

# HD IP VIDEO DECODER

## INSTRUCTION MANUAL



## Introduction

This model is a standalone 4-channel HD IP decoder that can display live video and remotely playback video from multiple NVR's and DVR's. This model can decode live video or recorded video clips of DVR's/NVR's via the TCP/IP network to form part of a video wall.

The virtual matrix feature stores the IP addresses of the cameras and video decoders in a database, making access and identification quick and easy. IP addresses can be automatically imported via the IP scan utility. HD IP Video Decoder has an IP scan facility, (WS Discovery) which locates all the cameras on the network and imports a preview thumbnail of each channel. This automated installation wizard speeds up commissioning.

HD IP Video Decoder can be controlled via multiple methods including; IR remote control, keyboard with PTZ joystick, touch screen monitor, or USB mouse. When connected to a touch screen monitor, Smartphone style features like 'pinch and zoom' can be used to navigate the system.

HD IP Video Decoder provides various export methods including USB flash disk and HTTP download playable via Backup Manager. Extensive support for iPhone, iPad, BlackBerry and Android allows for remote viewing of the connected cameras at high frame rates. Browser based remote live monitoring and video playback features are also supported.

### Features

- Standalone HD IP Video Decoder
- No PC required
- Touch screen supported
- Full HD 1920\*1080P HD output
- Remote playback for 16-channel/9-channel/4-channel DVR/NVR
- Remote control and keyboard supported
- HTTP browser based viewing including HD IP Video Decoder configuration, PTZ control, playback, and live monitoring
- IP scan utility
- Extensive support for iPhone, iPad, BlackBerry and Android devices
- CMX 3.6 software supported

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## Caution

- Do not drop or strike the equipment
- Do not install the equipment near naked flames or heat sources
- Do not expose this unit to rain, moisture, smoke or dusty environments
- Do not cover the opening of the cabinet with cloth or plastic or install this unit in a ventilated place. Allow 10cm between this unit and its surroundings
- Do not continue to operate the unit under abnormal conditions such as detection of smoke, strange smell or no display on screen whilst power is turned on
- Do not touch the power connection with wet hands
- Do not damage the power cord or leave it under pressure
- To avoid unnecessary magnetic interference, do not operate this unit near magnets, speaker systems, etc.
- All connection cables must be grounded properly

**CAUTION**  
**RISK OF EXPLOSION IF BATTERY IS REPLACED**  
**BY AN INCORRECT TYPE.**  
**DISPOSE OF USED BATTERIES ACCORDING**  
**TO THE INSTRUCTIONS**



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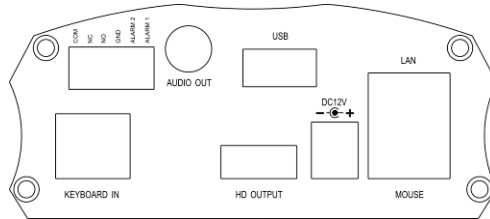
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# User Guide

## Chapter 1: Basic Operation

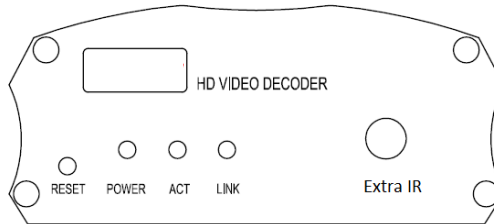
### 1.1 HD IP Video Decoder rear panel



**Note:** Do not connect any devices to 'Keyboard In' other than the keyboard as the connection contains 12VDC and may damage other devices.

#### HD IP Video Decoder LED Panel

The status of each LED is described in the table below:



LED	Description	Colour
RESET	Manufacturing default button	
POWER	Constant on	Green
ACT	Network ACT LED	Green (flashing)
LINK	Network LINK LED	Orange

#### Extra IR

To use IR remote control, first connect the IR receiver to the HD IP Video Decoder

#### RESET

##### Hardware Factory Default


















Use hardware to restore factory default settings, follow these steps:

1. Hold Load Default Button for 10 seconds, then release.
2. Green and Yellow Network LED blinks, On->Off->ON.
3. HD IP Video Decoder has completed the factory default settings, and then reboot.

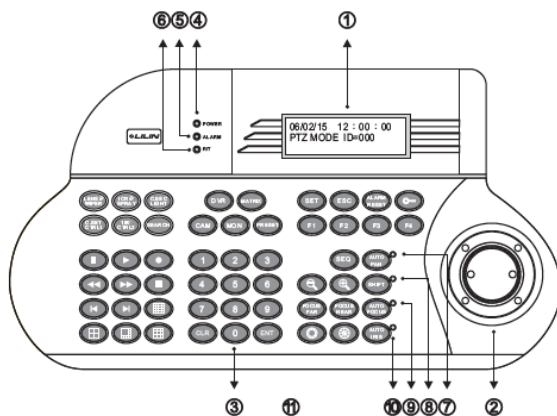
**Note:** Hardware Factory reset does affect IP address, video system, and language settings.

## 1.2 Remote control

The remote control is a small wireless handheld device with an array of buttons for adjusting settings. The buttons are separated in regions based on their features including operational keys, Pan, Tilt, and Zoom (PTZ) and numerical keys.

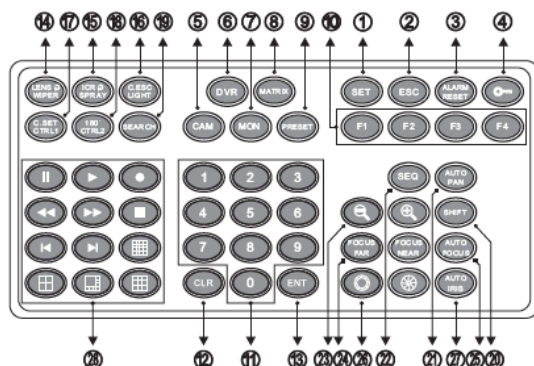
		<b>Video decoder remote control operational keys</b>	
	MENU	Setup menu	
	ESC	Escape/exit/stop	
	SHIFT	Split and full screen switch	
	ZOOM	Digital video zooming	
	REC	Record/stop recording	
	FREEZE	Live video freeze	
		Pause	
		Playback	
		Stop	
		Fast forward	
		Rewind	
		Next single channel	
		Previous single channel	
		4 split display	
		8 split display	
		9 split display	
		13 split display	
		16 split display	
	AUDIO	Audio/mute	
	BACKUP	Video backup	
	Video Decoder	Addressable video decoder control	
	LANGUAGE	Language selection	
	BACKSPACE	Delete character	
Auto Pan	Perform auto pan feature		Move up/tilt up
Zoom in	Zoom in		Move down/tilt down
Zoom out	Zoom out		Move left/pan left
Preset	Call preset		Move right/pan right
0 to 9	Numerical keys		Enter/set

## 1.3 Keyboard



### Keyboard controls

1. **LCD display** – display the keyboard system setup menu and operation information
2. **Joystick** – 3 axis (Pan/Tilt/Zoom) / 2 axis (Pan/Tilt)
3. **Keypad panel** – there are 54 keys which can control PTZ, matrix, DVR and telemetry receivers
4. **Power indicator**
5. **Alarm indicator**
6. **R/T indicator** – data communication indication
7. **Auto pan indicator**
8. **Shift indicator** – shift key status indication
9. **Auto focus indicator**
10. **Auto iris indicator**
11. **RJ-45 connector**







1. **Set** – enter setup menu mode
2. **ESC** – exit
3. **Alarm reset** – reset alarms and video loss alarms
4. **Keyboard lock** – press for 2 seconds to enter locking mode, press again to unlock the keyboard
5. **Cam** – select a particular camera
6. **DVR** – select a DVR
7. **Mon** – select a monitor
8. **Matrix** – press shift + matrix to switch to matrix control mode
9. **Present** – recall and store preset options
10. **Function keys**
11. **Numerical keys** – 0-9 for entering monitor, DVR, camera number
12. **CLR** – clear to setting data
13. **ENT** – enter or confirm data programming
14. **Wiper/lens**
15. **Spray**
16. **Light/C.ESC**
17. **CTRL 1 / C.SET**
18. **CTRL 2 / 180**
19. **Search**
20. **Shift**
21. **Auto pan**
22. **SEQ**
23. **Zoom in / zoom out**
24. **Focus far / focus near**
25. **Auto focus**
26. **Iris open / iris close**
27. **Auto iris**
28. **DVR control keys**

#### 1.4 Touch screen



Pinch Zoom Out	Swipe
	

##### Pinch and zoom:

Pinch the area on the touch screen where you want to zoom. To zoom in move your fingers outwards, and to zoom out move your fingers inwards

**Scroll screen:** Swipe the screen left and right to navigate through the menus

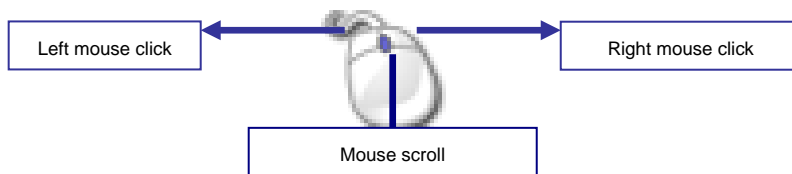
**Single tap:** Tap icons to select

**Double tap:** Double tap in camera view to return to previous menu

#### 1.5 Mouse operations

The HD IP Video Decoder has a USB mouse interface

General mouse operations can be used to navigate the device



**Note:** The HD IP Video Decoder Touch can be controlled via multiple methods; a) keyboard, b) IR remote control, c) touch screen monitor or d) USB mouse. For the purpose of this manual, USB mouse and touch screen will be referred to as one operation where applicable, “Touch screen monitor/mouse” hereinafter. For specific operations, “Touch screen” or “Mouse” will be referred to separately.

## 1.6 Menu symbols

### Home short cut keys:



Menu



Pause



Alarm



Matrix mode

### Additional menu keys:



– Return to previous screen



– Return to live mode

### Main menu keys:



PTZ



Screen view



Shut down



Alarm manager



Live display



Configuration menu



Event

## Chapter 2: Camera selection

### a. Via remote control

To select multiple screen views press



To select a single full screen view, enter the numerical value of the camera, e.g. for camera 3, press '03'.

### b. Via keyboard

To select multiple screen views, press



To select a single full screen view, enter the numerical value followed by the cam button,

e.g.  + 

### c. Via touch screen monitor / mouse

To select multiple screen views, press



Choose your required view by selecting



or



or



or



or



or



Select



To revert back to multi screen view, click anywhere on the image screen

**Note:** When the camera title is yellow, you have control over that camera.

## Chapter 3: Digital zoom

The HD IP Video Decoder provides 64x digital zoom for live monitoring and video playback modes. To digitally zoom, follow the steps below:

### a. Via remote control

Select desired channel

To zoom in and out, press 'zoom' button to activate

Use directional keys to move around the screen

To return to live view, press



depending on required view

### b. Via keyboard

Select desired channel

To zoom in and out, press Enter button to activate

Use joystick (left, right, up and down) to pan and tilt around the image

Twist the joystick to zoom around the image

To return to live view, press



depending on required view

### **c. Via touch screen monitor**

Select desired channel

To zoom in and out, use pinch and zoom technique

Swipe touch screen monitor to move around the screen

To return to live view, tap once anywhere on the image

### **d. Via mouse**

Select desired channel

To zoom in and out use mouse wheel

To move around the screen press right or left mouse button, drag and release

To return to live view click once anywhere on the image

## **Chapter 4: Freeze**

The HD IP Video Decoder can freeze screen images in live and playback modes. Whilst frozen the HD IP Video Decoder is still recording.

