# Villa Door Station

## User's Manual

V1.0.5

# Foreword

## General

This manual introduces the installation, functions and operations of the villa door station device (hereinafter referred to as "the VTO"). Read carefully before using the device, and keep the manual safe for future reference.

## Safety Instructions

The following signal words might appear in the manual.

| Signal Words | Meaning |
|---|---|
| DANGER | Indicates a high potential hazard which, if not avoided, will result in death or serious injury. |
| WARNING | Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury. |
| CAUTION | Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results. |
| NOTE | Provides additional information as a supplement to the text. |

## Revision History

| Version | Revision Content | Release Date |
|---|---|---|
| V1.0.5 | Modified audio. | November 2024 |
| V1.0.4 | Added structure. | May 2024 |
| V1.0.3 | Added port description. | February 2024 |
| V1.0.2 | Added structure. | February 2024 |
| V1.0.1 | Added structure. | December 2023 |
| V1.0.0 | First release. | August 2023 |

## Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, audio, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

## About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.
- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

# Important Safeguards and Warnings

This section introduces content covering the proper handling of the device, hazard prevention, and prevention of property damage. Read carefully before using the device, and comply with the guidelines when using it.

## Operation Requirements

- Check whether the power supply is correct before use.
- Do not unplug the power cord on the side of the device while the adapter is powered on.
- Operate the device within the rated range of power input and output.
- Transport, use and store the device under allowed humidity and temperature conditions.
- If the device is powered off for longer than a month, it should be placed in its original package and sealed. Make sure to keep it away from moisture, and store it under allowed humidity and temperature conditions.
- Do not drop or splash liquid onto the device, and make sure that there is no object filled with liquid on the device to prevent liquid from flowing into it.
- Do not disassemble the device without professional instruction.

## Installation Requirements


- Do not connect the power adapter to the device while the adapter is powered on.
- Strictly comply with the local electric safety code and standards. Make sure the ambient voltage is stable and meets the power supply requirements of the device.
- Do not connect the device to two or more kinds of power supplies, to avoid damage to the device.
- Improper use of the battery might result in a fire or explosion.

- Personnel working at heights must take all necessary measures to ensure personal safety including wearing a helmet and safety belts.
- Do not place the device in a place exposed to sunlight or near heat sources.
- Keep the device away from dampness, dust, and soot.
- Install the device on a stable surface to prevent it from falling.
- Install the device in a well-ventilated place, and do not block its ventilation.
- Use an adapter or cabinet power supply provided by the manufacturer.
- Use the power cords that are recommended for the region and conform to the rated power specifications.
- The power supply must conform to the requirements of ES1 in IEC 62368-1 standard and be no higher than PS2. Please note that the power supply requirements are subject to the device label.
- The device is a class I electrical appliance. Make sure that the power supply of the device is connected to a power socket with protective earthing.

# Table of Contents

# 1 Structure

## 1.1 Villa Door Station (multiple buttons)

### 1.1.1 Front Panel

Figure 1-1 Front panel

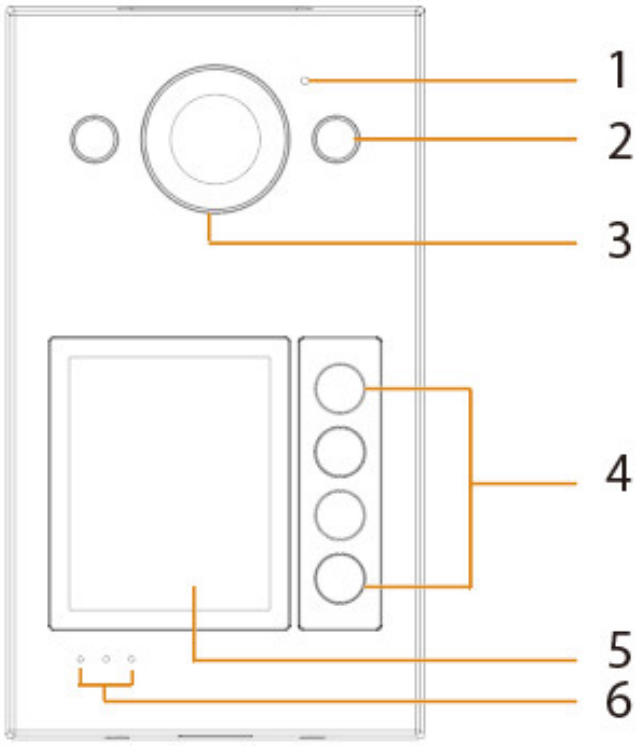



Table 1-1 Components

| No. | Name | Function |
|---|---|---|
| 1 | MIC | Audio input. |
| 2 | Illuminator | Provide a constant light to focus more easily on a subject in dark surroundings. |
| 3 | Camera | Capture images or record videos for the VTO. |
| 4 | Call buttons | Call the VTH. |
| 5 | Card swiping area | Swipe the registered cards to unlock doors. |
| 6 | Indicators | From left to right:<br>• Ring: VTO is calling the VTH.<br>• Talking: VTO is on the talk with the VTH.<br>• Unlocking: VTO unlocking successful. |

## 1.1.2 Rear Panel

The multi-function port might differ depending on the actual models.

Figure 1-2 Rear panel

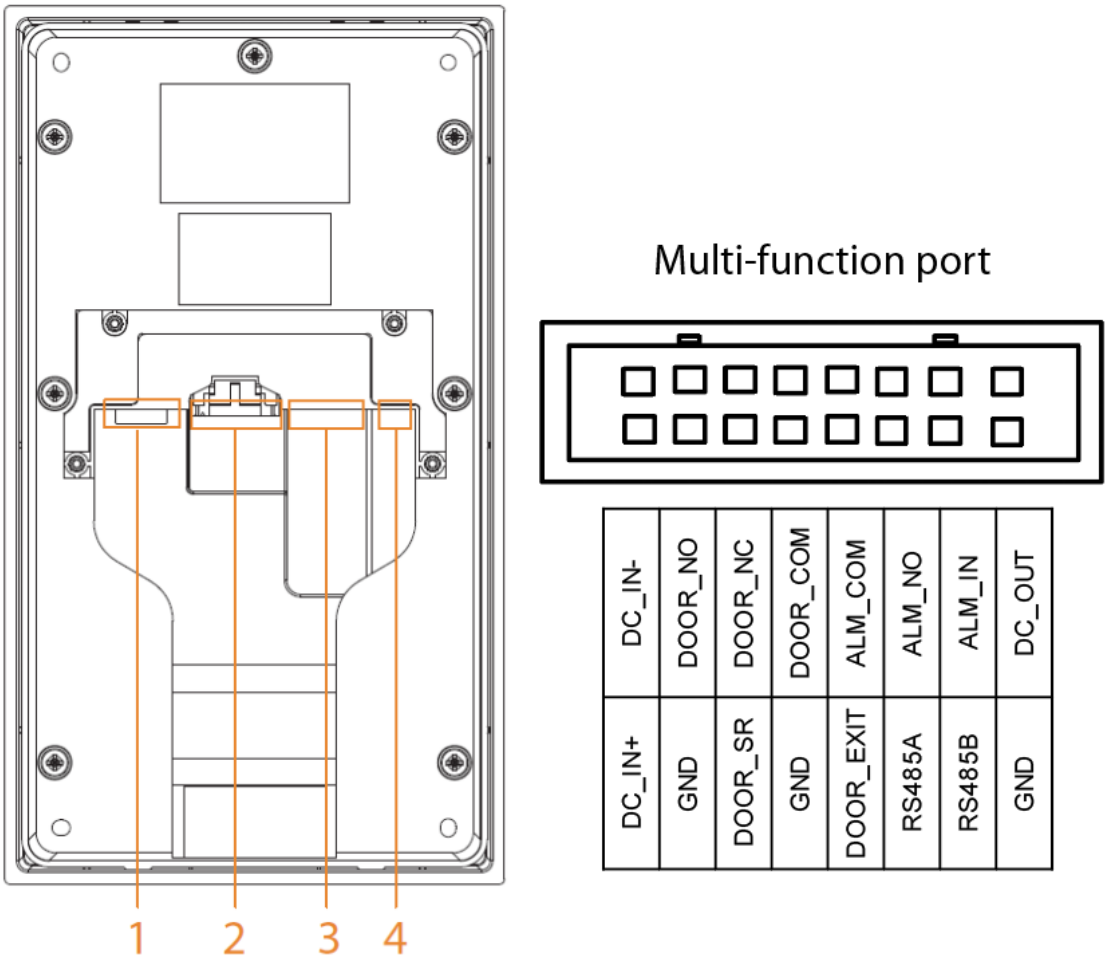



Table 1-2 Components

| No. | Name | Function |
|---|---|---|
| 1 | SD card slot | Used to insert SD card so that data information such as images and videos can be stored. |
| 2 | Multi-function port | Alarm port, door detector port, 485 port, power port and other ports. |
| 3 | Network port | RJ-485 network port to connect to the network. |
| 4 | Reset button | Press and hold the button for several seconds to reset to factory settings. |

# 1.2 Villa Door Station (single button)

## 1.2.1 R Series

### 1.2.1.1 Front Panel

Size and appearance might differ depending on the models of product.

Figure 1-3 Front panel

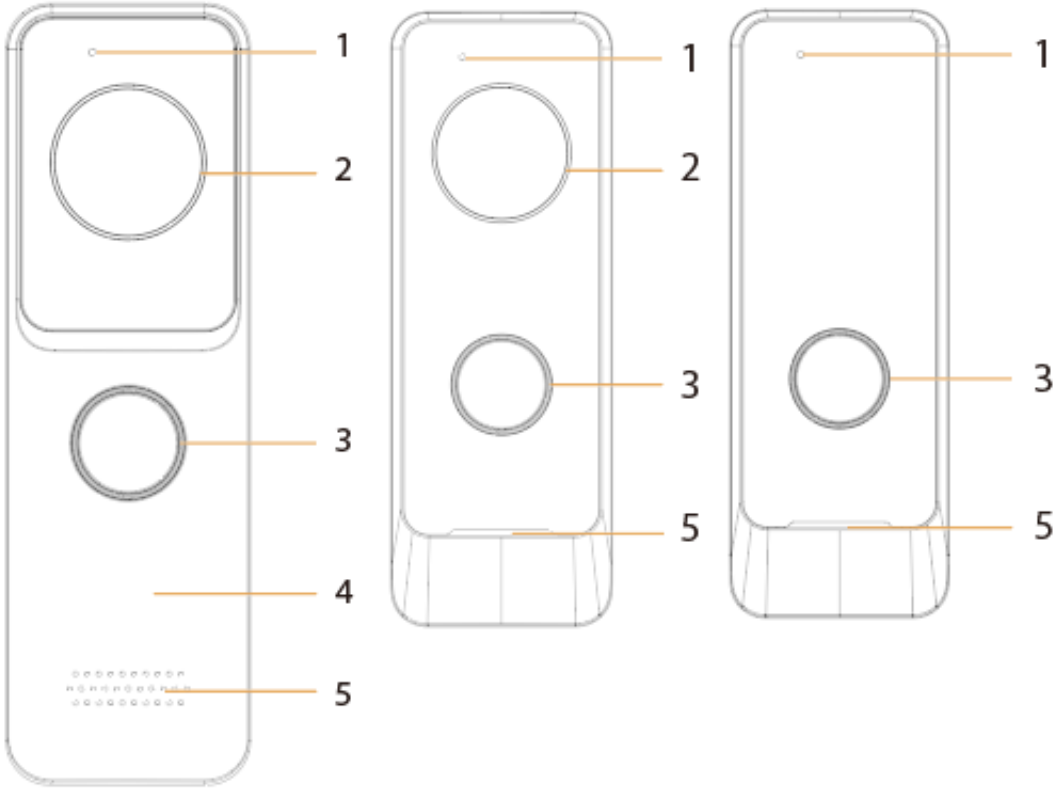



Table 1-3 Components

| No. | Name | Function |
|---|---|---|
| 1 | MIC | Audio input. |
| 2 | Camera | Capture images or record videos for the VTO. |
| 3 | Call button | Call the VTH. |
| 4 | Card swiping area | Swipe the registered cards to unlock doors.<br>The card swiping function is only available on select models. |
| 5 | Speaker | Audio output. |

### 1.2.1.2 Rear Panel

The multi-function port might differ depending on the model. Here are two models used as examples.

Figure 1-4 Rear panel (1)

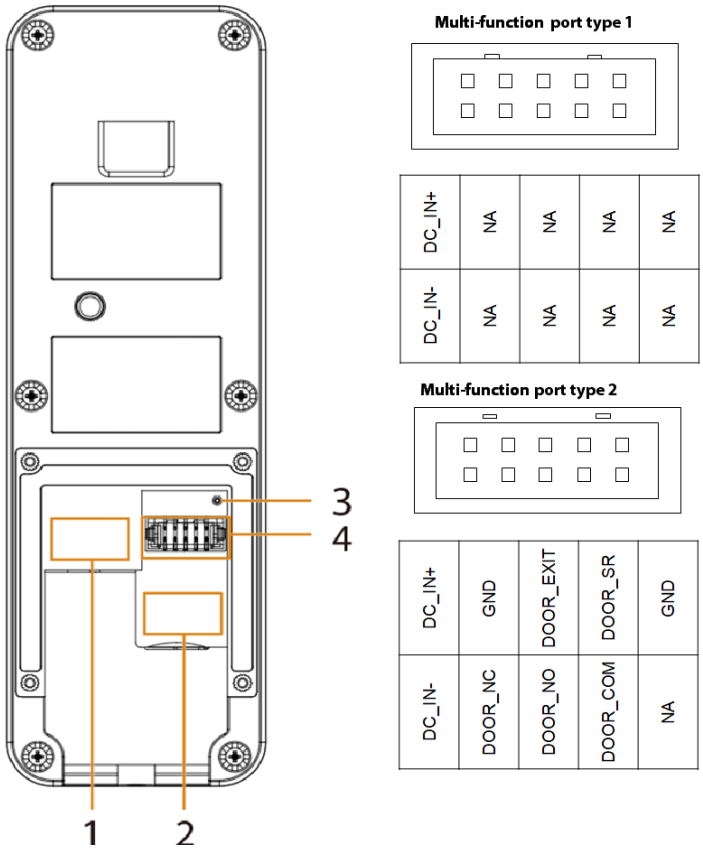



Table 1-4 Components

| No. | Name | Function |
|---|---|---|
| 1 | Network port | Connects to the network. |
| 2 | SD card slot | Insert SD card so that data information such as images and videos can be stored. |
| 3 | Reset button | Press and hold the button for several seconds to reset to factory settings. |
| 4 | Multi-function port | • Type 1: The multi-function port only has a power input port to connect to power supply.<br>• Type2: The multi-function port includes a power input port and a door detector port. |

Figure 1-5 Rear panel (2)

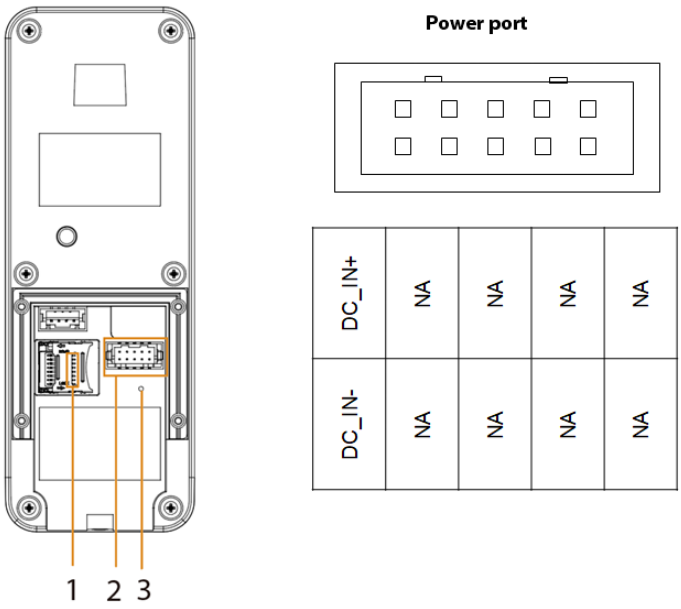



Table 1-5 Components

| No. | Name | Function |
|---|---|---|
| 1 | SD card slot | Insert SD card so that data information such as images and videos can be stored. |
| 2 | Power port | Connects to the power supply. |
| 3 | Reset button | Press and hold the button for several seconds to reset to factory settings. |

## 1.2.2 D Series

### 1.2.2.1 Front Panel

Figure 1-6 Front panel

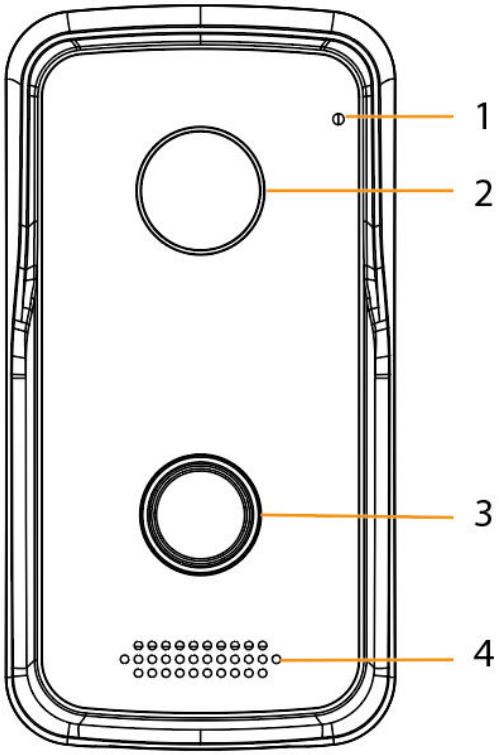



Table 1-6 Components

| No. | Name | Function |
|---|---|---|
| 1 | MIC | Audio input. |
| 2 | Camera | Capture images or record videos for the VTO. |
| 3 | Call button | Call the VTH. |
| 4 | Speaker | Audio output. |

