



Network Camera **BCS Basic 2.0**
User Manual

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About This Manual

This manual describes how to use and manage the device.

Disclaimer

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 product and the subsequent result shall be entirely on the user's own responsibility. In no event shall we be liable 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, or product malfunction or information leakage caused by cyber attack, hacking or virus 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.

Due to such reasons as product version upgrade or regulatory requirement of relevant regions, this manual will be periodically updated.

This manual is only for informational purpose, and all statements, information, and recommendations in this manual are presented without warranty.

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.

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

1 Web Login

You can log into the device's Web interface to perform management or maintenance operations.

Check Before Login

- The operation permissions for the device may vary with user type. See [User](#) for your operation permissions.
- The PC has a network connection to the device.
- A Web browser has been installed on the PC. Microsoft Internet Explorer 9.0 or later is recommended. Firefox, Chrome and Opera browsers are also supported.
- The PC uses Windows 7 or later.

**Note:**

- The parameters and values displayed may vary with device model. The parameters that are grayed out on the Web GUI cannot be modified.
- The figures in this manual are for illustration purpose only and may vary with device model.

Login

**Note:**

- Default IP address: 192.168.1.13
- Default username: admin
- Default password: 123456
- To log in to your device across network segments, please change the default password to a strong password.
- You may need to install a plug-in as prompted at your first login. Close the Web browser when the installation starts.

1. Open a Web browser on your PC, enter the device's IP address and press **Enter**.

2. In the login dialog box, enter the default username and password and click **Login**.

BCS BASIC BCS-B-TIP14FSR3-Ai(2.0)

English

Username

Password

Forgot Password?

☒ Live View

Login Reset

Change Password

**Note:**

The default password is intended only for your first login. For security, we strongly recommend you set a strong password of 9 to 20 characters from at least three of the four types: upper-case letter, lower-case letter, digit, special character (not including / \ : * ? ' " < > | % &).

See [User](#) for details.

Retrieve Password

Click **Forgot Password** in the login page, then follow the on-screen instructions to retrieve your password.

2 Live View

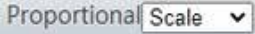
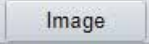
The **LiveView** page appears after you log in.



This page plays live video (real-time audio and video) received from a camera in a window through the Web interface.

It contains four functional areas: menu, camera control panel, live view window, live view toolbar.

2.1 Menu

Item	Description
	Click to log out.
	Set the image display ratio in the window. Scale: Display 16:9 images. Stretch: Display images according to the window size (stretch images to fit the window). Original: Display images with original size.
	Click this button to open the image setting page.
	Select a stream mode. - Main Stream: High resolution mode (generally the maximum resolution supported by the device). - Sub Stream: Low resolution mode (generally 720×576 (D2)).  Note: See Video for resolution configuration.

2.2 Camera Control Panel

Item	Description
	Increase/decrease the focal length of the camera.
	Zoom in/out on images of the camera.

2.3 Live View Window

You can double-click the window to enter full screen mode. To exit, press **ESC**.

2.4 Live View Toolbar

Control live video and perform other live view operations using the toolbar.

Item	Description
	Play/stop live video.
	Adjust the output volume for the media player on the PC.
	Take a snapshot of the current image displayed on the PC.
	Start/stop local recording.
	Start/stop digital zoom.
	Full screen.
	Show/hide PTZ control panel.

Viewing Certain Area of Images with Digital Zoom

1. In the **Live View** page, click  in the toolbar.
2. Drag your mouse to specify the area (rectangular area) to be magnified.
3. Release the mouse button to view the magnified area.
 - Left-click in the area, drag it left or right to view the whole image.
 - Use the scroll wheel to zoom in or out on the image.
4. To exit, click .

3 Setup

3.1 Basic Settings

View the basic information and set some basic parameters.

3.1.1 Basic Info

View the basic information such as device model and system time.

Go to **Setup > Common > Basic Info**.



Note:

The parameters displayed in the **Basic Info** page may vary with device model.

Basic Info

Basic Info

Model	
Firmware Version	
Hardware Version	A
Boot Version	V2.1
Serial No.	
Network	
MAC Address	

Status

System Time	2011/12/1 16:11:25
Operation Time	0 Day(s) 16 Hour(s) 11 Minute(s)

Refresh

- Some parameters are described in the table below.

Item		Description
Basic Info	Model	Device model.
	Network	The IP address of the device.  Note: See Network for IP address configuration.
	MAC Address	The MAC address of the device.
Version Info	Firmware Version	The firmware version of the device.
	Hardware Version	The hardware version of the device.
	Boot Version	The boot version of the device.
	Serial No.	The serial number of the device.
Status	System Time	System time.  Note: See Time for system time configuration.
	Operation Time	The operation time of the device.

- You can also click the icons under **Common Configuration** to switch to corresponding configuration interfaces.



3.1.2 Network

Configure network parameters so that the device can communicate with other devices.

Go to **Setup > Common > Network**.



Note:

After you change the IP address, you need to log in again with the new IP address.

Manual

1. In the **Obtain IP Address** list, click **Manual**.
2. Set the parameters.

Item		Description
Obtain IP Address		Set how to obtain the IP address, including Manual , PPPoE , and Obtain Automatically(DHCP) . The figure above shows an example with Manual selected.
IP Address		Enter the IP address and make sure the IP address is unique in the network.
Subnet Mask		Enter the subnet mask.
Default Gateway		Enter the default gateway.
IPv6	IPv6 Mode	Currently only supports the Manual mode.
	IPv6 Address	Enter the IPv6 address and make sure the IPv6 address is unique in the network.
	Prefix Length	Range: 3 to 127.
	Default Gateway	Enter the default gateway or leave it blank.
MTU		Set the maximum transmission unit. A valid MTU value ranges from 576 to 1500. Note: The greater the value, the higher the communication efficiency, the higher the transmission delay. Set the value according to the actual conditions.
Port Type		Select the appropriate port type.
Operating Mode		Select the appropriate operating mode.

3. Click **Save** to save the settings.

PPPoE



Note:

This function is not supported by some models.

1. In the **Obtain IP Address** list, click **PPPoE**.

Network

Obtain IP Address: PPPoE

IP Address: 0.0.0.0

Username: user

Password: ••••••••••••••••

IPv6

IPv6 Mode: Manual

IPv6 Address:

Prefix Length: 64

Default Gateway:

Port Type: FE Port

Operating Mode: Auto-negotiation

Save

- Set the parameters.

Item	Description
Obtain IP Address	Set how to obtain the IP address. The figure above shows an example with PPPoE selected.
IP Address	The default IP address is 0.0.0.0 .
Username	Set the username as prompted.
Password	Set the password as prompted.
IPv6	See Static for IPv6 configuration.
Port Type	Select the appropriate port type.
Operating Mode	Select the appropriate operating mode.

- Click **Save** to save the settings.

Obtain Automatically(DHCP)

- In the **Obtain IP Address** list, click **Obtain Automatically(DHCP)**.
- Set the parameters.

Item	Description
Obtain IP Address	Set how to obtain the IP address. The figure above shows an example with Obtain Automatically(DHCP) selected.
IPv6	See Manual for IPv6 configuration.
MTU	Set the maximum transmission unit. A valid MTU value ranges from 576 to 1500.  Note: The greater the value, the higher the communication efficiency, the higher the transmission delay. Set the value according to the actual conditions.
Port Type	Select the appropriate port type.
Operating Mode	Select the appropriate operating mode.

- Click **Save** to save the settings.

3.1.3 Time

Configure system time and DST parameters.

Time

- Go to **Setup > Common > Time**.

Time DST

Sync Mode Sync with Latest Server Time

Time Zone (UTC+01:00) Berlin, Rome, Paris, Madrid, Warsaw

System Time 2011-12-01 16:17:18

Set Time 2011-12-01 16:17:15 Sync with Computer Time

Save

- Set the parameters.

Item	Description
Sync Mode	Set the time sync mode. The default mode is Sync with Latest Server Time .
Time Zone	Set the time zone. The default time zone is (UTC+00:00) London, Dublin, Lisbon .
System Time	Display current system time. See the description of Set Time for system time customization.
Set Time	Set the system time as required. - Click 2021-10-25 16:39:10 to set the time manually. - Click Sync with Computer Time to sync the time and time zone with the PC. - Click Cancel Sync to cancel sync.

- Click **Save** to save the settings.

DST

- Go to **Setup > Common > Time > DST**.

DST

DST ☒ On ☐ Off

Start Time Apr First Sun 02 h

End Time Oct Last Sun 02 h

DST Bias 60mins

Save

- Set the parameters.

Item	Description
DST	Turn on or off DST . It is turned off by default.
Start Time	Set the start time.
End Time	Set the end time.
DST Bias	Set the offset time. The default offset time is 60 minutes.

- Click **Save** to save the settings.

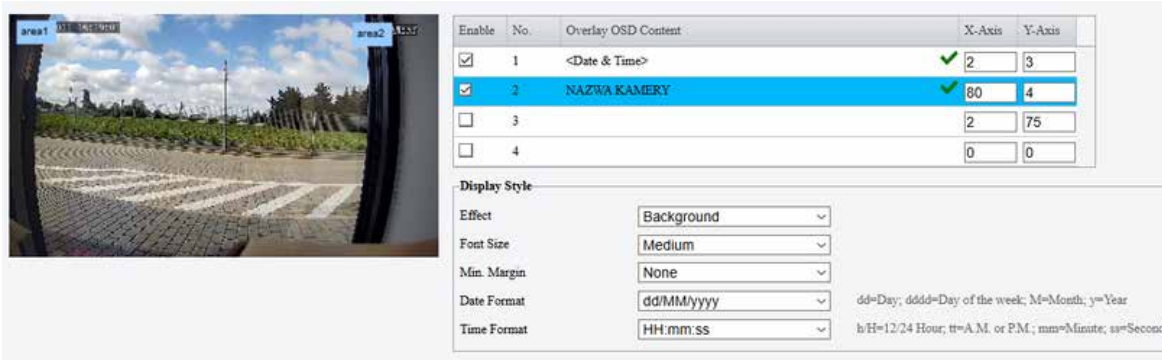
3.1.4 OSD

On Screen Display (OSD) are characters displayed with video images, for example, camera name, date and time. Go to **Setup > Common > OSD**.



Note:

This function may vary with device model.



Set the parameters.