### **a. Via remote control**

Press 'pause' on the remote control

Once paused, the pause icon at the top left hand side of the screen will be highlighted in blue

To return to live mode press 'pause' again

### **b. Via keyboard**

Press the pause button on the keyboard

Once paused, the pause icon at the top left hand side of the screen will be highlighted in blue

To return to live mode press pause again

### **c. Via touch screen monitor / mouse**

Press the pause icon at the top left hand side of the screen

Once paused, the pause icon will be highlighted in blue

To return to live mode, press pause icon again

## Chapter 5: PTZ

If the camera is a Pan, Tilt and Zoom (PTZ) camera, you can control it via the following methods:

### a. Via remote control

Select required channel

Use direction arrows     to pan and tilt around the image

Use  and  keys to zoom around the image

To send a dome to a preset position, press 'preset', followed by the number required. For example, for preset 3, press 'preset' followed by '003'.

Press 'auto' to start auto pan tour

To deactivate the tour, press 'auto' again

### b. Via keyboard

Select required channel

Use joystick (left, right, up and down) to pan and tilt around the image

Twist the joystick to zoom around the image

To send dome to a preset position, press numerical key followed by 'preset' For example, '5' followed by 'preset'.

Press 'auto pan' to start auto pan tour

To deactivate the tour, press 'auto pan' again

### c. Via touch screen monitor/ mouse

Select required channel



Select menu button, press PTZ icon

Use the below controls to navigate the PTZ. The red joystick can be dragged to navigate the image



Press 'ESC' to return to menu

## Chapter 6: Audio

### a. Via remote control

To enable audio, select the required channel

Press 'audio' on the remote control to enable live audio

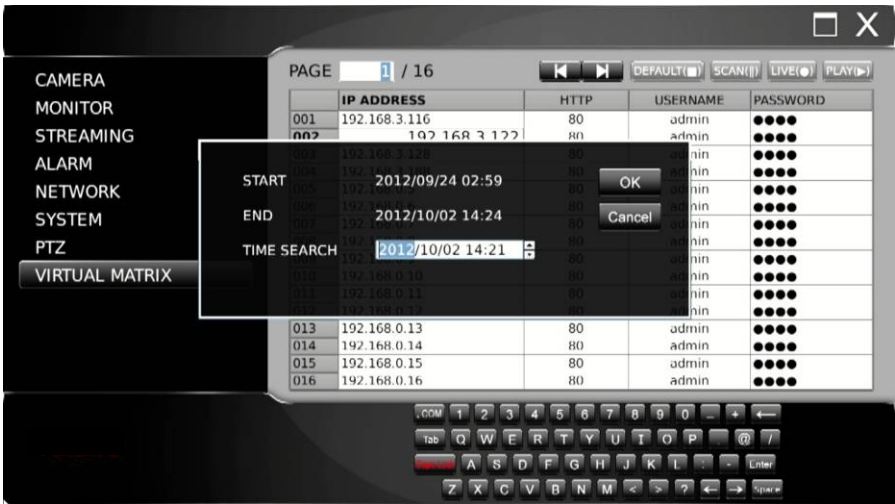
Press 'audio' on remote control again to disable live audio

*For all other methods, mute volume to disable audio*

**Note:** LILIN's DVR 3 & 5 series, NVR Touch series, and IP cameras 2MP and 3MP with audio models are supported.  
DVR/NVR playback is also supported.


## Chapter 7: Playback

### 7.1 Accessing playback



### a. Via remote control

To access playback press stop  to enter the virtual matrix menu

In the virtual matrix menu use   arrows to select the DVR/NVR from the table

Select play  to begin playback

**b. Via keyboard**

To access virtual matrix press stop



In the virtual matrix menu use the joystick to select the DVR/NVR from the table

To access playback press 'play'

**c. Via touch screen monitor / mouse**

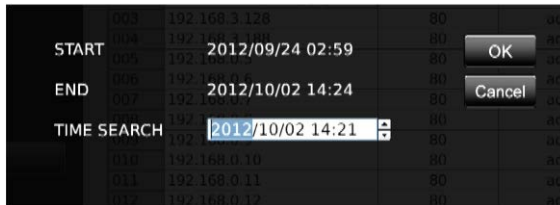
To access virtual matrix press the virtual matrix icon





In the virtual matrix menu select the DVR/NVR from the table and press





**7.2 Select time and date for playback**



**a. Via remote control**

Use   to navigate time frame (minute, hour, month, year)

Use   to select date and time

To start playback, press 'enter'

**b. Via keyboard**

Use joystick directions up and down to navigate time frame (minute, hour, month, year)

To start playback press enter

**c. Via touch screen monitor**

Navigate time frame by pressing the desired period, select time using the up and down buttons

**d. Via mouse**

Navigate time frame via pressing desired period

or

Use mouse to enter time and date in time search bar using the scroll wheel or up and down arrows on screen

To start playback, press OK icon

### 7.3 Playback controls



Step rewind



Rewind



Play



Fast forward



Step fast forward



Pause



Stop



USB backup



Audio



Full screen view



Quad view



8-screen view



9-screen view



13-screen view



16-screen view

#### a. Via remote control



Use remote keypad to play, stop or pause



Use to rewind



Use to fast forward. Press once for 2x and subsequent press to increase speed

For step rewind/ forward, press pause then use your controller keys   to move frames

To select individual cameras use



For grid screen view, follow camera selection process

To turn audio on or off, press the 'audio' key

To activate WYSIWYG (What You See Is What You Get) backup, press 'backup'

The USB icon will light to show backup has commenced

To stop recording, press 'backup' again

To exit playback, press stop or escape



#### b. Via keyboard

Use keyboard keys to play, stop, or pause



Use to rewind. Use  to fast forward



Press once for 2x and subsequent press to increase speed

For step rewind/ step fast-forward press 'pause' then use your controller keys   to move frames





### c. Via touch screen monitor / mouse

Use on screen keys to play, stop or pause

Use  to rewind. Use  to fast forward

Press once for 2x and subsequent press to increase speed

For step rewind/step fast-forward, use keys   to move frames

To exit playback press stop or escape

To activate WYSIWYG backup, insert USB and press 'backup'. The USB icon will light to show backup has commenced. To stop recording, press 'backup' again.

**Note:** For all methods, with WYSIWYG backup, all channels will be exported regardless of on screen camera selection. Once backup has been activated, playback will slow down. If fast-forward is selected, when playing back the file, the speed will be normal however the frame rate will be reduced.

## Chapter 8: Alarm Management

Alarm events:

- Motion – created by movement
- Sensor – created by hardwired normally open / normally closed alarm input at the back of the unit

**Note:** See installation guide for information on how to set up alarms.

### a. Via remote control

To select alarm indicator press 'menu' and use left and right direction keys until correct icon is reached

Press 'enter' to select

To scroll through alarm events use up and down direction keys

Choose alarm event and press enter

Use up and down direction keys to select recorded event

Use right and left direction keys to select action

### b. Via keyboard

To select alarm indicator, press 'search'


To scroll through alarm events use up and down direction on joystick

Choose alarm event and press 'enter'

Use up and down direction on joystick to select recorded event

Use right and left direction on joystick to select action

### c. Via touch screen monitor


To select alarm indicator touch alarm key  at the top left hand side of the screen  
Use touch screen interface to select alarm events  
Use up and down scroll bar to select recorded event  
Press USB, email, playback to select action

## Chapter 9: Backup / Export

In playback mode, press  to save recording to USB flash disk.

MULTI-CHANNEL file format will be exported into the USB flash disk.


### a. Via remote control

Once the HD IP Video Decoder is in DVR/NVR playback mode, press REC  button. Recordings will export to the USB flash disk.

### b. Via keyboard

Once the HD IP Video Decoder is in DVR/NVR playback mode, press on REC  button. Recordings will export to the USB flash disk.

### c. Via touch screen monitor

Once the HD IP Video Decoder is DVR/NVR playback mode, press USB  button. Recordings will export to the USB flash disk.

**Note:** For all methods, when selecting backup period ensure file size is less than your backup device capacity. Longer periods may take more time to calculate.

## Chapter 10: Event

Within the event menu, there are 2 options:

- System event – refers to the systems performance
- Operating event – refers to designated areas selected by the user






The screenshot shows a software interface for an event manager. On the left, there are two buttons: 'SYSTEM EVENT' and 'OPERATING EVENT'. The 'OPERATING EVENT' button is highlighted. The main area displays a table of events. Above the table, it says 'PAGE: 1 / 8' and there are navigation arrows. The table has four columns: an index column, 'DATETIME', 'USERNAME', and 'EVENT CONTENT'. There are 13 rows of event data.

	DATETIME	USERNAME	EVENT CONTENT
00001	2012/06/27 15:25:35	ADMIN	PLAYBACK STOP
00002	2012/06/27 15:24:39	ADMIN	PLAYBACK START
00003	2012/06/27 14:52:57	ADMIN	CAMERA VIDEO SETUP CH.1
00004	2012/06/27 11:16:08	ADMIN	CAMERA HTTP PORT CH.11
00005	2012/06/27 11:16:08	ADMIN	CAMERA IP ADDRESS CH.11
00006	2012/06/27 11:16:08	ADMIN	CAMERA HTTP PORT CH.10
00007	2012/06/27 11:16:08	ADMIN	CAMERA IP ADDRESS CH.10
00008	2012/06/26 16:01:54	ADMIN	BACKUP STOP
00009	2012/06/26 16:00:55	ADMIN	BACKUP START
00010	2012/06/26 15:57:29	ADMIN	PLAYBACK STOP
00011	2012/06/26 15:56:21	ADMIN	PLAYBACK START
00012	2012/06/26 15:53:26	ADMIN	IP CAM PROFILE FPS (SD) CH.16
00013	2012/06/26 15:53:26	ADMIN	IP CAM PROFILE FPS (SD) CH.15

### a. Via remote control


To access event manager press 'menu' key

Use   to locate the event manager icon 

Press 'enter' to select


### b. Via keyboard


To access event manager press 'set'

Use left and rights keys to locate the event manager icon 

Press 'enter' to select

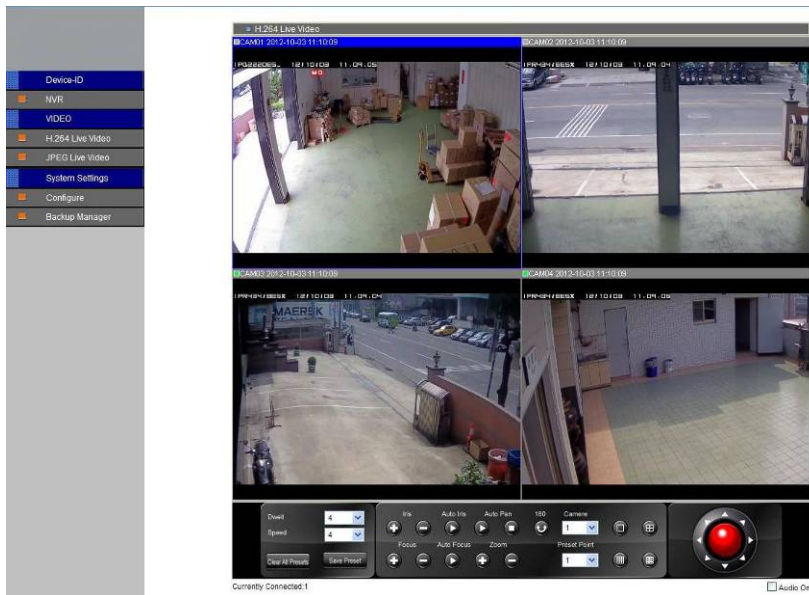
### c. Via touch screen/mouse

To access event manager press the menu icon 

Scroll through the menu to locate the event manager icon 

Press 'enter' to select

## Chapter 11: Basic web-based browser viewing



Open Internet explorer and enter the HD IP Video Decoder's IP address into the address bar

The log on screen will appear

Enter your details

The default username is 'admin', the default password is '1111'.

