

Tenda

Web User Guide

CH&RH Series Security Camera



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Preface

Thank you for choosing Tenda! Please read this guide before using your browser to manage the camera.

Applicable models



This user guide applies to the Tenda CH&RH series cameras that support web management. The actual product image and firmware function prevail. Unless otherwise specified, CH7-WCA is used for illustration here.

Conventions

The typographical elements that may be found in this document are defined as follows.

| Item | Presentation | Example |
|---------------------|--------------|--|
| Cascading menus | > | Playback > File |
| Parameter and value | Bold | Set User Name to Tom . |
| Variable | Italic | Format: <i>XX:XX:XX:XX:XX:XX</i> |
| UI control | Bold | On the Policy page, click the OK button. |
| Message | “ ” | The “Success” message appears. |

The symbols that may be found in this document are defined as follows.

| Symbol | Meaning |
|--|--|
|  NOTE | This format is used to highlight information of importance or special interest. Ignoring this type of note may result in ineffective configurations, loss of data or damage to the device. |
|  TIP | This format is used to highlight a procedure that will save time or resources. |

For more documents

If you want to get more documents of the device, visit www.tendacn.com and search for the corresponding product model.

Technical support

Contact us if you need more help. We will be glad to assist you as soon as possible.

Email address: tendasecurity@tenda.cn

Website: www.tendacn.com

Revision history

Tenda is constantly searching for ways to improve its products and documentation. The following table indicates any changes that might have been made since the user guide was released.

| Version | Date | Description |
|---------|------------|---|
| V1.1 | 2023-07-29 | Added the description of the Display Logo function. |
| V1.0 | 2023-05-15 | Original publication. |

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1 Camera Management Method

You can manage the Tenda CH&RH series security cameras through web UI, TDSEE App and Network Video Recorder (NVR). Select the proper management method as required.

1.1 Manage the Camera through Web UI



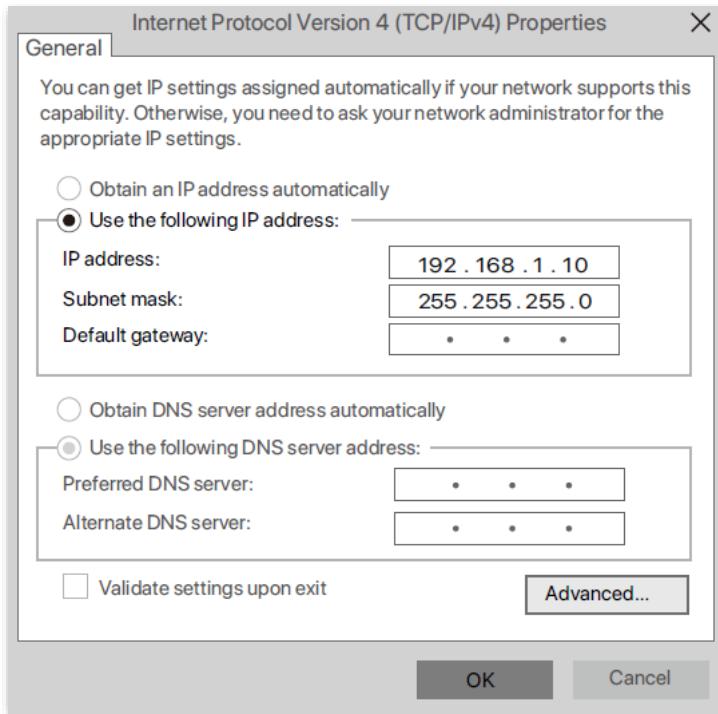
If it is the first time you use a camera or you have reset it, visit www.tendacn.com and search for a quick installation guide of the corresponding product model. After the quick setup, you can refer to the following pages to log in to the web UI.

Step 1 Connect the computer or tablet to a router that is connected to the camera.

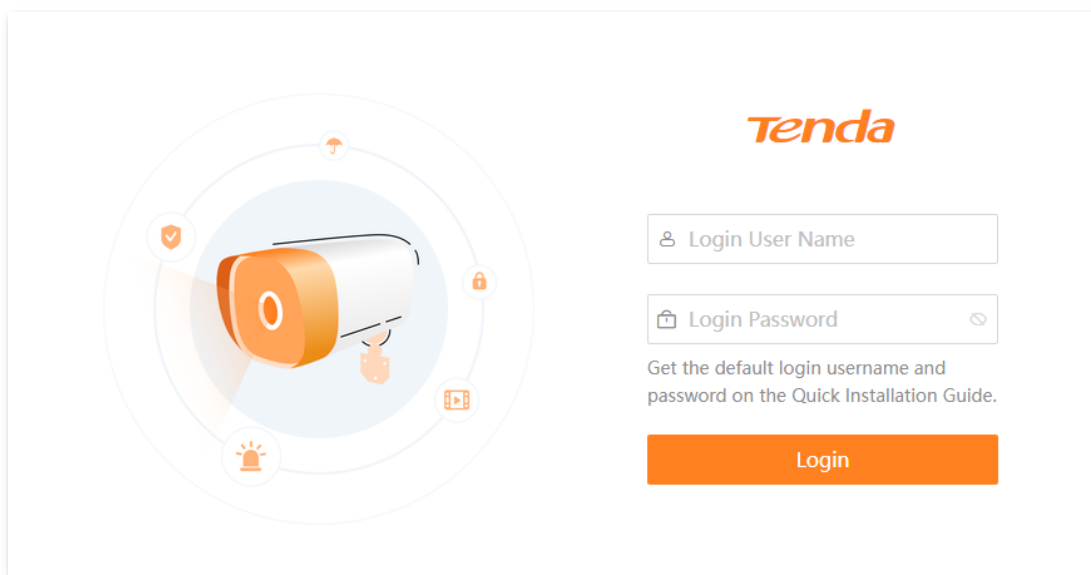
You can connect the computer to the LAN port of the router by using an Ethernet cable, or connect the tablet to the Wi-Fi network of the router.

Step 2 Set the IP address of the computer to an unused one belonging to the same network segment as the IP address of the camera but different from the IP address of the camera. The following figure is for reference only.

The default login IP address of the camera is 192.168.1.203, and the DHCP function is enabled. If there is a DHCP server in the network, the IP address of the camera may be changed. Refer to the actual IP address assigned to the camera by the DHCP server.

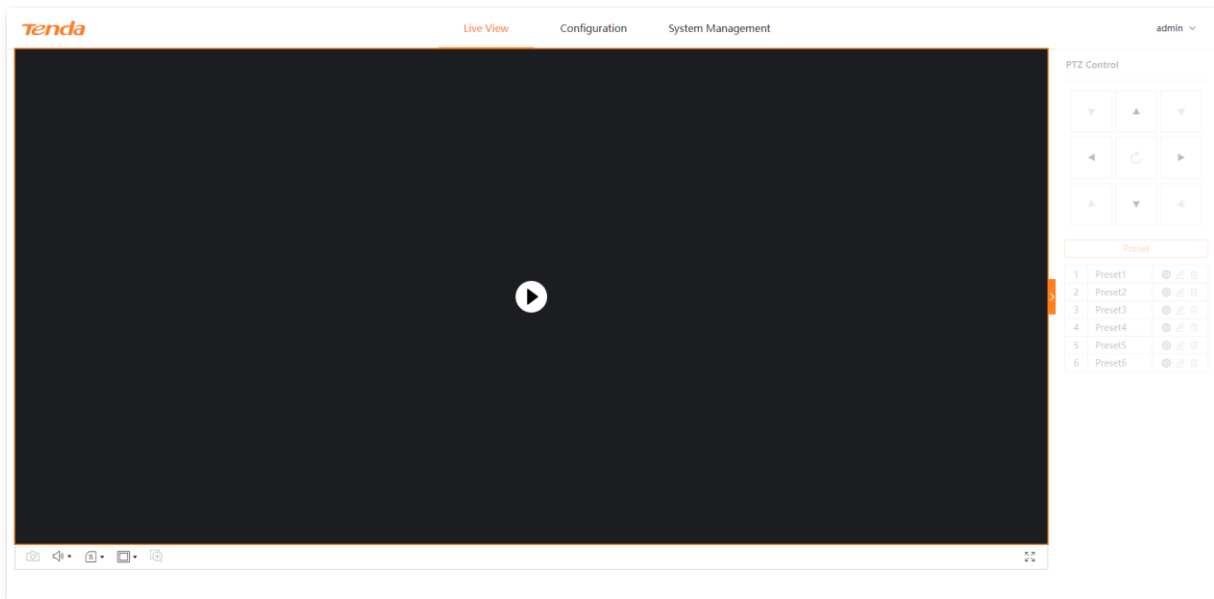


Step 3 Start a browser and enter the IP address of the camera in the address bar to access the login page. Enter the **Login User Name** (default: admin) and **Login Password** (default: admin123456), and then click **Login**.



---End

After you successfully log in to the web UI of the camera, you can start to configure the camera as required.



 NOTE

For network security, after logging in to the web UI, [modify your password in time](#). If your camera has been successfully managed by the NVR, modifying the login username or password may cause the camera to go offline. Please operate with caution.

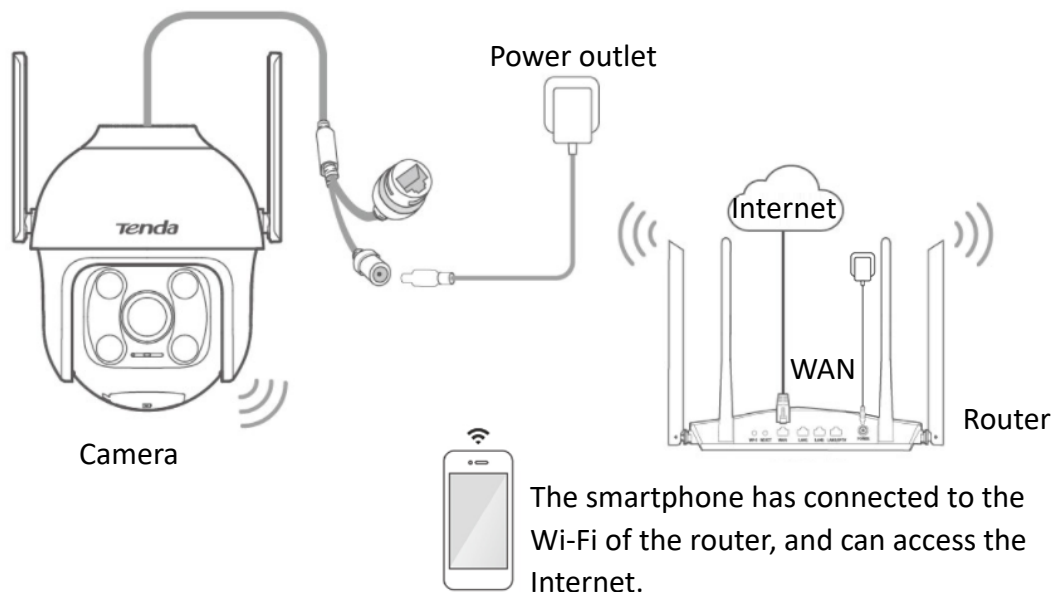
1.2 Manage the Camera through TDSEE App



Before adding the camera, ensure that the Wi-Fi router is successfully connected to the internet and the filter function is disabled.


Step 1 Power on the camera.

After the camera is powered on, the LED indicator is solid red. It indicates that the camera is starting up. When the LED indicator blinks blue quickly, the camera has started up and is waiting to connect to the network.



TDSEE app has been installed on your smartphone.

Step 2 Manage the camera.

Run the TDSEE App. Enter the **Home** page, tap **Add a device** or  in the upper right corner of the home page, then follow the instructions to operate.

Refer to the user guide of the TDSEE App for details.

---End

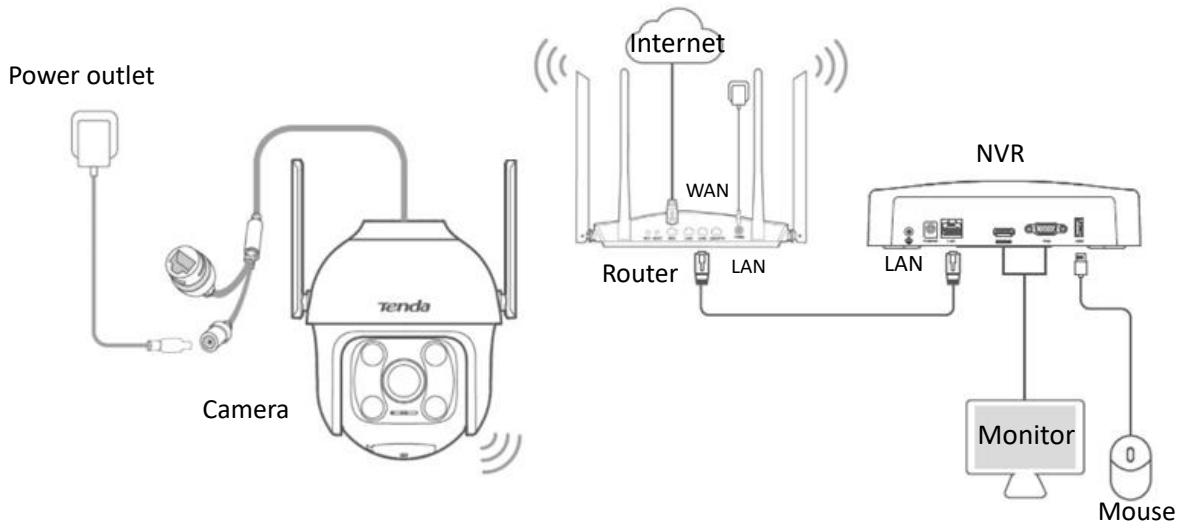


For network security, after logging in to the web UI of the camera, [modify your password in time](#). If your camera has been successfully managed by the NVR, modifying the login username or password may cause the camera to go offline. Please operate with caution.

1.3 Manage the Camera through NVR

Step 1 Connect devices.

You can refer to the following figure to connect devices.



Step 2 Manage the camera.

Enter the web UI or GUI of the NVR to manage the camera, and perform the related configurations according to the actual situation.

Refer to the user guide of the corresponding NVR model for details.

---End



For network security, after logging in to the web UI of the camera, [modify your password in time](#). If your camera has been successfully managed by the NVR, modifying the login username or password may cause the camera to go offline. Please operate with caution.

2 Web UI

2.1 Login

Refer to the [Manage the Camera through Web UI](#).