Item		Description
Enable		Select the check boxes in the Enable column to overlay the corresponding contents on the video images. Note: ✓ indicates the OSD is set successfully.
Overlay OSD Content		Select the content to be overlaid, including Custom , Date & Time , Time , Date , and Network Port .
X-Axis		Set the OSD position. Note: You can also set the OSD position as follows: point to the OSD box in the preview window, drag the box to the desired position after the cursor shape is changed.
Y-Axis		Set the OSD position. Note: You can also set the OSD position as follows: point to the OSD box in the preview window, drag the box to the desired position after the cursor shape is changed.
Display Style	Effect	Set the display effect, including Background , Stroke , Hollow , and Normal . The default display effect is Background .
	Font Size	Set the font size, including Large , Medium , and Small . The default font size is Medium .
	Font Color	Set the font color. - Click . - Select the desired color.
	Min. Margin	Set the minimum margin, including None , Double , and Single .
	Date Format	Set the date format. 9 formats are available, the default date format is dd/MM/yyyy. Note: dd=Day; dddd=Day of the week; M=Month; y=Year
	Time Format	Set the time format. 2 formats are available, the default time format is HH:mm:ss. Note: h/H=12/24 Hour; tt=A.M. or P.M.; mm=Minute; ss=Second

3.1.5 User

Add, delete or edit user information.

Go to **Setup > Common > User**.

No.	Username	User Type
1	admin	Admin

Set the parameters.

Item	Description
Username	You can set it when adding a user. See Adding a User . Note: The default administrator name is admin, which cannot be modified.
User Type	You can set it when adding a user. Note: - The system supports two user types: Admin and Common User. - Only 1 administrator is allowed. - Up to 31 common users are allowed. - The admin user has all permissions for managing the device and other users, and the common user only has the live view and playback permissions.
Add	Add users. See Adding a User .
Edit	Edit user information. See Editing User Info .
Delete	Delete users. See Deleting a User .

Adding a User

- Click **Add**.

Add

Username

User Type

Common User

Password

Weak

Medium

Strong

Confirm

OK

Cancel

- Set the parameters.

Item	Description
Username	Set the username.

Item	Description
User Type	Set the user type.
Password	Set the password.
Confirm	Confirm the password you entered by entering it again. Make sure that the two passwords you entered are the same.

- Click **Save** to save the settings.

Editing User Info

- Select the user you want to edit.
- Click **Edit**.

The screenshot shows a dialog box titled "Edit" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Username:** A text input field containing the value "admin".
- User Type:** A dropdown menu showing "Admin".
- Old Password:** An empty text input field.
- Password:** An empty text input field. Below this field is a password strength indicator with three labels: "Weak", "Medium", and "Strong".
- Confirm:** An empty text input field.
- Buttons:** "OK" and "Cancel" buttons at the bottom of the dialog.

- Set the parameters.

Item	Description
Username	See User .
User Type	See User .
Old Password	Enter the old password.
Password	Enter the new password.
Confirm	Confirm the new password you entered by entering it again. Make sure that the two new passwords you entered are the same.

- Click **Save** to save the settings.



Note:

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.

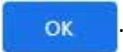
Deleting a User

- Select the user you want to delete.
- Click **Delete**.

Do you want to delete it?

OK

Cancel

- Click  .  means the user is deleted successfully.



Note:

- The admin user cannot be deleted.
- Deleting a user when the user is still logged in will force the user to log out.

3.2 Network

Configure network parameters so that the device can communicate with other devices.

3.2.1 Network

Configure network parameters so that the device can communicate with other devices.

Go to **Setup > Common > Network**.



Note:

After you change the IP address, you need to log in again with the new IP address.

Manual

- In the **Obtain IP Address** list, click **Manual**.
- Set the parameters.

Item		Description
Obtain IP Address		Set how to obtain the IP address, including Manual , PPPoE , and Obtain Automatically(DHCP) . The figure above shows an example with Manual selected.
IP Address		Enter the IP address and make sure the IP address is unique in the network.
Subnet Mask		Enter the subnet mask.
Default Gateway		Enter the default gateway.
IPv6	IPv6 Mode	Currently only supports the Manual mode.
	IPv6 Address	Enter the IPv6 address and make sure the IPv6 address is unique in the network.
	Prefix Length	Range: 3 to 127.
	Default Gateway	Enter the default gateway or leave it blank.
MTU		Set the maximum transmission unit. A valid MTU value ranges from 576 to 1500.  Note: The greater the value, the higher the communication efficiency, the higher the transmission delay. Set the value according to the actual conditions.
Port Type		Select the appropriate port type.
Operating Mode		Select the appropriate operating mode.

- Click **Save** to save the settings.

PPPoE



Note:

This function is not supported by some models.

- In the **Obtain IP Address** list, click **PPPoE**.

Network

Obtain IP Address: PPPoE

IP Address: 0.0.0.0

Username: user

Password:

IPv6

IPv6 Mode: Manual

IPv6 Address:

Prefix Length: 64

Default Gateway:

Port Type: FE Port

Operating Mode: Auto-negotiation

Save

- Set the parameters.

Item	Description
Obtain IP Address	Set how to obtain the IP address. The figure above shows an example with PPPoE selected.
IP Address	The default IP address is 0.0.0.0 .
Username	Set the username as prompted.
Password	Set the password as prompted.
IPv6	See Static for IPv6 configuration.
Port Type	Select the appropriate port type.
Operating Mode	Select the appropriate operating mode.

- Click **Save** to save the settings.

Obtain Automatically(DHCP)

- In the **Obtain IP Address** list, click **Obtain Automatically(DHCP)**.
- Set the parameters.

Item	Description
Obtain IP Address	Set how to obtain the IP address. The figure above shows an example with Obtain Automatically(DHCP) selected.
IPv6	See Manual for IPv6 configuration.
MTU	Set the maximum transmission unit. A valid MTU value ranges from 576 to 1500.  Note: The greater the value, the higher the communication efficiency, the higher the transmission delay. Set the value according to the actual conditions.
Port Type	Select the appropriate port type.
Operating Mode	Select the appropriate operating mode.

- Click **Save** to save the settings.

3.2.2 DNS

Go to **Setup > Network > DNS**.

Preferred DNS Server

Alternate DNS Server

Save

1. Set the parameters.

Item	Description
Preferred DNS Server	Set the preferred DNS server address.
Alternate DNS Server	Set the alternate DNS server address.

2. Click **Save** to save the settings.

3.2.3 Port

Go to **Setup > Network > Port**.

 **Note:**
This function is not supported by some models.

HTTP Port

HTTPS Port

RTSP Port

Note: Modifying the RTSP port number will cause the device to restart.

Save

1. Set the parameters.

Item	Description
HTTP Port	Set the HTTP port number.  Note: If the HTTP port number you entered has been used, a message "Port conflicts. Please try again." will appear. • 23, 81, 82, 85, 3260, and 49152 have been assigned for other purposes and cannot be used. • In addition to the above port numbers, the system can also dynamically detect other port numbers that are already in use.
HTTPS Port	Set the HTTPS port number.
RTSP Port	Set the RTSP port number.  Note: Modifying the RTSP port number will cause the device to restart.

2. Click **Save** to save the settings.

3.2.4 Port Mapping

Go to **Setup > Network > Port > Port Mapping**.

Port Mapping ☒ On ☐ Off

Mapping Type

UPnP Mapping

Port Type	External Port	External IP Address	Status
HTTP Port	80	0.0.0.0	Inactive
RTSP Port	554	0.0.0.0	Inactive
HTTPS Port	443	0.0.0.0	Inactive

Save

Set the parameters.

Item	Description
Port Mapping	Turn on or off Port Mapping . It is turned off by default.
Mapping Type	Set the port mapping mode, including UPnP and Manual . See UPnP and Manual .
UPnP Mapping	Set the UPnP mapping mode when the mapping mode is set to UPnP , including Auto and Manual . See UPnP .
Port Type	See Port .
External Port	Set the external port number.
External IP Address	Set the external IP address.
Status	Port configuration status.

UPnP

In the **Mapping Type** list, click **UPnP**.

- Auto

In the **UPnP Mapping** list, click **Auto**.

Port Mapping ☒ On ☐ Off

Mapping Type UPnP

UPnP Mapping Auto

Port Type	External Port	External IP Address	Status
HTTP Port	80	0.0.0.0	Inactive
Server Port	81	0.0.0.0	Inactive
RTSP Port	554	0.0.0.0	Inactive
HTTPS Port	443	0.0.0.0	Inactive

Save

- Manual

1. In the **UPnP Mapping** list, click **Manual**.

Port Mapping ☒ On ☐ Off

Mapping Type UPnP

UPnP Mapping Manual

Port Type	External Port	External IP Address	Status
HTTP Port	80	0.0.0.0	Inactive
Server Port	81	0.0.0.0	Inactive
RTSP Port	554	0.0.0.0	Inactive
HTTPS Port	443	0.0.0.0	Inactive

Save

2. Set the parameters. See [Port Mapping](#).

3. Click **Save** to save the settings.

Manual

In the **Mapping Type** list, click **Manual**.

1. Set the parameters. See [Port Mapping](#).

2. Click **Save** to save the settings.

3.2.5 DDNS

Go to **Setup > Network > DDNS**.



Note:

This function is not supported by some models.

DDNS Service ☐ On ☒ Off

DDNS Type

Server Address

Domain Name

Username

Password

Confirm

Save

1. Set the parameters.

Item	Description
DDNS Service	Turn on or off DDNS .
DDNS Type	Set the DDNS type, including DynDNS , NO-IP , and DDNS .
Server Address	The default server address is http://www.dyndns.com.
Domain Name	Enter the domain name.
Username	Enter the username.
Password	Enter the password.
Confirm	Confirm the password you entered by entering it again.

2. Click **Save** to save the settings.

3.2.6 P2P

Enable the P2P cloud service.

Go to **Setup > Network > P2P**.

P2P

P2P ☒ On ☐ Off

Add Without Signup ☒ On ☐ Off

Address

Register Code 3184B51VX1FOWO0B4LLBSNK8N

Device Status Offline

Scan 

Save

1. Set the parameters.

Item	Description
P2P	Turn on or off P2P cloud service.
Add Without Signup	Turn on or off Add Without Signup .
Address	The website address of P2P server.
Register Code	The register code of the device.
Device Status	Device status.
Scan	Scan the QR code using BCS Basic 2.0 app to add the device.

2. Click **Save** to save the settings.

3.2.7 E-mail

Configure E-mail so that the device can e-mail an alarm message to the specified email addresses when an alarm occurs.

Go to **Setup > Network > E-mail**.

Sender

Set the sender information.

Sender	
Name	
Address	
SMTP Server	
SMTP Port	25
TLS/SSL	☐ On ☒ Off
Snapshot Interval(s)	2 ☒ Attach Image
Server Authentication	☒ On ☐ Off
Username	
Password	

1. Set the parameters.

Item	Description
Name	Set as needed, for example, the device name.
Address	Set as needed, for example, the device IP.
SMTP Server	The server address registered by the sender.
SMTP Port	The server port registered by the sender.
TLS/SSL	Turn on or off TLS/SSL .
Snapshot Interval(s)	When an alarm occurs, the device will send an alarm email with 3 snapshots captured at set intervals.
Server Authentication	Enable SMTP server authentication to secure mail transmission. To enable it, you need to enter the correct username and password.
Username	Enter the username of the SMTP server.
Password	Enter the password of the SMTP server.  Note: The password must be 0 to 32 characters and allows \ / : * ? ' " < > % &

2. Click **Save** to save the settings.

Recipient

Set the recipient information.

