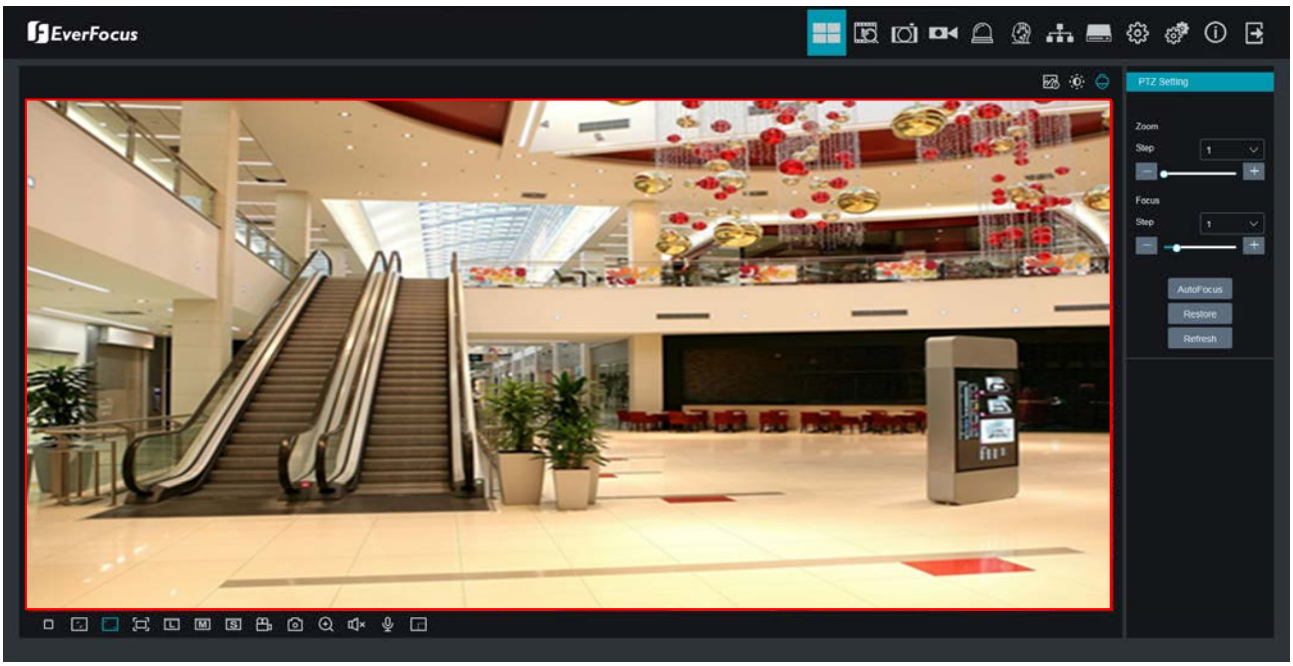
Value IP Series Network Cameras

H265, SG and NV Series

User's Manual



EverFocus

Release Date: November, 2022

Disclaimer

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

Copyright

EverFocus
2F., No.12, Ln. 270, Sec. 3, Beishen Rd., Shenkeng Dist.,
New Taipei City 222, Taiwan
TEL: +886 2 2662 2338
FAX: +886 2 2662 3632
www.everfocus.com.tw

About this document

All the safety and operating instructions should be read and followed before the unit is operated. This manual should be retained for future reference. The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.

Regulatory Notices

FCC Notice "Declaration of Conformity Information"

This equipment has been tested and found to comply with the limits for a Class A 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 or more of the following measures:

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

Warning: Changes or modifications made to this equipment, not expressly approved by EverFocus or parties authorized by EverFocus could void the user's authority to operate the 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.

Value IP Series camera complies with CE and FCC.

Precautions

Do not install the camera near electric or magnetic fields.

Install the camera away from TV/radio transmitters, magnets, electric motors, transformers and audio speakers since the electromagnetic fields generated from these devices may distort the video image or otherwise interfere with camera operation.

Never disassemble the camera beyond the recommendations in this manual nor introduce materials other than those recommended herein.

Improper disassembly or introduction of corrosive materials may result in equipment failure or other damage.

Try to avoid facing the camera toward the sun.

In some circumstances, direct sunlight may cause permanent damage to the sensor and/or internal circuits, as well as creating unbalanced illumination beyond the capability of the camera to compensate.

1. **Keep the power cord away from water and other liquids and never touch the power cord with wet hands.**

   Touching a wet power cord with your hands or touching the power cord with wet hands may result in electric shock.

2. **Never install the camera in areas exposed to oil, gas or solvents.**

   Oil, gas or solvents may result in equipment failure, electric shock or, in extreme cases, fire.

3. **Cleaning**

   For cameras with interchangeable lenses, do not touch the surface of the sensor directly with the hands. Use lens tissue or a cotton tipped applicator and ethanol to clean the sensor and the camera lens. Use a damp soft cloth to remove any dirt from the camera body. Please do not use complex solvents, corrosive or abrasive agents for cleaning of any part of the camera.

4. **Do not operate the camera beyond the specified temperature, humidity or power source ratings.**

   Use the camera at temperatures within -30°C ~ 55°C / -22°F ~ 131°F, and humidity ≤ 95%; this device is not rated as submersible. The input power source is 12VDC / PoE. Be sure to connect the proper + / - polarity and voltage, as incorrect polarity or too high a voltage will likely cause the camera to fail, and such damage is not covered by the warranty. The use of properly fused or Class 3 power limited type supplies is highly recommended.

5. **Mounting**

   Use care in selecting a solid mounting surface which will support the weight of the camera plus any wind, snow, ice or other loading, and securely attach the camera to the mounting surface using screws and anchors which will properly support the camera. If necessary (e.g. when mounting to drop ceilings) use a safety wire to provide additional support for the camera.

CONTENTS

1 Introduction

This manual describes all the functions on the user interface for the IP Camera models listed as below.

Model	Form Factor	Megapixel	Lens	AI Supported
EBN1240-SG		2-megapixel	3.6mm fixed lens	Not supported
EBN1540-SG		5-megapixel	3.6mm fixed lens	Not supported
EBN2240-SG		2-megapixel	2.8~12mm motorized	Supported
EBN2540-SG		5-megapixel	2.7~13.5mm motorized	Supported
EBN2840-SG		8-megapixel	2.7~13.5mm motorized	Supported
EZN1240-SG		2-megapixel	3.6mm fixed lens	Not supported
EZN1540-SG		5-megapixel	3.6mm fixed lens	Not supported
EZN2240-SG		2-megapixel	2.8~12mm motorized	Supported
EZN2540-SG		5-megapixel	2.7~13.5mm motorized	Supported
EZN2840-SG		8-megapixel	2.7~13.5mm motorized	Supported
EHN1250-SG		2-megapixel	2.8~12mm motorized	Not supported
EHN1550-SG		5-megapixel	2.8~12mm motorized	Not supported
EHN2250-SG		2-megapixel	2.8-12mm motorized	Supported
EHN2550-SG		5-megapixel	2.7~13.5mm motorized	Supported
EHN2850-SG		8-megapixel	2.7~13.5mm motorized	Supported
EZN1250-SG		2-megapixel	2.8~12mm motorized	Not supported
EZN1550-SG		5-megapixel	2.8~12mm motorized	Not supported
EZN2250-SG		2-megapixel	2.8-12mm motorized	Supported
EZN2550-SG		5-megapixel	2.7~13.5mm motorized	Supported
EZN2850-SG		8-megapixel	2.7~13.5mm motorized	Supported
EMN2560-SG		5-megapixel	2.8mm fixed lens	Supported
EBN3840-NV		8-megapixel	3.6mm fixed lens	Supported
EBN3540-NV		5-megapixel	3.6mm fixed lens	Supported
EZN3840-NV		8-megapixel	3.6mm fixed lens	Supported
EZN3540-NV		5-megapixel	3.6mm fixed lens	Supported
EZN3850-NV		8-megapixel	2.8~12mm motorized	Supported
EZN3550-NV		5-megapixel	2.8~12mm motorized	Supported

For more information on the product specifications, please refer to the datasheet of each product. To download datasheet, please click **Download** on each Product page on EverFocus Website

www.everfocus.com.tw

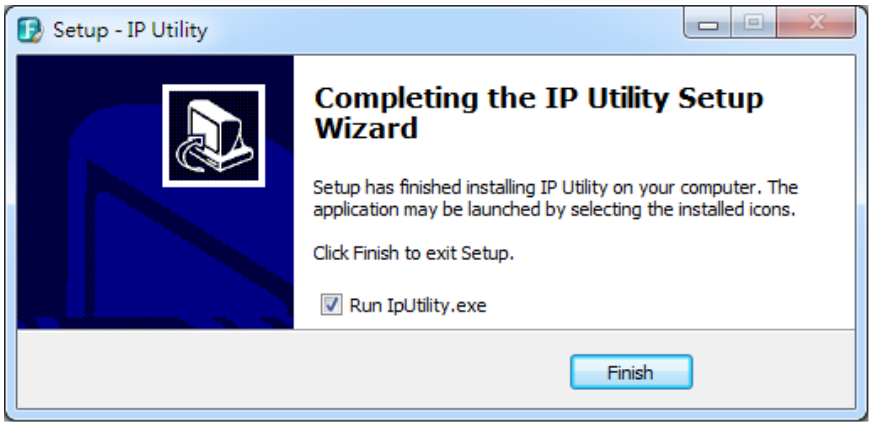
2 Getting Started

This section explains how to access the Web interface of the camera for configuration.

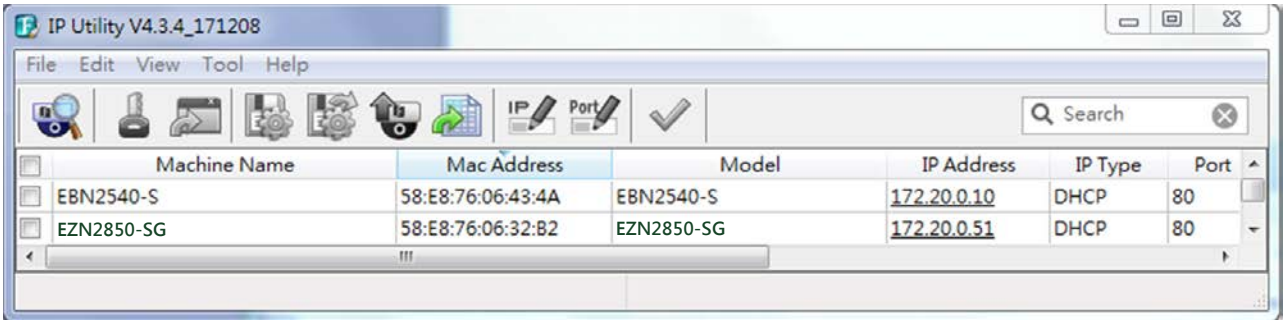
2.1 Checking the Dynamic IP Address

You can look up the IP address of the IP camera using the IP Utility (IPU) program. Please download the IP Utility from EverFocus website (key word search: "IP Utility"). Please connect the IP camera 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.

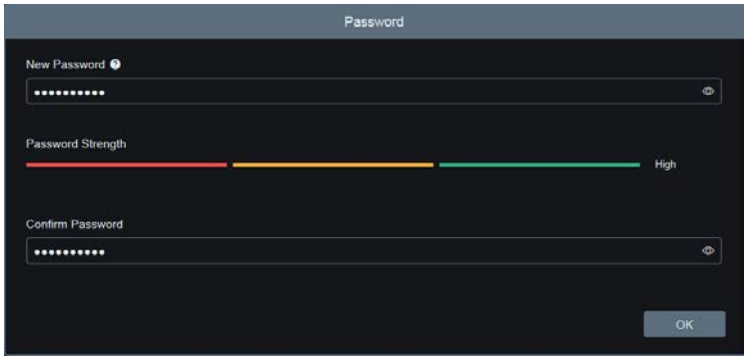


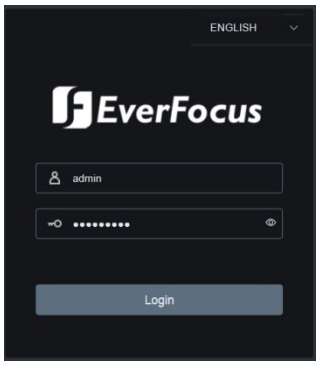
2. Click the **Finish** button, the IP Utility will be automatically launched to search the IP devices connected on the same LAN.



Note: The default IP mode of the IP camera is DHCP. However, if there is no dynamic IP address assigned to the device, its IP will switch to **192.168.0.10.**

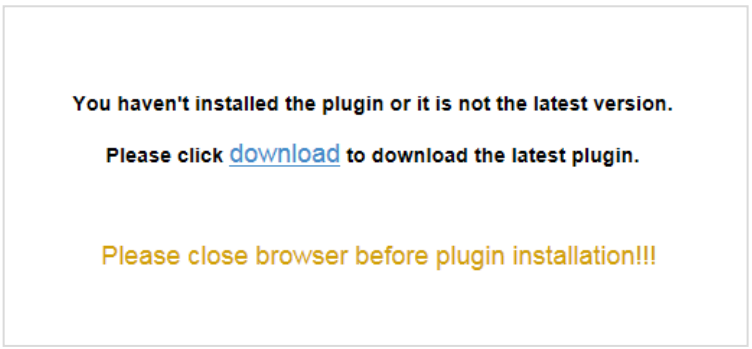
3. To access the Live View window, double click the IP address in the **IP Address** column, the Password window will pop up. By default, the ID is **admin** and there is no password. Please input a password for the first-time login. Click the **OK** button, the Login window appears. Input the password and then click **Login**, the Live View window appears.

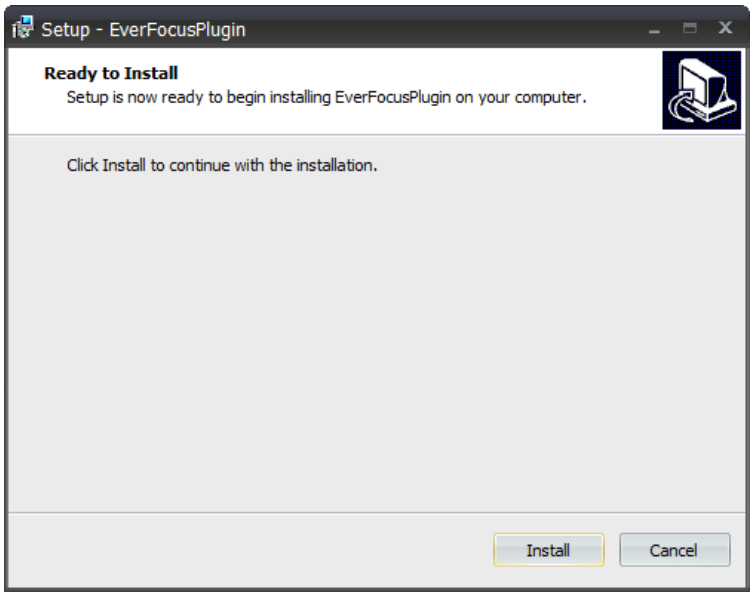




Note for the first time login:

◆ 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.

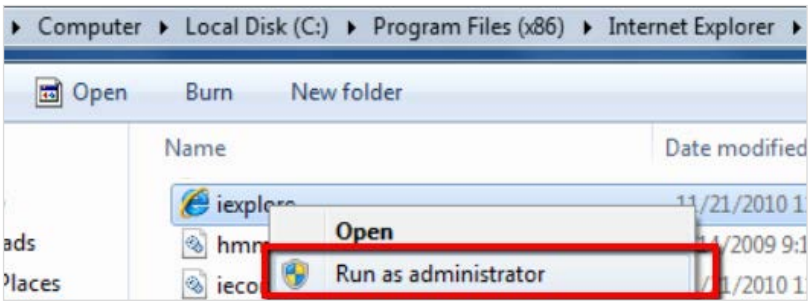




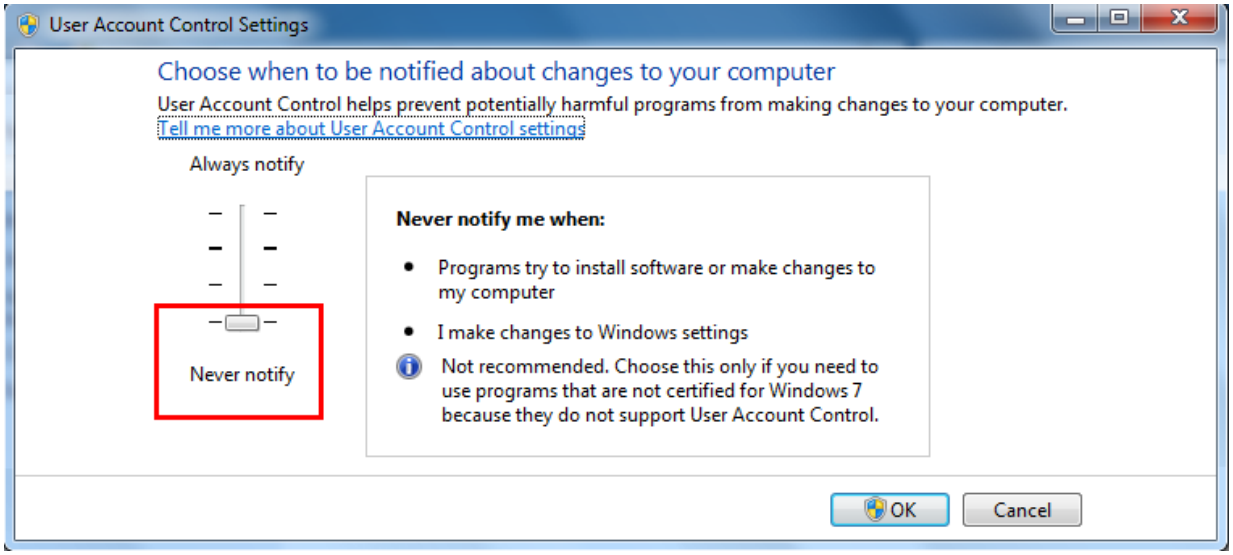
2.2 Settings for Microsoft Internet Explorer

If you have difficulties viewing live view or upgrading firmware, it is suggested to complete the following settings of your computer.

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



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

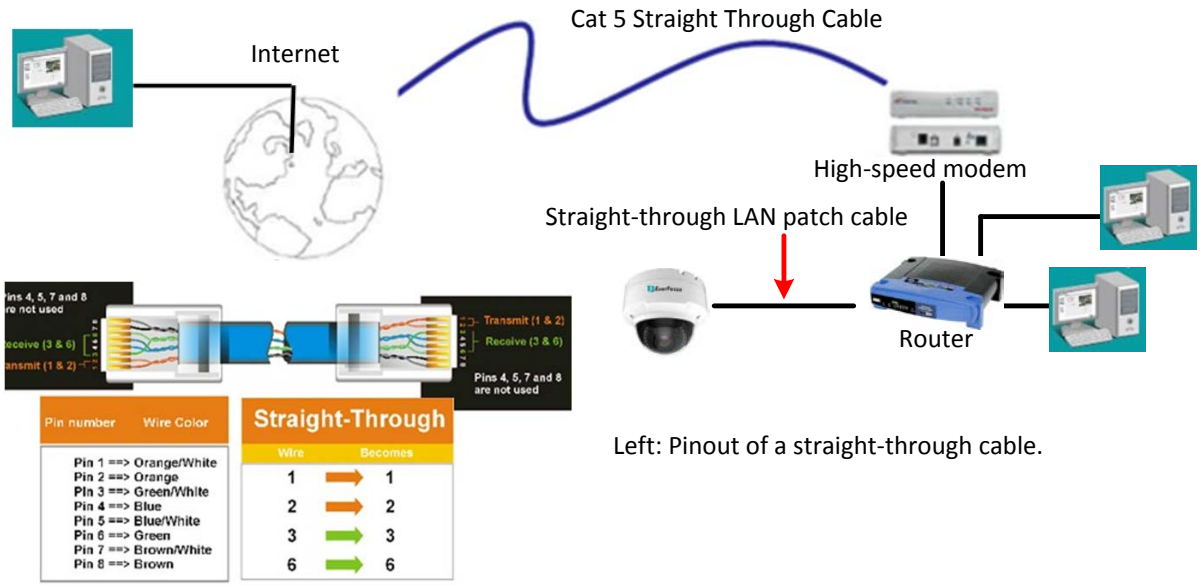


2.3 Connecting the Camera to the Network

There are three methods to connect the IP camera to the network: **Router or LAN Connection**, **One-to-One Connection** and **Direct High-Speed Connection**.

Router or LAN connection

This is the most common connection in which the IP camera is connected to a router and allows multiple users on and off site to see the IP camera on a LAN / WAN (Internet). The camera must be assigned an IP address that is compatible with its LAN. By setting up port forwarding on the router, you can remotely access the cameras from outside of the LAN via the Internet.



Left: Pinout of a straight-through cable.

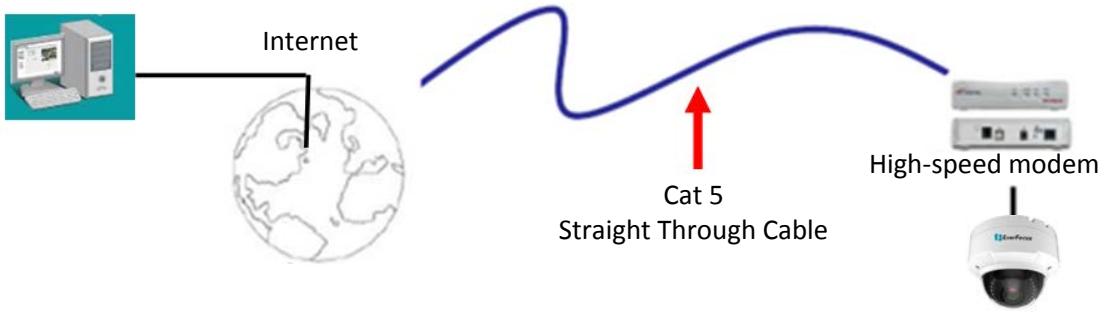
One-to-One Connection (Directly from PC to IP Camera)

You can connect directly without using a switch, router or modem. However, only the PC connected to the camera will be able to view the IP camera. You will also have to manually assign a compatible IP address to both the computer and the IP camera. Unless the PC has another network connection, the IP camera will be the only network device visible to the PC. See the diagram below:

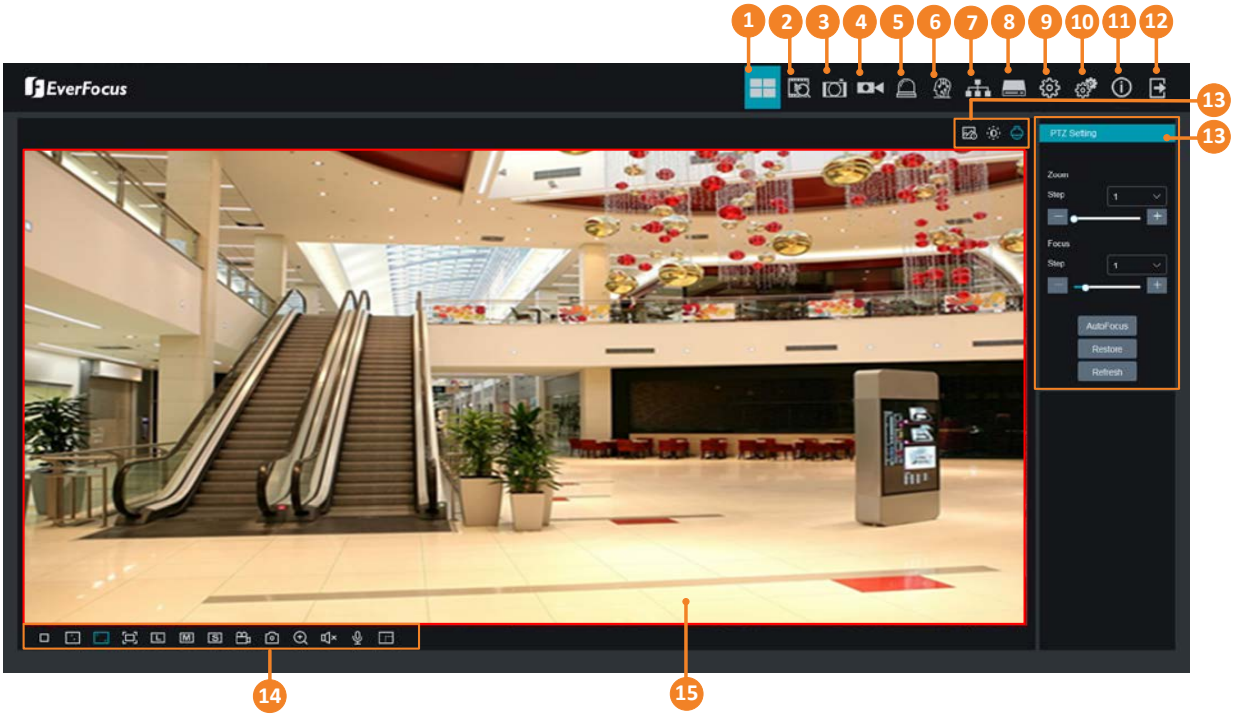
Right: Pinout of a crossed-over cable.

Direct High-Speed Connection

In a Direct High-Speed Connection, the camera connects directly to a modem without the need for a router. You need to set the static or dynamic WAN IP address assigned by your ISP (Internet Service Provider) in the camera's configuration web pages. To access the camera, just type "http://xxx.xxx.xxx.xxx", where xxx.xxx.xxx.xxx is the IP address given by your ISP. If you have a dynamic IP address, this connection may require that you use DDNS for a reliable connection.



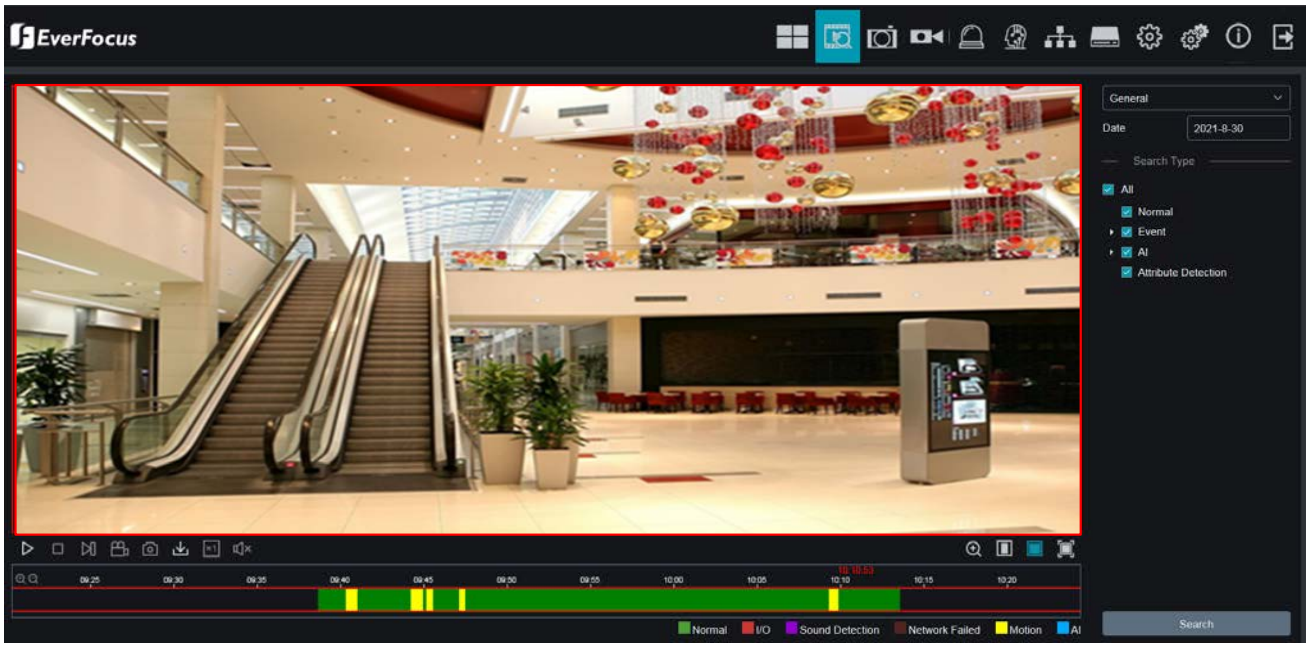
3 Live View Window



No.	Name	Description
1	**Live**	Click to display the Live View window.
2	**Playback**	Click to enter the Playback page. Please refer to *3.1 Playback*.
3	**Channel**	Click to enter the Display setting page. Please refer to *3.2 Channel Setting.*
4	**Record**	Click to enter the Record setting page. Please refer to *3.3 Record.*
5	**Event**	Click to enter the Event setting page. Please refer to *3.4 Event Setting.*
6	**AI**	Click to enter the AI setting page. Please refer to *3.5 AI.*
7	**Network**	Click to enter the Network setting page. Please refer to *3.6 Network Setting.*
8	**Device**	Click to enter the Device setting page. Please refer to *3.7 Device Setting.*
9	**System**	Click to enter the System setting page. Please refer to *3.8 System Setting.*
10	**Local Settings**	Click to configure the local storage path. Please refer to *3.8.5 Local Setting.*
11	**Login Info**	Move the mouse cursor over this icon to display the Login information.
12	**Logout**	Click to logout the IP camera.
13	**Color Setting / PTZ Setting / AI alarm**	Click the buttons to display the setup panel. Please refer to 3.9 *Color Setting, 3.10 PTZ Setting*, and *3.11 AI Alarm*.
14	**Live View Function Icons**	You can perform some functions on the Live View using these icons. Please refer to *3.12 Live View Function Icons*.
15	**Live View Window**	Displays the IP camera live view. You can double click on the Live View window to full screen. Double click on the Live View can exit full screen.

3.1 Playback

Click the **Playback** button on the top navigation bar. The Playback window displays. You can play back the recordings stored in the on-camera micro SD card.

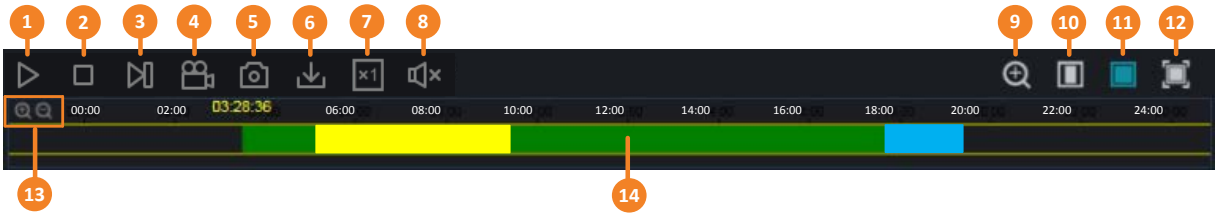


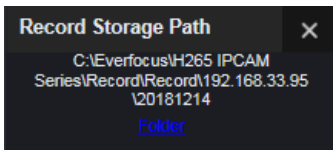
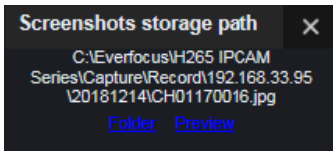
To start playing back:

1. Select the date on the calendar (the date with an orange bar on the bottom indicates there are recordings on the date).
2. Select the desired recording type(s) from the **Search Type** drop-down list.
3. Click the **Search** button, the recordings will be displayed on the time bar in different colors. Green: Normal recordings; Yellow: Motion recordings; Blue: Intelligent recordings; Red: IO; Purple: Sound Detection recordings; Brown: Network Failed recording.
4. Click the **Play** button to start playing back.

3.1.1 Playback Panel

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



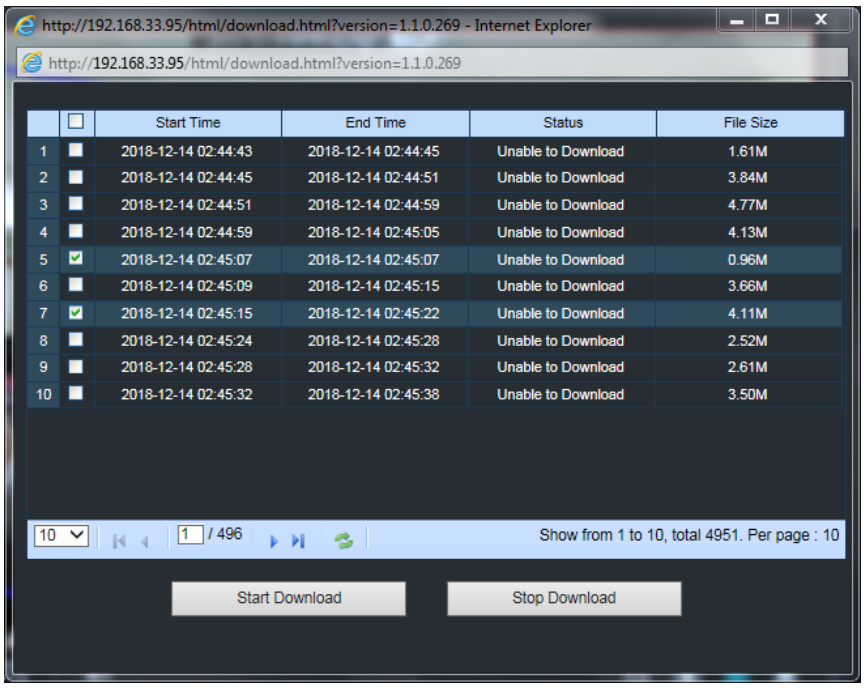
No.	Name	Description
1	**Play/Pause**	Click to Play or Pause playing back.
2	**Stop**	Click to Stop playing back.
3	**Step Forward**	Click the button to play the recording frame by frame.8
4	**Video Clips**	During the playback process, you can click the **Video Clips** button to start recording from the clicked time, click the button again to stop recording, 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 *3.8.5 Local Settings.* You can use EverFocus Player or any player supporting the video format to play back the recordings. EverFocus Player is included in the Software CD. 
5	**Snapshot**	Click to take a snapshot, 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 storage path or image format, please refer to *3.8.5 Local Settings.* 
6	**Download**	Click to download recordings. To perform the Download function, please refer to *3.1.2 Download*.
7	**Speed**	Click to select a playback speed.
8	**Audio**	Click to switch on/off the speaker. You can also adjust the volume.
9	**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: a. Click the **Digital Zoom** button to enable the function. b. 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. c. Right-click to exit the Digital Zoom mode.