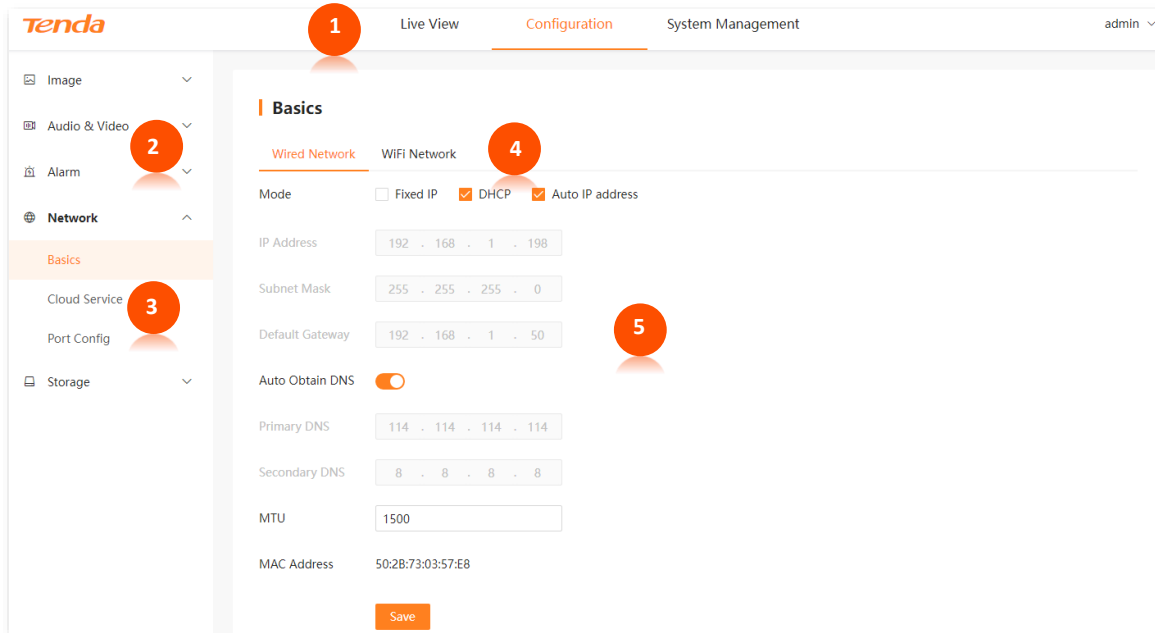
2.2 Logout

If you [log in to the web UI of the camera](#) and perform no operation within 5 minutes, the system logs you out automatically. You can also log out by clicking **admin > Log out** at the top right corner of the web UI.

2.3 Web UI Layout

2.3.1 Layout

The web UI of the camera consists of two sections, including the navigation bar and the configuration area. See the following figure.



Features and parameters in gray indicate that they are not available or cannot be changed under the current configuration.

| No. | Name | Description |
|-----|--------------------|---|
| 1 | | |
| 2 | Navigation bar | Used to display the function menu of the camera. You can select functions in the navigation bar and then the configuration appears in the configuration area. |
| 3 | | |
| 4 | Tab | |
| 5 | Configuration area | Used to view or modify your configuration. |

2.3.2 Frequently-used Elements

The following table describes the frequently-used buttons available on the web UI of the camera.

| Button | Description |
|---------------------------------|---|
| Save | Used to save the configuration on the current page and enable the configuration to take effect. |
| Restore Default Settings | Used to restore current configurations to the factory default settings and make configurations take effect. |

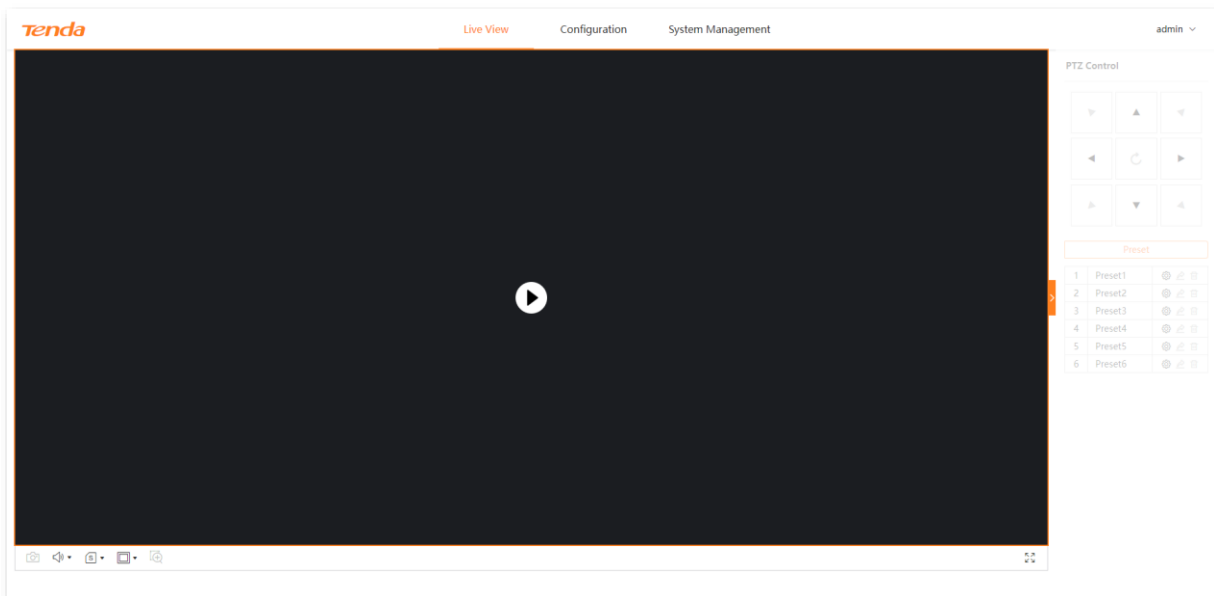
3 Live View

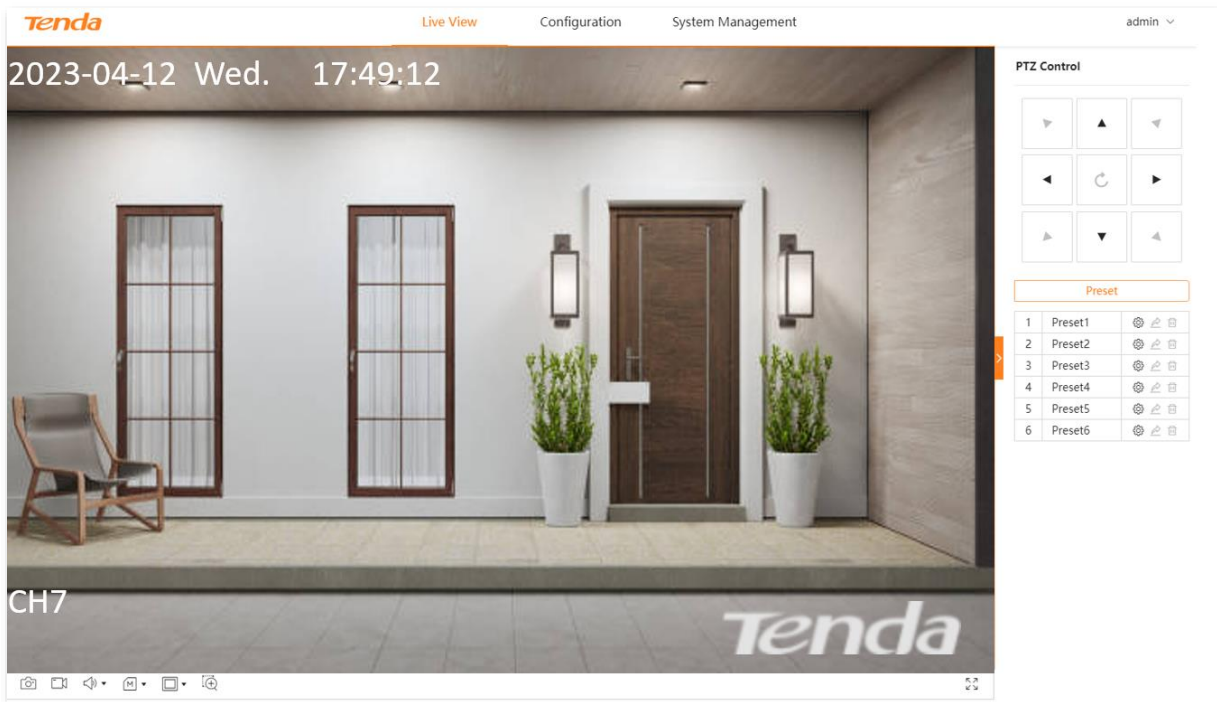
To access the configuration page, [log in to the web UI of the camera](#), and click **Live View**.

The default page is the live view page after you enter the web UI of the camera. In this section, you can:







- [View Real-time Monitoring Image of the camera](#)
- [PTZ Control](#)


3.1 View Real-time Monitoring Image





Parameter description

| Parameter | Description |
|---|--|
|  | Used to capture the live view image and save it to the computer in png format. |
|  | Audio switch. You can turn on, turn off or adjust the volume of the audio. |
|  | Used to switch the main stream or sub-stream. <ul style="list-style-type: none"> For main stream, the network requirements are higher, and the live view image is clearer. For sub-stream, the live view image is smoother. In poor network environment, you are recommended to select the sub-stream to ensure the network quality. |
|  | Used to switch the display ratio of the live view image. By default, it is full screen, and you can adjust it as required. |
|  | Area zoom in. After clicking it, you can select an area in the live view image and zoom in to the entire window. Click it again to cancel the area zoom. |
|  | Click it to display the live view image in full screen, or you can double-click the image to display in full screen. Press the Esc key of the keyboard to cancel full-screen display. |

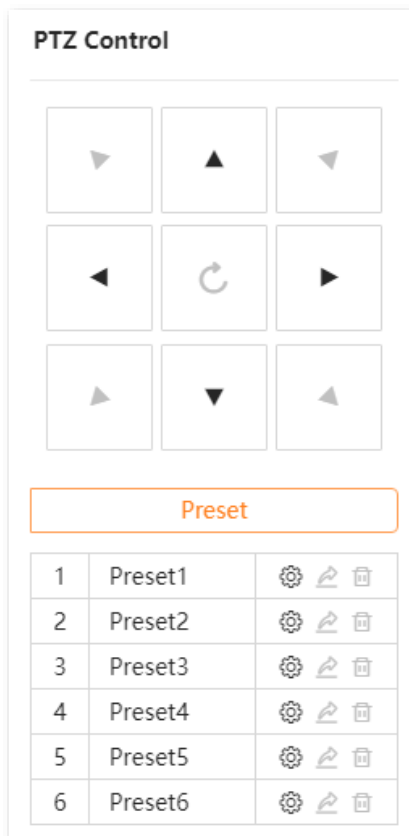
| Parameter | Description |
|---|--|
|  | <p>PTZ control.</p> <p>Used to perform such related operations as adjusting the monitoring direction (only supports up, down, left and right directions) and setting preset for the camera. Refer to PTZ Control for more details.</p> |

3.2 PTZ Control


3.2.1 Overview




PTZ indicates a mechanical platform composed of motors, which can move horizontally and vertically. Through the control system, the direction and speed of the PTZ camera or speed dome camera can be remotely controlled.

On the live view page, you can control the PTZ camera or speed dome camera, including adjusting the monitoring direction and setting and calling the preset point.



Parameter & Button description

| Parameter/Button | Description |
|---|---|
|  | Used to control the PTZ direction. The direction (up, down, left, right) of the dome camera can be controlled. |
| Preset | 1-6 Preset1- Preset6 |
| | Specifies the number of preset. Specifies the name of the preset. |

| Parameter/Button | Description |
|------------------|--|
| | Used to perform operations for the preset: |
| Operation | Click  to use the currently adjusted monitoring direction and zoom as the parameters of the preset. |
| | Click  to call the preset, control the dome camera to rotate to the monitoring position of the preset and apply the zoom of the preset. |
| | Click  to delete the preset. |

3.2.2 Set Preset


Set the monitoring direction for a specific preset.

Procedure:

Step 1 [Log in to the web UI of the camera.](#)

Step 2 Click **Live View**, and use the direction keys to control the camera to rotate to the desired monitoring position in **PTZ Control**.



Step 3 Click **Live View**, target the preset to which this monitoring position is to be applied in **Preset**, and click . The following figure is for reference only.



---End

3.2.3 Call Preset

Control the camera to rotate to the monitoring position of the specific preset.



Before the preset is called, you need to [Set Preset](#) first.

Procedure:

Step 1 [Log in to the web UI of the camera.](#)

Step 2 Click **Live View**, target the preset you want to call in **Preset**, and then click .



---End

The camera will rotate to the monitoring position of this preset.

4 Configuration

On the configuration page, you can:

- [Configure image parameters, OSD and privacy mask.](#)
- [Modify the parameter of the audio & video.](#)
- [Configure alarm.](#)
- [Configure network parameters, cloud service and modify each service port.](#)
- [Format SD card and configure the recording schedule.](#)

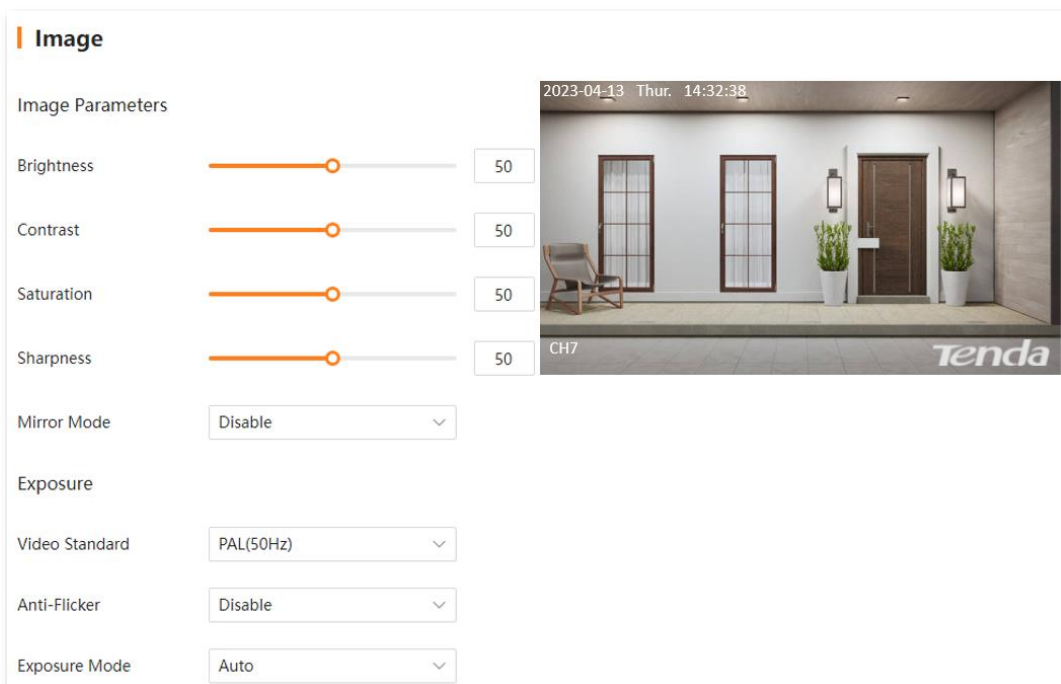
4.1 Image Configuration

4.1.1 Image Parameter

Overview

To access the configuration page, [log in to the web UI of the camera](#), and then navigate to **Configuration > Image > Image**.

You can adjust the image parameters to improve the visual effect of the camera monitoring image.