Recipient	
Name1	
Address1	Test
Name2	
Address2	Test
Name3	
Address3	Test

1. Set the parameters.

Item	Description
Name	Set the email name to receive emails.  Note: The name must be 0 to 32 characters.
Address	Set the email address to receive emails.

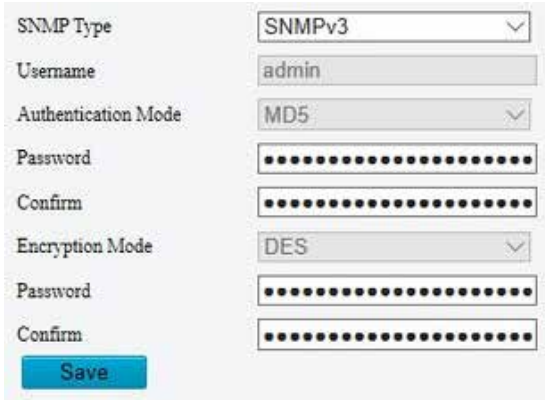
Item	Description
	Click to test the recipient's address.  Note: This function is not supported by some models.

- Click **Save** to save the settings.

3.2.8 SNMP

SNMPv3 is recommended when a camera needs to transfer specified configuration information with the central server.

Go to **Setup > Network > SNMP**.



The image shows a web-based configuration form for SNMP. It includes the following fields:

- SNMP Type:** A dropdown menu with 'SNMPv3' selected.
- Username:** A text field containing 'admin'.
- Authentication Mode:** A dropdown menu with 'MD5' selected.
- Password:** A masked text field (dots).
- Confirm:** A masked text field (dots).
- Encryption Mode:** A dropdown menu with 'DES' selected.
- Password:** A masked text field (dots).
- Confirm:** A masked text field (dots).
- Save:** A blue button at the bottom left.

SNMPv3

- Set the parameters.

Item	Description
SNMP Type	Two options: SNMPv3 and SNMPv2 .  Note: If you choose SNMPv2, an onscreen message will remind you of potential risks and ask if you want to continue. See SNMPv2 .
Username	The default username is admin .
Authentication Mode	The default authentication mode is MD5 .
Password	Set the password.
Confirm	Confirm the password you entered by entering it again.
Encryption Mode	Set the encryption mode.

- Click **Save** to save the settings.

SNMPv2

- In the **SNMP Type** list, click **SNMPv2**. Then the following window appears.

There are risks using SNMPv2. SNMPv3 is recommended.
Continue to use SNMPv2?



The image shows a small dialog box with two buttons: 'OK' (blue) and 'Cancel' (white with a grey border).

- Click **OK**.



The image shows a web-based configuration form for SNMPv2. It includes the following fields:

- SNMP Type:** A dropdown menu with 'SNMPv2' selected.
- Read Community:** A text field containing 'public'.
- Save:** A blue button at the bottom left.

- Set the parameters.

Item	Description
SNMP Type	See SNMPv3 .

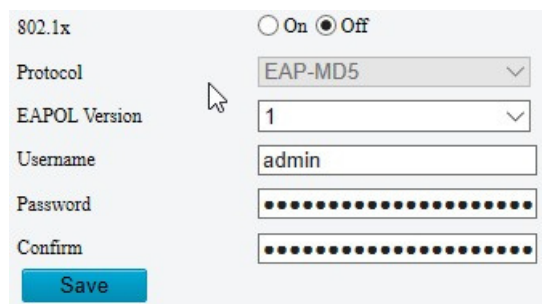
Item	Description
Read Community	This parameter is used for two-way authentication between a camera and the central server. The default name is public, and you may change it as needed.  Note: If you change this parameter, you should change it into the same one on the central server, or the two-way authentication will not be completed.

- Click **Save** to save the settings.

3.2.9 802.1x

802.1x provides authentication to devices trying to connect to a network. Only the authenticated devices can connect to the network. This enhances security.

Go to **Setup > Network > 802.1x**.



- Set the parameters.

Item	Description
802.1x	Turn on or off 802.1x .
Protocol	Select a protocol.
EAPOL Version	Select an EAPOL version, including 1 and 2 .
Username	Set the username. The name of the administrator is admin.
Password	Set the password.
Confirm	Confirm the password you entered by entering it again.

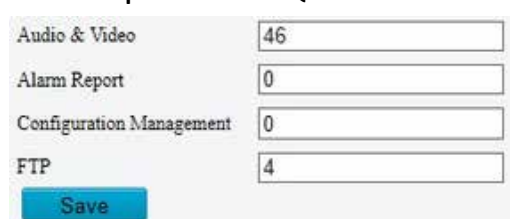
- Click **Save** to save the settings.

3.2.10 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.

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

Go to **Setup > Network > QoS**.



- Set a priority level (0 to 63) for each service.
At present, QoS allows you to assign different priority to audio and video, alarm report, configuration management and FTP transmission. 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.
- Click **Save** to save the settings.

3.3 Video & Audio

Configure video and audio parameters.

3.3.1 Video

Configure video parameters to achieve the desired video effect.

Go to **Setup > Video & Audio > Video**.



Note:

The video parameters displayed may vary with device model.

Capture Mode: 2880×1620@25

Main Stream

Video Compression: H.264

Resolution: 2880×1620

Frame Rate(fps): 25

Bit Rate(Kbps): 6144

Bitrate Type: CBR

Image Quality: Bit Rate / Quality

I Frame Interval: 50

GOP: IP

Smoothing: Clear / Smooth

SVC: ☐ On ☒ Off

U-Code: Off

☒ **Enable Sub Stream**

Video Compression: H.264

Resolution: 720×576(D1)

Frame Rate(fps): 25

Bit Rate(Kbps): 1024

Bitrate Type: CBR

Image Quality: Bit Rate / Quality

I Frame Interval: 50

GOP: IP

Smoothing: Clear / Smooth

SVC: ☐ On ☒ Off

U-Code: Off

Save

1. Set the parameters.

Item	Description
Capture Mode	Set the capture mode.
Main Stream / ☒ Enable Sub Stream	Set stream parameters.
Video Compression	Three options: H.265 , H.264 , and MJPEG .
Resolution	Number of pixels per inch of an image. The higher the resolution, the higher the pixels, the clearer the image.
Frame Rate(fps)	Set the frame rate for encoding images. Unit: FPS (frame per second).
Bit Rate(Kbps)	Set the bit rate. Note: • The bit rate must be an integer. • The bit rate range may vary with device model.
Bitrate Type	Set the bitrate type, including CBR and VBR . Note: • CBR: Constant Bit Rate, which means that the camera transmits data at a constant data rate. • VBR: Variable Bit Rate, which means that the camera adjusts the bit rate dynamically according to image quality.

Item	Description
Image Quality	When the bitrate type is set to VBR , you can drag the slider to adjust the quality level for images. The closer the slider is to Quality , the higher the bit rate and the higher the image quality.
I Frame Interval	Set the I frame interval. A valid value ranges from 5 to 250. The smaller the value, the higher the image quality.
Smoothing	Set the extent of smoothing. The closer the slider is to Smooth , the smoother the video. In a poor network environment, you can enable smoothing to get smoother video, but it may affect the image quality.
SVC	SVC (Scalable Video Coding) can reduce storage without compromising playback quality.
U-Code	Turn on or off U-Code . It is turned off by default. When enabled, the bitrate type is set to VBR, some parameters such as I frame interval, GOP, smoothing and SVC cannot be configured, and the ROI of the stream with U-Code enabled does not take effect.

- Click **Save** to save the settings.

3.3.2 Snapshot

Configure snapshot parameters.

Go to **Setup > Video & Audio > Snapshot**.

Snapshot ☒ On ☐ Off

Resolution 2880×1620 ▼

Most Large(KB) 700

Scheduled Snapshot

Snapshot Interval(s) 1

Number to Snapshot 1 ▼

Snapshot Mode ☒ Schedule ☐ Repeat

No.	Snapshot Time	+

Save

Set the parameters.

Item	Description
Snapshot	Turn on or off Snapshot .
Resolution	The default resolution is the device resolution.
Most Large(KB)	Set the maximum image size. A valid value ranges from 150 to 1500.
Snapshot Interval(s)	Set the time interval for snapshots.
Number to Snapshot	Set the number of snapshots. 1 to 3 snapshots are allowed.

Item	Description
Snapshot Mode	Set the snapshot mode, including Schedule and Repeat . • Schedule Set a time for snapshots. See Schedule. • Repeat Set an interval for snapshots. See Repeat.

Schedule

1. Click **Schedule**.
2. Click  to add a schedule. See [Arming Schedule](#) for schedule configuration.
3. To delete the schedule, click .

Repeat

1. Click **Repeat**.
2. Set the snapshot interval. For example, when the interval is set to 60, the camera takes a snapshot every 60 seconds.

3.3.3 Audio

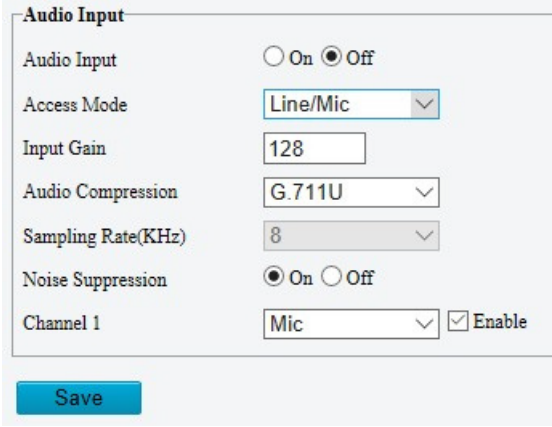
Configure audio parameters to achieve the desired audio effect.

Go to **Setup > Video & Audio > Audio**.



Note:

This function is not supported by some models.



1. Set the parameters.

Item	Description
Audio Input	Turn on or off Audio Input .
Access Mode	Currently only supports the Line/Mic mode.
Input Gain	Set the audio input gain. A valid value ranges from 0 to 255. The greater the gain, the louder the sound.
Audio Compression	Two options: G.711U and G.711A .
Noise Suppression	Reduce noise in digital audio.  Note: This function is enabled by default.
Channel 1	Select the Enable check box to enable audio output.  Note: This function is not supported by some models.

2. Click **Save** to save the settings.

3.3.4 ROI

When Region of Interest (ROI) is enabled, the system ensures image quality for the specified areas on the image at low bit rate.

**Note:**

This function is not supported by some models.

Go to **Setup > Video & Audio > ROI**.



1. Click  to add a area. Up to 8 areas can be added.
2. Adjust the position and size of the area as needed.
 - Point to the area and drag it to the desired position.
 - Drag the corners of the area to resize it.