### 1.2.2.2 Rear Panel

Figure 1-7 Rear panel

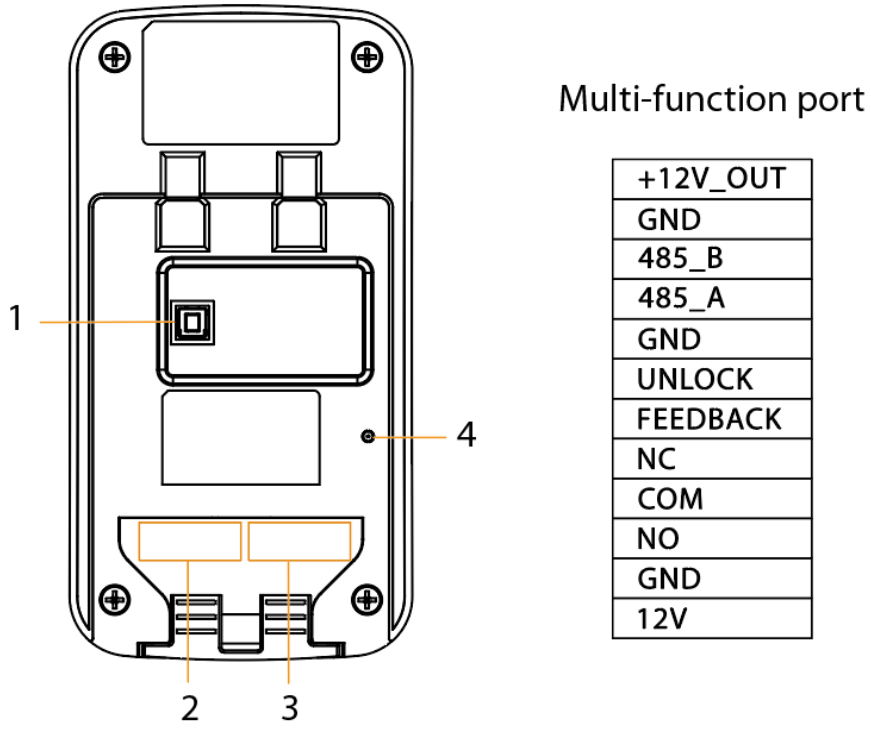



Table 1-7 Components

| No. | Name | Function |
|---|---|---|
| 1 | Tamper button | • After the installed device is removed from the wall or other places, the device beeps and the alarm record will be generated.<br>• Within 5 minutes after the device is powered on, if you press the tamper button for 5 times in 8 seconds, the device beeps and deletes the account information. The alarm record will be generated. |
| 2 | Multi-function ports | Alarm port, door detector port, 485 port, power port and more. |
| 3 | Network port | Connects to the network. |
| 4 | Reset button | Press and hold the button for several seconds to reset to factory settings. |

## 1.2.3 G Series

### 1.2.3.1 Front Panel

Figure 1-8 Front panel

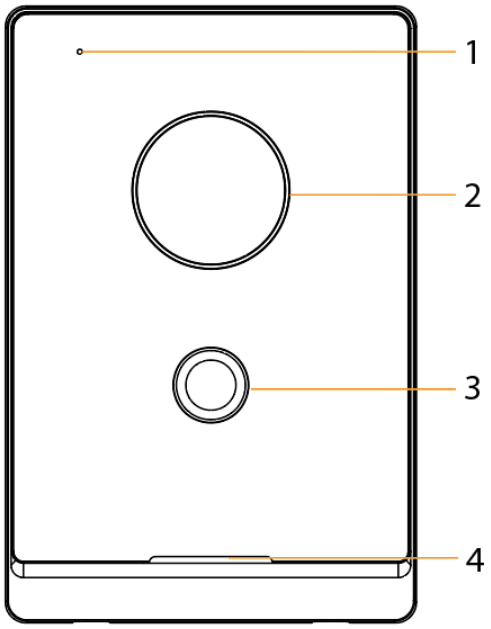



Table 1-8 Components

| No. | Name | Function |
|---|---|---|
| 1 | MIC | Audio input. |
| 2 | Camera | Capture images or record videos for the VTO. |
| 3 | Call button | Call the VTH.<br>The button displays different colors in different statuses.<br>● Standby: No light.<br>● Call not answered: Solid green.<br>● Call answered: Solid blue.<br>● Unlock when the device is in standby status: Red.<br>● Unlock when the call is not answered: Flashes green, yellow and then green.<br>● Unlock after the call is answered: Flashes blue, pink and then blue.<br>● Network disconnected: Green breathing light. |
| 4 | Speaker | Audio output. |

### 1.2.3.2 Rear Panel

Figure 1-9 Rear panel

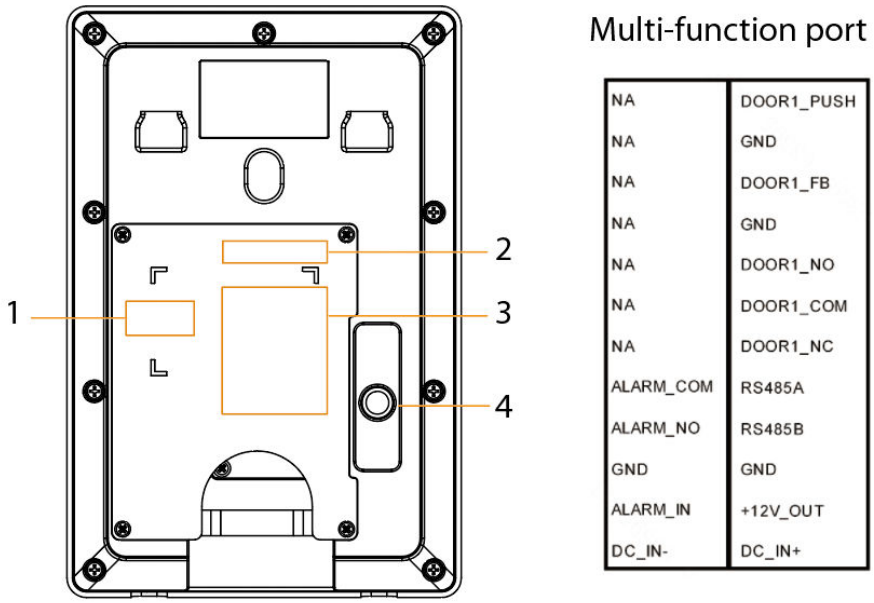



Table 1-9 Components

| No. | Name | Function |
|---|---|---|
| 1 | Network port | Connects to the network. |
| 2 | Multi-function port | Alarm port, door detector port, 485 port, power port and more. |
| 3 | SD card slot | Insert SD card so that data information such as images and videos can be stored. |
| 4 | Tamper button | • After the installed device is removed from the wall or other places, the device beeps and the alarm record will be generated.<br>• Within 5 minutes after the device is powered on, if you press the tamper button for 5 times in 8 seconds, the device beeps and deletes the account information. The alarm record will be generated. |

## 1.2.4 E Series

### 1.2.4.1 Front Panel

Figure 1-10 Front panel

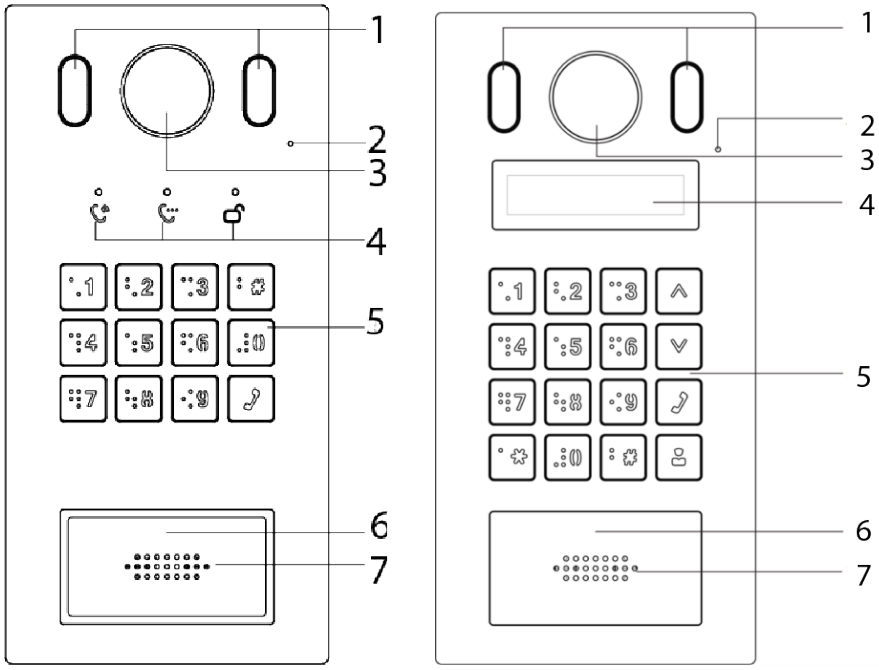



Table 1-10 Front panel description

| No. | Name | Description |
|---|---|---|
| 1 | Illuminator | Provides extra light for the camera when it is dark. |
| 2 | Microphone | Audio input. |
| 3 | Camera | Capture images or record videos for the VTO. |
| 4 | Indicators | Displays status on calling, talking and unlock. |
| 5 | Keypad | — |
| 6 | Card reading area | Swipe a card here to unlock the door. |
| 7 | Speaker | Audio output. |

### 1.2.4.2 Rear Panel

Figure 1-11 Rear panel

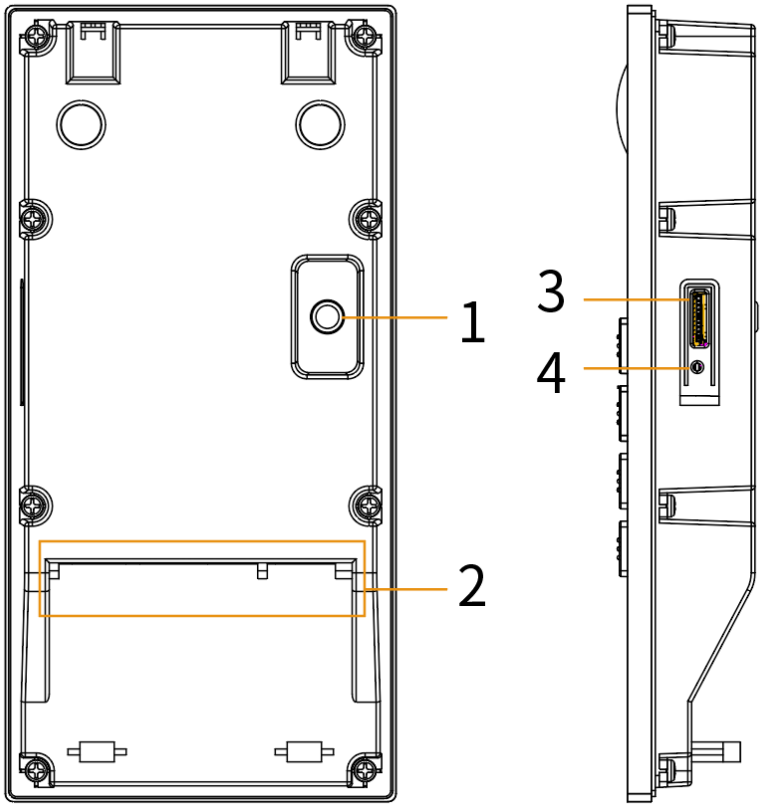
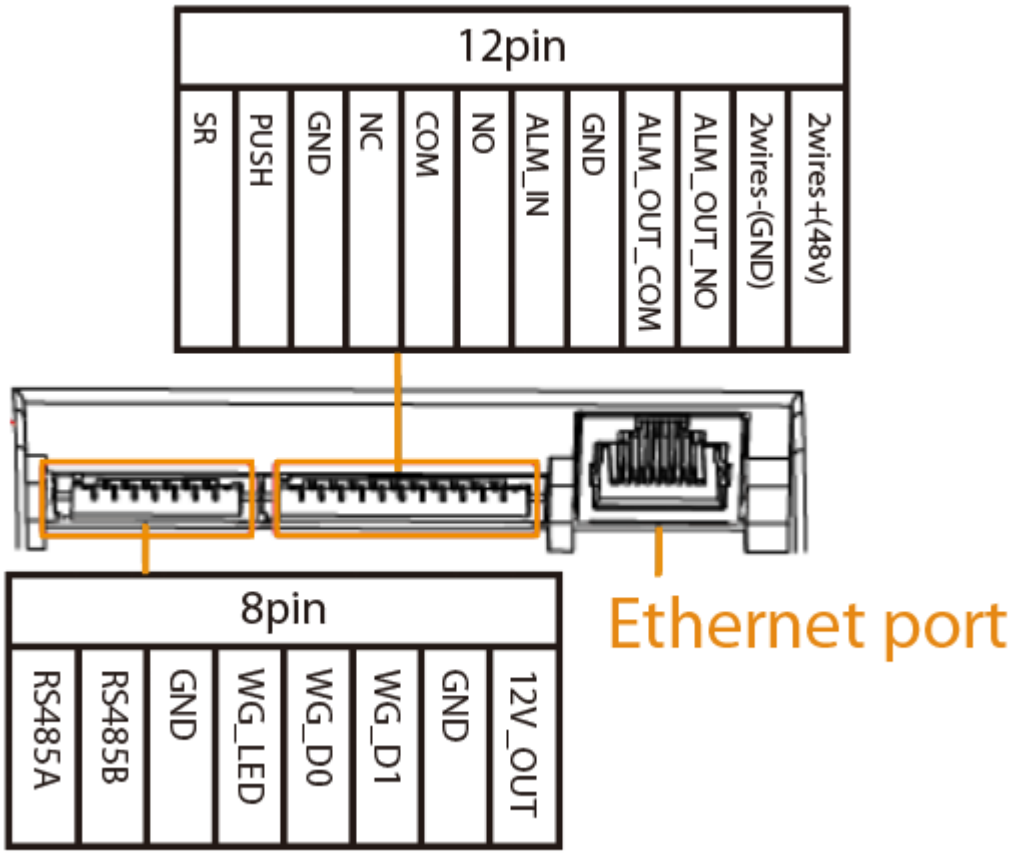



Table 1-11 Rear panel description

| No. | Name | Description |
|---|---|---|
| 1 | Anti-tampering switch | When the VTO is removed from the wall forcibly, an alarm will be triggered and the alarm information will be sent to management center. |
| 2 | Multi-function port | For details, see Figure 1-12 . |
| 3 | SD card slot | Plug in the SD card. |
| 4 | Reset button | Press and hold it for 10 seconds to reset all settings. |

Figure 1-12 Multi-function port




## 1.2.5 F Series

### 1.2.5.1 Front Panel

Figure 1-13 Front panel

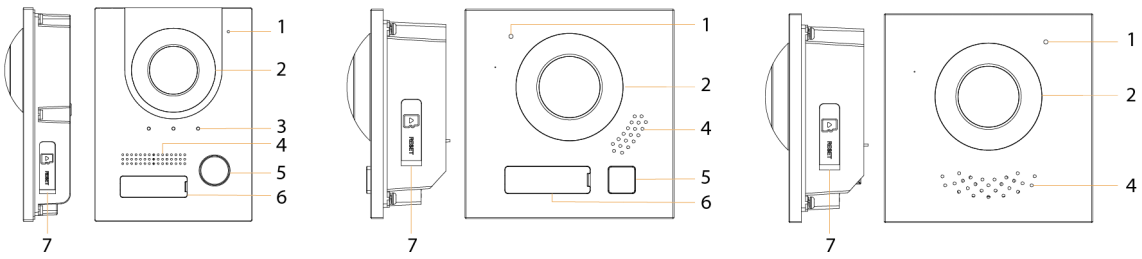



Table 1-12 Front panel description

| No. | Name | Description |
|---|---|---|
| 1 | Microphone | Audio input. |
| 2 | Camera | Capture images or record videos for the VTO. |

| No. | Name | Description |
|---|---|---|
| 3 | Indicators | Display status on calling, talking and unlock. |
| 4 | Speaker | Audio output. |
| 5 | Call button | Call the VTH and the management center. |
| 6 | Nameplate | Displays the custom information. |
| 7 | Card slot and reset button | • Insert SD card so that data information such as images and videos can be stored.<br>• Press and hold the button for several seconds to reset to factory settings. |

### 1.2.5.2 Rear Panel

Figure 1-14 Rear panel

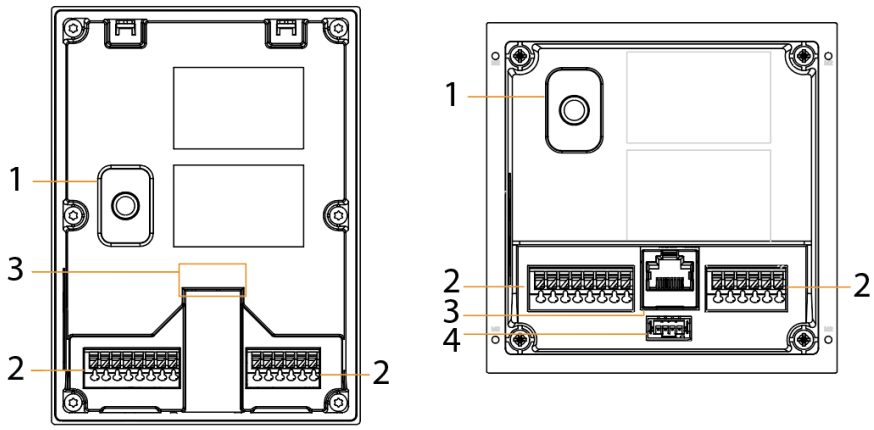



Table 1-13 Rear panel description

| No. | Name | Function |
|---|---|---|
| 1 | Tamper button | • After the installed device is removed from the wall or other places, the device beeps and the alarm record will be generated.<br>• Within 5 minutes after the device is powered on, if you press the tamper button for 5 times in 8 seconds, the device beeps and deletes the account information. The alarm record will be generated. |
| 2 | Multi-function ports | Alarm port, door detector port, 485 port, power port and more. |
| 3 | Network port | Connect to the network. |
| 4 | Cascade connection port | Connect to other modules. |