10	**Original Aspect Ratio**	Click to play back all the streams with original aspect ratio.
11	**Stretch**	Click to stretch all the streams on the Playback window.
12	**Full Screen**	Click to display the Playback window in full screen mode. To exit full screen mode, press the **ESC** button on the keyboard or double-click on the
13	**Time Span Buttons**	You can adjust the time span on the Time Bar by clicking the buttons.
14	**Time Bar**	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. Green: Normal recordings; Yellow: Motion recordings; Blue: Intelligent recordings; Red: IO; Purple: Sound Detection recordings; Brown: Network Failed recording.

3.1.2 Download

You can download the recordings on the Playback window.

1. Click the **Download** button, the corresponding recordings will be displayed.



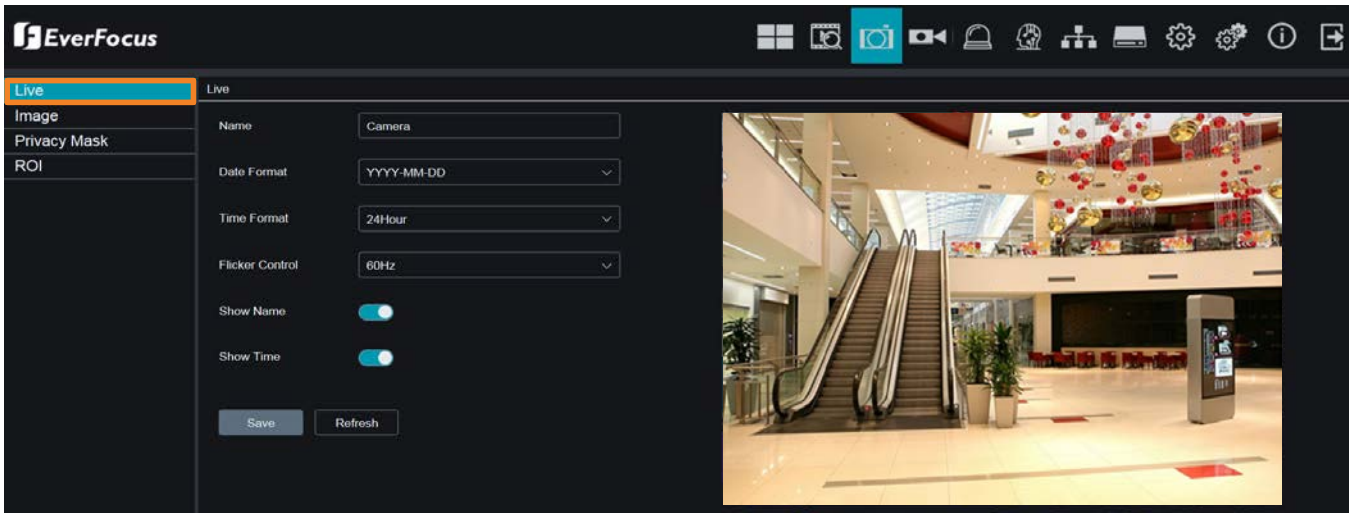
2. Select the desired recordings you want to download, and then click **Start Download**. To change the storage path or the file format, please refer to *3.8.5 Local Settings.*

3.2 Channel Setting

Click the **Display** button on the top navigation bar to enter the Channel Setting page.

3.2.1 Live

You can configure the live display settings on this page.



Name: Input a camera name. Alphabetic, numeric and Chinese characters are supported.

Date Format: Select a date format.

Time Format: Select a time format form 24 Hour or 12 Hour.

Flicker Control: Select a flicker control from 60Hz or 50Hz.

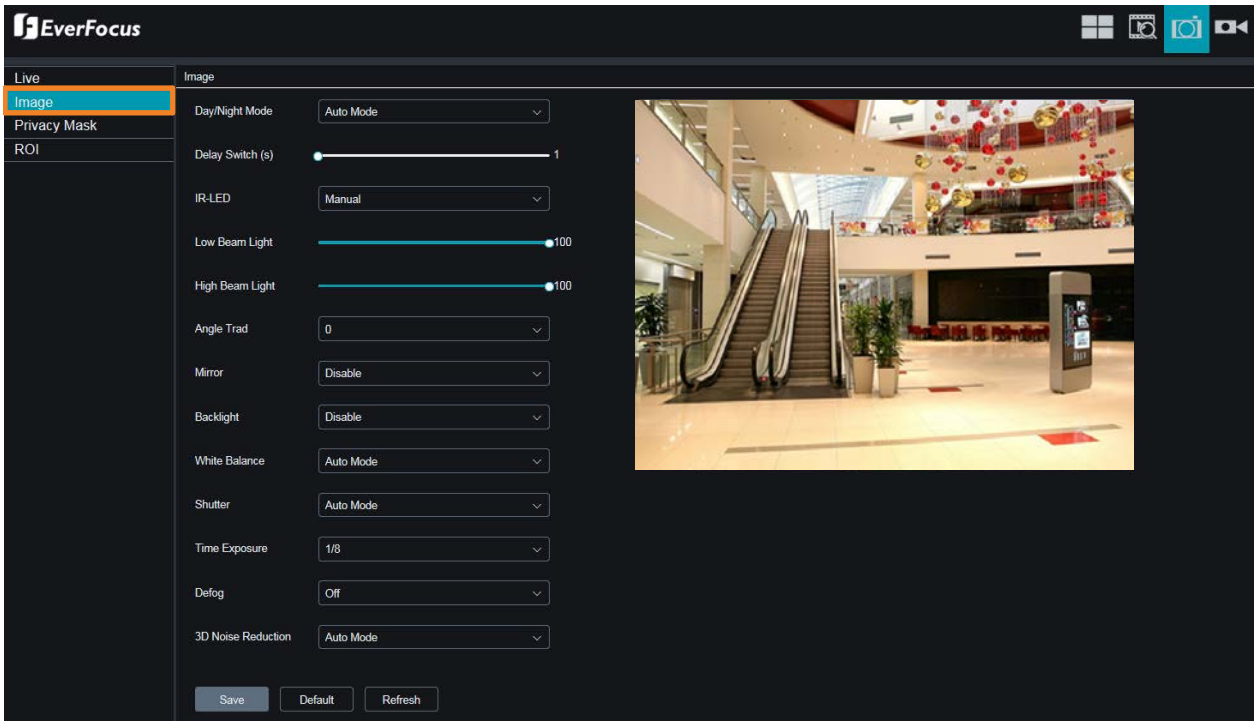
Show Name: Switch the button to the right to enable displaying camera name on the stream.

Show Time: Switch the button to the right to enable displaying system time on the stream.

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

3.2.2 Image

You can configure the image settings on this page.



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

- **Auto:** Select 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.

Low Beam Light: Adjust the Beam Light value.

High Beam Light: Adjust the Beam Light value.

Angle Trad: Select an Angle.

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

Backlight: Select to enable the backlight function.

White Balance:

- **Auto:** Select for the camera to automatically adjust the white balance.
- **Manual:** Select to adjust the Red, Green, Blue values yourself.

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:

- **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.

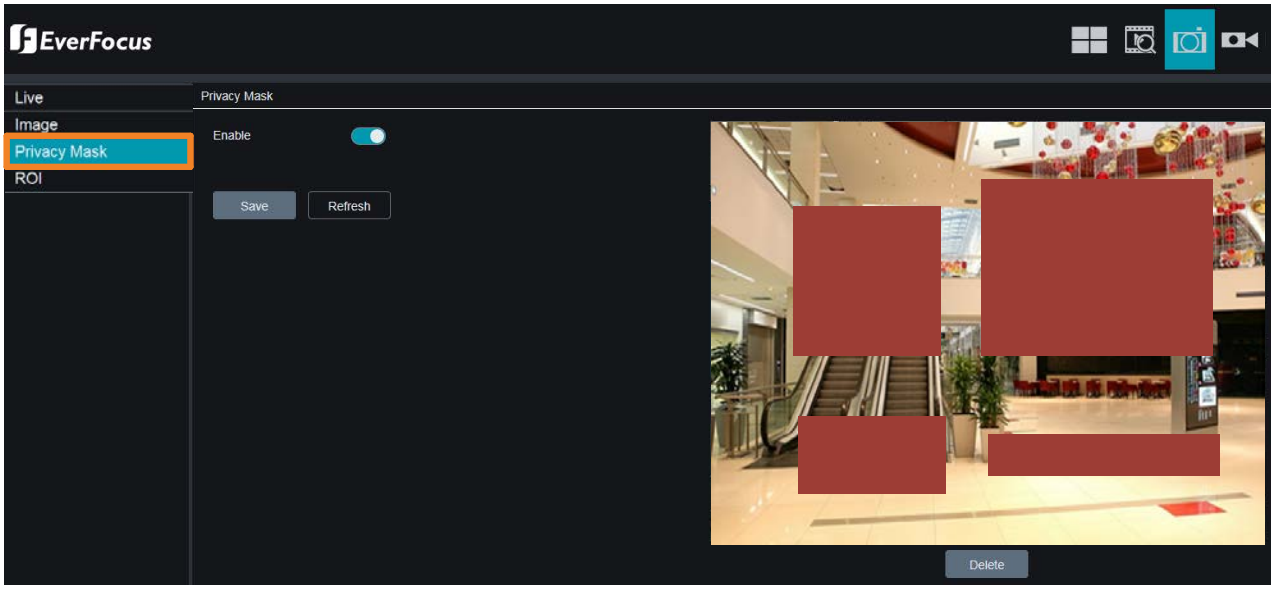
3D Noise Reduction: Select Auto to

- **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.

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

3.2.3 Privacy Mask

You can configure the Privacy Mask settings on this page. The Privacy Mask can block out sensitive areas from view, covering the areas in both Live View and Recordings. This feature is useful when users don't want the sensitive information visible. Up to four Privacy Masks can be configured.



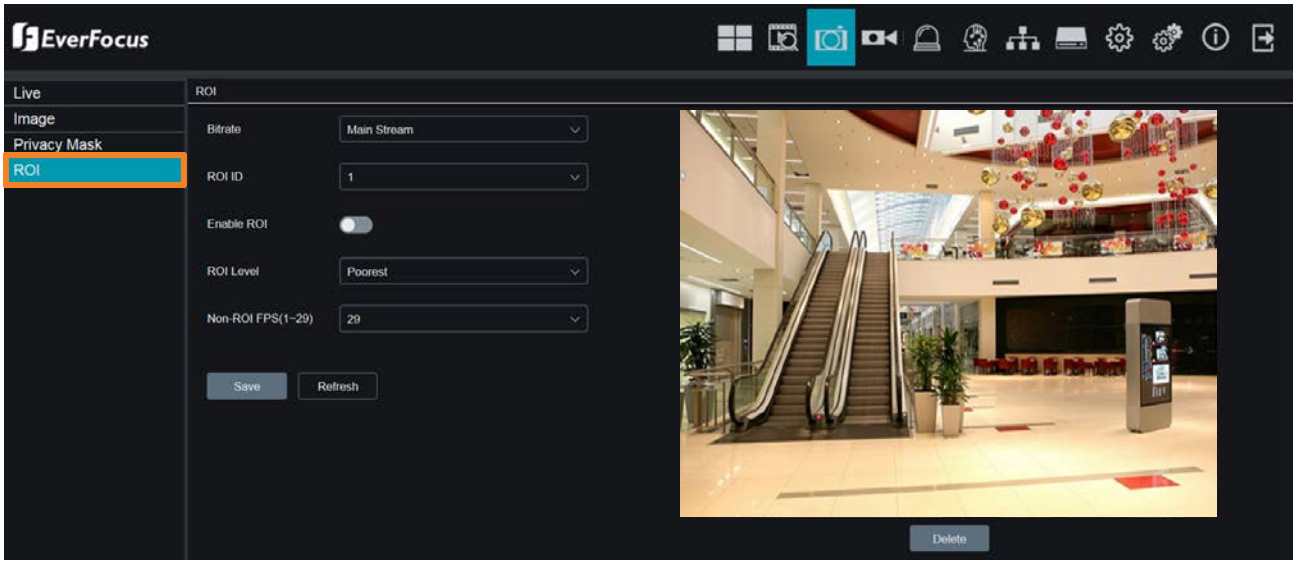
To set up Privacy Mask:

1. Switch the **Privacy Mask** button to the right to enable the function.
2. On the preview window, draw a rectangle area (red color) to apply with the privacy mask. Up to four areas can be configured.
3. To delete an area, click on an area, the selected area will be highlighted with a yellow frame. Click the **Delete** button to delete the selected area.
4. After configuring the privacy mask areas, click the **Save** button to apply the settings.

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

3.2.4 ROI

You can configure the ROI settings on this page.



Bitrate: Select a stream type to be applied with the ROI bitrate.

ROI ID: Up to 8 ROI areas can be configured for each stream type.

Enable ROI: Select **Enable** to enable the configured ROI area(s).

ROI Level : Select an ROI level for each area. The higher the level, the better the image quality in ROI area.

Non-ROI FPS (1-29): Select a FPS to be applied to the non-ROI areas. Lower FPS can not only reduce the bandwidth, but also increase the recording time to the on-camera SD card.

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

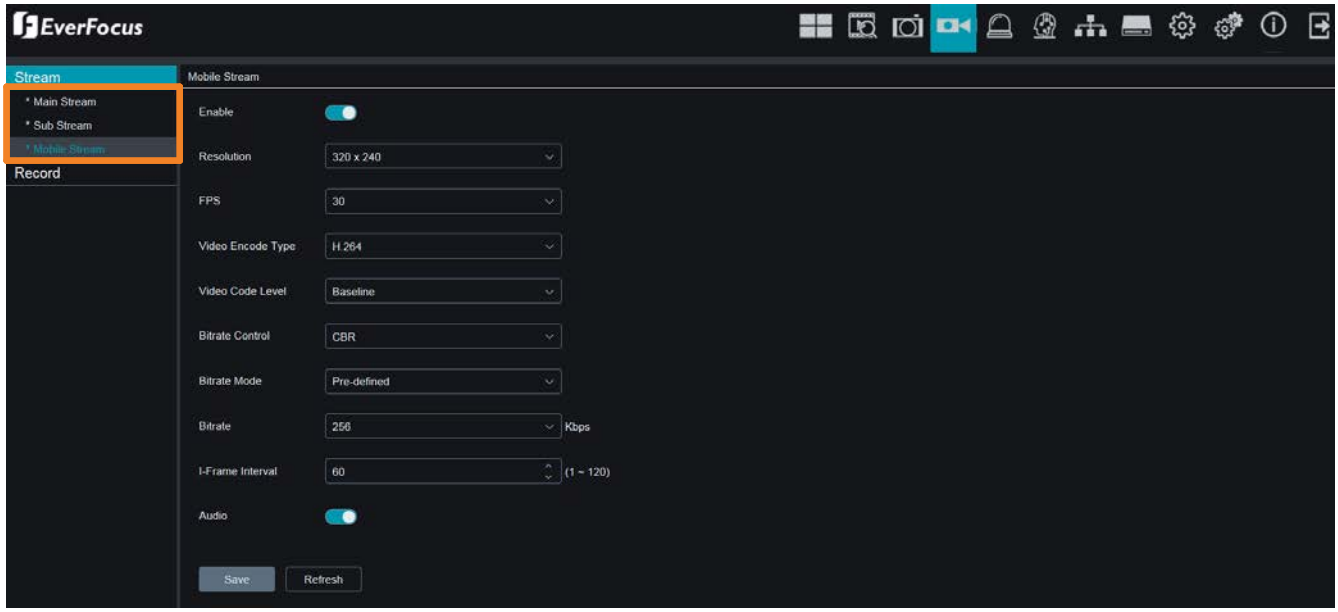
To set up ROI:

1. Set up the configurations including Bitrate, ROI ID, Enable ROI, ROI Level and FPS for the Non-ROI FPS.
2. On the preview window, draw a rectangle area (red color) to apply with the ROI. You can only configure 1 ROI area for each ROI ID. Up to 8 ROI ID can be configured.
3. To delete the ROI area, click the **Clear** button.
4. Click the **Apply** button to apply the settings.

3.3 Record

3.3.1 Stream

You can configure the below configurations to Main Stream, Sub Stream and Mobile Stream.



Enable: This button is only for Mobile Stream. Switch the button to the right to enable the function.

Resolution: Select a resolution.

FPS: Select a frame rate per second for the selected stream type.

Video Encode Type: Select a video codec.

Video Code Level: Select Main Profile for the video codec.

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 from the drop-down list.

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

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

Audio: Switch the button to the right to enable the audio function.

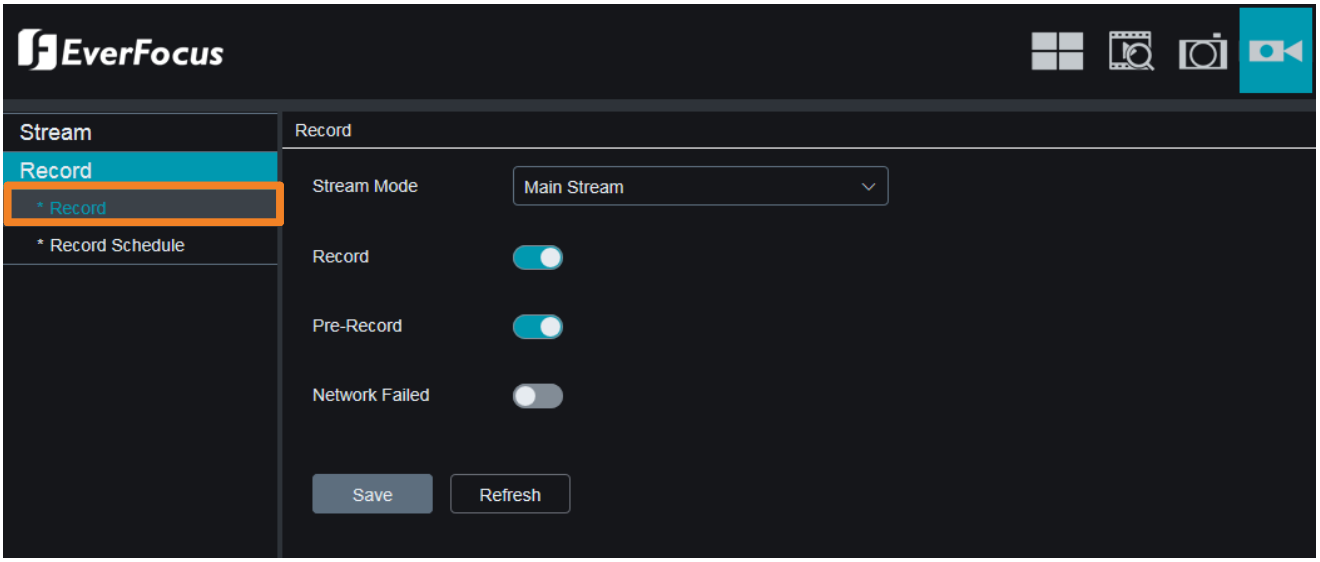
I-Frame Interval: Set up an I-Frame interval.

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

3.3.2 Record

3.3.2.1 Record

You can configure the record settings on this page. Please note that to enable the record function, a micro SD card has to be inserted to the IP camera in advance. Please also format the micro SD card for the first-time use (refer to *3.6.1 HDD*).



Stream Mode: Select a recording stream mode.
Record: Switch the button to the right to enable the record function. Please note that to enable the record function, a micro SD card has to be inserted to the IP camera in advance. Please also format the micro SD card for the first-time use.
Pre-Record: Switch the button to the right to enable the pre-record function for all the alarm recordings. The camera will start recording 10 seconds before the alarms occur.
Network Failed: Switch the button to the right to enable the network failed function. When the network is disconnecting, the IP camera will start recording until the network connection is back to normal.
Click **Refresh** to refresh the page; click **Save** to save the settings.

Note:

1. To configure the recording storage path, please refer to 3.8.5 Local Settings.
2. After setting up the Record settings, you can optionally set up the Record Schedule, please refer to *3.3.2.2 Record Schedule*.

3.3.2.2 Record Schedule

After setting up the Record settings, you can configure the normal record schedule on this page.

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.

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

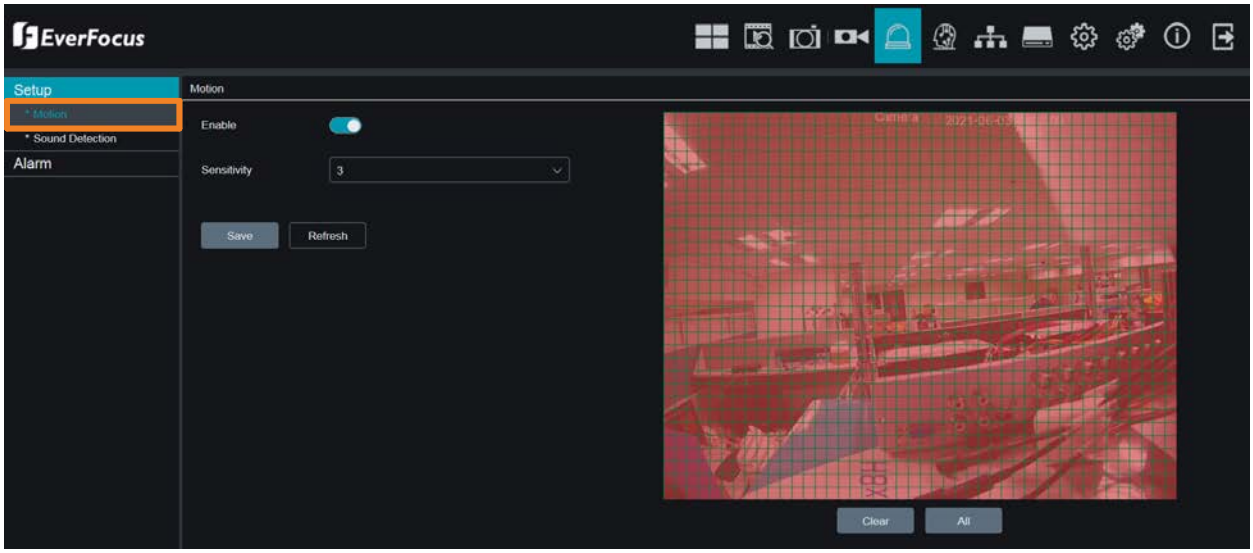
3.4 Event Setting

3.4.1 Setup

You can configure the alarm setup on this page.

3.4.1.1 Motion

You can configure the motion settings here:



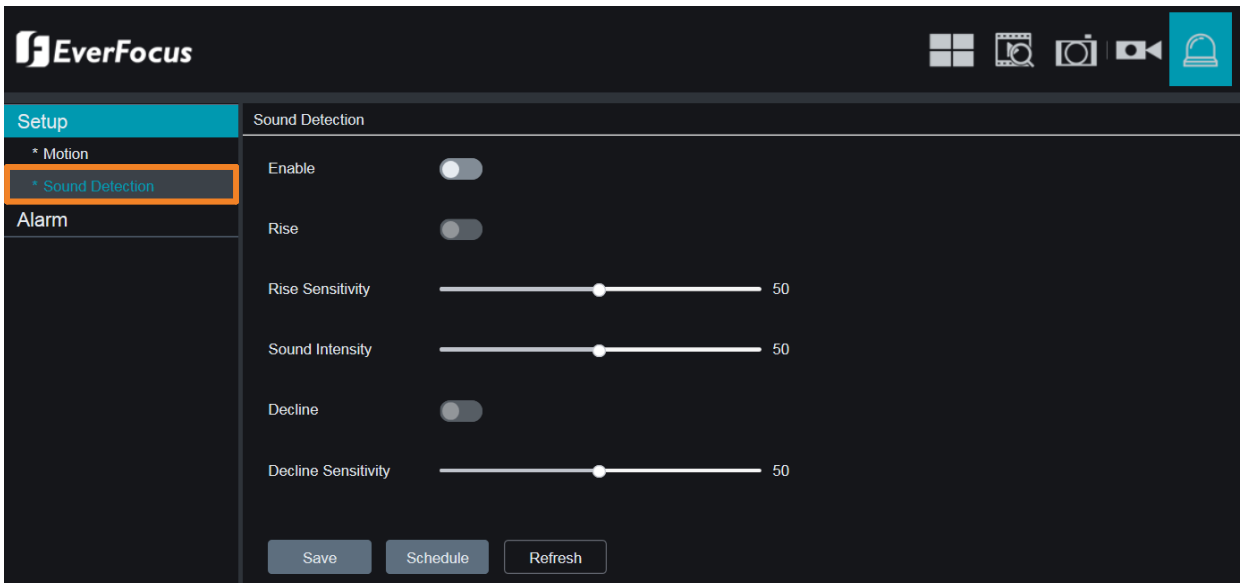
Enable: Switch the button to the right to enable the Motion function.

Sensitivity: Select a sensitivity for the motion detection. The larger the value, the higher the sensitivity.

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

3.4.1.2 Sound Detection

You can configure the Sound Detection settings here:.



Enable: Switch the button to the right to enable the Sound Detection function. And then configure the Sound Detection Schedule on the below schedule grids.

Rise: Switch the button to the right to enable the Sound Rise function.

Rise Sensitivity: Adjust the sensitivity for the sound rise detection.

Sound Intensity: Adjust the intensity for the sound rise detection.

Decline: Switch the button to the right to enable the Sound Decline function.

Decline Sensitivity: Adjust the sensitivity for the sound decline detection.

Sound Detection Schedule:

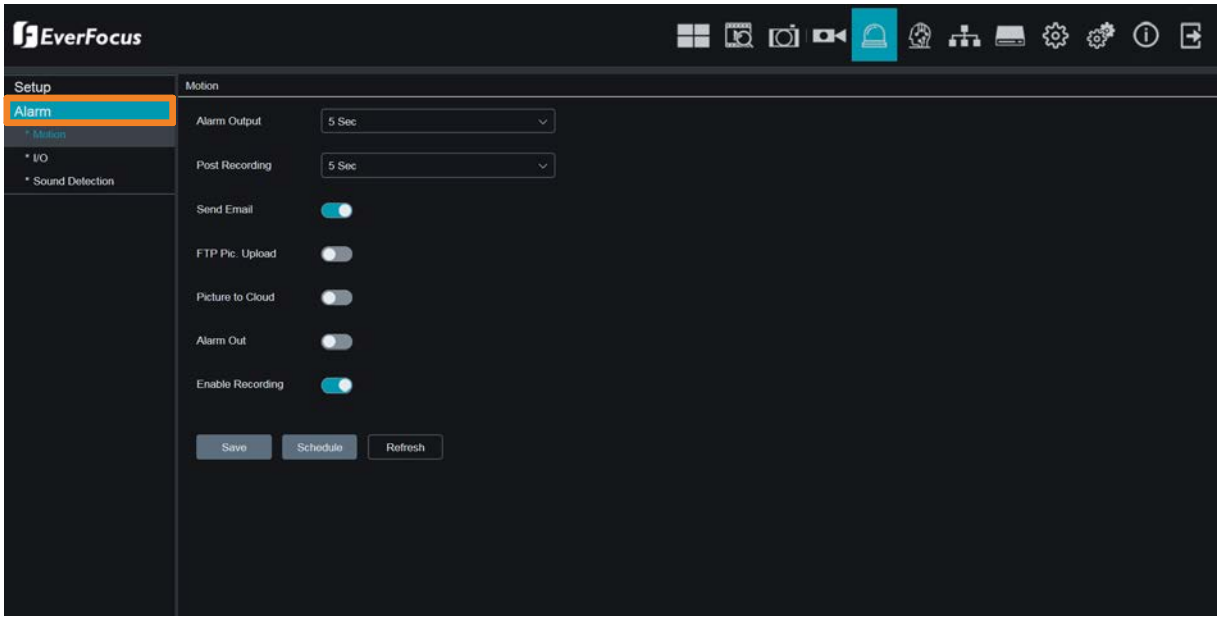
Move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with purple color, which will be applied with Sound Detection function.

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

3.4.2 Alarm

3.4.2.1 Motion

You can configure the Motion alarm settings here:



Alarm Output: After enabling the Alarm, select a timeout duration for the alarm output.

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

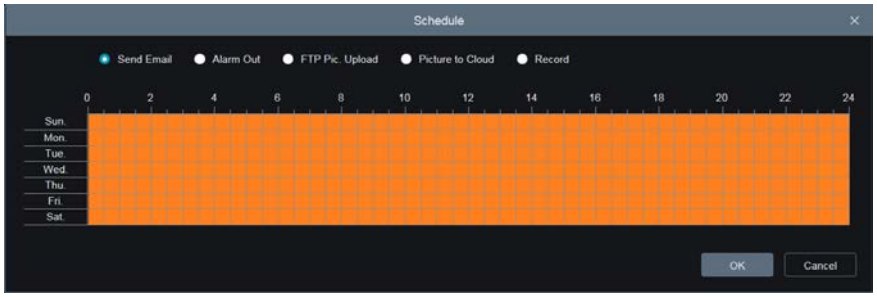
Send Email: Switch the button to the right to enable the Email alert function. When a motion event is triggered, the camera will send an email alert with a snapshot image to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance.

FTP Pic. Upload: When an event is triggered, the system will upload alarm images to FTP server. Note that for this function to work, you have to set up FTP configurations in advance.

Picture to Cloud: When a motion event is triggered, the system will upload alarm images to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud storage in advance. Please refer to *3.7.3 Cloud Storage.*

Alarm Out: Select to enable the Alarm Out.

Enable Recording: Switch the button to the right to enable the motion recording function. To further configure recording schedule, click the Schedule button to set up record schedule.

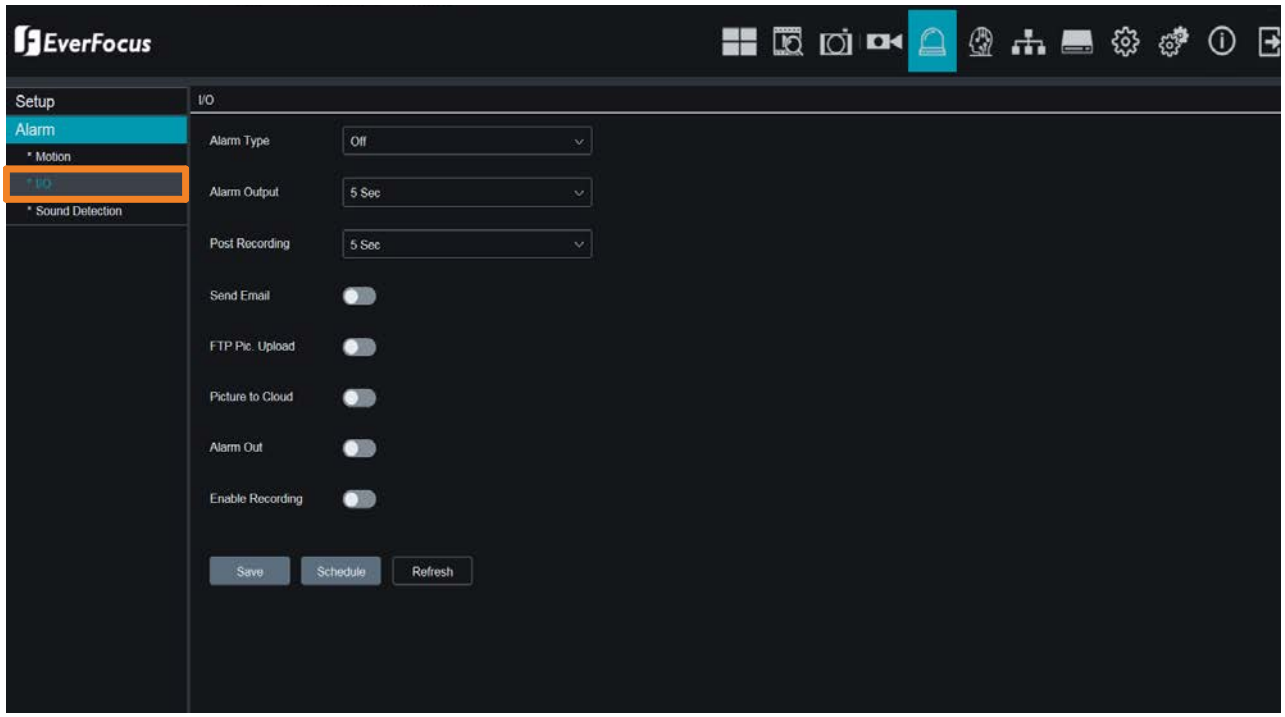


Move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with orange color, which will be applied with motion recording function.

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

3.4.2.2 I/O

You can configure the I/O alarm settings here:



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

Alarm Output: After enabling the Alarm, select a timeout duration for the alarm output.