Parameter description

| Parameter | Description | |
|------------------|----------------|---|
| Image Parameters | Brightness | Specifies the brightness of the image. The brightness value can be adjusted when the overall monitoring image is dark or bright. The larger the value, the brighter the image. |
| | Contrast | Specifies the ratio of the lightest area to the darkest area in the image. The contrast value can be adjusted when the sense of layering in the monitoring image is poor and the contrast between the white and black of the image is insufficient. The larger the value, the greater the contrast between light and dark of the image. |
| | Saturation | Specifies the vividness of the colors in the image. The larger the value, the more vivid the image color. |
| | Sharpness | Specifies the sharpness of the edges of the image. The larger the value, the more obvious the edges of the image. |
| | Mirror Mode | Specifies the direction of the monitoring image. <ul style="list-style-type: none"> • Disable: The image will not be mirrored. • Up-Down: The image will be reversed up and down. • Left-Right: The image will be reversed left and right. • Center: The image will be changed up and down, left and right. This mode can be selected when the camera is installed upside down. |
| Exposure | Video Standard | Specifies the video standard of the camera, and supports 50 Hz (PAL) and 60 Hz (NTSC). <ul style="list-style-type: none"> • PAL(50Hz): It is available for such countries or regions as mainland China, China Hong Kong, and the United Kingdom. • NTSC(60Hz): It is available for such countries or regions as China Taiwan, the United States, Japan, and Canada. |
| | Anti-Flicker | Specifies the system sets the electronic shutter of the camera to an integer multiple or 0.5 times of the flickering frequency of the light to prevent streaks in the image. If there are stripes in the monitoring image, you can enable this function. |

| Parameter | Description |
|---------------|--|
| Exposure Mode | <p>Specifies the exposure mode of the camera.</p> <ul style="list-style-type: none"> • Auto: Specifies both gain and exposure time are automatic. The exposure time of the image sensor (such as CCD) is adjusted according to the brightness of the environment light to get a clear image. • Gain Priority: Specifies the exposure time is automatically adjusted according to the manually adjusted gain, the camera can output standard images under different lighting conditions. It cannot be configured when the Fill Light Mode is Auto. • Exposure Priority: Specifies the gain is automatically adjusted according to the manually adjusted exposure time, the camera can output standard images under different lighting conditions. • Manual: Specifies both gain and exposure time can be adjusted manually. It cannot be configured when the Fill Light Mode is Auto. |
| | <p>Specifies the electronic shutter time of the camera.</p> <p>When the image brightness and gain are both constant, the longer the exposure time, the higher the brightness of the image.</p> |
| Fill Light | <p>Specifies the fill light mode of the camera.</p> <ul style="list-style-type: none"> • Auto: Specifies the fill light can be automatically enabled according to the change of environment light brightness. • Schedule: Specifies the fill light can be enabled/disabled by preset time. • Always on: Specifies the fill light is always enabled. • Always off: Specifies the fill light is always disabled. |
| | <p>Specifies the light threshold of the fill light can be enabled automatically. Only available when the Fill Light Mode is Auto.</p> <p>The higher the sensitivity, the smaller the light threshold that triggers the fill light, and the easier to enable the fill light.</p> |
| | <p>Specifies the extended time for enabling the fill light after the conditions are met. Only available when the Fill Light Mode is Auto.</p> |
| | <p>Specify the period when the Fill Light is enabled. Only available when the Fill Light Mode is Schedule.</p> |
| | |

| Parameter | Description |
|------------------------|---|
| Night Vision Mode | <p>Specifies the monitoring image effect of the camera at night. Only available for full-color version cameras.</p> <ul style="list-style-type: none"> • Infrared: The infrared supplement light of the camera is enabled, and the monitoring image is always in black and white. • Full Color: The white supplement light of the camera is enabled, and the monitoring image is always in color. • Smart: When a moving object or human figure is detected, the white light of the camera will be enabled and the monitoring image will be in color, otherwise the infrared light will be enabled and the monitoring image will be in black and white. |
| Smart IR | Used to control the brightness of the fill light to ensure proper exposure to objects near the camera. Only available in the Infrared and Smart mode. |
| White Light Brightness | Used to customize the brightness of the white light. Only available in the Infrared and Full Color mode. |
| Disabled | Specifies the Back Light Compensation (BLC) function is disabled. |
| WDR | <p>Wide Dynamic Range (WDR).</p> <p>When the high brightness area in the monitoring image contrasts with the low brightness area, the system weakens the high brightness area and brightens the low brightness area, so that both the bright part and the dark part can be seen clearly.</p> |
| BLC | <p>Back Light Compensation (BLC).</p> <p>Specifies the system exposes the Compensation Area to reach the appropriate brightness to ensure the clarity of the image.</p> |
| HLC | <p>Highlight Compensation (HLC).</p> <p>Specifies in a strong light environment, the system will weaken the strong light area and brighten the dark light area to achieve light balance and make the whole image clearer.</p> |
| Level | Specifies the level of WDR or HLC . The higher the level, the more obvious the effect. |
| Compensation Area | Specifies the area to be exposed. Only available when backlight mode is BLC . |

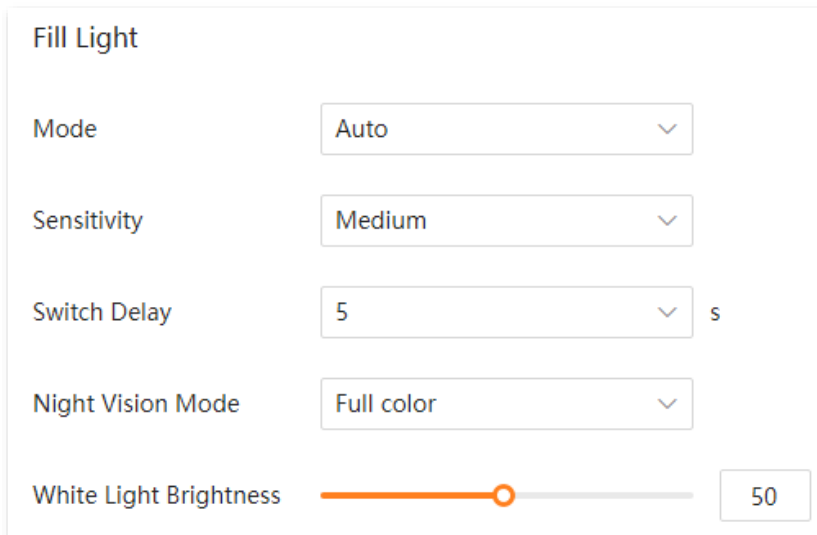
| Parameter | Description |
|-------------------|---|
| White Balance | <p>Specifies the overall color of the image can be adjusted by setting the white balance mode.</p> <ul style="list-style-type: none"> • Auto: Specifies the image color can be automatically adjusted according to the environment color temperature to restore the true color. • Manual: Specifies that R gain and B gain can be manually adjusted to adjust the image color. • Lock: Specifies the current color temperature is locked. • Fluorescent: Specifies the color of the image can be adjusted according to the color temperature of the fluorescent light. • Incandescent: Specifies the color of the image can be adjusted according to the color temperature of the incandescent light. • Warm: Specifies the color of the image can be adjusted according to the color temperature of the warm light. • Natural: Specifies the color of the image can be adjusted according to the color temperature of the natural light. |
| | <p>Specifies the image noise reduction.</p> <p>3D Noise Reduction</p> <p>Compare the images of the two frames before and after, target the noise location and handle noise reduction to make the image clearer and more delicate.</p> |
| Image Enhancement | <p>Specifies the level of the 3D noise reduction.</p> <p>The higher the level, the more noise locations are handled by noise reduction.</p> <p>Level</p> <p> NOTE</p> <p>If the noise reduction level is too high, the image may be distorted or blurred.</p> |

Set Night Vision Mode of the Camera

Assume that you want the monitoring images of the camera to be colored during the day and night, you can modify the night vision mode of the cameras.

Procedure:

- Step 1** [Log in to the web UI of the camera.](#)
- Step 2** Navigate to **Configuration > Image > Image Parameters.**
- Step 3** Modify the night vision mode of the camera, which is **Full color** in this example.



Fill Light

Mode

Sensitivity

Switch Delay s

Night Vision Mode

White Light Brightness

Step 4 Click **Save**.

---End

After the setting completes, the monitoring images of the camera is in color during the day.

4.1.2 OSD Configuration

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Image > OSD**.

On-Screen Display (OSD) refers to displaying the required information on the screen. This refers to the information displayed on the screen overlaid with the monitoring image at the same time.

OSD

Display Name

Channel Name

Display Time

Display Week

Display Logo


Date Format

Time Format

Font Size


Property

Text Overlay



Parameter description

| Parameter | Description |
|--------------|--|
| Display Name | Specifies whether to display the channel name on the monitoring image. |
| Channel Name | Specifies the channel name. You are recommended to modify the channel name to the description of the installation position of the channel camera so that you can quickly locate each camera when managing multiple cameras. |
| Display Time | Specifies whether to display the channel time. |
| Display Week | Specifies whether to display the monitoring image. It is available when the Display Time function is enabled. |
| Display Logo | Specifies whether to display the Tenda Logo. |
| Date Format | Specifies the format of the camera system date display. Y means the year, M means the month, and D means the day. Only available in when the Display Time function is enabled. |
| Time Format | Specifies the format of the camera system time display. Y means the year, M means the month, and D means the day. Only available in when the Display Time function is enabled. |
| Font Size | Specifies the font size of the OSD information display. You can select it as required. |

| Parameter | Description |
|--------------|---|
| Property | Specifies the transparency of the content displayed on the monitoring image.  TIP Transparent indicates the transparency of 50%. |
| Text Overlay | Specifies the displayed content is customized on the monitoring image. A maximum of two are supported. |
| OSD Position | In live view area, you can use the left mouse button to long press and drag the OSD to modify the display position of the OSD. |

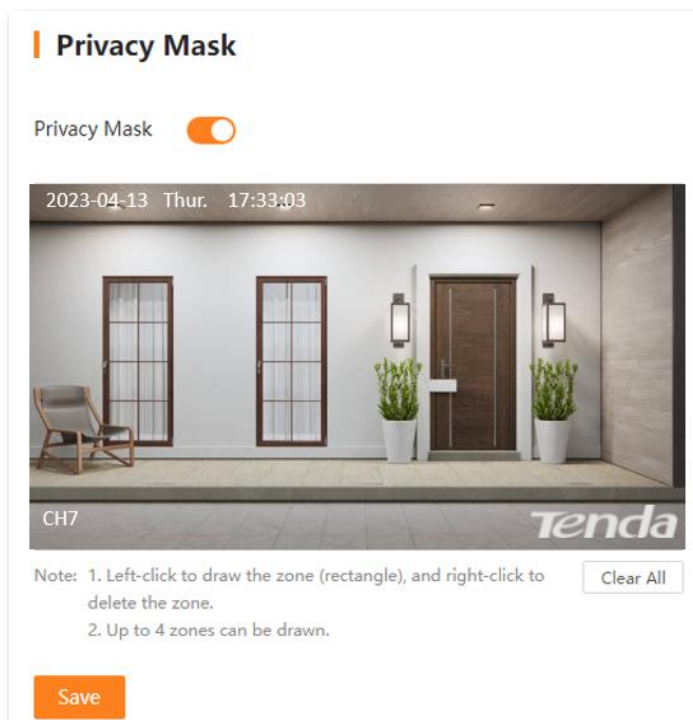
4.1.3 Privacy Mask

Overview

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Image > Privacy Mask**.

To protect your privacy, you can set some areas in the monitoring image (such as the bedroom window area) as privacy areas here. The privacy areas will not be displayed on the monitoring image.

This function is disabled by default. When it is enabled, the page is shown as below. Use the mouse to draw a privacy area in the preview area on the left. The following figure is for reference only.

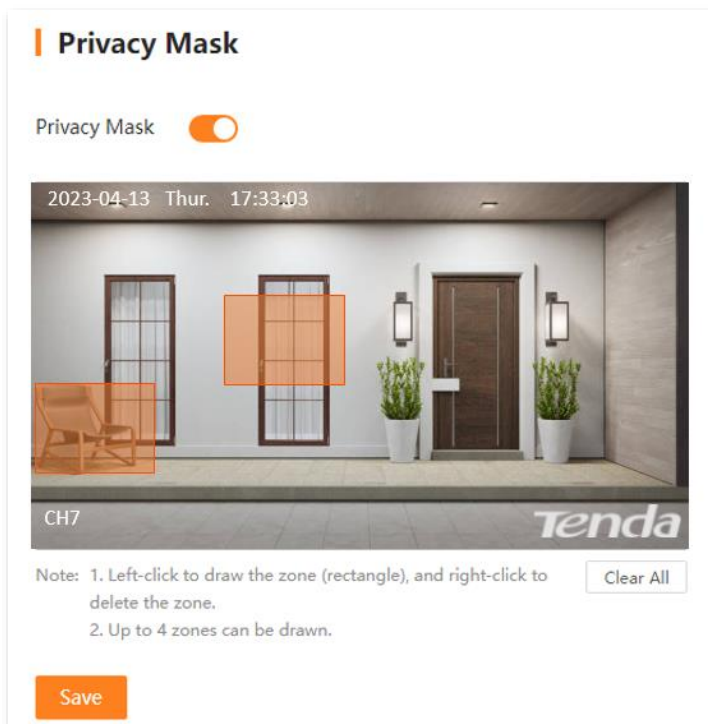


Draw Privacy Area

Assume that you want to hide some monitoring areas on the monitoring image.

Procedure:

- Step 1** [Log in to the web UI of the camera](#), and navigate to **Configuration > Image > Privacy Mask**.
- Step 2** Enable the **Privacy Mask**.
- Step 3** Hold down the left mouse button to draw the private area on the left side of the preview area. Release the mouse after the privacy area is drawn. The following figure is for reference only.



- Step 4** Click **Save**.

---End

After the setting completes, this privacy area is not displayed on the monitoring image.

4.2 Audio and Video Configuration

4.2.1 Video Configuration

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Audio & Video > Video Configuration**.

The video configuration function enables you to adjust the video encoding parameters.

Video Configuration

| Main Stream | Sub-stream |
|--|--|
| Encoding Type <input type="text" value="H.265"/> | Encoding Type <input type="text" value="H.265"/> |
| Resolution <input type="text" value="2560*1440"/> | Resolution <input type="text" value="640*360"/> |
| Frame Rate <input type="text" value="20"/> fps | Frame Rate <input type="text" value="20"/> fps |
| Bitrate Type <input type="text" value="Variable"/> | Bitrate Type <input type="text" value="Variable"/> |
| Video Quality <input type="text" value="Medium"/> | Video Quality <input type="text" value="Medium"/> |
| Bitrate <input type="text" value="1536"/> kbps | Bitrate <input type="text" value="256"/> kbps |

Save
Restore Default Settings

Parameter description

| Parameter | Description |
|---------------|---|
| Stream Type | <p>Specifies the stream type of the camera.</p> <ul style="list-style-type: none"> • Main Stream: The stream has a large value and a high occupied bandwidth, which is applicable for large-screen monitoring and storage. • Sub Stream: The stream has a small value and a small occupied bandwidth, which is applicable for small-screen monitoring and network transmission. |
| Encoding Type | <p>Specifies the encoding standard of the video.</p> <ul style="list-style-type: none"> • H.264: A generation of highly compressed video codec standards after MPEG4, which improves compression efficiency under the same video quality. • H.265: A generation of video coding standards after H.264, which improves the bit stream, coding quality, and delay to optimize coding and save more bandwidth and capacity under the same video quality. |

| Parameter | Description |
|---------------|--|
| Resolution | Specifies the number of pixels contained in a frame of an image. The higher the resolution, the clearer the image and the more obvious details. |
| Frame Rate | Specifies the number of video frames displayed per second. The higher the frame rate, the smoother the image. |
| Bitrate Type | <p>Specifies the bit rate control method of the video.</p> <ul style="list-style-type: none"> • Fixed: According to the upper limit of the bit rate to encode, the bit rate will fluctuate up and down in the bit rate value, and will not change with the monitoring scene. • Variable: The bit rate will change with the monitoring scene. Adopt a high bit rate when the monitoring scene is moving or changing. The Variable Bit Rate (VBR) adopts a lower bit rate when the monitoring scene is static. |
| Video Quality | Specifies the quality level of the video. Please set it as required. This parameter is available only when Bitrate Type is set to Variable . |
| Bitrate | Specifies the size of the video data per unit time. The larger the bit rate, the better the picture quality. |

4.2.2 Audio Configuration

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Audio & Video > Audio Configuration**.

