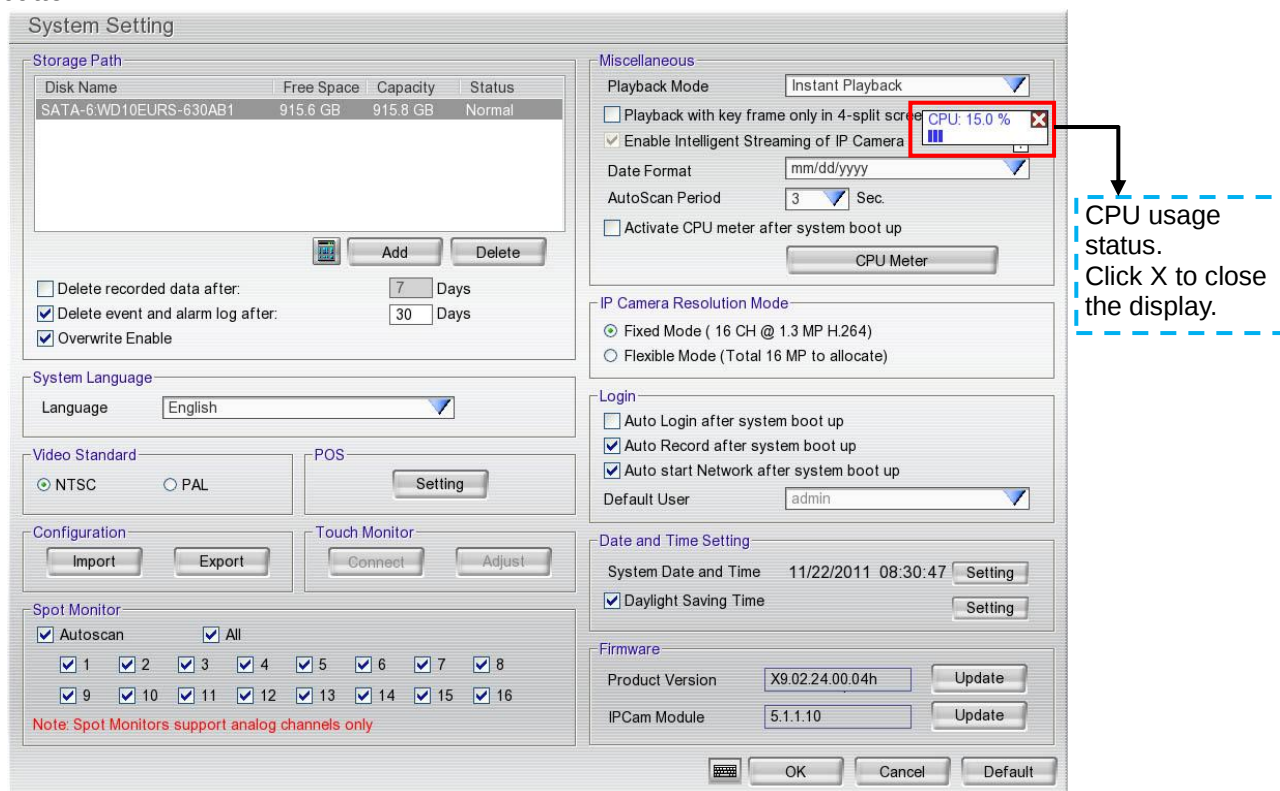
- **Playback mode:** Select the mode of playback the video.
 - **Select date and time:** Select the date and time which user wants to playback.
 - **Play the last file:** Automatically playback the video from the last hour.
 - **Instant Playback:** Automatically playback the video which has just recorded.
- **Playback with key frame only in 4-split screen:** Enable to only playback key frame when in 4-split screen playback mode.
- **Enable Intelligent Streaming of IP camera:** The DVR now supports 3 streaming for preview, recording, and remote site on Aver IP camera series. User can setup these 3 streaming in [Detail of \(5\) IP camera information](#) in [Chapter 3.2.1](#). Click ? mark will show up the intelligent streaming information dialog box.



DVR supports first 4 channels for IP camera within intelligent streaming is enabled.

- **Date Format:** Select the date format which wants to display in select date and time playback mode
- **Auto Scan Period:** Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.
- **Activate CPU meter after system boot up:** Mark to enable the CPU usage status display on the

screen automatically when system boot up. User can manually to enable by clicking the **CPU Meter** button.



(12) IP Camera Resolution Mode



IP camera resolution mode is related to Camera Setting.

- **Fixed Mode(16CH@1.3MP H.264)**
The DVR system supports 16CH IP camera at 1.3MP for each channel.
- **Flexible Mode(Total 16MP to allocate)**
DVR system supports 16MP total for 16 IP camera channels (in any code type – H.264, MPEG4, MJPEG). The 16MP is divided into 8MP each for odd and event channels. A channel maximum supported value is 5MP.

(13) Login

Enable the conditions in Login section you want the system to automatically carry out.

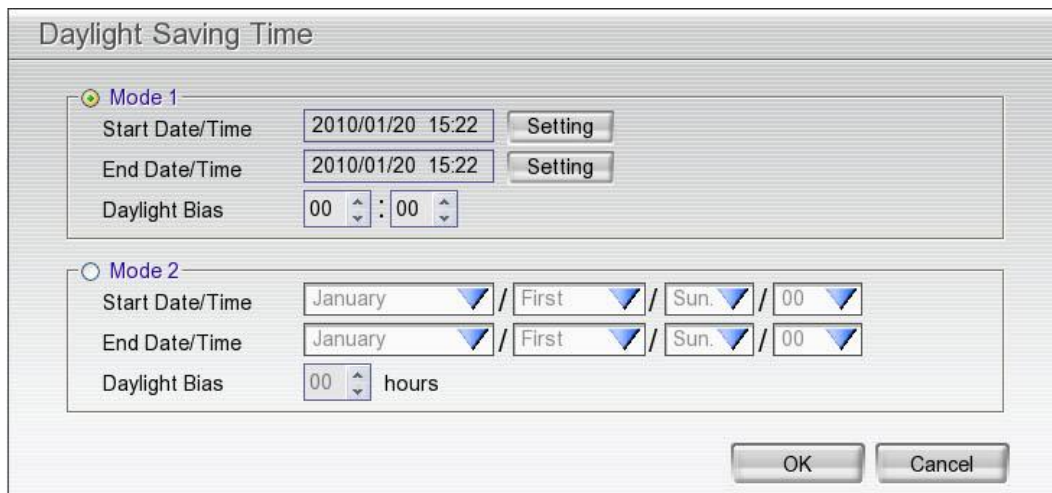
- **Auto Login after system boot up**
Execute the DVR when the operating system is started.
- **Auto Record after system boot up**
Automatically start video recording when the DVR is executed.
- **Auto start Network after system boot up**
Automatically start network connection when the DVR is executed.
- **Default user**
Automatically log in to the selected default user when the DVR is executed.

(14) Date and Time Setting

Click **Setting** button of System Date and Time to setup current date and time.

Mark **Daylight Saving Time** to enable daylight saving function.

- **Daylight Saving Time:** Click **Setting** to setup **Start** and **End Date/Time**. User can depends on daylight saving time mode in your country to select **Mode 1** or **Mode 2**. Mode 1 is setting up specific start date/time and end date/time. Mode 2 is setting up fixed day of month in every year for start and end date/time.



The image shows a 'Daylight Saving Time' configuration window. It has two modes: Mode 1 (selected) and Mode 2. Mode 1 allows setting specific start and end dates/times and a daylight bias. Mode 2 allows setting start and end dates by month, day, and day of the week, along with a daylight bias in hours. Both modes have 'Setting' buttons for the date/time fields. The window includes 'OK' and 'Cancel' buttons at the bottom right.

Daylight Saving Time			
Mode 1			
Start Date/Time	2010/01/20 15:22	Setting	
End Date/Time	2010/01/20 15:22	Setting	
Daylight Bias	00 : 00		
Mode 2			
Start Date/Time	January / First / Sun.	00	
End Date/Time	January / First / Sun.	00	
Daylight Bias	00 hours		

- **Daylight Bias:** Assign a time that it is for daylight saving time offset in your time zone. For example: if the time zone is in U.S. Eastern, the time offset is 1 hour.

(15) Firmware

- **Product Version Update:** To update firmware, please refer to [Chapter 1.6](#).
- **IPCam Module Firmware Update:** To update firmware of IP camera, please contact your sales dealer.

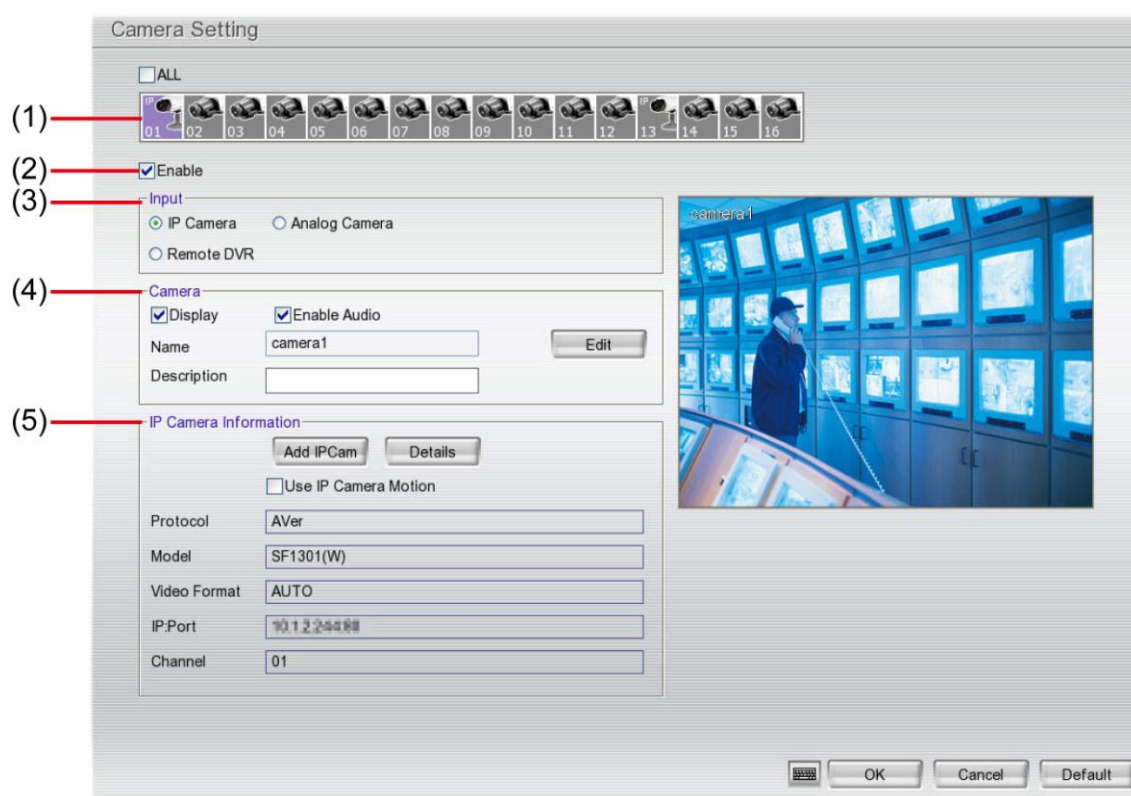
3.2 Camera Setup

The DVR system supports 8/16 cameras in combination of analog and IP cameras, only analog cameras, or only IP cameras.

3.2.1 To Setup IP Camera(Fixed Mode)

Click **Default** will back to the factory default value.

i EH6108H⁺ only supports 8 channels.



(1) Camera Icons

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Input

Select the camera type as **IP Camera**.

(4) Camera

- Display

Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.

- Enable Audio

Enable/disable audio of the camera if IP camera has supported.

- Name

Click **Edit** to change the camera name.

i DVR supports Chinese characters on remote site (remote setup).

- **Description**

Add a short comment

(5) IP Camera Information

To setup IP camera and display current IP camera information.

- **Using IP Camera Motion:** Enable to use the motion detection function of IP camera if the IP camera has support motion detection and the motion recording will based on IP camera's motion detection setting.

1. Click **Add IPCam** to add the IP camera.

2. Click the radio button of **Protocol** to start setup IP camera.

3. Select the **Protocol**, **Model**, **Video Format**, and **Channel** of the IP camera. Otherwise, user can use Search Device button to find the IP cameras(see also Using Search Device to connect IP camera).

4. Enter IP address and connecting port in **IP Camera Site** column.

- ✓ **Search Device:** If use doesn't know any IP cam protocol, click **Search Device** button to find the IP cameras that can be detected on your LAN network; not all IP camera on your LAN network can be found(also see [Chapter 3.2.2.1](#)).



For supported IP camera list, please refer to the IP camera support list on web site (<http://surveillance.aver.com/>).

5. Also, user can enter URL of IP camera instead of IP address.



User only can choose use Protocol or URL one at a time; can't choose both at the same time.

6. If the IP camera has authority request, please enable **Authentication** and enter **ID** and **Password**.

7. Click **OK** to connect with the IP camera.

- **Detail:** The setting of advanced IP cameras are related to the **Intelligent Streaming** function in System setting. Click **Detail**. Click **Default** will back to the factory default value.

Advanced IP Camera Setting

Stream Setting

Profile: N/A

Video Source: N/A

	Codec	Resolution	FPS	Bitrate Mode	Quality/Bitrate
☒ Stream 1	H264	SXGA	15	VBR	85
☒ Stream 2	MPEG4	VGA	10	VBR	50
☒ Stream 3	MJPEG	QVGA	5	VBR	1

Stream Selection

Record Stream: Stream 1

Preview Stream:

- Single-Channel: Stream 1
- Multi-Channel: Stream 2

Remote Stream:

- Mode 1 (High): Stream 1
- Mode 2 (Normal): Stream 2
- Mode 3 (Low): Stream 3

Video Adjustment

Brightness: 100

Contrast: 50

Hue: [Slider]

Saturation: [Slider]

Sharpness: [Slider]

I/O Control

Sensor [Button] Relay [Button]

OK Cancel Default

- ✓ **Profile:** For **ONVIF** connection only. User can select the setting value that provides by IP camera.
- ✓ **Video Source:** For **ONVIF** connection only. User can select the value that provides by IP camera.

i The Profile and Video Source will be available when the IP camera hasn't been intergraded by AVer and depend on the IP camera has supported.

- ✓ **Stream Setting:** user can setup **Codec**, **Resolution**, **FPS**, **Bitrate Mode**, and **Quality Bitrate** of **Stream 1**, **Stream2**, and **Stream 3** on the selected IP camera channel. The Stream 1 is enabled in default.
- ✓ **Stream Selection:** user can setup which stream (**Stream 1 ~ Stream 3**) to use on **Record**, **Preview**(Quad and Single mode), and **Remote site**.
- ✓ **Video Adjustment:** user can adjust **Brightness** and **Contrast** of IP camera.

i The stream setting only support for AVer IP camera series.

- ✓ **I/O Control:** Setup the sensor and relay that is embedded on the IP camera.

■ **Sensor Setting**

1. Click **Sensor** button.
2. Click the drop-down list and select the sensor ID number.
3. Enter sensor name in **Name** column
4. The system automatically detects the camera and input relates information. In the Content section, enter sensor **Description**.
5. In the test section, click **Test** to check the sensor status. **Red** is high and **Green** is low.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

The 'Sensor Setting' dialog box features a title bar with the text 'Sensor Setting'. Below the title bar is a drop-down menu currently showing 'Sensor 1'. A text input field labeled 'Name' is positioned below the menu. The 'Content' section contains four labeled input fields: 'Camera' with the value '16', 'Protocol' with 'Panasonic', 'Model' with 'BB-HCM515', and an empty 'Description' field. The 'Test' section at the bottom includes a red rectangular indicator labeled 'High' and a 'Stop' button. At the very bottom are three buttons: a keyboard icon, 'OK', and 'Cancel'.

■ **Relay Setting**

1. Click **Relay** button.
2. Click the drop-down list and select the relay ID number.
3. Enter relay name in **Name** column
4. The system automatically detects the camera and input relates information. In the Content section, enter relay **Description**.
5. In the test section, click **Test** to trigger the relay status. **Red** is high and **Green** is low.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

The 'Relay Setting' dialog box has a title bar labeled 'Relay Setting'. It includes a drop-down menu showing 'Relay 1' and a 'Name' text input field. A checked checkbox labeled 'Enable' is located above the 'Content' section. The 'Content' section contains four labeled input fields: 'Camera' with '16', 'Protocol' with 'Panasonic', 'Model' with 'BB-HCM515', and an empty 'Description' field. The 'Test' section features a red rectangular indicator labeled 'High' and a 'Stop' button. The bottom of the dialog contains three buttons: a keyboard icon, 'OK', and 'Cancel'.

3.2.2 To Setup IP Camera(Flexible Mode)

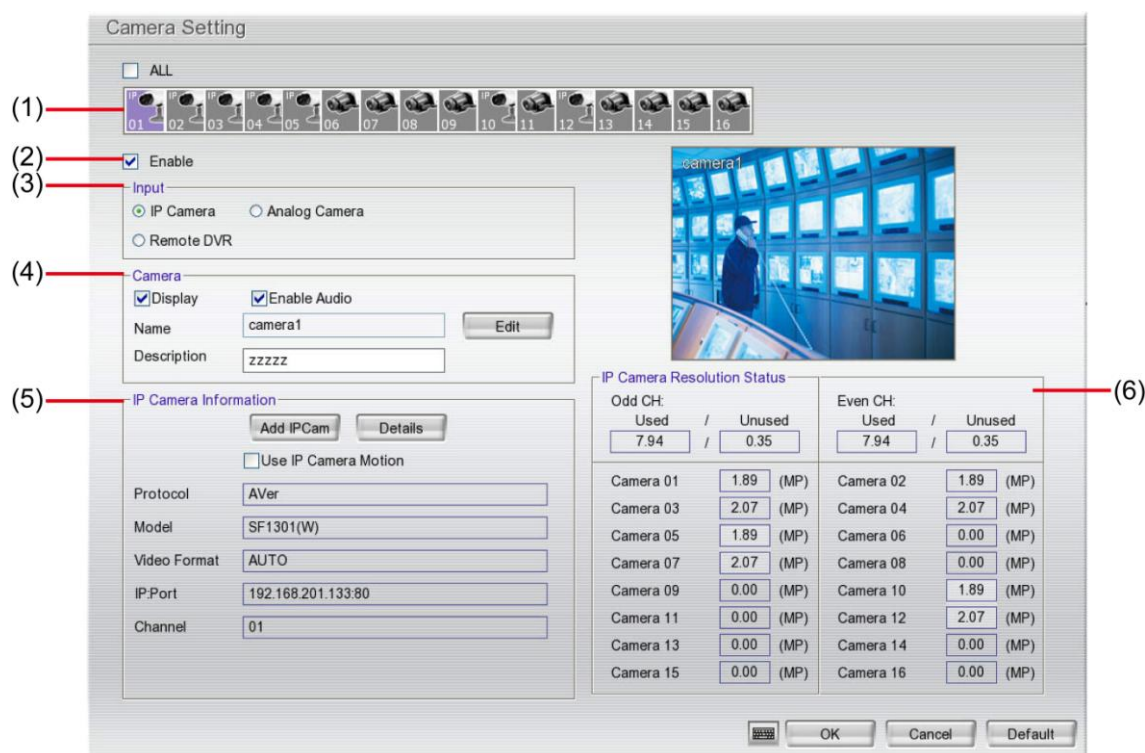
When user select IP camera resolution mode as **Flexible mode** in System Setting, the Camera Setting UI is displayed the IP camera channel's resolution value that has been calculated and transform by DVR system.

In Flexible Mode, DVR system supports 16MP total for 16 IP camera channels (In any code type – H.264, MPEG4, MPEG). The 16MB is divided into 8MP each for odd and event channels. A channel maximum supported value is 5MP.

Click **Default** will back to the factory default value.



EH6108H⁺ only supports 8 channels.



(1) Camera Icons

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Input

Select the camera type as **IP Camera**.

(4) Camera

- Display

Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.

- Enable Audio

Enable/disable audio of the camera if IP camera has supported.

- **Name**

Click **Edit** to change the camera name.



DVR supports Chinese characters on remote site (remote setup).

- **Description**

Add a short comment

(5) IP Camera Information

To setup IP camera and display current IP camera information.

- **Using IP Camera Motion:** Enable to use the motion detection function of IP camera if the IP camera has support motion detection and the motion recording will based on IP camera's motion detection setting.

1. Click **Add IPCam** to add the IP camera.

The image shows a screenshot of the 'IP Camera Settings' dialog box. It contains several fields and buttons. At the top, there is a 'Search Devices' button. Below it, there are four dropdown menus: 'Protocol' (set to AVer), 'Model' (set to SF1301(W)), 'Video Format' (set to AUTO), and 'Channel' (set to 1). To the right of these is a box labeled 'IP Camera Information' containing the number '2907'. Below the dropdowns is the 'IP Camera Site' field, which contains the IP address '192.168.201.133' and a port field set to '80'. There are two radio buttons: 'Protocol' (selected) and 'URL'. Below the 'URL' radio button is a text field for the URL, currently showing 'http://'. There is a checked checkbox for 'Authentication'. Below it are two text fields: 'ID' (containing 'admin') and 'Password' (empty). At the bottom right, there are three buttons: a keyboard icon, 'OK', and 'Cancel'.

2. Click the radio button of **Protocol** to start setup IP camera.

3. Select the **Protocol**, **Model**, **Video Format**, and **Channel** of the IP camera. Otherwise, user can use Search Device button to find the IP cameras(see also Using Search Device to connect IP camera).

4. Enter IP address and connecting port in **IP Camera Site** column.

- ✓ **Search Device:** If use doesn't know any IP cam protocol, click **Search Device** button to find the IP cameras that can be detected on your LAN network; not all IP camera on your LAN network can be found (also see [Chapter 3.2.2.1](#)).



For supported IP camera list, please refer to the IP camera support list on web site (<http://surveillance.aver.com/>).

5. Also, user can enter URL of IP camera instead of IP address.



User only can choose use Protocol or URL one at a time; can't choose both at the same time.

6. If the IP camera has authority request, please enable **Authentication** and enter **ID** and **Password**.

7. Click **OK** to connect with the IP camera.

- **Detail:** The setting of advanced IP cameras are related to the **Intelligent Streaming** function in System setting. Click **Detail**. Click **Default** will back to the factory default value.

Advanced IP Camera Setting

Stream Setting

Profile: N/A

Video Source: N/A

	Codec	Resolution	FPS	Bitrate Mode	Quality/Bitrate
☒ Stream 1	H264	SXGA	15	VBR	85
☒ Stream 2	MPEG4	VGA	10	VBR	50
☒ Stream 3	MJPEG	QVGA	5	VBR	1

Stream Selection

Record Stream: Stream 1

Preview Stream:

- Single-Channel: Stream 1
- Multi-Channel: Stream 2

Remote Stream:

- Mode 1 (High): Stream 1
- Mode 2 (Normal): Stream 2
- Mode 3 (Low): Stream 3

Video Adjustment

Brightness: 100

Contrast: 50

Hue: [Slider]

Saturation: [Slider]

Sharpness: [Slider]

I/O Control

Sensor [Button] Relay [Button]

OK Cancel Default

- ✓ **Profile:** For **ONVIF** connection only. User can select the setting value that provides by IP camera.
- ✓ **Video Source:** For **ONVIF** connection only. User can select the value that provides by IP camera.



The Profile and Video Source will be available when the IP camera hasn't been intergraded by AVer and depend on the IP camera has supported.

- ✓ **Stream Setting:** user can setup **Codec**, **Resolution**, **FPS**, **Bitrate Mode**, and **Quality Bitrate** of **Stream 1**, **Stream 2**, and **Stream 3** on the selected IP camera channel. The Stream 1 is enabled in default.
- ✓ **Stream Selection:** user can setup which stream (**Stream 1 ~ Stream 3**) to use on **Record**, **Preview**(Quad and Single mode), and **Remote site**.
- ✓ **Video Adjustment:** user can adjust **Brightness** and **Contrast** of IP camera.



The stream setting only support for AVer IP camera series.

- ✓ **I/O Control:** Setup the sensor and relay that is embedded on the IP camera.

■ **Sensor Setting**

1. Click **Sensor** button.
2. Click the drop-down list and select the sensor ID number.
3. Enter sensor name in **Name** column
4. The system automatically detects the camera and input relates information. In the Content section, enter sensor **Description**.
5. In the test section, click **Test** to check the sensor status. **Red** is high and **Green** is low.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

The 'Sensor Setting' dialog box features a title bar with the text 'Sensor Setting'. Below the title bar is a drop-down menu currently showing 'Sensor 1'. Underneath is a text field labeled 'Name'. A section titled 'Content' in blue text contains four input fields: 'Camera' with the value '16', 'Protocol' with 'Panasonic', 'Model' with 'BB-HCM515', and an empty 'Description' field. Below the 'Content' section is a 'Test' section containing a red rectangular indicator labeled 'High' and a 'Stop' button. At the bottom of the dialog are three buttons: a keyboard icon, 'OK', and 'Cancel'.

■ **Relay Setting**

1. Click **Relay** button.
2. Click the drop-down list and select the relay ID number.
3. Enter relay name in **Name** column
4. The system automatically detects the camera and input relates information. In the Content section, enter relay **Description**.
5. In the test section, click **Test** to trigger the relay status. **Red** is high and **Green** is low.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

The 'Relay Setting' dialog box has a title bar with the text 'Relay Setting'. It includes a drop-down menu showing 'Relay 1' and a text field for 'Name'. A checkbox labeled 'Enable' is checked. The 'Content' section, marked with blue text, contains input fields for 'Camera' (value '16'), 'Protocol' (value 'Panasonic'), 'Model' (value 'BB-HCM515'), and an empty 'Description' field. The 'Test' section below it features a red rectangular indicator labeled 'High' and a 'Stop' button. The bottom of the dialog contains a keyboard icon, 'OK', and 'Cancel' buttons.

(6) IP Camera Resolution Status



The total resolution values are including both IP camera channel and Remote DVR channel.

It displays the each IP camera channel's current resolution value that is calculated and transformed by DVR system. The 16 MP is divided into 8MP each for odd and events channels. When the total resolution value is over 8MP, the **Used** and **Unused** value text is displayed in red color.

The screenshot shows the 'Camera Setting' dialog box. On the right, the 'IP Camera Resolution Status' table is displayed, showing 'Used' and 'Unused' resolution values for odd and even channels, and a list of 16 cameras with their individual resolution values in MP.

Odd CH:		Even CH:	
Used	Unused	Used	Unused
8.32	-0.03	8.32	-0.03

Camera	Resolution (MP)	Camera	Resolution (MP)
Camera 01	2.27	Camera 02	2.27
Camera 03	2.07	Camera 04	2.07
Camera 05	1.89	Camera 06	0.00
Camera 07	2.07	Camera 08	0.00
Camera 09	0.00	Camera 10	1.89
Camera 11	0.00	Camera 12	2.07
Camera 13	0.00	Camera 14	0.00
Camera 15	0.00	Camera 16	0.00

If user ignores or doesn't notice the resolution is over 8MP and click OK button to save the setting, then, a warning message dialog is shown up. Only resolution values are less or equal 8MP, the DVR system allows user to save the setting.

The screenshot shows the 'Camera Setting' dialog box with a warning message overlay. The warning message states: 'Warning!! The total resolution is over limitation. Please readjust IP Cam setting.' The 'Over Resolution' dialog box is also visible in the background.