To bring up a full screen, double click on the required camera view

Double click to return to multi screen

## Chapter 12: Backup Manager

Backup Manager is a program provided to playback-recorded files from the HD IP Video Decoder and H.264 DVRs

**Note:** For first time Backup Manager users, please follow the onscreen instructions.

Backup Manager allows you to complete the following actions:

- Playback exported files
- Complete an FTP download
- Convert already downloaded files

## 12.1 Playback exported files

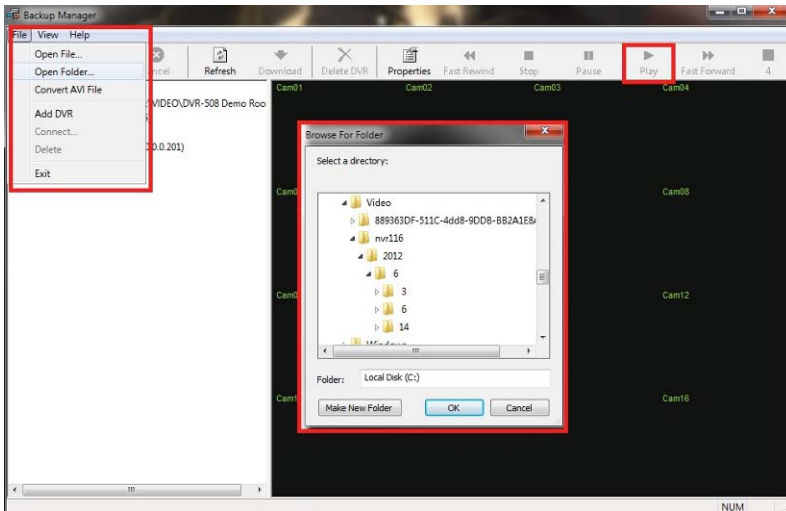
Open Backup Manager

To select files (USB disk) click file > open folder

Saved files will then appear

Highlight the desired time from the left hand tree

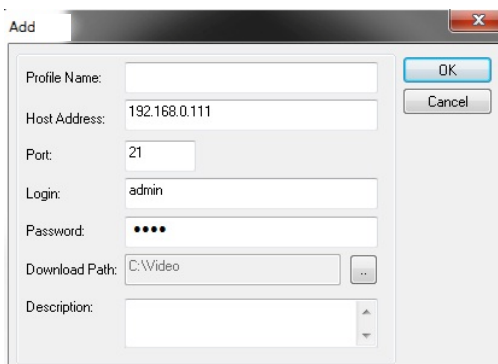
Press play and use the controls at the top to navigate through playback to change the screen view



## 12.2 FTP Download

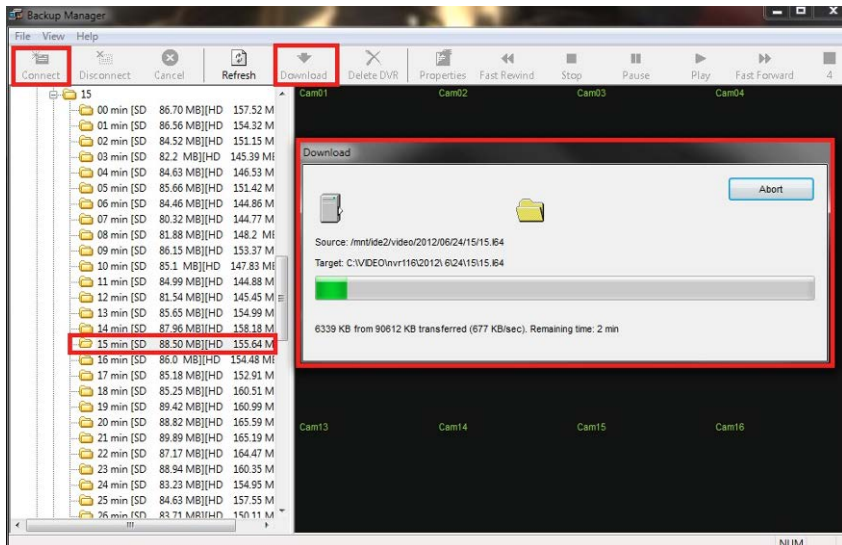
Open Backup Manager

Click file > Add NDR



Insert the IP address of the HD IP Video Decoder

Once the address has been added it will remain stored for future use



Highlight your HD IP Video Decoder from the left hand bar and click connect

A download panel will then appear. This means the Backup Manager programme is communicating with your HD IP Video Decoder gathering all recorded data. Recorded data will appear on the left hand side. You can access minute breakdowns from the tree.

Highlight your required file then click download from the controls at the top

Your files will begin to download

Downloaded files will show in the Backup Manager programme until deleted

### 12.3 Convert already downloaded files

Backup Manager allows you to convert multi-channel backups to single channel AVI files. To do this follow the steps below:

Open Backup Manager

Click file > convert AVI file

Locate desired backup files

Choose the channels you wish to convert. More than 1 channel can be selected

Click OK to start the conversion

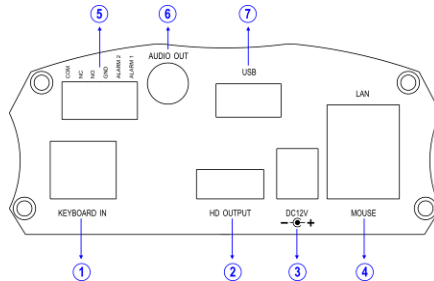
The file will now be saved in your desired location

## Quick Installation Guide

This guide has been designed to provide a basic overview of key installation processes. If you require more detailed instructions, please refer to the full installation guide that follows this section

### Chapter 1: Rear Panel

#### 1.1 HD IP Video Decoder rear view



##### 1. RJ-45 Keyboard In

##### 2. HDMI Output

##### 3. 12V DC Input

##### 4. LAN / USB Mouse

Network RJ-45 connector and USB mouse.

##### 5. Alarm I/Os

Alarm 2 input switches, 1 N/O alarm output, and 1 N/C alarm output

##### 6. Audio Output

RCA audio connector

##### 7. USB 2.0 connector

USB flash disk

Connect power supply, monitor, network cable and control device

**Note:** For easy installation, it is recommended that you connect a touch screen monitor or USB mouse.

### Chapter 2: Time and Date Settings

**Note:** See user guide for how to navigate the system, i.e. menu's, camera selection etc.

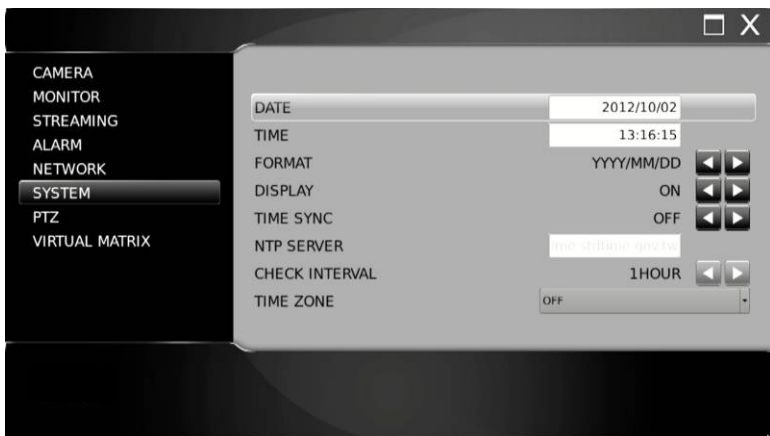
Enter the setup menu

Select system from the left hand options

Select date/time

Adjust time and date

Select display format



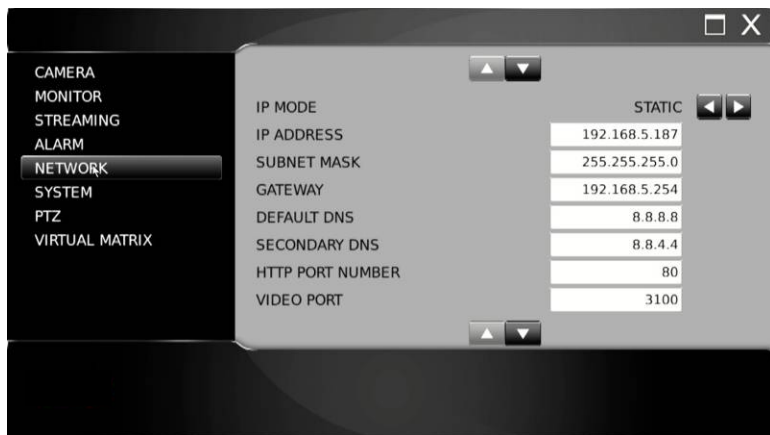
## Chapter 3: Network Settings

**Note:** This guide will refer to a static IP address. For other options, see installation manual.

Enter the setup menu

Select network from the left hand options

Ensure static is displayed under IP mode



Enter your IP address and subnet mask range

**Note:** The installed IP cameras must be set to the same IP range as the HD IP Video Decoder.



## Chapter 4: Adding Cameras

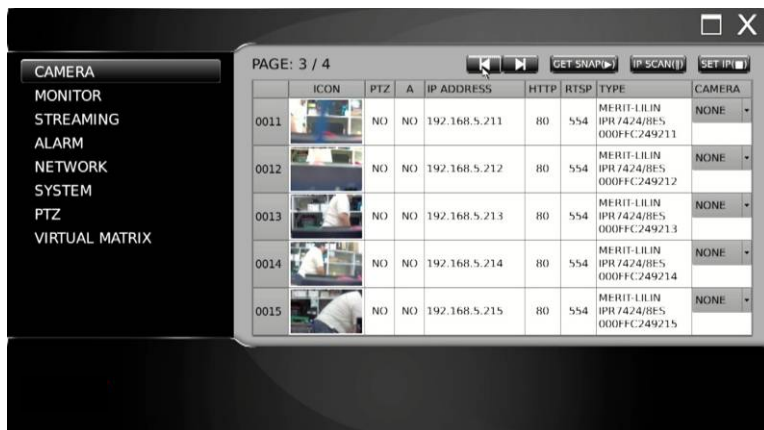
Enter the setup menu

Select camera from the left hand options

Select WS discovery

The HD IP Video Decoder will now search the network for installed cameras

Select 'Get Snap' to make camera identification easier



Assign the relevant cameras to a channel by selecting channel number in right hand camera column

Exit menu setup and all installed cameras will be displayed

By default they are set to record on schedule 24 hours a day

**Note:** If the IP addresses of installed IP cameras have not yet been configured, they can be changed by highlighting the channel and selecting 'Set IP'.