The audio configuration function enables you to adjust the audio encoding parameters.

| Audio Configuration

Audio Stream

Encoding Type


Sampling Rate kHz

Bit Depth bit

Input Volume

Output Volume

Parameter description

| Parameter | Description |
|---------------|--|
| Audio Stream | <p>Specifies whether to enable the Audio Stream function.</p> <ul style="list-style-type: none"> • Enable: Specifies the recording file is audio and video composite stream. • Disable: Specifies the recording file is a video stream, and no audio stream. |
| Encoding Type | <p>Specifies the encoding standard of the audio. Select it according to the actual condition.</p> <ul style="list-style-type: none"> • AAC: Advanced Audio Coding (AAC). A file compression format specially designed for sound data, which is a lossy compression format. • G.711U, G.711A: G711 is a set of voice compression standards developed by the International Telecommunication Union (ITU-T), mainly used for telephone voice communication. G.711U and G.711A are two compression methods in the ITU-T G.711 standard. G.711U is the μ-law algorithm, and G.711A is the A-law algorithm. |
| Sampling Rate | Specifies the number of audio samples collected per second. |
| Bit Depth | Specifies the number of bits of information in each sample. |
| Input Volume | Specifies the volume level of the camera audio input. |
| Output Volume | <p>Specifies the volume level of the camera audio output.</p> <p> TIP</p> <p>The output volume set here will affect the volume of the Sound Alarm.</p> |

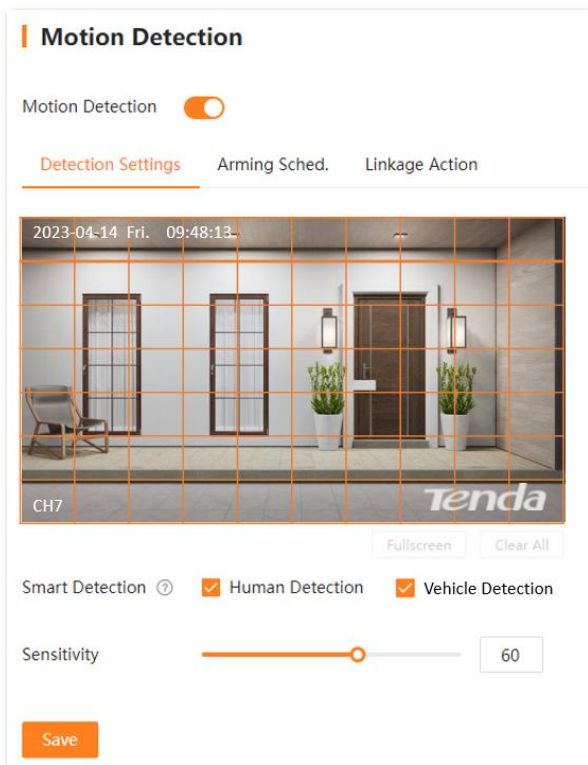
4.3 Alarm Management

4.3.1 Motion Detection

Overview



To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Alarm > Motion Detection**.


The motion detection function refers to the detection and alarm of moving targets. When a moving target appears on the monitoring image and the moving range reaches the threshold corresponding to the preset sensitivity, the system will alarm and record according to the linkage action you set.



Parameter & button description

| Parameter | Description |
|------------------|---|
| Motion Detection | Specifies whether the motion detection function is enabled. |

| Parameter | Description |
|---|---|
| Detection Settings | <p>Specifies the detection type.</p> <ul style="list-style-type: none"> • Human Detection: The system will alarm only when a human is detected. • Vehicle Detection: The system will alarm only when a vehicle is detected. • Tick neither: The system will alarm when an object moves in the drawn detection area. • Draw the detection area: Hold down the left mouse button to draw the detection area in the live view area. Release the mouse after the detection area is drawn. • Draw the non-detection area: In full-screen detection, hold down the left mouse button to draw a non-detection area in the live view area. Release the mouse after the detection area is drawn. <p> TIP</p> <p>When the detection mode is human detection and vehicle detection, the default is full-screen detection.</p> |
| | <p>Sensitivity</p> <p>Specifies the detection sensitivity threshold that triggers an alarm. The larger the value, the easier it is to trigger an alarm.</p> |
| | <p>Fullscreen</p> <p>Used to set all areas as the detection area with one click.</p> |
| | <p>Clear All</p> <p>Used to clear the current detection area.</p> |
| | Arming Sched. |
| <p></p> <p>Synchronize the set arming schedule to other dates.</p> | |
| <p>Clear All</p> <p>Used to clear the current arming schedule.</p> | |
| | |

| Parameter | Description |
|-----------------------|--|
| Common Linkage | <p>Specifies the ordinary alarm method of the camera after an alarm is triggered.</p> <ul style="list-style-type: none"> • Trigger Recording: The system will record after an alarm is triggered. For normal recording, please ensure that the SD card is normal or cloud storage has been purchased, and the Recording Schedule is also in effect. • Message Notification: The system will send an alarm notification to such alarm center as TDSEE App and NVR after an alarm is triggered. The camera needs to be added successfully through TDSEE App and NVR. Refer to Manage the Camera through TDSEE App and Manage the Camera through NVR for details. • Human Tracking: Only available when Human Detection is ticked. The camera moves as the human moves. |
| Linkage Action | <p>Specifies the sound and light alarm method of the camera after an alarm is triggered.</p> <ul style="list-style-type: none"> • Audio Alarm: The camera of the alarm channel will sound after an alarm is triggered. Refer to Sound & Light Alarm for details. • Light Alarm: The camera of the alarm channel will flash the fill light after an alarm is triggered. Refer to Sound & Light Alarm for details. <p> TIP</p> <p>To ensure that the sound alarm or light alarm works properly, check that the Arming Sched. of the sound & light alarm takes effect within the period when the Arming Sched. of motion detection is effective.</p> |
| Sound & Light Linkage | |

Configure Motion Detection Alarm

Scenario: Assume that you have set up a monitoring network with a camera.

Requirement: The motion detection function is enabled for the camera at 0:00 to 6:00 and 20:00 to 24:00 from Monday to Sunday. When a human detection alarm is triggered, an alarm notification is pushed to the TDSEE App, and trigger the camera for recording.

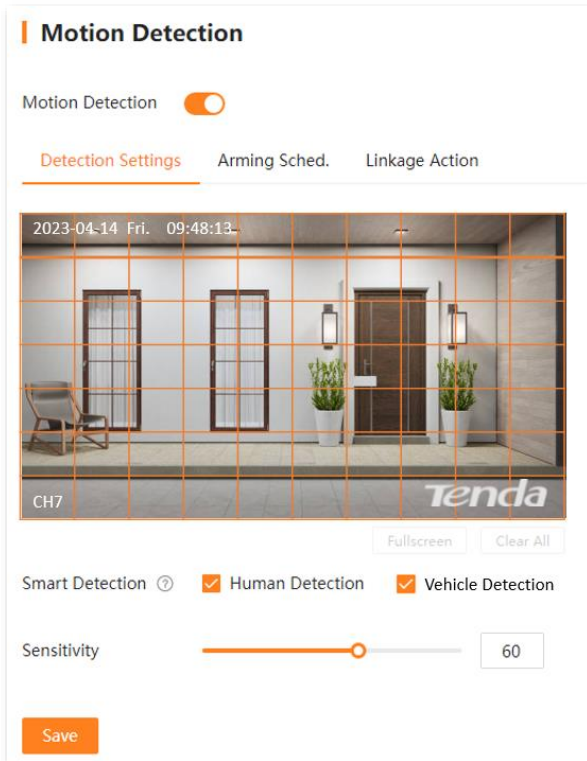
Solutions: Configure the **Motion Detection** function to meet this requirement.

Procedure:

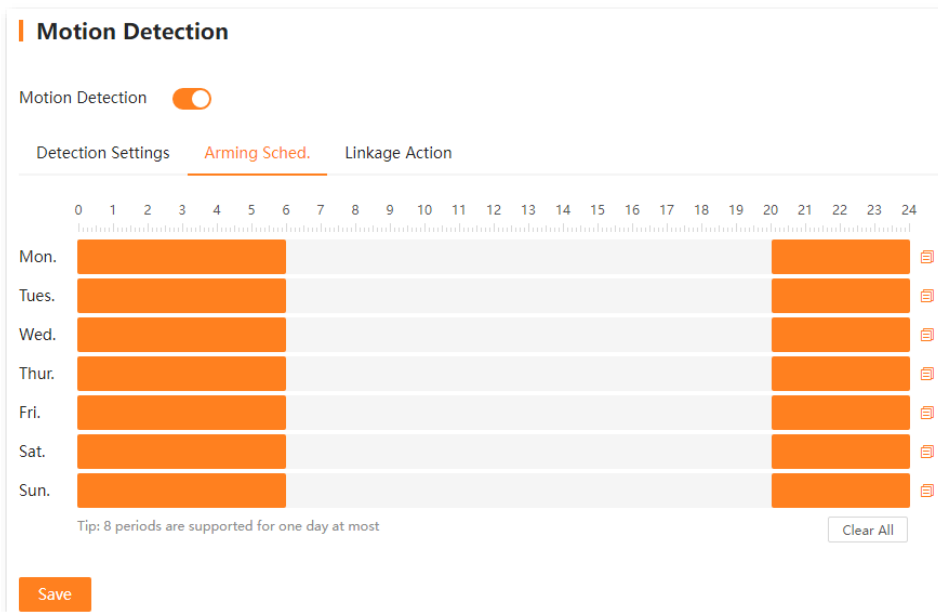
Step 1 [Log in to the web UI of the camera.](#)

Step 2 Set the motion detection.

1. Navigate to **Configuration > Alarm > Motion Detection**.
2. Enable the **Motion Detection**.
3. Select **Human Detection** in **Smart Detection**, adjust the sensitivity as required, and click **Save**.



- 4. Click **Arming Sched.** to set motion detection schedule, which is **0:00 to 6:00** and **20:00 to 24:00** from **Mon. to Sun.** in this example, and click **Save**.



- Click **Linkage Action**, and select alarm methods, which are **Trigger Recording** and **Message Notification** in this example, and click **Save**.

- Step 3** Use TDSEE App to add the camera. Refer to [Manage the Camera Through TDSEE App](#) for the related steps. (If set, please skip.)

---End

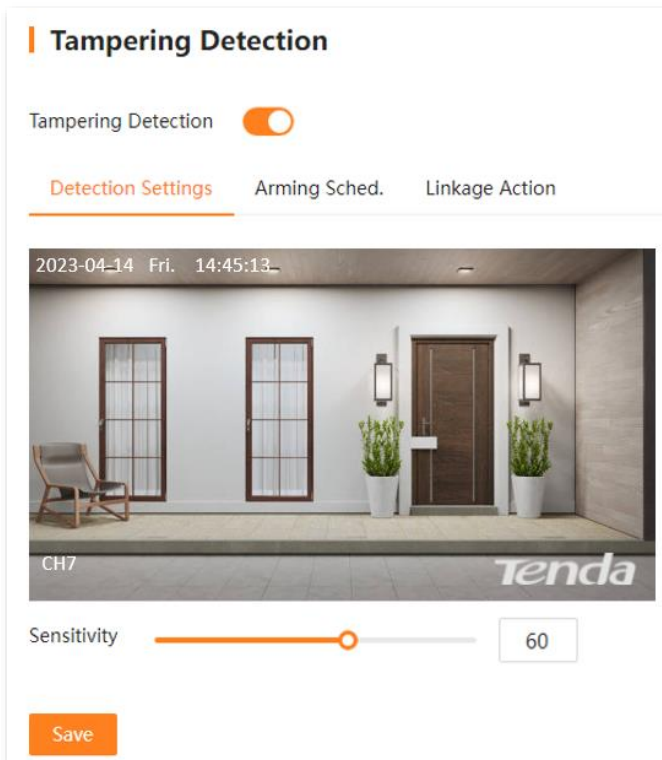
After the setting completes, if the camera detects an alarm, it will push an alarm notification and image to the TDSEE App, and trigger the camera to record at the same time.

4.3.2 Tampering Detection



Overview

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Alarm > Tampering Detection**.

The tampering detection function refers to the tampering detection alarm of the camera lens. When the camera lens is blocked by other objects and the moving sensitivity reaches the preset value, the system will alarm and record according to the linkage action you set.



Parameter & button description

| Parameter | Description |
|---|--|
| Tampering Detection | Specifies whether the Tampering detection function is enabled. |
| Detection Settings | <p>Sensitivity</p> <p>Specifies the detection sensitivity threshold that triggers an alarm. The larger the value, the easier it is to trigger an alarm.</p> |
| Arming Sched. | <p>Used to set an arming schedule. By default, it is 7*24 hours.</p> <p>Set arming schedule:</p> <ul style="list-style-type: none"> • When there is an arming schedule in the timetable, click any arming schedule and set it in the pop-up window. Or put the mouse on the far left or the last side of the arming schedule area, and then hold down the left mouse button to drag. • When the arming schedule is not set in the timetable. In the timetable, hold down the left mouse button to draw the arming schedule, and release the mouse after the arming schedule is drawn. <p> TIP</p> <p>The orange area means arming schedule, and the gray area means not arming schedule.</p> |
|  | Used to synchronize the set arming schedule to other dates. |
| Clear All | Used to clear the current arming schedule. |

| Parameter | | Description |
|----------------|----------------|---|
| Linkage Action | Common Linkage | <p>Specifies the ordinary alarm method of the camera after an alarm is triggered.</p> <ul style="list-style-type: none"> • Trigger Recording: The system will record after an alarm is triggered. For normal recording, please ensure that the SD card is normal or cloud storage has been purchased, and the Recording Schedule is also in effect. • Message Notification: The system will send an alarm notification to TDSEE App after an alarm is triggered. The camera needs to be added successfully through TDSEE App. Refer to Manage the Camera through TDSEE App for details. |

Configure Tampering Detection Alarm

Scenario: Assume that you have set up a monitoring network with a camera.

Requirement: The Tampering detection function is enabled for the camera at 0:00 to 6:00 and 20:00 to 24:00 from Monday to Sunday. When a Tampering detection alarm is triggered, an alarm notification is pushed to the TDSEE App, and trigger the camera for recording.

