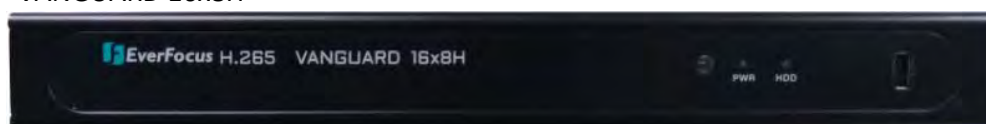


VANGUARD 4x2H / 8x4H / 16x8H

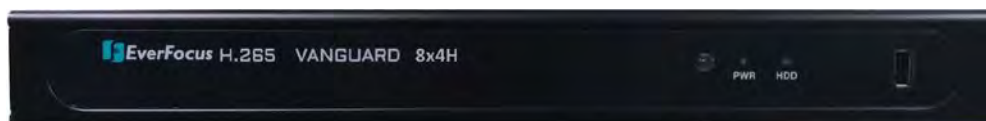
4CH / 8CH / 16CH H.265 4K Hybrid DVR

User's Manual

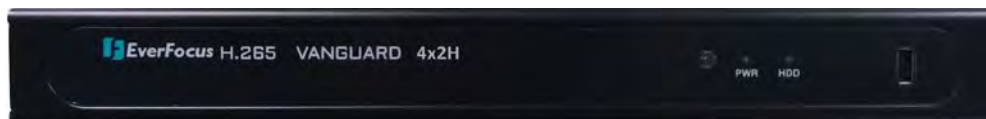
VANGUARD 16x8H



VANGUARD 8x4H



VANGUARD 4x2H



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Release Date: March 2019

EVERFOCUS ELECTRONICS CORPORATION

VANGUARD 4x2H / 8x4H / 16x8H 4CH / 8CH / 16CH H.265 4K Hybrid DVR

User's Manual

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Disclaimer

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Safety Precautions

- Refer all work related to the installation of this product to qualified service personnel or system installers.
- Do not block the ventilation openings or slots on the cover.
- Do not drop metallic parts through slots. This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.
- Do not attempt to disassemble the appliance. To prevent electric shock, do not remove screws or covers. There are no user-serviceable parts inside. Contact qualified service personnel for maintenance. Handle the appliance with care. Do not strike or shake, as this may damage the appliance.
- Do not expose the appliance to water or moisture, nor try to operate it in wet areas. Do take immediate action if the appliance becomes wet. Turn the power off and refer servicing to qualified service personnel. Moisture may damage the appliance and also may cause electric shock.
- Do not use strong or abrasive detergents when cleaning the appliance body. Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.
- Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.
- Do not operate the appliance beyond its specified temperature, humidity or power source ratings. Do not use the appliance in an extreme environment where high temperature or high humidity exists. Use the DVR at temperatures within -10°C~55°C / 14°F~131°F (Storage). The input power source is 12VDC.
- **Read Instructions**
All the safety and operating instructions should be read before the unit is operated.
- **Retain Instructions**
The safety and operating instructions should be retained for future reference.
- **Heed Warnings**
All warnings on the unit and in the operating instructions should be adhered to.
- **Follow Instructions**

All operating and use instructions should be followed.

➤ **Cleaning**

Unplug the unit from the outlet before cleaning. Do not use liquid cleaners, abrasive or aerosol cleaners. Use a damp cloth for cleaning.

➤ **Attachments**

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

➤ **Water and Moisture**

Do not use this unit near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, near a swimming pool, in an unprotected outdoor installation, or any area which is classified as a wet location.

➤ **Servicing**

Do not attempt to service this unit by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

➤ **Power Cord Protection**

Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.

➤ **Object and Liquid Entry**

Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the unit.

➤ **RTC (Real Time Clock) Battery**

When encounter failure of time calibration of your DVR, the issue may be caused by running-out of RTC battery. Users will have to change the RTC battery on the main board of the DVR.



ATTENTION! This is a class A product which may cause radio interference in a domestic environment; in this case, the user may be urged to take adequate measures.



Federal Communication Commission Interference Statement

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

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

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the users' authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.



This Product is RoHS compliant.



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!



This product complies with the High-Definition Multimedia Interface (HDMI) Specification Adopter Agreement.

The information in this manual was current upon publication. The manufacturer reserves the right to revise and improve his products. Therefore, all specifications are subject to change without prior notice. Manufacturer is not responsible for misprints or typographical errors. Please read this manual carefully before installing and using this unit. Be sure to keep it handy for later reference.

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Chapter 1

1. Introduction

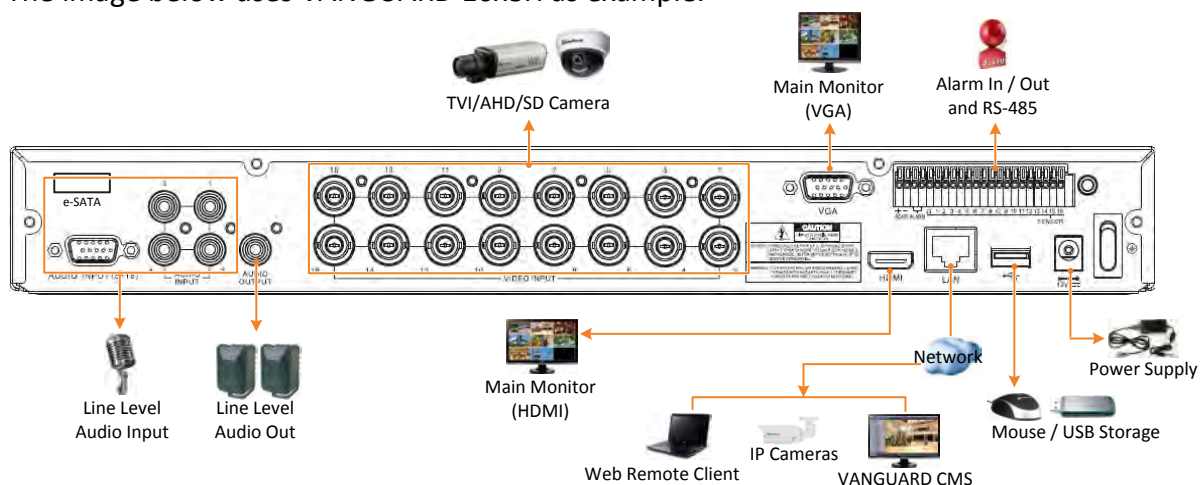
EverFocus' H.265 VANGUARD series DVRs are hybrid DVRs supporting AHD/TVI/SD cameras and IP cameras. Operating on a Linux-based system, the DVRs are able to install up to 2 SATA HDDs with 8TB storage capacity per HDD. Besides, the DVRs also support one e-SATA for external backup storage.

H.265 VANGUARD series DVRs support multi-channel playback at multiple speed options and easy data search by event, snapshot or sub-periods. Users may enable and perform the specified functions through the local OSD menu or Web interface. Furthermore, you can output the video to a 4K monitor through HDMI; or use Mobile Application to remotely view camera streams from DVR through your handheld devices; or use VANGUARD CMS video management system for remote management.

EverFocus' H.265 VANGUARD series DVRs are the best choice for a complete surveillance solution. It is versatile, flexible and well catered to the needs of the industry.

Model	VANGUARD 4x2H	VANGUARD 8x4H	VANGUARD 16x8H
Video Inputs	Analog: 4 x BNC IP: 2CH 8MP IP cameras (only IP, up to 6CH)	Analog: 8 x BNC IP: 4CH 8MP IP cameras (only IP, up to 12CH)	Analog: 16 x BNC IP: 8CH 8MP IP cameras (only IP, up to 8CH)
Audio Input/Output	4 / 1	8 / 1	16 / 1
Alarm Input/Output	4 / 1	8 / 1	16 / 1
Internal 3.5" HDD	2 SATA HDD (8TB/disk)	2 SATA HDDs (8TB/disk)	2 SATA HDDs (8TB/disk)
Synchronized Playback	4CH	8CH	16CH

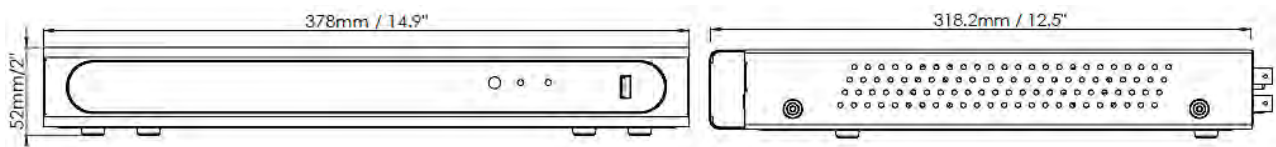
The image below uses VANGUARD 16x8H as example.



1.1 Features

- Supports hybrid mode (AHD/TVI/SD cameras and IP cameras)
- Megapixel resolution over standard UTCial / UTP cable
- Supports H.265 / H.264 compression format
- Supports cloud storage with Dropbox (Snapshot)
- Supports ONVIF 2.0 Conformant IP cameras
- Control methods: Mouse / IR remote controller
- Remote configuration from built-in web interface
- Supports video analytics
- Integrates with VANGUARD CMS
- Supports multi-language
- Supports mobile App: eFVMS App

1.2 Dimensions



1.3 Packing List

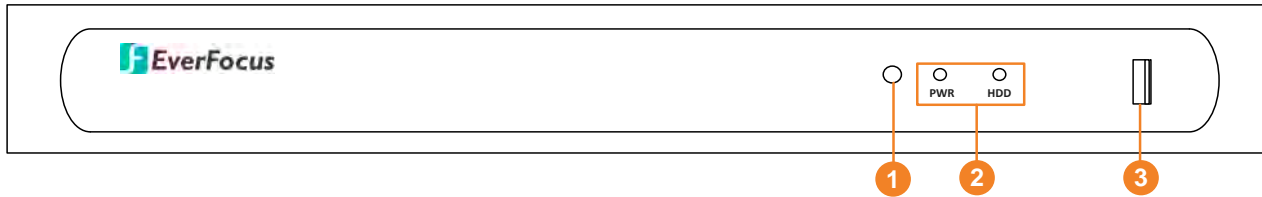
<ul style="list-style-type: none"> • DVR x 1 • Power Cord + Adaptor x 1 • Mouse x 1 • HDD Screw x 8 	<ul style="list-style-type: none"> • Audio Cable (CH5-16) x 1 (only for VANGUARD 16x8H) • Quick Installation Guide x 1 • CD x 1 (see Note 3) • IR Remote Control (with 2 AAA batteries) x 1 (see Note 4)
---	--

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.

1.4 Front Panel

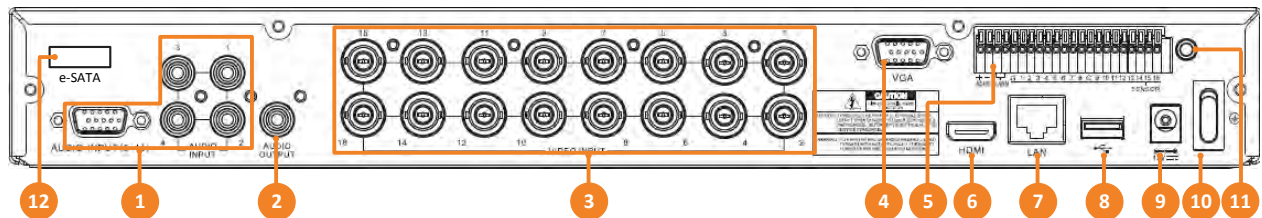
VANGUARD 16x8H / VANGUARD 8x4H / VANGUARD 4x2H



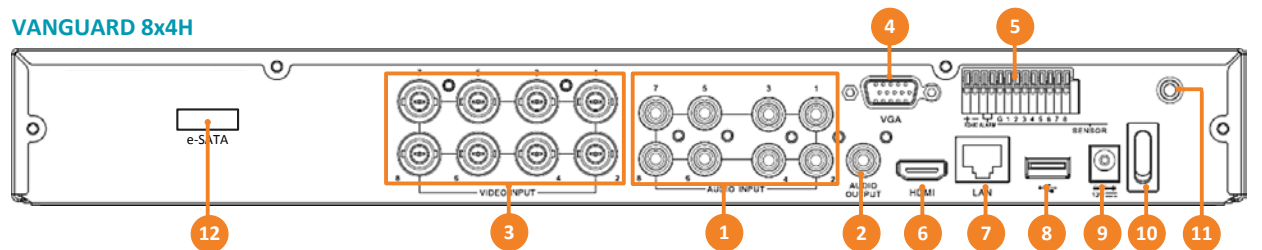
No.	Name	Description
1	IR Receiver	Receiver for signals from the IR remote control. Please refer to <i>Appendix A. IR Remote Control</i> .
2	LED Indicator	Power: When power is on, the LED will continue lighting in green. HDD: When power is on, the LED will continue lighting in red. When HDD is reading/writing data, the LED will flashes red.
3	USB2.0 Port	USB2.0 port for connecting to a mouse or an external storage device.

1.5 Rear Panel

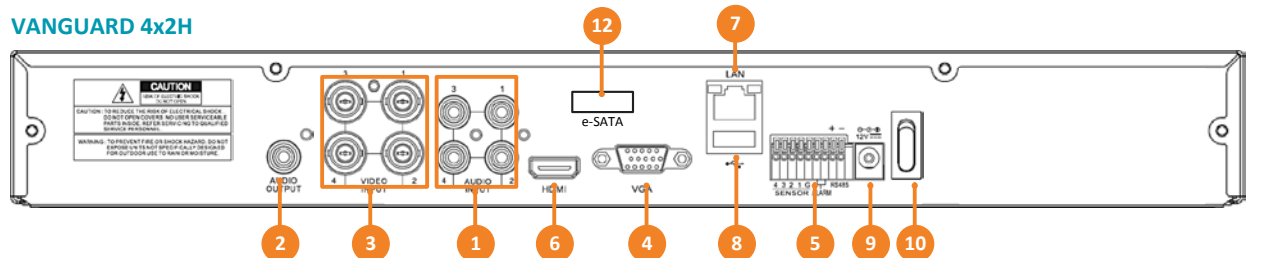
VANGUARD 16x8H



VANGUARD 8x4H



VANGUARD 4x2H



No.	Name	Description
1	Audio Input	Connects to audio input devices, such as microphones. Note that the microphones with a (built-in) amplifier and external power supply are required.
2	Audio Output	Connects to an audio output device, such as speakers. Note that the speakers with a (built-in) amplifier and external power supply are required.
3	Video Input	Connects the AHD/TVI/SD cameras to the Video Input.
4	VGA Port	Connects to a monitor using a VGA cable.
5	Terminal Block	The Terminal Block provides alarm inputs, alarm output and RS-485 connection (see 2.1.1 <i>Terminal Block</i>).
6	HDMI Port	Connects to a monitor using a HDMI cable.
7	LAN	Connects to the Network.
8	USB2.0 Port	The USB2.0 port for connecting to a mouse or external storage device.
9	Power Port	Connects to a 12VDC power source.
10	Power Switch	Press to turn on or off the power.
11	IR Receiver Port	You can optionally connect an external IR Remote Control Receiver to this port.
12	e-SATA	Connects to an external e-SATA storage device.

Chapter 2

2. Connection and Installation

2.1 Hard Disk Installation

You can install two 3.5" HDDs inside the DVR for recording videos. The maximum capacity of each HDD is 8TB.

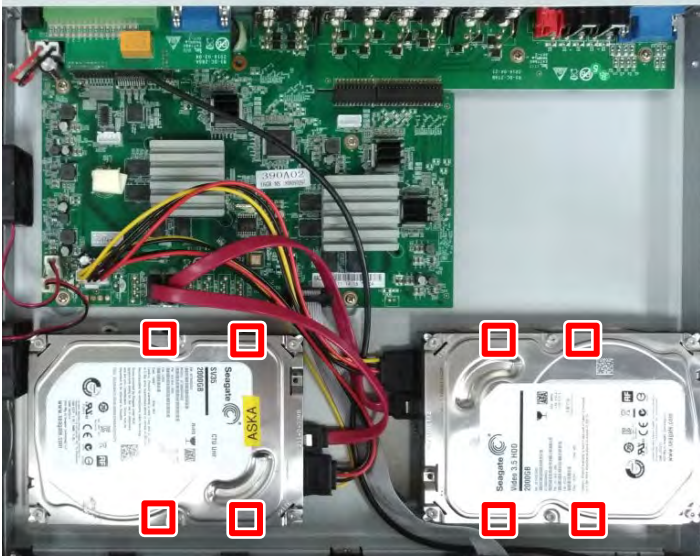
1. Make sure the DVR is power-off.
2. Unscrew the eight housing screws (4 on the rear panel, 2 on the left and right side each). To remove the housing cover from the DVR, push the cover backward and then lift it.



3. Find the SATA cable inside the DVR, and connect the SATA cable to the SATA port on the HDD (left image). Find the internal power cable, and connect the internal power cable to the HDD (right image).



4. Place the HDDs inside the DVR, screw the HDDs from the bottom side of the DVR using the supplied Screws.



5. Screw the housing cover back to the DVR.

2.1.1 Hard Disk Compatibility List

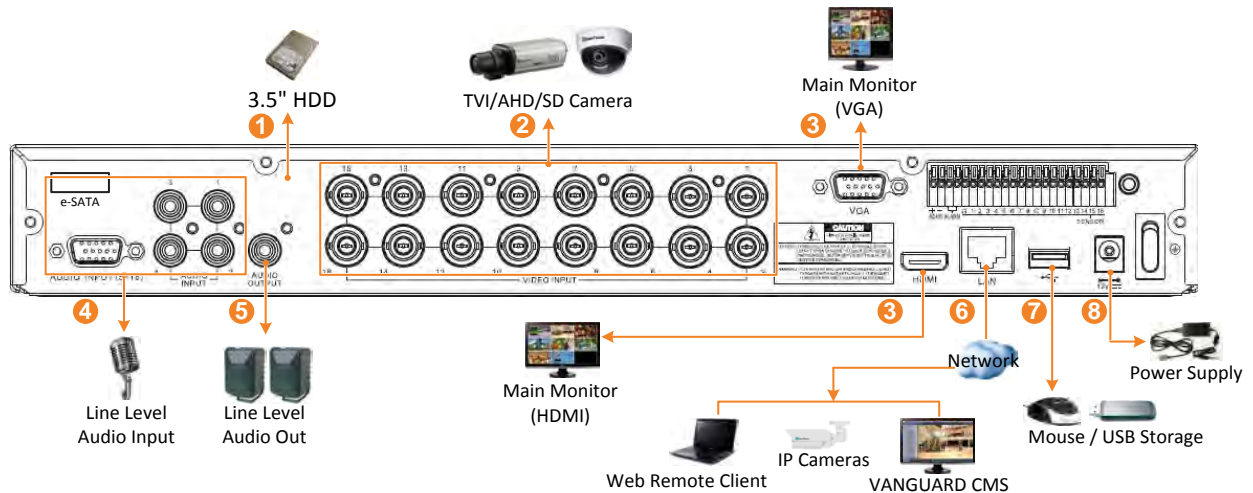
Please go to the product page (Download) on EverFocus' Website www.everfocus.com.tw to see the latest Storage Compatibility List. It's recommended to use the hard disk models listed on the Storage Compatibility List to ensure your hard disks are compatible.

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

2.2 Basic Connection

The instructions below describe the basic connection to the DVR.

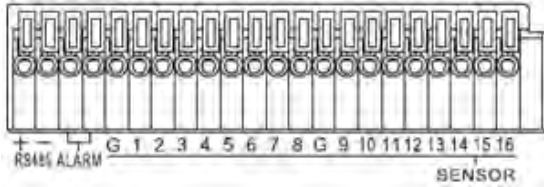
The image below uses VANGUARD 16x8H as example.



1. To record videos, install 3.5" HDD(s) to the DVR. Please refer to *2.1 Hard Disk Installation*.
2. To connect to the TVI/AHD/SD cameras, connect the cameras to the BNC ports.
3. To view videos at local site, connect a monitor to the HDMI or VGA port using the HDMI or VGA cable supplied by the monitor manufacturer.
4. Connect microphones to the audio input ports to transmit audio from the camera to the DVR. Note that the microphones with a (built-in) amplifier and external power supply are required.
5. To listen to the audio from device side, connect speakers to the audio output. Note that the speakers with a (built-in) amplifier and external power supply are required.
6. Use a standard RJ-45 CAT5 Ethernet cable to connect the DVR to the network and then optionally connect IP cameras to the DVR.
7. Optionally connect a mouse to the DVR to control the system. You can also control the system using the supplied IR Remote Control (*Appendix A. IR Remote Control*).
8. Use the supplied Power Cord and Adaptor to connect the DVR to the power outlet.

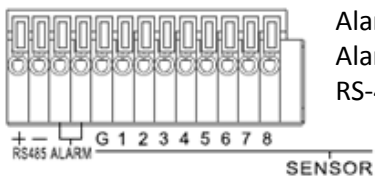
2.2.1 Terminal Block

VANGUARD 16x8H



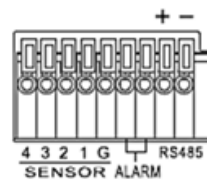
Alarm Input: 16
Alarm Output: 1
RS-485: 1

VANGUARD 8x4H



Alarm Input: 8
Alarm Output: 1
RS-485: 1

VANGUARD 4x2H




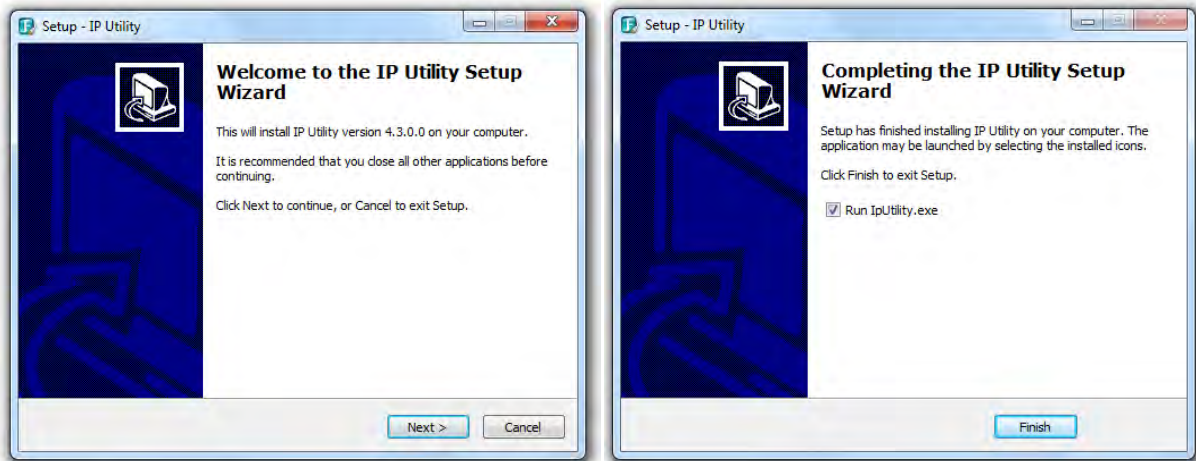
Alarm Input: 4
Alarm Output: 1
RS-485: 1

2.3 Accessing the Web Interface

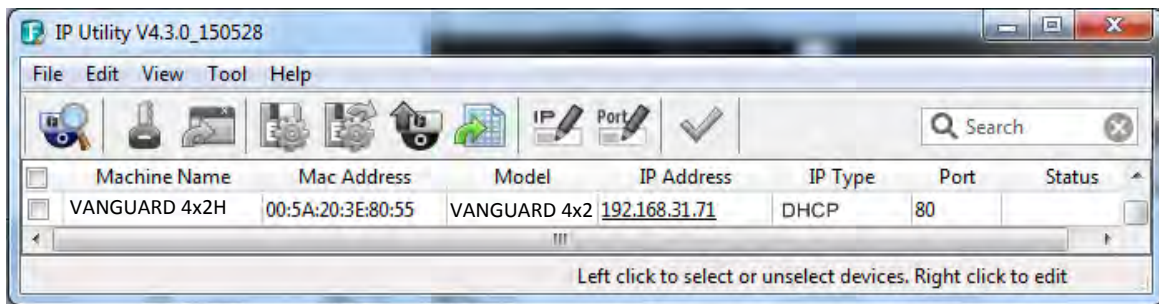
You can look up the IP address and access the Web interface of the DVR using the **IP Utility (IPU)** program, which is included in the software CD. The IP Utility can also be downloaded from EverFocus' Website: <http://www.everfocus.com.tw/product/ip-utility/>

Please connect the DVR on the same LAN of your computer.

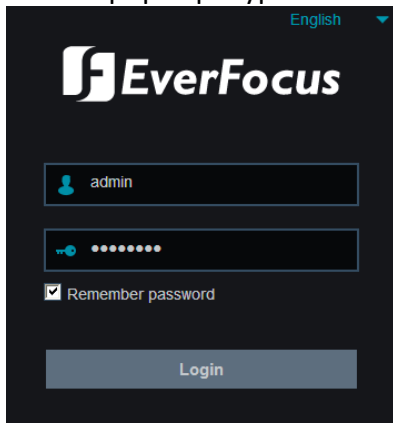
1. Save **IP Utility Setup .exe**  in your computer. Double click the .exe file and follow the on-screen instructions to install the IP Utility.



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

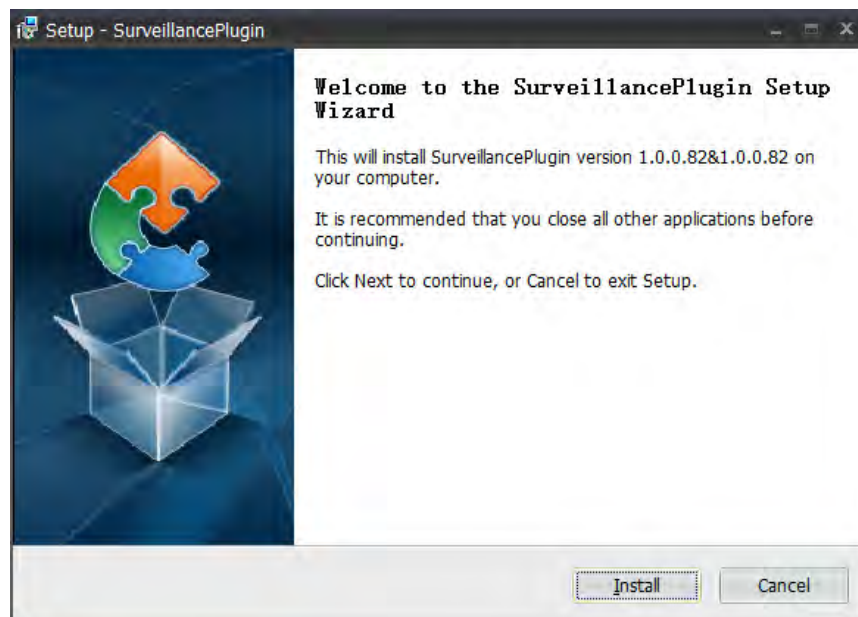
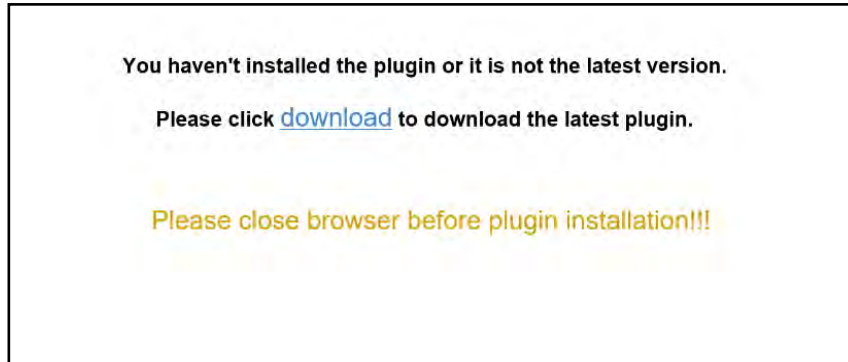


3. To access the Live View window, double click the IP address of the desired device, the login window pops up. Type the user ID and password to log in.



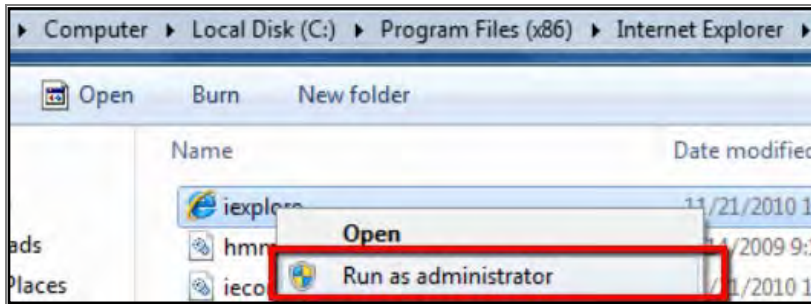
Note for the first time login:

- ◆ When the Plug-in blocked appears on the browser, click **download** to download the plug-in and install to your computer. Reload the webpage and you should see the remote live view page now.

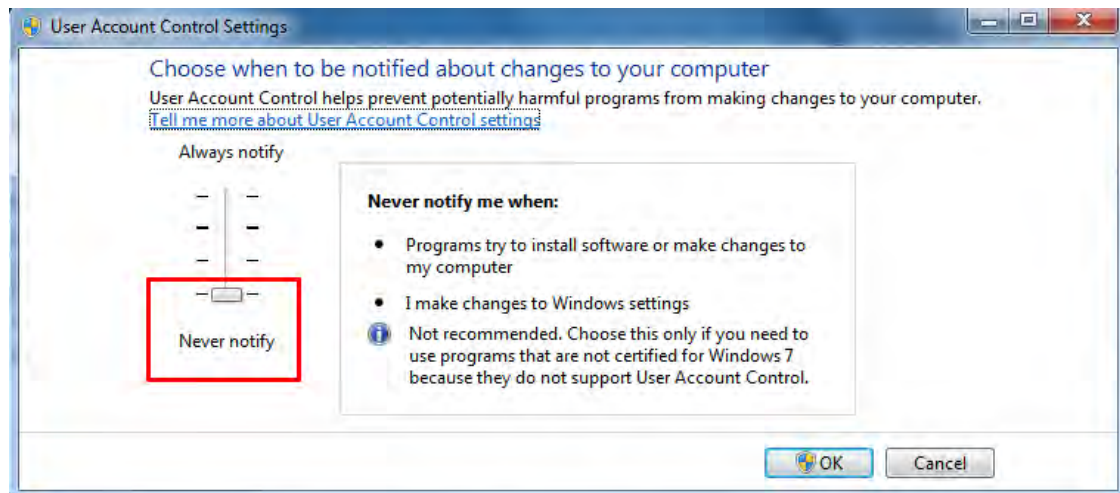


If you encounter the following problem or still can't access the remote Web interface, please follow the instructions below:

- ◆ If the ActiveX is not downloaded successfully, please check if your browser's safety level or firewall setting is set too high. Enable the following options on the Security Settings window (IE Browser < Tools < Internet Options < Security < Internet < Custom Level).
 - ✓ Automatic prompting for ActiveX controls
 - ✓ Script ActiveX controls marked safe for scripting
- ◆ 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**.



- ◆ If you are unable to backup or record during remote operation, you may need to turn off the firewall and turn **User Account Control** off.
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.



Chapter 3

3. Getting Started

After pressing the power switch to turn on the DVR, the DVR will enter the System Initialization process. When the process is done, it's required to set up a password for the administrator account immediately in order to protect your privacy.



The screenshot shows a 'Login' screen with the following fields and options:

- Language:** A dropdown menu currently set to 'English'.
- Device ID:** A text field containing '000000' with a '(000000)' label to its right.
- New Admin Name:** A text field containing 'admin'.
- Password Strength:** A visual indicator with three colored bars (red, yellow, green) and a 'Login' button to its right.
- New Admin Password:** A text field with eight dots, a 'Show Password' checkbox, and a 'Login' button to its right.
- Confirm Password:** A text field with eight dots, a 'Show Password' checkbox, and a 'Login' button to its right.
- Enable Unlock Pattern:** A dropdown menu currently set to 'Disable'.
- Apply:** A button at the bottom center of the screen.

Language: Select an OSD language.

Device ID: Input the device ID. The default ID is 000000. For more details about the Device ID, please refer to *4.9.1.1 General*.

New Admin name: Optionally input a name if you want to set up a name of the administrator account.

Password Strength: Displays the security strength of the setup password.

New Admin Password: Set up a password of the administrator account. The password must be a combination of 8 characters (alphabetic, numeric, or special characters).

Confirm Password: Enter the password again.

Enable Unlock Pattern: If you want to login the system with a pattern lock, select **Enable** from the drop-down list and then click the **Draw** button to draw a pattern. To disable the Unlock Pattern function, please refer to *User Edit* in *4.9.2 User Account*.

Apply: Click to save the settings.

After clicking the **Apply** button, the below Unlock page appears. Input the **User Name**, **Password** and then click **Unlock**.



The screenshot shows a web interface titled "Unlock". It contains four input fields: "Language" with a dropdown menu showing "English", "Device ID" with a text box containing "000000" and a label "(000000)" to its right, "User" with a dropdown menu showing "admin", and "Password" with a text box. To the right of the password box is a checkbox labeled "Show Password". At the bottom of the form are two buttons: "Forgot Password" and "Unlock".

3.1 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. Simply plug in the power source and then press the **Power Switch** on the rear panel of the DVR to turn on the DVR. The POWER LED will light up if power is normal. Once the system has finished loading, you can start setting up the menu options for the DVR.

To turn off the power, please refer to **Shutdown** in 4.10 Exit for more details.

3.2 Startup Wizard

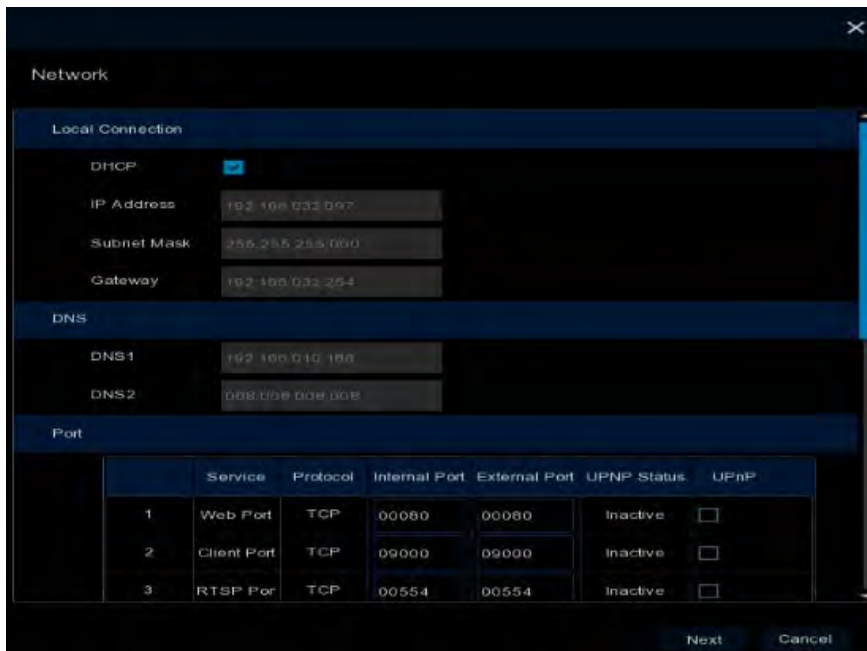
The Startup Wizard will guide you through some basic settings for the DVR. Please follow the on-screen instructions to proceed.

Note: If you don't want to run the startup Wizard to make any settings when you restart the DVR next time, you can go to **OSD Menu > System > General** and then uncheck the **Start wizard** function.

1. Click the **Start Wizard** button to start with the startup wizard.



2. Configure the Network settings. Click **Next** to proceed.



Network							
Local Connection							
DHCP		<input checked="" type="checkbox"/>					
IP Address	192.168.0.32.097						
Subnet Mask	255.255.255.000						
Gateway	192.168.0.31.254						
DNS							
DNS1	192.168.0.10.100						
DNS2	000.000.000.000						
Port							
		Service	Protocol	Internal Port	External Port	UPnP Status	UPnP
1	Web Port	TCP	00080	00080	Inactive	<input type="checkbox"/>	
2	Client Port	TCP	09000	09000	Inactive	<input type="checkbox"/>	
3	RTSP Port	TCP	00554	00554	Inactive	<input type="checkbox"/>	

【Local Connection】

DHCP: For DHCP users, check DHCP, the router will automatically assign all the below IP parameters to the DVR.

IP Address: The IP address of the DVR. The IP address consists of four groups of numbers, separated by periods. For example, “192.168.001.100”.

Subnet Mask: Subnet mask is a network parameter which defines a range of IP addresses that can be used on a network. The subnet address also consists of four groups of numbers, separated by periods. For example, “255.255.000.000”.

Gateway: This address allows the DVR to access the Internet. The format of the Gateway address is the same as the IP Address. For example, “192.168.001.001”.

【DNS】

DNS1 is the primary DNS server and DNS2 is a backup DNS server. Usually, it's enough to just enter the DNS1 server address.

【Port】

Web Port: The Web port can be used to remotely login the DVR (e.g. using the Web Client). If the default port 80 is already taken by other applications, please change it.

Client Port: The Client port can be used to send information through (e.g. using the mobile app). If the default port 9000 is already taken by other applications, please change it.

RTSP Port: The RTSP port allows the DVR to transmit real-time streaming to other devices (e.g. using a streaming media player).

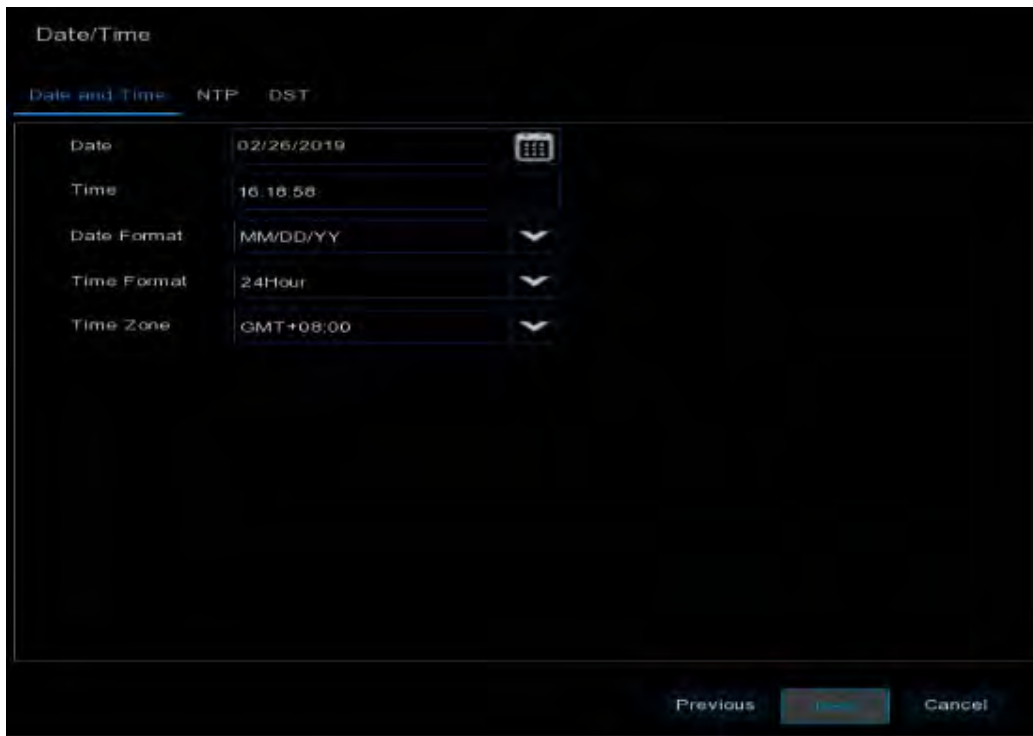
HTTPS: The Hypertext Transfer Protocol Secure (HTTPS) is a combination of the Hypertext Transfer Protocol and the SSL/TLS protocol that provides encrypted communication and secure identification of a network web server.

【PPPoE】

PPPoE is an advanced protocol that allows the DVR to connect to the network via a DSL modem. To enable the PPPoE function, check **Enable PPPoE**, input the **User Name** and **Password** provided by your Internet Service Provider.

Check the “Enable PPPOE” box, and then enter the User name & Password of the PPPoE.

3. Configure the Date/Time settings. You can also configure the NTP and DST settings. Click **Next** to proceed.



【Date and Time】

Date: Click on the calendar icon to set the system date.

Time: Click to set the system time.

Date Format: Select a date format from the drop-down list.

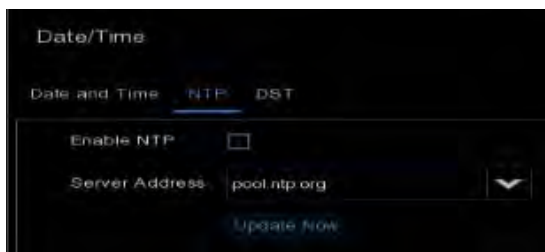
Time Format: Select a time format from the drop-down list.

Time Zone: Select a time zone of your region.

【NTP】

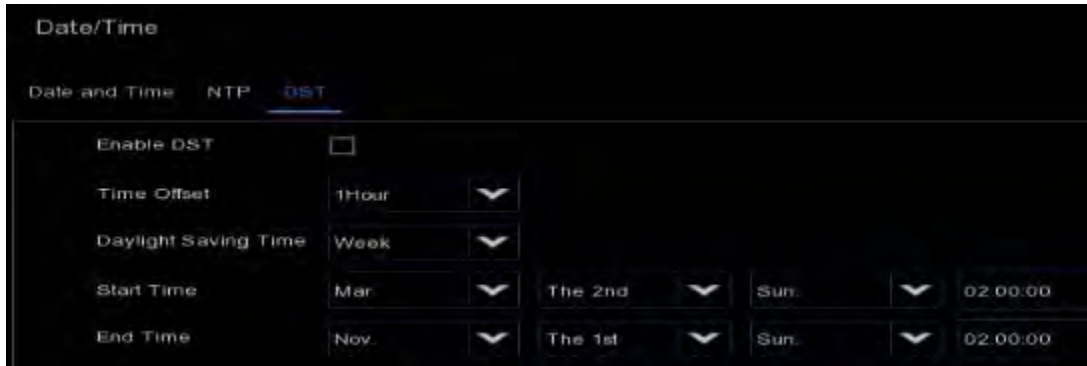
NTP stands for Network Time Protocol. This feature allows you to synchronize the DVR date and time automatically over the Internet with the NTP server. Please ensure the DVR has been connected to the Internet before enabling the NTP function.

To enable NTP, check **Enable NTP**, select an NTP server from the drop-down list or input one of your region. Click **Update Now**.



【DST】

DST stands for Daylight Saving Time.



Enable DST: Check the box to enable the Daylight Saving Time (DST) function.

Time Offset: Select the amount of time to offset for DST.

Daylight Saving Time: Choose to set up the daylight saving time in weeks or in days.



Start Time/End Time: Set the start time and end time for DST.

4. This page is only available if the hybrid mode (HVR) is selected (refer to 4.9.1.1 *General* for more details). You can add IP cameras on this page (please refer to 4.1.1.2 *IP Channels* for more details). Click **Next** to proceed.

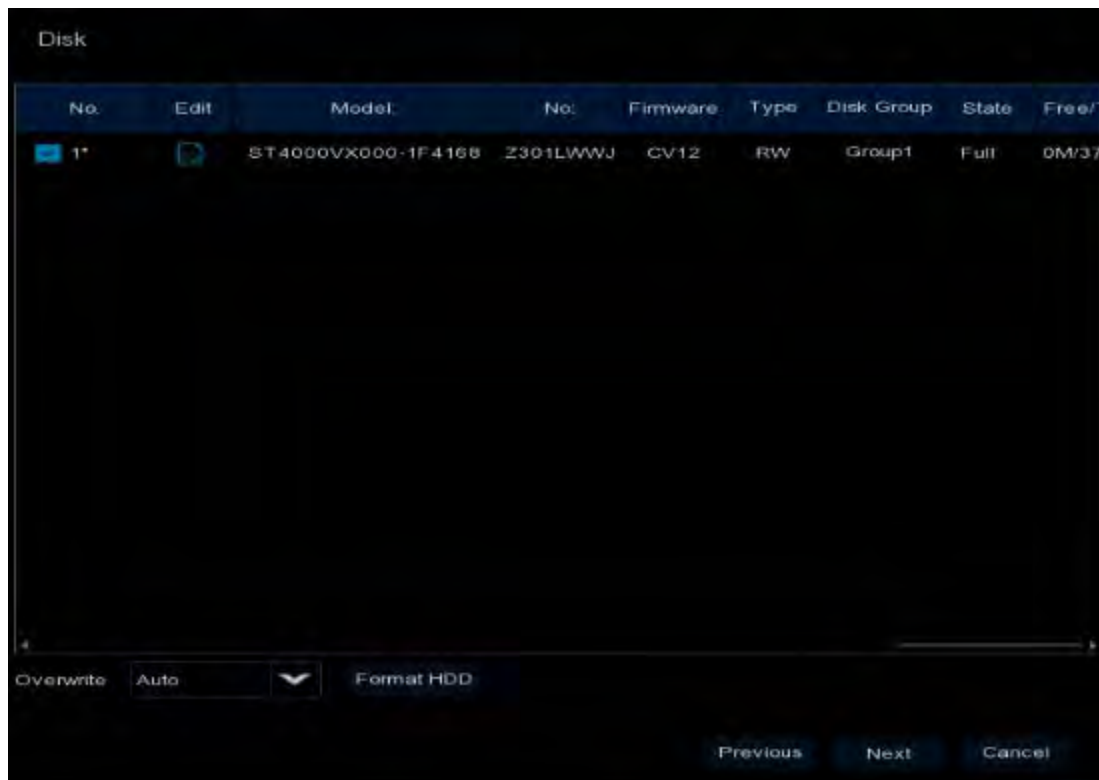


The DVR will automatically detect the IP cameras connected on the same network. You can also click the **Search** button to search for the IP cameras again.

To add IP cameras to the DVR:

- Select the desired IP camera(s) on the left-side IP camera list.
- Click  to add the selected IP camera(s) to the DVR. Input the User Name and Password of the IP camera(s).
- You can also click  on the right-side list to add an individual IP camera to a single channel. Please refer to 4.1.1.2 *IP Channels* for more details.

- Configure the Disk settings. For the first time use HDD or a new HDD, users have to format the HDD before use. Click to select the HDD in the **Select** column and then click **Format HDD** to format the selected HDD. You can also setup to overwrite the HDD. Click **Next** to proceed.



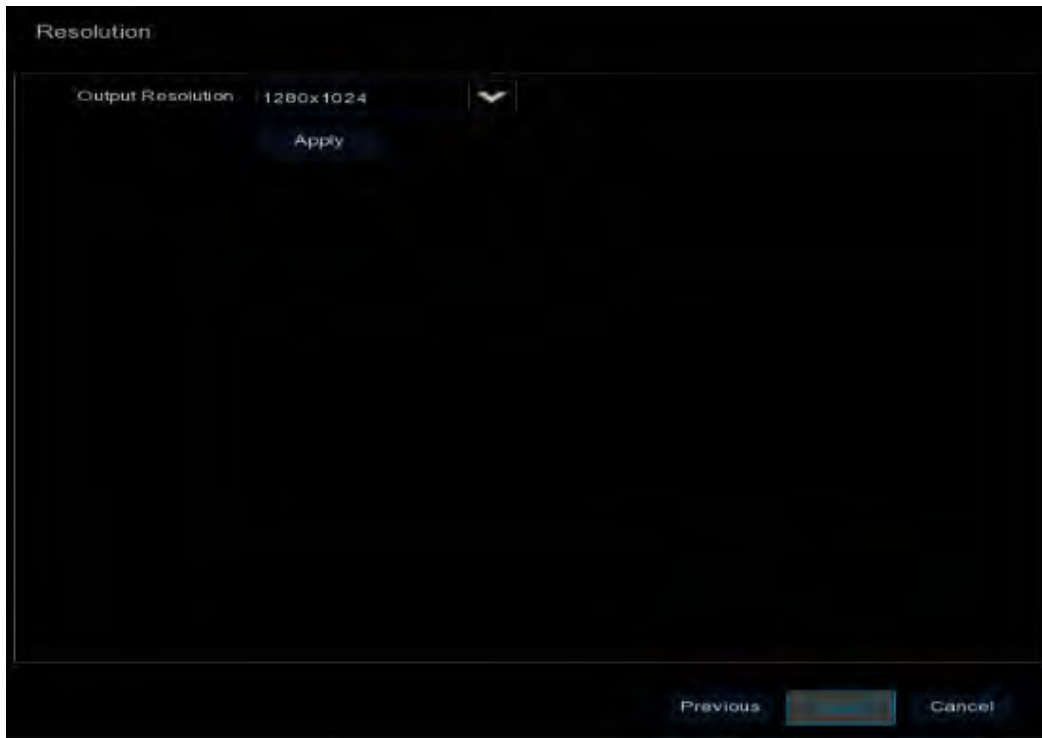
Overwrite: Select **Auto** to enable the overwrite function; **Off** to disable the overwrite function. If **Auto** is selected, the DVR will overwrite the oldest files on the HDD when HDD is full. If Off is selected, please check the HDD status regularly, to make sure the HDD is not full.

The **1/3/7/14/30/90** Days stands for the last number of days to keep in the HDD. For example, if 3 Days is selected, the last 3 days recordings will be kept in the HDD.

Note:

- Please connect the HDDs to the system in advance.
- Clicking the **Format HDD** button will effectively erase the entire data in the HDD! If you do not want to format the HDD, click the **Next** button to proceed.

6. The DVR will apply the resolution best suit the connected monitor. If you want to change the output resolution, select an output resolution that matches your monitor. Click the **Apply** button. Click **Next** to proceed.



Resolution

Output Resolution: 1280x1024

Apply

Previous Next Cancel

7. Mobile information. You can scan the QR code with **EverFocus eFVMS App** installed on your mobile device to add the DVR to your app and then remotely access the DVR (please refer to 4.9.5.1 *System Info* for more details). Click **Next** to proceed.



Mobile

R2P ID

P2P ID: 53TYH8VTLCEZB3WVK

Local Connection

IP Address: 192.168.33.97

Subnet Mask: 255.255.255.0

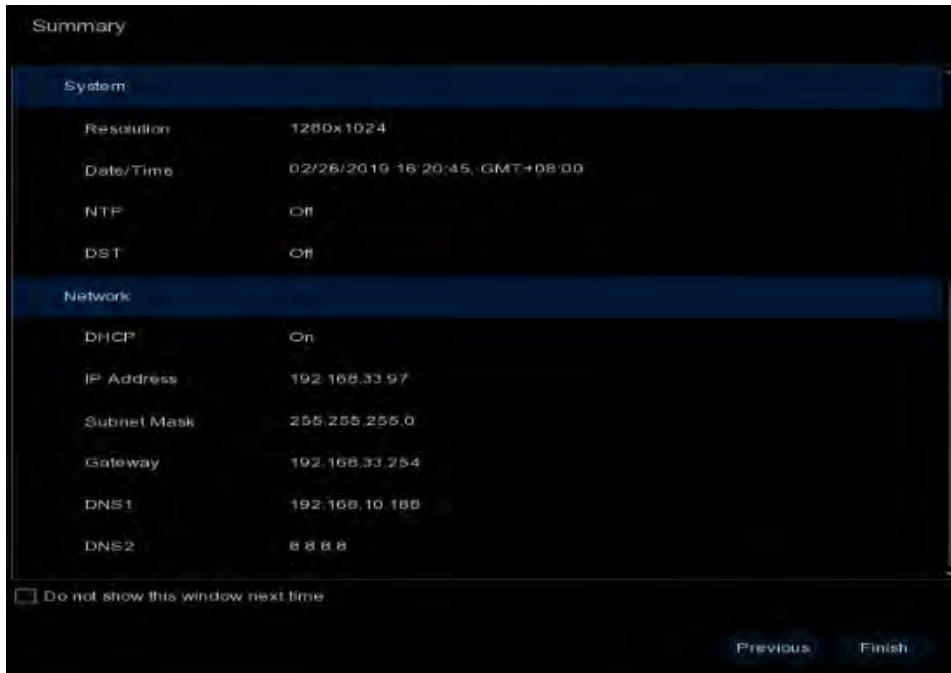
Port

Web Port: 80

Client Port: 9000

Previous Next Cancel

8. The setup information through this wizard will be displayed on the Summary page. Click **Finish** to close the wizard.



Note: You can check “Do not show this window next time” if you do not want to run the startup Wizard to make any settings when you restart the DVR next time.

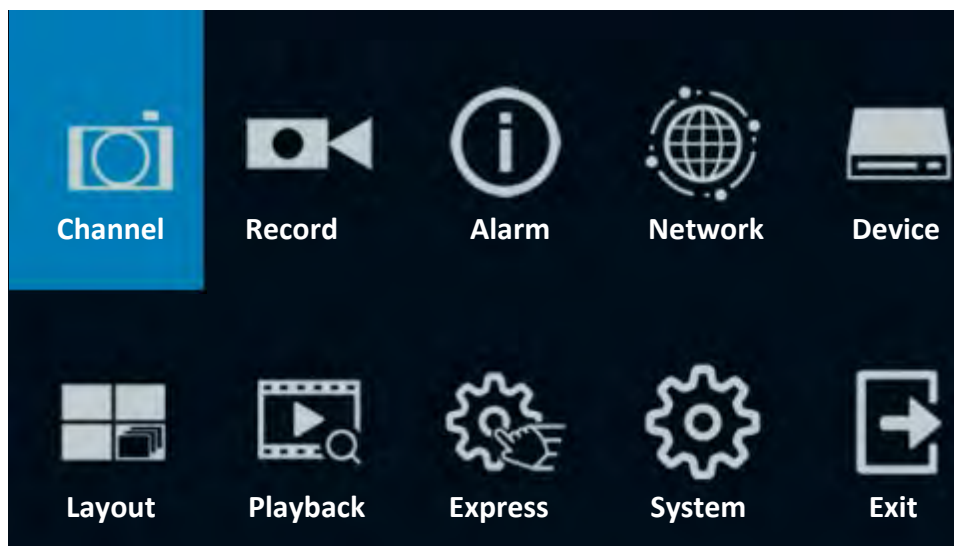
9. After clicking the **Finish** button, the system will enter the Live View window (refer to 3.4 Live View Window).



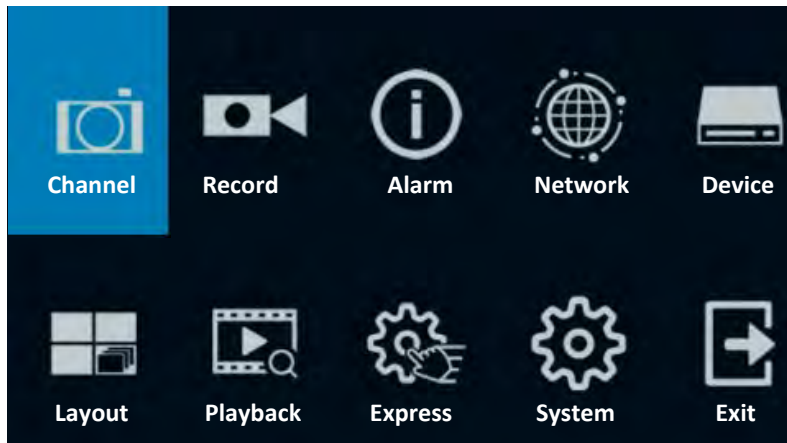
10. To start using the DVR, click any function and the **Unlock** window appears. Input the password of the DVR and then click the **Unlock** button to unlock the screen, the OSD Setup menu appears. You can start using the DVR. Please refer to 4. *OSD Menu* for more details.



The image shows the 'Unlock' screen of the DVR. It has a dark background with white text and input fields. At the top, the word 'Unlock' is centered. Below it, there are four rows of input fields: 'Language' with a dropdown menu showing 'English', 'Device ID' with a text box containing '000000' and a label '(000000)' to its right, 'User' with a dropdown menu showing 'admin', and 'Password' with a text box and a checkbox labeled 'Show Password' to its right. At the bottom, there are two buttons: 'Forgot Password' and 'Unlock'.



3.3 General Operation on the OSD Menu



【OSD Menu】

1. On the Live View window, right click the mouse, the OSD Menu appears.
2. Click on any icons to enter the setup menus.
3. To exit the OSD menu, right click the mouse. You can also exit each sub menu by right clicking the mouse.

【Text Box】

Click on the box and an on-screen keyboard will appear.



【On-Screen Keyboard】

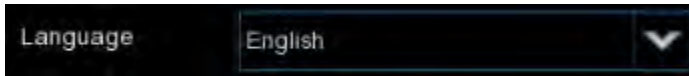
Click on a button to input that character.



	Switch to capital letters
	Confirm the selection
	Delete the letter backwards
	Move to the left or right
	Enter a space

【Drop-Down Box】

Click on the down arrow to see all selections, then directly click on an option to select it.

**【Check Box】**

Click on the box to enable it (checked) or disable it (unchecked).

**【Button】**

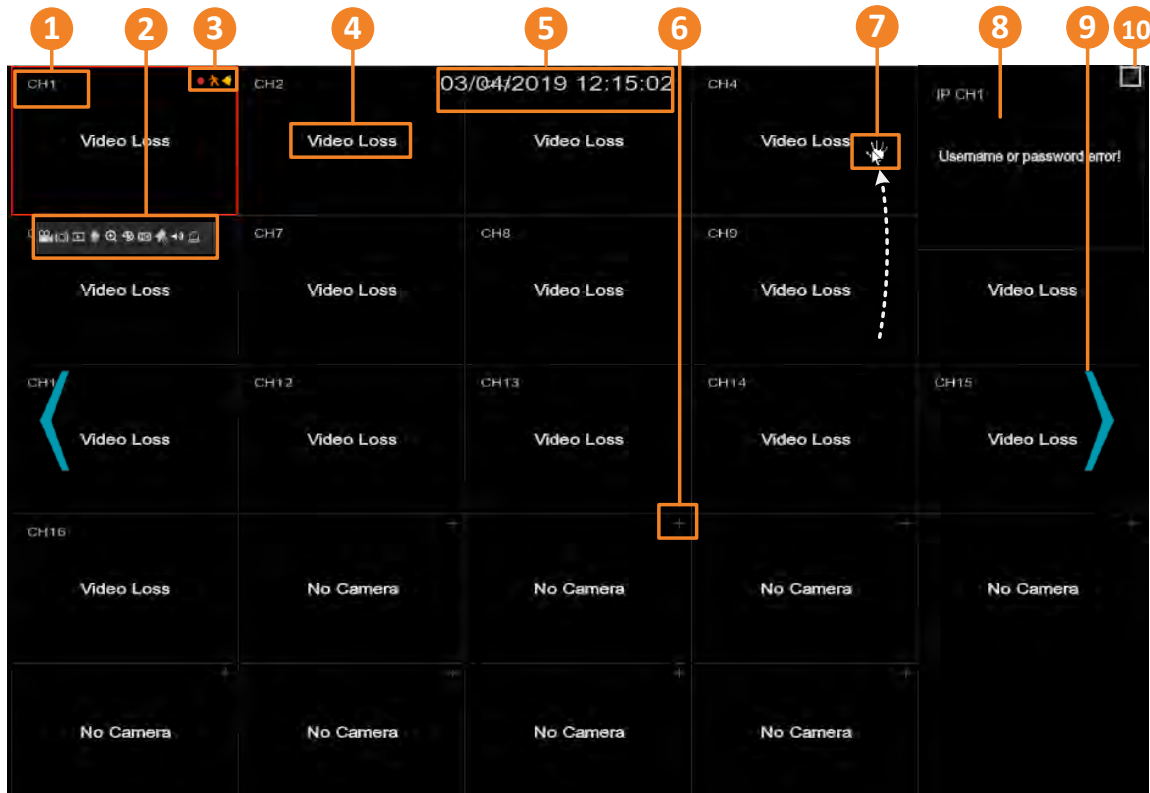
Click the button to execute the function.








**【Slider】**





Slide the bar to the left or right for adjusting the value.



3.4 Live View Window



No	Name	Description
1	Camera Title	<p>The word prefixed to the Camera Title represents:</p> <p>A-: The connected camera is an AHD camera. T-: The connected camera is a TVI camera. C-: The connected camera is a CVI camera. IP: The connected camera is an IP camera.</p>
2	Live Channel Tool Bar	<p>Left click any channel can display its Live Channel Tool Bar to perform functions including Manual Record, manual Snapshot, Instant Playback and etc.. Please refer to 3.5 <i>Live Channel Tool Bar</i> for more details.</p>
3	Status Icons	<p>The Status Icons displayed on the upper-right corner of each channel are designed to alert users when any of the following situations occur:</p> <ul style="list-style-type: none">  DVR is currently recording  Motion event is detected  External I/O alarm is triggered  HDD error  HDD unformatted  HDD full  Intelligent (smart) event is triggered

4	Channel State	<p>The wordings displayed on the channel represent:</p> <p>VIDEO LOSS: Analog camera is disconnected.</p> <p>No Camera: IP camera is disconnected.</p>
5	System Date and Time	Displays system date and time. To change system date and time, go to OSD Menu > System > General > Date and Time.
6	Quick Add	The Quick Add icon  only displays on the IP camera channel. Click to open the Quick Add menu to add IP cameras. Please refer to 4.1.1.2 <i>IP Channels</i> for more details.
7	Drag Channel Icon	You can drag and drop a channel to the desired position on the layout. Click on a channel, a Drag Channel icon will display. Drag and drop the channel to the desired position on the layout.
8	Live Channel	<p>Double-click on a channel can display the channel in full screen. To exit the full screen mode, double-click on the channel again.</p> <p>In full screen mode, you can:</p> <ul style="list-style-type: none"> • Left-click to bring up the Live Channel Tool Bar. Please refer to 3.5 <i>Live Channel Tool Bar</i> for more details. • Scroll the mouse to zoom in or zoom out the images, and then use your mouse to drag the image to the desired positions to spot on a specific area.
9	Layout Page Icons	Move your mouse cursor to the left or right edge of the screen, the Next icon  or Previous icon  will appear. Click the Previous / Next icon to turn to the previous / next layout pages. For example, for 16CH device, if you select 9-Division, click the next layout page icon (on the right side) will display the next 9-division layout with channel 10-16.
10	Edit	The Edit icon  only displays on the IP camera channel. When IP camera connection failed, this icon will appear. Click to open the Edit Connection Information menu to edit the IP camera parameters. Please refer to 4.1.1.2 <i>IP Channels</i> for more details.

3.5 Live Channel Tool Bar

You can left-click any channel on the Live View Window to bring up its Live Channel Tool Bar.



No	Name	Description
1	Manual Record	Click the button to start manual recording. During the process of manual recording, the icon will display in red. Click the button again to stop manual recording.
2	Manual Snapshot	Click to take a snapshot of the channel. You can then using the Playback panel to playback the snapshot images. Please refer to <i>4.7.3.7 Snapshot</i> . To configure the snapshot parameters or set up the snapshot schedule, please refer to <i>4.2.3 Snapshot</i> .
3	Quick Playback	Click to playback the latest 5 minutes recording of this channel. Click X to exit the Instant Playback mode. To configure the quick playback start time, please refer to <i>4.8.1 Quick Playback</i> .
4	PTZ	Click to bring up the PTZ Control window. Please refer to <i>3.5.2 PTZ Control Panel</i> for more details.
5	Zoom	Click to start the digital zoom function. Please refer to <i>3.5.1 Digital Zoom (PIP)</i> for more details.
6	Image Settings	Click to bring up the Color Setting window. You can adjust the Hue, Brightness, Contrast and Saturation for each channel individually.
7	Stream Switch	This icon is only available for IP cameras. Click to switch between HD and SD stream to be displayed on the live view channel. To adjust the HD (main stream), SD (sub stream) configurations, please refer to <i>4.2.1.1 Main Stream</i> and <i>4.2.1.2 Sub Stream</i> .
8	Add Customized Tag	You can add a tag of the selected time to this channel. Input a tag name and then click Save . To search for the tags, go to Playback > Tag, please refer to <i>4.7.3.5 Tag</i> .
9	Audio	Click to turn on or turn off the audio, or adjust audio volume.
10	Manual Alarm	Click to manually trigger alarm output of the channel.

3.5.1 Digital Zoom (PIP)

You can use the Digital Zoom function to have a close-up view on the desired locations of a live channel.



To perform the digital zoom function:

1. On the Live View window, left-click on a channel to display its Live Channel Tool Bar and then click the **Zoom** icon, the channel will be displayed in full screen with a **Preview Window** on the bottom-right corner of the screen.
2. Scroll the mouse upward/downward to zoom in/out, a **Navigation Box** will be displayed on the **Preview Window**.
3. Drag the **Navigation Box** and drop it to the position where you want to have a close-up view.
4. To exit the Digital Zoom mode, right-click the mouse.
5. To return to the Live View window, double-click on the **Live full screen channel**.

Note: You can also perform the Digital Zoom function by scrolling the mouse directly on the Live View to zoom in or zoom out the images, and then drag the live view image to the desired positions to spot on a specific area.

3.5.2 PTZ Control Panel

With the PTZ Control Panel, you can control the connected PTZ cameras or enter the analog camera OSD using the UTC panel.

On the Live View window, select a PTZ camera by clicking on the channel, the selected channel will be highlighted with a red frame. Left-click on the channel to display its **Live Channel Tool Bar** and then click the **PTZ** icon to bring up the **PTZ Control panel**.



PTZ Control Panel

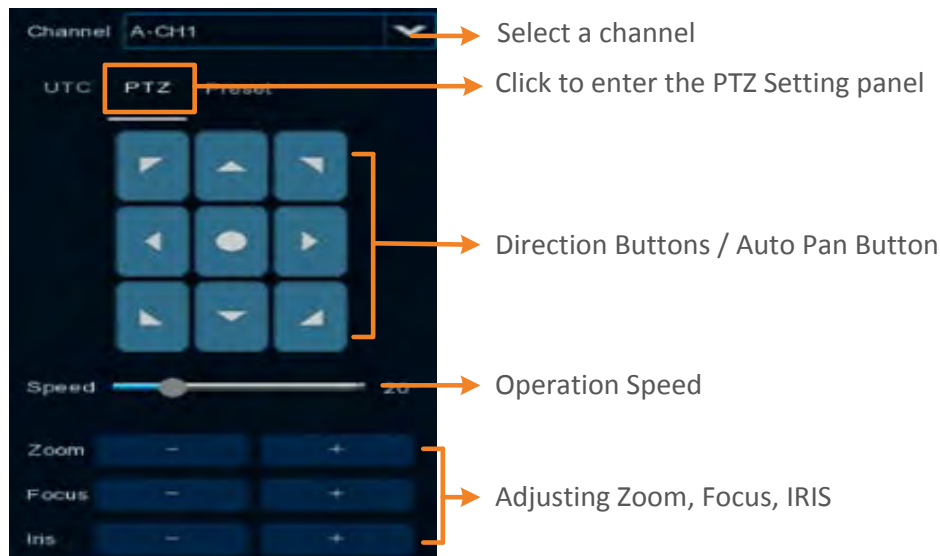


3.5.2.1 PTZ Control

Click **PTZ** to display the PTZ Control panel. With this panel, you can control the connected PTZ camera.

Note that before using this function, you have to connect the PTZ cameras to the DVR and configure the related PTZ settings. Please refer to [4.1.4 PTZ](#).


PTZ Control Panel



Channel: Click to select a PTZ camera you want to control.

PTZ: Click **PTZ** to enter the PTZ Control panel.

Direction Buttons: Click the direction buttons to force the PTZ camera to turn to the direction.

Auto Pan  : Click to start the Auto Pan (360°) function. Click again to stop the Auto Pan function.

Speed: Switch the bar to the left or right to adjust the operation speed.

Zoom: Click + or – to zoom in or zoom out.

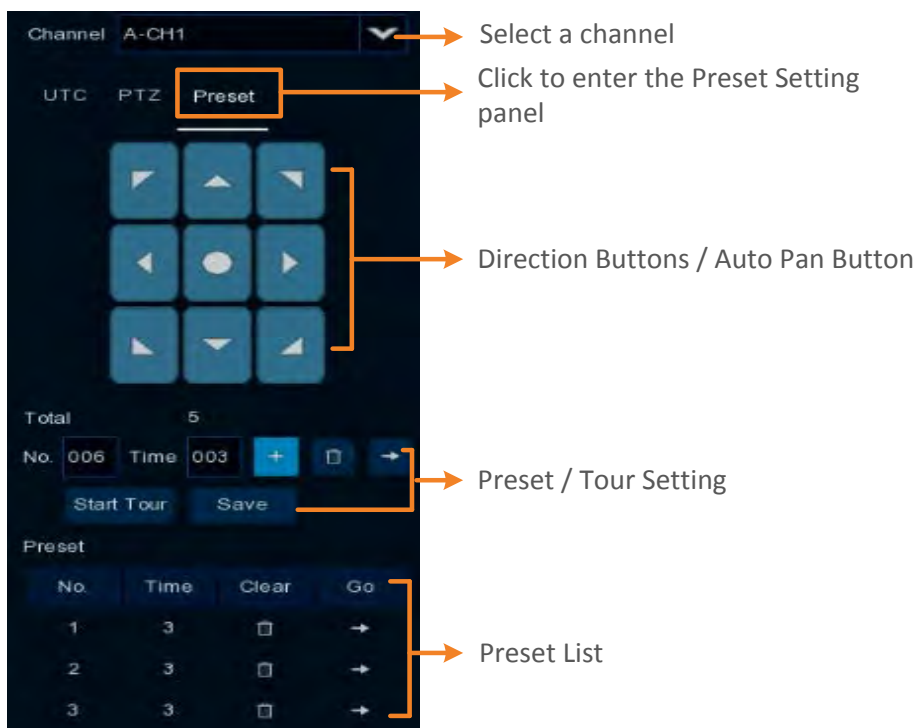
Focus: Click + or – to focus near or focus far.

Iris: Click + or – to adjust the Iris.



3.5.2.2 Preset Setting

Click **Preset** to enter the Preset Setting panel. On this panel, you can set up Preset positions, perform the Go to Preset function and also perform the Tour function.


Preset Setting Panel



To set up Preset Points:

1. Click on the **No.** input box and input a preset number (1-255).
2. Click on the **Time** input box to set up a dwell time for this preset number (for Tour function).
3. Use the direction buttons or Zoom/Focus/Iris buttons to search for the location for this preset number.
4. Click the  button to save this preset point and then jump to the next preset number for configuration. Follow **Step 2-3** to set up multiple preset points.
5. After setting up the preset points, click the **Save** button to save the settings.
6. To clear the setup preset points, select a preset number in the **No.** input box and then click the **Clear** button . Or you can also click the **Clear** button of a specific preset number on the Preset List.

To perform the Go to Preset Point function:

1. Set up the preset points in advance. Please refer to the steps of “To set up Preset Points” above.
2. Select a preset number (1-255) by clicking on the **No.** input box.
3. Click the **Go To** button . The icon is a dark blue square with a white right-pointing arrow.
4. You can also click the **Go To** button of a specific preset number on the Preset List to go to the selected preset point.

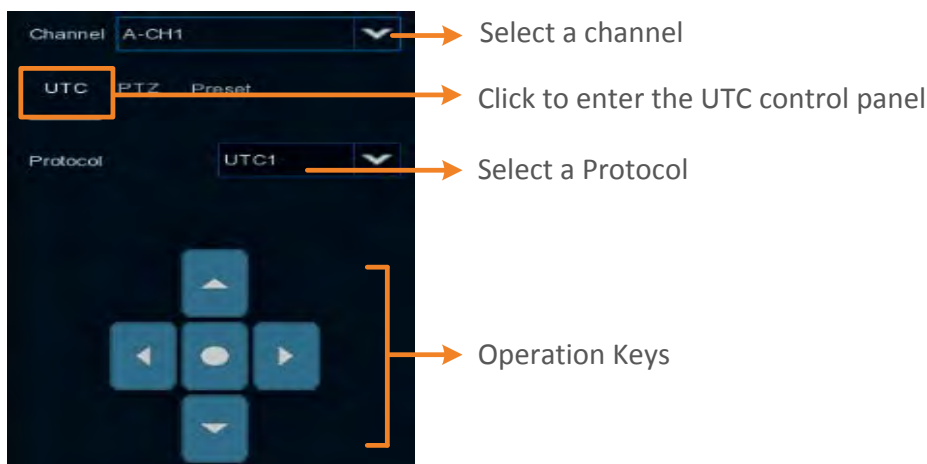
To perform the Tour function:

1. Set up the preset points in advance. Please refer to the steps of “To set up Preset Points” above.
2. Click the **Start Tour** button, the PTZ camera will start cruising based on the pre-configured preset points with the dwell time.
3. To stop the Tour function, click the **Stop Tour** button.


3.5.2.3 UTC Control

Click **UTC** to enter the UTC Control panel. On this panel, you can display the analog camera OSD menu and configure the camera OSD settings.


Note: For EverFocus' PTZ cameras, only the UTC-supported PTZ cameras support the UTC function.



To perform the UTC Control function:

1. Select a camera and then select **UTC1** or **UTC2** from the **Protocol** drop-down list.
2. Click the  button, the camera OSD menu will be displayed.

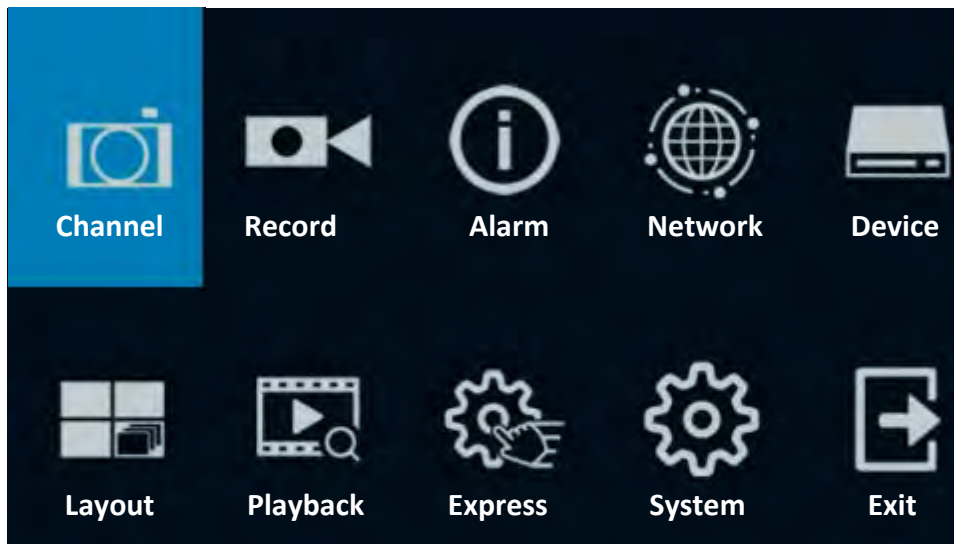


3. You can use the **Up / Down / Left / Right** buttons to select among the OSD menu items and use  as the **Enter** button to enter the setup menu.

Chapter 4

4. OSD Menu

You can use the OSD Menu to configure system settings. To bring up the OSD Menu, right click on the screen.



4.1 Channel

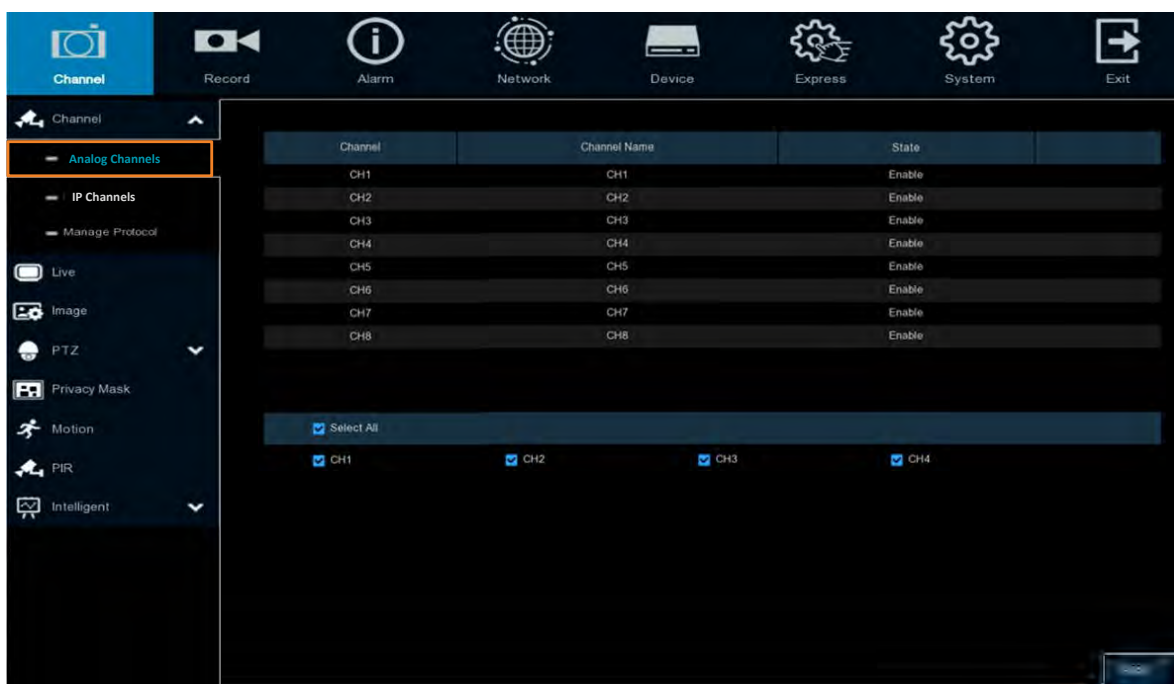
In this section, you are allowed to configure the settings including analog cameras, IP cameras, live view display, PTZ setup, motion setup and more.

