MoniVue System
ESN41 / ESN41-E Ultra Compact 4CH H.264 Video Recorder

Quick Installation Guide

All the images including product pictures or screen shots in this document are for example only. The images may vary depending on the product and software version. Information contained in this document is subject to change without notice.
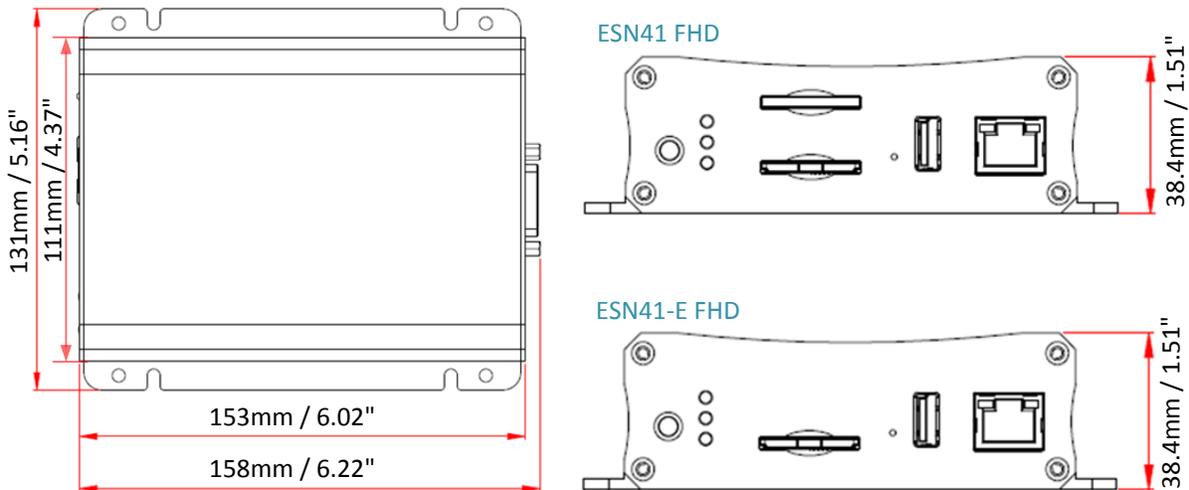
1.   Introduction

The MoniVue System, bundled with one compact 4CH video recorder and four 1080p FHD cameras, is ideal for the surveillance environment where areas are closely situated. As MoniVue System is bundled with a video recorder and four-camera, we will introduce the two products separately. The content below describes the hardware and software of the 4CH recorder. For more details about the cameras, please refer to the User's Manual of MoniVue Camera.

Video Recorder

Camera x 4

The video recorder of MoniVue System comes in two models. Here we listed some differentiation between the two models.

Spec	ESN41 FHD	ESN41-E FHD
Channels	4CH mini DIN	4CH mini DIN
Alarm In / Out	4 / 4	-
SD Card Slot	2 (max. 128GB per card)	1 (max. 128GB)
RS-485	1	-
Power Source	PoE / 12VDC	12VDC

Dimensions

131mm / 5.16"
111mm / 4.37"
153mm / 6.02"
158mm / 6.22"

ESN41 FHD
38.4mm / 1.51"

ESN41-E FHD
38.4mm / 1.51"

Packing List

• Video Recorder x 1	• D-Sub Cable x 1 (see *2.3.2 D-Sub Cable*)
• VGA Cable x 1	• Quick Installation Guide x 1
• Power Adaptor x 1 (see *2.3.1 Power Input*)	• CD x 1 (Please see Note 3.)

• IR Remote Control (with two AAA batteries. See Note 4) x 1

• Mounting Kit x 1
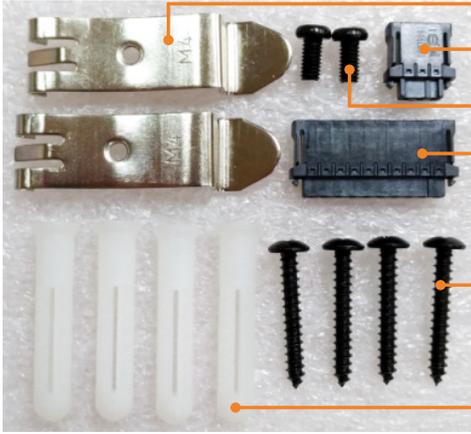
DIN Rail Mounting Clip x 2 (Applicable to 35mm DIN Rails)

RS-485 Terminal Block

DIN Rail Mounting Screw x 2

Alarm I/O Terminal Block

Mounting Screw x 4

Mounting Screw Anchor x 4

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. The CD contains the IP Utility software, User Manual and Quick Installation Guide.

4. 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.