Figure 1-15 Multi-function ports

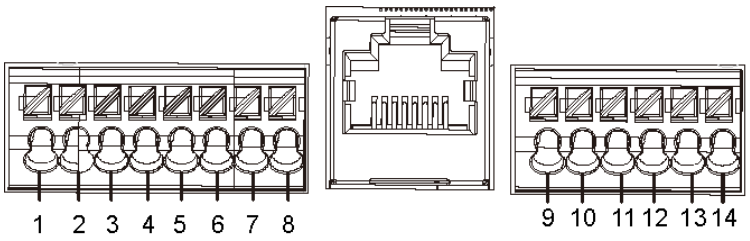



Table 1-14 Port description

| No. | Description | No. | Description |
|---|---|---|---|
| 1 | GND | 8 | • 2wires-(GND) for a digital 2-wire camera module<br>• GND for a full digital camera module |
| 2 | +12V_OUT | 9 | DOOR_BUTTON |
| 3 | RS-485_B | 10 | DOOR_FEEDBACK |
| 4 | RS-485_A | 11 | GND |
| 5 | ALARM_NO | 12 | DOOR_NC |
| 6 | ALARM_COM | 13 | DOOR_COM |
| 7 | • 2wires+(48V) for a digital 2-wire camera module<br>• 12 V_IN for a full digital camera module | 14 | DOOR_NO |

### 1.2.5.3 Indicator Module

Figure 1-16 Front panel

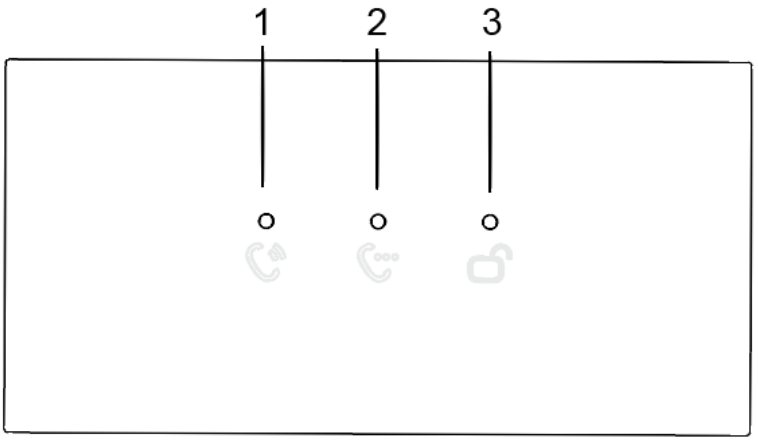


Table 1-15 Front panel description

| No. | Name | Description |
|---|---|---|
| 1 | Call indicator | Activity status. |
| 2 | Talk indicator | |
| 3 | Unlock indicator | |

Figure 1-17 Rear panel

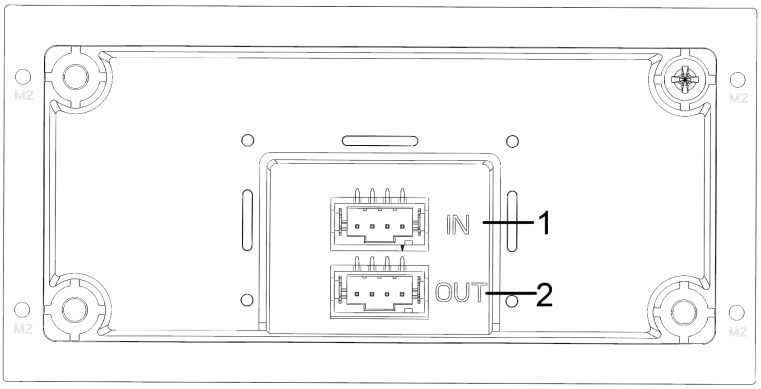



Table 1-16 Rear panel description

| No. | Name | Description |
|---|---|---|
| 1 | Cascade input | Connect to other modules. |
| 2 | Cascade output | |

### 1.2.5.4 Button Module

One-button module, two-button module, and five-button module are available with the same function. Here we take the five-button module as an example.

Figure 1-18 Front panel of the five-button module

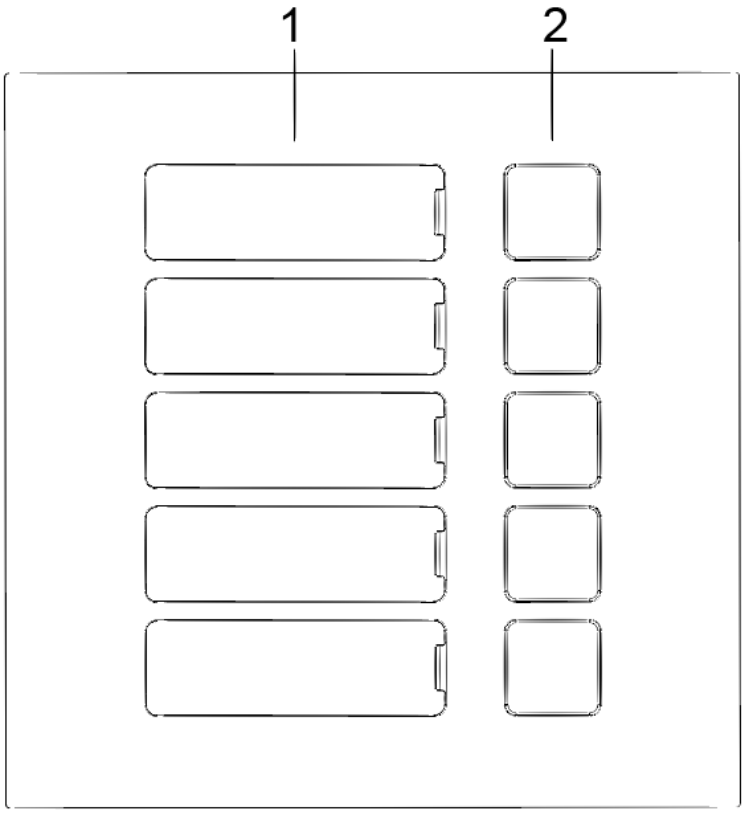



Table 1-17 Front panel description

| No. | Name | Description |
|---|---|---|
| 1 | User directory | Put name cards here. |
| 2 | Call buttons | Call other VTHs or the management center. |

Figure 1-19 Rear panel of the five-button module

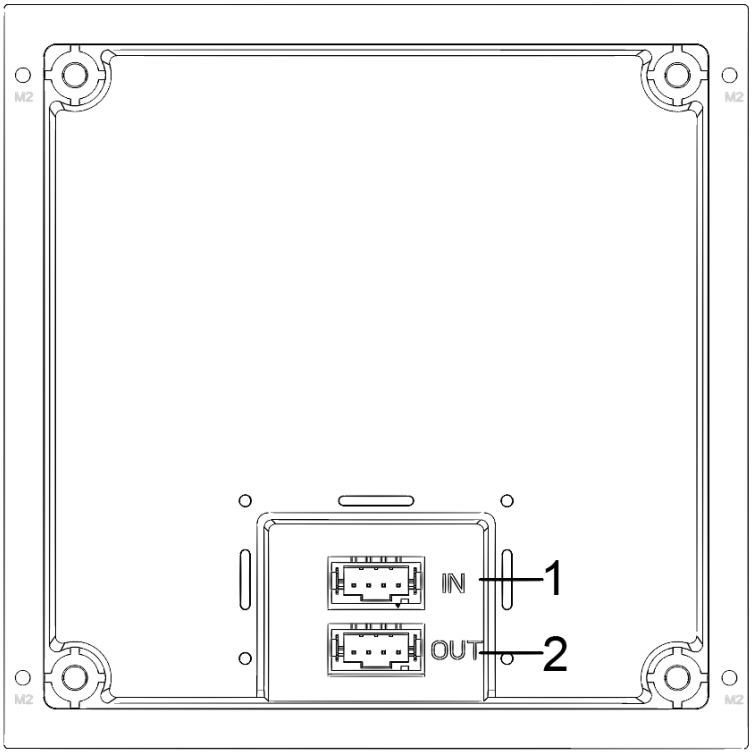



Table 1-18 Rear panel description

| No. | Name | Description |
|---|---|---|
| 1 | Cascade input | Connect to other modules. |
| 2 | Cascade output | |

### 1.2.5.5 Keyboard Module (with Braille)

The rear panel of keyboard module is the same as the button module.

Figure 1-20 Keyboard module

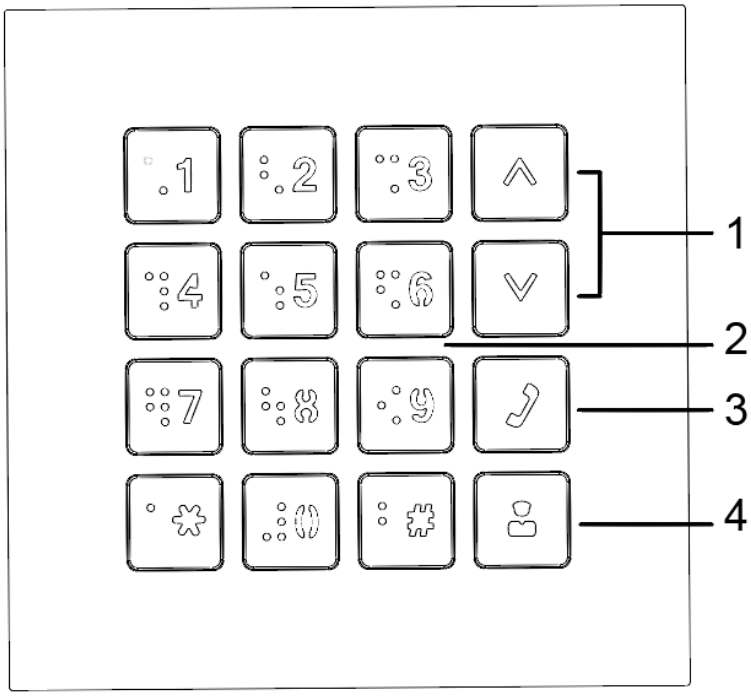



Table 1-19 Keyboard module description

| No. | Name | Description |
|---|---|---|
| 1 | Selection | Tap the button to select the contact. |
| 2 | Numbers | Enter password or VTH numbers. |
| 3 | Call | Call according to the numbers. |
| 4 | Call management center | Call the management center. |

### 1.2.5.6 Card Module

There are 2 types of the card module. Select from the ID card module and IC card module as needed.

The rear panel of card module is the same as the button module.

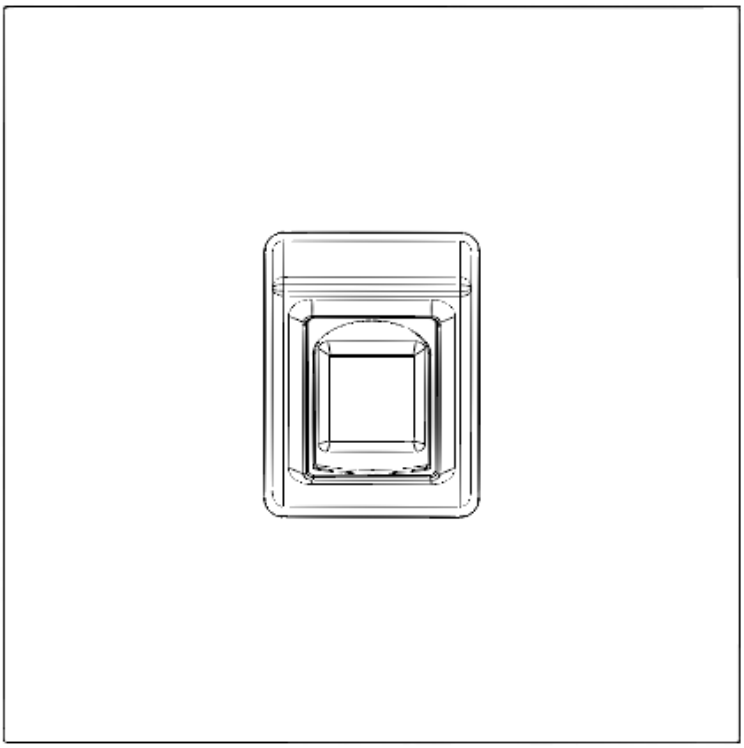
Figure 1-21 Card module

### 1.2.5.7 Fingerprint Module

Collects and verifies fingerprints.

- The rear panels of fingerprint module and button module have different port positions, but port functions are the same.
- When there is a fingerprint module accessed and you want to add a new fingerprint module, clear the fingerprint information on the original fingerprint module.

Figure 1-22 Fingerprint module

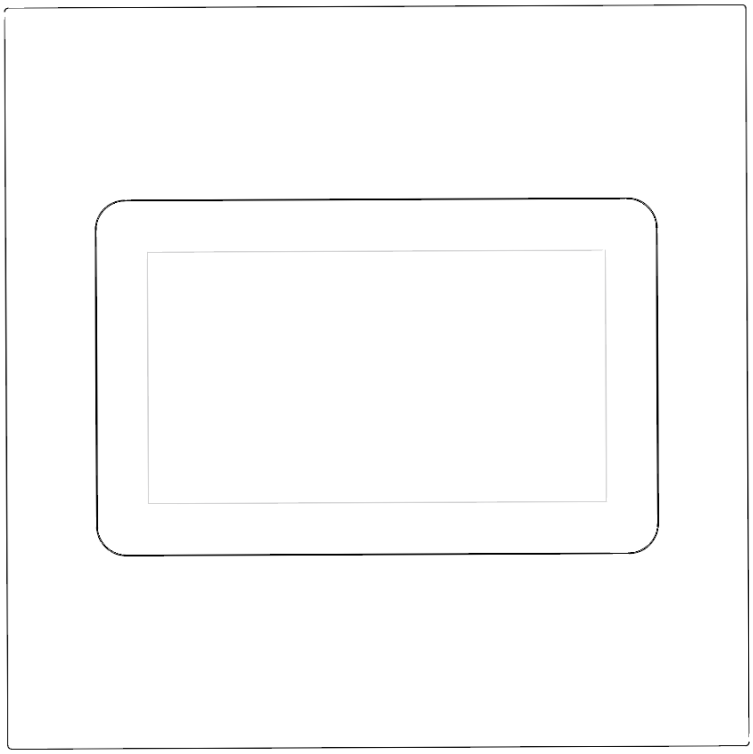


### 1.2.5.8 Display Module

Displays user information.

Rear panels of display module and button module have different port positions, but port functions are the same.

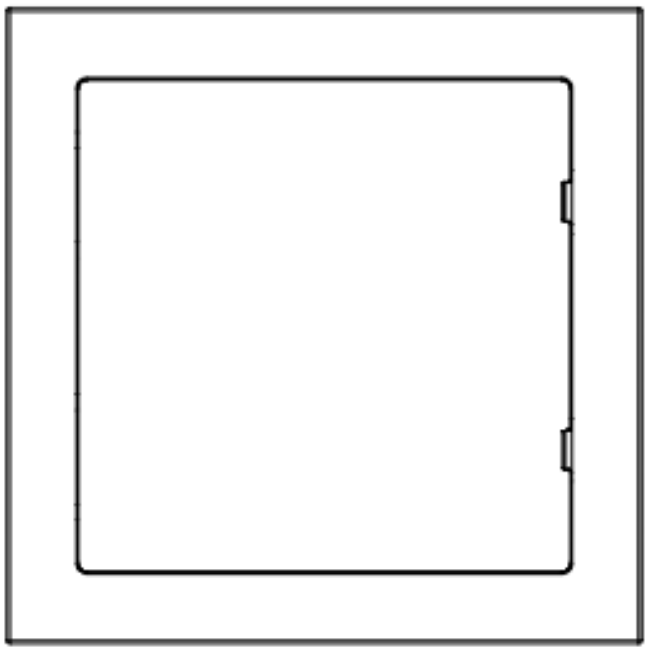
Figure 1-23 Display module



### 1.2.5.9 Information Module

Displays room number and guest message.

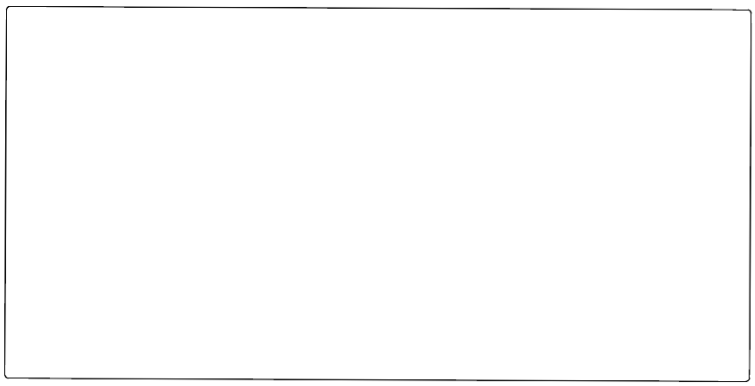
Figure 1-24 Information module



### 1.2.5.10 Blank Module

For a better appearance, use the blank module if there is an extra space while putting up modules together.