4.1.1 Channel

This page will only appear when HVR hybrid mode is selected (OSD > System > General). You can add IP cameras manually or automatically using this page.

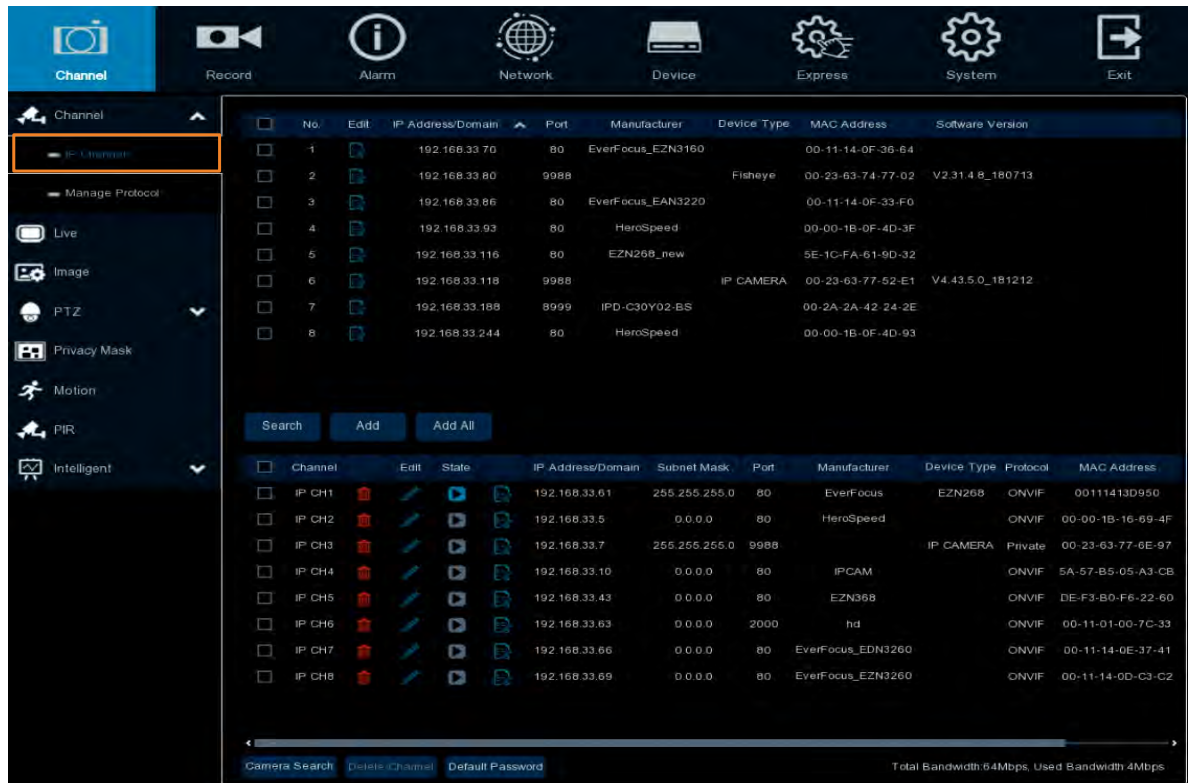
4.1.1.1 Analog Channels

This page is only available for VANGUARD 4x2H and VANGUARD 8x4H. If you want to add more IP cameras to the DVR, you can disable the analog cameras in order to release more channels for adding IP cameras. For this function to work, you will have to enable the HVR mode for the DVR in advance (OSD > System > General). Disable one analog channel can release one channel for adding IP camera.



4.1.1.2 IP Channels

You can add IP cameras manually or automatically using this page.



No.	Edit	IP Address/Domain	Port	Manufacturer	Device Type	MAC Address	Software Version
1		192.168.33.70	80	EverFocus_EZN3160		00-11-14-0F-36-64	
2		192.168.33.80	9988		Fisheye	00-23-63-74-77-02	V2.31.4.8_180713
3		192.168.33.86	80	EverFocus_EAN3220		00-11-14-0F-33-F0	
4		192.168.33.93	80	HeroSpeed		00-00-1B-0F-4D-3F	
5		192.168.33.116	80	EZN268_new		5E-1C-FA-61-9D-32	
6		192.168.33.118	9988		IP CAMERA	00-23-63-77-52-E1	V4.43.5.0_181212
7		192.168.33.188	8999	IPD-C30Y02-BS		00-2A-2A-42-24-2E	
8		192.168.33.244	80	HeroSpeed		00-00-1B-0F-4D-93	

Channel	Edit	State	IP Address/Domain	Subnet Mask	Port	Manufacturer	Device Type	Protocol	MAC Address
IP CH1			192.168.33.61	255.255.255.0	80	EverFocus	EZN268	ONVIF	00111413D950
IP CH2			192.168.33.5	0.0.0.0	80	HeroSpeed		ONVIF	00-00-1B-16-69-4F
IP CH3			192.168.33.7	255.255.255.0	9988		IP CAMERA	Private	00-23-63-77-6E-97
IP CH4			192.168.33.10	0.0.0.0	80	IPCAM		ONVIF	5A-57-B5-05-A3-CB
IP CH5			192.168.33.43	0.0.0.0	80	EZN368		ONVIF	DE-F3-B0-F6-22-60
IP CH6			192.168.33.63	0.0.0.0	2000	hd		ONVIF	00-11-01-00-7C-33
IP CH7			192.168.33.66	0.0.0.0	80	EverFocus_EDN3260		ONVIF	00-11-14-0E-37-41
IP CH8			192.168.33.69	0.0.0.0	80	EverFocus_EZN3260		ONVIF	00-11-14-0D-C3-C2

Search: Click to search for the IP cameras on the network. The searched IP cameras will be displayed on the upper list.

Add: Click to manually add IP camera one by one to the DVR. The added IP camera will be displayed on the lower list.

Add All: Click to automatically add the first 2/4/8 IP cameras to the DVR based on the supported number of IP camera of your device. Please refer to [4.1.1.2.1 Auto Add IP Cameras](#) for more details.

Camera Search: The added IP camera would not be able to connect to the DVR if its IP address is not on the same network segment with the DVR. Therefore, you can use this function to reassign an IP address to all added IP cameras with the same network segment as DVR's.

Channel Delete: On the added IP cameras list, check the IP camera boxes and then click the Channel Delete button to delete the selected IP cameras from the list.







Default Password: Click to bring-up the **Set The Protocol Default Password** page. You can configure the default password for various protocols. When adding IP cameras to the DVR, the DVR will automatically apply the Default Password to the IP cameras based on their protocol. To configure Protocol settings, please refer to [4.1.1.3 Protocol Manage](#).


Set up the default Protocol password


Protocol	User Name	Password
Private	admin	.....
ONVIF	admin	.....
Custom 1	user1	.....
Custom 2	admin	.....
Custom 3	admin	.....
Custom 4	admin	.....
Custom 5	admin	.....
Custom 6	admin	.....
Custom 7	admin	.....
Custom 8	admin	.....
Custom 9	admin	.....

Default Save Cancel


You can also use the buttons on the **Added IP Camera list** to perform the functions:

<input type="checkbox"/>	Channel	Edit	State	IP Address/Domain	Subnet Mask	Port
<input type="checkbox"/>	IP CH1					
<input type="checkbox"/>	IP CH2			192.168.33.118	255.255.255.0	9988
<input type="checkbox"/>	IP CH3					

Delete: Click  to delete the IP camera.

Add: Click  to bring up the Add IP Camera window to add an IP camera. Please refer to *4.1.1.2.2 Manually Add IP Cameras* for more details.

Edit: Click  to edit IP camera profile.

Modify: Click  to modify IP camera settings.

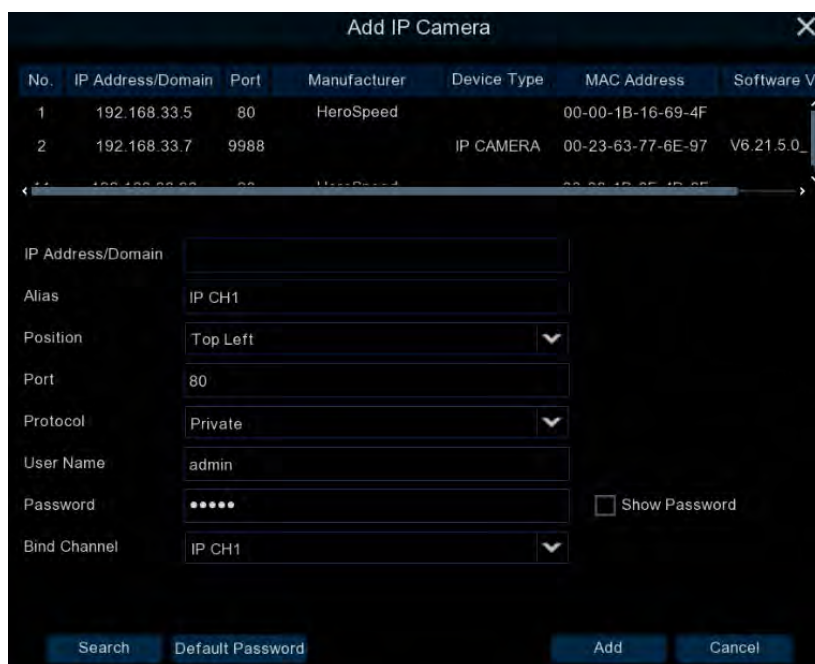
State: Shows the status of the IP camera.  indicates connection failed.  indicates connection succeeded. Click the  can pop-up a live window of the IP camera.

4.1.1.2.1 Auto Add IP Cameras

To automatically add all searched IP cameras to DVR, click **Search** and then click the **Add All** button. The DVR will add the first 2/4/8 IP cameras to the DVR based on the supported number of IP camera of your device.

4.1.1.2.2 Manually Add IP Cameras

1. Click **Add** to bring-up the Add IP Camera page.



No.	IP Address/Domain	Port	Manufacturer	Device Type	MAC Address	Software Version
1	192.168.33.5	80	HeroSpeed		00-00-1B-16-69-4F	
2	192.168.33.7	9988		IP CAMERA	00-23-63-77-6E-97	V6.21.5.0

IP Address/Domain:
 Alias:
 Position:
 Port:
 Protocol:
 User Name:
 Password: ☐ Show Password
 Bind Channel:

2. Click **Search** to search for the IP cameras on the network. Note that the IP cameras that have been added to the DVR will not be displayed.
3. To select an IP camera, click an IP camera on the list, the clicked IP camera will be highlighted with a red frame.
4. Configure the IP camera settings at the lower section.

IP Address/Domain: Input the IP address or domain name of the IP camera.

Alias: Input a channel name for the IP camera.

Position: Select a position to display the camera name on the live channel.

Port: Port of the IP camera.

Protocol: Select a protocol. For Custom protocol, please refer to 4.1.1.3 *Protocol Manage*.

User Name: Input the user name of the IP camera.


Password: Input the password of the IP camera.

Bind Channel: Select a channel for the IP camera to be applied to.

5. Click **Add** and the IP camera will be added to the channel.

4.1.1.3 Protocol Manage

On this page, you can edit RTSP (Custom 1-16) protocol for IP camera connection.



The screenshot shows the 'Protocol Manage' interface. On the left is a sidebar with icons for Channel, Record, Alarm, Network, Device, Express, System, and Exit. Below these are expandable sections: IP Channels, Manage Protocols (highlighted), Live, Image, PTZ, Privacy Mask, Motion, PIR, and Intelligent. The main area is titled 'Custom Protocol' and shows a configuration form for 'Custom Protocol1'. The form includes fields for Protocol Name (Custom 1), Stream Type (Main Stream and Sub Stream), Enable Sub Stream (checked), Type (RTSP), Port (554), and RTSP URL (rtsp://192.168.1.150:554/ch01/0). An example URL is provided: rtsp://[IP address]:[Port]/ip[A]/[B] A.01(ch1), 02(ch2) B.0(main stream), 1(sub stream). At the bottom right are 'Default' and 'Apply' buttons.

Custom Protocol: Select a custom RTSP protocol profile from the drop-down list to be configured. Up to 10 profiles can be configured.

Protocol Name: Input a name for this RTSP protocol profile.

Stream Type: Indicates Main Stream and Sub Stream are supported. You can separately configure the Main Stream and Sub Stream settings below.

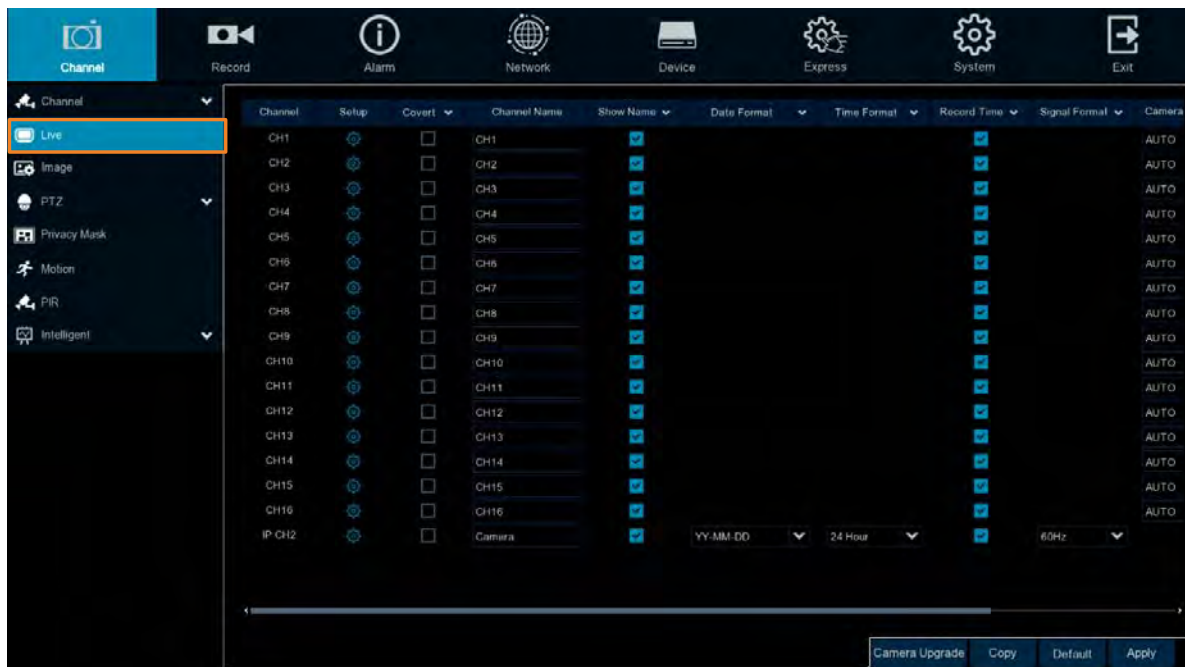
Enable Sub Stream: Check the Sub Stream checkbox if you want to enable sub stream for this RTSP protocol.

- **Type:** Select RTSP.
- **Port:** Input the RTSP port of your IP camera. Keep 554 as the RTSP port.
- **Resources Path:** Input the RTSP URL syntax in the box. For example:
rtsp://[IP Address]:[Port]/ip[A]/[B]
rtsp://192.168.31.33:554/ip01/0
* IP Address: The IP address of the DVR
* A: Channel number. 01 (ch1), 02 (ch2), and so on
* B: Stream Type: 0 (main stream), 1 (sub stream)


Click **Apply** to save the settings or **Default** to apply the default setting.

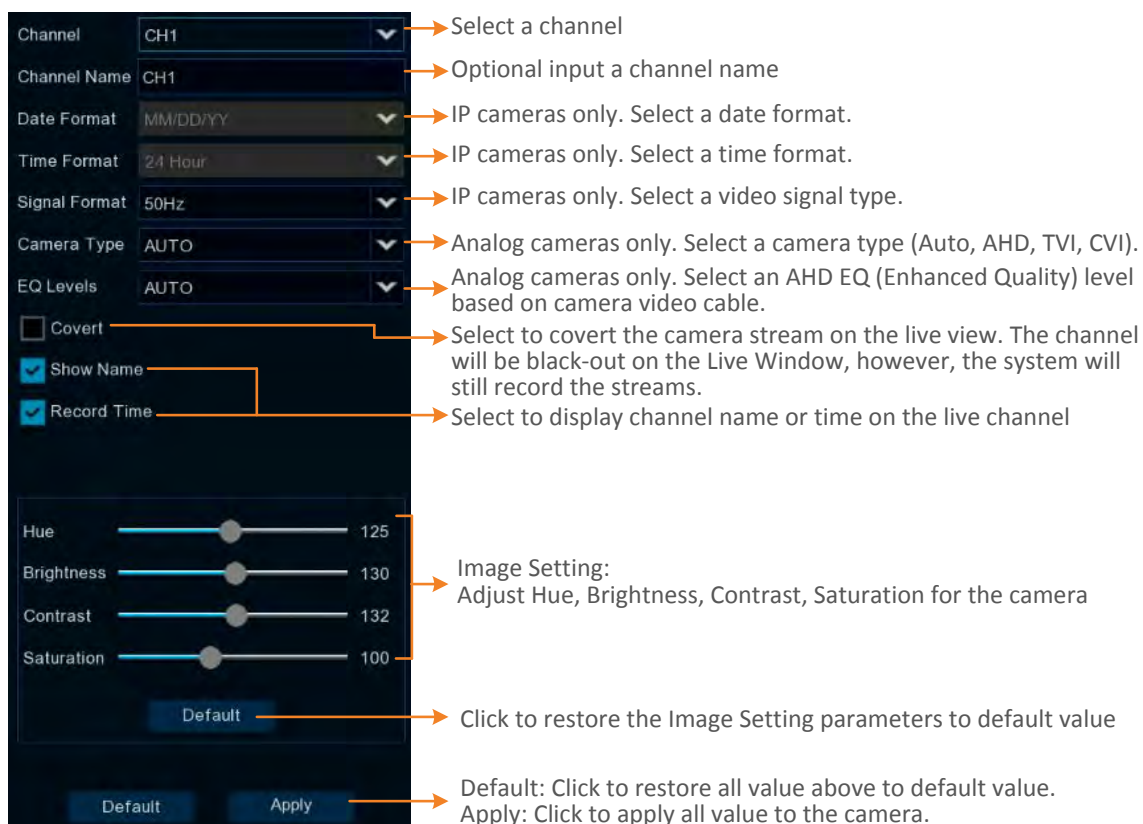
4.1.2 Live

You can configure camera OSD or image settings on this page.



Channel: Displays the channel number.

Setup: Click  to enter the OSD and image setup page. You can use the left-side panel to adjust the parameters. After configuring the settings, click **Apply** to apply the settings.



Covert: Select to covert the camera stream on the live view. The channel will be black-out on the Live Window, however, the system will still record the streams.

Channel Name: Optionally input a channel name.

Show Name: Check the box to display the channel name on the live channel.

Date Format: For supported IP cameras only. Select a date format.

Time Format: For supported IP cameras only. Select a time format.

Record Time: Check the box to enable recording the time to the recording files.

Signal Formate: For supported IP cameras only. Select a video signal format (50Hz or 60Hz).

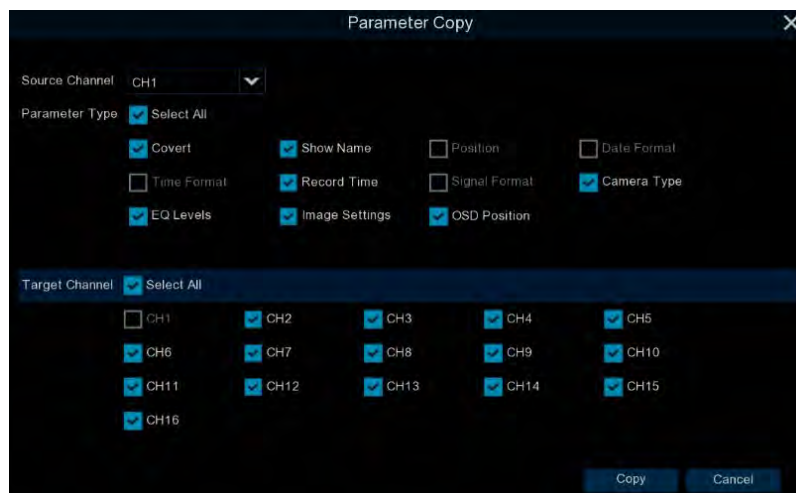
Camera Type: Analog cameras only. Select a camera type (Auto, AHD, TVI, CVI, AHD-3MP, AHD-4MP, AHD-5MP, AHD-8MP).

EQ Levels: Analog cameras only. Select an AHD EQ (Enhanced Quality) level based on camera video cable.

Camera Upgrade: Analog cameras only. Check the box in the Camera Upgrade column to select a camera and then click the **Camera Upgrade** button to upgrade camera FW. Please store the FW file in a USB storage device and insert the USB device to the DVR in advance.

Copy: Analog cameras only. You can apply the same configurations from one channel to other channels. To perform the Copy function:

1. Click an analog camera on the list and the clicked camera will be highlighted with a blue frame.
2. Click the **Copy** button, the Parameter Copy window appears.



3. Select a channel from the Source Channel drop-down list and then select the parameters you would like to apply to other channels.
4. Select the desired channels from the Target Channel field.
5. Click the **Copy** button, the selected channels will be applied with the same parameters as the source channel.


Click **Apply** to save the settings or **Default** to apply the default setting.

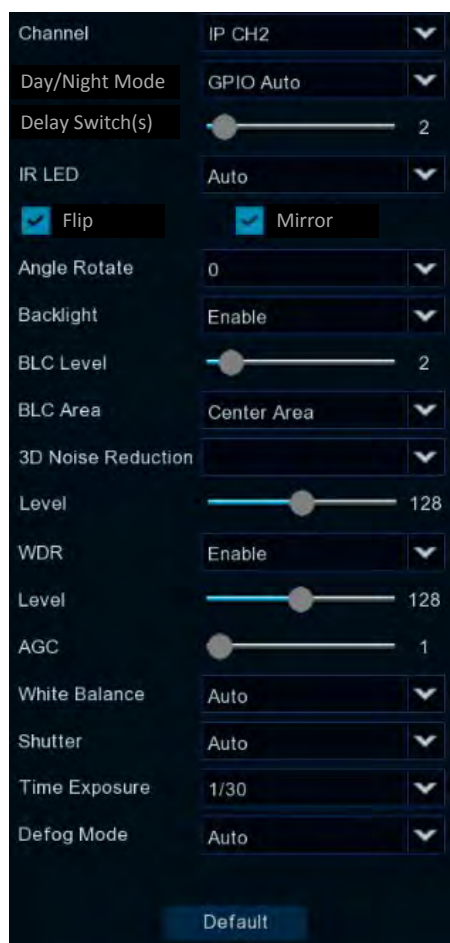
4.1.3 Image Control

You can configure the image settings for supported IP cameras.



Channel: Displays the channel number.

Setup: Click  to enter the setup page. You can use the left-side panel to adjust the parameters. After configuring the settings, click **Apply** to apply the settings.



Channel: Select a channel number.

Day/Night Mode: Select a Day/Night mode for the camera to display the color or B/W images.

- **GPIO Auto:** Select GPIO Auto for the camera to automatically switch to day or night mode. You can further set up a **Delay Switch** time (second) in the below field.
- **Color Mode:** Select Color Mode for the camera to display color images.
- **Black White Mode:** Select Black White Mode for the camera to display B/W images.

- **Schedule (B/W):** Select Schedule (B/W) for the camera to display B/W images during the setup time range. Please select the **Start Time** and **End Time** in the below field.

Delay Switch (s): This function can only be activated if you select **Auto** for the **Day/Night Mode**. Set up a delay switch time (seconds) for the camera to auto switch between day and night modes.

IR-LED: Select **On** to turn on IR LEDs; select **Off** to turn off IR-LED; select **Auto** for the camera to automatically turn on / off the IR-LED based on the light sensor on the IP camera.

Flip: Switch the button to the right to enable the Flip function. The image will be rotated vertically around a horizontal axis.

Mirror: Switch the button to the right to enable the Mirror function. The image will be rotated horizontally around a vertical axis.

Angle Rotate: Select a rotate angle.

Backlight: Switch the button to the right to enable the BLC (Backlight Compensation) function.

BLC Level: Adjust the level for the BLC function.

BLC Area: Select an area to apply the BLC function.

3D Noise Reduction: Select Auto to

- **Auto:** Select Auto for the camera to automatically turn on the 3DNR function.
- **Manual:** Select to turn on the 3DNR function based on the setup **Level**.
- **Disable:** Select to disable the 3DNR function.

WDR: Switch the button to the right to enable the WDR function and then you will have to adjust a **Level** for the WDR function.

AGC: If you select **Manual** in the Shutter field, set up the AGC for the camera. The lower the AGC level, the lower the video signal and the noise.

White Balance:

- **Auto:** Select for the camera to automatically adjust the white balance.
- **Manual:** Select to adjust the Red, Green, Blue values yourself.
- **Indoor:** Select Indoor if your camera is installed in an indoor environment.

Shutter:

- **Auto:** Select for the camera to automatically adjust the Shutter.
- **Manual:** Select to manually adjust the shutter speed. Select a speed in the **Time Exposure** field. Also set up the **AGC** in the AGC field above.

Time Exposure: If you select **Auto** in the Shutter field, the camera will automatically apply a max. shutter speed. If you select **Manual** in the Shutter field, select a shutter speed from the drop-down list.

Defog Mode:

- **Auto:** Select Auto for the camera to automatically turn on the Defog function.
- **Manual:** Select to turn on the Defog function based on the setup Level.
- **Disable:** Select to disable the Defog function.

Click **Default** to restore to default settings.

4.1.4 PTZ

Please connect the PTZ cameras to the DVR and then configure the below PTZ settings. After configuring the PTZ settings, you can start using the PTZ Control panel to control the PTZ camera. Please refer to [3.5.2.1 PTZ Control](#).



Channel: Displays the channel number.

Signal Type: Analog for analog channels; Analog /Digital for IP channels.

Protocol: Select a communication protocol between the PTZ camera and DVR. If your camera supports the UTC function, select **UTC1** or **UTC2**. For more details on UTC function, please refer to [3.5.2.3 UTC Control](#).

Note: For EverFocus' PTZ cameras, only the UTC-supported PTZ cameras support the UTC function.

Baudrate: This field is to set the speed at which is used to transmit instruction or information from the DVR to the PTZ camera.

Data Bit / Stop Bit: The information between the DVR and PTZ camera is sent in individual packages. The Data Bit indicates the number of bits sent, while the End Bit indicates the end of the package and the beginning of the next (information) package.

Parity: For error check. Refer to the documentation of your PTZ camera to configure this setting

Address: Input the ID address of the PTZ camera. Note this address should match the one set up on the PTZ camera.

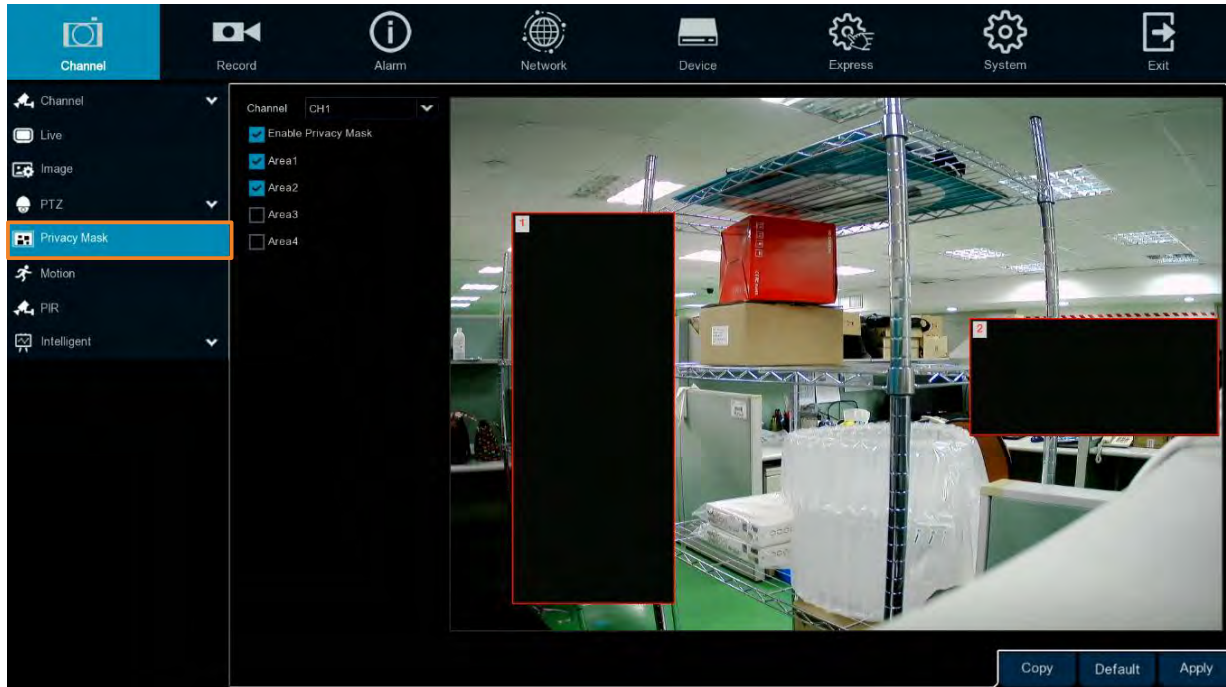
Copy: You can apply the same configurations from one channel to other channels. To perform the Copy function:

1. Click the **Copy** button, the Parameter Copy window appears.
2. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels.
3. Select the desired channels from the **Target Channel** field.
4. Click the **Copy** button, the selected channels will be applied with the same parameters as the source channel.

Click **Apply** to save the settings or **Default** to apply the default setting.

4.1.5 Privacy Mask

This function is only available for analog cameras. The Privacy Mask can block out sensitive areas from view. This feature is useful when users don't want the sensitive information visible. Up to four Privacy Masks can be configured.



To configure privacy masks:

1. Select a channel from the Channel drop-down list.
2. Select **Enable Privacy Zone** to enable the function.
3. Select the areas (masks) to be configured. The selected areas will be displayed on the preview image. Up to 4 areas are available.
4. To resize the area, click and drag the bottom-right corner of the rectangle to resize. To drag an area to another location, click and drag the number to relocate the area.



Click and drag to resize



Click and drag to relocate

5. Click the **Apply** button to save the settings.

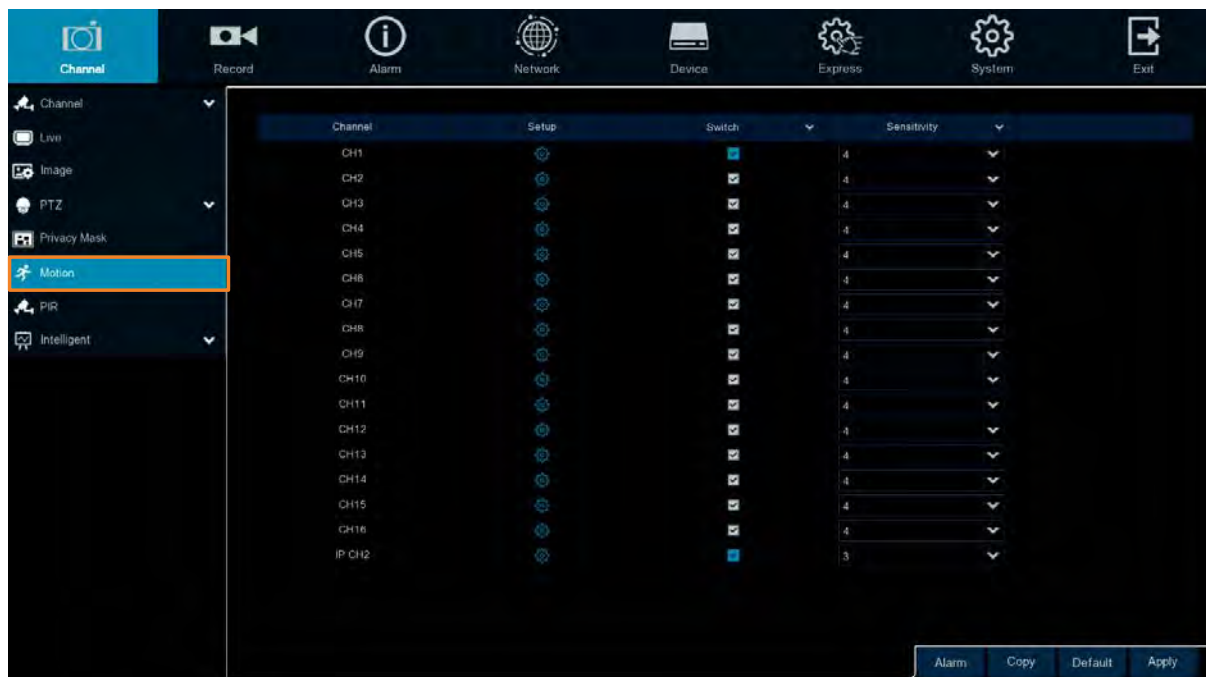
Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

Apply: Click to save the settings.

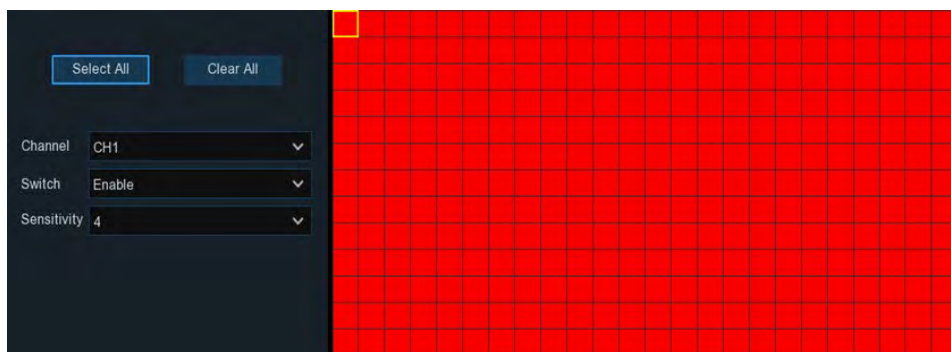
4.1.6 Motion

You can configure the motion settings and motion event notifications on this page. You can also enable the Push Notification function to send motion event alerts to your mobile devices (with eFVMS App installed). For more details on Push Notification, please refer to *Appendix B: Push Notification*.



To configure the Motion Detection settings:

1. Click  to bring-up the Motion Area Setup page.



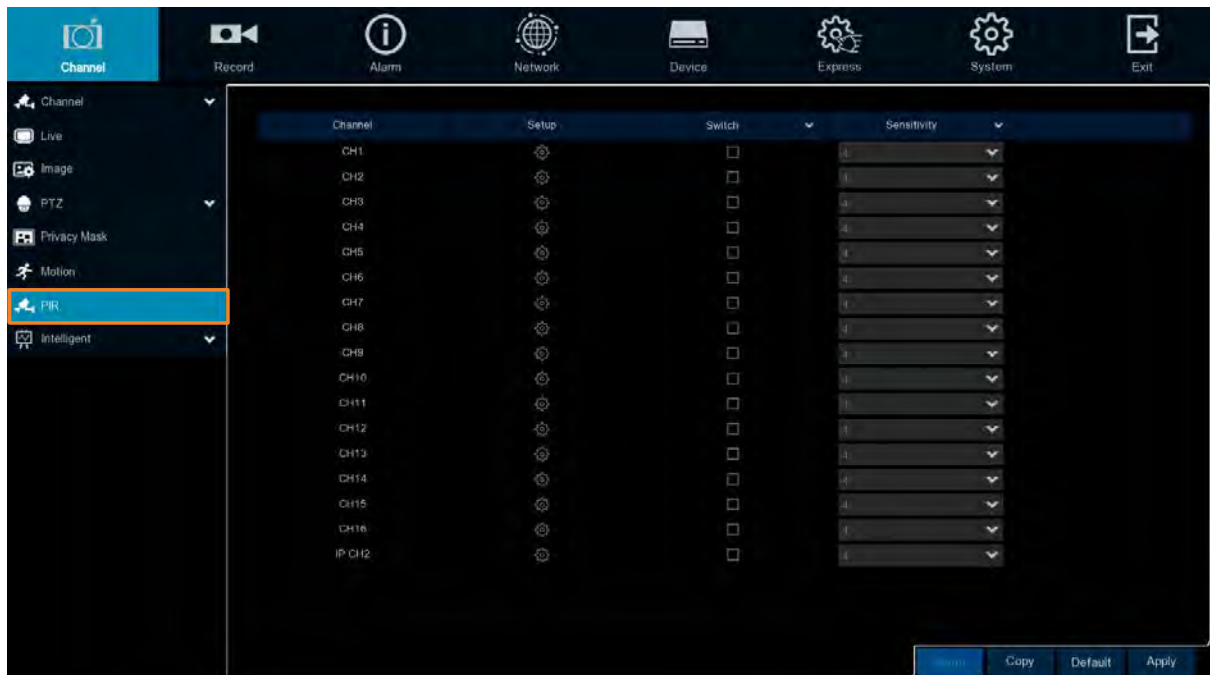
- a. Select a channel from the **Channel** drop-down list.
- b. Select **Enable** from the **Switch** drop-down list to enable motion detection function.
- c. To set up motion detection sensitivity level, select a value from the **Sensitivity** drop-down list. The higher the value the higher the sensitivity.
- d. By default, the whole areas are marked in red. The red blocks represents the areas are applied with the motion detection function. You can click the mouse and drag it to draw multiple areas. To clear a certain area, use the same method to draw on the same area again, the motion area will be erased.

- e. To save the settings, right-click the mouse to return to the Motion Setup page and then click **Apply** to save the settings.
2. To further set up the motion event notifications, click the **Alarm** button to enter the Motion alarm setup page (please refer to *4.3.1 Motion*).
3. If you want to activate the motion recording function, you need to configure the recording schedule. Please refer to *4.2.2.2 Record Schedule*.


4.1.7 PIR

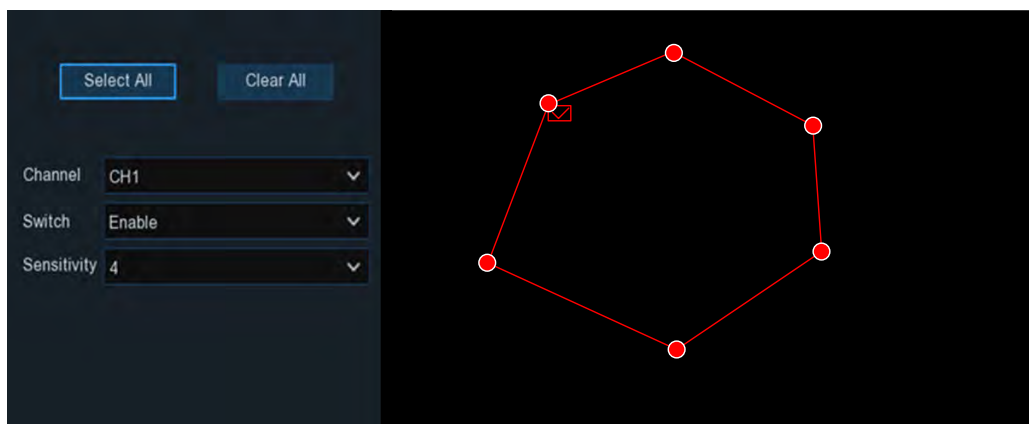
This function is only available when the supported analog/IP cameras with PIR function are connected. For the supported cameras, please contact EverFocus (ts@everfocus.com.tw).

When the camera detects an object move in or out of the PIR sensor range, the DVR will start recording or send alert notifications.



To configure the PIR Detection settings:

1. Click  to bring-up the PIR Area Setup page.



- a. Select a channel from the **Channel** drop-down list.
- b. Select **Enable** from the **Switch** drop-down list to enable PIR detection function.
- c. To set up PIR detection sensitivity level, select a value from the **Sensitivity** drop-down list. The higher the value the higher the sensitivity.
- d. Click **Select All** to set the whole screen of the camera as PIR detection area. Click **Delete All** to clear the whole area. You can also set up an area by drawing a polygon shape (at least five sides) on the image. You can also drag the area and drop it to the

desired location on the image. If you want to adjust the size of the area, drag the red dots to re-size.

- e. To save the settings, right-click the mouse to return to the PIR Setup page and then click **Apply** to save the settings.
2. To further set up the PIR event notifications, click the **Alarm** button to enter the PIR Alarm Settings page (please refer to *4.3.2 PIR*).
3. If you want to activate the PIR recording function, you need to configure the recording schedule. Please refer to *4.2.2.2 Record Schedule*.

4.1.8 Intelligent


The optional intelligent functions, including Perimeter Intrusion Detection, Line Crossing Detection, Foreign/Missing Object Detection, Pedestrian Detection, Face Detection, Cross Counting, Sound Detection and Tamper Detection.

4.1.8.1 Perimeter Intrusion


When objects (people, vehicle or other objects) enter in or out of a pre-defined region, the Perimeter Intrusion Detection event will be triggered. You can configure some event actions like event recording, Email alert or pop-up full screen when an event is triggered.



To configure the Perimeter Intrusion settings:

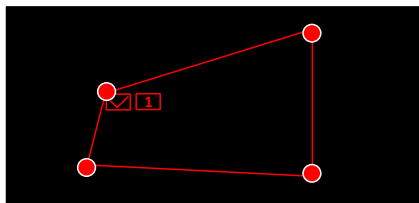
1. Check the **Switch** checkbox to enable the function of the channel.
2. Select a **Sensitivity** value from the drop-down list. The larger the value, the higher the sensitivity.
3. In the **Scene** field, select **Indoor** or **Outdoor** based on the location where your camera is installed.
4. In the **Setup** field, click  to set up the detection areas. Please refer to 4.1.8.1.1 *Configuring Perimeter Intrusion Areas* for more details.
5. Click the **Apply** button to save the settings
6. To further set up the alarm notifications, click the **Alarm** button to enter the Alarm setup page. Please refer to 4.3.4 *Intelligent Alarm*.
7. If you want to activate the intelligent recording function, you need to configure the recording schedule. Please refer to 4.1.8.9 *Record Schedule*.

4.1.8.1.1 Configuring Perimeter Intrusion Areas

Click the **Setup** button  to enter the Area setup page.



1. Select **1** from the **Rule Number** drop-down list to configure the first area.
2. Select **Enable** from the **Rule Switch** drop-down list to enable this rule.
3. Define a type for this rule:
 - $A \rightarrow B$: Detects movement from A to B.
 - $B \rightarrow A$: Detects movement from B to A.
 - $A \leftrightarrow B$: Detects both movements from A to B and from B to A.
4. Select **Enable** from the **IVA Lines** to display the IVA line on the live streams.
5. To draw an area:
 - a. Use your mouse to click 4 points to draw a rectangle shape. The shape should be convex. Concave shape is not allowed.
 - b. If you want to move the area to other position or re-size the area, select the area by checking the red box on the upper-left corner of the area, the borders of the area will change to red color. Drag and drop the area to a desired position. Drag the red dots at the edge of the area can re-size the area.



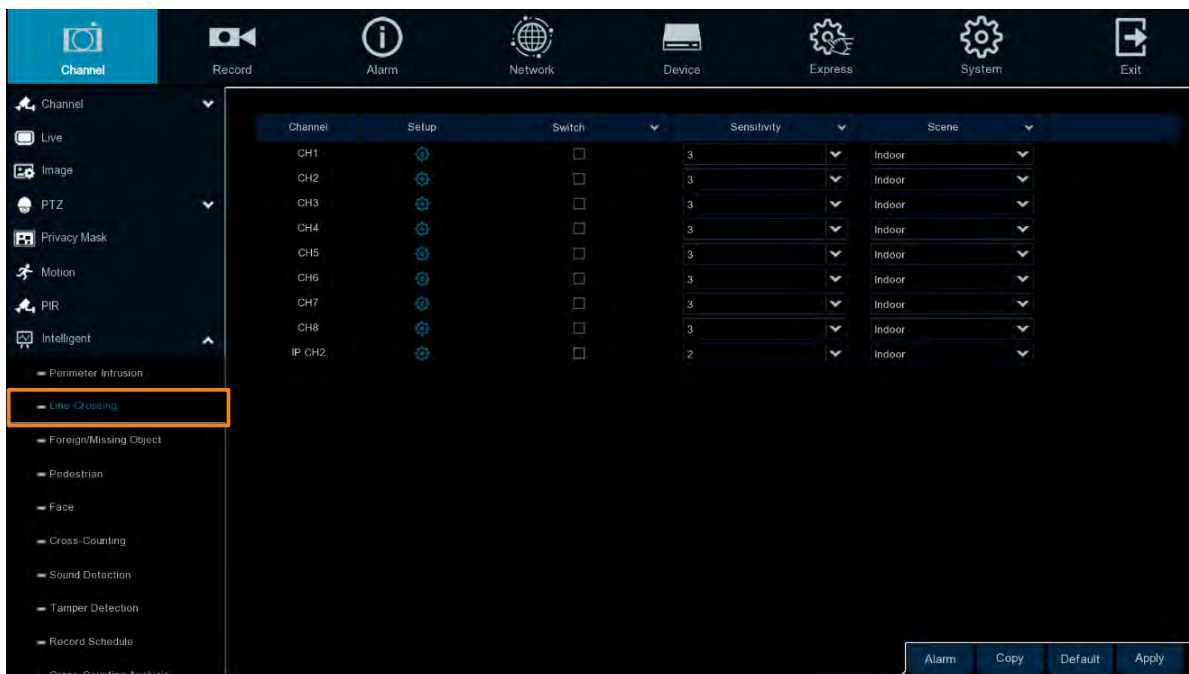
- c. Click the **Save** button to save the settings.
- d. Follow the steps above to configure more areas. Up to 4 areas can be configured.
- e. You can click the **Remove All** button to remove all the areas. To remove a certain area, select the area by checking the red box on the upper-left corner of the area, and then click the **Remove** button.

Note: The configured areas should not be too narrow or small in order to enhance the detection rate.


6. To return to the PID setup page, right-click the mouse.

4.1.8.2 Line Crossing

When objects (people, vehicle or other objects) cross a pre-defined line, the Line Crossing Detection event will be triggered. You can configure some event actions like event recording, Email alert or pop-up full screen when an event is triggered.

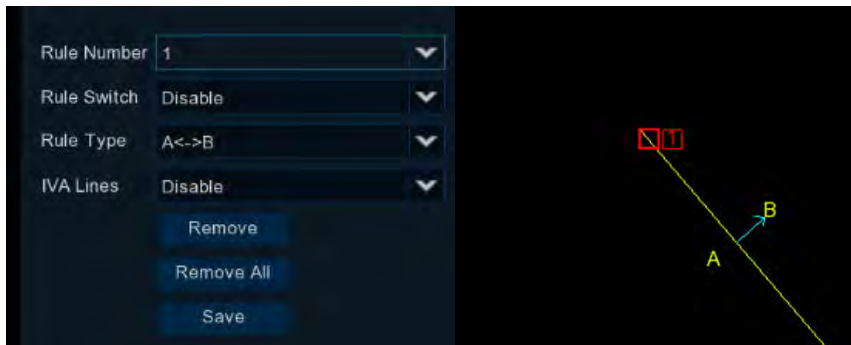


To configure the Line Crossing settings:

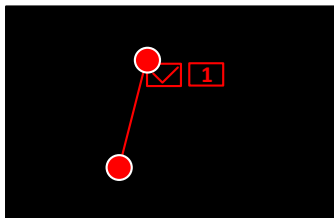
1. Check the **Switch** checkbox to enable the function of the channel.
2. Select a **Sensitivity** value from the drop-down list. The larger the value, the higher the sensitivity.
3. In the **Scene** field, select **Indoor** or **Outdoor** based on the location where your camera is installed.
4. In the **Setup** field, click  to set up the detection areas. Please refer to 4.1.8.2.1 *Configuring Line Crossing Detection Lines* for more details.
5. Click the **Apply** button to save the settings
6. To further set up the alarm notifications, click the **Alarm** button to enter the Alarm setup page. Please refer to 4.3.4 *Intelligent Alarm*.
7. If you want to activate the intelligent recording function, you need to configure the recording schedule. Please refer to 4.1.8.9 *Record Schedule*.

4.1.8.2.1 Configuring Line Crossing Detection Lines

Click the **Setup** button to enter the Line setup page.



1. Select **1** from the Rule Number drop-down list to configure the first line.
2. Select **Enable** from the Rule Switch drop-down list to enable this rule.
3. Define a type for this rule:
 - A→B: Detects movement from A to B.
 - B→A: Detects movement from B to A.
 - A↔B: Detects both movements from A to B and from B to A.
4. To draw a line:
 - a. Use your mouse to click 2 points to draw a line.
 - b. If you want to move the line to other position or re-draw the line, select the line by checking the red box on the upper-side of the line, the line will change to red color. Drag and drop the line to a desired position. Drag the red dots of the line can re-size the line.



- c. Click the **Save** button to save the settings.
- d. Follow the steps above to configure more lines. Up to 4 lines can be configured.
- e. You can click the **Remove All** button to remove all the lines. To remove a certain line, select the line by checking the red box on the upper-side of the line, and then click the **Remove** button.

Note: The configured lines should not be too short in order to enhance the detection rate.


5. To return to the Line Crossing setup page, right-click the mouse.

4.1.8.3 Foreign/Missing Object


When DVR detects foreign (unattended) or missing objects in a pre-defined area, the Foreign/Missing Object event will be triggered. You can configure some event actions like event recording, Email alert or pop-up full screen when an event is triggered.



To configure the Foreign/Missing Object settings:

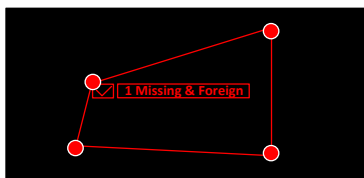
1. Check the **Switch** checkbox to enable the function of the channel.
2. Select a **Sensitivity** value from the drop-down list. The larger the value, the higher the sensitivity.
3. In the **Scene** field, select **Indoor** or **Outdoor** based on the location where your camera is installed.
4. In the **Setup** field, click  to set up the detection areas. Please refer to 4.1.8.3.1 *Configuring Foreign/Missing Areas* for more details.
5. Click the **Apply** button to save the settings
6. To further set up the alarm notifications, click the **Alarm** button to enter the Alarm setup page. Please refer to 4.3.4 *Intelligent Alarm*.
7. If you want to activate the intelligent recording function, you need to configure the recording schedule. Please refer to 4.1.8.9 *Record Schedule*.

4.1.8.3.1 Configuring Foreign/Missing Areas

Click the **Setup** button  to enter the Area setup page.



1. Select **1** from the **Rule Number** drop-down list to configure the first area.
2. Select **Enable** from the **Rule Switch** drop-down list to enable this rule.
3. Define a type for this rule. Missing & Foreign: DVR will detect both missing objects and unattended objects.
4. Select **Enable** from the **IVA Lines** to display the IVA line on the live streams.
5. To draw an area:
 - a. Use your mouse to click 4 points to draw a rectangle shape. The shape should be convex. Concave shape is not allowed.
 - b. If you want to move the area to other position or re-size the area, select the area by checking the red box on the upper-left corner of the area, the borders of the area will change to red color. Drag and drop the area to a desired position. Drag the red dots at the edge of the area can re-size the area.



- c. Click the **Save** button to save the settings.
- d. Follow the steps above to configure more areas. Up to 4 areas can be configured.
- e. You can click the **Remove All** button to remove all the areas. To remove a certain area, select the area by checking the red box on the upper-left corner of the area, and then click the **Remove** button.

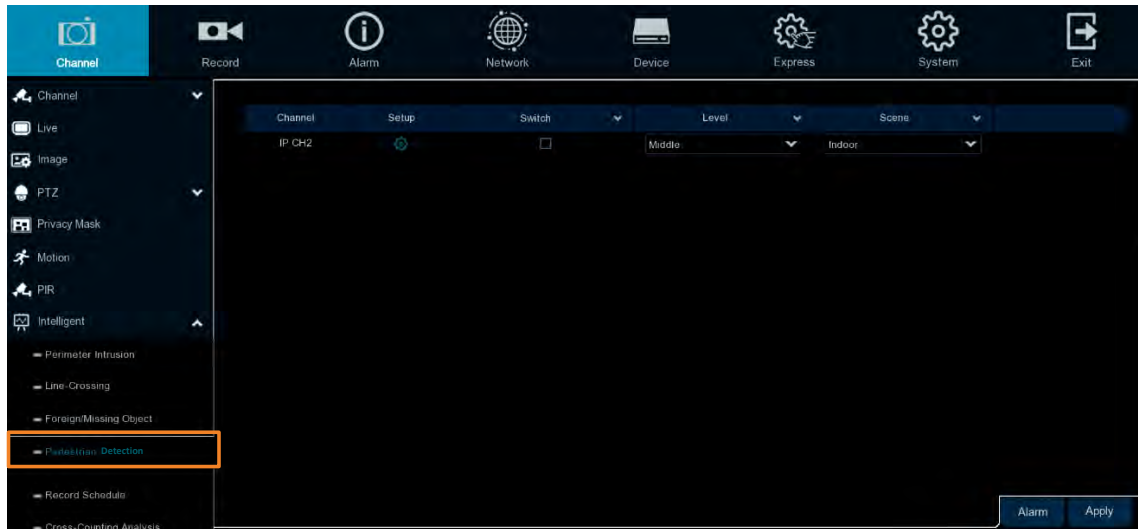
Note: For foreign/missing object, please draw an area slightly larger than or equal to the detected object, and the detected object cannot be covered.




6. To return to the Foreign/Missing Object setup page, right-click the mouse.

4.1.8.4 Pedestrian Detection


When DVR detects moving people in a pre-defined area, the Pedestrian Detection event will be triggered. You can configure some event actions like event recording, Email alert or pop-up full screen when an event is triggered.

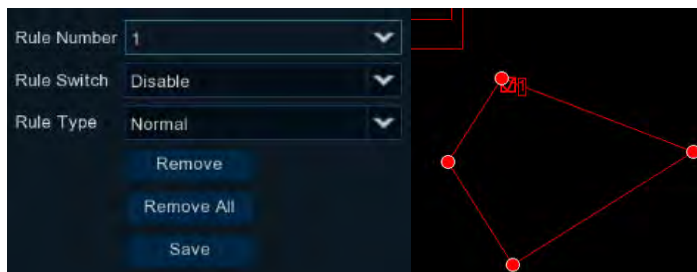


To configure the Pedestrian Detection settings:

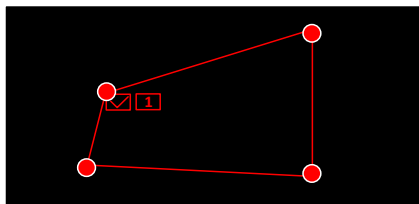
1. Check the **Switch** checkbox to enable the function of the channel.
2. In the **Level** field, select among Far, Middle and Near. **Far** level is recommended to detect objects in long distance. **Near** level is recommended to detect objects in short distance.
3. In the **Scene** field, select **Indoor** or **Outdoor** based on the location where your camera is installed.
4. In the **Setup** field, click  to set up the detection areas. Please refer to [4.1.8.4.1 Configuring Pedestrian Detection Area](#) for more details.
5. Click the **Apply** button to save the settings
6. To further set up the alarm notifications, click the **Alarm** button to enter the Alarm setup page. Please refer to [4.3.4 Intelligent Alarm](#).
7. If you want to activate the intelligent recording function, you need to configure the recording schedule. Please refer to [4.1.8.9 Record Schedule](#).

4.1.8.4.1 Configuring Pedestrian Detection Area

Click the **Setup** button  to enter the Area setup page.



1. Select **1** from the **Rule Number** drop-down list to configure the area.
2. Select **Enable** from the **Rule Switch** drop-down list to enable this rule.
3. Define a type for this rule. Only **Normal** type is available.
4. To draw an area:
 - a. Use your mouse to click 4 points to draw a rectangle shape. The shape should be convex. Concave shape is not allowed.
 - b. If you want to move the area to other position or re-size the area, select the area by checking the red box on the upper-left corner of the area, the borders of the area will change to red color. Drag and drop the area to a desired position. Drag the red dots at the edge of the area can re-size the area.



- c. Click the **Save** button to save the settings.
- d. You can click the **Remove All** button to remove all the areas. To remove a certain area, select the area by checking the red box on the upper-left corner of the area, and then click the **Remove** button.

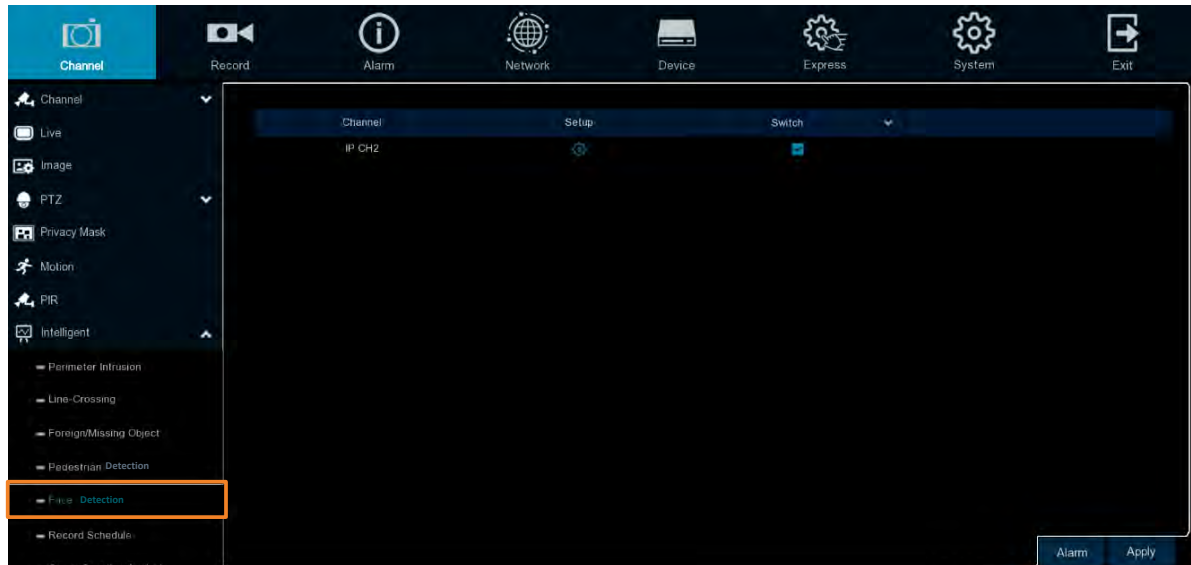
Note: The configured areas should not be too narrow or small in order to enhance the detection rate. The whole target object (people) should be inside the area.




5. To return to the Pedestrian Detection setup page, right-click the mouse.

4.1.8.5 Face Detection


When DVR detects faces of moving people in a pre-defined area, the Face Detection event will be triggered. You can configure some event actions like event recording, Email alert or pop-up full screen when an event is triggered.

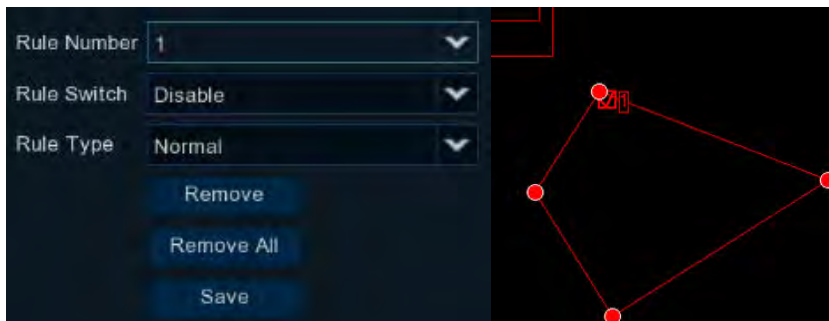


To configure the Face Detection settings:

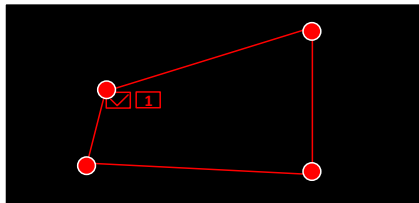
1. Check the **Switch** checkbox to enable the function of the channel.
2. In the **Setup** field, click  to set up the detection areas. Please refer to [4.1.8.5.1 Configuring Face Detection Area](#) for more details.
3. Click the **Apply** button to save the settings
4. To further set up the alarm notifications, click the **Alarm** button to enter the Alarm setup page. Please refer to [4.3.4 Intelligent Alarm](#).
5. If you want to activate the intelligent recording function, you need to configure the recording schedule. Please refer to [4.1.8.9 Record Schedule](#).

4.1.8.5.1 Configuring Face Detection Area

Click the **Setup** button  to enter the Area setup page.



1. Select **1** from the **Rule Number** drop-down list to configure the area.
2. Select **Enable** from the **Rule Switch** drop-down list to enable this rule.
3. Define a type for this rule. Only **Normal** type is available.
4. To draw an area:
 - a. Use your mouse to click 4 points to draw a rectangle shape. The shape should be convex. Concave shape is not allowed.
 - b. If you want to move the area to other position or re-size the area, select the area by checking the red box on the upper-left corner of the area, the borders of the area will change to red color. Drag and drop the area to a desired position. Drag the red dots at the edge of the area can re-size the area.



- c. Click the **Save** button to save the settings.
- d. You can click the **Remove All** button to remove all the areas. To remove a certain area, select the area by checking the red box on the upper-left corner of the area, and then click the **Remove** button.

Note: The configured areas should include the whole front face.



5. To return to the Face Detection setup page, right-click the mouse.


4.1.8.6 Cross-Counting Detection

The DVR will count the times when objects (people, vehicle or other objects) cross a pre-defined line, and the Cross-Counting event will be triggered. You can configure some event actions like event recording, Email alert or pop-up full screen when an event is triggered.

You can search and view the statistical result of cross counting on the Intelligent Analysis page. Please refer to [4.1.8.10 Cross-Counting Analysis](#).

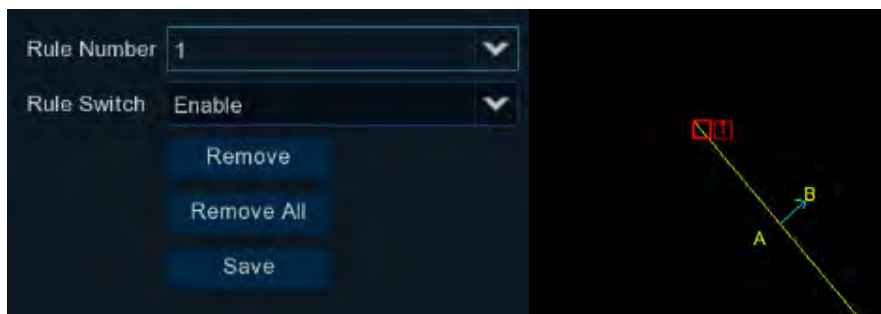


To configure the Cross-Counting settings:

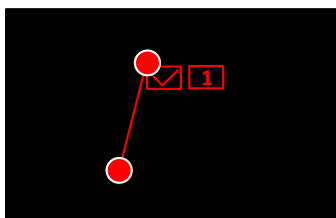
1. Check the **Switch** checkbox to enable the function of the channel.
2. Select a **Sensitivity** value from the drop-down list. The larger the value, the higher the sensitivity.
3. In the **Scene** field, select **Indoor** or **Outdoor** based on the location where your camera is installed.
4. In the **Setup** field, click  to set up the detection areas. Please refer to [4.1.8.6.1 Configuring Cross-Counting Detection Line](#) for more details.
5. Click the **Apply** button to save the settings
6. To further set up the alarm notifications, click the **Alarm** button to enter the Alarm setup page. Please refer to [4.3.4 Intelligent Alarm](#).
7. If you want to activate the intelligent recording function, you need to configure the recording schedule. Please refer to [4.1.8.9 Record Schedule](#).

4.1.8.6.1 Configuring Cross-Counting Detection Line

Click the **Setup** button to enter the Line setup page.



1. Select **1** from the Rule Number drop-down list to configure the line.
2. Select **Enable** from the Rule Switch drop-down list to enable this rule.
A→B: Detects movement from A to B.
3. To draw a line:
 - a. Use your mouse to click 2 points to draw a line.
 - b. If you want to move the line to other position or re-draw the line, select the line by checking the red box on the upper-side of the line, the line will change to red color. Drag and drop the line to a desired position. Drag the red dots of the line can re-size the line.



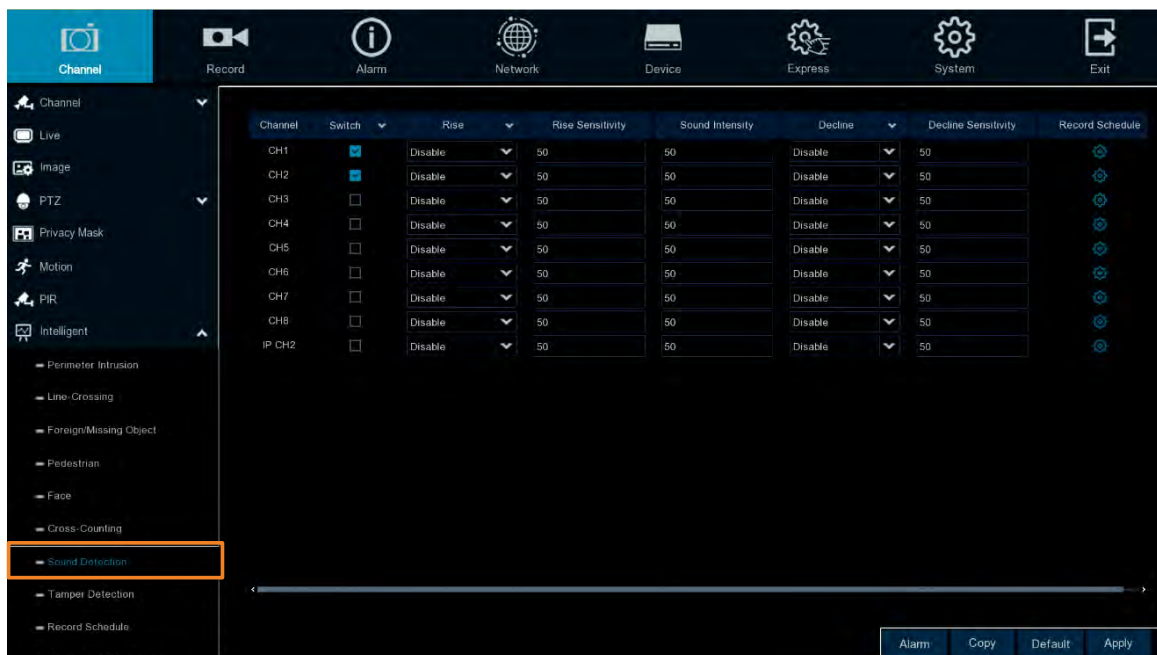
- c. Click the **Save** button to save the settings.
- d. You can click the **Remove All** button to remove all the lines. To remove a certain line, select the line by checking the red box on the upper-side of the line, and then click the **Remove** button.

Note: The configured line should not be too short in order to enhance the detection rate.


4. To return to the Line Crossing setup page, right-click the mouse.

4.1.8.7 Sound Detection

This function is only available when the supported analog/IP cameras with sound detection function are connected. For the supported cameras, please contact EverFocus (ts@everfocus.com.tw).



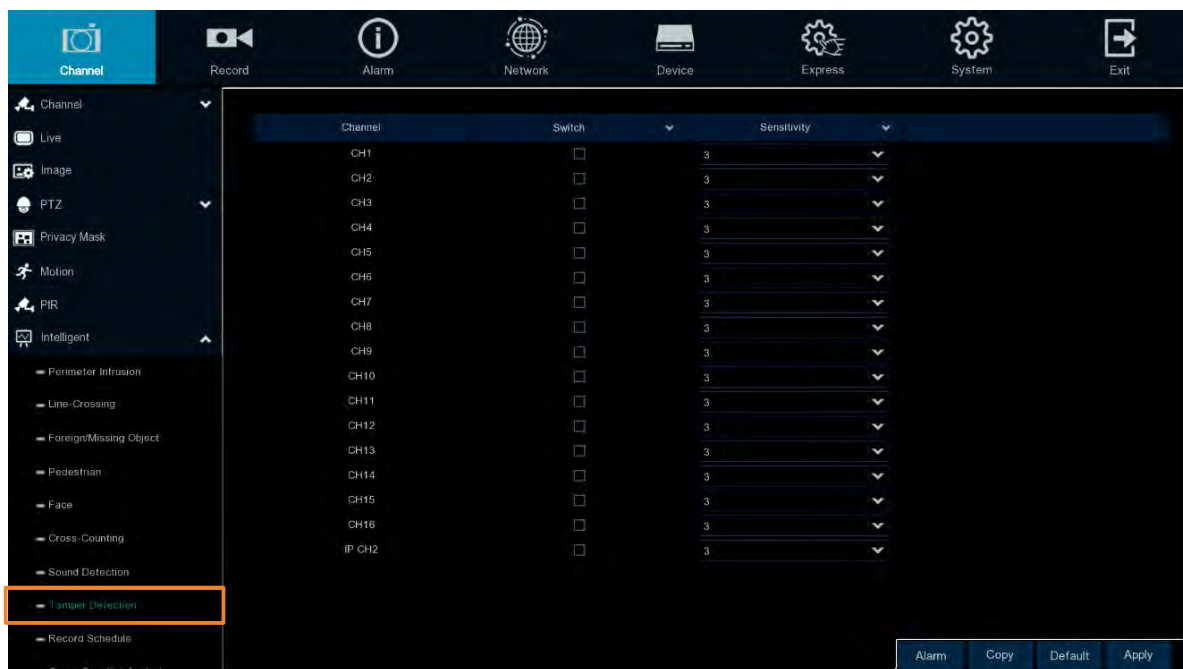
To configure the Sound Detection settings:

1. Check the **Switch** checkbox to enable the function of the channel.
2. In the **Rise** field, select **Enable** to enable the Sound Rise detection. And then further set up the **Rise Sensitivity** and **Sound Intensity**.
3. In the **Decline** field, select **Enable** to enable the Sound Decline detection. And then further set up the **Decline Sensitivity**.
4. If you want to enable recording when sound detection alarm is triggered, in the **Record Schedule** field, click  to set up the recording schedule. Click and drag on the schedule time blocks to draw the blocks with blue color, which will be applied with Sound Detection. Click **Save** to save the settings.



5. Click the **Apply** button to save the settings
6. To further set up the alarm notifications, click the **Alarm** button to enter the Alarm setup page. Please refer to 4.3.4 Intelligent Alarm.

4.1.8.8 Tamper Detection

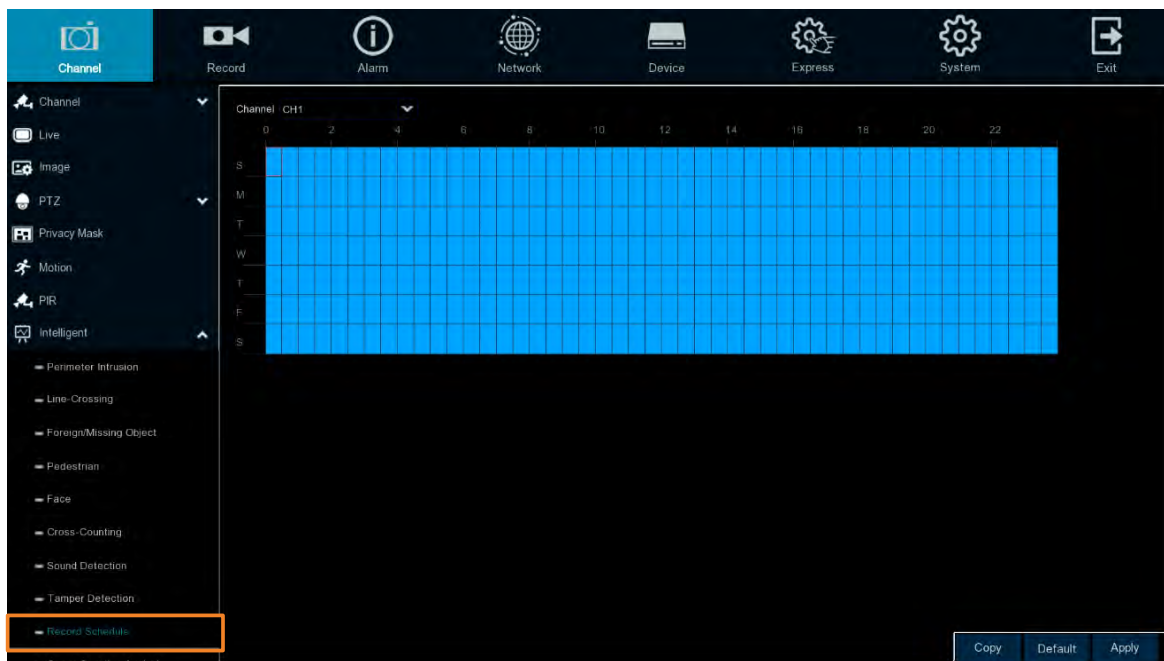


To configure the Tamper Detection settings:

1. Check the **Switch** checkbox to enable the function of the channel.
2. Select a **Sensitivity** value from the drop-down list. The larger the value, the higher the sensitivity.
3. Click the **Apply** button to save the settings.
4. To further set up the alarm notifications, click the **Alarm** button to enter the Alarm setup page. Please refer to *4.3.4 Intelligent Alarm*.
5. If you want to activate the intelligent recording function, you need to configure the recording schedule. Please refer to *4.1.8.9 Record Schedule*.

4.1.8.9 Record Schedule

In order to active the intelligent recording function, you need to configure the schedule recording for Intelligent events. The schedule will be activated 24 hours a day, 7 days a week.

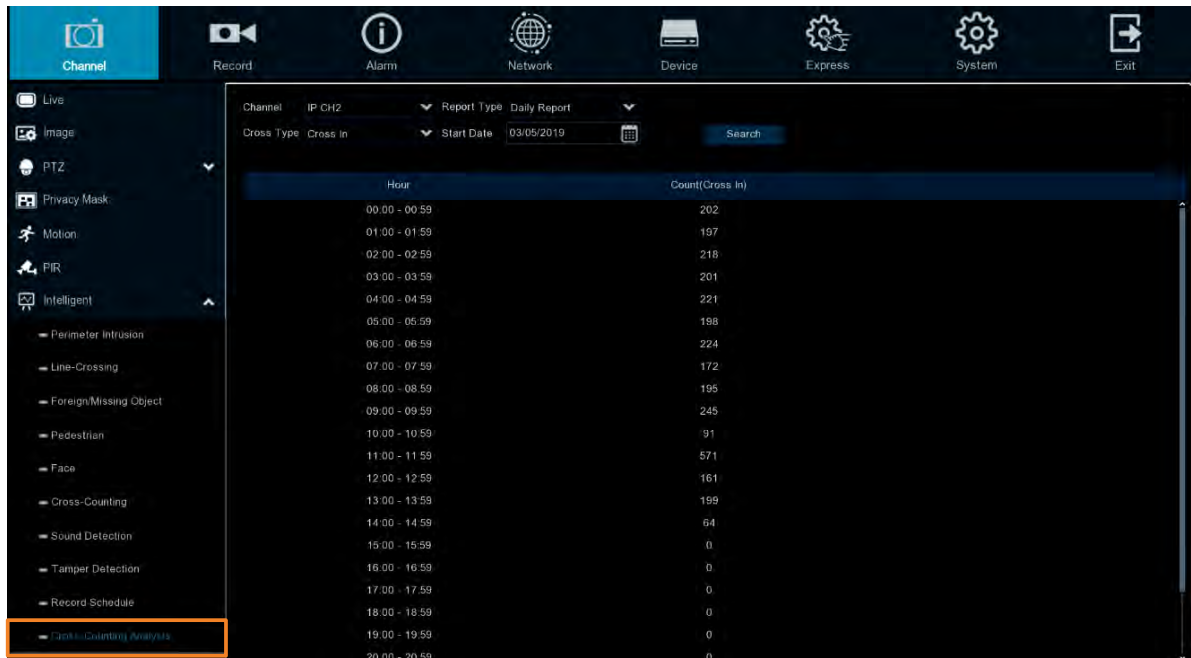


1. Select a channel and then move your mouse cursor over the schedule time blocks.
2. Click and drag on the schedule time blocks to draw the blocks with blue color, which will be applied with intelligent event recording function. To deselect the blocks, click and drag on the blue blocks to select again.
3. If you want to apply the same configurations from one channel to other channels, click the **Copy** button. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.
4. Click **Apply** to save the settings.