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

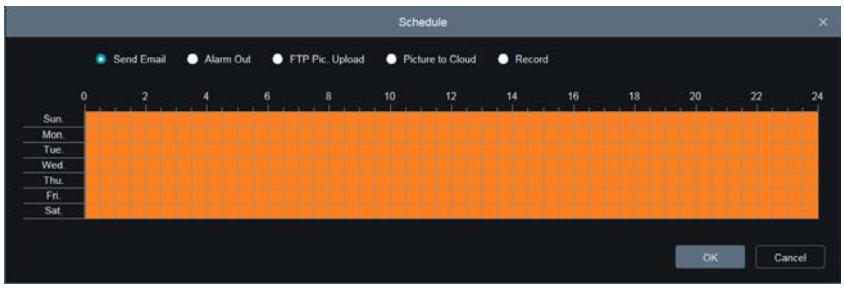
Send Email: Switch the button to the right to enable the Email alert function. When an I/O event is triggered, the camera will send an email alert with a snapshot image to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance.

FTP Pic. Upload: When an I/O event is triggered, the system will upload alarm images to FTP server. Note that for this function to work, you have to set up FTP configurations in advance.

Picture to Cloud: When an I/O event is triggered, the system 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 *3.7.3 Cloud Storage*.

Alarm Out: Select to enable the Alarm Out.

Enable Recording: Switch the button to the right to enable the I/O recording function. To further configure recording schedule, click the Schedule button to set up record schedule.

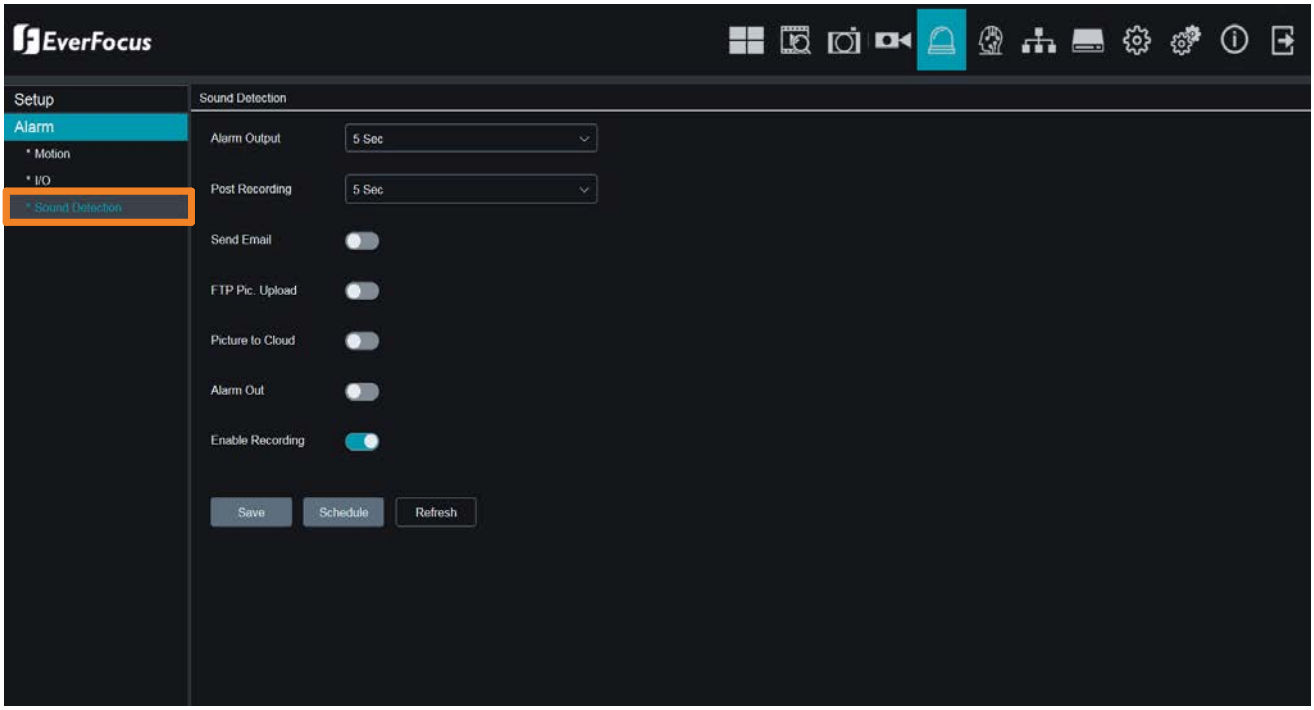


Move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with orange color, which will be applied with IO recording function.

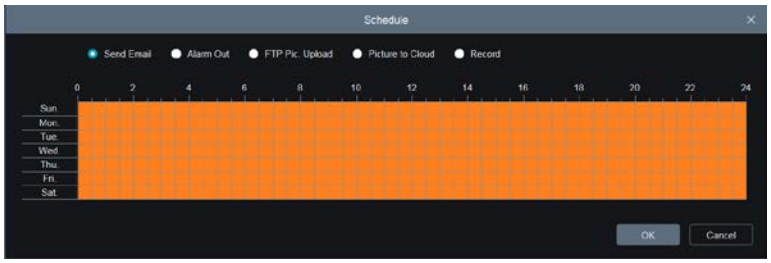
Click **Refresh** to refresh the page; click **Save** to save the settings.

3.4.2.3 Sound Detection

You can configure the Sound Detection alarm settings here:



Alarm Output: After enabling the Alarm, select a timeout duration for the alarm output.
Post Recording: Select a post recording time when a sound detection event is triggered.
Send Email: Switch the button to the right to enable the Email alert function. When a sound detection event is triggered, the camera will send an email alert with a snapshot image to the pre-configured Email receiver. Note that for this function to work, you have to set up the Email function in advance.
FTP Pic. Upload: When a sound detection event is triggered, the system will upload alarm images to FTP server. Note that for this function to work, you have to set up FTP configurations in advance.
Picture to Cloud: When a sound detection event is triggered, the system will upload alarm images to Cloud (Dropbox). Note that for this function to work, you have to set up Cloud in advance.
Alarm Out: Select to enable the Alarm Out.
Enable Recording: Switch the button to the right to enable the sound detection recording function. To further configure recording schedule, click the Schedule button to set up record schedule.



Move your mouse cursor over the schedule time blocks. Click and drag on the schedule time blocks to draw the blocks with orange color, which will be applied with Sound Detection recording function.

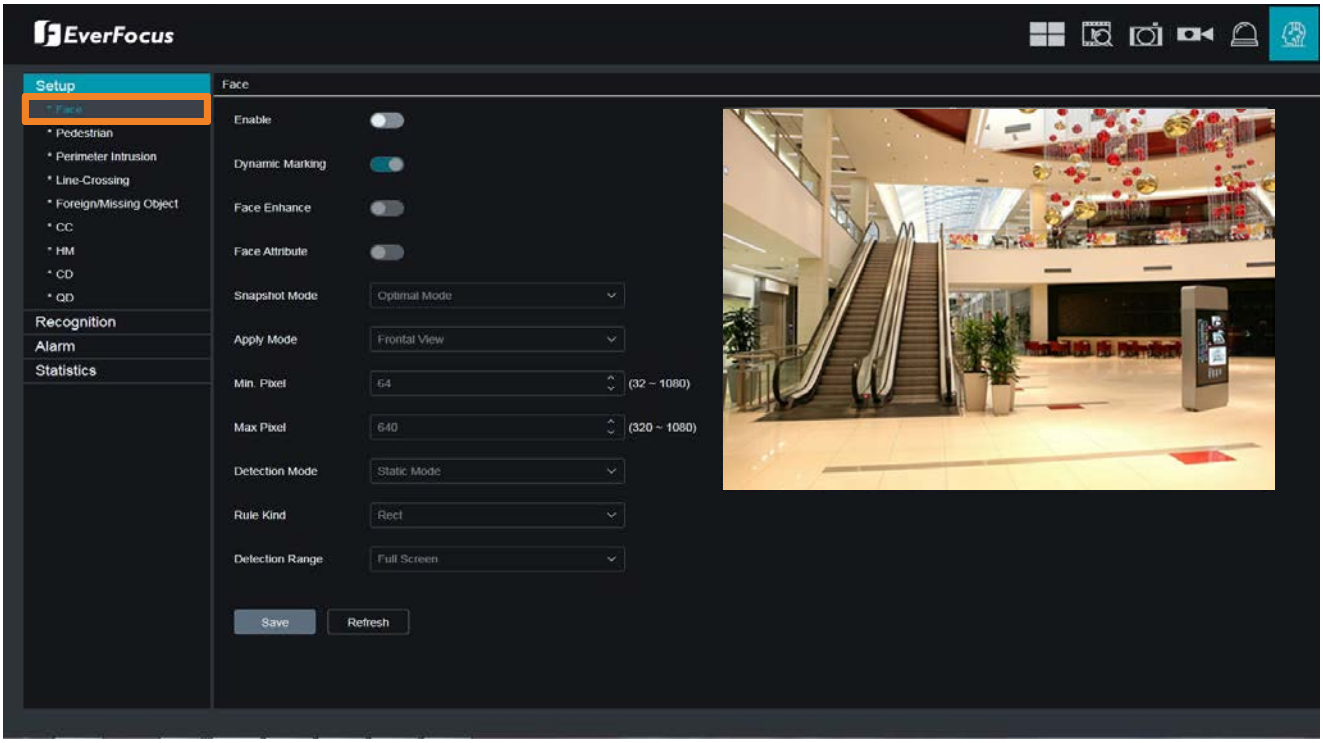
Click **Refresh** to refresh the page; click **Save** to save the settings.

3.5 AI

3.5.1 Setup

3.5.1.1 Face

This page can set up Face Detection functions. Note that for Face Detection function to work, a face-recognition-supported IP camera is required. When camera detects faces of moving people, the Face Recognition 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.



[Face settings] : You can configure the face detection settings here.

Enable: Select to enable or disable face detection.

Dynamic Marking: Select to choose to show or not show the track.

Face Enhance: Turn on the face enhance function to enhance the effect of the face image captured by the moving target, so as to make it clearer. However, enable this function will take up more resources of IPC, making the overall effect of the screen worse.

Face Attribute: Select to enable or disable Face Attribute.

Snapshot Mode: Choose a Snapshot Mode.

Apply Mode: Choose an Apply Mode.

Min Pixel: The lowest pixel setting of human and object. When the recognized object is smaller than the pixel, no alarm is generated accordingly. It can be set to 64-1080. You can use the Pixel Counter function in the Live View Window to measure the pixel size of the human or object you want to detect.

Max Pixel: The highest pixel setting for human and object. When the recognized object is larger than the pixel, no alarm will be generated accordingly. It can be set to 32-1080.

Note: You can use the Pixel Counter function in the Live View Window to measure the pixel size

of the human or object you want to detect.

Detection Mode: Choose a Detection Mode.

Rule Kind: Choose a Rule Kind.

Detection Range: Select a Detection Range.

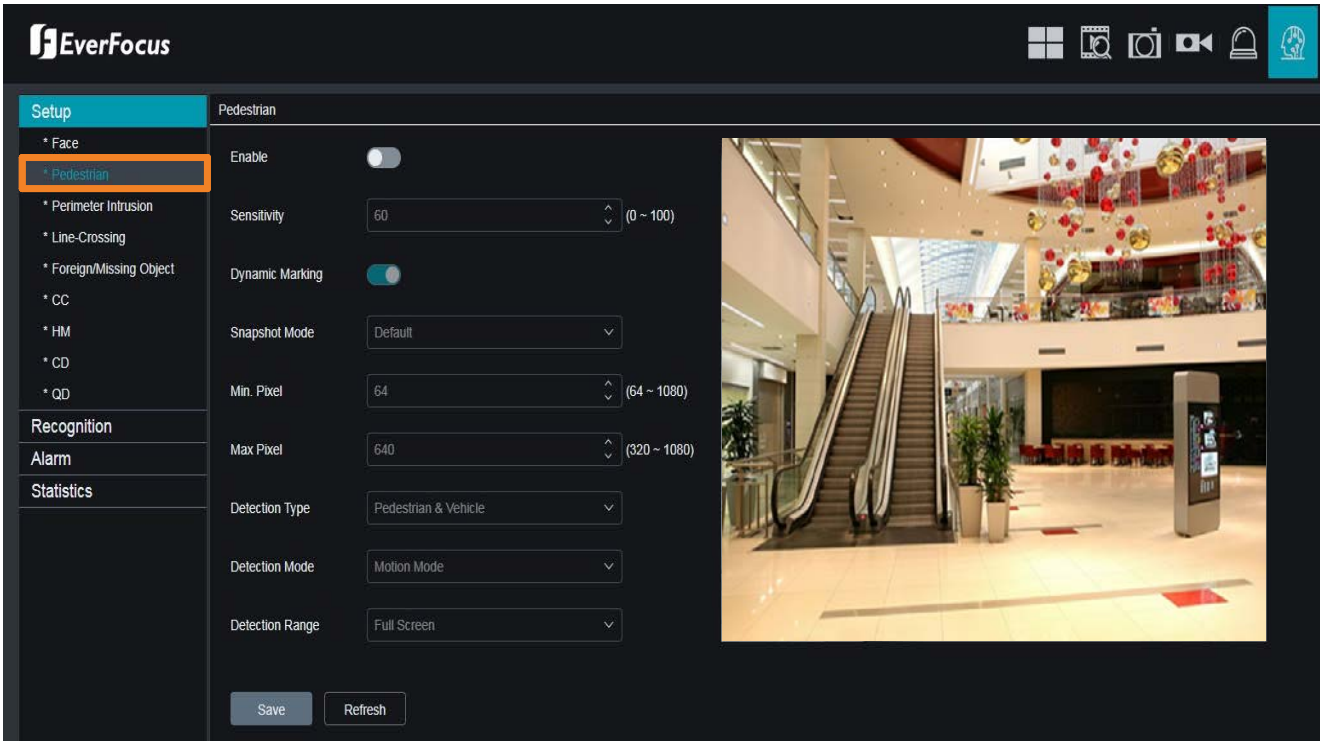
Click **Refresh** to refresh the page; click **Save** to save the settings.

To configure the **Face** settings (face-recognition-supported IP camera required):

1. In the **Setup** field, click to set up the face settings. Please refer to **[Face settings]** above.
2. If you want to set up the black and white lists and then trigger the face recognition, you need to click the **Recognition** to build a database management. Please refer to *3.5.2 Recognition.*
3. To further set up the alarm notifications and enable the recording function, click the **Alarm** button at same page of AI to enter the Alarm setting page. Please refer to *3.5.3.1 Face Alarm Settings*.
4. You can search and view the statistical result of Face Detection on the Statistic page. Please refer to *3.5.4.1 Face Detection.*

3.5.1.2 Pedestrian

On this page, you can set up Pedestrian functions. When camera detects faces of humans, vehicle, pedestrian and vehicle, the Pedestrian 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.



[Pedestrian Settings] : You can configure the pedestrian detection settings here.

Enable: Select to enable or disable pedestrian detection.

Dynamic Marking: Select to choose to show or not show the track.

Face Enhance: Turn on to enhance the effect of the pedestrian image captured by the moving target, so as to make it clearer. However, enable this function will take up more resources of IPC, making the overall effect of the screen worse.

Snapshot Mode: Choose a Snapshot Mode.

Apply Mode: Choose an Apply Mode.

Min Pixel: The lowest pixel setting of human and object. When the recognized object is smaller than the pixel, no alarm is generated accordingly. It can be set to 64-1080. You can use the Pixel Counter function in the Live View Window to measure the pixel size of the human or object you want to detect.

Max Pixel: The highest pixel setting for human and object. When the recognized object is larger than the pixel, no alarm will be generated accordingly. It can be set to 32-1080. Note: You can use the Pixel Counter function in the Live View Window to measure the pixel size of the human or object you want to detect.

Detection Mode: Choose a Detection Mode.

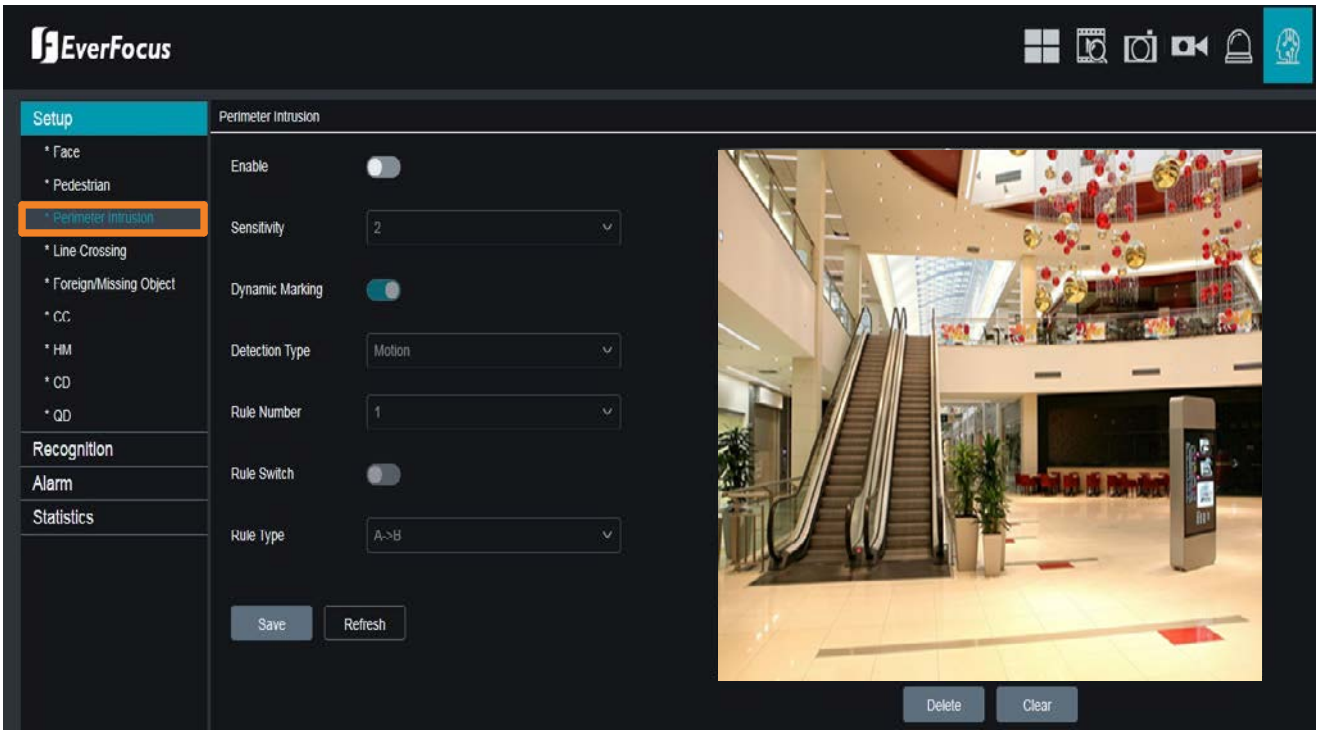
Rule Kind: Choose a Rule Kind.

Detection Range: Select a Detection Range.

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

3.5.1.3 Perimeter Intrusion

On this page, you can set up Perimeter Intrusion. When camera detects intrusion of humans, vehicle, pedestrian and vehicle, the Perimeter Intrusion 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.



[Perimeter Intrusion Settings] : You can configure the perimeter intrusion settings here.

Enable: Enable or disable this function.

Sensitive: Sensitive level, range is 1-4, default to 2. If the detected object sensitivity is higher, the moving Object can be detected easily. Meanwhile, the false detection rate is higher.

Dynamic Marking: Can choose to show or not show the track.

Detection Type: The detection types include pedestrian and vehicle. When the settings are enabled, the only detect the alarms triggered by human or vehicles, but need to consume more CPU of IPC. If it is not turned on, all objects passing through the line will be detected.

Rule Number: Max set 4 rule number. Draw a rule area on the area map, and click to the next few rules, then you can draw rules on the area map. The rule switch and rule type of each rule are independent, and they need to be opened, closed or set separately.

Rule Switch: The switch to every rule.

Rule Type: Setup to each rule, A->B means can detect A to B direction moving, B->A means can detect B to A direction moving, A ⟷B means can detect two directions moving.

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

To configure the **Perimeter intrusion** settings :

1. In the **Setup** field, click to set up the perimeter intrusion settings. Please refer to **[Perimeter Intrusion Settings]** above.
2. 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.

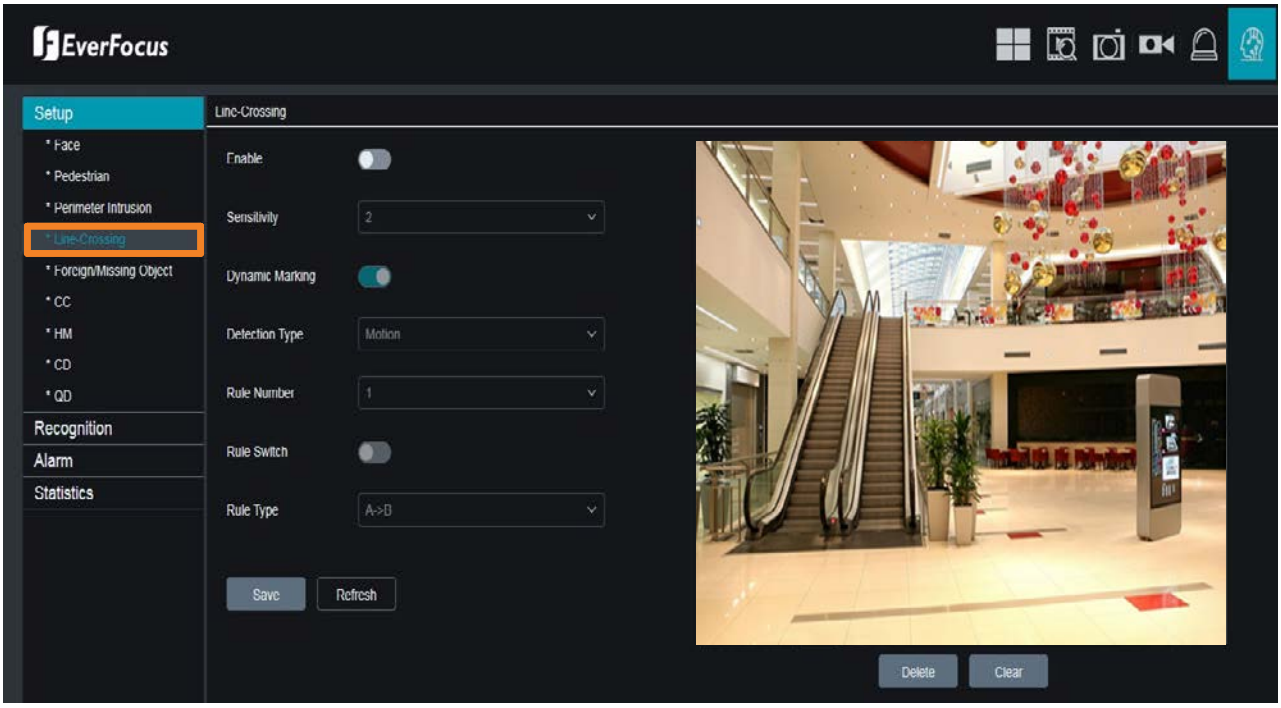
   c. Click the **Save** button to save the settings.
   d. You can click the **Clear** button to remove all the areas. To remove a certain area, select the area by checking the red box on the upper-left corner of the area, and then click the **Delete** button.

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

3. To further set up the alarm notifications and enable the recording function, click the **Alarm** button at same page of AI to enter the Alarm setting page. Please refer to *3.5.3.5 Pedestrian intrusion.*

3.5.1.4 Line-Crossing

When objects (human, vehicle or pedestrian & vehicle) 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.



[Line-Crossing Settings] : You can configure the Line-Crossing setting here.

Enable: Enable or disable this function.

Sensitive: Sensitive level, range is 1-4, default to 2. If the detected object sensitivity is higher, the moving Object can be detected easily. Meanwhile, the false detection rate is higher.

Dynamic Marking: Can choose to show or not show the track.

Detection Type: The detection types include pedestrian and vehicle. When the settings are enabled, the only detect the alarms triggered by human or vehicles, but need to consume more CPU of IPC. If it is not turned on, all objects passing through the line will be detected.

Rule Number: Max set 4 rule number. Draw a rule area on the area map, and click to the next few rules, then you can draw rules on the area map. The rule switch and rule type of each rule are independent, and they need to be opened, closed or set separately.

Rule Switch: The switch to every rule.

Rule Type: Setup to each rule, A->B means can detect A to B direction moving, B->A means can detect B to A direction moving, A ←→B means can detect two directions moving.

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

To configure the **Line-Crossing** settings :

1. In the **Setup** field, click to set up the line-crossing settings. Please refer to **[Line-Crossing Settings]** above.
2. To drawn an area :
   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 to re-size the line.

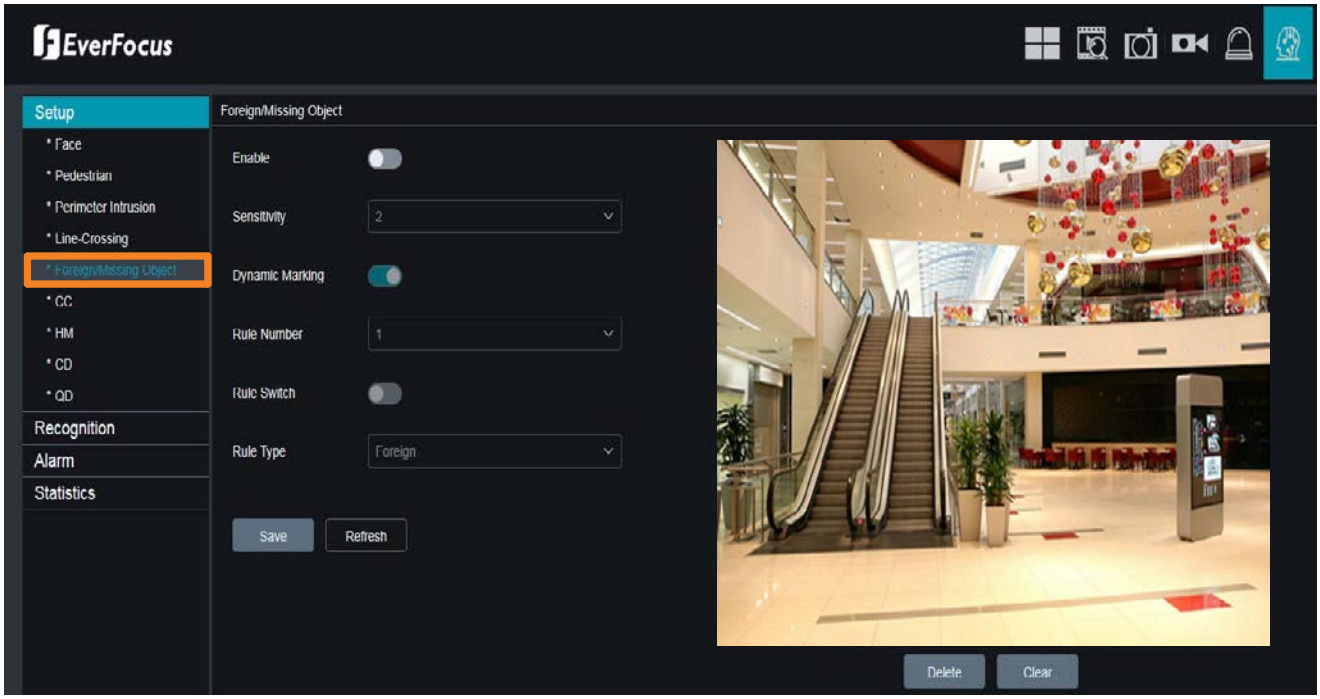
   c. Click the **Save** button to save the settings.
   d. You can click the **Clear** button to remove all the areas. To remove a certain area, select the area by checking the red box on the upper-left corner of the area, and then click the **Delete** button.

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

3. To further set up the alarm notifications and enable the recording function, click the **Alarm** button at same page of AI to enter the Alarm setting page. Please refer to *3.5.3.6 Line-Crossing.*

3.5.1.5 Foreign / Missing Object

When camera 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.



. **[Foreign / Missing Object Settings] :** You can configure the Foreign / Missing Object settings here.

Enable: Enable or disable this function.

Sensitive: Sensitive level, range is 1-4, default to 2. If the detected object sensitivity is higher, the moving Object can be detected easily. Meanwhile, the false detection rate is higher.

Dynamic Marking: Can choose to show or not show the track.

Detection Type: The detection types include pedestrian and vehicle. When the settings are enabled, the only detect the alarms triggered by human or vehicles, but need to consume more CPU of IPC. If it is not turned on, all objects passing through the line will be detected.

Rule Number: Max set 4 rule number. Draw a rule area on the area map, and click to the next few rules, then you can draw rules on the area map. The rule switch and rule type of each rule are independent, and they need to be opened, closed or set separately.

Rule Switch: The switch to every rule.

Rule Type: Foreign means system will only detect the unattended objects. Missing means system will only detect the missing objects. Unattended & Missing means SYSTEM will detect both missing objects and unattended objects.

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

To configure the **Foreign / Missing Object** settings :

1. In the **Setup** field, click to set up the foreign / missing object settings. Please refer to **[Foreign / Missing Object Settings]** above.
2. 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 to re-size the area.

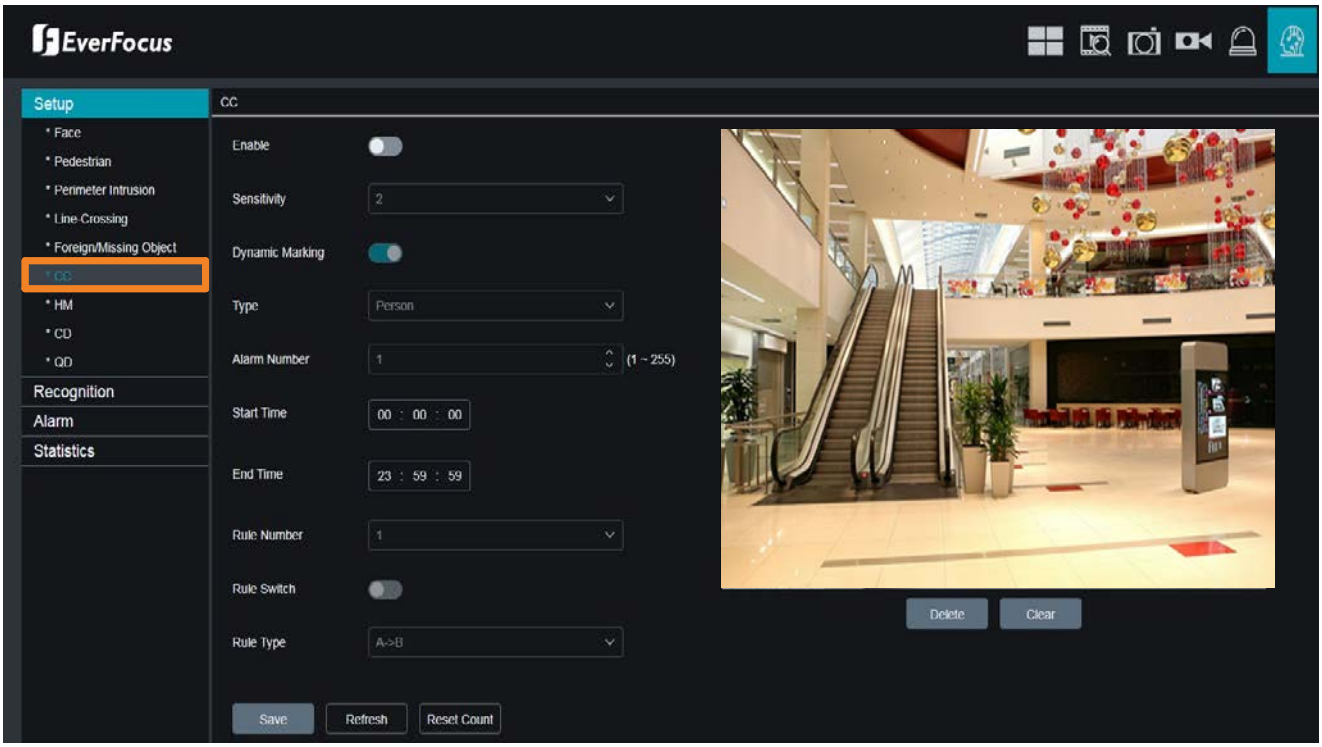
   c. Click the **Save** button to save the settings.
   d. Follow the steps above to configure more areas. Up to 4 areas can be configured. You need to chose another rule number and rule type before you configuring a new areas.
   e. You can click the **Clear** button to remove all the areas. To remove 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.

3. To further set up the alarm notifications and enable the recording function, click the **Alarm** button at same page of AI to enter the Alarm setting page. Please refer to *3.5.3.7 Foreign / Missing Object.*

3.5.1.6 CC (Crossing Counting)

The IP camera will count the times when objects (motion, person or vehicle) 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.



[Crossing Counting Settings] : You can configure the Cross Counting settings here.

Enable: Enable or disable this function.

Sensitive: The sensitivity of triggering video tempering detection can be set as 1-4. The larger the value is, the more sensitive the occlusion alarm is. The default sensitivity of perimeter intrusion detection is set as 2.

Dynamic Marking: can choose to show or not show the track.

Type: There are three types. Motion, Person , and Vehicle.

Alarm Number: Count the number of alarms, set the value from 1-255.

Start Time: Set alarm start time.

End Time: Set alarm end time.

