



Firmware User's Manual

Firmware V.5.5.84

Z32, Z76

2021/05/03



ACTi
Connecting Vision

Copyright

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Trademark Acknowledgement

The manufacturer's trademarks and logos are the property of the manufacturer. Other trademarks, company names and product names contained in this manual are the property of their respective owners.

Disclaimer



CAUTION: The default password is used for your first login. To ensure account security, please change the password after your first login. You are recommended to set a strong password.

- To the maximum extent permitted by applicable law, the product described, with its hardware, software, firmware and documents, is provided on an “as is” basis.
- Best effort has been made to verify the integrity and correctness of the contents in this manual, but no statement, information, or recommendation in this manual shall constitute formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical errors in this manual. The contents of this manual are subject to change without prior notice. Update will be added to the new version of this manual.
- Use of this manual and the subsequent result shall be entirely on the user's own responsibility. In no event shall we be liable to you for any special, consequential, incidental, or indirect damages, including, among others, damages for loss of business profits, business interruption, or loss of data or documentation in connection with the use of this product.
- Video and audio surveillance can be regulated by laws that vary from country to country. Check the law in your local region before using this product for surveillance purposes. We shall not be held responsible for any consequences resulting from illegal operations of the device.
- The illustrations in this manual are for reference only and may vary depending on the version or model. The screenshots in this manual may have been customized to meet specific requirements and user preferences. As a result, some of the examples and functions featured may differ from those displayed on your monitor.
- This manual is a guide for multiple product models and so it is not intended for any

specific product.

- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.

Environmental Protection

This product has been designed to comply with the requirements on environmental protection. For the proper storage, use and disposal of this product, national laws and regulations must be observed.

Symbols

The symbols in the following table may be found in this manual. Carefully follow the instructions indicated by the symbols to avoid hazardous situations and use the product properly.

Symbol	Description
WARNING	Indicates a hazardous situation which, if not avoided, could result in bodily injury or death.
CAUTION	Indicates a situation which, if not avoided, could result in damage, data loss or malfunction to product.
NOTE	Indicates useful or supplemental information about the use of product.

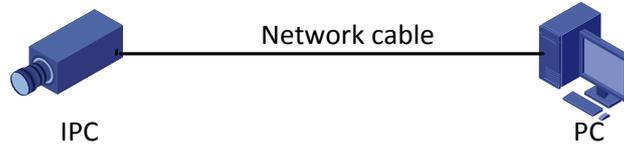
Table of Contents

- Copyright..... 2
- Trademark Acknowledgement..... 2
- Disclaimer 2
- Environmental Protection 3
- Network Connection 1**
- Preparation..... 2**
- Connect the Equipment..... 2
- Configure the IP Addresses 2
 - Using DHCP Server to Assign IP Addresses 2
 - Use the Default IP Address of a Camera 3
 - Manually Adjust the IP Address of the PC..... 3
 - Manually Adjust the IP Addresses of Multiple Cameras 4
- Login 5**
- Introduction to the Web Interface 6**
- Starting Live View..... 7
- Initial Configuration 8
- Configuring Parameters 9**
- Local Parameters..... 9
- Network..... 11
 - Basic Settings..... 11
 - Port 12
 - FTP..... 12
 - E-Mail 13
 - HTTPS..... 14
 - QoS..... 14
 - Integration Protocol 15
- Video and Audio Configuration 16**
- Video Configuration 16
- Audio Configuration 18
- ROI 19
- Image Configuration 20**
- Display Settings 20
- OSD Settings 26
- Privacy Mask..... 27
- Event Configuration 29**
- Configuring Motion Detection Alarm 29

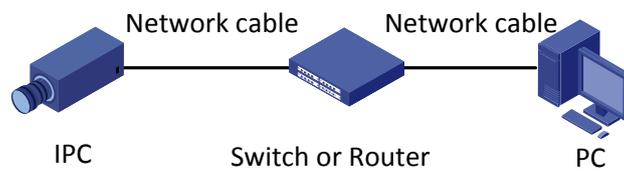
Configuring Video Tampering Alarm	33
Configuring Exception Alarms	35
System	36
System Settings	36
Maintenance	37
Security	38
User Management	40

Network Connection

Before accessing a network camera from a PC, you need to connect the network camera to the PC directly with a network cable or via a switch or router.



Use a Shielded Twisted Pair (STP) cable to connect the network interfaces of the network camera and the PC.



Use Shielded Twisted Pair (STP) cables to connect the network interfaces of the camera and the switch or router.

Preparation

Connect the Equipment

To be able to connect to the camera firmware from your PC, both the camera and the PC have to be connected to each other via Ethernet cable. At the same time, the camera has to have its own power supply. In case of PoE cameras, you can use a PoE Injector or a PoE Switch between the camera and the PC. The cameras that have the DC power connectors may be powered on by using a power adaptor.

The Ethernet port LED or Power LED of the camera will indicate that the power supply for the camera works normally.

Configure the IP Addresses

In order to be able to communicate with the camera from your PC, both the camera and the PC have to be within the same network segment. In most cases, it means that they both should have very similar IP addresses, where only the last number of the IP address is different from each other. There are 2 different approaches to IP Address management in Local Area Networks – by DHCP Server or Manually.

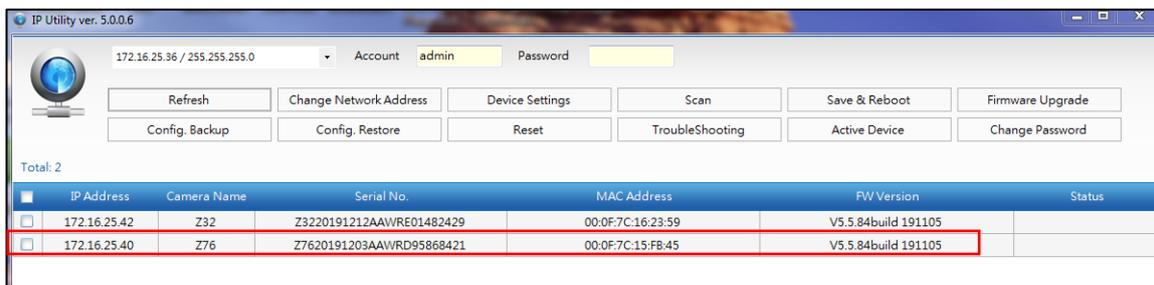
Using DHCP Server to Assign IP Addresses

If you have connected the computer and the camera into the network that has a DHCP server running, then you do not need to configure the IP addresses at all – both the camera and the PC would request a unique IP address from DHCP server automatically. In such case, the camera will immediately be ready for the access from the PC.

If you work with our cameras regularly, then **there is even a better way to discover the cameras in the network** – by using **IP Utility**. The IP Utility is a light software tool that can not only discover the cameras, but also list lots of valuable information, such as IP and MAC addresses, serial numbers, firmware versions, etc, and allows quick configuration of multiple devices at the same time. Firmware upgrade can also be done through the IP Utility (see IP utility documentation for more details).

Search and download IP Utility for free from <http://www.acti.com/DownloadCenter>.

With just one click, you can launch the IP Utility and there will be an instant report as follows:



You can quickly notice the camera model in the list. Double-click the IP address to automatically launch the default browser of the PC with the IP address of the target camera filled in the address bar of the browser already.

Use the Default IP Address of a Camera

If there is no DHCP server in the given network, the user may have to assign the IP addresses to both PC and camera manually to make sure they are in the same network segment.

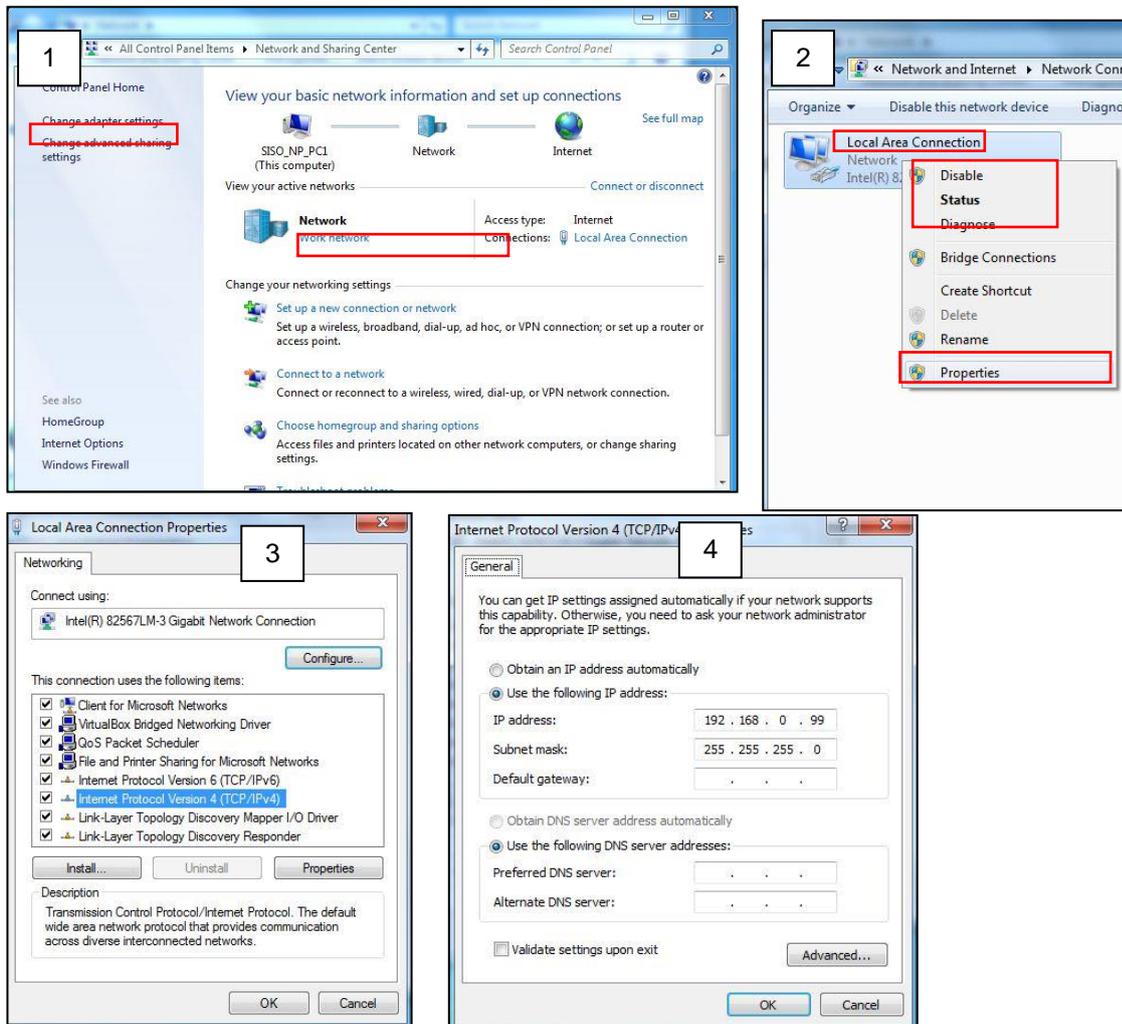
When the camera is plugged into network and it does not detect any DHCP services, it will automatically assign itself a default IP:

192.168.0.100

Whereas the default port number would be **80**. In order to access that camera, the IP address of the PC has to be configured to match the network segment of the camera.