4.1.8.10 Cross-Counting Analysis

On this page, you can search and view the statistical result of Cross-Counting Detection. For more details on Cross-Counting Detection, please refer to 4.1.8.6 Cross-Counting.

Select the criteria and then click the **Search** button, the results will be listed at the lower section.



Hour	Count(Cross In)
00:00 - 00:59	202
01:00 - 01:59	197
02:00 - 02:59	218
03:00 - 03:59	201
04:00 - 04:59	221
05:00 - 05:59	198
06:00 - 06:59	224
07:00 - 07:59	172
08:00 - 08:59	195
09:00 - 09:59	245
10:00 - 10:59	91
11:00 - 11:59	571
12:00 - 12:59	161
13:00 - 13:59	199
14:00 - 14:59	64
15:00 - 15:59	0
16:00 - 16:59	0
17:00 - 17:59	0
18:00 - 18:59	0
19:00 - 19:59	0
20:00 - 20:59	0

4.2 Record

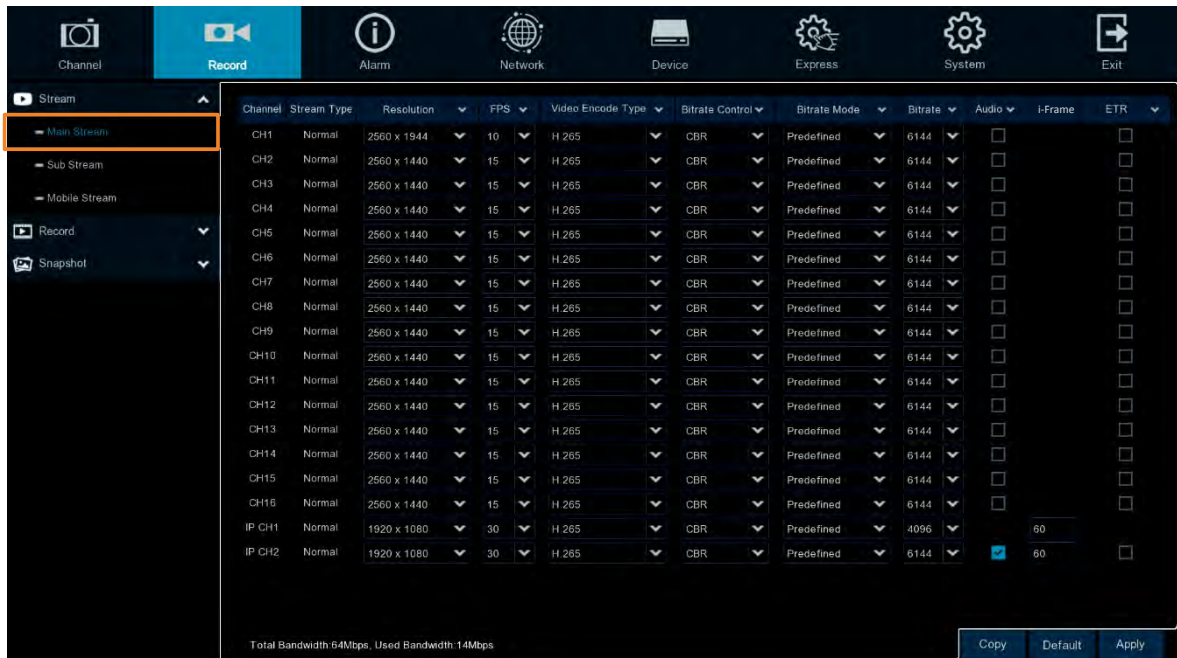
You can configure the recording settings on this page.

4.2.1 Stream

On this page, you can configure the recording video or network transmission picture quality. Generally, main stream defines the recording video quality which will be saved in the HDD; sub stream defines the video quality which is being viewed via remote access, for example web client and CMS; mobile stream defines the video quality which is being viewed via remote access through mobile devices.

4.2.1.1 Main Stream

Main stream defines the recording video quality which will be saved in the HDD.



Channel	Stream Type	Resolution	FPS	Video Encode Type	Bitrate Control	Bitrate Mode	Bitrate	Audio	I-Frame	ETR
CH1	Normal	2560 x 1944	10	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH2	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH3	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH4	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH5	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH6	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH7	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH8	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH9	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH10	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH11	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH12	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH13	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH14	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH15	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
CH16	Normal	2560 x 1440	15	H.265	CBR	Predefined	6144	<input type="checkbox"/>	<input type="checkbox"/>	
IP CH1	Normal	1920 x 1080	30	H.265	CBR	Predefined	4096	<input type="checkbox"/>	60	<input type="checkbox"/>
IP CH2	Normal	1920 x 1080	30	H.265	CBR	Predefined	6144	<input checked="" type="checkbox"/>	60	<input type="checkbox"/>

Total Bandwidth: 64Mbps, Used Bandwidth: 14Mbps

Copy Default Apply

Channel: Displays channel number.

Stream Type: Displays the stream type, which represents the Record Mode, Normal (4K) or 5MP, of the channel. To change the record mode, please refer to 4.9.1 General.

Resolution: Select a recording resolution.

FPS: Select a FPS (frames per second) for the recording. Please note that the FPS options may differ if you select **Normal Mode (4K)** or **5MP Mode** for Record Mode (please refer to 4.9.1 General).

Video Encode Type: This option is only for IP cameras. Select H.264 or H.265 based on your IP cameras.

Bitrate Control: Select **CBR** (constant bitrate) if the scene is simple and less changing, such as a gray wall. Select **VBR** (variable bitrate) if the scene is complex, such as a department store. If VBR is selected, select a video quality next to Bitrate Control.

Bitrate Mode: Select **User-defined** to set up bitrate manually; or **Predefined** to auto-select bitrate.

Bitrate: The Bitrate corresponds to the speed of data transfer that the DVR will use to record video. Recordings that are encoded at higher bitrates, will be of better quality.

Audio: Select this option if you want to record audio along with video. Please ensure the camera supports audio function and a microphone has been connected to the DVR.

i-Frame: Input an i-Frame interval.

I/O: Select this option if you want to enable external IO alarm for Main Stream recording.

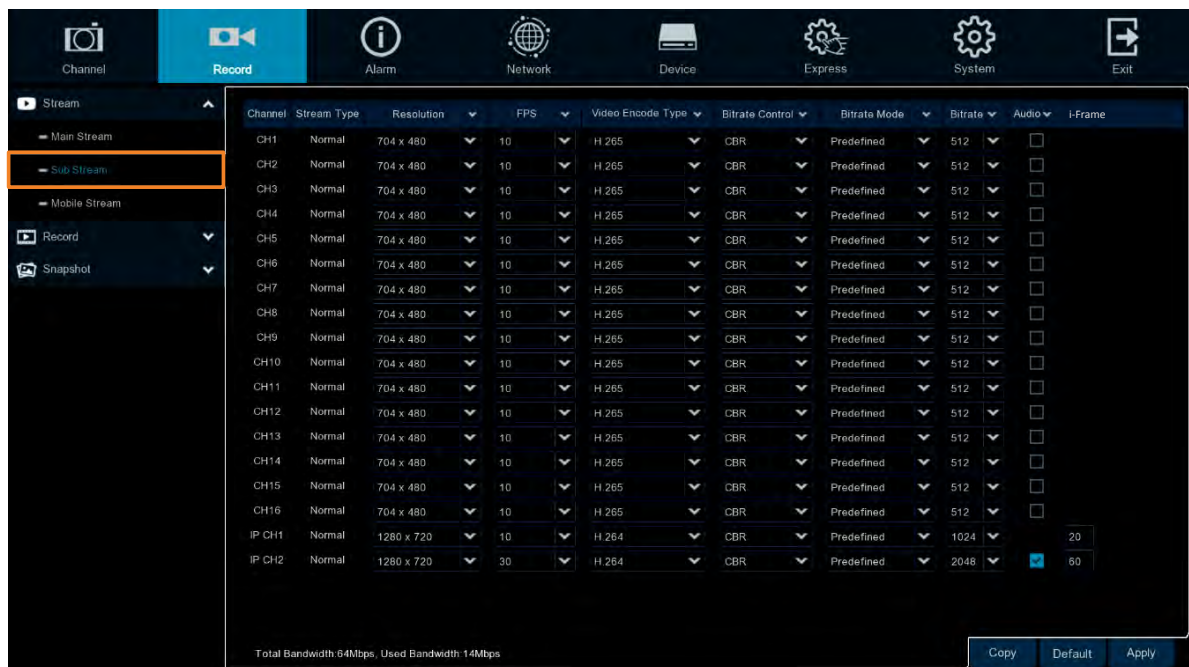
Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.2.1.2 Sub Stream

Sub stream defines the video quality which is being viewed via remote access, for example web client and CMS.



Channel: Displays channel number.

Stream Type: Displays the stream type, which represents the Record Mode, Normal (4K) or 5MP, of the channel. To change the record mode, please refer to 4.9.1 General.

Resolution: Select a recording resolution.

FPS: Select a FPS (frames per second) for the recording. Please note that the FPS options may differ if you select **Normal Mode (4K)** or **5MP Mode** for Record Mode (please refer to 4.9.1 General).

Video Encode Type: This option is only for IP cameras. Select H.264 or H.265 based on your IP cameras.

Bitrate Control: Select **CBR** (constant bitrate) if the scene is simple and less changing, such as a gray wall. Select **VBR** (variable bitrate) if the scene is complex, such as a department store. If VBR is selected, select a video quality next to Bitrate Control.

Bitrate Mode: Select **User-defined** to set up bitrate manually; or **Predefined** to auto-select bitrate.

Bitrate: The Bitrate corresponds to the speed of data transfer that the DVR will use to record video. Recordings that are encoded at higher bitrates, will be of better quality.

Audio: Select this option if you want to record audio along with video. Please ensure the camera supports audio function and a microphone has been connected to the DVR.

i-Frame: Input an i-Frame interval.

Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.2.1.3 Mobile Stream

Mobile stream defines the video quality which is being viewed via remote access through mobile devices. Note that Mobile Stream is only available for IP cameras.



Channel: Displays channel number.

Switch: Check the box to enable the Mobile Stream function.

Stream Type: Displays the stream type, which represents the Record Mode, Normal (4K) or 5MP, of the channel. To change the record mode, please refer to [4.9.1 General](#).

Resolution: Select a recording resolution.

FPS: Select a FPS (frames per second) for the recording. Please note that the FPS options may differ if you select **Normal Mode (4K)** or **5MP Mode** for Record Mode (please refer to [4.9.1 General](#)).

Video Encode Type: This option is only for IP cameras. Select H.264 or H.265 based on your IP cameras.

Bitrate Control: Select **CBR** (constant bitrate) if the scene is simple and less changing, such as a gray wall. Select **VBR** (variable bitrate) if the scene is complex, such as a department store. If VBR is selected, select a video quality next to Bitrate Control.

Bitrate Mode: Select **User-defined** to set up bitrate manually; or **Predefined** to auto-select bitrate.

Bitrate: The Bitrate corresponds to the speed of data transfer that the DVR will use to record video. Recordings that are encoded at higher bitrates, will be of better quality.

Audio: Select this option if you want to record audio along with video. Please ensure the camera supports audio function and a microphone has been connected to the DVR.

i-Frame: Input an i-Frame interval.

Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

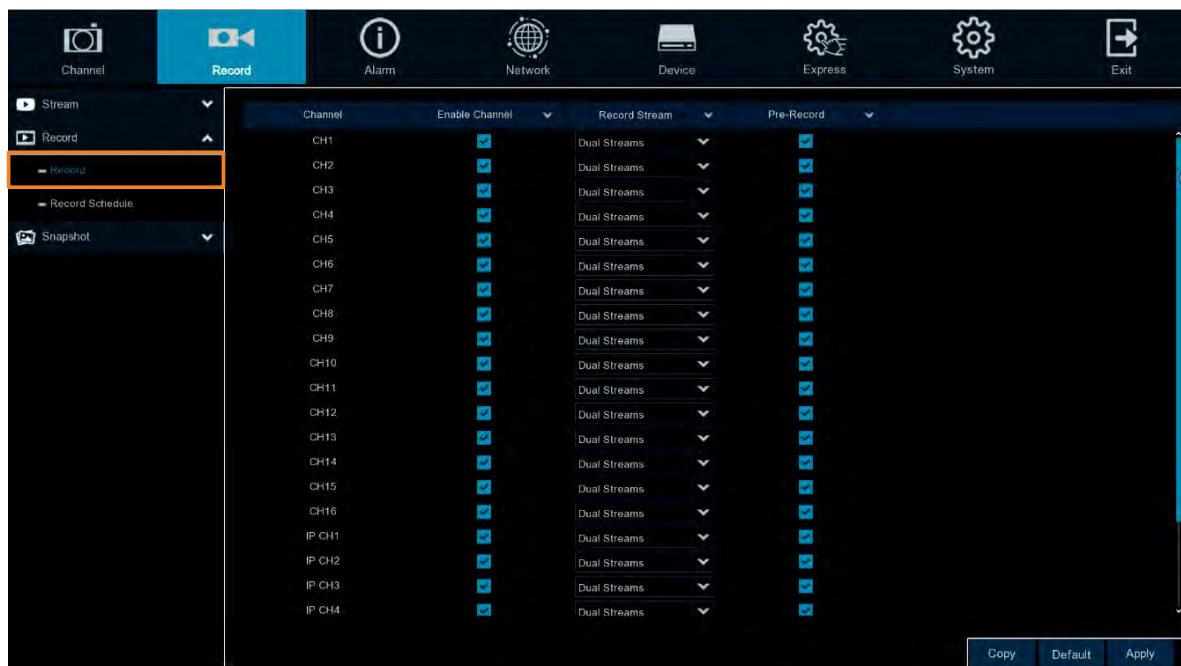
Default: Click to apply the default setting.

Apply: Click to save the settings.

4.2.2 Record

On this page, you can configure the recording parameters and recording schedule for each channel.

4.2.2.1 Record



Channel: Displays channel number.

Enable Channel: Check the box to enable the function of the channel.

Record Stream: Select a recording stream for the channel. If you select **Dual Streams**, the system will record both Main Stream and Sub Stream. If you select **Main Stream**, the system will only record Main Stream.

Pre-Record: Check the box to enable the pre-record function. The DVR will start recording a few seconds before an alarm/event is triggered.

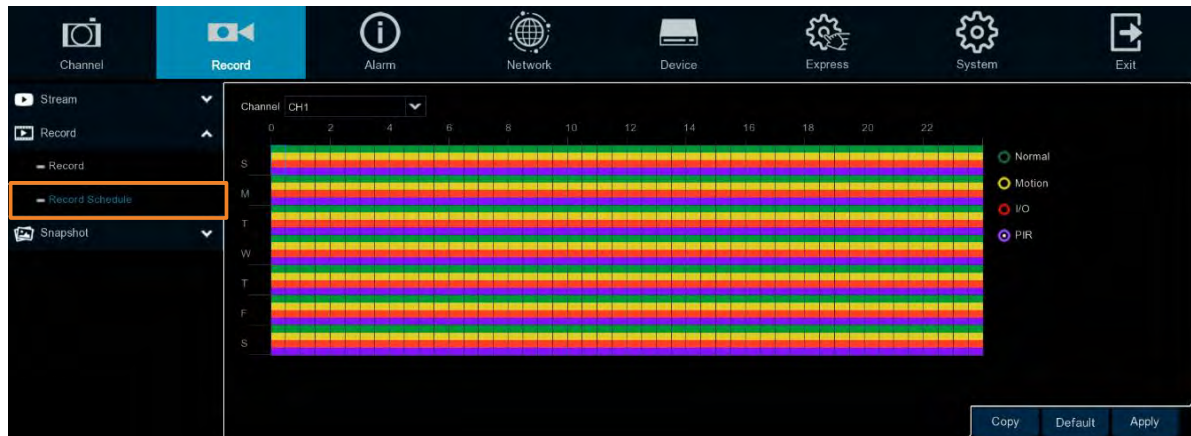
Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.2.2.2 Record Schedule

On this page, you can configure the recording schedule for Normal, Motion, I/O or PIR recordings.



Channel: Select a channel from the drop-down list.

Normal: Click the **Normal** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with green color, which will be applied with normal recording function.

Motion: Click the **Motion** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with yellow color, which will be applied with motion recording function. Note that for this function to work, you will have to configure the motion settings in advance (please refer to 4.1.6 Motion).

IO: Click the **IO** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with red color, which will be applied with IO recording function. Note that for this function to work, you will have to configure the IO settings in advance (please refer to 4.3.3 IO).

PIR: Click the **PIR** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with purple color, which will be applied with PIR recording function. Note that for this function to work, you will have to configure the PIR settings in advance (please refer to 4.1.7 PIR).

Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

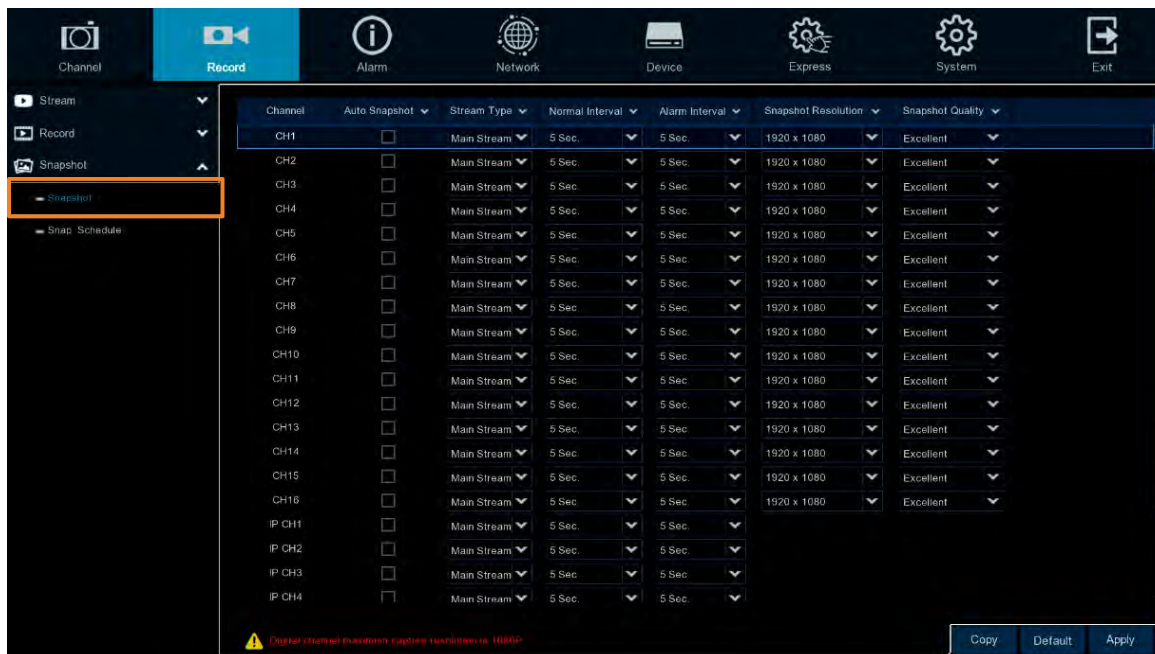
Apply: Click to save the settings.

4.2.3 Snapshot

On this page, you can configure the snapshot parameters or set up the snapshot schedule.

4.2.3.1 Snapshot

On this page, you can configure the snapshot parameters.



Channel: Select a channel from the drop-down list.

Auto Snapshot: Check the box to enable the Auto Snapshot function for normal recording, motion, PIR events.

Stream Type: Select main stream or sub stream for the snapshot image.

Normal Interval: Configure an interval to automatically take a normal snapshot. For this function to work, you will have to configure the Snapshot Schedule. Please refer to 4.2.3.2 *Snapshot Schedule*.

Alarm Interval: Configure an interval to automatically take a snapshot when motion, IO alarm or PIR is triggered. For this function to work, you will have to configure the Snapshot Schedule. Please refer to 4.2.3.2 *Snapshot Schedule*.

Snapshot Resolution: Select a resolution for the alarm snapshot image.

Snapshot Quality: Select an image quality for the alarm snapshot image.

Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.2.3.2 Snap. Schedule

On this page, you can configure the snapshot schedule.



Channel: Select a channel from the drop-down list.

Normal: Click the **Normal** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with green color, which will be applied with normal snapshot function.

Motion: Click the **Motion** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with yellow color, which will be applied with motion snapshot function. Note that for this function to work, you will have to configure the motion settings in advance (please refer to 4.1.6 Motion).

IO: Click the **IO** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with red color, which will be applied with IO snapshot function. Note that for this function to work, you will have to configure the IO settings in advance (please refer to 4.3.3 IO).

PIR: Click the **PIR** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with purple color, which will be applied with PIR snapshot function. Note that for this function to work, you will have to configure the PIR settings in advance (please refer to 4.1.7 PIR).

Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

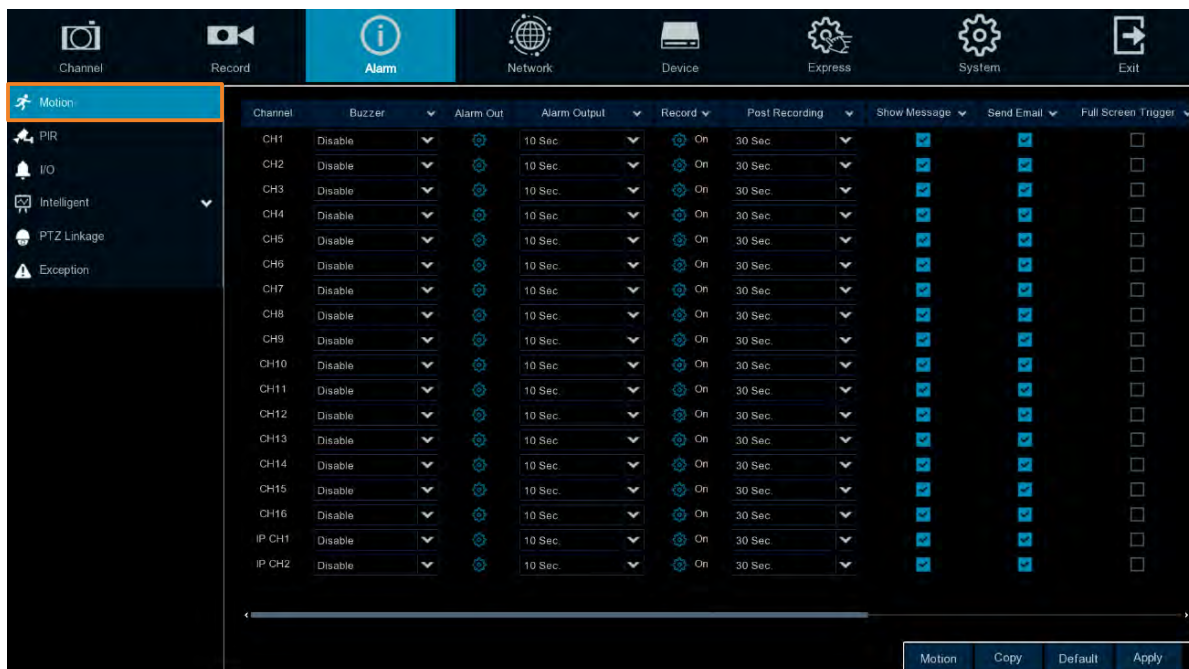
Apply: Click to save the settings.

4.3 Alarm

You can configure the alarm settings on this page.

4.3.1 Motion

After configuring the Motion Detection settings, you can further configure the Motion Alarm settings. To configure the Motion Detection setting, click the **Motion** button to enter the Motion Detection setup page (please refer to 4.1.6 Motion).




Channel: Displays the channel number.

Buzzer: Select a time for DVR buzzer to sound when a motion event is triggered. Select **Disable** to disable the function.


Alarm Out: Select an external alarm output device connected to the DVR, IPCam or both.

Alarm Output: Select an alarm output time (duration) when events occur. When an event is triggered, the alarm will last based on the setup time.

Channel: Click  and select the desired channel(s) you want to record when a motion event is triggered. Note that for recording function to work, the Record Schedule function has to be configured (please refer to 4.2.2.2 Record Schedule).



Post Recording: Select a post recording time when a motion event is triggered.

Show Message: Check the box to display the motion icon  on the live channel when a motion event is triggered.

Send Email: Check the box to enable the Email alert function. When a motion event is triggered, the DVR will send an email alert with a snapshot to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance (refer to *4.4.3 Email*).

Full Screen Trigger: If this function is enabled and a motion event is triggered, the triggered channel will be displayed in full screen.

FTP Picture Upload: When an event is triggered, the DVR will upload alarm images to FTP server. Note that for this function to work, you have to set up FTP configurations in advance. You can also configure the snapshot image resolution and quality, please refer to *4.4.4.1 FTP*.

FTP Video Upload: When a motion event is triggered, the DVR will upload alarm videos to FTP server. Note that for this function to work, you have to set up FTP Schedule in advance, please refer to *4.4.4.2 FTP Schedule*.

Picture to Cloud: When a motion event is triggered, the DVR will upload alarm images to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.5.2 Cloud*.

Video to Cloud: When a motion event is triggered, the DVR will upload alarm videos to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.5.2 Cloud*.

Motion: Click the **Motion** button to enter the Motion Detection setup page (please refer to *4.1.6 Motion*).

Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.3.2 PIR

After configuring the PIR Detection settings, you can further configure the PIR Alarm settings. To configure the PIR Detection setting, click the **PIR Detection** button to enter the PIR Detection setup page (please refer to 4.1.7 PIR).




Channel: Displays the channel number.

Buzzer: Select a time for DVR buzzer to sound when a PIR event is triggered. Select **Disable** to disable the function.

Alarm Out: Select an external alarm output device connected to the DVR, IPCam or both.

Alarm Output: Select an alarm output time (duration) when events occur. When an event is triggered, the alarm will last based on the setup latch time.

Channel: Click  and select the desired channel(s) you want to record when a PIR event is triggered on this channel. Note that for recording function to work, the Record Schedule function has to be configured (please refer to 4.2.2.2 Record Schedule).



Post Recording: Select a post recording time when a PIR event is triggered.

Show Message: Check the box to display PIR on the live channel when a PIR event is triggered.

Send Email: Check the box to enable the Email alert function. When a PIR event is triggered, the DVR will send an email alert with a snapshot to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance (refer to 4.4.3 Email).

Full Screen Trigger: If this function is enabled and a PIR event is triggered, the triggered channel will be displayed in full screen.

FTP Picture Upload: When an event is triggered, the DVR will upload alarm images to FTP server. Note that for this function to work, you have to set up FTP configurations in advance. You can also configure the snapshot image resolution and quality, please refer to *4.4.4.1 FTP*.

FTP Video Upload: When a motion event is triggered, the DVR will upload alarm videos to FTP server. Note that for this function to work, you have to set up FTP Schedule in advance, please refer to *4.4.4.2 FTP Schedule*.

Picture to Cloud: When an event is triggered, the DVR will upload alarm images to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.5.2 Cloud*.

Video to Cloud: When an event is triggered, the DVR will upload alarm videos to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.5.2 Cloud*.

PIR Detection: Click the button to enter the PIR Detection setup page (please refer to *4.1.7 PIR*).

Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.3.3 IO

After connecting the external IO devices to the DVR or IPCam, you can further configure the IO Alarm settings.




Alarm In: Displays the alarm input number.

Alarm Type: Select an alarm type for the alarm input. Options include Normally-Open, Normally-Close and Off.

Buzzer: Select a time for DVR buzzer to sound when an IO event is triggered. Select **Disable** to disable the function.

Alarm Out: Select an external alarm output device connected to the DVR, IPCam or both

Alarm Output: Select an alarm output time (duration) when events occur. When an event is triggered, the alarm will last based on the setup latch time.

Channel: Click  and select the desired channel(s) you want to record when an IO event is triggered. Note that for IO recording function to work, the Record Schedule function has to be configured (please refer to 4.2.2.2 Record Schedule).



Post Recording: Select a post recording time when an IO event is triggered.

Show Message: Check the box to display the IO event icon on the live channel when an IO event is triggered.

Send Email: Check the box to enable the Email alert function. When an IO event is triggered, the DVR will send an email alert with a snapshot to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance (refer to 4.4.3 Email).

Full Screen Trigger: If this function is enabled and an IO event is triggered, the triggered channel will be displayed in full screen.

FTP Picture Upload: When an event is triggered, the DVR will upload alarm images to FTP server. Note that for this function to work, you have to set up FTP configurations in advance. You can also configure the snapshot image resolution and quality, please refer to *4.4.4.1 FTP*.

FTP Video Upload: When a motion event is triggered, the DVR will upload alarm videos to FTP server. Note that for this function to work, you have to set up FTP Schedule in advance, please refer to *4.4.4.2 FTP Schedule*.

Picture to Cloud: When an event is triggered, the DVR will upload alarm images to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.5.2 Cloud*.

Video to Cloud: When an event is triggered, the DVR will upload alarm videos to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.5.2 Cloud*.

Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.3.4 Intelligent Alarm

After configuring the Intelligent functions settings, you can further configure the Alarm settings for each intelligent function. To configure the Intelligent functions, click the **Intelligent** button to enter each intelligent function setup page (please refer to 4.1.8 *Intelligent*).

The Intelligent Alarm setup configurations for each intelligent function are similar. Here we use Perimeter Intrusion alarm setup page for example.




Channel: Displays the channel number.

Buzzer: Select a time for DVR buzzer to sound when an event is triggered. Select **Disable** to disable the function.

Alarm Out: Select an external alarm output device connected to the DVR, IPCam or both.

Alarm Output: Select an alarm output time (duration) when events occur. When an event is triggered, the alarm will last based on the setup latch time.

Record: Click  and select the desired channel(s) you want to record when an event is triggered on this channel. Note that for recording function to work, the Record Schedule function has to be configured (please refer to 4.1.8.9 *Record Schedule*).



Post Recording: Select a post recording time when an event is triggered.

Show Message: Check the box to display an Intelligent event icon “S” or intelligent messages on the live channel when an event is triggered.

Send Email: Check the box to enable the Email alert function. When an event is triggered, the DVR will send an email alert with a snapshot to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance (refer to 4.4.3 *Email*).

Full Screen Trigger: If this function is enabled and an event is triggered, the triggered channel will be displayed in full screen.

FTP Picture Upload: When an event is triggered, the DVR will upload alarm images to FTP server. Note that for this function to work, you have to set up FTP configurations in advance. You can also configure the snapshot image resolution and quality, please refer to 4.4.4.1 *FTP*.

FTP Video Upload: When a motion event is triggered, the DVR will upload alarm videos to FTP server. Note that for this function to work, you have to set up FTP Schedule in advance, please refer to 4.4.4.2 *FTP Schedule*.

Picture to Cloud: When an event is triggered, the DVR will upload alarm images to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to 4.5.2 *Cloud*.

Video to Cloud: When an event is triggered, the DVR will upload alarm videos to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to 4.5.2 *Cloud*.

Intelligent: Click the button to enter each Intelligent setup page (please refer to 4.1.8 *Intelligent*).

Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.3.5 PTZ Linkage

You can associate an alarm trigger (motion or I/O) with a specific camera and then activate a PTZ camera to go to a preset position when the alarm is triggered.




Channel: Displays the channel number.

Switch: Check the box to enable the PTZ Linkage function.

Motion: Check the box to trigger the PTZ Linkage function when a motion event occurs.

IO: Check the box to trigger the PTZ Linkage function when an IO event occurs.

PIR: Check the box to trigger the PTZ Linkage function when a PIR event occurs.

PTZ1-4: Associates the PTZ camera with preset points. Please set up the preset points of your PTZ (analog or IP) cameras in advance (please refer to 3.5.2.2 *Preset Setting*). After setting up the preset points, click  to configure a PTZ camera and the preset number. If the PTZ camera is assigned to CH2, select CH2 from the channel dropdown list and then select a desired preset point. When an even is triggered, the configured PTZ camera will turn to the preset point.

Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.3.6 Exception

You can configure the system alarm settings on this page.



Event Type: Displays the event types.

- No Space on Disk: When an HDD is full.
- Disk Error: When the HDD is not detected properly.
- Video Loss: When a camera is not connected properly.

Switch: Check the box to enable the function.

Buzzer: Set up the time for buzzer to sound when an event is triggered. To disable the Buzzer function, select **Disable**.

Alarm Out: Select an external alarm output device connected to the DVR, IPCam or both.

Alarm Output: Select an alarm output time (duration) when events occur. When an event is triggered, the alarm will last based on the setup latch time.

Show Message: Check the box to display an alarm message on the upper-right corner of the live channel when an event is triggered.

Send Email: Check the box to enable the Email alert function. When an event is triggered, the DVR will send an email alert with a snapshot to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance (refer to 4.4.3 Email).

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.4 Network

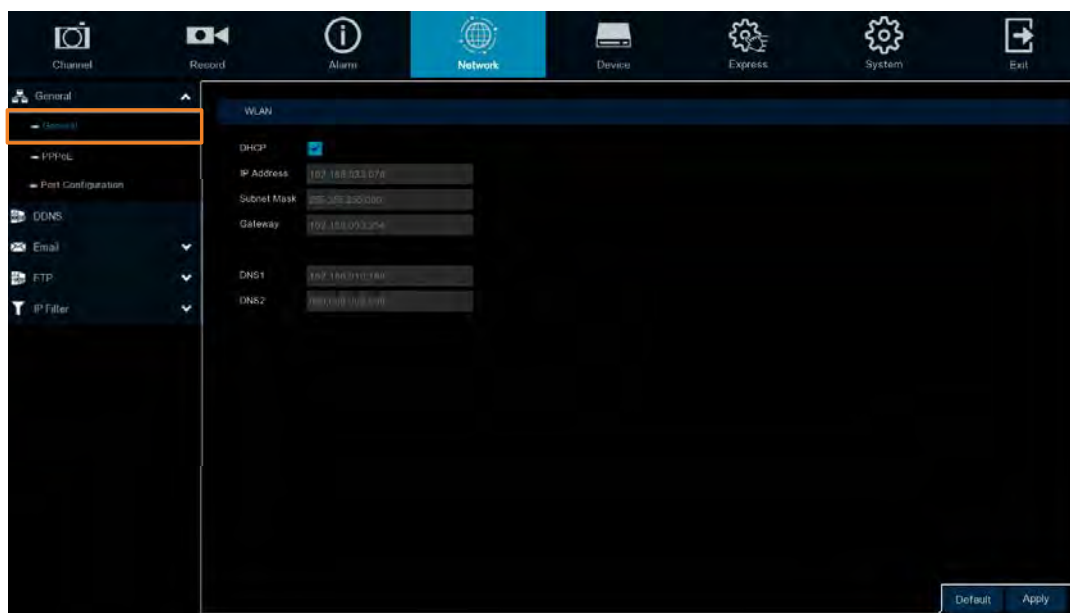
You can configure the network settings on this page.

4.4.1 General

This page allows you to configure network parameters, such as DHCP and PPPoE.

4.4.1.1 General

The DHCP setting lets the system use an automatically assigned (dynamic) IP address. This address can change under certain circumstances, for instance, when the DVR's network switch/hub has to be rebooted. DHCP server in LAN will automatically assign an IP configuration for the network connection.



DHCP: Check the box to enable the DHCP function. The router will automatically assign all the below IP parameters to the DVR.

IP Address: The IP address of the DVR. The IP address consists of four groups of numbers, separated by periods. For example, "192.168.001.100".

Subnet Mask: Subnet mask is a network parameter which defines a range of IP addresses that can be used on a network. The subnet address also consists of four groups of numbers, separated by periods. For example, "255.255.000.000".

Gateway: This address allows the DVR to access the Internet. The format of the Gateway address is the same as the IP Address. For example, "192.168.001.001".

DNS: DNS1 is the primary DNS server and DNS2 is a backup DNS server. Usually, it's enough to just enter the DNS1 server address.

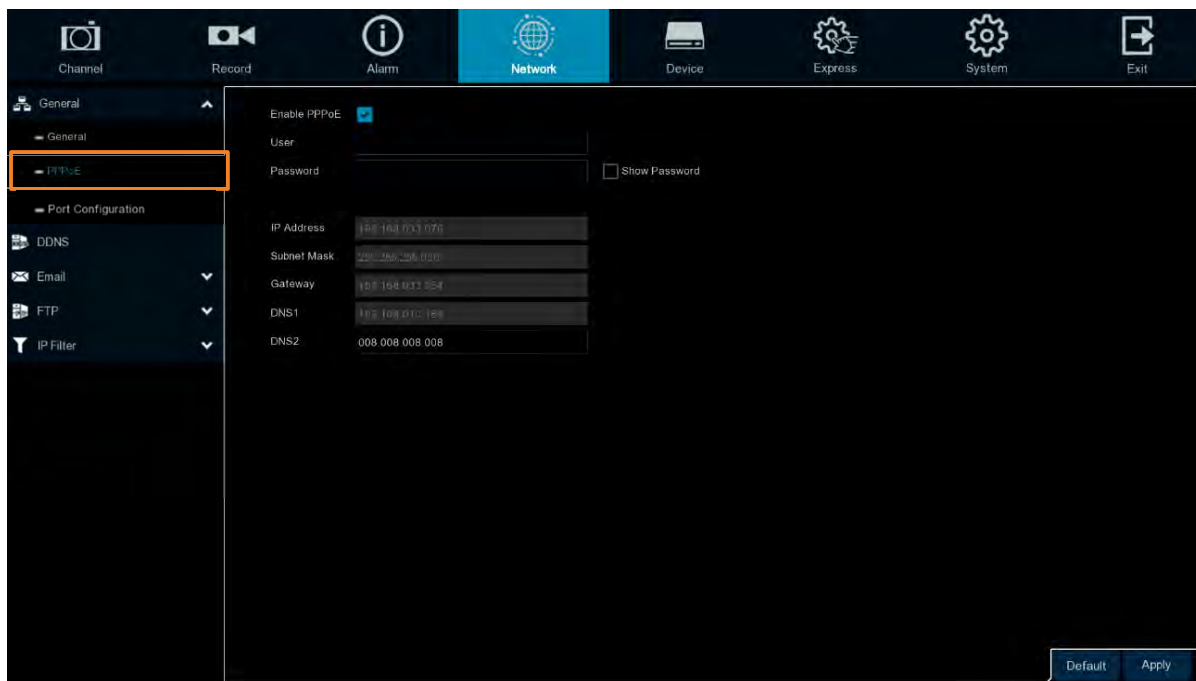
Default: Click to apply the default setting.

Apply: Click to save the settings.

4.4.1.2 PPPoE

This is a DSL-connection application. The ISP will ask the user to input a username and password. Contact your ISP for these details.

Note: If PPPoE is selected as the IP type, the supplied **IP Utility** program will not be able to detect the device.



The screenshot displays the 'Network' configuration page in the EverFocus web interface. The left sidebar shows the 'PPPoE' option selected under the 'General' category. The main configuration area includes the following fields:

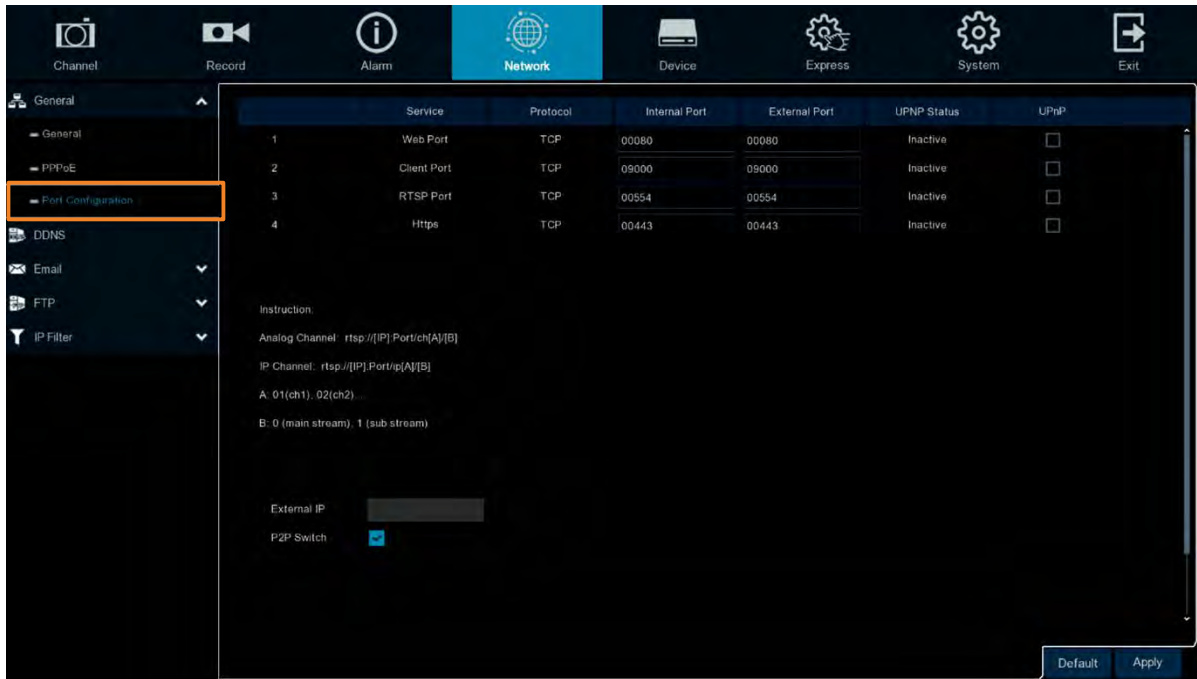
- Enable PPPoE:** Checked (indicated by a blue square).
- User:** Text input field.
- Password:** Text input field with a 'Show Password' checkbox.
- IP Address:** Text input field with the value '192.168.1.100'.
- Subnet Mask:** Text input field with the value '255.255.255.0'.
- Gateway:** Text input field with the value '192.168.1.1'.
- DNS1:** Text input field with the value '192.168.1.1'.
- DNS2:** Text input field with the value '008.008.008.008'.

At the bottom right of the configuration area, there are two buttons: 'Default' and 'Apply'.

Check the **Enable PPPoE** box, and then enter the User name and Password provided by the ISP. Click the **Apply** button, the system will reboot to activate the PPPoE setting.

4.4.1.3 Port Configuration

On this page, you can configure the port settings or enable/disable the UPnP or P2P function.



	Service	Protocol	Internal Port	External Port	UPnP Status	UPnP
1	Web Port	TCP	00080	00080	Inactive	<input type="checkbox"/>
2	Client Port	TCP	09000	09000	Inactive	<input type="checkbox"/>
3	RTSP Port	TCP	00554	00554	Inactive	<input type="checkbox"/>
4	Https	TCP	00443	00443	Inactive	<input type="checkbox"/>

Instruction:

Analog Channel: rtsp://[IP]:Port/ch[A]/[B]

IP Channel: rtsp://[IP]:Port/[A]/[B]

A: 01(ch1), 02(ch2)

B: 0 (main stream), 1 (sub stream)

External IP:

P2P Switch: ☒

Default Apply

Web Port: The Web port can be used to remotely login the DVR (e.g. using the Web Client). If the default port 80 is already taken by other applications, please change it.

Client Port: The Client port can be used to send information through (e.g. using the mobile app). If the default port 9000 is already taken by other applications, please change it.

RTSP Port: The RTSP port allows the DVR to transmit real-time streaming to other devices (e.g. using a streaming media player).

HTTPS: The Hypertext Transfer Protocol Secure (HTTPS) is a combination of the Hypertext Transfer Protocol and the SSL/TLS protocol that provides encrypted communication and secure identification of a network web server.

UPnP: Check the box to enable the UPnP function. If you want to remotely login the DVR using Web Client, you need to enable the UPnP function and also enable the Port Forwarding function on your router.

Note:

1. For the UPnP function to work, an UPnP-enabled router is required.
2. If your router does not support UPnP, ensure the **Port Forwarding** function is manually enabled on your router.

External IP: After enabling the UPnP function, the external IP address will be displayed.

P2P Switch: Check the box to enable the P2P function. If **P2P** function is enabled, a QR code will be displayed on the System Info page. You can scan the QR code with **EverFocus eFVMS**

App installed on your mobile device to add and remote access the DVR. Please refer to *4.9.5.1.1 Performing the P2P Function*.

Default: Click to apply the default setting.

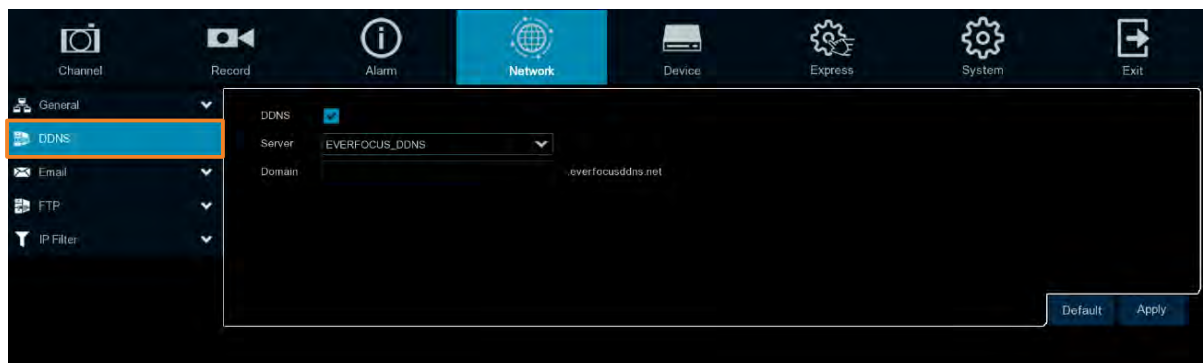
Apply: Click to save the settings.

4.4.2 DDNS

You can configure the DDNS setting on this page. DDNS (Dynamic Domain Name System) is a service used to map a domain name to the dynamic IP address of a network device. You can set up the DDNS service for remote access to the DVR.

DDNS assigns a domain name (URL) to the DVR, so that the user does not need to go through the trouble of checking if the IP address assigned by DHCP Server has changed. Once the IP is changed, the DVR will automatically update the information to the DDNS to ensure it is always available for remote access.

Note that before enabling the following DDNS function, user should have applied for a host name from the DDNS service provider's website. We highly recommend that you use xxxx.everfocusddns.net for the simplicity of setting up your DVR. Please refer to **EverFocus DDNS** on the next page.



DDNS: Check the box to enable the DDNS function.

Server: Select a DDNS service provider from the drop-down list. Note that before enabling the following DDNS function, user should have applied for a host name from the DDS service provider's website.

Domain: Input the domain name obtained from the DDNS service provider.

User: Input the user name of the DDNS account.

Password: Input the password of the DDNS account.

Test DDNS: Click the button to test whether the DDNS function is working normally.

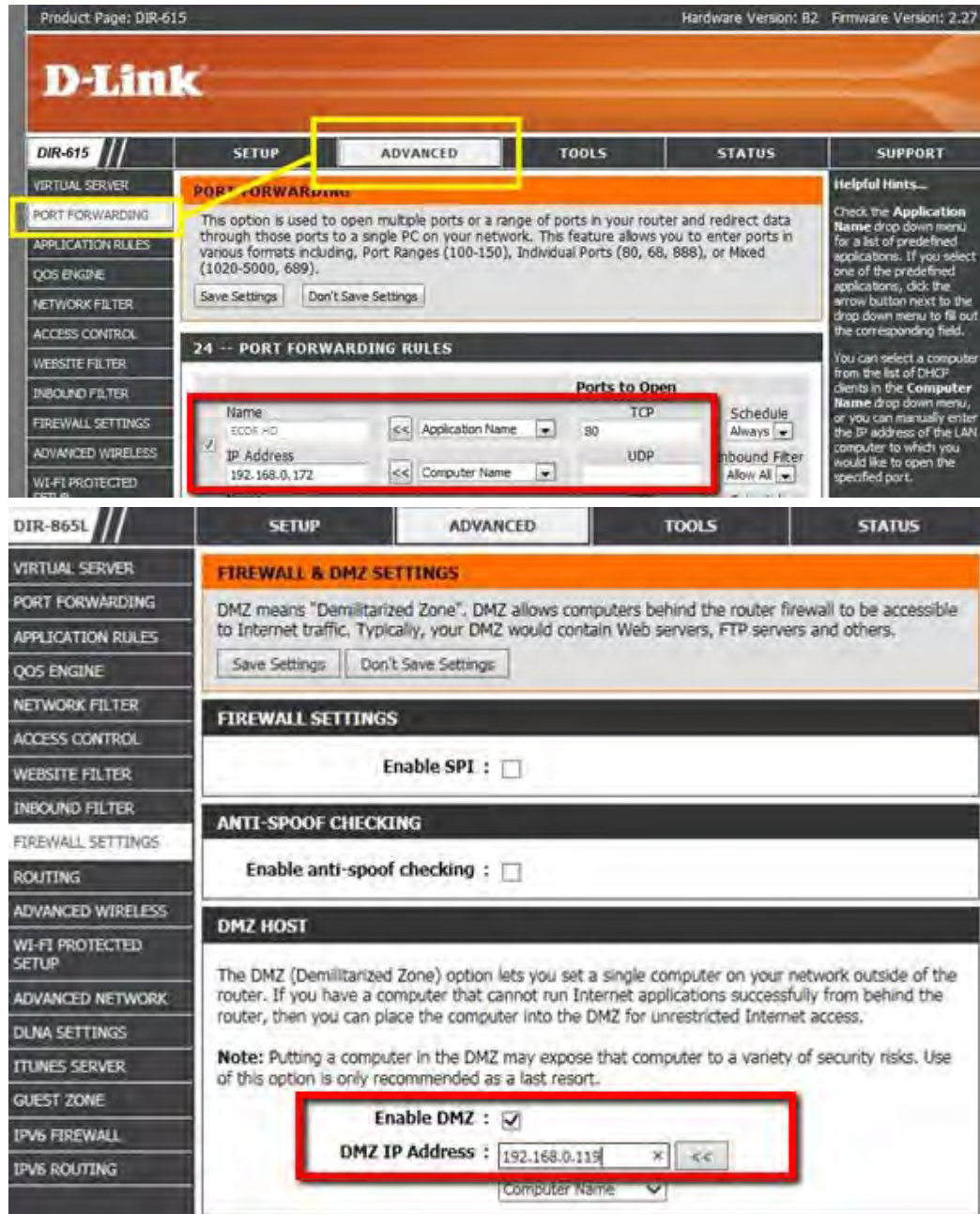
Default: Click to apply the default setting.

Apply: Click to save the settings.

EverFocus DDNS

Please follow the steps below to set up EverFocus DDNS.

1. In order to allow remote access to the DVR from outside of the local network, enable either the **Port Forwarding** or **DMZ** function of your router. Please refer to the manual of your router for more details.



Product Page: DIR-615 Hardware Version: B2 Firmware Version: 2.27

D-Link

DIR-615 // SETUP ADVANCED TOOLS STATUS SUPPORT

PORT FORWARDING

This option is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network. This feature allows you to enter ports in various formats including, Port Ranges (100-150), Individual Ports (80, 68, 888), or Mixed (1020-5000, 689).

Save Settings Don't Save Settings

24 -- PORT FORWARDING RULES

Ports to Open

Name: ECOR HD Application Name: 80 TCP

IP Address: 192.168.0.172 Computer Name: UDP

Schedule: Always

Inbound Filter: Allow All

DIR-865L // SETUP ADVANCED TOOLS STATUS

FIREWALL & DMZ SETTINGS

DMZ means "Demilitarized Zone". DMZ allows computers behind the router firewall to be accessible to Internet traffic. Typically, your DMZ would contain Web servers, FTP servers and others.

Save Settings Don't Save Settings

FIREWALL SETTINGS

Enable SPI : ☐

ANTI-SPOOF CHECKING

Enable anti-spoof checking : ☐

DMZ HOST

The DMZ (Demilitarized Zone) option lets you set a single computer on your network outside of the router. If you have a computer that cannot run Internet applications successfully from behind the router, then you can place the computer into the DMZ for unrestricted Internet access.

Note: Putting a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort.

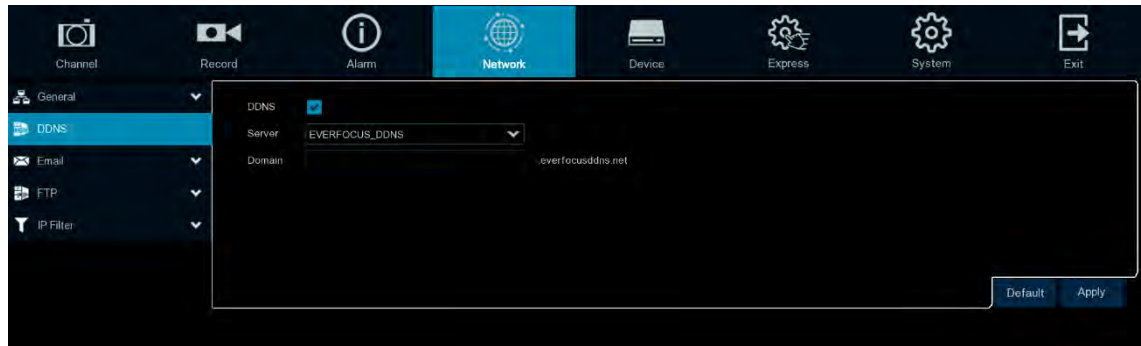
Enable DMZ : ☒

DMZ IP Address : 192.168.0.115

Computer Name:

2. Go to <http://www.everfocusddns.net> to check an available host name for the DVR. Note that the host name of the DVR cannot include a space, underline or any special characters particularly _ ~ ! @ # \$ % ^ & * () + < > " ; : ,

3. Register the host name on the DDNS setup page for the DVR.

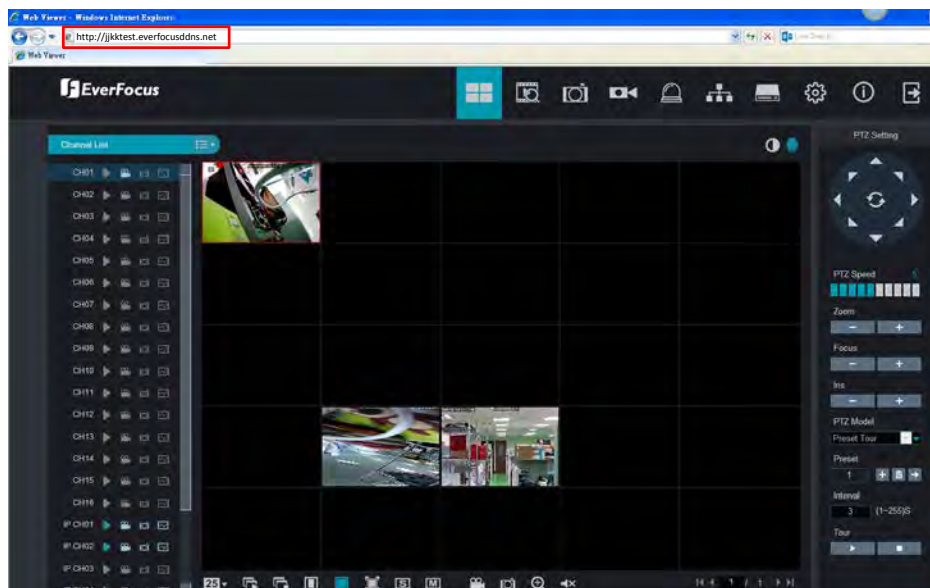


- a. Select **Enable** from the DDNS drop-down list to enable the DDNS function.
 - b. Select **EVERFOCUS DDNS** from the Server drop-down list.
 - c. Input the host name in the **DVR Name** field.
 - d. Click the **Apply** button.
4. Configure the DVR **Network** settings, keep Web port “80” and enable the UPnP function. Click the **Apply** button.



5. The DDNS setup is now complete. Open a browser and enter the domain name (http://[host name].everfocusddns.net) in the address field. The Web interface of the DVR should be displayed.

For example, if you’ve obtained the host name “jjkkttest” from EverFocus DDNS server, enter <http://jjkkttest.everfocusddns.net> in the address field of the browser.

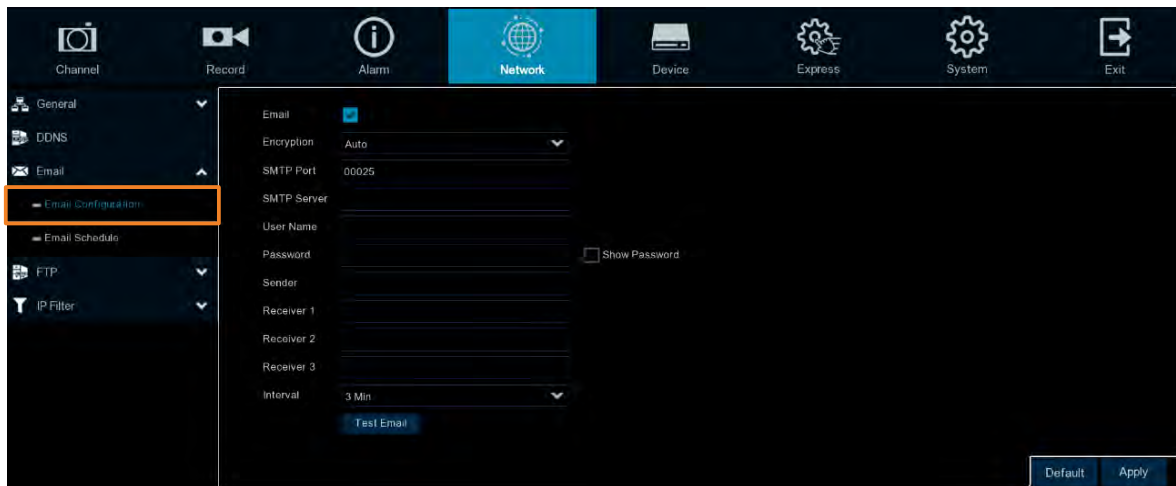


4.4.3 Email

You can configure the email settings for email alerts, or configure the Email schedule on this page.

4.4.3.1 Email Configuration

You can configure the email settings for email alerts. When events occur, the DVR will send Email alert with a snapshot image (.jpg) to the receiver(s).



Email: Select **Enable** to enable the Email function.

Encryption: Select an encryption if your Email server requires the **SSL** or **TLS** verification. Select **Auto** if you are not sure. Select **Disable** to disable this function.

SMTP Port: Enter the port number used by the SMTP server.

SMTP Server: Enter the SMTP server address of your Email.

User Name: Input your Email address.

Password: Input the password of the sender.

Sender: Input the Email address of the sender (the DVR).

Receiver1-3: Input the Email address of the receiver. You can input 3 receiver email addresses.

Interval: Configure an interval to send Emails when events occur.

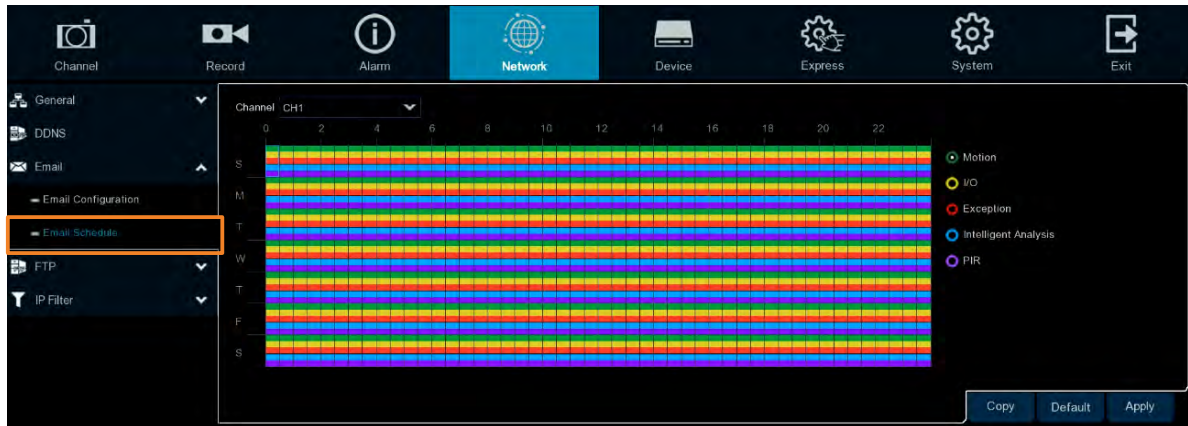
Test Email: Click to test whether the Email function is working normally.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.4.3.2 Email Schedule

You can configure the email schedule on this page. The selected event Email alerts will be sent out by the scheduled time. For example, if you set up Motion on Sunday between 6-8am, the Motion Email alerts will only be sent out between 6-8am on Sunday.



Channel: Select a channel to configure the email schedule individually.

Motion: Click the **Motion** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with green color, which will be applied with motion email alert function. To enable Motion alarm, please refer to 4.1.6 *Motion*.

IO: Click the **IO** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with yellow color, which will be applied with IO email alert function. To enable IO alarm, refer to 4.3.3 *IO*.

Exception (HDD full, HDD error or Video Loss): Click the **Exception** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with red color, which will be applied with exception email alert function. To enable Exception alarm, please refer to 4.3.6 *Exception*.

Intelligent Analysis: Click the **Intelligent Analysis** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with blue color, which will be applied with Intelligent Analysis email alert function. To enable Intelligent Analysis alarm, please refer to 4.3.4 *Intelligent Alarm*.

PIR: Click the **PIR** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with purple color, which will be applied with PIR email alert function. To enable PIR alarm, please refer to 4.1.7 *PIR*.

Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

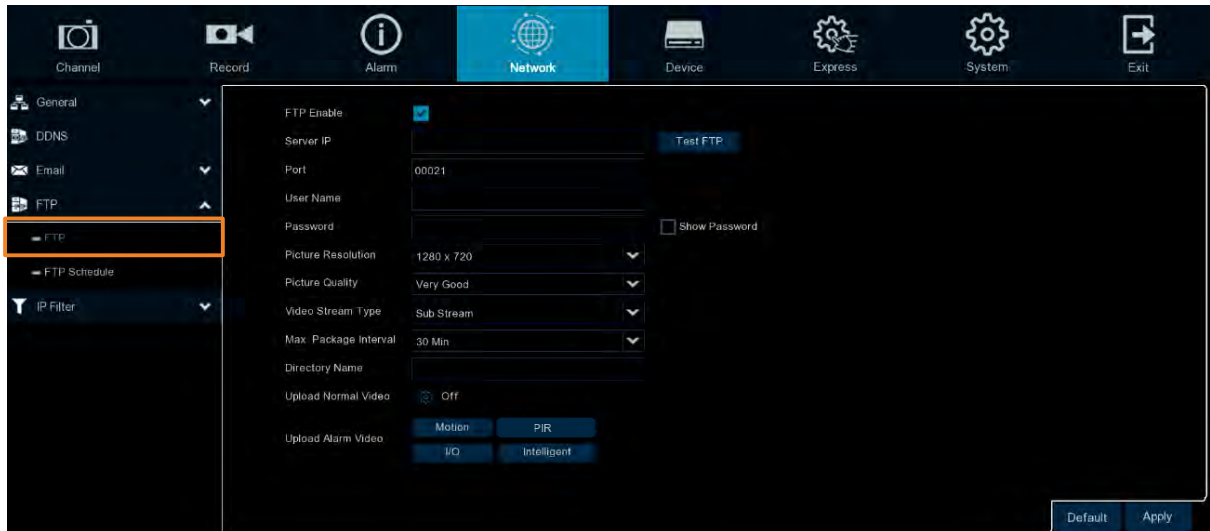
Default: Click to apply the default setting.

Apply: Click to save the settings.

4.4.4 FTP

4.4.4.1 FTP

You can configure the FTP server setting on this page. When there is a Motion or I/O event occurs, the system will send an instant snapshot image to the FTP. For system alarm such as HDD lost and Video loss, the system will send alarm log to the FTP as well.



FTP Enable: Check the box to enable the function.

Server IP: Input the FTP server IP.

Test FTP: Click to test the FTP server connection.

Port: Keep the port 21.

User Name: Input the user name of the FTP server.

Password: Input the password of the FTP server.

Picture Resolution: Select a resolution of the snapshot images for FTP uploading.

Picture Quality: Select a quality of the snapshot images for FTP uploading.

Video Stream Type: Select a stream type of the recordings for FTP uploading.

Max. Package Interval: Select a max. package interval for FTP uploading.

Directory Name: Input a directory of the FTP server.

Upload Normal Video: Select the desired channel(s) for uploading the normal recordings. For this function to work, please setup the FTP Schedule (refer to 4.4.4.2 FTP Schedule) in advance.

Upload Alarm Video: To enable uploading alarm videos to the FTP Server, click the Motion, PIR, IO or Intelligent buttons to enter each alarm setup page, and then check the **FTP Video Upload** box to enable the function. For this function to work, please setup the FTP Schedule (refer to 4.4.4.2 FTP Schedule) in advance.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.4.4.2 FTP Schedule

You can configure the FTP schedule on this page. The selected event recordings will be uploaded to the FTP by the scheduled time. For example, if you set up Motion on Sunday between 6-8am, the Motion recordings will be uploaded to FTP between 6-8am on Sunday.

Note that for the FTP Schedule function to work, you have to enable **FTP Video Upload** function on the related alarm setup page (Motion, PIR, IO, Intelligent).



Channel: Select a channel to configure the FTP schedule individually.

Normal: Click the **Normal** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with green color, which will be applied with normal recording FTP upload function. Note that for this function to work, you have to select the desired channel(s) for uploading the normal recordings (please refer to **Upload Normal Video** in 4.4.4.1 FTP).

Motion: Click the **Motion** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with yellow color, which will be applied with motion FTP upload function. To enable Motion alarm, please refer to 4.1.6 Motion.

IO: Click the **IO** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with red color, which will be applied with IO FTP upload function. To enable IO alarm, refer to 4.3.3 IO.

PIR: Click the **PIR** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with purple color, which will be applied with PIR FTP upload function. To enable PIR alarm, please refer to 4.1.7 PIR.

Intelligent Analysis: Click the **Intelligent Analysis** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with blue color, which will be applied with Intelligent Analysis FTP upload function. To enable Intelligent Analysis alarm, please refer to 4.3.4 Intelligent Alarm.

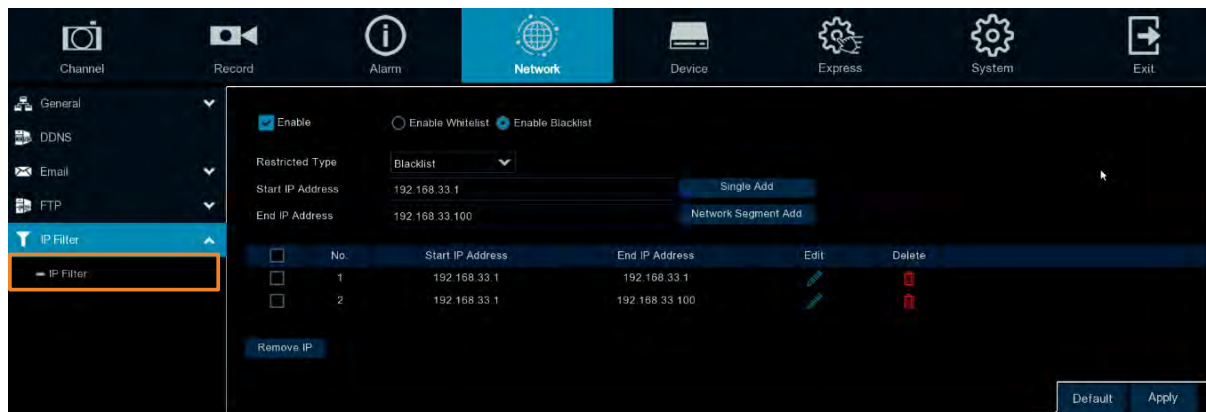
Copy: You can apply the same configurations from one channel to other channels. Select a channel from the **Source Channel** drop-down list and then select the parameters you would like to apply to other channels. Select the desired channels from the **Target Channel** field and then click the **Copy** button.

Default: Click to apply the default setting.



Apply: Click to save the settings.

4.4.5 IP Filter

You can configure the IP Filter settings on this page. This function allows you to allow or deny some specific IP address to access the Web interface of the DVR. By default, all IP addresses are allowed.



To set up IP Filter:

- Check the **Enable** box and then select either one from the two options below. You can only activate one option for the DVR.
 - Enable Whitelist: Enable the whitelist configured below.
 - Enable Blacklist: Enable the blacklist configured below.
- Edit the Whitelist or Blacklist.
 - If you want to edit whitelist, select **Whitelist** from the **Restricted Type** drop-down box; if you want to edit blacklist, select **Blacklist** from the **Restricted Type** drop-down box.
 - To add a single IP address to the list, input an IP address in the **Start IP Address** input box and then click the **Single Add** button, the IP address will be added.
 - To add a range of IP addresses to the list, input the start IP address in the **Start IP Address** input box and the end IP address in the **End IP Address** input box, and then click the **Network Segment Add** button, the range of IP addresses will be added.
 - You can click the **Edit** icon  to edit the IP address, or click the **Delete** icon  to delete the IP address from the list.
- Click the **Apply** button to save the settings.

4.5 Device

You can configure the internal HDD and Cloud storage function on this page.

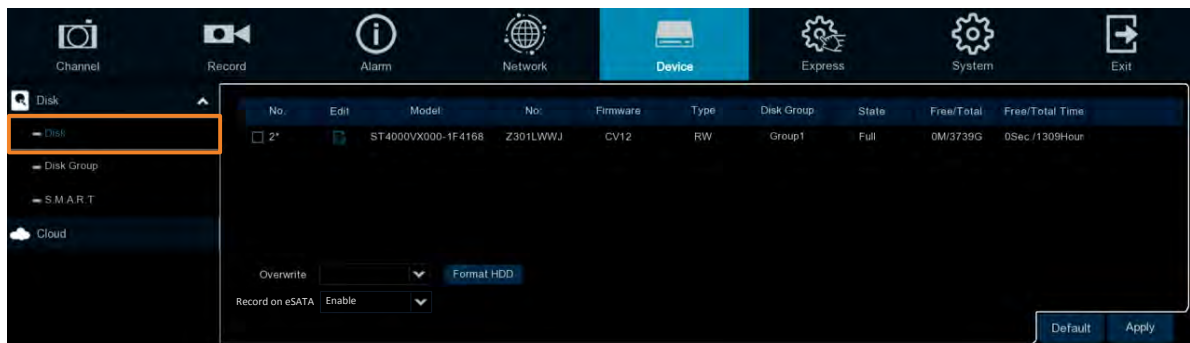
4.5.1 Disk

4.5.1.1 Disk

You can configure the HDD settings on this page. Please connect the HDD(s) to the DVR in advance and ensure the power and SATA cables are properly connected between the DVR and HDD(s). After connecting the HDD(s) to the DVR, the DVR will automatically detect the connected HDD(s) and listed all the connected HDD(s) in the below field.

For the first time connected HDDs, the status will show “Unformat” in the state column, users will have to format the HDDs before you can use it.

The HDD(s) marked with * in the No. column indicates the HDD(s) is/are being used at present.



Edit: Click the **Edit** button and the below window appears. You can assign each HDD to different Disk Type (Read/Write, Read only or Redundancy) and Disk Group (Group 1 ~ 16).

A Redundant HDD can be used to automatically backup video footage on the recording (read-write) hard drive. When a redundant HDD is set, the system can be set to record cameras in parallel to both the recording hard drive and the redundant hard drive in case of hard drive failure.



Checkbox: You can select the HDDs in the **No** column to select the HDD(s), and then you can set up the Overwrite or eSATA function, or Format the HDD.

Overwrite: Select **Auto** to enable the overwrite function; **Off** to disable the overwrite function. If **Auto** is selected, the DVR will overwrite the oldest files on the HDD when HDD is full. If **Off** is selected, please check the HDD status regularly, to make sure the HDD is not full.

The **1/3/7/14/30/90** Days stands for the last number of days to keep in the HDD. For example, if 3 Days is selected, the last 3 days recordings will be kept in the HDD.

Format HDD: The first time use HDDs have to be formatted before you can use it. Select the desired HDDs and then click the **Format HDD** button to format the selected HDDs. Note that only the HDDs with “Unformat” status displayed in the State column are required to format or the recording function will not work. **WARNING:** This will effectively ERASE the ENTIRE hard disk!! Please backup the data from HDDs before formatting the HDDs.

Note:

1. Only the HDDs with “OK” in the State column can perform the recording function. If not, format the HDDs before start using the recording function.
 2. The “Free Time” on the HDD list indicates the remaining time for the HDD to record based on the pre-setup resolution, streaming and fps.
-

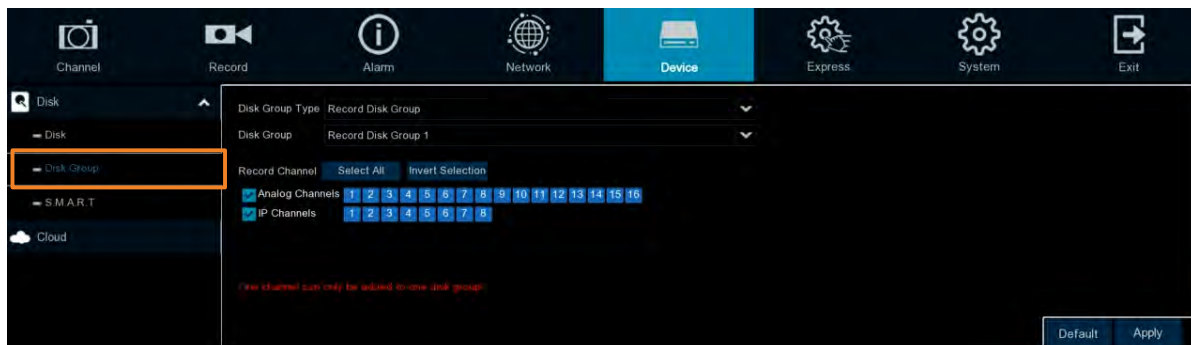
Record on eSATA: If you have connected an external eSATA storage device to the DVR, you can enable the eSATA backup storage function.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.5.1.2 Disk Group

You can assign the HDDs to different groups. HDD groups allow you to balance recordings across multiple hard drives. For example, you can record channels 1~4 to one hard drive and 5~8 to a second hard drive. This can reduce the amount of wear on the hard drives and may extend the life of the hard drives.



Disk Group Type: Select a Disk Group type. The Disk Group Type has to be pre-configured on the Disk page (please refer to 4.5.1.1 Disk).

Disk Group: Select a Record Disk Group. The Record Disk Group has to be pre-configured on the Disk page (please refer to 4.5.1.1 Disk).

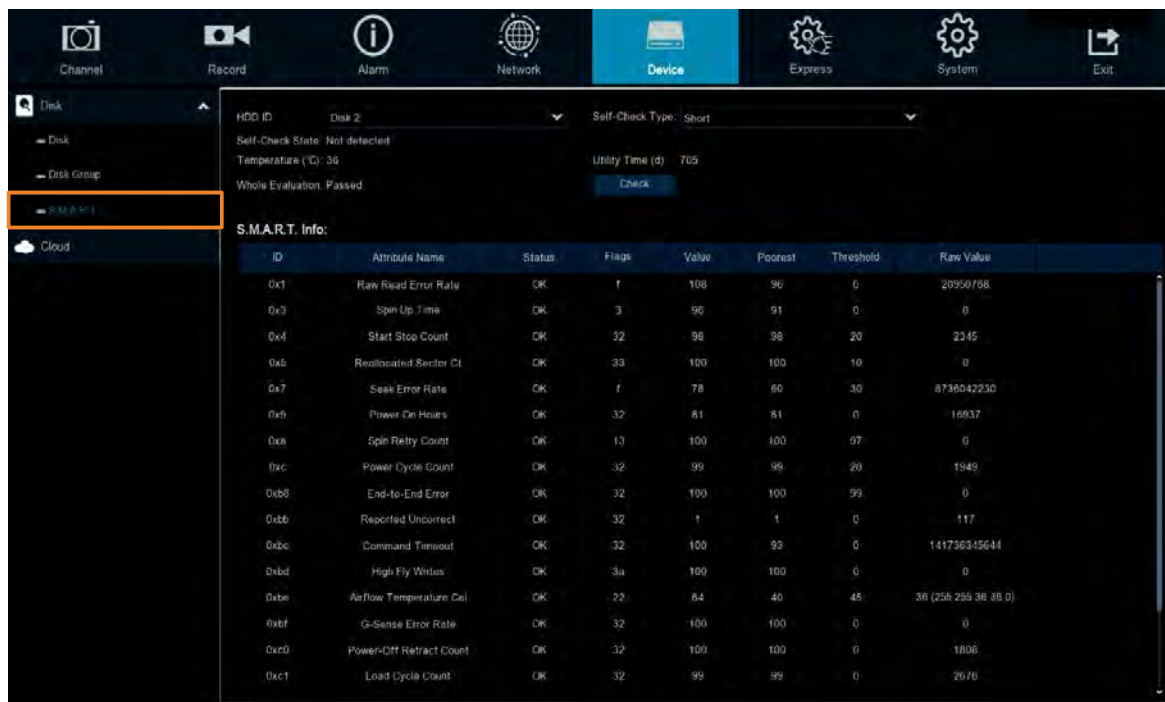
Record Channel: Select the desired channel(s). The recordings of the selected channels will be recorded to the selected Disk Group.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.5.1.3 S.M.A.R.T

You can check the S.M.A.R.T. info of each HDD on this page.