Rule Number: Draw a rule area on the area map, The rule switch and rule type of each rule are independent, and they need to be opened, closed or set separately.

Rule Switch: The switch to every rule.

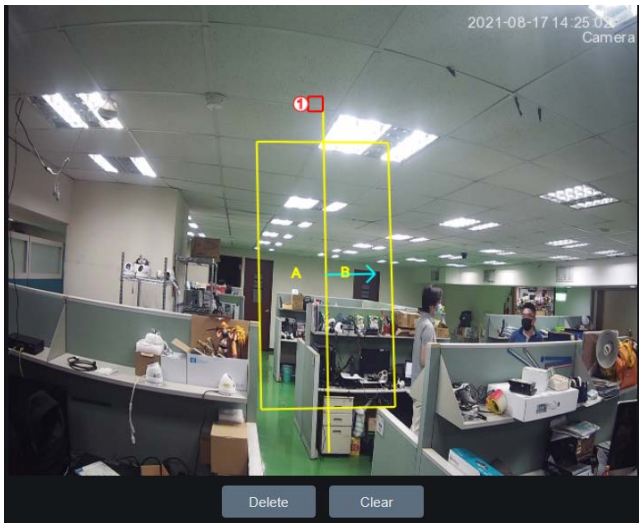
Rule Type: Setup to each rule, A->B means can detect A to B direction moving, B->A means can detect B to A direction moving.

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

To configure the **Crossing Counting** settings :

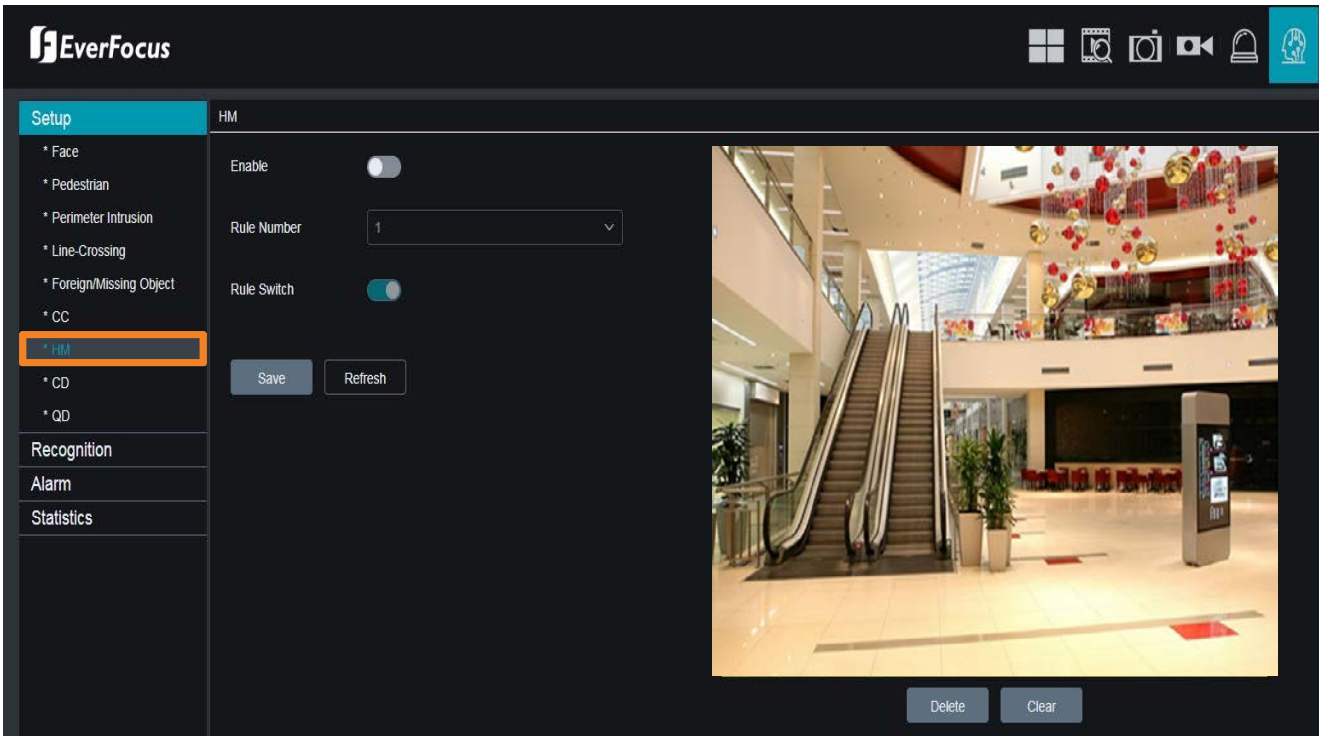
In the **Setup** field, click to set up the crossing counting settings. Please refer to **[Crossing Counting Settings]** above.

1. 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 to re-size the line.



   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.
2. To further set up the alarm notifications and enable the recording function, click the **Alarm** button at same page of AI to enter the Alarm setting page. Please refer to *3.5.3.8 Cross-Counting.*
3. You can search and view the statistical result of cross counting on the Statistic page. Please refer to *3.5.4.3 Cross-Counting.*

3.5.1.7 HM (Heat Map)



[Heat Map Settings] : You can configure the Heat Map settings here.

Enable: Enable or disable this function.

Rule Number: Draw a rule area on the area map, and click to the next few rules, then you can draw rules on the area map. The rule switch and rule type of each rule are independent, and they need to be opened, closed or set separately.

Rule Switch: The switch to every rule.

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

To configure the **Heat Map** settings :

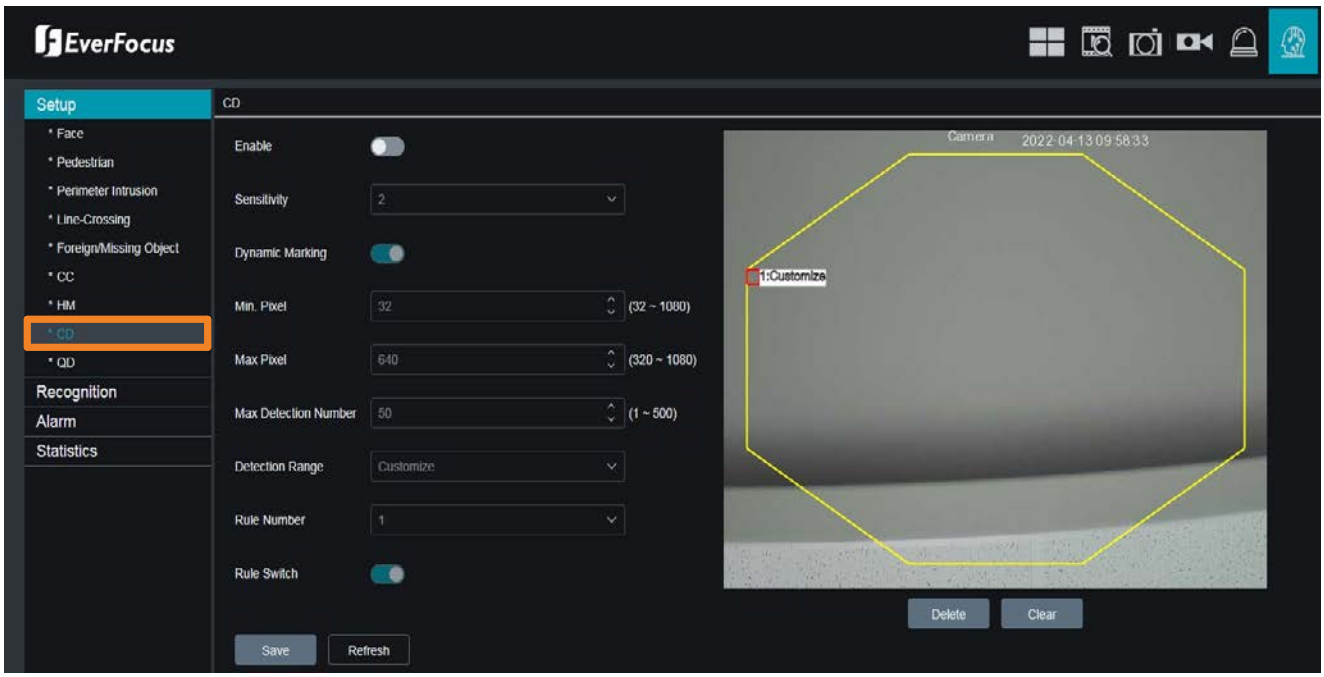
1. In the **Setup** field, click to set up the heat map settings. Please refer to **[Heat Map Settings]** above.
2. To draw a line:
   a. Use your mouse to click 4 points to draw a rectangle shape. The shape should be convex. Concave shape is not allowed.
   b. If you want to move the area to other position 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 to 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.

3. You can search and view the statistical result of heat map on the Statistic page. Please refer to *3.5.4.4 Heat Map.*

3.5.1.8 CD (Crowd Density Detection)



[Crowd Density Detection Settings] : You can configure the Crowd Density Detection settings here.

Enable: Enable or disable this function.

Sensitive: The sensitivity of triggering video tempering detection can be set as 1-4. The larger the value is, the more sensitive the occlusion alarm is. The default sensitivity of perimeter intrusion detection is set as 2.

Dynamic Marking: can choose to show or not show the track.

Min Pixel: The lowest pixel setting of human and vehicle. When the recognized object is smaller than the pixel, no alarm is generated accordingly. It can be set to 32-1080. Note: the figure recognition function recognizes the whole picture as a 1080p picture.

Max Detection Number: The number of detection can be set from 1-500.

Detection Range: There are two modes for setting detection area.

- Full Screen: The detection area is the camera all cover area.

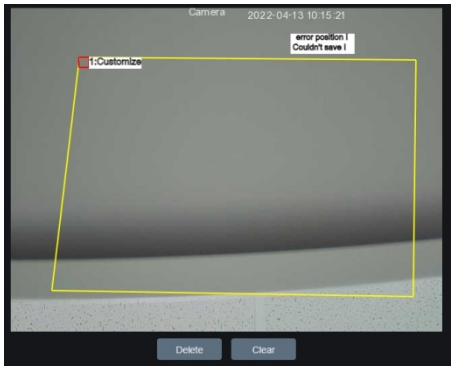
- Customize: Select this mode and a region box will appear on the small window. Click the red small box next to the digital ID of the region box to drag or stretch the region.

Rule Number: Only one rule is allowed to be turned on. The entire screen has been checked in the default area. If you need to customize the area, check the box in the upper left corner of the screen, and drag the points placed at the four corners of the screen to re-divide the detection area.

Rule Switch: The switch to rule.

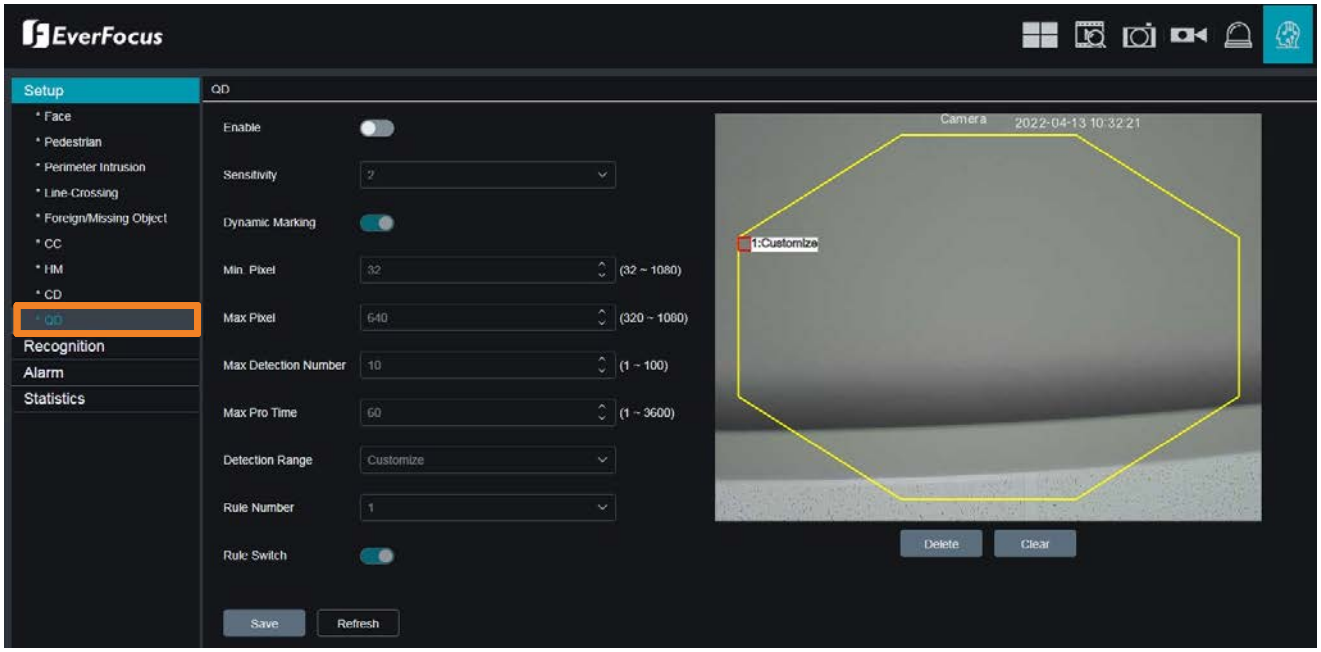
To configure the **Crowd Density Detection** settings :

1. In the **Setup** field, click to set up the Crowd Density Detection settings. Please refer to **Crowd Density Detection Settings]** above.
2. To draw a line:
   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 to 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.

3.5.1.9 QD (Queue Length Detection)



[Queue Length Detection Settings] : You can configure the Queue Length Detection settings here.

Enable: Enable or disable this function.

Sensitive: The sensitivity of triggering video tempering detection can be set as 1-4. The larger the value is, the more sensitive the occlusion alarm is. The default sensitivity of perimeter intrusion detection is set as 2.

Dynamic Marking: can choose to show or not show the track.

Min Pixel: The lowest pixel setting of human and vehicle. When the recognized object is smaller than the pixel, no alarm is generated accordingly. It can be set to 32-1080. Note: the figure recognition function recognizes the whole picture as a 1080p picture.

Max Detection Number: The number of detection can be set from 1-100.

Max Pro Time: The alarm will be triggered if no one has left the area for more than the set time，can be set to 1-3600.

Detection Range: There are two modes for setting detection area.

- Full Screen: The detection area is the camera all cover area.

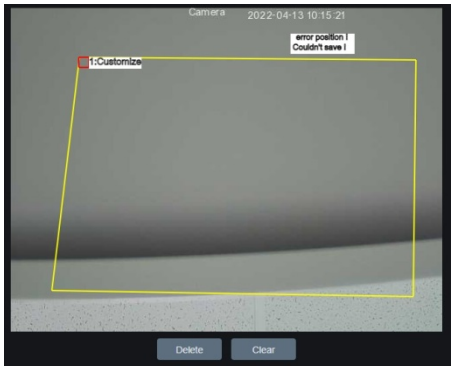
- Customize: Select this mode and a region box will appear on the small window. Click the red small box next to the digital ID of the region box to drag or stretch the region.

Rule Number: Only one rule is allowed to be turned on. The entire screen has been checked in the default area. If you need to customize the area, check the box in the upper left corner of the screen, and drag the points placed at the four corners of the screen to re-divide the detection area.

Rule Switch: The switch to rule.

To configure the **Queue Length Detection** settings:

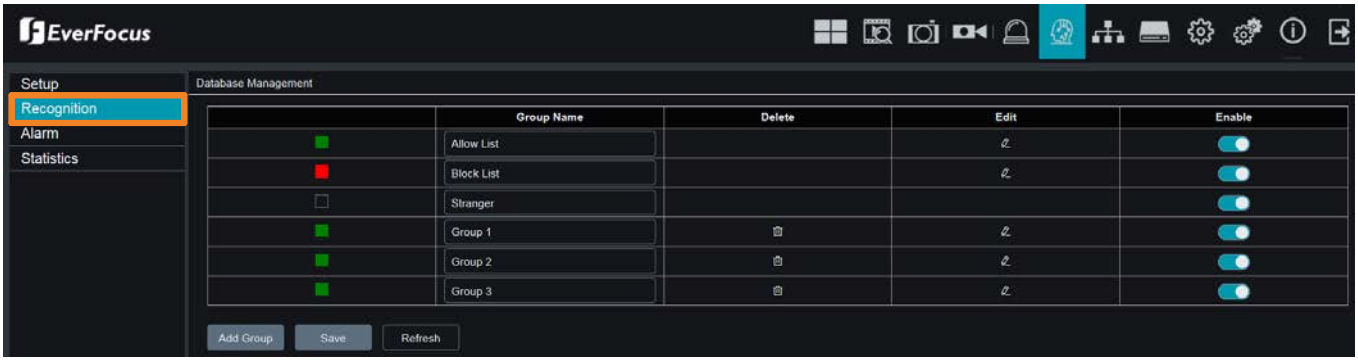
1. In the **Setup** field, click to set up the Queue Length Detection settings. Please refer to **Queue Length Detection Settings]** above.
2. To draw a line:
   a. Use your mouse to click 4 points to draw a rectangle shape. The shape should be convex. Concave shape is not allowed.
   b. If you want 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 to 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.

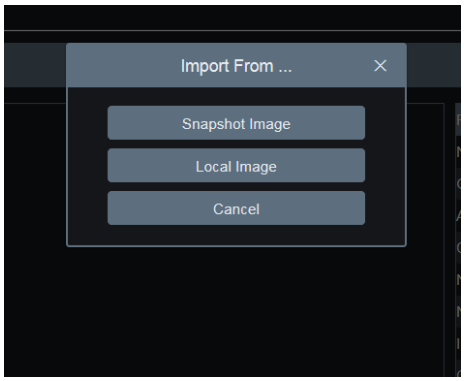
3.5.2 Recognition

Facial recognition can help verify personal identity to accurately authenticate the users. For this function to work, you will have to edit the database and group the users in advance. Facial recognition can help verify personal identity to accurately authenticate the users. For this function to work, you will have to edit the database and group the users in advance.

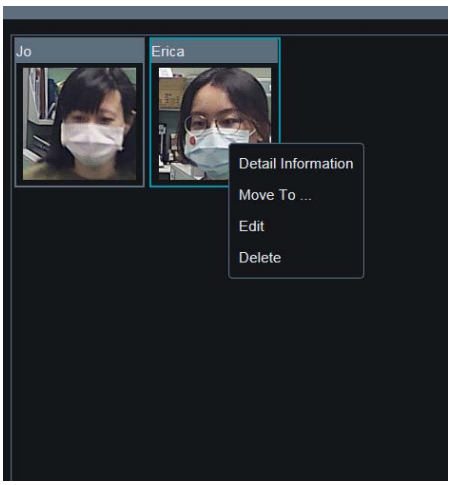


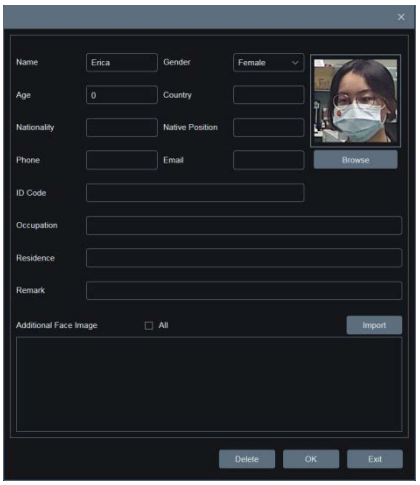
To configure the black and white list of Face **Recognition** :

1. Create a group. By default, Allow List, Block List and Stranger groups have been created. You can click the **Add** button to add more groups.
2. To add users to a group, click the **Edit** button of a group. Click the **Import** button to add some faces. There are two ways to import the images as follows.
   a. **Snapshot Image**: You also can select the face images from the Snapshot Image which have been caught by the camera.
   b. **Local Image:** You can display the images by uploading from in your computer storage.



3. Select a person you want to edit to the face recognition database and then click **OK**.
4. Right-click the image to edit the information and add more face images of this person in order to raise the face recognition accuracy**.**





a. Click the **Additional Face Image** field and then click **Local Storage Device** to add more.

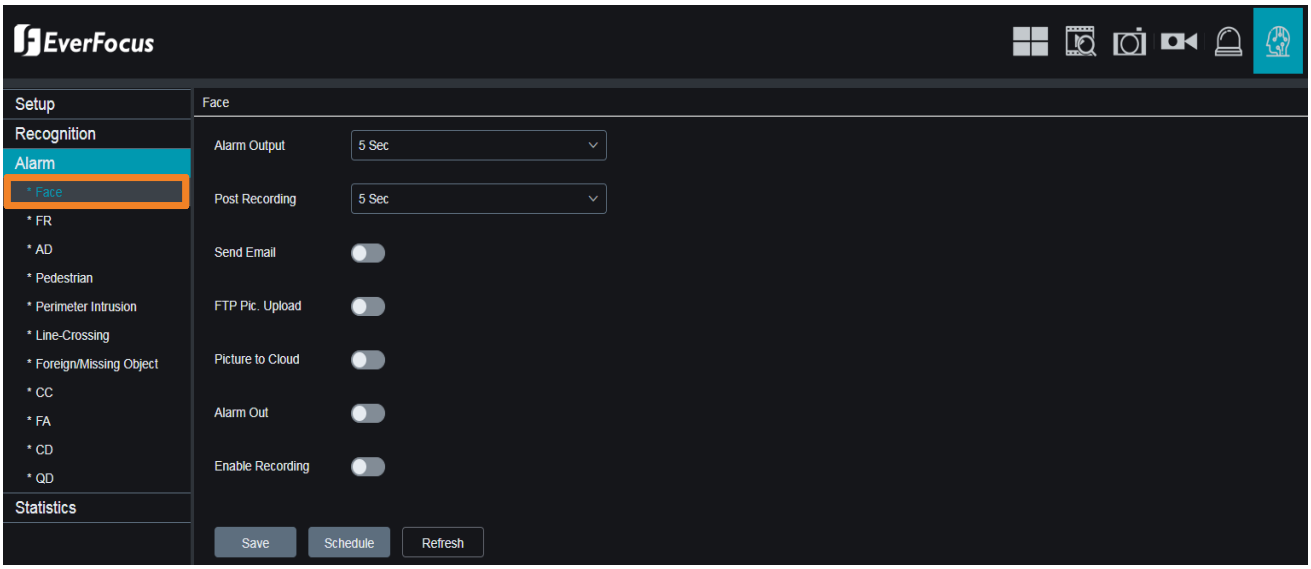
b. Click **OK** to save the modification.

3.5.3 Alarm

You can configure the Alarm settings on this page.

3.5.3.1 Face

On this page, you can use to configure the Face detection alarm settings here.



[Face Alarm Settings]

Alarm Output: When trigger alarm, the external alarm device output alarm time, can selected time period is 5S,10S, 20S, 30S.

Post Recording: After triggered alarm, the post record time, selected time period is OFF, 5S, 10S, 20S, 30S.

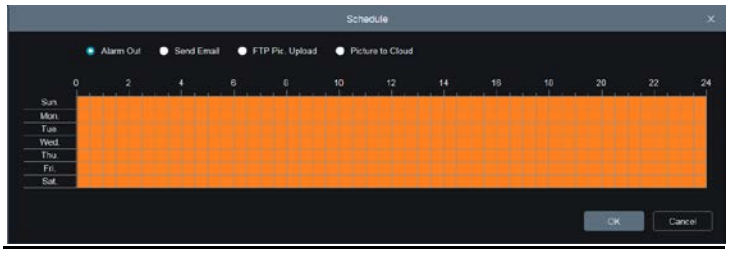
Send Email: If trigger alarm, send the Email to notify, the Email setup need to set in Remote Setting –Network-Email.

FTP Pic.Upload: Whether to upload the alarm information to the FTP server when the camera triggers the IO alarm.

Picture to Cloud: When the camera triggers the IO alarm, whether to upload the screenshot to the FTP server.

Alarm Out: Trigger alarm then if will be I/O output.

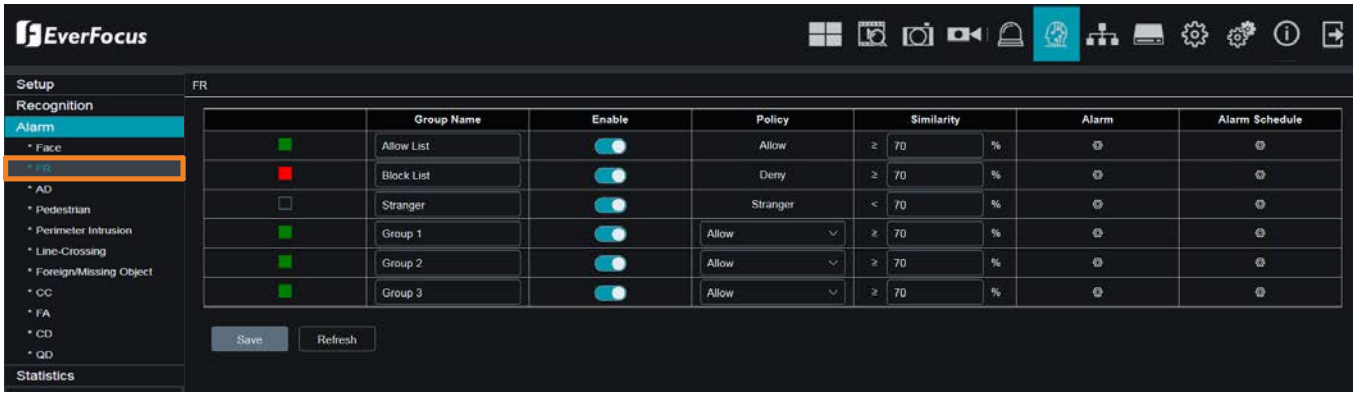
Enable Recording: Enable to record. To further configure recording schedule, click the Schedule button to set up record schedule.



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

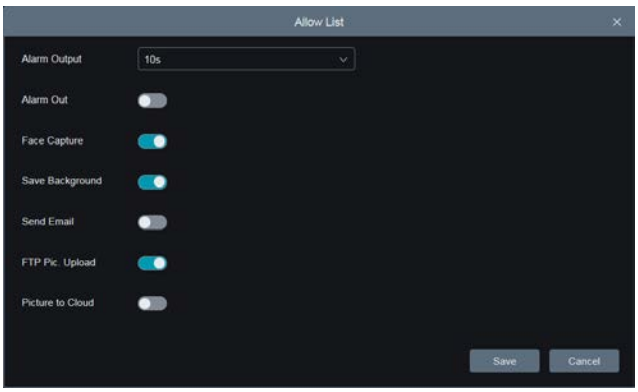
3.5.3.2 FR (Face Recognition)

After setting up the Recognition function in 3.5.2, you can further setup the alarm settings using this page.

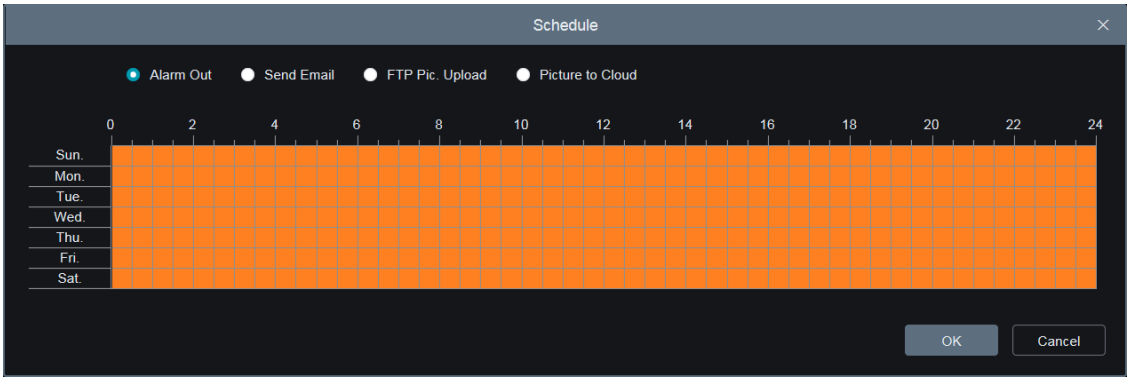


To configure the **Face Recognition** alarm settings. Here we use Allow List for example :

1. Switch the **Enable** button to the right to enable the function.
2. Input a similarity proportion. The higher proportion of similarity will raise the face recognition accuracy.
3. Click the **Alarm** button to edit the alarm notification. Click the **OK** to save.



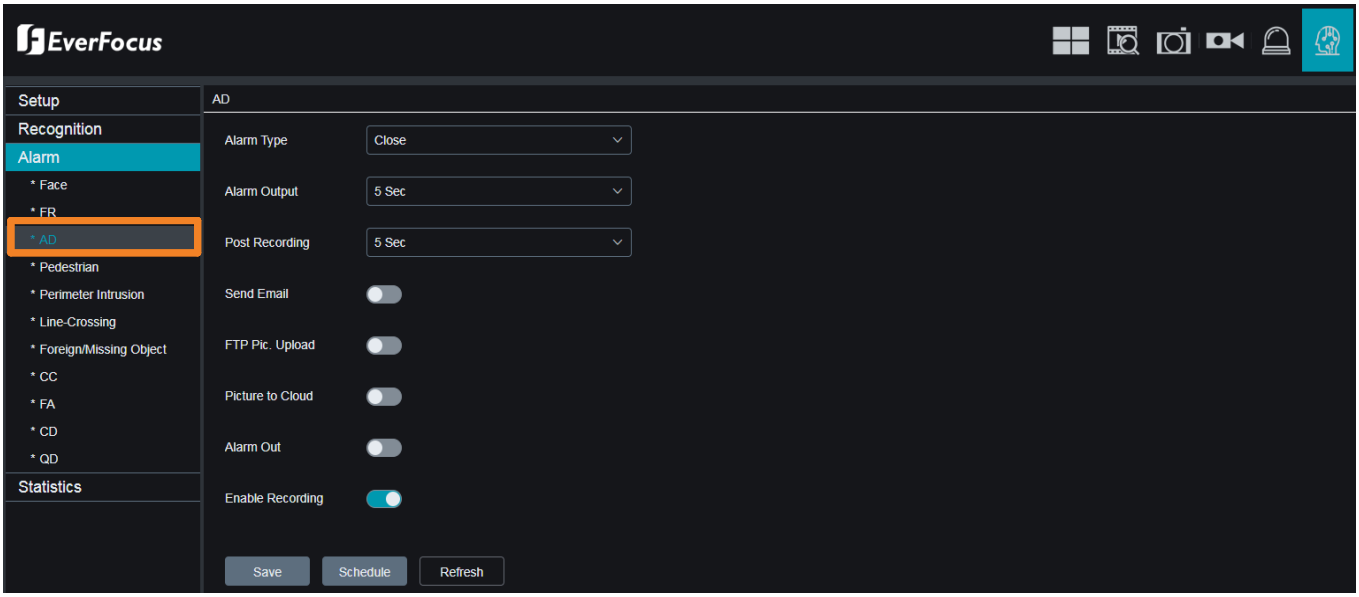
4. After enabling alarm notification, you can further set up the Alarm Schedule.



   a. Click and drag on the schedule time blocks to draw the blocks with orange color, which will be applied with Face Detection. To deselect the blocks, click and drag on the blocks to select again.
   b. Chose a notified approach.
   c. Click **OK** to save the settings.

3.5.3.3 AD (Attribute Detection)

After setting up the Face Detection function, you can further set up the AD function. Attribute Detection can help verify personal identity more detail (with/without mask) to accurately authenticate the users.



Alarm Type: There are three types of alarms include Close, No Mask, and Wear Mask.

Alarm Output: when trigger alarm, the external alarm device output alarm time, can selected time period is 5S, 10S, 20S, 30S.

Post Recording: After triggered alarm, the post record time, selected time period is OFF, 5S, 10S, 20S, 30S.

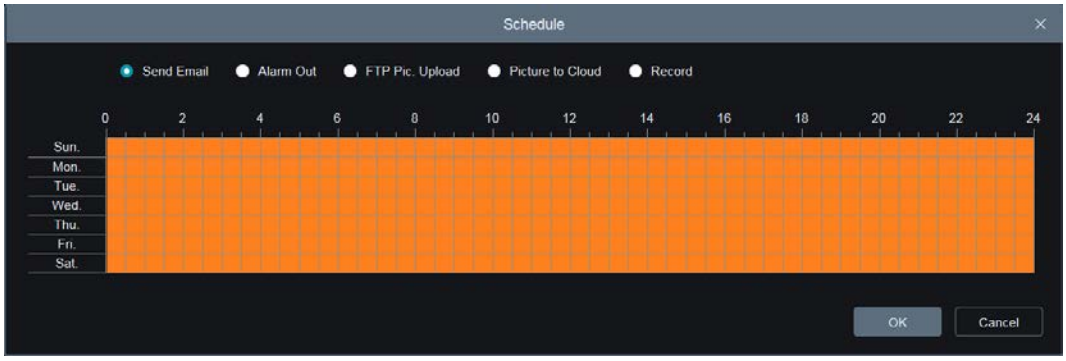
Send Email: If trigger alarm, send the Email to notify, the Email setup need to set in Remote Setting –Network-Email.

FTP Pic. Upload: Whether to upload the alarm information to the FTP server when the camera triggers the IO alarm.

Picture to Cloud: When the camera triggers the IO alarm, whether to upload the screenshot to the FTP server.

Alarm Out: Select to enable this function.