Optional Accessories

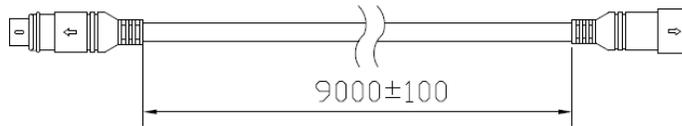| Camera	
S200 MoniVue Camera, 2.7mm, Sony sensor, 1080p, 3m cable, Mini Din	**S208** MoniVue Camera, 8mm, Sony sensor, 1080p, 3m cable, Mini Din, Focus Adjustable, Industrial use

Camera Extension Cable

MEC-009

MoniVue System Extension Cable – 9m

9000±100

PoE Switch

EverFocus 5 / 8 / 16 / 24 Ports PoE Switch

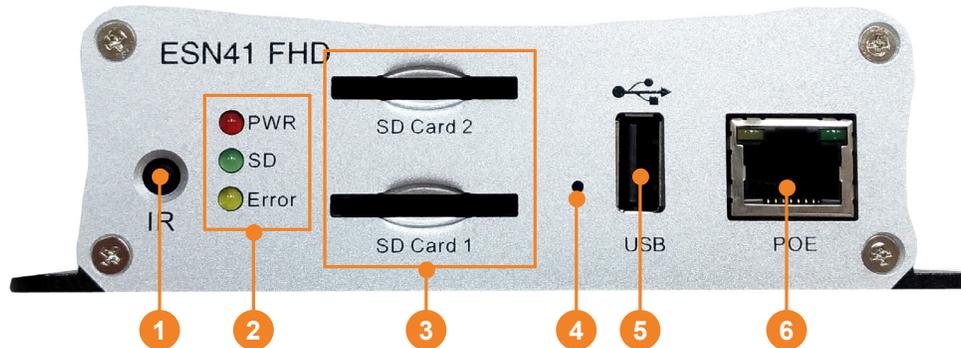5 Ports: ES0501-40

8 Ports: ES0812-31 / ES0802-41

16 Ports: ES1625-31 / ES1645-51

24 Ports: ES2426-31 / ES2446-51 / ES2448-62

Front Panel

No.	Name	Description
1	**IR Receiver**	Receives data from the infrared remote control.
2	**System LEDs**	<u>Power:</u> Lights red continuously when power is supplied. <u>SD:</u> Lights green continuously when SD card is reading or writing data. <u>Error:</u> Lights yellow continuously when system error occurs, including System Clock Error, SD Failed, SD Off and Network Loss.
3	**SD Card Slot**	Insert a SDHC/SDXC card (up to 128GB per card) for recording (see *2.2 SD Card Installation*). To see the SD card info, see *6.5.1 Storage* in the *User's Manual*. You can also see *Appendix G* for tested card brands. (ESN41-E FHD only provides one SD Card Slot)
4	**Reset Button**	Press and hold the Reset Button to restart system.
5	**USB2.0 Port**	Connects to a USB storage device or a mouse. You can use the USB storage device for archiving (backup) recordings. Up to 4TB storage capacity is supported of the USB storage device.
6	**LAN / PoE**	Connects to a 10/100/1000 Ethernet or PoE switch (ESN41-E FHD doesn't support PoE function).

Rear Panel
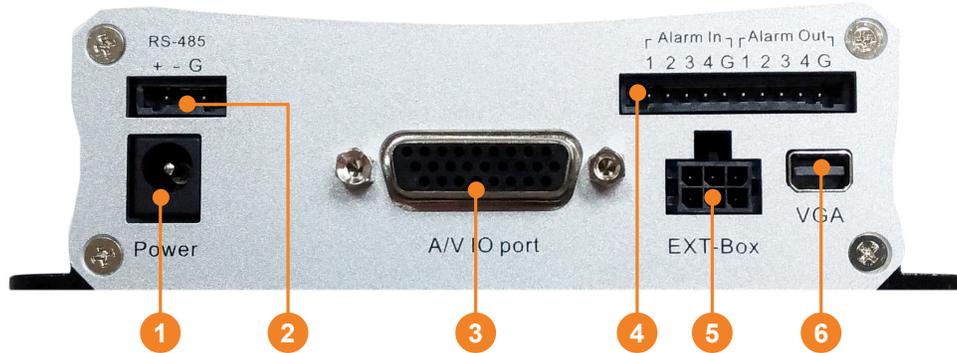
No.	Name	Description
1	**DC Power Input**	Connects to power source using the supplied Power Adaptor. For details, please refer to *2.3.1 Power Input*.
2	**RS-485 Port**	This function is only available for ESN41 FHD. Connects to a RS-485 device such as PTZ camera. Please insert the supplied RS-485 Terminal Block to the RS-485 Port in advance.
3	**D-Sub Port**	Connects to the video input/output and audio input/output devices using the supplied D-Sub Cable. Please refer to *2.3.2 D-Sub Cable*.
4	**Alarm I/O**	This function is only available for ESN41 FHD. Connects up to 4 alarm input and 4 alarm output devices. You can also connect to the radio-controlled clock for time synchronization. Please insert the supplied Alarm I/O Terminal Block to the Alarm I/O Port in advance.
5	**EXT Box**	This function is currently reserved. Connects to an external I/O box.
6	**VGA**	Connects to a monitor using the supplied VGA Cable. You can display live view or perform the playback and OSD operations.

2.   Installation

2.1   Mounting

You can mount the video recorder on a **Flat Surface** or on a **DIN Rail**.