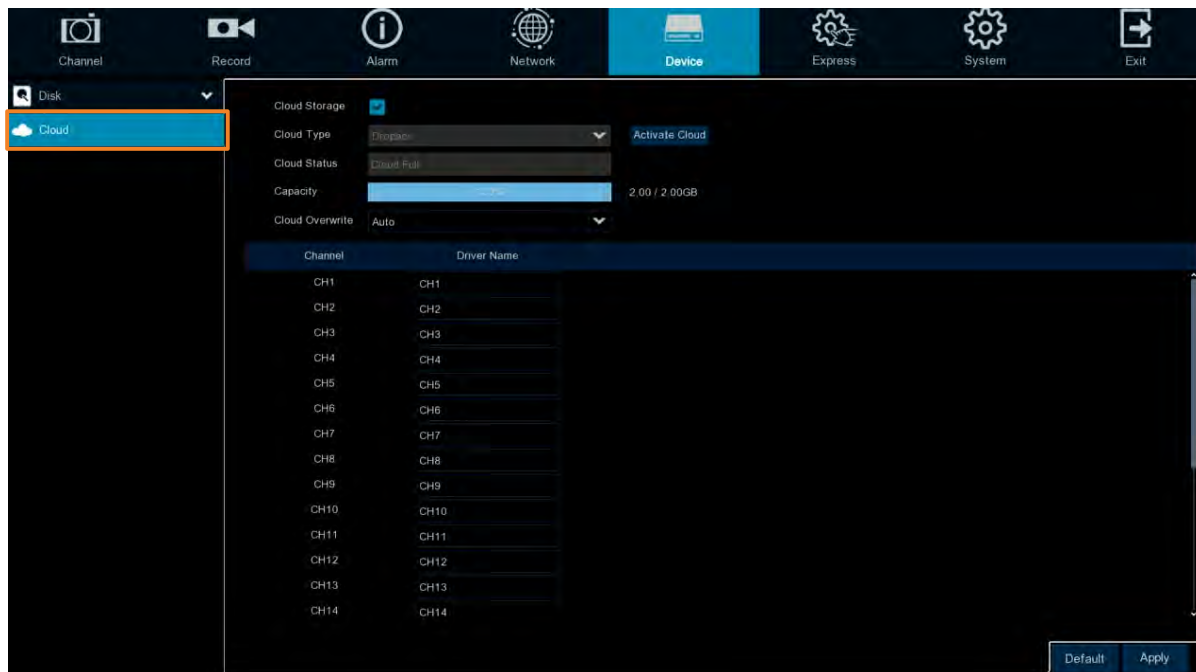
ID	Attribute Name	Status	Flags	Value	Poorest	Threshold	Raw Value
0x1	Raw Read Error Rate	OK	1	108	96	0	20950/68
0x3	Spin Up Time	OK	3	96	91	0	0
0x4	Start Stop Count	OK	32	98	98	20	2245
0x5	Reallocated Sector Ct	OK	33	100	100	10	0
0x7	Seek Error Rate	OK	1	78	80	30	8736042230
0x9	Power On Hours	OK	32	81	81	0	16937
0xa	Spin Retry Count	OK	13	100	100	97	0
0xc	Power Cycle Count	OK	32	99	99	20	1949
0xb8	End-to-End Error	OK	32	100	100	99	0
0xb6	Reported Uncorrect	OK	32	1	1	0	117
0xbc	Command Timeout	OK	32	100	93	0	141736345644
0xbd	High Fly Writes	OK	3a	100	100	0	0
0xbe	Airflow Temperature Cel	OK	22	84	40	45	38 (256 255 36 35 0)
0xbf	G-Sense Error Rate	OK	32	100	100	0	0
0xd0	Power-Off Retract Count	OK	32	100	100	0	1806
0xc1	Load Cycle Count	OK	32	99	99	0	2676

To check the S.M.A.R.T. info of the HDD, select an HDD from the **HDD ID** drop-down list, select a check type from the **Self-Check Type** drop-down list, and then click the **Check** button. The S.M.A.R.T. info will be listed in the S.M.A.R.T. info field.

If the evaluation is not passed but you still want to use the disk for recording, you can check the checkbox of **Whole evaluation not passed. Continue to use the disk**. And then click the **Save** button to save the settings. Click Cancel to cancel and leave the page.

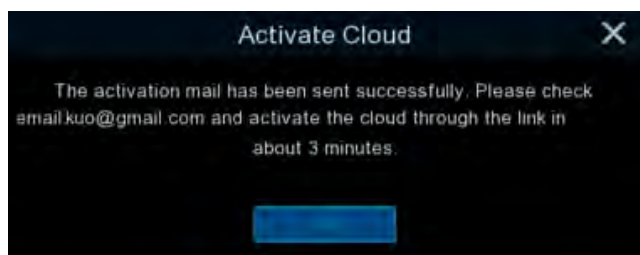
4.5.2 Cloud

You can configure the Cloud settings (Dropbox cloud storage) on this page. After configuring the settings, the system will automatically send the Motion and I/O alarm snapshot images to the associated Dropbox when alarm events occur.



To perform the Cloud function:

1. Register an account on Dropbox website. It's recommended to create the account with the same Email address and password used for your DVR.
2. Ensure the DVR network is working properly.
3. Configure the SMTP function (refer to 4.4.3 Email).
4. Configure the Cloud settings and then click the **Apply** button.
 - a. Check the **Cloud Storage** checkbox to enable the Cloud function.
 - b. Select a **Cloud Overwrite** option.
 - c. Input a name in the **Driver Name** field, which will be created on the Dropbox as a directory for restoring the snapshot images from DVR.
5. Click the **Activate Cloud** button to activate the Cloud function. The below message will pop-up on the screen. Check your email and complete the cloud activation within 3 minutes.



6. Go to your email box and click on the provided link, the below message appears. Input the IP address of the DVR and keep the 80 port. Click **Authorize**.

Dropbox needs to be activated for this device. Please make sure the PC is on the same network as the device and enter the local IP address of the device below. The IP address can be found in the Network section of the device settings.

IP Address:

Port:

Authorize

7. Input the user name and password of the DVR and then click **Log In**.

Authentication Required

http://192.168.33.76 requires a username and password.
Your connection to this site is not private.

User Name:

Password:

Log In Cancel

8. The Cloud activation is complete.

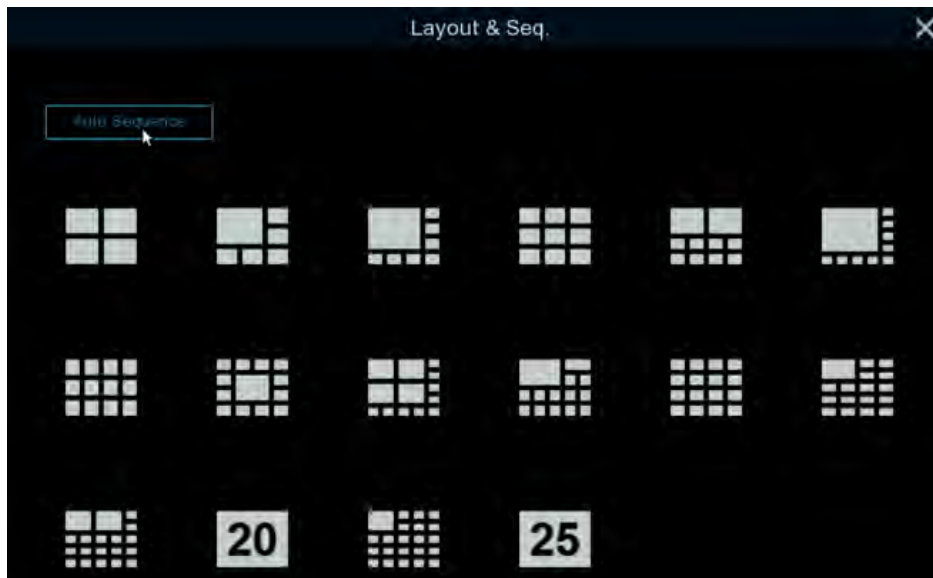
Authorized success! Return [Dropbox](#).
(Automatic jump after 1 seconds)

4.6 Layout

You can select the desired **Layout** or activate the **Auto Sequence** function on this page.

To select a layout, directly click on the layout icon.

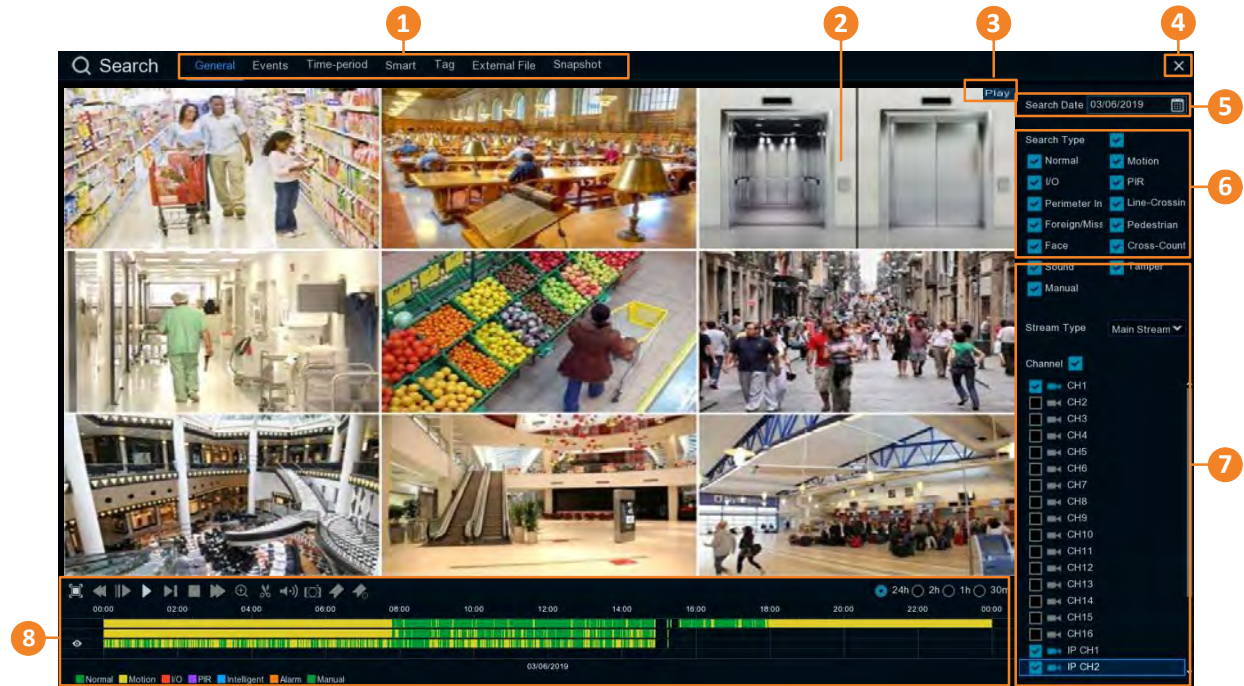
To start displaying the sequence mode, click the **Auto Sequence** button. To stop the sequence mode, click the button again. To configure the sequence settings, please refer to *4.9.1.3 Video Output*.




4.7 Playback

4.7.1 General Operation

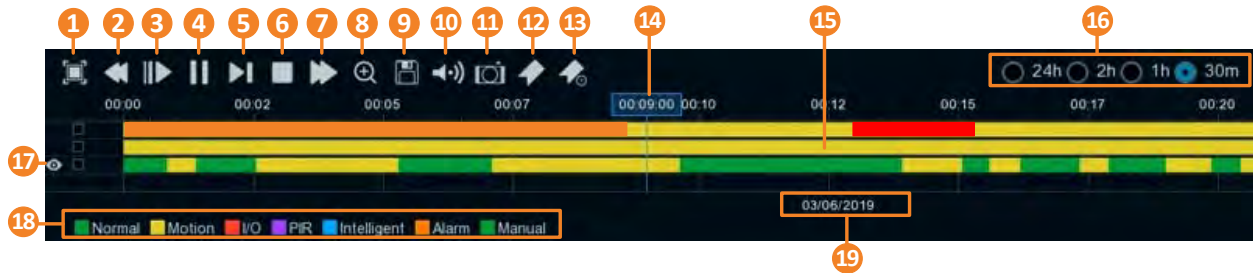
You can search and then play back the recordings on this page.




No.	Name	Description
1	Search Mode	Click to enter each Search mode (General, Events, Time-period, Smart, Tag, External File and Snapshot) to search and play back the recordings. Please refer to 4.7.3 <i>Search Mode</i> for more details.
2	Playback Layout	The layout divisions will be automatically assigned by the system based on the number of selected channels. For example, if 1 channel is selected, the system will automatically assign single-division; if 2~4 channels are selected, 4-division will be assigned; if 5~9 channels are selected, 9-division will be assigned; if 10~16 channels are selected, 16-division will be assigned.
3	Status Icon	Displays the playback status, such as speed, play, stop or step.
4	Close Button	You can click the Close button to close the Playback window and return to the Live View window. You can also close the Playback window by right-clicking the mouse.
5	Date	Click the Calendar button  to display the calendar and select a date.
6	Search Type	Select the desired search types for playback.
7	Channel Selection	Select the desired channel(s) to search and play back.
8	Playback Control Panel	You can use the playback control panel for playback operation. Please refer to 4.7.2 <i>Playback Control Panel</i> for more details.

4.7.2 Playback Control Panel


You can use the playback control panel to operate the below functions:



No.	Name	Description
1	Full Screen	Click to display the Playback Layout in full screen. Right-click the mouse to exit the Full Screen. Please refer to 4.7.2.1 Full Screen on Playback Window.
2	Fast Backward	Click to rewind (x2, x4, x8, x16). The rewind speed will be displayed on the Status Icon located on the upper-right corner of the Playback Layout.
3	Slow Play	Click to start slow playback (1/2, 1/4, 1/8, 1/16). The slow play speed will be displayed on the Status Icon located on the upper-right corner of the Playback Layout.
4	Play / Pause	Click to start or pause playing back.
5	Step Forward	Click to playback frame by frame.
6	Stop	Click to stop playing back.
7	Fast Forward	Click to Fast Forward (x2, x4, x8, x16). The fast forward speed will be displayed on the Status Icon located on the upper-right corner of the Playback Layout.
8	Zoom	Click to use the Digital Zoom function. To perform this function, select a channel by clicking on the channel and then click the Zoom button, the selected channel will be displayed in single-channel. And you can start using the Digital Zoom function. For Digital Zoom operation, please refer to 3.4.1 Digital Zoom (PIP) for more details.
9	Video Clip	Click to quickly save a video clip (AVI) to a USB storage device. Please refer to 4.7.2.2 Backup Video Clips.
10	Audio	Scroll the slider bar to increase or decrease volume.
11	Manual Snapshot	Click to capture a snapshot image (.jpeg) of a channel and store it to the USB storage device. To perform this function: <ol style="list-style-type: none"> 1. Insert a USB storage device to the DVR. 2. Select a channel by clicking on the channel and then click the Manual Capture button. <p>Note: For the first-time-use USB device, select a directory and then click OK.</p>

12	Add Default Tag	Click to add a default tag to the current playback time, which will be applied with a default Tag Name “Tag”. You can then search for the tag on the Tag window. Please refer to 4.7.3.5 <i>Tag</i> .
13	Add Customized Tag	Click to add a customized tag to the current playback time, which can input a tag name to the tag. You can then search for the tag on the Tag window. Please refer to 4.7.3.5 <i>Tag</i> .
14	Time Indicator	Indicates the current playback time.
15	Time Bar	<p>You can use your mouse to drag the time bar to the left or right to search the desired time for playing back. Single-click on the time bar at a certain time will start playing back from the clicked time. The colors on the time bar represent different recording types (refer to No.18).</p> <p>Note that for the Motion, PIR, Intelligent and Alarm recording to work, you have to configure the related settings in advance.</p> <p>For Motion recording, please refer to 4.1.6 <i>Motion</i>.</p> <p>For PIR recording, please refer to 4.1.7 <i>PIR</i>.</p> <p>For Intelligent recording, please refer to 4.1.8.9 <i>Record Schedule</i>.</p> <p>For Alarm recording, please refer to 4.3.6 <i>Exception</i>.</p>
16	Time Span	You can click to select a time span.
17	Selected Channel	The selected channel will be applied with an Eye icon  . You can perform the Zoom, Audio or Manual Snapshot functions for the selected channel.
18	Time Bar Color Indicator	<p>The colors indicate the recording types.</p> <p>Green: Normal recordings or manual recordings.</p> <p>Yellow: Motion recordings.</p> <p>Red: I/O recordings.</p> <p>Purple: PIR recordings.</p> <p>Blue: Intelligent recordings.</p> <p>Orange: Alarm recordings.</p>
19	Playback Date	Displays the selected playback date.

4.7.2.1 Full Screen on Playback Window

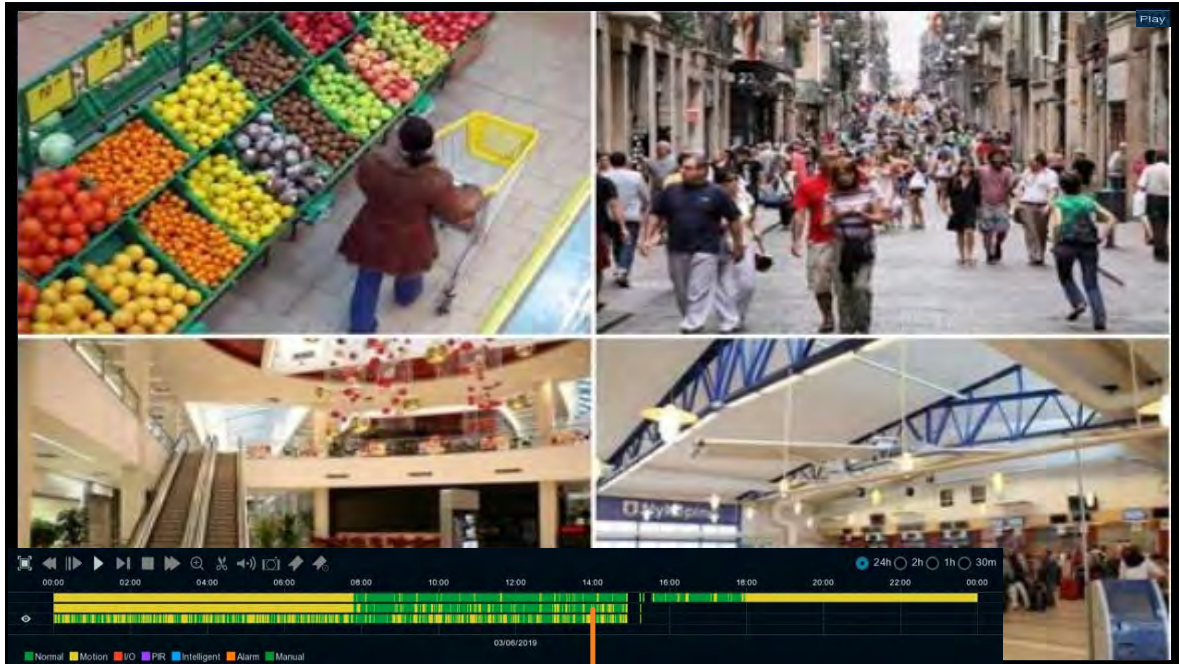
On the Playback Control Panel, click the **Full Screen** button  to display the Playback Layout in full screen. To exit the Full Screen, click the **Full Screen** button again on the Playback Control Panel. You can also exit the Full Screen by right-clicking the mouse.



Under Full Screen mode, you can move your mouse to the right to display the right-side **Search Panel**; or move your mouse to the bottom side to display the **Playback Control Panel**.

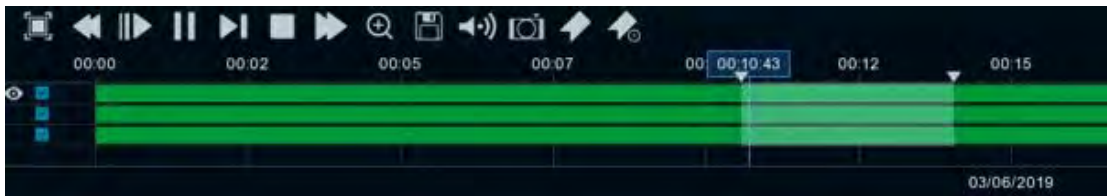


Search Panel





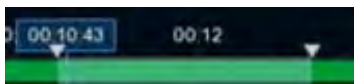
Playback Control Panel

4.7.2.2 Backup Video Clips



To backup video clips:

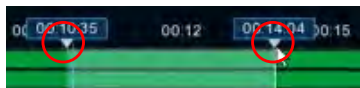
1. Ensure the USB storage device has been inserted to the DVR.
2. On the Playback Control Panel, click the **Video Clip** button . The button will then change to a **Copy** button , and a copy range will be displayed on the time bar.




3. Check the left-side channel box if you want to back-up with the same start time and end time of the selected channel(s).



4. To set up the start time and end time, drag the **Triangle** icons to the left or right.



5. Click the **Copy** button , the below Copy Type window appears.



6. Click the **Save** button, the Copy window appears. You can also create a directory for the video clip(s) by clicking the **Directory** button  on the upper-right corner.

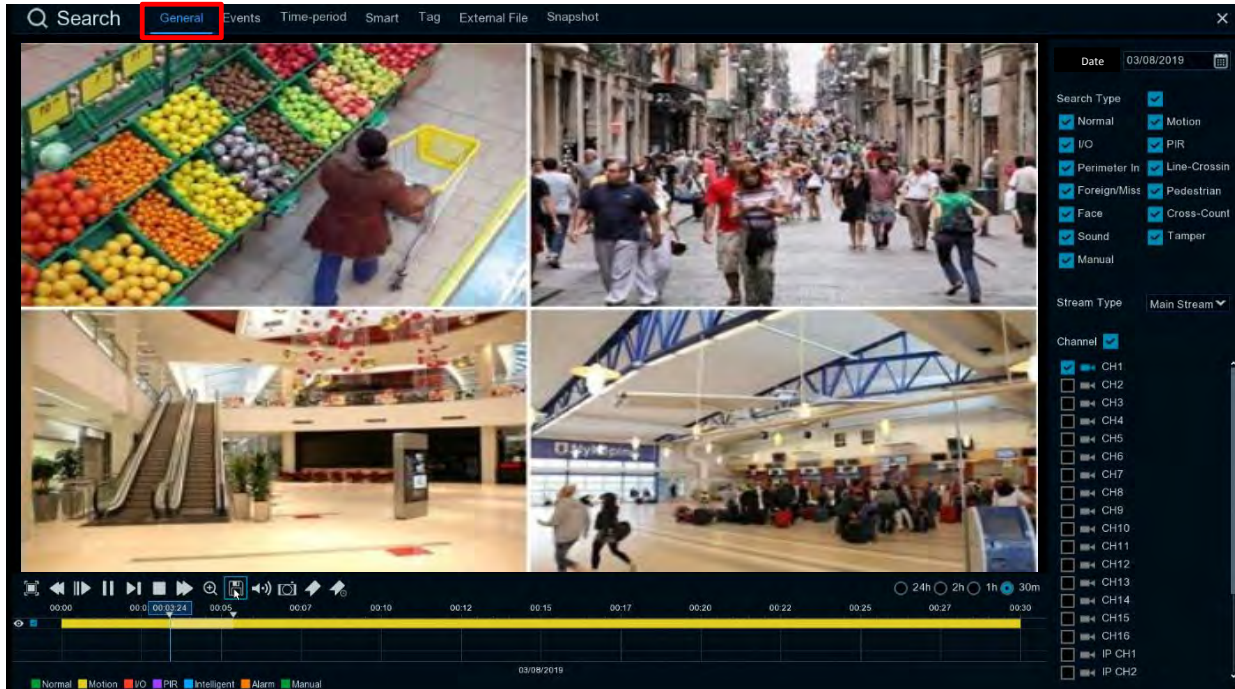


7. Click the **OK** button, the backup process begins. After the backup process is complete, click the **Cancel** button to return to the **Playback** window.

4.7.3 Search Mode

4.7.3.1 General

You can use this page to search, play back and backup all types of recordings. Click the **General** tab to enter the General Playback mode.



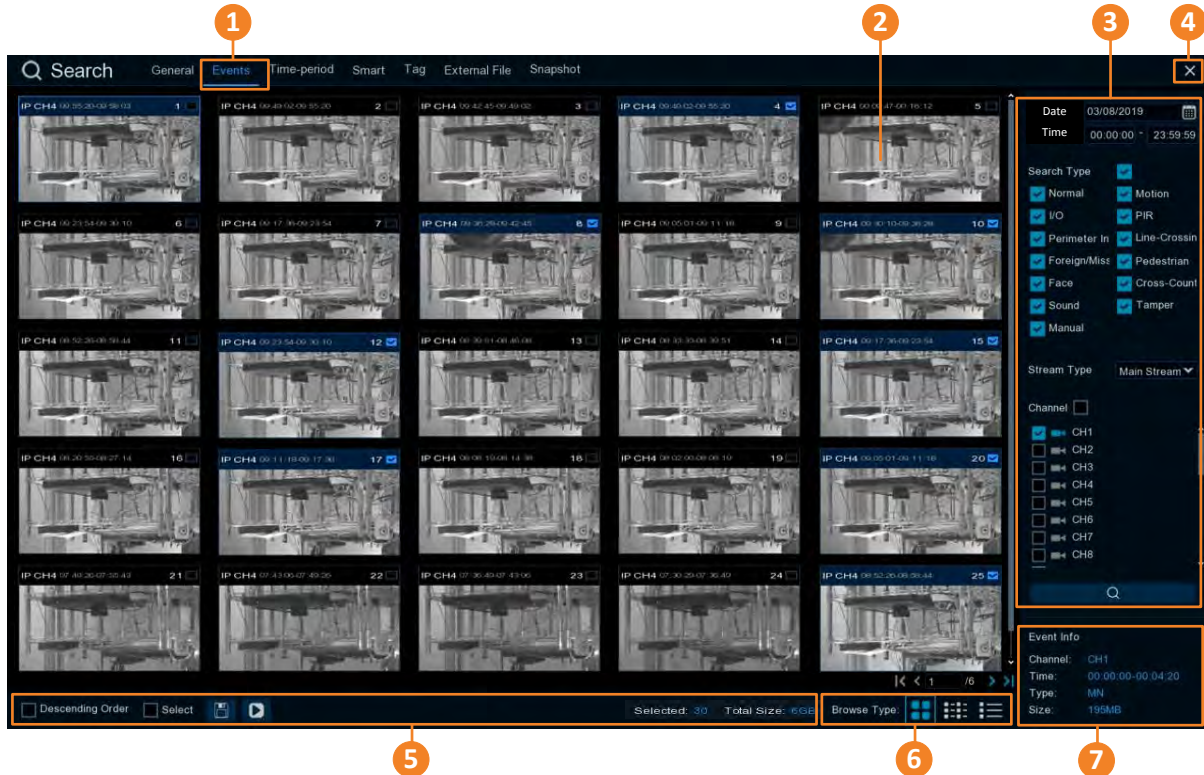
1. Click the **Calendar** button to select a date.
2. Select the desired Search Type(s).
3. Select a **Stream Type**. For this function to work, you will have to configure the record stream setting to Dual Streams (please refer to 4.2.2.1 Record).
4. Select the desired channel(s).
5. The system will automatically start playing back.
6. Use the Playback Control Panel to operate the Playback function. Please refer to 4.7.2 Playback Control Panel for more details.

Note: The layout divisions will be automatically assigned by the system based on the number of selected channels. For example, if 1 channel is selected, the system will automatically assign single-division; if 2~4 channels are selected, 4-division will be assigned; if 5~9 channels are selected, 9-division will be assigned; if 10~16 channels are selected, 16-division will be assigned.

4.7.3.2 Events

You can use this page to search, play back and backup the event recordings to the USB storage device. The Event Playback page gives you a summary of all events on the list. You can display the events with Thumbnail, List or Details list type.


Event Search and Backup



No.	Name	Description
1	Event Tab	Click to enter the Event Playback page.
2	Event List	The searched events will be listed on the Event List. You can display the Event List in Thumbnail, List or Details mode. Please refer to No.6 .
3	Search Panel	You can use this panel to search for the event recordings based on the selected attributes including date and time, record mode and channels.
4	Close Button	You can click the Close button to close the Playback window and return to the Live View window. You can also close the Playback window by right-clicking the mouse.

5	Function Bar	<p><u>Descending order:</u> Click to display the events in descending order.</p> <p><u>Select:</u> Check the box to select all the events on the list. Uncheck the box to deselect all the events on the list.</p> <p><u>Copy:</u> Select the event(s) on the Event List and then click the Copy button to backup the selected event recordings to the USB storage device.</p> <p><u>Play:</u> Click an event on the Event List and then click the Play button to play back the clicked event recording.</p> <p><u>Selected:</u> The number of selected event(s) on the Event List will be displayed here.</p> <p><u>Total Size:</u> The total size of selected event(s) on the Event List will be displayed here.</p>
6	Browse Type	Click to display the Event List with Thumbnail, List or Details mode.
7	Event Info	Click an event on the Event List, the information of the clicked event will be displayed here.

1. To search for events:

- Click the **Calendar** button to select a date.
- Click the **Time** column to select a time range.
- Select the desired **Search Type(s)**.
- Select a **Stream Type**. For this function to work, you will have to configure the record stream setting to Dual Streams (please refer to 4.2.2.1 Record).
- Select the desired channel(s).
- Click the **Search** button , the search results will be displayed on the Event List.
- You can click the left or right buttons to browse between pages, or input the page number you want to browse.



- You can switch the Event List display mode by clicking the Thumbnail, List or Details icons.



Thumbnail: Click to display the events with thumbnail images.









List: Click to display the events in list.

1 IP-CH3 00:00:00	2 IP-CH4 00:00:00	3 IP-CH4 00:03:24	4 IP-CH3 00:09:33	5 IP-CH4 00:09:47
6 IP-CH4 00:16:12	7 IP-CH3 00:20:13	8 IP-CH4 00:22:36	9 IP-CH4 00:29:00	10 IP-CH3 00:30:53
11 IP-CH4 00:35:25	12 IP-CH3 00:41:33	13 IP-CH4 00:41:49	14 IP-CH4 00:48:14	15 IP-CH3 00:52:13
16 IP-CH4 00:54:38	17 IP-CH4 01:01:03	18 IP-CH3 01:02:53	19 IP-CH4 01:07:27	20 IP-CH3 01:13:34
21 IP-CH4 01:13:51	22 IP-CH4 01:20:16	23 IP-CH3 01:24:14	24 IP-CH4 01:26:40	25 IP-CH4 01:33:05



Details: Click to display the events in detailed list.

	Channel	Type	Date	Start Time	End Time	Size	Playback	Lock
1	CH1	M	08/28/2018	09:57:07	09:57:19	9MB		
2	CH1	M	08/28/2018	09:55:54	09:57:07	55MB		
3	CH1	M	08/28/2018	09:55:04	09:55:54	37MB		
4	CH1	M	08/28/2018	09:53:41	09:54:11	22MB		
5	CH1	M	08/28/2018	09:50:00	09:51:26	65MB		

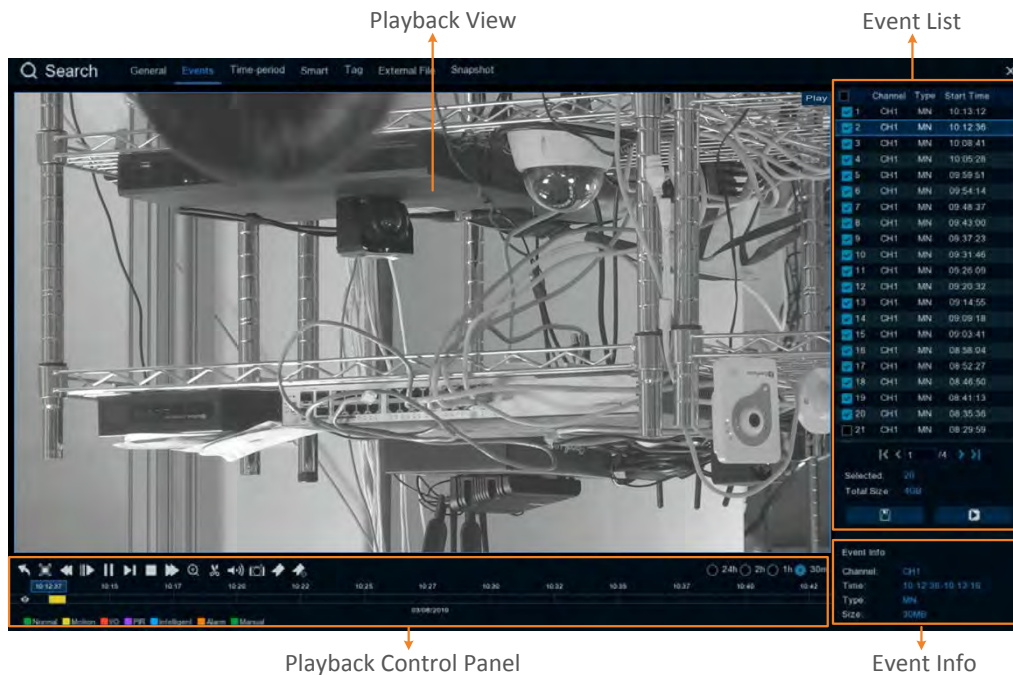
Playback: Click the Playback icon can play back the event.

Lock: Click the  icon to lock or unlock  the event. The locked events will be stored in the hard disk and will not be overwritten.

- i. On the Event List, click on an event and its information will be displayed at the lower-right corner.
2. To back up event recordings to the USB storage device:
 - a. Ensure the USB storage device has been inserted to the DVR.
 - b. On the Event List, select the desired event(s) and then click the **Copy** button.
3. To play back an event recording, you can try either way:
 - On the Event List, double-click on an event, the Event Playback page appears
 - On the Event List, click on an event and then click the **Play** button on the Function bar, the Event Playback page appears
 - On the Event List (Detail list), click the **Playback** button of an event, the Event Playback page appears


	Channel	Type	Date	Start Time	End Time	Size	Playback
<input checked="" type="checkbox"/> 1	CH1	MN	03/08/2019	10:13:12	10:17:28	192MB	


Event Playback page



【Event List】 You can perform the below functions using the Event List.

Playback: There are two ways:

- Double-click on an event can start playing back the event recording.
- Click on an event and then click the **Playback** button  to start playing back.

Copy: Check the event boxes to select the events and then click the **Copy** button  can back-up the event recordings to the USB storage device.

【Playback View】 You can perform the below functions using the Playback View.

Digital Zoom: Scroll the Playback View to zoom in or zoom out the images. You can also use your mouse to drag the image to the desired positions to spot on a specific area.

Digital Zoom (PIP): Click the **Zoom** button on the Playback Control Panel and then scroll mouse upward/downward to zoom in/out, a **Navigation Box** will be displayed on the **Preview Window**. For more details about the operation, please refer to 3.4.1 *Digital Zoom (PIP)*.

Return to the Event Playback Page: Right-click on the Playback View can return to the Event Playback page. You can also click the **Return** button on the Playback Control Panel to return to the Event Playback page.

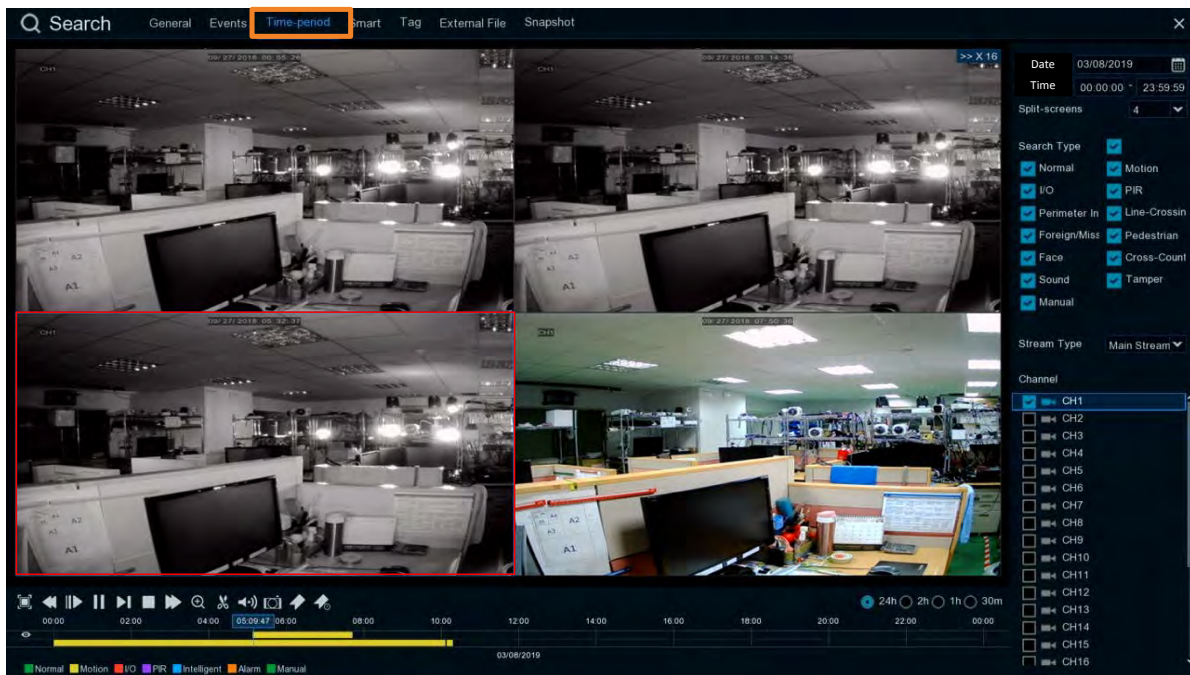
【Event Info】 On the Event List, click on an event, the information of the clicked event will be displayed here.

【Playback Control Panel】 You can use this panel to operate the playback function. Please refer to 4.7.2 *Playback Control Panel* for more details.

4.7.3.3 Time-Period

Click the Time-Period tab to enter this page. Time-Period function allows you to divide a recording into several segments with equal time-length; and then play back the segments simultaneously.

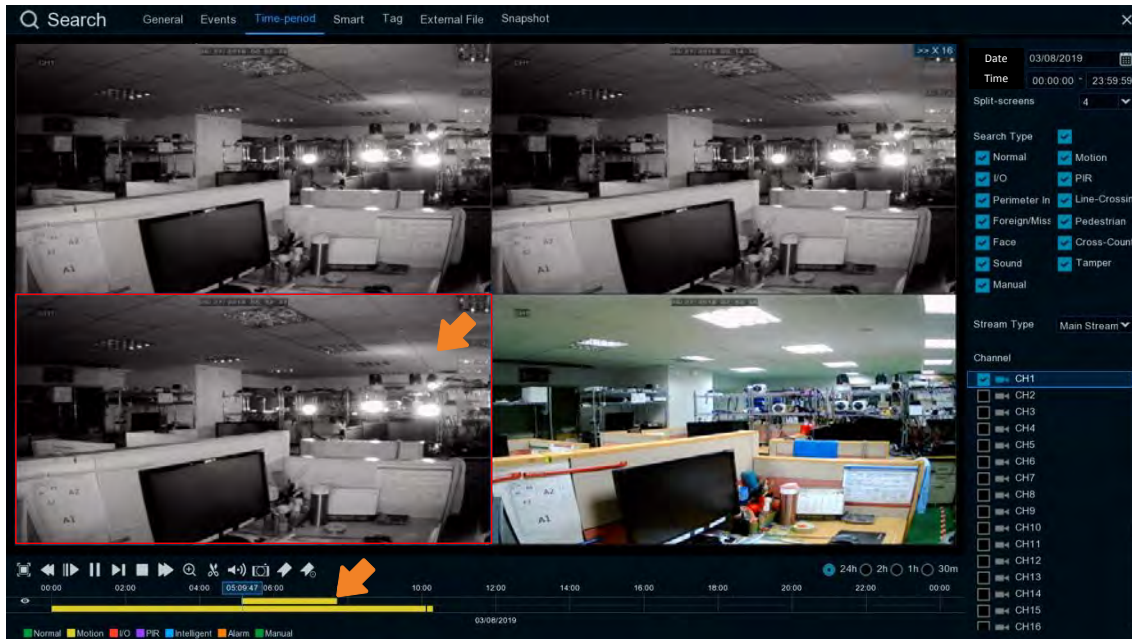
For example, for a 60-minute recording, if you select 4 split-screen, the recording will be divided into 4 segments with 15-minute in length each. If you select 6 split-screen, the recording will be divided into 6 segments with 10-minute in length each.



1. Click the **Sub-period** tab on the top to enter the Sub-Period Playback page.
2. Click the **Calendar** button to select a date.
3. Click the **Time** column to select a time range.
4. Select a split number from the Split-screens drop-down list.
5. Select a **Search Type**.
6. Select a **Stream Type**. For this function to work, you will have to configure the record stream setting to Dual Streams (please refer to 4.2.2.1 Record).
7. Select a channel for Sub-period playback by checking the checkbox of the channel.
8. Click the **Play** button on the Playback Control Panel to start playing back. Please refer to 4.7.2 Playback Control Panel for more details about Playback Control Panel.
9. You can also single-click on each segment on the playback layout to start playing back from the selected segment. To perform this function, on the playback layout, single-click on a segment, the clicked segment will be highlighted with a red frame. At the same time, you can see the recording of the segment displayed on the time bar (upper one).

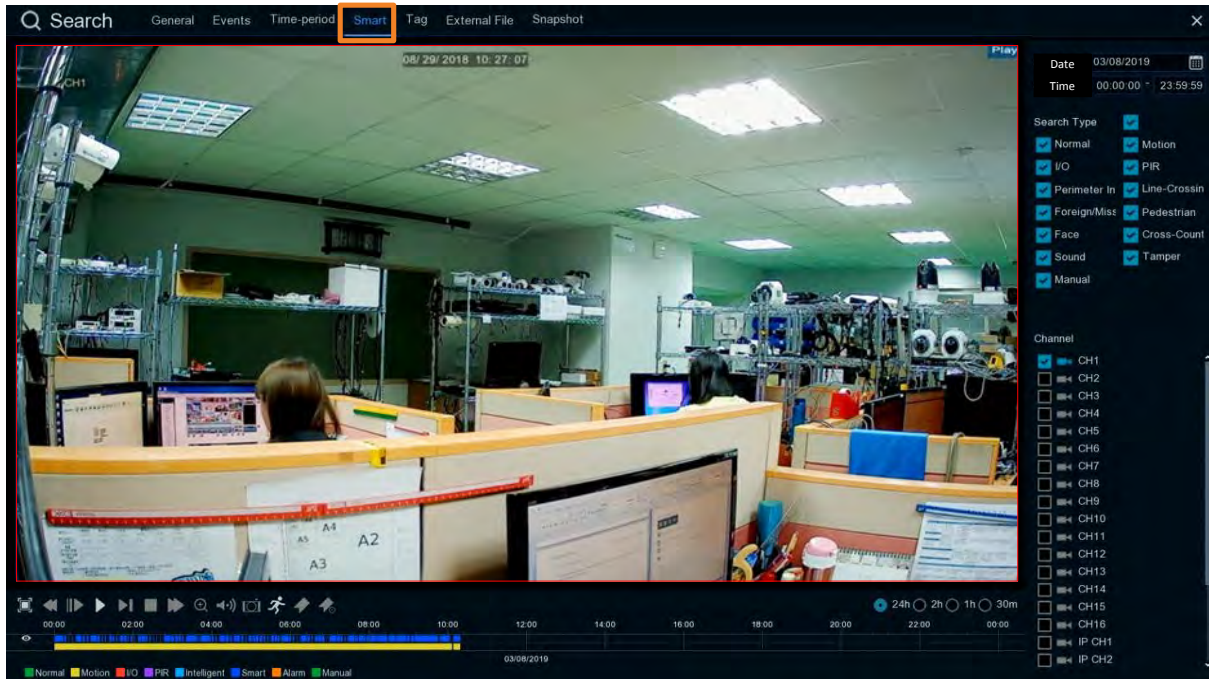


Take the below image for example, on the playback layout, the third segment has been clicked, therefore, the segment has been highlighted with a red frame. On the time bar, you can see two lines: upper one and lower one. The upper time bar indicates the clicked (selected) segment; while the lower bar indicates the whole recording of the channel.




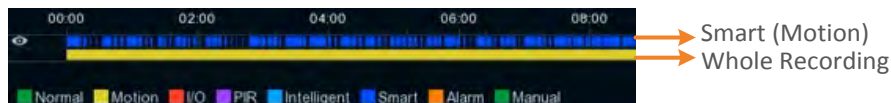
4.7.3.4 Smart

Smart Playback allows you to easily search and play back the motion events in one or more specific areas of a channel.



To perform the Smart Playback function:

1. Click the **Calendar** button to select a date.
2. Click the **Time** column to select a time range.
3. Select the **Search Type**.
4. Select a channel for smart playback by checking the checkbox of the channel.
5. Click the **Play** button on the Playback Control Panel to start playing back.
6. By default, the whole area of the live image is defined as the smart area. To re-define the smart area(s), click the **Motion** button  on the Playback Control Panel to enter the Smart Area Define page. Please refer to **Defining Smart Areas** below.
7. Click the **Search** button on the Smart Area Define page to return to the Smart Playback page and then click the **Play** button to start playing back. You can see the searched Smart Motion Detection recordings displayed on the time bar in blue color (upper one).



8. You can operate the smart playback function using the Playback Control Panel. Please refer to **4.7.2 Playback Control Panel** for more details.

Defining Smart Areas:

1. Follow **Step 1 ~ Step 6** above to enter the Smart Area Define page.

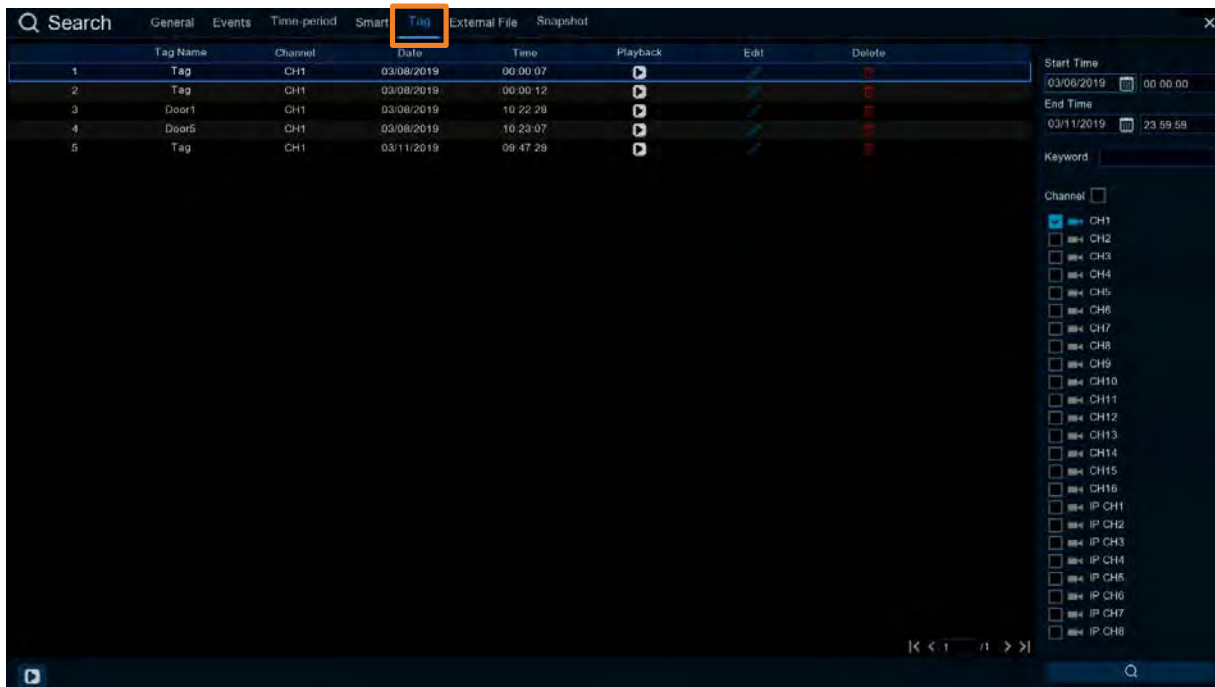


Apply All ←
 Clear All
 Search
 Return
 Click and hold it to drag it to other location

2. To define the smart area(s), click the mouse and drag it to draw an area. The area applied with the smart function will be shown with red grids. You can follow this method to draw several areas. To clear a certain area, use the same method to draw on the same area again, the smart area will be erased.
3. Click the **Search** button to start searching the motion events on the smart areas for playing back.

4.7.3.5 Tag

You can search for the tagged recordings and then play back the recordings.



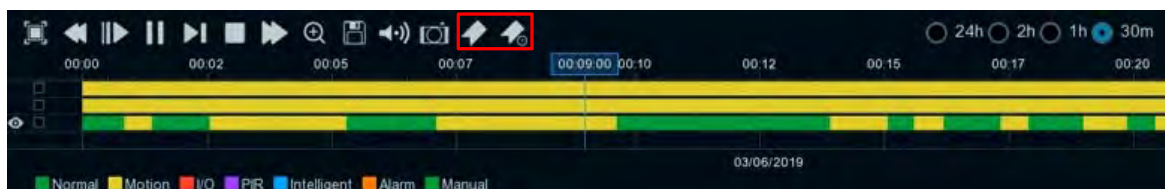
After adding tags to the recordings, you can use the Tag playback window to search for the tagged recordings.

There are two ways to add a tag:


1. On the Live View window, click the **Add customized Tag** icon on the Live Channel Toolbar. Please refer to 3.5 *Live Channel Toolbar* for more details.

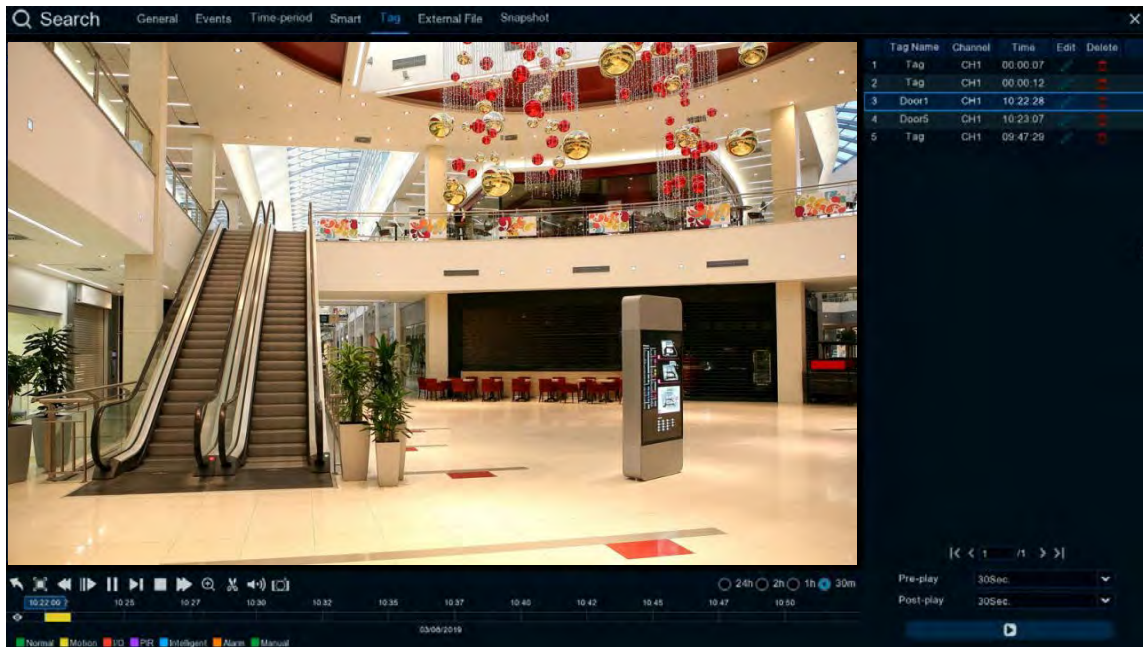


2. On the Playback windows (General, Events, Time-period, Smart), click the **Add Default Tag** or the **Add customized Tag** icon on the Playback Control Panel. Please refer to 4.7.2 *Playback Control Panel* for more details.



To play back the tagged recordings:

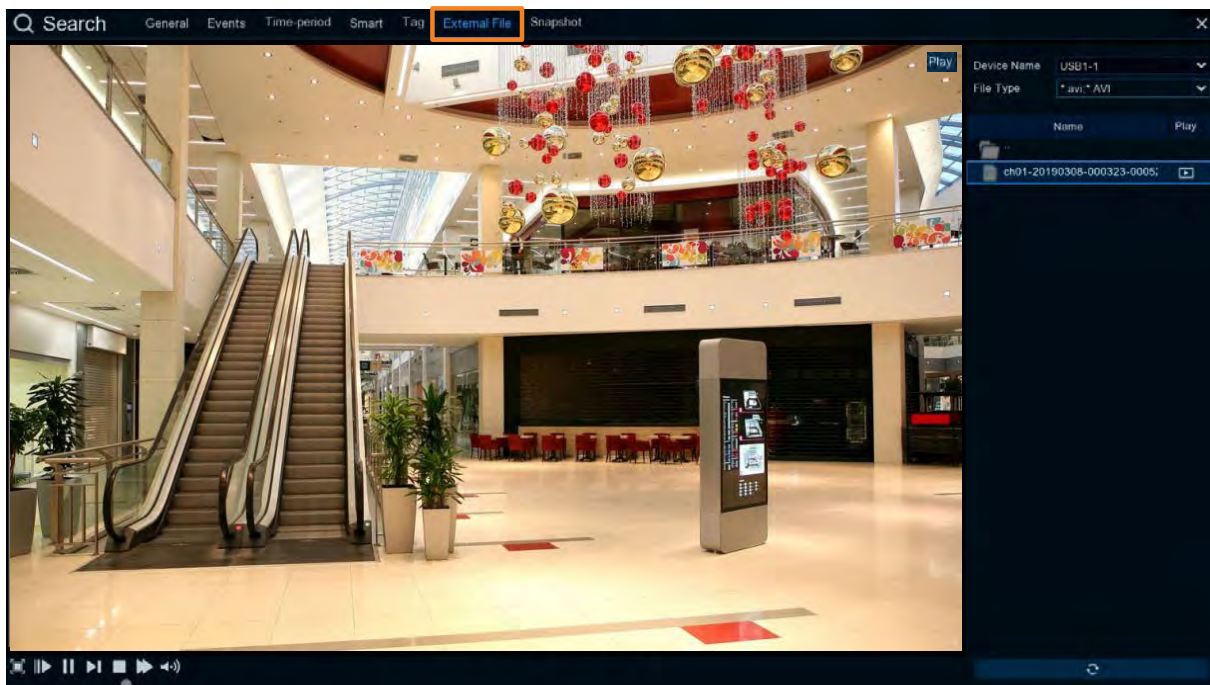
1. On the Tag playback window, select a **Start Time** and **End Time**.
2. Optionally input a keyword of the tag if you want to find the tags with customized names.
3. Select the desired channel(s).
4. Click the **Search** button , the searched tags will be displayed on the list.
5. To play back the tagged recordings, you can either double-click on the tag recording or select a tag recording and then click the **Play** button on the lower-left corner. The below playback window appears.



- a. By default, the DVR will play back the tagged recordings for 1 minute starts from 30 seconds ago of the tagged time. You can optionally adjust the playback time by selecting the **Pre-play** or **Post-play** options and then click the **Playback** button.
- b. You can edit the tag names by clicking the **Edit** icon, or delete the tags by clicking the **Delete** icon.
- c. You can now operate the tag playback function using the Playback Control Panel. Please refer to *4.7.2 Playback Control Panel* for more details.
- d. To return to the Tag playback window, click the **Close** button or right-clicking the mouse.

4.7.3.6 External File

You can play back the recordings (.avi) stored in the USB storage device using the External File Playback window.

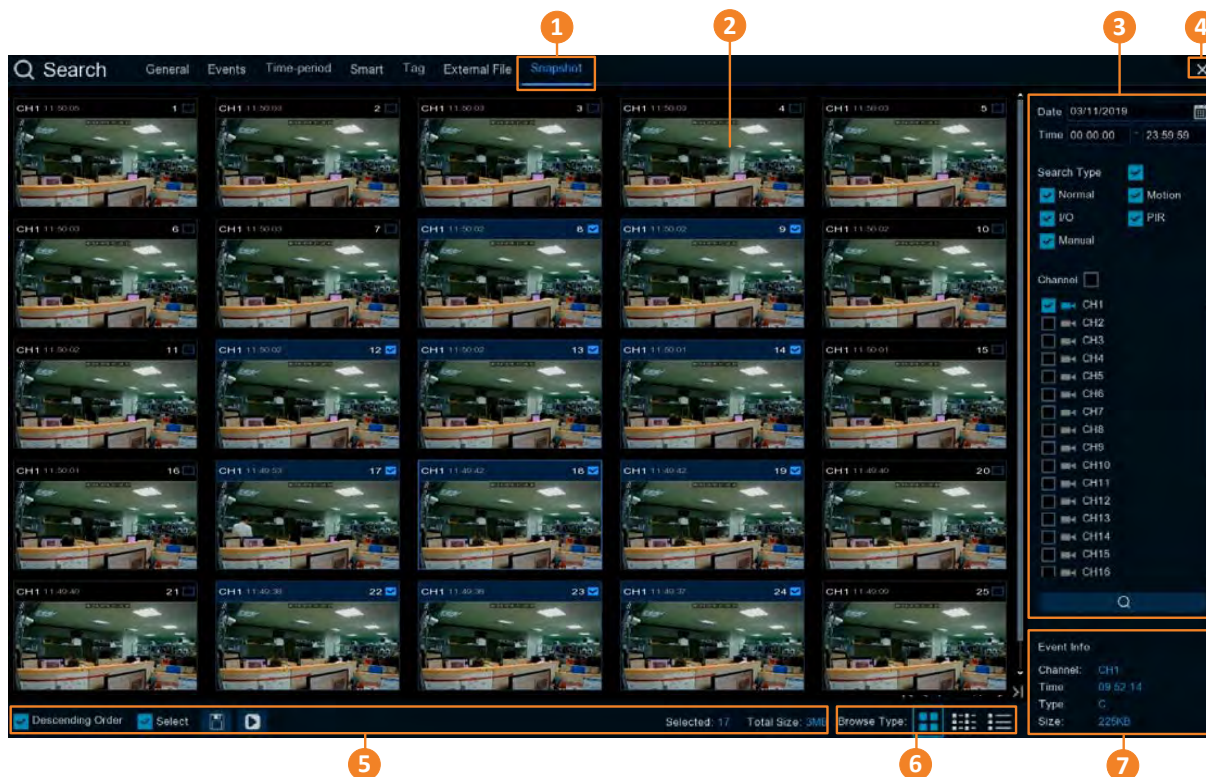


To play back the recordings (.avi) stored in the USB storage device:

1. Ensure the USB storage device has been inserted to the DVR.
2. Select the USB device from the **Device Name** drop-down box.
3. Click the **External File** tab, double-clicking the recordings on the right-side panel, the recording will be played back.

4.7.3.7 Snapshot


You can use this page to search and play back the snapshot images and backup the images to a USB storage device.



No.	Name	Description
1	Snapshot	Click to enter the Snapshot Playback window.
2	Snapshot List	The searched snapshot images will be listed on the Snapshot List. You can display the Snapshot List in Thumbnail, List or Details mode. Please refer to No.6 .
3	Search Panel	You can use this panel to search for the snapshot images based on the selected attributes including date and time, record mode, and channels.
4	Close Button	You can click the Close button to close the Snapshot Playback window and return to the Live View window. You can also close the Snapshot Playback window by right-clicking the mouse.

5	Function Bar	<p><u>Descending order</u>: Click to display the snapshots in descending order.</p> <p><u>Select</u>: Check the box to select all the snapshots on the list. Uncheck the box to deselect all the snapshots on the list.</p> <p><u>Copy</u>: Select the snapshot(s) on the list and then click the Copy button to backup the selected snapshot images to the USB storage device.</p> <p><u>Play</u>: Click a snapshot on the list and then click the Play button to play back the snapshot images starting from the clicked one.</p> <p><u>Selected</u>: The number of selected snapshot(s) on the list will be displayed here.</p> <p><u>Total Size</u>: The total size of selected snapshot(s) on the list will be displayed here.</p>
6	Browse Type	Click to display the snapshot list with Thumbnail, List or Details mode.
7	Event Info	Click an image on the Snapshot List, the information of the clicked snapshot image will be displayed here.

1. To search for snapshot images:

- Click the **Calendar** button to select a date.
- Click the **Time** column to select a time range.
- Select the desired **Search Type(s)** and channel(s).
- Click the **Search** button , the search results will be displayed on the Snapshot List.
- You can click the left or right buttons to browse between pages, or input the page number you want to browse.



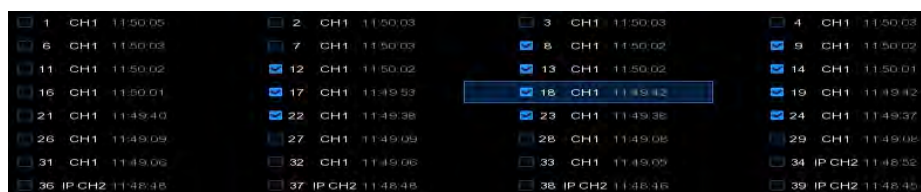
- You can switch the Snapshot List display mode by clicking the Thumbnail, List or Details button.



Thumbnail: Click to display the events with thumbnail images.



List: Click to display the snapshots in list.





Details: Click to display the snapshots in detailed list.

	Channel	Type	Date	Time	Size	Playback
1	CH1	Manual	08/29/2018	11:50:05	245KB	
2	CH1	Manual	08/29/2018	11:50:03	245KB	
3	CH1	Manual	08/29/2018	11:50:03	245KB	
4	CH1	Manual	08/29/2018	11:50:03	245KB	
5	CH1	Manual	08/29/2018	11:50:03	245KB	

Playback: Click the **Playback** icon in the Playback column can display the snapshot image. You can then click the buttons to display the next or previous snapshot image.

g. On the Snapshot List, click on a snapshot image and its information will be displayed at the lower-left corner.

2. To back up snapshot images to the USB storage device:

- Ensure the USB storage device has been inserted to the DVR.
- On the Snapshot List, select the desired snapshot(s) and then click the **Backup** button.

3. To play back a snapshot images continuously:

- On the Snapshot List, click on a snapshot and then click the **Play** button on the Function bar, the Image Playback page appears.
- The system will automatically play back the snapshot images starting from the clicked one to the last one.

Snapshot Playback page

The screenshot shows the Snapshot Playback interface. The main area displays a video feed of a control room with multiple workstations and monitors. The timestamp at the top of the video feed is 08/29/2018 11:50:01. On the right side, there is a 'Snapshot List' panel with a table of snapshots. Below the list, there is a 'Selected' count and 'Total Size'. At the bottom right, there is an 'Event Info' panel showing details for the selected snapshot.

Snapshot List

Channel	Type	Time
1	CH1	C 09:52:14
2	CH1	C 09:52:12
3	CH1	C 09:52:12
4	CH1	C 09:52:10
5	CH1	C 09:52:10
6	CH1	C 09:52:09
7	CH1	C 09:52:08
8	CH1	C 09:52:06
9	CH1	C 09:52:06
10	CH1	C 09:52:04
11	CH1	C 09:52:04
12	CH1	C 09:52:02
13	CH1	C 09:52:00
14	CH1	C 09:52:00
15	CH1	C 09:51:58
16	CH1	C 09:51:56
17	CH1	C 09:51:52

Selected: 17
Total Size: 3MB

Event Info


Channel: CH1
Time: 09:52:06
Type: C
Size: 229KB

Playback Control Panel

【Snapshot List】 You can perform the below functions using the Event List.

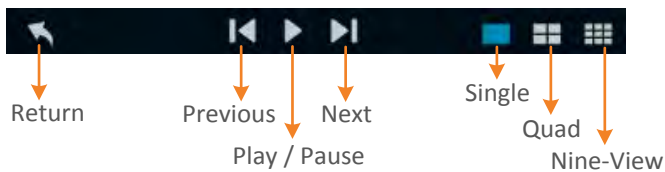
Image Display: Click a snapshot image on the list can display the image on the viewing window.

Continuous Playback: Click a snapshot image on the list and then click the **Play** button on the Playback Control Panel, the snapshot images will be automatically playing back continuously starting from the clicked one to the last one.

Copy: On the Snapshot List, check the snapshot boxes to select the snapshots and then click the **Copy** button  can back-up the snapshot images to the USB storage device.

【Event Info】 On the Snapshot List, click on a snapshot, the information of the clicked snapshot image will be displayed here.

【Playback Control Panel】 You can use this panel to operate the playback function.



Return: Click to return to the Picture search page.

Previous: Click to display the previous image.

Play / Pause: Click to start playing back or pause playing back the continuous snapshot playback.

Next: Click to display the next image.

Single: Click to display the snapshot images in single view.

Quad: Click to display the snapshot images in quad view (displaying 4 images at a time).

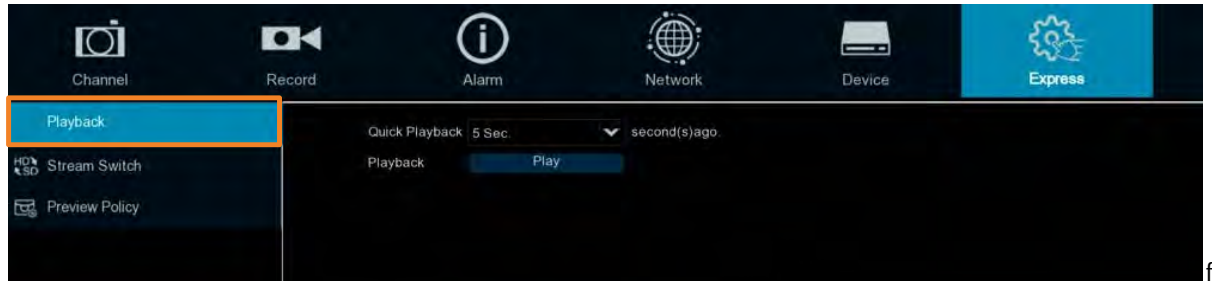
Nine-View: Click to display the snapshot images in nine-view (displaying 9 images at a time).

4.8 Express

4.8.1 Quick Playback

You can configure the start playback time for the Quick Playback function. Select a time from the drop-down box to set up playing back from how many time ago.

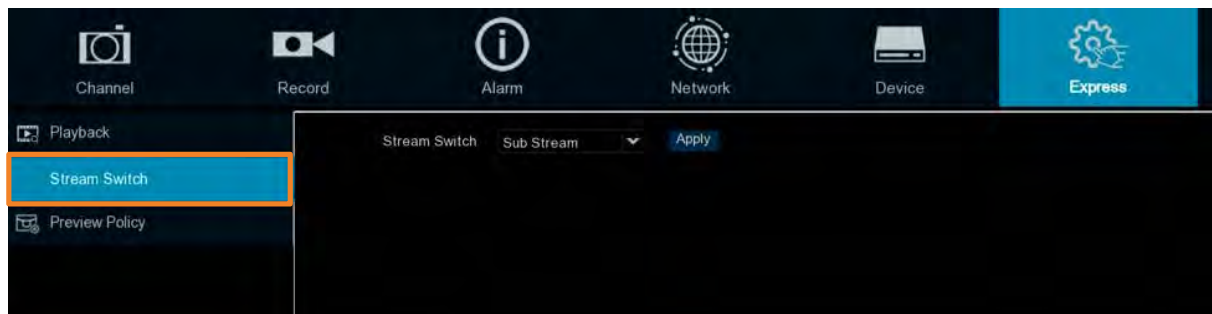
After the configuration, you can activate the function by clicking the **Quick Playback** icon on the **Live Channel Tool Bar** on each channel (please refer to 3.4 Live Channel Tool Bar).



4.8.2 Stream Switch

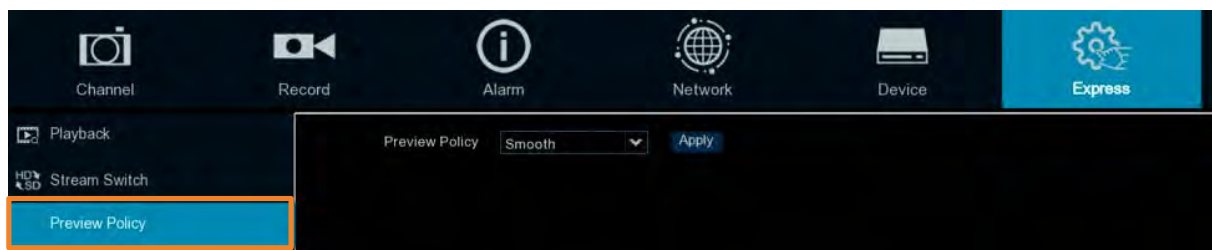
This function is only available for IP cameras. You can set up a stream mode for all IP channels on the live view window. Select **Main Stream** or **Sub Stream** and then click the **Apply** button.

To adjust the Main Stream or Sub Stream configurations, please refer to 4.2.1 Stream.



4.8.3 Preview Policy

You can set up a displaying quality for all channels on the live view window. Select among realtime, balanced or smooth view. The view modes affect only the live view video quality by bit rate and frame rate but do not affect the recording quality.



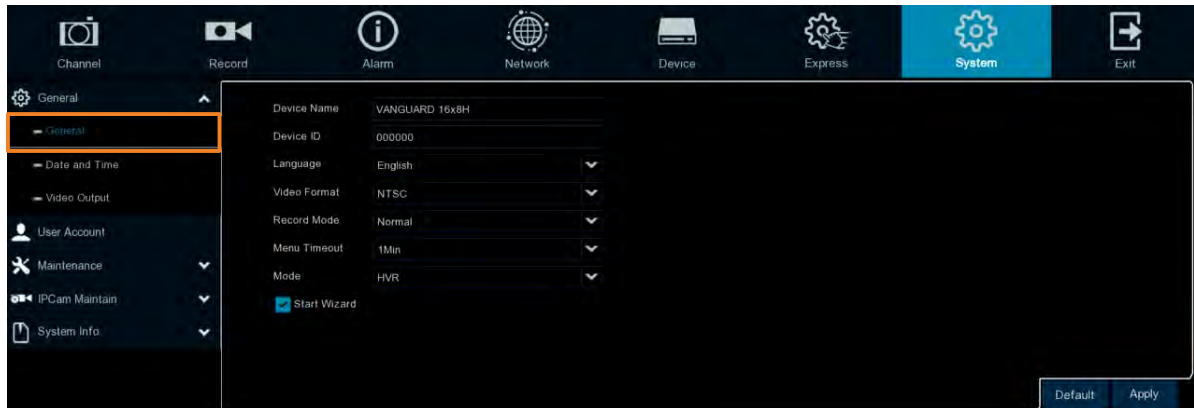
4.9 System

You can configure most of the system settings on the Main Menu.

4.9.1 General

4.9.1.1 General

You can configure the general system settings on this page.



Device Name: Input a desired name for your DVR. The name can include both letters and numbers.

Device ID: Enter the desired ID for your DVR. The device ID is used to identify the DVR, and can only be composed of numbers. For example, 2pcs DVRs are installed in the same place, the Device ID is 000000 for one of the DVRs, and 111111 for another DVR. When you want to operate the DVR with a remote controller, both of the DVR may receive the signal from controller & act at the same time. If you want to control only the DVR with ID 111111, you can input the Device ID 111111 in login page with remote controller for further operations.

Language: Select a language.

Video Format: Select **NTSC** or **PAL** for the system.

Record Mode: Select a record mode, **Normal (4k)** or **5MP Mode**. The recording FPS options will be different when **Normal Mode (4k)** or **5MP Mode** is selected. For more details about recording FPS, please refer to 4.2.1 Stream.

Menu Timeout: Select a timeout time for the OSD menu to automatically exit. Select **Off** for the OSD menu to display continuously.

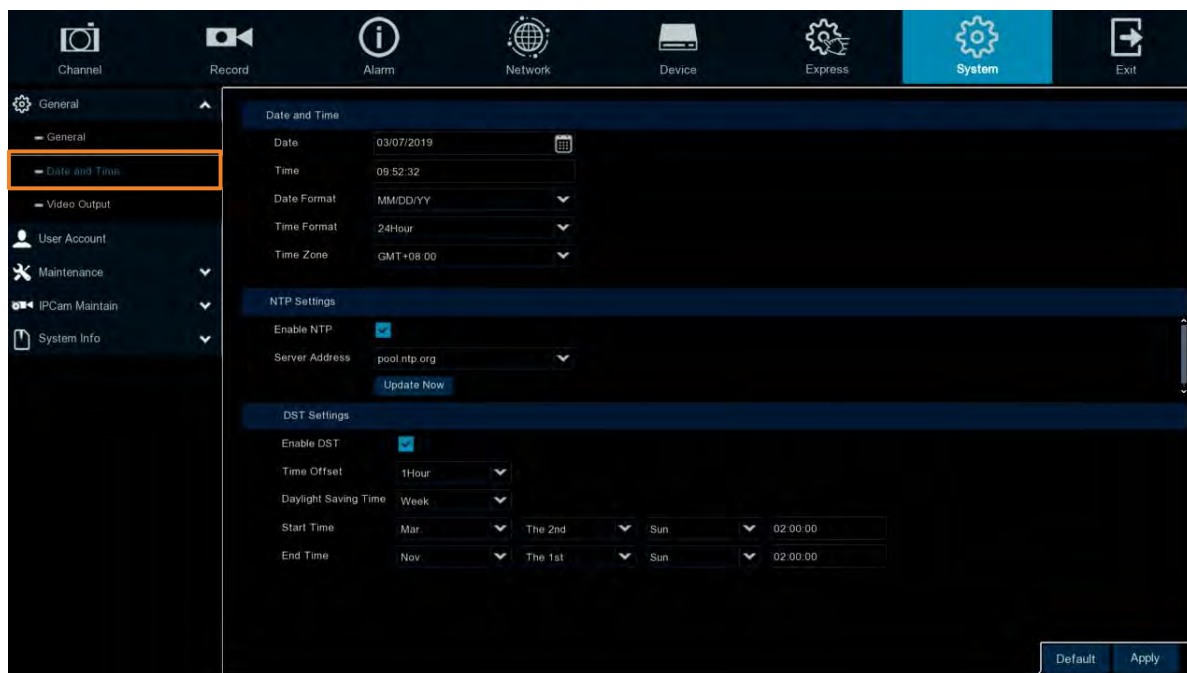
Mode: Select **DVR** if you only want to connect FHD cameras to the DVR; or select **HVR** if you want to connect both of the FHD cameras and IP cameras to the DVR.

Show Wizard: Check the box to enable starting the Startup Wizard every time when system starts.

Default: Click to apply the default setting.

Apply: Click to save the settings.

4.9.1.2 Date and Time



【Date and Time】

Date: Set up the date for the system.

Time: Set up the time for the system.

Date Format: Select a format for the date.

Time Format: Select a format for the time.

Time Zone: Select a time zone relevant to your region.

【NTP Settings】

The NTP (Network Time Protocol) function allows your DVR to automatically sync its clock with a time server. This gives it the ability to constantly have an accurate time setting (your DVR will periodically sync automatically).

Enable NTP: Check the box to enable the NTP function. When NTP function is enabled, the system will calibrate the system time at 00:07:50 daily and every time when the system is started up.

Server Address: Select a NTP server.

Update Now: Click to calibrate the system time.

【DST Setting】

The DST (Daylight Saving Time) function allows you to select the amount of time that Daylight Saving has increased by in your particular time zone or region.

Enable DST: Check the box to enable the DST function.