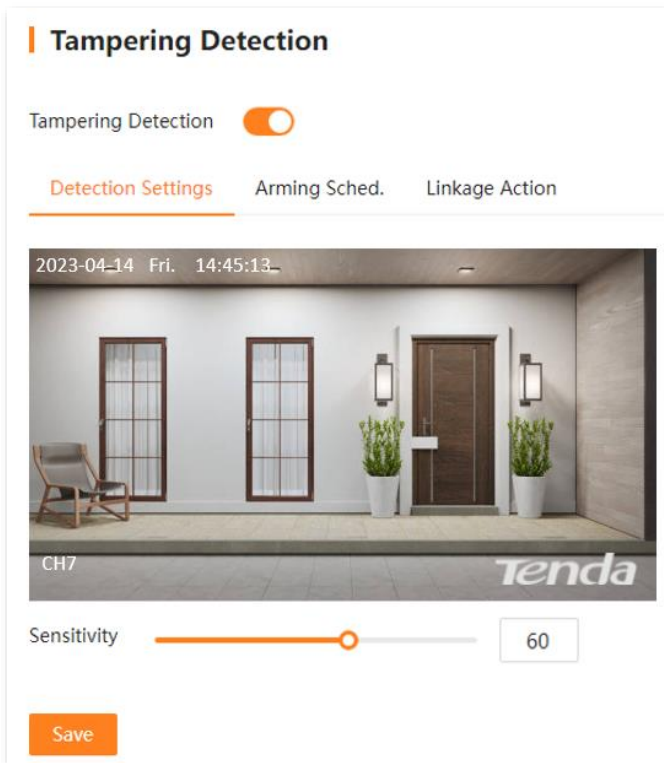
Solutions: Configure the **Tampering Detection** function to meet this requirement.

Procedure:

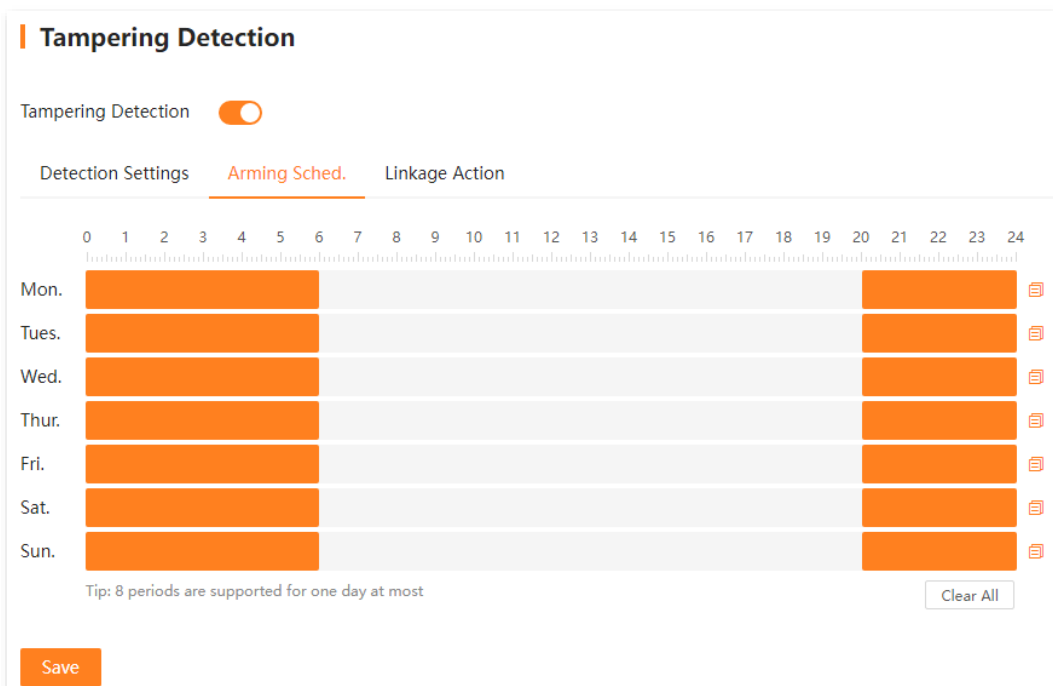
Step 1 [Log in to the web UI of the camera.](#)

Step 2 Set the tampering detection function.

1. Navigate to **Configuration > Alarm > Tampering Detection**.
2. Enable the **Tampering Detection**.
3. Adjust the sensitivity as required, and click **Save**.



4. Click **Arming Sched.** to set arming schedule, which is **0:00** to **6:00** and **20:00** to **24:00** from **Mon.** to **Sun.** in this example, and click **Save**.



5. Click **Linkage Action**, and select alarm methods, which are **Trigger Recording** and **Message Notification** in this example, and click **Save**.

Tampering Detection

Tampering Detection

Detection Settings Arming Sched. **Linkage Action**

- Common Linkage
- Trigger Recording
- Message Notification

Save

- Step 3** Use TDSEE App to add the camera. Refer to [Manage the Camera Through TDSEE App](#) for the related steps. (If set, please skip.)

---End

After the setting completes, if the camera detects an alarm, it will push an alarm notification and image to the TDSEE App, and trigger the camera to record at the same time.

4.3.3 Sound & Light Alarm

Overview

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Alarm > Sound & Light Alarm**.

The sound & light alarm function refers to the audio and lighting alarm method of the camera. The camera will sound or light the fill light after an alarm is triggered.

Sound & Light Alarm

Sound Alarm
Light Alarm

Sound Type Alarm Audio v

Repeat 1 v

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Mon. 🗑

Tues. 🗑

Wed. 🗑

Thur. 🗑

Fri. 🗑

Sat. 🗑


Sun. 🗑

Tip: 8 periods are supported for one day at most Clear All

Save

Parameter & button description

| Parameter/Button | Description |
|------------------|--|
| Sound Alarm | <p>Sound Type Specifies the alarm sound type of the camera after an alarm is triggered. The system has preset a variety of alarm sound modes, select it as required.</p> <hr/> <p>Repeat Specifies the repeat times of alarm sound.</p> |
| Light Alarm | <p>Duration Specifies the duration of the flashing light after an alarm is triggered.</p> |
| Arming Schedule | <p>Used to set an arming schedule. By default, it is 7*24 hours.</p> <p>Set arming schedule:</p> <ul style="list-style-type: none"> When there is an arming schedule in the timetable, click any arming schedule and set it in the pop-up window. Or put the mouse on the far left or the last side of the arming schedule area, and then hold down the left mouse button to drag. When the arming schedule is not set in the timetable, hold down the left mouse button to draw the arming schedule in the timetable, and release the mouse after the arming schedule is drawn. <p style="color: #f7941d; font-size: 0.8em; margin-top: 10px;">💡 TIP</p> <p>The orange area means arming schedule, and the gray area means not arming schedule.</p> |

| Parameter/Button | Description |
|---|---|
|  | Used to synchronize the set arming schedule to other dates. |
| Clear All | Used to clear the current arming schedule. |

Configure Motion Detection and Sound & Light Alarm

Scenario: Assume that you have set up a monitoring network with a camera.

Requirement: The human detection and vehicle detection functions are enabled for the camera at 8:00 to 20:00 from Monday to Sunday. When the sound & light alarm is triggered, an alarm notification is pushed to the TDSEE App at 8:00 to 20:00 from Monday to Friday, and sound & fill light will flash at 8:00 to 18:00 from Monday to Friday. After the alarm is triggered, the camera will record at the same time.

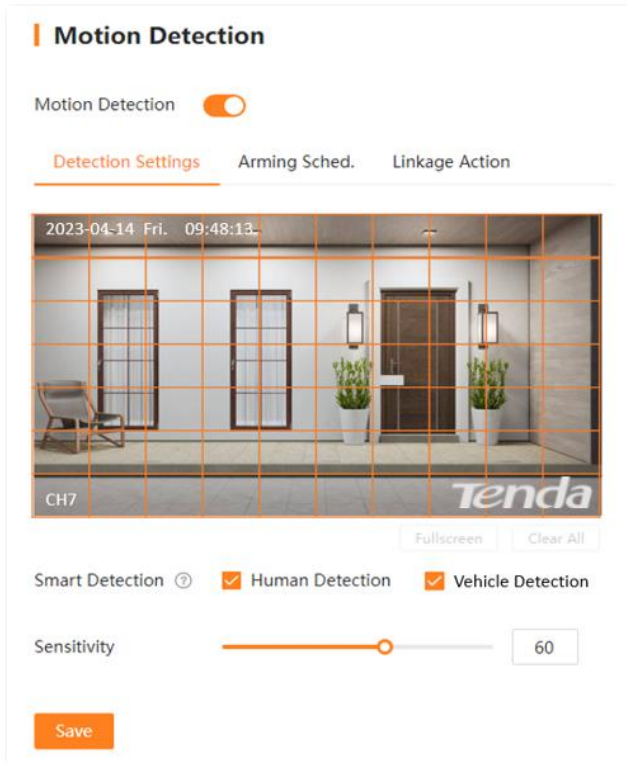
Solutions: Configure the **Motion Detection** and **Sound & Light Alarm** functions to meet this requirement.

Procedure:

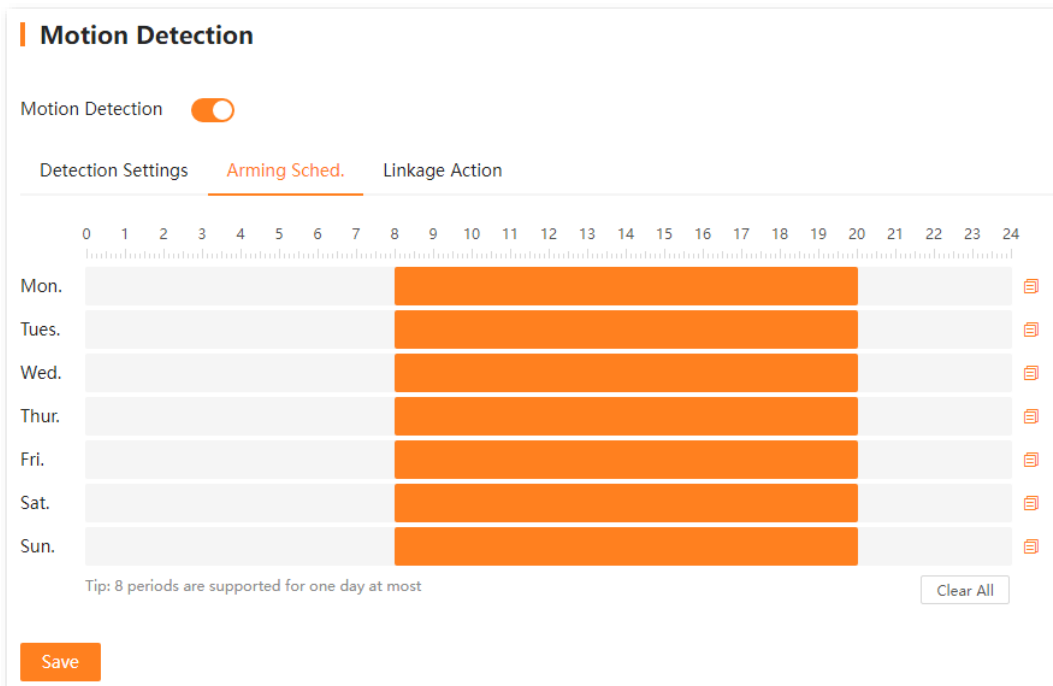
Step 1 [Log in to the web UI of the camera.](#)

Step 2 Set the motion detection.

1. Navigate to **Configuration > Alarm > Motion Detection**.
2. Enable the **Motion Detection**.
3. Tick **Human Detection** and **Vehicle Detection** in **Smart Detection**, adjust the sensitivity as required, and click **Save**.



- 4. Set motion detection schedule in **Arming Sched.** tab, which is **8:00 to 20:00** from **Mon.** to **Sun.** in this example, and click **Save**.



5. Click **Linkage Action**, and select alarm methods, which are **Trigger Recording** and **Message Notification** in this example, and click **Save**.

Motion Detection

Motion Detection

Detection Settings Arming Sched. **Linkage Action**

| | |
|--|---|
| <input type="checkbox"/> Common Linkage | <input checked="" type="checkbox"/> Sound & Light Linkage |
| <input checked="" type="checkbox"/> Trigger Recording | <input checked="" type="checkbox"/> Sound Alarm |
| <input checked="" type="checkbox"/> Message Notification | <input checked="" type="checkbox"/> Light Alarm |
| <input type="checkbox"/> Human Tracking | |

Save

Step 3 Set **Sound & Light Alarm** function.

1. Navigate to **Configuration > Alarm > Sound & Light Alarm**.
2. Set the sound alarm function of the camera. The following figure is for reference only.
 - Set alarm sound type as required.
 - Set the repeat times the alarm sound will be played after the alarm is triggered as required.
 - Set the sound alarm schedule, which is **8:00** to **18:00** from **Mon.** to **Fri.** in this example.
 - Click **Save**.

Step 4 Use TDSEE App to add the camera. Refer to [Manage the Camera Through TDSEE App](#) for the related steps. (If set, please skip.)

---End

The human detection is enabled at 8:00 to 20:00 from Monday to Sunday. If the system detects an alarm, the alarm notification and video will be pushed to the TDSEE App, and the recording will be triggered at the same time.

At 8:00 to 18:00 from Monday to Sunday, if the system detects an alarm, the camera will sound and the fill light will flash.

4.4 Network Configuration

4.4.1 Basic Settings

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Network > Basics**.

You can view and modify the parameters of the LAN port when the camera is connected to the network through wired or Wi-Fi method.



TIP

- If the camera is connected to the internet through an Ethernet cable, see the **Wired Network** tab.
- If the camera is connected to the internet through Wi-Fi, see the **WiFi Network** tab.

Basics

Wired Network WiFi Network

Mode Fixed IP DHCP Auto IP address

IP Address 192 . 168 . 13 . 166

Subnet Mask 255 . 255 . 255 . 0

Default Gateway 192 . 168 . 13 . 1

Auto Obtain DNS


Primary DNS 192 . 168 . 6 . 1


MTU 1500

MAC Address 50:2B:73:03:44:06

Save

Parameter description

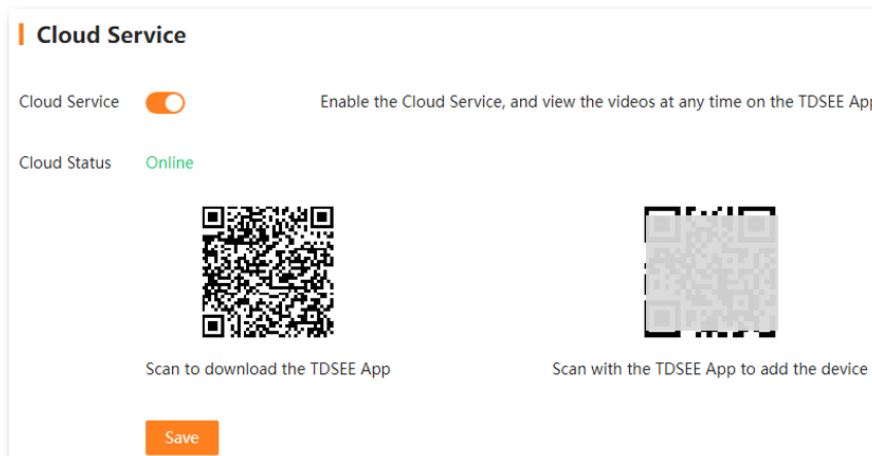
| Parameter | Description |
|-----------------|---|
| Fixed IP | Used to manually set the IP address and other information of the camera. After ticked it, you can manually specify the IP address, subnet mask, default gateway, and DNS server of the camera. |
| DHCP | Specifies whether to enable the function of the camera automatically to obtain an IP address from an upstream device. After the DHCP is ticked, the camera can automatically obtain its IP address, subnet mask, default gateway and DNS server from the DHCP server in the network. |
| Mode | Specifies the IP address of the camera is synchronized with the NVR. Only available when the camera is connected to the Internet through an Ethernet cable. After ticked it, if you search for the camera on the NVR management page in the network, the IP address of the camera will be automatically synchronized to the same network segment as the IP address of the NVR. |
| | <div style="display: flex; align-items: center;">  NOTE </div> <ul style="list-style-type: none"> • If the IP address of the camera has never been synchronized and there is no NVR in the current network, the IP address of the camera keeps the default (192.168.1.203). • If the IP address of the camera has been synchronized and there is no NVR in the current network, the IP address of the camera keeps the IP address when the latest synchronization was successful. • After the camera is stably connected to the NVR for 24 hours, the IP address acquisition method of the camera will be automatically changed to Fixed IP. |
| | Specifies the IP address of the camera is also the management IP address of the camera. |
| | Users on the same LAN as the camera can use this IP address to log in to the web UI of the camera. To connect the camera to the internet, the IP address must be set in the same network segment as the IP address of the LAN port of the router. |
| Subnet Mask | Specifies the subnet mask of the camera. |
| Default Gateway | Specifies the default gateway of the camera. To connect the camera to the internet, the IP address of the camera must be set in the default gateway of the LAN IP address of the router. |

| Parameter | Description |
|-----------------|--|
| Auto Obtain DNS | <p>Specifies whether to enable the function of the camera automatically obtaining DNS from an upstream device.</p> <p>After it is enabled, the camera can automatically obtain its DNS from the DHCP server in the network.</p> <p> TIP</p> <p>If the Auto Obtain DNS is disabled, you need to manually configure primary DNS and secondary DNS for camera.</p> |
| MTU | Specifies the largest data packet transmitted by the camera, that is, the maximum transmission unit. |
| MAC Address | Specifies the LAN MAC address of the camera. |


4.4.2 Cloud Service


To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Network > Cloud Service**.

