

eZ.HD

ELUX4 / ELUX8 / ELUX16

4 / 8 / 16 CH, H.264, 1080p Full HD Hybrid DVR

Quick Installation Guide



 **EverFocus**

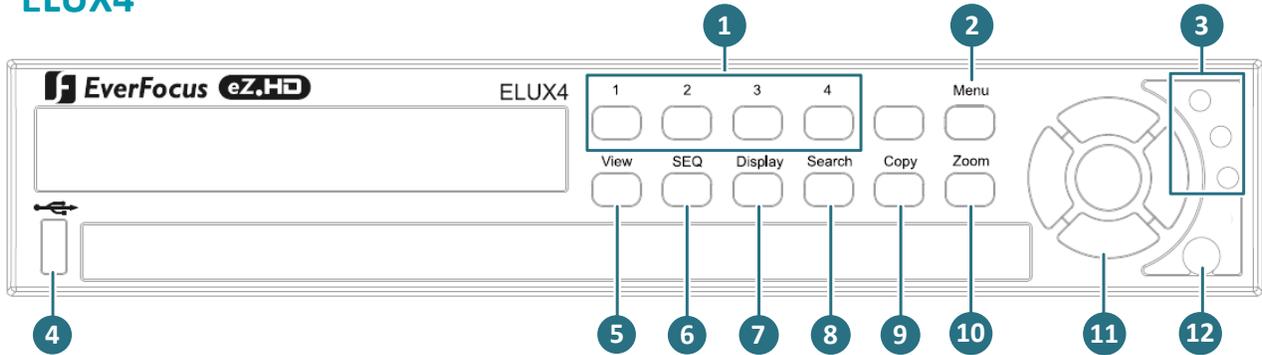
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Release Date: July, 2016

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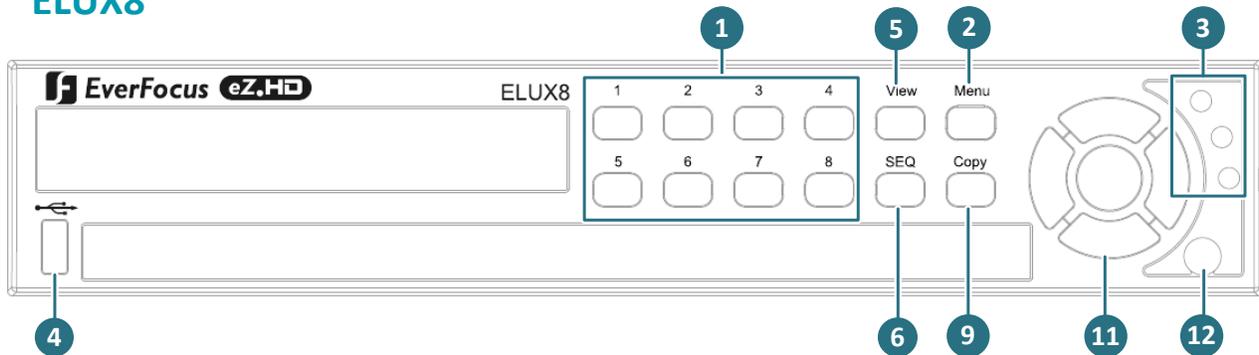
1. Overview

1.1 Front Panel

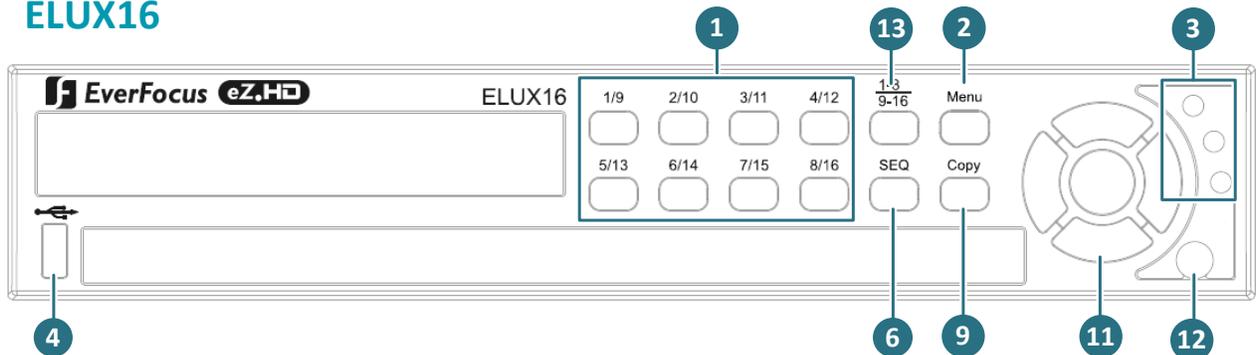
ELUX4



ELUX8



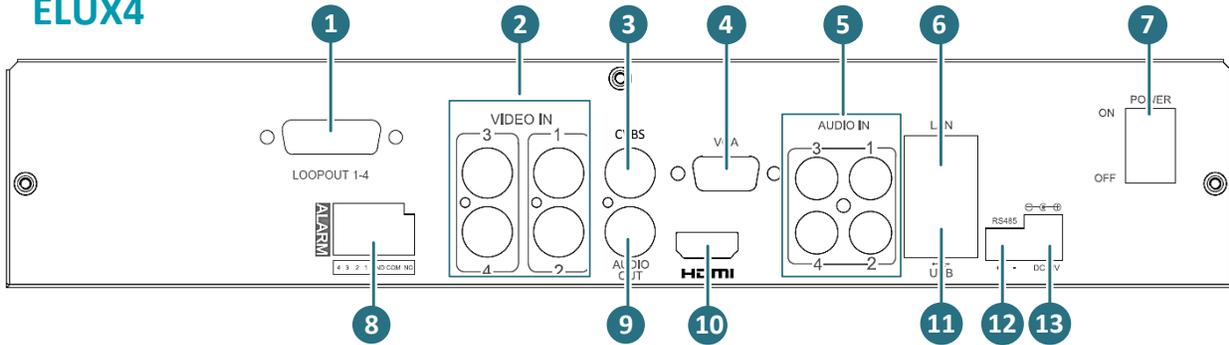
ELUX16



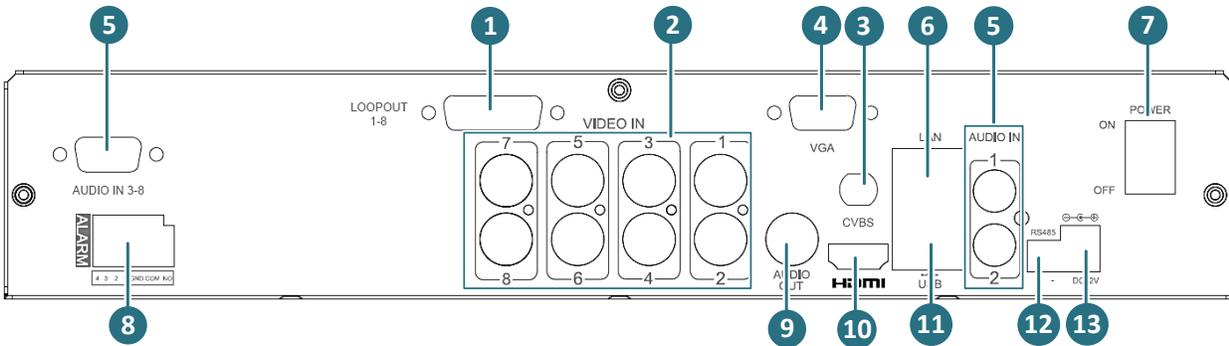
No.	Name	Description
1	Channel 1~4 / 1~8 / 1~16	Press to display the channel in full screen.
2	Menu	Press to enter/exit the Main Setup Menu.
3	Status LED	Power LED: Indicates the power is on. Record LED: Indicates the DVR is recording. Alarm LED: Indicates the alarm input is triggered.
4	USB2.0 Port	The USB2.0 port for connecting to a mouse, external storage device or EKB200 keyboard.
5	View	Press the type of layout you want for displaying your channel feeds.
6	SEQ (Sequence)	Press to enter the automatic sequence mode. This will show each channel feed in sequence.
7	Display	Press to cycle between the info display types (channel and status bar info).
8	Search	Press to enter the Search Setup menu.
9	Copy	Press to enter the Copy Menu.
10	Zoom	Press repeatedly to toggle between 2x and 4x zoom. Press the Menu button to switch zoom off.
11	Arrow Keys	Use these arrow keys to change the Menu settings.
12	IR Receiver	Receiver for IR Remote Control.
13	Channel Switch	Press this button to switch the channel button numbers between 1~8 and channel 9~16.