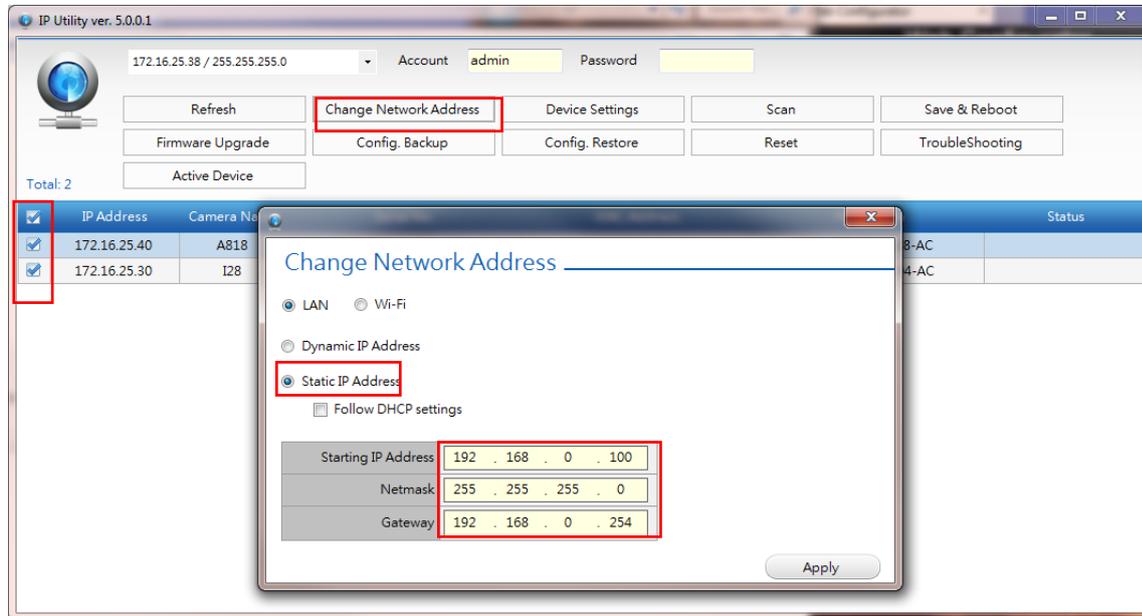
Manually Adjust the IP Address of the PC

In the following example, based on Windows 7, we will configure the IP address to **192.168.0.99** and set Subnet Mask to **255.255.255.0** by using the steps below:



Manually Adjust the IP Addresses of Multiple Cameras

If there are more than 1 camera to be used in the same local area network and there is no DHCP server to assign unique IP addresses to each of them, all of the cameras would then have the initial IP address of **192.168.0.100**, which is not a proper situation for network devices – all the IP addresses have to be different from each other. The easiest way to assign cameras the IP addresses is by using **IP Utility**:



With the procedure shown above, all the cameras will have unique IP addresses, starting from 192.168.0.101. In case there are 20 cameras selected, the last one of the cameras would have the IP 192.168.0.120.

Later, by pressing the “Refresh” button of the IP Utility, you will be able to see the list of cameras with their new IP addresses.



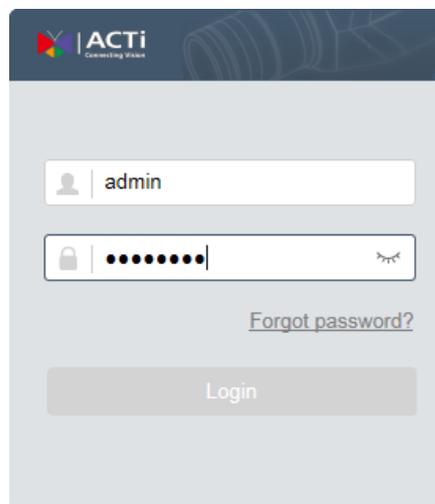
Please note that it is also possible to change the IP addresses manually by using the Web browser. In such case, please plug in only one camera at a time, and change its IP address by using the Web browser before plugging in the next one. This way, the Web browser will not be confused about two devices having the same IP address at the same time.

Login

DHCP is turned on by default. If a DHCP server is used in the network, the IP address of your camera may be assigned dynamically, and you need to use the correct IP address to log in. Use the video management software to view the dynamic IP address of your camera.

The following takes IE as an example to describe the login procedure.

1. Browse to the login page by entering the correct IP address of your camera in the address bar or use the IP Utility software to find the camera model.
2. If you log in for the first time, the system might prompt you to install ActiveX. Follow the on-screen instructions to do so. You need to close your browser to complete the installation.
3. Enter the default User Name and Password, and then click **Login**.



The screenshot shows the ACTi login interface. At the top left is the ACTi logo with the tagline 'Connecting Vision'. Below the logo is a user input field containing the text 'admin'. Underneath that is a password input field with a lock icon on the left and a visibility icon on the right. Below the password field is a link that says 'Forgot password?'. At the bottom of the form is a large 'Login' button.

Defaults
User Name: admin
Password: Aa123456!

NOTE:

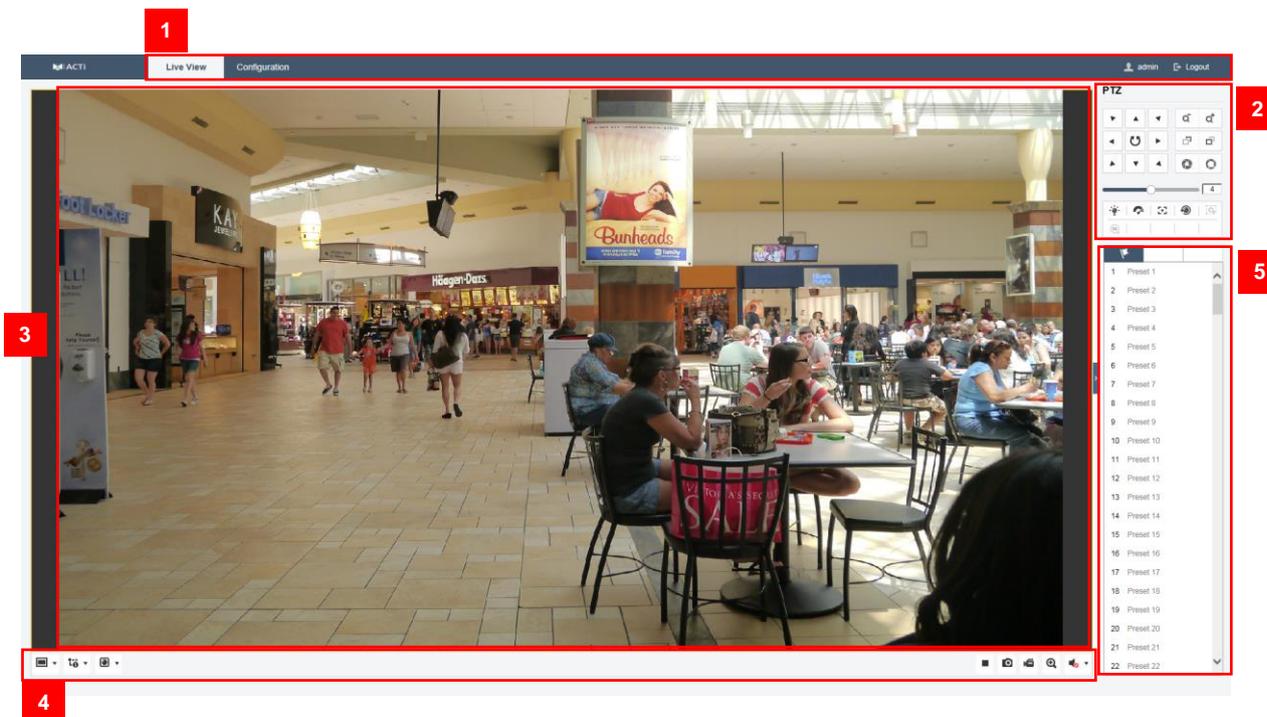
- You are recommended to modify the default password. Set a strong password (no less than eight characters, with combination of big and small letters and numbers in the System menu).
- The camera protects itself from illegal access by limiting the number of failed login attempts. If login fails six times consecutively, the camera locks automatically for ten minutes.

Introduction to the Web Interface

By default the live view window is displayed when you are logged in to the Web interface. This page allows you to view the real-time video, capture images.

Live view means playing live video (real-time audio and video) received from a camera in a window through the Web interface. You may double-click the window to enter or exit full screen mode.

Below is an example.



No.	Description	
1	Menu	Click each tab to enter the respective pages.
2	PTZ control area	Perform panning, tilting and zooming actions of the camera. NOTE: This area is functional only for cameras supporting PTZ.
3	Live view window	Displays the live video.
4	Toolbar	Allows you to adjust the live view window size, the stream type, and the plug-ins. It also allows you to process the operations on the live view page, e.g., start/stop live view, capture, record, audio on/off, two-way audio, start/stop digital zoom, etc.
5	Preset / Patrol Settings	Set/call/delete the presets or patrols for PTZ cameras. NOTE: This area is functional only for PTZ cameras.

NOTE:

- The displayed live view interface, parameters displayed and value ranges may vary with models. Please see the actual Web interface for details.
- The parameters that are grayed out cannot be modified. For the actual settings, see the Web interface.
- It is recommended that you change the password when you are logged in the first time.

Starting Live View

Live View Toolbar

In the live view window, click  on the toolbar to start the live view of the camera.

Icon	Description
	Start/Stop live view.
	4:3 window size.
	16:9 window size.
	Original window size.
	Self-adaptive window size.
	Original ratio window size.
 , etc.	Live view with the different video streams. Supported video streams vary according to camera models. For the camera models that support 10 streams, go to Video/Audio > Custom to add the streams.
	Click to select the third-party plug-in.
	Manually capture the picture.
	Manually start/stop recording.
	Audio on and adjust volume /Mute.
	Turn on/off microphone.
	Start/stop digital zoom function. After clicking the icon, click an area on the Live View to zoom it.
	Start/stop pixel counter
	Click the button to display pictures captured by camera. Note: The function is only available for certain camera models that support face capture.

Note: The icons vary according to the different camera models.

Initial Configuration

After you log in to the device, please perform the following initial configuration.

1	Ethernet.	Reconfigure the device IP and network parameters based on the actual networking.
2	Log out and log in again to the Web using the new IP address.	-
3	Set the system time.	Set the system time based on the actual situation.
4	(Optional) Set the management server.	Set the management server based on the actual networking.
5	(Optional) Set the server for storing photos.	Set the server for storing photos based on the actual networking.
6	Set OSD.	Set the information displayed on the screen as needed, for example, time.
7	(Optional) Manage users.	Change the default password and add common users as needed.

You can watch the live video after finishing the initial configuration. Please configure other parameters as needed.

Configuring Parameters

Local Parameters

Set local parameters for your PC.

NOTE: The local parameters may vary with models, please see the actual Web interface for details.