The cloud service function enables the camera to connect to the cloud, and you can add the camera through TDSEE App to preview monitoring videos remotely, play back history recordings and view alarm notifications.



Parameter description

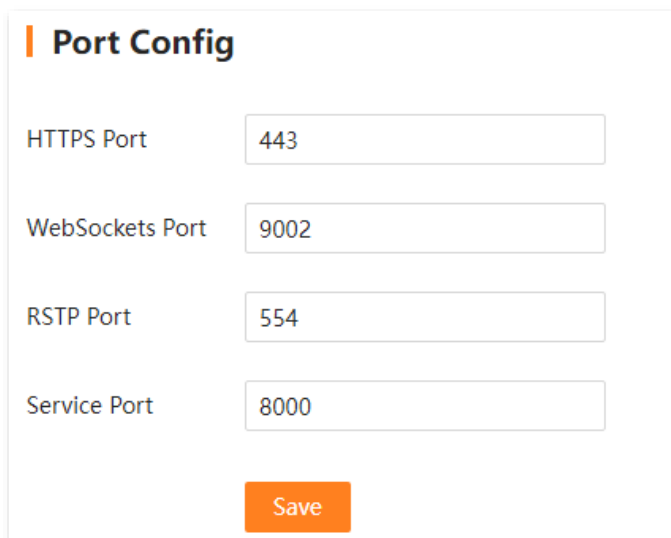
| Parameter | Description |
|---------------|---|
| Cloud Service | <p>Specifies whether to enable the cloud service function.</p> <p> TIP</p> <p>Disabling the cloud service requires rebooting the camera to enable the settings.</p> |

| Parameter | Description |
|--------------|---|
| Cloud Status | Specifies the status of the camera connected to the cloud. If the cloud status displays Offline , move the mouse to  on the top of the page, then follow the on-screen instructions. |

4.4.3 Port Configuration

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Network > Port Config**.

The port number indicates different network services. You can view or modify each service port number here.



Port Config

HTTPS Port


WebSockets Port

RSTP Port

Service Port

Parameter description

| Parameter | Description |
|-----------------|---|
| HTTPS Port | Specifies the port of the HTTPS protocol. You are recommended to keep the default settings. After the HTTPS port number is modified, when you log in to the web UI of the camera, you can manually enter this port number behind the IP address of the camera. The access format is HTTPS://camera IP address: HTTPS port. |
| WebSockets Port | Specifies the port of the WebSockets protocol. You are recommended to keep the default settings. You can realize two-way communication between the browser and the server, and allow the server to push data to the browser through the WebSockets protocol. |

| Parameter | Description |
|--------------|---|
| RTSP Port | <p>Specifies the port number for the Real Time Streaming Protocol (RTSP). The default settings are recommended.</p> <p>RTSP is used to transmit and control the audio and video, and it is responsible for the request and response between the server and the client.</p> <p>URL format: rtsp://IP Address of the camera:RTSP port/ch=1&subtype=0 or 1. For example, rtsp://192.168.1.203:554/ch=1&subtype=0</p> <p> TIP</p> <p>Subtype=0 means main stream and subtype=1 means sub-stream.</p> |
| Service Port | <p>Specifies the port number for the Tenda protocol. The default settings are recommended.</p> <p>When the camera is added to the NVR through the Tenda protocol, this port number is required.</p> |

4.5 Storage Management

On the storage management page, you can manage the SD card and set the recording schedule.

4.5.1 SD Card Management

Overview


To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Storage > SD Card**.

You can view the status of the SD card, format SD card and set the storage policy when the SD card is full.

| SD Card | | | | |
|---|---------|-----------|----------|-----------|
| SD Card Overwrite <input checked="" type="checkbox"/> | | | | |
| No. | Total | Available | Status | Operation |
| 1 | 28.75GB | 26.33GB | • Normal | |

Parameter description

| Parameter | Description |
|-------------------|---|
| SD Card Overwrite | Specifies the storage policy when the SD card is full. After enabled, if the SD card is full, the earliest recording files will be overwritten circularly. |
| No. | Specifies the number of the SD card. |
| Total | Specifies the total capacity of the SD card. |
| Available | Specifies the available capacity of the SD card. |
| Status | Specifies the status of the SD card. If the SD card is abnormal. Try the following solutions: <ul style="list-style-type: none"> • Shut down the camera first, reinstall the SD card and start up the camera. • If the problem persists, format the SD card. |

| Parameter | Description |
|-----------|---|
| | Used to format the SD card. |
| Operation | <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 10px;">  </div> <ul style="list-style-type: none"> • All data on the SD card will be cleared and cannot be recovered after the SD card is formatted. Please operate with caution. • If the formatting fails, try again. If the problem persists, shut down the camera first, replace the SD card and start up the camera. </div> |

Format the SD Card

If the **Status** of the SD card is unformatted, or you want to clear the data of the SD card, you can format the SD card.




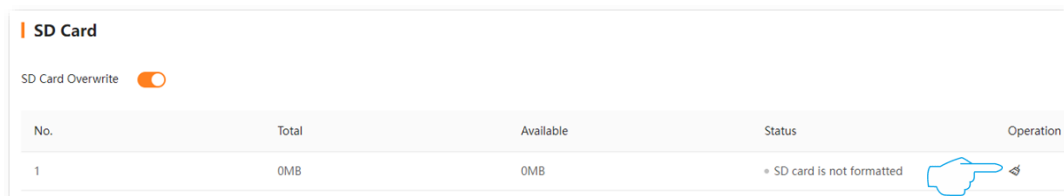
- All data will be cleared and cannot be restored after the SD card is formatted. Operate with caution.
- If the formatting fails, try again. If the problem persists, shut down the camera first, replace the SD card and start up the camera.

Procedure:

Step 1 [Log in to the web UI of the camera.](#)

Step 2 Navigate to **Configuration > Storage > SD Card**.

Step 3 Click the format button .



Step 4 Read the prompt message, and click **OK**.

---End

The system will format the camera.

4.5.2 Recording Schedule

Overview

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **Configuration > Storage > Schedule**.

After the schedule is set, the system will record according to the schedule. By default, the system presets the schedule of 7*24 hours continuous alarm recording for camera, and you can modify the recording time and recording type as required.

Schedule

Recording

Normal
 Alarm

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Mon.  

Tues.  

Wed.  

Thur.  

Fri.  

Sat.  








Sun.  

Tip: 8 periods are supported for one day at most

[Advanced Settings >>](#)

Parameter & button description

| Parameter | Description |
|-----------|--|
| Recording | Specifies whether the recording function is enabled. |

| Parameter | Description |
|--|--|
|  Normal | <p>Specifies the camera always records. Click this button to draw the recording time in the timetable below.</p> <p>Set normal recording time:</p> <ul style="list-style-type: none"> • When there is a recording time in the timetable, click any recording time and set it in the pop-up window. Or put the mouse on the far left or the last side of the normal recording time area, and then hold down the left mouse button to drag. • When the recording time is not set in the timetable. In the timetable, hold down the left mouse button to draw the normal recording time, and release the mouse after the arming schedule is drawn. <p> TIP</p> <p>Green means normal recording, and the gray area means not recording time.</p> |
|  Alarm | <p>Specifies the camera will record only when the camera triggers an alarm. Click this button to draw the recording time in the timetable below.</p> <p>Set alarm recording time:</p> <ul style="list-style-type: none"> • When there is a recording time in the timetable, click any recording time and set it in the pop-up window. Or put the mouse on the far left or the last side of the alarm recording time area, and then hold down the left mouse button to drag. • When the recording time is not set in the timetable. In the timetable, hold down the left mouse button to draw the alarm recording time, and release the mouse after the arming schedule is drawn. <p> TIP</p> <p>Red means alarm recording time, and the gray area means not recording time.</p> |
|  All Normal Recording | Used to set a 24-hour normal recording from Monday to Sunday with one click. |
|  All Alarm Recording | Used to set a 24-hour alarm recording from Monday to Sunday with one click. |
|  | Used to synchronize the set arming schedule to other dates. |
| Clear All | Used to clear the time that has been set in the timetable below. |
| Post-record | <p>Only applicable for Alarm. Click Advanced Settings to enter the page.</p> <p>Specifies the time of continuous recording after an alarm is finished.</p> |

Configure Schedule



Assume that you want to set a schedule for the camera as shown in the table below:

| Recording | Recording Time | Recording Type |
|------------------|----------------|------------------|
| Monday to Sunday | 00:00 to 8:00 | Not recording |
| Monday to Sunday | 8:00 to 12:00 | Normal recording |
| Monday to Sunday | 12:00 to 14:00 | Alarm recording |
| Monday to Sunday | 14:00 to 18:00 | Normal recording |
| Monday to Sunday | 18:00 to 24:00 | Alarm recording |



After an alarm recording plan is set for the camera, the alarm event also needs to be set for the channel in the [Alarm Management](#).

Procedure:

- Step 1** [Log in to the web UI of the camera.](#)
- Step 2** Navigate to **Configuration > Storage > Schedule**.
- Step 3** Click  Normal, then hold down the left mouse and drag to draw the normal recording period, which is **8:00 to 12:00** and **14:00 to 18:00** from Monday to Sunday in this example.
- Step 4** Click  Alarm, then hold down the left mouse and drag to draw the alarm recording period, which is **12:00 to 14:00** and **18:00 to 24:00** from Monday to Sunday in this example.
- Step 5** Click **Save**.

Schedule

Recording

Normal Alarm

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|-------|---|---|---|---|---|---|---|---|--------|--------|--------|--------|-------|-------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|
| Mon. | | | | | | | | | Normal | Normal | Normal | Normal | Alarm | Alarm | Normal | Normal | Normal | Normal | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm |
| Tues. | | | | | | | | | Normal | Normal | Normal | Normal | Alarm | Alarm | Normal | Normal | Normal | Normal | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm |
| Wed. | | | | | | | | | Normal | Normal | Normal | Normal | Alarm | Alarm | Normal | Normal | Normal | Normal | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm |
| Thur. | | | | | | | | | Normal | Normal | Normal | Normal | Alarm | Alarm | Normal | Normal | Normal | Normal | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm |
| Fri. | | | | | | | | | Normal | Normal | Normal | Normal | Alarm | Alarm | Normal | Normal | Normal | Normal | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm |
| Sat. | | | | | | | | | Normal | Normal | Normal | Normal | Alarm | Alarm | Normal | Normal | Normal | Normal | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm |
| Sun. | | | | | | | | | Normal | Normal | Normal | Normal | Alarm | Alarm | Normal | Normal | Normal | Normal | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm | Alarm |

Tip: 8 periods are supported for one day at most

Advanced Settings >>

Clear All

Save

---End

After the setting completes, the system will enable the camera to record according to the above schedule.

5 System Management

5.1 Devie Info

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **System Management > Device Info**.

You can modify the name of the camera and view such basic information as device model, hardware version, serial number, UUID and system time of the camera.

Device Info

Device Name

Device Model CH7

Hardware Version V1.0

Device S/N

UUID

Firmware Version V21.3.2.16

Release Date 2023-03-31

System Time 2023-04-15 15:13:45

Uptime 4day(s)5hour(s)26minute(s)

Parameter description

| Parameter | Description |
|--------------|---|
| Device Name | Specifies the name of the camera. To quickly locate the camera by name, you are recommended to modify the camera name. |
| Device Model | Specifies the model of the camera. |

| Parameter | Description |
|------------------|--|
| Hardware Version | Specifies the hardware version of the camera. |
| Device S/N | Specifies the S/N of the camera. |
| UUID | Universal Unique Identifier (UUID), which identifies the uniqueness of the camera. When a camera is added through the TDSEE App, you can use the UUID number to add it. |
| Firmware Version | Specifies the firmware version of the camera. |
| Release Date | Specifies the release time of the current system firmware of the camera. |
| System Time | Specifies the current system time of the camera. |
| Uptime | Specifies the time during which the camera is operating since the last start. |

5.2 Time Settings

5.2.1 Overview

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **System Management > Time Settings**.

You can set the system time of the camera here. To ensure that the time-based functions of the camera take effect normally, it is necessary to ensure that the system time of the camera is accurate.

The camera supports two time-setting methods: [Synchronize with the internet](#) and [Manual](#). The default is synchronizing with the internet.

Time

System Time: 2023-04-15 15:52:41

Time Zone: (UTC+08:00) Beijing, Chongqing

Date Format: YYYY-MM-DD

Time Synchronization: Manual Internet

NTP Server Address: time.windows.com

NTP Service Port: 123

Interval: 10 minute(s) (range: 1 - 10080)

DST:

Type: Week Date

Start Time: March Last Sun. 0:00

End Time: October Last Sun. 0:00

Offset Time: 60 minute(s)

[Save](#)

Parameter description

| Parameter | Description |
|-------------|---|
| System Time | Specifies the current system time of the camera. |
| Time Zone | Specifies the standard time zone in which the camera locates. |

| Parameter | Description |
|----------------------|---|
| Date Format | Specifies the format of the camera system time. |
| Time Synchronization | Specify the synchronization mode of the camera system time. <ul style="list-style-type: none"> • Manual: Set the date and time manually. • Internet: Synchronize the time of the NTP server according to the interval. |
| Date | Displayed when Time Synchronization is set to Manual . They are used to manually set the date and time of the camera. |
| Time | |
| NTP Server Address | Displayed when Time Synchronization is set to Internet . Specify the address or port of the time server. |
| NTP Service Port | Network Time Protocol (NTP) is used to synchronize the time between the client and the network time server. After the Internet function is enabled, the camera will synchronize the system time through this NTP server according to the Interval . |
| Interval | Displayed when Time Synchronization is set to Internet . Specifies the time interval of the camera to synchronize the system time to the NTP server. |
| DST | Specifies whether to enable the DST function. DST is a time system to save energy. The unified time adopted during the implementation of this system is called DST . If the country or region where the camera is located implements the DST system, enable the DST function. |
| Type | Specifies the type of DST. Select according to the local DST system. |
| Start Time | Specify the start time and end time of the DST. |
| End Time | |
| Offset Time | Specifies the time bias during the DST period. For example, if the DST system implemented in a country or region is to move the time forward by one hour, the Offset Time should be set to 60 minutes. |

5.2.2 Manually Synchronize the System Time

Manually setting the system time of the camera is generally used when the camera is disconnected from the internet.