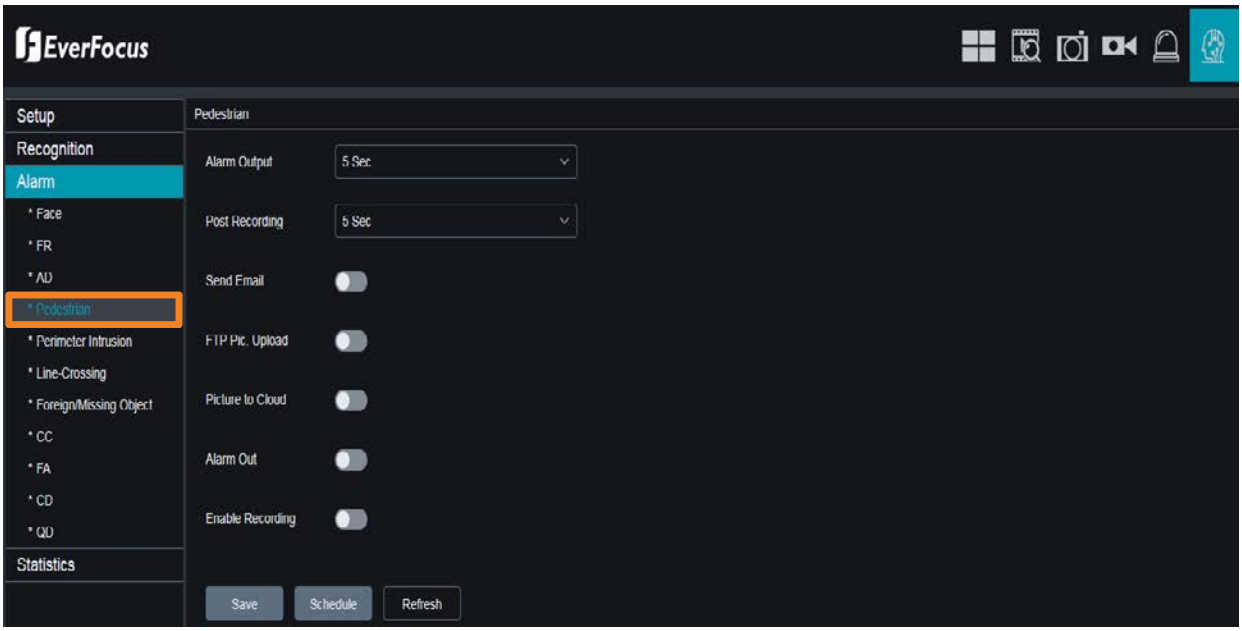
Enable Recording: Select to record. To further configure recording schedule, click the Schedule button to set up record schedule.



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

3.5.3.4 Pedestrian

You can configure the Pedestrian detection alarm settings here.



Alarm Output: when trigger alarm, the external alarm device output alarm time, can selected time period is 5S, 10S, 20S, 30S.

Post Recording: After triggered alarm, the post record time, selected time period is OFF, 5S, 10S, 20S, 30S.

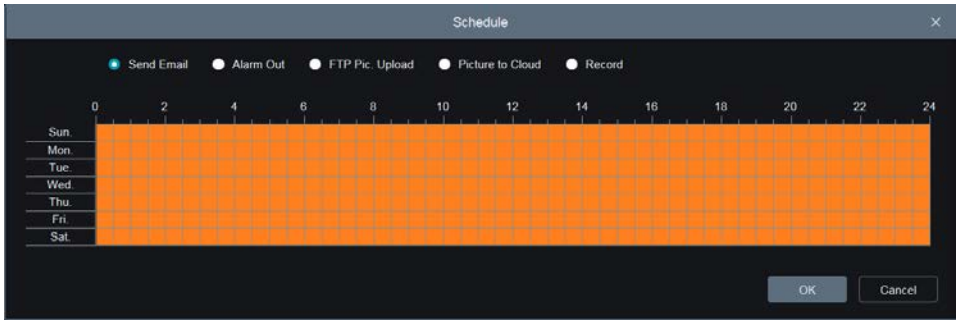
Send Email: If trigger alarm, send the Email to notify, the Email setup need to set in Remote Setting –Network-Email.

FTP Pic. Upload: Whether to upload the alarm information to the FTP server when the camera triggers the IO alarm.

Picture to Cloud: When the camera triggers the IO alarm, whether to upload the screenshot to the FTP server.

Alarm Out: Select to enable this function.

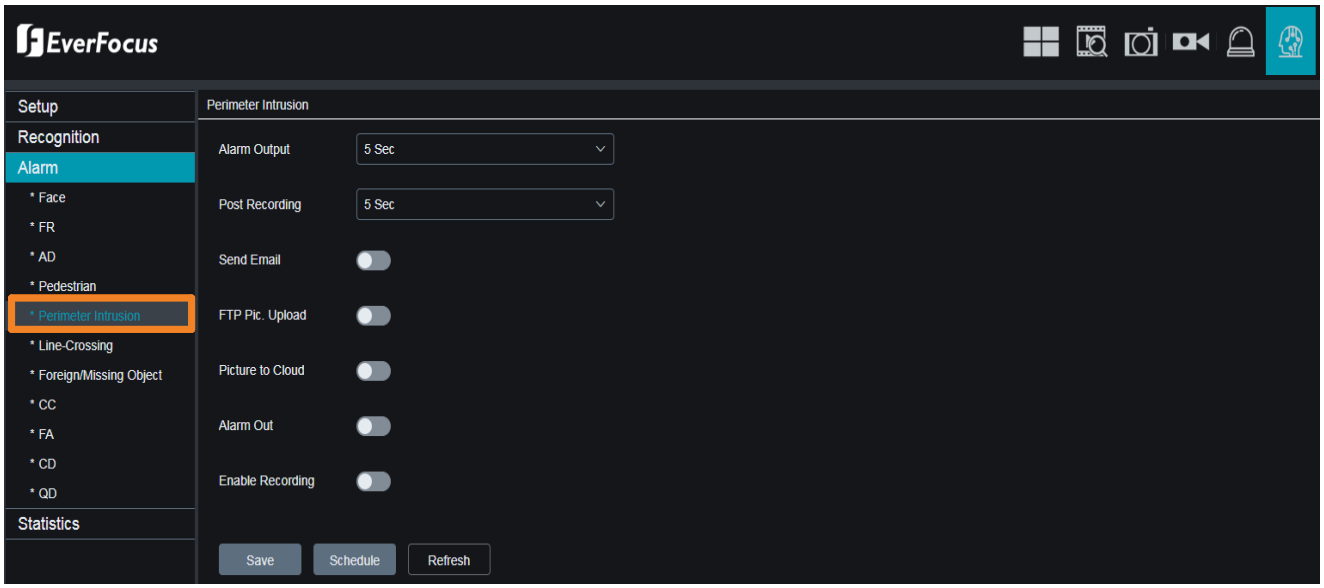
Enable Recording: Select to record. To further configure recording schedule, click the Schedule button to set up record schedule.



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

3.5.3.5 Perimeter Intrusion

You can configure the Perimeter Intrusion alarm settings here.



Alarm Output: When trigger alarm, the external alarm device output alarm time, can selected time period is 5S,10S, 20S, 30S.

Post Recording: After triggered alarm, the post record time, selected time period is OFF, 5S, 10S, 20S, 30S.

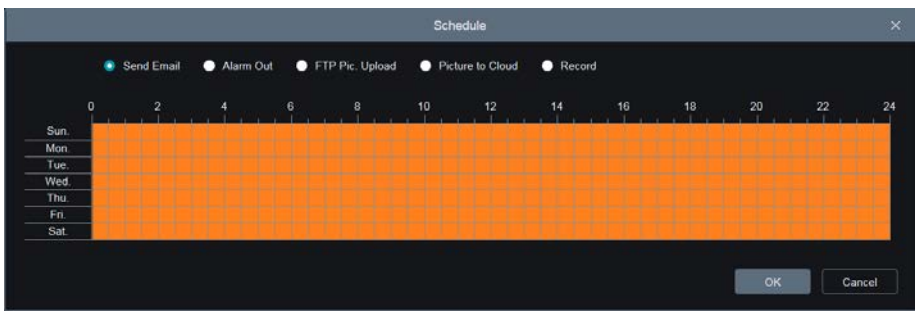
Send Email: If trigger alarm, send the Email to notify, the Email setup need to set in Remote Setting –Network-Email.

FTP Pic. Upload: Whether to upload the alarm information to the FTP server when the camera triggers the IO alarm.

Picture to Cloud: When the camera triggers the IO alarm, whether to upload the screenshot to the FTP server.

Alarm Out: Select to enable this function.

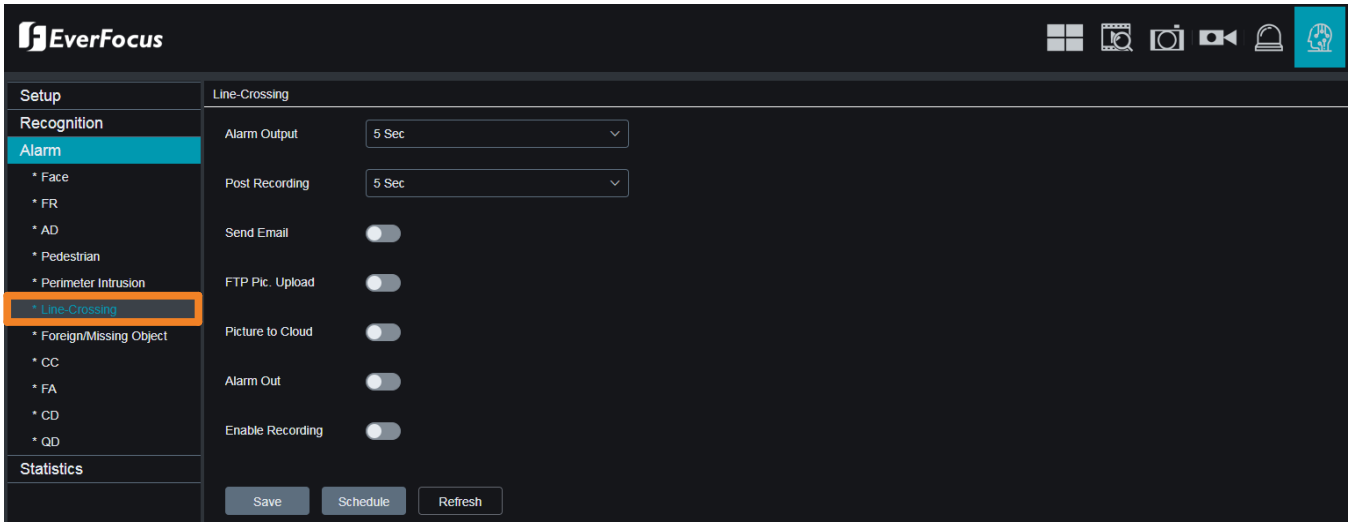
Enable Recording: Select to record. To further configure recording schedule, click the Schedule button to set up record schedule.



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

3.5.3.6 Line-Crossing

You can configure the Line-Crossing alarm settings here.



Alarm Output: when trigger alarm, the external alarm device output alarm time, can selected time period is 5S,10S, 20S, 30S.

Post Recording: After triggered alarm, the post record time, selected time period is OFF, 5S, 10S, 20S, 30S.

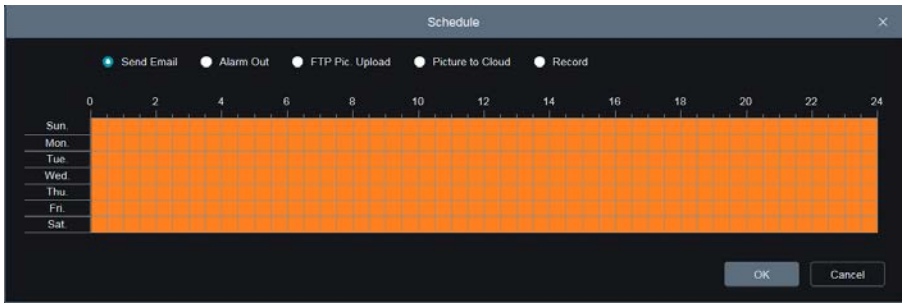
Send Email: If trigger alarm, send the Email to notify, the Email setup need to set in Remote Setting –Network-Email.

FTP Pic. Upload: Whether to upload the alarm information to the FTP server when the camera triggers the IO alarm.

Picture to Cloud: When the camera triggers the IO alarm, whether to upload the screenshot to the FTP server.

Alarm Out: Select to enable this function.

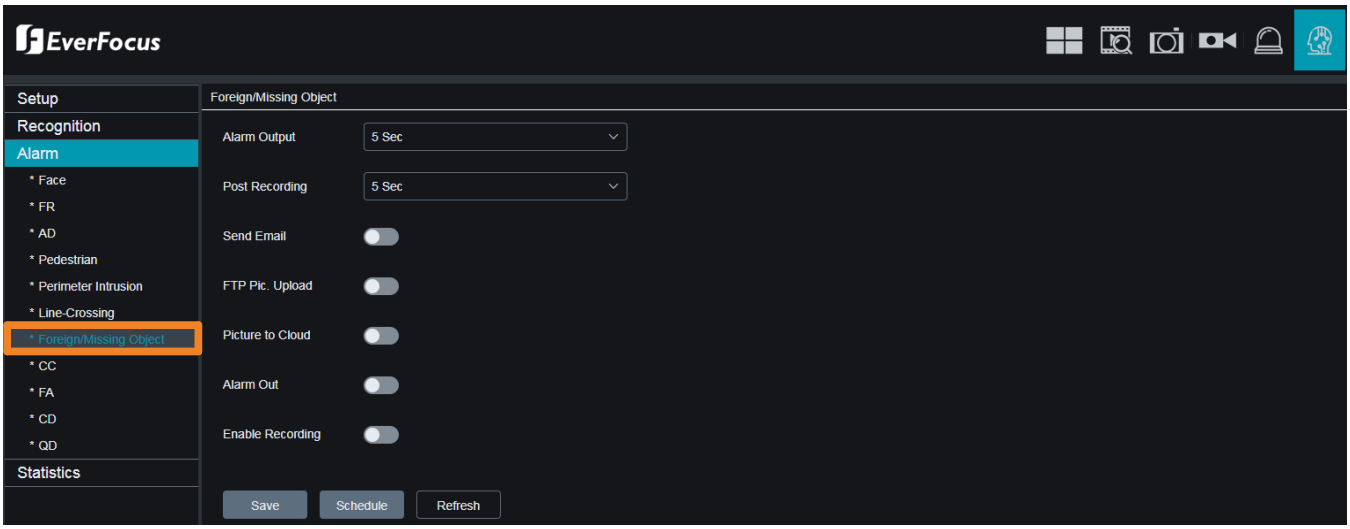
Enable Recording: Select to record. To further configure recording schedule, click the Schedule button to set up record schedule.



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

3.5.3.7 Foreign / Missing Object

You can configure the Foreign/Missing Object alarm settings here.



Alarm Output: when trigger alarm, the external alarm device output alarm time, can selected time period is 5S,10S, 20S, 30S.

Post Recording: After triggered alarm, the post record time, selected time period is OFF, 5S, 10S, 20S, 30S.

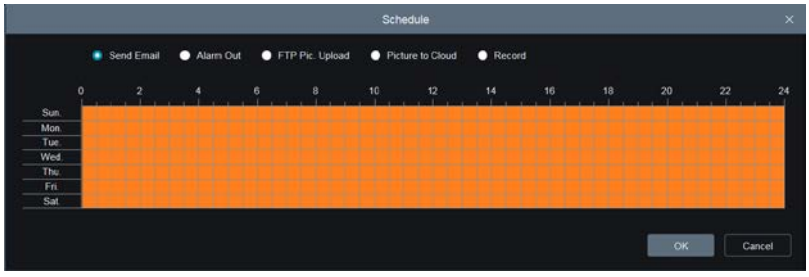
Send Email: If trigger alarm, send the Email to notify, the Email setup need to set in Remote Setting –Network-Email.

FTP Pic. Upload: Whether to upload the alarm information to the FTP server when the camera triggers the IO alarm.

Picture to Cloud: When the camera triggers the IO alarm, whether to upload the screenshot to the FTP server.

Alarm Out: Select to enable this function.

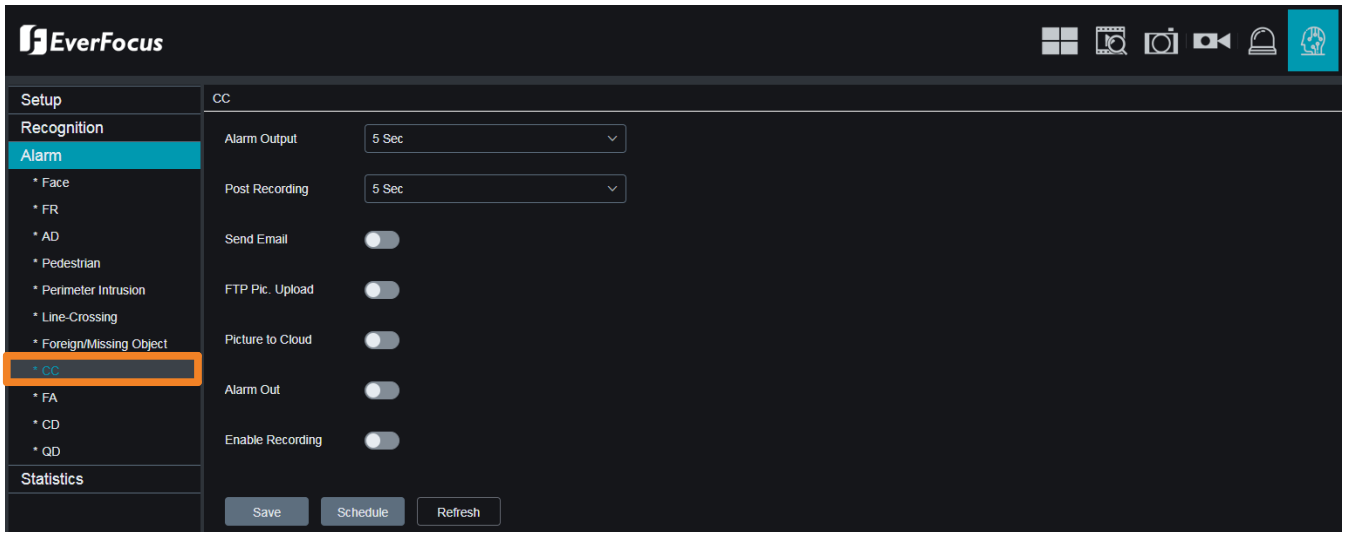
Enable Recording: Select to record. To further configure recording schedule, click the Schedule button to set up record schedule.



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

3.5.3.8 CC (Crossing Counting)

You can configure the Cross Counting alarm settings here.



Alarm Output: when trigger alarm, the external alarm device output alarm time, can selected time period is 5S,10S, 20S, 30S.

Post Recording: After triggered alarm, the post record time, selected time period is OFF, 5S, 10S, 20S, 30S.

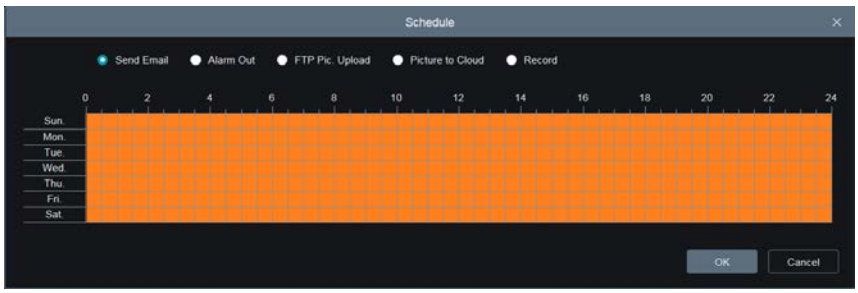
Send Email: If trigger alarm, send the Email to notify, the Email setup need to set in Remote Setting –Network-Email.

FTP Pic. Upload: Whether to upload the alarm information to the FTP server when the camera triggers the IO alarm.

Picture to Cloud: When the camera triggers the IO alarm, whether to upload the screenshot to the FTP server.

Alarm Out: Select to enable this function.

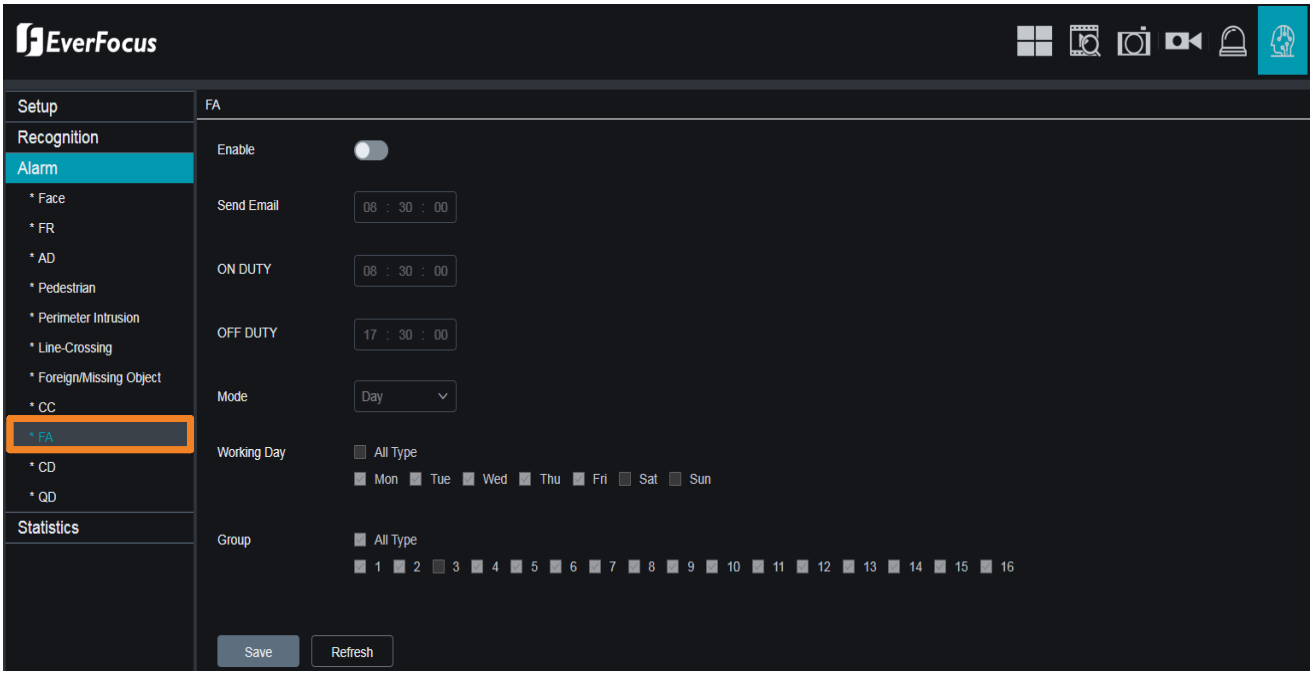
Enable Recording: Select to record. To further configure recording schedule, click the Schedule button to set up record schedule.



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

3.5.3.9 FA (Face Attendance)

You can configure the Face Attendance settings here.



Enable: Enable or disable this function.

Send Email: Set the time to send mail, the Email setup need to set in Remote Setting –Network-Email.

ON DUTY: Set start time.

OFF DUTY: Set end time.

Mode: Set the mail sending mode including day, week, month

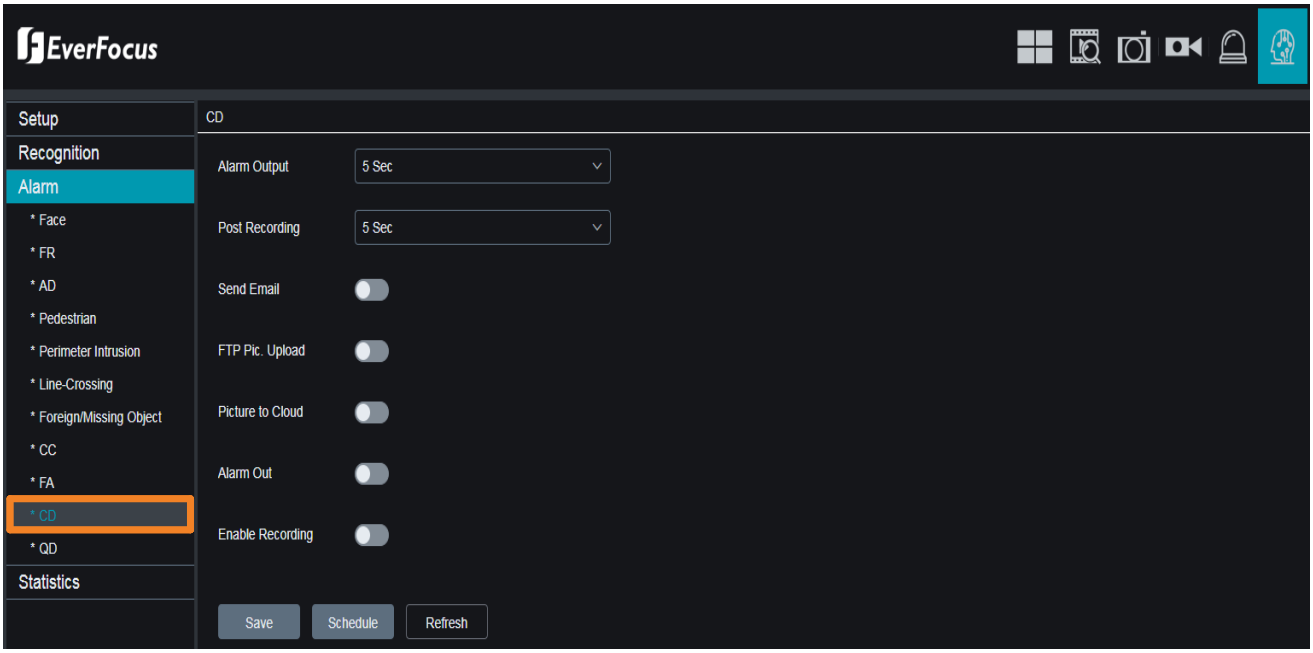
Working days: Set the working days that require attendance.

Group: Set the corresponding group.

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

Note: The data that is sent is the data before the sending date. For example, if you set the monthly mode, the sending date is the 15th, and the range of the data is from the 15th of the previous month to the 14th of this month. If there is no data during the time period, no file will be sent through email.

3.5.3.10 CD (Crowd Density Detection)



Alarm Output: when trigger alarm, the external alarm device output alarm time, can selected time period is 5S, 10S, 20S, 30S.

Post Recording: After triggered alarm, the post record time, selected time period is OFF, 5S, 10S, 20S, 30S.

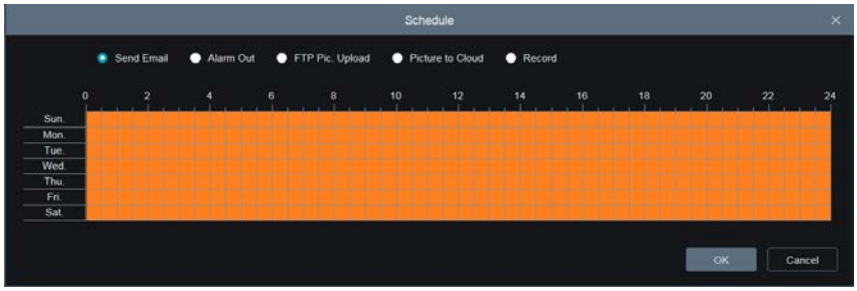
Send Email: If trigger alarm, send the Email to notify, the Email setup need to set in Remote Setting –Network-Email.

FTP Pic. Upload: Whether to upload the alarm information to the FTP server when the camera triggers the IO alarm.

Picture to Cloud: When the camera triggers the IO alarm, whether to upload the screenshot to the FTP server.

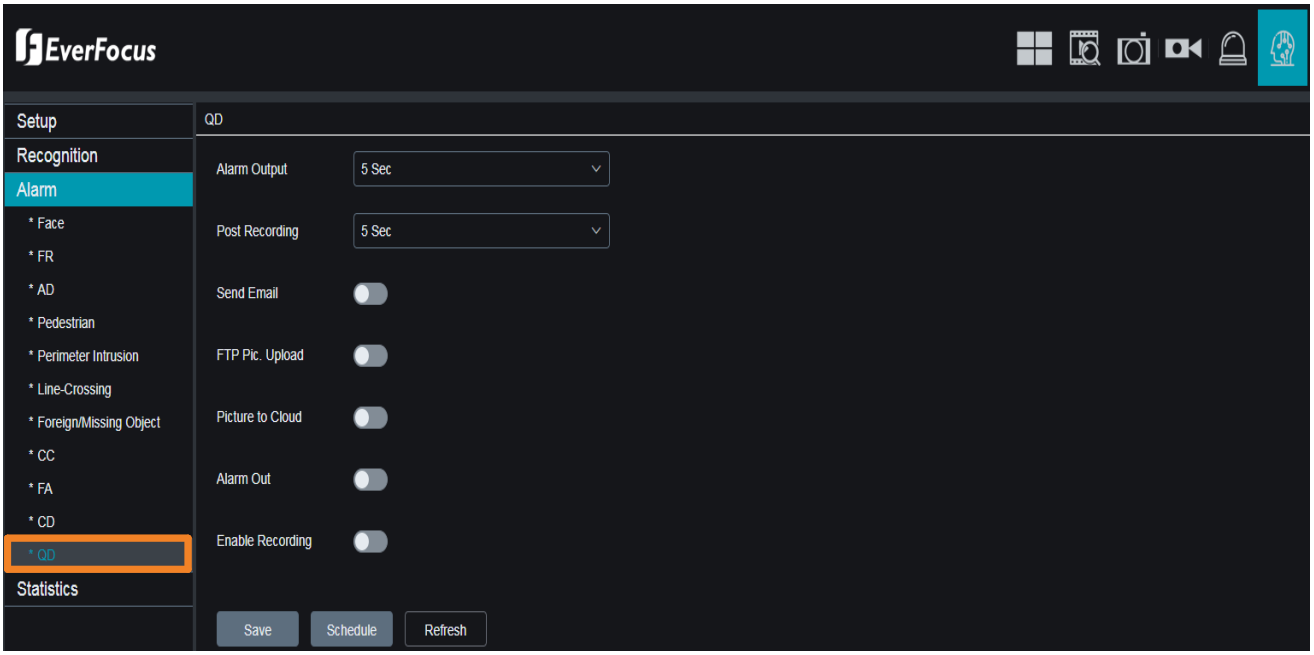
Alarm Out: Select to enable this function.

Enable Recording: Select to record. To further configure recording schedule, click the Schedule button to set up record schedule.



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

3.5.3.11 QD (Queue Length Detection)



Alarm Output: when trigger alarm, the external alarm device output alarm time, can selected time period is 5S, 10S, 20S, 30S.

Post Recording: After triggered alarm, the post record time, selected time period is OFF, 5S, 10S, 20S, 30S.

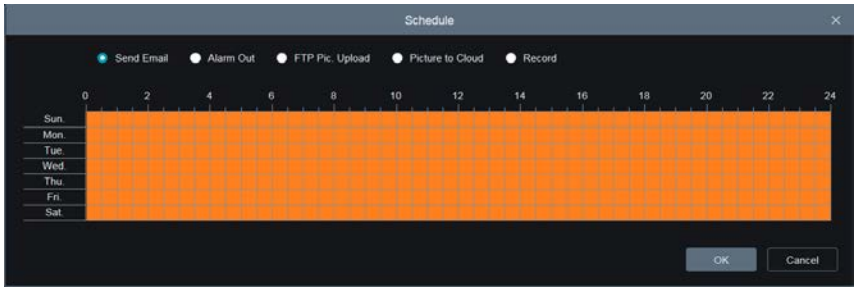
Send Email: If trigger alarm, send the Email to notify, the Email setup need to set in Remote Setting –Network-Email.

FTP Pic. Upload: Whether to upload the alarm information to the FTP server when the camera triggers the IO alarm.

Picture to Cloud: When the camera triggers the IO alarm, whether to upload the screenshot to the FTP server.

Alarm Out: Select to enable this function.

Enable Recording: Select to record. To further configure recording schedule, click the Schedule button to set up record schedule.