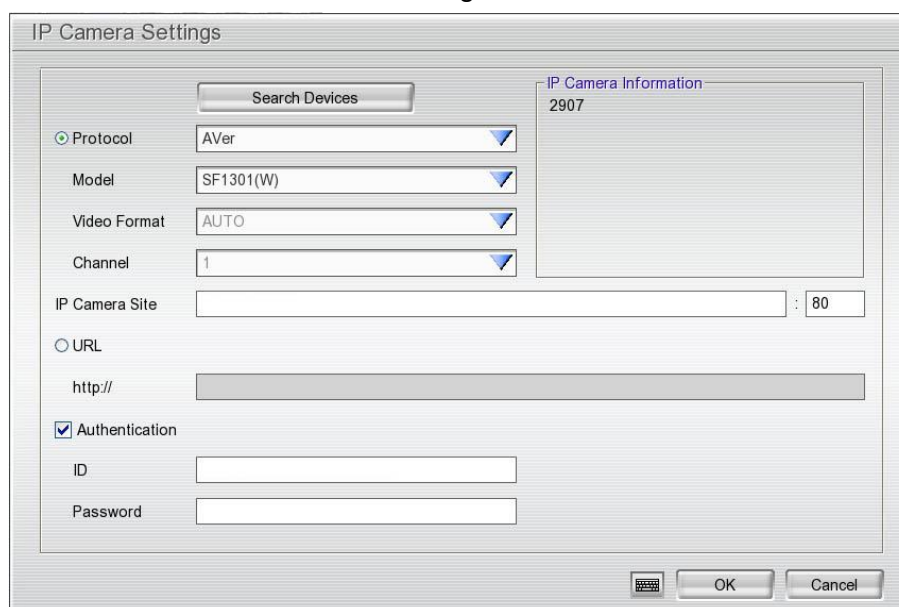
When one of connected IP camera's resolution has been changed and is caused resolution over 8MP, the channel screen is displayed text word **"Over Resolution"**.



3.2.2.1 Using Search Device to Connect IP Camera

The Search Device function help user to find the IP cameras on your LAN network that can be detected by DVR system. User can directly click the IP camera from search result list and connect to the selected IP camera without to enter any data of IP camera.

1. In preview mode, click **Setup** > **Camera** and select the **Input** is **IP camera**.
2. Next, click **Add IPCam** to call out IP camera Settings window.



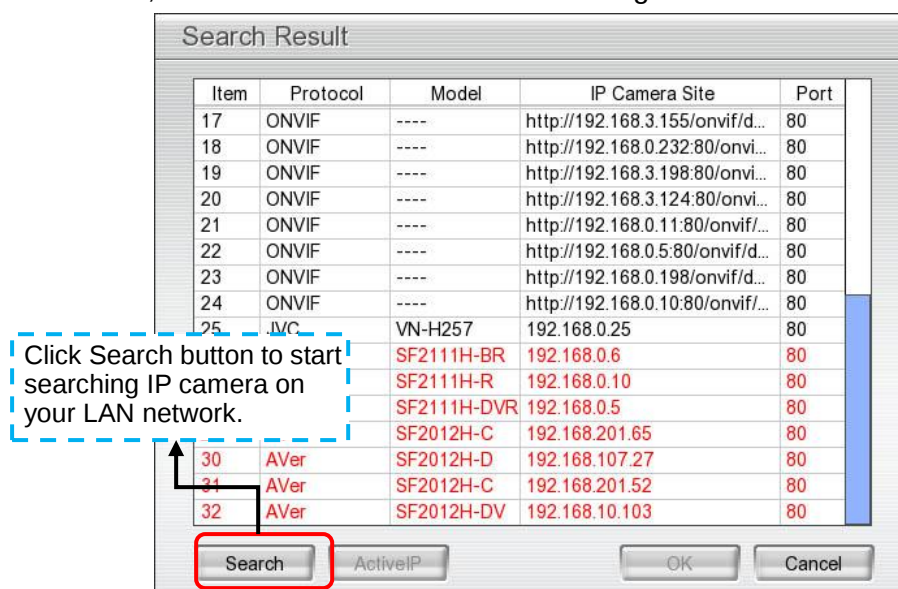
The IP Camera Settings window is shown. It has a 'Search Devices' button at the top. Below it, there are dropdown menus for Protocol (AVer), Model (SF1301(W)), Video Format (AUTO), and Channel (1). There is a text field for IP Camera Site and a port field set to 80. Below these, there is a radio button for URL and a checked checkbox for Authentication. Under Authentication, there are text fields for ID and Password. On the right, there is a section titled 'IP Camera Information' showing '2907'. At the bottom right, there are 'OK' and 'Cancel' buttons.

3. Click **Search Device** button.



For supported IP camera list, please refer to the IP camera support list on web site (<http://surveillance.aver.com/>).

4. In Search Result window, click **Search** button to start searching IP cameras.

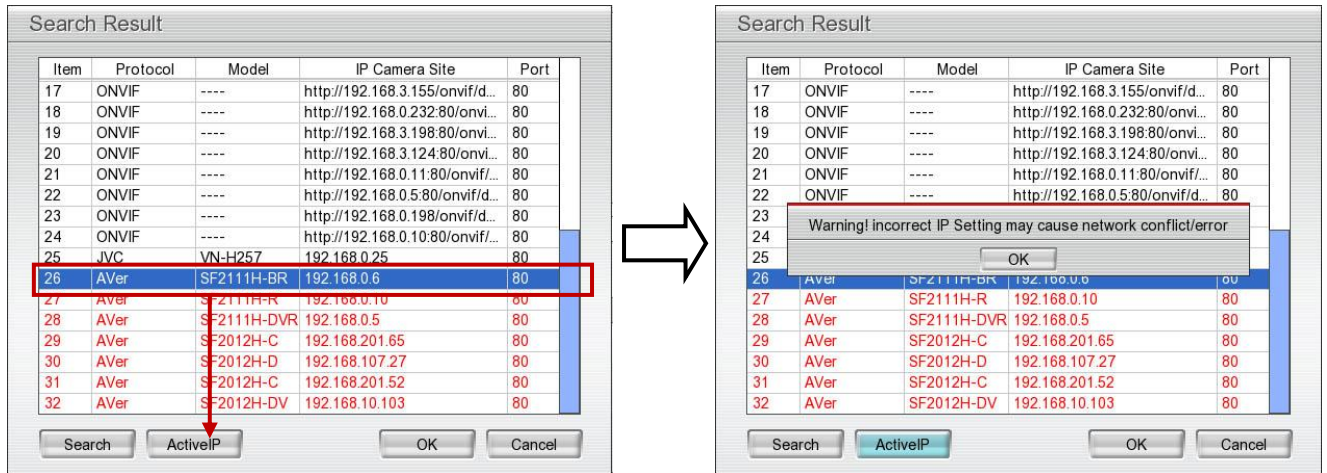


The Search Result window is shown. It contains a table with the following columns: Item, Protocol, Model, IP Camera Site, and Port. The table lists several IP cameras. A blue dashed box highlights the 'Search' button at the bottom left of the window. A callout box with an arrow points to the 'Search' button and contains the text: 'Click Search button to start searching IP camera on your LAN network.'

Item	Protocol	Model	IP Camera Site	Port
17	ONVIF	----	http://192.168.3.155/onvif/d...	80
18	ONVIF	----	http://192.168.0.232:80/onvi...	80
19	ONVIF	----	http://192.168.3.198:80/onvi...	80
20	ONVIF	----	http://192.168.3.124:80/onvi...	80
21	ONVIF	----	http://192.168.0.11:80/onvif/...	80
22	ONVIF	----	http://192.168.0.5:80/onvif/d...	80
23	ONVIF	----	http://192.168.0.198/onvif/d...	80
24	ONVIF	----	http://192.168.0.10:80/onvif/...	80
25	JVC	VN-H257	192.168.0.25	80
		SF2111H-BR	192.168.0.6	80
		SF2111H-R	192.168.0.10	80
		SF2111H-DVR	192.168.0.5	80
		SF2012H-C	192.168.201.65	80
30	AVer	SF2012H-D	192.168.107.27	80
31	AVer	SF2012H-C	192.168.201.52	80
32	AVer	SF2012H-DV	192.168.10.103	80

5. After search completing, user can click the IP camera that wants to connect and click **OK**; the screen will back to IP Camera Settings window.
6. For connecting AVer IP cameras series, the IP cameras list in **red text** and these means the IP camera is can be configured from DVR site. User can select the IP camera and click **Active IP** button to configure the IP camera's setting; even the IP camera is not in the same IP segment. After selecting the IP camera,

a warning message dialog is popup and click **OK** to continue it.



In IP setting window, user can configure IP camera's IP, Mask, Gateway, and Web port. Also, user can change camera's IP mode – DHCP or Static IP. In Local IP Information section, it displays current DVR system's IP, Mask, and Gateway. After configuring, click **OK** and the new setting will apply to the IP camera. In Search Result window, click **OK** to back to IP Camera Settings window.

IP Setting

AVer SF2111H-BR IP Setting

☒ Using the following IP address
☐ Obtain an IP automatically(DHCP)

IP Information

IP: 192.168.0.6
Mask: 255.255.0.0
Gateway: 192.168.0.254
PORT: 80
User ID:
Password:

Local IP Information

IP: 192.168.2.145
Mask: 255.255.252.0
Gateway: 192.168.2.254

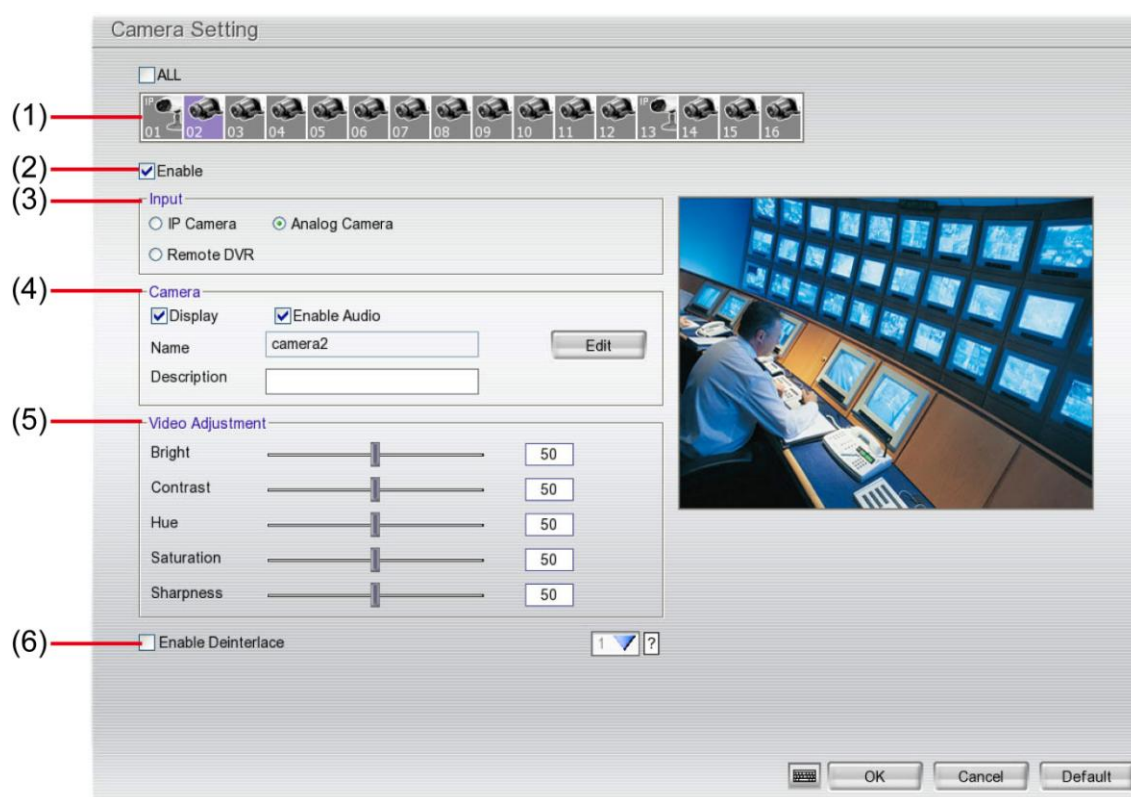
OK Cancel

7. If the IP camera has authority request, please enable **Authentication** and enter **ID** and **Password**.
8. Click **OK** to connect with the IP camera.

3.2.3 To Setup Analog Camera

Click **Default** will back to the factory default value.

i EH6108H⁺ only supports 8 channels.



(1) Camera Icons

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Input

Select the camera type as **Analog Camera**.

(4) Camera

- **Display**
Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
Enable/disable audio of the camera.
- **Name**
Click **Edit** to change the camera name.

i DVR supports Traditional Chinese characters on remote site (remote setup).

- **Description**
Add a short comment

(5) Video Adjustment

Adjust the Brightness, Contrast, Hue, Sharpness, and Saturation of the camera.

(6) Enable Deinterlace

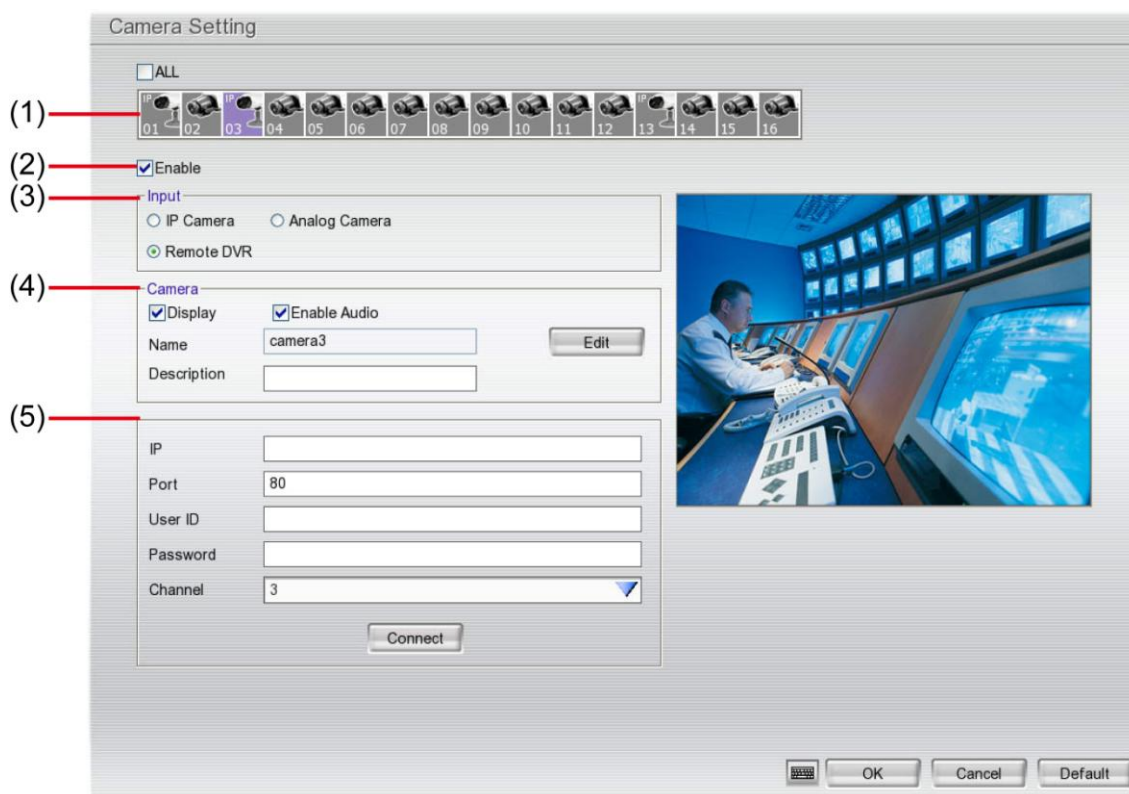
Enhance the video quality. Set the **Enable Deinterlace** mode to #1, if you are capturing motionless picture and select #2, if it captures lots of movement.

3.2.4 To Setup Camera from the Remote DVR(Fixed Mode)

User can add the camera from another DVR through the network.



EH6108H⁺ only supports 8 channels.



(1) Camera Icons

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Input

Select the camera type as **Remote DVR**.

(4) Camera

- Display

Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.

- Enable Audio

Enable/disable audio of the camera.

- Name

Click **Edit** to change the camera name.



DVR supports Traditional Chinese characters on remote site (remote setup).

- **Description**

Add a short comment

(5) IP Camera Information

- **IP**

Enter the IP address of the camera

- **Port**

The port for connection

- **User ID**

Enter the user id that for connecting authority

- **Password**

Enter the password that is for connecting authority

- **Channel**

Select the channel of connected camera

- **Connect**

Click to connect the camera when all configurations are set.

3.2.5 To Setup Camera from the Remote DVR(Flexible Mode)

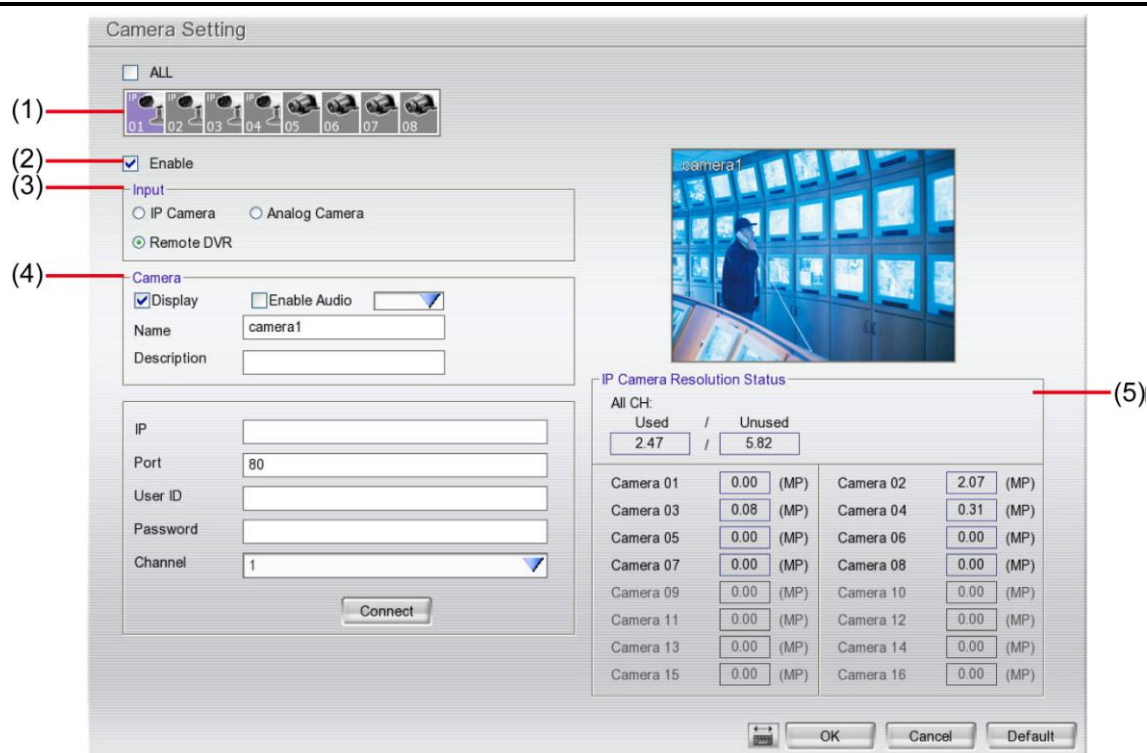
When user select IP camera resolution mode as **Flexible mode** in System Setting, the Camera Setting UI is displayed the IP camera channel's resolution value that has been calculated and transform by DVR system.

In Flexible Mode, DVR system supports 16MP total for 16 IP camera channels (In any code type – H.264, MPEG4, MPEG). The 16MB is divided into 8MP each for odd and event channels. A channel maximum supported value is 5MP.

Click **Default** will back to the factory default value.



EH6108H⁺ only supports 8 channels.



(1) Camera Icons

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Input

Select the camera type as **Remote DVR**.

(4) Camera

- **Display**
Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
When camera type is **Remote DVR**, the audio is not supported.
- **Name**
Change the camera name
- **Description**
Add a short comment
- **IP**
Enter the IP address of the camera
- **Port**
The port for connection
- **User ID**
Enter the user id that for connecting authority
- **Password**
Enter the password that is for connecting authority
- **Channel**
Select the channel of connected camera
- **Connect**
Click to connect the camera when all configurations are set.

(5) IP Camera Resolution Status



The total resolution values are including both IP camera channel and Remote DVR channel.

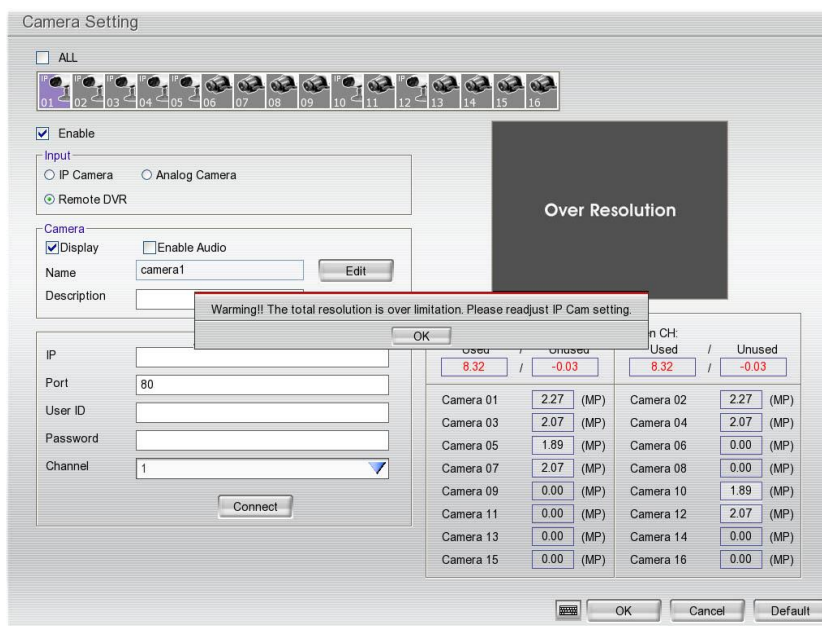
It displays the each IP camera channel's current resolution value that is calculated and transformed by DVR system. The 16 MP is divided into 8MP each for odd and events channels. When the total resolution value is over 8MP, the **Used** and **Unused** value text is displayed in red color.

The screenshot shows the 'Camera Setting' window. On the right, there is a preview window labeled 'camera1' showing a person in a hallway. Below the preview is a table titled 'IP Camera Resolution Status' which is highlighted with a red box. The table has columns for 'Odd CH' and 'Even CH', each with 'Used' and 'Unused' sub-columns. The 'Used' values are in red text, and the 'Unused' values are in blue text. Below the table is a list of 16 cameras with their current resolution values in MP.

Odd CH:		Even CH:	
Used	Unused	Used	Unused
8.32	-0.03	8.32	-0.03

Camera	Resolution (MP)	Camera	Resolution (MP)
Camera 01	2.27	Camera 02	2.27
Camera 03	2.07	Camera 04	2.07
Camera 05	1.89	Camera 06	0.00
Camera 07	2.07	Camera 08	0.00
Camera 09	0.00	Camera 10	1.89
Camera 11	0.00	Camera 12	2.07
Camera 13	0.00	Camera 14	0.00
Camera 15	0.00	Camera 16	0.00

If user ignores or doesn't notice the resolution is over 8MP and click **OK** button to save the setting, then, a warning message dialog is shown up. Only resolution values are less or equal to 8MP, the DVR system allows user to save the setting.



When one of connected IP camera's resolution has been changed on IP camera site and is caused resolution over 8MP, the channel screen is displayed text word "**Over Resolution**".



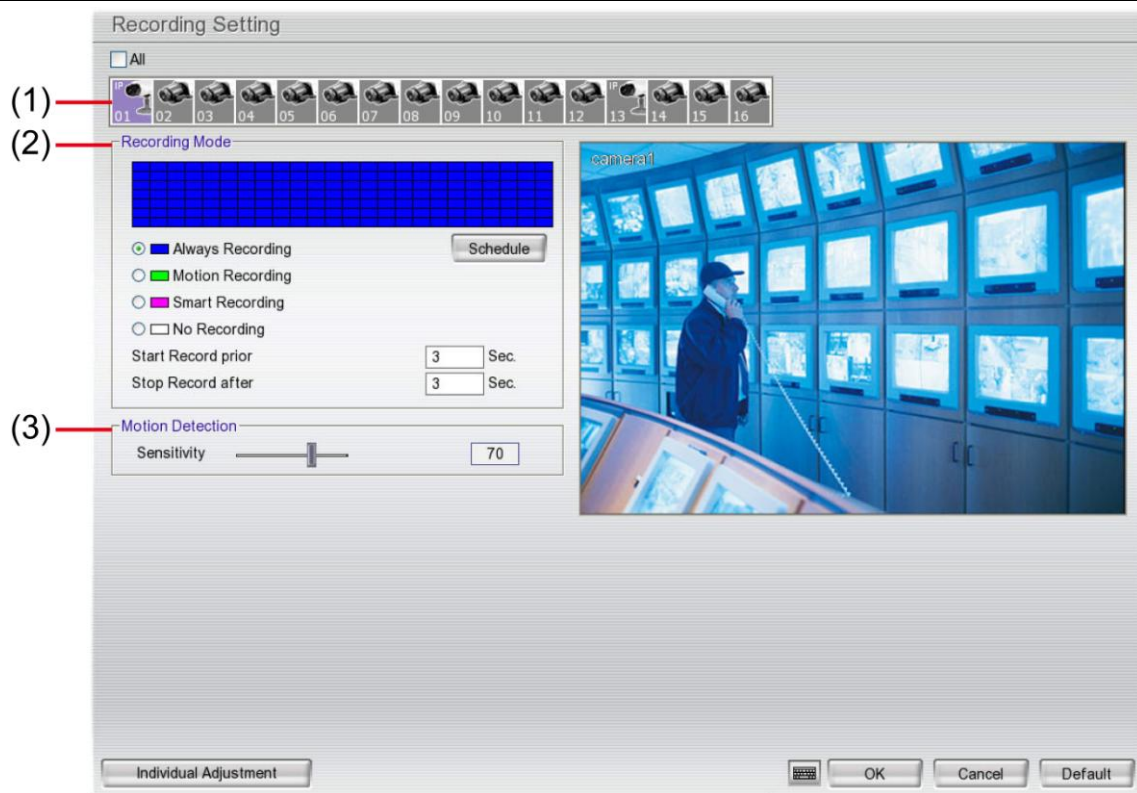
3.3 Recording Setup

3.3.1 Setup IP Camera Record Setting

Click **Default** will back to the factory default value.



EH6108H⁺ only supports 8 channels.



(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns purple when it is selected.

(2) Recording Mode

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block 1 to 7 represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the **⊙** button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode**, and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen. The recording modes are listed below:

- Always Recording

Record the video from the selected camera and save it to the designated storage device

- Motion Recording

Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.

- Smart Recording

Automatically switch to recorded at the maximum frame as DVR system can once a motion is detected and

if there is no motion, it records at key frame.

- No Recording

The system won't do any recording.