3. To delete the area, click .

3.3.5 Media Stream

Configure media stream so that media contents such as audio, video and multimedia files can be transmitted over the network and played immediately, rather than being downloaded first.

Go to **Setup > Video & Audio > Media Stream**.

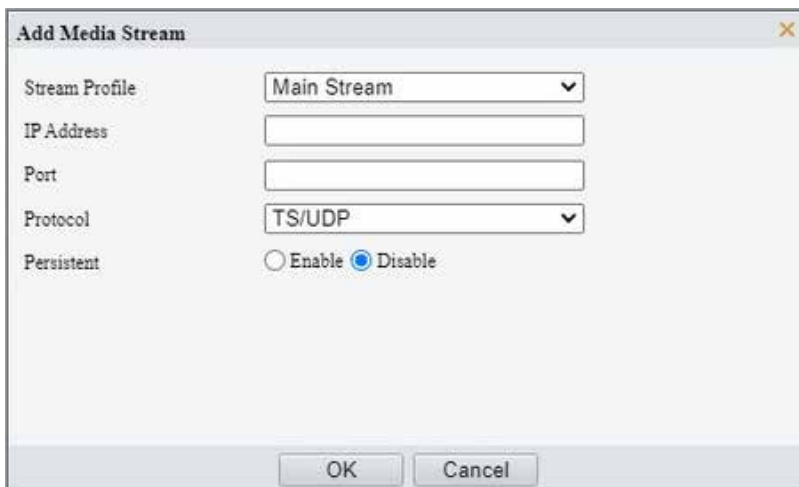
**Note:**

This function is not supported by some models.

Media Stream

Go to **Setup > Video & Audio > Media Stream**.

1. Click .



Add Media Stream

Stream Profile: Main Stream

IP Address:

Port:

Protocol: TS/UDP

Persistent: ☐ Enable ☒ Disable

OK Cancel

2. Set the parameters.

Item	Description
Stream Profile	Select a stream type.
IP Address	Enter the IP address and make sure the IP address is unique in the network.
Port	Enter the port number. A valid value ranges from 1 to 65535.
Protocol	Three options: TS/UDP , EC/UDP , and RTMP . - TS/UDP: Send TS files via multicast. - EC/UDP: Send EC files via multicast. - RTMP: Used for audio/video and data communication between client and server.
Persistent	Set whether to automatically establish the configured media stream after reboot.

- Click **OK** to save the settings.
- To delete, click .

RTSP Multicast Address

Configure RTSP multicast so that the third-party player can request RTSP multicast media streams from the camera through the RTSP protocol.

Go to **Setup > Video & Audio > Media Stream > RTSP Multicast Address**.

Main Stream

Multicast Address

Port

Sub Stream

Multicast Address

Port

Save

- Set the parameters.

Item	Description
Main Stream/Sub Stream	Set the main stream and sub stream.
Multicast Address	Enter the multicast address.  Note: A valid multicast address ranges from 224.0.1.0 to 239.255.255.255.
Port	Enter the port number.  Note: A valid port number ranges from 0 to 65535.

- Click **Save** to save the settings.

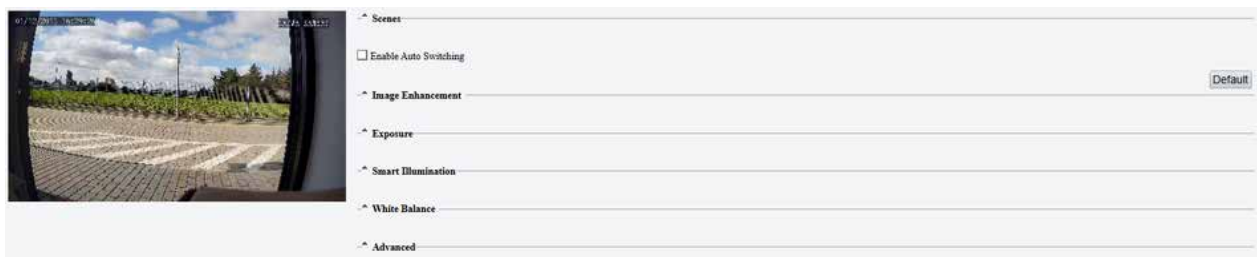
3.4 Image

3.4.1 Image

Configure image parameters such as exposure and illumination.

- 
Note:
 - The image parameters displayed and value ranges allowed may vary with device model.
 - You may drag the sliders to adjust settings or enter values in the text boxes directly.
 - Clicking **Default** will restore all image settings to defaults.

Go to **Setup > Image > Image**.



Scenes

Click **Scenes**.

No.	Current	Scene Name	Auto Switching	Setup
1	☒	<Indoor>	☐	Default Scene
2	☐	<Indoor>	☐	
3	☐	<Indoor>	☐	
4	☐	<Indoor>	☐	
5	☐	<Indoor>	☐	

Current Illumination: 48

Set the parameters.

Item	Description
Current	Click to set the current scene.
Scene Name	Set the scene type. - Indoor: Recommended for indoor scenes. - WDR: Recommended for scenes with high-contrast lighting, such as window, corridor, front door or other scenes that are bright outside but dim inside. - Road Highlight Compensation(HLC): Used for suppressing strong light such as headlights on roads and spotlight in parks. Recommended for capturing vehicle license plates. - Custom: Customize the scene name.
Auto Switching	Select whether to add the scene to the auto-switching list. Note: - When enabled, if the conditions for switching to a non-default scene are met, the device will automatically switch to the scene; otherwise, the device uses the default scene. - If multiple non-default scenes meet the switching conditions at the same time, the device will switch to the scene with the minimum number (starts from 1 to 5).
	Set auto-switching conditions, including schedule and illumination. Note: - Up to 4 schedules are allowed. The schedules cannot overlap. - Auto switching can only be triggered when the time and illumination meet the set conditions.
	Set the scene as the default scene.
Current Illumination: 48	Click to refresh the illumination value.
Enable Auto Switching	Turn on or off Auto Switching . When enabled, the scene parameters cannot be configured, and the device will automatically switch between the set scenes.

Image Enhancement

Click  **Image Enhancement**.

Brightness		128
Saturation		128
Contrast		128
Sharpness		128
2D Noise Reduction		128
3D Noise Reduction		128
Image Rotation	Normal 	

Set the parameters.

Item	Description
Brightness	The greater the value, the brighter the images appear.
Saturation	The greater the value, the more vivid the images appear.
Contrast	The greater the value, the more clear and colorful the images appear.
Sharpness	The greater the value, the sharper the edges of images.
2D Noise Reduction	Reduce noise in images to improve image quality. It may cause image blurring, especially at the edges of the image.
3D Noise Reduction	Reduce noise in images to improve image quality. It may cause image ghosting or smearing.
Image Rotation	Adjust image direction.

Exposure

Click  **Exposure**.

Exposure Mode	Indoor 50Hz 
Shutter(s)	1/100 
Gain	0
Slow Shutter	☐ On ☒ Off
Slowest Shutter	1/12 
Compensation	 0
Metering Control	Center-Weighted Average Metering 
Day/Night Mode	☐ Automatic ☒ Day ☐ Night
Day/Night Sensitivity	Medium 
Day/Night Switching(s)	3
WDR	Off 
WDR Level	 5
Suppress WDR Stripes	☐ On ☒ Off
WDR Open Sensitivity	 5
WDR Close Sensitivity	 5

Set the parameters.

Item	Description
Exposure Mode	Select the correct exposure mode to achieve the desired exposure effect. • Automatic: The camera automatically adjusts exposure according to the environment. • Custom: User can set exposure as needed. • Shutter Priority: The camera adjusts shutter as priority to adjust the image quality. • Iris Priority: The camera adjusts iris as priority to adjust the image quality. • Indoor 50Hz: Reduce stripes by limiting shutter frequency. • Indoor 60Hz: Reduce stripes by limiting shutter frequency. • Manual: Fine tune image quality by setting shutter, gain and iris manually. • Low Motion Blur: Control the minimum shutter to reduce motion blur in faces captured in motion.  Note: This function may vary with device model.
Shutter(s)	Shutter is used to control the light that comes into the lens. A fast shutter speed is ideal for scenes in quick motion. A slow shutter speed is ideal for scenes that change slowly.  Note: • You can set a shutter speed when Exposure Mode is set to Manual, Low Motion Blur or Custom. • When Slow Shutter is disabled, the reciprocal of the shutter speed must be greater than the frame rate.
Gain	Control image signals so that the camera can output standard video signals in different light conditions.  Note: This parameter can be configured only when Exposure Mode is set to Manual or Custom.
Slow Shutter	Improve image brightness in low light conditions.
Slowest Shutter	Set the slowest shutter speed that the camera can use during exposure.
Compensation	Adjust the compensation value as required to achieve the desired image effect.  Note: This parameter cannot be configured when Exposure Mode is set to Manual.
Metering Control	Set how the camera measures the intensity of light. • Center-Weighted Average Metering: Measure light mainly in the central part of images. • Evaluative Metering: Measure light in the specified area of images. • Spot Metering: Similar to evaluative metering. But it cannot increase the brightness of images. • Face Metering: Adjust image quality in poor lighting conditions by controlling the brightness of captured faces in face scenes.  Note: This function may vary with device model and cannot be configured when Exposure Mode is set to Manual.

Item	Description
Day/Night Mode	Set the day/night mode. - Automatic: The camera can automatically switch between night mode and day mode according to the ambient lighting condition to output optimum images. - Day: The camera outputs high-quality images in daylight conditions. - Night: The camera outputs high-quality images in low-light conditions. - Input Boolean: The camera switches between day mode and night mode according to the Boolean value input from a connected third-party device.  Note: This function may vary with device model.
Day/Night Sensitivity	Light threshold for switching between day mode and night mode. A higher sensitivity value means that the camera is more sensitive to the change of light and is therefore more easily to switch between day mode and night mode.  Note: This parameter can be configured only when Day/Night Mode is set to Automatic.
Day/Night Switching(s)	Set the length of time before the camera switches between day mode and night mode after the switching conditions are met.  Note: This parameter can be configured only when Day/Night Mode is set to Automatic.
WDR	Enable WDR to ensure clear images in high contrast conditions.  Note: This parameter can be configured only when Exposure Mode is set to Automatic, Custom, Shutter Priority, Indoor 50Hz or Indoor 60Hz and when Image Stabilizer and Defog are disabled.
WDR Level	After enabling WDR, you can improve image quality by adjusting the WDR level.  Note: Use level 7 or higher when there is a high contrast between the bright and dark areas of the scene. In the case of low contrast, it is recommended to disable WDR or use level 1 to 6.
Suppress WDR Stripes	When enabled, the camera can automatically adjust slow shutter frequency according to the light frequency to minimize stripes that may appear in images.
WDR Open Sensitivity\WDR Close Sensitivity	When WDR is set to Automatic, adjust the parameter to change the WDR switching sensitivity.