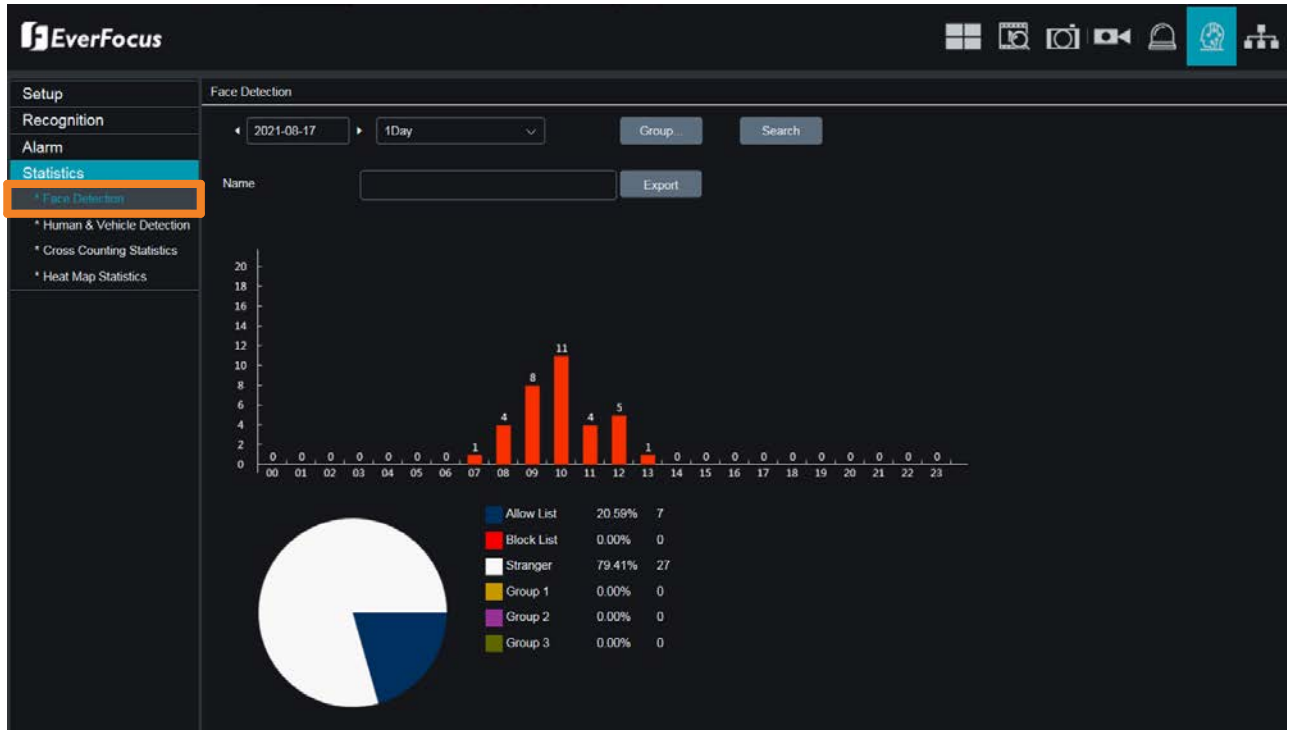
Click **Refresh** to refresh the page; click **Save** to save the settings.

3.5.4 Statistics

You can view the statistic reports using this page.

3.5.4.1 Face Detection

After setting up the Recognition function, you can view the statistic reports using this page.



1. Select date and time.
2. Select the desired groups.
3. Click the **Search** button, the statistic charts will be displayed below.
4. To export the data in **.csv** format, input a filename and then click the **Export** button.

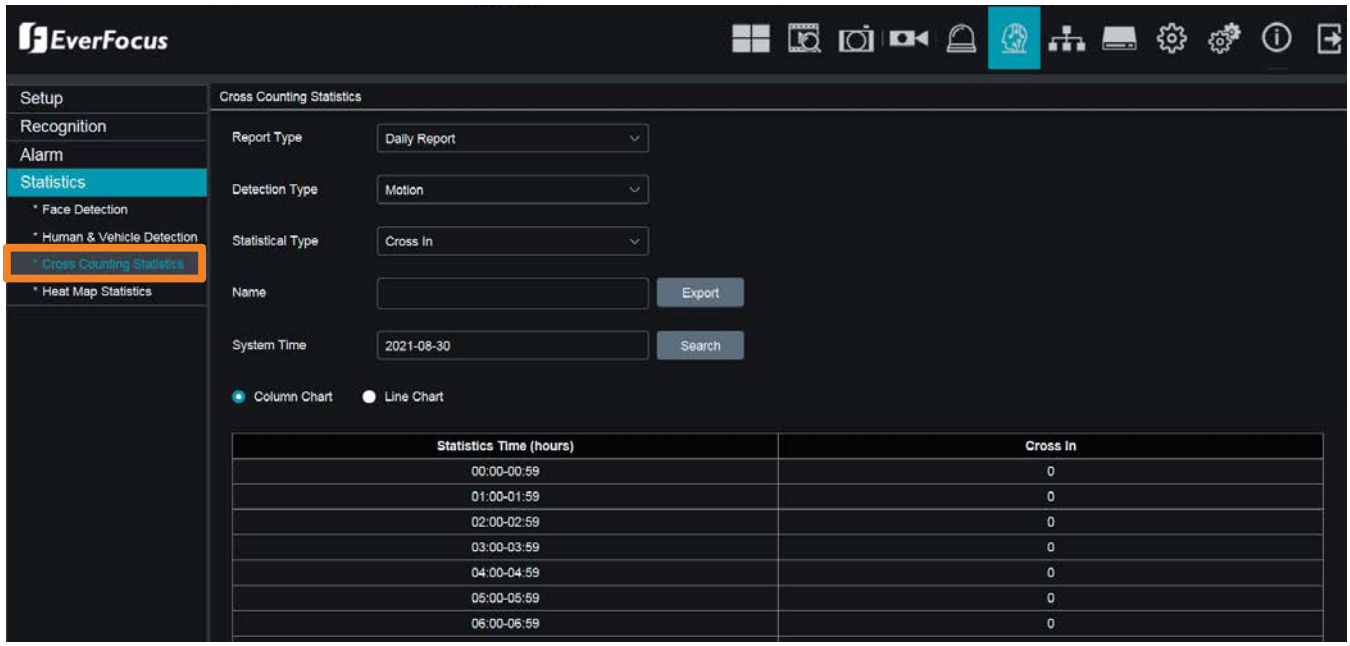
3.5.4.2 Human & Vehicle Detection

After setting up the Recognition function, you can view the statistic reports using this page.

1. Select date and time.
2. Click the Intelligent button to select the desired functions.
3. Click the **Search** button, the statistic charts will be displayed below.
4. To export the data in **.csv** format, input a filename and then click the **Export** button.

3.5.4.3 Cross Counting Statistics

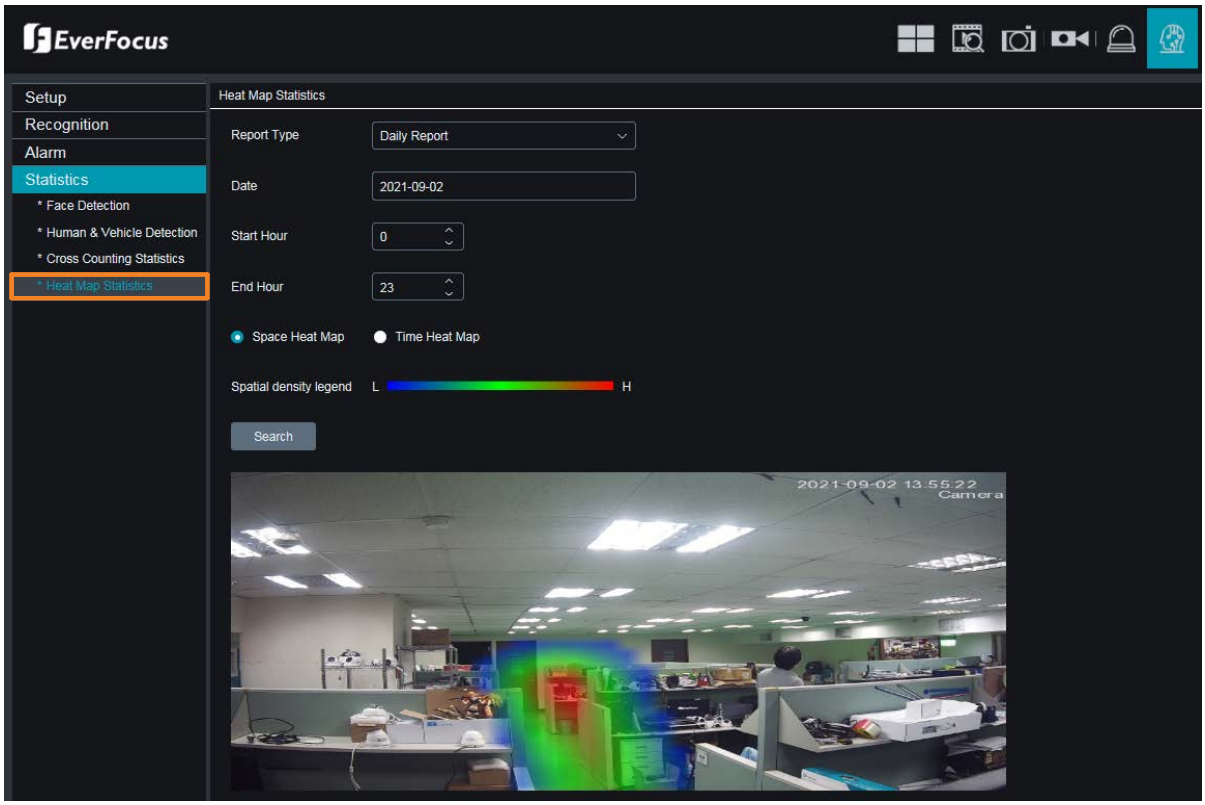
After setting up the Cross Counting function, you can view the statistic reports using this page.



1. Select a report type, detection type and statistical type.
2. Select the date.
3. Click the **Search** button, the statistic charts will be displayed below.
4. To export the data in **.csv** format, input a filename and then click the **Export** button.

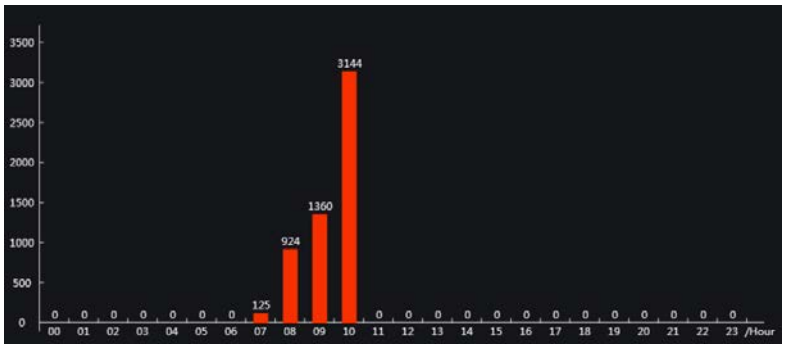
3.5.4.4 Heat Map Statistics

After setting up the Heat Map function, you can view the statistic reports using this page.



1. Select the report type.
2. Select date and time.
3. Click the **Search** button, the statistic charts will be displayed below. There are two types of charts as below.
   a. Space Heat Map

   b. Time Heat Map



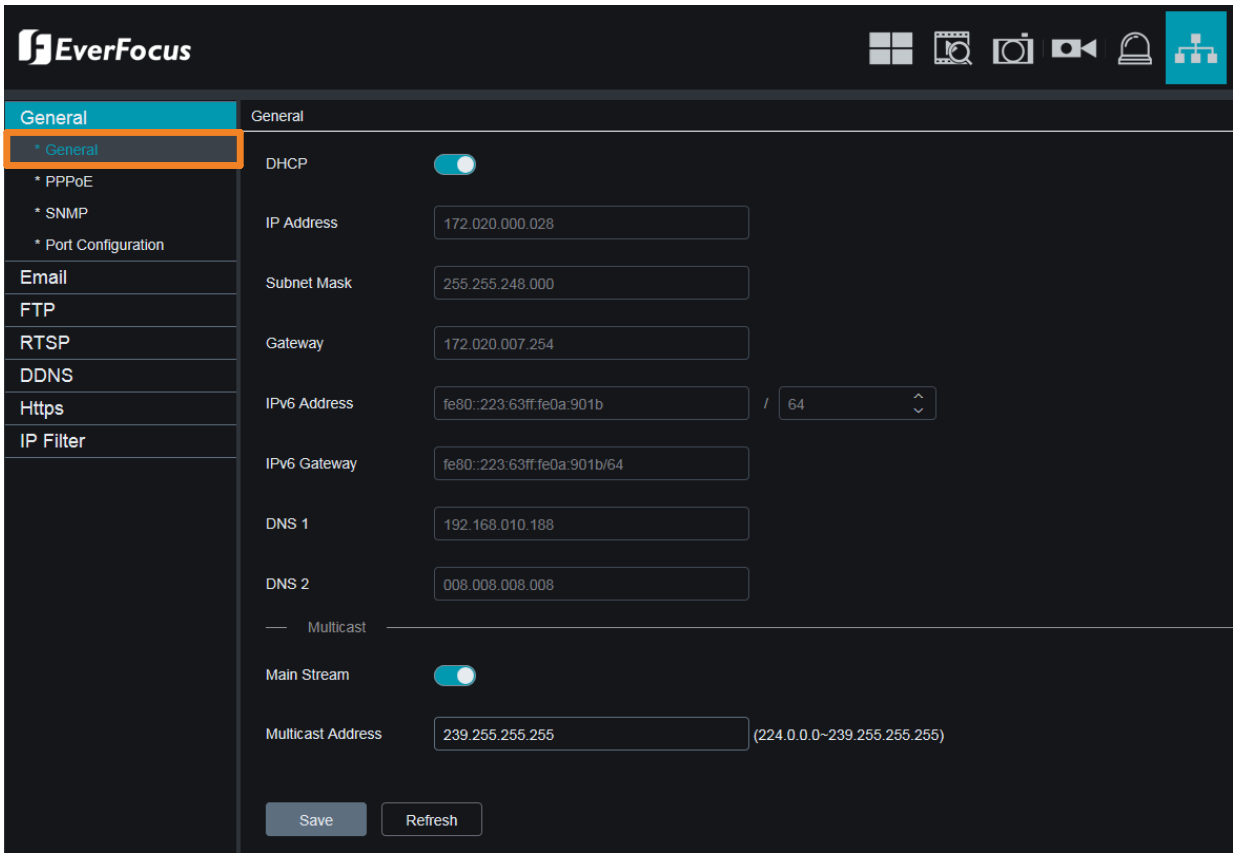
3.6 Network Setting

3.6.1 General

You can configure the network settings on this page.

3.6.1.1 General

Configuring the general settings.



DHCP: This setting lets the system use an automatically assigned (dynamic) IP address. This address can change under certain circumstances. For instance, when the camera's network switch/hub has to be rebooted. Do not assign to the DHCP server the same IP addresses used for the other network cameras and PCs with unique IP addresses.

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

IPV6-IP Address: The IPV6 address of the IP Camera.

IPV6-Gateway: This address allows the IP Camera to access the Internet.

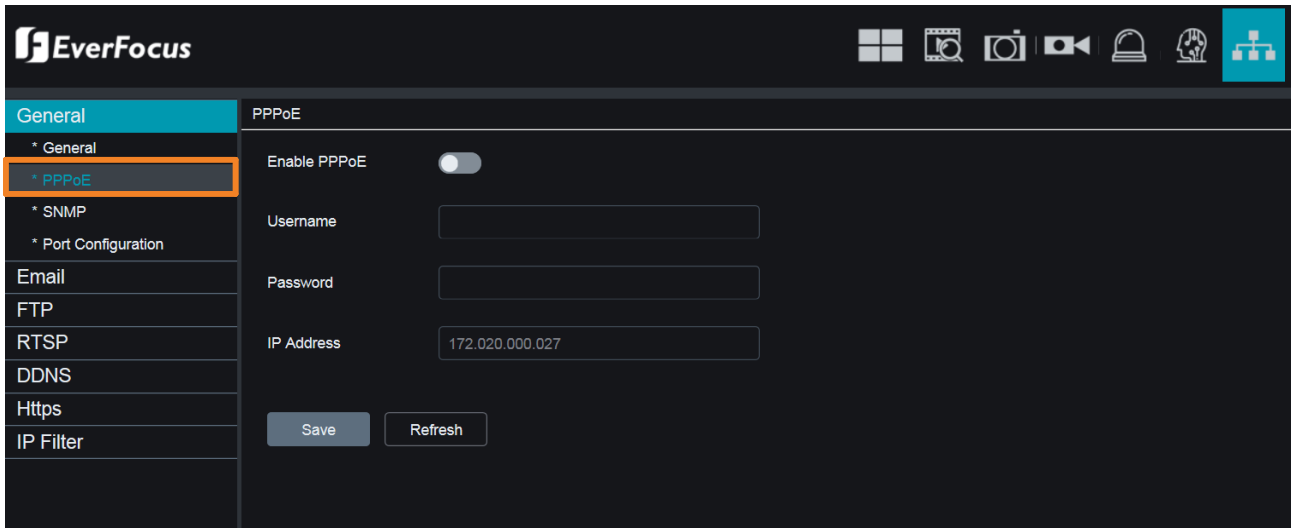
DNS: DNS1 is the primary DNS server and DNS2 is a backup DNS server. Usually, it's enough to just enter the DNS1 server address.

Main Stream: Select to enable main stream function and multicast address.

Multicast Address: Fill in the multicast IP address. IP addresses in the range of 224.0.0.0 through 239.255.255.255 are reserved for multicasting. For devices, you can use 225.x.x.x - 232.x.x.x and 234.x.x.x - 238.x.x.x. You can refer to Appendix A for more details.

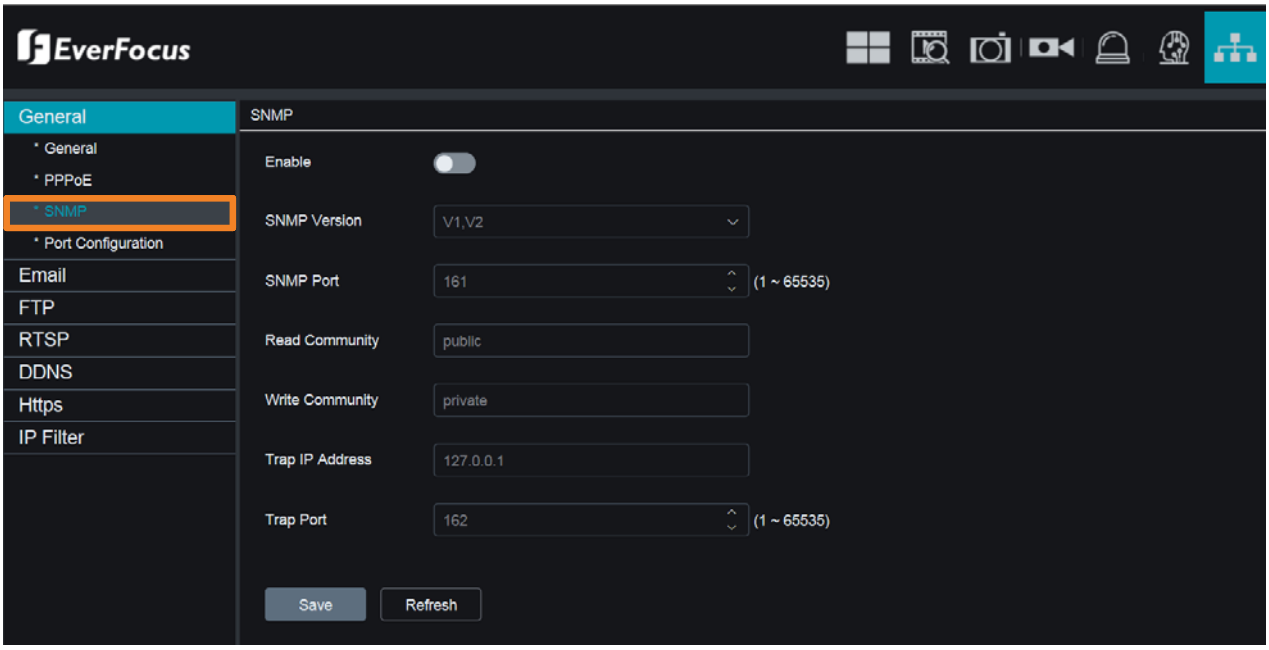
3.6.1.2 PPPoE

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



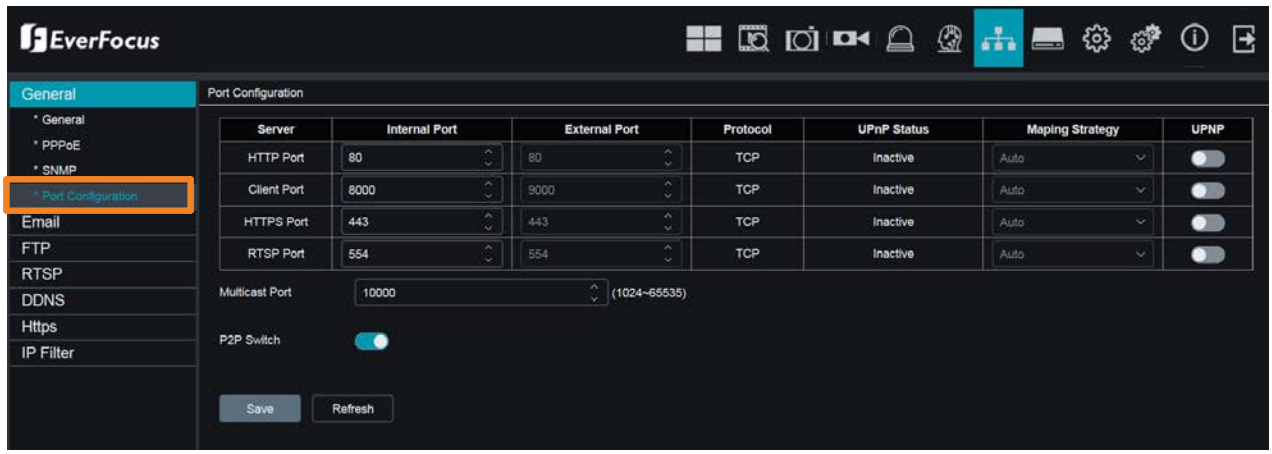
3.6.1.3 SNMP

You can configure the SNMP settings on this page. Select a SNMP version and input the configurations. Click the **Save** button to apply the settings.



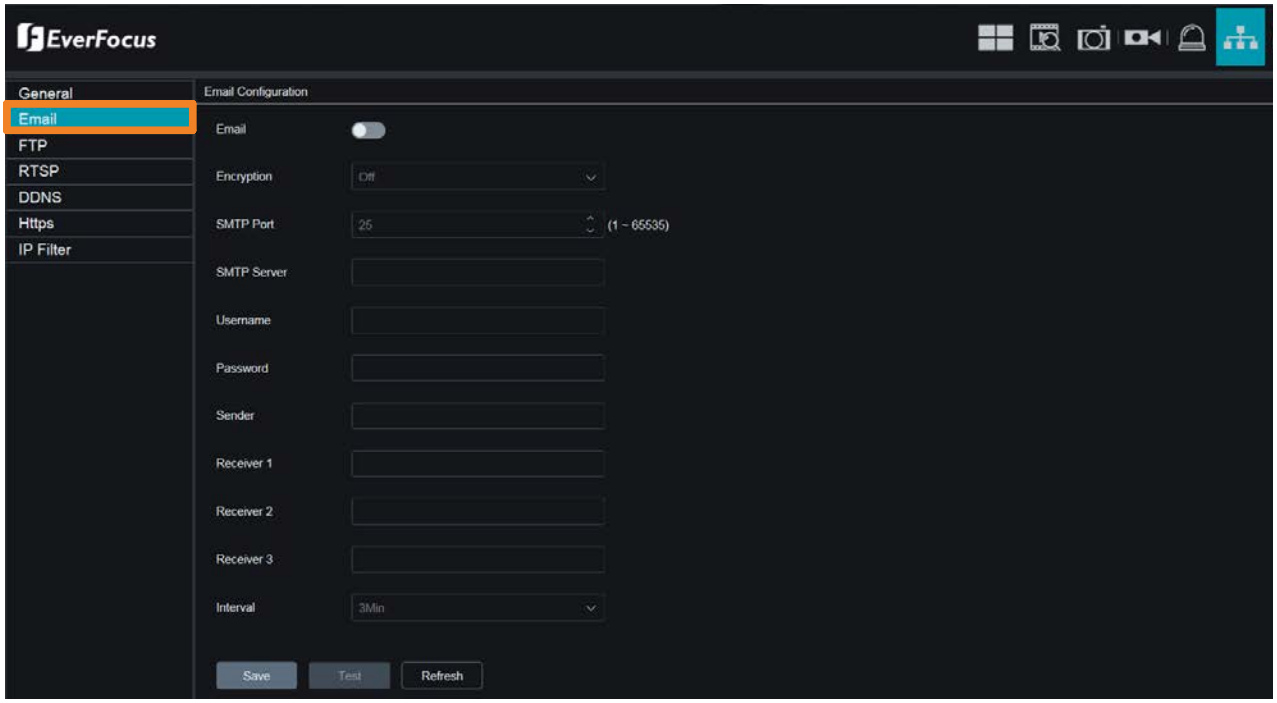
3.6.1.4 Port Configuration

You can adjust the port configurations. Click the **Save** button to apply the settings.



3.6.2 Email

You can configure the email settings on this page.



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 the user name of your Email account.

Password: Input the password of the sender.

Sender: Input the Email address of the sender.

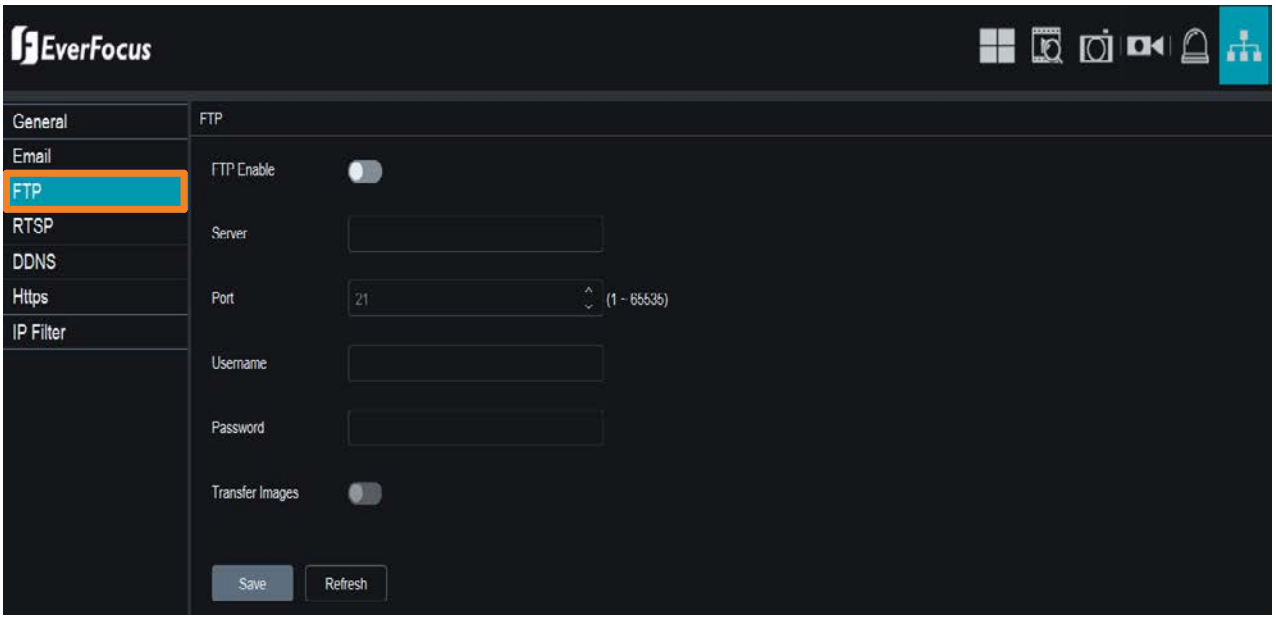
Receiver1-3: Input the Email address of the receiver. You can input 3 receiver email addresses.

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

Click **Refresh** to refresh the page; click **Save** to save the settings; click **Test Email** to test the Email function; click **Cancel** to cancel the settings.

3.6.3 FTP

You can configure the FTP settings on this page. When an alarm is triggered, the IP Camera will send an instant snapshot image to the FTP.



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.

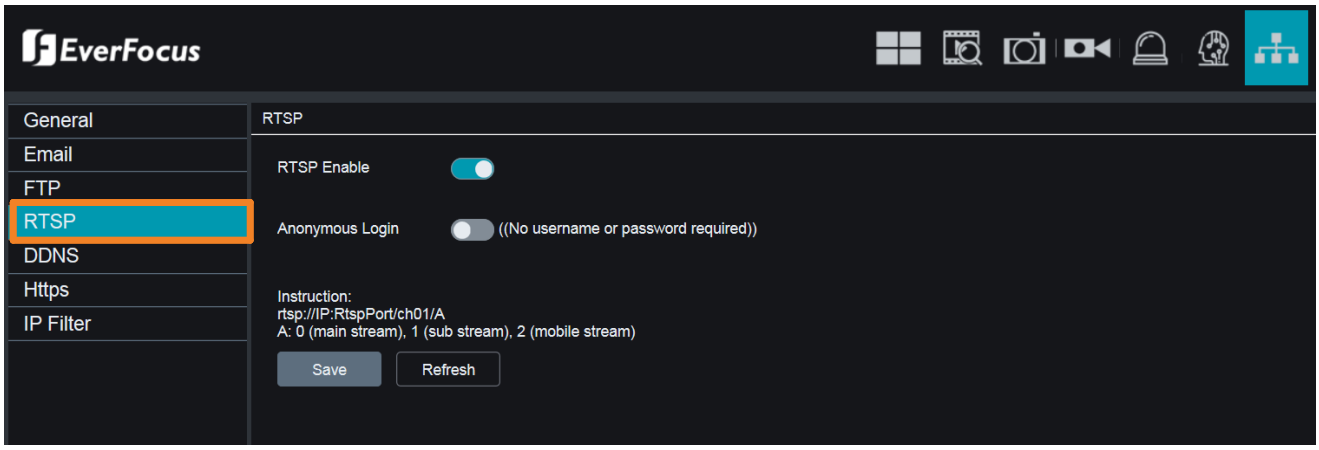
Send Images: Switch the button to the right to enable the function.

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

Note: For the FTP function to work, after configuring the FTP settings, you will have to enable the **Send to FTP** function.

3.6.4 RTSP

You can enable the RTSP function on this page.



RTSP Enable: Switch the button to the right to enable the RTSP function.

Anonymous Login: Switch the button to the right to enable this function.

RTSP Syntax:

rtsp://[IP Address]:[RTSP Port]/ch01/[A]

* IP Address: IP address of the IP Camera
* RTSP Port: The default RTSP port is 554, which can be changed between 1024 and 65535. Changing the RTSP port will restart the IP camera.
* A: Stream Type: 0 (main stream), 1 (sub stream), 2 (mobile stream)

Example:

rtsp://192.168.31.33:554/ch01/0

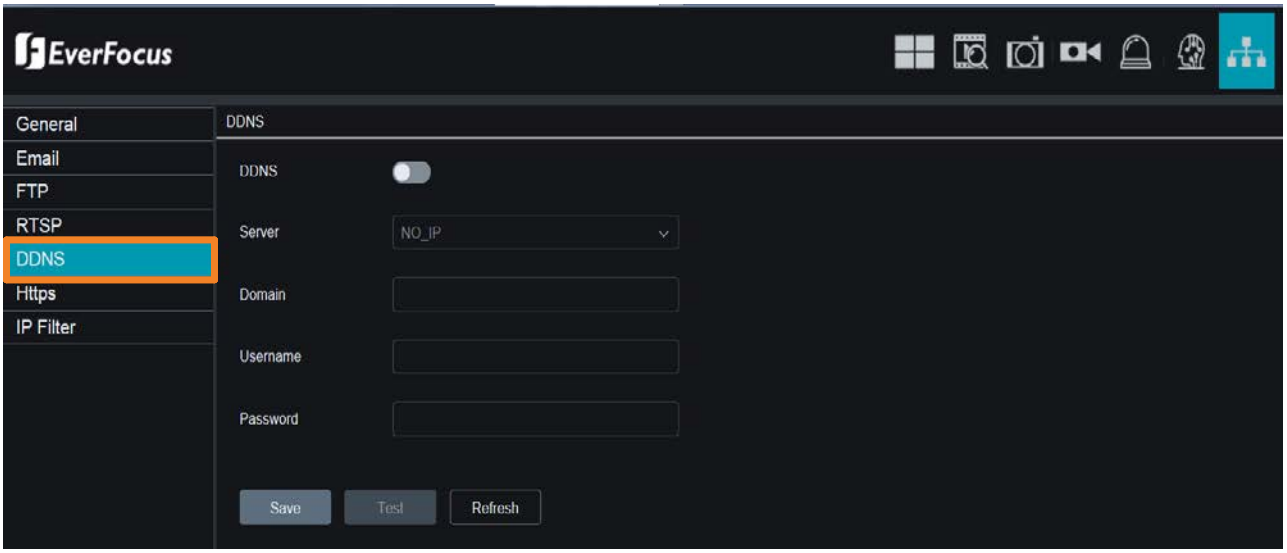
Click **Refresh** to refresh the page; click **Save** to save the settings.

3.6.5 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 IP Camera.

DDNS assigns a domain name (URL) to the IP Camera, 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 IP Camera 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 DDS service provider's website.



DDNS: Switch the button to the right to enable the DDNS function

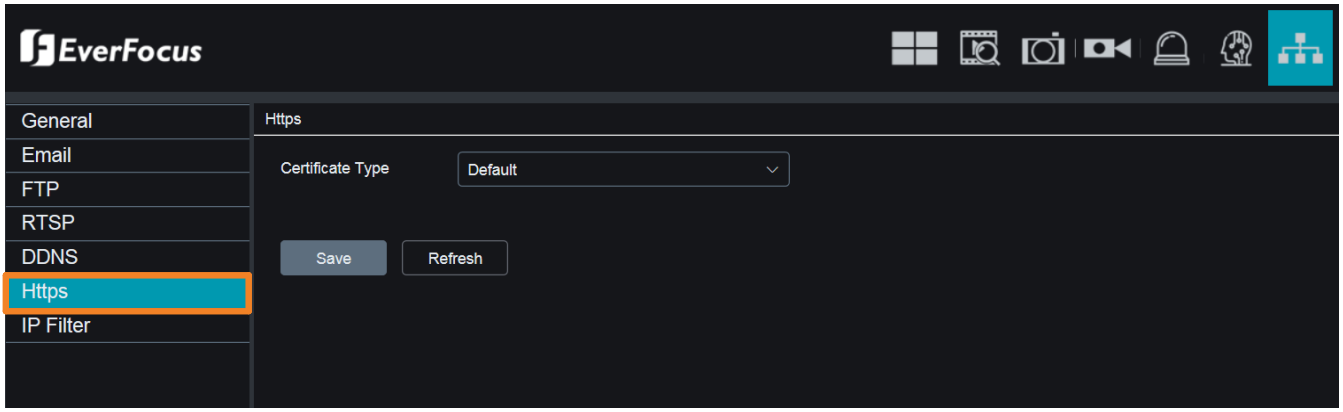
Server: Select a DDNS service provider from the drop-down list. Note that before enabling the following DDNS function, user should have applied for a host name from the DDS service provider's website.