(3) Motion Detection

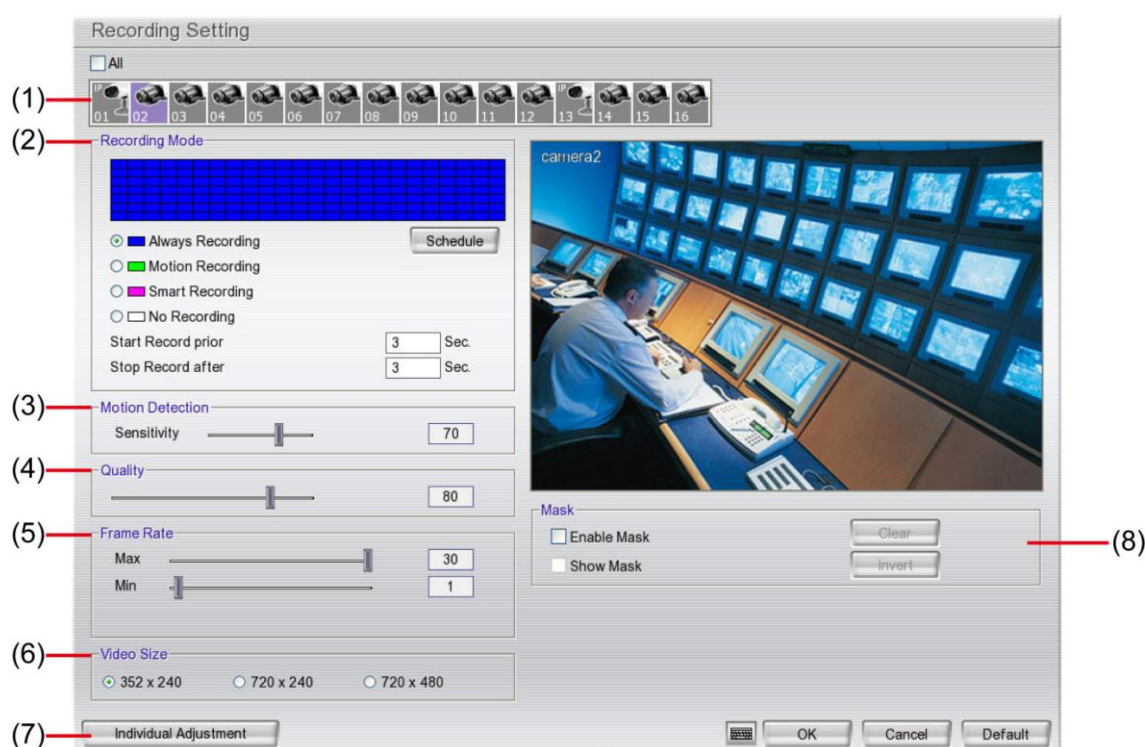
Adjust the sensitivity of the motion detection. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

3.3.2 Setup Analog Camera Record Setting

Click **Default** will back to the factory default value.



EH6108H⁺ only supports 8 channels.



(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns purple when it is selected.

(2) Recording Mode

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block 1 to 7 represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the **Schedule** button. If you want to only record at a particular time or day, click **Recording Mode**, and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen. The recording modes are listed below:

- Always Recording

Record the video from the selected camera and save it to the designated storage device

- Motion Recording

Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start**

Record Prior and **Stop Record After** settings.

- **Smart Recording**

Automatically switch to record at the maximum frame rate setting once a motion is detected and recording time will be based on **Stop Record After** setting; if there is no motion, it records at the minimum frame rate setting. Set the frame rate in **(5) Frame Rate**.

- **No Recording**

The system won't do any recording.

(3) Motion Detection

Adjust the sensitivity of the motion detection. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

(4) Quality

Adjust the video quality. The higher the value, the lower the compression level and uses more hard disk space.

(5) Frame Rate

Set the maximum and minimum number of frames to be recorded during motion and motionless state. The frame rate ranges from 01 to 30 for NTSC and 01 to 25 for PAL. The higher the frame rate, it uses more hard disk space.



Always recording frame rate is depending on value of max frame rate.

(6) Video Size

Select the size of the video and click the button. The higher the size, the larger the file it creates.

(7) Individual Adjustment

Each camera can adjust video size and frame rate individually. Click **Default** will back to the factory default value. The frame rate usage is shown in **Used** and **Unused** columns by CIF mode.



Adjusting video size and frame rate by channel, only available on the analog camera.

The dialog box titled "Individual Adjustment Setting" displays configuration options for 16 cameras. It is divided into three main sections: "Camera", "Video Size", and "Frame Rate".

- Camera Section:** Lists cameras from CH01-CH08, CH09-CH16, and Camera 13 (IP) to Camera 16. Each camera has a "CIF" mode indicator and a "Used" / "Unused" frame rate usage display.
- Video Size Section:** Contains radio buttons for "MJPEG (352x240)", "CIF", "Half D1", and "D1".
- Frame Rate Section:** Features a slider and input fields for "Current" and "Max" frame rates. Most cameras have a "Current" value of 30 and a "Max" value of 30.

At the bottom, there are three buttons: "OK", "Cancel", and "Default".

(8) Mask



Mask and POS function cannot be enabled at the same time.

Mark an area on the screen to disregard the motion in the marked area and to only monitor outside the marked area. Enable the **Enable Mask** and click-and-drag an area on screen that user wants to mask. To clear all mask area, click **Clear** button. To inverse the mask area, click **Invert** button. The original selected area will exchanged with un-selected area. To show the mask area on preview screen, enable **Show Mask**. The mask is able to see on the screen only when preview screen is in single screen mode.

3.4 Network Setup

Click **Default** will back to the factory default value.

The image shows a 'Network Setting' window with several sections. Red lines with numbers point to specific areas: (1) points to the 'Server Name' field; (2) points to the 'Transmitting Cameras' section; (3) points to the 'Main Configuration' section; (4) points to the 'Remote Update Configuration' section; (5) points to the 'Talk to Web-Client' section; (6) points to the 'PCViewer Configuration' section; (7) points to the 'Network Time Synchronization' section; and (8) points to the 'Other Configuration' section. The window includes fields for IP addresses, ports, and checkboxes for various features like UPnP and DDNS.

(1) Server Name

Assign a name for the DVR unit. Alphabet letters and numbers only.

(2) Transmitting Cameras

Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using PCViewer, Remote Console, PDA Viewer and JavaViewer (still image). To select all the cameras, enable the **ALL** check box.

(3) Main Configuration

Set the DVR IP address and **Remote Console Port**. You need this when accessing DVR server from the remote location via internet. The DVR system supports dual LAN, user can setup 2 IP address and only the one has marked **Set as default gateway** can configure **DDNS** function. Click **Setting** to setup IP setting.

The image shows a 'System IP setting' window. It has three radio buttons: 'Using the following IP address' (selected), 'Obtain an IP automatically(DHCP)', and 'PPPOE'. Below these are fields for IP, Mask, Gateway, DNS, and MAC Address. There is a checkbox 'Set as default gateway'. To the right, there are sections for 'PPPOE' (User ID, Password) and 'DDNS' (Domain Name, ID, Password, DDNS Server Name, DDNS Server Port). The 'DDNS Server Name' is set to 'ddns.avers.com.tw' and the 'DDNS Server Port' is '1053'. At the bottom are 'OK' and 'Cancel' buttons.

■ **Using the following IP address:** Assigns an IP address for the DVR system. Fill in the IP related parameters in **IP information** section.

- **IP:** Assign a constant IP address which a real IP address gives from ISP to DVR system.

- **Mask:** It is a bitmask used to identify the sub network and how many bits provide room for host addresses. Enter the subnet mask of the IP address which user has assigned to DVR system.
 - **Gateway:** A network device acts as a passageway to internet. Enter the network gateway IP address
 - **DNS:** Domain Name Server translates domain names (such as www.abb.com.tw) to IP addresses. Enter the IP address of DNS if it is available.
 - **MAC Address:** An identifier hardware address of DVR unit that is assigned by the manufacturer for identification. User don't need to fill in, it will generated by system automatically.
- **Obtain an IP automatically (DHCP):** Assign the IP address by local DHCP server to DVR system.
 - **PPPOE:** Point-to-Point Protocol over Ethernet is a network protocol for encapsulating PPP frames in Ethernet frames. It is used mainly with ADSL services. If your network is using ADSL service connecting to internet, and then, select PPPOE mode. Enter **User ID** and **Password** that is given by your ISP for PPPOE connecting authority.
 - **DDNS:** DDNS(Dynamic Domain Name Service) is a data query service mainly used on the Internet for translating domain names into Internet addresses. Users can register their own domain name on <http://ddns.avers.com.tw> or <http://dyndns.org>(See [Appendix A](#)).
- **Domain Name**
Enter the domain name that user has registered.
 - **Password**
A password use to access DDNS that user has setup when register the domain name
 - **DDNS Server Name**
Select the DDNS server that user applied their domain name.
 - **DDNS Server Port**
Fill in the port that connects to DDNS server. Default is 1053.

(4) Remote Upgrade Configuration

A port is using for the remote firmware upgrade through network.

(5) PCViewer Configuration

Activate **Enable Anonymous Login** to remotely access the DVR server without the need of password. Fill in the **PCViewer PORT** for remote accessing connection.

(6) Network Time Synchronization

Adjust the DVR system time same as network time server. Fill in the **Time Server** IP address or domain name and select the **Time Zone**. User can enable **Automatic Synchronize at** to set automatic synchronize time on a daily basis. Or, user can click **Synchronize Time Right Now** to adjust time right away.

(7) Other Configuration

- **Network Video Stream**
It displays the remote video stream value that is depended on the video quality user has selected on remote site.
- **UPnP**
This function is working when the router had enabled the UPNP function and had opened the port, which had assigned for UPNP setting, for the DVR system.

The image shows a 'UPnP Setting' dialog box. It has two input fields: 'PORT' with the value '1435' and 'PCViewer PORT' with the value '80'. At the bottom, there are three buttons: a small icon of a keyboard, an 'OK' button, and a 'Cancel' button.

- Enable White List



Without any IP address/IP range is assigned in White List table, none of IP address/IP range is allowed to access DVR when White List function is enabled.

An access permit list for the remote accessing of DVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.

The 'Network White List' dialog box contains two radio buttons at the top: 'IP' and 'IP Range'. The 'IP Range' option is selected. Below the radio buttons are two input fields: the first contains '192.168.0.1' and the second contains '192.168.0.255'. To the left of a large list box are three buttons: 'Add', 'Delete', and 'Clear All'. The list box contains ten entries, each reading '192.168.0.1 - 192.168.0.255'. At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

- Network Bandwidth Limit

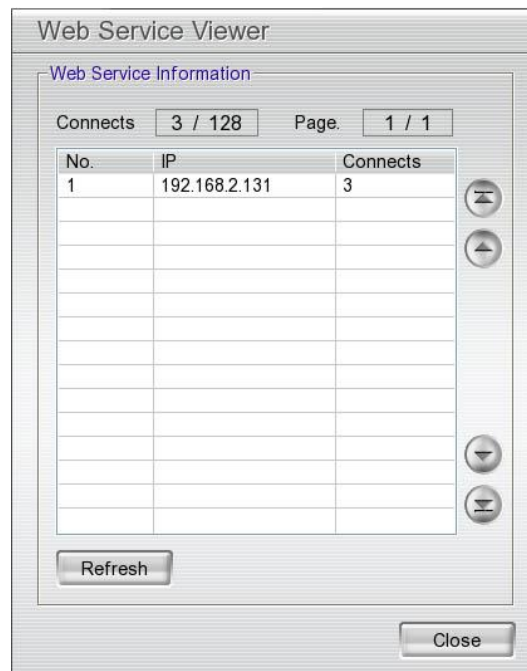
By Channel: Set the network bandwidth by each channel.

All: Set the total network bandwidth consumption limit.

The 'Bandwidth Settings' dialog box has two radio buttons: 'By Channel' and 'All'. The 'All' option is selected. Under 'By Channel', there is a dropdown menu showing 'Camera 1' and a text box with '64' followed by 'KB/s'. Under 'All', there is a text box labeled 'Total Limit' with '1024' followed by 'KB/s'. At the bottom right are 'OK' and 'Cancel' buttons.

- **Web Service Viewer**

It displays the current remote connection (such as PCViewer, Remote Console, CM3000) information. Same IP address is counted as one time and different application connection is displayed in **Connects** column (ex. IP 192.168.2.131 connects to DVR system through PCViewer, Remote Console, and CM3000, then the IP 192.168.2.131 is counted in one data and has three connection counts).



3.5 Schedule Setting

Schedule to record, enable network, reboot and disable alarm of all the cameras either weekly or one time. The number from 00 to 23 represent the time in 24-hour clock. The left most column display the days in a week.



EH6108H⁺ only supports 8 channels.

Schedule Setting

2011/04

Record

☒ WEEKLY

☐ ONE TIME

☐ Remove

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
04/03																								
04/04																								
04/05																								
04/06																								
04/07																								
04/08																								
04/09																								

Save Clear All OK Cancel

To Set the Schedule Setting:

1. Select the date in the calendar. Use ◀ and ▶ buttons to shift the calendar to the left or right.
2. Select the condition you want to schedule in the drop down list.
 - **Record**
Activate all the cameras to start video recording at the set time based on the Recording setting
 - **Enable Network**
Activate DVR remote system to access at the set time. After the appointed time, the Network function will be disabled. If the Network function is already enabled, the Network function will not be disabled when the appointed time has ended.
 - **Reboot**
Restart the PC at the appointed time.
 - **Disable Alarm**
Deactivate the alarm at the set time temporarily.
3. Set the schedule as weekly or one time. Click ☒ to make a selection.
4. Click on the blocks to set the schedule or click **All** to select all. To un-select the specific schedule blocks, click the **Remove** and click blocks to un-select. To store the setting, click **Save**. To remove the settings, click **Clear**.

5. To end Schedule Setting, click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

3.6 Backup Setup



- While backup, the CPU usage is near to 100% and might slow down the DVR system.
- EH6108H⁺ only supports 8 channels.

In the Backup Setting dialog box, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera number. When you back up the file, you may find Qplayer application included in the backup folder. User need to execute the Qplayer installation on PC for playback (see also [Chapter 3.6.1](#)).

The screenshot shows the 'Backup Setting' dialog box. At the top, there's a calendar for August 2012. Below it, a table allows selecting backup files by camera (01-16) and time (00-23). The table has columns for time (00-23) and rows for camera numbers (01-16). Blue blocks indicate selected files, and a red block indicates the current selection. To the right of the calendar, there are fields for 'Require Space' (50.85 MB) and 'Free Space' (7577.70 MB), along with a 'Rescan Device' button. Below these are checkboxes for 'Include Player when backup' and 'Delete recorded files after Backup'. There are also fields for 'Save path' (USB-1: IntelligentStick) and 'Folder Name' (Backup), with buttons for 'Backup Now' and 'Backup by Time'. At the bottom, there are 'All', 'Clear All', and 'Exit' buttons.

■ Backup the file

1. Select the date of the recorded file in the calendar you want to backup. Use and buttons to shift the calendar to the left or right.
2. In the table below, click on the blue block to select the recorded file or click camera (01~16) or time (00~23) to select the whole row or column. The blue block turns red when it is selected. The block that appears in white doesn't have data.
3. Check the space need for backup beside the calendar. Click **Rescan Device** to calculate the space for backup.
 - **Require Space**: Show the total size of the backup file.
 - **Free Space**: Show the available storage space
4. If user wants to include the Qplayer program in backup folder, mark the **Include Player when backup** check box. The Qplayer program will be in backup folder for playback using.
5. If you do **NOT** want to keep the recorded file in the storage folder, enable **Delete files after Backup** check box.
6. Select the backup device – USB disk or DVD-ROM device.

7. DVR system will give **Folder Name** automatically.
8. Click **Backup Now** button to start archiving the selected file.

■ Backup by Time

User can setup specific backup time and camera.

1. Click **Backup by Time** button in Backup Setting window.
2. In Date Time Setting, click **Setting** of **Start Date/Time** and **End Date/Time** to select date and time that user wants to backup.
3. In Select Camera, select the channels or select All channels to backup.
4. If user wants to know the total backup file size, click **Calculate Size** button and the total of backup file size is displayed in **Require Space** and the available storage space is displayed in **Free Space**. Click **Rescan Device** to re-calculate the space of total backup file and storage space of storage device.
5. Select the storage path.
6. If user wants to include the Qplayer program in backup folder, mark the **Inculde Player when backup** check box. The Qplayer program will be in backup folder for playback using.
7. Click **Backup Now** button to start archiving the selected file.

The screenshot shows the 'Backup by Time' window with the following sections:

- Date Time Setting:** Contains two rows. The first row has 'Start Date/Time' set to '2012/08/28 05:00' with a 'Setting' button. The second row has 'End Date/Time' set to '2012/08/28 05:59' with a 'Setting' button.
- Select Camera:** Includes a checked 'All' checkbox and a grid of 16 checkboxes numbered 1 through 16, all of which are also checked.
- Storage Path:** Contains two buttons, 'Calculate Size' and 'Rescan Device'. To the right, 'Require Space' is shown as 44.93 MB and 'Free Space' as 7575.44 MB. Below these are a 'Save path' dropdown menu set to 'USB-1: IntelligentStick' and a 'Folder Name' text box containing 'Backup'.
- Option Select:** Contains a single checkbox labeled 'Include Player when backup', which is currently unchecked.

At the bottom of the window are two buttons: 'Backup Now' and 'Exit'.

3.6.1 Using QPlayer to Playback Backup Video

You can playback the backup files by using QPlayer applications on the PC. When you back up the recorded file, QPlayer applications are automatically included in the backup folder if user has enabled the selection of **Include player when backup** when backup recorded file. With QPlayer, it is the same as in Playback mode and supports different split screen types to view all the video at the same time. The only difference is that there are no Preview and Playback buttons.

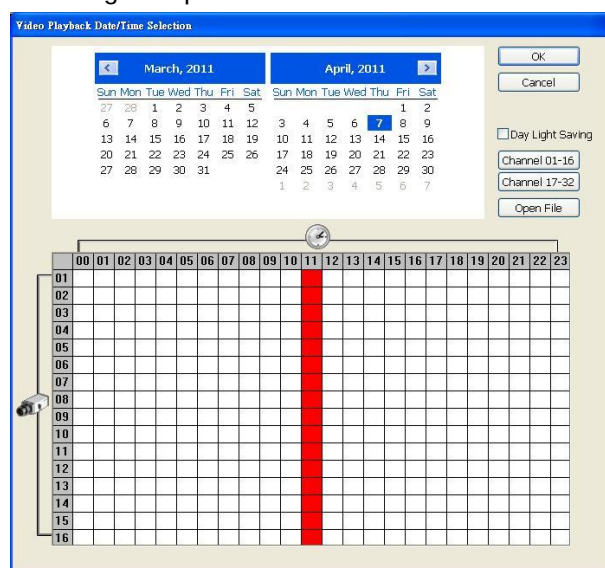
To run the application, go to backup folder and double-click **Qplayer.exe**.



Name	Function
(1) Exit	To close the application
(2) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.
 To zoom in an area on the screen, Right click and Drag a square on the area you want to enlarge.	
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
 The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.	

Name	Function
(5) Playback Control Buttons	Begin: Move at the beginning of the recorded video file. Previous: Go back to the previous frame. Slower: Play the recorded video file at the speed of 1/2X, 1/4X, 1/8X, 1/16X, or 1/32X. Rewind: Wind back the recorded video file. Pause: Briefly stop playing the recorded video file. Play: Play the recorded video file. Faster: Play the recorded video file at the speed of 2x, 4x, 8x, 16x, or 32x. Next: Go to the next frame. End: Go to the end of the recorded video file.

- (6) Archive
- Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.
- **OPEN FILE:** user can open the recorded file from HDD
 - **Channel 01~ 16&Channel 17 ~ 32:** If the channels are over 16, click button to switch to different channel group of playback calendar.
 - **Day Light Saving:** the playback calendar only display the video records during day light saving time period.



The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Status bar	Display the recorded date, time and play speed.
(8) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(9) Language	Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.
(10) Export	Export includes Snapshot, Print, and Output Video Clip function. ■ Snapshot: Capture and save the screen shot either in *.jpg format. ■ Print: Print the screen shot. ■ Output Video Clip: Save the segmented file in *.dvr format.
(11) Segment	Keep a portion of the recorded video (see also Chapter 3.6.2).

Name	Function
(12) Full screen	View in full screen mode. To return, press the right button of the mouse or ESC on the keyboard or click the arrow icon.  When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.
(13) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second(see also Chapter 3.6.3)
(14) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(15) Event Search	Search from the recorded activities that were recorded in event log (i.e., Sensor, Motion, Video Loss). (See also Chapter 3.6.4)
(16) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 3.6.5).
(17) Audio	Enable/disable volume
(18) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and select #2, if it captures lots of movement.

3.6.2 To Cut and Save the Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.



2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation, click **Segment** button again.



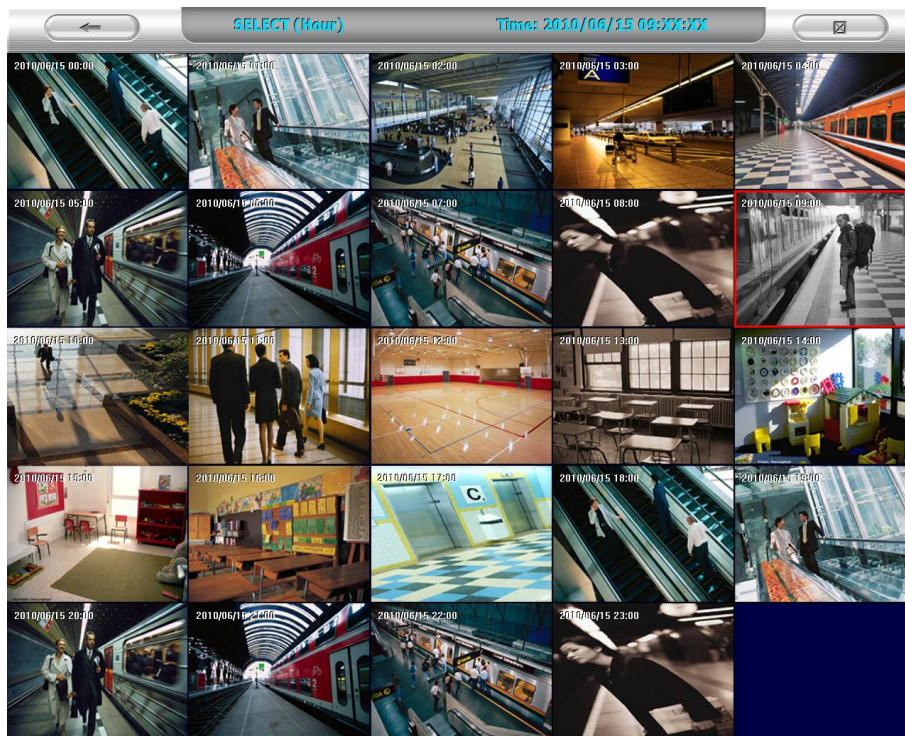
3. Click **Export > Output Video Clip** button to save the wanted portion.
4. In the **Save As** dialog box, locate on where user wants to save the file, type the filename, and select the video format.

3.6.3 To Search Using the Visual Search

1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.



3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every 3Minutes of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click . To view from the selected frame and close event search, click .



3.6.4 To Search Using the Event Search

1. Click on the video screen on where you want to search.
2. Click **Event Search**. The Event Search text (red) would appear at the lower left corner of the screen.
3. In the Event Search Setting dialog box, check the type of condition you want to search. The video search would stop at the frame that matches the condition. To keep on searching click **Find Next** () button.
4. You may also set to search and list all the result. In the **Search Duration** section, set the **Begin Time** and **End Time**. Set the **Searching Interval** time that system won't list out the same events in a period of time that user has setup. Then, click **OK** to start searching.
5. When the Event list appear, click and select the item you want to view.

3.6.5 To Search Using the Intelligent Search

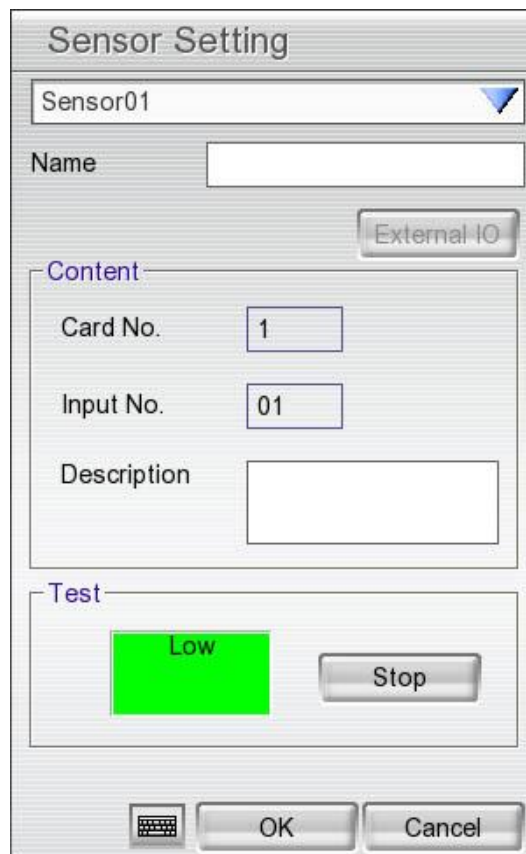
1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The Intelligent Search text (red) would appear at the lower left corner of the screen.
3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click . You may also set to search and list all the result. Just check the **List** box. In the **Search Duration** section set the **Begin Time** and **End Time**. Set the **Searching Interval** time that system won't list out the same events in a period of time that user has setup. Then, click **OK** to start searching.



3.7 Sensor Setting

The I/O device must be installed to use this function.

1. Click the drop-down list and select the sensor ID number.
2. Enter sensor name in **Name** column.
3. The system automatically detects the card and input number. In the **Content** section, enter **Description** of sensor.
4. In the test section, click **Test** to check the sensor status. **Red** is high and **Green** is low.
5. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

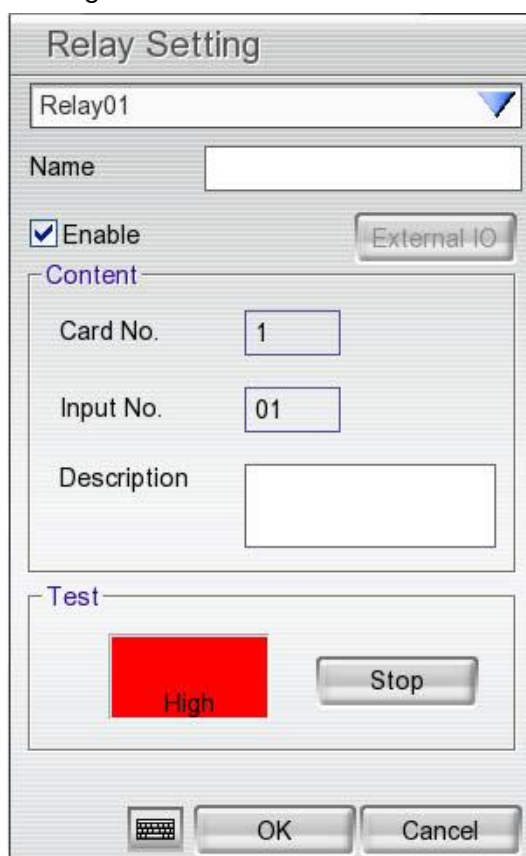


The image shows a 'Sensor Setting' dialog box. At the top, there is a title bar 'Sensor Setting'. Below it is a drop-down menu showing 'Sensor01'. Underneath is a 'Name' label followed by an empty text box. To the right of the 'Name' box is a button labeled 'External IO'. Below this is a section titled 'Content' which contains three labels: 'Card No.' with a text box containing '1', 'Input No.' with a text box containing '01', and 'Description' with an empty text box. Below the 'Content' section is a section titled 'Test'. Inside the 'Test' section, there is a green rectangular indicator with the word 'Low' in black text, and a button labeled 'Stop'. At the bottom of the dialog box, there is a keyboard icon, an 'OK' button, and a 'Cancel' button.

3.8 Relay Setting

The I/O device must be installed to use this function.