1.2 Rear Panel

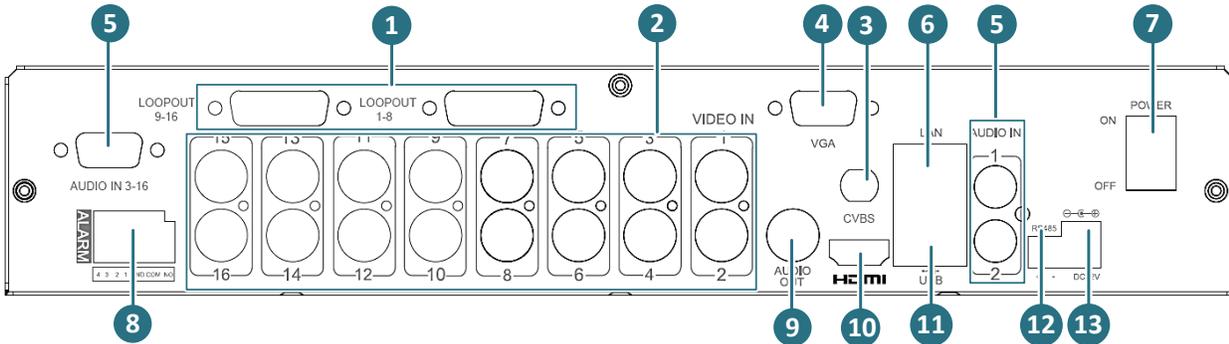
ELUX4



ELUX8



ELUX16



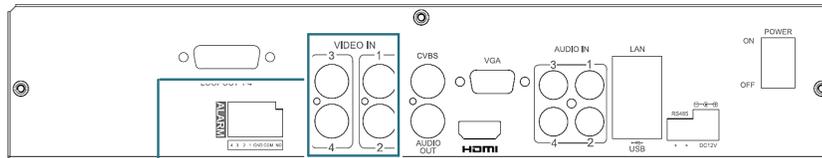
No	Name	Description
1	Loop Video Output (Optional)	The DVRs support 4 (4CH DVR) / 8 (8CH DVR) / 16 (16CH DVR) looping outputs. You can use the optional Loopout Cable to connect to the monitors. Please refer to 3.1 <i>Monitor Connection</i> .

2	Video Input	<p>Connect up to 4 / 8 / 16 analog HD or SD cameras to any channels using the coaxial cables.</p> <p>Note:</p> <ol style="list-style-type: none"> The DVR can automatically configure itself as NTSC or PAL. To do this, connect a camera to any channel of the DVR. The DVR will detect the first connected camera format (NTSC or PAL) and then automatically configure itself to the detected format from the first connected camera. For example, if the format of the first connected camera is NTSC, the DVR will configure itself to NTSC format. <p>All video inputs are compatible with all resolution types of cameras, such as 1080p, 720p, 960H and D1 cameras (HD-CVI / HD-SDI cameras are not supported).</p>
3	CVBS Port (BNC)	<p>This can be used as a Call monitor output. Connects to the Call monitor using a BNC cable (see <i>3.1 Monitor Connection</i>).</p>
4	VGA Port	<p>This can be used as a Main monitor output (only for ELUX4 and ELUX8) / Call Monitor output (only for ELUX16). Connects to the monitor using a VGA cable (see <i>3.1 Monitor Connection</i>).</p>
5	Audio Input (RCA)	<p>Connects to the audio input devices such as microphones. Note that the microphone with a (built-in) amplifier and external power supply is required.</p>
6	LAN	<p>Connects to the Network.</p>
7	Power Switch	<p>Press to turn on or off the power.</p>
8	Alarm Input / Output	<p>Connects to 4 alarm inputs, and to 1 alarm output device. You can also connect to the radio-controlled clock for time synchronization. Please refer to <i>3.2 Alarm I/O</i>.</p>
9	Audio Output RCA	<p>Connects to the audio output devices, such as speakers. Note that the speaker with a (built-in) amplifier and external power is required.</p>
10	HDMI Port	<p>This can be used as a Main monitor output. Connects to the monitor using a HDMI cable (see <i>3.1 Monitor Connection</i>).</p>
11	USB2.0 Port	<p>The USB2.0 port for connecting to a mouse, external storage device or EKB200 keyboard.</p>
12	RS-485 Port	<p>Connects to the RS-485 device, such as EverFocus' EKB-500 keyboard.</p>
13	Power Port	<p>Connects to the DC 12V power source using the supplied Power Cord.</p>

1.3 eZ. Controller Function Description

◆ **eZ.Controller: Easily control PTZ camera from DVR using only coaxial cable.**

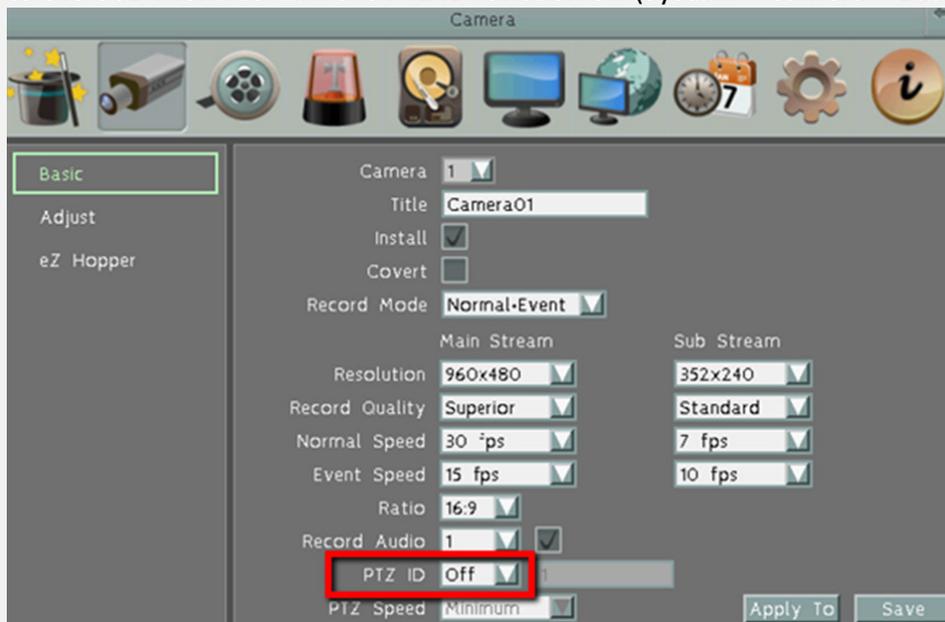
eZ.Controller allows users to control PTZ camera from DVR using only a coaxial cable without the need of a RS-485 cable between the PTZ camera and the DVR. Users can easily operate Zoom, Focus, Iris, Direction, Auto Pan, Preset, Tour and Pattern functions to the PTZ camera through DVR.