Time Offset: Select the amount of time that Daylight Saving has increased by in your time zone. This refers to the difference in minutes, between Coordinated Universal Time (UTC) and the local time.

Daylight Saving Time: Select **Week** or **Date** to configure the start/end time below.

Week: Select a month, a particular day and time when Daylight Saving starts and ends. For example, 2am on the first Sunday of a particular month.

Date: Select the start date (click the calendar icon), end date and time when Daylight Saving starts and ends.

Start Time: Select a start time for the DST to start.

End Time: Select an end time for the DST to stop.

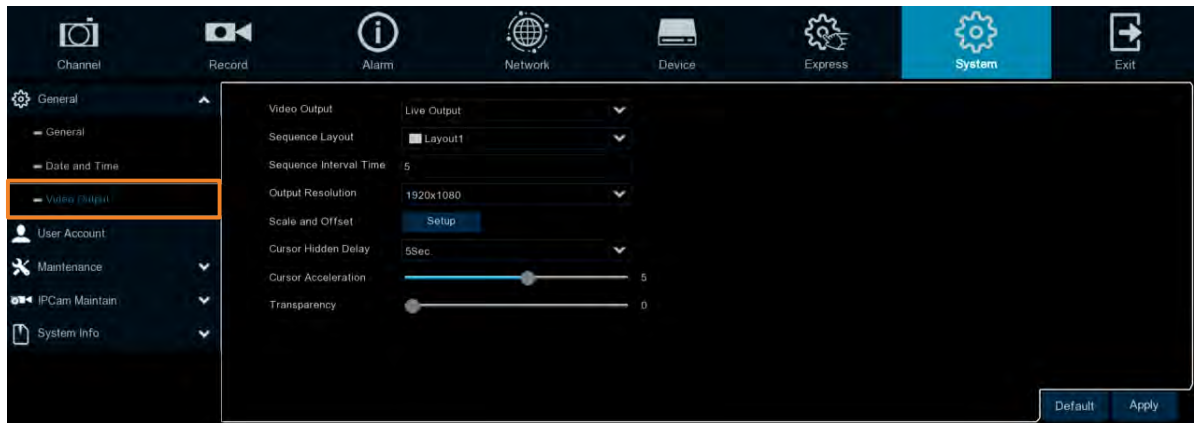
Default: Click to apply the default setting.

Apply: Click to save the settings.

4.9.1.3 Video Output

You can configure the Main monitor and Call monitor settings on this page.

Main Monitor Setting



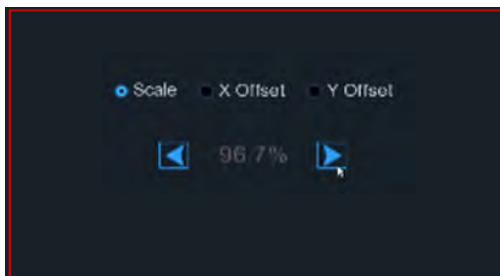
Video Output: Select **Live Output** (Main Monitor) and then configure the below settings.

Sequence Layout: Select a layout for the sequence mode. For example, if you select Layout4, the DVR will display a quad view layout for all channels in sequence order. To start the sequence mode, go to OSD menu > Layout and then click the **Auto Sequence** button. Click the button again to stop sequence mode.

Sequence Interval Time: Input a sequence interval time in second. By default, 5 seconds is set up.

Output Resolution: Select a live resolution to be displayed on the output monitor. 1920 x 1080 will suit most TVs. If your DVR supports 4K output resolution, you can select either 2K (2560 x 1440) or 4K (3840 x 2160) to take advantage of the higher resolution that your 4K TV provides.

Scale and Offset: The DVR supports to adjust the size and position of the display screen to match your monitor or TV. Click the **Setup** button to adjust.



Scale: To adjust the size of the displayed screen by scale.

X Offset: To move the displayed screen to the left or right.

Y Offset: To move the displayed screen to the top or bottom.

Click once or long press the left button of your mouse on the arrow to adjust the size and position, or you can scroll the wheel of the mouse to adjust. Click the right button of your mouse to exit, and click **Apply** to save your modifications.

Cursor Hidden Delay: Click the drop-down menu to select the time your DVR will hide the mouse cursor when idle. You can also disable this function by selecting **Off** (password protection will be temporarily disabled).

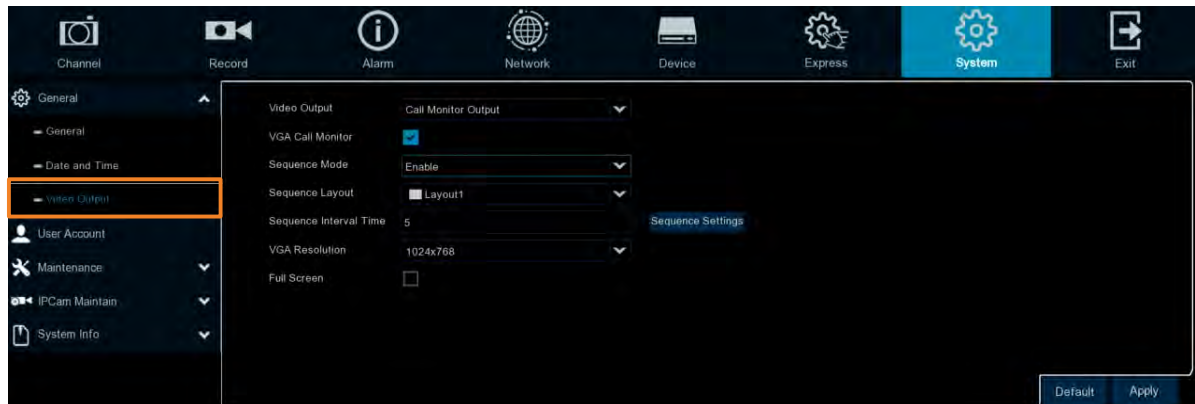
Cursor Acceleration: To adjust the speed to move the mouse cursor.

Transparency: Slide the bar to the left or right to adjust the transparency for the OSD Setup menu.

Default: Click to apply the default setting.

Apply: Click to save the settings.

Call Monitor Setting



Video Output: Select **Call Monitor Output** and then configure the below settings.

VGA Call Monitor: Check the box to enable the Call Monitor function.

Sequence Mode: Select **Enable** to enable sequence mode or **Disable** to disable sequence mode.

Sequence Layout: This function only appears when **Enable** is selected from the **Sequence Mode** field. Select a layout for the sequence mode. For example, if you select Layout4, the DVR will display a quad view layout for all channels in sequence order. To start the sequence mode, go to OSD menu > Layout and then click the **Auto Sequence** button. Click the button again to stop sequence mode.

Sequence Interval Time: This function only appears when **Enable** is selected from the **Sequence Mode** field. Select a sequence dwell time in second. By default, 5 seconds is set up. Click **Sequence Settings** to enable the sequence mode for the selected channels.

Layout Mode: This function only appears when **Disable** is selected from the **Sequence Mode** field. You can configure the layout mode for the Call Monitor. Select a layout from the drop-down list and then click **Layout Settings** to assign channels to the layout.

VGA Resolution: Select a live resolution to be displayed on the output monitor.

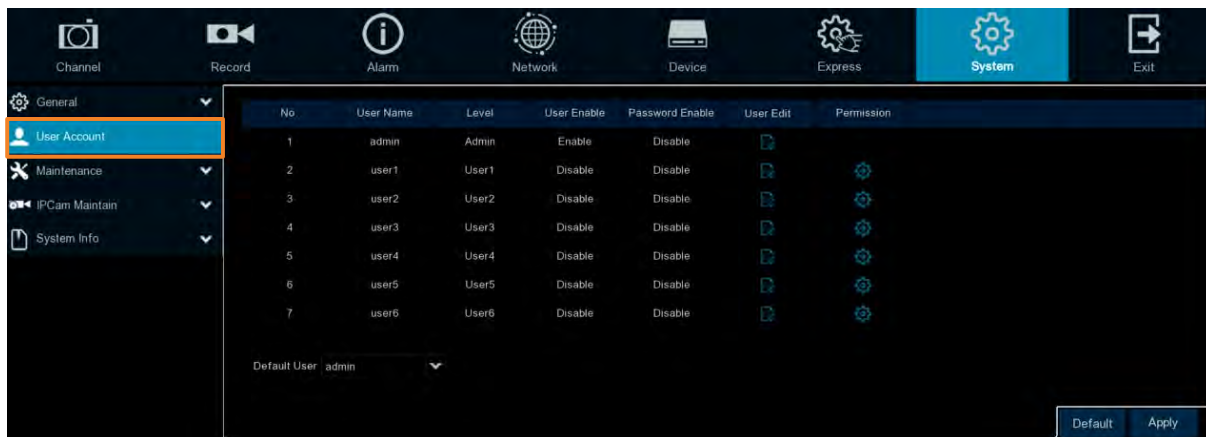
Full Screen: Check the box to enable Full Screen of the triggered channel.

Default: Click to apply the default setting.


Apply: Click to save the settings.

4.9.2 User Account

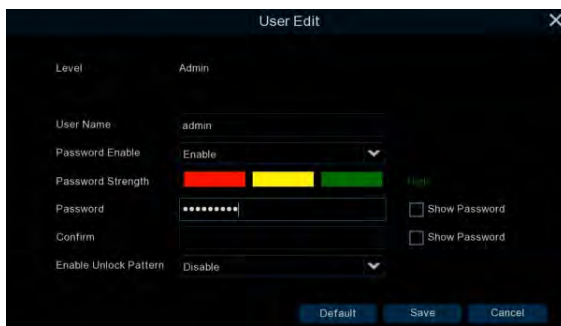
You can configure the user settings on this page. Up to 7 user accounts (1 administrator and 6 users) can be configured.



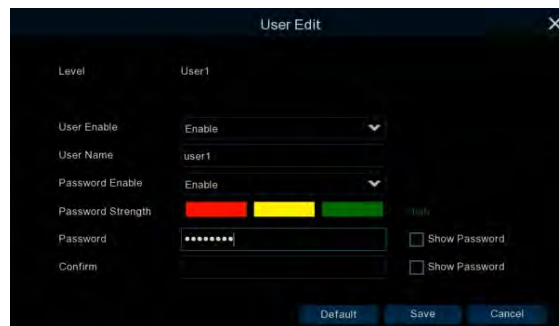
Default User: Select an user account as the default account.

User Edit: Click  to bring-up the User Edit window. You can edit the user name/password in this window. The max. length of user name is 8 characters (alphabetic or numeric); and the passwords have to be numeric (0-9) with exactly 8 characters. Select **Enable** from the **User Enable** drop-down list to enable the user account. Select **Enable** from the **Password Enable** drop-down list to enable the password (if Disable is selected, the user can login without password). Click **Save** to save the settings.


Admin Account

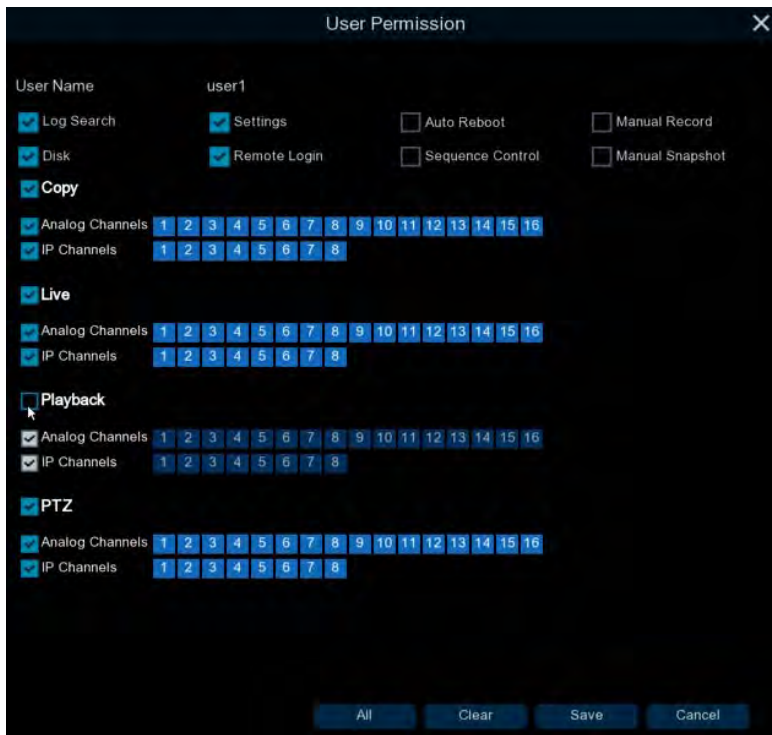


User Account



- **Enable Unlock Pattern:** Enable or disable the Unlock Pattern function.

Permission: Click  to display the User Permission window. The Administrator account has full privileges so the functions cannot be configured. In the User Permission window, check the boxes to grant functions for the selected user account. You can also set up the Copy/Live/Playback/PTZ functions to specific channels. After the configuration, click **Save** to save the settings.



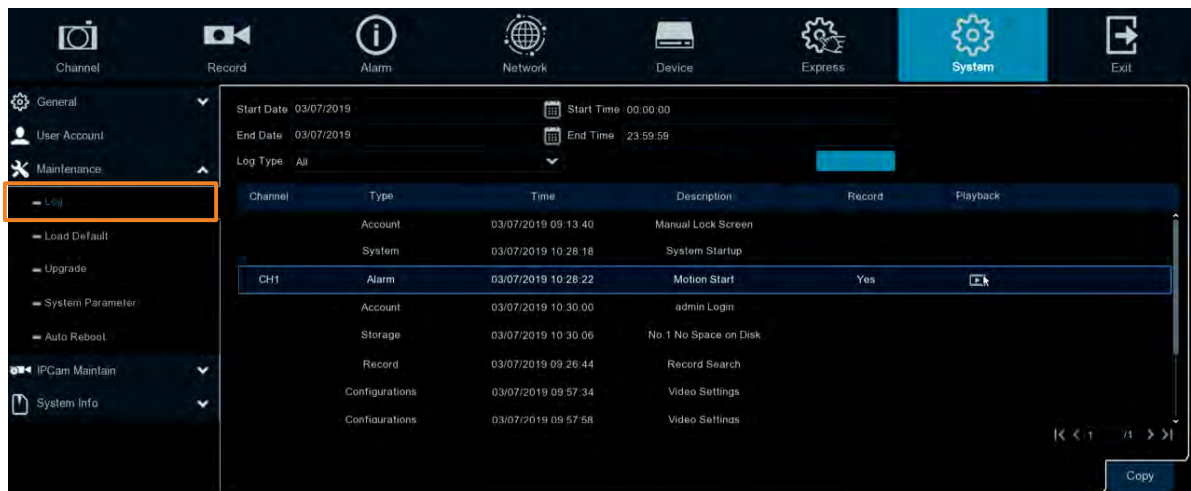
- **Log Search:** Allow users to check all the system logs.
- **Settings:** Allow users to set all the parameter settings.
- **Auto Reboot:** Allow users to auto reboot the device.
- **Manual Record:** Allows users to manually start/stop recording.
- **Disk:** Allow users to manage and control the HDD and USB storage device.
- **Remote Login:** Allow users to login the system remotely.
- **Sequence Control:** Allow users to use the sequence function.
- **Manual Snapshot:** Allow users to use the manual snapshot function.
- **Copy:** Check the **Copy** box to enable the function; and then select the desired channels to backup. This user account will be granted with the Backup function for the selected channels.
- **Live:** Check the **Live** box to enable the function; and then select the desired channels for live view display. This user account will be granted with the live view display function for the selected channels.
- **Playback:** Check the **Playback** box to enable the function; and then select the desired channels for playback. This user account will be granted with the playback function for the selected channels.
- **PTZ:** Check the **PTZ** box to enable the function; and then select the desired channels for PTZ function. This user account will be granted with the PTZ control function for the selected channels.

4.9.3 Maintenance

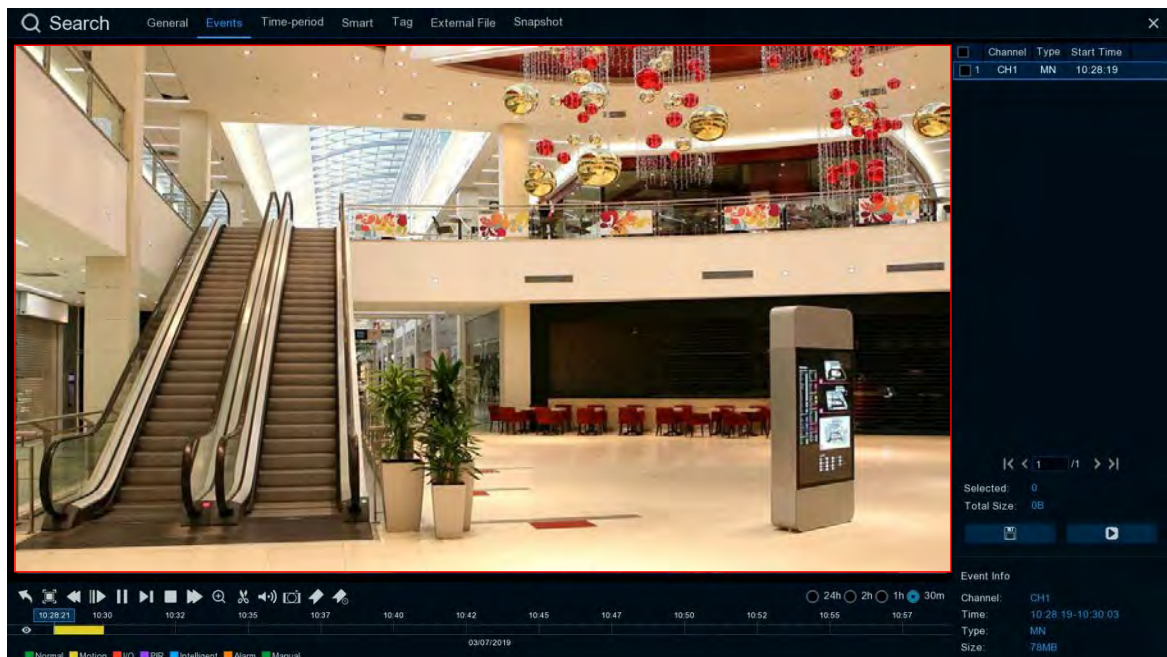
On this page, you can search and view the system log, load default settings, upgrade the system, export and import system parameters and manager system auto reboot.

4.9.3.1 Log


You can search for logs on this page. Select the start time, end time, log type and then click the **Search** button, the searched logs will be displayed on the list below. Double-click on a log from the list can bring up the Log Details window.

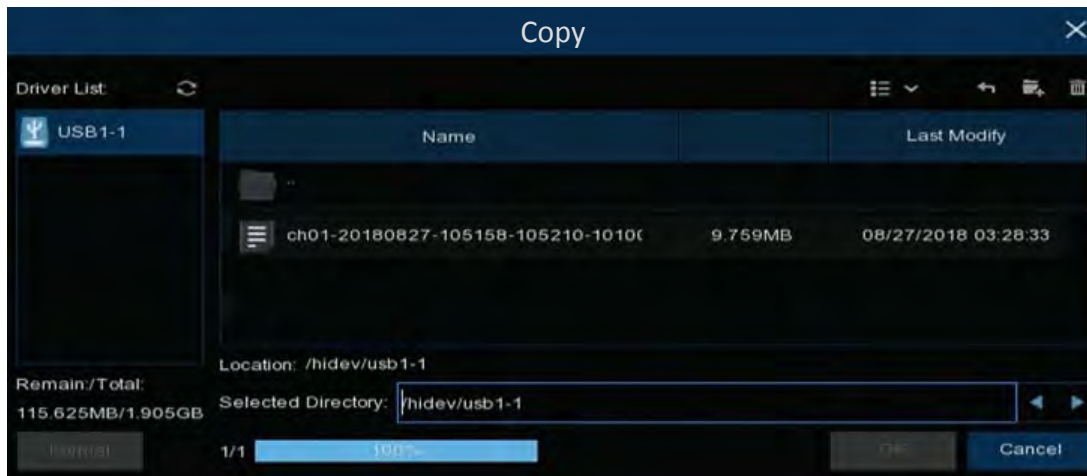


You can click the **Playback** icon in the Playback column to play back the event recording. About the playback control bar, please refer to 4.7.2 Playback Control Panel. To exit the playback mode, right click the mouse.



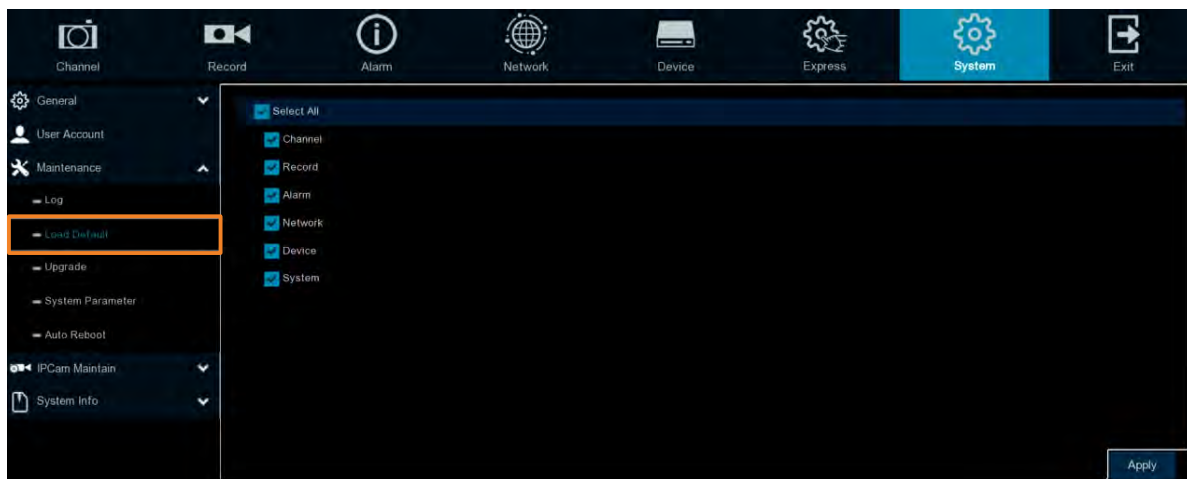
Copy: Click to save all the searched logs to the USB storage device.

Click the **Copy** button, the Copy window appears. You can also create a directory for the video clip(s) by clicking the **Directory** button  on the upper-right corner. Click the **OK** button, the copy process begins. After the copy process is complete, click the **Cancel** button to return to the **Log** page.



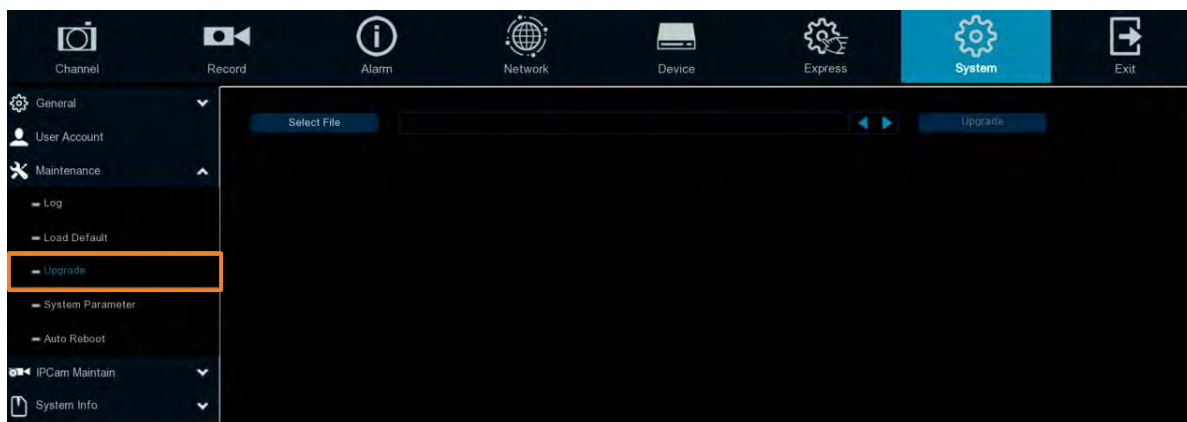
4.9.3.2 Load Default

Select the desired items to be restored to factory default and then click **Apply**. Restoring default settings will not delete recordings and snapshots saved to the hard drive.



4.9.3.3 Upgrade

You can upgrade system firmware using this page.

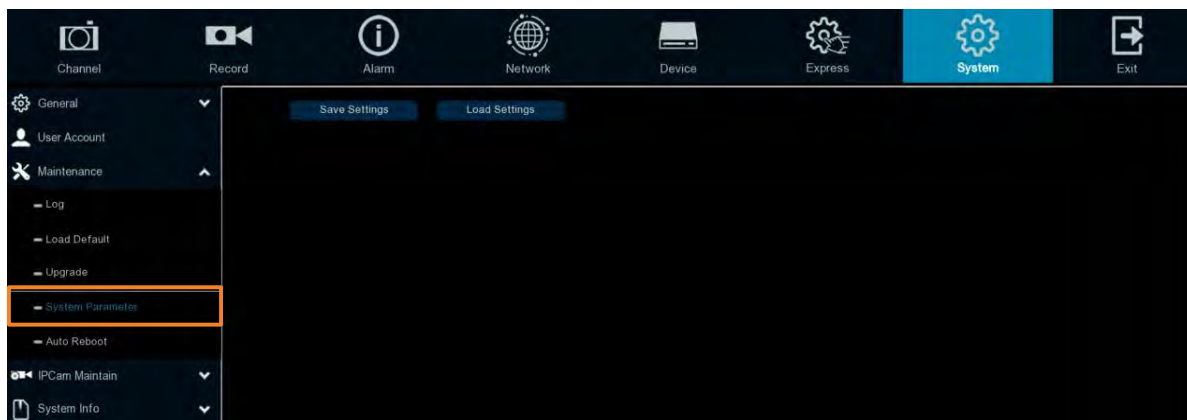


1. Restore the firmware file (.sw) in a USB storage device and insert the USB storage device to the DVR.
2. Click the **Select File** button to select the firmware file from the USB storage device.
3. Click the **Upgrade** button to start system upgrade.

Note: Do not take out the USB storage device or turn off the power during system upgrading. When the upgrade is done, the system will restart automatically.

4.9.3.4 Parameter Management

You can export the system parameters you have configured to a USB storage device, or import a system parameters file from USB storage device to the DVR.

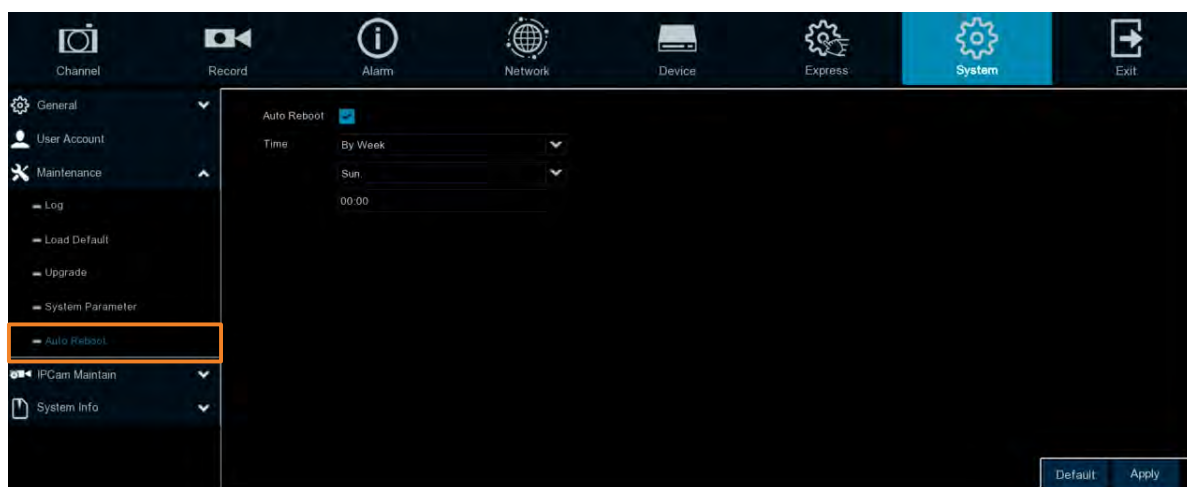


Save Settings: Click to save the DVR current system settings to the USB device. You will be required to input the Admin password to authenticate.

Load Settings: Once you have exported system parameters file, you can import the file on another DVR. Stored the file to your USB storage device and then insert the USB storage device to the DVR, click **Load Settings** to navigate the file. You will be required to input the Admin password to authenticate.

4.9.3.5 Auto Reboot

This menu allows the system to auto reboot the DVR regularly. It is recommended to leave this function enabled, as it maintains the operational integrity of your DVR.



Check the **Auto Reboot** box to enable the function and then set up the reboot time for the system to regularly reboot at the setup time. Click the **Apply** button to save the settings.

4.9.4 IPCam Maintain

This menu allows you to upgrade the IP camera's firmware and restore default settings of IP camera.

4.9.4.1 Upgrade

This menu allows you to upgrade the IP camera's firmware.



1. Select one of the IP cameras you want to upgrade firmware by checking the checkbox.
2. Click the **Select File** button to select the update file from your USB storage device.
3. Click the **IPCam Upgrade** button to start upgrading the selected IP camera. You will be required to input the Admin password to authenticate.

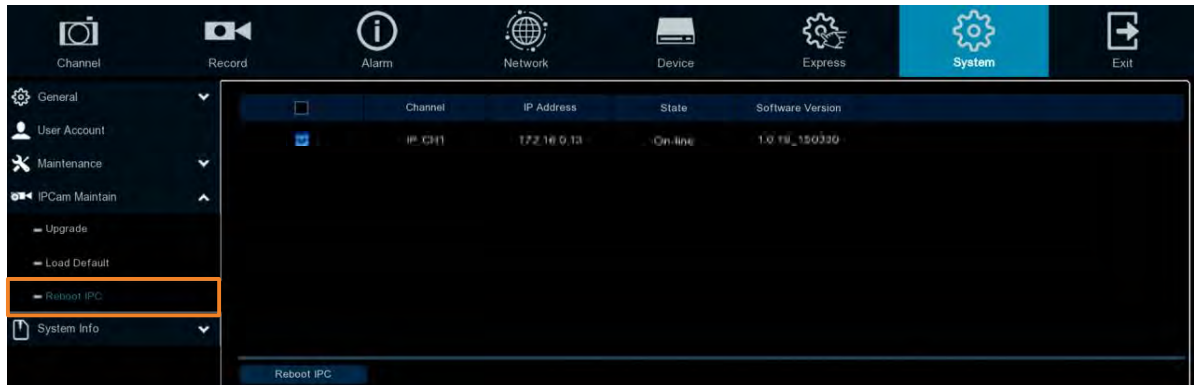
4.9.4.2 Load Default



1. Select one of the IP cameras you want to load factory default by checking the checkbox.
2. Click the **Load Default** button to start loading default. You will be required to input the Admin password to authenticate.

4.9.4.3 Reboot IPC

On this page, you can reboot the IP cameras.



1. Select one of the IP cameras you want to reboot by checking the checkbox.
2. Click the **Reboot IPC** button to start rebooting. You will be required to input the Admin password to authenticate.

4.9.5 System Info

This menu allows you to view the system information, channel information, record information and network status.

4.9.5.1 System Info

View system information such as device ID, device model name, IP address, MAC address, firmware version and more.

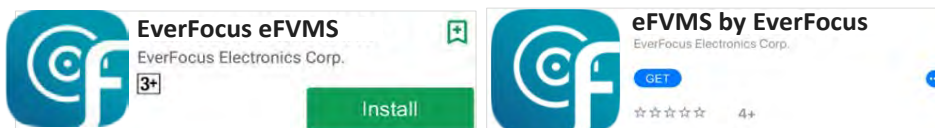


If **P2P** function is enabled, a QR code will be displayed on the Info page. You can scan the QR code with **EverFocus eFVMS App** installed on your mobile device to add and remote access the DVR. To enable the P2P function, please refer to [4.4.1.4 Port Configuration](#).

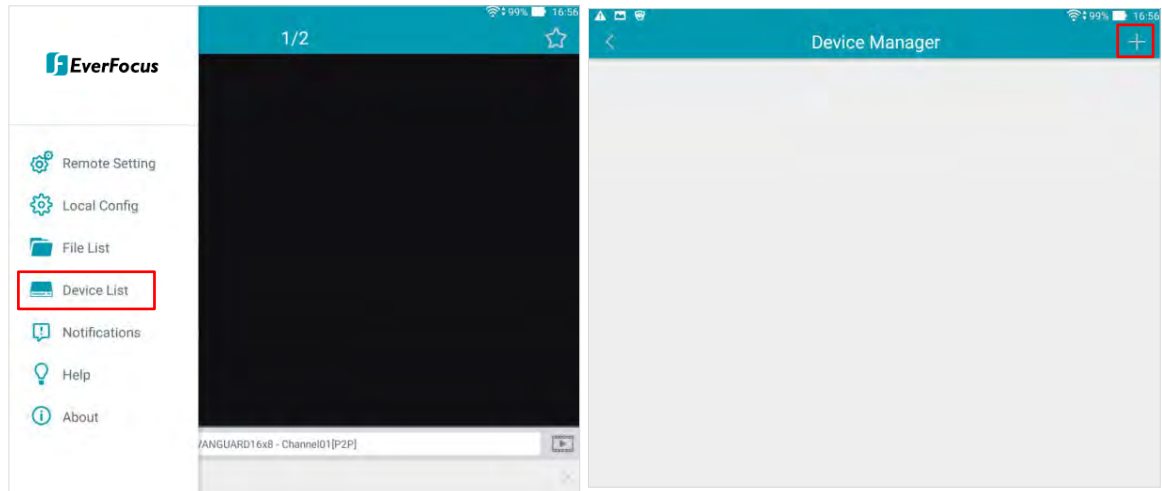
4.9.5.1.1 Performing the P2P Function

The **P2P** function allows users to add DVRs to EverFocus' **eFVMS App** through QR code.

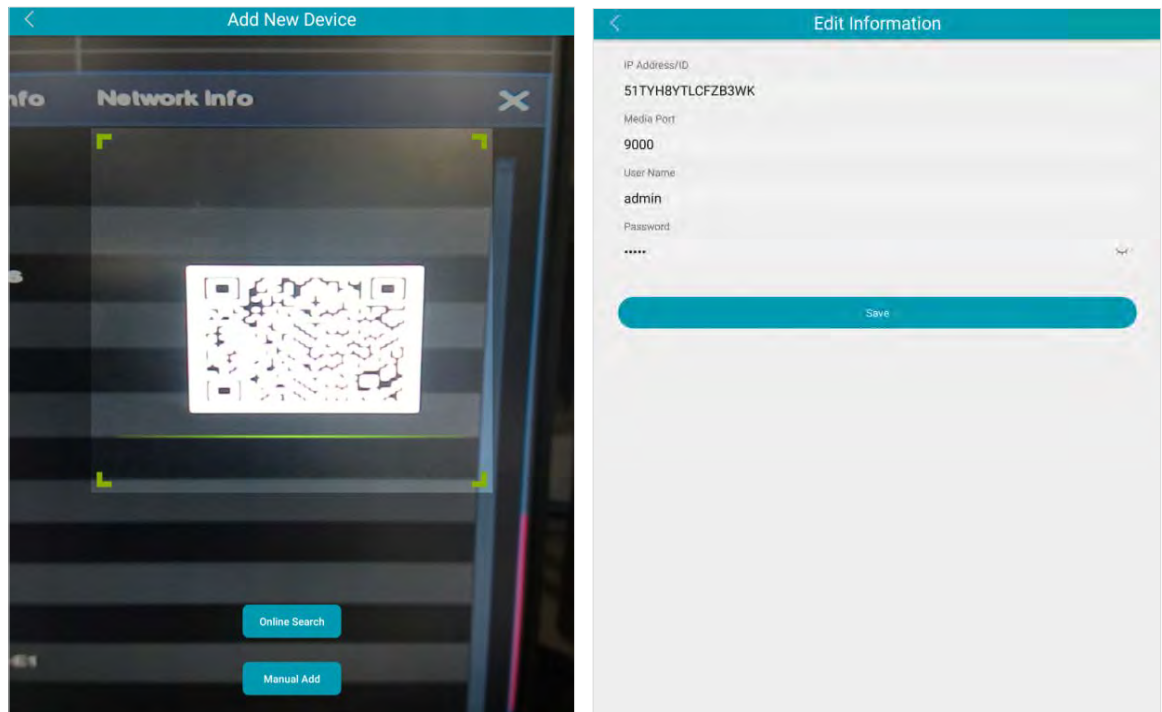
1. Install **EverFocus eFVMS App**. For Android users, go to Google Play Store. For iOS users, go to Apple Store. After the installation process is complete, start the eFVMS App.



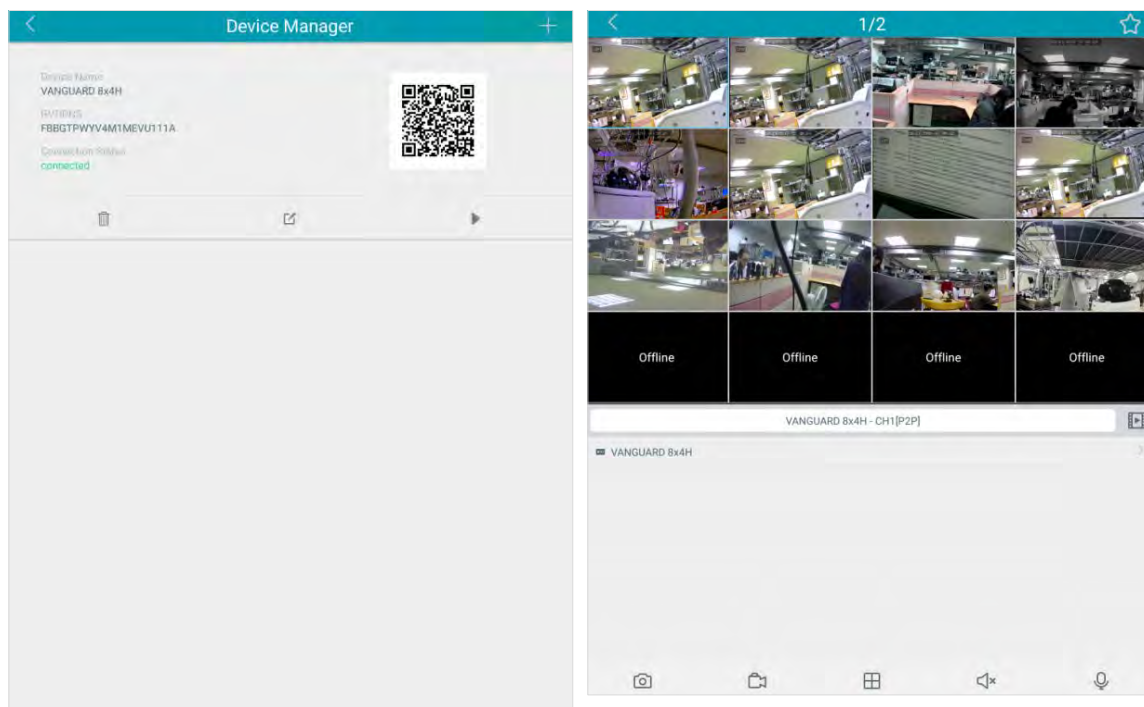
- To add a DVR through P2P, tap **Menu > Device List**, and then tap the “+” button on the upper-right corner.



- Scan the DVR’s **QR code** on the System Info page of the DVR OSD menu. Input the DVR ID, password and Media Port 8000. Tap the **Save** button.



4. The DVR is now added and connected to the App. You can start accessing the DVR.



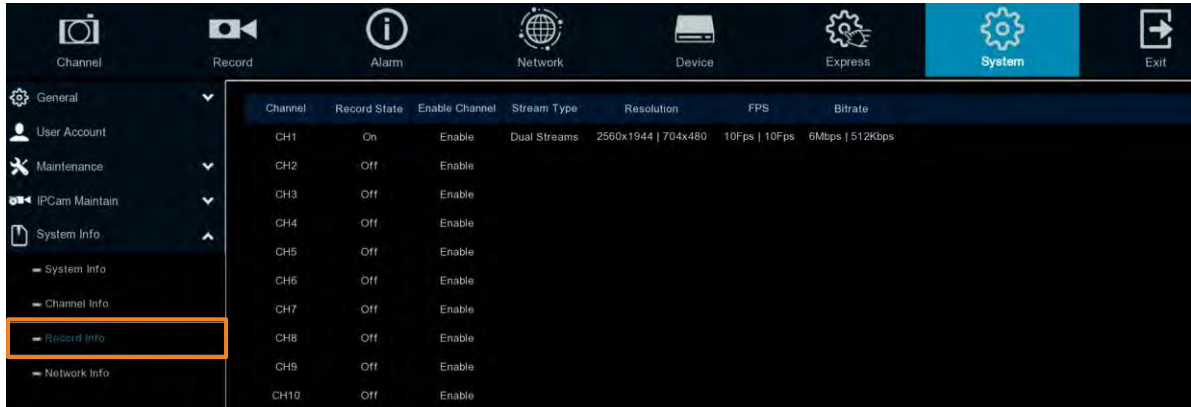
4.9.5.2 Channel Info

You can see the channel info on this page.

Channel	Alias	State	Main Stream	Sub Stream	Motion Detection	Privacy Mask
CH1	CH1	Enable	2560x1944, 10Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH2	CH2	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH3	CH3	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH4	CH4	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH5	CH5	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH6	CH6	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH7	CH7	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH8	CH8	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH9	CH9	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH10	CH10	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH11	CH11	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH12	CH12	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH13	CH13	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH14	CH14	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH15	CH15	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support
CH16	CH16	Enable	2560x1440, 15Fps, 6Mbps	704x 480, 10Fps, 512Kbps	Support	Support

4.9.5.3 Record Info

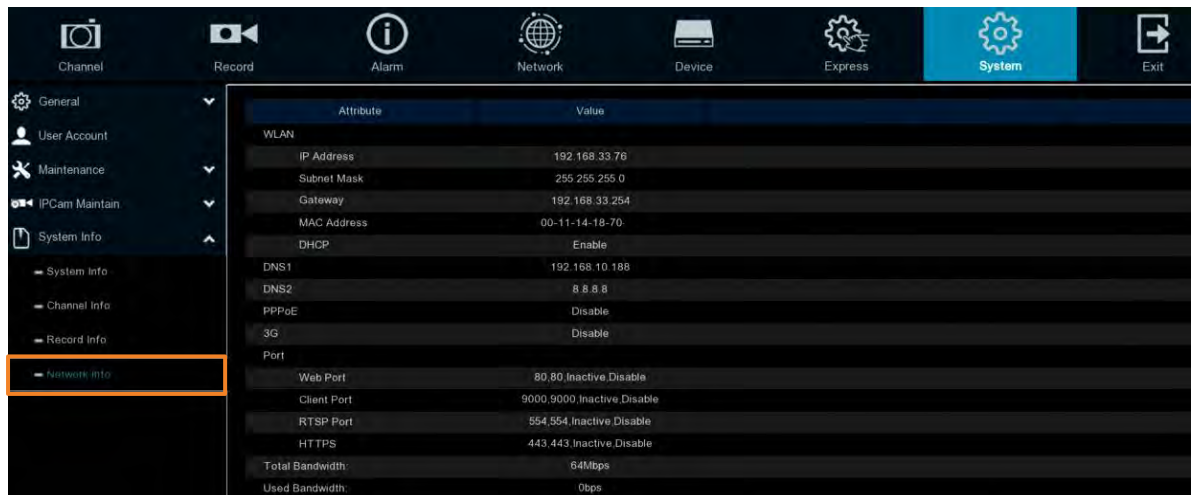
You can see the record info on this page.



Channel	Record State	Enable Channel	Stream Type	Resolution	FPS	Bitrate
CH1	On	Enable	Dual Streams	2560x1944 | 704x480	10Fps | 10Fps	6Mbps | 512Kbps
CH2	Off	Enable				
CH3	Off	Enable				
CH4	Off	Enable				
CH5	Off	Enable				
CH6	Off	Enable				
CH7	Off	Enable				
CH8	Off	Enable				
CH9	Off	Enable				
CH10	Off	Enable				

4.9.5.4 Network Info

You can see the network state on this page.



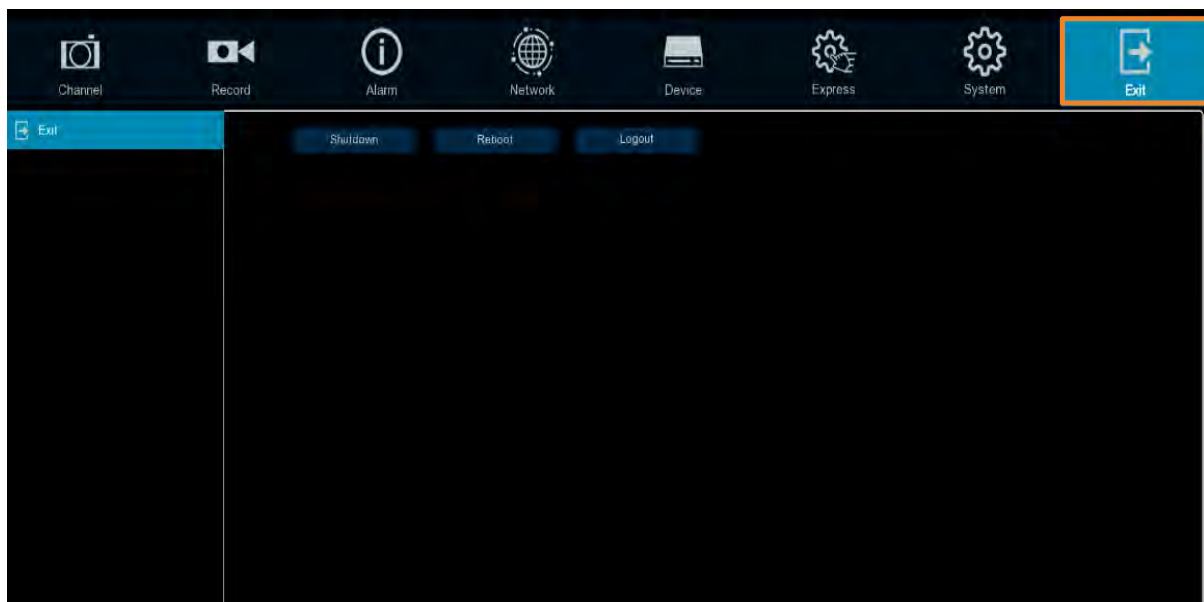
Attribute	Value
WLAN	
IP Address	192.168.33.76
Subnet Mask	255.255.255.0
Gateway	192.168.33.254
MAC Address	00-11-14-18-70-
DHCP	Enable
DNS1	192.168.10.188
DNS2	8.8.8.8
PPPoE	Disable
3G	Disable
Port	
Web Port	80,80,Inactive,Disable
Client Port	9000,9000,Inactive,Disable
RTSP Port	554,554,Inactive,Disable
HTTPS	443,443,Inactive,Disable
Total Bandwidth:	64Mbps
Used Bandwidth:	0bps

Total Bandwidth: It shows the DVR's total input bandwidth for IP cameras.

Used Bandwidth: It shows the used bandwidth of IP cameras.

4.10 Exit

You can Shutdown, Reboot ore Logout the system using this page.



Chapter 5

5. Remote Access to the DVR

5.1 Accessing the DVR on the Network

Follow the steps below to access the DVR through a Web browser.

1. Open a Web browser and in the address bar type the IP address of the DVR.

Local connection:

http:// (IP address from the DVR's Network Menu): IP port used

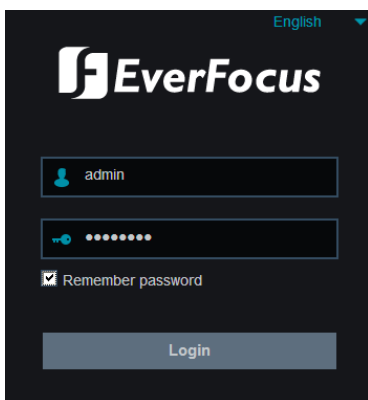
e.g. http://192.168.1.163:2468

Internet connection:

http:// (IP address given by your Internet Service Provider): IP port used

e.g. http://57.182.67.204:2468

2. If your computer is connected to the internet, it will download and install "ActiveX" plug-in automatically.
3. The Login window pops up. Type the User Name and Password. Click **Login**.



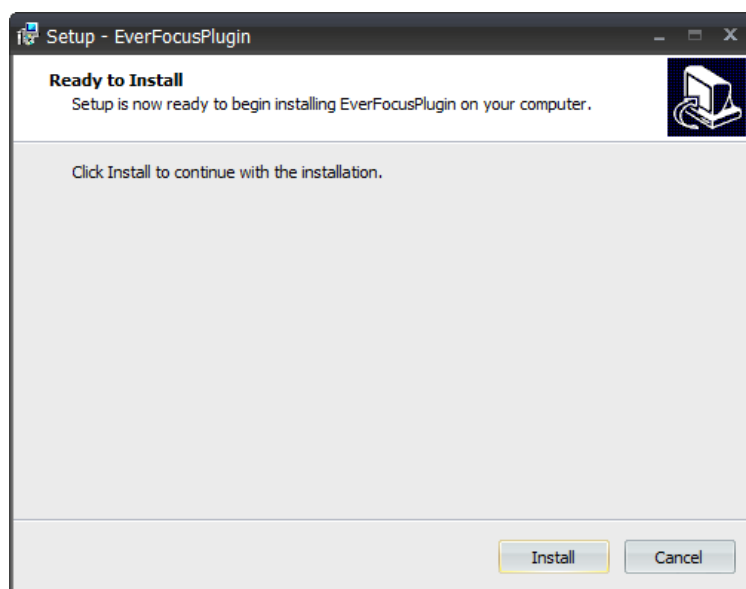
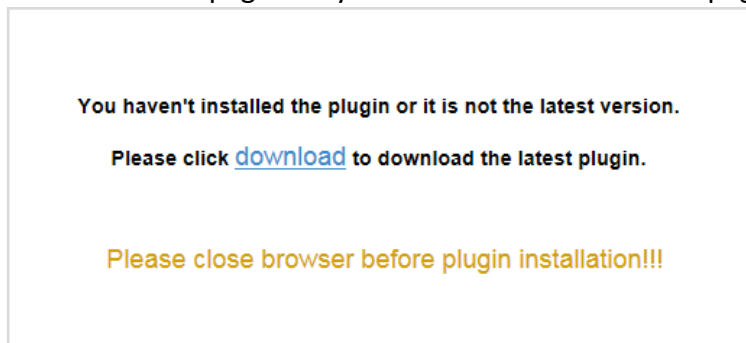
Username: Input the user name.

Password: Input the password.

Remember password: If you want the web browser to keep the password so you will not be able to input the password when you restart the Web page, check this checkbox.

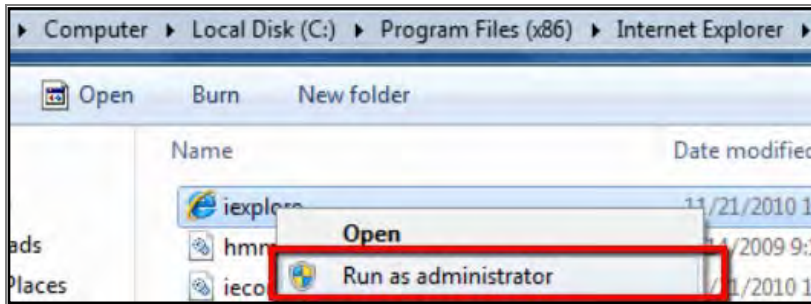
Note for the first time login:

- ◆ When the Plug-in block appears on the browser, click **download** to install the plug-in. Reload the webpage and you should see the live view page now.



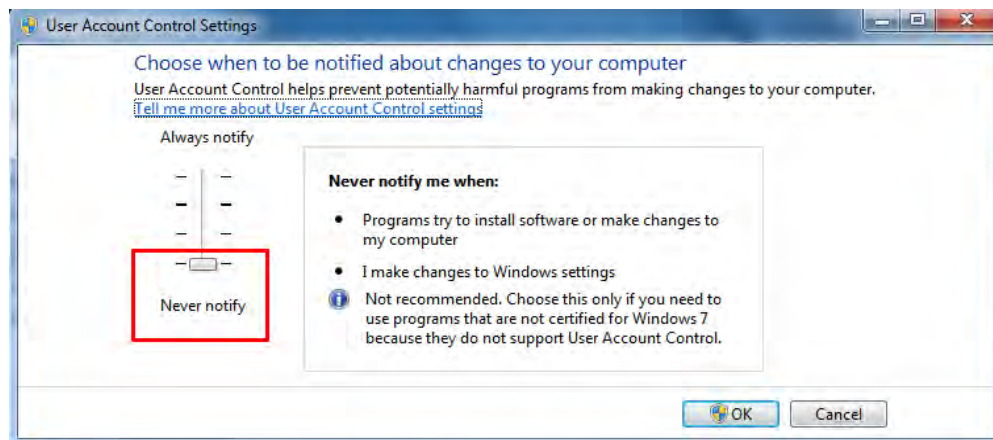
If you encounter the following problem or still can't access the remote Web interface, please follow the instructions below:

- ◆ If the ActiveX is not downloaded successfully, please check if your browser's safety level or firewall setting is set too high. Enable the following options on the Security Settings window (IE Browser < Tools < Internet Options < Security < Internet < Custom Level).
 - ✓ Automatic prompting for ActiveX controls
 - ✓ Script ActiveX controls marked safe for scripting
- ◆ 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**.

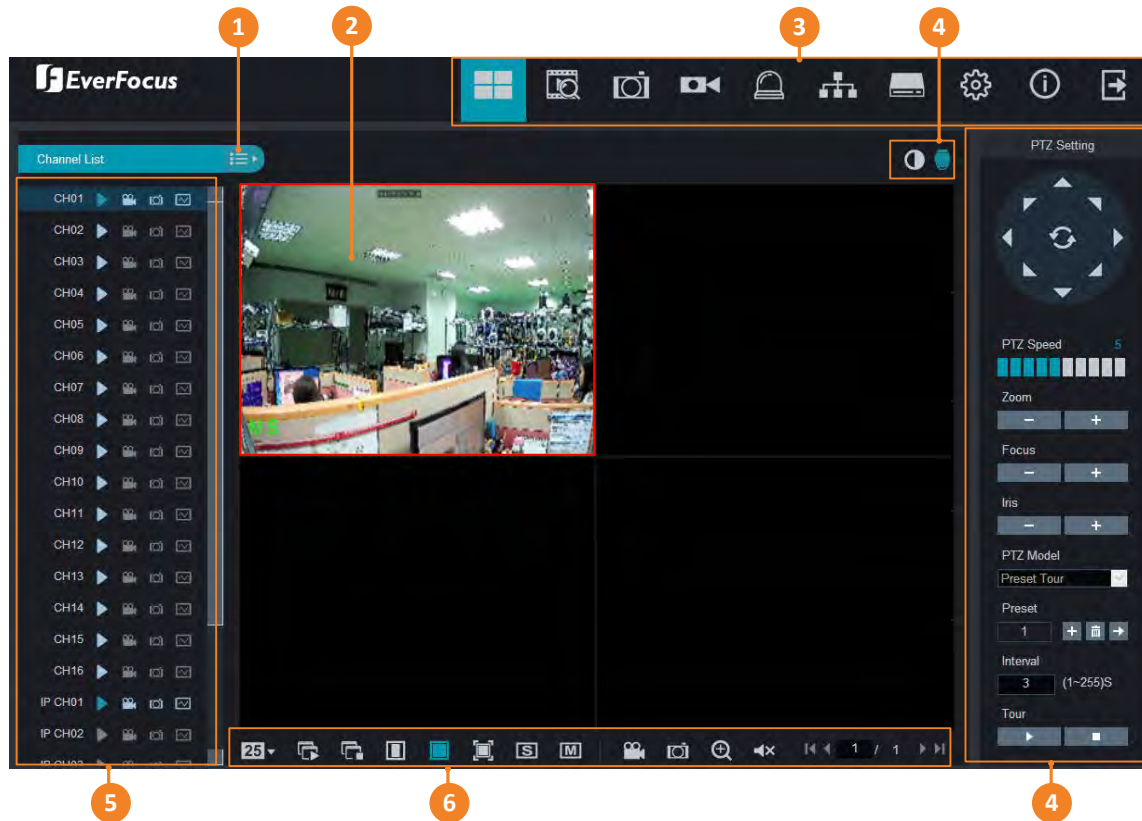


- ◆ If you are unable to backup or record during remote operation, you may need to turn off the firewall and turn **User Account Control** off.

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.



5.2 Remote Live View Window



No.	Name	Description
1	Camera List Button	Click to hide or display the Camera List. Please refer to 5.2.1 Camera List.
2	Live Channel	You can perform the following functions on each channel: a. Double-click on a channel can display the channel in full screen. To exit the full screen mode, double-click on the channel again. b. You can drag and drop a channel to the desired position on the layout. Click and hold on a channel, a Drag Channel icon will display. Drag and drop the channel to the desired position on the layout.
3	Menu Bar	Click to enter each menu bar. Please refer to 5.3 Menu Bar.
4	Color / PTZ Setting	Click to display or hide the Color / PTZ Setting Panel on the right-side of the Live View window. Please refer to 5.2.3 PTZ Setting Panel and 5.2.4 Color Panel for more details.
5	Camera List	Displays the Analog cameras and IP cameras. You can click on the icons to perform some functions. Please refer to 5.2.1 Camera List.
6	Live View Function Icons	You can perform some functions for all the cameras on the Live View window. Please refer to 5.2.2 Live View Function Icons for more details.

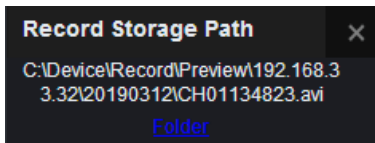
5.2.1 Camera List

The Camera list lists the analog and IP camera channels. You can use the camera list icons to perform some functions. If the channel is not connected or the channel has been disabled, the icons will be gray-out.

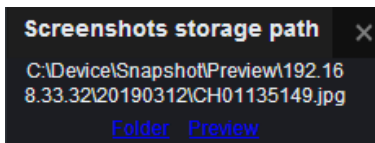


Play: Click to display / hide the camera stream on the Live window.

Record: Click to start manual record of the channel, click again to stop, a message window appears on the bottom-left corner of the screen. Click **Folder** to open the folder to find the recording file. To change the manual record storage path or select a file format, please refer to 5.3.8.5 Local Settings.



Snapshot: Click to take a manual snapshot of the channel, a message window appears on the bottom-left corner of the screen. Click **Folder** to open the folder to find the snapshot image. Or click **Preview** to preview the snapshot image. To change the manual snapshot storage path, please refer to 5.3.8.5 Local Settings.

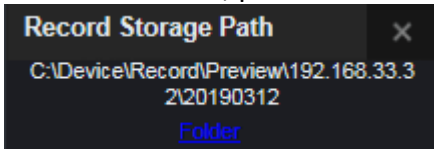
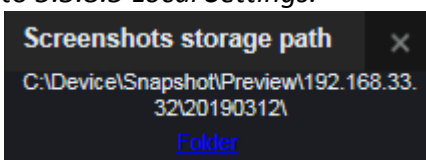


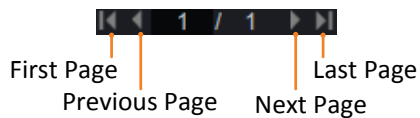
Bitrate: Click and then select Main Stream or Sub Stream for this channel. To configure Main Stream parameters, refer to 5.3.4.1.1 Main Stream. To configure Sub Stream parameters, refer to 5.3.4.1.2 Sub Stream.

5.2.2 Live View Function Icons

You can perform some functions for all the cameras on the Live View window.



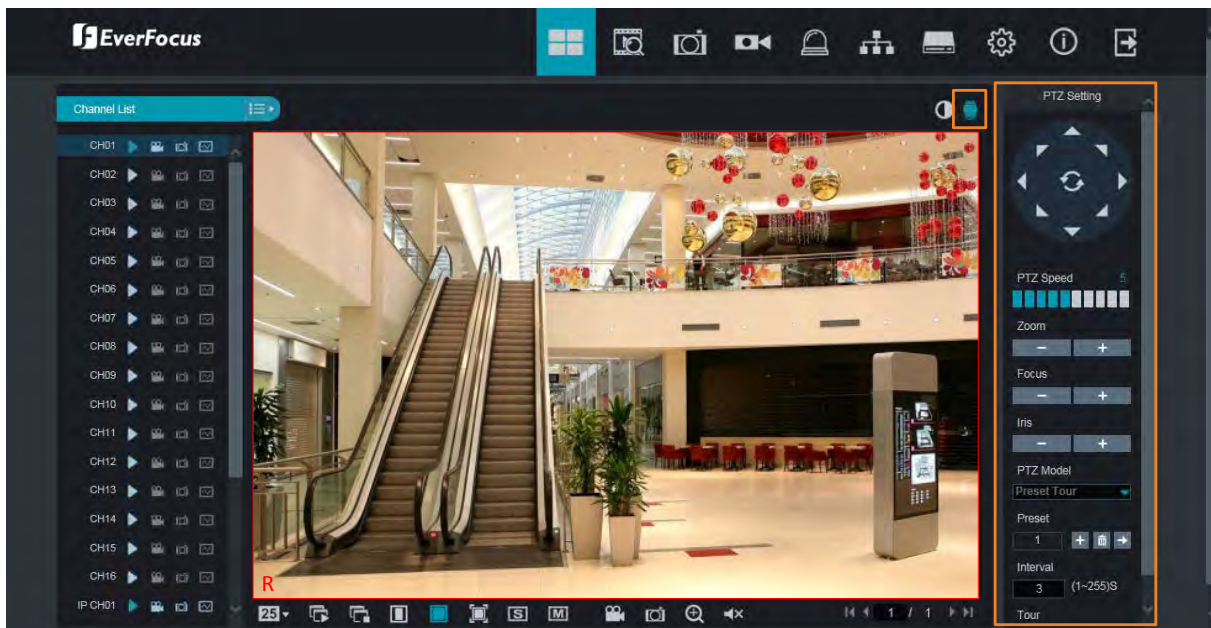
No.	Name	Description
1	Divide Screen	Click to select a layout.
2	Play	Click to display all camera streams on the Live window.
3	Stop	Click to close all camera streams displayed on the Live window.
4	Original Aspect Ratio	Click to display all the live streams with original aspect ratio.
5	Stretch	Click to stretch all the live streams on the Live window.
6	Full Screen	Click to display the Live View window in full screen mode. To exit full screen mode, press the ESC button on the keyboard.
7	Sub Stream	Click to switch all live streams to Sub Stream. If you want to set up some streams for Main and some for Sub streams, on the Camera List, you can click the Stream icon of the specific channels and then select Main Stream or Sub Stream. To configure Sub Stream settings, please refer to 5.3.4.1.2 <i>Sub Stream</i> .
8	Main Stream	Click to switch all live streams to Main Stream. If you want to set up some streams for Main and some for Sub streams, on the Camera List, you can click the Stream icon of the specific channels and then select Main Stream or Sub Stream. To configure Main Stream settings, please refer to 5.3.4.1.1 <i>Main Stream</i> .
9	Video Clips	Click to start manual recording of all channels on the Live window. Click the button again to stop, a message window appears on the bottom-left corner of the screen. Click Folder to open the folder to find the recording files. To change the manual record storage path or the file format, please refer to 5.3.8.5 <i>Local Settings</i> . 
10	Snapshot	Click to take a snapshot (.bmp) of all channels on the Live window, a message window appears on the bottom-left corner of the screen. Click Folder to open the folder to find the snapshot images. To change the manual snapshot storage path, please refer to 5.3.8.5 <i>Local Settings</i> . 

11	Digital Zoom	<p>Click to enable the Digital Zoom mode. To exit the Digital Zoom mode, click the button again. To perform the Digital Zoom function:</p> <ol style="list-style-type: none"> On the Live View window, select a channel by clicking on the channel. Click the Digital Zoom button. Use your mouse to draw an area where you want to have a close-up view. The area will be zoom-in. Right-click to exit the Digital Zoom mode.
12	Audio	<p>Click to turn on or off the audio of the selected channel. To perform this function, on the Live window, select a channel by clicking on it, the selected channel will be highlighted with a red frame, click the Audio button to enable the audio function. You can adjust the bar to the left or right to adjust volume.</p>
13	Layout Page	<p>Click the left or right buttons to change among the layout pages. For example, for 16-channel model, if you select 4-Division, click the Next Page button will display the next 4-division layout with channel 5-8, channel 9-12, and so on.</p> 

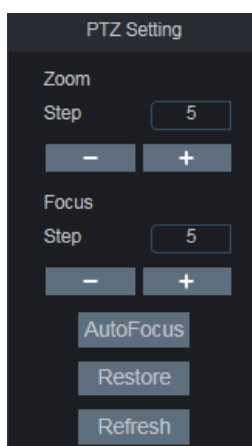
5.2.3 PTZ Setting Panel

For PTZ cameras, you can use this panel to control the PTZ (analog and IP) camera; for motorized cameras, you can use this panel to adjust camera zoom or focus.

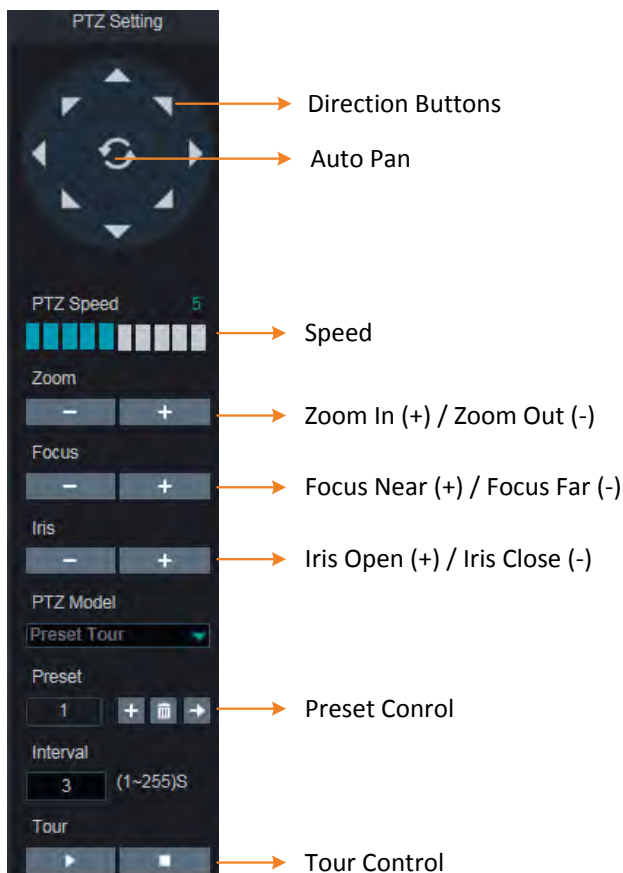
On the Live View window, click the **PTZ Setting** button to display the PTZ Setting Panel. Click the **PTZ Setting** button again can hide the PTZ Control Panel.



For motorized cameras, select a motorized camera by clicking on the live channel, the selected channel will be highlighted with a red frame. You can double-click on the channel to display the channel in full screen. Click the **PTZ Setting** button, the below PTZ Setting panel appears. You can adjust camera zoom or focus using this panel.



For PTZ cameras, select a PTZ camera by clicking on the PTZ channel, the selected channel will be highlighted with a red frame. You can double-click to display the channel in full screen for operation. Click the **PTZ Setting** button, the below PTZ Setting panel appears. You can use this panel to control PTZ cameras.



Direction Buttons: Click the direction buttons to force the PTZ camera to turn to the direction.

Auto Pan: Click to start the Auto Pan function. Click again to stop the Auto Pan function.



Speed: Slide the bar to the left or right to adjust the control speed.

Zoom: Click + or – to zoom in or zoom out.

Focus: Click + or – to focus near or focus far.


Iris: Click + or – to adjust the Iris.

Preset Control: You can set up preset points here and then operate the Preset function. Please see the below steps for more details.


Tour Control: After setting up the preset points, you can perform the Tour function. Click  to start the Tour function, click  to stop the Tour function.

To set up Preset Points:



1. Select a preset number (1-255) by clicking on the Preset input box.

2. Use the direction buttons or Zoom/Focus/Iris buttons to search for the location for this preset number.
3. Click the **+** button to add this preset point, and the number will jump to the next preset number for configuration. Follow **Step 2-3** to set up multiple preset points.
4. To clear the setup preset points, select a preset number and then click the  button.

To perform the Go to Preset Point function:

1. Select a preset number (1-255) by clicking on the Preset input box.
2. Click the **Go to** button .

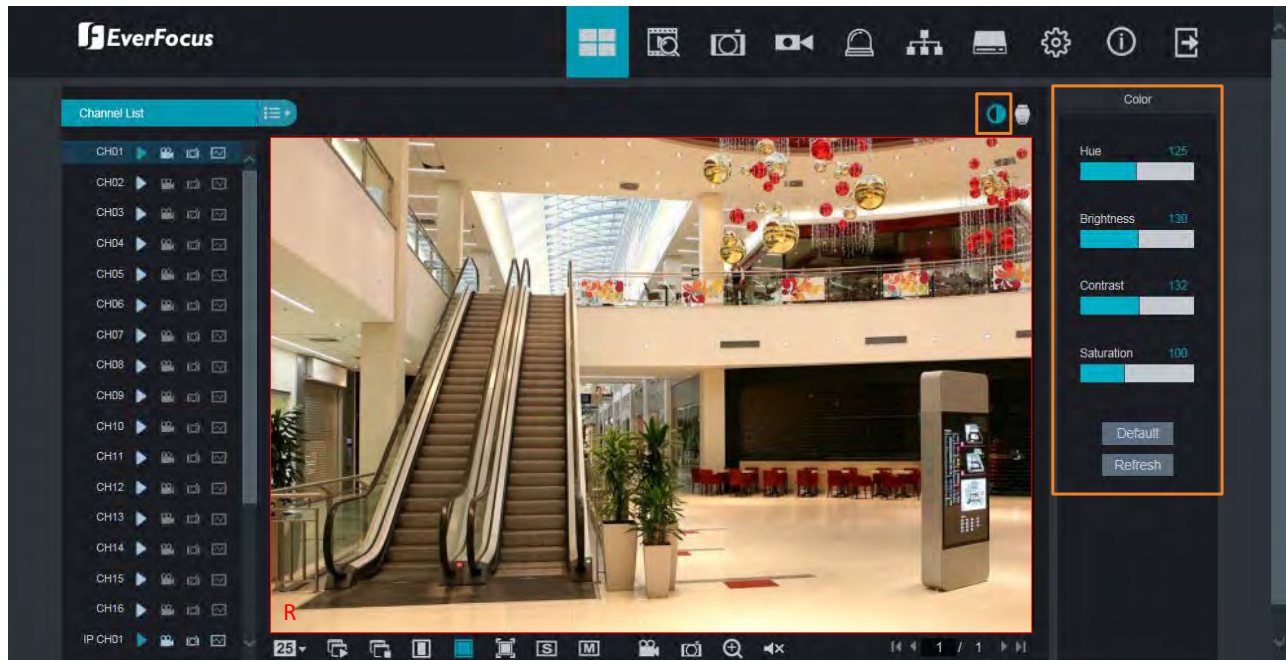
To perform the Tour function:

1. Set up the preset points in advance. Please refer to the steps of “To set up Preset Points” above.
2. Input an interval time in the **Interval** box.
3. Click the **Start Tour** button , the PTZ camera will start cruising based on the pre-configured preset points with the dwell time.
4. To stop the Tour function, click the **Stop Tour** button .

5.2.4 Color Panel

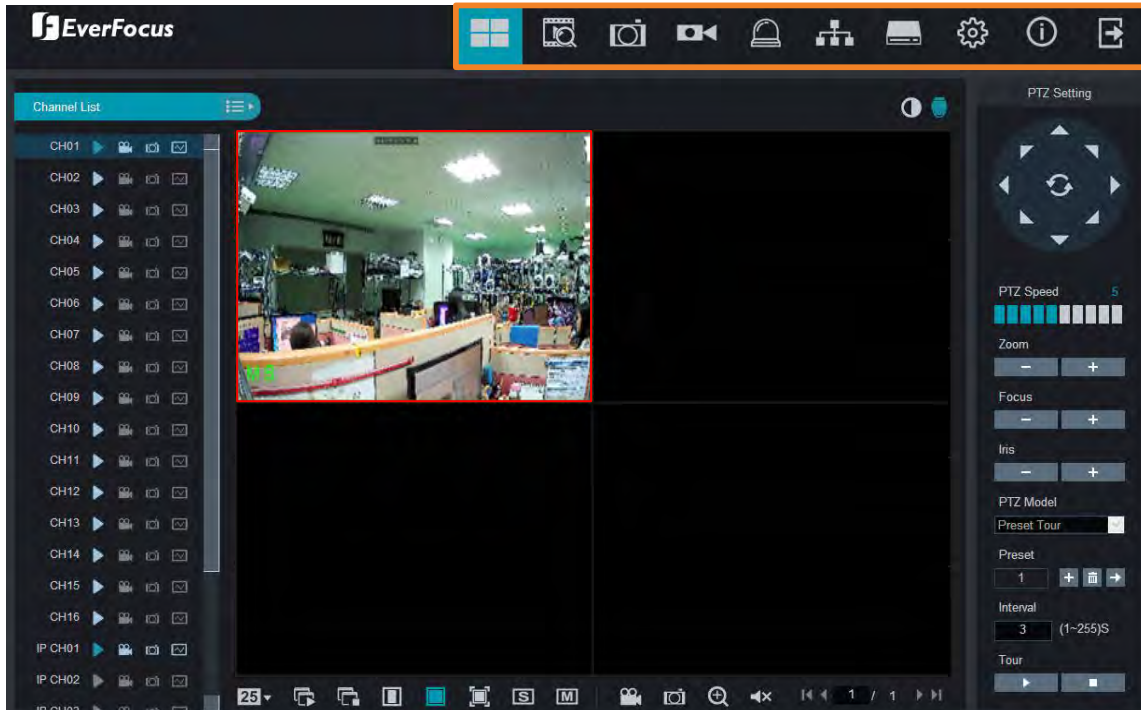
You can adjust Hue, Brightness, Contrast and Saturation value for each channel on the Live View window using the Color Panel. Click the **Default** button to restore all the value to factory default.

On the Live View window, select a camera by clicking the channel, the channel will be highlighted with a red frame. Click the **Color** button to display the Color Panel and then you can start adjust color settings. Click the **Color** button again can hide the Color Panel.



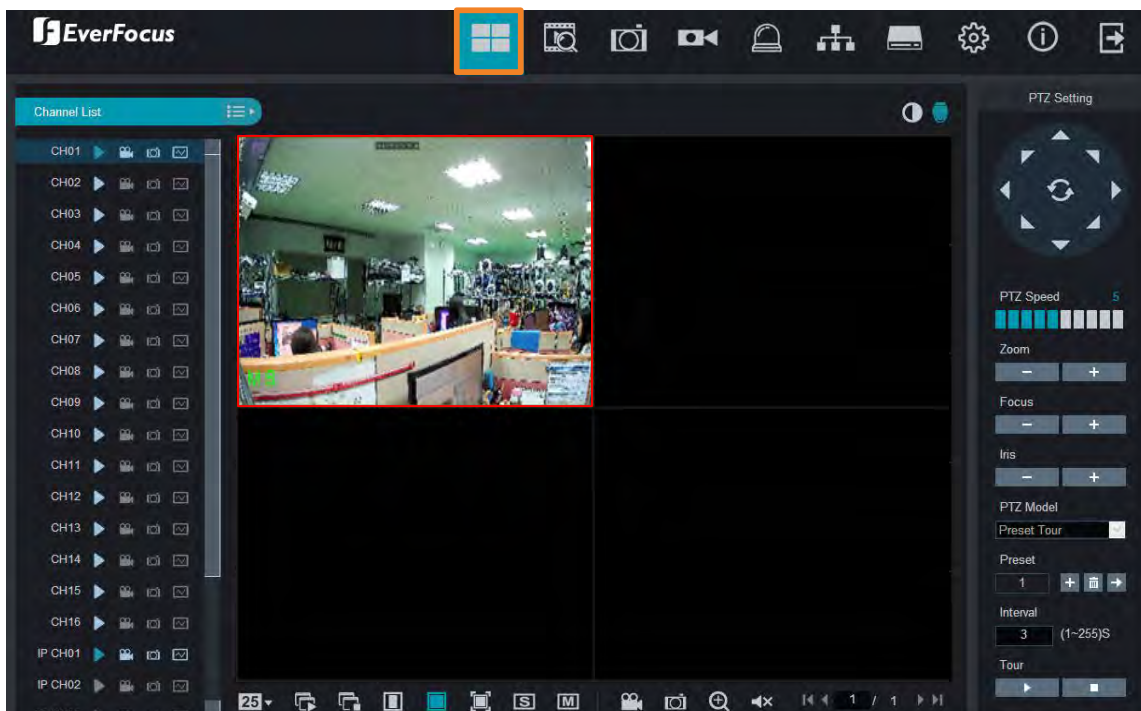
5.3 Menu Bar

Click any icon on the top navigation bar to enter each menu page.