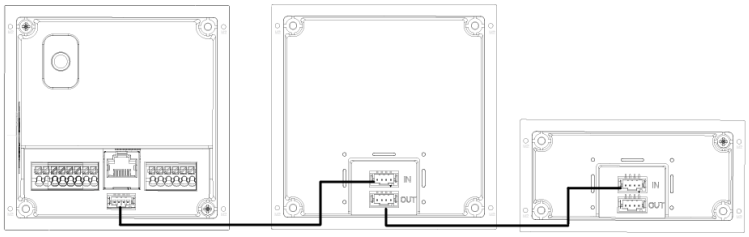
Figure 1-25 Blank module



### 1.2.5.11 Cascade Connection

Cascade connection is needed for all the modules to work together.

Figure 1-26 Cascade connection example



## 1.3 Button Model

### 1.3.1 Front Panel

Figure 1-27 Front panel

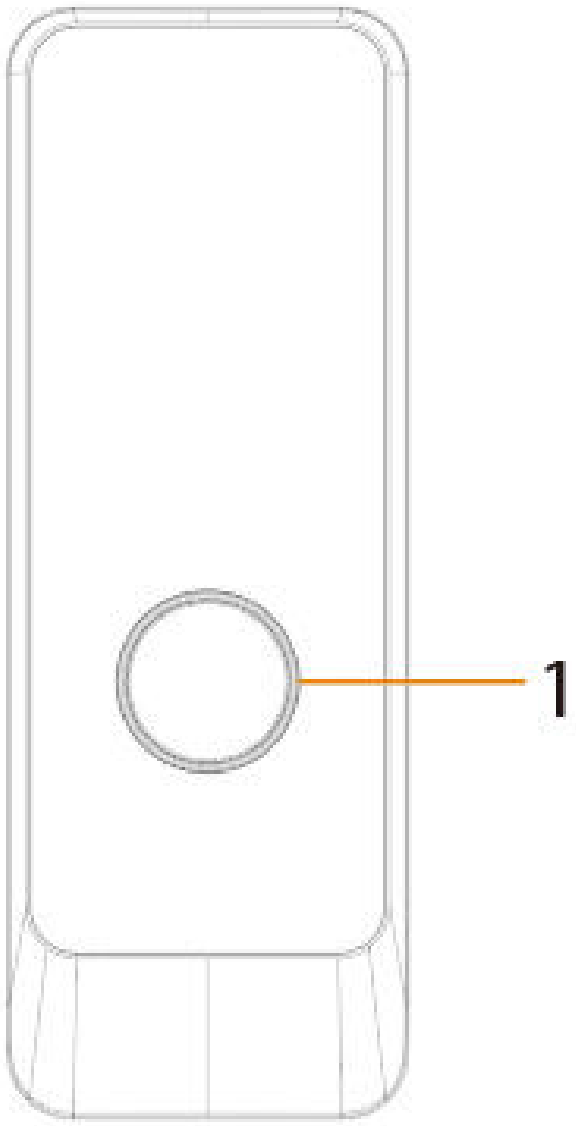



Table 1-20 Components

| No. | Name | Function |
|---|---|---|
| 1 | Press button | The button model can be connected to the VTH. Press the button on the model and the VTH receives an alarm signal. |

## 1.3.2 Rear Panel

Figure 1-28 Rear panel

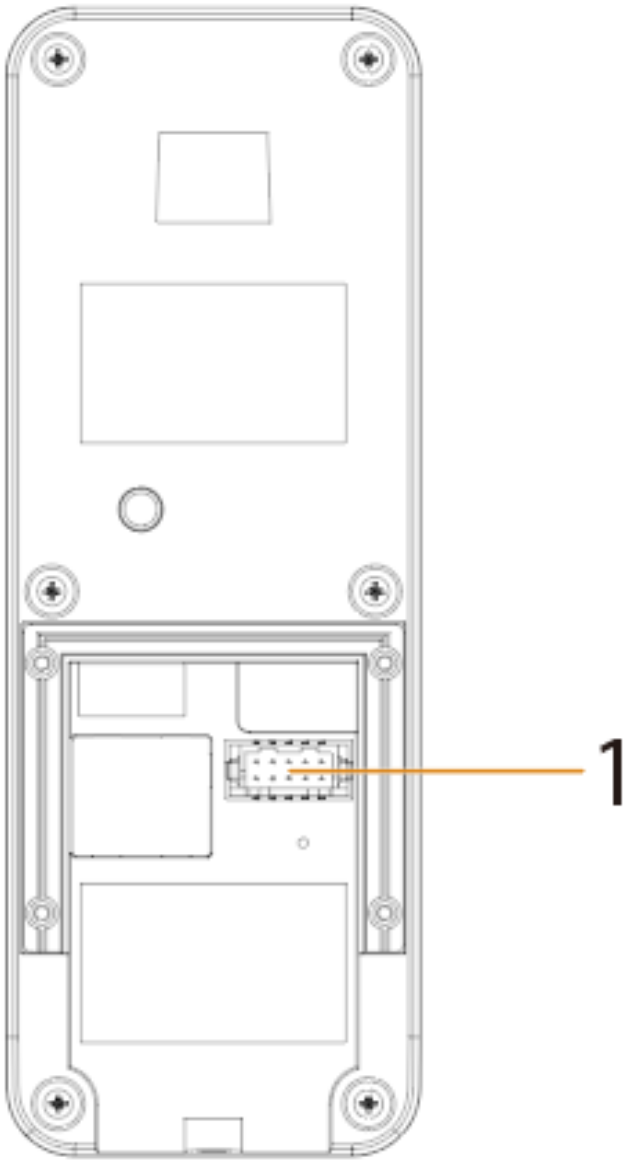
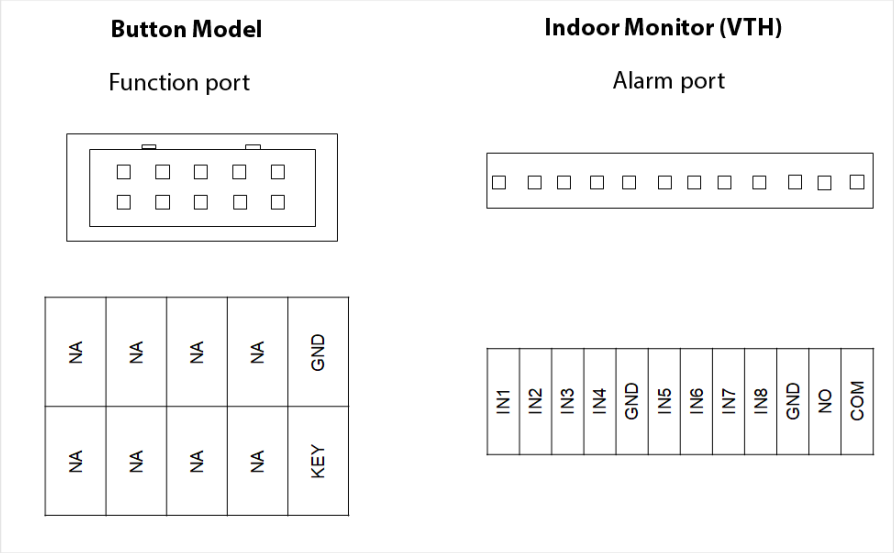



Table 1-21 Components

| No. | Name | Function |
|---|---|---|
| 1 | Multi-function port | Used for alarm input. |

Figure 1-29 Cable connection




Connect the KEY port of the button model to any one of the alarm input ports of the indoor monitor (VTH) with a cable thread. After that, tap **Setting** > **Alarm** > **Wired Zone** on the VTH and set the **Type** of the alarm input port you chose to connect to the KEY port as **Doorbell**.

# 2 Initializing the VTO

## 2.1 Web

For first-time login, you need to initialize the VTO.

### Procedure

Step 1 Power on the VTO.

Step 2 Go to the default IP address (192.168.1.108) of the VTO.

Make sure that the IP address of your PC is on the same network segment as the VTO.

Step 3 On the **Device Init** page, enter and confirm the password, and then click **Next**.

The password must consist of 8–32 non-blank characters and contain at least two types of the following characters: Uppercase, lowercase, numbers, and special characters (excluding ' " ; : &).

Step 4 Select the **Email** checkbox and enter an email address for resetting password.

Step 5 Click **Next**.

Step 6 Click **OK** to go to the login page.

Step 7 Enter the username (admin by default) and password to log in to the webpage.

## 2.2 DMSS App

If your model only supports Wi-Fi connection to the network, you can only initialize the VTO on the DMSS app. For detailed operation of the app, refer to its user's manual.

### Prerequisites

You have downloaded the DMSS in the App Store (iOS) or Google Play (Android), and have created an account and logged in to the app.

### Procedure

Step 1 Power on the VTO.

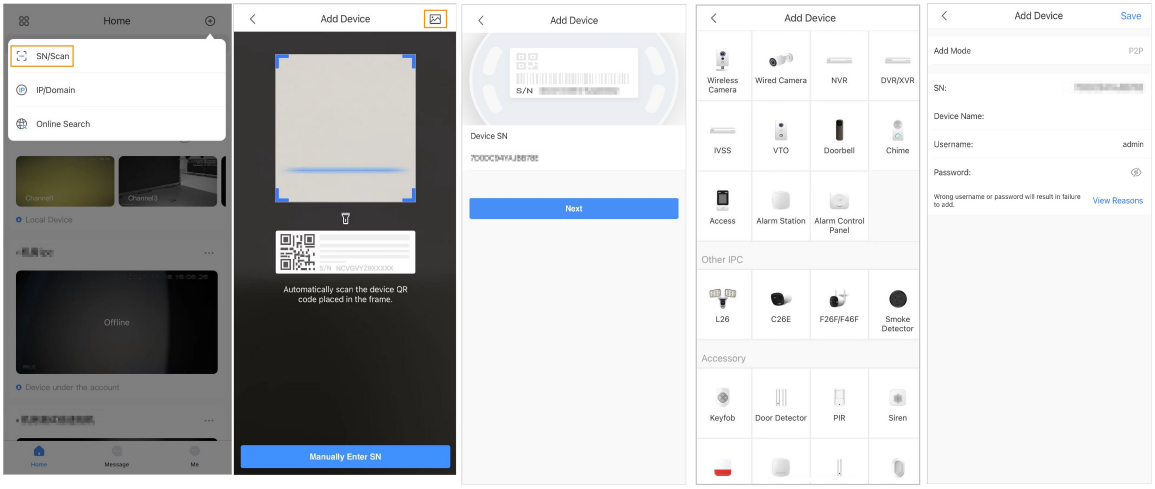
Step 2 Enable hotspot on the VTO through pressing and holding the call button on the VTO until you heard the voice prompt.

The hotspot function is to enable you connect the VTO to the network through **AP configuration** on the app.

Step 3 Add the VTO to the DMSS app.

1. On the **Home** screen, tap ⊕, and then select **SN/Scan**.
2. Add a VTO.
3. You can add through scanning the QR code at the rear panel of the VTO.
4. The SN number of the VTO appears automatically, and then tap **Next**.
5. Select device type as **VTO**, and then the device information appears.
6. Tap **View Reasons**.

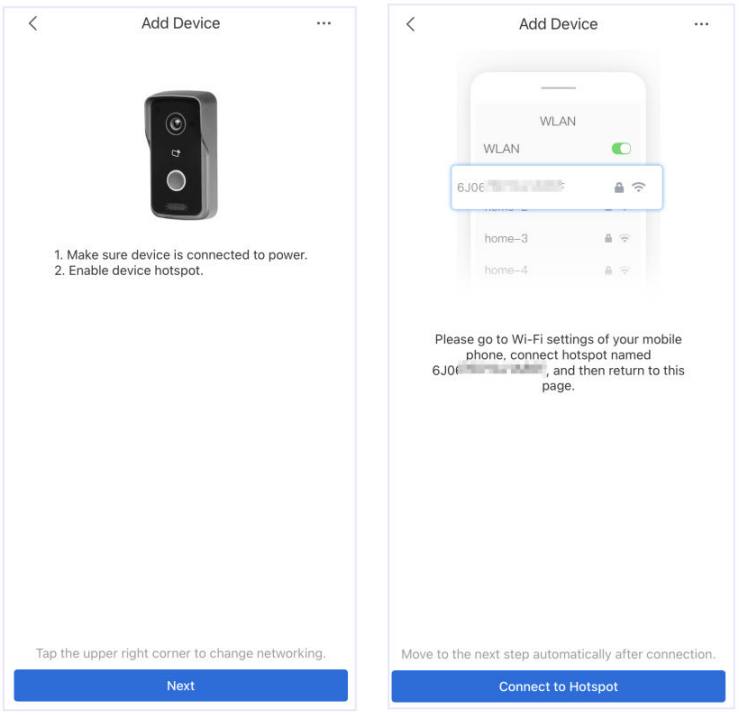
Figure 2-1 Add VTO to DMSS




7. Configure network by switch networking to **AP Configuration** , and then tap **Next**.
8. Connect your phone to the hotspot you just enabled on the VTO.

- The hotspot name is the SN number of your VTO.
- The current page will move on to the next step automatically after connection.

Figure 2-2 AP configuration

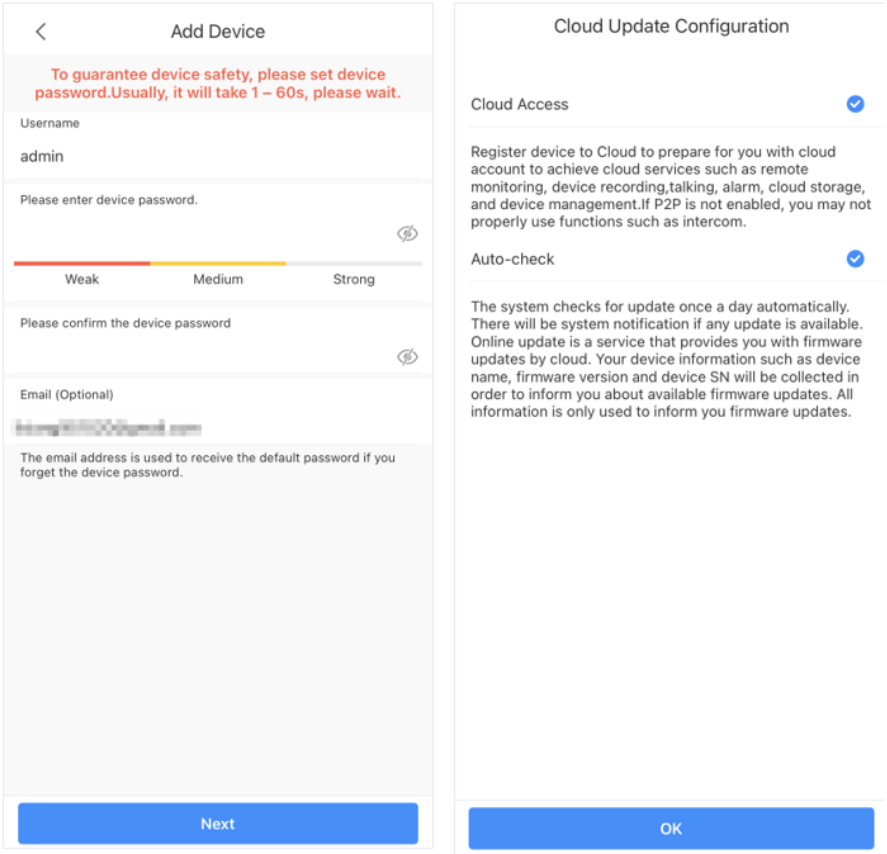



Step 4 Complete initialization based on instructions on the app.

1. Enter the password you planned for the VTO, and confirm it, and then tap **Next**.
2. Select **Cloud Access** and **Auto-check**, and then tap **OK**.

The initialization process is completed.

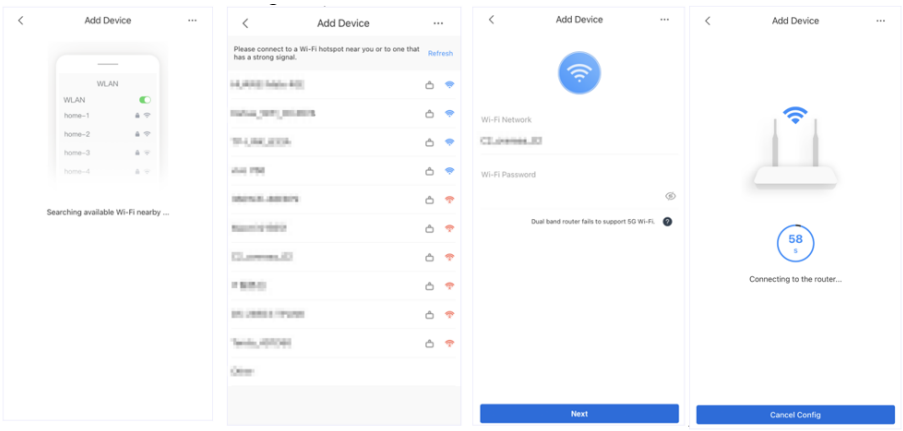
Figure 2-3 Initialization




Step 5 Connect the VTO to the network through Wi-Fi.