Tip: You can also bring up the camera OSD through Preset 95.

Note:

1. The eZ.Controller function for PTZ control is only supported for EverFocus AHD (1080p, 720p) PTZ cameras.
2. After connecting the PTZ camera to the DVR through the coaxial cable, you will have to go to the OSD Menu to turn the PTZ ID function off (System < Camera < Basic).



◆ **eZ.Controller: Easily control eZ.HD camera's OSD at the DVR end.**

Traditionally, the CCTV installer needs to take a portable monitor to connect to the camera for controlling the camera OSD at the camera installation site as the *Diagram A* below. It will take extra effort, time and people to adjust the camera.

Now, EverFocus' **eZ.Controller** allows users to control the camera OSD simply on the monitor at the DVR end as illustrated in *Diagram B*.



How to Control eZ.HD Camera's OSD at the DVR End?



1. On the DVR's OSD setting menu, go to **Configuration > Camera > Adjust**. Select a camera you want to adjust.
2. Click the **Advanced** button, and the camera live view with the Coaxial Panel will be displayed.
3. To display the OSD menu, click the **Enter** button  on the Coaxial Panel.
4. You can use the direction buttons on the Coaxial Panel to control the camera's OSD setting menu.
5. To exit the setting, click **Exit** to return to the **Adjust** setting page.

1.4 Packing List

• DVR x1	• Power Cord and Adaptor x 1
• HDD Mounting Screw Pack x 1	• Quick Installation Guide x 1
• Remote Controller x 1	• Audio In Cable x 1 (only for ELUX8 / ELUX16)
• Mouse x 1	• SATA Cable x 1 (ELUX4)
• CD x 1 (contains the IP Utility software, User Manual and Quick Installation Guide)	• SATA Cable x 2 (ELUX8 / ELUX16)

Note:

1. Equipment configurations and supplied accessories vary by country. Please consult your local EverFocus office or agents for more information. Please also keep the shipping carton for possible future use.
2. Contact the shipper if any items appear to have been damaged in the shipping process.
3. Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
 - a. Use only two AAA dry cell batteries.
 - b. Do not dispose of the batteries in a fire as it may explode.

1.5 Optional Accessories

- Loopout Cable: The DVR supports 4 (4CH DVR) / 8 (8CH DVR) / 16 (16CH DVR) looping outputs. Simply connect the Loopout Cable to the LOOPOUT port on the rear panel of the DVR. Please refer to *3.1 Monitor Connection* for more details.



- EKB200 (USB controller keyboard: connect to the PC or DVR to control the PTZ cameras connected to the DVR). Please refer to *6.9.6 EKB200 Setting* in the *User's Manual* and the User Manual of the EKB200 Keyboard.



- EKB500 (RS-485 keyboard: connect to the RS-485 port to control the PTZ cameras connected to the DVR). Please refer to User Manual of the EKB500 Keyboard.

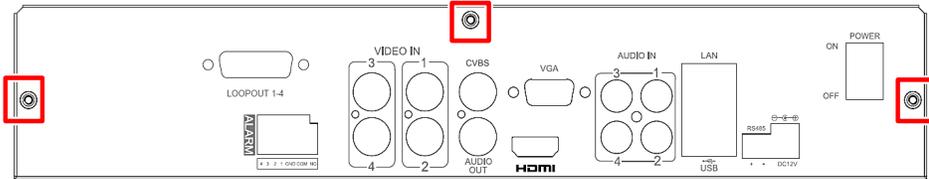


2. Hard Disk Drive Installation

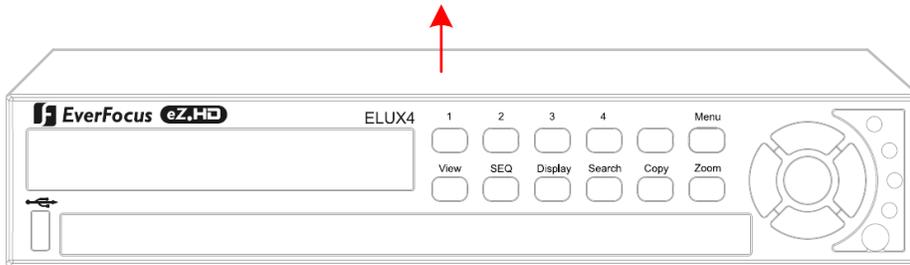
2.1 ELUX4

You can install one 3.5" HDD inside the ELUX4 DVR for recording videos.

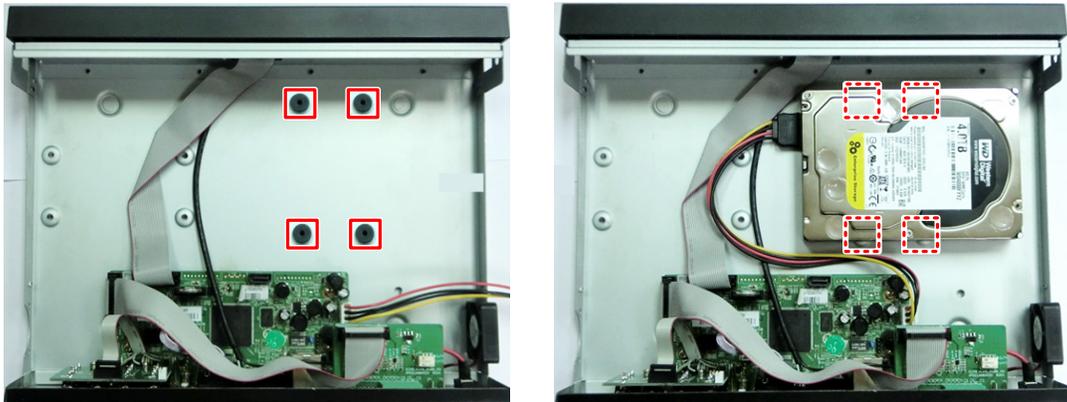
1. Make sure the DVR is power-off.
2. Unscrew the three housing screws on the rear panel of the DVR.



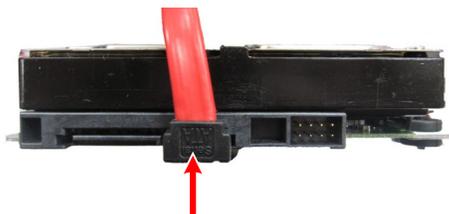
3. Push the housing cover a little bit backward and then remove the housing cover.