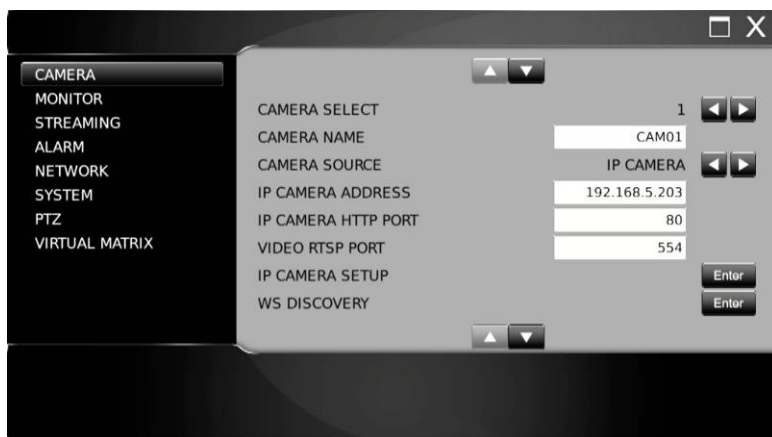
## **Menu configuration**

### **Chapter 1: Setup Menu**

The setup menu contains menu settings for cameras, monitors, recording, alarms, system, network, and PTZ. The details of all the setup menu items are described in this chapter.

#### **1.1 Camera setup**

To setup an IP camera, use the following steps:



##### **1.1-1 Camera select**

Use the directional arrows to select camera you wish to edit/add

##### **1.1-2 Camera name**

A user can enter up to 16 characters for a camera name. To setup the camera name, type the characters using the virtual keyboard and then press the **Enter**

#### **Virtual keyboard:**



##### **1.1-3 Camera source**

To setup a camera channel, you can select IP cam, demo video or no IP connection from this setting

### 1.1-4 IP Camera address

Once the source is set to an IP camera, you can enter the IP address of the IP camera for that specific channel. To manually set the IP address, press **Enter** to enable editing via the virtual keyboard. You can also use WS-Discovery for automatic IP address setup.

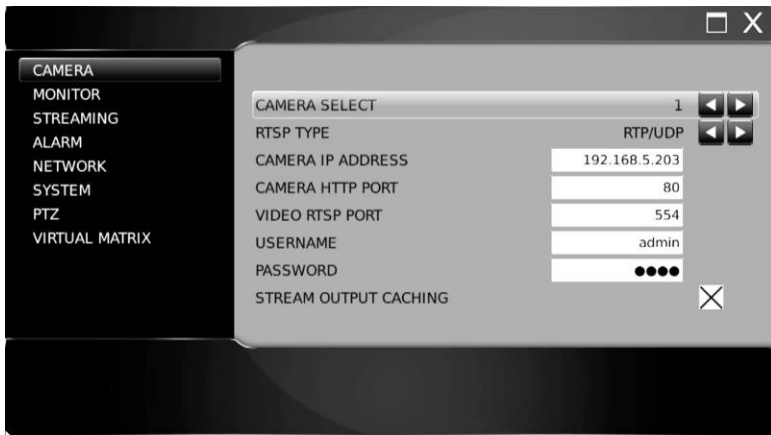
### 1.1-5 IP Camera HTTP port

By default, the HD IP Video Decoder IP camera 'HTTP' port is set to 80. This can be changed if required.

### 1.1-6 Video RTSP port

By default, the HD IP Video Decoder IP camera 'RTSP' port is set to 554. This can be changed if required.

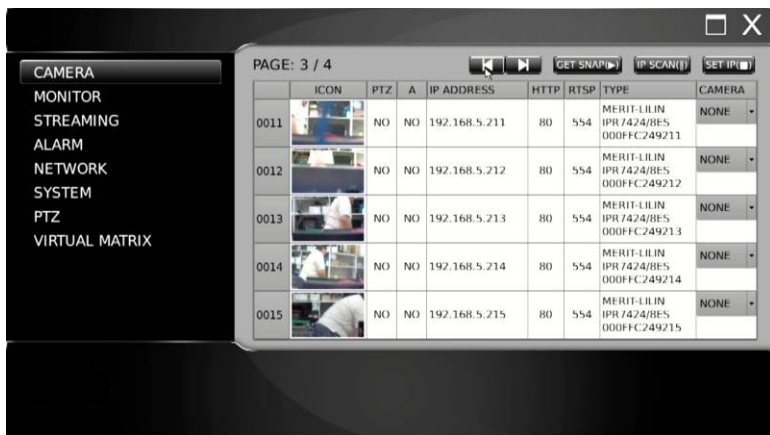
### 1.1-7 IP Camera setup



- Camera IP address: the IP address of the IP camera
- Camera HTTP port: the HTTP port number of the IP address (default 80)
- Video RTSP port: the RTSP port number of the IP address (default 554)
- Username: username of the IP camera (default: admin)
- Password: password of the IP camera (default: pass)

### 1.1-8 WS-Discovery

Web Services Dynamic Discovery (WS-Discovery) is part of the ONVIF protocol for searching IP cameras on a LAN.

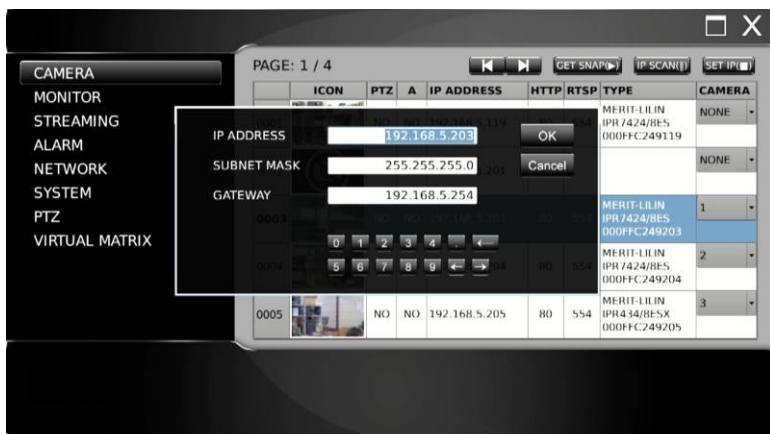


Use this utility to scan the LAN

After scanning, assign the relevant cameras to a channel by selecting the channel number in the right hand camera column

'Get Snap' will take an image for each listed camera to make identification easier.

### Set IP:



If the IP addresses of the installed IP cameras have not already been configured, they can be changed by highlighting the channel and entering the new IP address

### 1.1-9 Camera Disable (Secured Recording Channel)

Channel enable feature can disable the live video of a camera

The channel can still perform video recording

### 1.1-10 Video Setup



Contrast, brightness, saturation, sharpness, and load default can be configured individually for each camera

### 1.2 Monitor setup

For setting up HDMI and backlight saving, follow these instructions



**Note:** Certified HDMI cable at 2M is highly recommended for connecting HD IP Video Decoder to a monitor.

#### 1.2-1. Video advance

Video advance enables you to set the brightness, contrast, and saturation of a HDMI LCD monitor

### 1.2-2. Backlight saving

Adjusting the backlight saving % reduces brightness of connected monitors, reducing power consumption

### 1.2-3 Monitor standby time

The monitor standby time can be adjusted

### 1.2-4 Default division

To select the default screen layout/display on power initialize

### 1.2-5 Default Display Mode

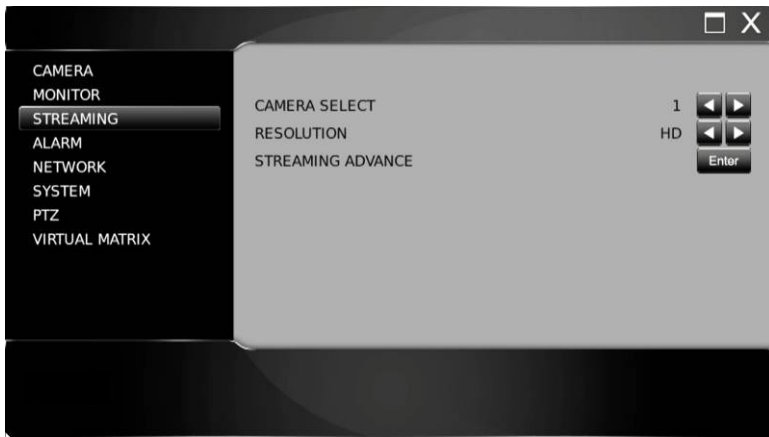
To select the default screen layout/display on Decoder, DVR/NVR, IP camera

### 1.2-6 Default Connection Device ID

To select the default connection device ID number from 1~255

## 1.3 Streaming setup

Streaming setup menu allows for streaming features such as streaming resolution, streaming quality, and frame rate



### 1.3-1 Camera select

Use the directional arrows to select camera you wish to configure

### 1.3-2 Resolution

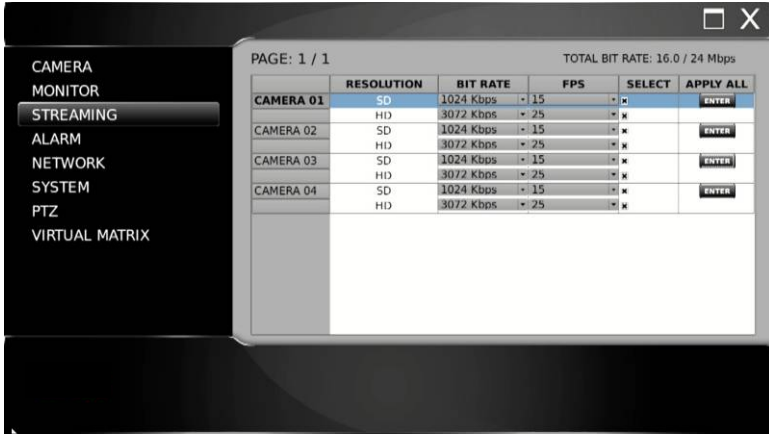
The HD IP Video Decoder can provide full HD or SD (D1) quality recording solutions

To change the recording resolution, use Left / Right arrows.

**Warning:** The IP network camera must support HD resolution video streaming for HD streaming.

### 1.3-3 Streaming advance

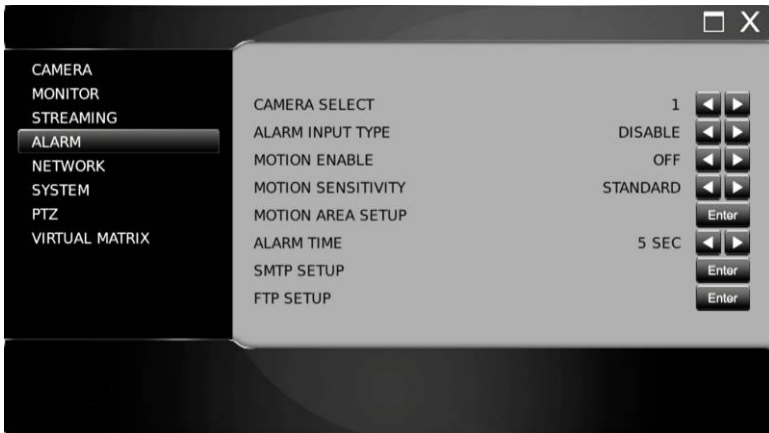
The HD IP Video Decoder is limited to a maximum of 24 MBPS (4 Channel) network throughput. For managing network bandwidth, use Streaming Advance.



Each camera can be set to the desired bit rate and frame rate. HD settings are for full screen streaming whilst SD relates to multi view display and recording. The total bit rate is displayed in the top right. You cannot exceed the maximum.

### 1.4 Alarm setup

The alarm setup menu allows the settings of external alarm switches, motion alarms, buzzers, and alarm recording durations to be changed. To change these settings, enter the Alarm setup menu.