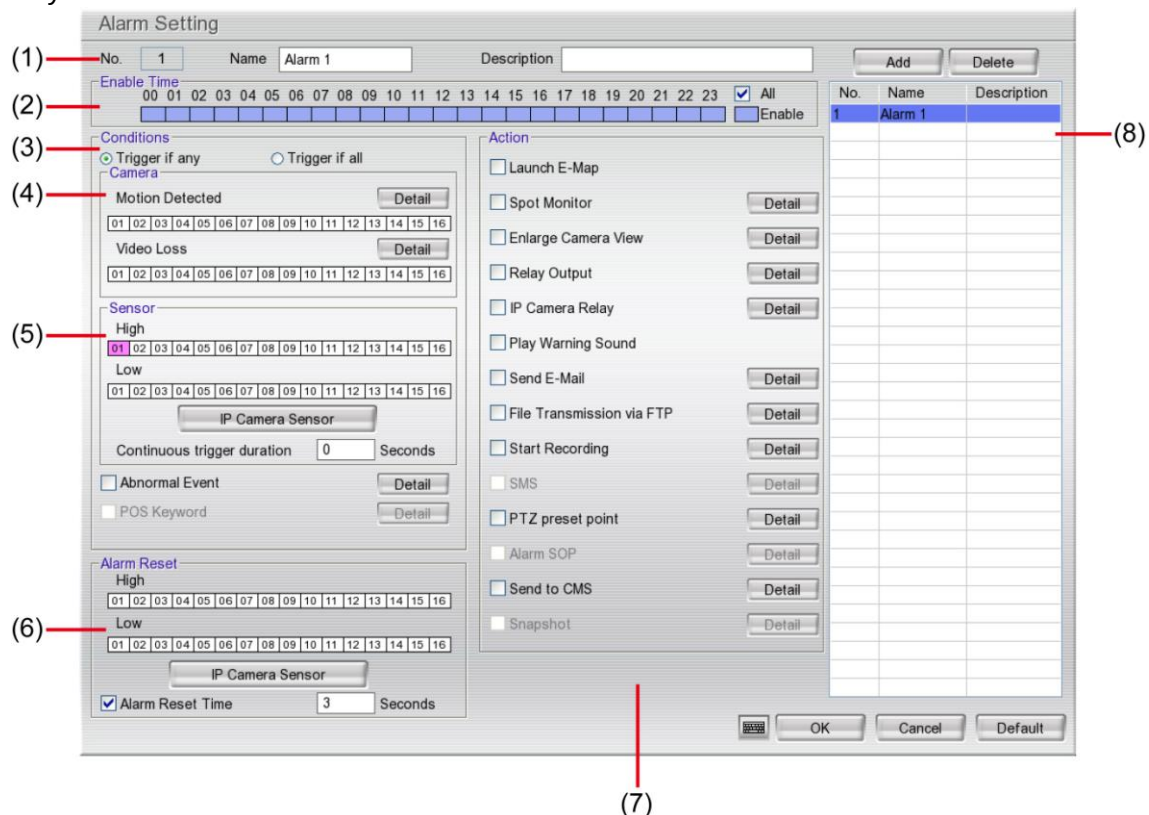
1. Click the drop-down list and select the relay ID number.
2. Enter relay name in **Name** column.
3. The system automatically detects the card and input number. In the Content section, enter **Description** of relay.
4. In the test section, click **Test** to trigger relay. **Red** is high and **Green** is low.
5. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



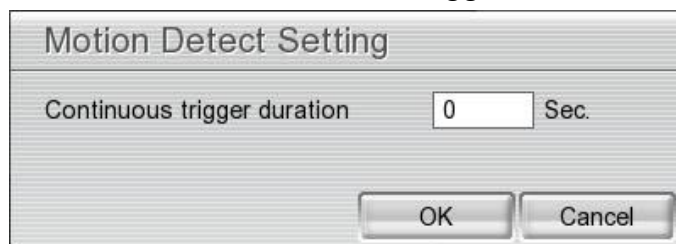
The image shows a 'Relay Setting' dialog box. At the top, there is a title bar 'Relay Setting'. Below it is a drop-down menu showing 'Relay01'. Underneath is a 'Name' label followed by an empty text box. To the left of the 'Content' section is a checked 'Enable' checkbox and an 'External IO' button. The 'Content' section is expanded and contains three fields: 'Card No.' with the value '1', 'Input No.' with the value '01', and a 'Description' label followed by an empty text box. Below the 'Content' section is the 'Test' section, which contains a red square labeled 'High' and a 'Stop' button. At the bottom of the dialog are three buttons: a keyboard icon, 'OK', and 'Cancel'.

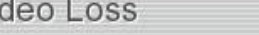
3.9 Alarm Setting

In the Alarm Setting dialog box, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **OK** to exit and save the setting, **Cancel** to exit without saving. Click **Default** will back to factory default value.



1. Click **Add** to insert and set a new alarm setting. Click the items in the (7) **Alarm Setting List** if you want to modify the alarm setting.
2. In (1) **No./Name/Description** enters alarm name and description. Alarm **No.** will be created by DVR system.
3. In (2) **Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated the color of the block turns white.
4. In (3) **Conditions**, you can set “**Trigger if any**” to activate if it falls to one of the conditions or “**Trigger if all**” to activate if it falls to all conditions.
5. In **Camera** section, select and click on the camera number (01 to 16) in **Motion Detected** and **Video Loss** to set the condition for the system to alarm.
 - **Motion Detected**: select and click on the camera number (01 to 16) to set the condition for the system to alarm. Click the **Detail** button to setup the system to send out the alarm when motion is detected and last the time that user has entered in **Continuous trigger duration**.



- 
- Video Loss
- Continuous trigger duration Sec.
- OK Cancel

- **IP Camera Sensor:** To adjust sensor high/low that is connected on the IP camera.

IP Camera Alarm Setting

Camera: 1 (AXIS - 214 IP: 192.168.0.14)
Camera: 5 (Panasonic - BB-HCM100 IP: 192.168.0.22)
Camera: 11 (SONY - SNC-RZ50N IP: 192.168.0.60)

Conditions

No.	Name	High	Low
1	Sensor: 1	O	
2	Sensor: 2		O

OK
Cancel

- Abnormal Event

☐ Reboot

☐ Abnormal Reboot

☐ Recording is switched off

☐ Network is switched off

☐ Hard Disk failed

OK

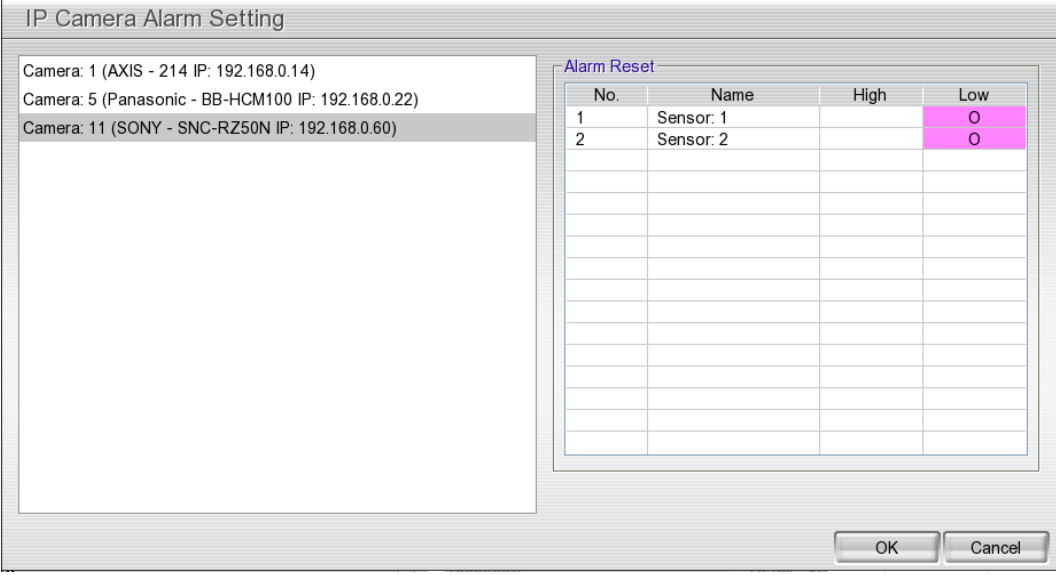
Cancel

- 93

- **Network is switched off:** when the network connection of DVR system is lost, the system will send out the alarm message.
- **Hard Disk failed:** when the hard disk doesn't work normally, the system will send out the alarm message.

7. In **(5) Alarm Reset**, click the camera number to set the reset condition of alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor normal status is high, set the alarm reset condition to low.

- **IP Camera Sensor:** To adjust sensor high/low that is connected on the IP camera.



The dialog box is titled "IP Camera Alarm Setting". On the left, there is a list of cameras: "Camera: 1 (AXIS - 214 IP: 192.168.0.14)", "Camera: 5 (Panasonic - BB-HCM100 IP: 192.168.0.22)", and "Camera: 11 (SONY - SNC-RZ50N IP: 192.168.0.60)". On the right, there is a section titled "Alarm Reset" containing a table with four columns: "No.", "Name", "High", and "Low". The first two rows are filled with "1 Sensor: 1", "2 Sensor: 2", and both have "O" in the "Low" column. The "High" column is empty for all rows. At the bottom right are "OK" and "Cancel" buttons.

No.	Name	High	Low
1	Sensor: 1		O
2	Sensor: 2		O

- **Alarm Reset Time:** Set a time for the alarm auto reset. When an alarm happen such as motion detected and video loss, the alarm will reset at the alarm reset time.

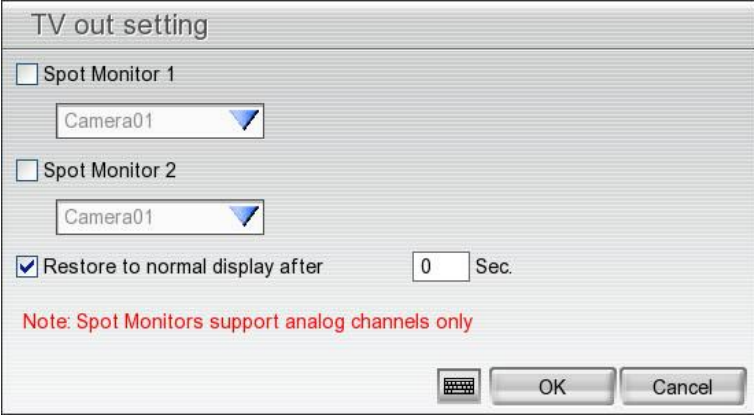
8. In **(6) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.

- **Launch E-Map:** Display mini E-map screen.
- **Spot Monitor**

When the DVR system receives the alarm, the alarm video will display on spot monitor.

Mark **Spot Monitor 1/Spot Monitor 2** to enable the sport monitor function. And then, select the camera (channel) when the DVR system receives the alarm from the selected camera will display the alarm video on the spot monitor.

- ✓ **Restore to normal display after:** Mark to enable and set the time that screen display returns to normal display after spot display.

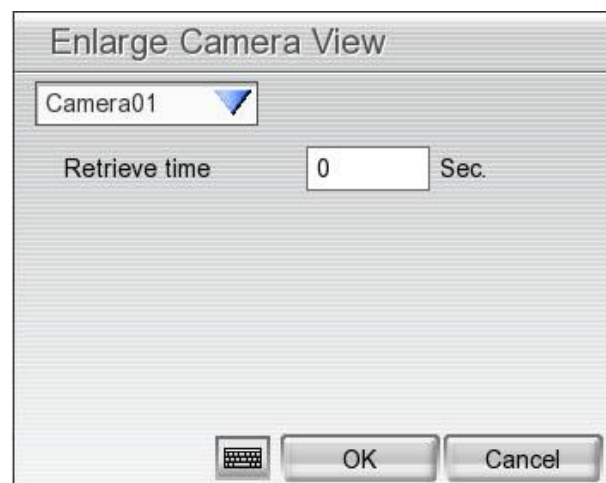


The dialog box is titled "TV out setting". It contains two checkboxes: "Spot Monitor 1" and "Spot Monitor 2", both of which are unchecked. Below each checkbox is a dropdown menu showing "Camera01". There is also a checked checkbox "Restore to normal display after" followed by a text box containing "0" and the label "Sec.". At the bottom, there is a red note: "Note: Spot Monitors support analog channels only". At the bottom right are "OK" and "Cancel" buttons.

- Enlarge Camera View

Switch to only display video in Preview mode from where the alarm is activated.

- Select the camera from drop down list to specify which camera video to be enlarged on screen when the alarm is triggered.
- Retrieve time:** set the waiting duration before system switching back to original Preview mode. If the retrieve time is un-set, the alarm video will keep enlarging until user switch back to Preview mode manually. The retrieve time range is 0~ 600 seconds.

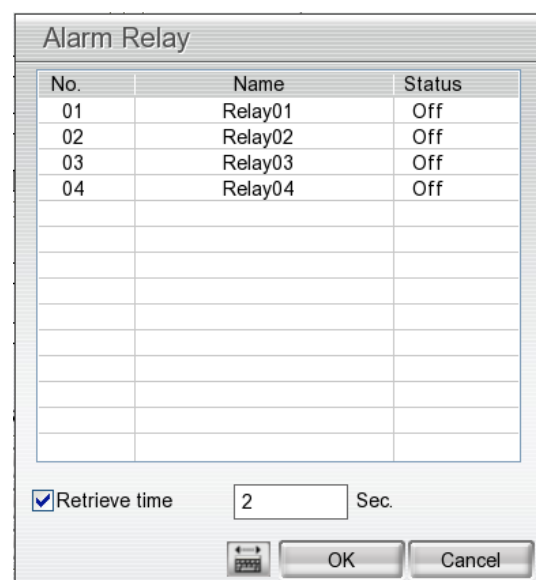


The 'Enlarge Camera View' dialog box contains a dropdown menu with 'Camera01' selected. Below it is a 'Retrieve time' field with the value '0' and the unit 'Sec.'. At the bottom are 'OK' and 'Cancel' buttons.

- Relay Output

Set to enable/disable the relay operation when the alarm is activated and to extend additional time in second before it stops the relay operation.

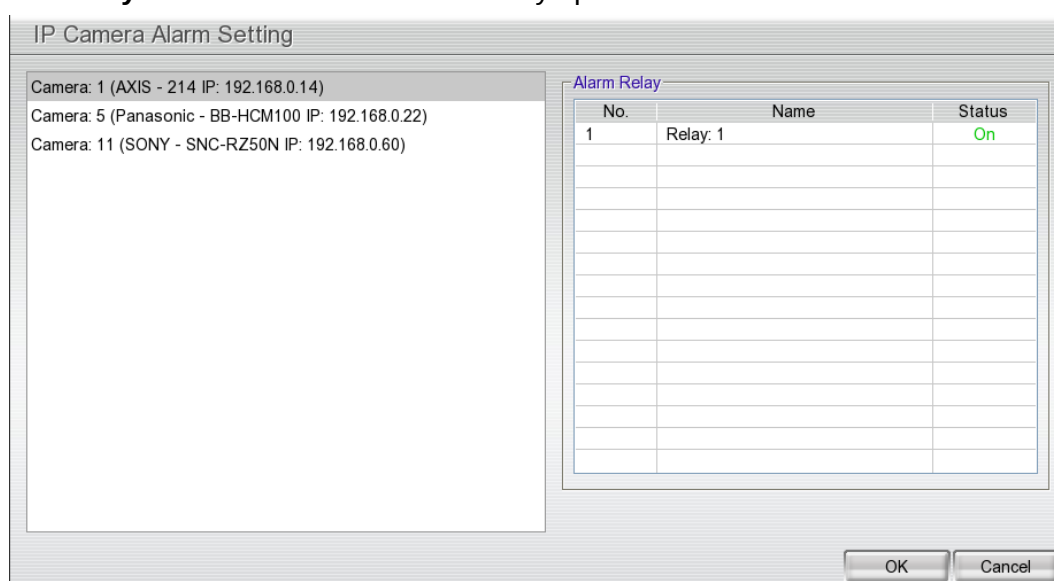
- Beside the Relay Output check box, click **Detail**.
- In the Alarm Relay dialog box, select from the available relay list and in the **Status** column, set to on/off the relay operation when the alarm is activated.
- In the Retrieve time check box, you may enable/disable to extend the relay operation time and set the duration in second(0 ~ 3600 seconds).
- Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



The 'Alarm Relay' dialog box features a table with columns 'No.', 'Name', and 'Status'. Below the table is a 'Retrieve time' section with a checked checkbox and a value of '2' seconds. 'OK' and 'Cancel' buttons are at the bottom.

No.	Name	Status
01	Relay01	Off
02	Relay02	Off
03	Relay03	Off
04	Relay04	Off

- **IP Camera Relay:** Set to enable/disable the relay operation when the alarm is activated.



The 'IP Camera Alarm Setting' dialog box has a list of cameras on the left and an 'Alarm Relay' section on the right. The camera list includes: Camera: 1 (AXIS - 214 IP: 192.168.0.14), Camera: 5 (Panasonic - BB-HCM100 IP: 192.168.0.22), and Camera: 11 (SONY - SNC-RZ50N IP: 192.168.0.60). The 'Alarm Relay' section contains a table with columns 'No.', 'Name', and 'Status'. The first row shows '1', 'Relay: 1', and 'On' (in green). 'OK' and 'Cancel' buttons are at the bottom.

No.	Name	Status
1	Relay: 1	On

- Play Warning Sound

Play alarm sound.

- Send E-mail

Send an electronic text message. Beside the Send Email check box, click **Detail**.

In the E-mail Setting dialog box, click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

(1) Mail Server

Enter the **SMTP Server** and **port**. If your e-mail system requires user identification, enable **Authentication** check box and enter **ID** and **Password**.

(2) Mail

Fill the mailing information. Click **Test Account** button can exam the mail is workable or not.

- ✓ **From:** Enter the sender e-mail address.
- ✓ **To and CC:** Enter the recipient email address and separate it with comma or a semicolon (;).
- ✓ **Subject:** Enter the message title.
- ✓ **Message:** Type the message.
- ✓ **Notice Interval:** Set a time gap for mail re-sending when mail has failed to send.

(3) Snapshot

When send out the email, the DVR system will snapshot image of the selected camera channel.

- ✓ **Select Camera:** Select the channel that will be snapshot when alarm email is sending out.
- ✓ **Video Size:** Select the size of vide that will be taken when snapshot. Auto means default size that chosen by DVR system.

- File Transmission via FTP

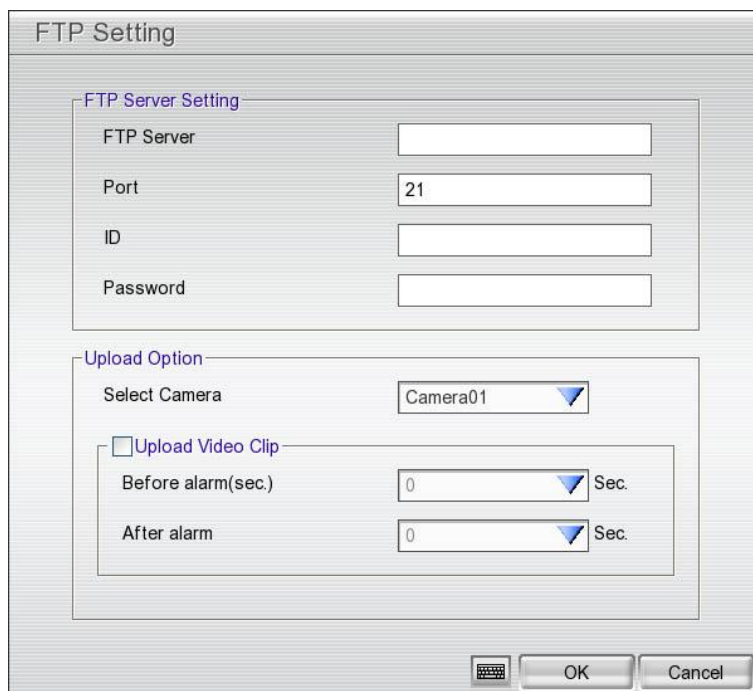
Upload file to remote computer thru FTP (File Transfer Protocol).

✓ FTP Server Setting

- **FTP Server:** Enter FTP server's IP address
- **Port:** Enter the port number of FTP connection.
- **ID& Password:** Enter the ID and Password that use to login FTP server.

✓ Upload Option

- **Select Camera:** Select the camera that the images will be captured and send when the any alarm is triggered.
- **Upload Video Clip:** Mark to enable the send the recorded image before and after alarm occurs, enter the time that before alarm occurs in **Before alarm(sec.)** and **After alarm**.



The FTP Setting dialog box is divided into two main sections. The top section, titled 'FTP Server Setting', contains four input fields: 'FTP Server', 'Port' (with the value '21' entered), 'ID', and 'Password'. The bottom section, titled 'Upload Option', contains a 'Select Camera' dropdown menu showing 'Camera01'. Below this is a checkbox for 'Upload Video Clip'. Underneath the checkbox are two more input fields: 'Before alarm(sec.)' and 'After alarm', both with the value '0' entered and a 'Sec.' label. At the bottom right of the dialog are three buttons: a keyboard icon, 'OK', and 'Cancel'.

- Start Recording

Record the video from the selected camera.

1. Beside the Start Recording check box, click **Detail**.
2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting.
4. In the **Start Record prior** text box, mark and set the number in second for the program to begin recording before the alarm has been trigger. The time range is 1~10 seconds.
5. In the **Stop Record after** text box, mark and set the number in second for the program to continue recording after the alarm has ended. The time range is 1~999 seconds. If user doesn't mark and set the time, the alarm recording will continue recording until alarm is reset.
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.



The Alarm Recording Setting dialog box has several sections. At the top is a checkbox for 'All'. Below it is a section titled 'Recording Cameras' containing two rows of checkboxes numbered 1 through 16. The next section is 'Frame Rate', which has two radio buttons: 'As Setting' (which is selected) and 'Max'. At the bottom, there are two checked checkboxes: 'Start Record prior' and 'Stop Record after'. Each has an input field with the value '0' and a 'Sec.' label. At the bottom right are three buttons: a keyboard icon, 'OK', and 'Cancel'.

- **PTZ preset point**

Position the PTZ camera based on the preset point setting. Beside the PTZ preset point check box, click **Detail**. In the Trigger PTZ Preset Setting dialog box, select the PTZ camera number then select the **Enable** check box. Select the position of the PTZ camera when the alarm is activated and ended. For the PTZ camera end point, user can also select on preset position or **Auto Pan** between preset position groups.

- **Send to CMS (Central Management System)**

Enable/disable the selected camera to send video to CMS when the alarm is activated.

Beside the Send to CMS check box, click **Detail**. In the CMS Setting, select the camera to enable/disable sending the video to CMS. Enable **All** to select all cameras. Then, click **OK** to accept the new settings and **Cancel** to exit without saving.

3.10 User Setup

Only administrator level authority can access User Setting. The maximum user accounts are 32.

In the User Setting dialog box, click **Add** to insert a new user, **Delete** to remove the selected user, **Edit** to modify the user control right, **OK** to exit and accept the setting, and **Cancel** to exit without saving the setting.

[illegible]

To Add a User Account:

1. In the User Setting dialog box, click **Add**.
2. Select and fill in the following information.

The screenshot shows the 'User Setting' dialog box with the following sections highlighted by numbered callouts:

- (1) **Authorization Level**: Radio buttons for 'User' (selected) and 'Administrator'.
- (2) **Control Right**: A grid of checkboxes for various system functions, all of which are checked.

☒ System Setting	☒ Alarm Setting
☒ Camera	☒ Playback
☒ Record	☒ Power OFF
☒ Network	☒ Reboot
☒ Scheduler	☒ PTZ
☒ Backup	☒ E-Map
☒ Sensor	☒ Delete Storage File
☒ Relay	
- (3) **PCViewer**: Checkboxes for 'Remote Console', 'Remote LogViewer', 'Remote Record', and 'IP Camera', all of which are checked.
- Remote Access time**: A checkbox for 'Infinite' (checked) and a text field for 'Minute'.
- (4) **Visible camera**: A grid of checkboxes for cameras 1 through 16, all of which are checked.
- (5) **Time Span**: A checkbox for 'Enable' (checked), and text fields for 'Activation Date' (2011/07/01) and 'Expiry Date' (2011/07/01).
- (6) **User Information**: A red box highlighting the 'Name', 'Description', 'Password', and 'Confirm Password' fields.

At the bottom of the dialog box are buttons for 'OK', 'Cancel', and 'Default'.

(1) Authorization level

Select the status of the user. Administrator has full authority of control rights.

(2) Control Right

Enable the items that would allow the user to access.

(3) PCViewer

Enable/disable Web Viewer control right that allow the user to operate from a remote location using internet explorer.

- **Remote Console**

Allow the user to remote modify DVR system setting.

- **Remote LogViewer**

Allow the user to view the event log from remote site.

- **Remote Record**

Allow the user to record from remote site.

- **IP Camera**

Enable/disable user to add new IP camera when using the PCViewer.

- **Remote Access Time**

Enable **Infinite** check box to access DVR without time limit. If you want to set time limit, un-mark and enter the number of minutes in **Minute** text box.

(4) Visible Camera

Select the camera number that would allow the user to access or view. To select all the cameras, enable the **ALL** check box.

(5) Time Span

Set the user account a specific time period that user only can use given account to login DVR program in that specific period. Mark **Enable** check box and select the **Activation Date** and **Expiry Date**.

(6) Name

Enter the user name.

Description

Enter the user description.

Password

Enter the user password.

Confirm Password

Enter the same user password for confirmation.

Chapter 4 Using the Remote Programs

User can use Microsoft Internet Explorer to access DVR system by entering the IP address. To use this feature, make sure that your PC and DVR server both are connected to the internet and the Network feature is enabled.

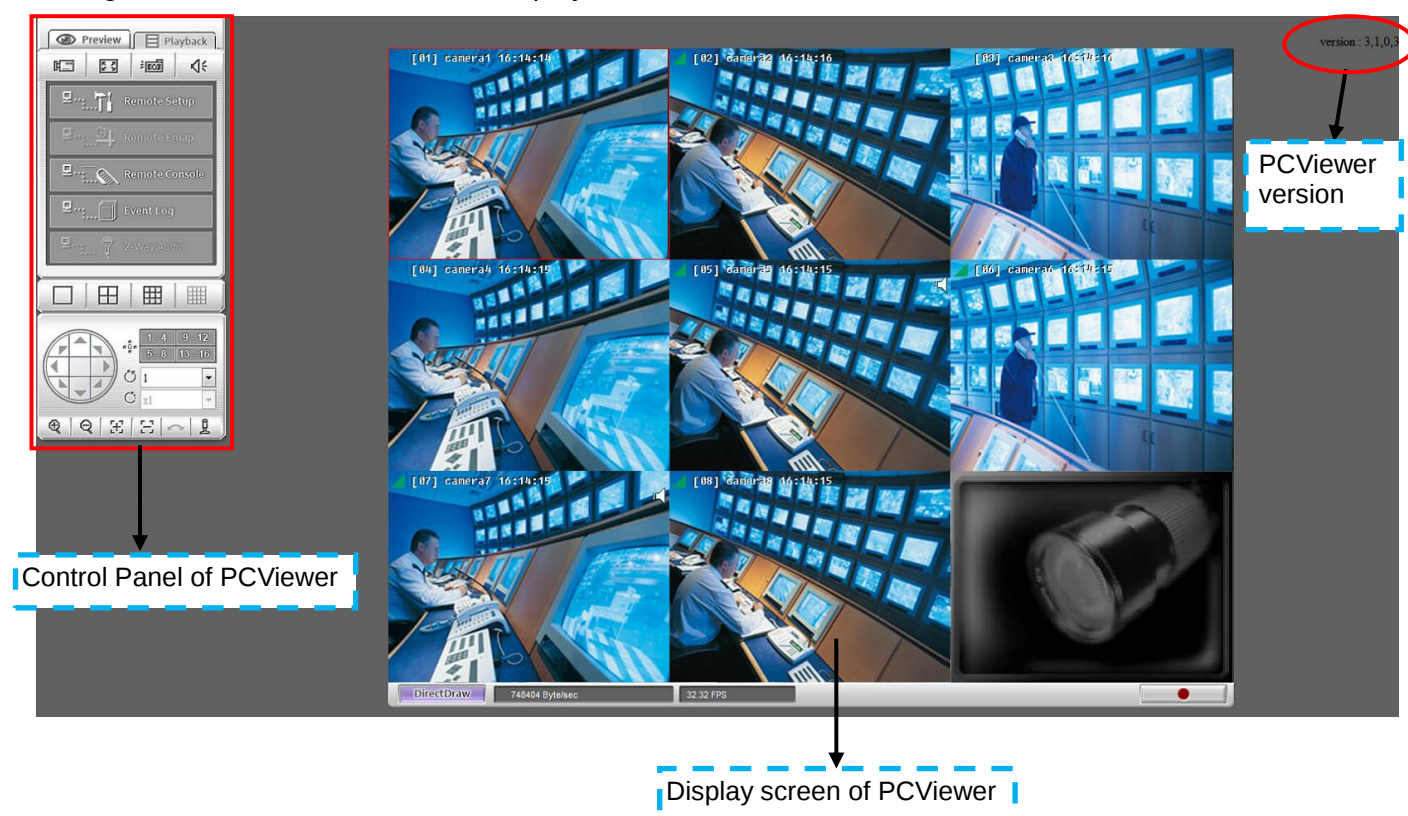
Accessing this feature for the first time you will be prompted by your browser to install PCViewerX.cab, allow the installation and you should be able to connect and login afterwards.