Smart Illumination

Click  **Smart Illumination**.

Smart Illumination	☒ On ☐ Off
Illumination Mode	Infrared
Control Mode	Global Mode
Illumination Level	0

Set the parameters.

Item	Description
Smart Illumination	Turn on or off Smart Illumination .
Illumination Mode	Set the illumination mode. - Infrared: The camera uses infrared light illumination. - White Light: The camera uses white light illumination. - Warm Light: The camera uses warm light illumination. - Laser: The camera uses laser light illumination.  Note: This function may vary with device model.
Control Mode	Set the illumination control mode. - Global Mode: The camera automatically adjusts illumination and exposure to achieve the balanced image effect. Some areas might be overexposed if you select this option. This option is recommended if you focus on the monitoring range and image brightness. - Overexposure Restrain: The camera automatically adjusts illumination and exposure to avoid regional overexposure. Some areas might be dark if you select this option. This option is recommended if you focus on the clarity of the monitoring center area and overexposure control.
Illumination Level	Set the illumination level. The greater the value, the higher the intensity. 0 means that the illumination is turned off.

White Balance

Click  **White Balance**.

White Balance

Auto

Red Offset

16

Blue Offset

18

Set the parameters.

Item	Description
White Balance	Adjust the red or blue offset of the image to remove unrealistic color casts. - Auto/Auto 2: Adjust the red or blue offset automatically according to the lighting condition (the color tends to be blue). If the image has color casts in Auto mode, you can switch to Auto 2 mode. - Fine Tune: Adjust the red or blue offset manually. - Sodium Lamp: Adjust the red or blue offset automatically according to the lighting condition (the color tends to be red). - Outdoor: Used for outdoor environments where the color temperature varies widely. - Locked: Keep the current color temperature.
Red Offset	Adjust the red offset manually.  Note: This parameter can be configured only when White Balance is set to Fine Tune.
Blue Offset	Adjust the blue offset manually.  Note: This parameter can be configured only when White Balance is set to Fine Tune.

Advanced

Click  **Advanced**.

Defog

Off

Defog Intensity

5

Set the parameters.

Item	Description
Defog	Turn on or off Defog .
Defog Intensity	Set the defog intensity.

3.4.2 OSD

On Screen Display (OSD) are characters displayed with video images, for example, camera name, date and time. Go to **Setup > Common > OSD**.



Note:

This function may vary with device model.



Enable	No.	Overlay OSD Content	X-Axis	Y-Axis
☒	1	<Date & Time>	☒ 2	3
☒	2	NAZWA KAMERY	☒ 80	4
☐	3		2	75
☐	4		0	0

Display Style

Effect:

Font Size:

Min. Margin:

Date Format: dd=Day; dddd=Day of the week; M=Month; y=Year

Time Format: h/H=12/24 Hour; tt=A.M. or P.M.; mm=Minute; ss=Second

Set the parameters.

Item		Description
Enable		Select the check boxes in the Enable column to overlay the corresponding contents on the video images. Note: ☒ indicates the OSD is set successfully.
Overlay OSD Content		Select the content to be overlaid, including Custom , Date & Time , Time , Date , and Network Port .
X-Axis		Set the OSD position. Note: You can also set the OSD position as follows: point to the OSD box in the preview window, drag the box to the desired position after the cursor shape is changed.
Y-Axis		Set the OSD position. Note: You can also set the OSD position as follows: point to the OSD box in the preview window, drag the box to the desired position after the cursor shape is changed.
Display Style	Effect	Set the display effect, including Background , Stroke , Hollow , and Normal . The default display effect is Background .
	Font Size	Set the font size, including Large , Medium , and Small . The default font size is Medium .
	Font Color	Set the font color. 1. Click . Select the desired color. 2.
	Min. Margin	Set the minimum margin, including None , Double , and Single .

Item		Description
	Date Format	Set the date format. 9 formats are available, the default date format is dd/MM/yyyy . Note: dd=Day; dddd=Day of the week; M=Month; y=Year
	Time Format	Set the time format. 2 formats are available, the default time format is HH:mm:ss . Note: h/H=12/24 Hour; tt=A.M. or P.M.; mm=Minute; ss=Second

3.4.3 Privacy Mask

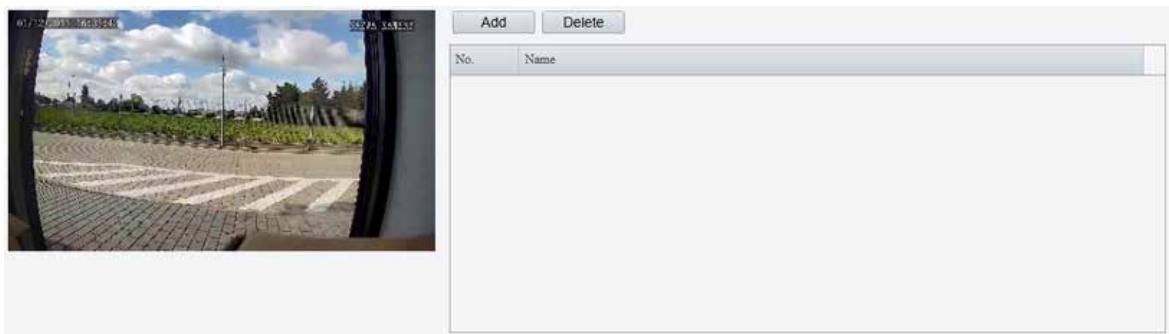
On certain occasions, you may need to set a mask area on the camera image to protect privacy, for example, the keyboard of an ATM machine.



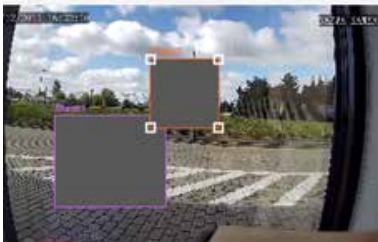
Note:

This function may vary with device model.

Go to **Setup > Image > Privacy Mask**.



- Adding a privacy mask
Click **Add** to add a privacy mask. Up to 4 masks are allowed.
- Modifying a privacy mask
 - Point to the mask box and drag it to the desired position.
 - Drag the corners of the box to resize it.



- Deleting a privacy mask
 1. Click the mask you want to delete.
 2. Click **Delete**.

3.5 Smart

3.5.1 Intrusion Detection

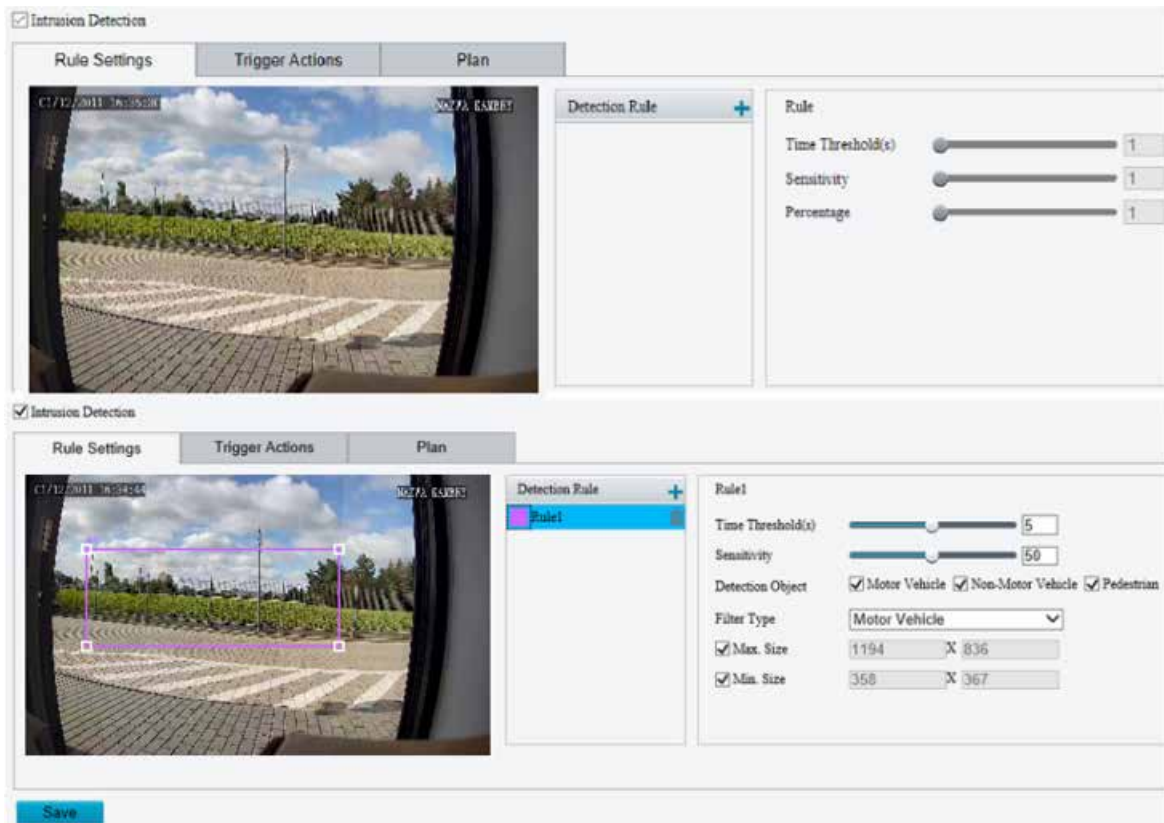
Intrusion detection detects objects entering a user-specified area and staying for a preset time and triggers an alarm.



Note:

This function may vary with device model.

Go to **Setup > Smart > Smart**. Click  right to **Intrusion** to configure intrusion detection parameters. Taking the following two windows as examples.



1. Select the **Intrusion Detection** check box to enable intrusion detection.
2. Click **+** to add a detection area.
3. Adjust the position and size of the area or draw an area as needed.
 - Adjust the position and size of the area.
 - Point to the area and drag it to the desired position.
 - Drag the corners of the area to resize it.
 - Draw an area.
 - Click in the preview window to draw a hexagonal area.
4. Set the rules for reporting intrusion alarms.

Item	Description
Time Threshold(s)	Set the time threshold that an object stays in the detection area. If the time that an object stays in the detection area exceeds the threshold, an alarm will be triggered.
Sensitivity	The higher the sensitivity, the more likely an intruder will be detected, and the more likely false alarms will occur.
Detection Object	Set the detection object, including motor vehicle, non-motor vehicle, and pedestrian.
Filter Type	Select a filter type, set the filter rules (Max. Size and Min. Size), then only objects in the range of Max. Size and Min. Size will be detected.
Max. Size	When enabled, a green box appears in the left preview window, you can adjust the position and size of the box using your mouse.
Min. Size	When enabled, a green box appears in the left preview window, you can adjust the position and size of the box using your mouse.
Percentage	Set the percentage of the size of an intruder against the size of the detection area. If the percentage of the size of an intruder against the size of the detection area exceeds the set value, an alarm will be triggered.