4. Screw the HDD to the bottom of the DVR using supplied screws.



5. Connect the internal SATA cable to the SATA port on the HDD.



6. Connect the internal power cable to the HDD.

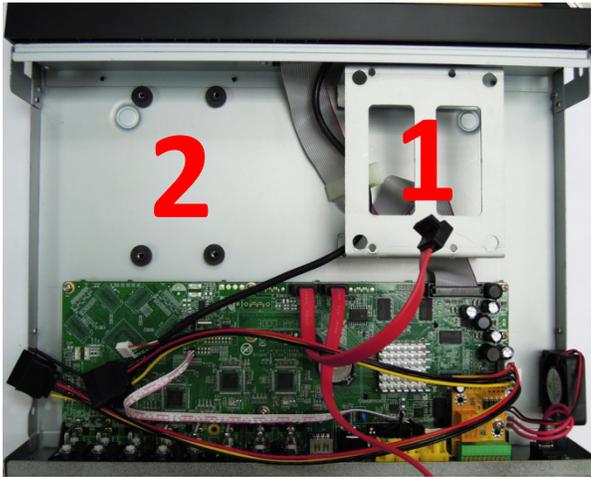


7. Screw back the housing cover to the DVR.
8. Format the HDD after the installation is complete.

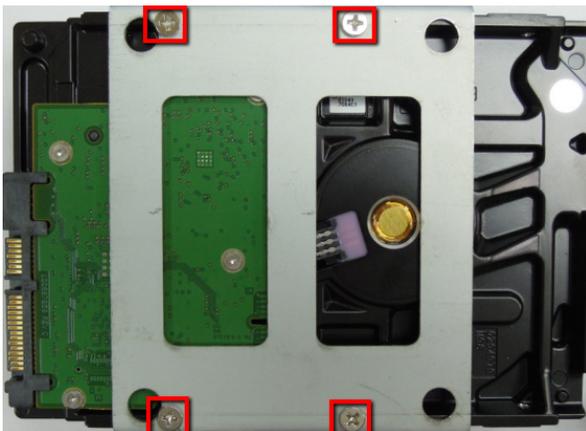
2.2 ELUX8 / ELUX16

You can optionally install two 3.5" HDDs inside the ELUX8 / ELUX16 DVR for recording videos.

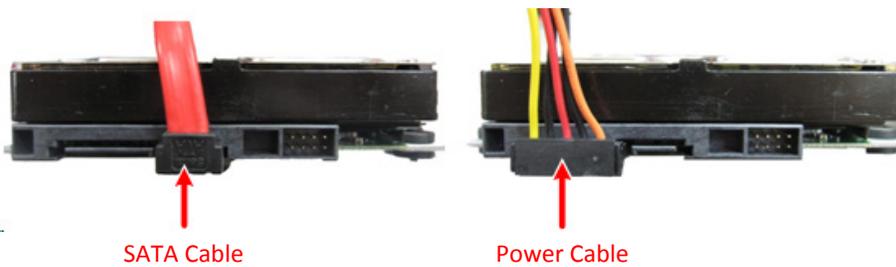
1. Follow the first three steps above to remove the DVR cover.
2. Please install the HDD firstly on the HDD Bracket and then install the second one onto the DVR.



3. Screw a HDD onto the HDD Bracket using the supplied four short screws.



4. Connect the internal SATA cable to the SATA port on the HDD, and connect the internal power cable to the HDD to complete the first HDD installation (You need to connect these cables to the second HDD before installing).



5. Screw the second HDD on the DVR from the bottom side using the supplied four long screws.



6. Screw back the housing cover to the DVR.
7. Format the HDDs after the installation is complete.

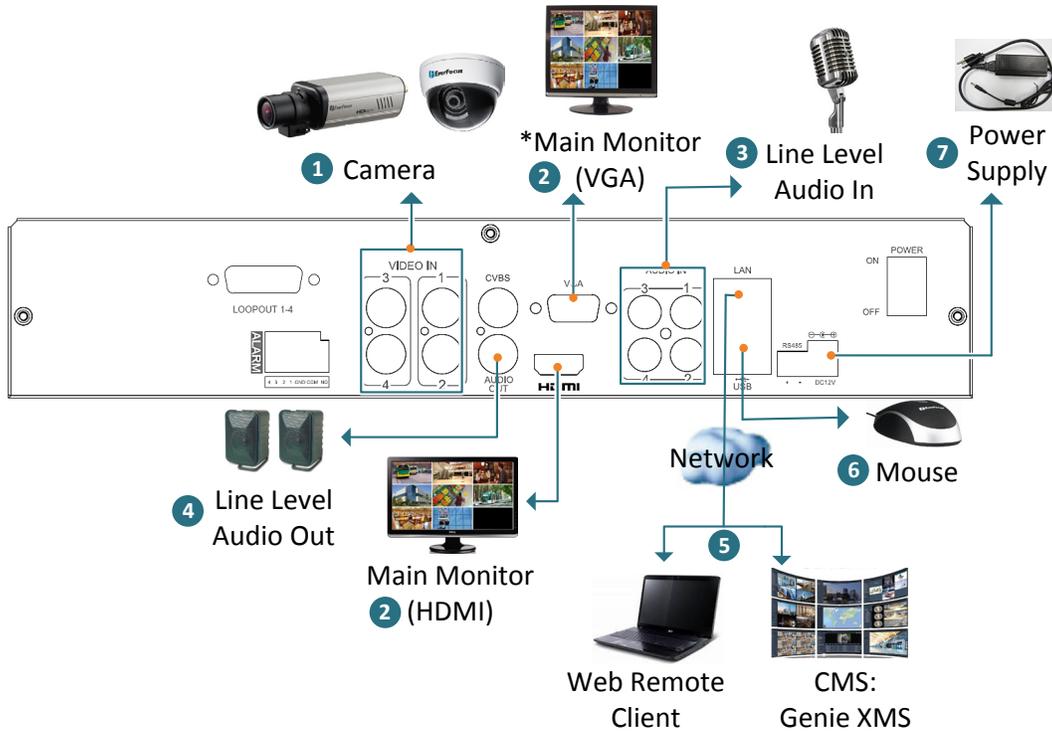
2.3 Hard Disk Compatibility List

Please go to the ELUX4 / ELUX8 / ELUX16 Web page on our website <http://www.everfocus.com.tw> to see the latest **Hard Disk Compatibility List** and it's recommended to use the hard disk models in that list to ensure your hard disks will be compatible.

Note: If using two or more hard disks, please choose the hard disks with the same capacity.

3. Basic Connection

The instructions figure below describes the basic connection for the ELUX4 / ELUX8 / ELUX16 DVR. (This figure uses ELUX4 DVR as an example).



1. Connect the cameras to the DVR using the coaxial cables. (HD-CVI and HD-SDI cameras are not supported).
2. To view videos and control OSD settings, connect a monitor to the HDMI / VGA port using the HDMI / VGA cable supplied by the monitor manufacturer. * The VGA port can be used as a Main monitor output for ELUX4 and ELUX8; or a Call monitor output for ELUX16.
3. Connect the line level audio input devices to the Audio-in of the DVR. Note that the audio input devices, such as microphones, are required to have a (built-in) amplifier and external power supply.
4. To listen to audio of video source, connect speakers to the Audio-out RCA port. Note that speakers with a (built-in) amplifier and external power are required.
5. Use a standard RJ-45 cable to connect the DVR to the network for remote viewing or using EverFocus surveillance system (Genie XMS).
6. Optionally connect a mouse to the DVR to control the system. You can also control the system using the supplied IR Remote Control or the control keys on the front panel.
7. Using the supplied Power Cord, connect one end to the DC 12V port on the DVR and the other end to the DC 12V power outlet.

Note: Please ensure to connect the internal power cables to the internal HDDs before powering on the DVR.