For Windows XP/Vista/7, click Install when the Internet Explorer - Security Warning dialog box appears.

After installing the PCViewerX.cab and when connecting to the DVR system, you are required to enter account ID and password; then, select the type of network. **Admin** account has the authority to remote setup the DVR system configuration on PCViewer. User account only can preview the video on PCViewer and Remote Console.

- i** - To have smooth remote frame rate, it's suggested to connect DVR by selecting **WAN (512K/64K)** as the Network Type on PCViewer.
- To operate full remote function, please use "Administrator" account to execute IE browser.

After login, the PCViewer interface is displayed.



4.1 Familiarizing the Buttons in PCViewer

4.1.1 PCViewer Screen

Right-clicking on the PCViewer video screen, enables you to start video recording, change video quality, switch camera and enable/disable DirectDraw.



Adjusts video quality only support on analog camera channel.

To operate the start recording on short-cut menu, the account authority that user uses to access DVR system needs to be enabled in User setting.

The 'User Setting' dialog box is shown with the 'User' authorization level selected. The 'Control Right' section contains a list of permissions, with the 'PCViewer' sub-section highlighted by a red box. This sub-section includes 'Remote Console', 'Remote Record', 'Remote LogViewer', and 'IP Camera', all of which are checked. The 'Visible camera' section shows a grid of 16 checkboxes, all of which are checked. The 'Time Span' section has 'Enable' checked, with 'Activation Date' set to 2011/07/01 and 'Expiry Date' set to 2011/07/01. The 'Remote Access time' section has 'Infinite' selected. The 'Name', 'Description', 'Password', and 'Confirm Password' fields are empty. The 'OK', 'Cancel', and 'Default' buttons are at the bottom right.

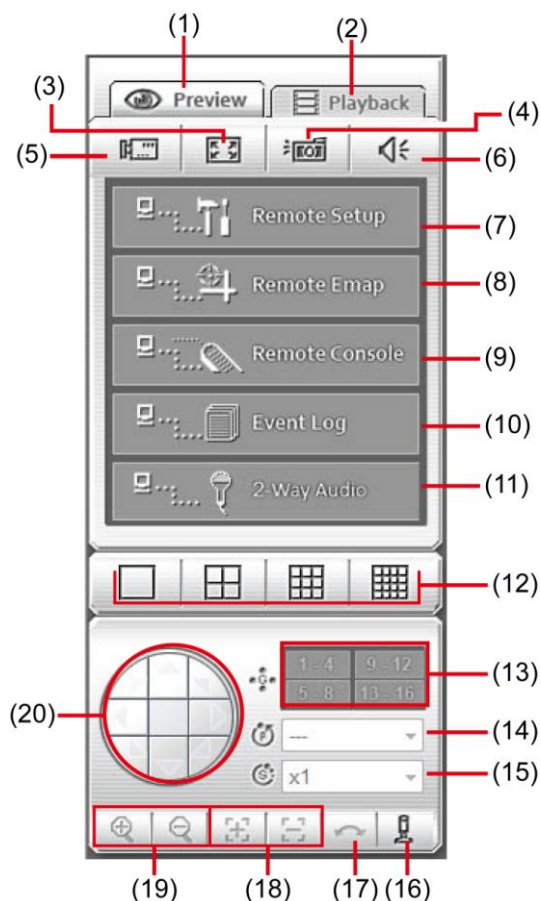
Authorization Level	Control Right	Visible camera	Time Span	Remote Access time
☒ User ☐ Administrator	☒ System Setting ☒ Camera ☒ Record ☒ Network ☒ Scheduler ☒ Backup ☒ Sensor ☒ Relay ☒ Alarm Setting ☒ Playback ☒ Power OFF ☒ Reboot ☒ PTZ ☒ E-Map ☒ Delete Storage File	☒ All ☒ 1 ☒ 2 ☒ 3 ☒ 4 ☒ 5 ☒ 6 ☒ 7 ☒ 8 ☒ 9 ☒ 10 ☒ 11 ☒ 12 ☒ 13 ☒ 14 ☒ 15 ☒ 16	☒ Enable Activation Date: 2011/07/01 Expiry Date: 2011/07/01	☒ Infinite Minute



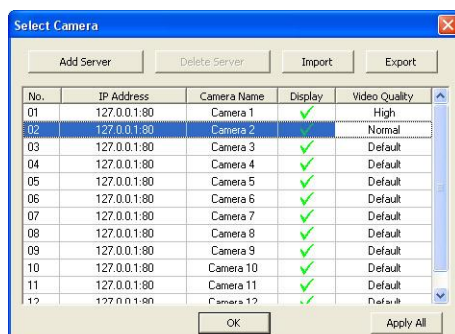
To view POS data on PCViewer, please switch to 1-split screen mode and right-click on screen to make sure the video quality is **High**. However, if DVR system didn't connect to POS device and receive POS data, user won't be able to view POS data on PCViewer site.

Name	Function
(1) DirectDraw	Enhance the video quality.
Not all graphic cards can support this function. If you cannot see the screen display correctly or screen is messed, please check with VGA card vendor.	
(2) Received file size	Indicate the size of the data being sent per second.
(3) Camera frames	Indicate the number of frames per second.
(4) Record	Start to record the video of the selected camera in AVI format. Directly click screen to select the channel that user wants to record and press Record button.

4.1.2 PCViewer Control Panel



Name	Function
(1) Preview Mode	Switch to preview mode control panel
(2) Playback Mode	Switch to playback mode control panel(see also Chapter 4.1.3)
(3) Full screen	Use the entire area of the screen to only display the video. To return, Right click the mouse or press ESC on the keyboard.
(4) Snapshot	Capture and save the screen shot in *.bmp format.
(5) Select cameras to view	Select to the view camera from different server. In Select Camera dialog box, Display column, click to enable/disable viewing the camera. Click Add Server and select the server type between DVR and IP Cam to add. Click Delete Server to delete the selected item. Click Import to load the previous saved list. Click Export to save the list. Click Apply All to change all the camera video quality based on the selected setting. Click OK to exit.

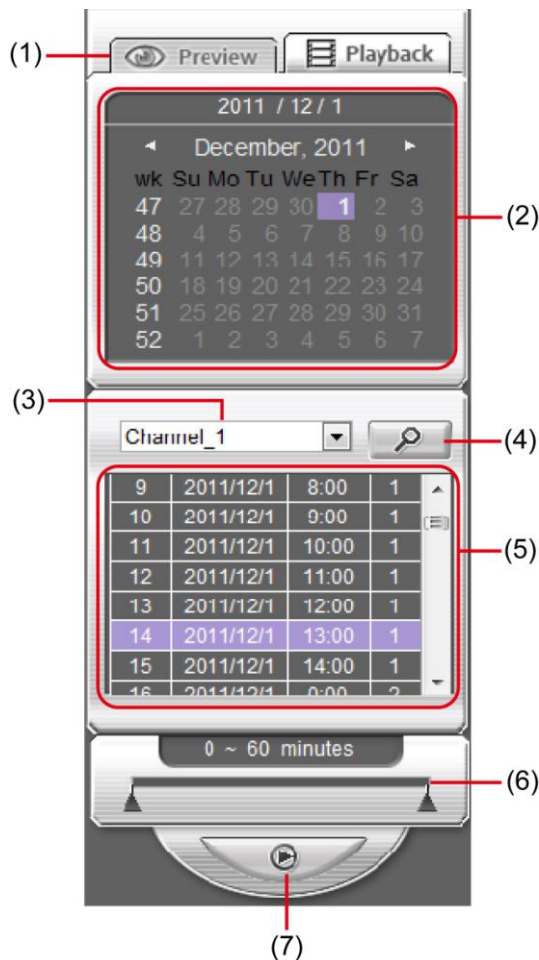


Name	Function
(6) Audio	Enable/disable remote sound.
(7) Remote setup	Change the DVR server settings (see also Chapter 4.1.4)
(8) Remote Emap	To call out the Emap of remote DVR server to view.
(9) Remote Console	Initiate Remote Console. It allows you to control DVR server (see also Chapter 4.2).
(10) Event Log Viewer	Display the Event logs, Operation logs, System logs, and Network logs.
(11) 2-Way Audio	Enable/disable 2-way audio function. This function allows the client and server to talk via internet using MIC. Make sure your microphone and speakers work before using this function. If the DVR server Talk to web-client setting is disabled, you won't be able to hear from the other side.
(12) Split screen view	Select from four different split screen types to view all the cameras.
(13) Auto Pan Group	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(14) Camera preset position number	Move the PTZ camera to the preset point.
(15) Direction buttons' moving speed	Adjust the moving speed of the PTZ camera lens. This speed will apply to the (18) Direction buttons' moving speed only.
(16) Select PTZ	Choose to enable/disable the PTZ camera. In the Select PTZ dialog box, Select column, click to enable/disable viewing and controlling the PTZ camera. Click OK to exit and save the setting and Cancel to exit without saving the setting.
(17) Atuo Pan	Enable the PTZ cameras automatically based on the selected camera group preset position number.
(18) Zoom +/-	Zoom the image in or out.
(19) Focus +/-	Adjust the focus manually to produce clear image.
(20) Direction Buttons	Adjust and position the focal point of the PTZ camera. The supported direction buttons are depended on the PTZ camera has supported.

4.1.3 Playback Mode Control Panel

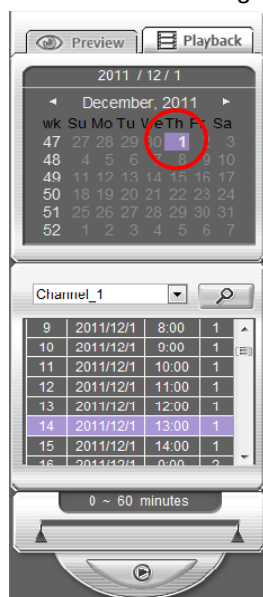


The PCViewX.cab. installation is required for first time using PCViewr playback function. The PCViewX.cab installation requirement is appeared when user select Playback function.

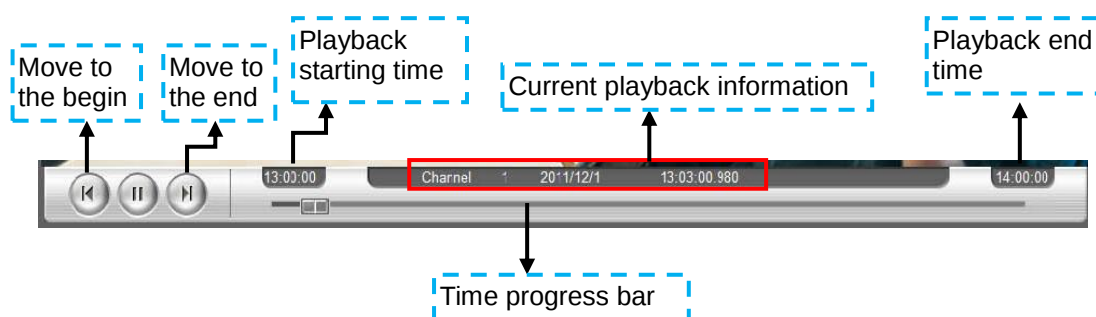
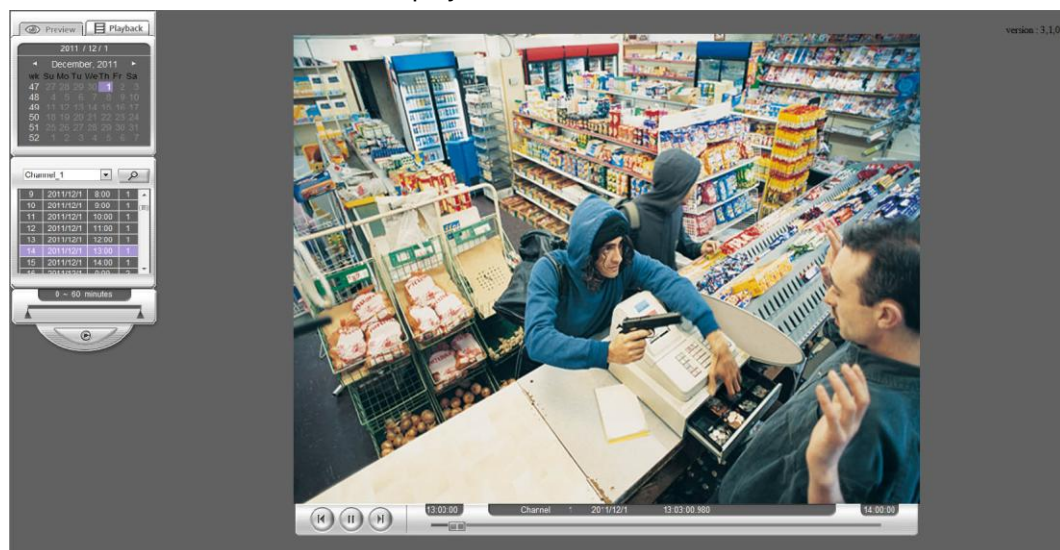


Name	Function
------	----------

- | | |
|------------------|--|
| (1) Preview Mode | Switch to preview mode control panel |
| (2) Date | Select the date that user wants to playback. Click ◀ ▶ icon can switch month and year. The date in color highlight means it has recorded data. |



Name	Function
(3) Channel	After select the date, please select the channel that user wants to playback or select all channels.
(4) Search button	After selected date and channel, click search button to find the recorded file. The result of search result is displayed below area.
(5) Search result	Display the search result that is searched base on the date and channel user has selected. Select the recorded time file in result table and click play button to playback.
(6) Playback time progress bar	User can setup the certain time period for playback. The recorded file default is playback in 60 minutes long. User can adjust to the specific time period to playback instead to move the scroll bar while playback.
(7) Play button	After select the file, click it to start playback.



4.1.4 To Setup Remote System Setting

The setting here applies to Remote DVR only.

4.1.4.1 System Setting

In the System Setting windows, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.

The screenshot shows the 'System Setting' window with the following sections and callouts:

- (1) Delete recorded data after: ☐ (checkbox)
- (2) Delete event and alarm log after: ☒ (checkbox)
- (3) Overwrite Enable: ☒ (checkbox)
- (4) Configuration: Import, Export buttons
- (5) Miscellaneous: Playback Mode (Instant Playback), Playback with key frame only in 4-split screen, Enable intelligent streaming of IP camera, Date Format (mm/dd/yyyy), AutoScan Period (3 Sec.)
- (6) Login: Auto Login after system boot up, Auto record when login, Auto start Network when login, Default User (admin)
- (7) Firmware: Product Version (X9.02.24.00.06b), IPCam Module (5.1.1.16), Update buttons

(1) Delete recorded data after

If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the numbers of days in **Days** text box.

(2) Delete event and alarm log after

If you want the system to automatically erase the event and alarm log files after a certain days, enable the **Delete event and alarm log after** check box and enter the numbers of days in **Days** text box.

(3) Overwrite Enable

When there is not enough free space to record one hour data, the system automatically replaces the oldest data.

(4) Configuration

Backup a copy of all the settings and allows you to regain the same settings back. To save the current settings, click **Export**. To replace the settings with the one you have saved, click **Import**.

(5) Miscellaneous

Enable the conditions in **Miscellaneous** section you want the system to perform.

- Playback Mode

Select the mode of playback the video.

- **Select date and time:** Select the date and time which user wants to playback.
- **Play the last file:** Automatically playback the video from the last hour
- **Instant Playback:** Automatically playback the video which has just recorded

- **Date Format**

Select the date format which wants to display in **Select date and time** playback mode

- **Auto Scan Period**

Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.

(6) Login

Enable the conditions in Login section you want the system to automatically carry out.

- **Auto record when login**

Automatically start video recording when the DVR is executed.

- **Auto start Network when login**

Automatically connect to network when the DVR is executed.

(7) Firmware

- **Product Version:** Upgrading the firmware of DVR system and IP camera patch file. Please download the firmware file from web site.

1. Save the firmware on root directory of USB pen drive. Then, plug USB pen drive to DVR server.
2. Click **Update** button, a **Select File** window will show up.
3. Click  button and select where the firmware is located.
4. Click **Upgrade** to start updating.

- **IPCam Module:** Update IP camera patch.

1. Save the firmware on root directory of USB pen drive. And then, plug USB pen drive to DVR server.
2. Click **Update** button, a **Select File** window will show up.
3. Click  button and select where the IP camera patch file is located.

Click **Upgrade** to start updating.

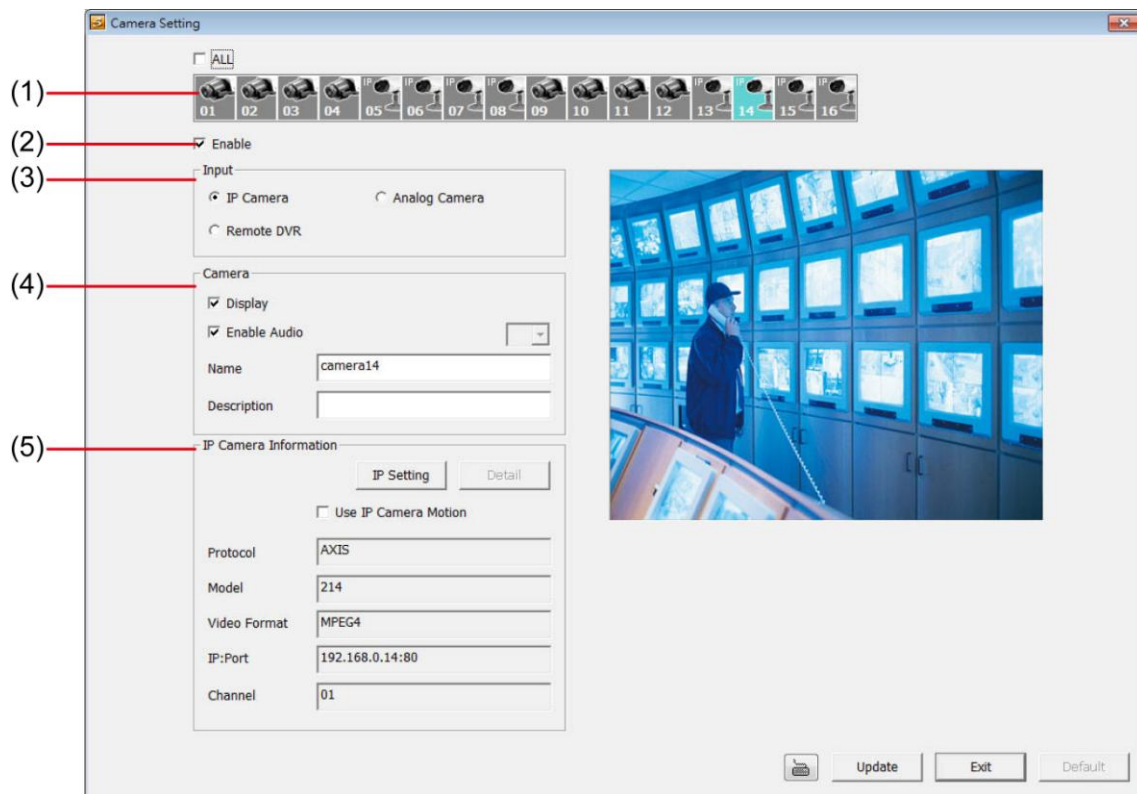
4.1.4.2 Camera Setting

Select the camera from remote DVR servers to modify settings. In the Camera Setting windows, click **Update** to save and apply the new settings, click **Exit** to exit without saving.

IP Camera Setting



EH6108H⁺ only supports 8 channels.



(1) Camera Icons

Select the camera number you want to adjust the video setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, Right click on the camera icon. To select one camera only, Left click on the camera icon. The camera icon turns red when it is selected.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Input

Select the type of camera as IP camera. For General camera setting, see [Analog Camera Setting](#). To modify camera of remote DVR, see [Remote DVR Camera Setting](#).

(4) Camera

- **Display:** Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio:** Audio function doesn't support on IP camera.
- **Name:** Change the camera name



DVR supports Chinese characters but only can be entered in remote site (remote setup).

- **Description:** Add a short comment

(5) IP Camera Information

To setup IP camera and display current IP camera information.

- **IP Setting:** Click **IP setting** to add the IP camera.

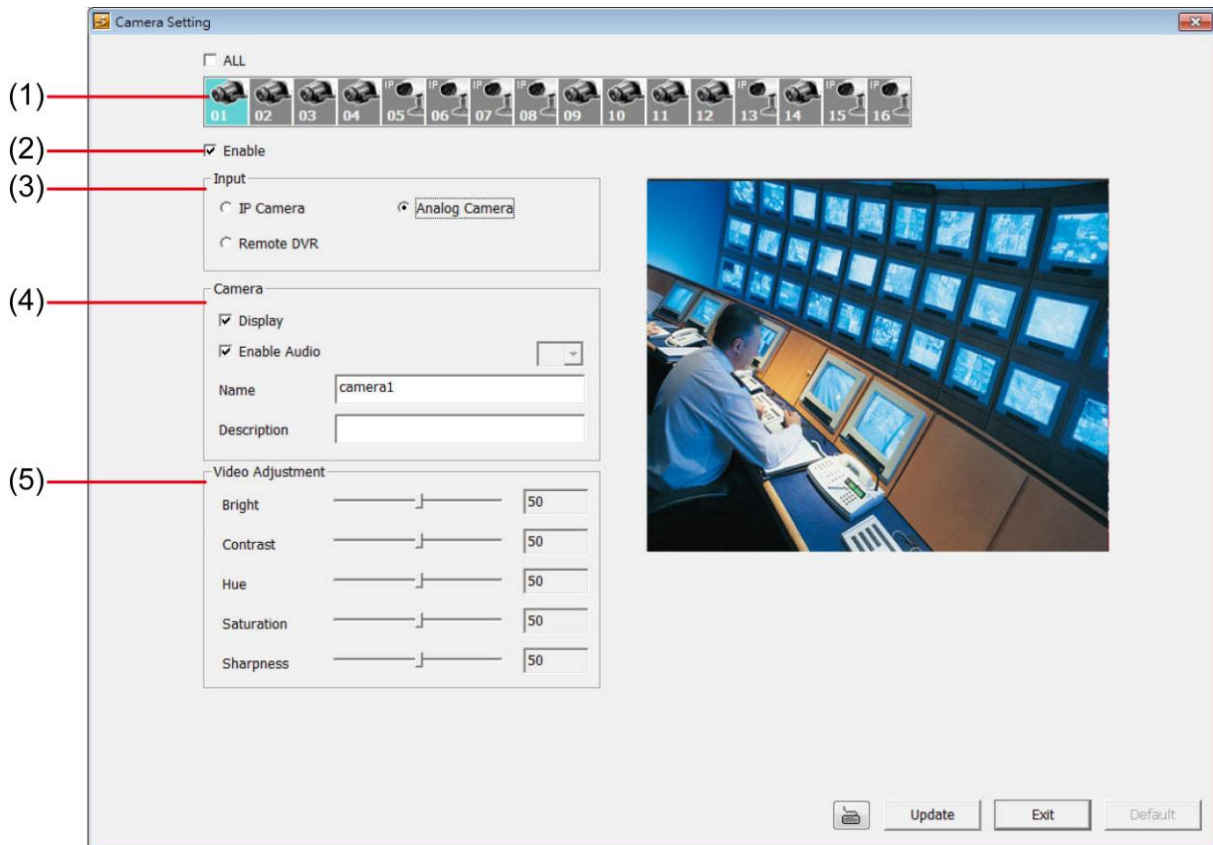
1. Click the radio button of **Protocol** to start setup IP camera.
2. Select the **Protocol**, **Model**, **Video Format**, and **Channel** of the IP camera.
3. Enter IP address and connecting port in **IP Camera Site** column.
4. Also, user can enter URL of IP camera instead of IP address.
5. If the IP camera has authority request, please enable **Authentication** and enter **ID** and **Password**.
6. Click **OK** to connect with the IP camera.

Analog Camera Setting

Select the camera from remote DVR servers to modify settings. In the Camera Setting windows, click **Update** to save and apply the new settings, click **Exit** to exit without saving.



EH6108H⁺ only supports 8 channels.



(1) Camera Icons

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Input

Select the camera type as **General Camera**. For IP camera setting, see [IP Camera Setting](#). To modify camera of remote DVR, see [Remote DVR Camera Setting](#).

(4) Camera

- Display

Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.

- Enable Audio

Enable/disable audio function.

- Name

Change the camera name



DVR supports Chinese characters but only can be entered in remote site (remote setup).

- Description

Add a short comment

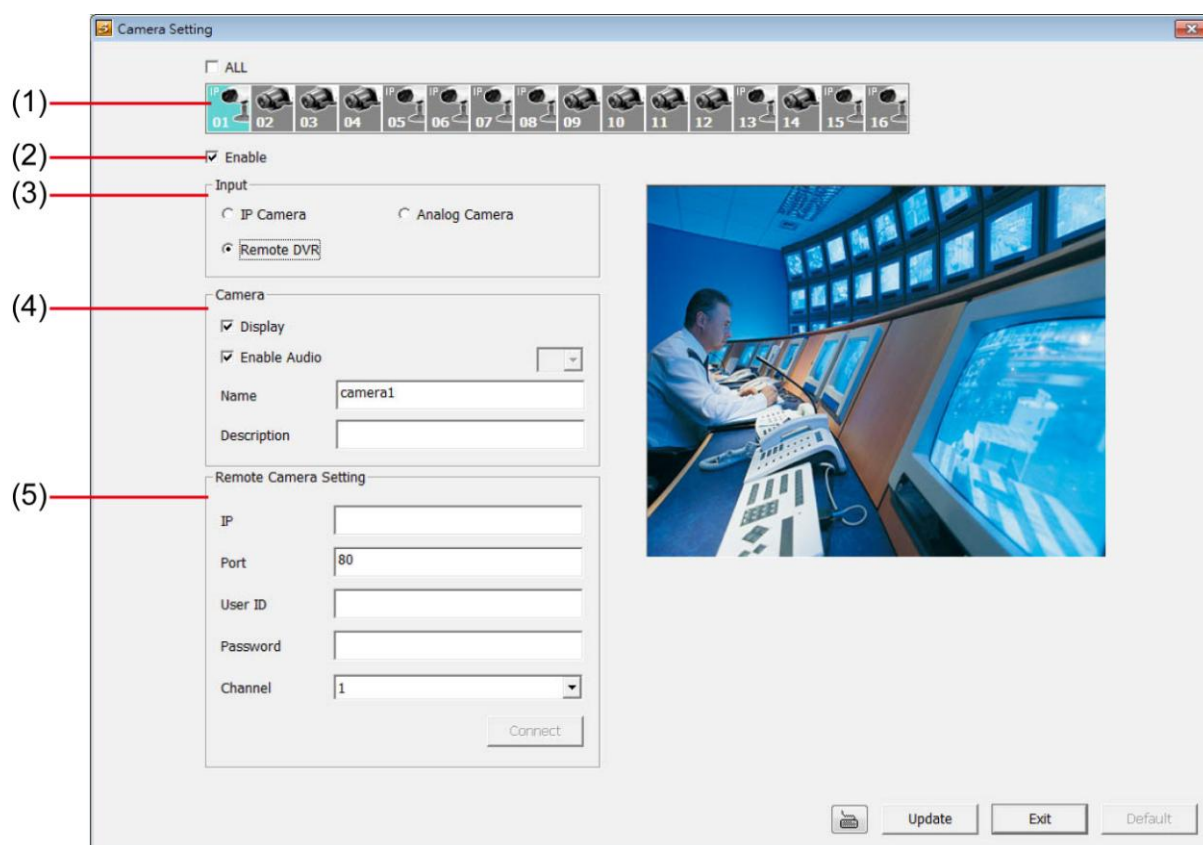
(5) Video Adjustment

Adjust the Brightness, Contrast, Hue and Saturation of the camera.