Mounting on Flat Surface

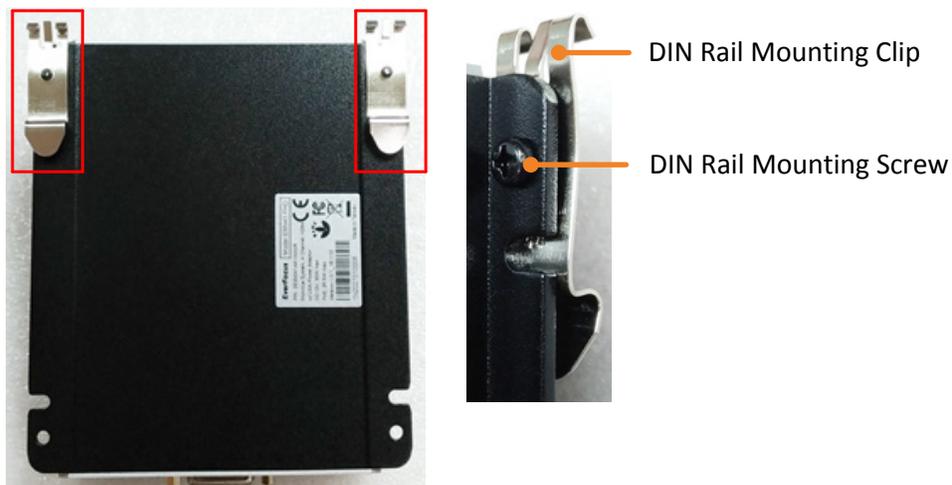To mount the video recorder on a flat surface:

1. Drill four holes on the mounting surface according to the hole-position on the video recorder.

2. Insert the four supplied **Mounting Screw Anchors** into the holes on the mounting surface.
3. Place the video recorder on the mounting surface against the anchoring surface so that the holes line up. Screw the video recorder to the mounting surface using the supplied four **Mounting Screws**.

Mounting on DIN Rail

1. Screw the supplied two **DIN Rail Mounting Clips** to two holes on the bottom of video recorder with the supplied two **DIN Rail Mounting Screws**.

DIN Rail Mounting Clip

DIN Rail Mounting Screw

> **Note:** Depends on the way you would like to mount the video recorder on the DIN Rail (vertically or horizontally), you can choose two holes from one of the sides (Up, Down, Left, Right) for screwing the DIN Rail Mounting Clips.

2. Hitch the hook of the **DIN Rail Mounting Clips** on the upper edge of DIN rail and then push the video recorder to the DIN rail. You will hear a clip sound, which means it has been locked to the DIN Rail tightly.

3. A typical mounting may look like the image below. You can mount the video recorder on the DIN rail vertically or horizontally.

> **Note:** The supplied DIN Rail Mounting Clips are applicable to the standard 35mm DIN Rails.

2.2   SD Card Installation

The video recorder provides SD card function for recording. Please follow the steps below to install and activate the SD Card recording function. Up to 128GB SDHC/SDXC card capacity is supported (see *Tested SD Cards* on the below page). Note that ESN41 FHD supports 2 SDHC/SDXC card slots and ESN41-E FHD supports 1 SDHC/SDXC card slot.

1. Insert the SD card(s) to the card slot(s) on the front panel of video recorder.
2. The video recorder will automatically detect when a new SD card has been inserted and the below SD card format message will pop-up. Click **Yes** to format the SD card. Note that only the formatted SD card can be used for recording.

3. After formatting the SD card(s), the system will enter the Live View window. By default, the system will automatically record all the connected channels.

Tested SD Cards:
The video recorder support SDHC/SDXC card up to 128 GB. The following brands of the SD cards have been tested by EverFocus.

Brand	SanDisk	Teamgroup	SanDisk	SanDisk	Transcend
Form Factor	SDXC	SDXC	SDHC/SDXC	SDHC/SDXC	SDHC/SDXC
Card Capacity	128 GB	64 GB	32 GB	32 GB	32 GB
Card Rate Level	Class 10	UHS-1	Class 10 U1	Class 2	Class 10 U1

Brand	SanDisk	Toshiba	Kingston
Form Factor	SDHC/SDXC	SDHC/SDXC	SDHC/SDXC
Card Capacity	16 GB	16 GB	16 GB
Card Rate Level	Class 10 U1	U3	Class 10 U1