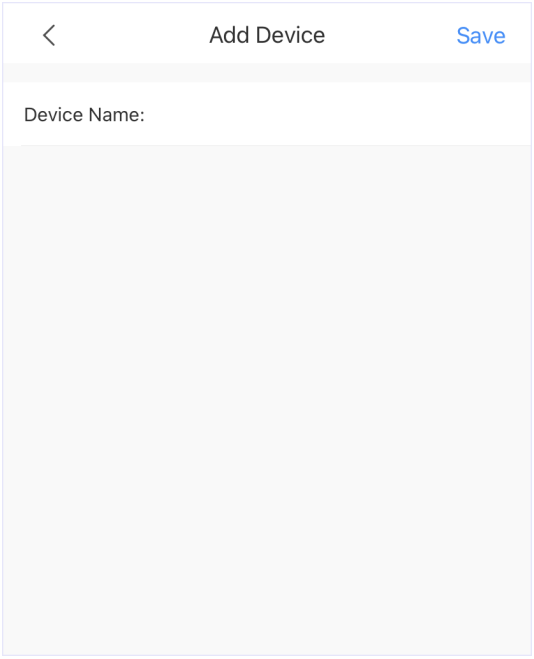
1. Select an available Wi-Fi.
2. Enter the password and tap **Next**. Wait for the VTO to connect to the router.

Figure 2-4 Wi-Fi connection



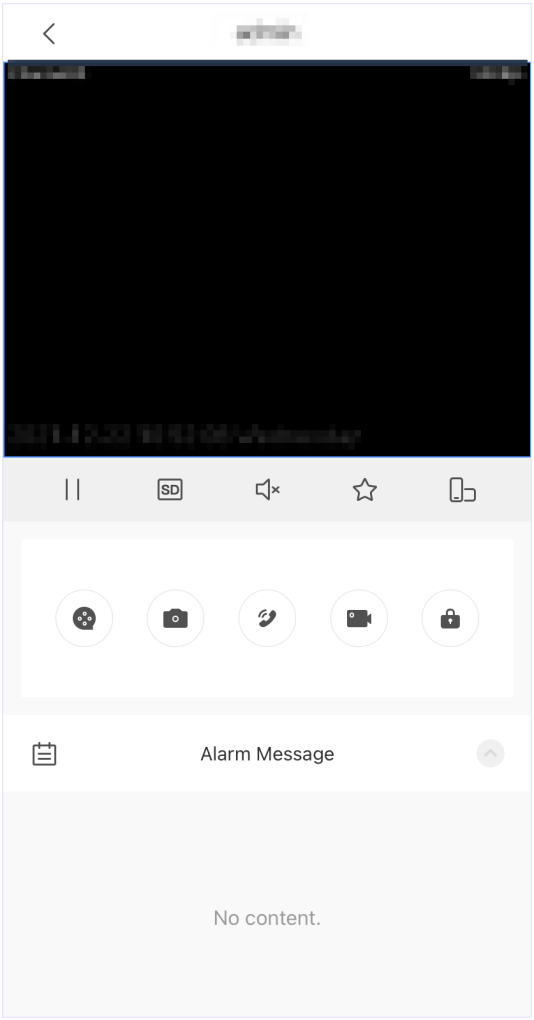

Step 6 Configure device name, and then tap **Save**.

Figure 2-5 Configure device name




Step 7 View monitoring video from the camera on the VTO.

Figure 2-6 Monitor



# 3 Login and Resetting Password

## 3.1 Login

Before login, make sure that the computer is on the same network segment as the VTO.

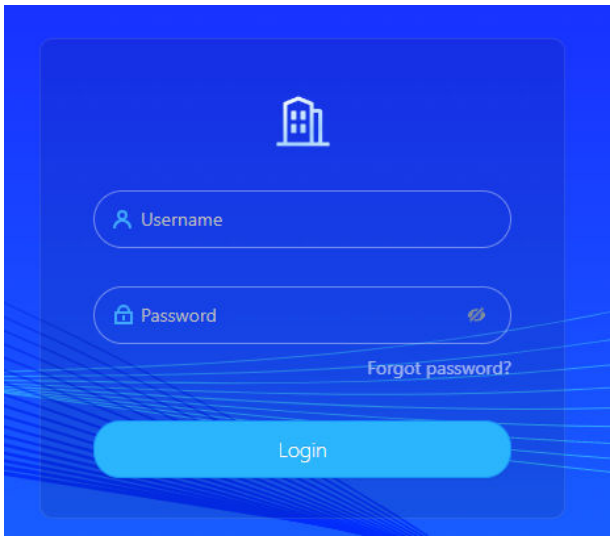
### Procedure

Step 1 Go to the IP address of the VTO in the browser.

For first-time login, enter the default IP (192.168.1.108). If you have multiple VTOs, we recommend that you change the default IP address to avoid conflict.

Step 2 Enter **admin** as the username, and enter the password you set during initialization, and then click **Login**.

Figure 3-1 Login




## 3.2 Resetting Password

### Procedure

Step 1 On the login page, click **Forgot Password?** , and then click **Next**.

Step 2 Scan the QR code, and then you will get a string of numbers and letters.

Step 3 Send the string to the email account displayed on the page, and then the security code will be sent to the email address configured during initialization.

Step 4 Enter the security code in the input box, and then click **Next**.

- If you did not set an email address during initialization, contact your supplier or customer service for help.
- The security code will be valid only for 24 hours upon receipt.
- If you enter the wrong security code for 5 consecutive times, your account will be locked for 5 minutes.

Step 5 Enter and confirm the new password, and then click **OK**.

# 4 Home Page

Figure 4-1 Home page

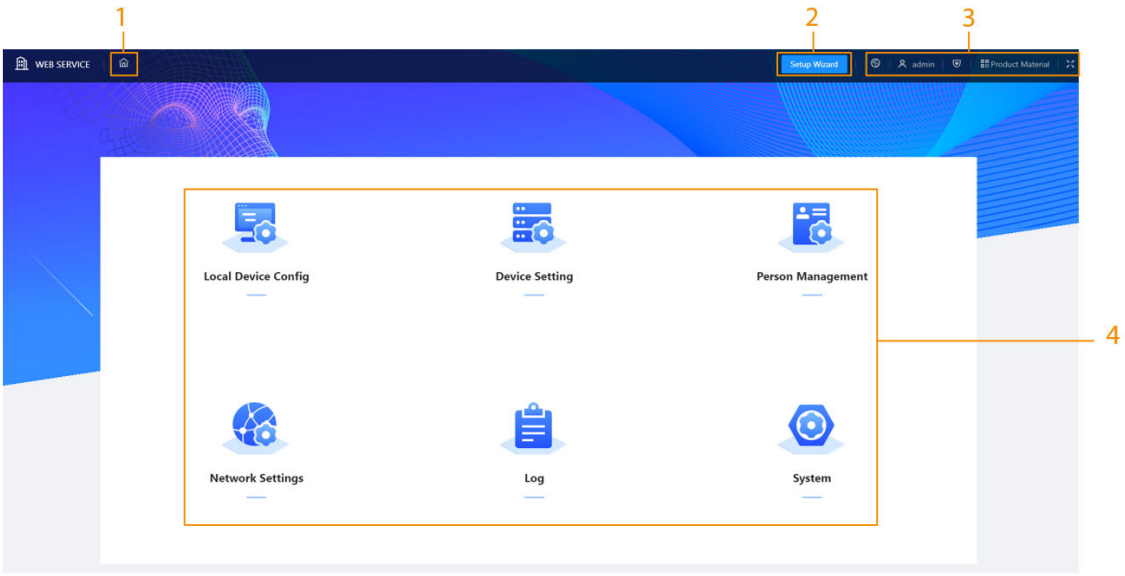



Table 4-1 Home page introduction

| No. | Function | Description |
|---|---|---|
| 1 | Home button | Go back to the home page. |
| 2 | Setup Wizard | Configure the VTO SIP server. |
| 3 | Navigation bar | • : Change language of the webpage of the VTO.<br>• admin: Change password, log out of the current device, restart the system, and restore the device to factory settings.<br>• : View and configure the security settings.<br>• Product Material: Scan the QR code to get the product material.<br>• : View the webpage in full screen mode. |
| 4 | VTO function | Different function areas of the VTO. |

# 5 Setup Wizard

Through the setup wizard, you can finish the process of adding VTO/VTH and specific any VTO as the SIP server. You can also cancel its status of working as a SIP server.

## 5.1 Setting as SIP Server

Set the VTO as the SIP server.

### Prerequisites

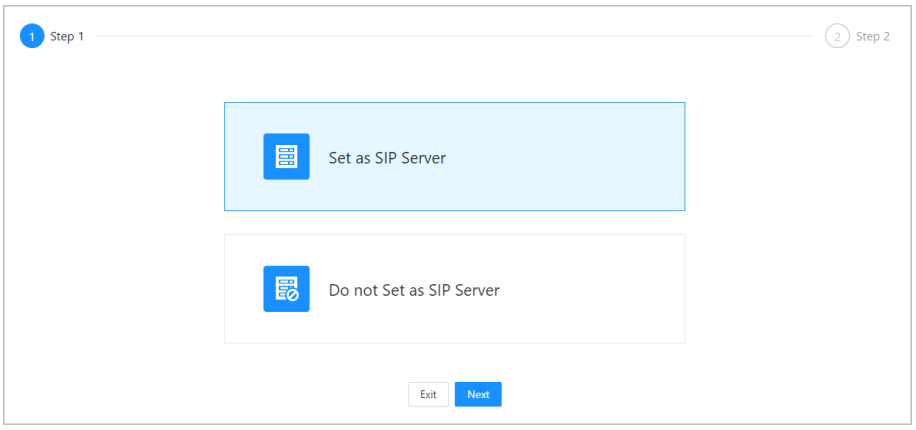
You have added VTOs on the webpage. If not, you can add them in **Set as SIP Server** page or in the **Device Setting** section.

### Procedure

Step 1 Log in to the webpage of the VTO.

Step 2 Select **Setup Wizard** > **Set as SIP Server**, and then click **Next**.

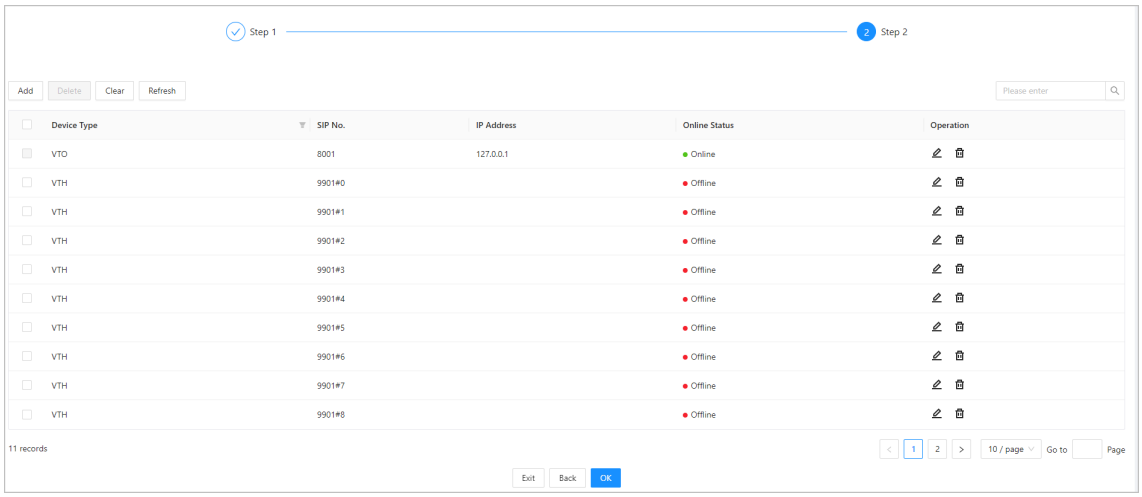
Figure 5-1 Set as SIP server




Step 3 Select the VTO to be set as the SIP server, and then click **OK**.

You can also click **Add** to add VTOs if you have not had one to work as the SIP server.

Figure 5-2 Select the SIP server



## 5.2 Not Setting as SIP Server

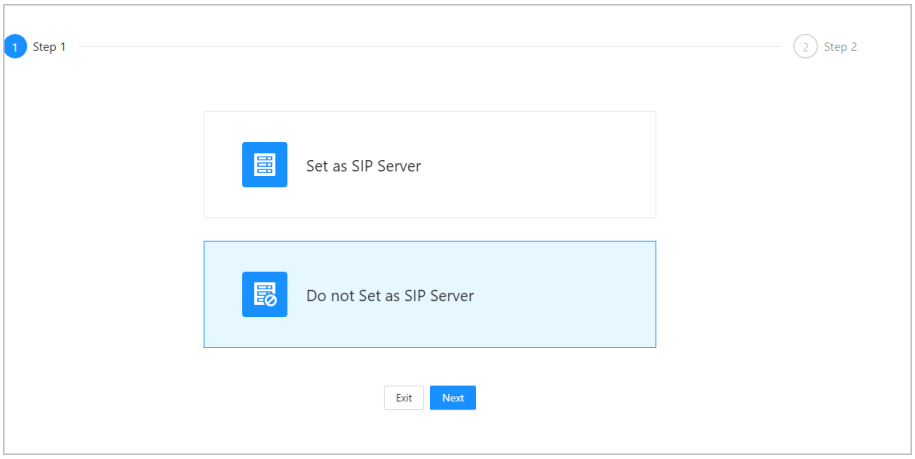
If you want to change the SIP server, you need to remove the current one from the list.

### Procedure

Step 1 Log in to the webpage of the VTO.

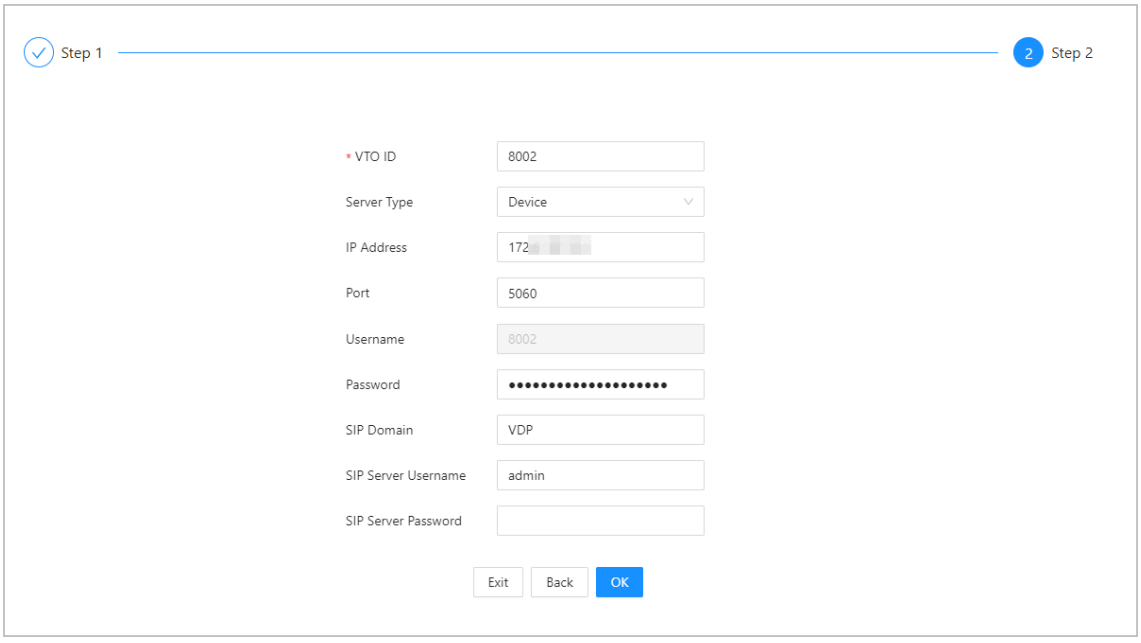
Step 2 Select **Setup Wizard** > **Do not Set as SIP Server**, and then click **Next**.

Figure 5-3 Do not set as SIP server




Step 3 Configure the information of the VTO that you do not want to set as SIP server, and then click **OK**.

Figure 5-4 Configure information



# 6 Local Device Configuration

This chapter introduces the detailed configuration of the VTO.

Slight differences might be found in different models.

## 6.1 Basic Settings

Configure basic settings of the device.

### 6.1.1 Villa Door Station

#### Procedure

Step 1 Select **Local Device Config** > **Basic Settings**.

Step 2 Configure the parameters.