Step 1 [Log in to the web UI of the camera.](#)

Step 2 Navigate to **System Management > Time**.

Step 3 Set date and time. The following figure is for reference only.

Step 4 Click **Save**.

The screenshot displays the 'Time' configuration page. The 'System Time' is set to 2023-04-15 16:07:31. The 'Time Zone' is set to (UTC+08:00) Beijing, Chongqing. The 'Date Format' is set to YYYY-MM-DD. The 'Time Synchronization' is set to Manual. The 'Date & Time' section shows the date as 2023-04-15 and the time as 16:02:27, with a 'Sync with computer time' button. The 'DST' is turned on. The 'Type' is set to Week. The 'Start Time' is set to March, Last, Sun., 0:00. The 'End Time' is set to October, Last, Sun., 0:00. The 'Offset Time' is set to 60 minute(s). A 'Save' button is located at the bottom of the form.

---End

After the setting completes, you can check whether the **System Time** on the page is accurate.

5.2.3 Synchronize the System Time Through Internet

After the camera is successfully connected to the internet, without settings again, the system time will automatically synchronize with the NTP server according to the **Interval**. You can modify the NTP server and time synchronization as required.

Refer to [Internet Basics Settings](#) to connect the camera to the internet.

Procedure:

- Step 1** [Log in to the web UI of the camera.](#)
- Step 2** Navigate to **System Management > Time**.
- Step 3** Select the time zone in which the camera locates.
- Step 4** Set **Time Synchronization** to **Internet**.
- Step 5** Click **Save**.

Time

System Time: 2023-04-15 16:12:30

Time Zone: (UTC+08:00) Beijing, Chongqing

Date Format: YYYY-MM-DD

Time Synchronization: Manual Internet

NTP Server Address: time.windows.com

NTP Service Port: 123

Interval: 10 minute(s) (range: 1 - 10080)

DST:

Type: Week Date

Start Time: March Last Sun. 0:00

End Time: October Last Sun. 0:00

Offset Time: 60 minute(s)

Save

---End

After the setting completes, you can check whether the **System Time** on the page is accurate.

5.3 System Maintenance

5.3.1 Device Upgrade

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **System Management > System Maintenance > Firmware Upgrade**.

The firmware upgrade function enables the camera to get new or more stable performance.



- To avoid damage to the camera, use the correct upgrade file. Generally, the firmware upgrade file is suffixed with .bin.
- During upgrading, do not directly cut off the power supply of the camera. Otherwise, it may cause upgrade failure or camera damage.

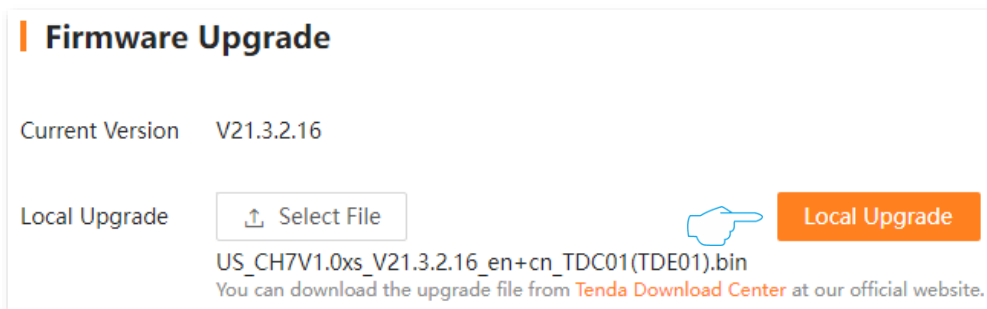
Procedure:

Step 1 Visit www.tendacn.com to download the latest upgrade firmware of the corresponding camera model, and save it to the root directory of the USB storage device.

Step 2 [Log in to the web UI of the camera](#), and navigate to **System Management > System Maintenance > Firmware Upgrade**.

Step 3 Click **Select File**, find and select the upgrade file (suffixed with .bin.).

Step 4 Click **Local Upgrade**.



Step 5 Confirm the prompt message, and click **OK**.

---End

The LED indicator of the camera blinks blue slowly, and the upgrade progress prompt will appear on the page, please wait with patience. After the progress bar is finished, you can log in to the web UI of the camera, check the **Current Version** of the camera on the **Firmware Upgrade** page, and confirm that it is the same as the software version you just upgraded.



For better performance of the new firmware of the camera, you are recommended to reset the camera to factory default settings and re-configure the camera when the upgrading is completed.

5.3.2 Restore Settings

If the camera is running slowly, or a configuration error occurs, you can try to restore the camera.

- Restore the default settings: Except for the [Network Configuration](#) and user management-related configuration, all other settings are restored to the factory settings.
- Restore factory settings: Restore all settings of the camera to the factory settings.



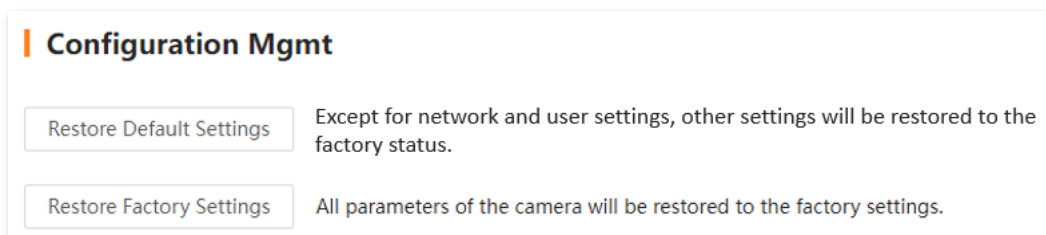
- When the camera restores its settings, it will disconnect all current connections.
- To avoid damaging the camera, ensure that the camera is powered on properly during the process of restoring the factory settings.
- After restoring the factory settings, all the settings of the camera will be restored to the factory status, and you need to re-configure. Before restoring factory settings, you are recommended to back up the configuration first.

Procedure:

Step 1 [Log in to the web UI of the camera.](#)

Step 2 Navigate to **System Management > System Maintenance > Configuration Mgmt.**

Step 3 Click **Restore Default Settings** or **Restore Factory Settings** as required.



Step 4 Confirm the prompt message, and click **OK**.

---End

Wait until the progress bar completes. If the camera is reset, refer to the quick installation guide of the corresponding model camera to re-configure the network.

5.3.3 Auto Maintenance

The reboot can prevent performance decrease and instability of the camera due to long-time running. You can reboot the camera or set the camera to automatically reboot periodically during idle time.



To ensure that the camera works properly, you are recommended to set the camera to reboot in idle time.

Assume that you want to automatically reboot the camera at 3:00:00 from Monday to Friday.

Procedure:

- Step 1** [Log in to the web UI of the camera.](#)
- Step 2** Navigate to **System Management > System Maintenance > Auto Maintenance.**
- Step 3** Enable the **Scheduled Reboot.**
- Step 4** Select the reboot date, which is **Mon.** to **Fri.** in this example.
- Step 5** Set the reboot time, which is **03:00:00** in this example.
- Step 6** Click **Save.**

| Auto Maintenance

Scheduled Reboot

On All Mon. Tues. Wed. Thur. Fri. Sat. Sun.

Reboot Time

---End

After the setting completes, the camera will automatically reboot from Monday to Friday at 3:00.

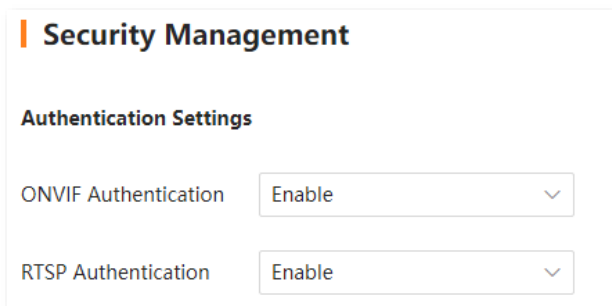
5.3.4 Security Management

Authentication Settings

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **System Management > System Maintenance > Security Management**.

You can enable or disable ONVIF authentication and RTSP authentication here.

- When ONVIF authentication is enabled and a device accesses the camera through the ONVIF protocol, the authentication information (username and password) needs to be verified.
- When RTSP authentication is enabled and a device accesses the camera through the RTSP protocol, the authentication information (username and password) needs to be verified.



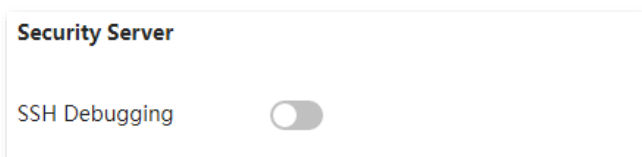
SSH Debugging

Secure Shell (SSH) is a protocol used to realize secure remote access and file transfer services through encryption mechanisms and authentication mechanisms. This camera supports the SSH server function and accepts SSH client connections.

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **System Management > System Maintenance > Security Server**.

By default, SSH debugging is disabled.

After SSH debugging is enabled, you can log in to the camera through the SSH client. SSH debugging is only used by professionals to debug the camera. For security, do not enable this function unless in special situation.




5.4 User Management

5.4.1 Overview

To access the configuration page, [log in to the web UI of the camera](#), and navigate to **System Management > Users**.

You can modify the login account information of the camera to prevent unauthorized users from entering the web UI of the camera to change settings and affect normal use.

| Users | | |
|-----------|---------------|---|
| User Name | User Type | Operation |
| admin | Administrator |  |

5.4.2 Modify the Login Password

Method 1:

Available when the default login password of the camera is unmodified.

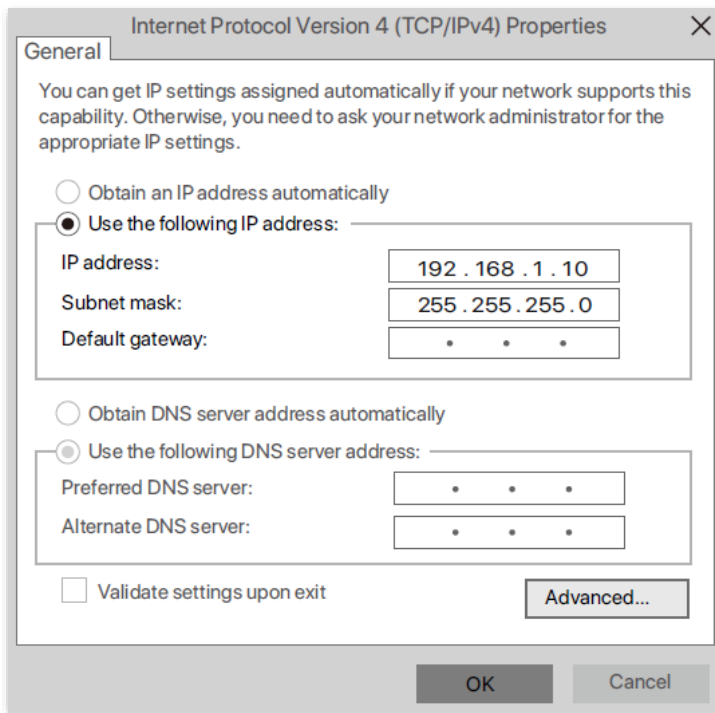
Procedure:

Step 1 Connect the computer/tablet to a router that is connected to the camera.

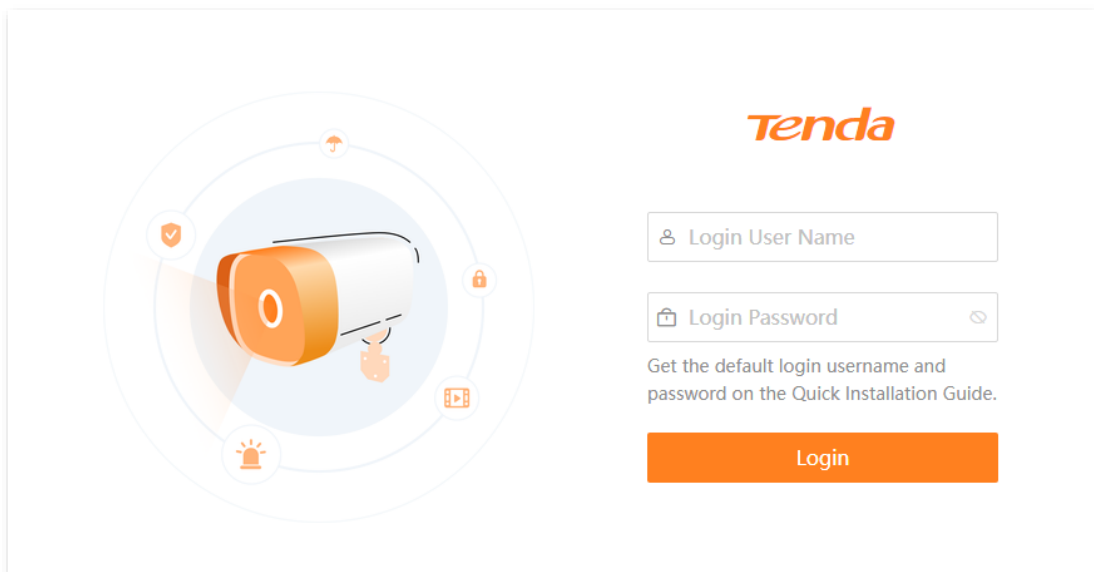
You can connect the computer to the LAN port of the router by using an Ethernet cable, or connect the tablet to the Wi-Fi network of the router.

Step 2 Set the IP address of the computer to an unused one belonging to the same network segment as the IP address of the camera but different from the IP address of the camera. The following figure is for reference only.

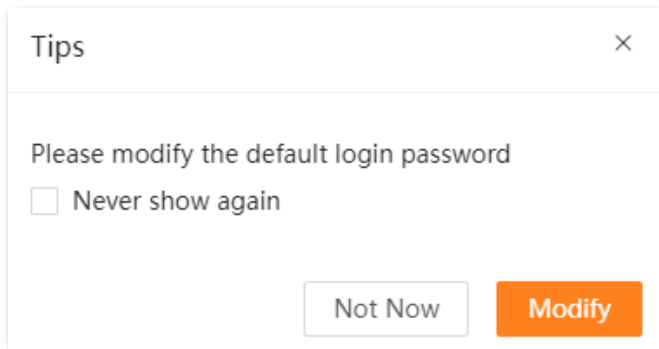
The default login IP address of the camera is 192.168.1.203, and the DHCP function is enabled. If there is a DHCP server in the network, the IP address of the camera may be changed. Refer to the actual IP address assigned to the camera by the DHCP server.