1. Select **Configuration > Local Parameters**.

Live View Parameters

Protocol TCP UDP MULTICAST HTTP

Play Performance Shortest Delay Balanced Fluent Custom

Rules Enable Disable

Display POS Information Enable Disable

Image Format JPEG BMP

Record File Settings

Record File Size 256M 512M 1G

Save record files to

Save downloaded files to

Picture and Clip Settings

Save snapshots in live vi...

Save snapshots when pla...

Save clips to

2. Modify the settings as required. The following table describes some major parameters.

Parameter		Description
Live View Parameters	Protocol	Set the protocol used to transmit media streams to be decoded by the PC.
	Play Performance	<ul style="list-style-type: none"> • Fluent: Recommended if the network is in good condition. • Balanced: Recommended if you want short time lag for live video. • Shortest Delay: Recommended if you want the minimum time lag for live video. • Custom: Set a specific number of frames per second for live video

Parameter		Description
	Rules	Enable or disable rules to show on Live View
	Display POS Information	Enable or disable to show POS information
	Image Format	Select the image format to use when saving a screenshot
Record File Settings	Record File Size	Select the file size of videos when recording
	Save record files to	Set the path to where the recorded videos will be saved
	Save downloaded files to	Set the path to where the downloaded videos will be saved
Picture and Clip Settings		Set the path to where the snapshots or video clips will be saved.

3. Click **Save**.

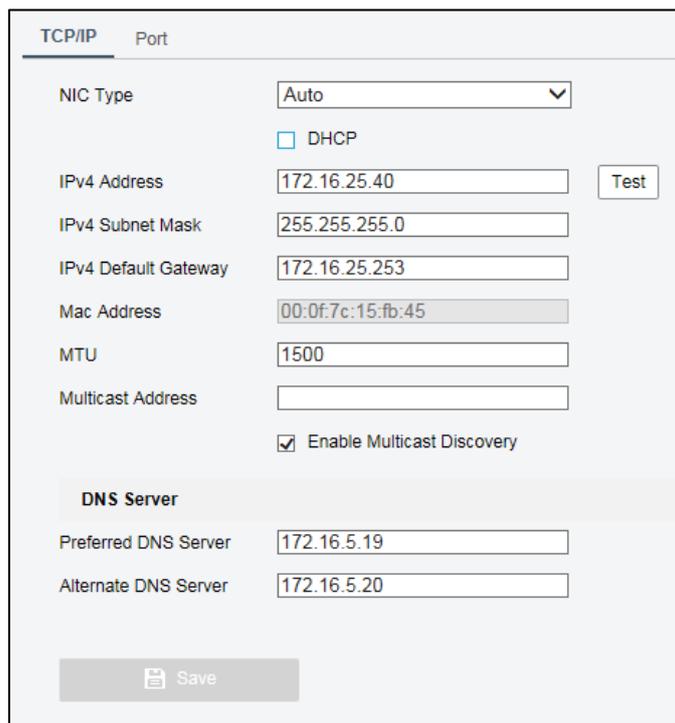
Network

Basic Settings

Modify communication settings such as the IP address for the camera so that the camera can communicate with other devices.

NOTE:

- After you have changed the IP address, you need to use the new IP address to log in.
- The configurations of DNS (Domain Name System) server are applicable when the device is accessed by domain name.



Static Address

1. Click **Configuration > Network > Basic Settings > TCP/IP**.
2. Select **Static** from the **Obtain IP Address** drop-down list.
3. Enter the IP address, subnet mask, and default gateway address. Make sure that the IP address of the camera is unique in the network.
4. Click **Save**.

DHCP

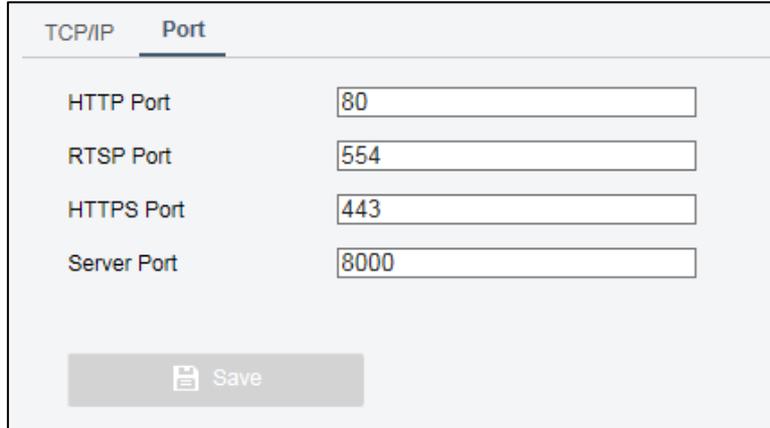
The Dynamic Host Configuration Protocol (DHCP) is enabled by default when the camera is delivered. If a DHCP server is deployed in the network, the camera can automatically obtain an IP address from the DHCP server. To manually configure DHCP, follow the steps below:

1. Click **Configuration > Network > Basic Settings > TCP/IP**.
2. Check the **DHCP** box.
3. Click **Save**.

Port

NOTE: This function is not supported by some models, please see the actual model for details.

1. Click **Configuration > Network > Basic Settings > Port**.



TCP/IP	Port
HTTP Port	80
RTSP Port	554
HTTPS Port	443
Server Port	8000

Save

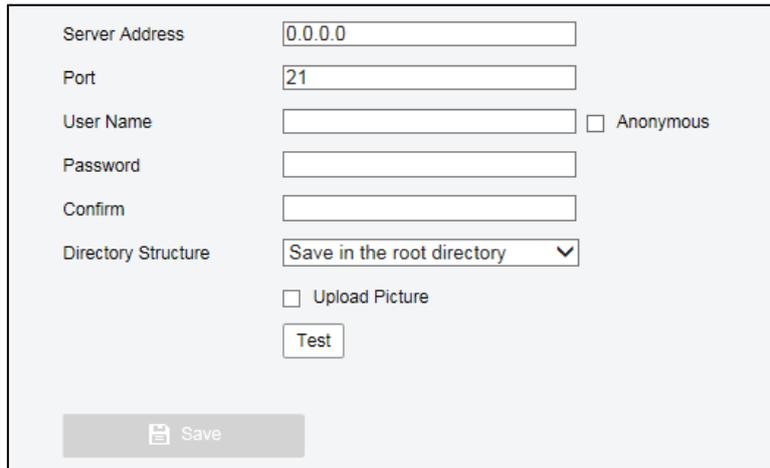
2. Configure relevant port numbers.
3. Click **Save**.

NOTE: If the entered HTTP port number has been occupied, a prompt message will be displayed as **Port conflicts. Please try again.** 23, 81, 82, 85, 3260 and 49152 are occupied by default. And other occupied ports will be detected automatically.

FTP

After the configuration of FTP, you will be able to upload snapshots from network cameras to the specified FTP server.

1. Click **Configuration > Network > Advanced Settings > FTP**.



Server Address	0.0.0.0
Port	21
User Name	<input type="text"/>
Password	<input type="password"/>
Confirm	<input type="password"/>
Directory Structure	Save in the root directory
	<input type="checkbox"/> Anonymous
	<input type="checkbox"/> Upload Picture
	Test

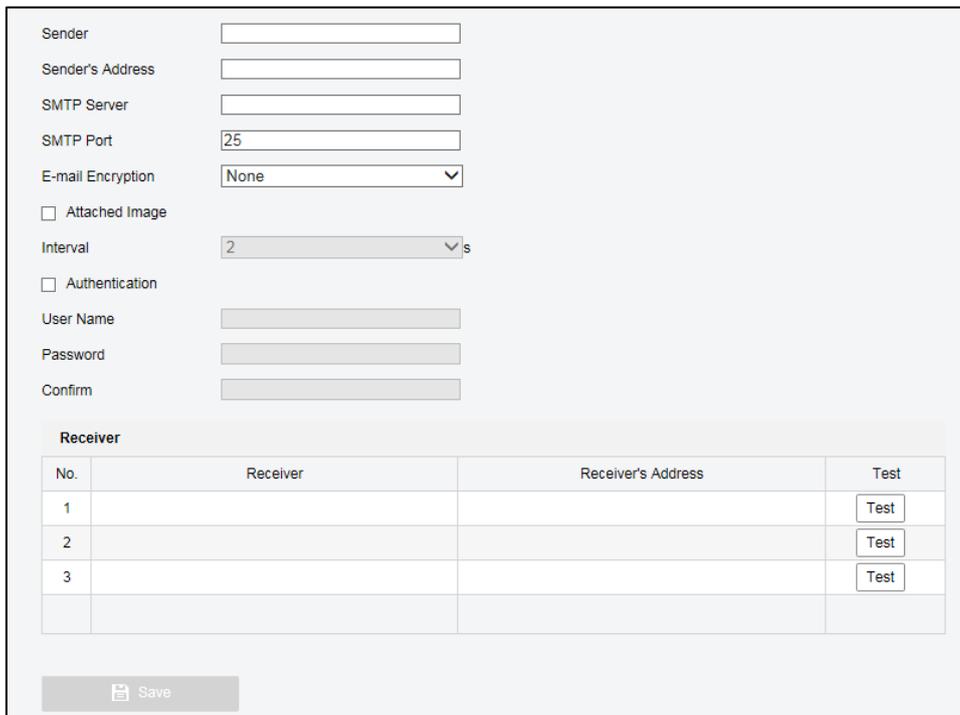
Save

2. Configure the IP address, port number of the FTP server, the user name and password of the upload account, enable **Upload Pictures** and configure the path for storage in **Directory Structure**.
3. Click **Save**.

E-Mail

After the configuration of E-mail, when alarms are triggered, you will be able to send messages to the specified E-mail address.

1. Click **Configuration > Network > Advanced Settings > E-mail**.



The screenshot shows the E-mail configuration page. It includes input fields for Sender, Sender's Address, SMTP Server, SMTP Port (set to 25), and E-mail Encryption (set to None). There are checkboxes for Attached Image and Authentication. Below these are fields for User Name, Password, and Confirm. A table titled 'Receiver' has three columns: No., Receiver, Receiver's Address, and Test. The table contains three rows, each with a 'Test' button. A 'Save' button is at the bottom.

Receiver			
No.	Receiver	Receiver's Address	Test
1			Test
2			Test
3			Test

2. Configure relevant parameters of the sender and the recipient. A maximum of 3 recipients can be configured.
3. Check to enable **Attach Image**. When enabled, the e-mail will contain 3 instant snapshots as attachment according to the **Interval** you set.
4. Click **Save**.

HTTPS

HTTPS protocol allows creating a secure channel over an insecure network in order to protect the data sent between the camera and its counterpart.

1. Click **Configuration > Network > Advanced Settings > HTTPS**.

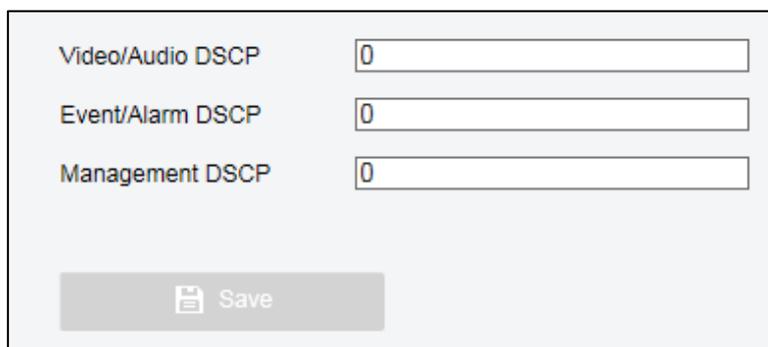


2. Check the **Enable** box to enabled HTTPS.
3. Click **Save**.

QoS

QoS (Quality of Service) is the ability to provide better service for specified network communication. As a network security mechanism, QoS is used to address problems like network delay and blocking. When the network is overloaded or congested, QoS ensures that critical services are not delayed or discarded and that the network runs efficiently.