5.3.1 Live

Click the **Live** icon to enter the Live View page. Please refer to 5.2 *Remote Live View window*.

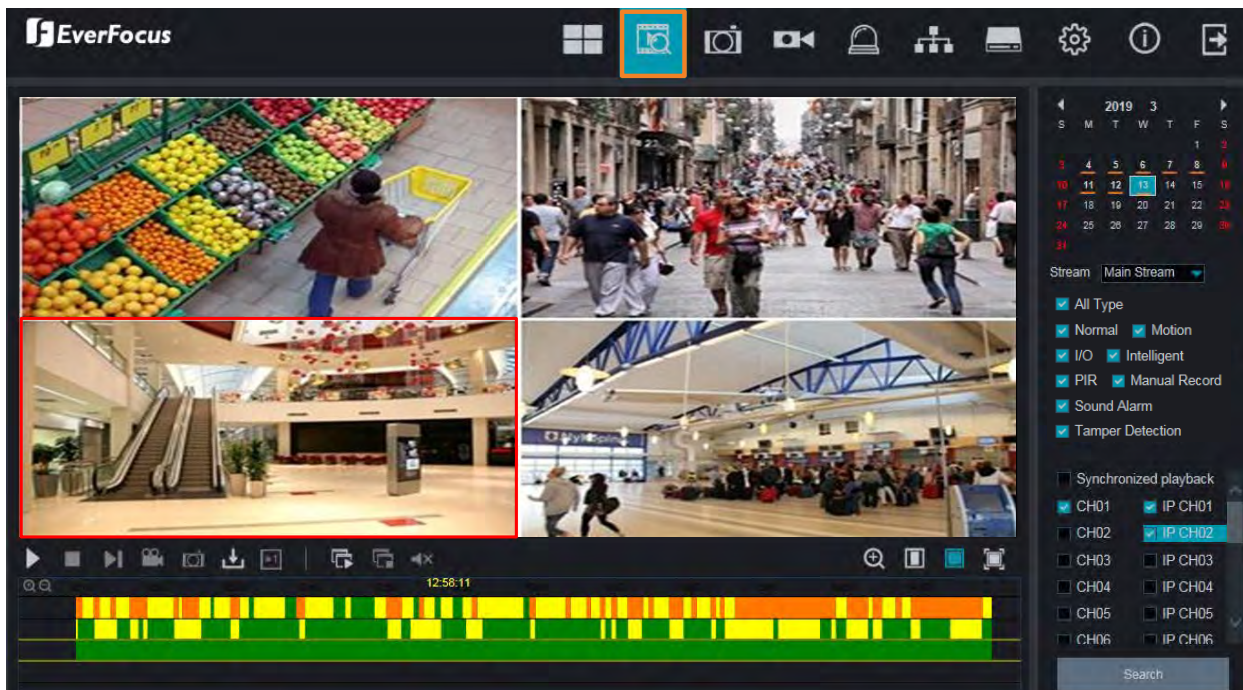


5.3.2 Playback

Click the **Playback** icon on the top navigation bar. The Playback window displays.

For VANGUARD 16x8H, up to 16 multi-channel playback is supported; for VANGUARD 8x4H, up to 8 multi-channel playback is supported; for VANGUARD 4x2H, up to 4 multi-channel playback is supported.

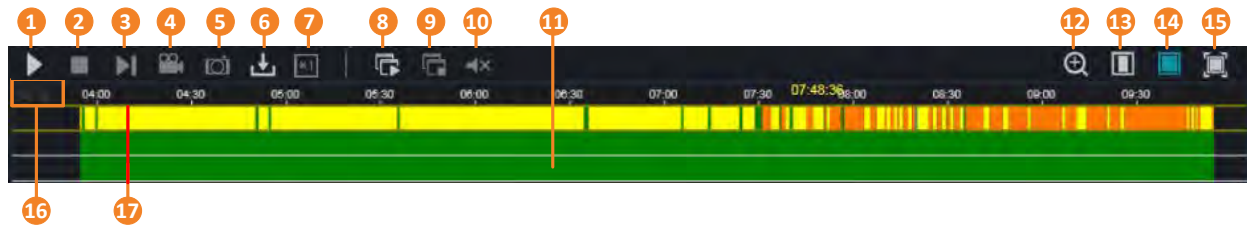
The layout divisions will be automatically assigned by the system according to the channels you select. For example, if 1 channel is selected, the system will automatically assign single-division; if 2~4 channels are selected, 4-division will be assigned; if 5~9 channels are selected, 9-division will be assigned; if 10~16 channels are selected, 16-division will be assigned.

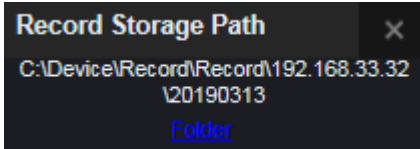
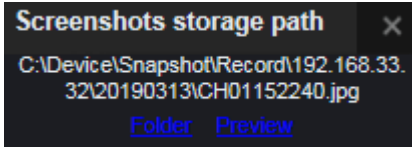


To start playing back:

1. Select a date on the calendar (the date with an orange bar on the bottom indicates there are recordings on the date).
2. Select a stream type from the Stream drop-down list for playing back. Note that if you want to search for **Sub Stream** recordings, you have to select **Dual-Stream** mode in 5.3.4.2.1 Record.
3. Select the desired recording type(s). The options include Normal, Motion, IO, Smart, PIR, Manual, Sound Alarm, Tamper Detection and All.
4. You can optionally enable the **Synchronized playback** function to enable multiple channel simultaneously playback at the same time. If this function is unselected, you can separately control each channel for playing back (each channel can be played back with individual time).
5. Select the desired channels you would like to play back.
6. Click the **Search** button, the recordings will be displayed on the time bar of the Playback Panel in different colors. Green: Normal and Manual recordings; Yellow: Motion recordings; Red: I/O recordings; Purple: PIR recordings; Blue: Intelligent, Sound, Tamper.
7. Click the **Play** button to start playing back.

You can use the **Playback Panel** to operate the below functions:



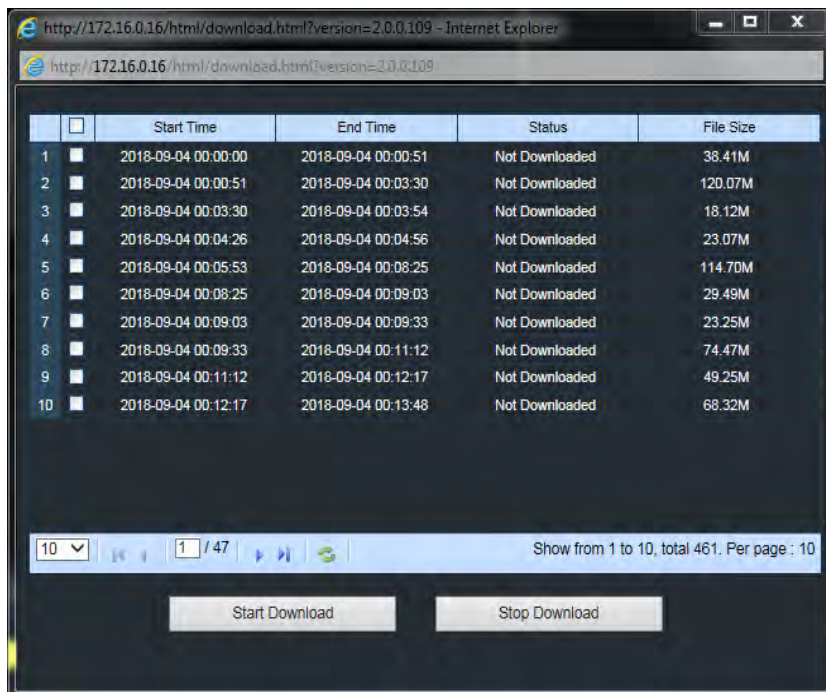
No.	Name	Description
1	Play/Pause	Click to Play or Pause playing back.
2	Stop	Click to Stop playing back.
3	Step Forward	Click the button to play the recording frame by frame. Note this button is only functional under single channel playback.
4	Video Clips	Click to start manual recording of a channel (.avi). Click the button again to stop. On the playback window, click on a channel and then click the Record button, a message window appears on the bottom-left corner of the screen. Click Folder to open the folder to find the recording file. To change the manual record storage path or the file format, please refer to 5.3.8.5 <i>Local Setting</i> . 
5	Snapshot	Click to start manual snapshot (.jpg) of a channel. Click the button again to stop. On the playback window, click on a channel and then click the Snapshot button, a message window appears on the bottom-left corner of the screen. Click Folder to open the folder to find the snapshot image. Or click Preview to preview the snapshot image. To change the manual snapshot storage path, please refer to 5.3.8.5 <i>Local Setting</i> . 
6	Download	Click to download recordings for a single channel. To perform the Download function, please refer to 5.3.2.1 <i>Download</i> .
7	Playback Speed	Click to select a playback speed.
8	Play All Windows	Click to start playing back all the windows. This function is useful under the Multi-Channel Playback Separately mode (disable Synchronized playback).

9	Stop Playback All	Click to stop playing back all the windows. This function is useful under the Multi-Channel Playback Separately mode (disable Synchronized playback).
10	Audio	Click to switch on/off the speaker. You can also adjust the volume.
11	Time Bar	Double click on the time bar at a certain time will start playing back from the clicked time. The colors on the time bar represent different recording types. <u>Green</u> : Normal and Manual recordings; <u>Yellow</u> : Motion recordings; <u>Red</u> : I/O recordings; <u>Purple</u> : PIR recordings; <u>Blue</u> : Intelligent, Sound, Tamper.
12	Digital Zoom	Click to enable the Digital Zoom mode. To exit the Digital Zoom mode, click the button again. To perform the Digital Zoom function: <ul style="list-style-type: none"> a. Select a window you want to perform the digital zoom by clicking on the window. b. Click the Digital Zoom button to enable the function. c. Use your mouse to draw an area where you want to have a close-up view on the stream. The area will be zoom-in. d. Right-click to exit the Digital Zoom mode.
13	Original Aspect Ratio	Click to play back all the streams with original aspect ratio.
14	Stretch	Click to stretch all the streams on the Playback window.
15	Full Screen	Click to display the Playback window in full screen mode. To exit full screen mode, press the ESC button on the keyboard.
16	Time Span Buttons	You can adjust the time span on the Time Bar by clicking the buttons.
17	Time Indicator	Indicates the playback time.

5.3.2.1 Download

You can download the searched recordings for a single channel on the Playback window.

1. Select a window you want to download the recordings by clicking on the window. The selected channel will be highlighted with a red frame.
2. Click the **Download** button, the corresponding recordings to this channel will be displayed.



3. Select the desired recordings you want to download, and then click **Start Download**. To change the storage path or the file format, please refer to *5.3.8.5 Local Setting*.

5.3.3 Channel

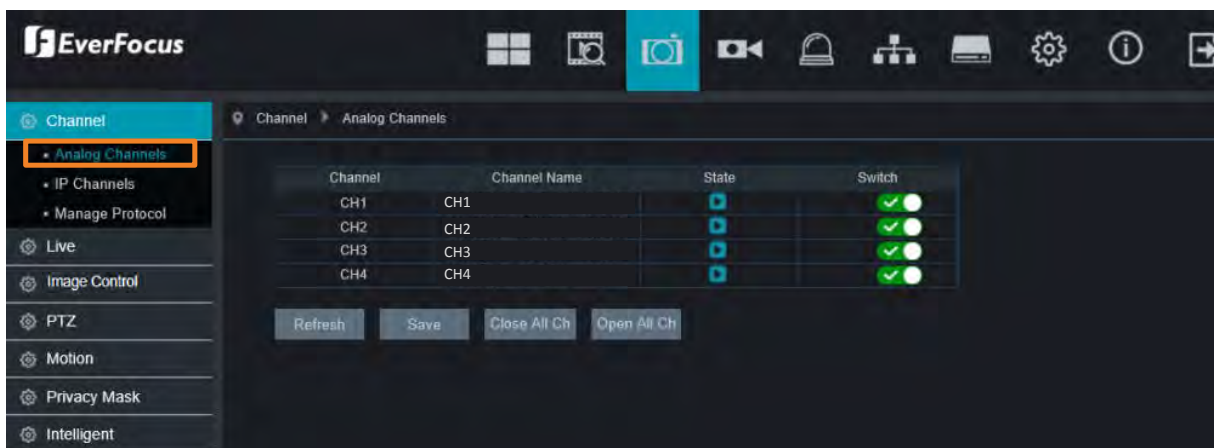
On this page, you can configure Analog and IP Channels, Privacy Mask, Motion, Intelligent and etc..

5.3.3.1 Channel

This page will only appear when HVR hybrid mode is selected (OSD Setup < System < General). You can add IP cameras manually or automatically using this page.

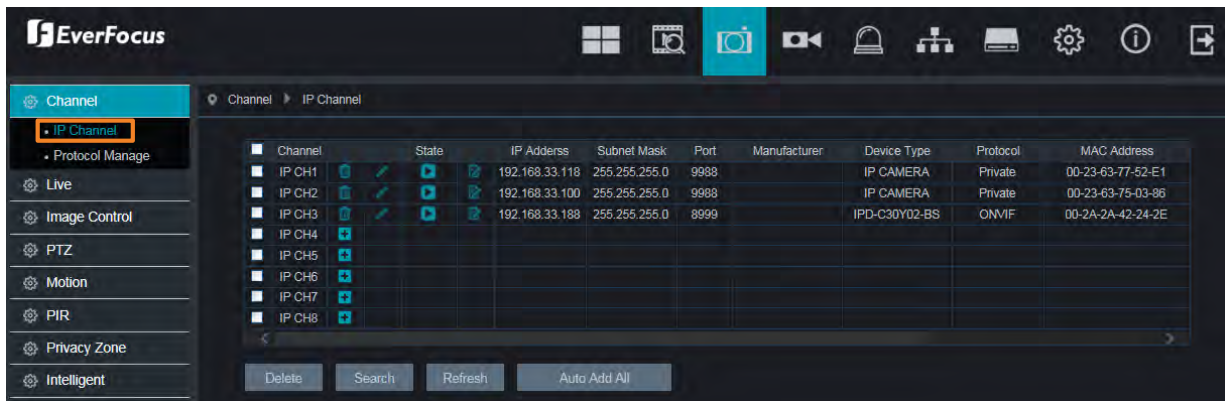
5.3.3.1.1 Analog Channels

This page is only available for VANGUARD 4x2H and VANGUARD 8x4H. If you want to add more IP cameras to the DVR, you can disable the analog cameras in order to release more channels for adding IP cameras. For this function to work, you will have to enable the HVR mode for the DVR in advance (OSD > System > General). Disable one analog channel can release one channel for adding IP camera.



5.3.3.1.2 IP Channel

You can add IP cameras manually or automatically using this page.



Delete: On the IP cameras list, check the IP camera boxes and then click the **Delete** button to delete the selected IP cameras from the list.

Search: You can use this button to add multiple IP cameras with the same username and password at once. Click this button to search for the IP cameras on the same network. Select the IP cameras you want to add to the DVR, input the Username and Password and then click the **Add** button, the selected IP cameras should be added to the DVR.

	IP Address	Port	Manufacturer	Device Type	Protocol	MAC Address	Software Version
1	192.168.33.5	80	HeroSpeed		ONVIF	00-00-1B-16-69-4F	
2	192.168.33.7	9988		IP CAMERA	Private	00-23-63-77-6E-97	V6.21.5.0_181228
3	192.168.33.43	80	EZN368		ONVIF	DE-F3-B0-F6-22-60	
4	192.168.33.61	80	EverFocus_EZN26i		ONVIF	00-11-14-13-D9-50	
5	192.168.33.66	80	EverFocus_EDN32		ONVIF	00-11-14-0E-37-41	
6	192.168.33.69	80	EverFocus_EZN32i		ONVIF	00-11-14-0D-C3-C2	
7	192.168.33.70	80	EverFocus_EZN31i		ONVIF	00-11-14-0F-36-64	
8	192.168.33.80	9988		Fisheye	Private	00-23-63-74-77-02	V2.31.4.8_180713
9	192.168.33.86	80	EverFocus_EAN32		ONVIF	00-11-14-0F-33-F0	
10	192.168.33.93	80	HeroSpeed		ONVIF	00-00-1B-0F-4D-3F	
11	192.168.33.108	80	EZN368M		ONVIF	DE-F3-B0-E3-77-20	
12	192.168.33.109	80	EverFocus_EBN26		ONVIF	00-11-14-16-70-6F	
13	192.168.33.244	80	HeroSpeed		ONVIF	00-00-1B-0F-4D-93	

Username: admin Password:


Add Cancel Refresh

Refresh: Click to refresh the page.

Auto Add All: Click to automatically add the first 2/4/8 IP cameras to the DVR based on the supported number of IP camera of your device.

You can also use the buttons on the **IP Camera list** to perform the functions:

Delete: Click  to delete the IP camera.

Add: Click  to add an IP camera.

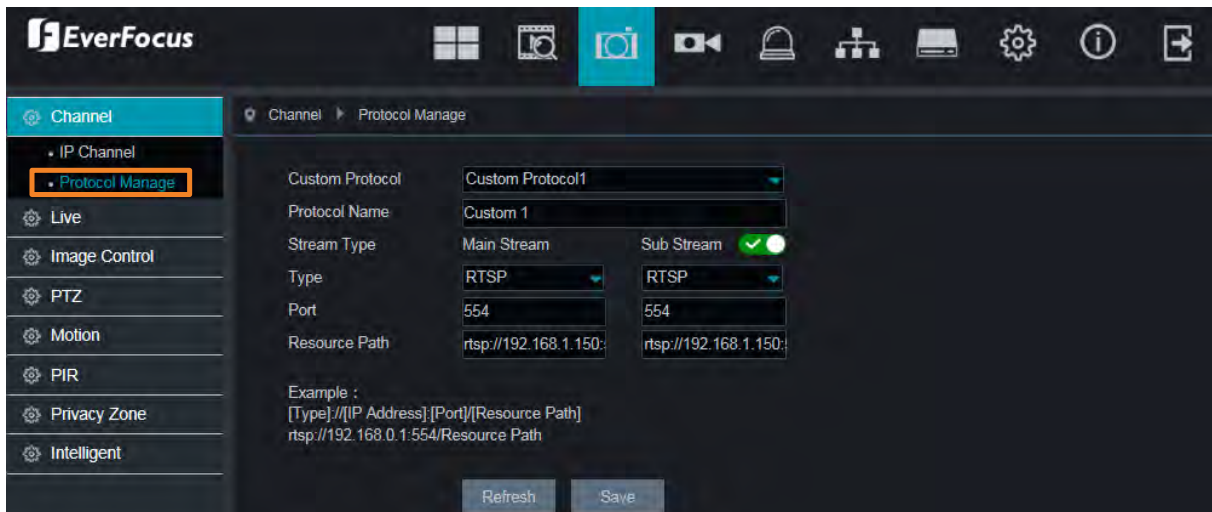
Edit: Click  to edit IP camera profile.

Modify: Click  to modify IP camera settings.

State: Shows the status of the IP camera.

5.3.3.1.3 Protocol Manage

On this page, you can edit RTSP (Custom 1-16) protocol for IP camera connection.



Custom Protocol: Select a custom RTSP protocol profile from the drop-down list to be configured. Up to 10 profiles can be configured.

Protocol Name: Input a name for this RTSP protocol profile.

Stream Type: Indicates Main Stream and Sub Stream are supported. You can separately configure the Main Stream and Sub Stream settings below.

Sub Stream: Switch the button to the right to enable sub stream for this RTSP protocol.

Type: Select RTSP.

Port: Input the RTSP port of your IP camera. Keep 554 as the RTSP port.

Resources Path: Input the RTSP URL syntax in the box. For example:

rtsp://[IP Address]:[Port]/ch[A]/[B]

rtsp://192.168.31.33:554/ch01/0

* IP Address: The IP address of the DVR

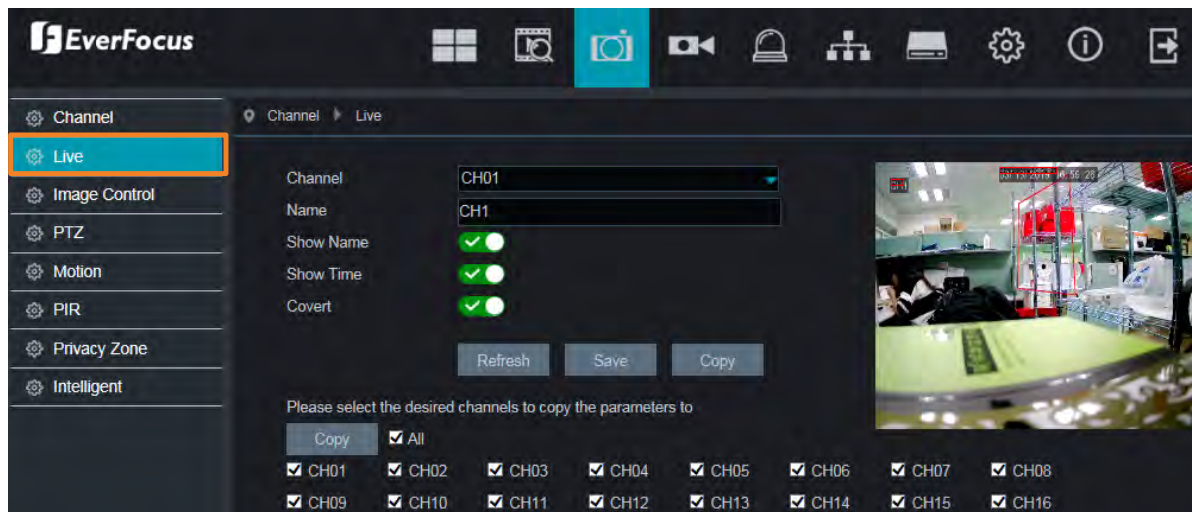
* A: Channel number. 01 (ch1), 02 (ch2), and so on

* B: Stream Type: 0 (main stream), 1 (sub stream)

Click **Save** to save the settings or **Refresh** to refresh the page.

5.3.3.2 Live

You can configure camera OSD or image settings on this page.



Channel: Select a channel.

Name: Optionally input a channel name (English or Traditional Chinese).

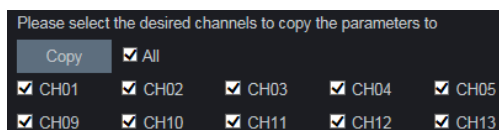
Show Name: Switch the button to the right to enable the function.

Show Time: Switch the button to the right to enable displaying the time on the live channel.

Covert: Switch the button to the right to enable the covert function. The covert function can be used to black-out the channel on the Live Window, however, the system will still record the streams.

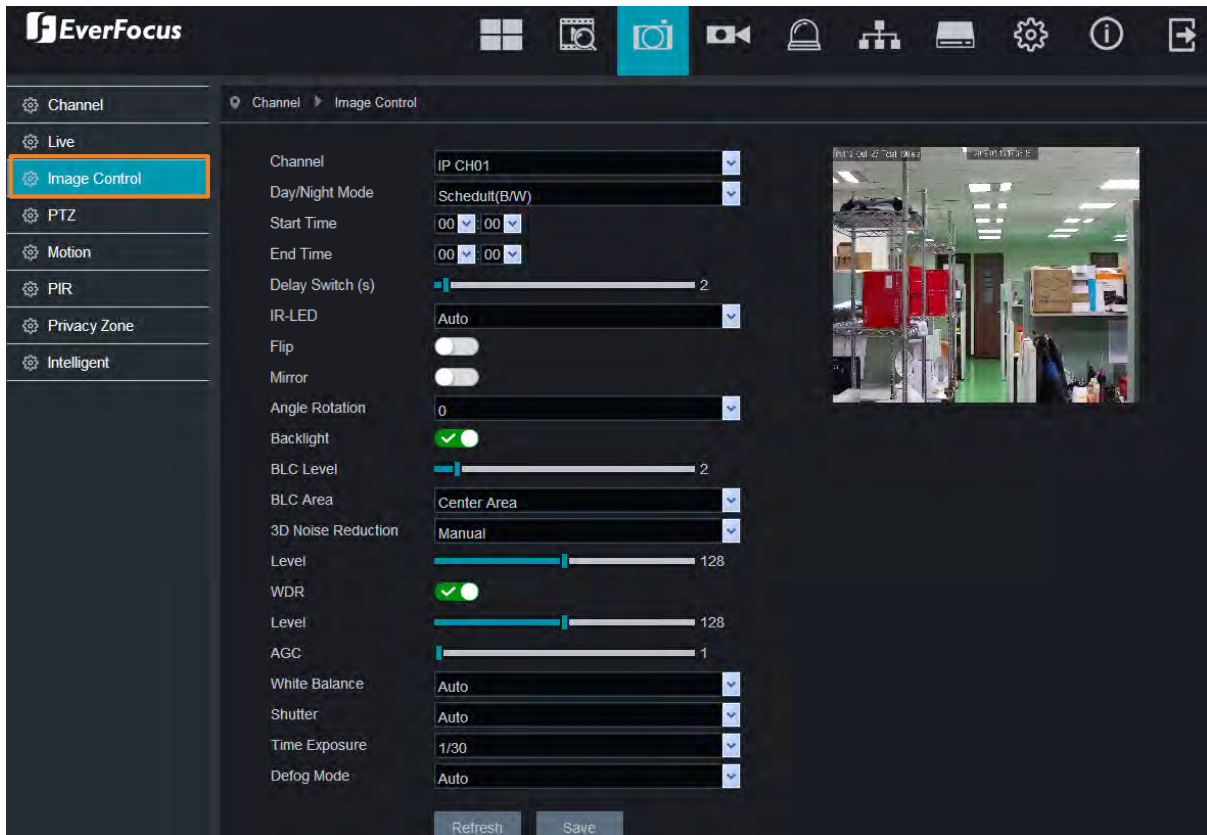
Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.



5.3.3.3 Image Control

You can configure the image settings for the supported IP cameras.



Channel: Select a channel number.

Day/Night Mode: Select a Day/Night mode for the camera to display the color or B/W images.

- **GPIO Auto:** Select GPIO Auto for the camera to automatically switch to day or night mode. You can further set up a **Delay Switch** time (second) in the below field.
- **Color Mode:** Select Color Mode for the camera to display color images.
- **Black White Mode:** Select Black White Mode for the camera to display B/W images.
- **Schedule (B/W):** Select Schedule (B/W) for the camera to display B/W images during the setup time range. Please select the **Start Time** and **End Time** in the below field.

Delay Switch (s): This function can only be activated if you select **Auto** for the **Day/Night Mode**. Set up a delay switch time (seconds) for the camera to auto switch between day and night modes.

IR-LED: Select **On** to turn on IR LEDs; select **Off** to turn off IR-LED; select **Auto** for the camera to automatically turn on / off the IR-LED based on the light sensor on the IP camera.

Flip: Switch the button to the right to enable the Flip function. The image will be rotated vertically around a horizontal axis.

Mirror: Switch the button to the right to enable the Mirror function. The image will be rotated horizontally around a vertical axis.

Angle Rotation: Select a rotate angle.

Backlight: Switch the button to the right to enable the BLC (Backlight Compensation) function.

BLC Level: Adjust the level for the BLC function.

BLC Area: Select an area to apply the BLC function.

3D Noise Reduction: Select Auto to

- **Auto:** Select Auto for the camera to automatically turn on the 3DNR function.
- **Manual:** Select to turn on the 3DNR function based on the setup **Level**.
- **Disable:** Select to disable the 3DNR function.

WDR: Switch the button to the right to enable the WDR function and then you will have to adjust a **Level** for the WDR function.

AGC: If you select **Manual** in the Shutter field, set up the AGC for the camera. The lower the AGC level, the lower the video signal and the noise.

White Balance:

- **Auto:** Select for the camera to automatically adjust the white balance.
- **Manual:** Select to adjust the Red, Green, Blue values yourself.
- **Indoor:** Select Indoor if your camera is installed in an indoor environment.

Shutter:

- **Auto:** Select for the camera to automatically adjust the Shutter.
- **Manual:** Select to manually adjust the shutter speed. Select a speed in the **Time Exposure** field. Also set up the **AGC** in the AGC field above.

Time Exposure: If you select **Auto** in the Shutter field, the camera will automatically apply a max. shutter speed. If you select **Manual** in the Shutter field, select a shutter speed from the drop-down list.

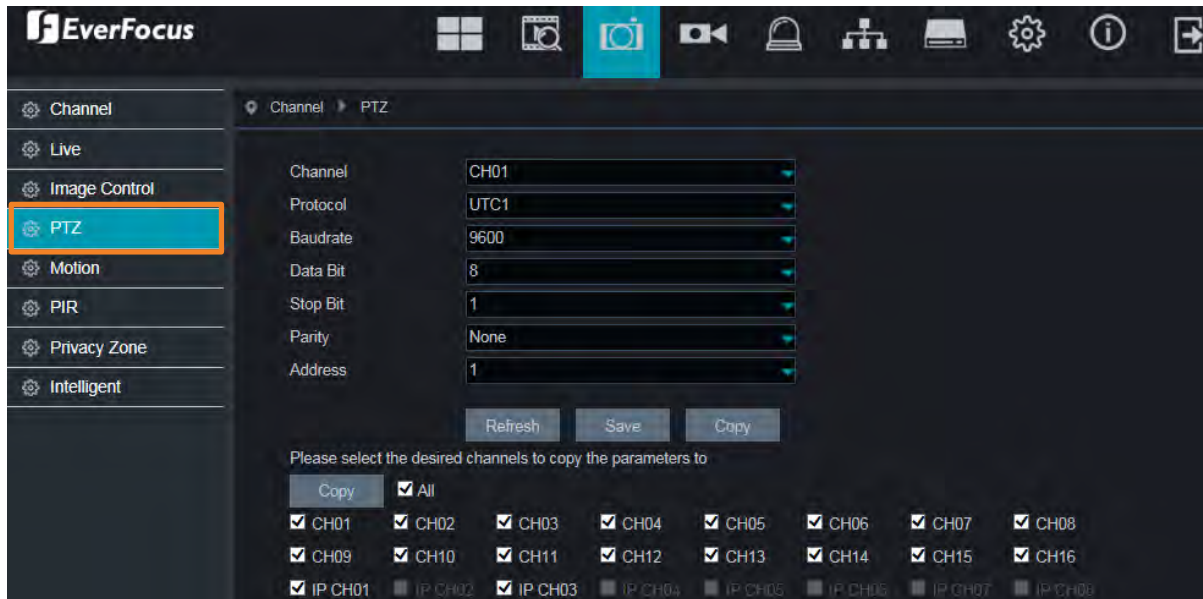
Defog Mode:

- **Auto:** Select Auto for the camera to automatically turn on the Defog function.
- **Manual:** Select to turn on the Defog function based on the setup Level.
- **Disable:** Select to disable the Defog function.

Click **Refresh** to refresh the page; click **Save** to save the settings.

5.3.3.4 PTZ

Please connect the PTZ cameras to the DVR and then configure the below PTZ settings. After configuring the PTZ settings, you can start using the PTZ Control panel to control the connected PTZ camera. Please refer to 5.2.3 PTZ Setting Panel.



Channel: Select a channel.

Protocol: Select a communication protocol between the PTZ camera and DVR. If your camera supports the UTC function, select **UTC1** or **UTC2**. For more details on UTC function, please refer to 3.4.2.3 UTC Control.

Note: For EverFocus' PTZ cameras, only the UTC-supported PTZ cameras support the UTC function.

Baudrate: This field is to set the speed at which is used to transmit instruction or information from the DVR to the PTZ camera.

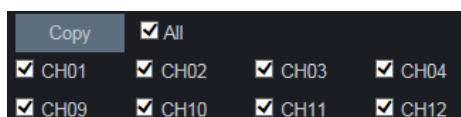
Data Bit / Stop Bit: The information between the DVR and PTZ camera is sent in individual packages. The Data Bit indicates the number of bits sent, while the End Bit indicates the end of the package and the beginning of the next (information) package.

Parity: For error check. Refer to the documentation of your PTZ camera to configure this setting

Address: Input the ID address of the PTZ camera. Note this address should match the one set up on the PTZ camera.

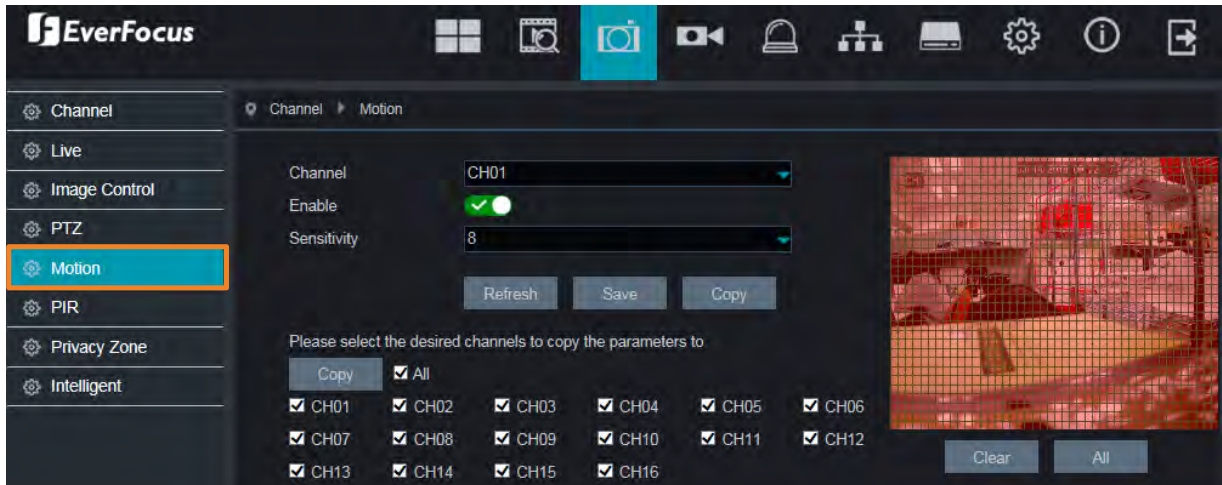
Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.



5.3.3.5 Motion

You can configure the motion settings and motion event notifications on this page. You can also enable the Push Notification function to send motion event alerts to your mobile devices (with eFVMS App installed). For more details on Push Notification, please refer to *Appendix B: Push Notification*.

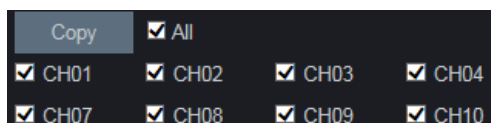


To configure the Motion Detection settings:

1. Select a channel from the **Channel** drop-down list.
2. Switch the **Enable** button to the right to enable the motion detection function.
3. Select a motion detection sensitivity level from the **Sensitivity** drop-down list. The higher the value the higher the sensitivity.
4. On the right-side image, the red blocks represents the areas are applied with the motion detection function. You can click the mouse and drag it to draw multiple areas. To clear a certain area, use the same method to draw on the same area again, the motion area will be erased. By default, the whole areas are marked in red.
5. Click the **Save** button to save the settings.
6. To further set up the motion event notifications, enter the Motion alarm setup page (please refer to 5.3.5.1 *Motion*).
7. To further set up the motion recording function, enter the Record Schedule setup page (please refer to 4.3.4.2.2 *Record Schedule*).

Click **Save** to save the settings or **Refresh** to refresh the page.

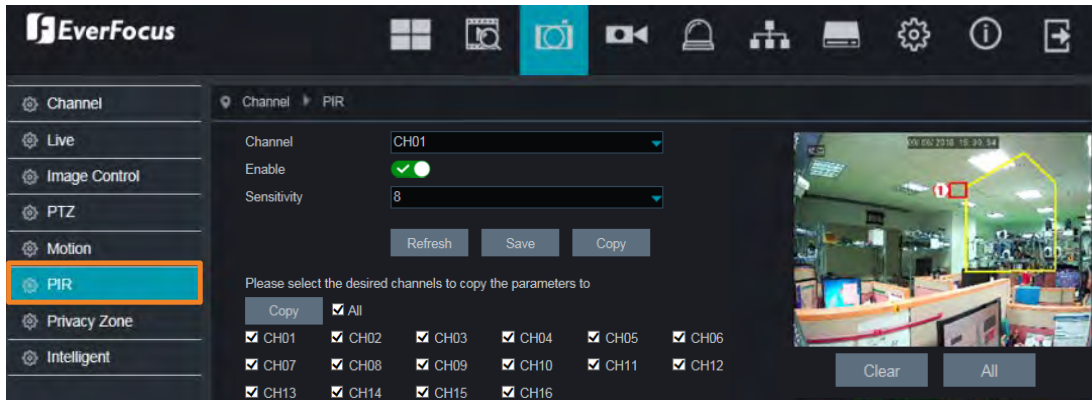
Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.



5.3.3.6 PIR

This function is only available when the supported analog/IP cameras with PIR function are connected. For the supported cameras, please contact EverFocus (ts@everfocus.com.tw).

When the camera detects an object move in or out of the PIR sensor range, the DVR will start recording or send alert notifications.



To configure the PIR Detection settings:

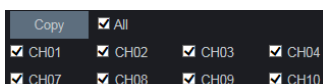
1. Select a channel from the **Channel** drop-down list.
2. Switch the **Enable** button to the right to enable the PIR detection function.
3. Select a PIR detection sensitivity level from the **Sensitivity** drop-down list. The higher the value the higher the sensitivity.
4. To draw a detection area:
 - a. Draw a polygon shape (at least five sides) on the image.
 - b. If you want to move the area to other position or re-size the area, select the area by checking the red box on the upper-left corner of the area, the borders of the area will change to red color. Drag and drop the area to a desired position. Drag the red dots at the edge of the area can re-size the area.



5. Click the **Save** button to save the settings.
6. To further set up the PIR event notifications, enter the PIR alarm setup page (please refer to 5.4.3.2 PIR).
7. To further set up the PIR recording function, enter the Record Schedule setup page (please refer to 4.3.4.2.2 Record Schedule).

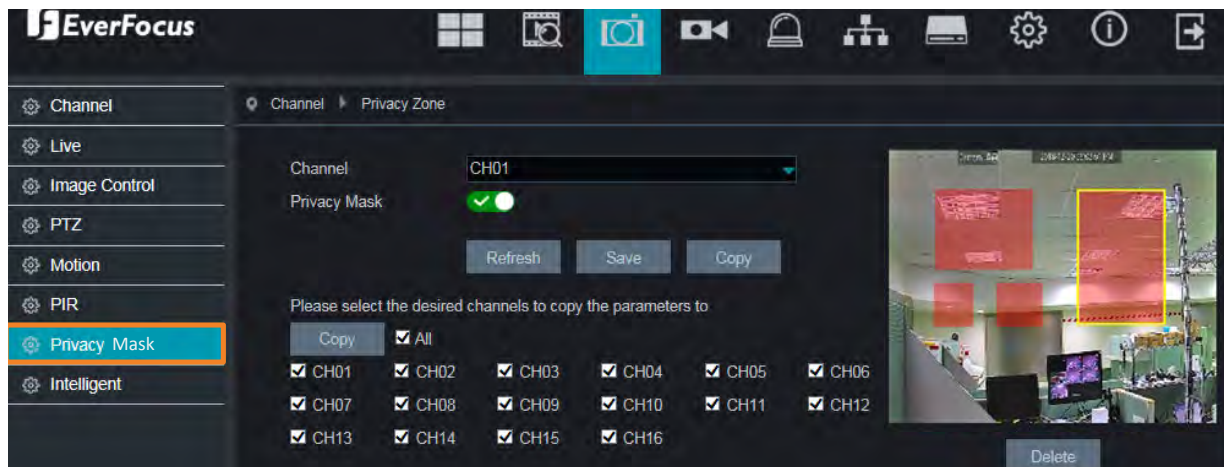
Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.



5.3.3.7 Privacy Mask

This function is only available for analog cameras. The Privacy Mask can block out sensitive areas from view. This feature is useful when users don't want the sensitive information visible. Up to four Privacy Masks can be configured.

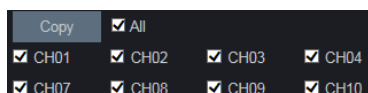


To configure privacy masks:

1. Select a channel from the **Channel** drop-down list.
2. Switch the **Privacy Mask** button to the right to enable the function.
3. Use your mouse to draw a rectangle area (mask) on the right-side image. Up to 4 areas are available.
4. You can drag the area and drop the area to the desired location on the image. If you want to adjust the size of the area, drag the edge of the area to re-size.
5. Click the **Save** button to save the settings.

Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.

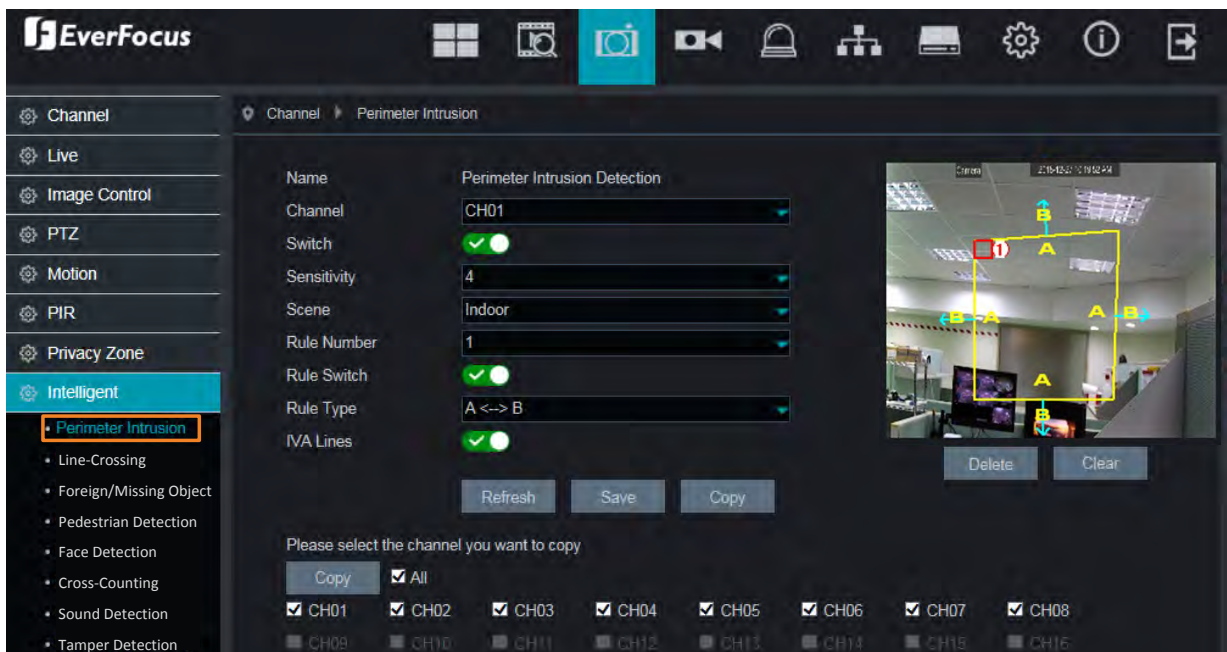


5.3.3.8 Intelligent

You can configure intelligent detection on this page. The intelligent detection functions include Perimeter Intrusion, Line-Crossing, Foreign/Missing Object, Pedestrian Detection, Face Detection, Cross-Counting, Sound Detection and Tamper Detection.

5.3.3.8.1 Perimeter Intrusion

When objects (people, vehicle or other objects) enter in or out of a pre-defined region, the Perimeter Intrusion Detection event will be triggered. You can configure some event actions like event recording, alarm output or Email alert when an event is triggered.

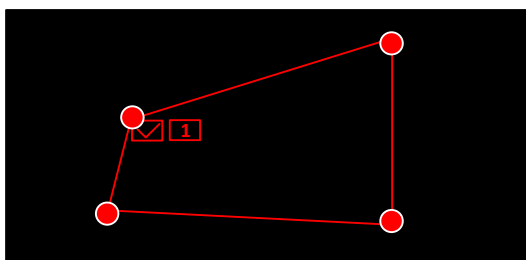


To configure the settings:

1. Select a channel and then switch the **Switch** button to the right to enable this function.
2. Select a sensitivity value. The larger the value, the higher the sensitivity.
3. Select **Indoor** or **Outdoor** based on the location where your IP camera is installed.
4. Select **1** from the **Rule Number** drop-down list to configure the first area. Up to 4 areas can be configured.
5. Enable the **Rule Switch** and then define a **Rule Type**:
 $A \rightarrow B$: Detects movement from A to B.
 $B \rightarrow A$: Detects movement from B to A.
 $A \leftrightarrow B$: Detects both movements from A to B and from B to A.
6. Switch the **IVA Lines** button to the right if you want to enable displaying the IVA line on the live streams.

7. To draw an area:

- a. Use your mouse to click 4 points to draw a rectangle shape. The shape should be convex. Concave shape is not allowed.
- b. If you want to move the area to other position or re-size the area, select the area by checking the red box on the upper-left corner of the area, the borders of the area will change to red color. Drag and drop the area to a desired position. Drag the red dots at the edge of the area can re-size the area.



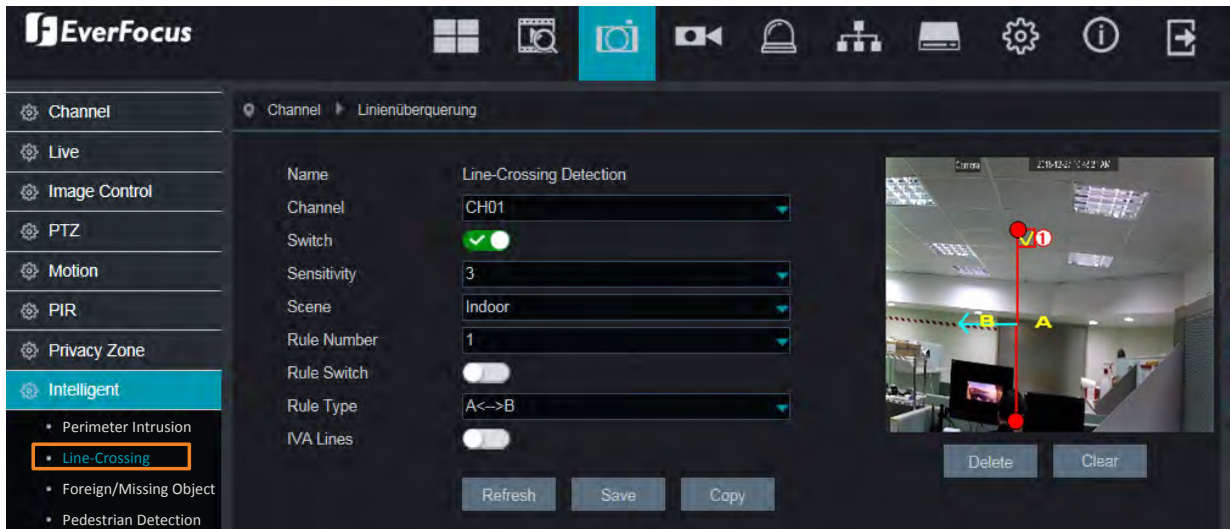
- c. Click the **Save** button to save the settings.
- d. You can follow the steps above to configure more areas. Up to 4 areas can be configured.
- e. You can click the **Clear** button to remove all the areas. To remove a certain area, select the area by checking the red box on the upper-left corner of the area, and then click the **Delete** button.

Note: The configured areas should not be too narrow or small in order to enhance the detection rate.

8. You can click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.
9. To further set up the Intelligent alarm function, enter the alarm setup page (please refer to 5.3.5.4 *Intelligent Alarm*).
10. To activate the intelligent recording function, you need to configure the record schedule (please refer to 5.3.3.8.9 *Record Schedule*).

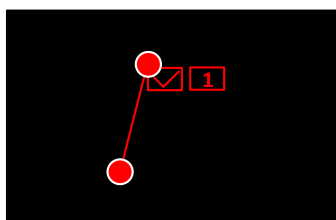
5.3.3.8.2 Line-Crossing

When objects (people, vehicle or other objects) cross a pre-defined line, the Line Crossing Detection event will be triggered. You can configure some event actions like event recording, Email alert or pop-up full screen when an event is triggered.



To configure the settings:

1. Select a channel and then switch the **Switch** button to the right to enable this function.
2. Select a sensitivity value. The larger the value, the higher the sensitivity.
3. Select **Indoor** or **Outdoor** based on the location where your IP camera is installed.
4. Select **1** from the Rule Number drop-down list to configure the first line.
5. Enable the **Rule Switch** and then define a **Rule Type**.
 $A \rightarrow B$: Detects movement from A to B.
 $B \rightarrow A$: Detects movement from B to A.
 $A \leftrightarrow B$: Detects both movements from A to B and from B to A.
6. Switch the **IVA Lines** button to the right if you want to enable displaying the IVA line on the live streams.
7. To draw a line:
 - a. Use your mouse to click 2 points to draw a line.
 - b. If you want to move the line to other position or re-draw the line, select the line by checking the red box on the upper-side of the line, the line will change to red color. Drag and drop the line to a desired position. Drag the red dots of the line can re-size the line.



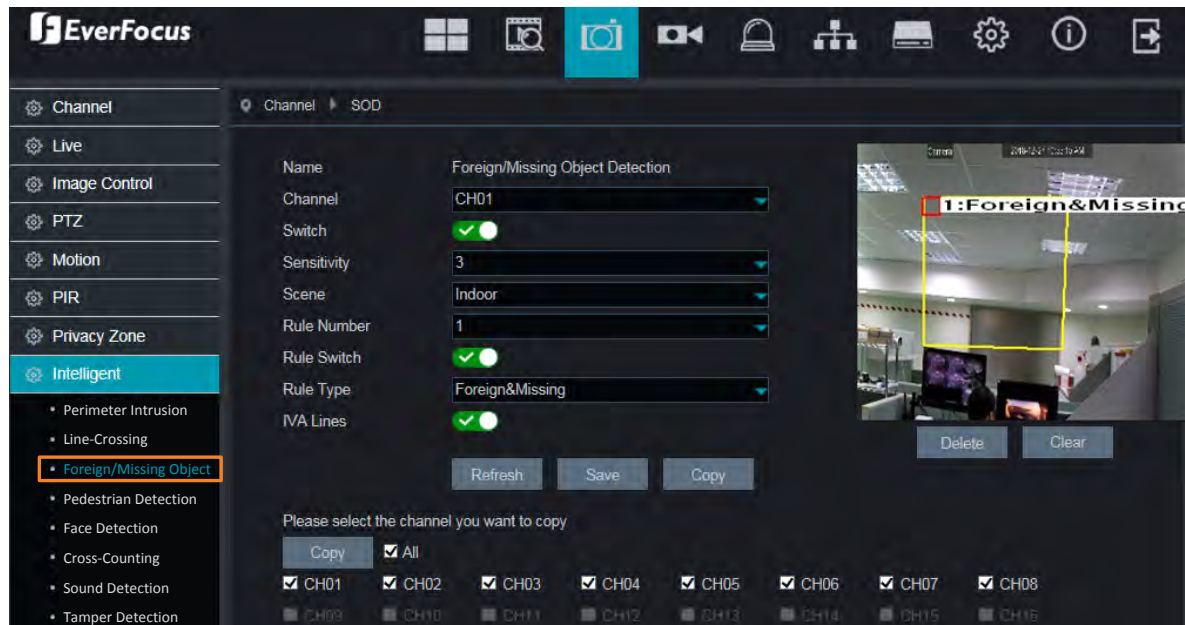
- c. Click the **Save** button to save the settings.
- d. Follow the steps above to configure more lines. Up to 4 lines can be configured.
- e. You can click the **Clear** button to remove all the lines. To remove a certain line, select the line by checking the red box on the upper-side of the line, and then click the **Delete** button.

Note: The configured lines should not be too short in order to enhance the detection rate.

- 8. You can click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.
- 9. To further set up the Intelligent alarm function, enter the alarm setup page (please refer to *5.3.5.4 Intelligent Alarm*).
- 10. To activate the intelligent recording function, you need to configure the record schedule (please refer to *5.3.3.8.9 Record Schedule*).

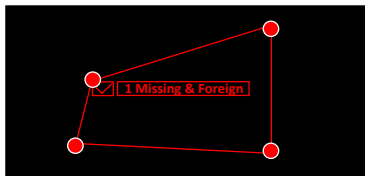
5.3.3.8.3 Foreign/Missing Object

When DVR detects foreign (unattended) or missing objects in a pre-defined area, the Foreign/Missing Object event will be triggered. You can configure some event actions like event recording, Email alert or pop-up full screen when an event is triggered.



To configure the settings:

1. Select a channel and then switch the **Switch** button to the right to enable this function.
2. Select a sensitivity value. The larger the value, the higher the sensitivity.
3. Select **Indoor** or **Outdoor** based on the location where your IP camera is installed.
4. Select **1** from the **Rule Number** drop-down list to configure the first area.
5. Enable the **Rule Switch** and then define a **Rule Type**.
Foreign & Missing: DVR will detect both missing objects and unattended objects.
6. Switch the **IVA Lines** button to the right if you want to enable displaying the IVA line on the live streams.
7. To draw an area:
 - a. Use your mouse to click 4 points to draw a rectangle shape. The shape should be convex. Concave shape is not allowed.
 - b. If you want to move the area to other position or re-size the area, select the area by checking the red box on the upper-left corner of the area, the borders of the area will change to red color. Drag and drop the area to a desired position. Drag the red dots at the edge of the area can re-size the area.



- c. Click the **Save** button to save the settings.
- d. Follow the steps above to configure more areas. Up to 4 areas can be configured.
- e. You can click the **Clear** button to remove all the areas. To remove a certain area, select the area by checking the red box on the upper-left corner of the area, and then click the **Delete** button.

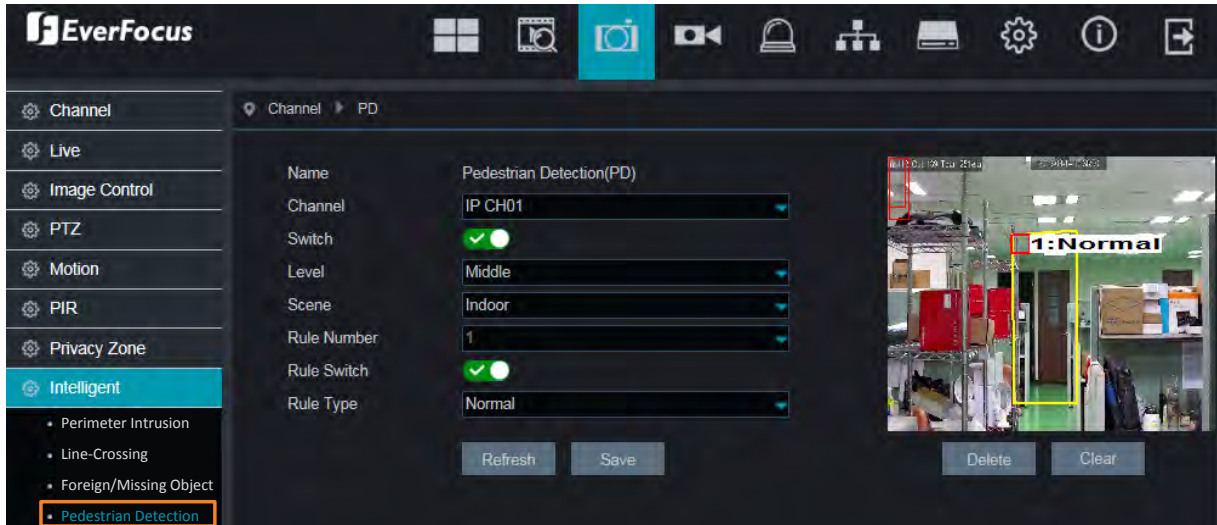
Note: For foreign/missing object, please draw an area slightly larger than or equal to the detected object, and the detected object cannot be covered.



8. You can click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.
9. To further set up the Intelligent alarm function, enter the alarm setup page (please refer to 5.3.5.4 *Intelligent Alarm*).
10. To activate the intelligent recording function, you need to configure the record schedule (please refer to 5.3.3.8.9 *Record Schedule*).

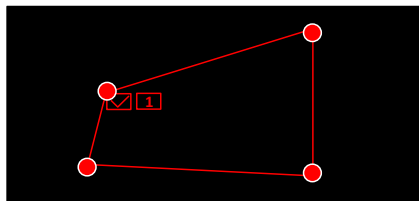
5.3.3.8.4 Pedestrian Detection

When DVR detects moving people in a pre-defined area, the Pedestrian Detection event will be triggered. You can configure some event actions like event recording, Email alert or pop-up full screen when an event is triggered.



To configure the settings:

1. Select a channel and then switch the **Switch** button to the right to enable this function.
2. Select a detection level for the Pedestrian Detection. The value stands for the distance of the objects. Smaller value is suitable to detect objects that are far away from the camera. Larger value is suitable to detect objects near the camera. The red squares on the top left corner represent the max. and min. object size of the selected Level.
3. Select **Indoor** or **Outdoor** based on the location where your IP camera is installed.
4. Select **1** from the **Rule Number** drop-down list to configure the area.
5. Enable the **Rule Switch** and then define a **Rule Type**. Only **Normal** type is available.
6. To draw an area:
 - a. Use your mouse to click 4 points to draw a rectangle shape. The shape should be convex. Concave shape is not allowed.
 - b. If you want to move the area to other position or re-size the area, select the area by checking the red box on the upper-left corner of the area, the borders of the area will change to red color. Drag and drop the area to a desired position. Drag the red dots at the edge of the area can re-size the area.



- c. Click the **Save** button to save the settings.

- d. You can click the **Clear** button to remove all the areas. To remove a certain area, select the area by checking the red box on the upper-left corner of the area, and then click the **Delete** button.

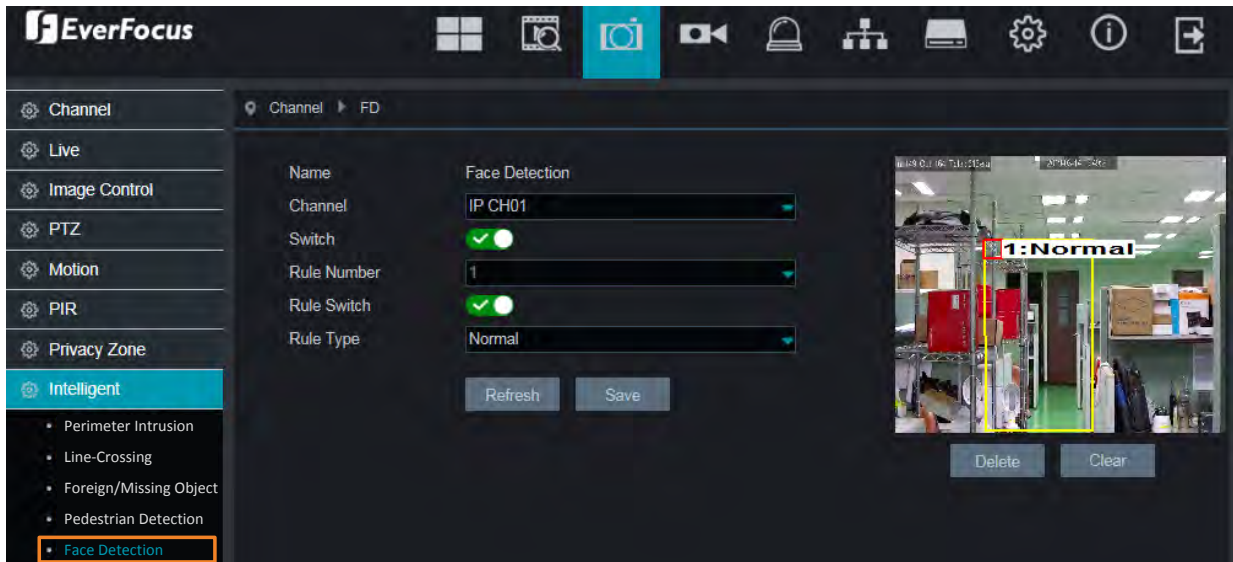
Note: The configured areas should not be too narrow or small in order to enhance the detection rate. The whole target object (people) should be inside the area.



7. You can click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.
8. To further set up the Intelligent alarm function, enter the alarm setup page (please refer to *5.3.5.4 Intelligent Alarm*).
9. To activate the intelligent recording function, you need to configure the record schedule (please refer to *5.3.3.8.9 Record Schedule*).

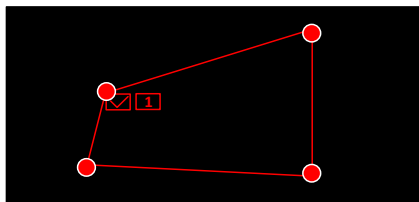
5.3.3.8.5 Face Detection

When DVR detects faces of moving people in a pre-defined area, the Face Detection event will be triggered. You can configure some event actions like event recording, Email alert or pop-up full screen when an event is triggered.



To configure the settings:

1. Select a channel and then switch the **Switch** button to the right to enable this function.
2. Select **1** from the **Rule Number** drop-down list to configure the area.
3. Enable the **Rule Switch** and then define a **Rule Type**. Only **Normal** type is available.
4. To draw an area:
 - a. Use your mouse to click 4 points to draw a rectangle shape. The shape should be convex. Concave shape is not allowed.
 - b. If you want to move the area to other position or re-size the area, select the area by checking the red box on the upper-left corner of the area, the borders of the area will change to red color. Drag and drop the area to a desired position. Drag the red dots at the edge of the area can re-size the area.



- c. Click the **Save** button to save the settings.
- d. You can click the **Clear** button to remove all the areas. To remove a certain area, select the area by checking the red box on the upper-left corner of the area, and then click the **Delete** button.

Note: The configured areas should include the whole front face.

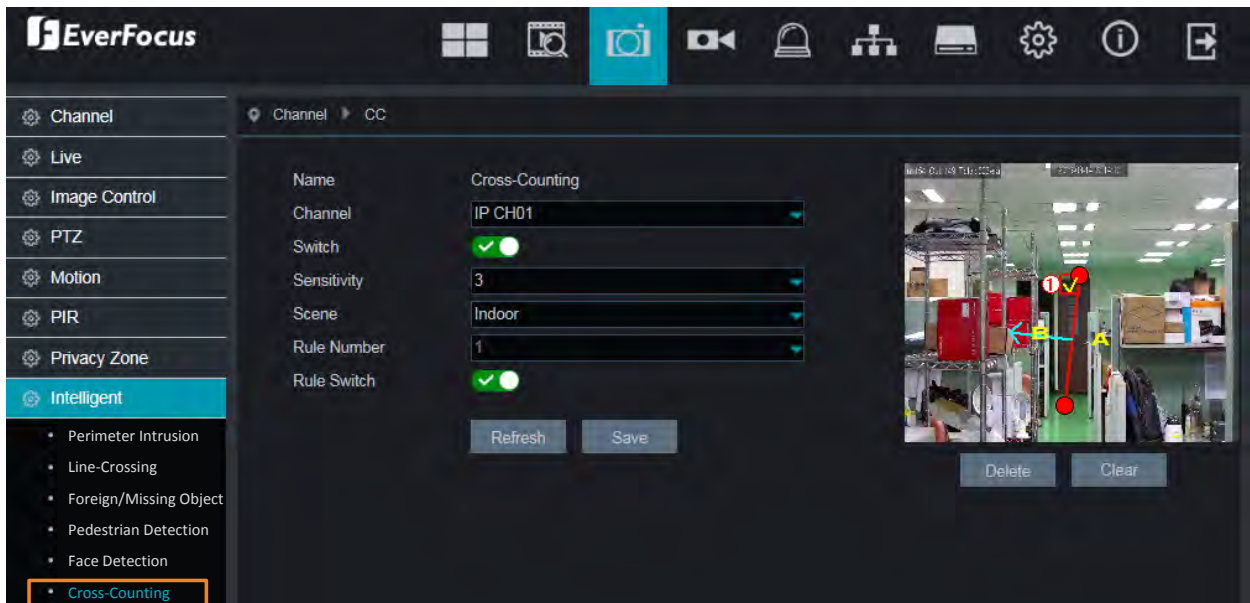


5. You can click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.
6. To further set up the Intelligent alarm function, enter the alarm setup page (please refer to *5.3.5.4 Intelligent Alarm*).
7. To activate the intelligent recording function, you need to configure the record schedule (please refer to *5.3.3.8.9 Record Schedule*).

5.3.3.8.6 Cross-Counting Detection

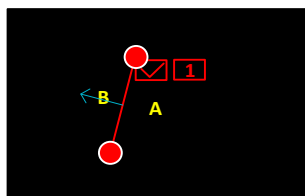
The DVR will count the times when objects (people, vehicle or other objects) cross a pre-defined line, and the Cross-Counting event will be triggered. You can configure some event actions like event recording, Email alert or pop-up full screen when an event is triggered.

You can search and view the statistical result of cross-counting on the Intelligent Analysis page. Please refer to 3.3.3.8.10 *Cross-Counting Analysis*.



To configure the settings:

1. Select a channel and then switch the **Switch** button to the right to enable this function.
2. Select a sensitivity value for the Cross-Counting Detection. The larger the value, the higher the sensitivity.
3. Select **Indoor** or **Outdoor** based on the location where your IP camera is installed.
4. Select **1** from the **Rule Number** drop-down list to configure the area.
5. Enable the **Rule Switch** to enable this rule.
A→B: Detects movement from A to B.
6. To draw a line:
 - a. Use your mouse to click 2 points to draw a line.
 - b. If you want to move the line to other position or re-draw the line, select the line by checking the red box on the upper-side of the line, the line will change to red color. Drag and drop the line to a desired position. Drag the red dots of the line can re-size the line.



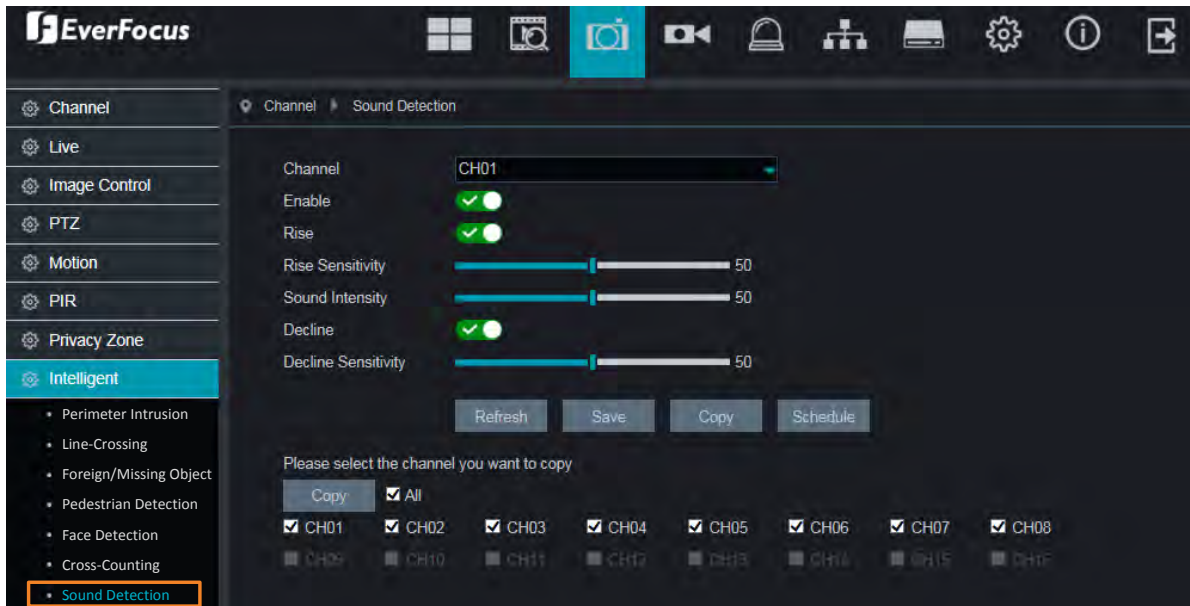
- c. Click the **Save** button to save the settings.
- d. You can click the **Clear** button to remove all the lines. To remove a certain line, select the line by checking the red box on the upper-side of the line, and then click the **Delete** button.

Note: The configured line should not be too short in order to enhance the detection rate.

- 7. You can click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.
- 8. To further set up the Intelligent alarm function, enter the alarm setup page (please refer to *5.3.5.4 Intelligent Alarm*).
- 9. To activate the intelligent recording function, you need to configure the record schedule (please refer to *5.3.3.8.9 Record Schedule*).

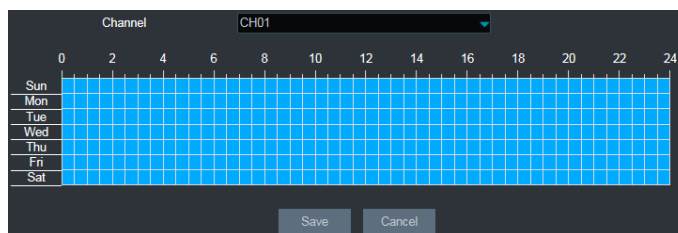
5.3.3.8.7 Sound Detection

This function is only available when the supported analog/IP cameras with sound detection function are connected. For the supported cameras, please contact EverFocus (ts@everfocus.com.tw).



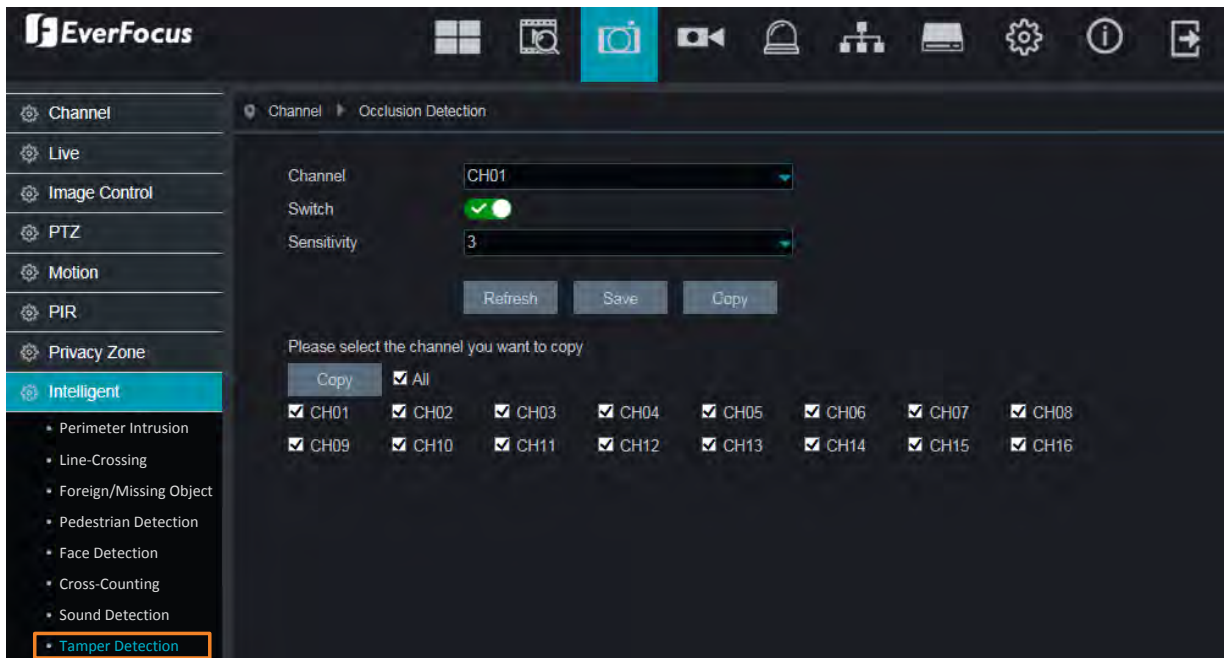
To configure the settings:

1. Select a channel and then switch the **Enable** button to the right to enable this function.
2. Switch the **Rise** button to the right to enable the Sound Rise detection. And then further set up the **Rise Sensitivity** and **Sound Intensity**.
3. Switch the **Decline** button to the right to enable the Sound Decline detection. And then further set up the **Decline Sensitivity**.
4. If you want to enable recording when sound detection alarm is triggered, click the Schedule button, the below record schedule setup window appears. Click and drag on the schedule time blocks to draw the blocks with blue color, which will be applied with Sound Detection. Click **Save** to save the record schedule.



5. Click the **Save** button to save the settings.
6. You can click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.
7. To further set up the Sound alarm function, enter the alarm setup page (please refer to 5.3.5.4 Intelligent Alarm).

5.3.3.8.8 Tamper Detection

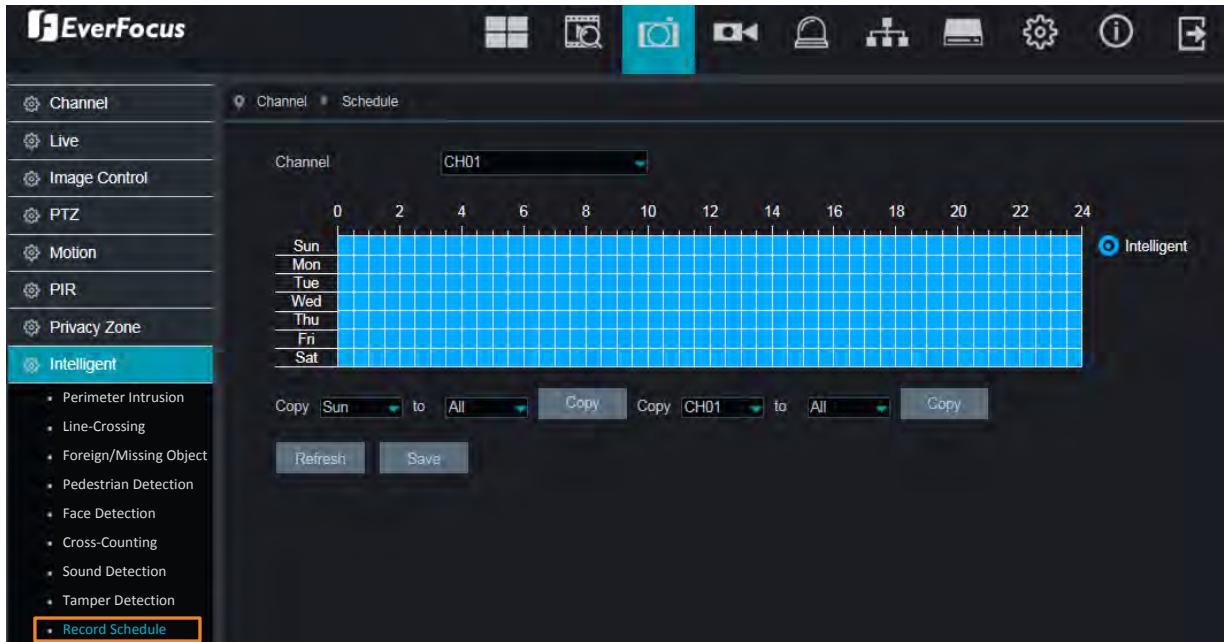


To configure the Tamper Detection settings:

1. Select a channel and then switch the **Switch** button to the right to enable this function.
2. Select a **Sensitivity** value from the drop-down list. The larger the value, the higher the sensitivity.
3. Click the **Save** button to save the settings.
4. You can click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels
5. To further set up the Tamper alarm function, enter the alarm setup page (please refer to [5.3.5.4 Intelligent Alarm](#)).
6. To activate the Tamper recording function, you need to configure the record schedule (please refer to [5.3.3.8.9 Record Schedule](#)) and enable the Recording function on the Tamper Alarm setup page (please refer to [5.3.5.4 Intelligent Alarm](#)).

5.3.3.8.9 Record Schedule

In order to active the intelligent recording function, you need to configure the schedule recording for Intelligent events. The schedule will be activated 24 hours a day, 7 days a week.