After installing the SD Card, it's recommended to enable the **Record Overwrite** function. The Record Overwrite function enables the system to overwrite the recordings when the card space is full. If Record Overwrite is not enabled, the recording function will stop when card space is full.
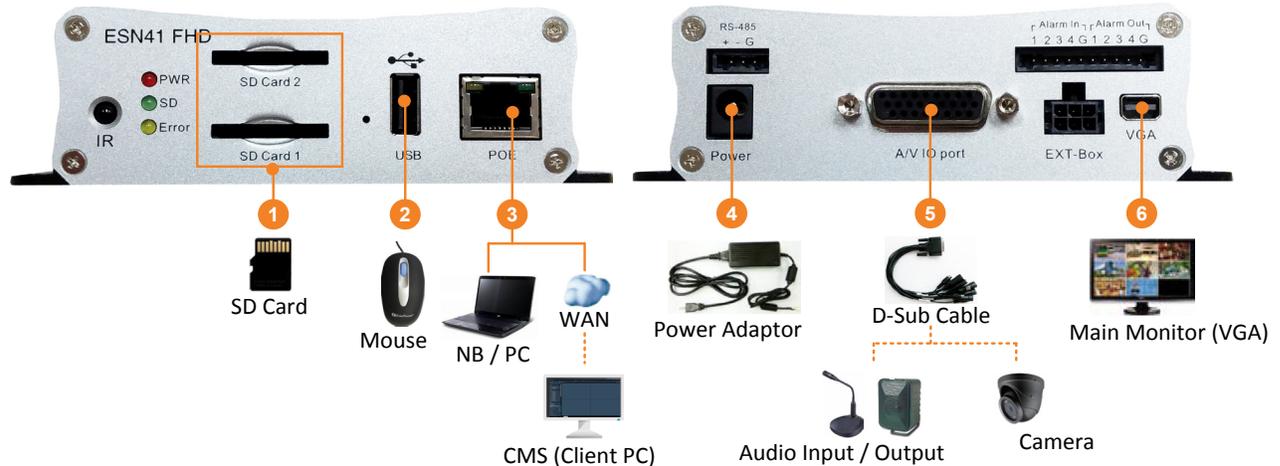
To enable the **Record Overwrite** function, please go to the OSD menu: System < Record.
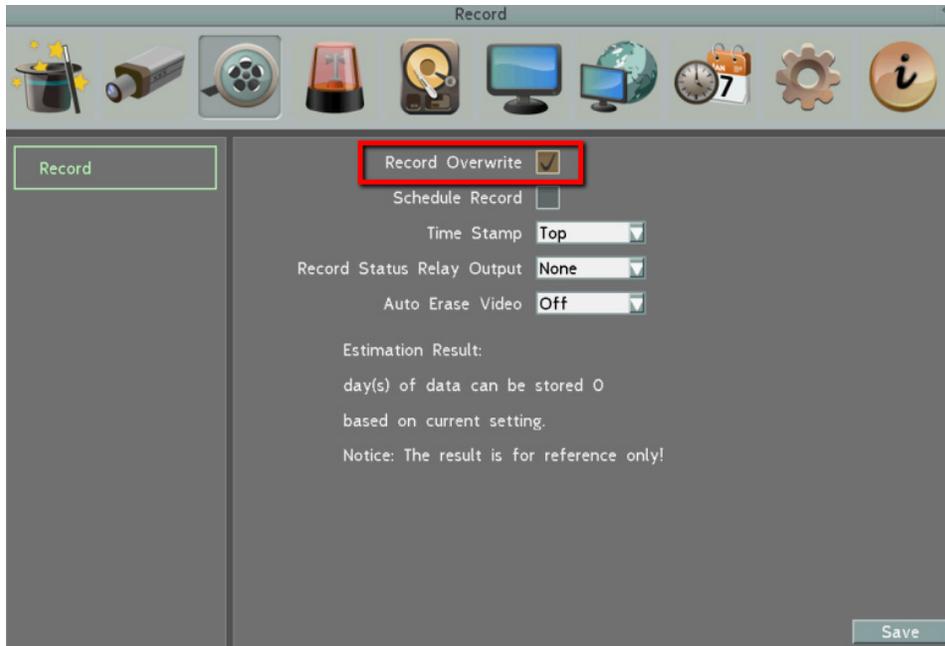
2.3   Basic Connection

After installing the video recorder, you can start connecting the external devices to the system. The instructions below describe the basic connection to the system.
The image below uses ESN41 FHD as an example.

1. To record videos, connect a SDHC/SDXC card to the card slot (see *2.2 SD Card Installation*).

2. To control the system, connect a mouse to the video recorder or use the supplied IR Remote Control.

3. To manage the video recorder over network, use a standard RJ-45 cable to connect the video recorder to the network.

> **Note:** The ESN41 FHD features PoE function, you can also power the video recorder through the PoE port by connecting to a PoE switch.

4. To power on the video recorder, connect the video recorder to power using the supplied Power Adaptor (see *2.3.1 Power Input*).

> **Note:** The ESN41 FHD features PoE function, you can also power the video recorder through the PoE port by connecting to a PoE switch.

5. Connect the audio and video devices to the video recorder using the supplied D-Sub Cable (see *2.3.2 D-Sub Cable*).

6. To view videos, connect a monitor to the VGA port using the supplied VGA Cable (see *2.3.3 Monitor Connection*).

2.3.1 Power Input

You can connect the video recorder to a power source through PoE (ESN41 FHD only) or power port.
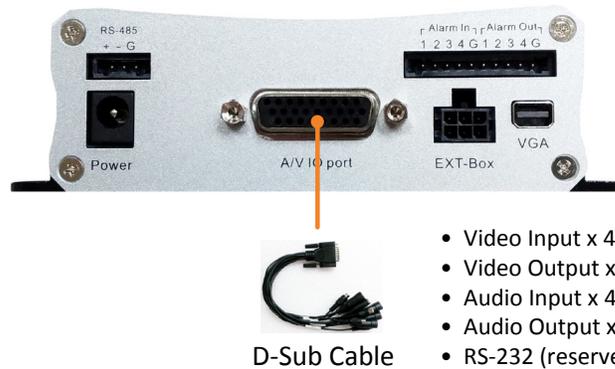
PoE: Connect the video recorder to a PoE switch. Note that only ESN41 FHD supports PoE function.