1. Click **Configuration > Network > Advanced Settings > QoS**.



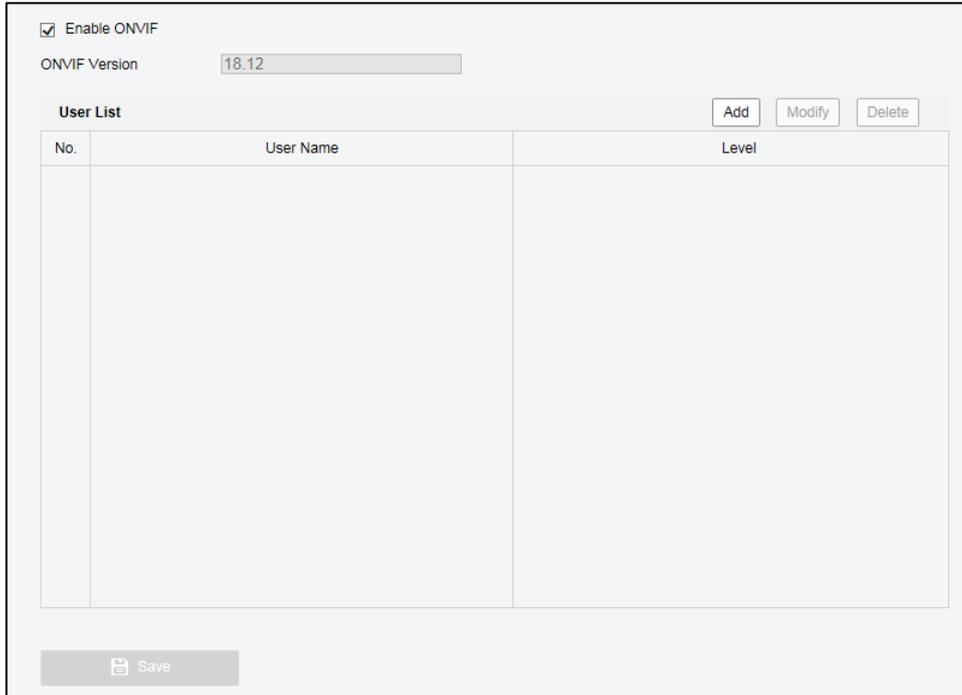
2. Set a priority level (0~63) for each service. At present, QoS allows you to assign different priority to audio and video, alarm report, and configuration management. The greater the value, the higher the priority. For example, if the value of audio and video is set to 60, alarm report and configuration management is set to 0, and FTP is set to 4, when network congestion occurs, the priority is to ensure the smooth running of audio and video.
3. Click **Save**.

NOTE: To use QoS, make sure that the switch supports QoS mode.

Integration Protocol

Integration Protocol is the ability to integrate the camera to other devices such as network video recorders using the ONVIF protocol.

1. Click **Configuration > Network > Advanced Settings > Integration Protocol**.
2. Check the **Enable ONVIF** box to enable this function.



The screenshot shows the ONVIF configuration interface. At the top, there is a checkbox labeled "Enable ONVIF" which is checked. Below it is a text input field for "ONVIF Version" containing the value "18.12". Underneath is a section titled "User List" with three buttons: "Add", "Modify", and "Delete". Below the buttons is a table with three columns: "No.", "User Name", and "Level". The table is currently empty. At the bottom of the interface is a "Save" button.

No.	User Name	Level
-----	-----------	-------

3. Click **Save**.

Video and Audio Configuration

Video Configuration

You can set video parameters that your camera supports. If available, you may also enable sub-stream and third stream as required.

NOTE:

- This function may vary with models. Only some camera models support the third stream. To determine if your camera supports this function, see the Web interface.
- After enabling the sub or third stream, modify the parameters as required. The parameters for the sub and third stream have the same meanings as that for the main stream.

1. Click **Configuration > Video/Audio > Video**.

Video	Audio	ROI
Stream Type	Main Stream(Normal) ▼	
Video Type	Video Stream ▼	
Resolution	1920*1080P ▼	
Bitrate Type	Variable ▼	
Video Quality	Medium ▼	
Frame Rate	30 ▼	fps
Max. Bitrate	4096	Kbps
Video Encoding	H.264 ▼	
H.264+	OFF ▼	
Profile	Main Profile ▼	
I Frame Interval	50	

2. Modify the settings as required. The following table describes some major parameters.

Parameter	Description
Stream Type	Select which stream to configure: Main Stream or Sub stream
Video Type	Select whether to stream video only or video with audio
Resolution	Select the video resolution
Bitrate Type	<ul style="list-style-type: none"> • Constant Bit Rate means that the camera transmits data at a constant data rate. • Variable Bit Rate means that the camera adjusts the bit rate dynamically according to image quality.
Video Quality	Select the video quality.
Max. Bitrate	Set the maximum bit rate.
Frame Rate	Frame rate for encoding images. Unit: FPS (frame per second). NOTE: To ensure image quality, note that the frame rate should not be greater than the reciprocal of shutter speed.
Video Encoding	Select between H.264 or H.265.
H.264+ / H.265+	Turn this to ON or OFF to enable this function.
Profile	This defines the video compression scheme: High Profile provides the most compression, Main Profile provides standard compression and Basic Profile provides the lowest compression.
I Frame Interval	Defines the interval per I Frame.

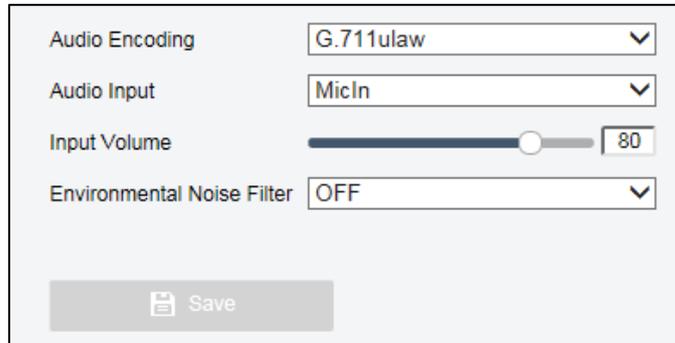
3. Click **Save**.

Audio Configuration

Audio configuration means setting audio encoding parameters for your camera.

NOTE: This function is not supported by some models, please see the actual model for details.

1. Click **Configuration > Video/Audio > Audio**.



The screenshot shows a configuration window with the following settings:

- Audio Encoding: G.711ulaw
- Audio Input: MicIn
- Input Volume: 80
- Environmental Noise Filter: OFF

A 'Save' button is located at the bottom of the window.

2. Modify the settings as required. The following table describes some major parameters.

Parameter	Description
Audio Encoding	Select the encoding options.
Audio Input	Currently only Line/Mic. NOTE: This function is not available to devices with two audio output channels.
Input Volume	Move the slider to adjust volume.
Environmental Noise Filter	Used to reduce noise in images. To enable noise suppression, select On .

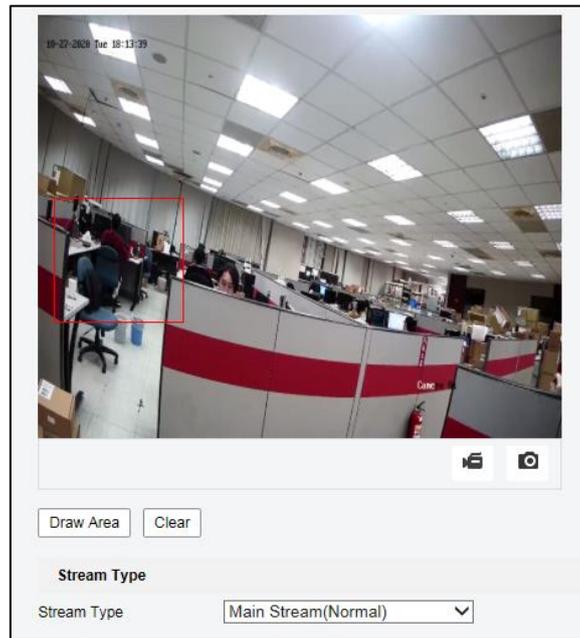
3. Click **Save**.

ROI

When Region of Interest (ROI) is enabled, the system ensures image quality for ROI first if the bit rate is insufficient.

NOTE: This function is not supported by some models; please see the actual model for details.

1. Click **Configuration > Video/Audio > ROI**.
2. Click **Draw Area** to start marking the ROI. Then draw a box on the video area. When done, click **Stop Drawing**.



3. To enable this feature, check the **Enable** box.
4. Set the **ROI Level** and **Name**.

Fixed Region

Enable

Region No. ▼

ROI Level ▼

Region Name

5. Click **Save**.

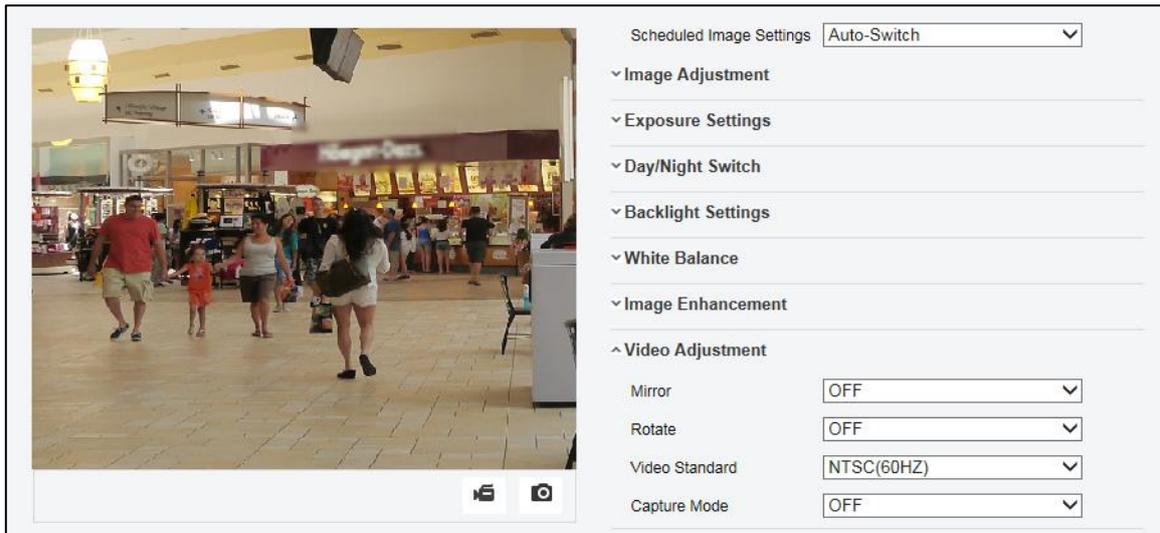
Image Configuration

Display Settings

NOTE:

- The image parameters displayed and value ranges allowed may vary with camera model. For the actual parameters and value ranges of your camera, see the Web interface. You may move the sliders to adjust settings or enter values in the text boxes directly.