- Step 3** Start a browser and enter the IP address of the camera in the address bar to access the login page. Enter the **Login User Name** (default: admin) and **Login Password** (default: admin123456), and then click **Login**.

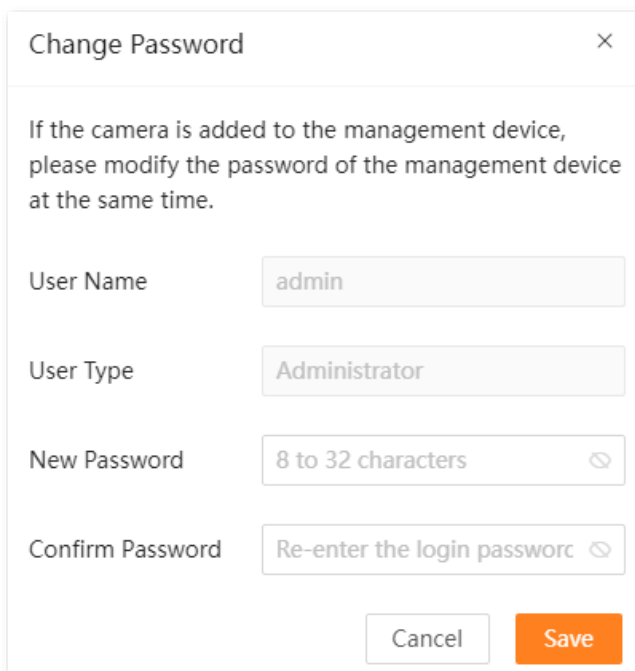


Step 4 Read the prompt messages, and click **Modify**.



Step 5 Enter the **New Password**.

Step 6 Click **Save**.

A dialog box titled "Change Password" with a close button (X) in the top right corner. The main text reads "If the camera is added to the management device, please modify the password of the management device at the same time." Below this text are four input fields:

- User Name: A text box containing the value "admin".
- User Type: A dropdown menu showing "Administrator".
- New Password: A text box containing "8 to 32 characters" and a toggle icon for password visibility.
- Confirm Password: A text box containing "Re-enter the login password" and a toggle icon for password visibility.

At the bottom of the dialog, there are two buttons: "Cancel" and "Save". The "Save" button is highlighted in orange.

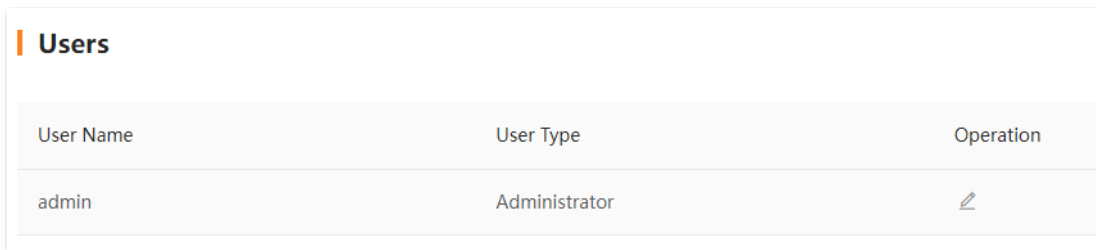
---End


You will be redirected to the login page. Enter the password you set, and then click **Login** to log in to the web UI of the camera.

Method 2:

Step 1 [Log in to the web UI of the camera](#), and navigate to **System Management > Users**.

Step 2 Click  .

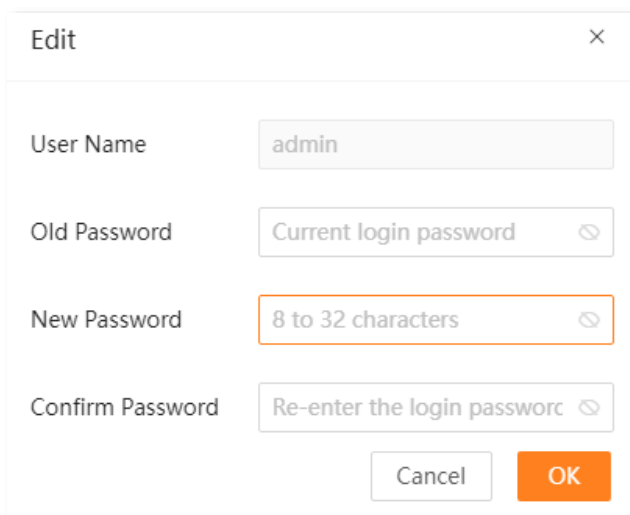


| User Name | User Type | Operation |
|-----------|---------------|---|
| admin | Administrator |  |

Step 3 Enter the **Old Password**.

Step 4 Set the new login password.

Step 5 Click **OK**.



Edit

User Name: admin

Old Password: Current login password

New Password: 8 to 32 characters

Confirm Password: Re-enter the login password


Cancel OK

---End

When logging in to the web UI of the camera again, please enter the new login password you set.

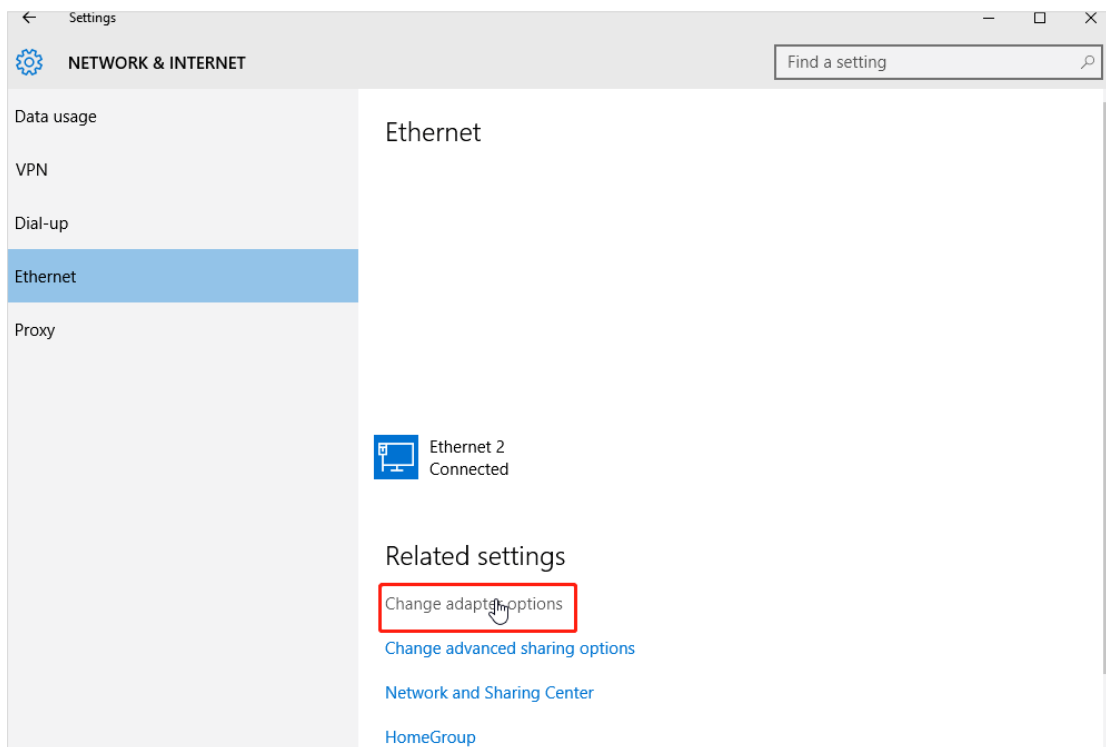
Appendix

A.1 Configure the computer to obtain an IPv4 address automatically (Example: Windows 10)

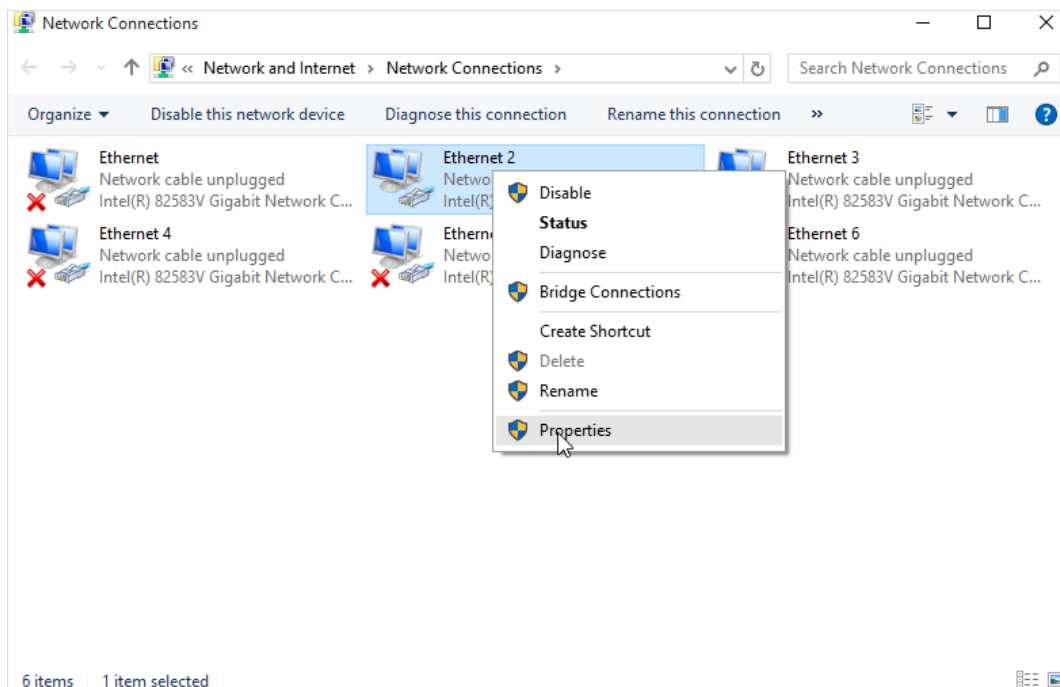
Step 1 Click  in the bottom right corner of the desktop and choose **Network settings**.



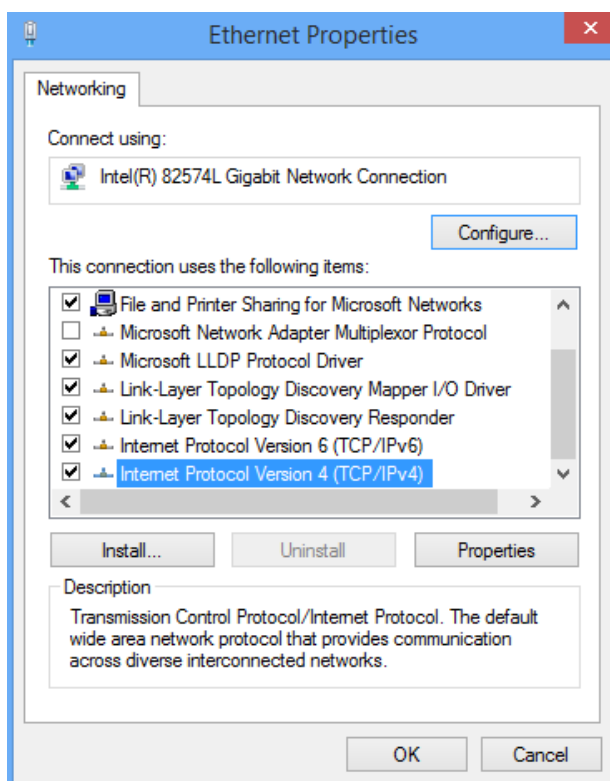
Step 2 Click **Change adapter options**.



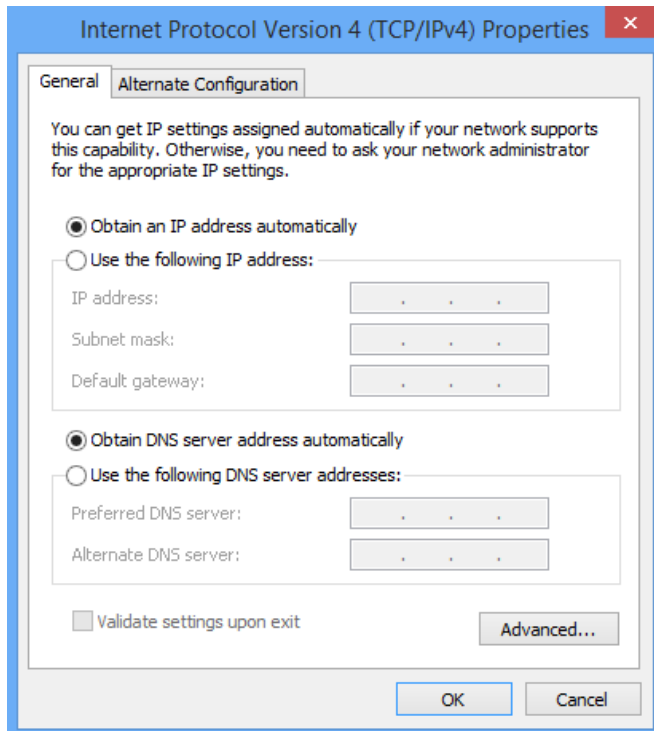
Step 3 Right-click on the connection which is being connected, and then click **Properties**.



Step 4 Double-click **Internet Protocol Version 4 (TCP/IPv4)**.



- Step 5** Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.



- Step 6** Click **OK** in the **Ethernet Properties** window.

---End

A.2 Default Parameters

The default settings of the main parameters of the camera are as follows.

| Parameter | Default Settings |
|----------------|--|
| Login Username | admin |
| Login Password | admin123456 |
| IP Address | 192.168.1.203 <ul style="list-style-type: none">- If there is an NVR in the network, the IP address of the camera may be automatically synchronized to the same network segment as the IP address of the NVR.- If there is a DHCP server in the network, the camera IP address may automatically obtain the IP address from the DHCP server. |
| Subnet Mask | 255.255.255.0 |

A.3 Acronyms and Abbreviations

| Acronym or Abbreviation | Full Spelling |
|-------------------------|---------------------------------------|
| AAC | Advanced Audio Coding |
| BLC | Back Light Compensation |
| CCD | Charge-Coupled Device |
| DHCP | Dynamic Host Configuration Protocol |
| DNS | Domain Name System |
| DST | Daylight Saving Time |
| GUI | Graphical User Interface |
| HLC | Highlight Compensation |
| HTTP | HyperText Transfer Protocol |
| IP | Internet Protocol |
| IPv4 | Internet Protocol version 4 |
| ITU-T | International Telecommunication Union |
| LAN | Local Area Network |
| MAC | Medium Access Control |
| MTU | Maximum Transmission Unit |
| NTP | Network Time Protocol |
| NTSC | National Television System Committee |
| NVR | Network Video Recorder |
| ONVIF | Open Network Video Interface Forum |
| OSD | On-screen Display |
| PAL | Phase Alteration Line |
| RTSP | Real Time Streaming Protocol |
| SSH | Secure Shell |

| Acronym or Abbreviation | Full Spelling |
|--------------------------------|-------------------------------|
| SSL | Secure Sockets Layer |
| TCP | Transmission Control Protocol |
| UDP | User Datagram Protocol |
| URL | Uniform Resource Locator |
| UTC | Universal Time Coordinated |
| UUID | Universally Unique Identifier |
| VBR | Variable Bit Rate |
| WDR | Wide Dynamic Range |