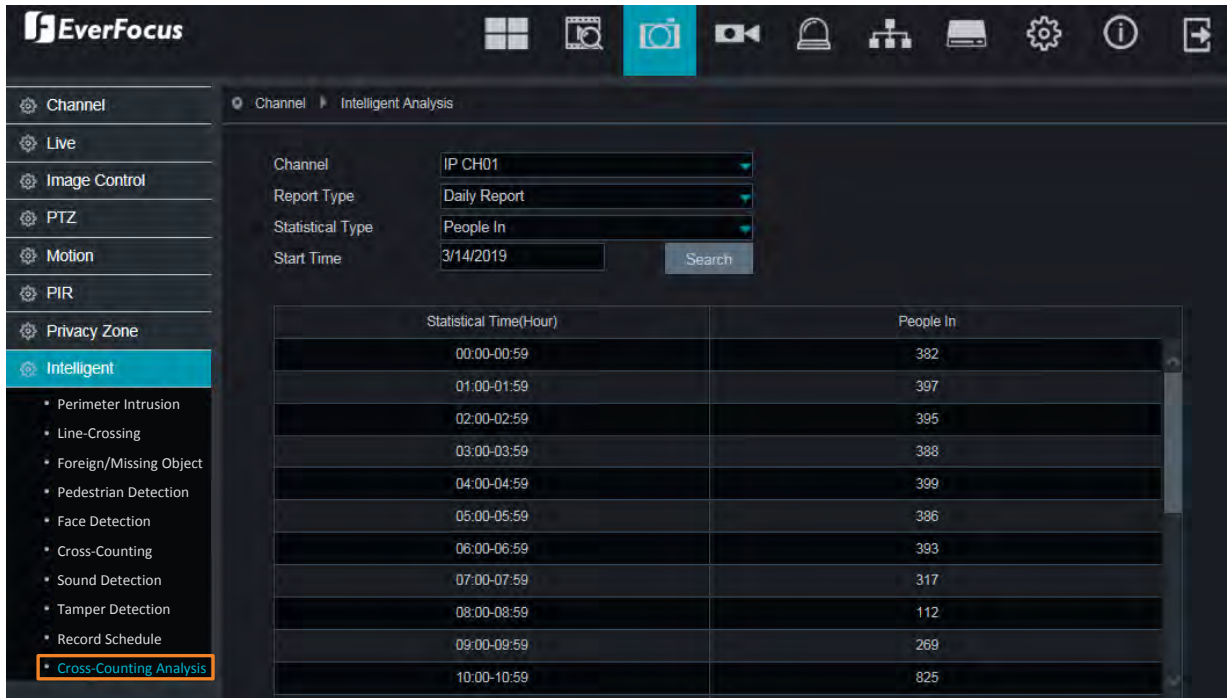
1. Select a channel from the **Channel** drop-down list.
2. Move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with blue color, which will be applied with intelligent event recording function. To deselect the blocks, click and drag on the blue blocks to select again.
3. Click **Save** to save the settings.

If you want to apply the same configurations from one day to other days, click the **Copy** (day) button. If you want to apply the same configurations from one channel to other channels, click the **Copy** (channel) button.

5.3.3.8.10 Cross-Counting Analysis

On this page, you can search and view the statistical result of Cross-Counting Detection.

Select the criteria and then click the **Search** button, the results will be listed at the lower section.



The screenshot shows the EverFocus Intelligent Analysis interface. The left sidebar contains a menu with the following items: Channel, Live, Image Control, PTZ, Motion, PIR, Privacy Zone, and Intelligent. The Intelligent menu is expanded, showing a list of analysis types: Perimeter Intrusion, Line-Crossing, Foreign/Missing Object, Pedestrian Detection, Face Detection, Cross-Counting, Sound Detection, Tamper Detection, Record Schedule, and Cross-Counting Analysis (which is highlighted with an orange box). The main area displays the search criteria and the results table.

Search Criteria:

- Channel: IP CH01
- Report Type: Daily Report
- Statistical Type: People In
- Start Time: 3/14/2019
- Search button

Results Table:

Statistical Time(Hour)	People In
00:00-00:59	382
01:00-01:59	397
02:00-02:59	395
03:00-03:59	388
04:00-04:59	399
05:00-05:59	386
06:00-06:59	393
07:00-07:59	317
08:00-08:59	112
09:00-09:59	269
10:00-10:59	825

5.3.4 Record

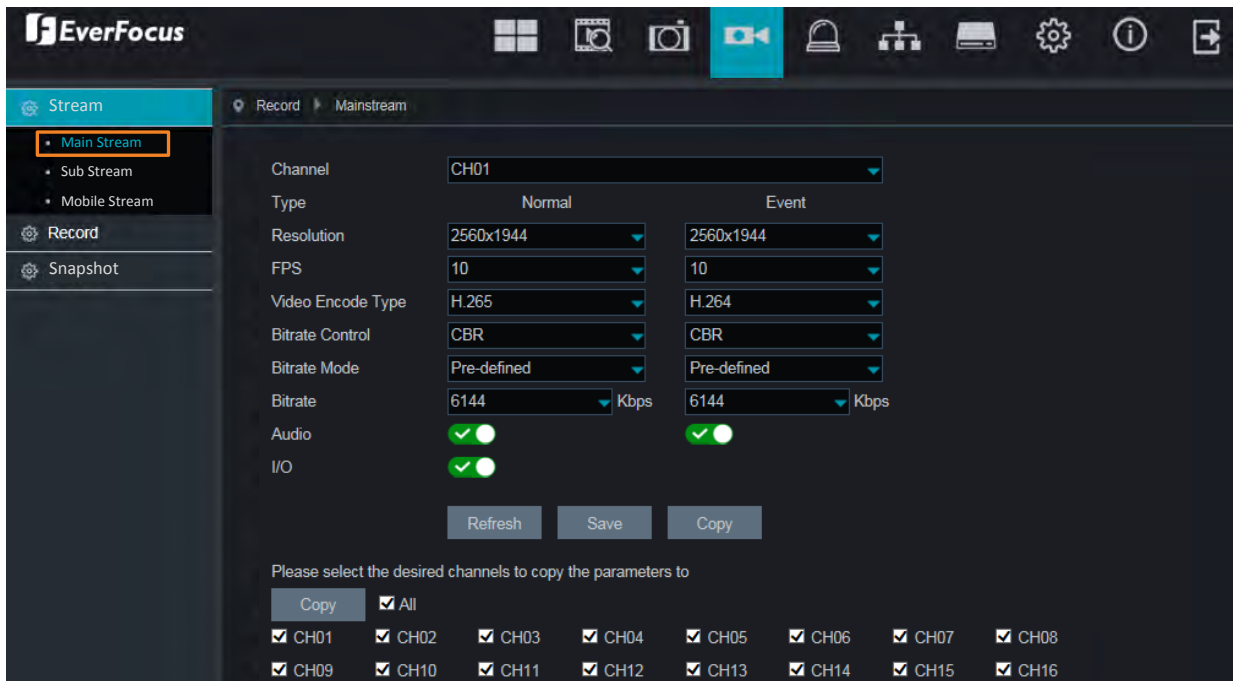
You can configure the recording settings on this page.

5.3.4.1 Stream

On this page, you can configure the recording video or network transmission picture quality. Generally, main stream defines the recording video quality which will be saved in the HDD; sub stream defines the video quality which is being viewed via remote access, for example web client and CMS; mobile stream defines the video quality which is being viewed via remote access through mobile devices.

5.3.4.1.1 Main Stream

Main stream defines the recording video quality which will be saved in the HDD.



The screenshot displays the 'Stream' configuration page in the EverFocus web interface. The left sidebar shows 'Stream' as the active section, with 'Main Stream' selected. The main area is titled 'Record Mainstream' and contains two columns of settings for 'Normal' and 'Event' recording types. The 'Normal' column is currently active. Settings include: Channel (CH01), Type (Normal), Resolution (2560x1944), FPS (10), Video Encode Type (H.265), Bitrate Control (CBR), Bitrate Mode (Pre-defined), Bitrate (6144 Kbps), Audio (checked), and I/O (checked). Below these settings are 'Refresh', 'Save', and 'Copy' buttons. A section at the bottom prompts the user to 'Please select the desired channels to copy the parameters to', with a 'Copy' button and a list of checkboxes for channels CH01 through CH16, all of which are checked.

Channel: Select a channel.

Type: You can configure the recording settings for **Normal** recording and **IO Event** recording. The **Event** options only appear when the below **I/O** switch has been enabled.

Resolution: Select a recording resolution.

FPS: Select a FPS (frames per second) for the recording.

Video Encode Type: This option is only for IP cameras. Select H.264 or H.265 based on your IP cameras.

Bitrate Control: Select **CBR** (constant bitrate) if the scene is simple and less changing, such as a gray wall. Select **VBR** (variable bitrate) if the scene is complex, such as a department store. If VBR is selected, select a video quality next to Bitrate Control.

Bitrate Mode: Select **User-defined** to set up bitrate manually; or **Predefined** to auto-select bitrate.

Bitrate: The Bitrate corresponds to the speed of data transfer that the DVR will use to record video. Recordings that are encoded at higher bitrates, will be of better quality.

Audio: Select this option if you want to record audio along with video. Please ensure the camera supports audio function and a microphone has been connected to the DVR.

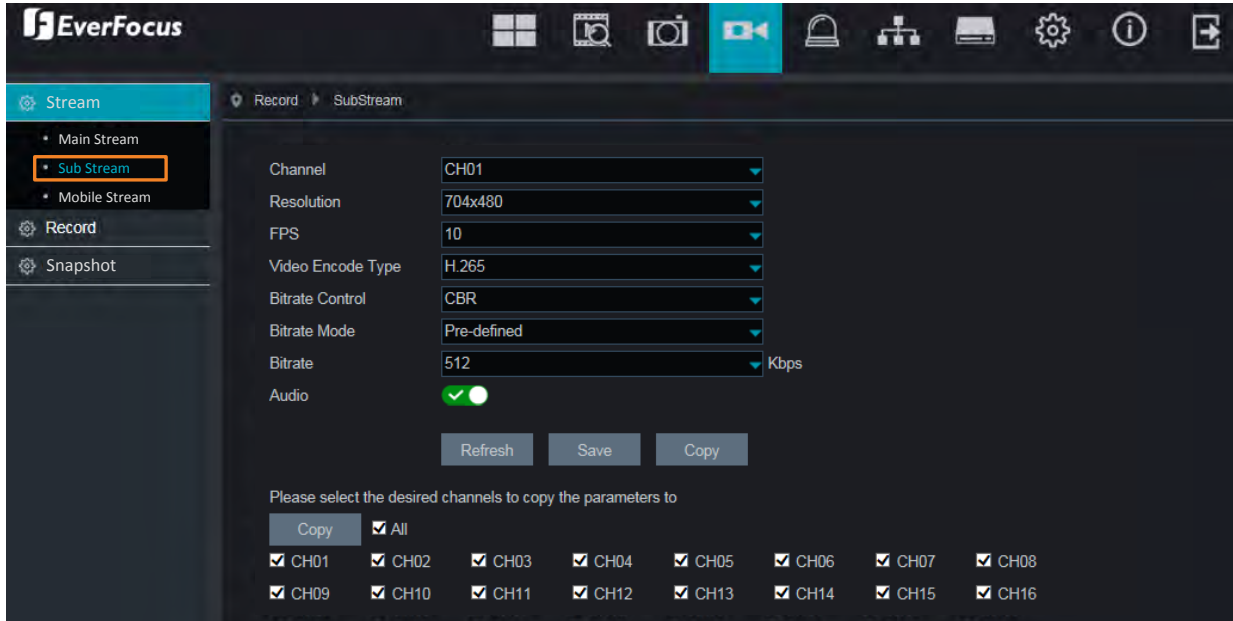
I/O: Select this option if you want to enable external IO alarm for Main Stream recording.

Click **Save** to save the settings; click **Refresh** to refresh the page.

Copy: You can click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels

5.3.4.1.2 Sub Stream

Sub stream defines the video quality which is being viewed via remote access, for example web client and CMS.



Channel: Select a channel.

Resolution: Select a recording resolution.

FPS: Select a FPS (frames per second) for the recording.

Video Encode Type: This option is only for IP cameras. Select H.264 or H.265 based on your IP cameras.

Bitrate Control: Select **CBR** (constant bitrate) if the scene is simple and less changing, such as a gray wall. Select **VBR** (variable bitrate) if the scene is complex, such as a department store. If VBR is selected, select a video quality next to Bitrate Control.

Bitrate Mode: Select **User-defined** to set up bitrate manually; or **Predefined** to auto-select bitrate.

Bitrate: The Bitrate corresponds to the speed of data transfer that the DVR will use to record video. Recordings that are encoded at higher bitrates, will be of better quality.

Audio: Select this option if you want to record audio along with video. Please ensure the camera supports audio function and a microphone has been connected to the DVR.

Click **Save** to save the settings; click **Refresh** to refresh the page.

Copy: You can click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels

5.3.4.1.3 Mobile Stream

Mobile stream defines the video quality which is being viewed via remote access through mobile devices. Note that Mobile Stream is only available for IP cameras.



Channel: Select a channel.

Enable: Switch the button to the right to enable Mobile Stream.

Resolution: Select a recording resolution.

FPS: Select a FPS (frames per second) for the recording.

Video Encode Type: This option is only for IP cameras. Select H.264 or H.265 based on your IP cameras.

Bitrate Control: Select **CBR** (constant bitrate) if the scene is simple and less changing, such as a gray wall. Select **VBR** (variable bitrate) if the scene is complex, such as a department store. If VBR is selected, select a video quality next to Bitrate Control.

Bitrate Mode: Select **User-defined** to set up bitrate manually; or **Predefined** to auto-select bitrate.

Bitrate: The Bitrate corresponds to the speed of data transfer that the DVR will use to record video. Recordings that are encoded at higher bitrates, will be of better quality.

Audio: Select this option if you want to record audio along with video. Please ensure the camera supports audio function and a microphone has been connected to the DVR.

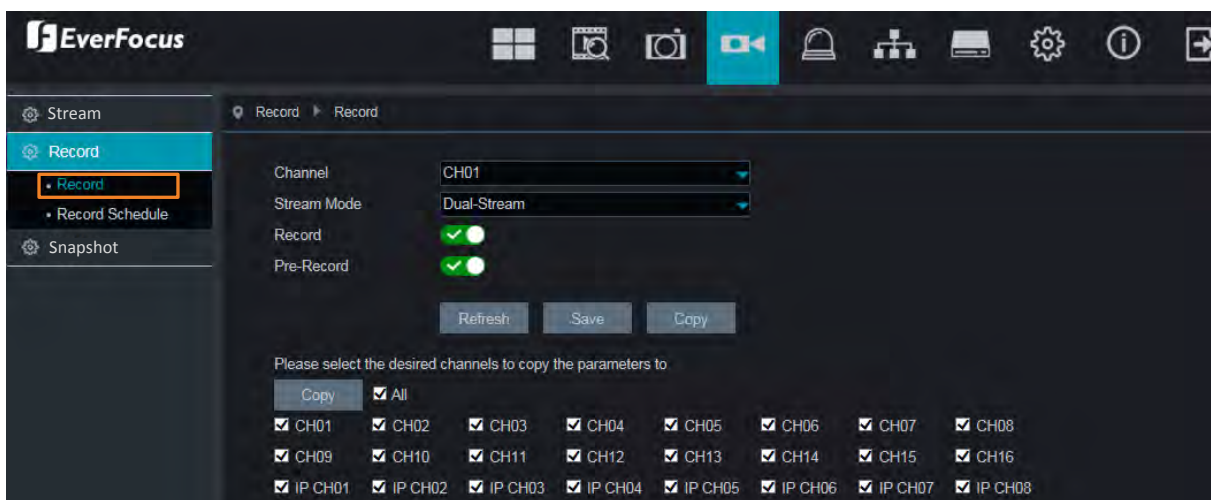
i-Frame Interval: Input an i-Frame interval.

Click **Save** to save the settings; click **Refresh** to refresh the page.

5.3.4.2 Record

On this page, you can configure the recording parameters and recording schedule for each channel.

5.3.4.2.1 Record



Channel: Select a channel.

Stream Mode: Select a recording mode for the channel. If you select **Dual-Stream**, the system will record both Main Stream and Sub Stream. If you select **Main Stream**, the system will record Main Stream only. Note that if you want to play back recordings of sub stream on the playback page, you will have to select **Dual-Stream** here.

Record: Switch the button to the right to enable the function.

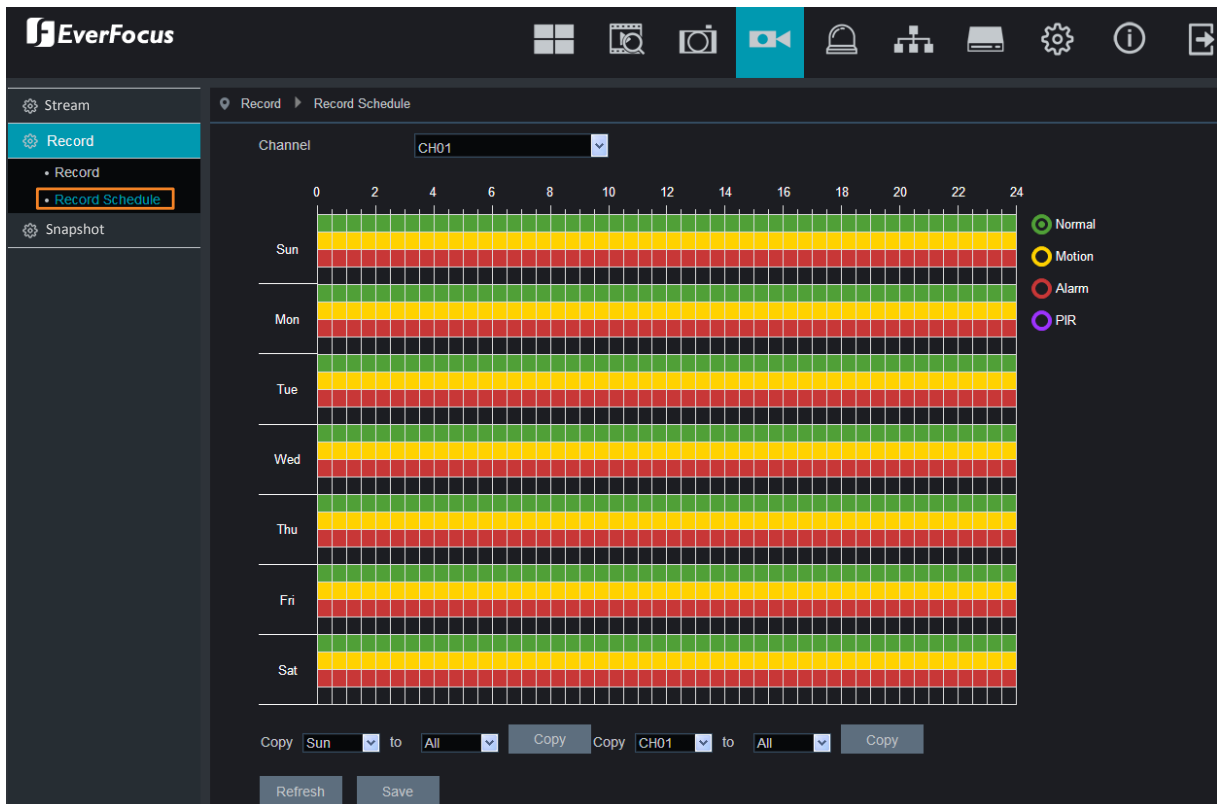
Pre-Record: Switch the button to the right to enable the function. The DVR will start recording a few seconds before an alarm/event is triggered.

Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.

5.3.4.2.2 Record Schedule

On this page, you can configure the recording schedule for Normal, Motion or PIR recordings.



Channel: Select a channel from the drop-down list.

Normal: Move your mouse cursor over the schedule time blocks. The first line of the time block on each day is the Normal time blocks. Click and drag on the schedule time blocks to draw the blocks with green color, which will be applied with normal recording function.

Motion: Move your mouse cursor over the schedule time blocks. The second line of the time block on each day is the Motion time blocks. Click and drag on the schedule time blocks to draw the blocks with yellow color, which will be applied with motion recording function. Note that for this function to work, you will have to configure the motion settings in advance (please refer to 5.3.5.1 *Motion Alarm*).

Alarm (IO): Move your mouse cursor over the schedule time blocks. The third line of the time block on each day is the IO time blocks. Click and drag on the schedule time blocks to draw the blocks with red color, which will be applied with IO recording function. Note that for this function to work, you will have to configure the IO settings in advance (please refer to 5.3.5.3 *I/O Alarm*).

PIR: Move your mouse cursor over the schedule time blocks. The fourth line of the time block on each day is the PIR time blocks. Click and drag on the schedule time blocks to draw the blocks with purple color, which will be applied with PIR recording function. Note that for this

function to work, you will have to configure the PIR settings in advance (please refer to 5.3.5.2 *PIR Alarm*).

If you want to apply the same configurations from one day to other days, click the **Copy** (day) button. If you want to apply the same configurations from one channel to other channels, click the **Copy** (channel) button.

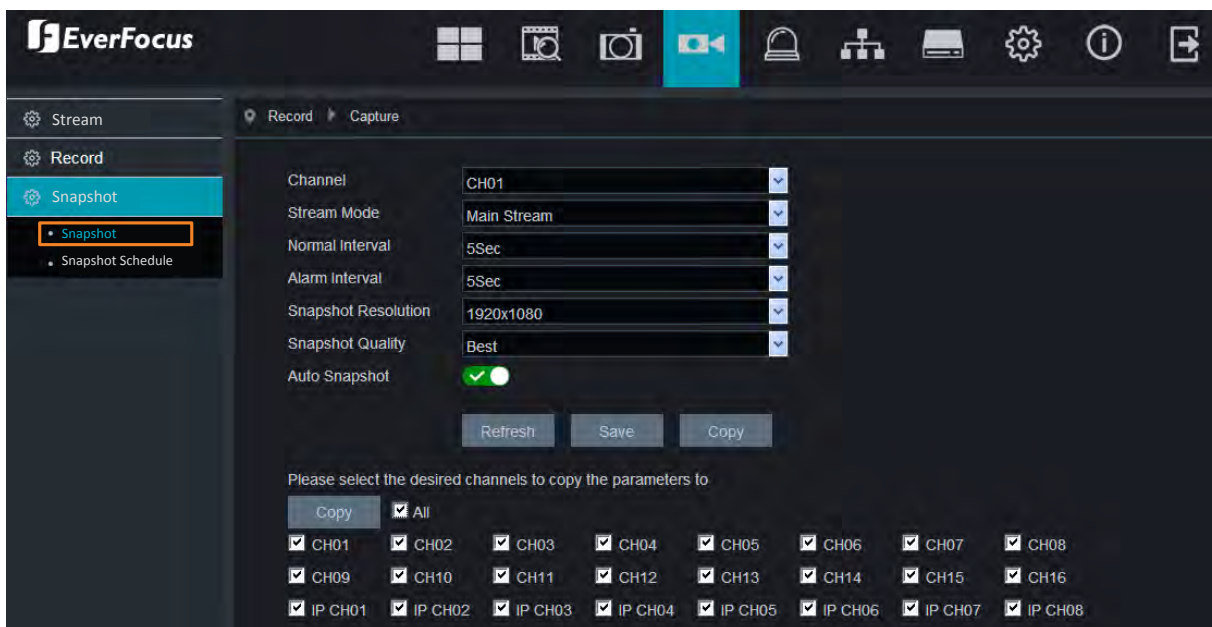
Click **Save** to save the settings or **Refresh** to refresh the page.

5.3.4.3 Snapshot

On this page, you can configure the snapshot parameters or set up the snapshot schedule.

5.3.4.3.1 Snapshot

On this page, you can configure the snapshot parameters.



Channel: Select a channel from the drop-down list.

Stream Mode: Select main stream or sub stream for the snapshot image.

Normal Interval: Configure an interval to automatically take a normal snapshot. For this function to work, you will have to configure the Snapshot Schedule. Please refer to 5.3.4.3.2 *Snapshot Schedule*.

Alarm Interval: Configure an interval to automatically take a snapshot when motion, IO alarm or PIR is triggered. For this function to work, you will have to configure the Snapshot Schedule. Please refer to 5.3.4.3.2 *Snapshot Schedule*.

Snapshot Resolution: Select a resolution for the alarm snapshot image.

Snapshot Quality: Select an image quality for the alarm snapshot image.

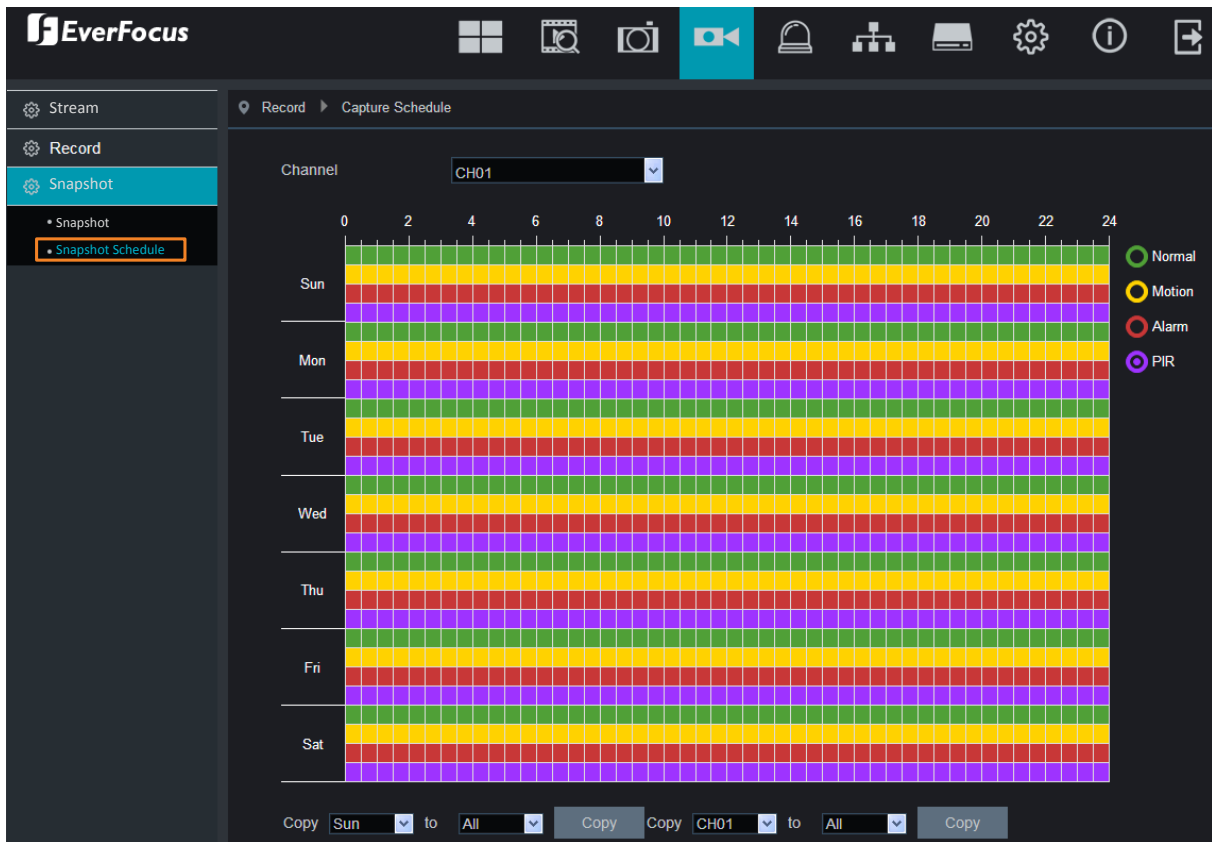
Auto Snapshot: Switch the button to the right to enable the Auto Snapshot function for normal recording, motion, IO, PIR events.

Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.

5.3.4.3.2 Snapshot Schedule

On this page, you can configure the snapshot schedule.



Channel: Select a channel from the drop-down list.

Normal: Move your mouse cursor over the schedule time blocks. The first line of the time block on each day is the Normal time blocks. Click and drag on the schedule time blocks to draw the blocks with green color, which will be applied with normal snapshot function.

Motion: Move your mouse cursor over the schedule time blocks. The second line of the time block on each day is the Motion time blocks. Click and drag on the schedule time blocks to draw the blocks with yellow color, which will be applied with motion snapshot function. Note that for this function to work, you will have to configure the motion settings in advance (please refer to 5.3.5.1 Motion Alarm).

Alarm (IO): Move your mouse cursor over the schedule time blocks. The third line of the time block on each day is the IO time blocks. Click and drag on the schedule time blocks to draw the blocks with red color, which will be applied with IO snapshot function. Note that for this function to work, you will have to configure the IO settings in advance (please refer to 5.3.5.3 I/O Alarm).

PIR: Move your mouse cursor over the schedule time blocks. The fourth line of the time block on each day is the PIR time blocks. Click and drag on the schedule time blocks to draw the blocks with purple color, which will be applied with PIR snapshot function. Note that for this

function to work, you will have to configure the PIR settings in advance (please refer to 5.3.5.2 *PIR Detection*).

If you want to apply the same configurations from one day to other days, click the **Copy** (day) button. If you want to apply the same configurations from one channel to other channels, click the **Copy** (channel) button.

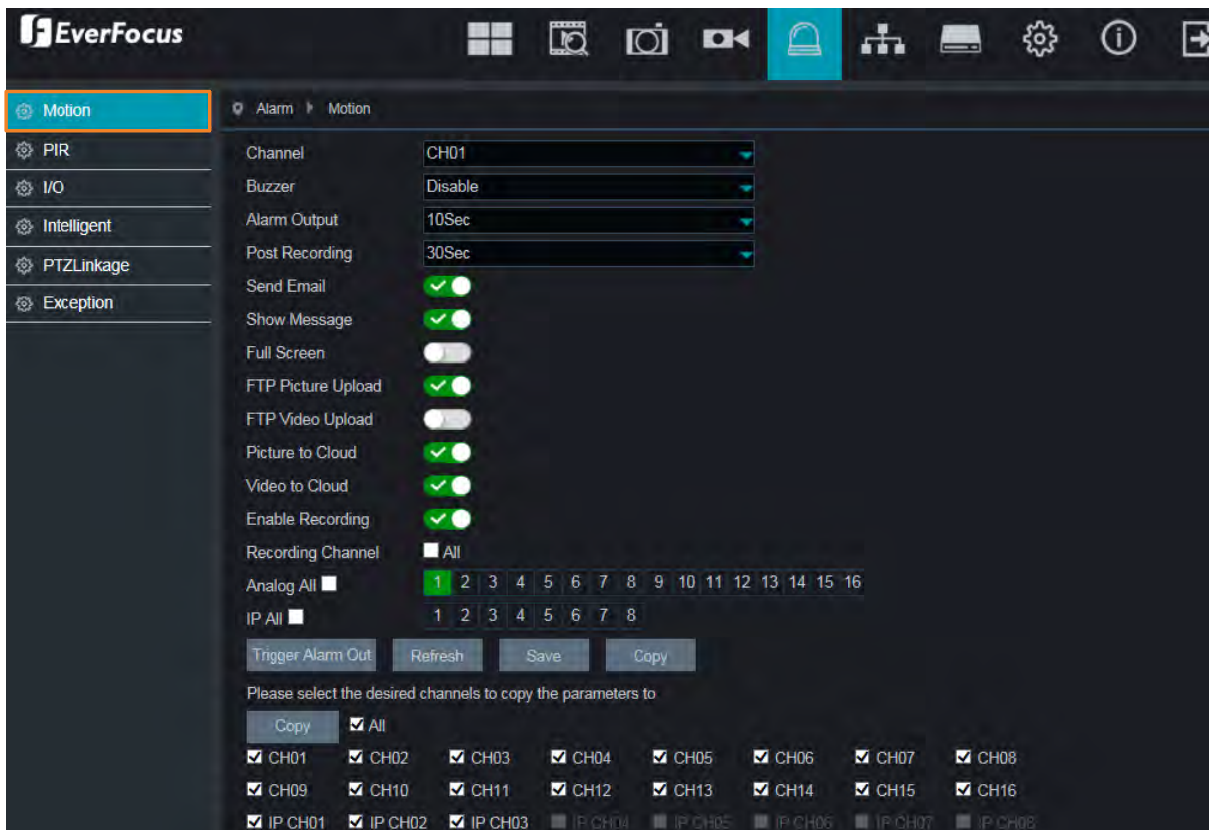
Click **Save** to save the settings or **Refresh** to refresh the page.

5.3.5 Alarm

You can configure the alarm settings on this page.

5.3.5.1 Motion Alarm

After configuring the Motion Detection settings, you can further configure the Motion Alarm settings. To configure the Motion Detection setting, please refer to [5.3.3.5 Motion](#).



Channel: Select a channel from the drop-down list.

Buzzer: Select a time for DVR buzzer to sound when a motion event is triggered. Select **Disable** to disable the function.

Alarm Output: Select an alarm output time (duration) when events occur. When an event is triggered, the alarm will last based on the setup latch time.

Post Recording: Select a post recording time when a motion event is triggered.

Send Email: Switch the button to the right to enable the Email alert function. When a motion event is triggered, the DVR will send an email alert with a snapshot to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance (refer to [5.3.6.3 Email](#)).

Show Message: Switch the button to the right to enable displaying motion icon “M” on the live channel when a motion event is triggered.

Full Screen: Switch the button to the right to enable the full screen function. If this function is enabled and a motion event is triggered, the triggered channel will be displayed in full screen.

FTP Picture Upload: When an event is triggered, the DVR will upload alarm images to FTP server. Note that for this function to work, you have to set up FTP configurations in advance. You can also configure the snapshot image resolution and quality, please refer to *4.3.6.4.1 FTP*.

FTP Video Upload: When a motion event is triggered, the DVR will upload alarm videos to FTP server. Note that for this function to work, you have to set up FTP Schedule in advance, please refer to *4.3.6.4.2 FTP Schedule*.

Picture to Cloud: When a motion event is triggered, the DVR will upload alarm images to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.7.2 Cloud*.

Video to Cloud: When a motion event is triggered, the DVR will upload alarm videos to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.7.2 Cloud*.

Enable Recording: Switch the button to the right to enable the function, and then select the desired channel(s) you want to record when a Motion event is triggered. Note that for Motion recording function to work, the Record Schedule function has to be configured (please refer to *5.3.4.2.2 Record Schedule*).

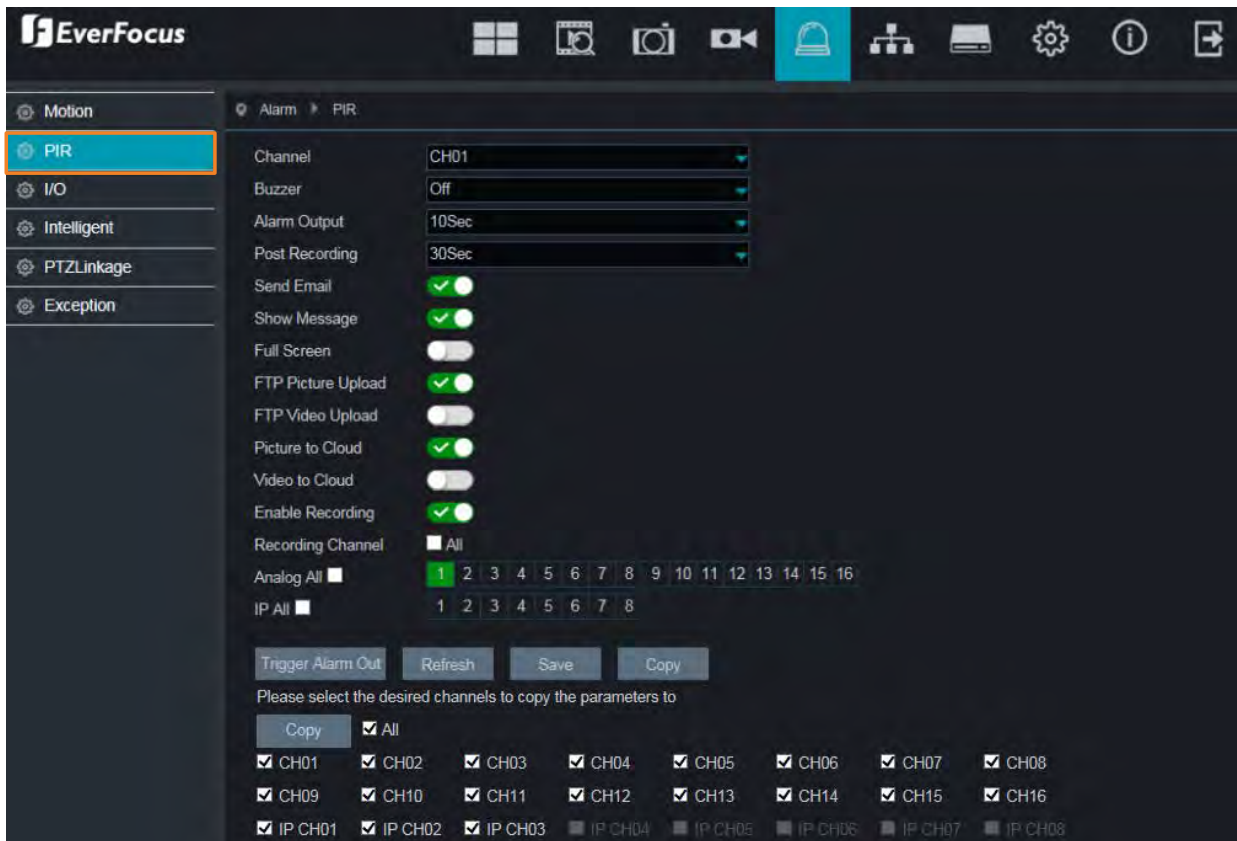
Trigger Alarm Out: Select an external alarm output device connected to the DVR, IPCam or both.

Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.

5.3.5.2 PIR Alarm

After configuring the PIR Detection settings, you can further configure the PIR Alarm settings. To configure the PIR Detection setting, please refer to 5.3.3.6 PIR).



Channel: Select a channel from the drop-down list.

Buzzer: Select a time for DVR buzzer to sound when an event is triggered. Select **Disable** to disable the function.

Alarm Output: Select an alarm output time (duration) when events occur. When an event is triggered, the alarm will last based on the setup latch time.

Post Recording: Select a post recording time when an event is triggered.

Send Email: Switch the button to the right to enable the Email alert function. When an event is triggered, the DVR will send an email alert with a snapshot to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance (refer to 5.3.6.3 Email).

Show Message: Switch the button to the right to enable displaying an alarm message on the live channel when an event is triggered.

Full Screen: Switch the button to the right to enable the full screen function. If this function is enabled and an event is triggered, the triggered channel will be displayed in full screen.

FTP Picture Upload: When an event is triggered, the DVR will upload alarm images to FTP server. Note that for this function to work, you have to set up FTP configurations in advance. You can also configure the snapshot image resolution and quality, please refer to 4.3.6.4.1 FTP.

FTP Video Upload: When a motion event is triggered, the DVR will upload alarm videos to FTP server. Note that for this function to work, you have to set up FTP Schedule in advance, please refer to 4.3.6.4.2 *FTP Schedule*.

Picture to Cloud: When a motion event is triggered, the DVR will upload alarm images to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to 4.7.2 *Cloud*.

Video to Cloud: When a motion event is triggered, the DVR will upload alarm videos to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to 4.7.2 *Cloud*.

Enable Recording: Switch the button to the right to enable the function, and then select the desired channel(s) you want to record when an event is triggered. Note that for PIR Alarm recording function to work, the Record Schedule function has to be configured (please refer to 5.3.4.2.2 *Record Schedule*).

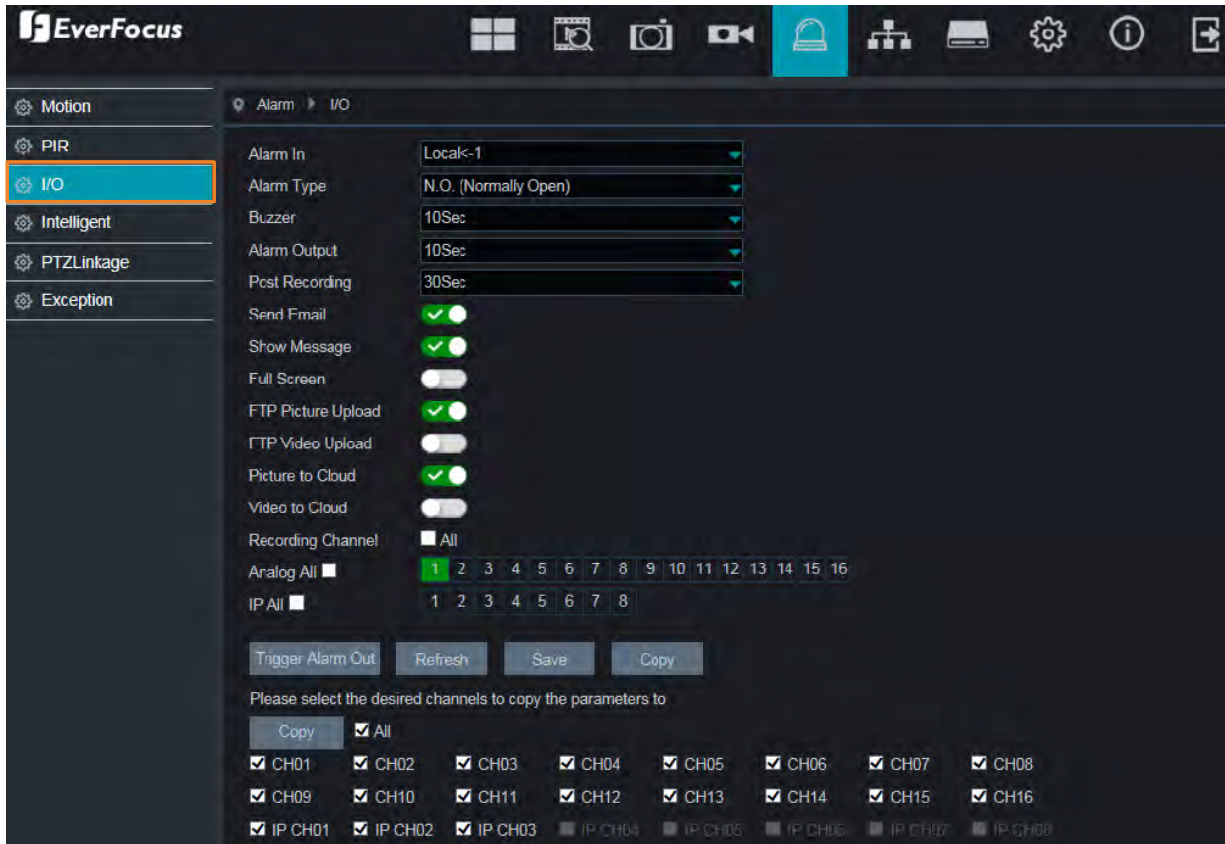
Trigger Alarm Out: Select an external alarm output device connected to the DVR, IPCam or both.

Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.

5.3.5.3 I/O Alarm

After connecting the external IO devices to the DVR or IPCam, you can further configure the IO Alarm settings.



Alarm In: Select an alarm input number.

Alarm Type: Select an alarm type for the alarm input. Options include Normally-Open, Normally-Close and Off.

Buzzer: Select a time for DVR buzzer to sound when an IO event is triggered. Select **Disable** to disable the function.

Alarm Output: Select an alarm output time (duration) when events occur. When an event is triggered, the alarm will last based on the setup latch time.

Post Recording: Select a post recording time when an event is triggered.

Send Email: Switch the button to the right to enable the Email alert function. When an event is triggered, the DVR will send an email alert with a snapshot to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance (refer to 5.3.6.3 Email).

Show Message: Switch the button to the right to enable displaying an alarm message on the live channel when an event is triggered.

Full Screen: Switch the button to the right to enable the full screen function. If this function is enabled and an event is triggered, the triggered channel will be displayed in full screen.

FTP Picture Upload: When an event is triggered, the DVR will upload alarm images to FTP server. Note that for this function to work, you have to set up FTP configurations in advance. You can also configure the snapshot image resolution and quality, please refer to *4.3.6.4.1 FTP*.

FTP Video Upload: When a motion event is triggered, the DVR will upload alarm videos to FTP server. Note that for this function to work, you have to set up FTP Schedule in advance, please refer to *4.3.6.4.2 FTP Schedule*.

Picture to Cloud: When a motion event is triggered, the DVR will upload alarm images to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.7.2 Cloud*.

Video to Cloud: When a motion event is triggered, the DVR will upload alarm videos to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.7.2 Cloud*.

Recording Channel: To enable the alarm recording function, select the desired channel(s) you want to record when an event is triggered. Note that for I/O Alarm recording function to work, the Record Schedule function has to be configured (please refer to *5.3.4.2.2 Record Schedule*).

Trigger Alarm Out: Select an external alarm output device connected to the DVR, IPCam or both.

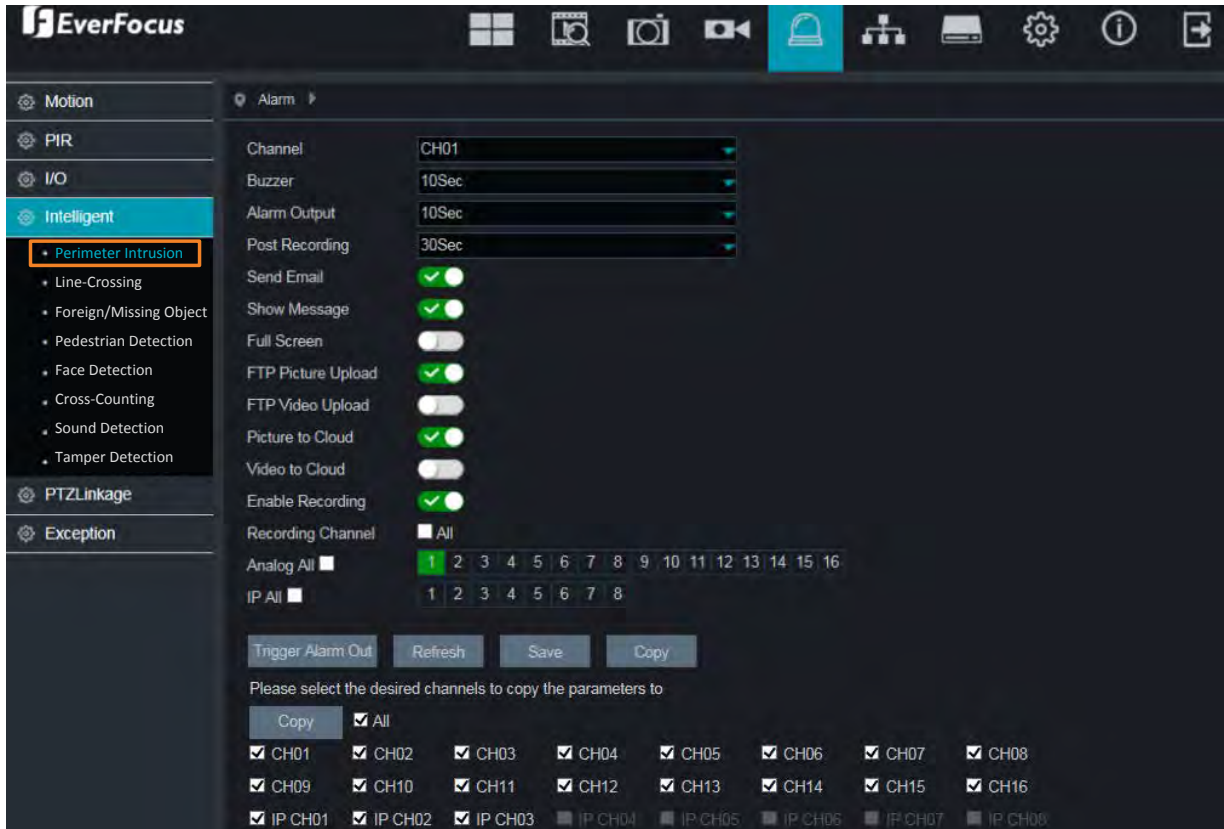
Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.

5.3.5.4 Intelligent Alarm

After configuring the Intelligent functions, you can further configure the Alarm settings for each intelligent function. To configure the Intelligent functions, please refer to [5.3.8 Intelligent](#)).

The Intelligent Alarm setup configurations for each intelligent function are similar. Here we use Perimeter Intrusion alarm setup page for example.



The screenshot shows the 'Intelligent' section of the EverFocus interface, specifically the 'Perimeter Intrusion' alarm setup page. The left sidebar lists various intelligent functions, with 'Perimeter Intrusion' selected. The main area contains configuration options for the alarm, including Channel, Buzzer, Alarm Output, Post Recording, Send Email, Show Message, Full Screen, FTP Picture Upload, FTP Video Upload, Picture to Cloud, Video to Cloud, Enable Recording, and Recording Channel. The Recording Channel section includes a table for selecting channels to copy parameters to.

Channel	Buzzer	Alarm Output	Post Recording	Send Email	Show Message	Full Screen	FTP Picture Upload	FTP Video Upload	Picture to Cloud	Video to Cloud	Enable Recording	Recording Channel
CH01	10Sec	10Sec	30Sec	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All
Please select the desired channels to copy the parameters to												
<input type="button" value="Copy"/> <input checked="" type="checkbox"/> All												
<input checked="" type="checkbox"/> CH01	<input checked="" type="checkbox"/> CH02	<input checked="" type="checkbox"/> CH03	<input checked="" type="checkbox"/> CH04	<input checked="" type="checkbox"/> CH05	<input checked="" type="checkbox"/> CH06	<input checked="" type="checkbox"/> CH07	<input checked="" type="checkbox"/> CH08	<input checked="" type="checkbox"/> CH09	<input checked="" type="checkbox"/> CH10	<input checked="" type="checkbox"/> CH11	<input checked="" type="checkbox"/> CH12	<input checked="" type="checkbox"/> CH13
<input checked="" type="checkbox"/> CH14	<input checked="" type="checkbox"/> CH15	<input checked="" type="checkbox"/> CH16	<input checked="" type="checkbox"/> IP CH01	<input checked="" type="checkbox"/> IP CH02	<input checked="" type="checkbox"/> IP CH03	<input type="checkbox"/> IP CH04	<input type="checkbox"/> IP CH05	<input type="checkbox"/> IP CH06	<input type="checkbox"/> IP CH07	<input type="checkbox"/> IP CH08	<input type="checkbox"/> IP CH09	<input type="checkbox"/> IP CH10

Channel: Select a channel from the drop-down list.

Buzzer: Select a time for DVR buzzer to sound when an event is triggered. Select **Disable** to disable the function.

Alarm Output: Select an alarm output time (duration) when events occur. When an event is triggered, the alarm will last based on the setup latch time.

Post Recording: Select a post recording time when an event is triggered.

Send Email: Switch the button to the right to enable the Email alert function. When an event is triggered, the DVR will send an email alert with a snapshot to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance (refer to [5.3.6.3 Email](#)).

Show Message: Switch the button to the right to enable displaying an alarm message “S” on the live channel when an event is triggered.

Full Screen: Switch the button to the right to enable the full screen function. If this function is enabled and an event is triggered, the triggered channel will be displayed in full screen.

FTP Picture Upload: When an event is triggered, the DVR will upload alarm images to FTP server. Note that for this function to work, you have to set up FTP configurations in advance. You can also configure the snapshot image resolution and quality, please refer to *4.3.6.4.1 FTP*.

FTP Video Upload: When a motion event is triggered, the DVR will upload alarm videos to FTP server. Note that for this function to work, you have to set up FTP Schedule in advance, please refer to *4.3.6.4.2 FTP Schedule*.

Picture to Cloud: When a motion event is triggered, the DVR will upload alarm images to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.7.2 Cloud*.

Video to Cloud: When a motion event is triggered, the DVR will upload alarm videos to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance, please refer to *4.7.2 Cloud*.

Enable Recording: Switch the button to the right to enable the function, and then select the desired channel(s) you want to record when an event is triggered. Note that for IO Alarm recording function to work, the Record Schedule function has to be configured (please refer to *5.3.4.2.2 Record Schedule*).

Trigger Alarm Out: Select an external alarm output device connected to the DVR, IPCam or both.

Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.

5.3.5.5 PTZ Linkage

You can associate an alarm trigger (motion or I/O) with a specific camera and then activate a PTZ camera to go to a preset position when the alarm is triggered.



Channel: Select a channel from the drop-down list.

Switch: Switch the button to the right to enable the PTZ Linkage function.

Alarm Type:

- **Motion:** Check the box to trigger the PTZ Linkage function when a motion event occurs.
- **IO:** Check the box to trigger the PTZ Linkage function when an IO event occurs.
- **PIR:** Check the box to trigger the PTZ Linkage function when a PIR event occurs.

PTZ1-4: Associates the PTZ camera with preset points. Please set up the preset points of your PTZ (analog or IP) cameras in advance (please refer to 5.2.3 PTZ Setting Panel). After setting up the preset points, check the PTZ box here and then select a channel and preset number.

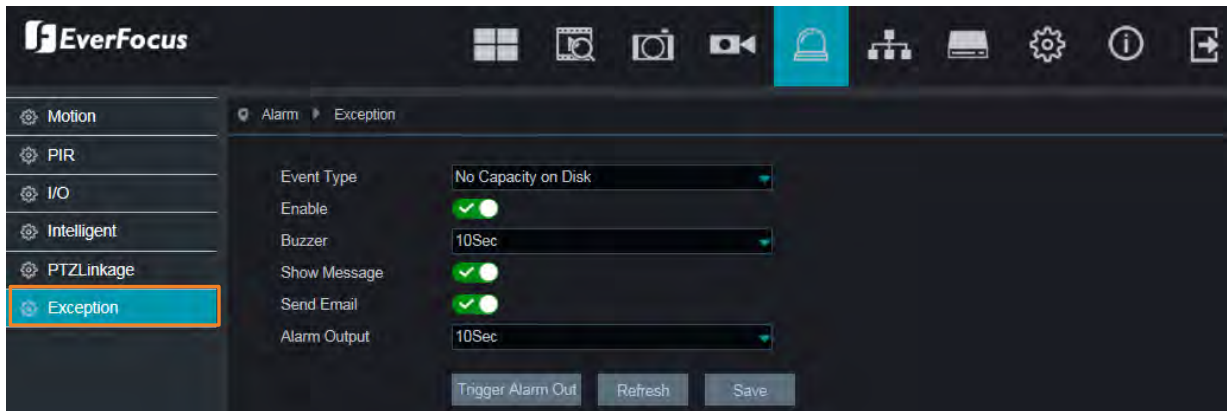
For example, if the PTZ camera is assigned to CH2, select CH2 from the PTZ channel dropdown list and then select a desired preset point. When an even is triggered on the selected channel, the configured PTZ camera will turn to the preset point.

Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.

5.3.5.6 Exception Alarm

You can configure the system alarm settings on this page.



Event Type: Select an event type.

- No Space on Disk: When an HDD is full.
- Disk Error: When the HDD is not detected properly.
- Video Loss: When a camera is not connected properly.

Enable: Switch the button to the right to enable this function.

Buzzer: Select a time for DVR buzzer to sound when an alarm is triggered. Select **Disable** to disable the function.

Show Message: Switch the button to the right to enable displaying system alarm message on the live channel when an alarm is triggered.

Send Email: Switch the button to the right to enable the Email alert function. When an alarm is triggered, the DVR will send an email alert with a snapshot to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance (refer to 5.3.6.3 Email).

Alarm Output: Select an alarm output time (duration) when events occur. When an event is triggered, the alarm will last based on the setup latch time.

Trigger Alarm Out: Select an external alarm output device connected to the DVR, IPCam or both.

Click **Save** to save the settings or **Refresh** to refresh the page.

Click the **Copy** button to display the channel options. Select the channels and then click the **Copy** button to copy the same configurations from this channel to the selected channels.

5.3.6 Network

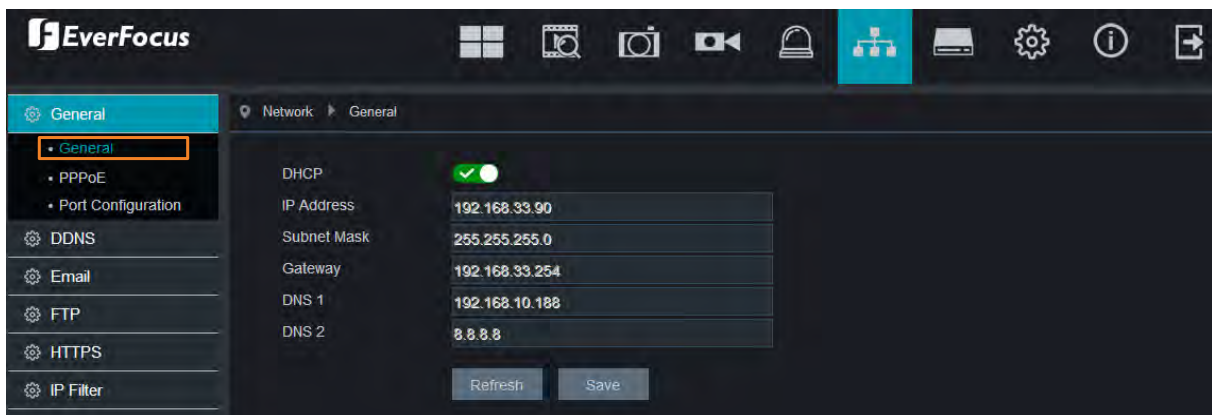
You can configure the network settings on this page.

5.3.6.1 General

This page allows you to configure network parameters.

5.3.6.1.1 General

You can configure Static IP or DHCP network on this page.



DHCP: Switch the button to the right to enable **DHCP** function. The router will automatically assign all the below IP parameters to the DVR. If you want to configure a **Static IP**, switch the button to the left to disable the DHCP function and then input a static IP address and related network settings below.

IP Address: The IP address of the DVR. The IP address consists of four groups of numbers, separated by periods. For example, "192.168.001.100".

Subnet Mask: Subnet mask is a network parameter which defines a range of IP addresses that can be used on a network. The subnet address also consists of four groups of numbers, separated by periods. For example, "255.255.000.000".

Gateway: This address allows the DVR to access the Internet. The format of the Gateway address is the same as the IP Address. For example, "192.168.001.001".

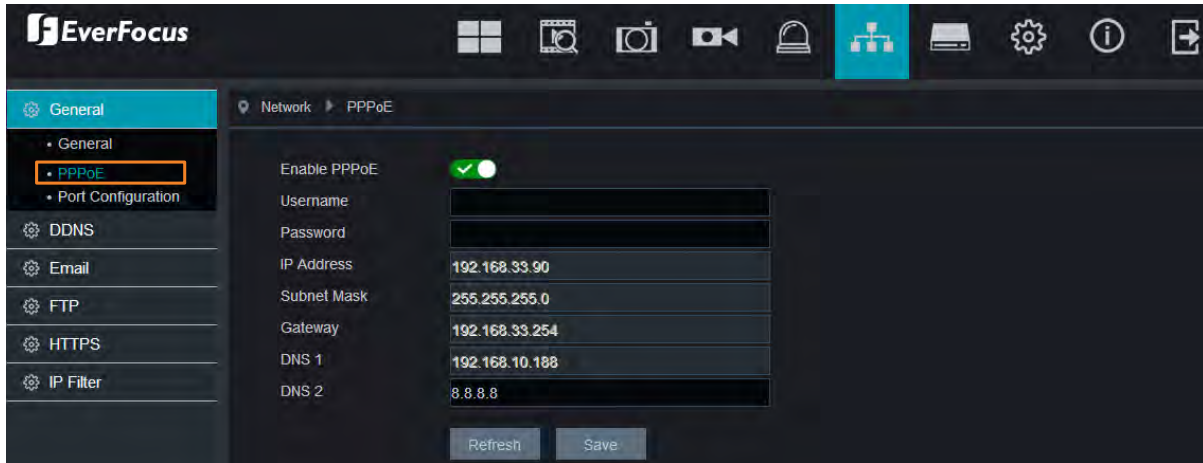
DNS: DNS1 is the primary DNS server and DNS2 is a backup DNS server. Usually, it's enough to just enter the DNS1 server address.

Click **Save** to save the settings or **Refresh** to refresh the page.

5.3.6.1.2 PPPoE

This is a DSL-connection application. The ISP will ask the user to input a username and password. Contact your ISP for these details.

Note: If PPPoE is selected as the IP type, the supplied **IP Utility** program will not be able to detect the device.

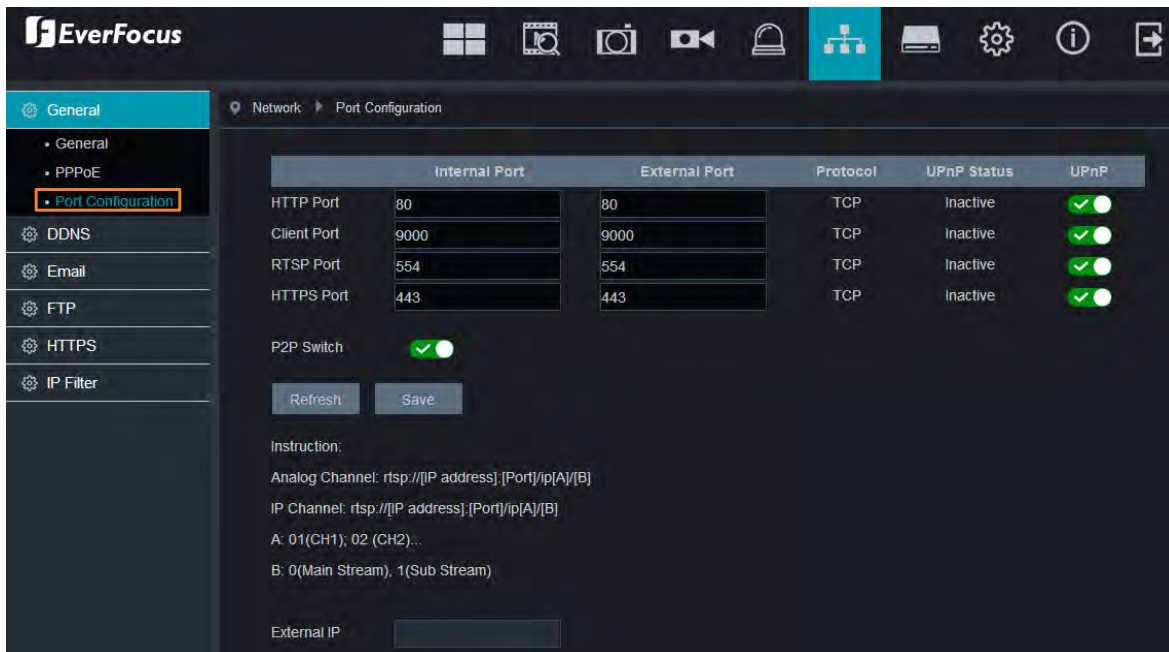


Switch the **Enable PPPoE** button to the right to enable PPPoE function, and then enter the User name and Password provided by the ISP. Click the **Save** button, the system will reboot to activate the PPPoE setting.

Click **Save** to save the settings or **Refresh** to refresh the page.

5.3.6.1.4 Port Configuration

On this page, you can configure the port settings or enable/disable the UPnP or P2P function.



HTTP Port: The HTTP port can be used to remotely login the DVR (e.g. using the Web Client). If the default port 80 is already taken by other applications, please change it.

Client Port: The Client port can be used to send information through (e.g. using the mobile app). If the default port 9000 is already taken by other applications, please change it.

RTSP Port: The RTSP port allows the DVR to transmit real-time streaming to other devices (e.g. using a streaming media player).

HTTPS: The Hypertext Transfer Protocol Secure (HTTPS) is a combination of the Hypertext Transfer Protocol and the SSL/TLS protocol that provides encrypted communication and secure identification of a network web server.

UPnP: Switch the button to the right to enable the UPnP function. If you want to remotely login the DVR using Web Client, you need to enable the UPnP function and also enable the Port Forwarding function on your router.

Note:

1. For the UPnP function to work, an UPnP-enabled router is required.
2. If your router does not support UPnP, ensure the **Port Forwarding** function is manually enabled on your router.

P2P Switch: Switch the button to the right to enable the P2P function. If **P2P** function is enabled, a QR code will be displayed on the System Info page. You can scan the QR code with **EverFocus eFVMS App** installed on your mobile device to add and remote access the DVR. Please refer to 4.6.5.1.1 *Performing the P2P Function*.

External IP: After enabling the UPnP function, the external IP address will be displayed.

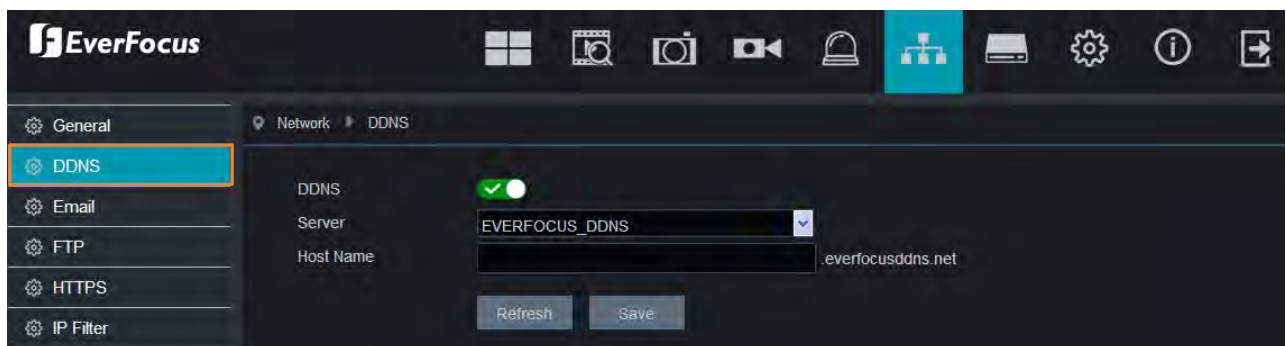
Click **Save** to save the settings or **Refresh** to refresh the page.

5.3.6.2 DDNS

You can configure the DDNS setting on this page. DDNS (Dynamic Domain Name System) is a service used to map a domain name to the dynamic IP address of a network device. You can set up the DDNS service for remote access to the DVR.

DDNS assigns a domain name (URL) to the DVR, so that the user does not need to go through the trouble of checking if the IP address assigned by DHCP Server has changed. Once the IP is changed, the DVR will automatically update the information to the DDNS to ensure it is always available for remote access.

Note that before enabling the following DDNS function, user should have applied for a host name from the DDNS service provider's website. We highly recommend that you use xxxx.everfocusddns.net for the simplicity of setting up your DVR. Please refer to **EverFocus DDNS** on the next page.



DDNS: Switch the button to the right to enable the DDNS function

Server: Select a DDNS service provider from the drop-down list. Note that before enabling the following DDNS function, user should have applied for a host name from the DDS service provider's website.

Hostname: Input the domain name obtained from the DDNS service provider.

Username: Input the user name of the DDNS account.

Password: Input the password of the DDNS account.

Test DDNS: Click the button to test whether the DDNS function is working normally.

Click **Save** to save the settings or **Refresh** to refresh the page.

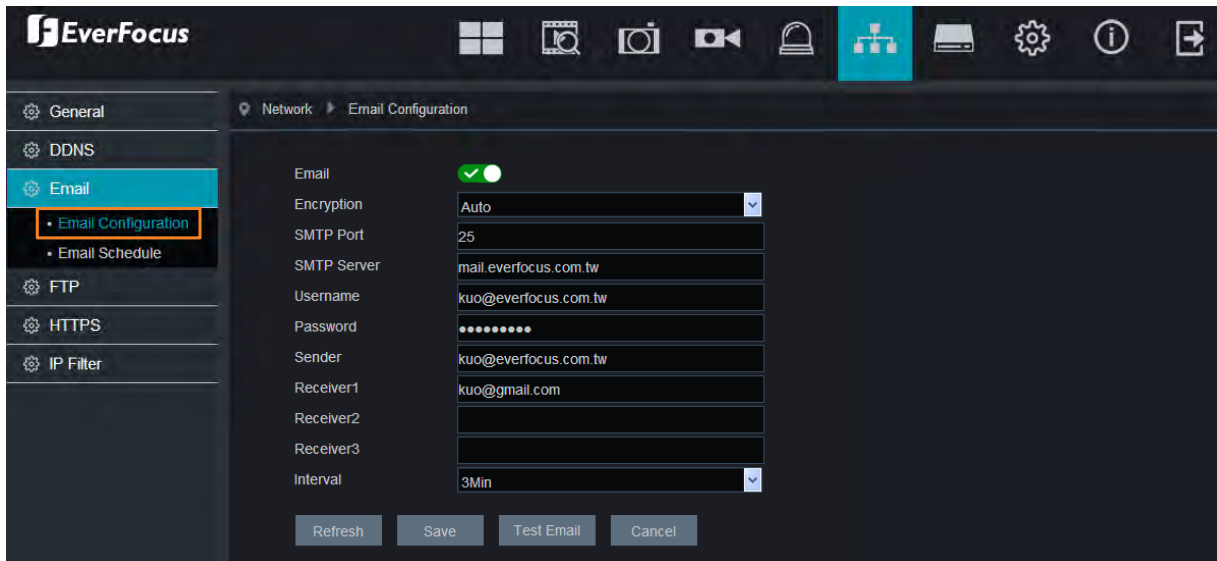
To configure EverFocus DDNS, please refer to **EverFocus DDNS** in 4.4.2 DDNS.

5.3.6.3 Email

You can configure the email settings for email alerts, or configure the Email schedule on this page.

5.3.6.3.1 Email Configuration

You can configure the email settings for email alerts. When events occur, the DVR will send Email alert with a snapshot image (.jpg) to the receiver(s).



Email: Switch the button to the right to enable the Email function.

Encryption: Select an encryption if your Email server requires the **SSL** or **TLS** verification. Select **Auto** if you are not sure. Select **Disable** to disable this function.

SMTP Port: Enter the port number used by the SMTP server.

SMTP Server: Enter the SMTP server address of your Email.

User Name: Input your Email address.

Password: Input the password of the sender.

Sender: Input the Email address of the sender (the DVR).

Receiver1-3: Input the Email address of the receiver. You can input 3 receiver email addresses.

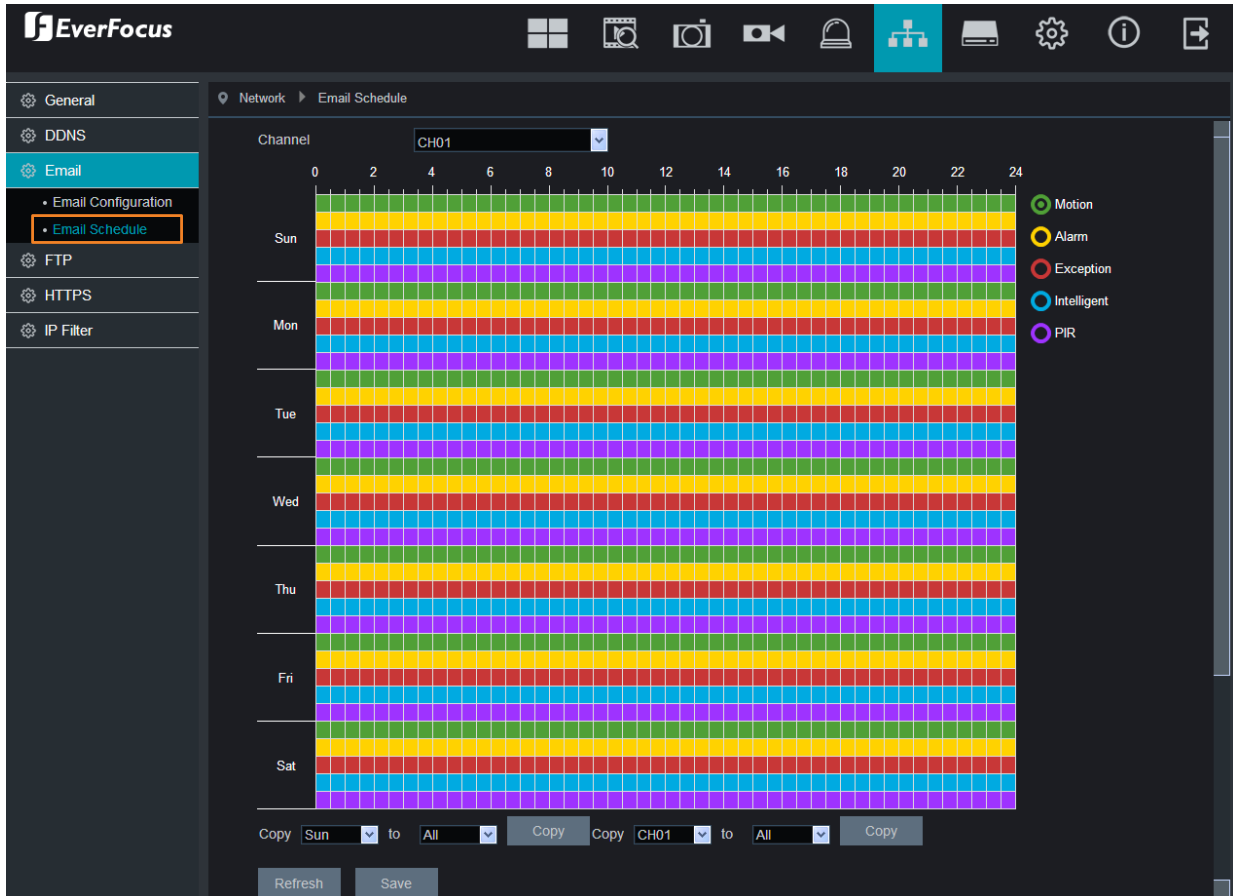
Interval: Configure an interval to send Emails when events occur.

Test Email: Click to test whether the Email function is working normally.

Click **Save** to save the settings; **Refresh** to refresh the page; or **Cancel** to cancel the settings.

5.3.6.3.2 Email Schedule

You can configure the email schedule on this page. The selected event Email alerts will be sent out by the scheduled time. For example, if you set up Motion on Sunday between 6-8am, the Motion Email alerts will only be sent out between 6-8am on Sunday.



Channel: Select a channel to configure the email schedule individually.

Motion: Click the **Motion** button on the right-side and then move your mouse cursor over the schedule time blocks. The first line of the time block on each day is the Motion time blocks. Click and drag on the schedule time blocks to draw the blocks with green color, which will be applied with motion email alert function. Note that for this function to work, you will have to configure the motion settings in advance (please refer to 5.3.5.1 Motion Detection).

Alarm (IO): Click the **Alarm** button on the right-side and then move your mouse cursor over the schedule time blocks. The second line of the time block on each day is the IO time blocks. Click and drag on the schedule time blocks to draw the blocks with yellow color, which will be applied with IO email alert function. Note that for this function to work, you will have to configure the IO settings in advance (please refer to 5.3.5.3 I/O).

Exception (HDD full, HDD error or Video Loss): Click the **Exception** button on the right-side and then move your mouse cursor over the schedule time blocks. The third line of the time block on each day is the Exception time blocks. Click and drag on the schedule time blocks to draw the blocks with red color, which will be applied with exception email alert function. Note that for

this function to work, you will have to configure the exception settings in advance (please refer to 5.3.5.6 *Exception*).

Intelligent: Click the **Intelligent Analysis** button on the right-side and then move your mouse cursor over the schedule time blocks. The fourth line of the time block on each day is the Intelligent time blocks. Click and drag on the schedule time blocks to draw the blocks with blue color, which will be applied with intelligent email alert function. Note that for this function to work, you will have to configure the exception settings in advance (please refer to 5.3.5.4 *Intelligent*).

PIR: Click the **PIR** button on the right-side and then move your mouse cursor over the schedule time blocks. The fifth line of the time block on each day is the PIR time blocks. Click and drag on the schedule time blocks to draw the blocks with purple color, which will be applied with PIR email alert function. Note that for this function to work, you will have to configure the PIR settings in advance (please refer to 5.3.5.2 *PIR Detection*).

If you want to apply the same configurations from one day to other days, click the **Copy** (day) button. If you want to apply the same configurations from one channel to other channels, click the **Copy** (channel) button.

Click **Save** to save the settings or **Refresh** to refresh the page.

5.3.6.4 FTP

5.3.6.4.1 FTP

You can configure the FTP server setting on this page. When there is a Motion or I/O event occurs, the system will send an instant snapshot image to the FTP. For system alarm such as HDD lost and Video loss, the system will send alarm log to the FTP as well.



The screenshot shows the EverFocus web interface for configuring FTP settings. The left sidebar contains a menu with options: General, DDNS, Email, FTP (selected), FTP Schedule, HTTPS, and IP Filter. The main area is titled 'Network > FTP'. The settings are as follows:

- FTP Enable:** A toggle switch is turned on (green circle with a checkmark).
- Server:** A text input field containing '192.168.19.5'.
- Port:** A text input field containing '21'.
- Username:** A text input field containing 'manual'.
- Password:** A text input field with masked characters (dots).
- DIR Name:** A text input field containing 'testlj'.
- Snapshot Resolution:** A dropdown menu showing '1280X720'.
- Snapshot Quality:** A dropdown menu showing 'Poorest'.
- Video Stream Type:** A dropdown menu showing 'Sub Stream'.
- Max Package Interval:** A dropdown menu showing '10Min'.
- Upload Normal Video:** A toggle switch is turned on (green circle with a checkmark).
- Recording Channel:** A checkbox labeled 'All' is checked.
- Analog All:** A checkbox is unchecked.
- IP All:** A checkbox is unchecked.

At the bottom of the settings area, there are three buttons: 'Refresh', 'Save', and 'FTP Test'.

FTP Enable: Switch the button to the right to enable the function.