#### 1.4-1 Camera select

Use the directional arrows to select the camera you wish to configure

### 1.4-2 Alarm input type

The HD IP Video Decoder alarm inputs can be configured as normal open (N/O), normal close (N/C), or IP camera where the alarm signal from an IP camera activates the alarm.

### 1.4-3 Motion enable

‘Motion Enable’ enables motion alarm recording, after the motion detection area (‘Motion Area Setup’) has been set. Press **Left** or **Right** at Motion Enable to change the setting.

### 1.4-4 Motion sensitivity

There are eight levels of sensitivity adjustable for motion alarm triggering, ranging from ‘Highest’ to ‘Lowest’. Press **Left** or **Right** to change the sensitivity setting.

### 1.4-5 Motion area setup

There are a number of ways to set the motion detection area. The detailed setting sequence is described as follows:



	Keyboard	Remote controller	Mouse
Step 1	Enter Motion Area Set menu item.		
Step 2	Press <b>Up</b> , <b>Down</b> , <b>Left</b> , or <b>Right</b> to move cursor		Move mouse for starting position
Step 3	Press <b>Enter</b> to define starting area		
Step 4	Press <b>Enter</b> again to finish a motion detection zone		Mouse-drag for an area
Step 5	To clear motion zones press <b>Menu</b> button		Double-click for clear motion zones
Step 6	Press <b>ESC</b> for exit the setting menu		Move mouse to “X” icon and press Left-mouse click to exit motion zone setting

Red indicates motion area



#### 1.4-6 Alarm time

Set the period of time 1-100 seconds. The alarm output relay is triggered upon an alarm event

#### 1.4-7 SMTP setup

HD IP Video Decoder is capable of sending JPEG snapshots to an email account when an alarm event is triggered. To enable this feature, you must type in the email account information.

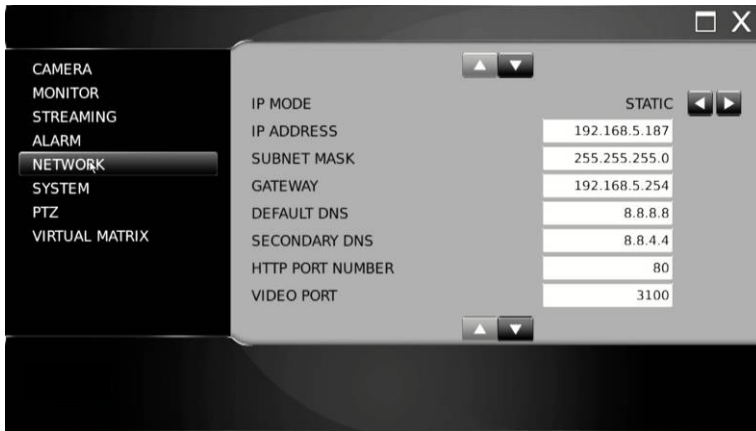
#### 1.4-8 FTP setup

HD IP Video Decoder is capable of alarm snapshot to an FTP server. To enable this feature, you must type in the relevant FTP account information.

### 1.5 Network setup

In order to connect HD IP Video Decoder to LAN or the Internet you require the following information. Subnet mask, gateway and IP address. Consult your system administrator for above information.

It is highly recommended that the HD IP Video Decoder is accessed on a high bandwidth network such as Gigabit LAN.



#### 1.5-1 IP mode

Set the HD IP Video Decoder to Static, DHCP, and PPPoE IP modes. It is highly recommended that the HD IP Video Decoder is accessed on a high bandwidth network such as Gigabit LAN's.

#### 1.5-2 IP address

Enter the IP address for the HD IP Video Decoder using the virtual keyboard

### 1.5-3 Subnet mask

Enter the Subnet Mask for the network using the virtual keyboard

### 1.5-4 Gateway

Enter the Gateway address for the network using the virtual keyboard

### 1.5-5 Default DNS

Enter the Default DNS address for the network using the virtual keyboard

### 1.5-6 Secondary DNS

Enter the Secondary DNS address for the network using the virtual keyboard

### 1.5-7/8 HTTP Port Number and Video Port Number

For Internet connection, port number IP mapping technologies can be used for a single IP address shared by multiple devices, via a network router. Consult your network administrator for advanced network support. HTTP Port number is the web service port number of the HD IP Video Decoder

**Note:** Default Internet port numbers for the IP HD Video Decoder are:

Port 80 (HTML web page)

Port 3100 (video port)

### 1.5-9 FTP Port Number

HD IP Video Decoder has a built-in FTP server. The FTP service is also used by Backup Manager.exe. Backup Manager can manage all the HD IP Video Decoder playback clips via a network.

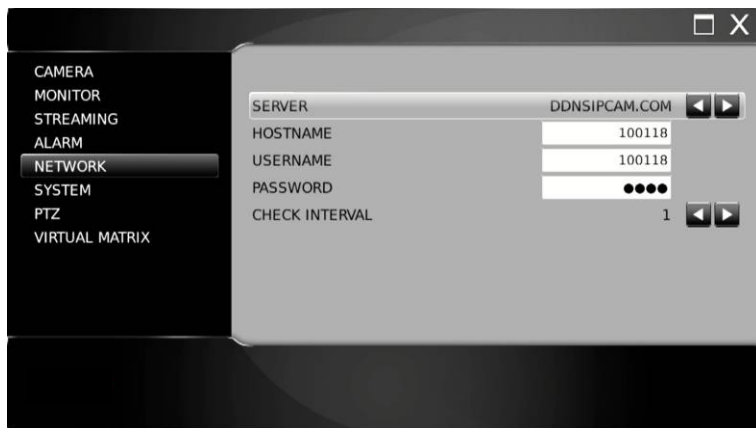
### 1.5-10 MAC

Display the MAC address of the HD IP Video Decoder

### 1.5-11 PPPoE IP

Enter IP address

### 1.5-12 DDNS



If your HD IP Video Decoder has Internet access it will automatically try and register at [www.ddnsipcam.com](http://www.ddnsipcam.com). It will automatically use the last 6 digits of the HD IP Video Decoder MAC address as the host name.

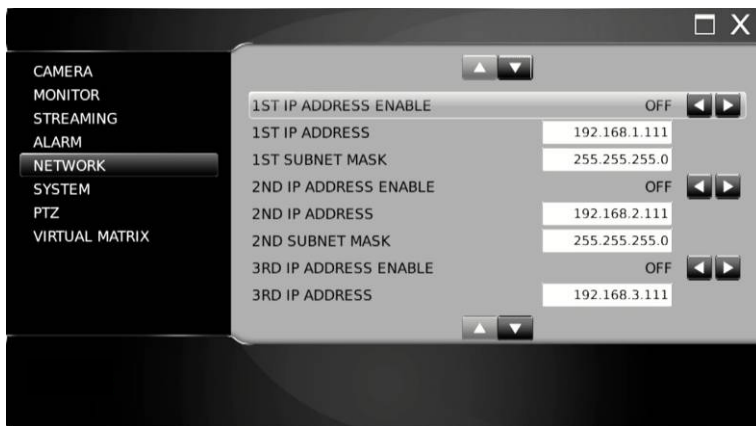
For access enter <http://10685D> (last 6 digits of MAC) [ddnsipcam.com](http://ddnsipcam.com) into your browser

Login to the HD IP Video Decoder with your default user name and password

### 1.5-13 PPPoE

To use ADSL modem, enter the “username” and “password” provided by the Internet Service Provider (ISP) for the Internet connection service.

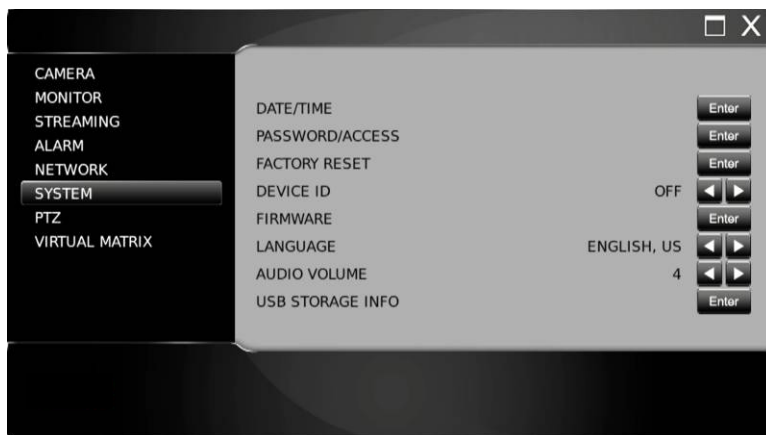
### 1.5-14 Network advance



The HD IP Video Decoder can have up to 3 network ranges to see cameras across multiple subnet ranges

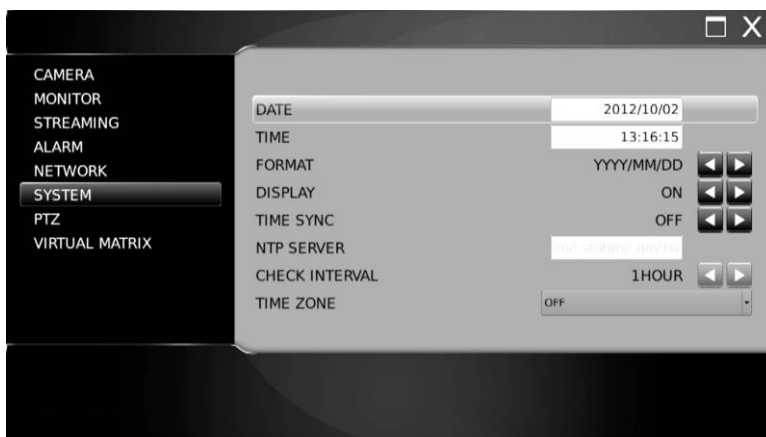
## 1.6 System setup

To set up the system settings, use the following instructions:



### 1.6-1 Date/Time

Press enter to set Date/Time on the HD IP Video Decoder. The display format can also be set here. If a Keyboard is connected time Sync can be set, the HD IP Video Decoder will then sync its time from the keyboard every 15 minutes. Or a NTP (network time protocol) server can be selected.



### 1.6-2 Password/Access

The HD IP Video Decoder can be configured for up to 15 users with different access rights

Scroll to select between:

Admin (default password 1111)  
Operator (default password 2222)  
Guest (default password 3333)  
Users 1 to 12

Once a user is selected you can edit passwords, enable password protection and set up the following user rights:

- |                  |                          |
|------------------|--------------------------|
| • Allow Setup    | • Allow Shutdown         |
| • Allow Playback | • Allow Alarm            |
| • Allow PTZ      | • Allow Shortcut         |
| • Allow Backup   | • Allow Network Setup    |
| • Allow Division | • Allow Network Playback |

**Note:** In the event of a forgotten password, please contact your sales representative.

### 1.6-3 Factory reset

A user may want to restore factory default settings. A confirm message will show for final verification. To perform this task, select Factory Reset at System > Factory Reset and press **Enter**.