Figure 6-1 Basic settings (villa station)

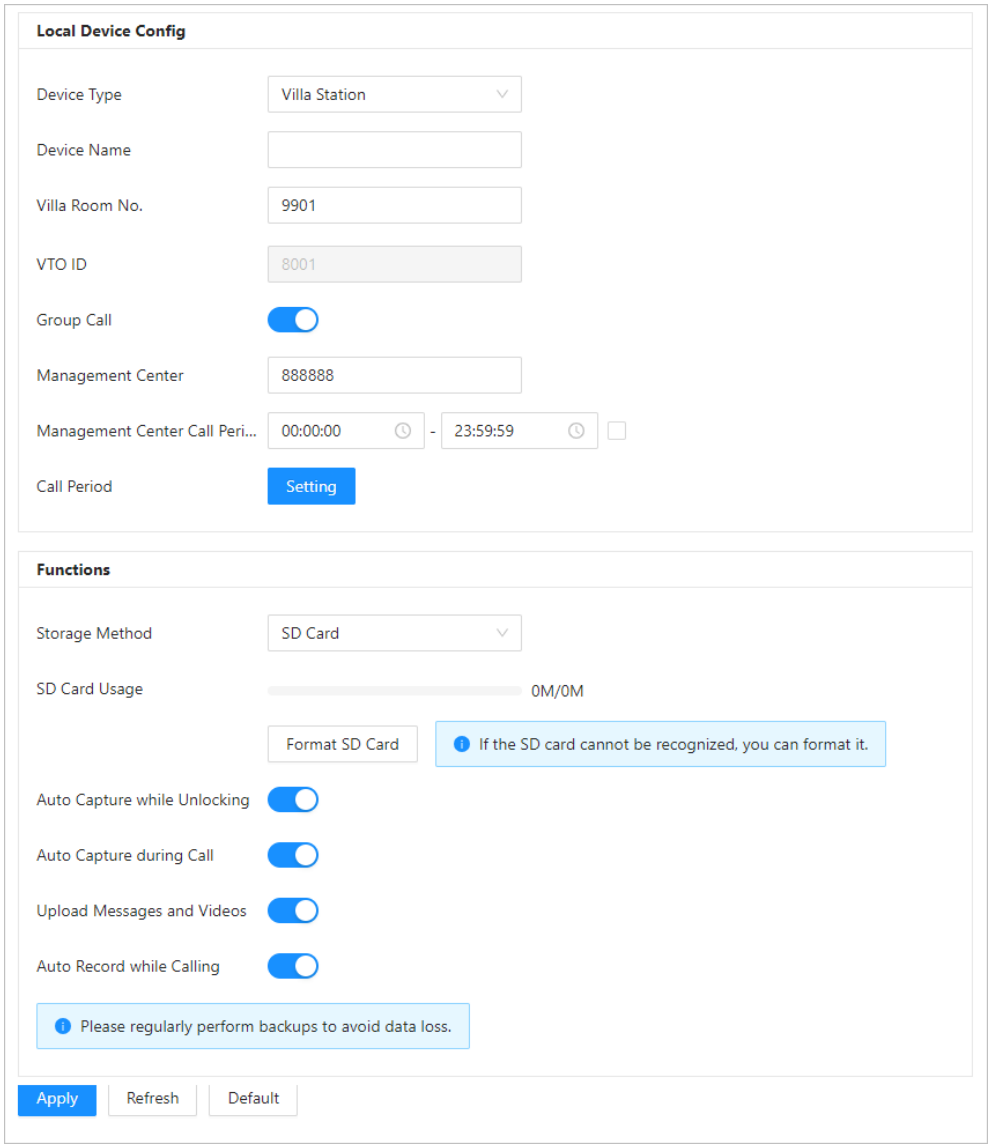


Figure 6-2 Basic settings (small apartment)

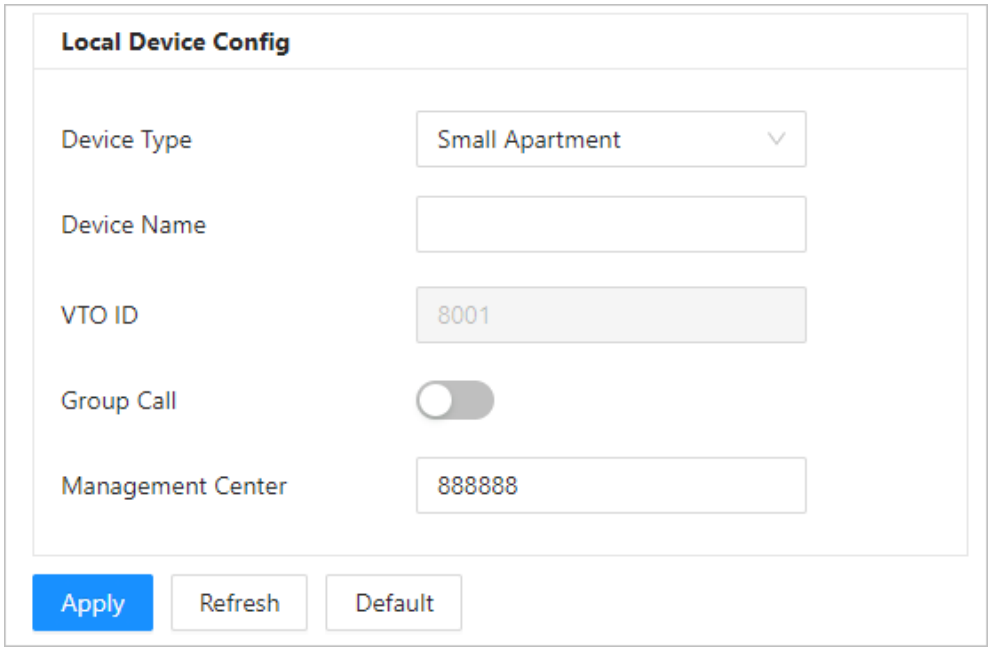



Table 6-1 Basic parameter description

| Parameter | Description |
|---|---|
| Device Type | Select from **Villa Station** and **Small Apartment**.<br>The small apartment is available on select models. |
| Device Name | When other devices are monitoring this VTO, the device name will appear on the monitoring image. |
| Villa Room No. | VTH room number. Used to call VTHs. |
| VTO ID | Used to differentiate each VTO, and we recommend you set it according to unit or building number, and then you can add VTOs to the SIP server by using their numbers.<br>The number cannot be changed when the VTO serves as the SIP server. |
| Management Center | 888888 by default. |
| Management Center Call Period | Configure the time period in which the VTO can call the management center, and then enable the function. |
| Group Call | Enable it on the VTO that works as the SIP server, and when a main VTH receives a call, all extension VTHs will also receive the call. |
| Call Period | The time period in which the VTO's calling to other devices is not limited. Click **Setting** to configure the call period in a day/week. |
| Storage Method | SD card by default. |

| Parameter | Description |
| --- | --- |
| SD Card Usage | Displays the total and used capacity of the SD card. You can click **Format SD Card** to delete all the data in the SD card. |
| Auto Capture while Unlocking | Take a snapshot and save it in the SD card of the VTO when the VTO is unlocking. |
| Auto Capture during Call | Take a snapshot and save it in the SD card of the VTO when the VTO is calling. |
| Upload Messages and Videos | When enabled:<br>• If an SD card is inserted in both the VTH and VTO, the video message will be saved both in the SD cards of the VTH and the VTO.<br>• If an SD card is only inserted in the VTH or the VTO, the video message will be saved only in the SD card of the VTH or the VTO.<br>• If no SD card is inserted in the VTH or VTO, no video message will be saved. |
| Auto Record while Calling | Take recording when the VTO is in a call, and save the recording in the SD card of the VTO. |

Step 3 Click **Apply**.

## 6.1.2 Second Confirmation Station

The configuration of second confirmation station is available on select models.

### Procedure

Step 1 Select **Local Device Config** > **Basic Settings**.

Step 2 Configure the parameters.

Figure 6-3 Basic settings (Second confirmation station)

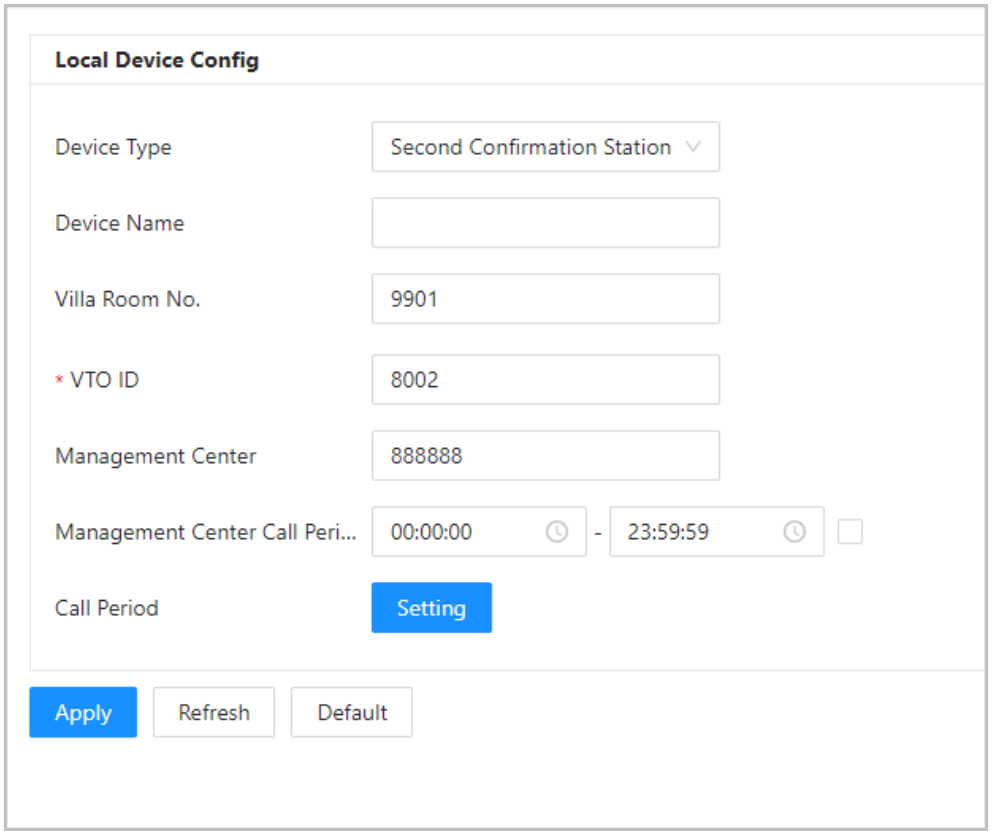



Table 6-2 Basic parameter description

| Parameter | Description |
|---|---|
| Device Type | Select **Second Confirmation Station**. |
| Device Name | When other devices are monitoring this VTO, the device name will appear on the monitoring image. |
| Villa Room No. | VTH room number. Used to call VTHs. |
| VTO ID | Used to differentiate each VTO, and we recommend you set it according to unit or building number, and then you can add VTOs to the SIP server by using their numbers.<br><br>The number cannot be changed when the VTO serves as the SIP server. |
| Management Center | 888888 by default. |
| Management Center Call Period | Configure the time if you only want to receive calls from VTH during a specific period, and then enable the function. |
| Call Period | Click **Setting** to configure the call period in a day/week. |

Step 3 Click **Apply**.

# 6.2 Access Control

Different model series have varied access control functions. Here is the example for configuring the model Q series.

## 6.2.1 Config

### Procedure

Step 1 Select **Local Device Config** > **Access Control** > **Config**.

Step 2 Configure the parameters.

Figure 6-4 Access control

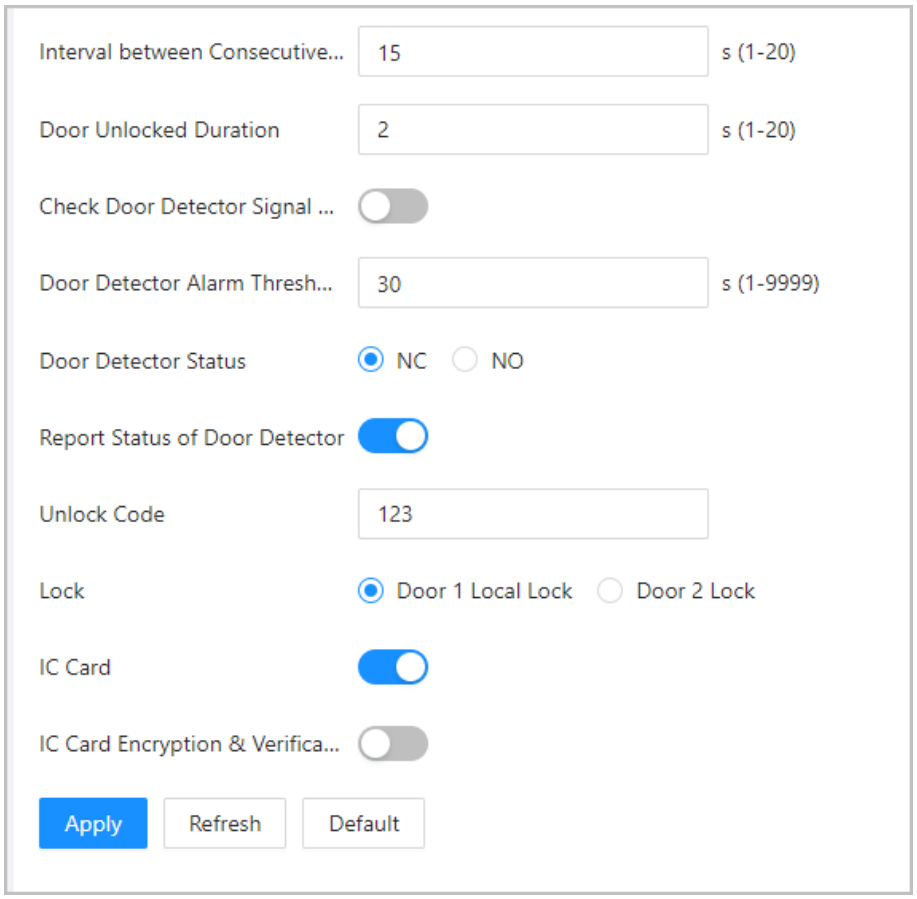



Table 6-3 Access control parameter description

| Parameter | Description |
|---|---|
| Interval between Consecutive Unlocks | The door can only be unlocked again after the interval. |
| Door Unlocked Duration | The time during which the lock stays unlocked. |
| Check Door Detector Signal Before Locking | Enable the function based on your needs. |
| Door Detector Alarm Threshold | The threshold time when the door detector alarm is triggered. |

| Parameter | Description |
| --- | --- |
| Door Detector Status | • **NC** : Normally closed.<br>• **NO** : Normally open. |
| Report Status of Door Detector | Synchronize door sensor status to indoor monitors (VTHs). |
| Unlock Code | You can connect a third-party phone, such as a SIP phone, to the VTO, and use the code to open the door remotely. |
| Lock | • **Door 1 Local Lock**: Local lock.<br>• **Door 2 Lock**: RS-485 lock.<br>Select the lock type to unlock the lock you select. |
| IC Card | Enable the function so that users can swipe cards to unlock door. |
| IC Card Encryption & Verification | Enable the function so that the IC card encryption and verification take effect. |

Step 3 Click **Apply**.

## 6.2.2 RS-485

### Procedure

Step 1 Select **Local Device Config** > **Access Control** > **RS-485**.

Step 2 Configure the parameters of the lock connected through the RS-485 port.

Figure 6-5 RS-485

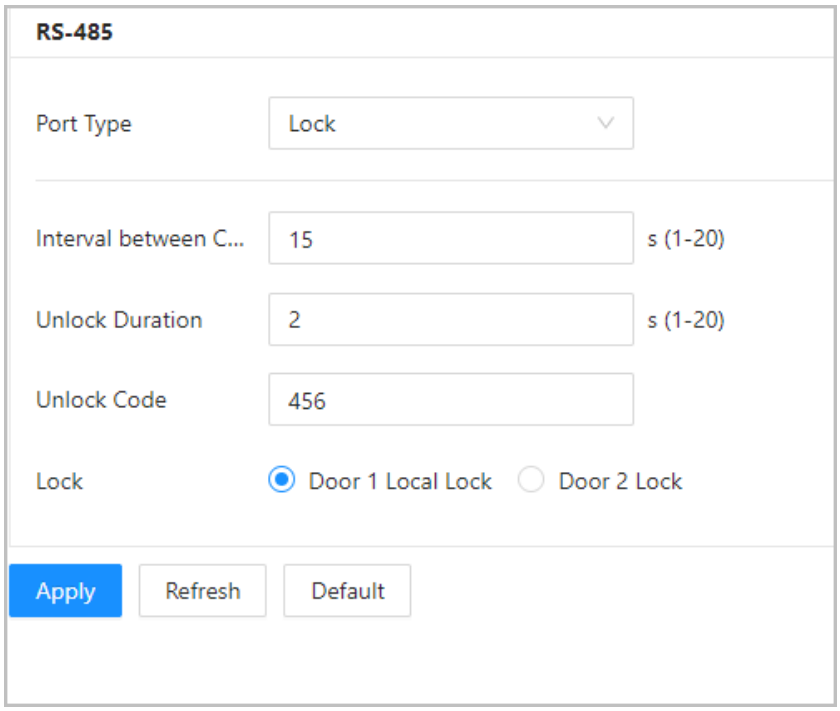



Table 6-4 RS-485 description

| Parameter | Description |
| --- | --- |
| Port Type | **Lock** by default. |

| Parameter | Description |
| --- | --- |
| Interval between Consecutive Unlocks | The door can only be unlocked again after the interval. |
| Unlock Duration | The time during which the lock stays unlocked. |
| Unlock Code | You can connect a third-party phone, such as a SIP phone, to the VTO, and use the command to open the door remotely. The default command is 456. |
| Lock | Select the **Lock** type to unlock the lock you select.<br>• **Door 1 Local Lock**: Local lock.<br>• **Door 2 Lock**: 485 lock. |

Step 3 Click **Apply**.

## 6.2.3 Configuring the Password

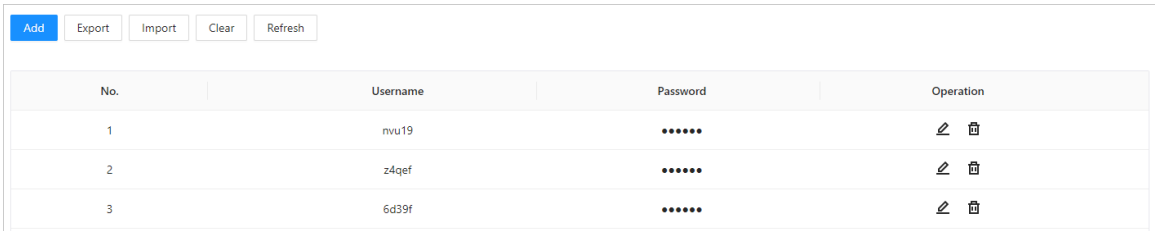
Configure the door opening password.

### Procedure

Step 1 Log in to the webpage.