Click **Configuration > Image > Display Settings**.



If you wish to change the display settings according a specific period of time, select **Schedule Switch** under **Scheduled Image Settings**. Then, configure the **Start** and **End** Time for the settings to take effect.

Image Adjustment

NOTE: This function may vary with models, please see actual Web interface for details.

- Click **Configuration > Image > Display Settings** and then click **Image Adjustment**.



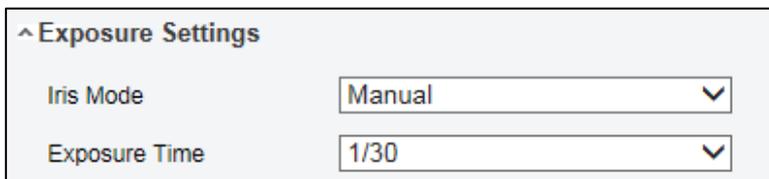
- Use the sliders to change the settings. You may also enter values directly. The following table describes these parameters.

Item	Description
<p>Brightness</p>	<p>Set the degree of brightness of images.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> Low brightness High brightness </div>
<p>Contrast</p>	<p>Set the degree of difference between the blackest pixel and the whitest pixel.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> Low contrast High contrast </div>
<p>Saturation</p>	<p>The amount of a hue contained in a color.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> Low saturation High saturation </div>
<p>Sharpness</p>	<p>Contrast of boundaries of objects in an image.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> Low sharpness High sharpness </div>

Exposure Settings

NOTE: This function may vary with models, please see actual Web interface for details. The default settings are used for common scenes. Keep the default settings unless a particular scene is required.

1. Click **Configuration > Image > Display Settings** and then click **Exposure Settings**.



^ Exposure Settings

Iris Mode

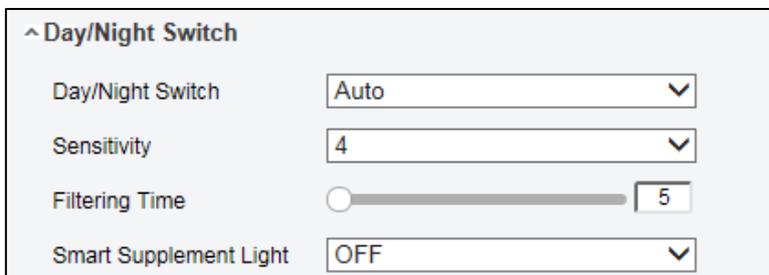
Exposure Time

2. Set the **Exposure Time** parameter or the slowest shutter speed that the camera can use for exposure.

Day/Night Switch

NOTE: This function may vary with models, please see actual Web interface for details. The default settings are used for common scenes. Keep the default settings unless a particular scene is required.

1. Click **Configuration > Image > Display Settings** and then click **Day/Night Switch**.



^ Day/Night Switch

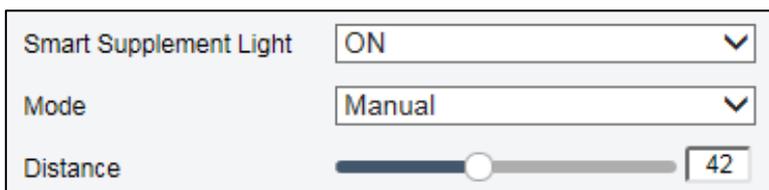
Day/Night Switch

Sensitivity

Filtering Time

Smart Supplement Light

2. Select the Day/Night switch option.
3. Set the sensitivity level for detection.
4. Turn the **Smart Supplement Light** on or off. When turned on, you can also set the smart light distance.



Smart Supplement Light

Mode

Distance

Backlight Settings

NOTE: This function may vary with models, please see actual Web interface for details.

- Click **Configuration > Image > Display Settings** and then click **Backlight Settings**.

^ Backlight Settings

BLC Area

WDR

HLC

- The following table describes the major parameters. Set the parameters, as needed.

Parameter	Description
BLC Area	Back Light Compensation (BLC) enhances the exposure of dark areas in the picture and ignores the illuminated areas to compensate for back light allowing the picture to have the same exposure. Select the area from the drop-down box to enable BLC.
WDR	Wide Dynamic Range (WDR) enhances exposure to distinguish the bright and dark areas in the same image. Move the slider to adjust the WDR Level.
HLC	High Light Compensation (HLC) reduces the brightness of highly exposed areas on the picture. Move the slider to adjust HLC level.

White Balance

White balance is the process of offsetting unnatural color cast in images under different color temperatures so as to output images that best suit human eyes.

NOTE: This function may vary with models, please see the actual Web interface for details.

1. Click **Configuration > Image > Display Settings** and then click **White Balance**.

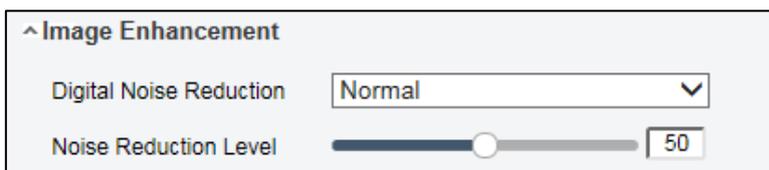


2. Select a white balance mode as required.

Parameter	Description
White Balance	<p>Adjust the red or blue offset of the image:</p> <ul style="list-style-type: none"> • AWB1 (Auto White Balance): The camera adjusts the red and blue offset automatically according to the light condition (the color tends to be blue). • Locked WB: Lock the current color temperature settings without adjustment. • Incandescent Lamp: The camera adjusts red and blue offset automatically according to the incandescent light condition. • Warm Light Lamp: The camera adjusts red and blue offset automatically according to the warm light condition. • Natural Light: The camera adjusts red and blue offset automatically according to the natural light condition. • Fluorescent Lamp: The camera adjusts the red and blue offset automatically according to the fluorescent light condition.

Image Enhancement

1. Click **Configuration > Image > Display Settings** and then click **Image Enhancement**.



2. To improve the image quality, adjust the Digital Noise Reduction or Noise Reduction Level parameters, as needed.

Video Adjustment

1. Click **Configuration > Image > Display Settings** and then click **Video Adjustment**.

^ Video Adjustment

Mirror ▼

Rotate ▼

Video Standard ▼

Capture Mode ▼

2. The following table describes some major parameters. Set the parameters, as needed.

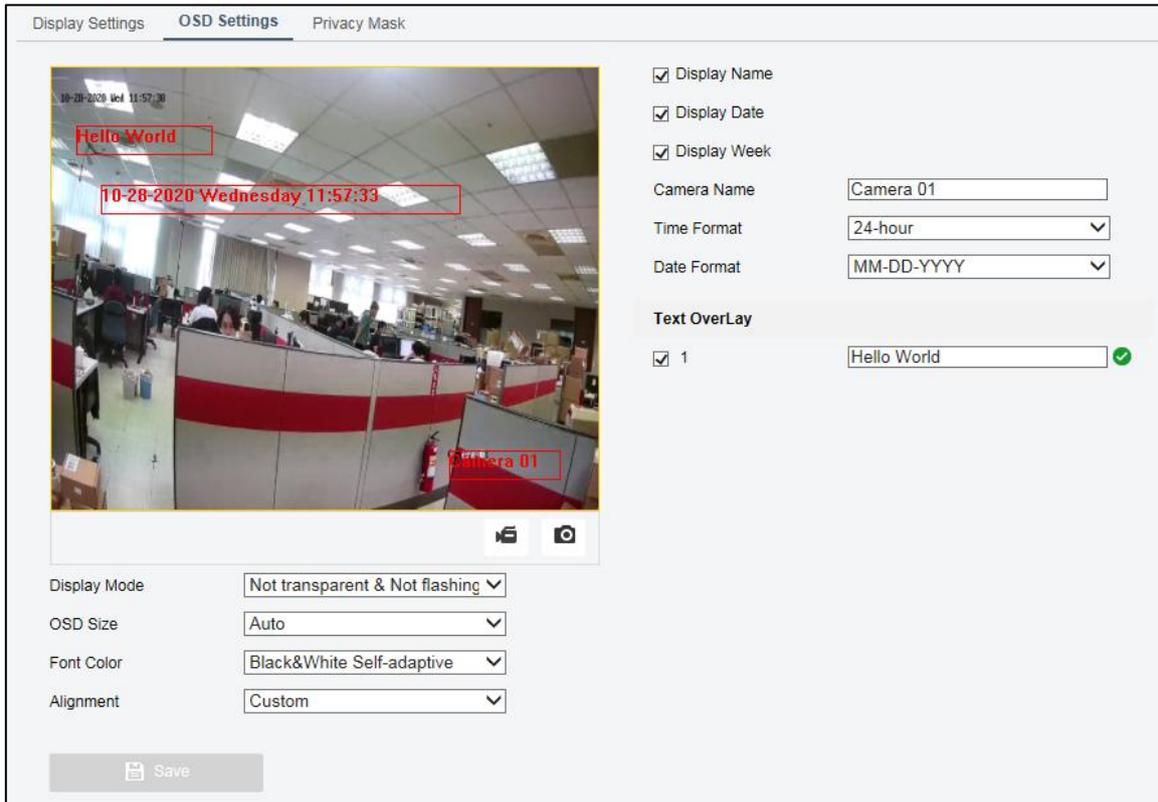
Parameter	Description
Mirror	Mirrors the image according to the selected direction.
Rotate	Turns image rotation on or off.
Video Standard	Select the video standard format: NTSC or PAL.
Capture Mode	Select the capture mode.

OSD Settings

On Screen Display (OSD) is the text or image displayed on the screen with video images. OSD contents may include time and other customized contents.

NOTE: This function may vary with models, please see the actual Web interface for details.

1. Click **Configuration > Image > OSD Settings**.

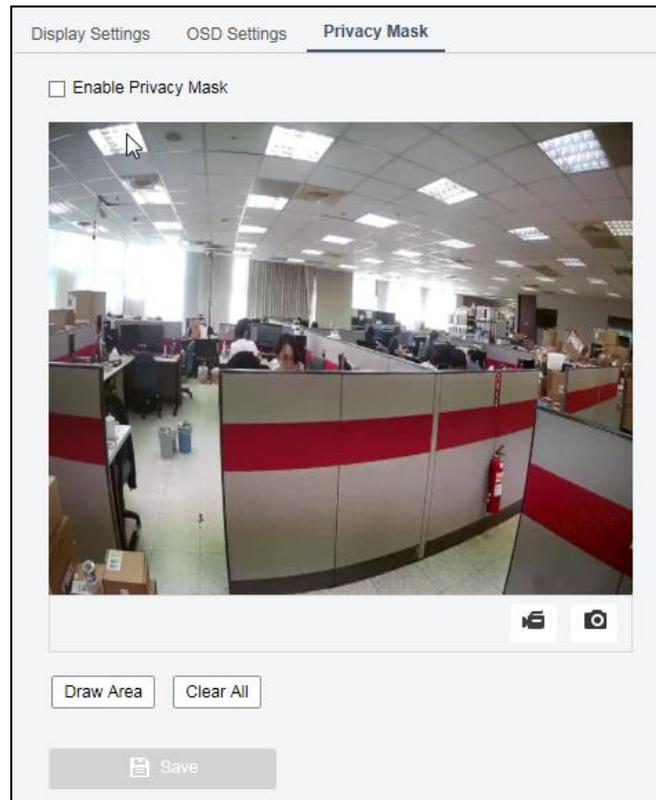


2. Select the check box or the content of the OSD to display on the **Live View** area.
3. Then drag the items on the **Live View** area to set its position.
4. Click **Save**.