5. Set alarm-triggered actions. See [Alarm-triggered Actions](#).
6. Modify the arming schedule. See [Arming Schedule](#).

3.5.2 Alarm-triggered Actions

Configure linkage actions (actions to be triggered when an alarm occurs) so that the user can handle the alarm in time.



Note:

This function may vary with device model.

Conventional	Storage
☐ Upload to FTP	☐ Recording Edge Storage
☐ Send E-mail	☐ Image Edge Storage

Conventional	Alarm Output	Storage
☐ Send E-mail	☐ Alarm Sound	☐ Recording Edge Storage
☒ Upload Image(Original)	☐ Alarm Light	☐ Image Edge Storage
		☐ FTP Video Storage

1. Set the parameters.

Item		Description
Conventional	Upload to FTP	The camera uploads snapshots to the specified FTP server when an alarm occurs. Note: Configure FTP and Snapshot first before using this function.

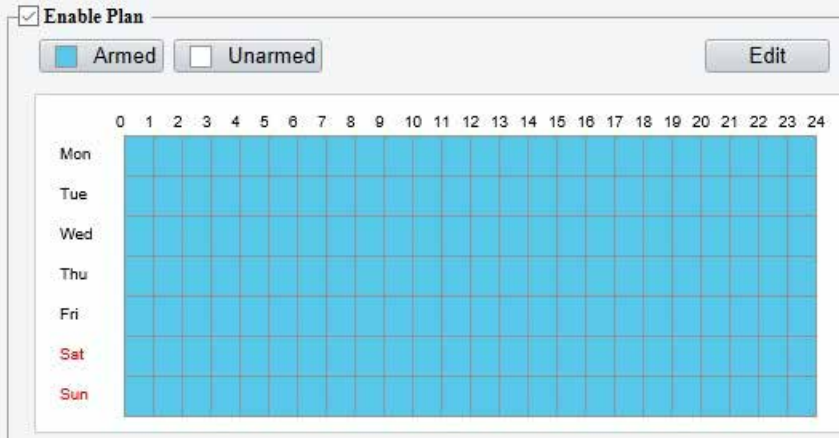
Item		Description
	Send E-mail	The camera sends snapshots to the specified email addresses when an alarm occurs. Note: Configure E-mail and Snapshot first before using this function.
	Upload Image (Original)	
Storage	Recording Edge Storage	The camera saves recordings to the SD card when an alarm occurs. Note: Configure Storage first before using this function.
	Image Edge Storage	The camera saves snapshots to the SD card when an alarm occurs. Note: Configure Storage first before using this function.
	FTP Video Storage	The camera saves recordings to the specified FTP server when an alarm occurs. Configure FTP first before using this function.
	Alarm Sound	The camera triggers alarm sound when an alarm occurs. Click  to configure the alarm sound.
	Alarm Light	The camera triggers alarm light when an alarm occurs. Click  to configure the alarm light.

- Click **Save** to save the settings.

3.5.3 Arming Schedule

Set time periods during which alarms can occur.

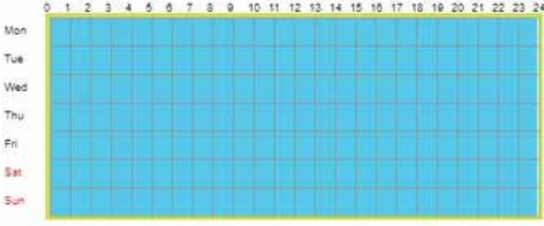
Note:
This function may vary with device model.



The interface shows a window titled "Enable Plan" with a checked checkbox. Below it are two buttons: "Armed" (highlighted in blue) and "Unarmed" (white). To the right is an "Edit" button. The main area is a calendar grid with days of the week (Mon-Sun) on the y-axis and hours (0-24) on the x-axis. The entire grid is currently filled with blue, indicating the "Armed" state for all days and times.

- Select the **Enable Plan** check box to enable arming schedule.
- See the table below for arming schedule configuration.

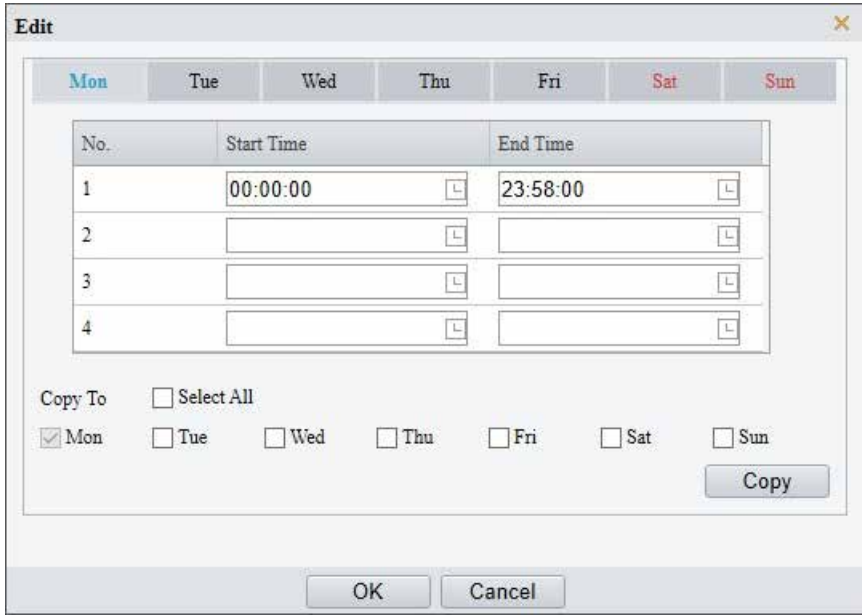
Item	Description
	Click to set the arming time in the schedule below.
	Click to set the time to cancel arming in the schedule below.
	Click to edit the arming schedule.

Item	Description
	Arming schedule.  indicates armed period.  indicates disarmed period.

3. Configure arming schedule.

- Edit a schedule

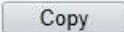
(1) Click  .

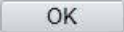


No.	Start Time	End Time
1	00:00:00	23:58:00
2		
3		
4		

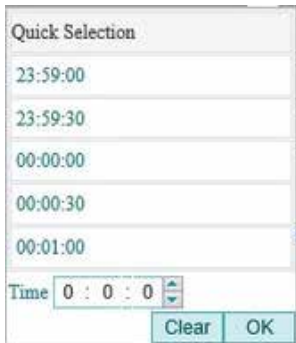
Copy To ☐ Select All

☒ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun



(2) Set the arming time. You can click  to select time or directly type the time in the **Time** text box.



Quick Selection

23:59:00

23:59:30

00:00:00

00:00:30

00:01:00

Time 0 : 0 : 0

(3) Click **OK** to save the settings. To clear the settings, click **Clear**.



Note:

To apply the same time settings to other days, select the desired day(s), and then click **Copy**.

- Draw a schedule

- To set an arming schedule, click **Armed**, and then click the time cells you want to enable arming.



Note:

You may also drag your mouse to select in batches.

- To delete an arming schedule, click **Unarmed**, and then click the time cells you want to disable arming.

4. Click **Save** to save the settings.

3.5.4 Advanced Settings

- Select **Setup > Smart > Advanced Settings** to go to **Detection Parameters**.

Static Object Detection ☐ On ☒ Off

Save

- Click **On**.
- Click **Save** to save the settings.

3.5.5 Cross Line Detection

Cross line detection detects objects crossing a user-specified virtual line in a specified direction and triggers an alarm.

Go to **Setup > Smart > Smart**. Click  right to **Cross Line** to configure cross line detection parameters.

☐ Cross Line Detection

Rule Settings Trigger Actions Plan



Detection Rule 

Rule

Trigger Direction: A<>B

Sensitivity:  1

Detection Object: ☐ Motor Vehicle ☐ Non-Motor Vehicle ☐ Pedestrian

Filter Type: Motor Vehicle

Max. Size: 0 X 0

Min. Size: 0 X 0

Save

- Select the **Cross Line Detection** check box to enable it.
- Click  to add a detection line.
- Adjust the position and length of the line or draw a line as needed.
 - Adjust the position and length of the line.
 - Point to the line and drag it to the desired position.
 - Drag the endpoints of the line to resize it.
 - Draw a line.

In the preview window, drag the mouse to draw a line.
- Set the rules for reporting cross line alarms.

Item	Description
Trigger Direction	Crossing direction: A<>B, cross the line from A to B. B<>A, cross the line from B to A.
Sensitivity	The higher the sensitivity, the more likely cross line behaviors will be detected, and the more likely false alarms will occur.
Detection Object	Set the detection object, including motor vehicle, non-motor vehicle, and pedestrian.
Filter Type	Select a filter type, set the filter rules (Max. Size and Min. Size), then only objects in the range of Max. Size and Min. Size will be detected.
Max. Size	When enabled, a green box appears in the preview window, you can adjust the position and size of the box using your mouse.
Min. Size	When enabled, a green box appears in the preview window, you can adjust the position and size of the box using your mouse.

- Set alarm-triggered actions. See [Alarm-triggered Actions](#).
- Modify the arming schedule. See [Arming Schedule](#).

3.5.6 Enter Area Detection

Enter area detection detects objects entering a user-specified area and triggers an alarm.

Go to **Setup > Smart > Smart**. Click  right to **Enter Area** to configure the parameters.

☐ Enter Area Detection

Rule Settings Trigger Actions Plan



Detection Rule +

Rule

Sensitivity

Detection Object ☒ Motor Vehicle ☒ Non-Motor Vehicle ☒ Pedestrian

Filter Type Motor Vehicle

☐ Max. Size 0 X 0

☐ Min. Size 0 X 0

Save

1. Select the **Enter Area Detection** check box to enable enter area detection.
2. Click **+** to add a detection area.
3. Adjust the position and size of the area or draw an area as needed.
 - Adjust the position and size of the area.
 - Point to the area and drag it to the desired position.
 - Drag the corners of the area to resize it.
 - Draw an area.
Click in the preview window to draw a hexagonal area.
4. Set the rules for reporting enter area alarms.

Item	Description
Sensitivity	The higher the sensitivity, the more likely entry behaviors will be detected, and the more likely false alarms will occur.
Detection Object	Set the detection object, including motor vehicle, non-motor vehicle, and pedestrian.
Filter Type	Select a filter type, set the filter rules (Max. Size and Min. Size), then only objects in the range of Max. Size and Min. Size will be detected.
Max. Size	When enabled, a green box appears in the left preview window, you can adjust the position and size of the box using your mouse.
Min. Size	When enabled, a green box appears in the left preview window, you can adjust the position and size of the box using your mouse.

5. Set alarm-triggered actions. See [Alarm-triggered Actions](#).
6. Modify the arming schedule. See [Arming Schedule](#).

3.5.7 Leave Area Detection

Leave area detection detects objects leaving a user-specified area and triggers an alarm.