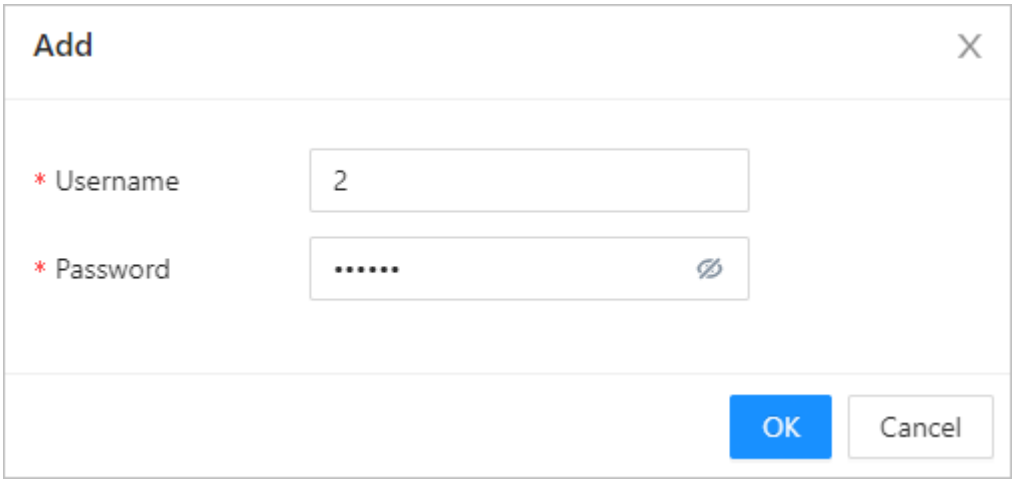
Step 2 Select **Local Device Config** > **Access Control** > **Password Settings**.

Figure 6-6 Password settings




Step 3 Click **Add**.

Figure 6-7 Add the password




Step 4 Configure the username and the password, and then click **OK**.

### Related Operations

- Edit: Click to edit the password.
- Delete: Click to delete the password.
- Clear: Click **Clear** to delete all the passwords.
- Refresh: Click **Refresh** to refresh the page.
- Click **Export** or **Import** to export or import the password.

## 6.3 Configuring Wiegand

Supports access Wiegand devices. Configure the mode and the transmission mode according to your actual devices.

### Procedure

Step 1 Log in to the webpage.

Step 2 Select **Local Device Config** > **Wiegand Settings**.

Step 3 Configure the Wiegand parameters.

Figure 6-8 Wiegand input

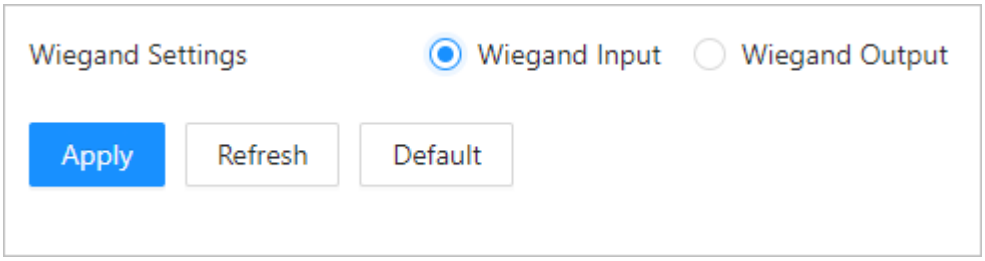



Figure 6-9 Wiegand output

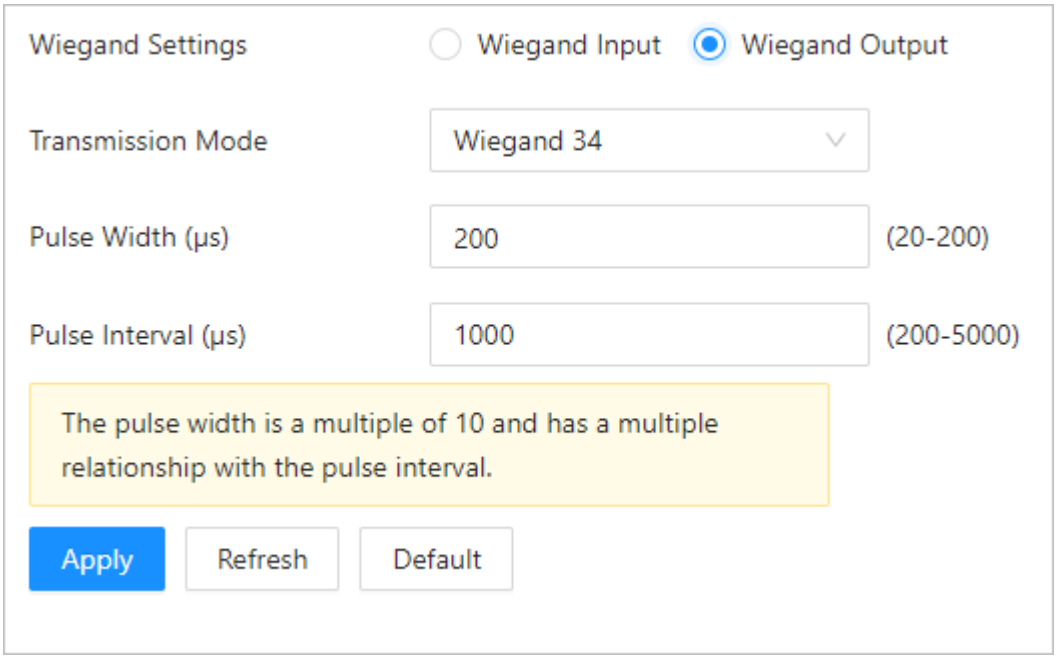


Table 6-5 Description of Wiegand parameters

| Parameter | | Description |
|---|---|---|
| Wiegand Settings | | • Select **Wiegand Input** when other recognition devices are connected.<br>• Select **Wiegand Output** when the VTO works as the recognition device. You can connect the access controller or other devices to the VTO. |
| Wiegand Output | Wiegand Output Type | Select a Wiegand format to read card numbers or ID numbers.<br>• **Wiegand26** : Reads three bytes or six digits.<br>• **Wiegand34** : Reads four bytes or eight digits.<br>• **Wiegand66** : Reads eight bytes or sixteen digits. |
| | Pulse Width | Enter the pulse width and pulse interval of Wiegand output. |
| | Pulse Interval | |

Step 4 Click **Apply**.

# 6.4 Layout

## 6.4.1 Layout (Multiple Buttons)

This function is only available for select models with multiple buttons (1 button, 2 buttons and 4 buttons). Here is an example of configuration for the VTO that has one button installed on its device.

### Procedure

Step 1 Log in to the webpage of the VTO.

Step 2 Select **Local Device Config** > **Layout**.

Step 3 Click the nameplates next to where you have installed the button(s), and then select the room number(s) from the **Module** you want to bind. For example, 9901, 9902, 9903 and 9904.

- You need to first configure the room number. Otherwise, you have no room number to select from in the module list. VTH room numbers is configured in **Device Setting**. For details, see "8.2 VTH Management".
- You need to configure the room number based on your installation position of buttons. For example, if you have only installed one button next to the first nameplate, then you need to click the module of first nameplate to configure the room number on the webpage. If you have installed one button next to the fourth nameplate, then you need to click the module of fourth nameplate to configure the room number on the webpage. Keep the above configuration rule when you install 2 buttons or 4 buttons on the VTO and configure the corresponding room numbers on the webpage.

Figure 6-10 Fourth button installation

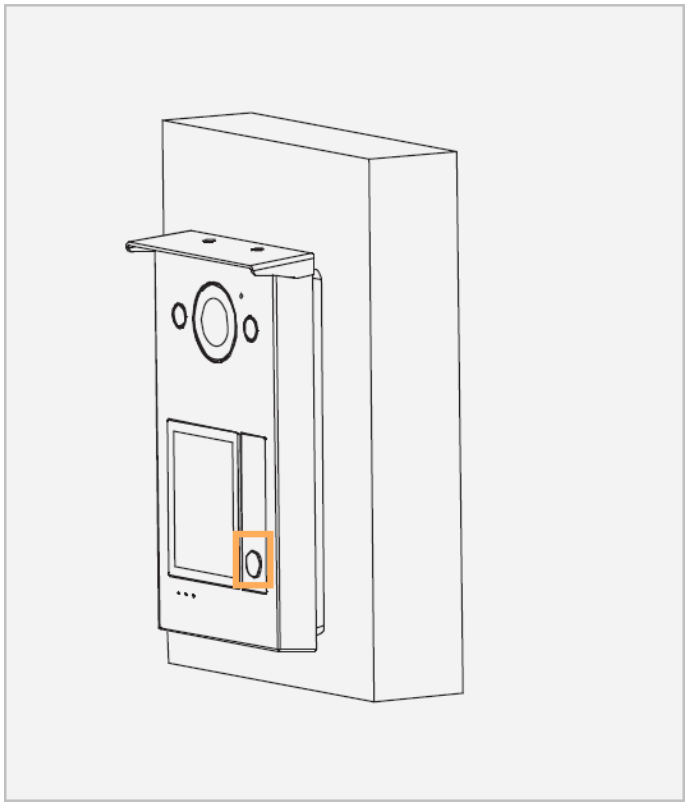
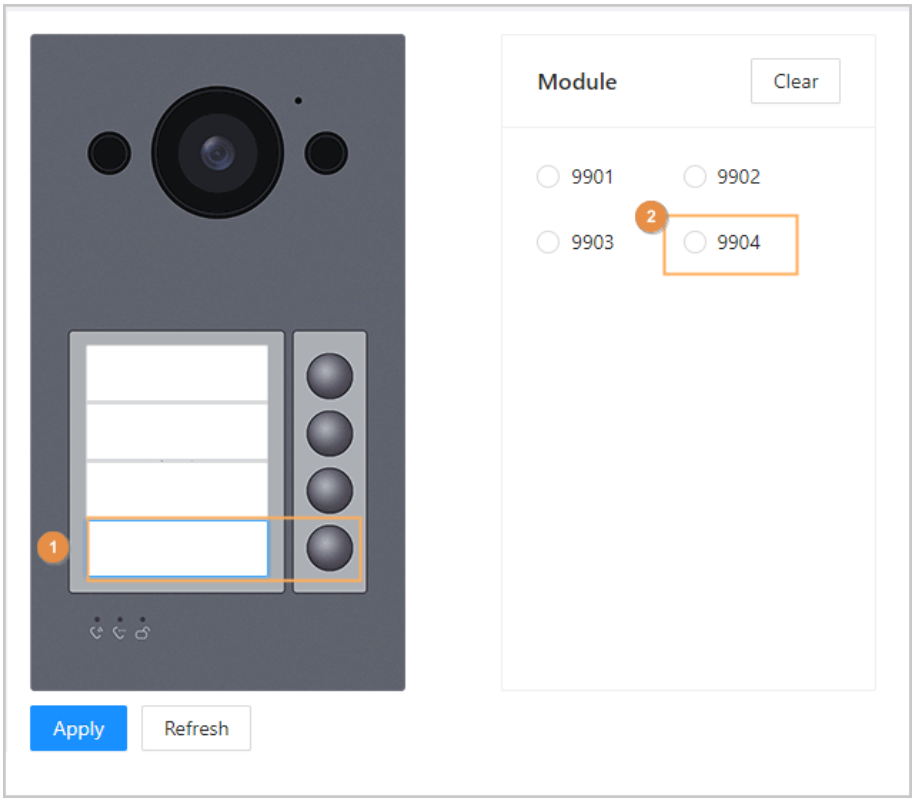
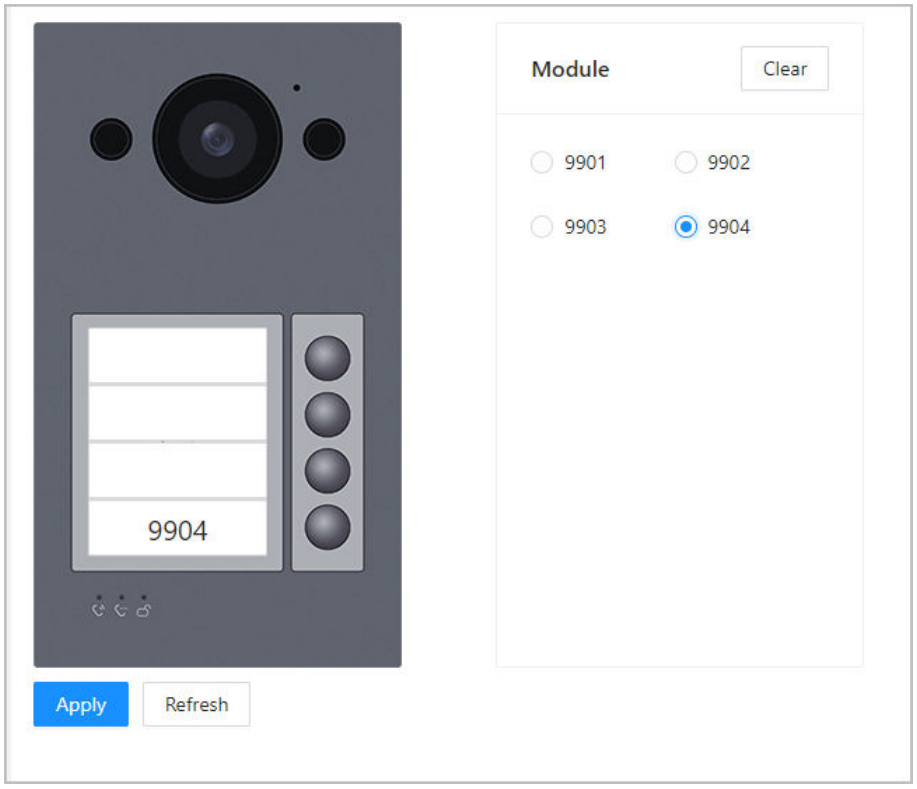


Figure 6-11 Configure the fourth nameplate (1)




Step 4 Click **Apply** to save the selected room number.

Figure 6-12 Configure the fourth nameplate (2)




Step 5 If you want to bind room numbers when you install 2 buttons or 4 buttons for the VTO, repeat Step 3 to Step 4 until you have configured all of the room numbers.

## 6.4.2 Layout (Multiple Modules)

This function is only available for select models with multiple modules..

### Procedure

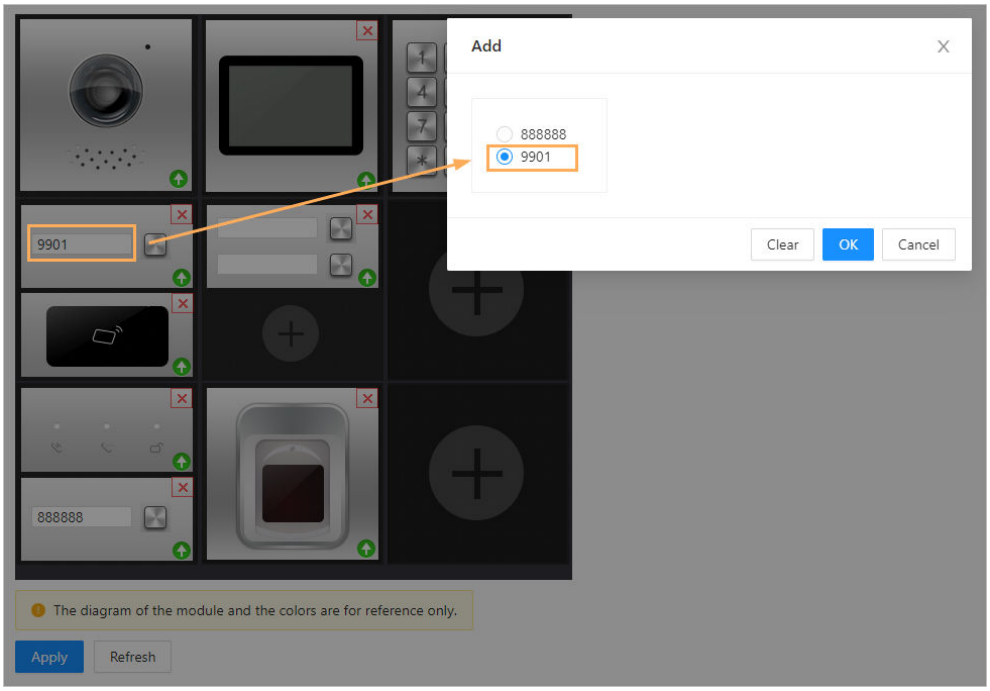
Step 1 Log in to the webpage of the VTO.

Step 2 Select **Local Device Config** > **Layout**.

Step 3 Click the nameplates on the corresponding module, and then select the room number you want to bind.

You need to first configure the room number. Otherwise, you have no room number to select from in the module list. VTH room numbers is configured in **Device Setting**. For details, see "8.2 VTH Management".

Figure 6-13 Configure the nameplate




Step 4 Click **OK** to save the selected room number.

Step 5 If you want to bind room numbers when you install other modules with nameplates for the VTO, repeat Step 3 to Step 4 until you have configured all of the room numbers.

### Related Operations

Click  to view the current version of the module or upload the update file to update the module.

## 6.5 Adding the IPC

If the current VTO works as the SIP server, you can add the IPC devices on the webpage of the VTO. The VTHs with the same online SIP server gets the IPC information.

- Supports adding the device with up to 32 channels.
- Supports directly adding IPC devices. You can get the IPC channel by adding NVR/XVR/HCVR.