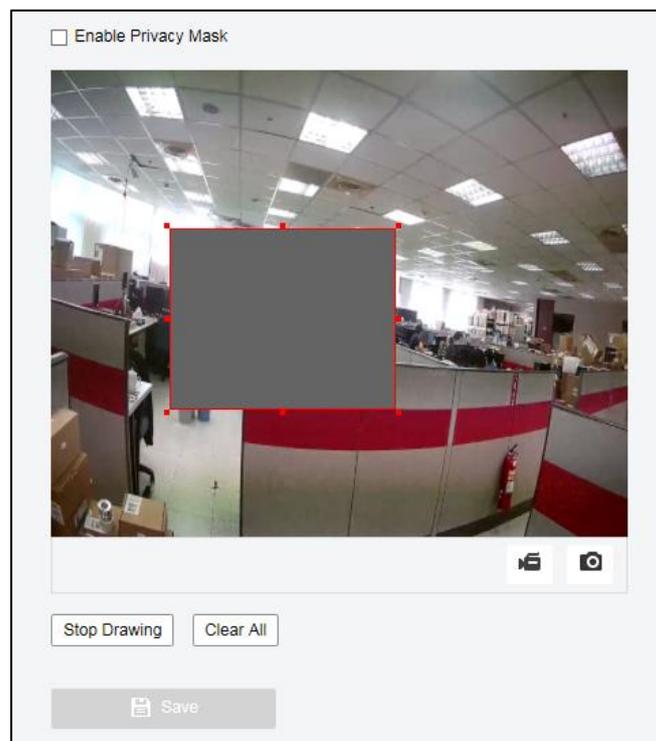
Privacy Mask

On certain occasions, you may need to set a mask area on the camera image to protect privacy, for example, the keyboard of an ATM machine.

1. Click **Configuration > Image > Privacy Mask**.



2. Click **Draw Area** to add a privacy mask, and click **Clear All** to delete.



- Click anywhere on the **Live View** area and drag the mouse to draw a box to mask an area.
 - To move the mask area position, click within the box and drag to move its position.
 - To resize the mask area, drag the edges of the box.
3. Click **Stop Drawing** to finalize the privacy mask area.
 4. Click **Enable Privacy Mask**.
 5. Click **Save**.

Event Configuration

You can schedule event reporting and set actions that can be triggered by other devices so that alarms and the triggered actions can be handled in time.

Event reporting can be scheduled for motion detection alarm, alarm input, alarm output, tampering detection alarm, and audio detection alarm. The supported alarms may vary with device model. For the alarm types that your camera supports, see the Web interface.

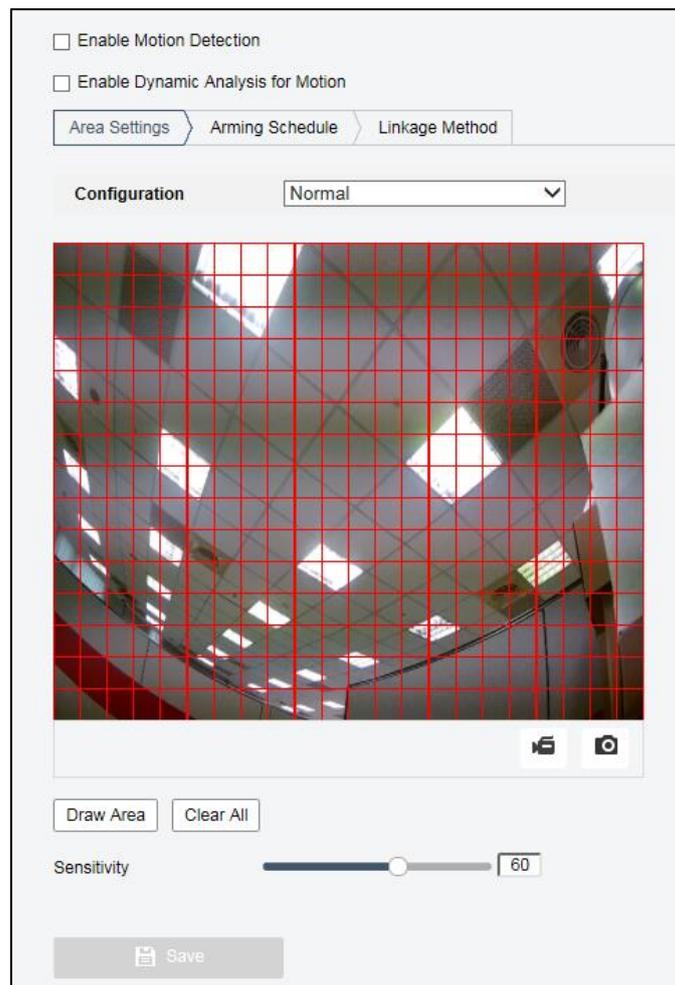
Configuring Motion Detection Alarm

NOTE:

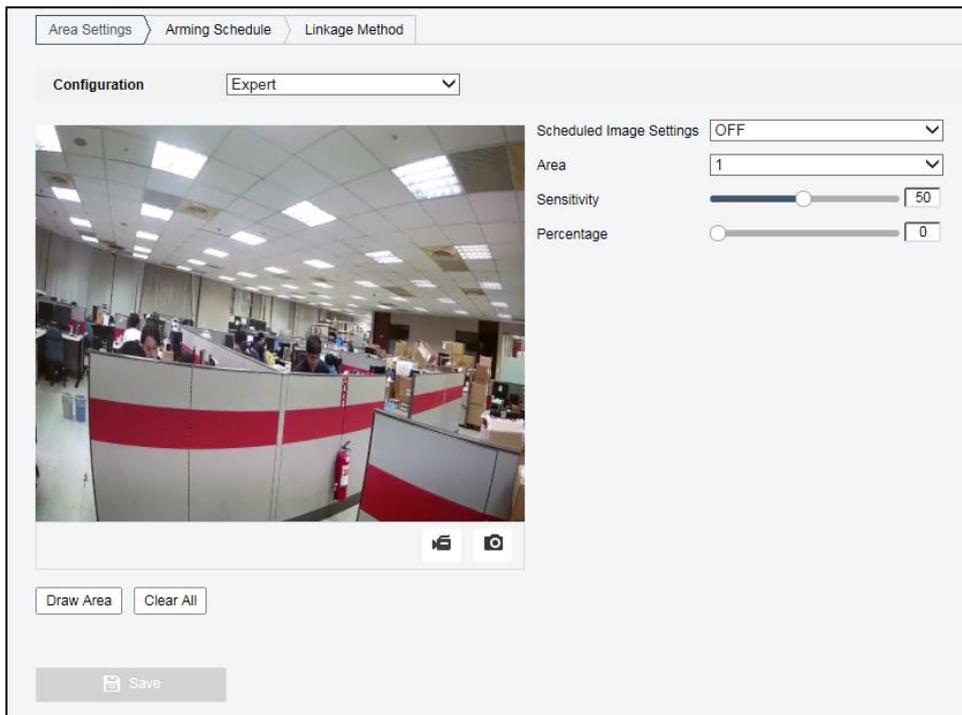
- This function is only supported by certain models, please see the actual model for details.
- The alarm triggered actions supported by the camera may vary with models, please see the actual Web interface for details.

Motion detection detects the object motion in a specified rectangular area or on specified grids during a period. You need to set a detection area or grids, sensitivity of detection, object size, and history for the camera to decide whether to report a motion detection alarm when it detects motion.

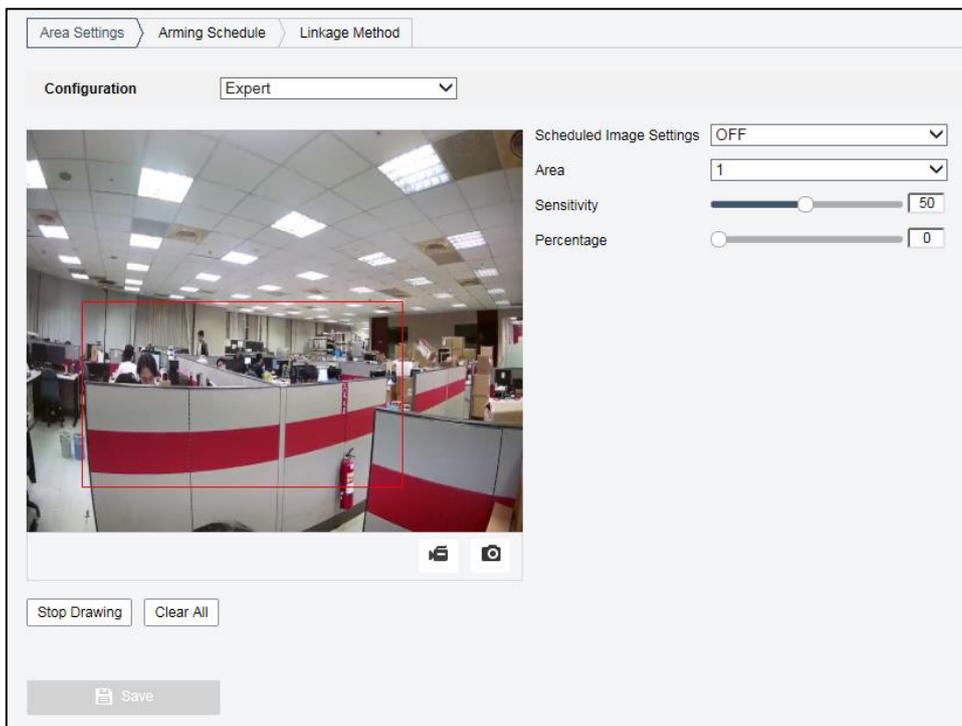
1. Click **Configuration > Event > Basic Event > Motion Detection**.