Remote DVR Camera Setting

Select the camera to modify settings. In the Camera Setting windows, click **Update** to save and apply the new settings, click **Exit** to exit without saving.

i EH6108H⁺ only supports 8 channels.



(1) Camera Icons

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Input

Select the camera type as **Remote DVR**. For IP camera setting, see [IP Camera Setting](#). To modify analog camera setting, see [Analog Camera Setting](#).

(4) Camera

- **Display**
Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
The audio function doesn't support for remote DVR.
- **Name**
Change the camera name

i DVR supports Chinese characters but only can be entered in remote site (remote setup).

(4) Remote Camera Setting

- **Description**
Add a short comment
- **IP**
Enter the IP address of the camera
- **Port**
The port for connection
- **User ID**
Enter the user id that for connecting authority
- **Password**
Enter the password that is for connecting authority
- **Channel**
Select the channel of connected camera

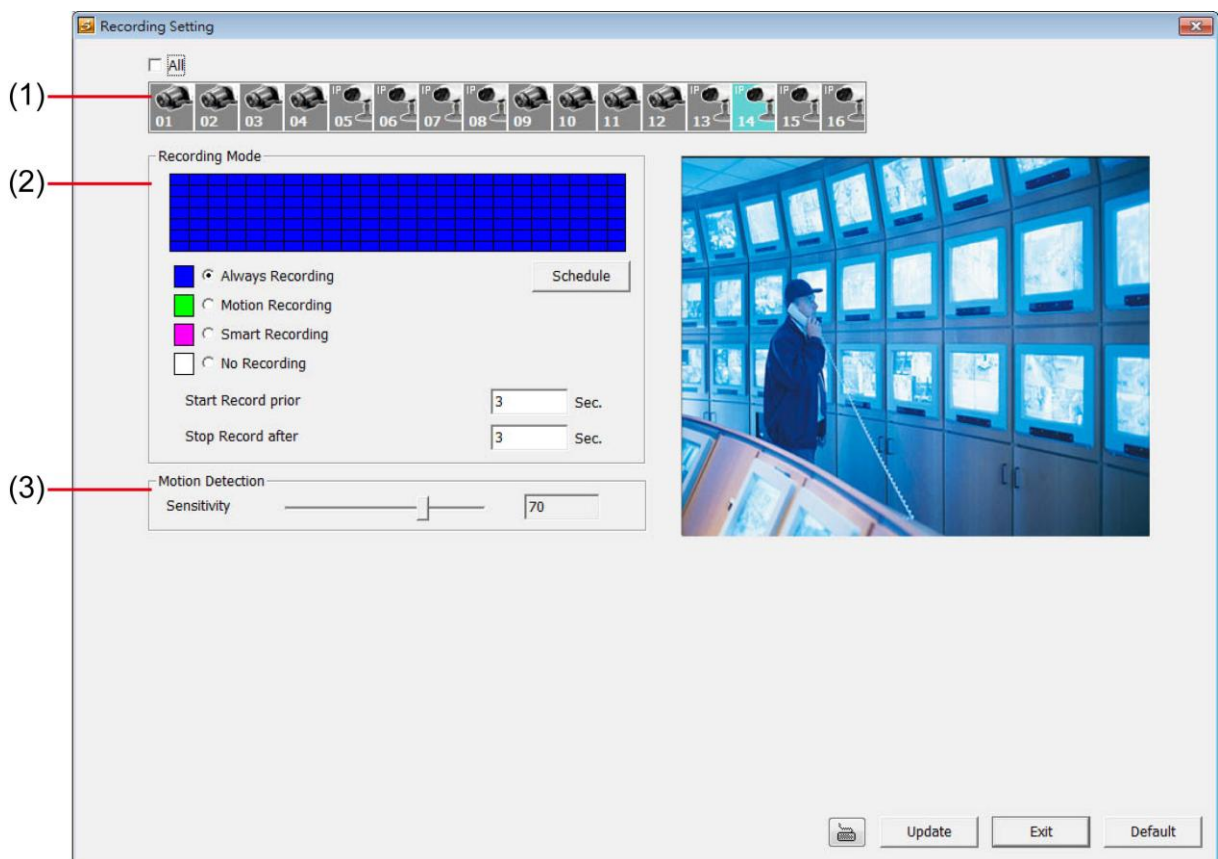
4.1.4.3 Record Setting

In the Recording setup windows, click **OK** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.

Record Setting of IP Camera



EH6108H⁺ only supports 8 channels.

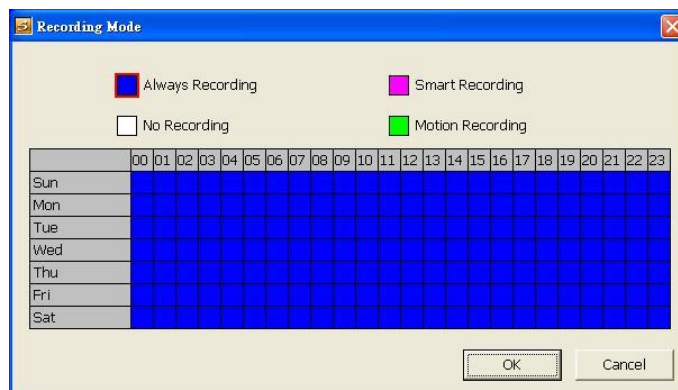


(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns red when it is selected.

(2) Recording Mode

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the  button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode**, and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen.



The recording modes are listed below:

- **Always Recording**

Record the video from the selected camera and save it to the designated storage path

- **Motion Recording**

Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.

- **Smart Recording**

Automatically switch to recorded at the maximum frame rate once a motion is detected and if there is no motion, it records key frame only.

- **No Recording**

The system won't do any recording.

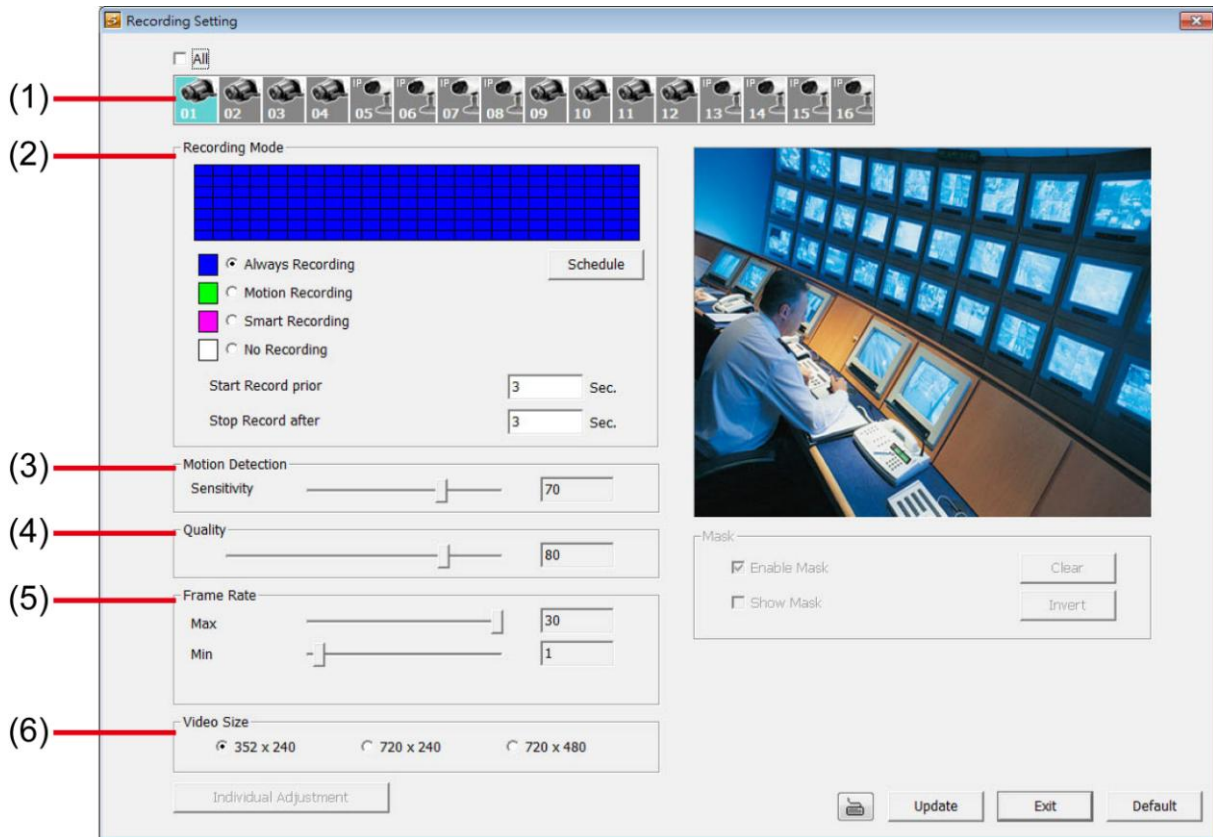
(3) Motion Detection

Adjust the sensitivity of the motion detection. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

Record Setting of Analog Camera



EH6108H⁺ only supports 8 channels.

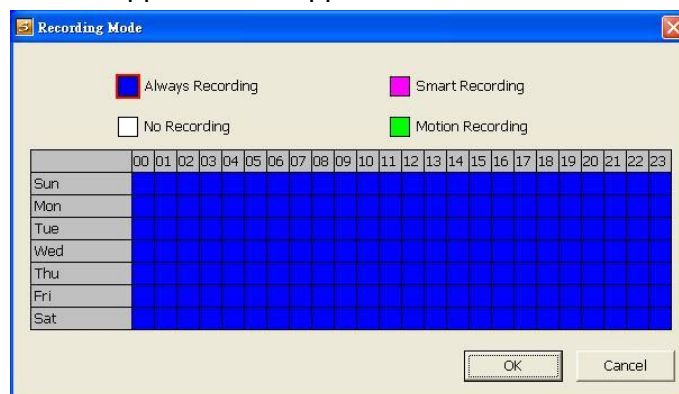


(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns purple when it is selected.

(2) Recording Mode

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block 1 to 7 represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the **⊙** button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode**, and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen.



The recording modes are listed below:

- Always Recording

Record the video from the selected camera and save it to the designated storage path

- **Motion Recording**

Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.

- **Smart Recording**

Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting.

- **No Recording**

The system won't do any recording.

(3) Motion Detection

Adjust the sensitivity of the motion detection. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

(4) Quality

Adjust the video quality. The higher the value, the lower the compression level and uses more hard disk space.

(5) Frame Rate

Set the maximum and minimum number of frames to be recorded during motion and motionless state. The frame rate ranges from 01 to 30 for NTSC and 01 to 25 for PAL. The higher the frame rate, it uses more hard disk space.



Always recording frame rate is depending on max frame rate value.

(6) Video Size

Select the size of the video and click the  button. The higher the size, the larger the file it create.

4.1.4.4 Network Setting

In the Network Setting dialog box, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting. For the network service ports that use by DVR server, please see [Appendix A](#).

The screenshot shows the 'Network Setting' dialog box with the following sections and callouts:

- (1) **Server Name**: A text field containing 'EH6216H'.
- (2) **Transmitting Cameras**: A section with a grid of checkboxes for cameras 1 through 16. The 'All' checkbox is checked.
- (3) **Network Time Synchronization**: A section containing a 'Time Server' field with 'time.stdtime.gov.tw', a 'Time Zone' dropdown set to 'GMT-10:00', an 'Automatic synchronize at' dropdown set to '14:00', and a 'Synchronize Time Right Now' button.
- (4) **Other Configuration**: A section with checkboxes for 'Enable White List' and 'Network Bandwidth Limit', each followed by a 'Detail' button.

Other visible sections include 'Main Configuration' (Server IP: 192.168.107.60, Remote Console PORT: 5550) and 'Remote Update Configuration' (PORT: 5005). At the bottom are buttons for 'Update', 'Exit', and 'Default'.

(1) Server Name

Assign a name for the DVR unit. Alphabet letters and numbers only.

(2) Transmitting Cameras

Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using PCViewer, Remote Console, PDA Viewer and JavaViewer (still image). To select all the cameras, enable the **ALL** check box.

(3) Network Time Synchronization

Adjust the DVR system time same as network time server. Fill in the **Time Server** IP address or domain name. Select the **Time Zone** that DVR is located. And then, mark the **Automatic Synchronize** time to set automatic synchronize time on a daily basis.

(4) Other Configuration

- Enable White List



Without any IP address/IP range is assigned in White List table, none of IP address/IP range is allowed to access DVR when White List function is enabled.

An access permit list for the remote accessing of DVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.

The 'Network White List' dialog box contains two radio buttons: 'IP' (selected) and 'IP Range'. The 'IP' option has a text input field with a placeholder 'x.x.x.x'. The 'IP Range' option has two text input fields separated by a hyphen, with placeholders 'x.x.x.x' and 'x.x.x.x'. Below these are three buttons: 'Add', 'Delete', and 'Clear All'. A large empty rectangular area is positioned to the right of these buttons. At the bottom are 'OK' and 'Cancel' buttons.

- Network Bandwidth Limit

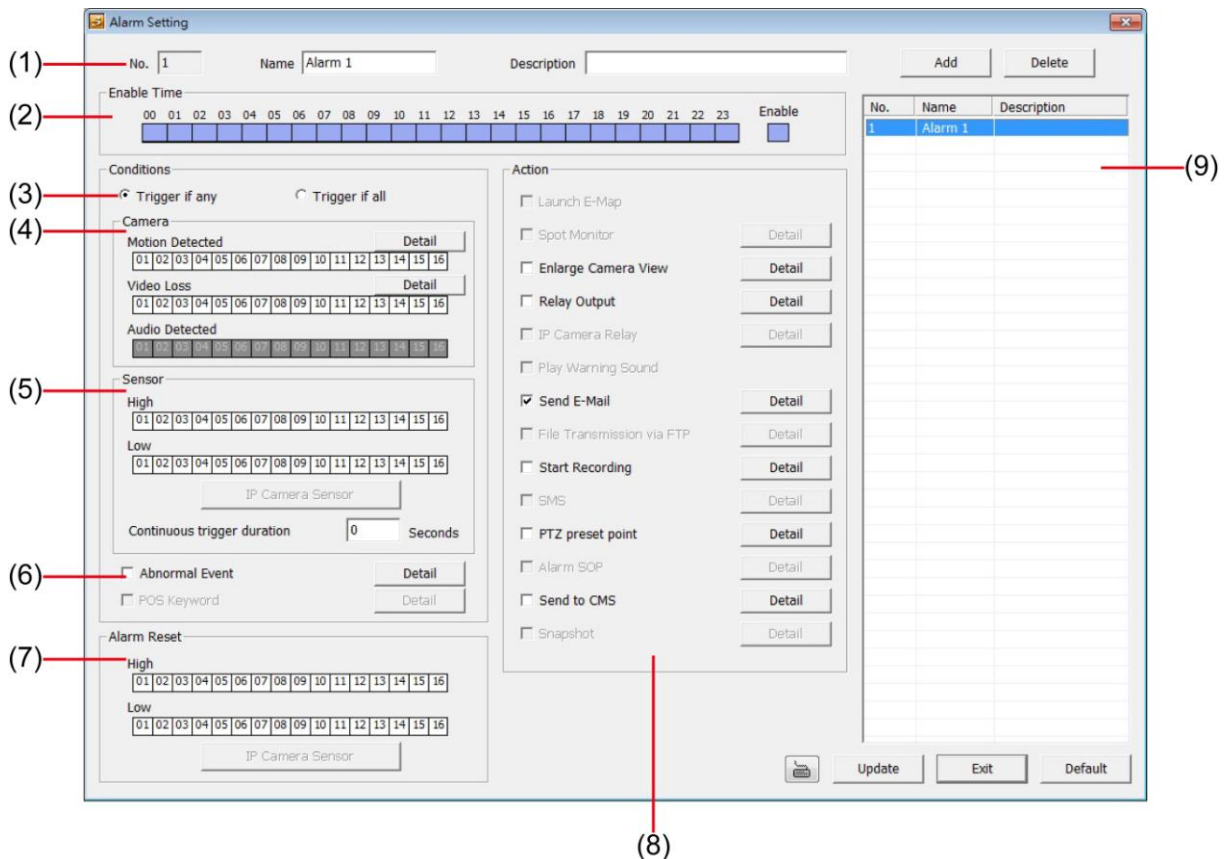
By Channel: Set the network bandwidth by each channel.

All: Set the total network bandwidth consumption limit.

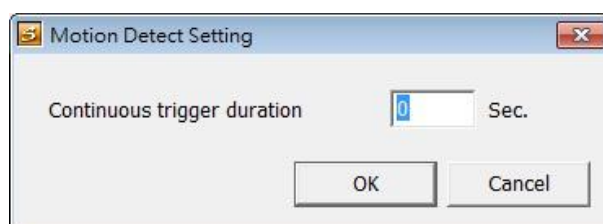
The 'Bandwidth Settings' dialog box has two radio buttons: 'By Channel' (selected) and 'All'. Under 'By Channel', there is a dropdown menu showing 'Camera 01' and a text input field with '64 KB/s'. Under 'All', there is a text input field labeled 'Total Limit' with '1024 KB/s'. At the bottom are 'OK' and 'Cancel' buttons.

4.1.4.5 Alarm Setting

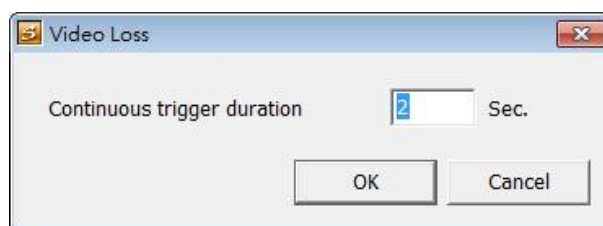
In the Alarm Setting dialog box, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **Update** to save the setting, **Exit** to exit without saving, and **Default** to revert back to original factory setting.



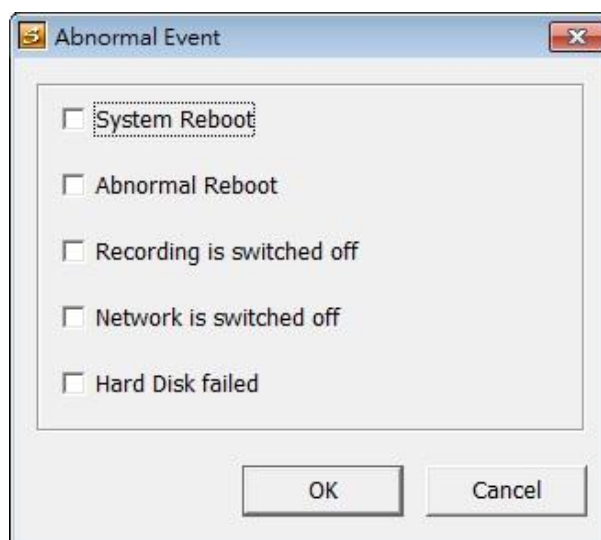
1. Click **Add** to insert and set a new alarm setting. Click the items in the **(9) Alarm Setting List** if you want to modify the alarm setting.
2. In **(1) No./Name/Description** enter alarm name and description. Alarm **No.** will be created by DVR system.
3. In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated the color of the block turns white.
4. In **(3) Conditions**, you can set “**Trigger if any**” to activate if it falls to one of the conditions or “**Trigger if all**” to activate if it falls to all conditions.
5. In **(4) Camera** section, select and click on the camera number (01 to 16) in **Motion Detected** and **Video Loss** to set the condition for the system to alarm.
 - **Continue trigger duration:** Set a time period that when sensor has been trigger and stay in the same status for that period, then the alarm will be sent out.
 - **Motion Detected:** Click on the camera number to the motion condition for the system to alarm. Click **Detail** to setup the system to send out the alarm when motion has been detected to last the time that user has entered in **Continuous trigger duration**.



- **Video Loss:** Click the camera number to set the alarm condition when video is lost. Click the **Detail** to setup the system to send out the alarm when video has been lost to last the time that user has entered in **Continuous trigger duration**.



6. In **(5) Sensor**, select and click on the sensor number to set the condition for the system to alarm. If the sensor normal status is high, set the sensor condition to low.
7. In **(6) Abnormal Event**, mark check box to enable and set the condition of the event for system to alarm.

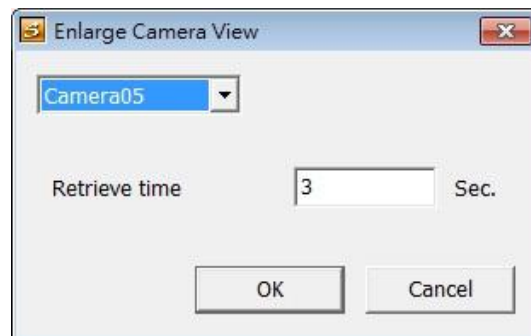


- **Reboot:** when the DVR system reboot without abnormal condition, the system will send out the alarm message.
 - **Abnormal Reboot:** when the DVR system reboot in irregular condition, the system will send out the alarm message.
 - **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
 - **Network is switched off:** when the network connection of DVR system is lost, the system will send out the alarm message.
 - **Hard Disk failed:** when the hard disk doesn't work normally, the system will send out the alarm message.
8. In **(7) Alarm Reset**, click the camera number to set the reset condition of alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor normal status is high, set the alarm reset condition to low.
 9. In **(8) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.

- Enlarge Camera View

Switch to only display video in Preview mode from where the alarm is activated.

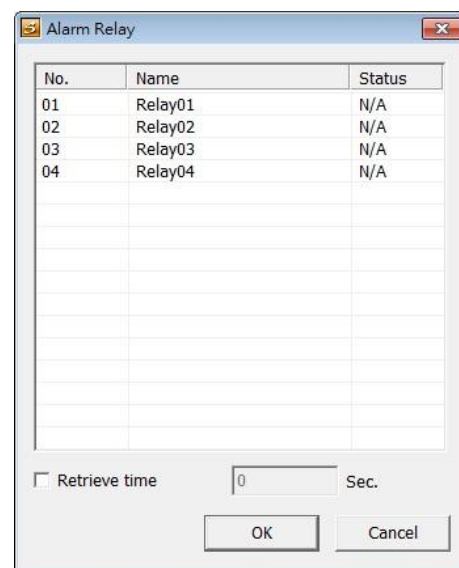
- Select the camera from drop down list to specify which camera video to be enlarged on screen when the alarm is triggered.
- Retrieve time:** set the waiting duration before system switching back to original Preview mode. If the retrieve time is un-mark, the alarm video will keep enlarging until user switch back to Preview mode manually. The retrieve time range is 0~ 600 seconds.



- Relay Output

Set to enable/disable the relay operation when the alarm is activated and to extend additional time in second before it stops the relay operation.

- Beside the Relay Output check box, click **Detail**.
- In the Alarm Relay dialog box, select from the available relay list and in the ON column, set to enable/disable the relay operation when the alarm is activated.
- In the Retrieve time check box, you may enable/disable to extend the relay operation time and set the duration in second.
- Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



- Send E-mail

Send an electronic text message. Beside the Send Email check box, click **Detail**.

In the E-mail Setting dialog box, click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

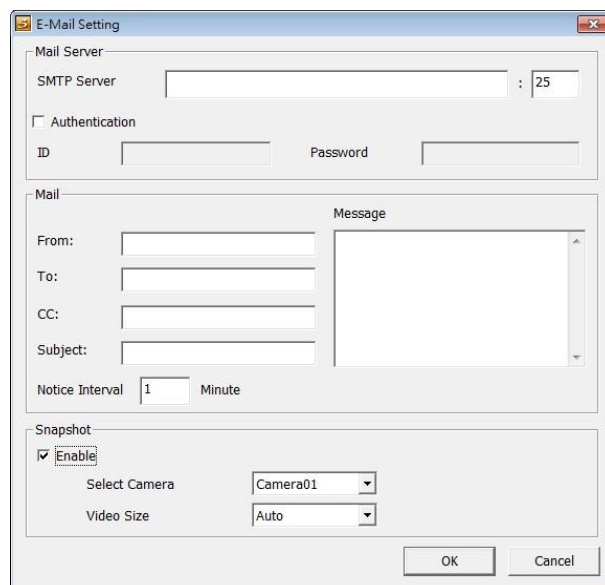
➤ Mail Server

Enter the **SMTP Server** and **port**. If your e-mail system requires user identification, enable **Authentication** check box and enter **ID** and **Password**.

➤ Mail

Fill the mailing information.

- ✓ **From:** Enter the sender e-mail address.
- ✓ **To and CC:** Enter the recipient email address and separate it with comma or a semicolon (;).
- ✓ **Subject:** Enter the message title.
- ✓ **Message:** Type the message.
- ✓ **Notice Interval:** Set the period of time before it sends another e-mail notice.



- Start Recording

Record the video from the selected camera.

Beside the Start Recording check box, click **Detail**.

1. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
2. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting.
3. In the **Start Record prior** text box, mark and set the number in second for the program to begin recording after the alarm has been trigger. The time range is 1~10 seconds.
4. In the **Stop Record after** text box, mark and set the number in second for the program to continue recording after the alarm has ended. The time range is 1~999 seconds. If user doesn't mark and set the time, the alarm recording will continue recording until alarm is reset.
5. Click **OK** to accept the new settings and **Cancel** to exit without saving.

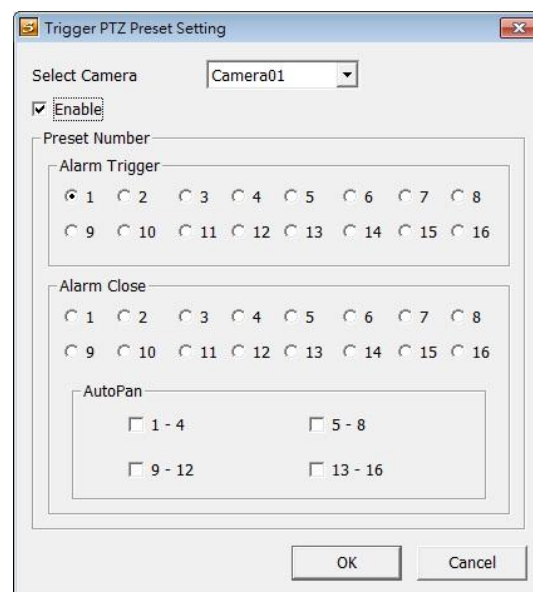


EH6108H⁺ only supports 8 channels.

- PTZ preset point

Position the PTZ camera based on the preset point setting.

Beside the PTZ preset point check box, click **Detail**. In the Trigger PTZ Preset Setting dialog box, select the PTZ camera number then select the **Enable** check box. Select the position of the PTZ camera when the alarm is activated and ended. For the PTZ camera end point, user can also select on preset position or **Auto Pan** between preset position groups.



- **Send to CMS (Central Management System)**

Enable/disable the selected camera to send video to CMS when the alarm is activated. Beside the Send to CMS check box, click **Detail**. In the CMS Setting, select the camera to enable/disable sending the video to CMS. Enable **All** to select all cameras. Then, click **OK** to accept the new settings and **Cancel** to exit without saving.



EH6108H⁺ only supports 8 channels.

4.1.4.6 User Setting

Only administrator level authority can access User Setting.

In the User Setting dialog box, click **Add** to insert a new user, **Delete** to remove the selected user, **Edit** to modify the user control right, **OK** to exit and accept the setting, and **Cancel** to exit without saving the setting.