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

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

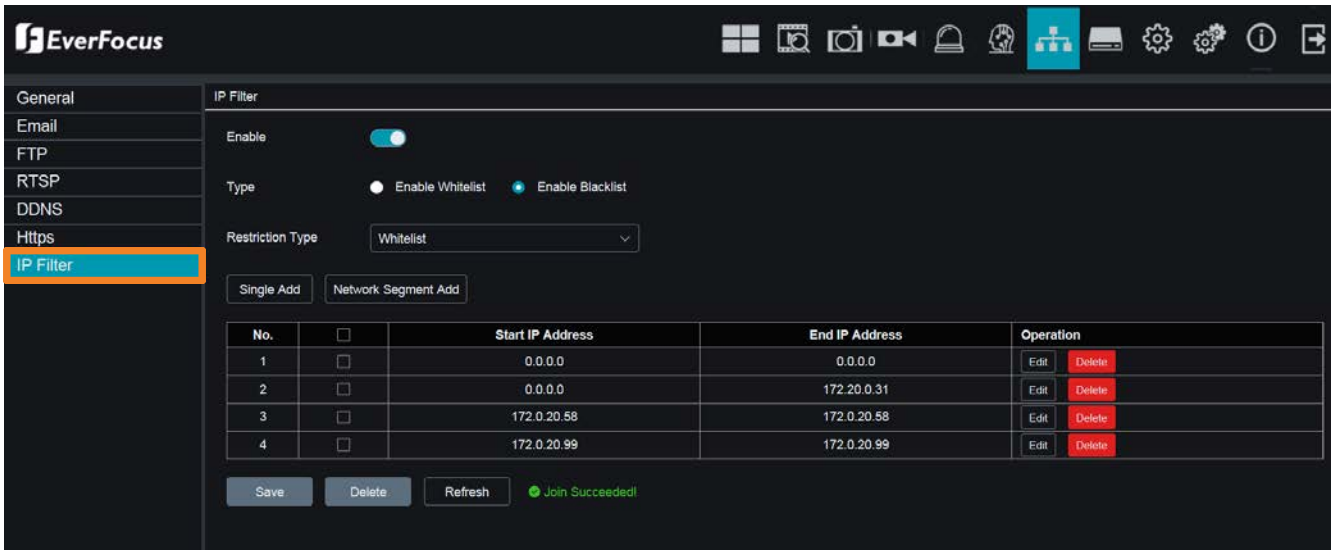
3.6.6 HTTPS

You can configure the HTTPS settings on this page. Switch the HTTPS button to the right to enable the function. Input a port number if necessary (default 443). Select an HTTPS Type and then click the Save button.



3.6.7 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 IP Camera. By default, all IP addresses are allowed to access the camera.



To set up IP Filter:

1. Check the **Enable** box and then select either one from the two options below. You can only activate one option for the IP camera.
   a. **Whitelist:** Enable the whitelist configured below.
   b. **Blacklist**: Enable the blacklist configured below.
2. Edit the Whitelist or Blacklist.

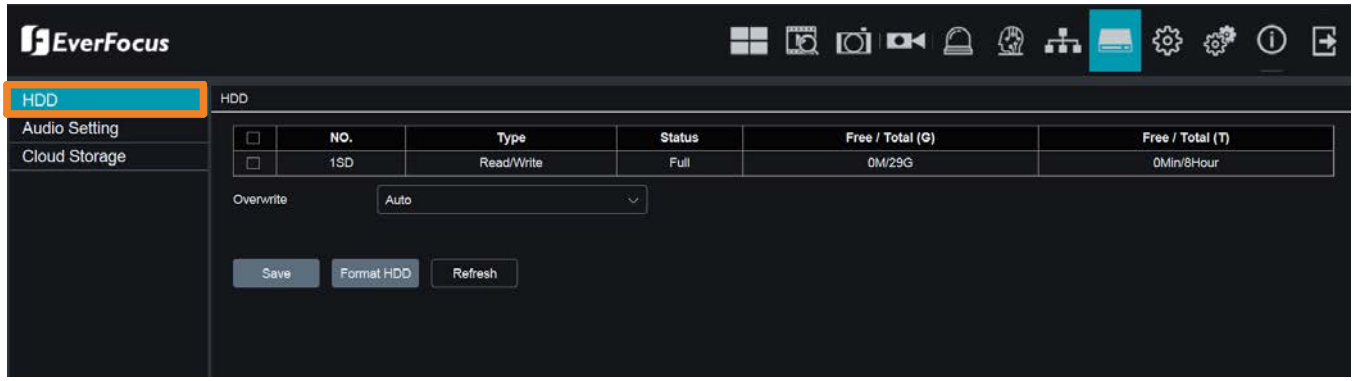
a. If you want to edit whitelist, select **Whitelist** from the **Restricted Type** drop-down box; if you want to edit blacklist, select **Blacklist** from the **Restricted Type** drop-down box.
b. To add a single IP address to the list, click the **Single Add** button and input an IP address and then click OK, the IP address will be added.
c. To add a range of IP addresses to the list, click the **Network Segment Add** button and input the start IP address and the end IP address and then click OK, the range of IP addresses will be added.
d. You can click the **Edit** icon in the Operation field to edit the IP address, or click the **Delete** icon to delete the IP address from the list.

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

3.7 Device Setting

3.7.1 HDD

You can configure the SD card storage on this page. After inserting a micro SD card to the card slot, the IP camera will automatically detect the capacity of the on-camera SD card.



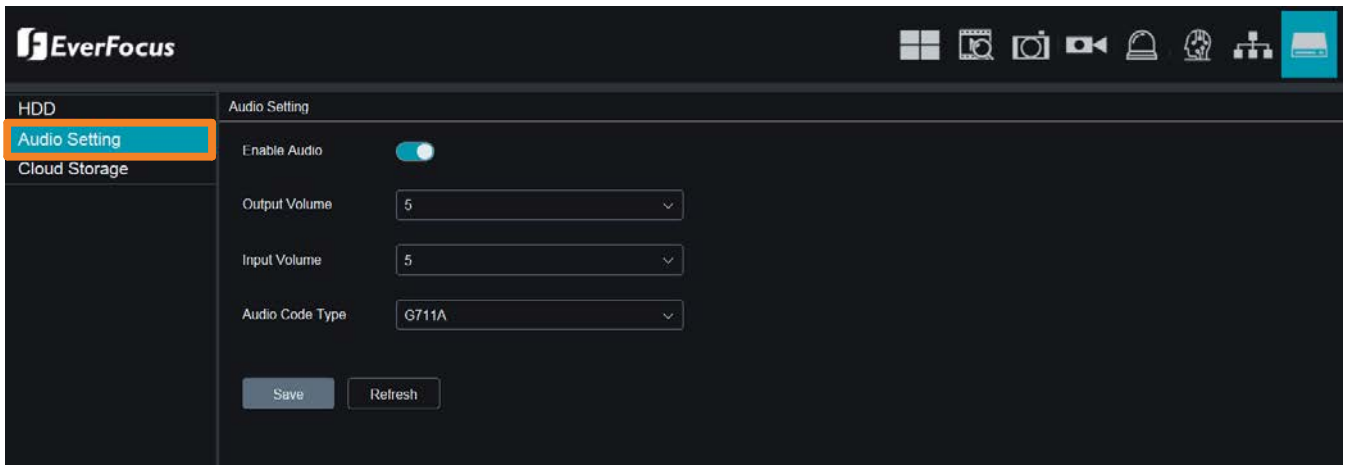
Overwrite: Select **Auto** to enable the overwrite function. If **Auto** is selected, the IP camera will overwrite the oldest files on the SD card when SD card is full.

Format HDD: Check the box to select a storage and then click the Format HDD button.

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

3.7.2 Audio Setting

You can configure the audio settings on this page.



Enable Audio: Switch the button to the right to enable audio configuration.

Output Volume: Select the Output volume.

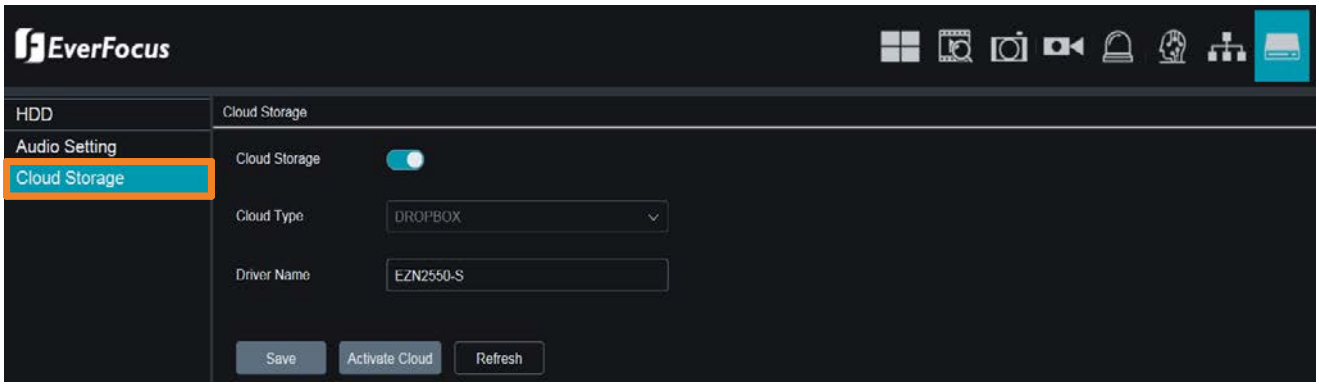
Input Volume: Select a Input Volume.

Audio Code Type: Select an Audio Code Type.

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

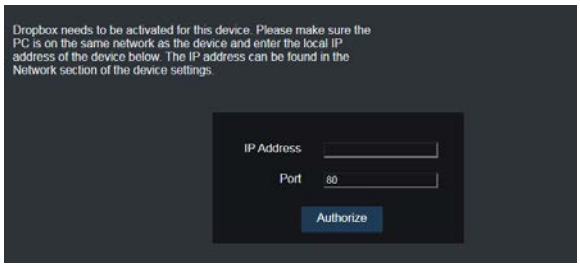
3.7.3 Cloud Storage

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

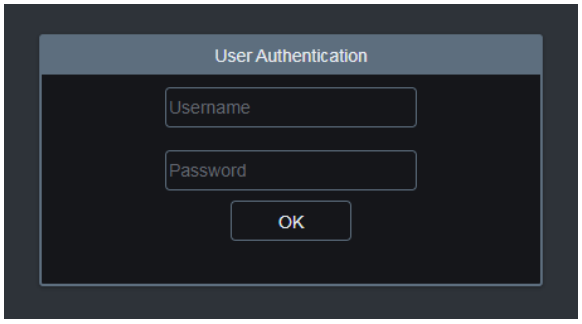


To perform the Cloud function:

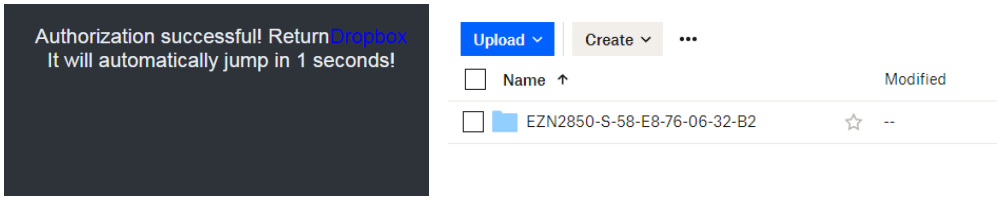
1. Register an account on Dropbox website. It's recommended to create the account with the same Email address and password used for your IP camera.
2. Ensure the IP camera network is working properly.
3. Click the **Activate Cloud** button to activate the Cloud function. The Dropbox website will pup-up on the screen so that you can sign in.
4. Input the IP address of the IP camera and keep the 80 port. Click **Authorize**.



5. Input the user name and password of the IP camera and then click **Log In**.



6. The Cloud activation is complete. You can see the folder with Driver Name set before.



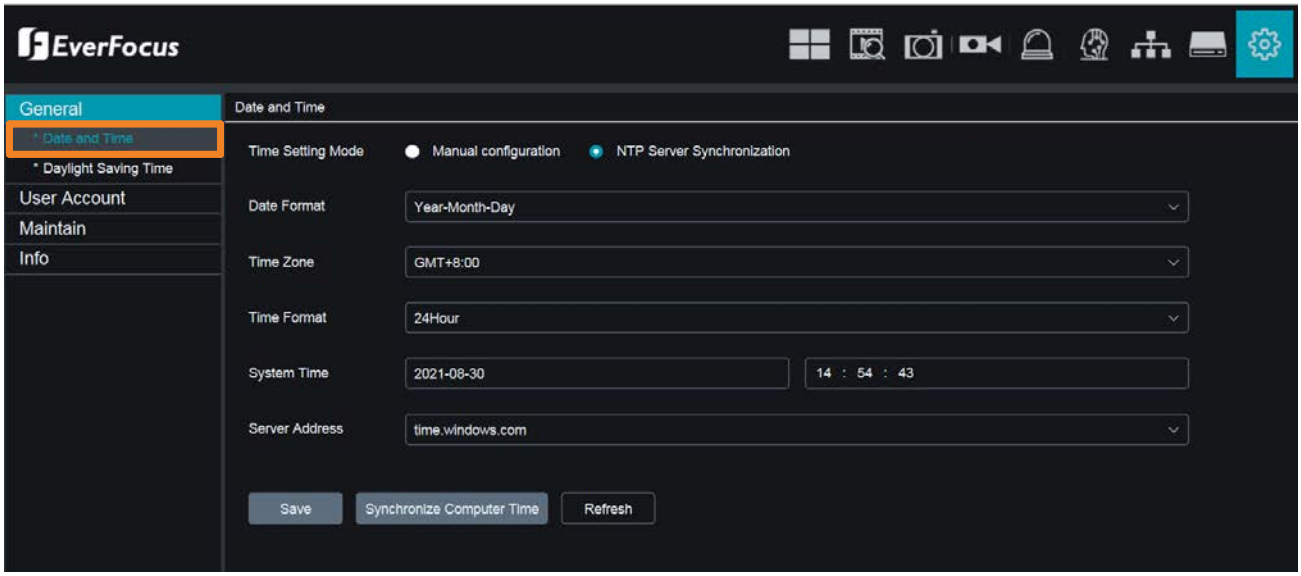
3.8 System Setting

3.8.1 General

You can configure the system general settings on this page.

3.8.1.1 Date and Time

Configuring the date and time settings.



Time Setting Mode: Select a time setting mode.

Date Format: Select a format for the date.

Time Zone: Select a time zone.

Time Format: Select a format for the time.

System Time: Set up a system date and time.

Server Address: Select a NTP server.

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

3.8.1.1.1 **Calibration time**

When the camera is powered off for more than a month, please refer to the following methods to calibration.

Note:
EZN1240-SG & EBN1240-SG (2MP Fixed focus series products) These two models are non-electric supercapacitor battery versions, so right after the power is cut off, the camera needs to be calibrated.

The correction method is as follows:

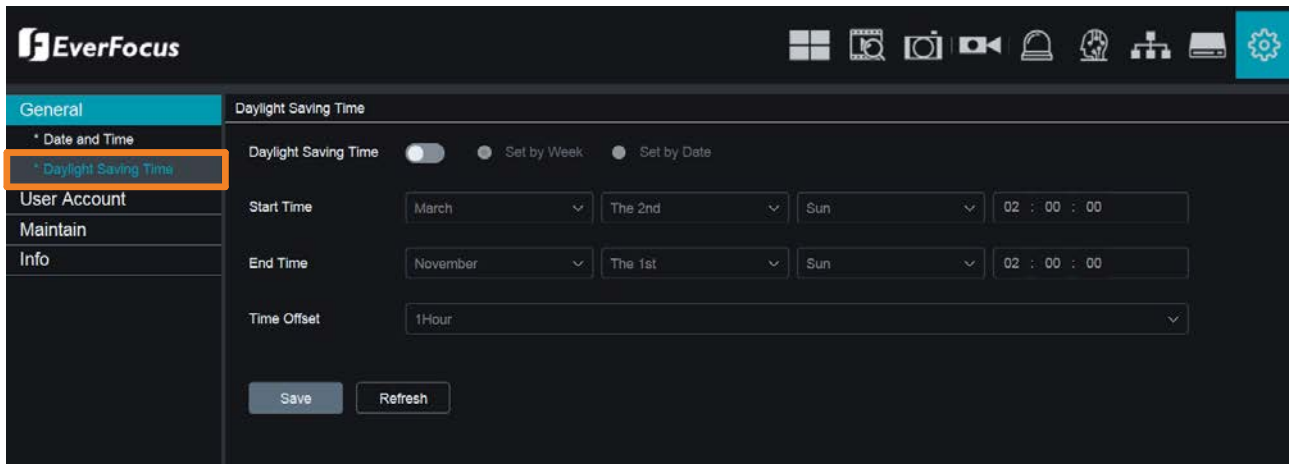
1. External NTP time calibration through the network
   Note: When adopting this method of calibration, make sure that the external network is unblocked before the IPCam is powered on!

2. Calibrate time through EverFocus' DVR/NVR:
   Add the IPCam you want to adjust the time to the EverFocus' DVR/NVR, and the system will automatically adjust the time.

3. Manual Calibration:
   Please refer to 3.8.1.1 Date and Time.

3.8.1.2 Daylight Saving Time

Switch the button to the right to enable the DST function.



Daylight Saving Time: Switch the button to the right to enable the function.

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

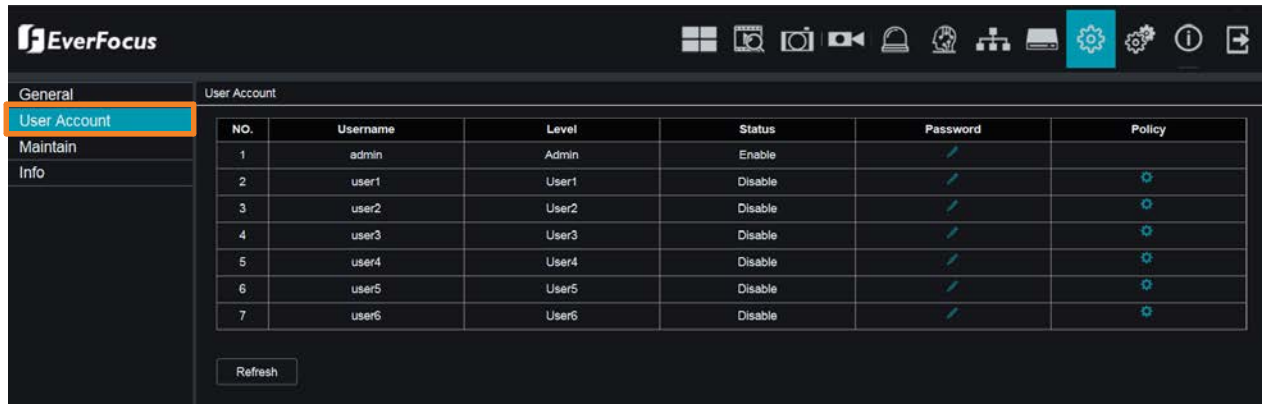
End Time: Select an end time for the DST to stop.

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.

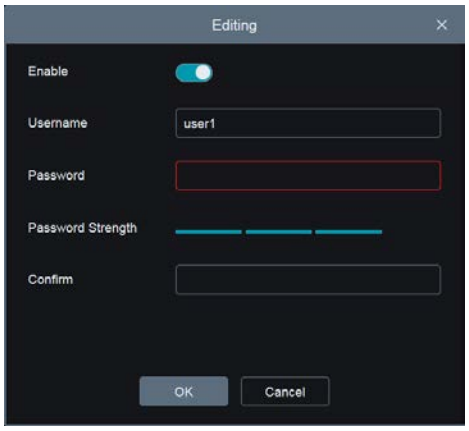
Click **Refresh** to refresh the page; click **Save** to save the settings.

3.8.2 User Account

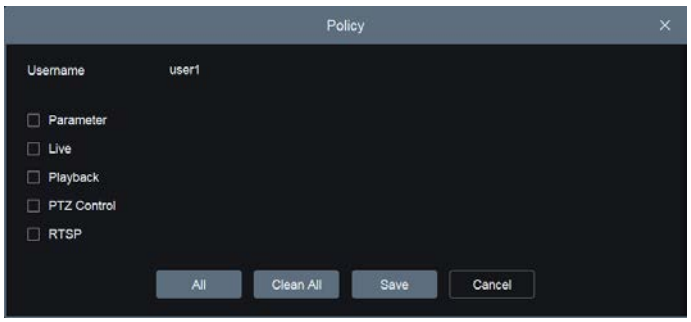
You can configure the user account settings on this page. Up to 7 user accounts (1 administrator and 6 users) can be configured.



1. You can configure the user name/password in editing window.



2. Switch **Enable** button to the right to enable the user account.
3. Input the user name with alphabetic or numeric characters; and the passwords have to be numeric (0-9) and at least 5 characters.
4. Click **Ok** to save the settings.
5. After enabled the password, you can further set up the advanced function in the **Policy** field. The Administrator account has full privileges so the functions cannot be configured. In the user **Policy** window, check the boxes to grant functions for the selected user account.



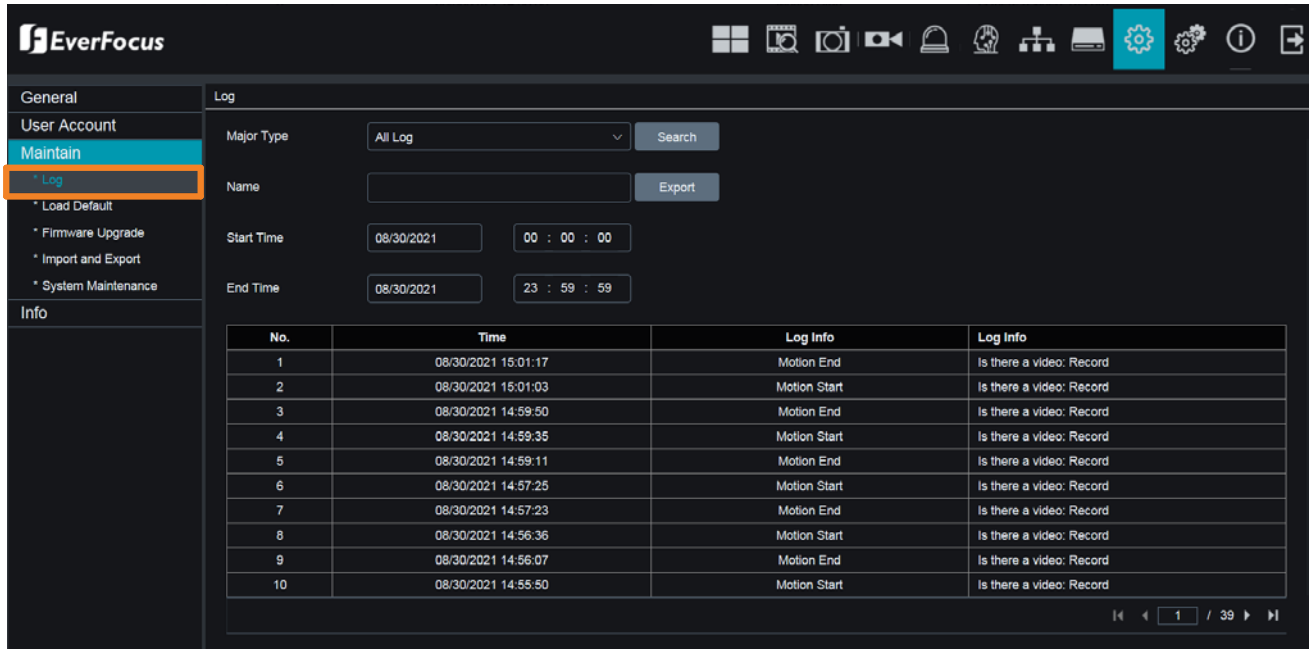
Note: The Administrator account has full privileges so the functions cannot be configured.

3.8.3 Maintain

You can configure the maintain settings here.

3.8.3.1 Log

You can configure the log settings.



Major Type: Select a major time.

Start Time: Select a start time.

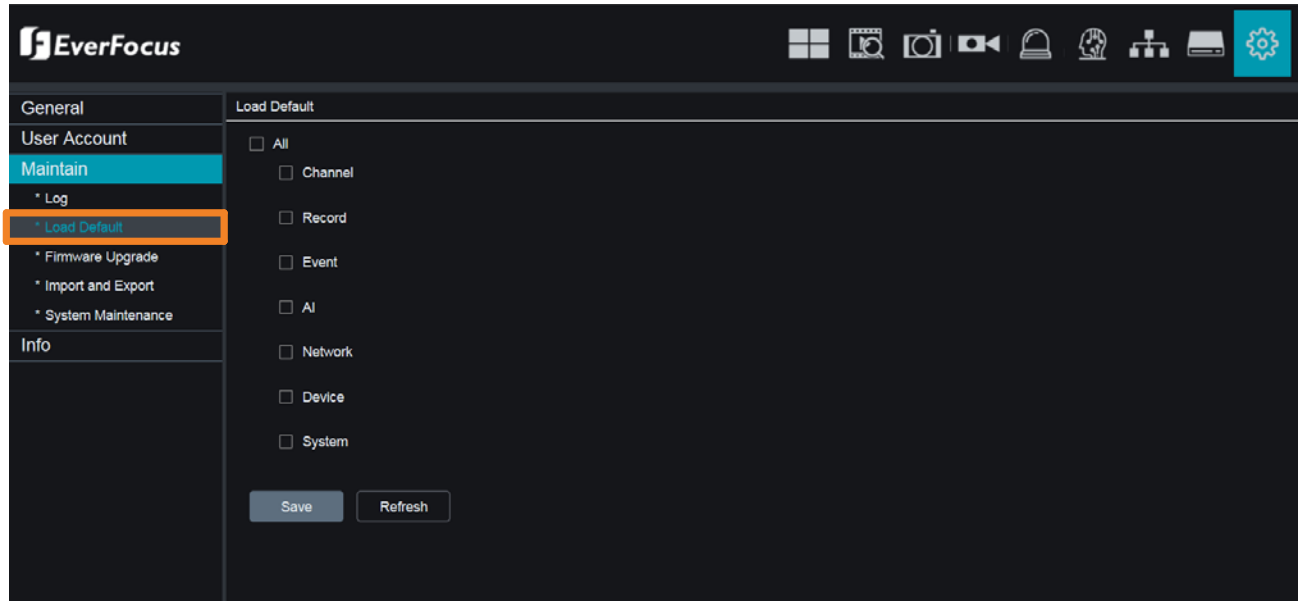
End Time: Select an end time.

Search: Click to generate log report.

Export: Click to export the log report.

3.8.3.2 Load Default

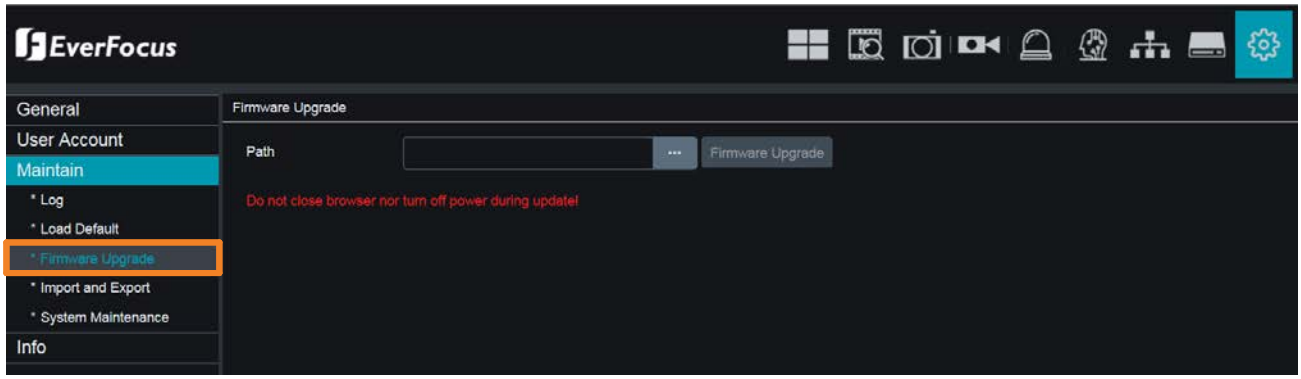
You can load system default settings on this page.



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 on-camera SD card.

3.8.3.3 Firmware Upgrade

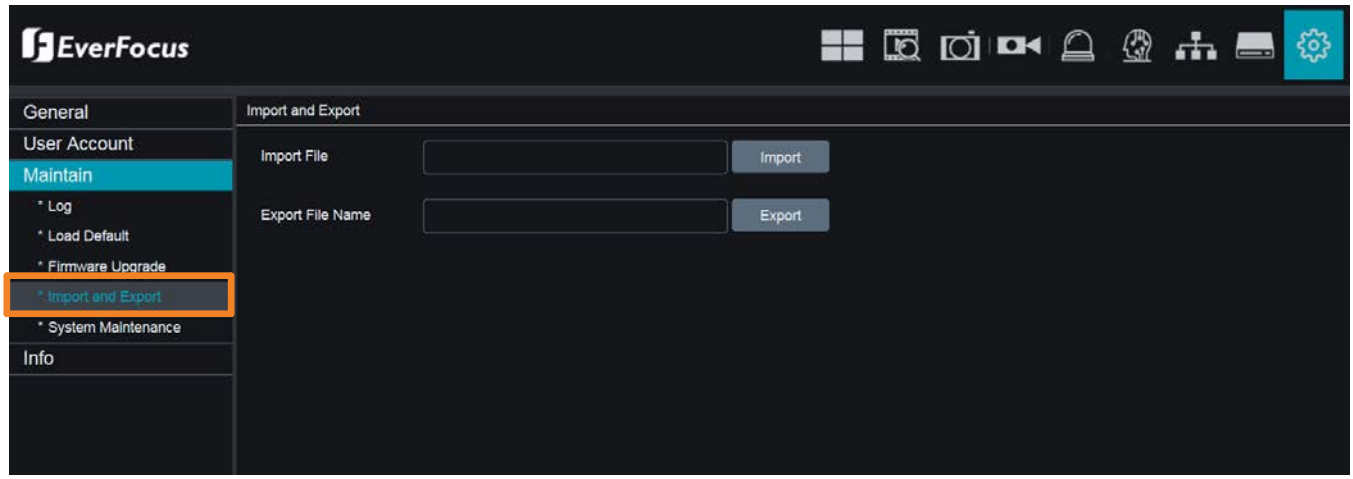
You can upgrade IP camera firmware on this page.



Click the **Browse** button to select the firmware file from the computer and then click **Firmware Upgrade**.

3.8.3.4 Import and Export

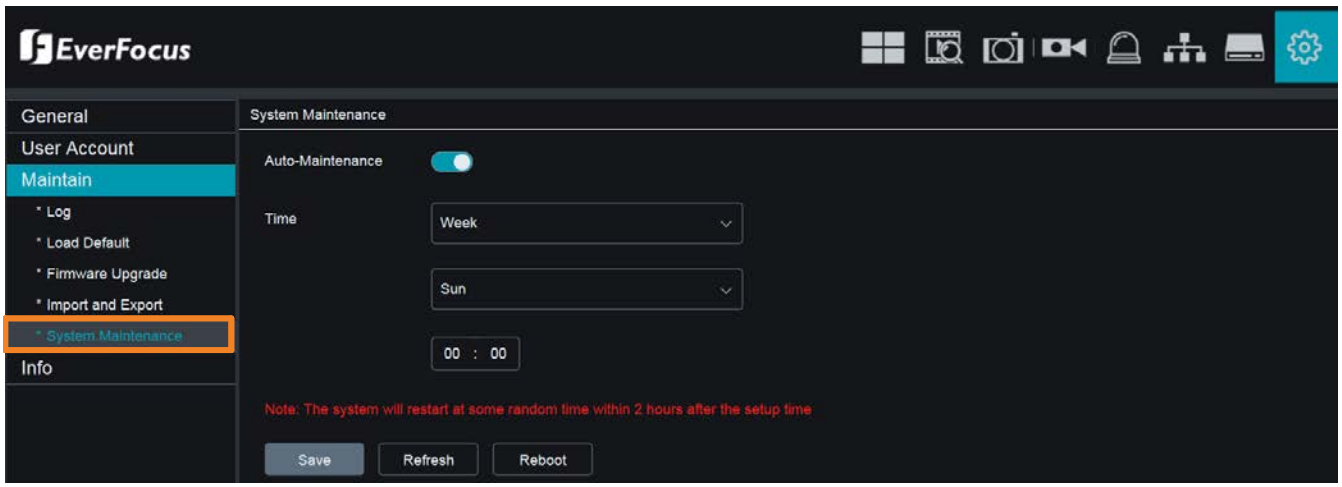
You can import or export system configurations on this page.