Server: Input the FTP server IP.

Port: Keep the port 21.

Username: Input the user name of the FTP server.

Password: Input the password of the FTP server.

DIR Name: Input the directory of the FTP server.

Snapshot Resolution: Select a resolution of the snapshot images for FTP uploading.

Snapshot Quality: Select a quality of the snapshot images for FTP uploading.

Video Stream Type: Select a stream type of the recordings for FTP uploading.

Max. Package Interval: Select a max. package interval for FTP uploading.

Upload Normal Video: Switch the button to the right to enable uploading normal video to FTP and then select the desired channel(s) for uploading the normal recordings. For this function to work, please setup the FTP Schedule (refer to 5.3.6.4.2 *FTP Schedule*) in advance.

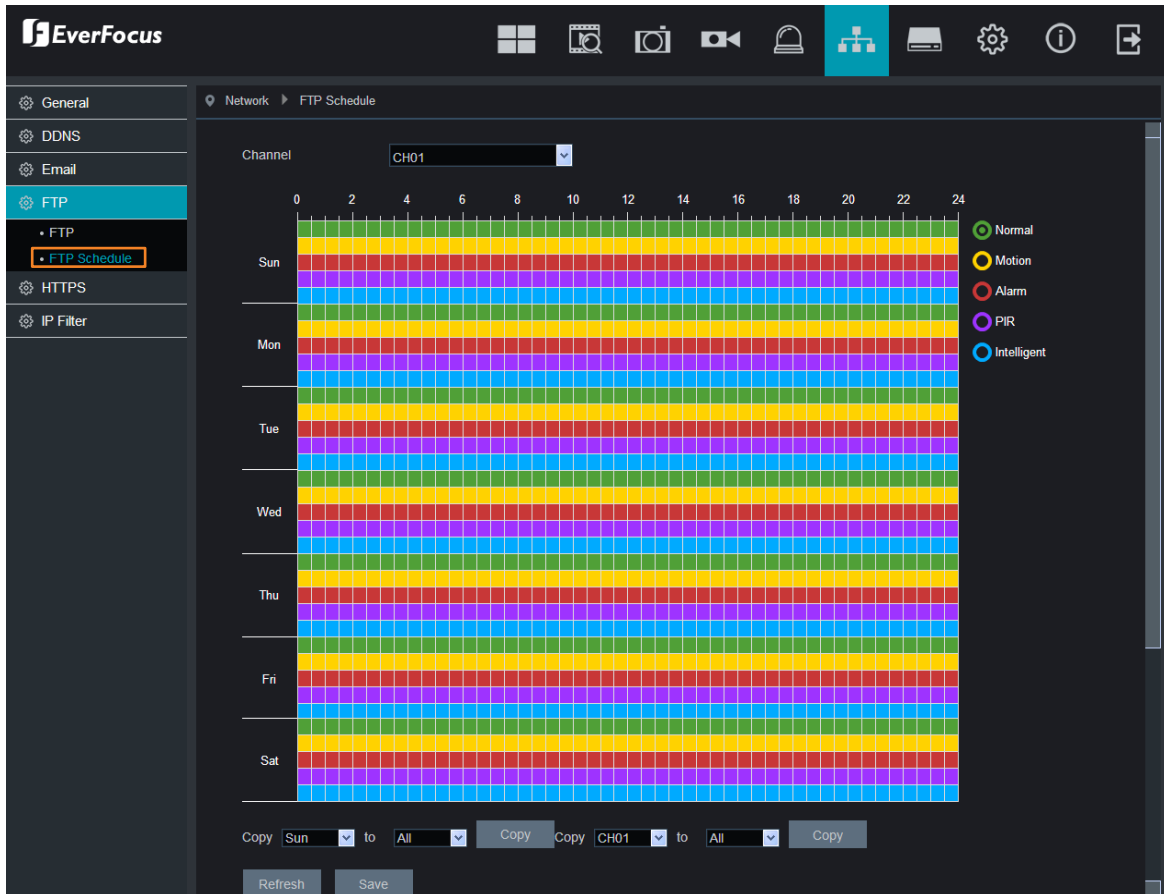
Test FTP: Click to test the FTP server connection.

Click **Save** to save the settings or **Refresh** to refresh the page.

5.3.6.4.2 FTP Schedule

You can configure the FTP schedule on this page. The selected event recordings will be uploaded to the FTP by the scheduled time. For example, if you set up Motion on Sunday between 6-8am, the Motion recordings will be uploaded to FTP between 6-8am on Sunday.

Note that for the FTP Schedule function to work, you have to enable **FTP Video Upload** function on the related alarm setup page (Motion, PIR, IO, Intelligent).



Channel: Select a channel to configure the FTP schedule individually.

Normal: Click the **Normal** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with green color, which will be applied with normal recording FTP upload function. Note that for this function to work, you have to select the desired channel(s) for uploading the normal recordings (please refer to **Upload Normal Video** in 5.3.6.4.1 FTP).

Motion: Click the **Motion** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with yellow color, which will be applied with motion FTP upload function. To enable Motion alarm, please refer to 5.3.5.1 Motion.

Alarm (IO): Click the **Alarm** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with red color, which will be applied with IO FTP upload function. To enable IO alarm, refer to 5.3.5.3 IO.

PIR: Click the **PIR** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with purple color, which will be applied with PIR FTP upload function. To enable PIR alarm, please refer to 5.3.5.2 *PIR*.

Intelligent Analysis: Click the **Intelligent Analysis** button on the right-side and then move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with blue color, which will be applied with Intelligent Analysis FTP upload function. To enable Intelligent Analysis alarm, please refer to 5.3.5.4 *Intelligent Alarm*.

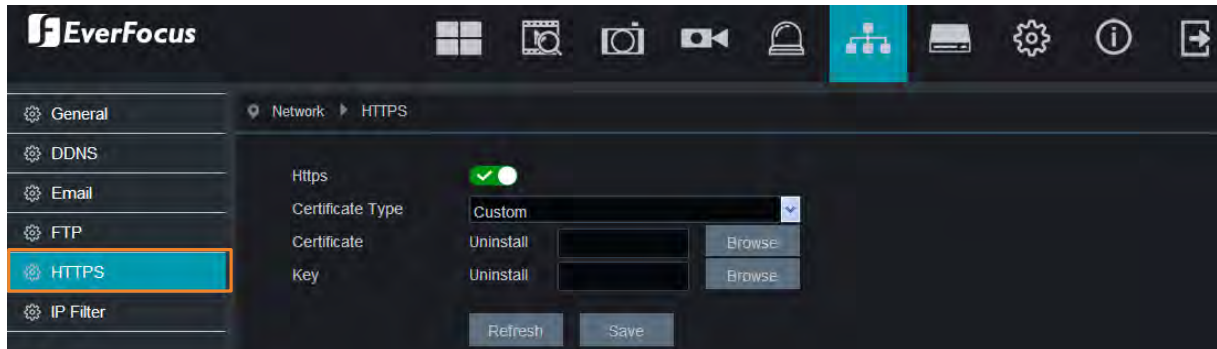
If you want to apply the same configurations from one day to other days, click the **Copy** (day) button. If you want to apply the same configurations from one channel to other channels, click the **Copy** (channel) button.

Click **Save** to save the settings or **Refresh** to refresh the page.

5.3.6.5 HTTPS

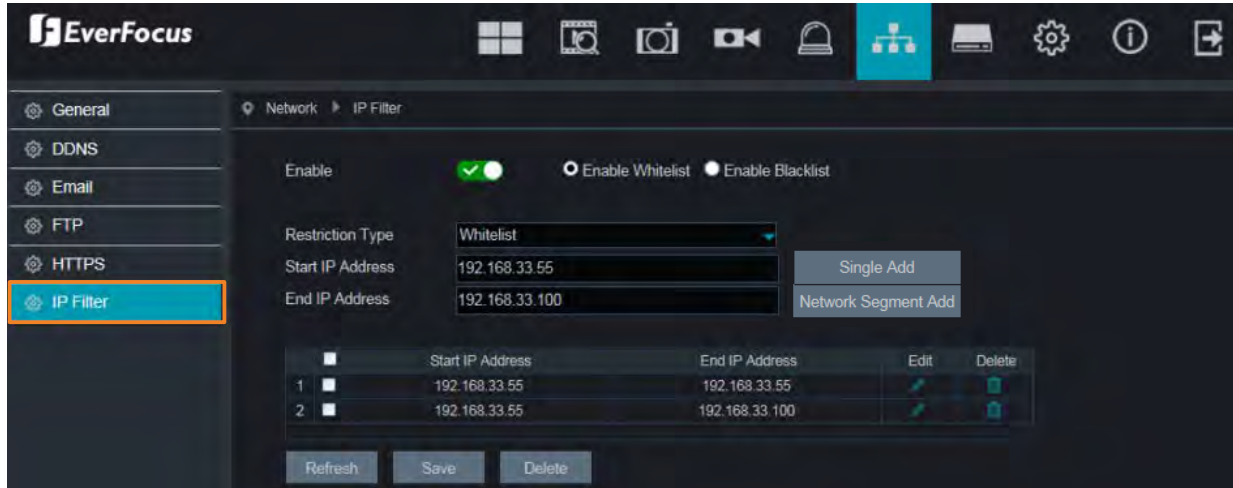
The Hypertext Transfer Protocol Secure (HTTPS) is a combination of the Hypertext Transfer Protocol and the SSL/TLS protocol that provides encrypted communication and secure identification of a network web server.

To enable the HTTPS function, switch the **Https** button to the right to enable the function and then select a **Certificate Type**. Input the **Certificate** and **Key** if **Custom** certificate type is selected. Click the Save button to save the settings.



5.3.6.6 IP Filter

You can configure the IP Filter settings on this page. This function allows you to allow or deny some specific IP address to access the Web interface of the DVR. By default, all IP addresses are allowed.





To set up IP Filter:

1. Switch the Enable button to the right to enable the function and then select either one from the two options below. You can only activate one option for the DVR.

Enable Whitelist: Enable the whitelist configured below.

Enable Blacklist: Enable the blacklist configured below.

2. Edit the Whitelist or Blacklist.
 - a. If you want to edit whitelist, select **Whitelist** from the **Restriction Type** drop-down box; if you want to edit blacklist, select **Blacklist** from the **Restriction Type** drop-down box.
 - b. To add a single IP address to the list, input an IP address in the **Start IP Address** input box and then click the **Single Add** button, the IP address will be added.
 - c. To add a range of IP addresses to the list, input the start IP address in the **Start IP Address** input box and the end IP address in the **End IP Address** input box, and then click the **Network Segment Add** button, the range of IP addresses will be added.
 - d. You can click the **Edit** icon  to edit the IP address, or click the **Delete** icon  to delete the IP address from the list.
3. Click the **Save** button to save the settings.

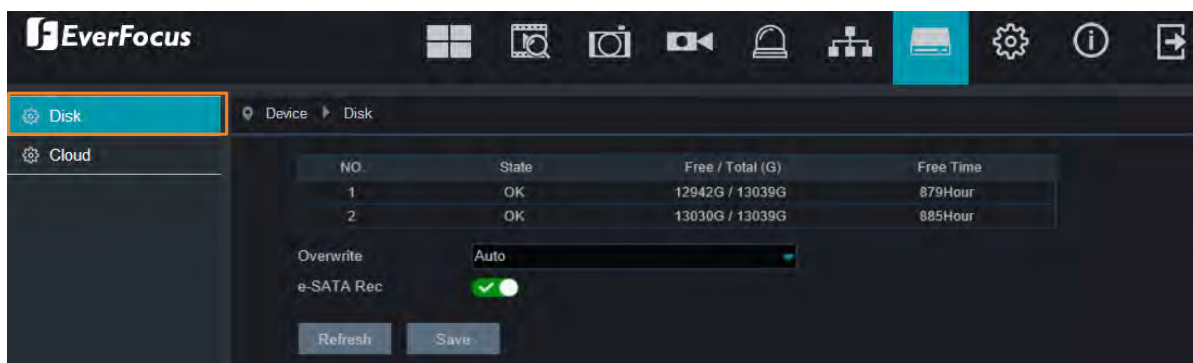
5.3.7 Device

You can configure the internal HDD and Cloud storage function on this page.

5.3.7.1 Disk

You can configure the HDD settings on this page. Please connect the HDD(s) to the DVR in advance and ensure the power and SATA cables are properly connected between the DVR and HDD(s). After connecting the HDD(s) to the DVR, the DVR will automatically detect the connected HDD(s) and listed all the connected HDD(s) in the below field.

For the first time connected HDDs, the status will show “Unformat” in the state column, users will have to format the HDDs before you can use it. To format the HDD, please refer to 4.5.1.1 *Disk*.



Overwrite: Select **Auto** to enable the overwrite function. If **Auto** is selected, the DVR will overwrite the oldest files on the HDD when HDD is full.

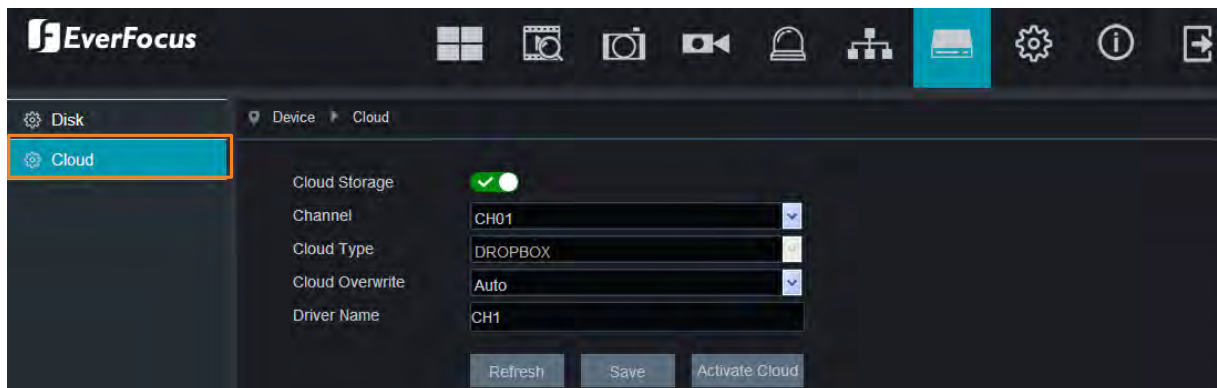
The **1/3/7/14/30/90** Days stands for the last number of days to keep in the HDD. For example, if 3 Days is selected, the last 3 days recordings will be kept in the HDD.

eSATA Rec: If you have connected an external eSATA storage device to the DVR, you can enable the eSATA backup storage function.

Click **Save** to save the settings or **Refresh** to refresh the page.

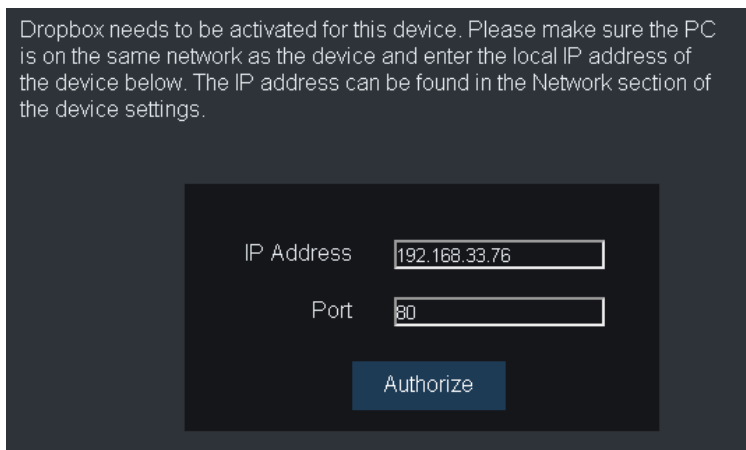
5.3.7.2 Cloud

You can configure the Cloud settings (Dropbox cloud storage) on this page. After configuring the settings, the system will automatically send the Motion and I/O alarm snapshot images to the associated Dropbox when alarm events occur.

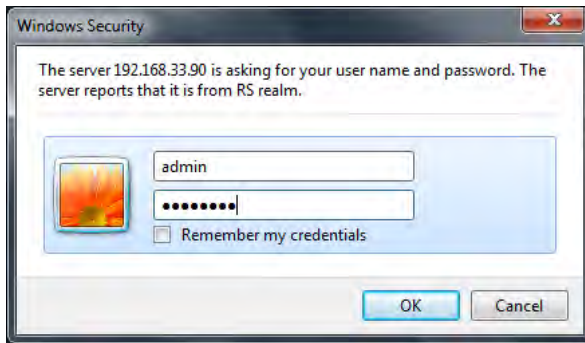


To perform the Cloud function:

1. Register an account on Dropbox website. It's recommended to create the account with the same Email address and password used for your DVR.
2. Ensure the DVR network is working properly.
3. Configure the SMTP function (refer to 5.3.6.3.1 *Email Configuration*).
4. Configure the Cloud settings and then click the **Apply** button.
 - a. Check the **Cloud Storage** checkbox to enable the Cloud function.
 - b. Select a **Cloud Overwrite** option.
 - c. Input a name in the **Driver Name** field, which will be created on the Dropbox as a directory for restoring the snapshot images from DVR.
5. Click the **Activate Cloud** button, the Dropbox sign in window appears. Sign in your Dropbox account.
6. Input the IP address of the DVR and keep the 80 port. Click **Authorize**.



7. Input the user name and password of the DVR and then click **OK**.



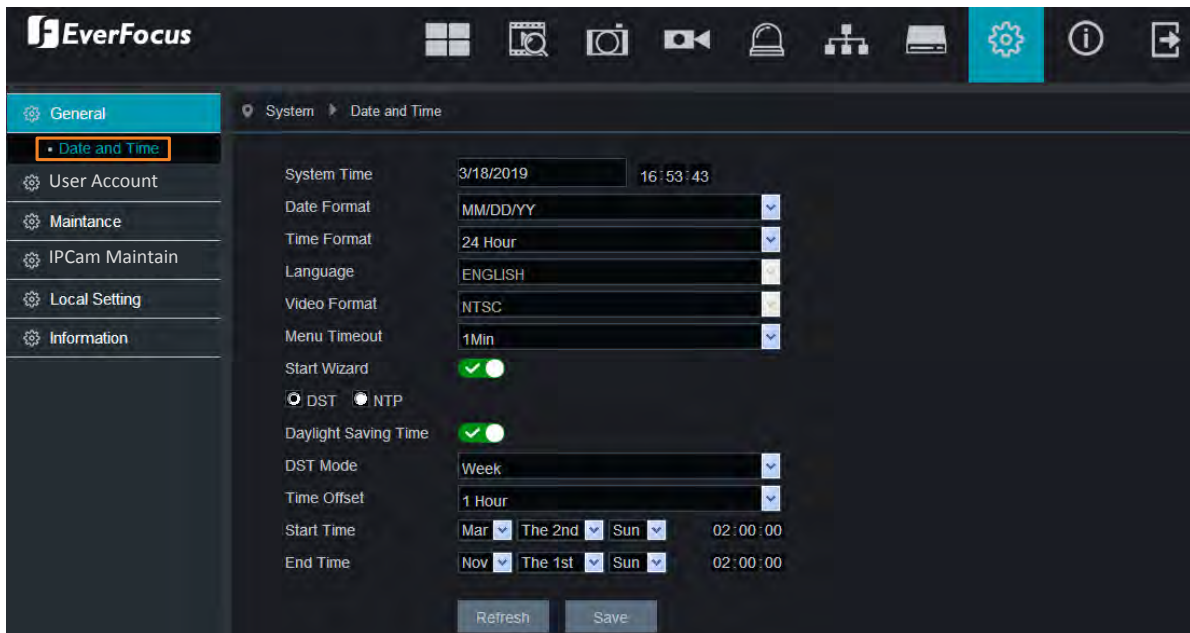
8. The Cloud activation is complete.

Authorized success! Return [Dropbox](#).
(Automatic jump after 1 seconds)

5.3.8 System

5.3.8.1 General

5.3.8.1.1 Date and Time



System Time: Set up a system date.

Date Format: Select a format for the date.

Time Format: Select a format for the time.

Language: Select a language.

Video Format: Select **NTSC** or **PAL** for the system.

Menu Timeout: Select a timeout time for the OSD menu to automatically exit. Select **Off** for the OSD menu to display continuously.

Start Wizard: Switch the button to the right to enable starting the Startup Wizard every time when system starts.

【DST Setting】 Select DST and then configure the below settings. The DST (Daylight Saving Time) function allows you to select the amount of time that Daylight Saving has increased by in your particular time zone or region.

Daylight Saving Time: Switch the button to the right to enable the DST function.

DST Mode: Select **Week** or **Date** to configure the start/end time below.

Week: Select a month, a particular day and time when Daylight Saving starts and ends. For example, 2am on the first Sunday of a particular month.

Date: Select the start date (click the calendar icon), end date and time when Daylight Saving starts and ends.

Time Offset: Select the amount of time that Daylight Saving has increased by in your time zone. This refers to the difference in minutes, between Coordinated Universal Time (UTC) and the local time.

Start Time: Select a start time for the DST to start.

End Time: Select an end time for the DST to stop.

【NTP Settings】 Select NTP and then configure the below settings. The NTP (Network Time Protocol) function allows your DVR to automatically sync its clock with a time server. This gives it the ability to constantly have an accurate time setting (your DVR will periodically sync automatically).

Enable NTP: Switch the button to the right to enable the NTP function. When NTP function is enabled, the system will calibrate the system time at 00:07:50 daily and every time when the system is started up.

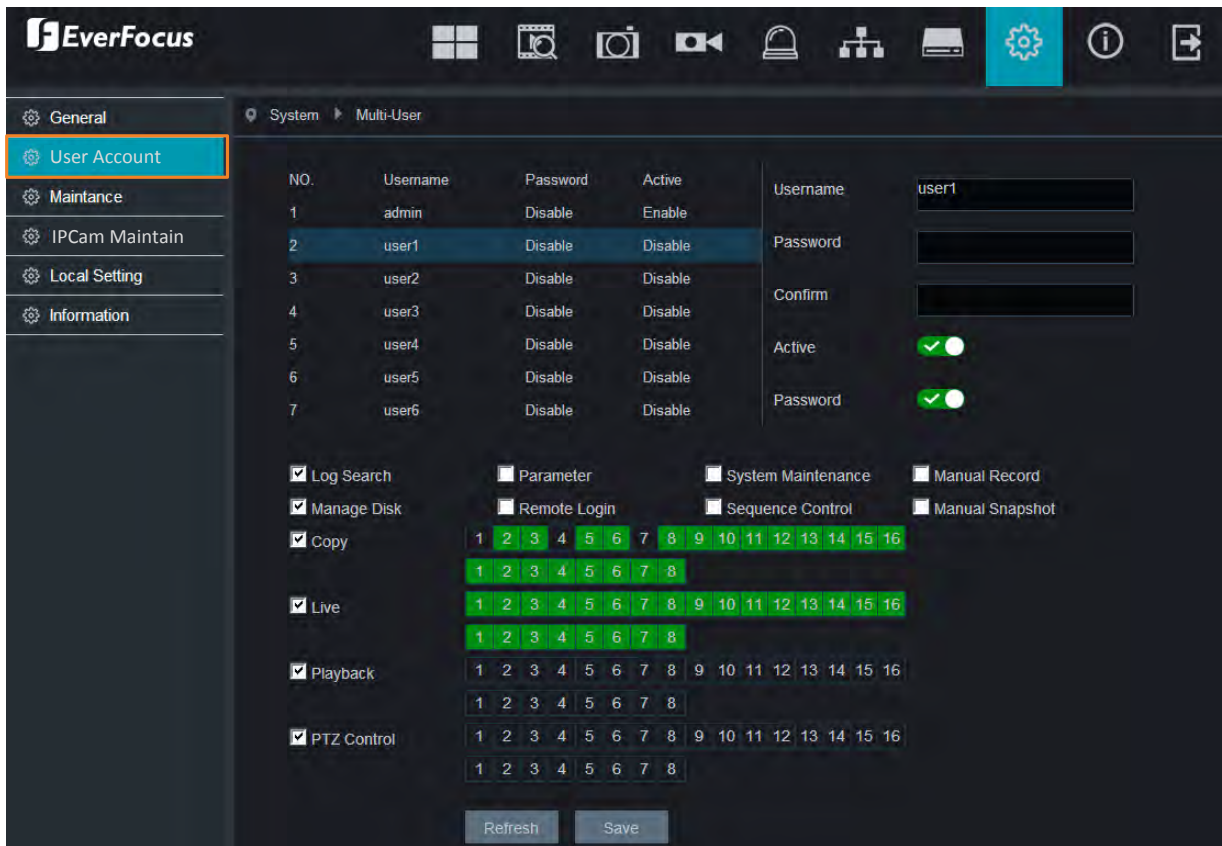
Server Address: Select a NTP server.

Time Zone: Select a time zone of your region.

Click **Save** to save the settings or **Refresh** to refresh the page.

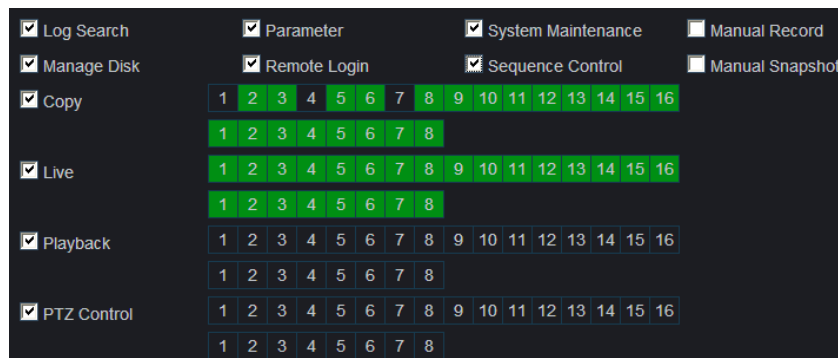
5.3.8.2 User Account

You can configure the user settings on this page. Up to 7 user accounts (1 administrator and 6 users) can be configured.



To edit the user privileges:

1. Select a user from the list by clicking on it, the below privilege options appears.



2. Check the boxes to grant functions for the selected user account. You can also set up the Copy/Live/Playback/PTZ Control functions to specific channels. After the configuration, click **Save** to save the settings.

Log Search: Allow users to check all the system logs.

Parameter: Allow users to set all the parameter settings.

System Maintenance: Allow users to auto reboot the system.

Manual Record: Allows users to manually start/stop recording.

Manage Disk: Allow users to manage and control the HDD and USB storage device.

Remote Login: Allow users to login the system remotely.

Sequence Control: Allow users to use the sequence function.

Manual Snapshot: Allow users to use the manual snapshot function.

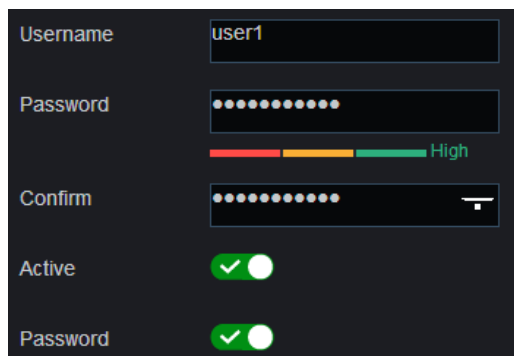
Copy: Check the **Copy** box to enable the function; and then select the desired channels to backup. This user account will be granted with the Backup function for the selected channels.

Live: Check the **Live** box to enable the function; and then select the desired channels for live view display. This user account will be granted with the live view display function for the selected channels.

Playback: Check the **Playback** box to enable the function; and then select the desired channels for playback. This user account will be granted with the playback function for the selected channels.

PTZ Control: Check the **PTZ** box to enable the function; and then select the desired channels for PTZ function. This user account will be granted with the PTZ control function for the selected channels.

3. You can configure the user name/password in the right-side field. The max. length of user name is 8 characters (alphabetic or numeric); and the passwords have to be numeric (0-9) with exactly 8 characters. In the **Active** field, switch to the right to enable the user account. At the bottom **Password** field, switch to enable the password (if Disable is selected, the user can login without password).



4. Click **Save** to save the settings.

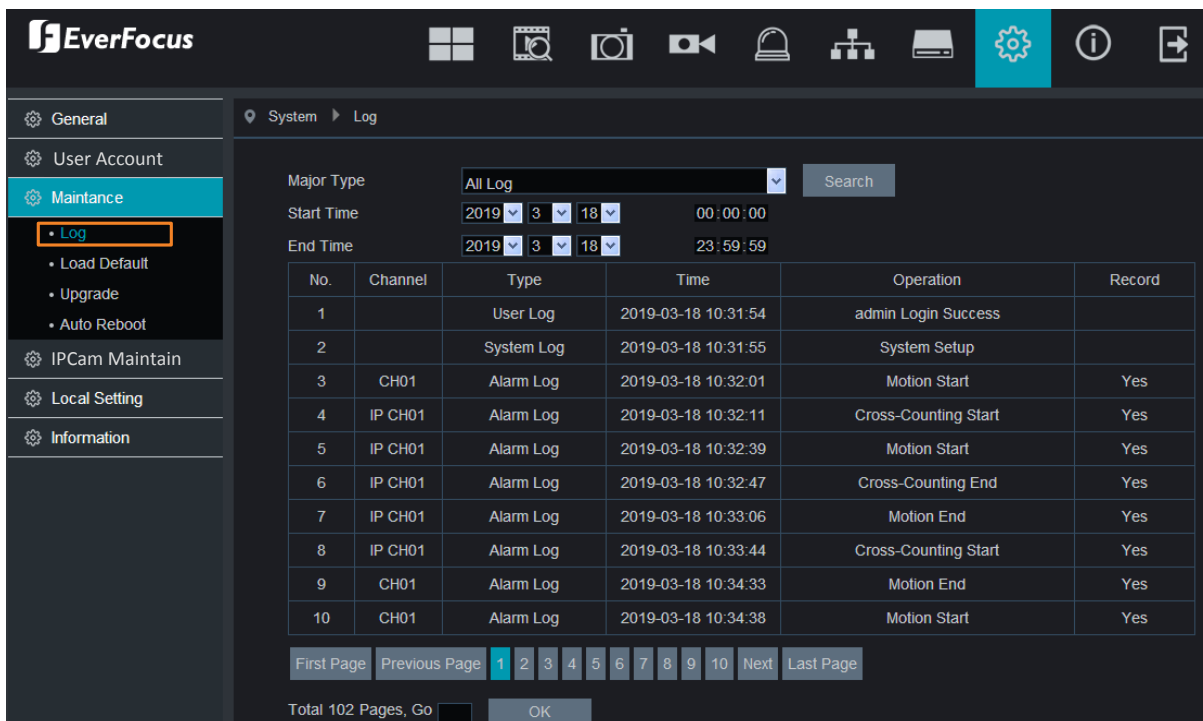
Note: The Administrator account has full privileges so the functions cannot be configured.

5.3.8.3 Maintenance

On this page, you can search and view the system log, load default settings, upgrade the system, export and import system parameters and manager system auto reboot.

5.3.8.3.1 Log

You can search for logs on this page. Select the start time, end time, log type and then click the **Search** button, the searched logs will be displayed on the list below.



EverFocus

System Log

Major Type: All Log Search

Start Time: 2019 3 18 00:00:00

End Time: 2019 3 18 23:59:59

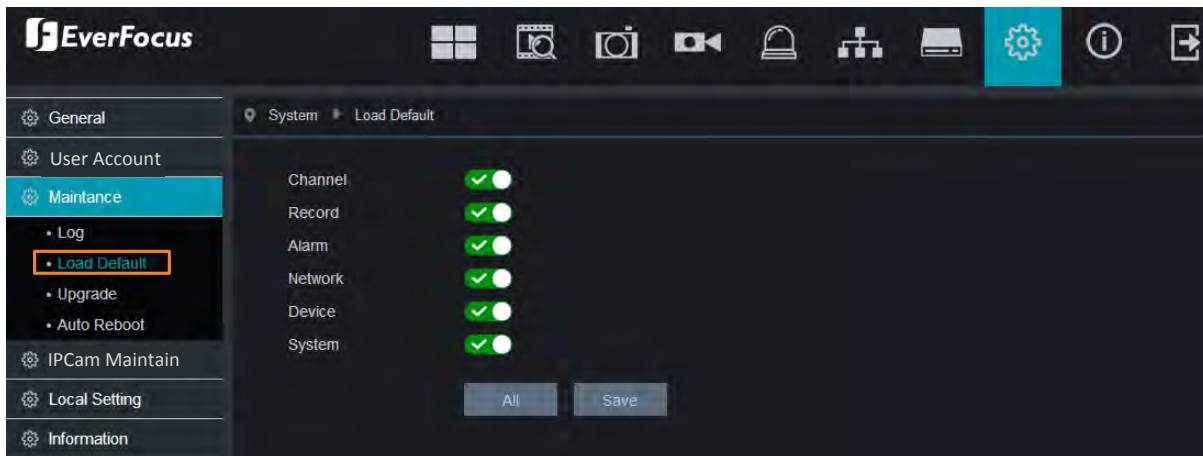
No.	Channel	Type	Time	Operation	Record
1		User Log	2019-03-18 10:31:54	admin Login Success	
2		System Log	2019-03-18 10:31:55	System Setup	
3	CH01	Alarm Log	2019-03-18 10:32:01	Motion Start	Yes
4	IP CH01	Alarm Log	2019-03-18 10:32:11	Cross-Counting Start	Yes
5	IP CH01	Alarm Log	2019-03-18 10:32:39	Motion Start	Yes
6	IP CH01	Alarm Log	2019-03-18 10:32:47	Cross-Counting End	Yes
7	IP CH01	Alarm Log	2019-03-18 10:33:06	Motion End	Yes
8	IP CH01	Alarm Log	2019-03-18 10:33:44	Cross-Counting Start	Yes
9	CH01	Alarm Log	2019-03-18 10:34:33	Motion End	Yes
10	CH01	Alarm Log	2019-03-18 10:34:38	Motion Start	Yes

First Page Previous Page 1 2 3 4 5 6 7 8 9 10 Next Last Page

Total 102 Pages, Go OK

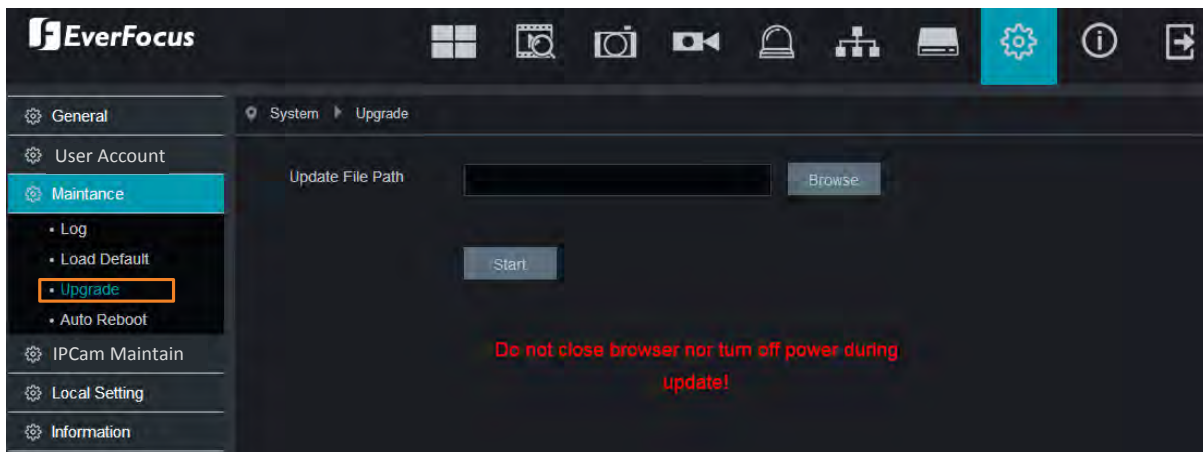
5.3.8.3.2 Load Default

Select the desired items to be restored to factory default and then click **Save**. Restoring default settings will not delete recordings and snapshots saved to the hard drive.



5.3.8.3.3 Upgrade

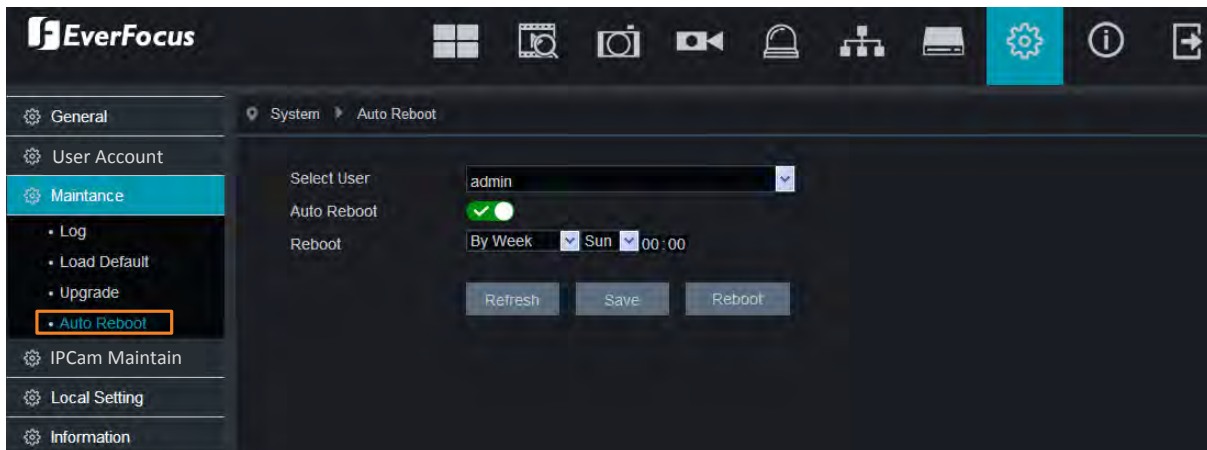
You can upgrade system firmware using this page.



1. Click the **Browse** button to select the firmware file from your computer.
2. Click the **Start** button to start system upgrade.

5.3.8.3.4 Auto Reboot

This menu allows the system to auto reboot the DVR regularly. It is recommended to leave this function enabled, as it maintains the operational integrity of your DVR.



Select User: Select a user from the drop-down list.

Auto Reboot: Switch the button to the right to enable the function.

Reboot: Set up the reboot time for the system to regularly reboot at the setup time.

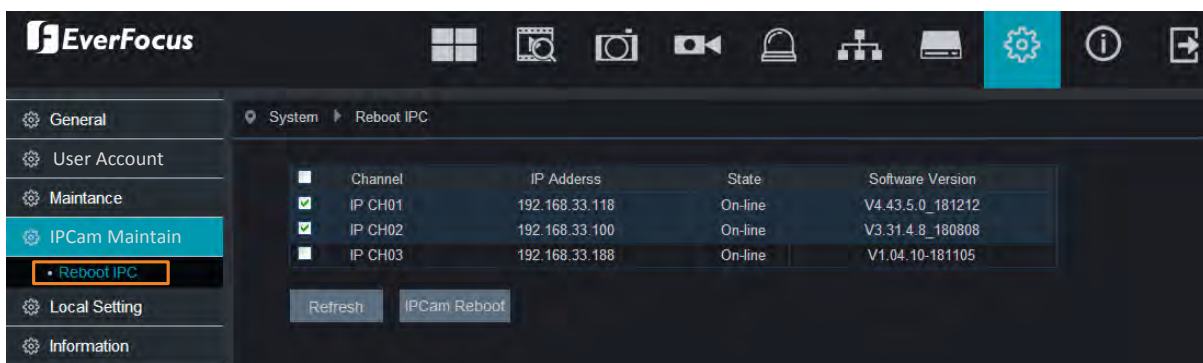
Click **Save** to save the settings or **Refresh** to refresh the page.

Click **Reboot** to manually reboot the system.

5.3.8.4 IPCam Maintain

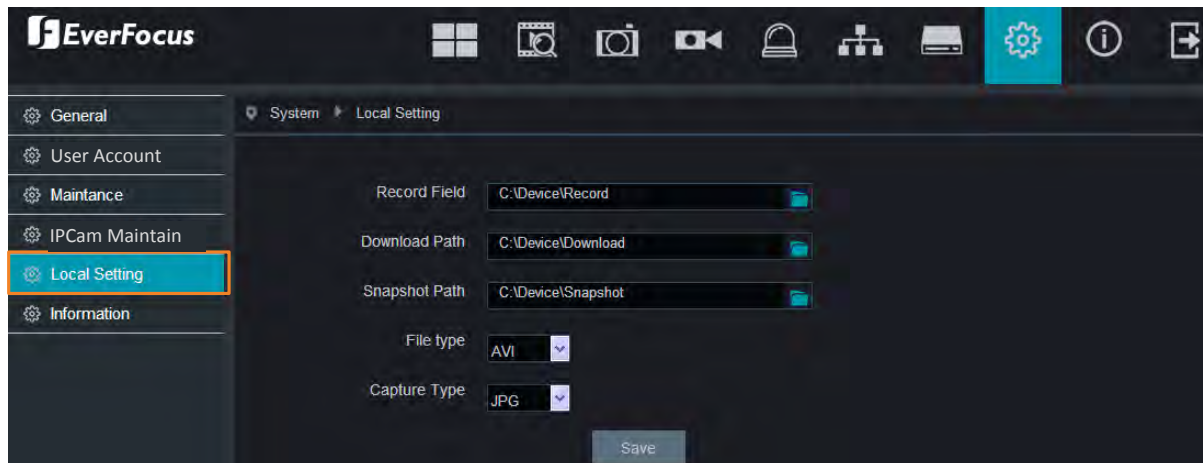
5.3.8.4.1 Reboot IPCam

This page allows you to remotely reboot the connected IP cameras. Select the desired IP cameras and then click the **IPCam Reboot** button.



5.3.8.5 Local Setting

You can configure the Record, Download and Snapshot storage path on this page.



Record Path: Select a storage path for recordings.

Download Path: Select a storage path for download recordings.

Snapshot Path: Select a storage path for snapshot images.

File Type: Select a file type, and the recordings will be stored in that format.

Capture Type: Select a snapshot image type, and the images will be stored in that format.

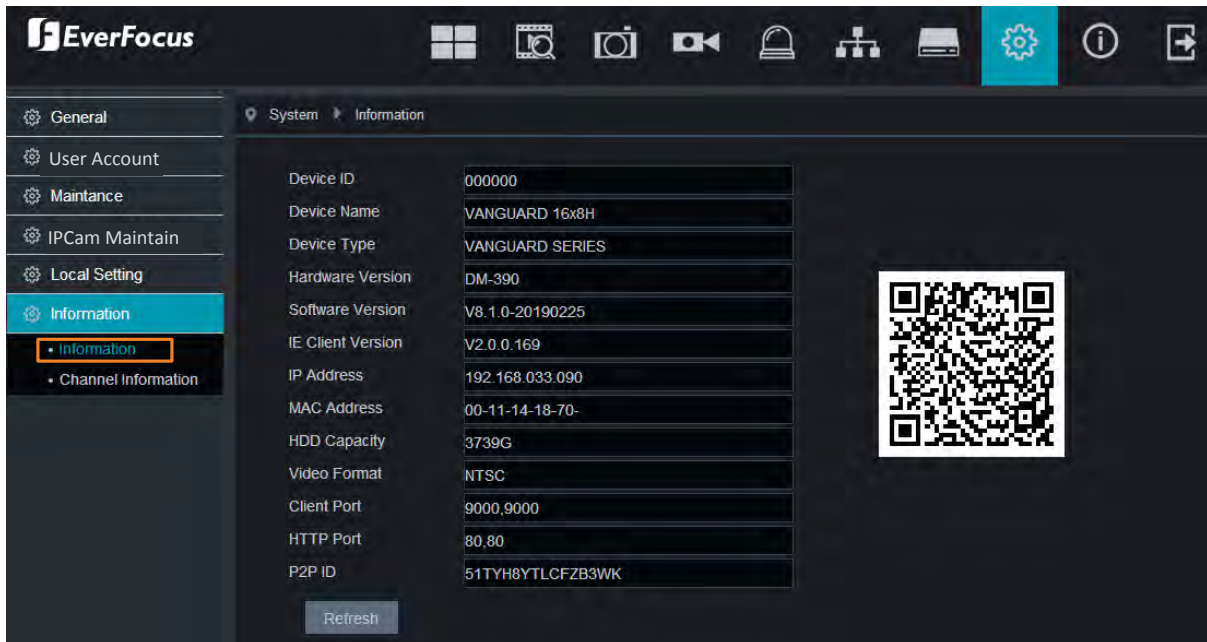
Click **Save** to save the settings.

5.3.8.6 Information

This menu allows you to view the system information and channel information.

5.3.8.6.1 Information

View system information such as device ID, device model name, IP address, MAC address, firmware version and more.

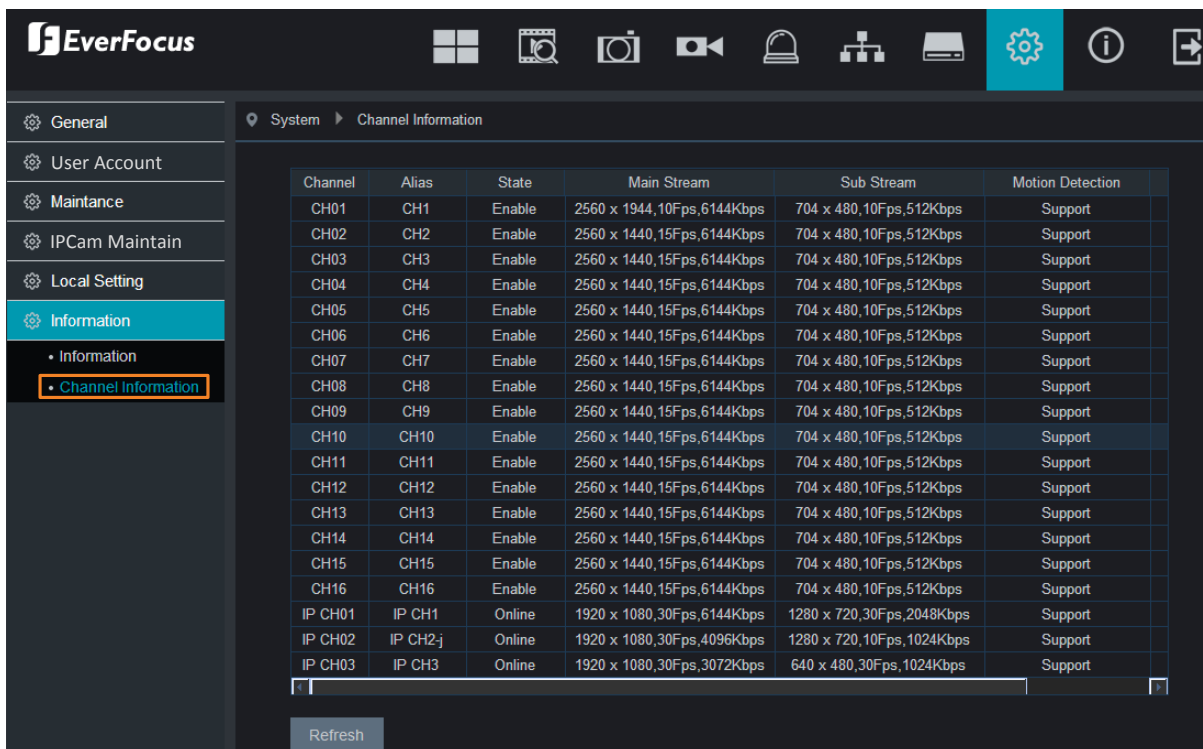


If **P2P** function is enabled, a QR code will be displayed on this Info page. You can scan the QR code with **EverFocus eFVMS App** installed on your mobile device to add and remote access the DVR. To enable the P2P function, please refer to *5.3.6.1.4 Port Configuration*.

To perform the P2P function, please refer to *4.9.5.1.1 Performing the P2P Function*.

5.3.8.6.2 Channel Information

You can see the channel info on this page.



Channel	Alias	State	Main Stream	Sub Stream	Motion Detection
CH01	CH1	Enable	2560 x 1944, 10Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH02	CH2	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH03	CH3	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH04	CH4	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH05	CH5	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH06	CH6	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH07	CH7	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH08	CH8	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH09	CH9	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH10	CH10	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH11	CH11	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH12	CH12	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH13	CH13	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH14	CH14	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH15	CH15	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
CH16	CH16	Enable	2560 x 1440, 15Fps, 6144Kbps	704 x 480, 10Fps, 512Kbps	Support
IP CH01	IP CH1	Online	1920 x 1080, 30Fps, 6144Kbps	1280 x 720, 30Fps, 2048Kbps	Support
IP CH02	IP CH2-j	Online	1920 x 1080, 30Fps, 4096Kbps	1280 x 720, 10Fps, 1024Kbps	Support
IP CH03	IP CH3	Online	1920 x 1080, 30Fps, 3072Kbps	640 x 480, 30Fps, 1024Kbps	Support

5.3.9 Login Information

Move your mouse cursor over this icon can display the login information.

5.3.10 Logout

Click this icon can logout the system.

Chapter 6

6. Specification

Model Name		VANGUARD 4x2H
System		
Operating System		Embedded Linux
Number of Channels		<u>Analog</u> : Up to 4CH 8MP AHD/TVI/CVBS cameras <u>IP</u> : Up to 2CH 8MP IP cameras (up to 6CH if only IP cameras are connected)
RAM		2GB
Watchdog		Supported
Dual Stream		Supported
OSD Menu		Supported
System Control		Mouse, IR remote control
Multiplex Operation		Live display, record, playback, backup and network
PTZ Protocol Supported		Pelco D, Pelco P, UTC1, UTC2
Video		
Compression Format		H.265 / H.264
Video Format		NTSC / PAL
Video Inputs		<u>Analog</u> : 4 x BNC <u>IP</u> : 2CH 8MP IP cameras (only IP, up to 6CH)
Video Looping Outputs		Unsupported
Video Outputs		HDMI/VGA: 1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080 (1080P), 2560x1440 (2K), 3840x2160 (4K, HDMI only)
IP Bandwidth	Incoming	Max. 16Mbps to 48Mbps (default is 16Mbps, decrease one Analog channel can gain 8Mbps)
	Outgoing	Max. 48Mbps
Live Resolution / Frame Rate		4K Mode: <u>Analog</u> : 8MP: 15fps/CH; 5MP: 20fps/CH; 4MP/3MP/1080P/720P/960H: 30fps/CH <u>IP</u> : 8MP/5MP/4MP/3MP/1080P/720P 5MP Mode: <u>Analog</u> : 5MP: 20fps/CH; 4MP/3MP/1080P/720P/960H: 30fps/CH <u>IP</u> : 5MP/4MP/3MP/1080P/720P
Recording		

Recording Resolution / Frame Rate	4K Mode: <u>Analog:</u> 8MP: 6fps/CH; 5MP: 8fps/CH; 4MP: 10fps/CH; 3MP: 12fps/CH; 1080P: 25fps/CH (PAL); 30fps/CH (NTSC) <u>IP:</u> 8MP: 8fps/CH; 5MP: 10fps/CH; 4MP/3MP/1080P/720P: 25fps/CH (PAL); 30fps/CH (NTSC) 5MP Mode: <u>Analog:</u> 5MP: 12fps/CH; 4MP: 15fps/CH; 3MP: 20fps/CH; 1080P: 25fps/CH (PAL); 30fps/CH (NTSC) <u>IP:</u> 5MP: 10fps/CH; 4MP/3MP/1080P/720P: 25fps/CH (PAL); 30fps/CH (NTSC)
Recording Modes	Continuous/Manual/Motion Detect
Playback	
Synchronized Playback	4CH
Playback Performance	4K Mode: <u>Analog:</u> 8MP: 6fps/CH (up to 2CH); 5MP: 8fps/CH (up to 4CH); 4MP: 10fps/CH (up to 4CH); 3MP: 12fps/CH (up to 4CH); 1080P: PAL: 25fps/CH (up to 4CH); NTSC: 30fps/CH (up to 4CH) 5MP Mode: <u>Analog:</u> 5MP: 12fps/CH (up to 4CH); 4MP: 15fps/CH (up to 4CH); 3MP: 20fps/CH (up to 4CH); 1080P: PAL: 25fps/CH (up to 4CH); NTSC: 30fps/CH (up to 4CH)
Search Modes	Time, Event, Motion in Recorded Video
Audio	
Audio Input	4
Audio Output	1 x RCA
Alarm	
Alarm Input	4
Alarm Output	1
Storage Device	
Internal 3.5" HDD	2 x SATA HDD
External HDD	1 x e-SATA
Storage Capacity	8TB/disk
DVD Burner	Not supported
Network	
Ethernet	10/100/1000 Ethernet
Protocol	TCP-IP / DHCP / PPPoE / DDNS / SMTP / NTP
Interface	
USB	2 x USB2.0 (for mouse and backup/upgrade)
RS-485	1 x RS-485 (for PTZ Control)
Ethernet	1 RJ-45
General	
Power Input	12VDC / 5A
Power Consumption	60W max.
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F (20 ~ 80% humidity)
Dimensions (W x D x H)	378 x 318.2 x 52mm / 14.9" x 12.5" x 2"
Weight (without HDDs)	0.96kg / 2.12lb

Language	English, Japanese, Traditional Chinese, German, Russian, Dutch, Italian
Regulatory	CE, FCC
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	Yes
User Access	2 Levels of User Access Defined
Video Analytics	Perimeter Intrusion Detection, Line Crossing Detection, Foreign/Missing Object Detection, Pedestrian Detection, Face Detection, Cross-Counting Detection, Sound Detection, Tamper Detection
Remote Client System Minimum Requirement	
Operating System	Win7 (32 and 64-bit) / Win10 (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
Other Remote Application	1. EverFocus VANGUARD CMS 2. EverFocus eFVMS (mobile app)

Model Name		VANGUARD 8x4H
System		
Operating System		Embedded Linux
Number of Channels		<u>Analog</u> : Up to 8CH 8MP AHD/TVI/CVBS cameras <u>IP</u> : Up to 4CH 8MP IP cameras (up to 12CH if only IP cameras are connected)
RAM		2GB
Watchdog		Supported
Dual Stream		Supported
OSD Menu		Supported
System Control		Mouse, IR remote control
Multiplex Operation		Live display, record, playback, backup and network
PTZ Protocol Supported		Pelco D, Pelco P, UTC1, UTC2
Video		
Compression Format		H.265 / H.264
Video Format		NTSC / PAL
Video Inputs		<u>Analog</u> : 8 x BNC <u>IP</u> : 4CH 8MP IP cameras (only IP, up to 12CH)
Video Looping Outputs		Unsupported
Video Outputs		HDMI/VGA: 1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080 (1080P), 2560x1440 (2K), 3840x2160 (4K, HDMI only)
IP Bandwidth	Incoming	Max. 32Mbps ~96Mbps (default is 32Mbps, decrease one Analog channel can increase 8Mbps)
	Outgoing	Max. 96Mbps
Live Resolution / Frame Rate		4K Mode: <u>Analog</u> : 8MP: 15fps/CH; 5MP: 20fps/CH; 4MP/3MP/1080P/720P/960H: 30fps/CH <u>IP</u> : 8MP/5MP/4MP/3MP/1080P/720P 5MP Mode: <u>Analog</u> : 5MP: 20fps/CH; 4MP/3MP/1080P/720P/960H: 30fps/CH <u>IP</u> : 5MP/4MP/3MP/1080P/720P
Recording		
Recording Resolution / Frame Rate		4K Mode: <u>Analog</u> : 8MP: 7fps/CH; 5MP: 10fps/CH; 4MP: 15fps/CH; 3MP: 17fps/CH; 1080P: 25fps/CH (PAL); 30fps/CH (NTSC) <u>IP</u> : 8MP: 8fps/CH; 5MP: 10fps/CH; 4MP/3MP/1080P/720P: 25fps/CH (PAL); 30fps/CH (NTSC) 5MP Mode: <u>Analog</u> : 5MP: 13fps/CH; 4MP: 17fps/CH; 3MP: 23fps/CH; 1080P: 25fps/CH (PAL); 30fps/CH (NTSC) <u>IP</u> : 5MP: 10fps/CH; 4MP/3MP/1080P/720P: 25fps/CH (PAL); 30fps/CH (NTSC)
Recording Modes		Continuous/Manual/Motion Detect
Playback		
Synchronized Playback		8CH

Playback Performance	4K Mode: <u>Analog:</u> 8MP: 7fps/CH (up to 4CH); 5MP: 10fps/CH (up to 8CH); 4MP: 15fps/CH (up to 8CH); 3MP: 17fps/CH (up to 8CH); 1080P: PAL: 25fps/CH (up to 8CH)/NTSC: 30fps/CH (up to 8CH) 5MP Mode: <u>Analog:</u> 5MP: 13fps/CH (up to 8CH); 4MP: 17fps/CH (up to 8CH); 3MP: 23fps/CH (up to 8CH); 1080P: PAL: 25fps/CH (up to 8CH)/NTSC: 30fps/CH (up to 8CH)
Search Modes	Time, Event, Motion in Recorded Video
Audio	
Audio Input	8
Audio Output	1 x RCA
Alarm	
Alarm Input	8
Alarm Output	1
Storage Device	
Internal 3.5" HDD	2 x SATA HDD
External HDD	1 x e-SATA
Storage Capacity	8TB/disk
DVD Burner	Not supported
Network	
Ethernet	10/100/1000 Ethernet
Protocol	TCP-IP / DHCP / PPPoE / DDNS / SMTP / NTP
Interface	
USB	2 x USB2.0 (for mouse and backup/upgrade); 1 x USB3.0
RS-485	1 x RS-485 (for PTZ Control)
Ethernet	1 RJ-45
General	
Power Input	12VDC / 5A
Power Consumption	60W max.
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F (20 ~ 80% humidity)
Dimensions (W x D x H)	378 x 318.2 x 52mm / 14.9" x 12.5" x 2"
Weight (without HDDs)	2.1kg / 4.63lb
Language	English, Japanese, Traditional Chinese, German, Russian, Dutch, Italian
Regulatory	CE, FCC
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	Yes
User Access	2 Levels of User Access Defined
Video Analytics	Perimeter Intrusion Detection, Line Crossing Detection, Foreign/Missing Object Detection, Pedestrian Detection, Face Detection, Cross-Counting Detection, Sound Detection, Tamper Detection

Remote Client System Minimum Requirement	
Operating System	Win7 (32 and 64-bit) / Win10 (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
Other Remote Application	1. EverFocus VANGUARD CMS 2. EverFocus eFVMS (mobile app)

Model Name		VANGUARD 16x8H
System		
Operating System		Embedded Linux
Number of Channels		<u>Analog</u> : Up to 16CH 8MP AHD/TVI/CVBS cameras <u>IP</u> : Up to 8CH 8MP IP cameras
RAM		2GB
Watchdog		Supported
Dual Stream		Supported
OSD Menu		Supported
System Control		Mouse, IR remote control
Multiplex Operation		Live display, record, playback, backup and network
PTZ Protocol Supported		Pelco D, Pelco P, UTC1, UTC2
Video		
Compression Format		H.265 / H.264
Video Format		NTSC / PAL
Video Inputs		<u>Analog</u> : 16 x BNC <u>IP</u> : 8CH 8MP IP cameras
Video Looping Outputs		Unsupported
Video Outputs		HDMI/VGA: 1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080 (1080P), 2560x1440 (2K), 3840x2160 (4K, HDMI only)
IP Bandwidth	Incoming	Max. 64Mbps
	Outgoing	Max. 128Mbps
Live Resolution / Frame Rate		4K Mode: <u>Analog</u> : 8MP: 15fps/CH; 5MP: 20fps/CH; 4MP/3MP/1080P/720P/960H: 30fps/CH <u>IP</u> : 8MP/5MP/4MP/3MP/1080P/720P 5MP Mode: <u>Analog</u> : 5MP: 20fps/CH; 4MP/3MP/1080P/720P/960H: 30fps/CH <u>IP</u> : 5MP/4MP/3MP/1080P/720P
Recording		
Recording Resolution / Frame Rate		4K Mode: <u>Analog</u> : 8MP: 7fps/CH; 5MP: 10fps/CH; 4MP: 15fps/CH; 3MP: 17fps/CH; 1080P: 25fps/CH (PAL); 30fps/CH (NTSC) <u>IP</u> : 8MP: 8fps/CH; 5MP: 10fps/CH; 4MP/3MP/1080P/720P: 25fps/CH (PAL); 30fps/CH (NTSC) 5MP Mode: <u>Analog</u> : 5MP: 13fps/CH; 4MP: 16fps/CH; 3MP: 20fps/CH; 1080P: 25fps/CH (PAL); 30fps/CH (NTSC) <u>IP</u> : 5MP: 10fps/CH; 4MP/3MP/1080P/720P: 25fps/CH (PAL); 30fps/CH (NTSC)
Recording Modes		Continuous/Manual/Motion Detect
Playback		
Synchronized Playback		16CH

Playback Performance	4K Mode: Analog: 8MP: 7fps/CH (up to 8CH); 5MP: 10fps/CH (up to 16CH); 4MP: 15fps/CH (up to 16CH); 3MP: 17fps/CH (up to 16CH); 1080P: PAL: 25fps/CH (up to 16CH)/NTSC: 30fps/CH (up to 16CH) 5MP Mode: Analog: 5MP: 13fps/CH (up to 16CH); 4MP: 16fps/CH (up to 16CH); 3MP: 20fps/CH (up to 16CH); 1080P: PAL: 25fps/CH (up to 16CH)/NTSC: 30fps/CH (up to 16CH)
Search Modes	Time, Event, Motion in Recorded Video
Audio	
Audio Input	16
Audio Output	1 x RCA
Alarm	
Alarm Input	16
Alarm Output	1
Storage Device	
Internal 3.5" HDD	2 x SATA HDD
External HDD	1 x e-SATA
Storage Capacity	8TB/disk
DVD Burner	Not supported
Network	
Ethernet	10/100/1000 Ethernet
Protocol	TCP-IP / DHCP / PPPoE / DDNS / SMTP / NTP
Interface	
USB	2 x USB2.0 (for mouse and backup/upgrade); 1 x USB3.0
RS-485	1 x RS-485 (for PTZ Control)
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Power Input	12VDC / 5A
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Weight (without HDDs)	2.3kg / 5.07lb
Language	English, Japanese, Traditional Chinese, German, Russian, Dutch, Italian
Regulatory	CE, FCC
Functions	
Video Pause	Yes
Video Loss Detection	Yes
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User Interface	GUI (Graphical User Interface)
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Chapter 7

7. Troubleshooting

If you have problems with the system, run through the following checklist to see if you can solve the problem.

1. Q: What can I do if the system does not detect the HDD?

A: Check if the power supply system is properly connected and power cord and power cables are securely connected, and if something wrong with the HDD interface. Or you may check if your HDD is supported by referring to the specifications or descriptions.

2. Q: I have changed the password but forget the new password, how can I access the system?

A: If you forget system password, please consult with our technical personnel. We strongly suggest user to set password easy to be remembered and relatively safe. If you have safety requirement, please do not set too simple password, such as 000000.

3. Q: We see abnormal video signal or even no video signal by connecting the DVR and camera together. Power supply for both devices is OK. What is wrong?

A: Check network cable at DVR side to see if the cable is firmly connected and if it is worn out and needs to be replaced.

4. Q: How to prevent DVR from being influenced by heat?

A: The DVR needs to dissipate heat while it is running. Please place the DVR in a place with good air circulation and away from heat sources to ensure stability and life of the DVR.

5. Q: The remote control doesn't work while the monitor screen is OK and panel keys are functional. Why?

A: Operate again by aiming the remote control at the IR receiver on front panel. If it still doesn't work, please check if the batteries in the remote control are running out of power. If not, check if the remote control is broken.

6. Q: I want to take out HDD from my PC and install it in DVR. Can it work?

A: All HDDs supported by the system can be used. But remember, once DVR runs, the data on your HDD will be formatted.

7. Q: Can I playback while recording?

A: Yes. The system supports the function of playing while recording.

8. Q: Can I clear some records on HDD of DVR?

A: In consideration of the file security, you may not clear part of records. If you want to remove all the records, you can format HDD.

9. Q: Why can't I log in DVR client?

A: Please check if the network connection settings are correct and RJ-45 port is with good contact. And check if your account and password are correctly input.

10. Q: Why can't I find any records during playback?

A: Please check if the data line connection for HDD is OK and system time is properly adjusted. Try a few times and restart. If it still doesn't work, check if the HDD is broken.

11. Q: Why DVR cannot control PTZ?

A: Please check if:

- a) PTZ in the front side is malfunctioned.
- b) Setting, connection and installation of PTZ decoder are not correct.
- c) PTZ setting of DVR is not correct.
- d) Protocol of PTZ decoder does not match the DVR's.
- e) Address of PTZ decoder does not match the DVR's.
- f) If many decoders are connected, the farthest side of AB line of PTZ decoder should be added 120Ω resistance to realize reflection suppression and impedance matching. Otherwise, PTZ control will be unstable.

12. Q: Why doesn't dynamic detection work?

A: Please check if the motion detection alarm setting at IP camera side is correct and if the sensitivity is set too low.

13. Q: Why doesn't alarm work?

A: Please check if the alarm setting, alarm connection and alarm input signals are correct.

14. Q: Why does buzzer keep alarming?

A: Please check the alarm setting, check if motion detection function is enabled and object motion is detected all the time and if I/O alarm is set as Always Off. Besides, refer to corresponding HDD alarm setting.

15. Q: Why can't I stop recording by pressing "STOP" button or click "Stop Recording" in context menu?

A: Pressing Stop button can only stop manual record. If you want to stop Scheduled recording in certain time quantum, please change the setting to No Record. To stop Startup recording, please change record mode to scheduled recording or manual recording. Then you may stop recording by the prescribed methods

Chapter

8

8. Usage Maintenance

1. To shut down DVR, please firstly shut down the system and then turn off the power. Do not turn off the power directly or HDD data will be lost or damaged.
2. Please keep DVR away from heat sources or places.
3. Clean the internal dust regularly. Make sure the good ventilation of DVR so as to ensure the good heat dissipation.
4. Please do not hot plugging cables at ports, or the ports may be damaged.
5. Please check the HDD cable and data cable regularly to see if they are ageing.
6. Please prevent the audio and video signals of DVR from being intervened by other electronic devices, and prevent the HDD from being damaged by static electricity and induced voltage.
7. If the network cable is frequently plugged, it is suggested to replace connecting line regularly, or the input signal may be unstable.
8. This is A class product. It may bring wireless interference in life. Under this situation, it need users to make measurements.

Appendix

A

Appendix A: IR Remote Control

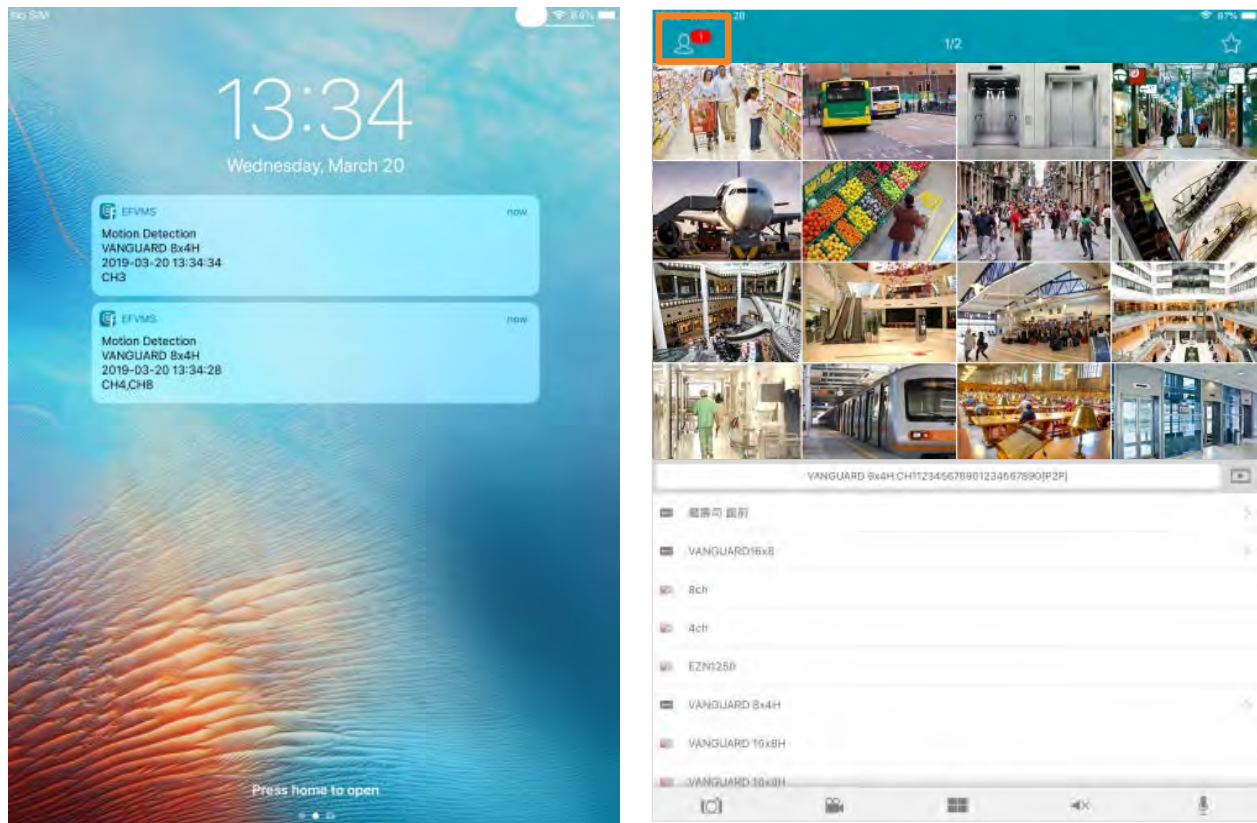
The IR remote control is an accessory to enhance the convenient operation of the DVR. You can perform all the settings and operations from the remote control.



Appendix B

Appendix B: Push Notification

You can enable the Push Notification function to send motion or I/O event alerts to your mobile devices (with eFVMS App installed).



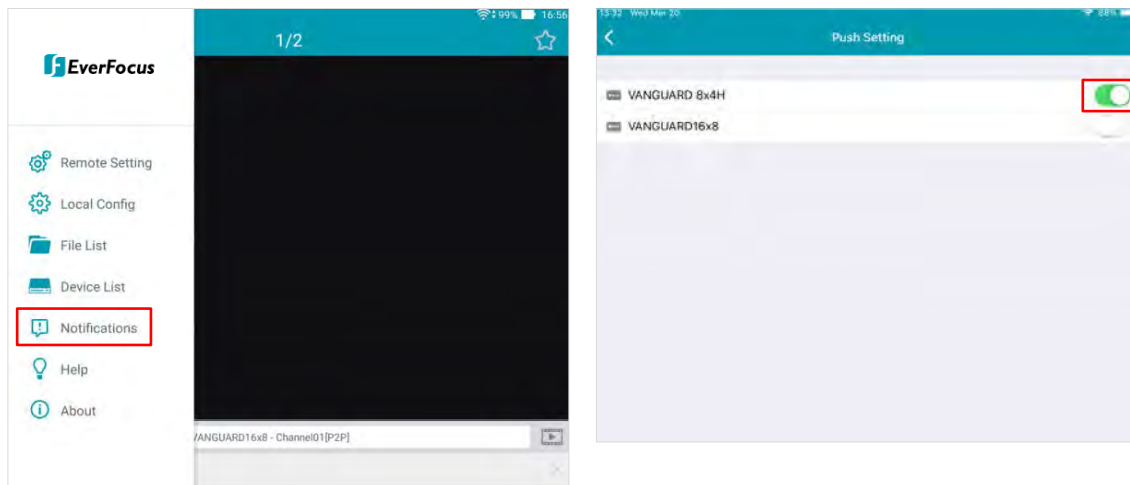
To use the Push Notification function, you have to set up the motion detection settings or I/O alarm settings and enable the Push Notification function on the EverFocus **eFVMS App**. Please refer to the below instructions.

To enable the Push Notification function:

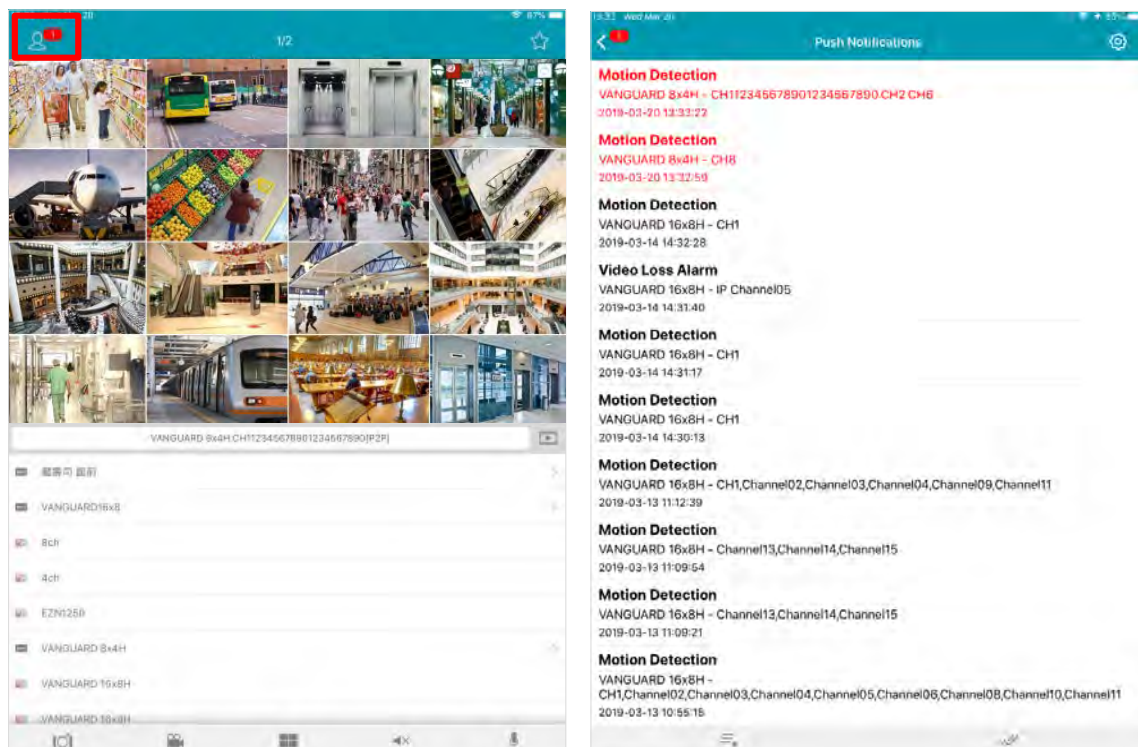
1. On the DVR end, configure the motion alarm settings (refer to 4.3.1 *Motion*) or I/O alarm settings (refer to 4.3.3 *I/O*).
2. On your mobile device, install **eFVMS App**. For Android users, go to Google Play Store. For iOS users, go to Apple Store. After the installation process is complete, start the eFVMS App.



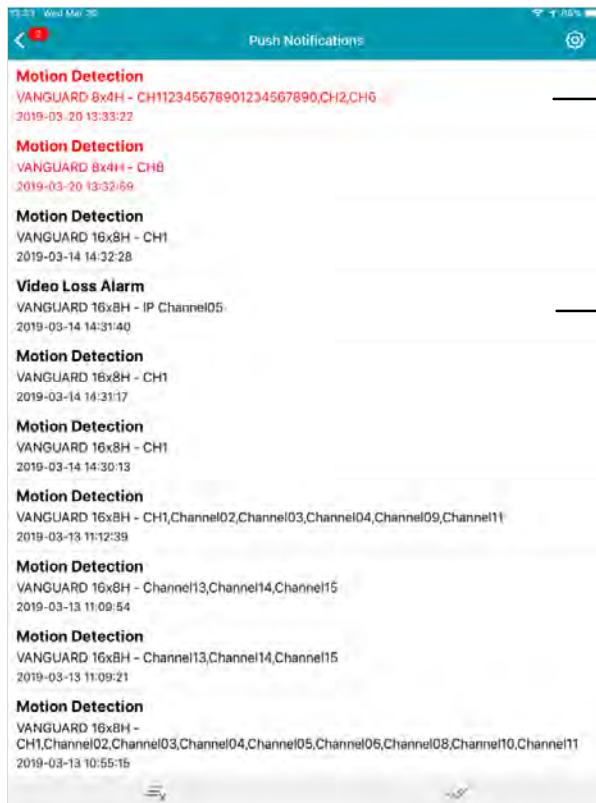
- a. Go to **Menu > Notifications**, and then switch the button to the right to enable the Push Notification function.



- b. The Push Notification setting is complete. You can start receiving motion or I/O alarms from the DVR.



- c. You can tap on the alarms on the Alarm List to enter the Live page or Playback page.



For alarms occur within one minute from the current time, tap to enter the Live page

For alarms occur more than one minute from the current time, tap to enter the Playback page

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