Go to **Setup > Smart > Smart**. Click  right to **Leave Area** to configure the parameters.

☐ Leave Area Detection

Rule Settings Trigger Actions Plan



Detection Rule +

Rule

Sensitivity

Detection Object ☐ Motor Vehicle ☐ Non-Motor Vehicle ☐ Pedestrian

Filter Type Motor Vehicle

☐ Max. Size 0 X 0

☐ Min. Size 0 X 0

Save

1. Select the **Leave Area Detection** check box to enable leave area detection.
2. Click **+** to add a detection area.

3. Adjust the position and size of the area or draw an area as needed.

- Adjust the position and size of the area.
 - Point to the area and drag it to the desired position.
 - Drag the corners of the area to resize it.
- Draw an area.
Click in the preview window to draw a hexagonal area.

4. Set the rules for reporting leave area alarms.

Item	Description
Sensitivity	The higher the sensitivity, the more likely the leave area behaviors will be detected, and the more likely false alarms will occur.
Detection Object	Set the detection object, including motor vehicle, non-motor vehicle, and pedestrian.
Filter Type	Select a filter type, set the filter rules (Max. Size and Min. Size), then only objects in the range of Max. Size and Min. Size will be detected.
Max. Size	When enabled, a green box appears in the left preview window, you can adjust the position and size of the box using your mouse.
Min. Size	When enabled, a green box appears in the left preview window, you can adjust the position and size of the box using your mouse.

5. Set alarm-triggered actions. See [Alarm-triggered Actions](#).

6. Modify the arming schedule. See [Arming Schedule](#).

3.6 Events

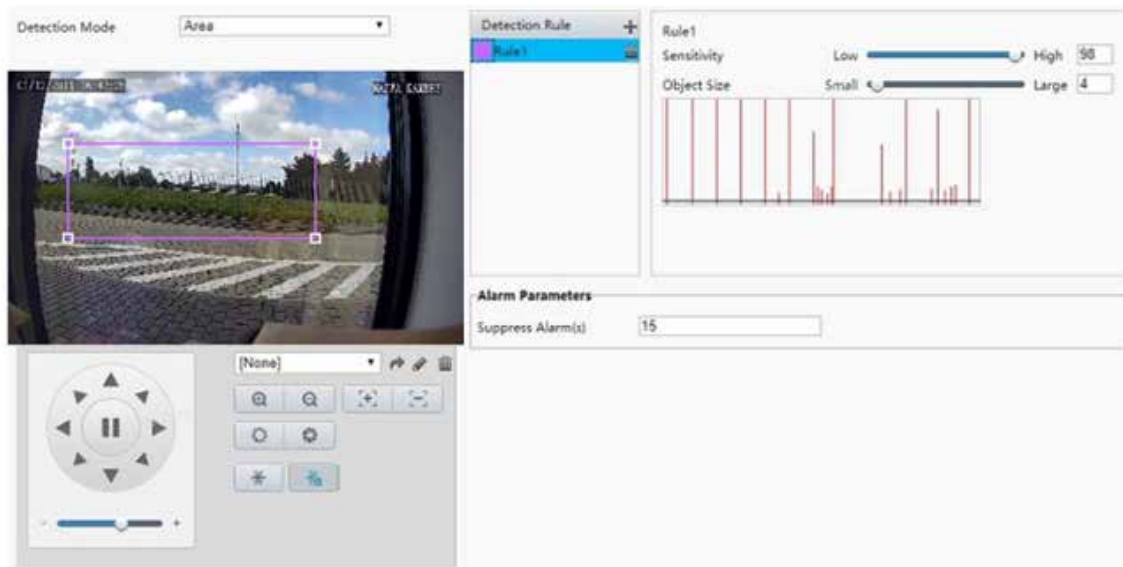
3.6.1 Motion Detection

Motion detection detects moving objects in the detection area and triggers an alarm.

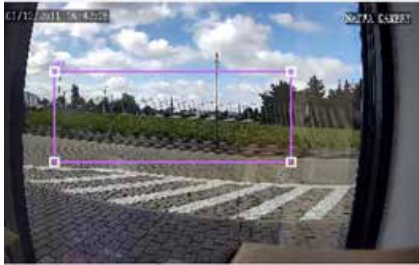
Go to **Setup > Events > Common Alarm > Motion Detection**.

Area Detection

1. In the **Detection Mode** list, click **Area**.
- 2.



3. Click  to add a detection area. Up to 4 detection areas are allowed.
4. Adjust the position and size of the area as needed.
 - Point to the area and drag it to the desired position.
 - Drag the corners of the area to resize it.



5. Set detection rules.

Item	Description
Sensitivity	Set the detection sensitivity. The higher the sensitivity, the more likely small motions will be detected.
Object Size	Set the percentage of the size of an moving object against the size of the detection area. If the percentage of the size of an moving object detected against the size of the detection area exceeds the set percentage, an alarm will be triggered.  Note: To detect tiny moving objects, you need to draw a small box (detection area) in the actual motion area accordingly.
	Real-time motion detection results.  Note: - The red lines represent the reported motion detection alarms. - The longer a line, the greater the extent of motion. - The denser the lines, the higher the frequency of motion.

6. Set alarm parameters.

Item	Description
Suppress Alarm(s)	After an alarm is triggered, the same alarm will not be reported within the set time.
Clear Alarm(s)	Set when an alarm will be cleared. After an alarm is triggered: - If the same alarm is not triggered within the set time, the alarm will be cleared at the end of the set time. - If the same alarm is triggered within the set time, the alarm will be cleared at the end of the suppress alarm time.

7. To delete the area, click .

8. Set alarm-triggered actions. See [Alarm-triggered Actions](#).

9. Modify the arming schedule. See [Arming Schedule](#).

10. Click **Save** to save the settings.

Grid Detection

1. In the **Detection Mode** list, click **Grid**.



2. In the preview window, click or drag your mouse to set the detection area.

3. Set the detection sensitivity.
4. Set alarm rules.
5. Set alarm-triggered actions. See [Alarm-triggered Actions](#).
6. Modify the arming schedule. See [Arming Schedule](#).
7. Click **Save** to save the settings.

3.6.2 Tampering Alarm

Configure tampering alarm so that the camera reports a tampering alarm when the lens is blocked for a certain length of time.

Go to **Setup > Events > Common Alarm > Tampering Alarm**.

1. Enable **Tampering Alarm**. This function is disabled by default.
2. Set alarm rules.

Item	Description
Sensitivity	Set the detection sensitivity. The higher the sensitivity, the more likely the lens blocking from a farther location will be detected.
Duration(s)	Set the lens blocking duration. If the lens is blocked for more than the set time, an alarm will be triggered.

3. Set alarm-triggered actions. See [Alarm-triggered Actions](#).
4. Modify the arming schedule. See [Arming Schedule](#).
5. Click **Save** to save the settings.

3.6.3 Audio Detection

The camera can detect input audio signals for exceptions. When the rise or fall of volume exceeds the set limit, or when the input volume reaches the threshold, the camera reports an alarm and triggers the set actions.



Note:

Make sure that an audio input device is correctly connected to the camera and audio input is turned on. See [Audio](#).

Go to **Setup > Events > Common Alarm > Audio Detection**.

1. Enable **Audio Detection**. This function is disabled by default.
2. Set alarm rules.

Item	Description
Detection Type	Set the detection type. • Sudden Rise: An alarm is reported when the rise of volume exceeds the difference. • Sudden Fall: An alarm is reported when the fall of volume exceeds the difference. • Sudden Change: An alarm is reported when the rise or fall of volume exceeds the difference. • Threshold: An alarm is reported when the volume exceeds a threshold.
Difference	Set the alarm difference or threshold. • Threshold: After a volume is set as the threshold, an alarm is reported when the threshold is exceeded. • Difference: The difference between two volumes. When the rise or fall of volume exceeds the difference, an alarm is reported.
	Real-time audio detection results.
Start Stop	Show or hide audio detection results.

3. Set alarm-triggered actions. See [Alarm-triggered Actions](#).

4. Modify the arming schedule. See [Arming Schedule](#).

5. Click **Save** to save the settings.

3.7 Storage

3.7.1 Storage

Configure storage so that you can save videos and snapshots in storage resources mounted on the device. This function is recommended when the camera is running in stand-alone mode.



Note:

This function is not supported by some models, and may vary with device model.

Go to **Setup > Storage > Storage**.

Storage Medium

Memory Card

Format

☒ Enable

Storage Medium Status: No card

Total Capacity 0 MB, Free Space 0 MB.

Allocate Capacity

Video(MB)

0

(The remaining capacity is used for image storage.)

Common Snapshot(MB)

0

Video Storage Info

Storage Policy
☐ Manual and Alarm Recording
☐ Scheduled and Alarm Recording
☒ Alarm Recording Only

When Storage Full
☐ Overwrite
☒ Stop

Post-Record(s)

60

1. Set the parameters.

Item		Description
Storage Medium		Two options: Memory Card and NAS .
IP Address		Enter the IP address when Storage Medium is set to NAS .
Path		Set the path to save files when Storage Medium is set to NAS .
Format		To format the memory card, select the Enable check box and then click Format .  Note: The device will restart after the formatting is completed.
NAS Test		Test if NAS is available.
Allocate Capacity	Video(MB)	Allocate storage capacity for videos.
	Common Snapshot(MB)	Allocate storage capacity for common snapshots.
Video Storage Info	Storage Policy	Select a storage policy, including Manual and Alarm Recording, Scheduled and Alarm Recording, and Alarm Recording Only .
	When Storage Full	Set the storage strategy when the memory card is full. • Overwrite: If there is no free space in the memory card, new data will overwrite the existing data repeatedly. • Stop: If there is no free space in the memory card, new data will not be saved to the memory card.
	Post-Record(s)	The duration set to record after an alarm.

- Click **Save** to save the settings.

3.7.2 FTP

Configure FTP so that you can upload snapshots from network cameras to the specified FTP server.



Note:

The parameters displayed in the **FTP** page may vary with device model.

Go to **Setup > Storage > FTP**.

Server Parameters

Server IP: 192.168.0.150 Upload Images: ☐

Port No.: 21 Overwrite Storage: ☐

Username: Overwrite At(image): 1000

Password: **Test**

Snapshot Image

Save To

Root Directory: Disable \ \ Disable \ \ Disable \ \ Disable \

File Name

Separator: -

No.	Naming Element
1	None
2	
3	
4	
5	

1. Set the server parameters.

Item	Description
Server IP	Set the IP address of the FTP server.
Upload Images	Set whether to upload images.
Port No.	Set the port number of the FTP server.
Overwrite Storage	Set whether to overwrite storage.
Username	Set the username.
Overwrite At(image)	Set the threshold for overwriting images. A valid value ranges from 1 to 100000.
Password	Set the password.
Test	Some models support FTP test. You may test FTP after completing FTP settings correctly.