3.1 Monitor Connection

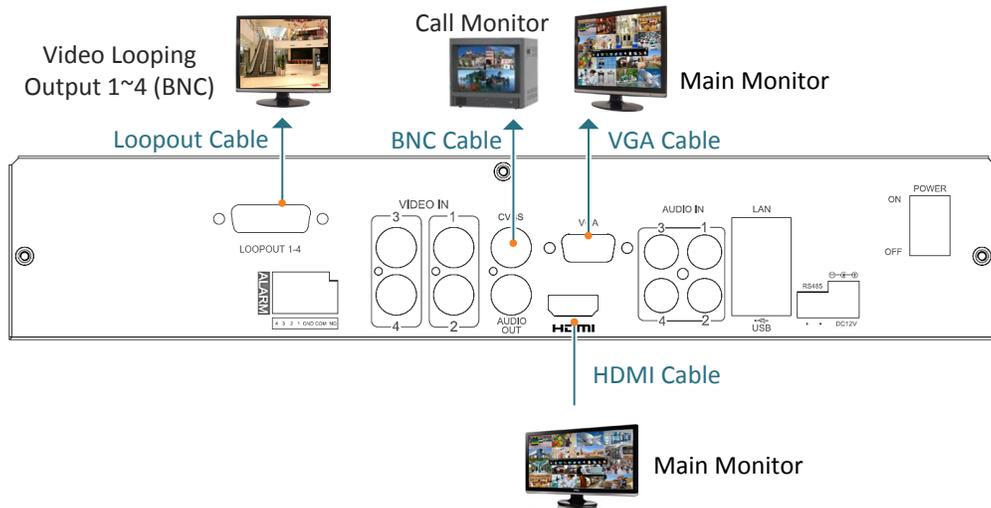
Connect the monitor to the HDMI, VGA or BNC port on the rear panel of the DVR. The ELUX4 and ELUX8 provide 2 main monitor outputs (HDMI and VGA) and 1 call monitor output (BNC); The ELUX16 provides 1 main monitor output (HDMI) and 2 call monitor outputs (VGA and BNC).

The main monitor output can deliver full HD output resolution (1920x1080, progressive, 60 Hz. vert., 68 KHz hor.). The call monitor can display camera streams or perform sequence display mode. Make sure that the connected monitor's specifications comply with the resolution requirements. To configure the monitor setting, please refer to 6.6 *Display Setting* in the *User's Manual*.

For ELUX4 and ELUX8, the 2 main monitor outputs provide the identical functionality. Both of the main monitors can be operated simultaneously. For ELUX16, the 2 call monitor outputs provide the identical functionality. Both of the call monitors can be operated simultaneously.

The DVRs support 4 (4CH DVR) / 8 (8CH DVR) / 16 (16CH DVR) looping outputs. You can optionally use the Loopout Cable (see 1.5 *Optional Accessories*) to loop out each video channel. Connect one end of the Loopout Cable to the LOOPOUT port on the rear panel of the DVR and the other ends (BNC ports) to the monitors. For 4CH / 8CH DVR, one Loopout Cable is required (with 4 / 8 BNC ports); for 16CH DVR, two Loopout Cables are required (with 1-8 and 9-16 BNC ports). **Note that the videos will not be looped out when DVR power is turned off.**

The figure below uses ELUX4 as an example.

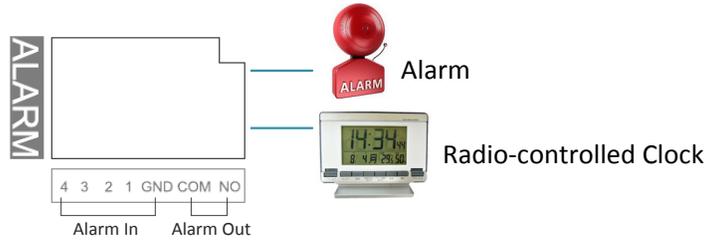


Note:

1. The connected monitors' specifications must comply with the resolution requirements.
2. Do not exceed the max. HDMI cable length of 15 meters. The standard HDMI cables can support cable length up to 3 meters. For longer distances, such as 15 meters, it is highly recommended to use high quality HDMI cables.

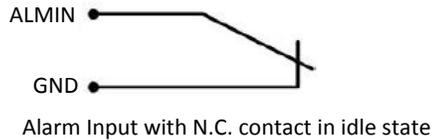
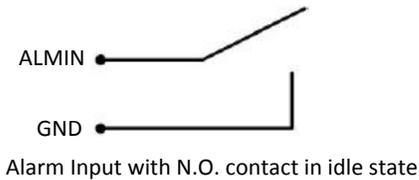
3.2 Alarm I / O

The DVR provides 4 alarm inputs and 1 alarm outputs. You can also connect the radio-controlled clock to the alarm input of the DVR for the time synchronization. The DVR supports the radio-controlled clock which will automatically synchronize to the time standard so that you won't need to reset the time manually. For radio-controlled clock connection, connect the positive (+) wire to either pin of Alarm Input 1~4 and negative (-) wire to the GND pin.



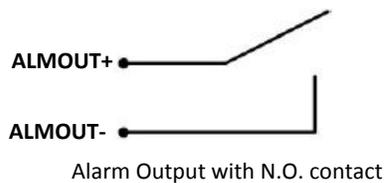
Alarm Input Contacts

This DVR provides 4 alarm inputs. All inputs are programmable N.O. (Normal Open) or N.C. (Normal Closed). All settings are programmed in the ALARM / Event menu.



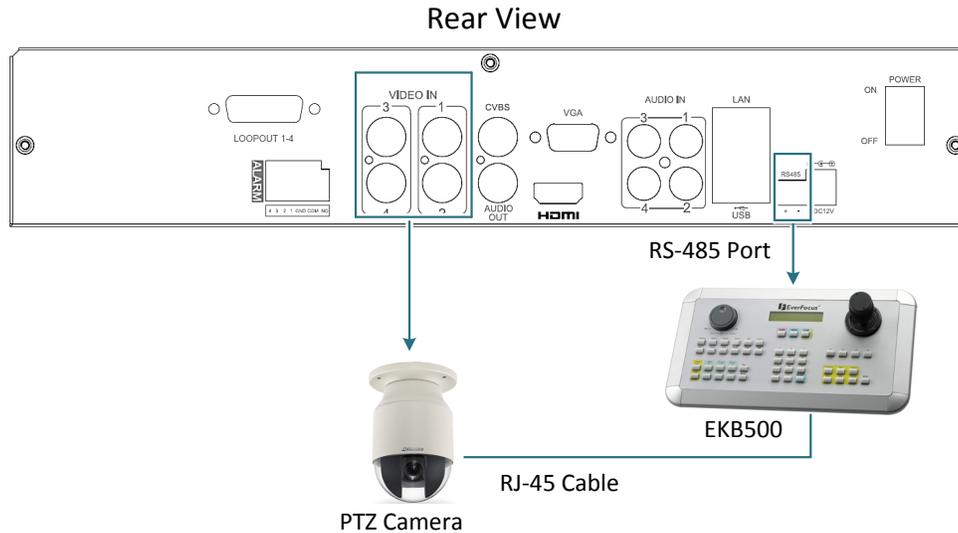
Alarm Output Contacts

The relay output provides Normally Open dry contacts.



3.3 RS-485 Port

The RS-485 port, located on the rear panel of the DVR, can be used to connect to an RS-485 keyboard, such as EverFocus' EKB500, for controlling PTZ cameras or connect to a POS device. For details on the RS-485 configurations on the DVR, please refer to 6.9.5 I/O Control in the *User's Manual*. This figure uses ELUX4 DVR as an example.