[illegible]

To Add a User Account:

3. In the User Setting dialog box, click **Add**.
4. Select and fill in the following information.

The screenshot shows the 'User Setting' dialog box with the following configuration details:

- (1) Authorization Level:** The 'User' radio button is selected.
- (2) Control Right:** All checkboxes are checked, including System Setting, Alarm Setting, Camera, Playback, Record, Power OFF, Network, Reboot, Scheduler, PTZ Control, Backup, E-Map, Sensor, and Delete Storage File.
- (3) PCViewer:** 'Remote Console', 'Remote Record', 'Remote LogViewer', and 'IP Camera' are checked. 'Remote Access time' is set to 'Infinite'.
- (4) Visible camera:** 'All' is checked, and all 16 individual camera checkboxes (1-16) are checked.
- (5) Time Span:** 'Enable' is checked. 'Activation Date' and 'Expiry Date' are both set to '10/ 9/2012'.
- (6) User Information:** The 'Name' field contains '1', 'Description' contains 'User', and both 'Password' and 'Confirm Password' fields contain '*****'.

(1) Authorization level

Select the authorization level of the user account – User or Administrator.

(2) Control Right

Enable the items that would allow the user to access.

(3) PCViewer

Enable/disable PCViewer control right that allow the user to operate from a remote location using internet explorer.

- **Remote Console**

Allow the user to remote modify DVR system setting.

- **Remote Record**

Allow the user to execute recording.

- **Remote LogViewer**

Allow the user to view the event log from remote site.

- **IP Camera**

Enable/disable user to add new IP camera when using the PCViewer.

- **Remote Access Time**

Enable **Infinite** check box to access DVR without time limit. If you want to set time limit, enter the number of minutes in **Minute** text box.

(4) Visible Camera

Select the camera number that would allow the user to access or view. To select all the cameras, enable the **ALL** check box.

(5) Time Span

Set the user account a specific time period that user only can use given account to login DVR program in that specific period. Mark **Enable** check box and select the **Activation Date** and **Expiry Date**.

(6) Name

Enter the user name.

Description

Enter the user description.

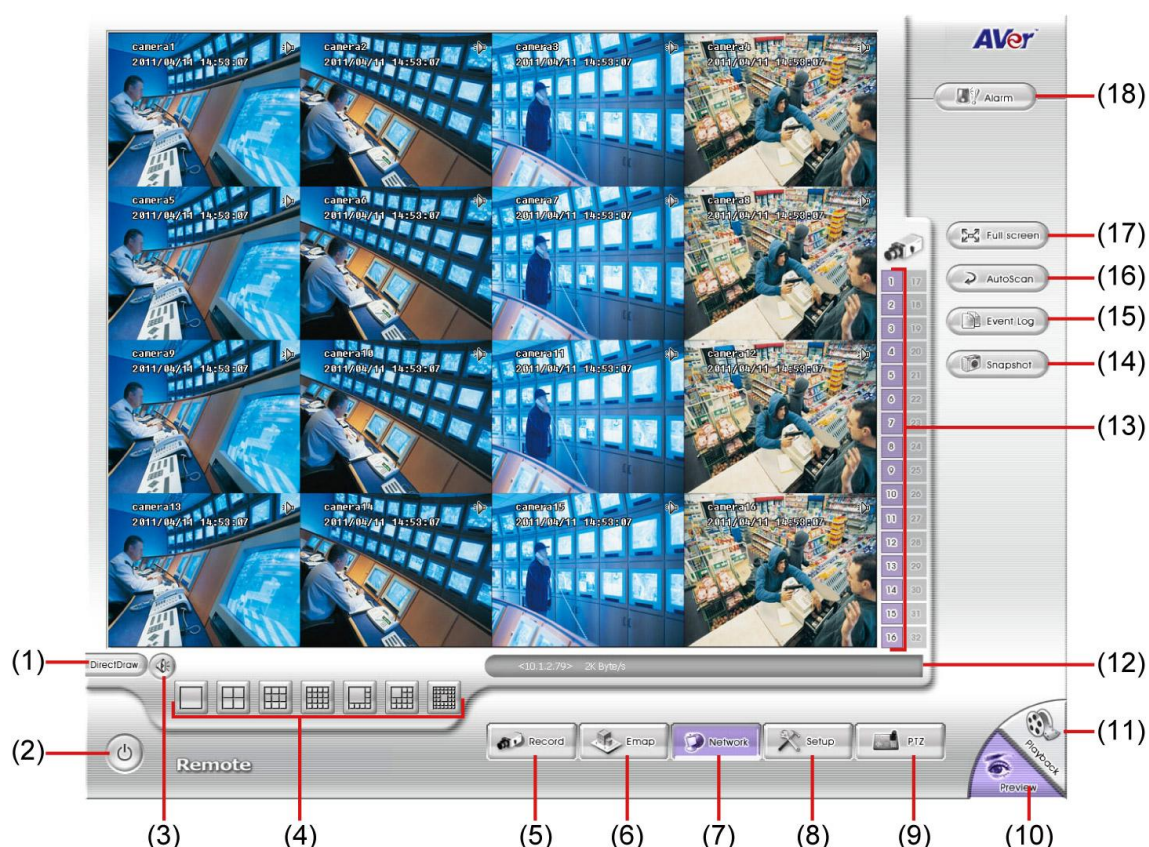
Password

Enter the user password.

Confirm Password

Enter the same user password for confirmation.

4.2 Familiarizing the Buttons in Remote Console

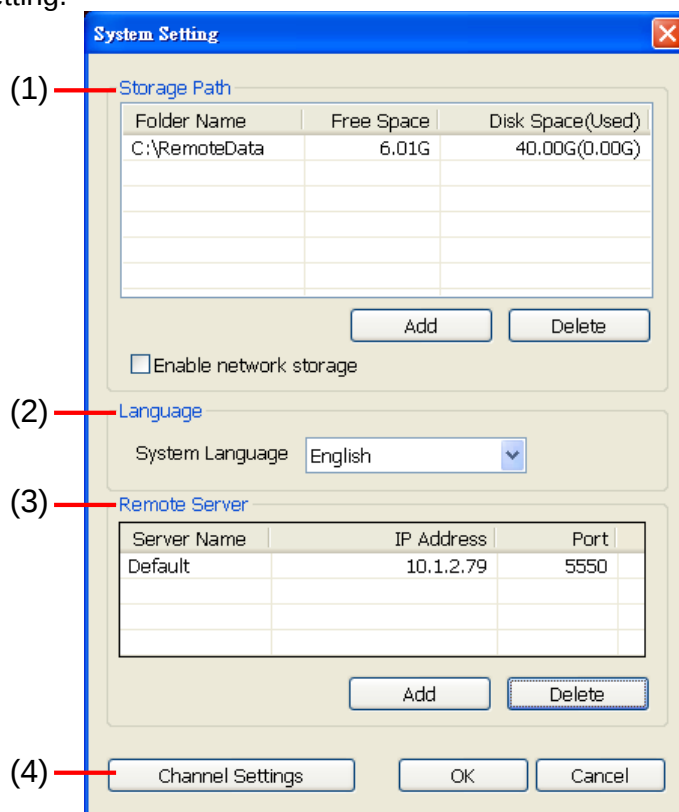


Name	Function
(1) DirectDraw	Enhance the video quality.
(2) Exit	Direct Draw function supports for certain VGA card. For more information, please contact your VGA card vendor.
	Exit: Close the Remote Console.
	Minimize: Minimize the application on task bar.
(3) Audio button	Cancel: To go back to the application.
	Enable/disable the sound.
(4) Split Screen Mode	Select from 7 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen. If there are only 8 cameras, you won't be able to switch to 13, 16, and 32 split screen mode.
(5) Record	Start/stop video recording.
(6) Emap	To view the Emap of remote DVR.
(7) Network	Enable/disable remote system access. This feature allows you to access DVR server from a remote location via internet connection.
(8) Setup	Configure the Remote Console setting. (see also Chapter 4.2.1)
(9) PTZ	Access PTZ control panel. (see Chapter 4.2.2)
(10) Preview	Switch to Preview/Playback mode. This allows you to view live camera display.
(11) Playback	Switch to Playback mode. This allows you to view the recorded video file. (see also Chapter 4.3)
(12) Status Bar	Display the current date, time and hard disk free space.
(13) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.

Name	Function
(14) Event Log	Display the Event logs, Operation logs, System logs, and Network logs.
(15) Auto Scan	Start/Stop video screen cycle switch.
(16) Snapshot	Capture and save the screen shot either in *.jpg or *.bmp format.
(17) Full screen	Use the entire area of the screen to only display the video. To return, Right-click the mouse or press ESC on the keyboard.
(18) Alarm	Alert and display warning info. Admin and user account authority level both can reset the alarm. The password authentication is required.

4.2.1 To Setup Remote Console Setting

Click **Setup** button to call out the **System Setting** windows. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



(1) Storage Path

Set the directory on where to save the data. When there is not enough free space to record one hour data, the system automatically replaces the oldest data. In case you have more than one storage path, the system automatically saves the data to the next storage path. By default the data is stored in C:\RemoteData, to insert another storage path, click **Add**. To remove the selected path, click **Delete**.

- Enable network storage

Select the Enable network storage check box to send the recorded video in network-attached storage.



To add network storage, the Internet storage drive/folder must be mapped as Network Driver in DVR server. To know how to assign or connect to a network drive, please refer to your Windows help file and search "Map Network drive".

(2) Language

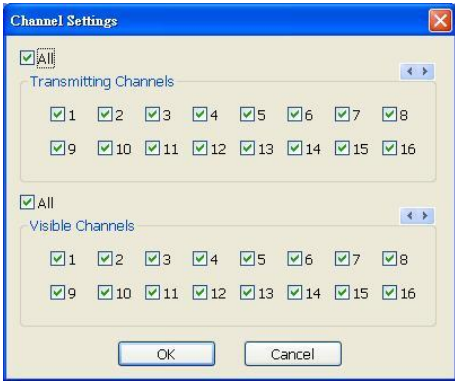
Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.

(3) Remote Server

Enter the DVR Server IP and Server Port number.

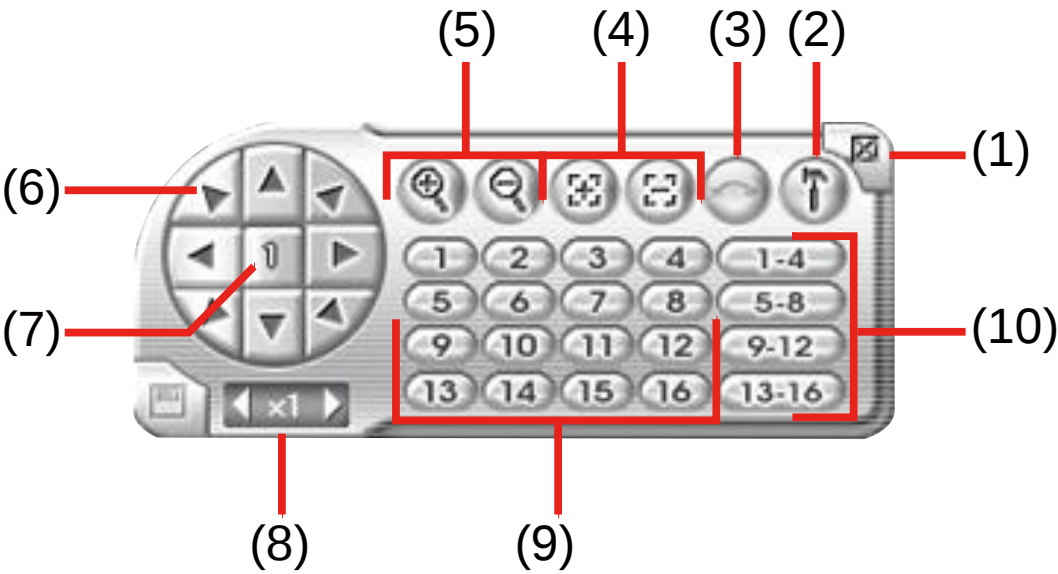
(4) Channel Settings

The numbers from 1 to 16 represent the camera ID. In Transmitting Channels section, enable the camera number to receive the camera signal from the server. In Visible Channels section, enable the camera number to view the camera signal on Remote Console screen. To select all the cameras, enable the **ALL** check box.



EH6108H⁺ only supports 8 channels.

4.2.2 Familiarizing the Buttons in PTZ Camera Controller



Name	Function
(1) Close	Exit PTZ camera controller.
(2) Setup	Select the PTZ camera to operate.
(3) AutoPan	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(4) Focus +/-	Adjust the focus manually to produce clear image.
(5) Zoom +/-	Zoom in and out the image.
(6) Direction buttons	Adjust and position the focal point of the PTZ camera. Only up, down, left and right direction buttons can be functional.
(7) Camera ID pane	Display the PTZ camera number that is being operated.
(8) Camera lens speed controller	Adjust the moving speed of the PTZ camera lens.
(9) Camera preset position number	Move the PTZ camera to the preset point.
(10) Group AutoPan	Select to automatically operate PTZ camera in group.

4.3 Using the Remote Playback

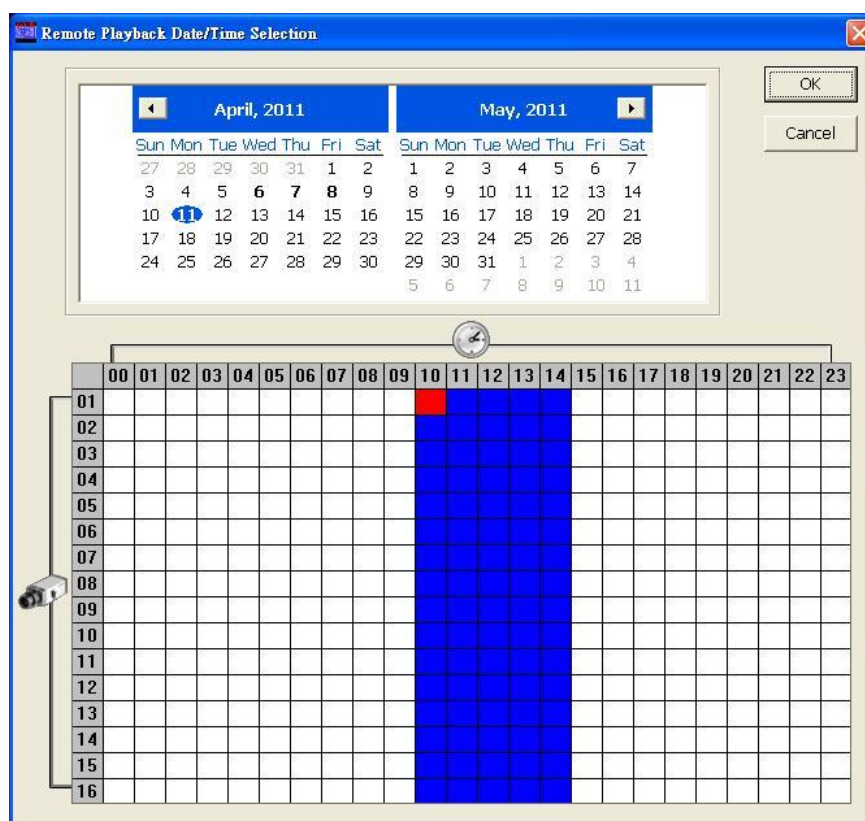
To use this feature, first you need to select the source of the file. In the Select Playback Mode dialog box, choose **Local Playback** to open the file that is recorded in the Remote Console, and **Remote Playback** to open the file that is recorded in the DVR server. When you choose Remote Playback, select **RealTime Playback** if your internet bandwidth is fast and big enough, otherwise choose **Download and Playback**.



Click **OK** to proceed and **Cancel** to void this operation.



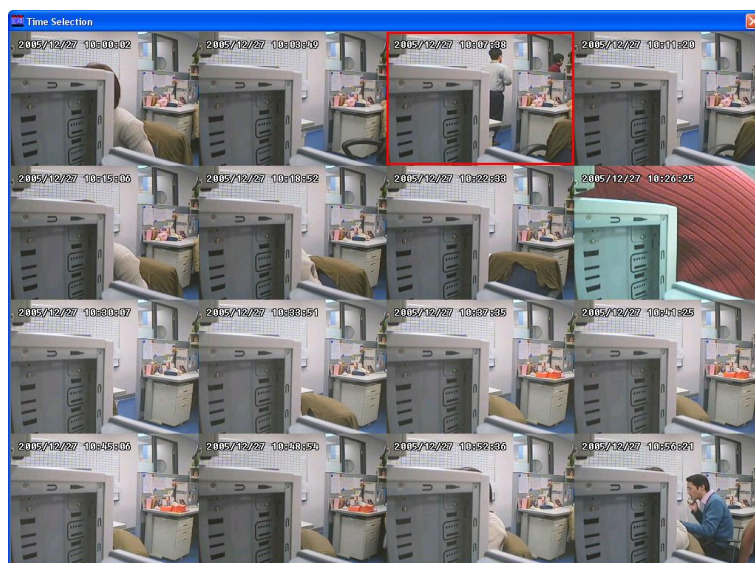
In the Video Playback Date/Time Selection, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 8 represent the camera number.



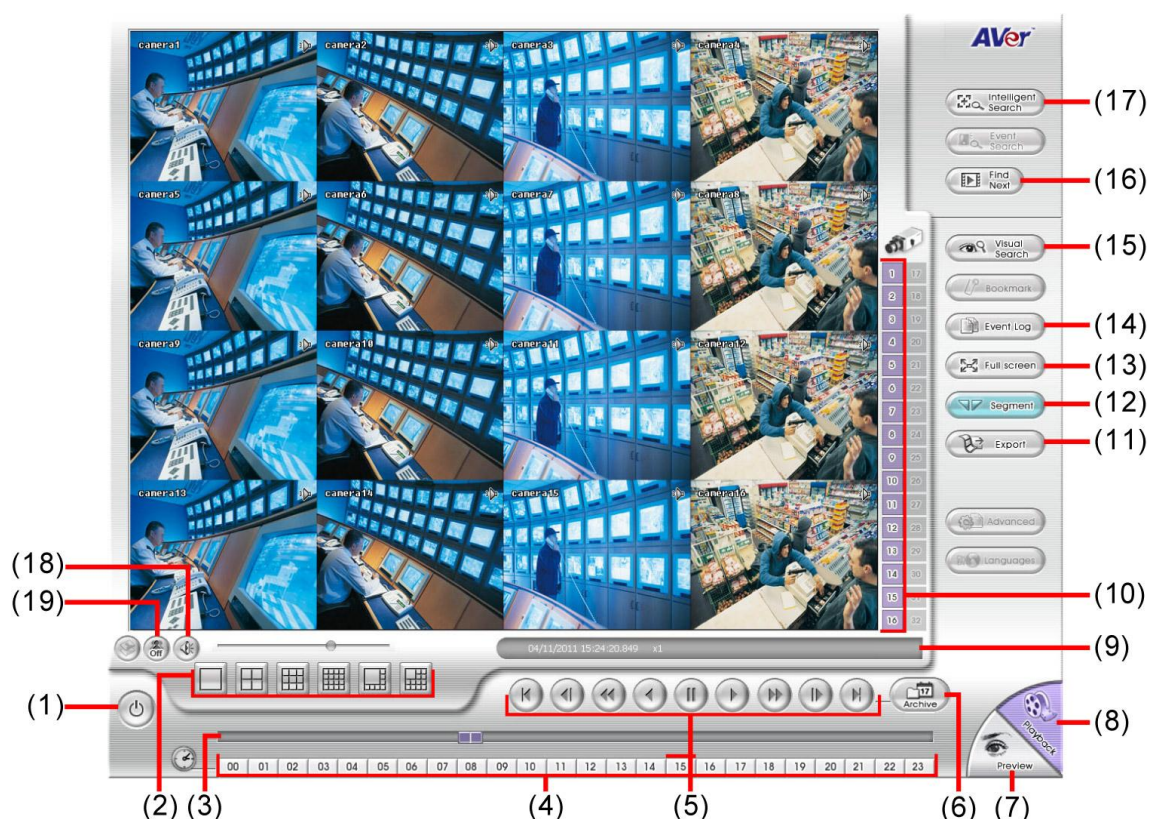
To Make a Selection:

1. Select the date in the calendar. Use ◀ and ▶ buttons to shift the calendar to the left or right.
2. In the table below, click on the blue block to select and open the recorded file. The blue block turns red when it is selected. The block that appears in white doesn't have data. You can only select one block when you choose Download and Playback.

3. Click **OK** to proceed and **Cancel** to void this operation.
4. If you select Download Playback and after making the selection, the system divides the selected hour into 16 video thumbnails. In the Time Selection screen, click on the video thumbnail you want to download (see also [Chapter 5.4.3](#)).



4.3.1 Familiarizing the Buttons in Local Playback



Name	Function
(1) Exit	To close the application
(2) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.
i	- If there are only 8 cameras, you won't be able to switch to 13 and 16 split screen mode.
	- To zoom in an area on the screen, Right click and Drag a square on the area you want to enlarge. To back to normal view, right click the channel screen again.
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
i	The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. If there is no recorded data within the hour, there will be no color bar on top of the hour button. While the red bar indicates that you are currently viewing the recorded video file.
(5) Playback Control Buttons	Begin: Move at the beginning of the recorded video file. Previous: Go back to the previous frame. Slower: Play the recorded video file at the speed of 1/2x, 1/4x, 1/8x, 1/16x, or 1/32x. Rewind: Wind back the video file. Pause: Briefly stop playing the recorded video file. Play: Play the recorded video file. Faster: Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x. Next: Go to the next frame. End: Go to the end of the video file.

Name	Function
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.
	The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. While the red colored column indicates on where to start playing the recorded video file. If there is no any video data, it will be no color bar on top of the date button.
(7) Preview	Switch to Preview mode.
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(9) Status bar	Display the record date, time, HDD capacity in preview mode and play speed in playback mode.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(11) Export	Export includes Snapshot, Print, and Output Video Clip function. ■ Snapshot: Capture and save the screen shot either in *.jpg format. ■ Print: Print the screen shot. ■ Output Video Clip: Save the segmented file in *.dvr format (see also Chapter 4.3.1.1).
(12) Segment	Keep a portion of the recorded video you want (see also Chapter 4.3.1.1).
(13) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard.
(14) Event Log	Show the record of activities that take place in the system
(15) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second(also see Chapter 4.3.1.2).
(16) Find Next	Search for the next event. You can use this when you are using Event Search function.
(17) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 4.3.1.3).
(18) Audio	Enable/disable volume
(19) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

4.3.1.1 To Cut and Save the Wanted Portion of the Recorded Video

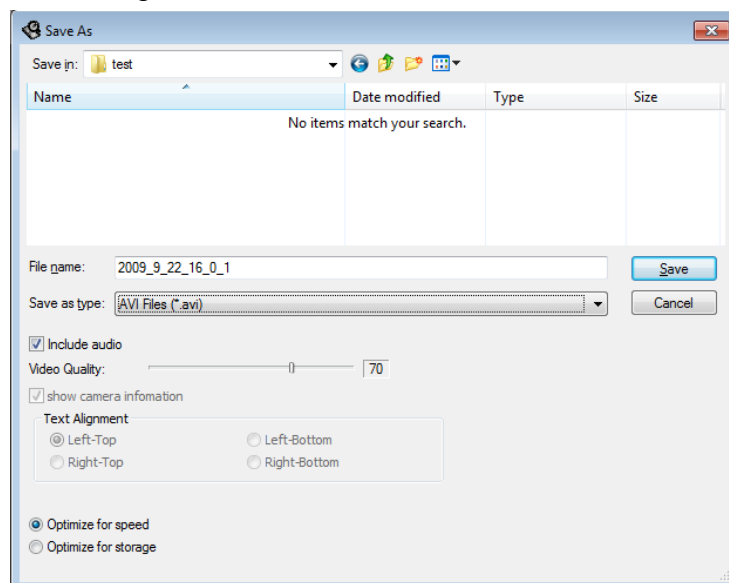
1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click Segment to set the begin mark.



2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click Segment to set the end mark. To cancel segmentation or set the segment marks from the start, click Segment button again.

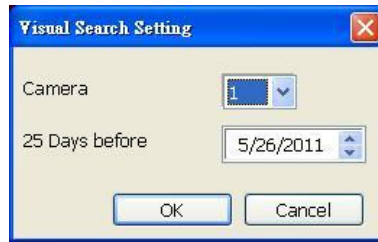


3. Click **Export > Output Video Clip** button to save the wanted clip.
4. In the Save As dialog box, locate on where you want to save the file.
5. Select the file type and select the camera information display position when playback. The camera information will be the information of server name that user has defined in Network Setting.
6. If the select the file type is *.avi, user can mark **included audio** to include audio in output video segment.
7. To adjust **Video Quality** if needed.
8. And, select the **Optimize for speed** (*.mpg /*.avi only) for faster file opened. For saving storage, select **Optimize for storage**.
9. Click **Save** to save the video segment.

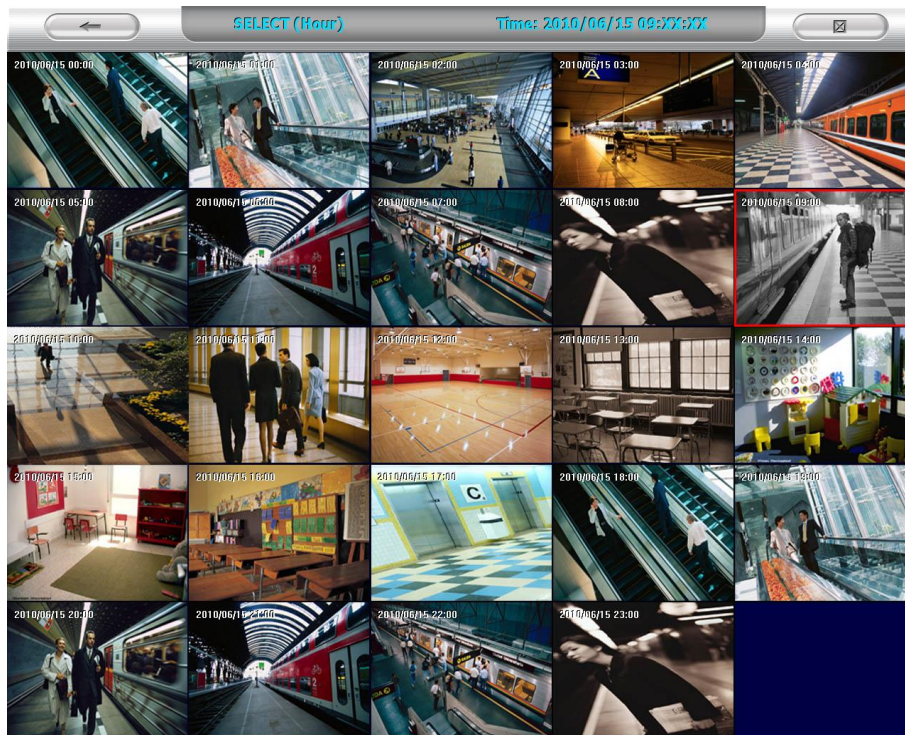


4.3.1.2 To Search Using the Visual Search

1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.