Power Port: Connect the video recorder to a 12VDC power source using the supplied Power Adaptor.

PoE Switch   Power Adaptor

2.3.2 D-Sub Cable

You can connect the video recorder to 4 cameras, 4 audio inputs, 1 audio output and 1 BNC monitor using the supplied D-Sub Cable. Please refer to the cable labels to identify each cable.

D-Sub Cable

- Video Input x 4 (Mini DIN)
- Video Output x 1 (BNC)
- Audio Input x 4 (RCA)
- Audio Output x 1 (RCA)
- RS-232 (reserved)

Note:

1. Connect the 4 cameras to the 4 video inputs (mini-DIN cables) and the power will be supplied to the cameras.
2. The connected speakers/microphones require a (built-in) amplifier and external power supply.
3. The RS-232 function is currently reserved.

2.3.3   Monitor Connection

The video recorder has one Main Monitor port (VGA) and 1 Call Monitor port (BNC). You can connect the monitors to the system through VGA and BNC ports. The Main and Call Monitor ports can be used simultaneously. Make sure that the connected monitor's specifications comply with these resolution requirements.

Main Monitor: The configuration can only be operated on the Main Monitor.

Call Monitor: The call monitor can display camera streams or perform sequence mode.

Call Monitor (BNC)   D-Sub Cable   Main Monitor (VGA)   Video Output
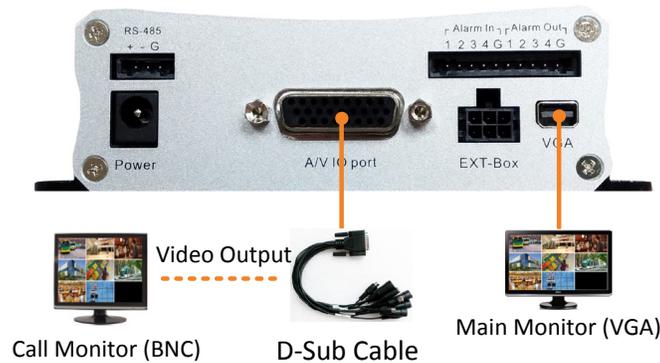
2.4   Turning On / Off the Power

Once you have completed the basic cable connections, you are ready to turn on the system. Simply plug in the power source. The POWER LED will light up if power is normal. Once the system has finished loading, you can begin to set up the menu options for the system.

To turn off the power, please go to OSD Root Menu > System > 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 off the power source.
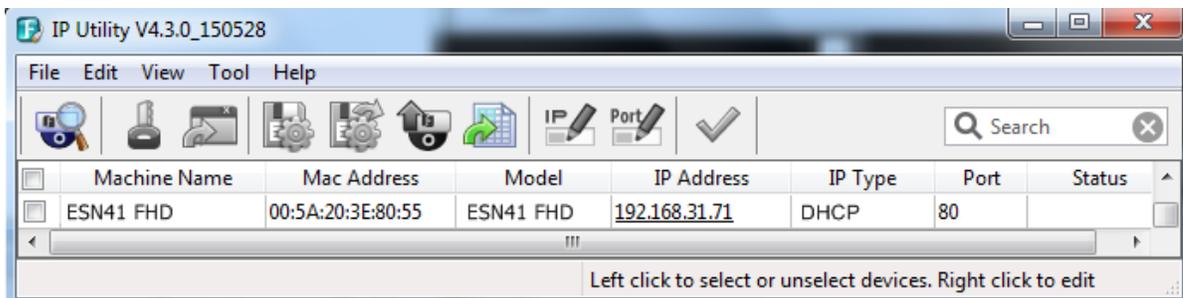
3. Accessing the System

You can look up the IP address and access the Web interface of the system 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.tw Please connect the system 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.
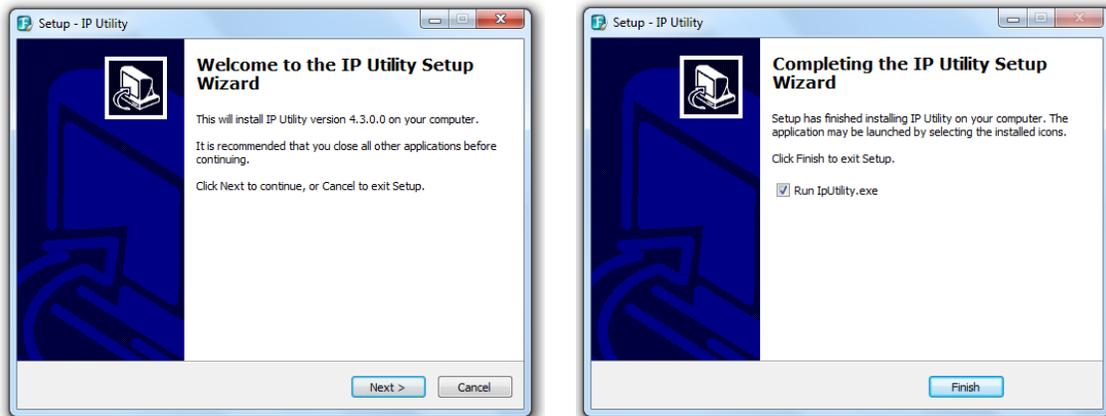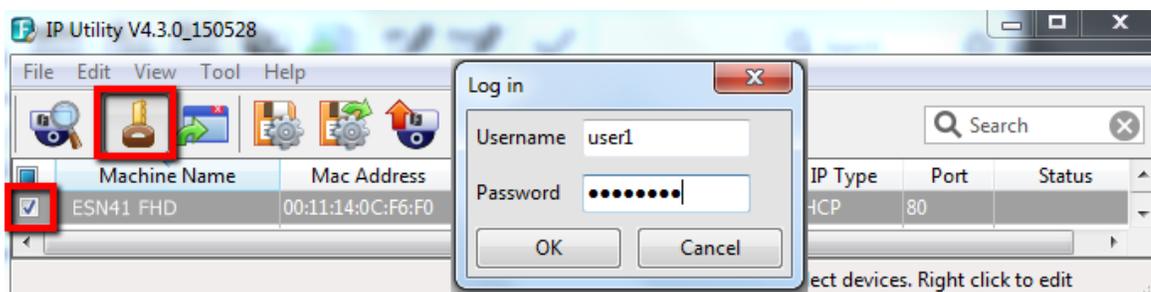