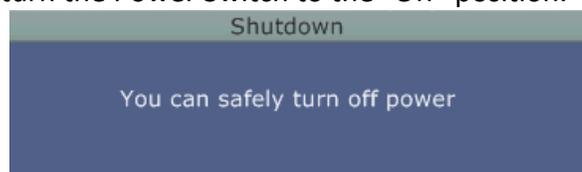
Note: EverFocus full HD DVRs supports the eZ.Controller function, which enables users to control PTZ camera from DVR using only a coaxial cable without the need of a RS-485 cable between the PTZ camera and the DVR. Users can also enter the PTZ camera's OSD menu through DVR (see 1.3 eZ. Controller Function Description).

4. Turning On / Off the Power

Before powering on the DVR, please make sure the internal HDDs have been installed properly. Once you have completed the basic cable connections, you are ready to turn on the DVR.

To turn on the power, connect the supplied Power Cord to the power outlet and turn on the Power Switch. All of the LED indicators on the front panel will light up. The DVR will automatically run an internal process, when the process is complete, the LED indicators will turn off, and the POWER LED will remain light up in green. And then you can start operating the DVR.

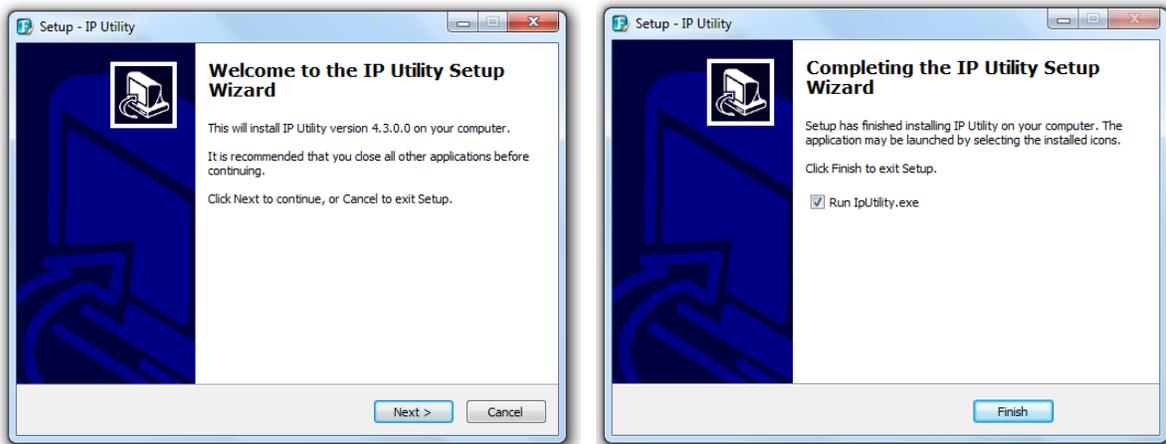
To turn off the power, please go to OSD Root Menu > System Setting > Miscellaneous setting page, and click **Shutdown** (refer to 6.9.7 Miscellaneous in the *User's Manual*). After the message pops up as below, you can now turn the Power Switch to the "Off" position.



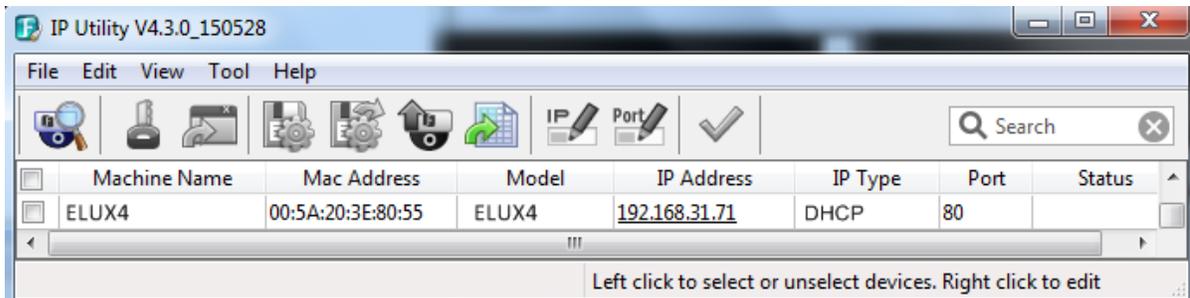
5. Checking the Dynamic IP Address

You can look up the IP address and access the Web interface of the DVR using the **IP Utility (IPU)** program, which is included in the software CD. The IP Utility can also be downloaded from EverFocus' Website: http://www.everfocus.com/HQ/Support/DownloadCenter_p1.aspx. Please connect the DVR on the same LAN of your computer.

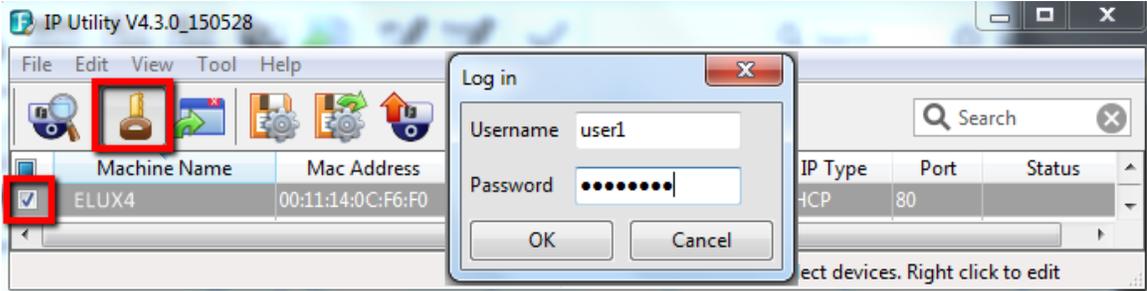
1. Save **IP Utility Setup .exe**  in your computer. Double click the .exe file and follow the on-screen instructions to install the IP Utility.



2. Click the **Finish** button, the IP Utility will be automatically launched to search the IP devices connected on the same LAN.



3. To optionally configure the Machine Name, IP Address, IP Type or Port Number using the IPU:
 - a. Log in the DVR by checking the desired model and then click the **Log in**  icon. The Log in dialog box appears.



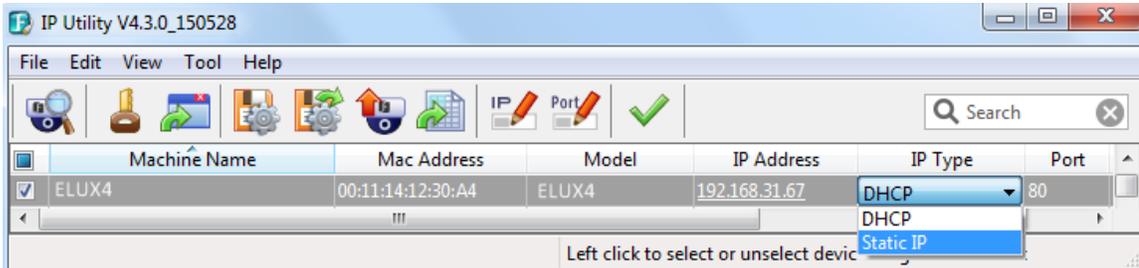
- b. Type the Username and Password. Click the **OK** button, the status of the selected camera will display **Login**.

Machine Name	Mac Address	Model	IP Address	IP Type	Port	Status
<input checked="" type="checkbox"/> ELUX4	00:11:14:12:30:A4	ELUX4	192.168.31.67	DHCP	80	Login

Note:

1. The default user ID is **admin** and the default password is **11111111**.
2. If you select more than one DVRs that have the same user ID / password, you will be able to log in several DVRs at once.

- c. Right click the column to configure the setting. Click **Apply Changes**  button to apply and save the settings.