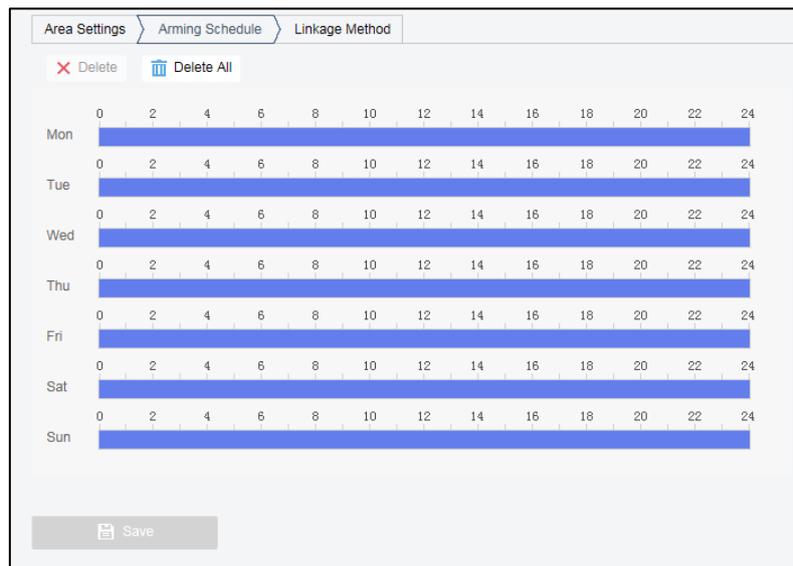
- For **Normal** detection configuration, the whole viewing angle is the region for motion detection. Move the slider to adjust the sensitivity of detection.
- For more customized detection, select **Expert** from the Configuration drop-down box.



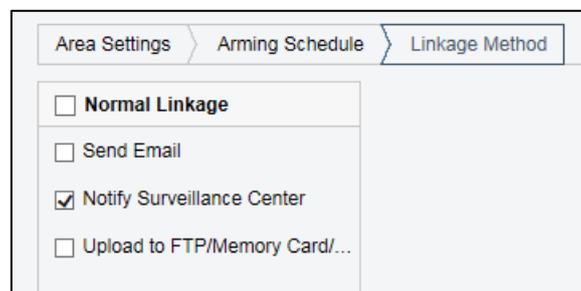
- Click **Draw Area** to add a new detection area. To delete a detection area, click **Clear All**.
- Click and drag the mouse on the **Live View** to set a detection area. Click **Stop Drawing** when detection area is complete.



6. Select the Area number to assign to this detection area. The number of detection areas that can be configured varies by camera model.
7. Set the detection **Sensitivity**, object size as **Percentage**, and select **Scheduled Image Settings**.
 - Moving the slider to the right increases detection sensitivity. When the extent of motion within the detection area exceeds the set object size, and if the duration of motion exceeds the set duration, the camera reports an alarm.
 - Object size means the ratio of the size of the moving object to the size of the whole detection area. So, if it is the small objects that you want to detect, it is recommended to draw separate detection area(s) according to the actual motion area.
8. Set the detection schedule, click **Arming Schedule**.



- Click a day timeline and enter the time range on its pop up to set the detection schedule.
 - Click **Save**.
6. Click **Linkage Method** and check the actions to be done when motion detection alarm is triggered.



The following table describes the major alarm-triggered actions and how to set a plan.

Item	Description
Send E-mail	With Send E-mail selected, the camera will automatically send snapshots to the specified E-mail address when an alarm is triggered. NOTE: Make sure you have completed Email and Picture and Clip

Item	Description
	Settings before using this function.
Notify Surveillance Center	Select the check box to send an alarm trigger on the command center.
Upload to FTP / Memory Card	With Upload to FTP selected, the camera will automatically upload snapshots to the specified FTP server when an alarm is triggered. NOTE: Make sure you have completed FTP and Picture and Clip Settings before using this function.

7. Check **Enable Motion Detection** box to enable this feature.
8. Click **Save**.

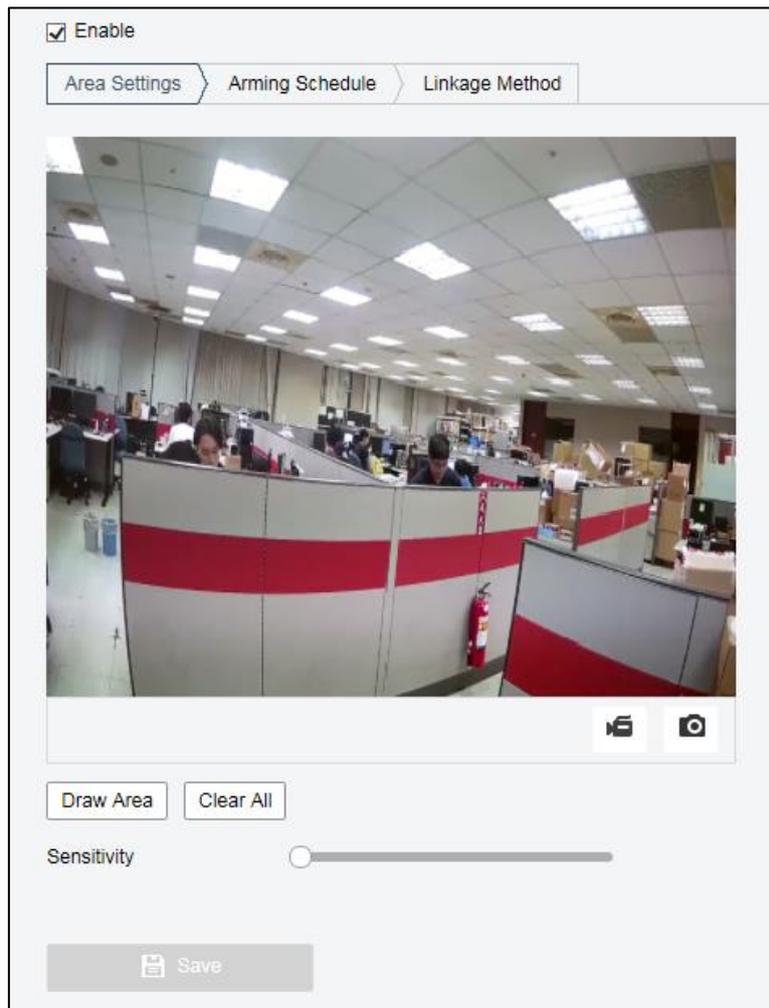
Configuring Video Tampering Alarm

Video Tampering detects when the camera lens is tampered or blocked for a specified length of time.

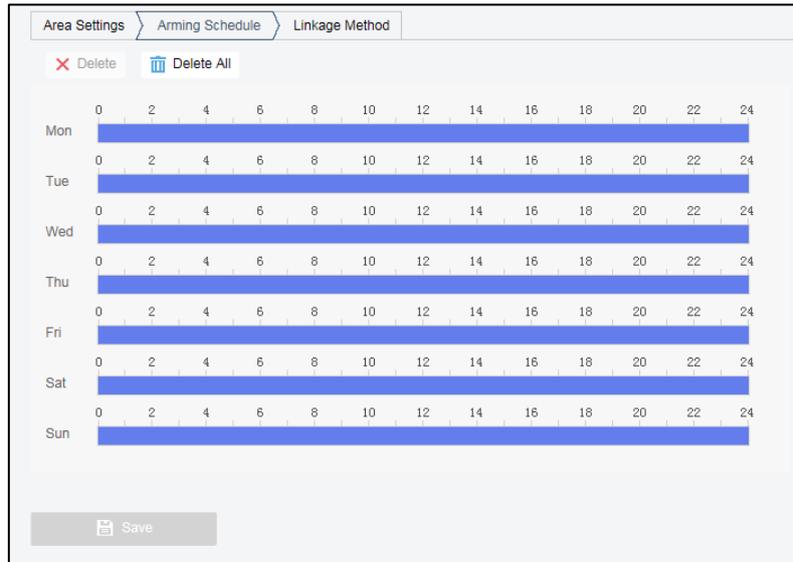
NOTE:

- This function is only supported by certain models, please see the actual model for details.
- The alarm triggered actions supported by the camera may vary with models, please see the actual Web interface for details.

1. Click **Configuration > Event > Basic Event > Video Tampering**.

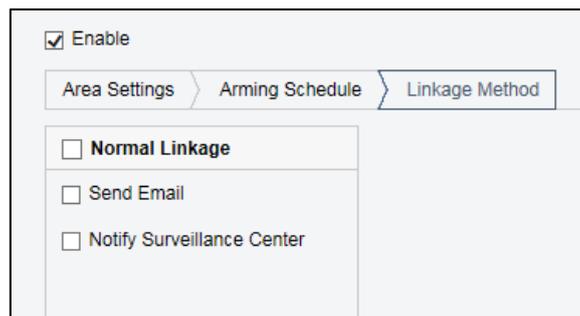


2. Click **Draw Area** to add a new detection area. To delete a detection area, click **Clear All**.
3. Click and drag the mouse on the **Live View** to set a detection area. Click **Stop Drawing** when detection area is complete.
4. Move the slider to adjust the **Sensitivity** level of detection. The camera can be more sensitive to the blocking even it only blocks the camera lens slightly from a farther location when sensitivity is set to high.
5. Set the detection schedule, click **Arming Schedule**.



- Click a day timeline and enter the time range on its pop up to set the detection schedule.
- Click **Save**.

6. Click **Linkage Method** and check the actions to be done when tampering alarm is triggered.



The following table describes the major alarm-triggered actions and how to set a plan.

Item	Description
Send E-mail	With Send E-mail selected, the camera will automatically send snapshots to the specified E-mail address when an alarm is triggered. NOTE: Make sure you have completed Email and Picture and Clip Settings before using this function.
Notify Surveillance Center	Select the check box to send an alarm trigger on the command center.

7. Check **Enable** box to enable this feature.
8. Click **Save**.

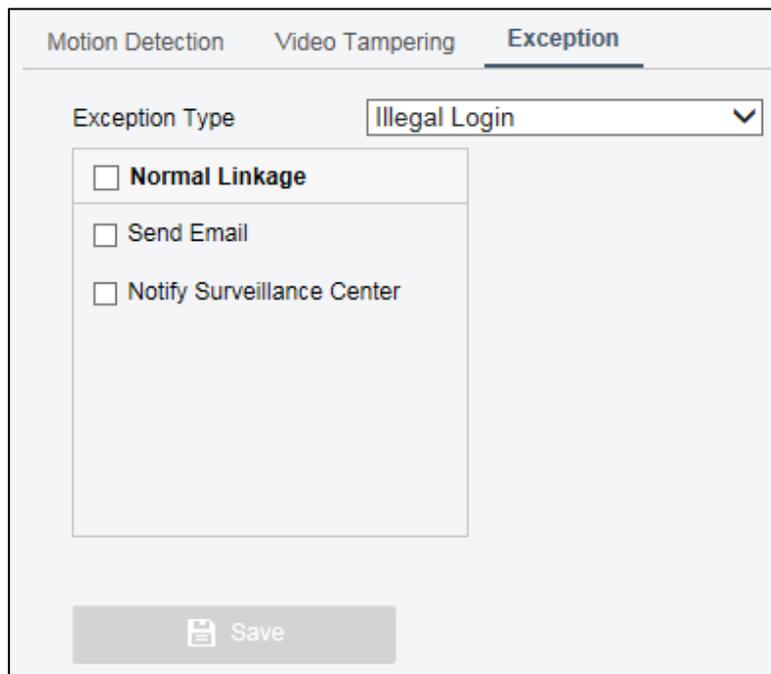
Configuring Exception Alarms

Configure the alarm to be triggered for other events such as Illegal Login on this page.

NOTE:

- This function is only supported by certain models, please see the actual model for details.
- The alarm triggered actions supported by the camera may vary with models, please see the actual Web interface for details.

1. Click **Configuration > Event > Basic Event > Exception**.
2. Check the actions to be done when **Illegal Login** alarm is triggered



The following table describes the major alarm-triggered actions and how to set a plan.