2. Set the snapshot parameters.

Item	Description
Save To	The path for saving snapshots.
Root Directory	Set the path to save snapshots.
File Name	File name.
Separator	Select a separator.
Naming Element	Set the naming rules for snapshots.

3. Click **Save** to save the settings.

3.8 Security

3.8.1 User

Add, delete or edit user information.

Go to **Setup > Common > User**.

No.	Username	User Type
1	admin	Admin

Set the parameters.

Item	Description
Username	You can set it when adding a user. See Adding a User . Note: The default administrator name is admin, which cannot be modified.
User Type	You can set it when adding a user. Note: - The system supports two user types: Admin and Common User. - Only 1 administrator is allowed. - Up to 31 common users are allowed. - The admin user has all permissions for managing the device and other users, and the common user only has the live view and playback permissions.
Add	Add users. See Adding a User .
Edit	Edit user information. See Editing User Info .
Delete	Delete users. See Deleting a User .

Adding a User

1. Click **Add**.

Add

Username

User Type

Common User

Password

Weak

Medium

Strong

Confirm

OK

Cancel

2. Set the parameters.

Item	Description
Username	Set the username.

Item	Description
User Type	Set the user type.
Password	Set the password.
Confirm	Confirm the password you entered by entering it again. Make sure that the two passwords you entered are the same.

- Click **Save** to save the settings.

Editing User Info

- Select the user you want to edit.
- Click **Edit**.

The screenshot shows a dialog box titled "Edit" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Username:** A text input field containing the value "admin".
- User Type:** A dropdown menu showing "Admin".
- Old Password:** An empty text input field.
- Password:** An empty text input field. Below this field is a password strength indicator with three labels: "Weak", "Medium", and "Strong".
- Confirm:** An empty text input field.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

- Set the parameters.

Item	Description
Username	See User .
User Type	See User .
Old Password	Enter the old password.
Password	Enter the new password.
Confirm	Confirm the new password you entered by entering it again. Make sure that the two new passwords you entered are the same.

- Click **Save** to save the settings.



Note:

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.

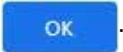
Deleting a User

- Select the user you want to delete.
- Click **Delete**.

Do you want to delete it?

OK

Cancel

- Click .  means the user is deleted successfully.



Note:

- The admin user cannot be deleted.
- Deleting a user when the user is still logged in will force the user to log out.

3.8.2 Network Security

Configure network security to ensure system security.

Go to **Setup > Security > Network Security**.



Note:

The network security parameters may vary with device model.

HT TPS

Note:

This function is not supported by some models.

- Go to **Setup > Security > Network Security > HTTPS**.

HTTPS ☐ On ☒ Off

SSL Certificate

- Set the parameters.

Item	Description
HT TPS	Turn on or off HTTPS .
Browse...	Click to import the SSL certificate.

- Click **Save** to save the settings.

Authentication

- Go to **Setup > Security > Network Security > Authentication**.

RTSP Authentication

HTTP Authentication

- Set the parameters.

Item	Description
RTSP Authentication	Select an RTSP authentication mode, including None , Basic , and Digest .
HTTP Authentication	Select an HTTP authentication mode, including None and Digest .

- Click **Save** to save the settings.

ARP Protection

- Go to **Setup > Security > Network Security > ARP Protection**.

ARP Protection ☒ On ☐ Off

Gateway

Gateway MAC Address

- Set the parameters.

Item	Description
ARP Protection	Turn on or off ARP Protection .
Gateway	Set the gateway.
Gateway MAC Address	Set the gateway MAC address.

- Click **Save** to save the settings.

IP Address Filtering



Note:

This function is not supported by some models.

- Go to **Setup > Security > Network Security > IP Address Filtering**.

- Set the parameters.

Item	Description
IP Address Filtering	Turn on or off IP Address Filtering .
Filtering Mode	Select a filtering mode, including Whitelist and Deny Access .
	Click to add the IP address to be filtered.
	Click to delete the IP address.

- Click **Save** to save the settings.



Note:

- If **Filtering Mode** is set to **Whitelist**, only the added IP address(es) are allowed to access the camera. If **Filtering Mode** is set to **Deny Access**, only the added IP address(es) are not allowed to access the camera.
- Up to 32 IP addresses are allowed. Each IP address can be added once only.
- The first byte of each IP address must be 1 to 223, and the fourth cannot be 0. For example, the following IP addresses are illegal and cannot be added: 0.0.0.0, 127.0.0.1, 255.255.255.255, 224.0.0.1.

Access Policy



Note:

The **MAC Authentication** and **Illegal Login Lock** are enabled by default. When **Illegal Login Lock** is enabled, the device is automatically locked for 5 minutes after 5 failed login attempts.

- Go to **Setup > Security > Network Security > Access Policy**.

- Set the parameters.

Item	Description
MAC Authentication	Turn on or off MAC Authentication .
Illegal Login Lock	Turn on or off Illegal Login Lock .

- Click **Save** to save the settings.

3.8.3 Registration Info

Set whether to display vendor information of the device on the management platform.

Go to **Setup > Security > Registration Info**.

- Set the parameters.

Item	Description
Hide Vendor Info	Turn on or off Hide Vendor Info .

- Click **Save** to save the settings.

3.8.4 Watermark

Use watermark to encrypt custom information with video to prevent unauthorized deletion or alteration.

Go to **Setup > Security > Watermark**.

1. Set the parameters.

Item	Description
Watermark	Turn on or off Watermark .
Watermark Content	Set the watermark content.

2. Click **Save** to save the settings.

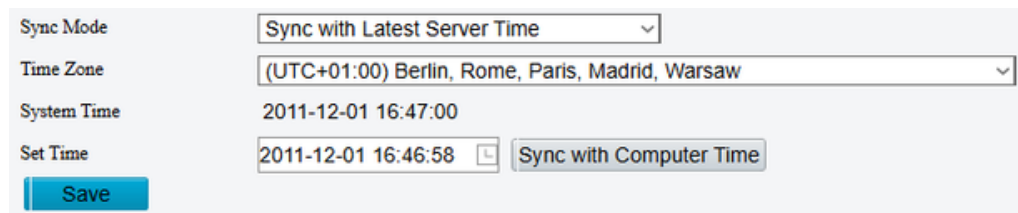
3.9 System

3.9.1 Time

Configure system time and DST parameters.

Time

1. Go to **Setup > Common > Time**.



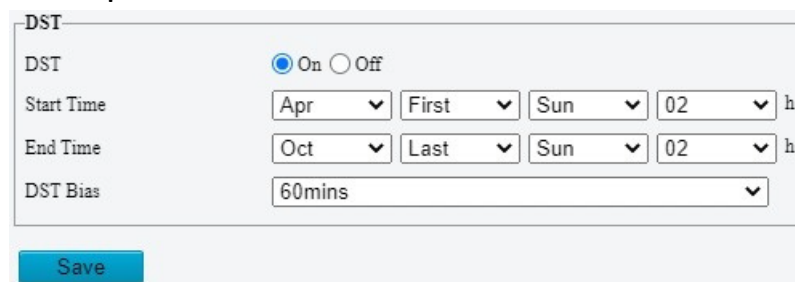
2. Set the parameters.

Item	Description
Sync Mode	Set the time sync mode. The default mode is Sync with Latest Server Time .
Time Zone	Set the time zone. The default time zone is (UTC+00:00) London, Dublin, Lisbon .
System Time	Display current system time. See the description of Set Time for system time customization.
Set Time	Set the system time as required. - Click 2021-10-25 16:39:10 to set the time manually. - Click Sync with Computer Time to sync the time and time zone with the PC. - Click Cancel Sync to cancel sync.

3. Click **Save** to save the settings.

DST

1. Go to **Setup > Common > Time > DST**.



2. Set the parameters.

Item	Description
DST	Turn on or off DST . It is turned off by default.
Start Time	Set the start time.
End Time	Set the end time.
DST Bias	Set the offset time. The default offset time is 60 minutes.

3. Click **Save** to save the settings.

3.9.2 Maintenance

Perform maintenance operations for your device.



Note:

The maintenance parameters may vary with device model.

Go to **Setup > System > Maintenance**.

Software Upgrade

The Software Upgrade dialog box contains two sections: 'Local Upgrade' with a file input field, a 'Browse...' button, an 'Upgrade' button, and an 'Upgrade Boot Program' checkbox; and 'Cloud Upgrade' with a 'Detect' button. A note at the bottom states: 'Note: The upgrade will take a while. Please do not disconnect power.'

- Local upgrade
 1. Click **Browse** and select the upgrade file. Some models support boot program upgrade, you can select the **Upgrade Boot Program** check box to upgrade.
 2. Click **Upgrade** to start upgrade. The device will restart automatically after the upgrade is completed.
- Cloud upgrade
Click **Detect** to see whether a new version is available.



Note:

- Do not disconnect power during upgrade. The device will restart after the upgrade is completed.
- Some models do not support cloud upgrade.
- If the upgrade file is a ZIP file, it must include all the necessary files.
- The target version must match the device, otherwise unexpected results may occur.

Configuration Management

Export the current configurations of the camera and save them to the PC or an external storage medium. You can also quickly restore configurations by importing backup configurations stored on the PC or an external storage medium back to the camera.



Note:

- After you perform the Default operation, all settings are restored to factory defaults, except the following: login password of the system administrator, network settings, and system time.
- Make sure you import the correct configuration file for your camera. Otherwise, unexpected results may occur.
- The camera will restart when the configuration file is imported successfully.

The Config Management dialog box features a 'Default' button, a checkbox for 'Restore all settings to defaults without keeping current network and user settings.', an 'Importing' section with a file input field, 'Browse...' and 'Import' buttons, and an 'Exporting' section with an 'Export' button.

- Importing configuration file
 1. Click **Browse** and select the configuration file.
 2. Click **Import** to start importing.
- Exporting configuration file
Click **Export** to export the configuration file to the PC.
- Restoring default settings
 1. Set whether to keep network and user settings.
 2. Click **Default** to start restoring.

Diagnosis Info

Diagnosis information includes logs and system configurations. You can export diagnosis information to your PC.

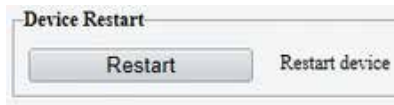
The Diagnosis Info dialog box includes an 'Export Diagnosis Info' button and a checked checkbox for 'Collect Image Debugging Info'.

Click **Browse** to set the path for saving the exported diagnosis information and then click **Export**.

 Note:

- Diagnosis information is exported to the local folder in the form of a compressed file. You need to decompress the file using a tool such as WinRAR and then open the file using a text editor.
- By selecting **Collect Image Debugging Info**, you can display video with debugging information at the same time, which makes troubleshooting easier.

Device Restart



Click **Restart** to restart the device.

 Note:

Perform this operation with caution. Restarting the device will interrupt the ongoing services.