Import File: Click the **Browse** button to browse the file and then click the **Import** button.

Export Path: Click the **Browse** button to select a directory of your computer and then click the **Export** button.

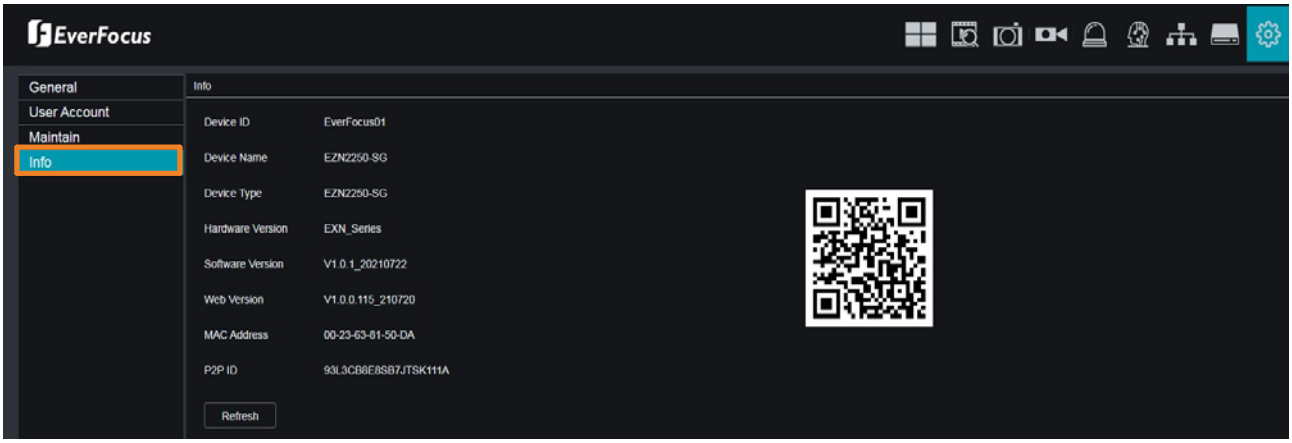
3.8.3.5 System Maintenance



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

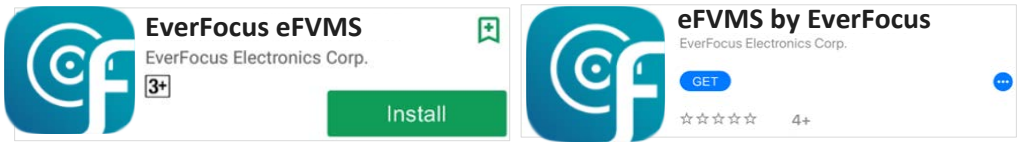
3.8.4 Info

You can view system info on this page.

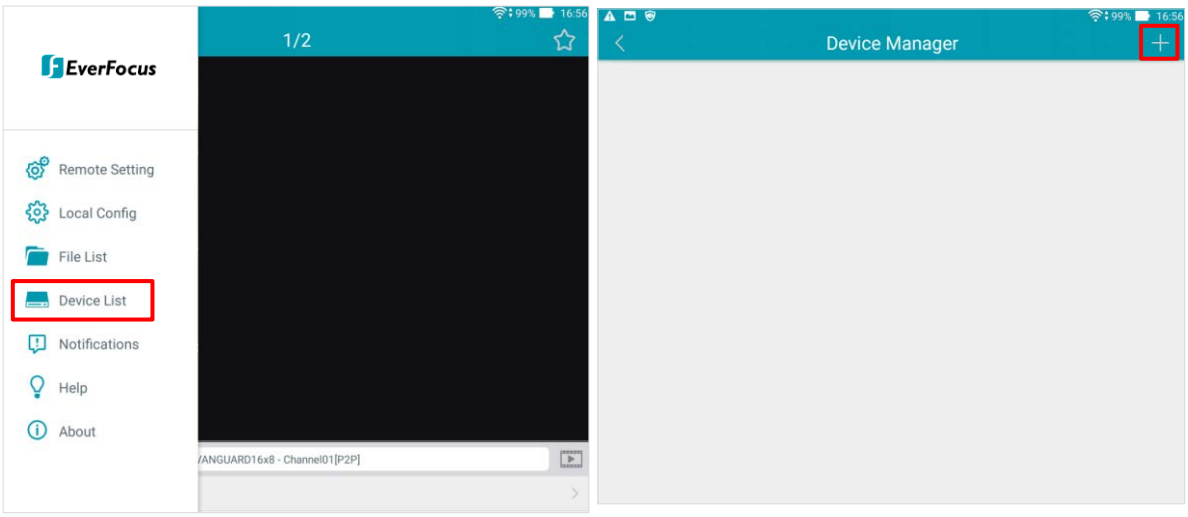


3.8.4.1 Performing the P2P Fuction

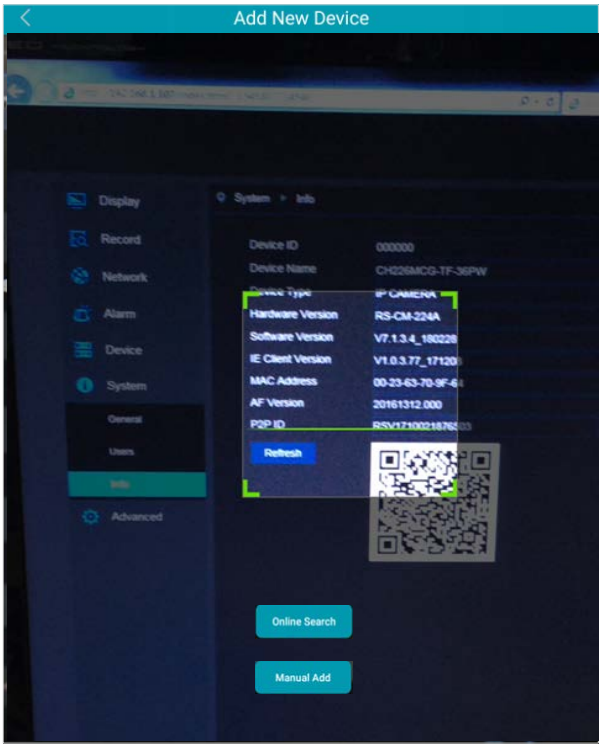
1. Install **EverFocus eFVMS** App. For Android users, go to Google Play Store. For iOS users, go to Apple Store. After the installation process is complete, start **eFVMS** App.

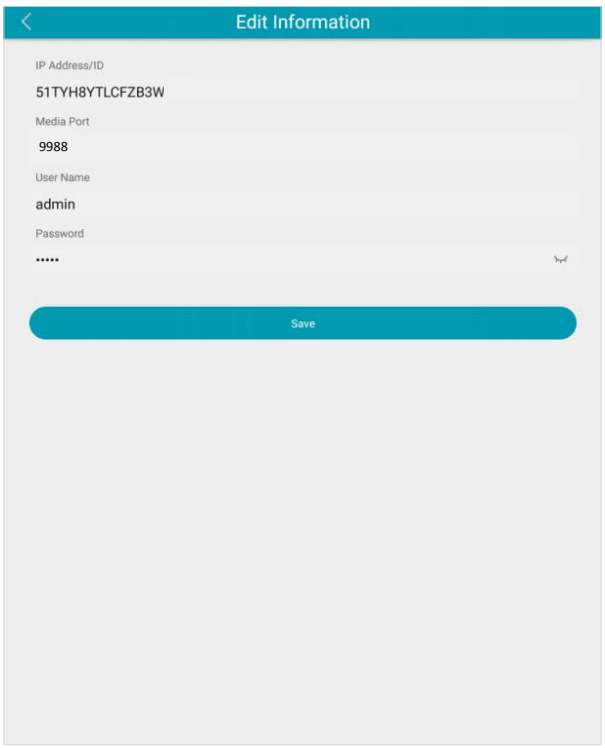


2. To add an IP camera through P2P, tap **Menu** > **Device List**, and then tap the "+" button on the upper-right corner.

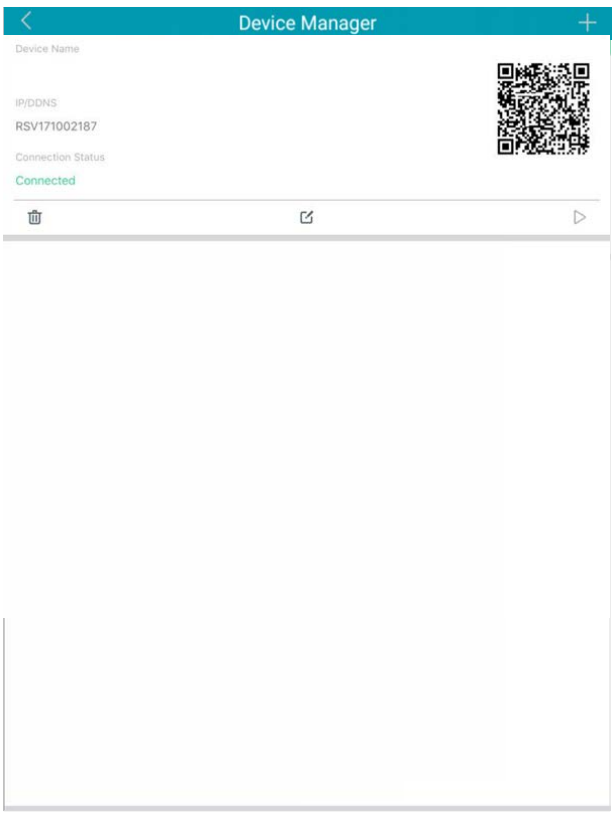


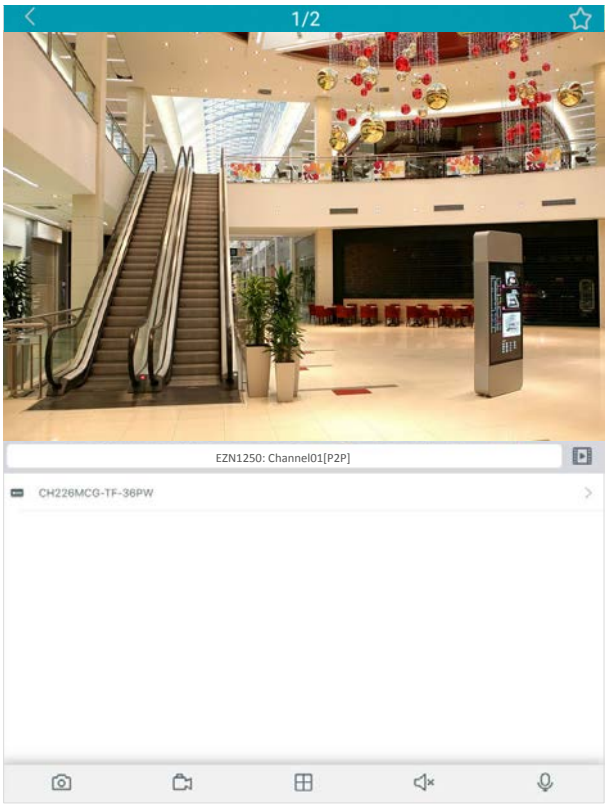
3. Scan the IP camera's **QR code** on the info page of the IP Camera Web interface. Input the IP camera password and Media Port 9988. Tap the **Save** button.





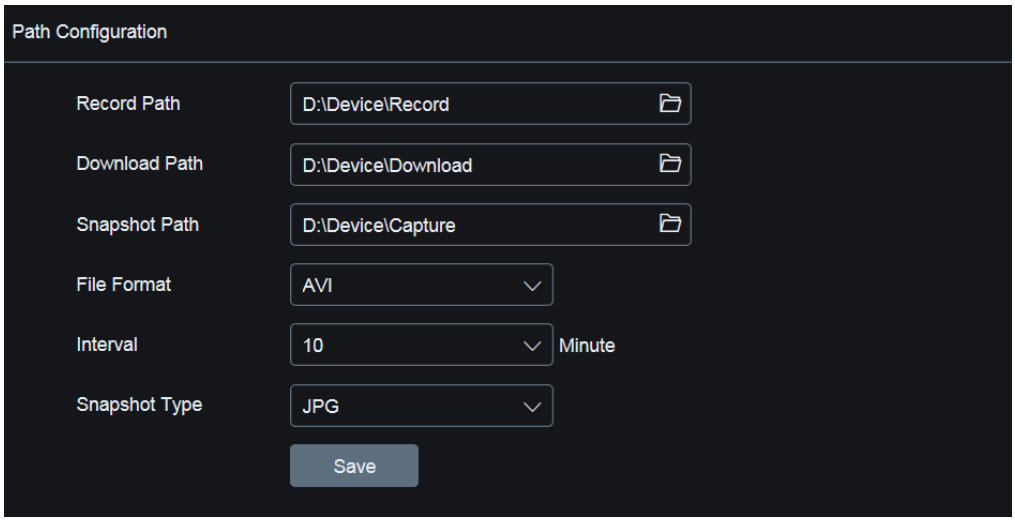
4. The IP camera is now added and connected to the App. You can start accessing the IP camera.





3.8.5 Local Setting

You can configure the local 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 Format: Select a recording file format.

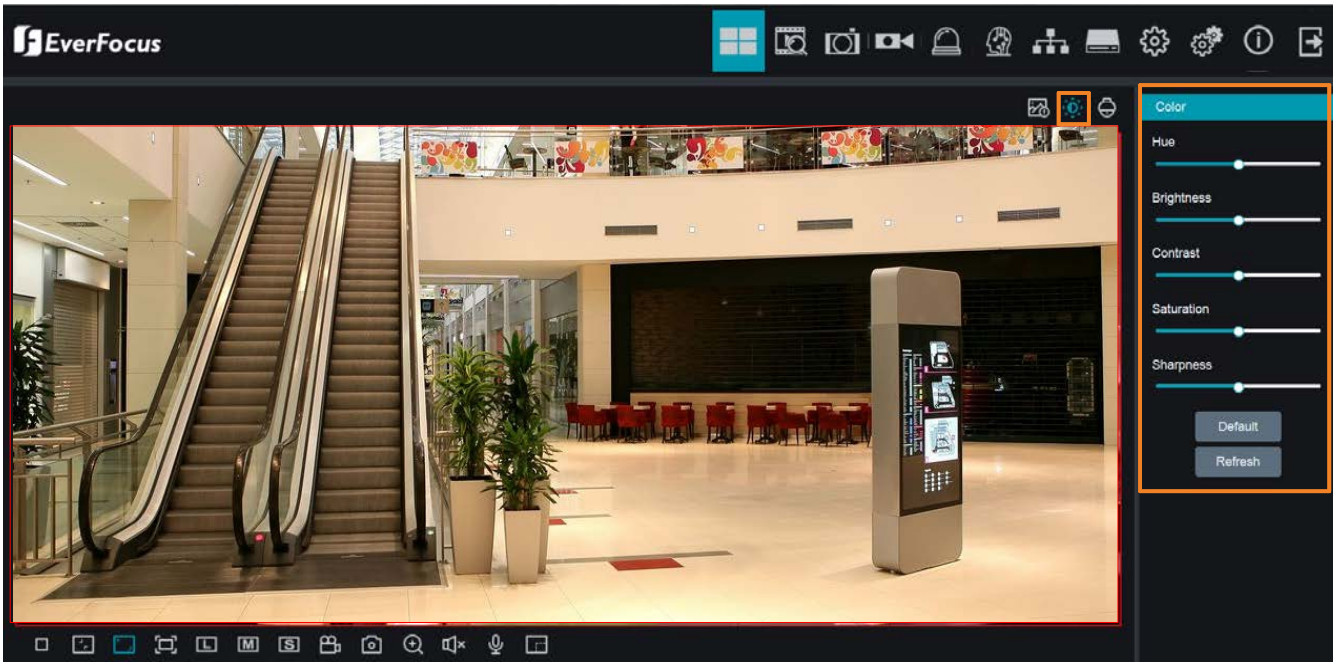
Interval: Set up an interval (recording length) for general recordings.

Snapshot Type: Select a snapshot image format.

Click **Save** to save the settings.

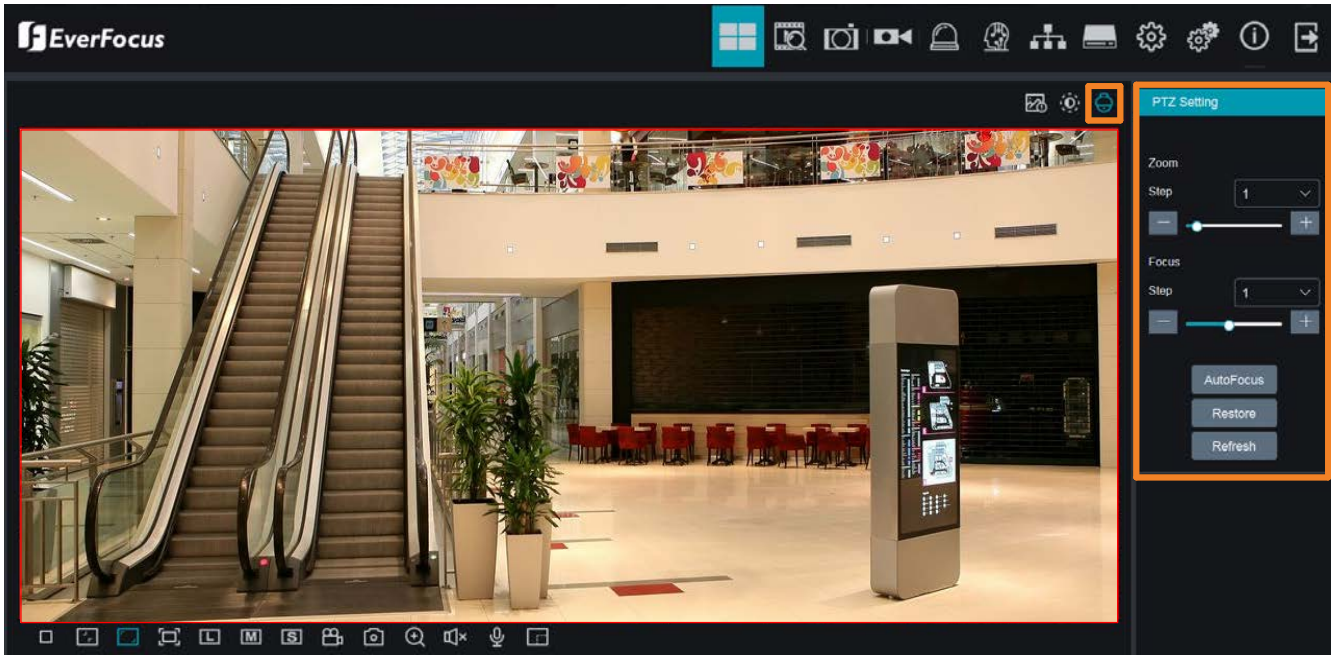
3.9 Color Setting

You can adjust Hue, Brightness, Contrast, Saturation and Sharpness value using the Color Panel. Click the **Default** button to restore all the value to factory default. On the Live View window, click the **Color** button to display the Color Panel. You can click the **Color** button again to hide the Color Panel.



3.10 PTZ Setting

For motorized lens models, you can control the lens operation using the Lens Control panel. On the Live View window, click the **PTZ Setting** button to display the Lens Control Panel. You can click the **PTZ Setting** button again to hide the Lens Control Panel.



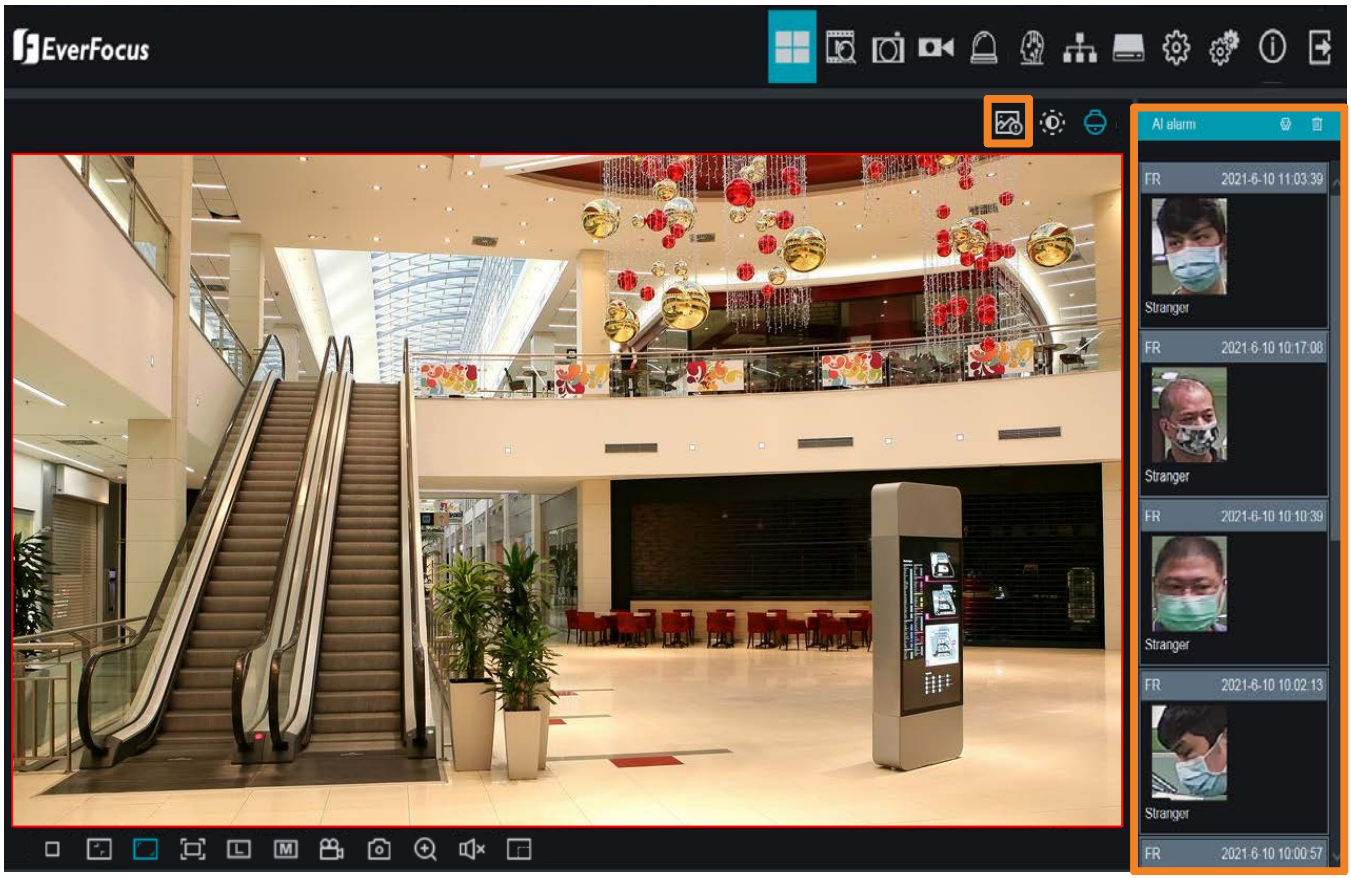
Important note for motorized lens models

For motorized lens models, if you find the live image out of focus, please try the instructions below:

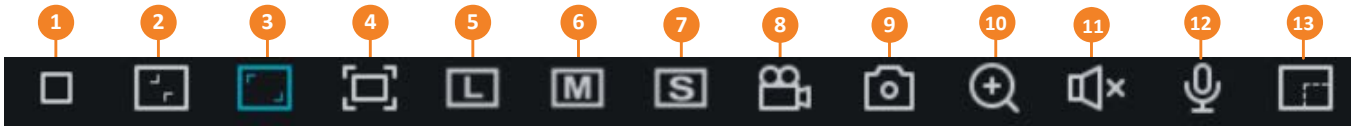
1. On the **PTZ Setting** panel, click the **Restore** button for the lens to restore to the default position, and then click the **Auto Focus** button.
2. If the image is still out of focus, adjust the focus by clicking the Focus "+" or "-" buttons.

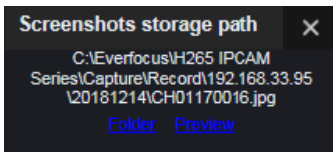
3.11 AI Alarm

The pre-configured AI alarms will be displayed here. Click the icon to select your desired AI functions.



3.12 Live View Function Icons

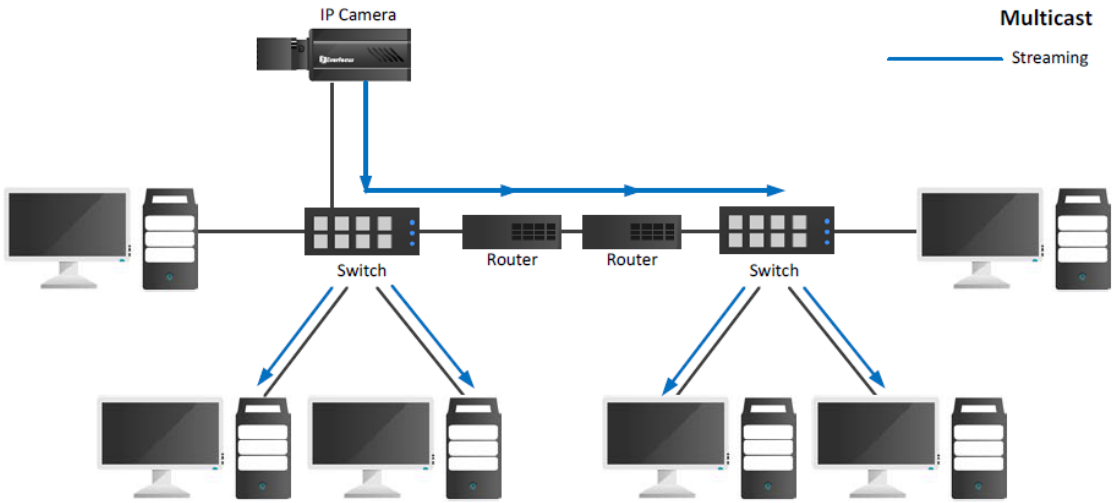


No	Name	Description
1	**Stop / Play**	Click to stop / play the video streaming on the Live View window.
2	**Original Aspect Ratio**	Click to display the live streams with the original aspect ratio.
3	**Stretch**	Click to stretch live streams on the Live View window.
4	**Full Screen**	Click to display the Live View window in full screen mode. To exit full screen mode, double-click the live view or press the **ESC** button on the keyboard.
5	**Main Stream**	Click to switch to Main Stream.
6	**Sub Stream**	Click to switch to Sub Stream.
7	**Mobile Stream**	Click to switch to Mobile Stream.
8	**Video Clips**	Click the **Video Clips** button to start recording the live streams, click the button again to stop recording, 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 storage path or the file format, please refer to *3.8.5 Local Settings*. You can use EverFocus Player or any player supporting the video format to play back the recordings. EverFocus Player is included in the Software CD. 
9	**Snapshot**	Click to take a snapshot, 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 storage path or image format, please refer to *3.8.5 Local Settings*. (The picture is the same as above.)
10	**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: a. Click the **Digital Zoom** button. b. Use your mouse to draw an area where you want to have a close-up view. The area will be zoom-in. c. Right-click to exit the Digital Zoom mode.
11	**Audio**	Click to switch on/off the speaker. You can also adjust the volume.
12	**Voice Intercom**	Click to switch on/off the voice intercom.
13	**Pixel Counter**	Click and drag the mouse cursor to see the pixel information of the selected area. This function is designed to support the AI functions in certain models.

Appendix A

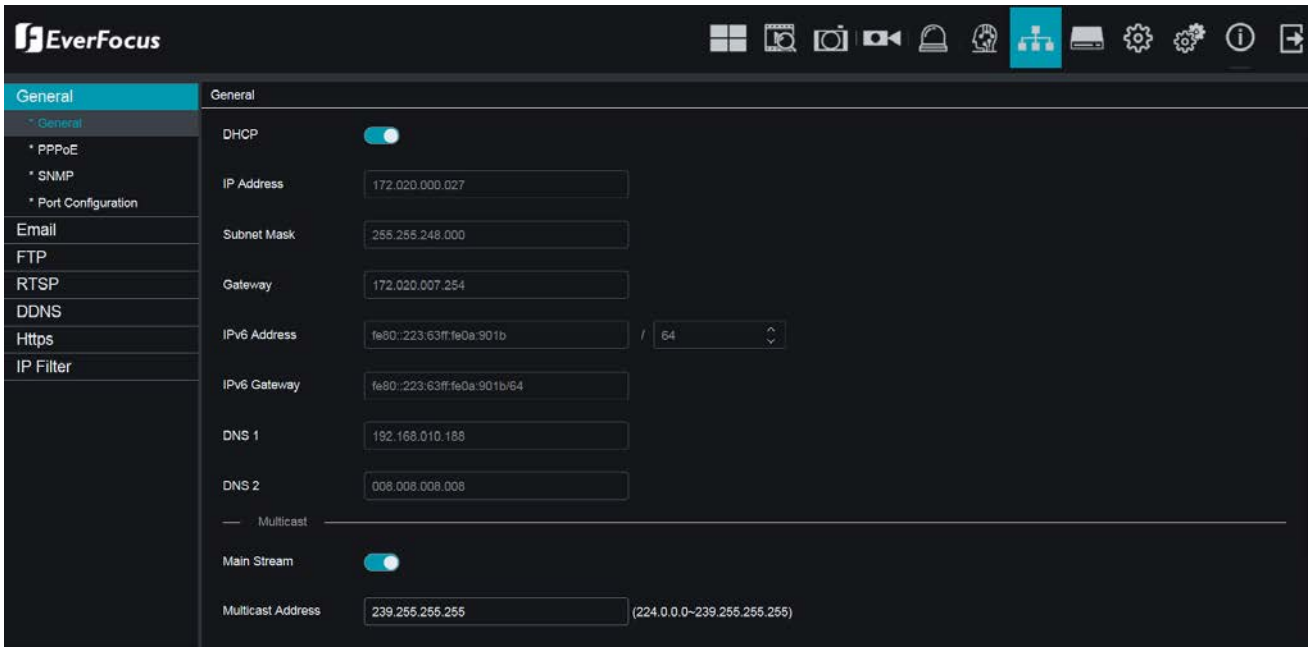
Enabling the Multicast Function

The Multicast Function is a technique for one-to-many communication over an IP infrastructure in a network that is designed to share IP camera loading and reduce network bandwidth. Note that for this function to work, the router / switch must support multicast function.

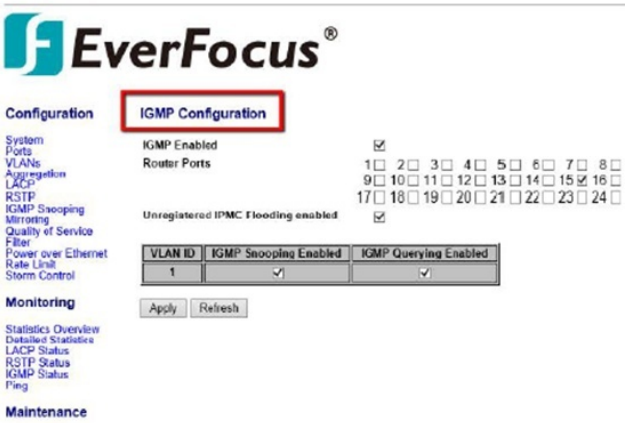


To enable the Multicast Function:

1. Complete the installation of the IP cameras, routers/ switches and computers (refer to diagram above).
2. Install VLC and Wireshark in your computer. Click VLC and Wireshark to download.
3. Access to the Web UI of the IP camera to enable the Multicast function. Click the Save button to save the setting.



4. Go to the setting page of the router/switch to enable the Multicast function. Here we use a D-Link DIR655 router and EverFocus 24-port switch for example.



5. The Multicast function setup is now complete.

EverFocus Electronics Corp.

EverFocus Taiwan:
2F., No.12, Ln. 270, Sec. 3, Beishen Rd., Shenkeng Dist., New Taipei City 222, Taiwan
TEL: +886 2 2662 2338
FAX: +886 2 2662 3632
www.everfocus.com.tw
marketing@everfocus.com.tw

EverFocus China - Shenzhen:
2F, Building A, Area A, Longquan Science and Technology Park, Tongfuyu Phase II, Henglang Community, Dalang Street, Longhua, Shenzhen 518109, Guangdong, China
TEL: +86 755 2765 1313
FAX: +86 755 2765 0337
www.everfocus.com.tw
marketing@everfocus.com.tw

EverFocus USA - California:
324 W Blueridge Avenue, Orange, CA 92865, USA
TEL: +1 626 844 8888
FAX: +1 714 792 0481
www.everfocus.com
sales@everfocus.com

EverFocus Japan - Tokyo:
4F, Maruei Building, 2-19-9 Iwamotocho, Chiyoda-ku, Tokyo, Japan
TEL: +81 3 5821-8579
FAX: +81 3 5820-1018
www.everfocus.co.jp
sales@everfocus.co.jp

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!

Ihr EverFocus Produkt wurde entwickelt und hergestellt mit qualitativ hochwertigen Materialien und Komponenten, die recycelt und wieder verwendet werden können.
Dieses Symbol bedeutet, dass elektrische und elektronische Geräte am Ende ihrer Nutzungsdauer vom Hausmüll getrennt entsorgt werden sollen.
Bitte entsorgen Sie dieses Gerät bei Ihrer örtlichen kommunalen Sammelstelle oder im Recycling Centre.
Helfen Sie uns bitte, die Umwelt zu erhalten, in der wir leben!

EverFocus