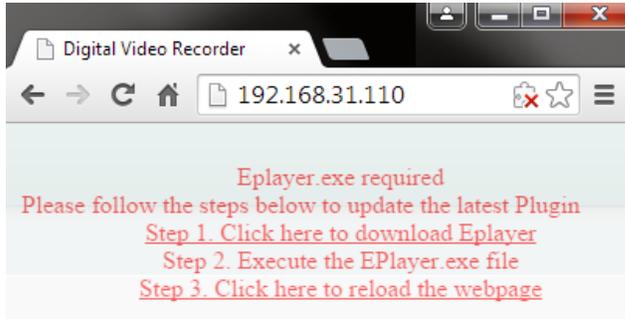


Note: Most networks uses DHCP to assign IP address, if you are unsure of your network settings, please consult your network administrators for configuration details.

4. To access the Live View window, double click the IP address of the desired device, the login window pops up. Type the user ID and password to log in. By default, the user ID is **admin** and the password is **11111111**.



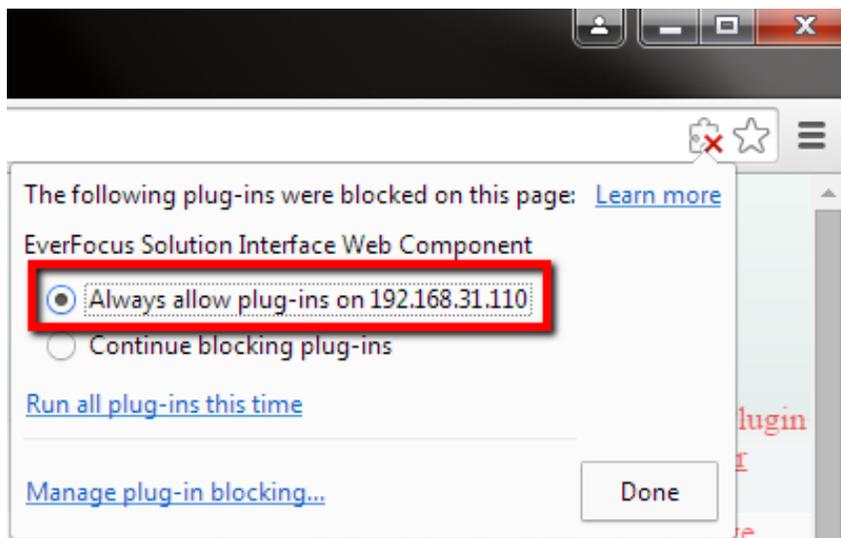
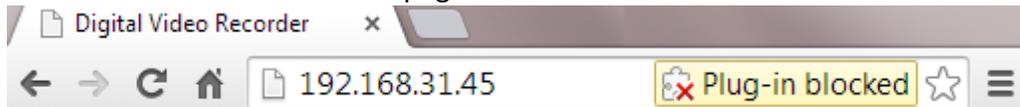
- 5. If you log in for the first time, follow the instruction steps on the interface to update the latest Plugin version (ePlayer). After reloading the webpage, the login window pops up again. Type the user ID and password to log in again. By default, the user ID is **admin** and the password is **11111111**.



Note for the first time login:

The “Download ePlayer Instruction” page will only be prompted for the first time login in order to update the system to the latest plugin version.

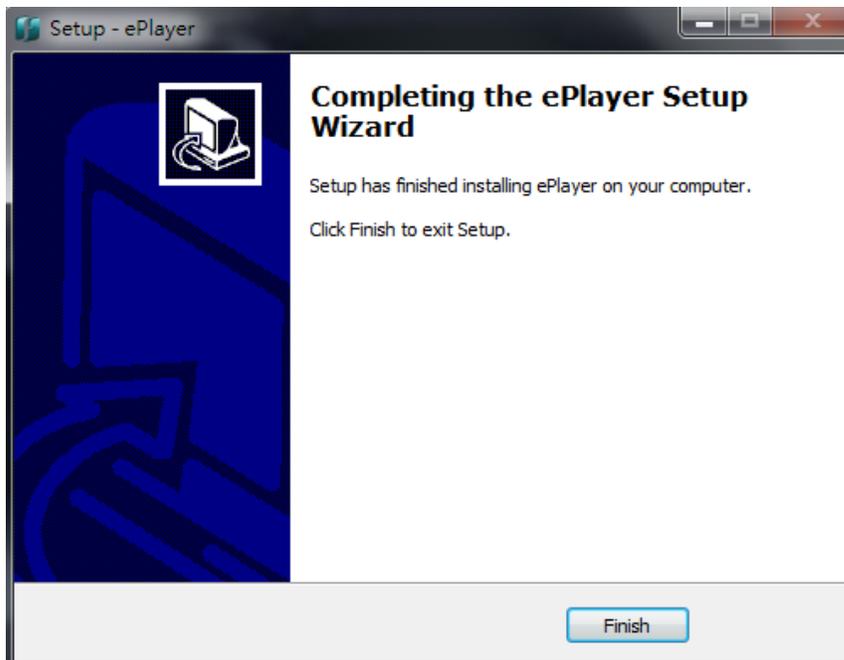
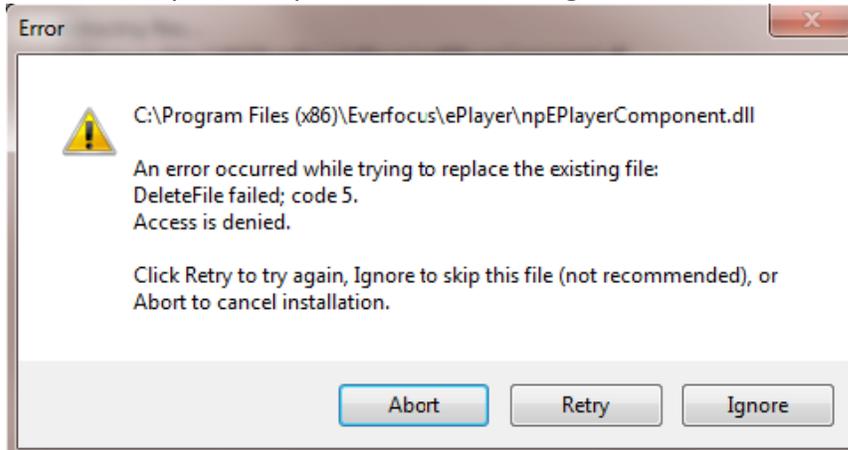
When the Plug-in blocked appears on the browser, select **Always allow plug-ins on xxx**, click **Done** and then reload the webpage.



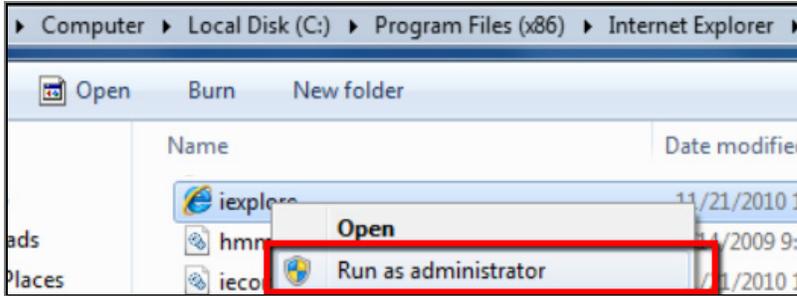
- 6. Now you will be able to see the remote live page.