**Note:** Factory reset does not affect IP address, video system, and language settings.

### 1.6-4 Remote device ID for remote control

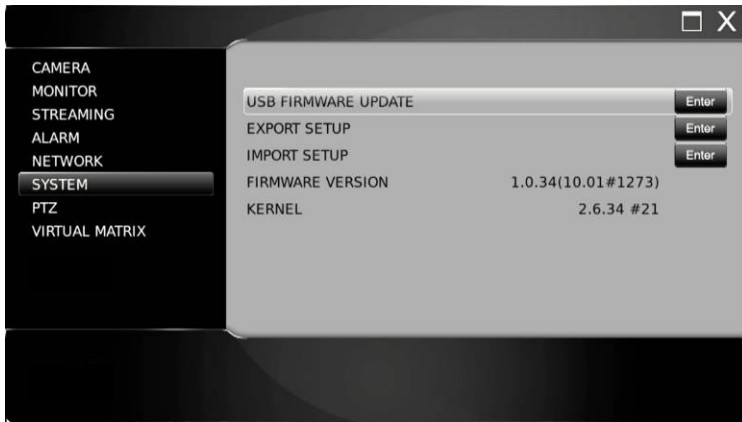
Each HD IP Video Decoder can be assigned a unique ID to be accessed by the remote controller. With a unique ID set, the remote controller issues commands to a particular HD IP Video Decoder device. All other HD IP Video Decoder's are in sleep mode

### 1.6-5 Firmware update

Firmware update allows you to upgrade the HD IP Video Decoder firmware to improve system performance. To perform firmware update, press **Enter** on Setup > System > Firmware Update. There are two ways to perform firmware update via (1) via USB flash disk at the HD IP Video Decoder site (2) via HTML interface via network

#### Prepare firmware

To prepare a firmware update, create a directory called 'firmware' in the USB flash disk. The USB flash disk should use the file system FAT-16 or FAT-32. Visit our web site at [www.meritilin.com](http://www.meritilin.com) to download the latest firmware and save the file in the directory mentioned above. The firmware name of the HD IP Video Decoder is 'Flashvd022.bin'.



To perform firmware update using USB flash disk, follow the instructions:

1. Plug in a portable USB disk at the HD IP Video Decoder's USB port
2. Press **Enter** at Start Update Firmware
3. Once the transfer is complete, remove the USB device and reboot the HD IP Video Decoder
4. Ensure that the firmware is located in the firmware directory of the USB disk

### Export setup

The export setup feature allows a user to export internal configuration into a system file on the USB flash disk's firmware directory. The file can later be imported to other machines. The imported machine's internal configuration gets updated based on the original HD IP Video Decoder configuration. To perform Export Setup, select 'Export Setup' and press **Enter**.

### Import setup

Select 'Import Setup' and press **Enter**.

The configuration of the HD IP Video Decoder is updated based on the system file

### Firmware and kernel version

Version menu item indicates the current version number of the HD IP Video Decoder

### 1.6-6 Language

The HD IP Video Decoder provides multi-language OSD support. Users can change the preferred language.

Press **Left** or **Right** to change the language setting

### 1.6-7 Audio volume

To turn on or off live audio volume monitoring, set Live Audio option.

### 1.6-8 USB Storage Information

To detect the USB storage information status and format function.

## 1.7 PTZ setup

The HD IP Video Decoder can control RS-485 PTZ or IP PTZ cameras. To setup PTZ connection, follow these instructions:



### 1.7-1 Camera select

Use the directional arrows to select the camera you wish to edit

### 1.7-2 PTZ transport

Select from ONVIF, HTML or RS-485 transport. If RS-485 is selected the camera must be connected to the RS-485 output on the back of the HD IP Video Decoder.

### 1.7-3 PTZ protocol

PTZ protocols include MLP1, MLP2, Pelco D, and Pelco P.

### 1.7-4 PTZ model and baud rate

If the PTZ protocol is transmitted via traditional RS-485 wires attached to the HD IP Video Decoder you need to setup the baud rate and RS-485 ID respectively.

Table below shows listed models in the PTZ protocol list:

Model	Baud Rate	Number of Bytes
PIH-7000 (MLP1)	9600	3
PIH-7600 (MLP1)	9600	3
PIH-7625-3 (MLP1)	9600	3
PIH-7625-7 (MLP2)	9600	7
PIH-7622-7 (MLP2)	9600	7
Pelco D	2400~9600	None
Pelco P	2400~9600	None

### 1.7-5 Preset setup

All features of PTZ can be configured from the live menu. You can also enter preset positions through the preset set up option in the PTZ menu

#### Setting preset

Enter the preset setup then select your desired preset point from the dropdown bar



#### Enter dwell

Define the dwell time of a preset using the dropdown menu to select desired time. Dwell number ranges from 0 to 255 seconds (the shortest to the longest).

#### Speed

Define the speed of the previous preset to the next preset, using the dropdown menu to select desired time. The speed number ranges from 1 to 8 (the slowest to the fastest). The speed might vary based on different PTZ camera's settings.

#### Position

Use the joystick/controller to adjust the preset PTZ to your desired location

#### Iris and auto iris

Adjust these settings as required

#### Focus and auto focus

Adjust these settings as required



## Save presets

Once the above parameters are entered, the preset can be saved.

## Clear all presets

To clear all the preset points of a PTZ camera, select 'Clear All Presets' and press **Enter** key on the remote control.

## Direct keyboard access

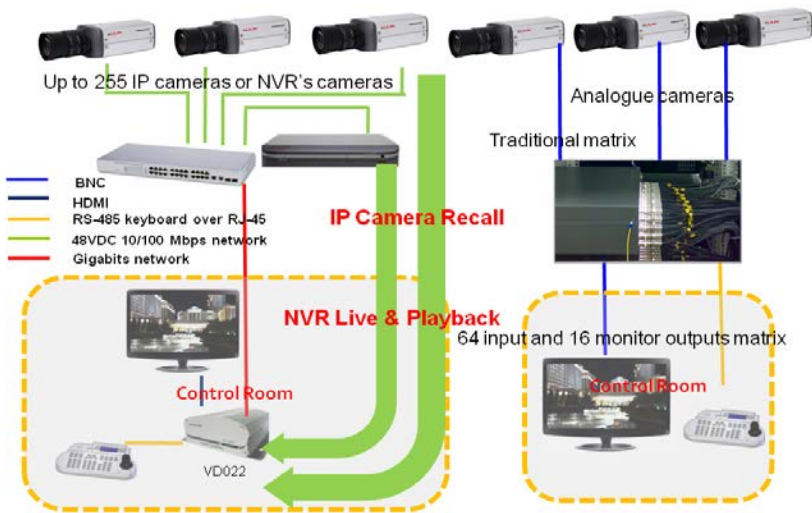
Direct Keyboard Access mode allows RS-485 protocol to be directly transmitted to the RS-485 PTZ device

The HD IP Video Decoder no longer handles the conversion of the RS-485 protocol

This enables the user to access the PTZ menus using the connected keyboard

## 1.8 Virtual matrix

Unlike traditional matrices, the HD IP Video Decoder's virtual matrix is wired via one single RJ-45 cable. Traditional matrix can display live video from cameras on few monitors.

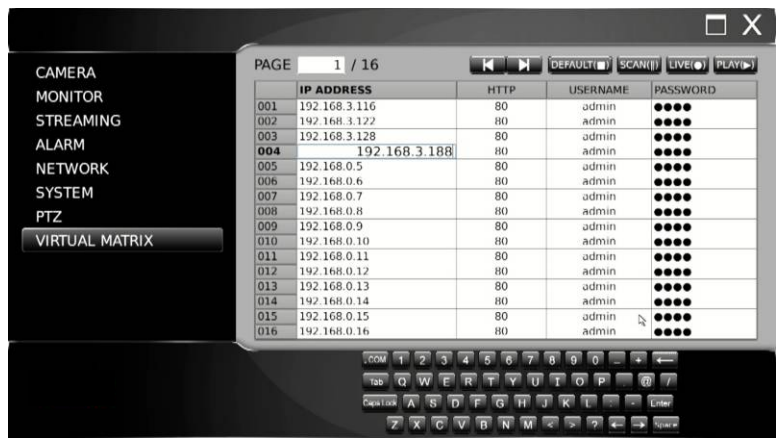


Despite the physical connection, the HD IP Video Decoder's virtual matrix contains three parts; 1) live camera monitoring and camera playback of NVR/DVR, 2) IP camera recall, 3) group recall (future firmware update)

The IP addresses of the DVR/NVR's and IP cameras can be pre programmed to allow for quick recall. For remote playback, the HD IP Video Decoder can connect to the DVR/NVR. DVR's, NVR's and IP camera's can be grouped in terms of the geographical location or camera function to allow for quick recall. To access the virtual matrix, please select the Virtual Matrix icon from the menu.



1.8-1 DVR/NVR setting



**IP address**

IP address of the DVR or NVR device

**HTTP**

HTTP port number of the DVR or NVR device

## Username

Username of the DVR or NVR device

## Password

Username of the DVR or NVR device

Admin (default password 1111)

Operator (default password 2222)

Guest (default password 3333)

## 1.8-2 IP camera setting



## IP address

IP address of the IP camera device

## HTTP

HTTP port number of the IP camera device

## Username

Username of the IP camera

## Password

Username of the IP camera

Admin (default password pass)

Guest (default password guest)

## 1.8-3 DVR/NVR menu operations



### Default button

Reset all IP addresses back to default from 192.168.0.1 to 192.168.0.255.

### Scan

Scan all IP addresses of DVR/NVRs within a network.

### Live

Recall live video of the DVR/NVR.

### Play

Play recorded video of the DVR/NVR.

To switch to the previous page or the next page, press Previous button or Next button.

## 1.8-4 DVR/NVR live video

Once in live mode of the DVR/NVR, press 'Close' to exit live mode, press 'Pause' to pause the live video, press on the required channel to see full screen view, and press on screen view buttons to see change the view.



## 1.8-5 IP camera menu operations



### Default button

Reset all IP addresses back to default from 192.168.0.1 to 192.168.0.255.

### Scan

Scan all IP addresses of DVR/NVRs within a network.

## Live

Recall live video of the DVR/NVR.

## Play

Play recorded video of the DVR/NVR.

To switch to the previous page or the next page, press 'Previous' or 'Next'.

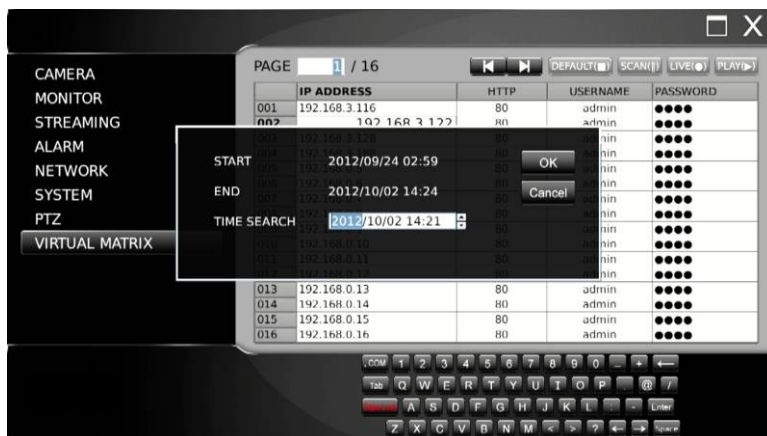
### 1.8-6 IP camera live video

Once in live mode of the IP camera, press 'Close' to exit live mode or press 'Pause' to pause the live video.



### 1.9 DVR/NVR playback by time search

Press 'Play' to invoke the time search window. Enter the date and time you wish to search for.



### 1.9-1 DVR/ NVR video playback

Once in video playback mode, you can press the on screen view buttons to navigate the recording. To return back to live mode, press 'Live' button. To perform video backup, press 'USB' for video backup.