2. Click the **Finish** button, the IP Utility will be automatically launched to search the IP devices connected on the same LAN.

3. To optionally configure the Machine Name, IP Address, IP Type or Port Number using the IPU:

    a. Log in the system 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**.

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

c. Right click the column to configure the setting. Click **Apply Changes** ✓ button to apply and save the settings.
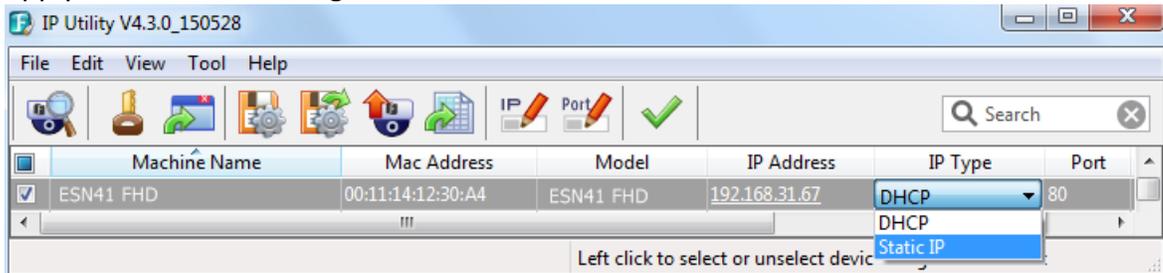
> **Note:** Most networks uses DHCP to assign IP address, if you are unsure of your network settings, please consult your network administrators for configuration details.

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**.
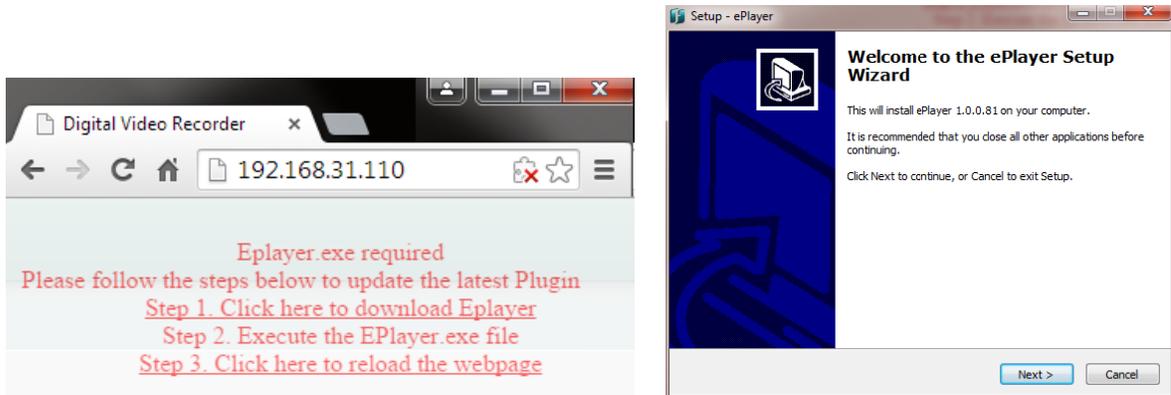
Note for the first time login:

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.
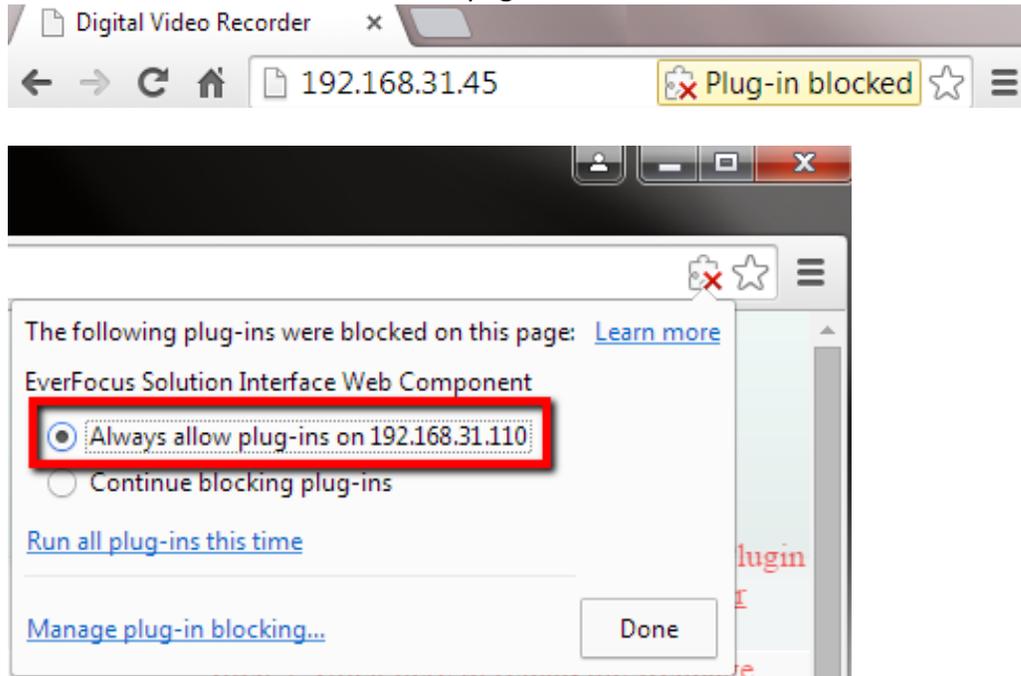

6. Now you will be able to see the remote live page.

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 system's remote Web interface.
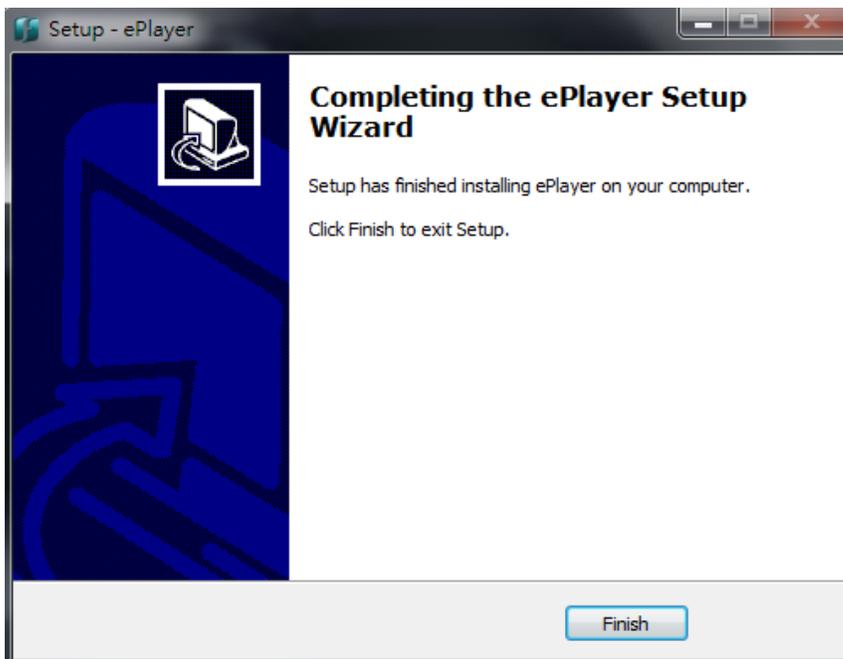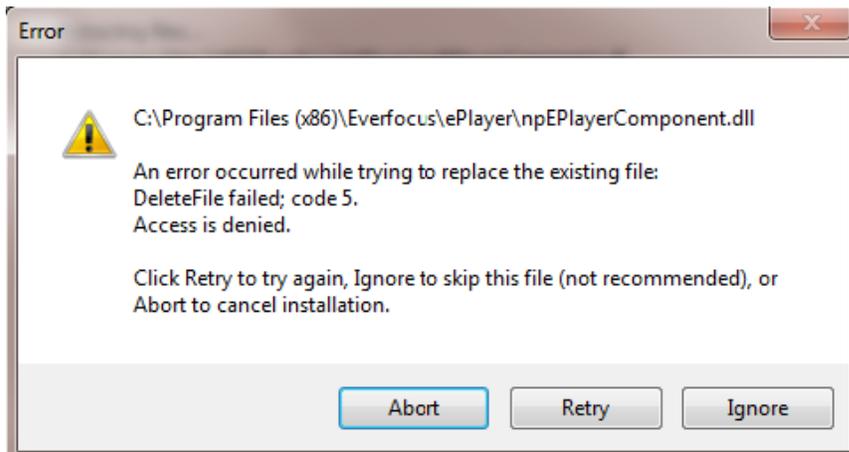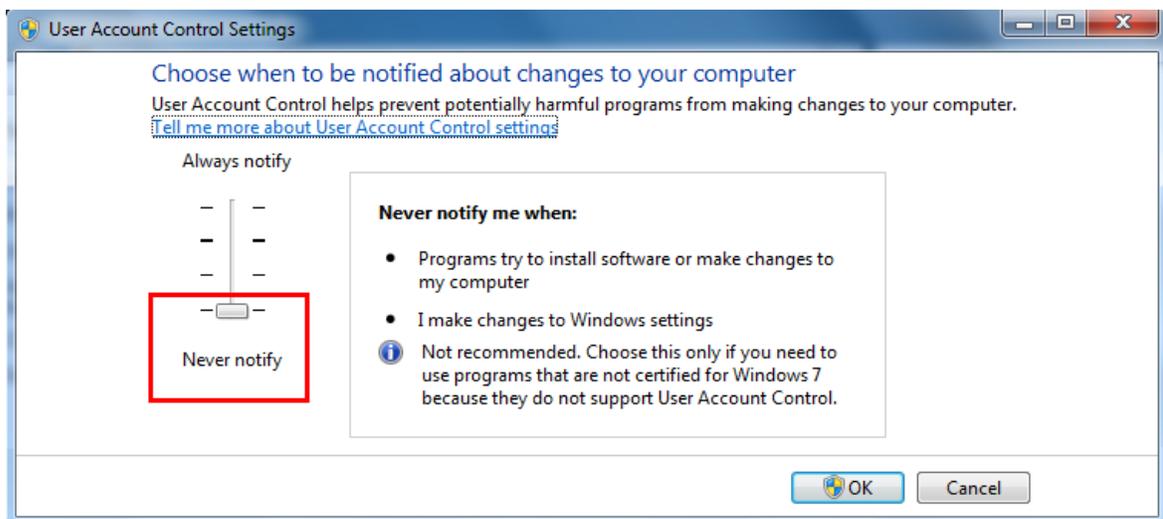
◆ If your PC or laptop is running with Windows, it's required to run the browser as administrator when first entering the remote web page of the device. Go to **C:\Program Files (x86)\Internet Explorer**, right-click the browser and then click **Run as administrator**.
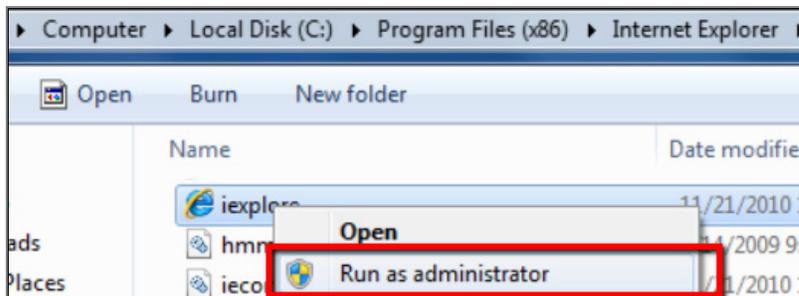
◆ You may need to turn off the firewall and turn **User Account Control** off if you still can't see the Remote Live View.
To turn **User Account Control** off, on the computer, click **Start > Control Panel > System and Security > Action Center** (click Change User Account Control Settings), the **User Account Control Settings** window appears. Adjust the slide bar to **Never Notify** and then click **OK**. Restart your computer if requested.