If you encounter the following problem or still can't access the remote Web interface, please see below:

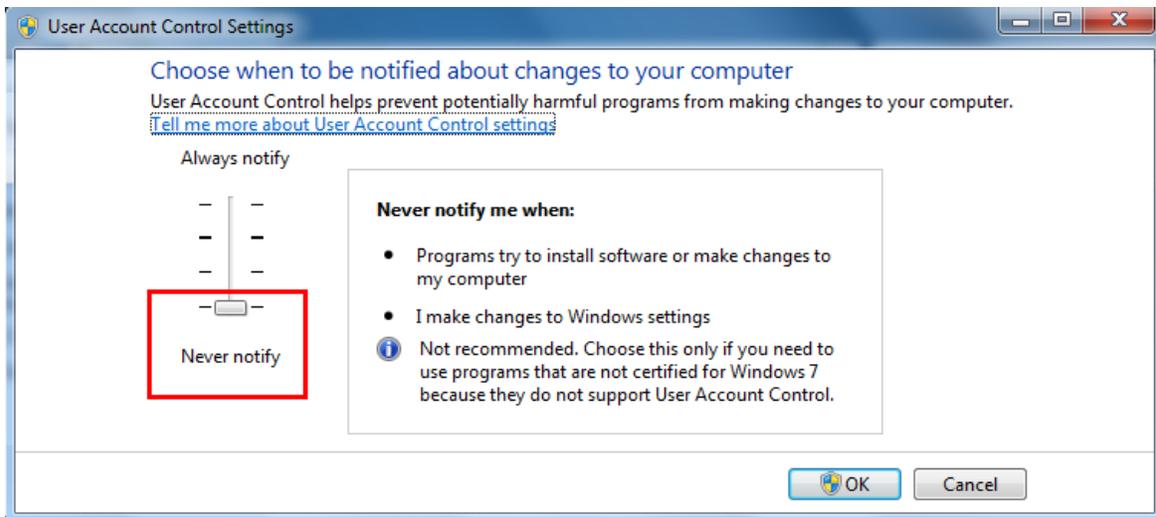
- ◆ If the **Error** window appears, please be sure to **close ALL the Web browser windows first** and then click **Retry**. When the **Completing the ePlayer Setup Wizard** window shows up, click **Finish**. Then, you can open a new browser again to access the DVR's remote Web interface.



- ◆ If your PC or laptop is running with Windows, it's required to run the browser as administrator when first entering the remote web page of the device. Go to **C:\Program Files (x86)\Internet Explorer**, right-click the browser and then click **Run as administrator**.



- ◆ You may need to turn **User Account Control** off if you still can't see the Remote Live View. On the computer, click **Start > Control Panel > System and Security > Action Center** (click Change User Account Control Settings), the **User Account Control Settings** window appears. Adjust the slide bar to **Never Notify** and then click **OK**. Restart your computer if requested.



6. Specification

Model Name		ELUX16	ELUX8	ELUX4
System				
Operating System		Embedded Linux		
Number of Channels		16CH	8CH	4CH
RAM		2GB	1GB	512MB
Watchdog		Yes		
Dual Stream		Yes		
OSD Menu		Yes		
System Control		Front Panel Buttons, Mouse, IR Remote Control		
Pentaplex Operation		Simultaneous Live, Recording, Playback, Archive and Remote Viewing		
PTZ Protocol Supported		EverFocus, Pelco D, Pelco P, Samsung, Transparent		
Video				
Compression Format		H.264		
Video Format		NTSC / PAL		
Video Inputs		16 x BNC	8 x BNC	4 x BNC
Video Looping Outputs		16 (Optional)	8 (Optional)	4 (Optional)
Video outputs	Main	HDMI	HDMI and VGA	HDMI and VGA
	Call	VGA and BNC	BNC	BNC
Recording				
Recording Rate / Resolution	NTSC	240fps @ 1080p; 480fps @ other res.	120fps @ 1080p; 240fps @ other res.	60fps @ 1080p; 120fps @ other res.
	PAL	200fps @ 1080p; 400fps @ other res.	100fps @ 1080p; 200fps @ other res.	50fps @ 1080p; 100fps @ other res.
Recording Modes		Manual, Schedule and Event		
Playback				
Playback Rate / Resolution	NTSC	240fps @1080p; 480fps @ other res.	120fps @1080p; 240fps @ other res.	60fps @1080p; 120fps @ other res.
	PAL	200fps @1080p 400fps @ other res.	100fps @1080p 200fps @ other res.	50fps @1080p 100fps @ other res.
Search Modes		Date / Time, Event, Motion in Recorded Video, Snapshot by Interval		
Audio				
Audio Inputs		16 inputs	8 inputs	4 inputs
Audio Output		1 output		
Alarm				
Alarm Inputs		4 inputs		
Alarm Outputs		1 x relay		

Storage Device			
Internal 3.5" HDD	2 x SATA HDD (Optional)		1 x SATA HDD
Storage Capacity	8 TB		4 TB
Network			
Ethernet	10/100/1000 Ethernet	10/100 Ethernet	
Protocol	TCP-IP / DHCP / PPPoE / DDNS / SMTP / NTP		
Interface			
USB 2.0	2 x USB 2.0 port (1 on Front Panel, 1 on Back Panel)		
RS-485	2 pin terminal connector		
Ethernet	1 x RJ-45		
General			
Power Input	12VDC / 5A	12VDC / 5A	12VDC / 5A
Power Consumption	60W max.	60W max.	60W max.
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F (20 ~ 80% humidity)		
Dimensions (W x D x H)	320 x 267.8 x 59.9mm / 12.6" x 10.54" x 2.36"		
Weight (without HDDs)	3.14kg / 6.92lb		2.36kg / 5.2lb
Language	English, Japanese, Traditional Chinese, Spanish, Deutsch, French, Russian, Portuguese (Brazil), Dutch, Simplified Chinese		
Regulatory	CE, FCC, UL		
Functions			
Video Pause	Yes		
Video Loss Detection	Yes		
Motion Detection	Yes		
Event Log	Yes		
User Interface	GUI (Graphical User Interface)		
Control PTZ via OSD	Yes (via both local and remote interfaces)		
Schedule Setting	Supports Express and Advanced Schedule Setting		
User Access	3 Levels of User Access Defined		
Remote Client System Minimum Requirement			
Operating System	Windows XP (32-bit) / Win7 (32 and 64-bit)		
CPU	Intel Core I3-2100		
RAM	2GB		
VGA	Intel HD 2000		
LAN Speed	10 / 100 / 1000 Mbps (RJ45)		
Web Browser	IE9 and later, Firefox, Chrome (Windows version 44 and earlier)		
Other Remote Application	1. EverFocus' CMS: Genie XMS 2. EverFocus' mobile app: MobileFocus (iOS and Android); MobileFocusHD (iPad)		

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	<p>Your EverFocus product is designed and manufactured with high quality materials and components which can be recycled and reused. This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste. Please, dispose of this equipment at your local community waste collection/recycling centre. In the European Union there are separate collection systems for used electrical and electronic product. Please, help us to conserve the environment we live in!</p>	<p>Ihr EverFocus Produkt wurde entwickelt und hergestellt mit qualitativ hochwertigen Materialien und Komponenten, die recycelt und wieder verwendet werden können. Dieses Symbol bedeutet, dass elektrische und elektronische Geräte am Ende ihrer Nutzungsdauer vom Hausmüll getrennt entsorgt werden sollen. Bitte entsorgen Sie dieses Gerät bei Ihrer örtlichen kommunalen Sammelstelle oder im Recycling Centre. Helfen Sie uns bitte, die Umwelt zu erhalten, in der wir leben!</p>
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