Item	Description
Send E-mail	With Send E-mail selected, the camera will automatically send snapshots to the specified E-mail address when an alarm is triggered. NOTE: Make sure you have completed Email and Picture and Clip Settings before using this function.
Notify Surveillance Center	Select the check box to send an alarm trigger on the command center.

3. Click **Save**.

System

NOTE: This function is not supported by some models, please see the actual model for details.

System Settings

The System Settings page shows the basic information and current settings of the camera. It allows users to modify the Camera Name and set its Time Settings, Daylight Saving Time (if any), and view its Licenses.

1. Click **Configuration > System Settings**, then click the appropriate page tabs to view and modify its contents.

Basic Information	Time Settings	DST	About
Device Name	<input type="text" value="IP CAMERA"/>		
Device No.	<input type="text" value="88"/>		
Model	<input type="text" value="Z76"/>		
Serial No.	<input type="text" value="Z7620191203AAWRD95868421"/>		
Firmware Version	<input type="text" value="V5.5.84 build 191105"/>		
Encoding Version	<input type="text" value="V7.3 build 190927"/>		
Web Version	<input type="text" value="V4.0.51 build 191029"/>		
Plugin Version	<input type="text" value="V3.0.6.46"/>		
Number of Channels	<input type="text" value="1"/>		
Number of HDDs	<input type="text" value="0"/>		
Number of Alarm Input	<input type="text" value="0"/>		
Number of Alarm Output	<input type="text" value="0"/>		
Firmware Version Property	<input type="text" value="C-R-E3S-0"/>		
<input type="button" value="Save"/>			

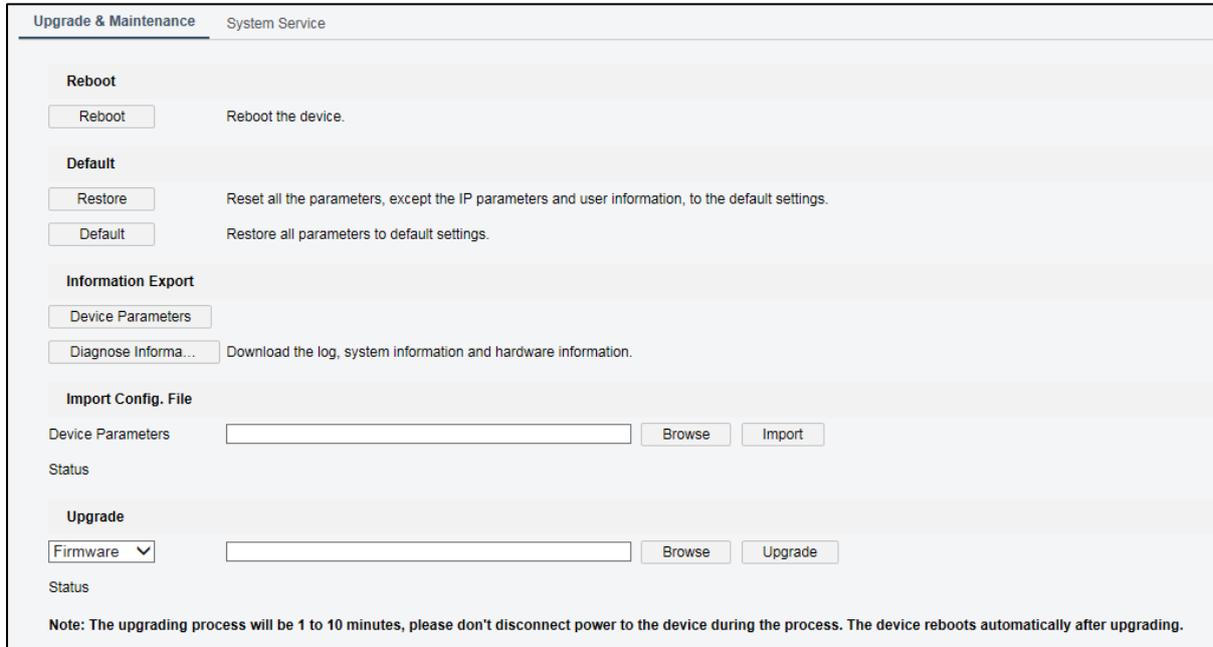
2. Click **Save**.

Maintenance

The Maintenance page allows users to do system maintenance tasks of the camera.

Upgrade & Maintenance

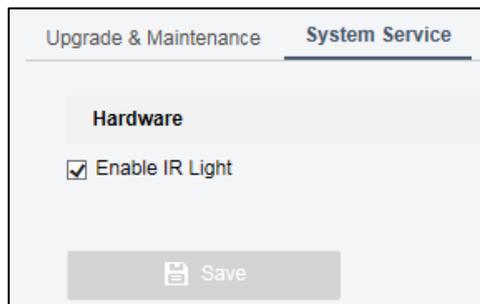
1. Click **Configuration > System > Maintenance > Upgrade & Maintenance**.



2. The following tasks can be done on this page by clicking their respective buttons.
 - Reboot: Reboot the device.
 - Restore: Reset parameters, except IP parameters and user information.
 - Default: Restores to the default factory settings.
 - Device Parameters: Configure password for file encryption.
 - Diagnose Information: Download system log and hardware information
 - Import Config File: Import configuration file.
 - Upgrade: Select the firmware file to upgrade.

System Service

1. Click **Configuration > System > Maintenance > System Service**.



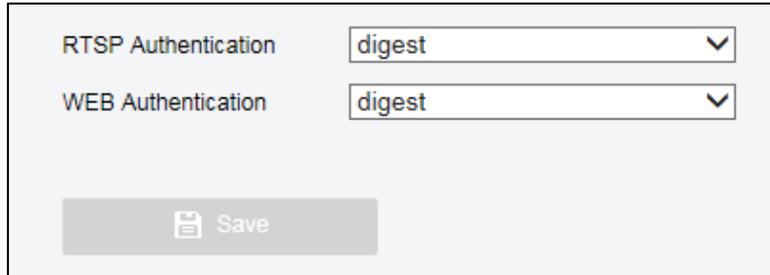
2. Check the **Enable IR Light** box to enable this feature.
3. Click **Save**.

Security

Authentication

RTSP (Real Time Streaming Protocol) is an application layer protocol. To transmit and control the audio and video, set RTSP authentication on the Web interface.

1. Click **Configuration > System > Security > Authentication**.



RTSP Authentication

WEB Authentication

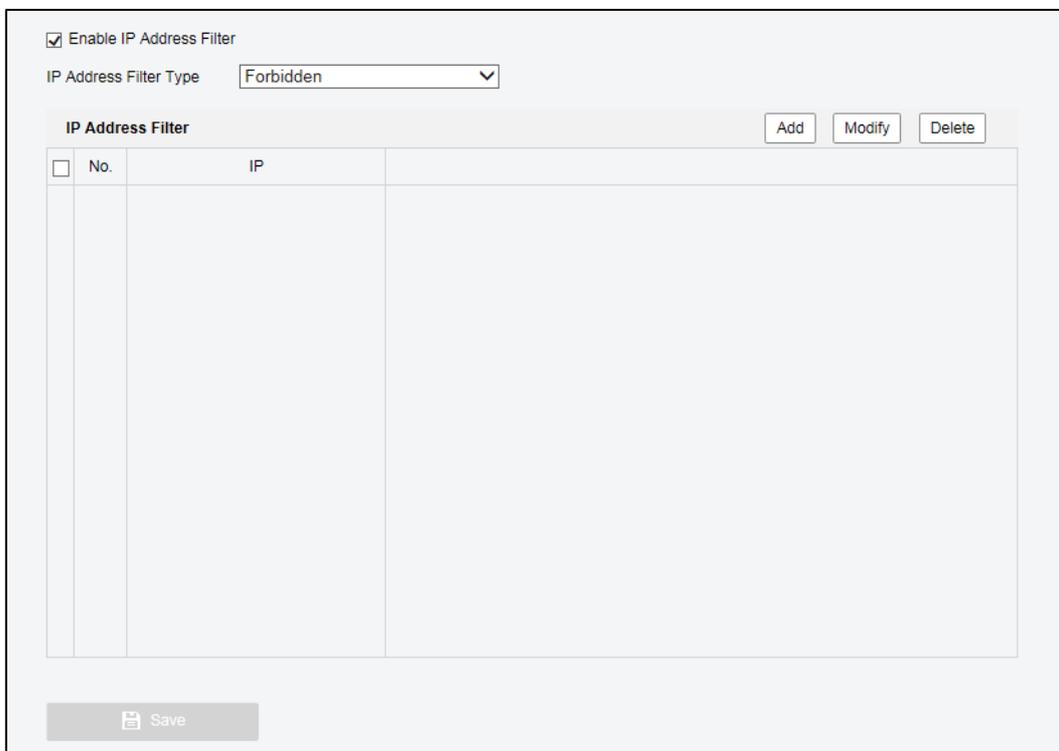
2. Select **Digest** or **Digest/Basic**.
3. Click Save.

IP Address Filter

You can allow or deny the access from the specified IP address to you camera.

NOTE: This function is only supported by certain models, please see the actual model for details.

1. Click **Configuration > System > Security > IP Address Filter**.



Enable IP Address Filter

IP Address Filter Type

IP Address Filter

<input type="checkbox"/>	No.	IP

2. Check the box to enable IP address filtering.

3. Select the filtering mode and then click **Add** to enter the desired IP address(es). Filtering mode can either be:
 - Allowed: Only the specified IP addresses are allowed to access the camera.
 - Forbidden: The specified IP addresses will be denied access to the camera.
4. Click **Save**.

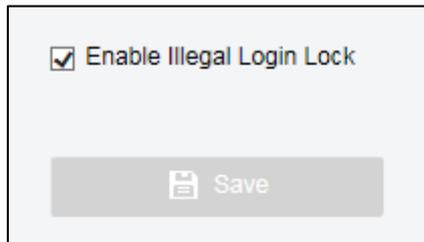
NOTE:

- Up to 32 IP addresses are allowed. And the added IP addresses cannot duplicate.
- The first byte of the IP address can only be a number ranging from 1 to 223 and the fourth byte cannot be 0. For example, 0.0.0.0, 127.0.0.1, 255.255.255.255 and 224.0.0.1 all are invalid IP addresses.

Security Service

To protect the device from illegal login, enable **Illegal Login Lock**.

1. Click **Configuration > System > Security > Security Service**.



2. Check the box to enable this function.
3. Click **Save**.

User Management

There are two types of users in the system:

- Administrator: referred to as “admin” in this manual. The default name of the administrator is admin, which cannot be modified. Admin has full permission and can manage all users and devices. Only one admin user is allowed in the system.
- Common user: referred to as “user” in this manual. User only has permission to play live and recorded video. Up to 31 common users are allowed in the system.

You can add a user on the user management interface (under **Configuration > System > User Management**).

After the user is added successfully, you can change the password by entering the new password or delete the user by clearing the username.

NOTE:

- Only admin can change passwords. Changing the username or password for a user when the user is still logged in will force the user to log out. The user must use the new username or password to log in.
- Only admin can add and delete users. Deleting a user when the user is still logged in will force the user to log out. A deleted user cannot log in.



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