4. Specifications

Model Name		ESN41 FHD	ESN41-E FHD
Video Input	Number of Channels	4CH mini DIN	
	Video Compression	H.264	
Audio	Audio Inputs	4	
	Audio Output	RCA x 1	
Video Output	Video Output	VGA x 1 (Main Monitor)	
	Video Output	BNC x 1 (Call Monitor)	
Recording	Recording Resolution	1080p / 720p / 960H / D1 / CIF / QCIF	
	Recording Mode	Event, Normal + Event, Schedule	
	Recording Rate	30fps/CH (NTSC), 25fps/CH (PAL)	
	Pre-Alarm Recording	Yes	
Playback	Playback Mode	Duplex	
	Playback Search	Time Search, Event Search	
Video Detection & Alarm	Alarm Inputs	4	-
	Alarm Outputs	4	-
	Video Loss Detection	Yes	
	Event Alarm	Yes	
Network	Ethernet	RJ-45 Port x 1 (10/100/1000M)	
Storage	SD Card (128GB/card)	SDHC/SDXC Slot x 2	SDHC/SDXC Slot x 1
External Interface	Interfaces	RJ-45 x 1, USB2.0 x 1, External I/O Port x 1, RS-232, RS-485	RJ-45 x 1, USB2.0 x 1, External I/O Port x 1, RS-232
General	System Control	IR Remote Control, Mouse, Web UI	
	PTZ Control	Yes	
	Power Source	PoE / 12VDC	12VDC
	Power Consumption	PoE: 27W / 12VDC: 30W	30W
	Operating Temperature	-40°C ~ 55°C / -40°F ~ 131°F	
	Dimensions (W x D x H)	131 x 158 x 38.4mm / 5.16" x 6.22" x 1.51"	
	Weight	650g / 1.43lb	
	Certificates	CE, FCC, E-Mark	
Remote Client System Minimum Requirements			
OS	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	IE11 and later, Firefox 50 and earlier, Chrome 44 and earlier, EF browser		
Other Remote Application	1. EverFocus' Xfleet fleet management server system. 2. EverFocus' mobile app: MobileFocus (iOS and Android); MobileFocusHD (iPad).		

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