## Chapter 2: Web-based Viewing/Setup

There are two ways of remotely accessing the HD IP Video Decoder:

1. Via a network through your Internet browser
2. Via CMX software (for CMX setup see CMX manual)

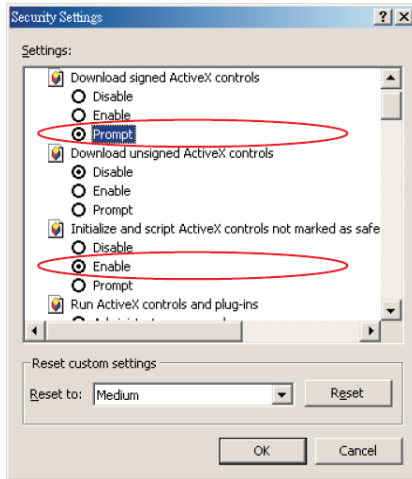
Live monitoring, menu setup, video playback, and file backup can be done via your Internet browser.

### 2.1 Before using Internet browser

Add DVR IP address to trusted sites

Make sure that your Internet browser allows signed ActiveX plug-in to run on your PC

Set "Download Signed ActiveX plug-in controls" to "Prompt" and "Run ActiveX control and plug-in" to "Enable" in your internet security options.

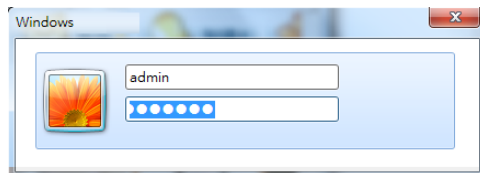


To access these, open Internet Explorer > Tools > Options > Security Settings > Custom Level.

## 2.2 Logon

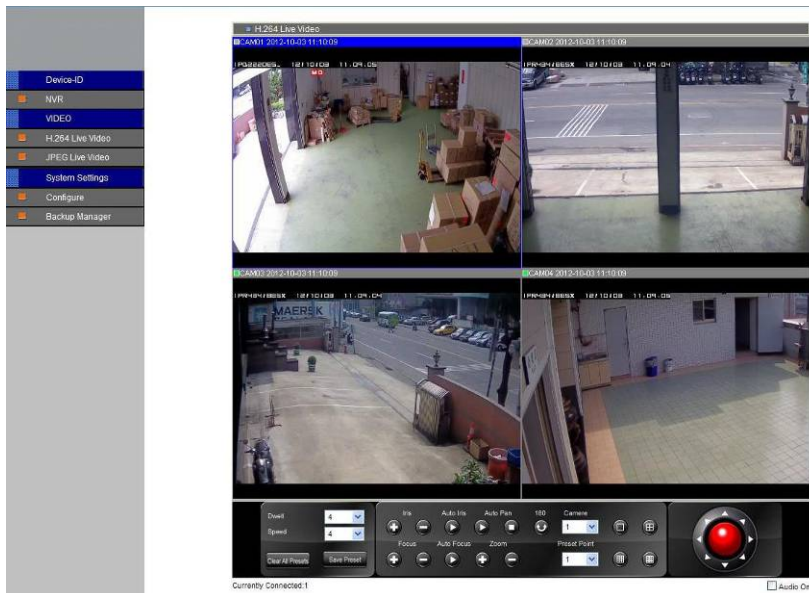
Type in the IP address of the HD IP Video Decoder into the HTTP address box via YOUR Internet browser

A log on screen will appear, enter your user name and password



Once entered the HD IP Video Decoder home page will appear:





## 2.3 Configuring the HD IP Video Decoder via web page

Features of the HD IP Video Decoder main menu system can be configured via web interface. Features such as camera, alarm, recording, network, and backup can all be set up remotely

### 2.3-1 Camera setting

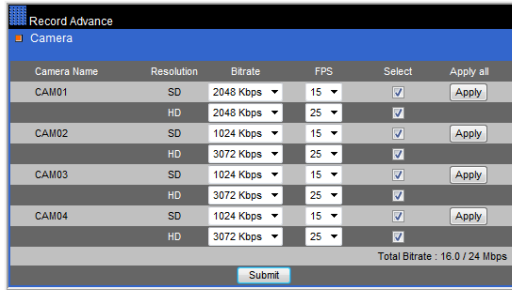
Camera Name	Camera Source	IP Address	HTTP Port	RTSP Port	Username	Password	Camera Disable
CAM01	IP Camera	192.168.5.203	80	554	admin	****	OFF
CAM02	IP Camera	192.168.5.204	80	554	admin	****	OFF
CAM03	IP Camera	192.168.5.205	80	554	admin	****	OFF
CAM04	IP Camera	192.168.5.206	80	554	admin	****	OFF

Submit

- Camera Source—select the video source from IP camera, demo or OFF on main monitor
- IP Address—IP address of the IP camera
- HTTP Port—HTTP port of the IP camera
- RTSP Port—RTSP port of the IP camera
- Username – username of the IP camera
- Password – password of the IP camera
- Camera Disable—enable or disable live video on main monitor



### 2.3-2 Streaming setting



The interface shows a table for configuring four cameras. Each row has columns for Camera Name, Resolution, Bitrate, FPS, a Select checkbox, and an Apply button. The total bitrate at the bottom is 16.0 / 24 Mbps.

Camera Name	Resolution	Bitrate	FPS	Select	Apply all
CAM01	SD	2048 Kbps	15	<input checked="" type="checkbox"/>	Apply
	HD	2048 Kbps	25	<input checked="" type="checkbox"/>	
CAM02	SD	1024 Kbps	15	<input checked="" type="checkbox"/>	Apply
	HD	3072 Kbps	25	<input checked="" type="checkbox"/>	
CAM03	SD	1024 Kbps	15	<input checked="" type="checkbox"/>	Apply
	HD	3072 Kbps	25	<input checked="" type="checkbox"/>	
CAM04	SD	1024 Kbps	15	<input checked="" type="checkbox"/>	Apply
	HD	3072 Kbps	25	<input checked="" type="checkbox"/>	

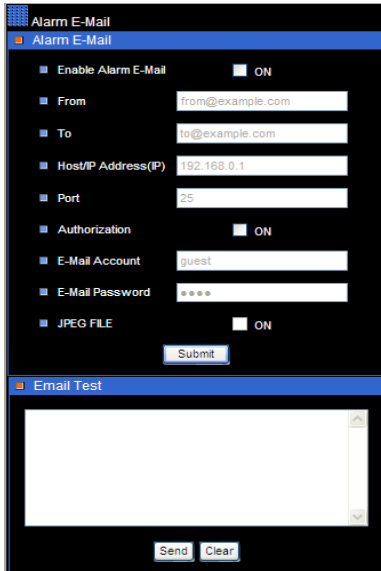
Submit Total Bitrate : 16.0 / 24 Mbps

- Camera Recording Mode – assign schedule recording or no recording for a camera
- Camera FPS—recording frame rate for a camera
- Camera Resolution—Setup the HD or SD resolution for a camera
- Select—Select HD or SD Resolution

### 2.3-3 Alarm setting

- Motion Enable—enable/disable motion detection
- Motion Detection Area—enable/disable motion detection area
- Alarm Input Type—set alarm input as NO/NC or disable
- Alarm Output Time—assign alarm time for each camera

### 2.3-4 Alarm e-mail



The interface contains two sections: 'Alarm E-Mail' and 'Email Test'. The 'Alarm E-Mail' section has fields for From, To, Host/IP Address(P), Port, Authorization, E-Mail Account, E-Mail Password, and JPEG FILE, each with an 'ON' checkbox. The 'Email Test' section has a large text area and 'Send' and 'Clean' buttons.

**Alarm E-Mail**

☒ Enable Alarm E-Mail ☒ ON

☒ From from@example.com

☒ To to@example.com

☒ Host/IP Address(P) 192.168.0.1

☒ Port 25

☒ Authorization ☒ ON

☒ E-Mail Account guest

☒ E-Mail Password \*\*\*\*

☒ JPEG FILE ☒ ON

Submit

**Email Test**

Send Clean

- Enable Alarm Email—option for enable alarm/motion email
- From—from email address
- To—to email address
- Host/IP Address—SMTP mail server's IP or DNS address
- Authentication—option for user and password authentication
- Email Account—senders email account
- Email Password—senders email account's password
- JPEG File—option for the enable JPEG file attachment
- Email Test—simple the Email function testing

### 2.3-5 Network setting

Network Setting

Network Setting

■ Connection method ☒ Static ☐ DHCP ☐ PPPoE

■ IP Address 192.168.3.241

■ Subnet Mask 255.255.255.0

■ Gateway IP Address 192.168.3.254

■ Default DNS 168.95.192.1

■ Second DNS

■ PPPoE Account

■ PPPoE Password

■ Video Port 3100

■ HTTP Port 80

Submit

- IP Address—HD IP Video Decoder IP address
- Subnet Mask—subnet mask
- Gateway IP Address—router/Gateway IP address
- PPPoE account—PPPoE protocol account name
- PPPoE password—PPPoE password
- Video Port—the HD IP Video Decoder’s video port
- HTTP Port—HTML port number

### 2.3-7 System setting

System Setting

Server Setting

■ MAC Address 00:0F:FC:10:30:02

■ Firmware 1.0.07(02.21)

■ Remocon ID OFF

■ Language English

■ Max Connections 10

■ Force to Logout (30 minutes) ☐

■ Software Reboot [Click here to reboot server](#)

Submit

- MAC Address: MAC address of the HD IP Video Decoder
- Firmware: firmware version of the HD IP Video Decoder
- Remocon ID: addressable HD IP Video Decoder ID for multiple HD IP Video Decoder’s remote control using remote controller and RS-485 keyboard
- Language: language selection of the HD IP Video Decoder
- Max Connections: maximum network connections allowed for the HD IP Video Decoder
- Force to Logout: force to logout remote access
- Software Reboot: software reboot of HD IP Video Decoder system

2.3-7-1 Time

Time

Setting time & date

Date 20 12 / 2 / 25 (year / month / date)

Time 11 : 47 : 34 (hr : min : sec)

Submit

- Date: Current date of the HD IP Video Decoder
- Time: Current time of the HD IP Video Decoder

2.3-7-2 User setting

System Setting

User Setting

Administrator

Password

New Password

Confirm Password

Submit

Operator

Password

New Password

Confirm Password

Submit

Guest

Password

New Password

Confirm Password

Submit

Other Username

Username

User Permission

Password

New Password

Confirm Password

Submit

- There are three levels (admin, operator and guest) of user authentication allowed in the HD IP Video Decoder
- To change password, specify the old password, new password, and confirm password, edit as required.

2.3-7-3 System status

System Status

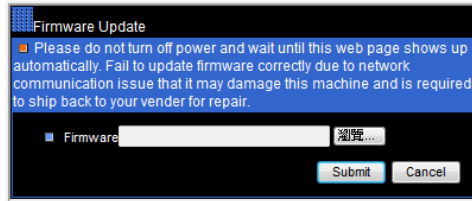
Server Status

Device ID	0
Last Reboot Time	2012/10/02 10:59:36
Kernel Version	2.6.34 #21

- Device ID—HD IP Video Decoder ID/RS-485 ID
- Last Reboot Time – last time the HD IP Video Decoder was rebooted
- Kernel— OS version of the HD IP Video Decoder

### 2.3-7-4 Firmware update

This HD IP Video Decoder is set to perform firmware upgrade via network. Once the HD IP Video Decoder receives the firmware, it will perform a firmware upgrade automatically. After finishing the firmware update, the HTML page will reload. The user can then continue to operate the HD IP Video Decoder.




To perform network firmware update, click on 'Browse' and locate the firmware.

**Note:** Ensure there is a good connection when attempting a firmware update. Failure in the network connection could result in firmware update failure and the unit may become non-operational.