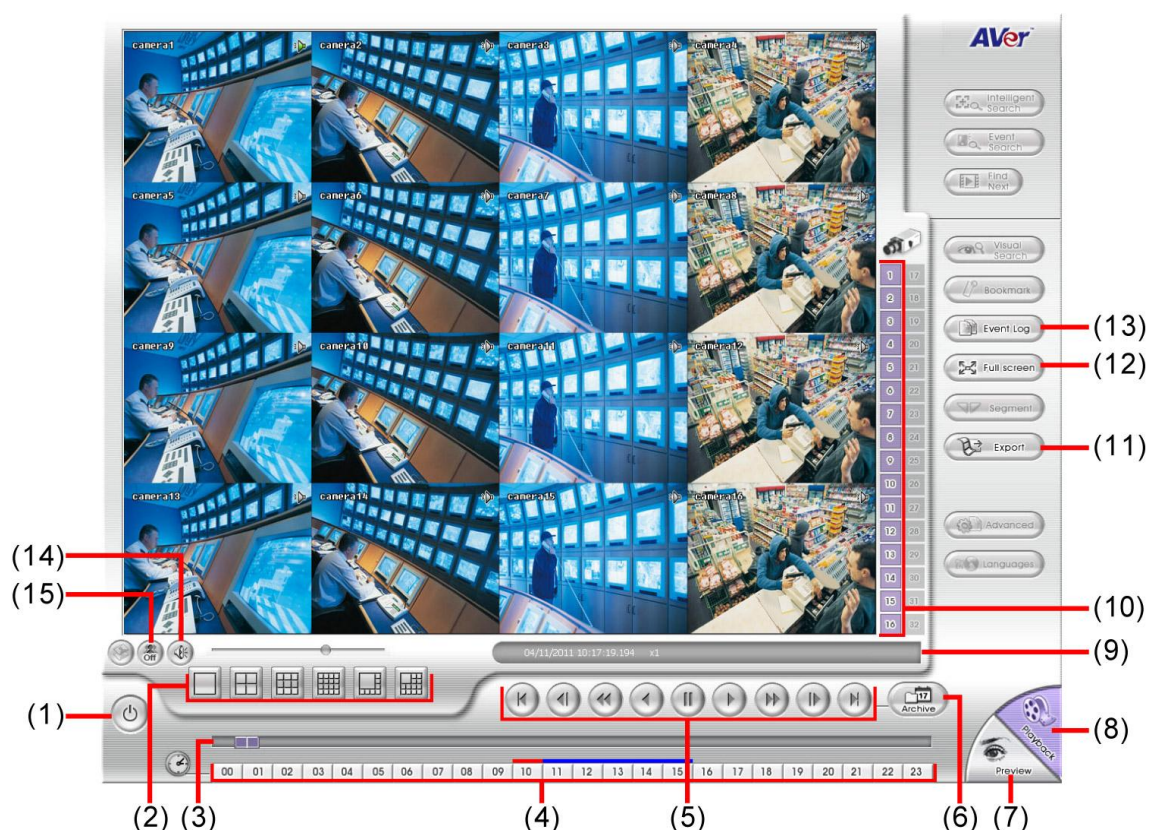
3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every 3Minutes of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click . To view from the selected frame and close event search, click .



4.3.1.3 To Search Using the Intelligent Search

1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The Intelligent Search text (red) would appear at the lower left corner of the screen.
3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click OK to start searching. The video search would stop at the frame that matches the condition. To keep on searching click . You may also set to search and list all the result. Just check the List box. In the Search Duration section set the Begin Time and End Time. Set the Searching Interval time that system won't list out the same events in a period of time that user has setup. Then, click OK to start searching.

4.3.2 Familiarizing the Buttons in RealTime Playback



Name	Function
(1) Exit	To close the application
(2) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of the entire camera, or one camera.
i	- If there are only 8 cameras, you won't be able to switch to 13 and 16 split screen mode. - To zoom in an area on the screen, Right click and Drag a square on the area you want to enlarge.
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
i	The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.
(5) Playback Control Buttons	Begin: Move at the beginning of the recorded video file. Previous: Go back to the previous frame. Slower: Play the recorded video file at the speed of 1/2x, 1/4x, 1/8x, 1/16x, or 1/32x. Rewind: Wind back the recorded video file. Pause: Briefly stop playing the recorded video file. Play: Play the recorded video file. Faster: Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x. Next: Go to the next frame. End: Go to the end of the recorded video file.
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.
i	The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.
(7) Preview	Switch to Preview/Advanced mode.

Name	Function
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(9) Status bar	Display the recorded date, time and play speed.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(11) Export	Snapshot: Capture and save the screen shot either in *.jpg or *.bmp format.
(12) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard. When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.
(13) Event Log	Show the record of activities that take place in the system
(14) Audio	Enable/disable volume
(15) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and select #2, if it captures lots of movement.

4.3.3 Familiarizing the Buttons in Download and Playback



Name	Function
(1) Exit	To close the application.
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Playback Control Buttons	Begin: Move at the beginning of the recorded video file. Previous: Go back to the previous frame. Slower: Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. Rewind: Wind back the recorded video file. Pause: Briefly stop playing the recorded video file. Play: Play the recorded video file. Faster: Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x. Next: Go to the next frame. End: Go to the end of the recorded video file.
(4) Status bar	Display the recorded date, time and play speed.
(5) Language	Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.
(6) Export	Export includes Snapshot, Print, and Output Video Clip function. ■ Snapshot: Capture and save the screen shot either in *.jpg or *.bmp format. ■ Print: Print the screen shot. ■ Output Video Clip: Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 4.3.1.1).
(7) Segment	Keep a portion of the recorded video you want (see also Chapter 4.3.1.1).
(8) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard. When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.
(9) Event Log	Show the record of activities that take place in the system

Name	Function
(10) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 4.3.1.2).
(11) Audio	Enable/disable volume
(12) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and select #2, if it captures lots of movement.

Chapter 5 Using the Web Tools

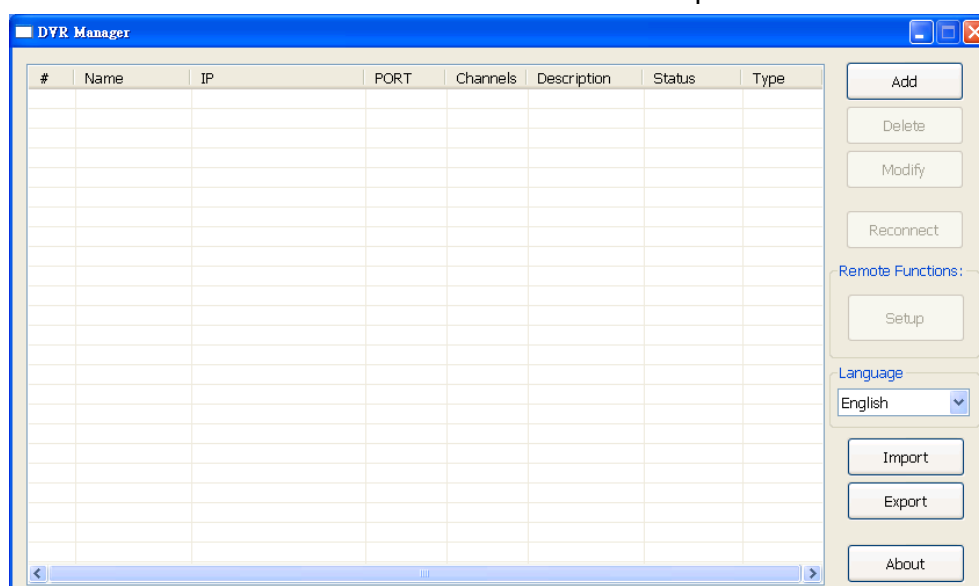
The bundled Web Tools includes Dispatch Server, Remote Backup, and Remote Setup program. To install Web Tools, place the CD into the CD-ROM drive then click **Install Web Tool**.

5.1 Remote Setup

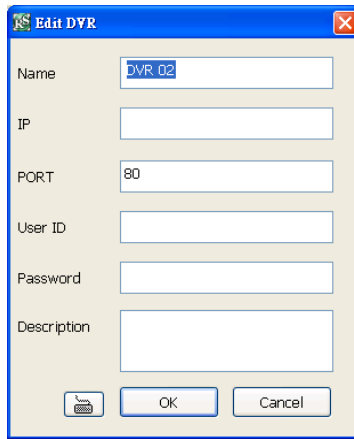
Remote Setup is a tool for configuring DVR server from remote site. To install Remote Setup application, insert the Installation CD into CD-ROM drive and click **Web Tools**. After installation, click  to start the Remote Setup application.

5.1.1 To Add DVR server

User need to add a DVR server and make connection in order to setup remote DVR server.



1. Click **Add**
2. In Edit DVR windows, fill in the following items:
 - **Name:** give a name for remote DVR server for easy managing
 - **IP:** fill in remote DVR server's IP address
 - **Port:** the port use to connect to remote DVR server. The port number is same the PCViewer port on the remote DVR server. The default is 80.
 - **User ID:** fill in the remote DVR server's login account
 - **Password:** fill in the remote DVR server's login password
 - **Description:** fill in a short description for the remote DVR server



3. Click **OK** to complete adding remote DVR server.
4. The added DVR server will be listed and auto connects to DVR server.
5. Once the connecting is success, user can start to configure DVR server by clicking **Setup** button.
6. When connection is lost, click **Reconnect** to connect again.
7. To modify or delete the added DVR server, select the DVR server from listing and click **Modify** to change the setting and click **Delete** to remove the DVR server.
8. User also can import the setting by clicking **Import** button. To save the setting to local hard disk, click **Export** button.

5.1.2 To Setup Remote System Setting

The setting here applies to Remote DVR only. Please refer to [Chapter 4.1.4](#).

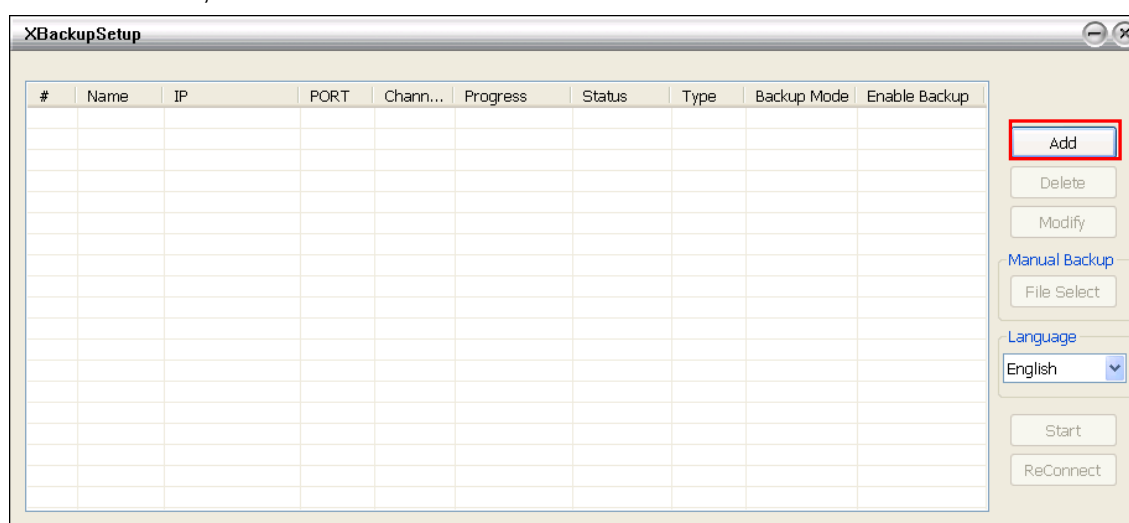
5.2 Remote Backup

Remote Backup is purely for backing up the *.dvr file from the DVR sever. You can select between Auto Backup and Manual Backup. Auto Backup continuously archives one hour of the recorded data at a time, starting from the specified date. As for Manual Backup, it only archives the recorded data of selected date.

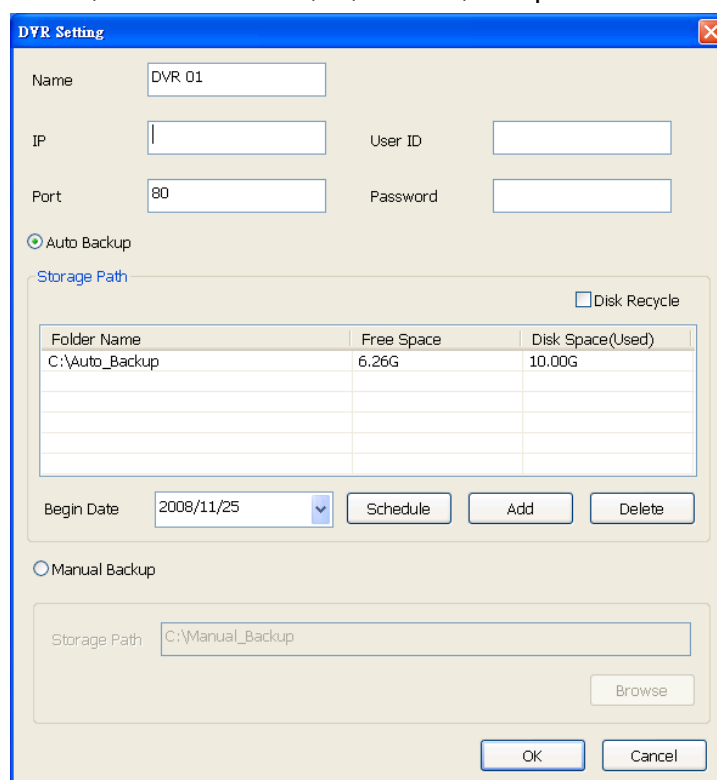
i To back up the data, you must have at least 2G hard disk space.

5.2.1 To back up the recorded data from the DVR server

1. Make sure you are connected to internet.
2. Click **Start >> Program >> DSS >> Tool >> Remote Backup**
3. To add the DVR server, click **Add**



4. In the Add New DVR windows, enter the Name, IP, user ID, and password.



5. Select the Backup mode:

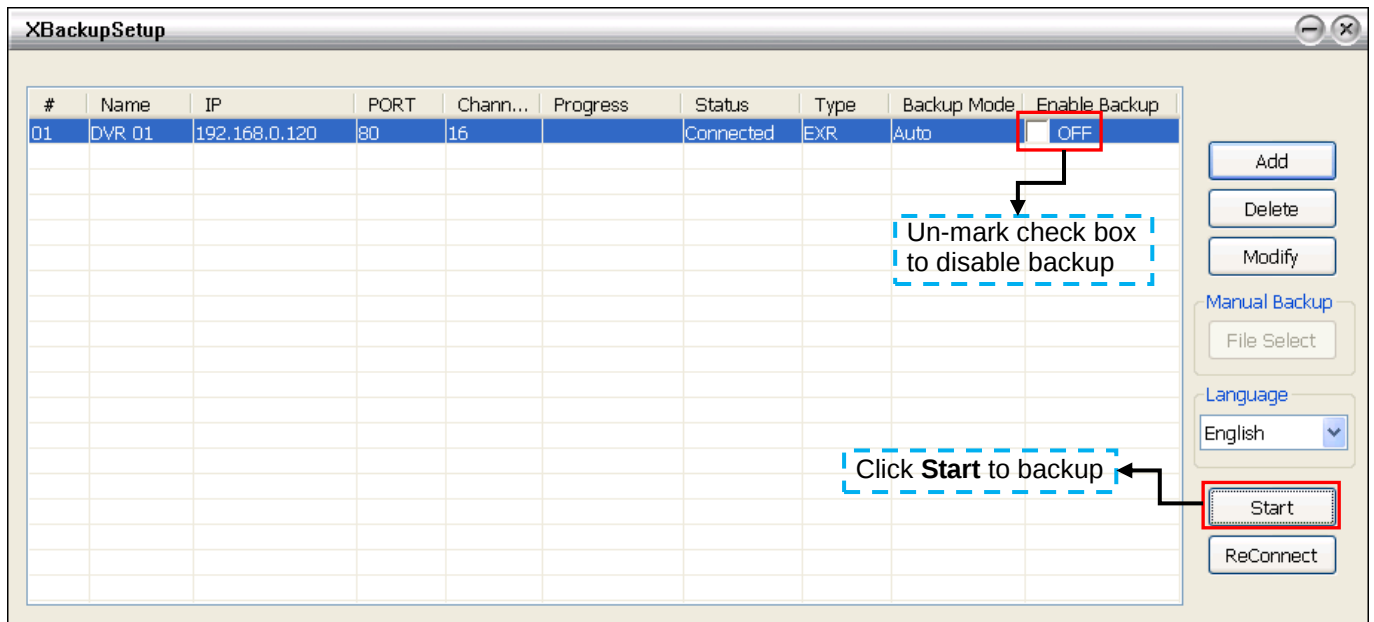
Auto Backup mode: the backup will automatically execute when the setup is completed

- In Begin Date drop down calendar, select the date from where to start
- Click **Add** to set the storage path.
- Click **Delete** to remove the selected storage path.
- Click **Schedule** to select/unselect the time you want to backup. The red block turns white when it is unselected.
- Enable/disable **Disk Recycle** check box, to automatically overwrite the oldest file when there is not enough free space to backup the file.

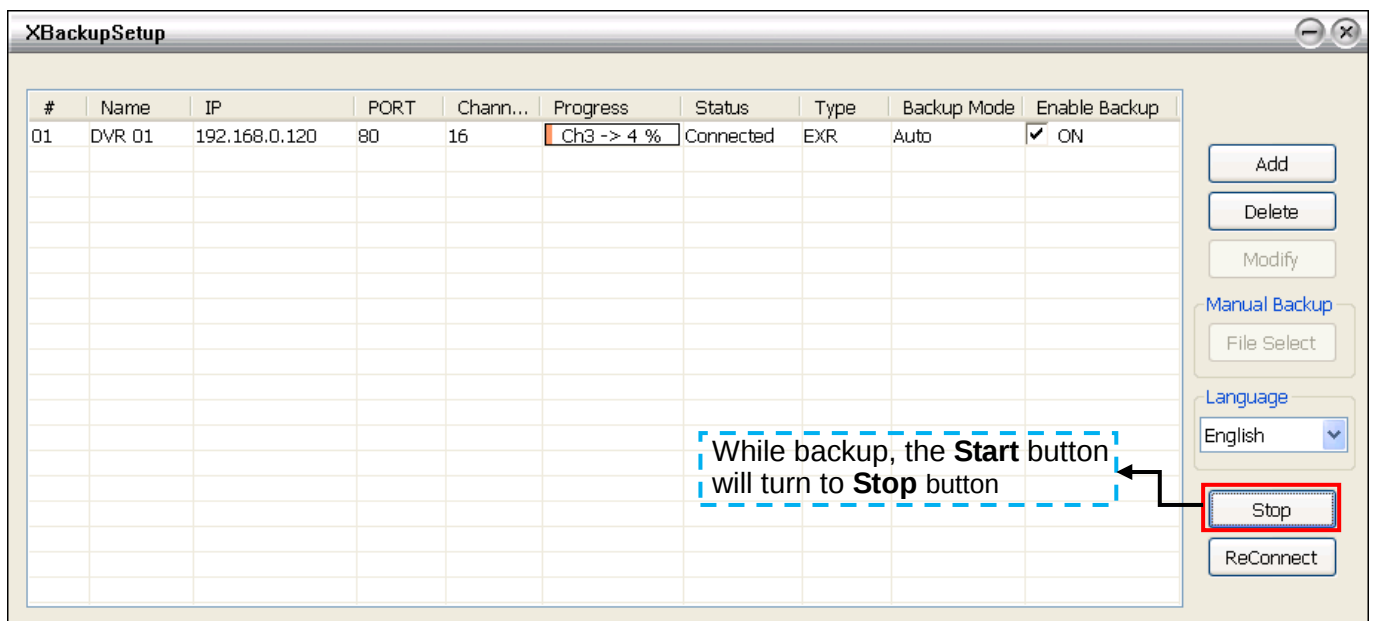
Manual Backup mode: the backup progress will start when user press the backup button

- Click **File Select** to choose the date, time and camera you want to back up.
- Click **Browse** to set the storage path.

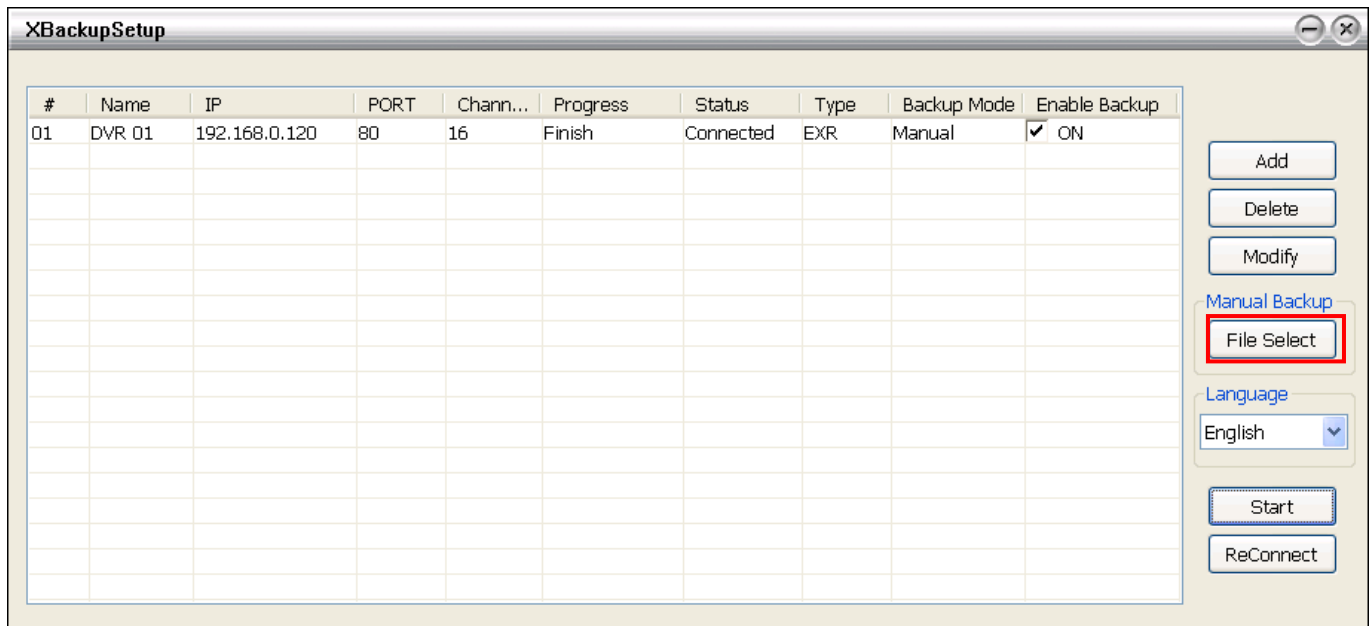
6. Click **OK** to complete the adding DVR server. The added DVR server will display in Remote Backup main windows.



7. Click **Start** to begin backup and click Stop to stop backup progress.



8. For manually backup, click **file select** button and select the DVR to backup.



Appendix A Registering Domain Name

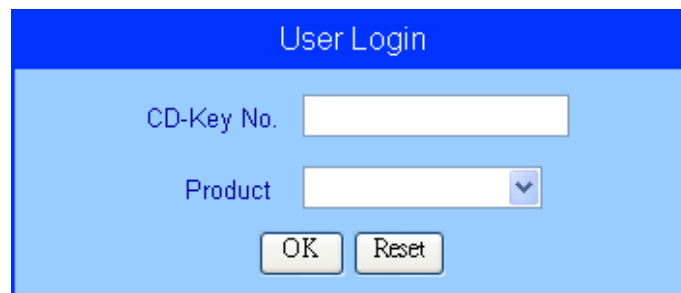
DDNS (Dynamic Domain Name Service) is a data query service mainly used on the Internet for translating domain names into Internet addresses. It allows remote clients to intelligently search dynamic servers without any previous enquiring for servers' Internet addresses.

In order to take advantage of this intelligent service, first register your domain name on the following Web site.

I. Register the Domain Name on <http://ddns.avers.com.tw>

1. User Login

Browse the website **ddns.avers.com.tw** with Microsoft IE or Netscape Navigator to access the following dialog.

A dialog box titled "User Login" with a blue header. It contains two input fields: "CD-Key No." and "Product". The "Product" field is a dropdown menu. Below the fields are two buttons: "OK" and "Reset".

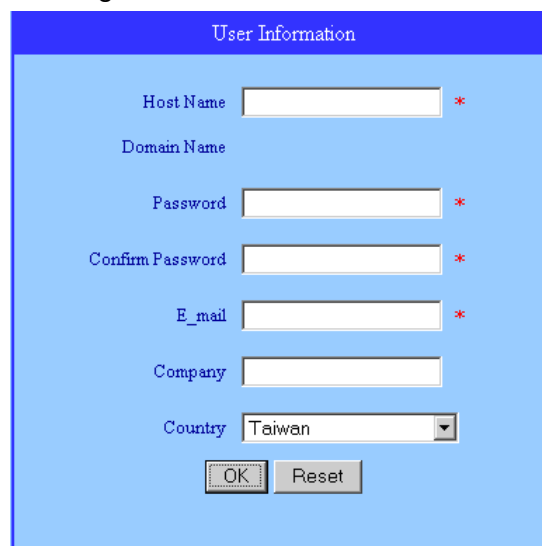
- First input the **MAC Address** in **CD-Key No.** column and select the product name. Then click **OK** to login or **Reset** to clear the previous input.



To find the MAC address of the DVR, click **Setup > Network** in preview mode UI. And then, click **Setting** of the Main Configuration and user should see the **MAC address** in IP Information section.

3. User Information

Please provide the following user information, **Host Name** (user can choose any name he/she likes except the one in conflict with other users), **Password**, **E-mail**, **Company**, and **Country**. And then, click **OK** to complete the domain name registration.

A dialog box titled "User Information" with a blue header. It contains several input fields: "Host Name", "Domain Name", "Password", "Confirm Password", "E_mail", "Company", and "Country". The "Country" field is a dropdown menu. Each of the first five fields has a red asterisk (*) to its right, indicating they are required. At the bottom are "OK" and "Reset" buttons.

- Note that Host Name and Domain Name (avers.com) are the replacement for Internet address while a remote client tends to search a dynamic server.
- Host Name column supports alphabet letters and number only. The maximum character is 15.
- The password maximum character is 12.

I. Register the Domain Name on <http://dyn.com/dns/>

1. Open the browser on your PC and enter the URL <http://dyn.com/dns/>.
2. Please refer to the DynDNS website instruction to apply a free domain name.

Appendix B Network Service Port

The following table shows the ports that DVR server uses for certain network service.

	Port#	Variable
Remote Console	5550	Y
PCViewer	80	Y
CM3000	80	Y
Firmware Update	5005	Y
2-way audio	9999	Y

WARRANTY NOTICE

LIMITED WARRANTY

AVer Information Inc. warrants this product to be free of defects resulting from faulty manufacture or components under the following terms:

WARRANTY LENGTH

Labor is warranted for (3) three year from the date of purchase

Parts are warranted for (2) two year from the date of purchase

Replacement products will be warranted for the remainder of the one year warranty period or (30) thirty days, whichever is longer

WHO IS PROTECTED

This warranty is enforceable only by the first consumer purchaser

WHAT IS AND IS NOT COVERED

Except as specified below, this warranty covers all defects resulting from faulty manufacturing of this product. The following are not covered by the warranty.

1. Any product on which the serial number has been defaced, modified, or removed
2. Damage, deterioration, or malfunction resulting from:
 - Accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification, or failure to follow instructions included with the product.
 - Misapplication of service by someone other than the manufacturer's representative
 - Any shipment damages (Claims must be made with carrier)
 - Any other cause which does not relate to a product defect
3. Cartons, cases, batteries, cabinets, tapes, or accessories used with product
4. AVer Information Inc. does not warrant that this product will meet your requirements; it is your responsibility to determine the suitability of this product for your purpose

WHAT WE WILL AND WILL NOT PAY FOR

We will pay labor and material expenses for covered items. However, we will not pay for the following:

1. Removal or installation charges
2. Shipping charges
3. Any incidental charges

EXCLUSION OF DAMAGES

THE MANUFACTURER'S SOLE OBLIGATION AND LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT AT OUR OPTION. THE MANUFACTURER SHALL NOT, IN ANY EVENT, BE LIABLE TO THE PURCHASER OR ANY THIRD PARTY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE (INCLUDING, BUT NOT LIMITED TO, DAMAGES RESULTING FROM INTERRUPTION OF SERVICE AND LOSS OF BUSINESS) OR LIABILITY IN TORT RELATING TO THIS PRODUCT OR RESULTING FROM ITS USE OR POSSESSION.

LIMITATIONS OF IMPLIED WARRANTIES

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CONTACT INFORMATION

Taiwan & International

No. 157, DA-An Rd., Tucheng Dist., New Taipei City, Taiwan

TEL: 886-2-2269-8535

Web Site: <http://surveillance.aver.com/>