## Chapter 3: Keyboard Operations

### Virtual matrix mode

To perform virtual matrix feature, press  Stop button for virtual matrix menu. Before proceeding the following virtual feature by joystick keyboard. Make sure IP addresses of NVR/NVR and IP cameras are properly setup in DVR/NVR, IP cameras, and grouping tables of the virtual matrix.

### 3-1 Keyboard connections of DVR/NVR

The HD IP Video Decoder is a standalone 4-channel HD IP decoder that can display live video and remotely playback video from multiple NVR's and DVR's.

### Switch to DVR/NVR control mode

Press the **SHIFT** button and the **DVR** button to set the keyboard controller to the DVR/NVR operation mode.







### 3-2 Live video of DVR/NVR via HD IP Video Decoder

Press number from 1~255 and press the **DVR** button to control the DVR/NVR.

**Example: Call #12 DVR/NVR.**









Use the below keys to control your screen view:







-  16 window-division
-  9 window-division
-  8 window-division
-  4 window-division

**3-3 DVR/NVR Playback**

To view playback, press **Play** or **Search**. **Play** will display the playback menu. Use 3D joystick to navigate through playback feature. **Search** will invoke the time search feature of the DVR. Use 3D joystick to navigate the menu.

	1. Enter a submenu 2. Fast forward video		1. ESC/Exit a submenu 2. Fast reverse video in playback mode
	Move cursor up		Move cursor down
	Decrease a digit		Increase a digit

**Video Playback Operations**

-  Pause: Press **PAUSE** to pause the video
-  Play: To play the video, press Fast forward, or fast rewind
-  Fast Forward: Fast Forward the video
-  Fast rewind: Rewind the video
-  Stop: Stop the video and return to playback menu.
-  Record/Stop Record: Stop the operation

Select various split display modes on live and playback displays

### 3-4 Live video of IP camera feature via HD IP Video Decoder

Press a number between 1~255 and press the **MON** button to control the IP camera














**Example #1: Call #17 camera.**



### 3-5 Control PTZ

To control a PTZ camera in live mode, press **Enter** to gain camera control sequentially in window-division mode or perform call camera in full screen mode.

Once you have control over a PTZ camera, the following PTZ operations can be performed.

	Zoom in		Zoom out
	Tilt up		Tilt down
	Pan left		Pan right
	Zoom in		Zoom out
	Focus near		Focus far
	IRIS small		IRIS large
	Auto Pan		

### Recall a Preset

To recall a preset point of a PTZ device, press number key followed by preset key.

**Example #1: Recall 16 preset of camera #21.**



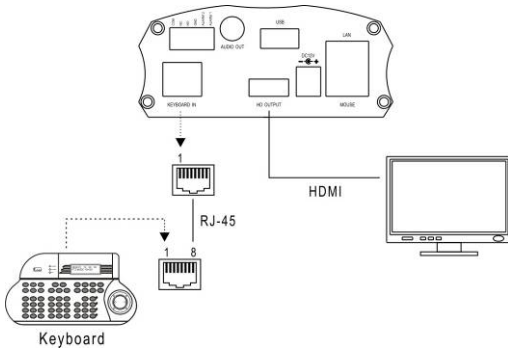
# Appendix A

## 1. Keyboard connection

### 1.1 Connection between a HD IP Video Decoder and a RS-485 keyboard

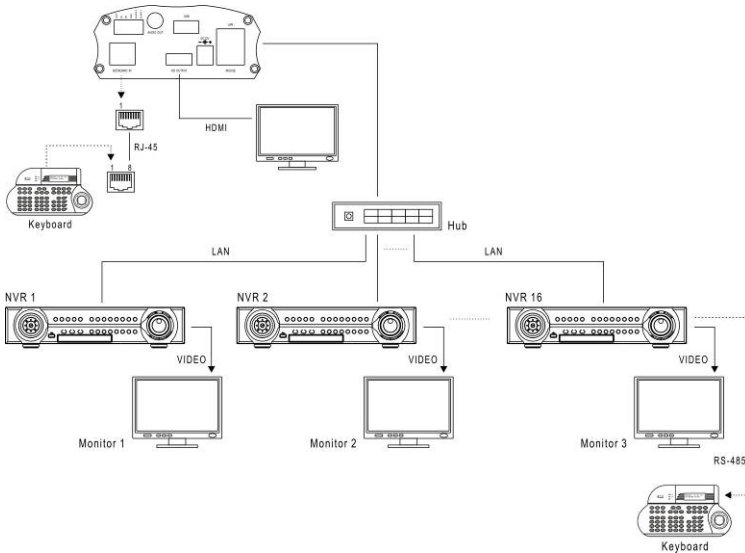
Directly connect the keyboard to HD IP Video Decoder using an RJ-45 cable. The HD IP Video Decoder provides 12V DC for the keyboard. There is no need to connect to a power adapter.

#### HD IP Video Decoder & keyboard connection diagram



### 1.2 One HD IP Video Decoder receives the video of multiple DVR/NVRs

Connect the RJ-45 cable from the keyboard to the RJ-45 keyboard input. The HD IP Video Decoder is connected within a LAN. Up to 255 HD IP Video Decoder's can be connected and addressed.







## Appendix C

### 1. Supported USB Flash Disk

- Transcend: 8G 16G
- Kingston: 4G 8G 16G
- Sandisk: 8G 16G

## Appendix D

### 1. Touch Screen Monitor Support List

- Acer: T231H
- Dell: ST2220T
- iiyama: PLT2451MTS-B 23.6
- ELO ET2201L
- AOC: E2239F
- VeiwSonic TD2220

## Appendix E

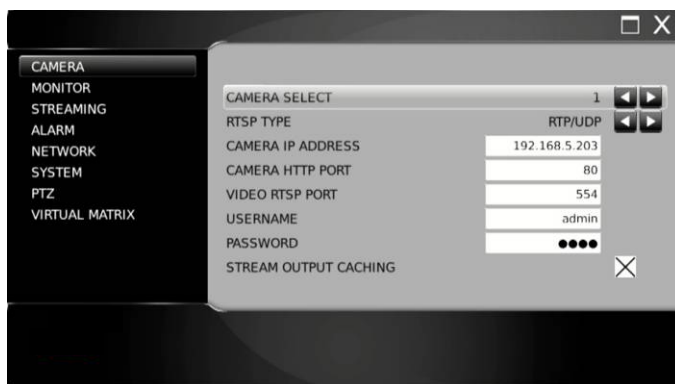
### Troubleshooting & FAQ

**Question:** Should I use a gigabit network switch or a 10/100 MPBS network switch for connecting to the HD IP Video Decoder?

**Answer:** It is highly recommended to use a gigabit RJ-45 port for connecting to the HD IP Video Decoder. You can still use 10/100 MBPS ports from a switch for connecting IP cameras.

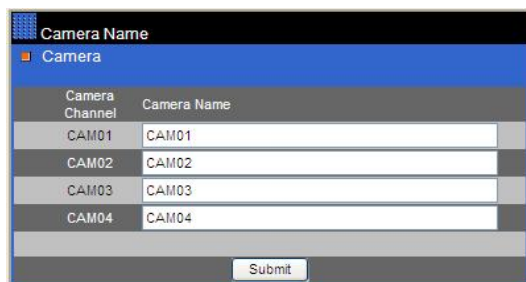
**Question:** Should I use RTP/UDP protocol for connecting IP cameras to the HD IP Video Decoder?

**Answer:** In LAN environments please use RTP/UDP protocol (default setting) for connecting IP cameras to the HD IP Video Decoder. It is not recommend that you connect IP cameras via the Internet due to bandwidth issues. If connecting IP cameras via the Internet is essential, please use RTP/HTTP protocol.



**Question:** Does the HD IP Video Decoder provide unicode (multi-nation) support for camera names?

**Answer:** Yes, the HD IP Video Decoder provides unicode for camera names. To do so, login to HD IP Video Decoder settings via a browser and open Camera Name section. Here you can edit your unicode camera name.



**Question:** What are the error codes and how do I solve the connection problem?

**Error code:** IP LOSS

**Explanation:** The IP camera is not on the network.

**Solution:** Check the RJ-45 connection and IP address for the camera.

**Error code:** AUTH ERR

**Explanation:** The username and password are incorrect for the IP camera and the HD IP Video Decoder.

**Solution:** The default username for the HD IP Video Decoder is 'admin'. The default password is '1111'. If you have changed your username or password, you will need to use this.

**Error code:** URI ERR

**Explanation:** The HD IP Video Decoder does not support this IP camera.

**Solution:** Please perform a firmware update for this IP camera.

**Error code:** PROFILE ERR

**Explanation:** The H.264 streaming profile might be opened for the IP camera.

**Solution:** Please enable both H.264 D1 and 1080P both streaming for IP camera. The HD IP Video Decoder requires both streamings of high definition (HD) and standard definition (SD). D1 and VGA resolutions are SD streaming. 1080P and 720P resolutions are HD streaming. The HD IP Video Decoder does not support streaming above 1080P such as 3MP and 5MP streamings. For 3MP and 5MP IP cameras, please lower the resolution to 1080P or 2MP.

## Specification

<b>H.264 1080P Real-Time HD IP Video decoder Specification</b>	
Models	HD Video Decoder
IP Video Supports	Network camera, network speed dome, and video server
IP video input	Up to 4 Channel 1080P
Network throughput	24 MBPS
Matrix	
Video Input	IP cameras / NVR live video / NVR playback
Remote playback	Yes
Remote backup	DVR / NVR
Alarm	
Alarm mode	Alarm full screen for remote IP camera's or NVR's external alarm / motion detection
Resolution	1080p / 720p / D1 / VGA
Video Output	
HDMI output	1920 x1080P
Backlight saving	LCD backlight saving mode
Multi-touch	Support USB multi-touch screen
Multiplexer	Freeze
Split screen	4
Digital zoom	64x on live and NVR playback
Management	
Reports	Full alarm, configuration, and operation reports exporting over HTTP or USB
Authentication	User authentication with feature configurable
Alarm/Event	DI * 2 and DO* 2 (NO/NC)
Motion	Motion grid 20*12 each channel, and 8 sensitivities
Event	External alarm, video loss, power recovering, motion detection, and logon
Email	Alarm notification with JPEG attachments
Accessories	Remote controller addressable up to 255 IP cameras and DVRs / NVRs
PTZ protocol	LILIN MLPI/2 over HTTP
Keyboards	Keyboard
IR receiver	Extra IR extension connector with remote controller
Mouse	USB, mouse-click, mouse scroll, mouse drag
Audio out	RCA, 1 output
Remote control	Yes
Network Ports	Gigabit LAN, RJ45 *1
Network	Direct Internet browser access / multiple users access
Protocols	ARP / TCP/IP / UDP / HTTP / SMTP / FTP / DDNS / PPPoE / RTSP / RTCP
Web	Live / event log
HD Video Decoder status	HTML HD Video Decoder status
IP Scan	IPScan supported, automatically quick IP address setup for IP cameras and HD Video Decoders
Software	
Mobile phone	iPhone, iPad, BlackBerry and Android mobile phone supported
Others	
WDT	Hardware watchdog timer
DST	Daylight saving time
Multilanguage	English, Chinese, French, Germany, Italy, Spanish, Portuguese, Turkish
CPU/OS	ARM Cortex A9 Processor @ 600 MHz CPU, Linux 2.6 kernel
Power	DC 12V, 1.5A / 18W
Working Env.	Temp: 0°C ~ +45°C / Humidity: 0%~80%
Dimension	180 * 130 * 43 mm
Weight	0.5 Kg