### 6.5.1 Adding the IPC One by One

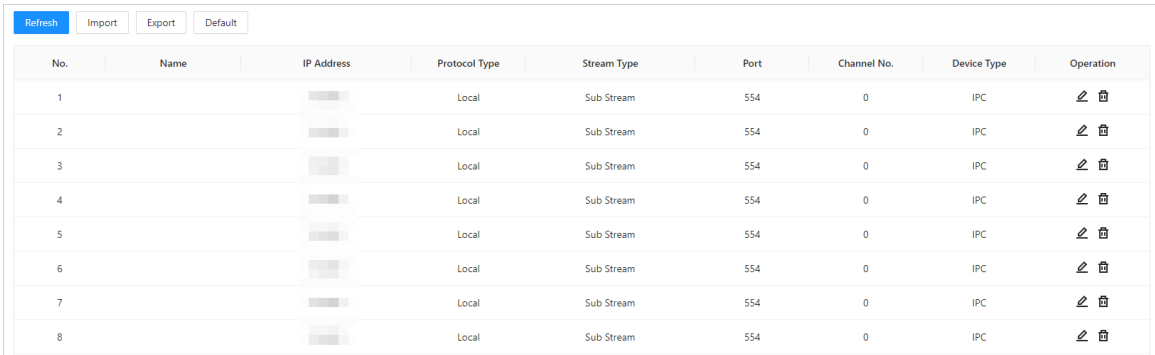
Add the information of the video monitoring device one by one.

### Procedure

Step 1 Log in to the webpage.

Step 2 Select **Local Device Config** > **IPC Info**.

Figure 6-14 IPC information




Step 3 Click to configure the parameters.

Figure 6-15 Configure the parameters

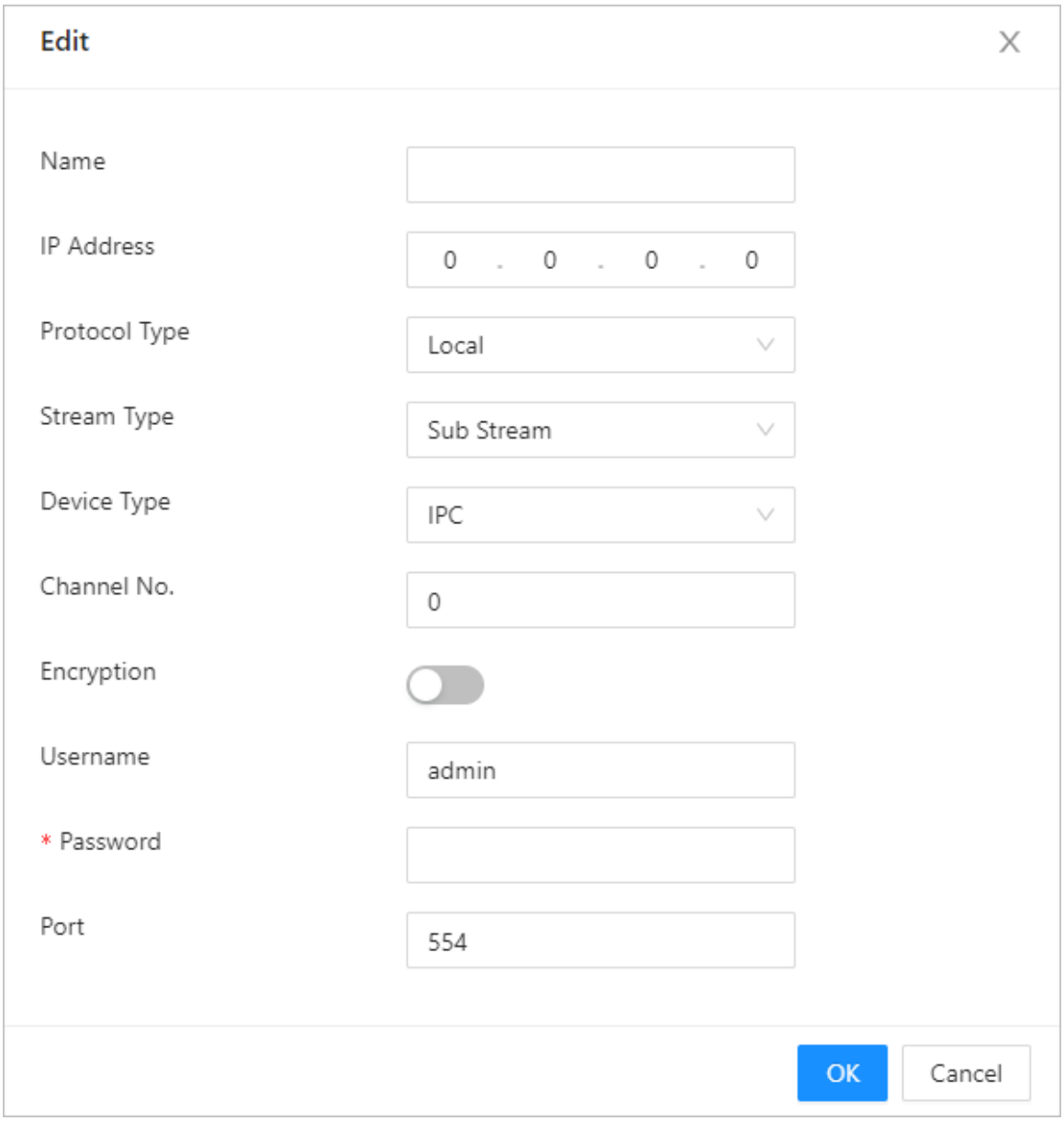


Table 6-6 Parameters description of the video monitoring device

| Parameter | Description |
|---|---|
| IPC Name | Enter the name of the IPC/VNR/XVR/HCVR device. |
| IP Address | Enter the IP address of the IPC/VNR/XVR/HCVR device. |
| Protocol Type | Select from **Local** and **ONVIF** according to the device you add. |
| Stream Type | Select from **Main Stream** and **Sub Stream**. |
| Device Type | Select the type according to the actual devices. |
| Channel No. | • If you add the IPC, it is 1 by default.<br>• If you add the NVR/XVR/HCVR, it is the channel of IPC that was configured on the VNR/XVR/HCVR device. |
| Encryption | Keep consistent with the encryption status of the terminal device. |
| Username | Enter the username and the password that used to log in to the webpage of the IPC/VNR/XVR/HCVR device. |
| Password | |
| Port | The value is 554 by default. |

Step 4 Click **OK**.

## 6.5.2 Exporting the IPC Information in Batches

Export the IPC information and save the information to the local computer.

### Procedure

Step 1 Click **Export**.

Step 2 Enter the login password, and then click **OK**.

The IPC configuration file is saved to the local computer.

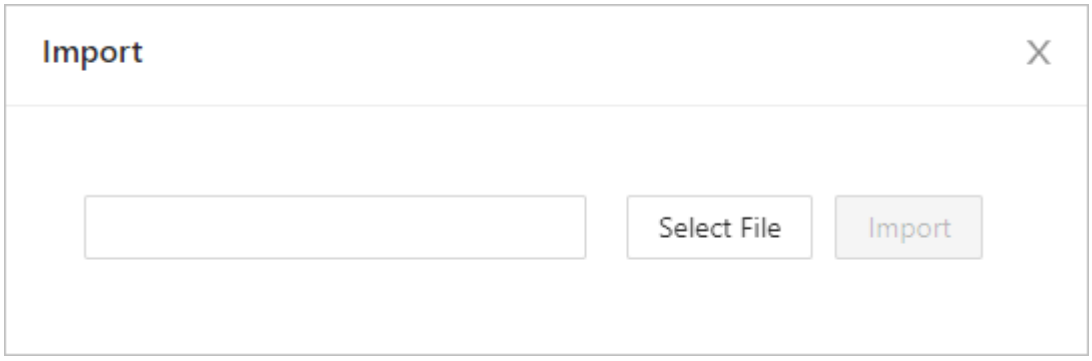
## 6.5.3 Importing the IPC Information in Batches

Import the IPC information to the system.

### Procedure

Step 1 Click **Import**, and then enter the login password.

Figure 6-16 Import




Step 2 Select the file, and then click **Import**.

# 7 System

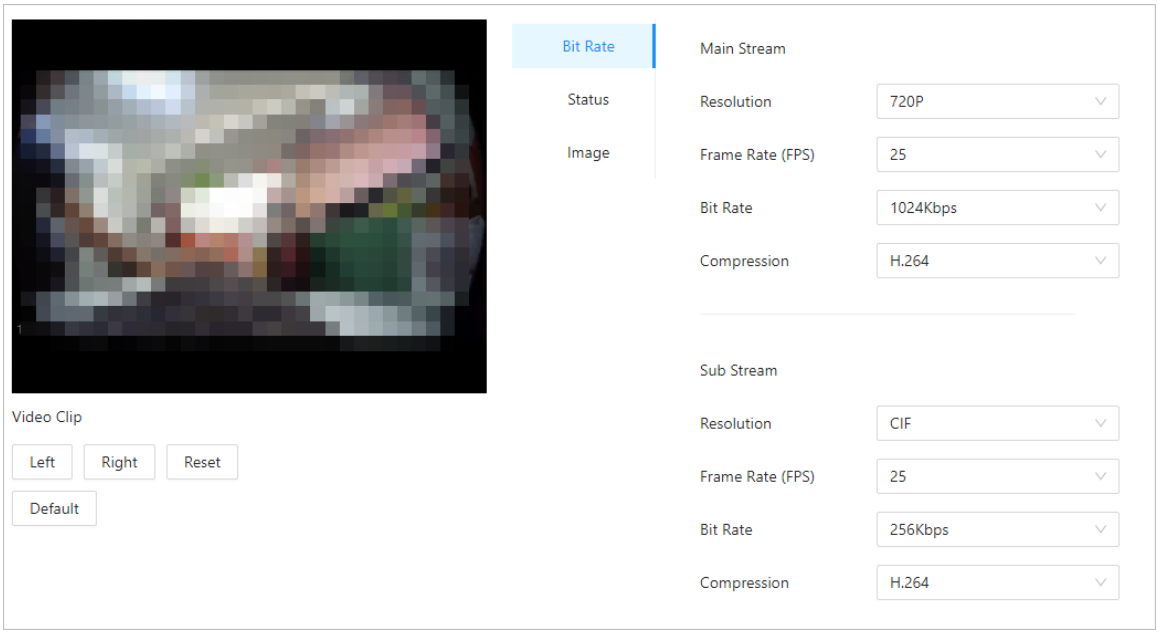
## 7.1 Video

Configure the video format and quality, and audio of the VTO.

### Procedure

Step 1 Select **System** > **Video**.

Figure 7-1 Video




Step 2 Configure the parameters, which will take effect upon change.

Table 7-1 Video parameter description

| Parameter | | Description |
|---|---|---|
| Bit Rate | Resolution (Main Stream) | • **720P** : 1280 × 720.<br>• **WVGA** : 800 × 480.<br>• **D1** : 704 × 576.<br>• **CIF** : 352 × 288. |
| | Frame Rate (FPS) (Main Stream) | • If select the **Video Standard** as **PAL**: The range is 1 to 25.<br>• If select the **Video Standard** as **NTSC**: The range is 1 to 30).<br>The larger the value, the smoother the video, but it requires more bandwidth. |
| | Bit Rate (Main Stream) | Include 768 Kbps, 896 Kbps, 1024 Kbps, 1.25 Mbps, 1.5 Mbps, 1.75 Mbps, 2 Mbps and 4 Mbps and more. The larger the value, the better the video quality, but it requires more bandwidth. |

| Parameter | | Description |
| --- | --- | --- |
| | Compression (Main Stream) | H.264.<br>H.265.<br>  <br>Compared with H.264, H.265 requires smaller bandwidth. |
| | Resolution (Sub Stream) | • **1080P** : 1920 × 1080.<br>• **WVGA** : 800 × 480.<br>• **QVGA** : 320 × 240.<br>• **D1** : 704 × 576.<br>• **CIF** : 352 × 288. |
| | Frame Rate (FPS) (Sub Stream) | The range is 1 to 25. The larger the value, the smoother the video, but it requires more bandwidth. |
| | Bit Rate (Sub Stream) | Include 224 Kbps, 256 Kbps, 320 Kbps, 384 Kbps, 448 Kbps, 512 Kbps, 640 Kbps, 768 Kbps. The larger the value, the better the video quality, but it requires more bandwidth. |
| | Compression (Sub Stream) | H.264.<br>H.265. |
| Status | Scene Mode | Select from **Auto** , **Disable**, **Sunny** and **Night**. **Auto** is selected by default. |
| | Compensation Mode | • **BLC** : Back light compensation. Improve the clarity of the target in the image.<br>• **WDR** : Wide dynamic range. Enhance the brightness of dark areas, and reduce the brightness of bright areas to improve the image.<br>• **HLC** : High light compensation. Reduce the brightness of the strong spots to improve the overall image.<br>• **Disable**: Do not use any compensation mode. |
| | Day/Night | Select from **Color** , **Auto** and **B/W**. |
| | Video Standard | Select **PAL** or **NTSC** according to your area. |
| | Illuminator Sensitivity | Configure the sensitivity value.<br>• If the illumination intensity is lower than the configured value, the illuminator will be turned on.<br>• If the illumination intensity is higher than the configure value, the illuminator will be turned off. |
| Image | Brightness | The larger the value, the brighter the image. |
| | Contrast | Larger value for more contrast between bright and dark areas. |

| Parameter | | Description |
|---|---|---|
| | Hue | Make the color brighter or darker. The default value is made by the light sensor, and we recommend keeping it default. |
| | Saturation | The larger the value, the thicker the color. |
| | Gamma | Changes the picture brightness and improves the picture dynamic range in a non-linear way. The larger the value, the brighter the image.<br>This function is available on select models. |
| | Mirror | Display the image with left and right side reversed. |
| | Flip | Display the image upside down. |
| | Display Time | Display the current time and date on the video image. |

### Related Operations

Click **Left** or **Right** to adjust the video image.

Click **Reset** or **Default** to reset the video configurations or restore to default configurations.

## 7.2 Audio

### Procedure

Step 1 Select **System** > **Audio**.

Step 2 Configure the parameters, which will take effect upon change.

Figure 7-2 Audio

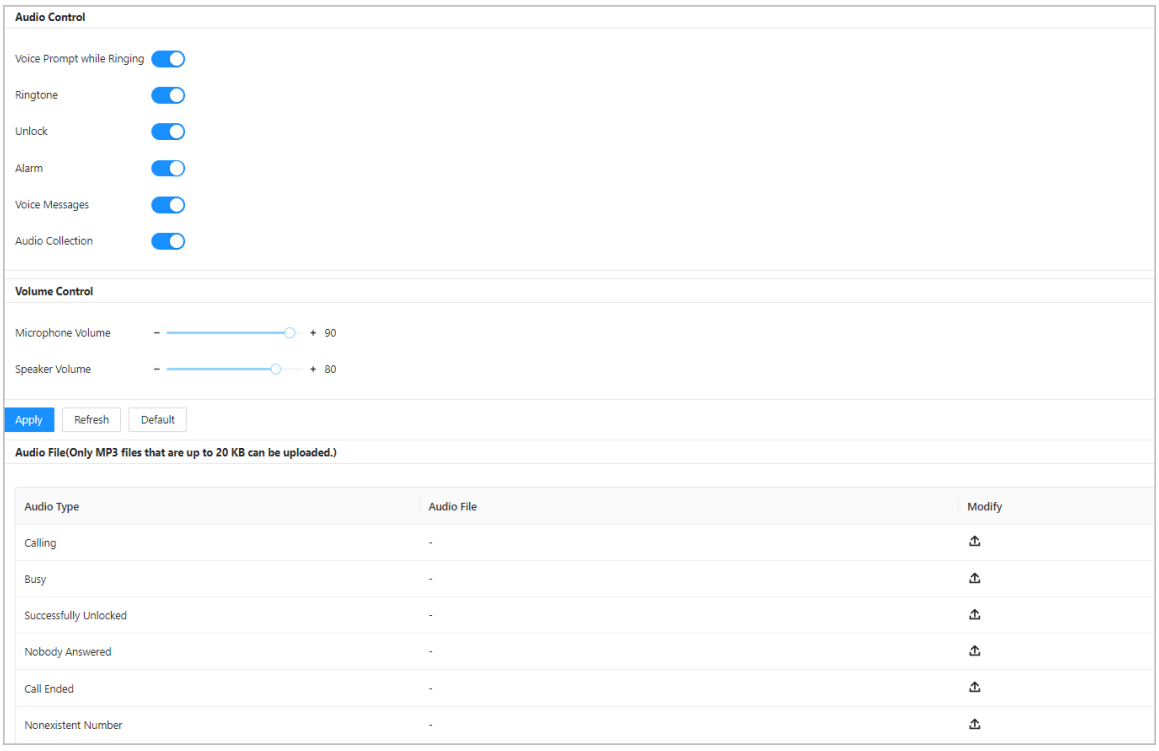


Table 7-2 Audio parameter description

| Parameter | | Description |
|---|---|---|
| Audio Control | Voice Prompt while Ringing | Turn on or off each type of sound. |
| | Ringtone | |
| | Alarm | |
| | Voice Messages | |
| | Unlock | |
| | Audio Collection | |
| Volume Control | Microphone Volume | Adjust the volume. |
| | Speaker Volume | |

Step 3 Click **Apply**.

Step 4 (Optional) Upload audio file by clicking next to the corresponding audio type (including calling, busy, successfully unlocked, nobody answered, call ended and nonexistent number).

Only MP3 files that are up to 20 KB can be uploaded.

# 7.3 Time

Configure the time zone and day light saving parameters.

## Procedure

Step 1 Select **System** > **Time**.

Step 2 Configure the time and time zone and DST.

Figure 7-3 Time

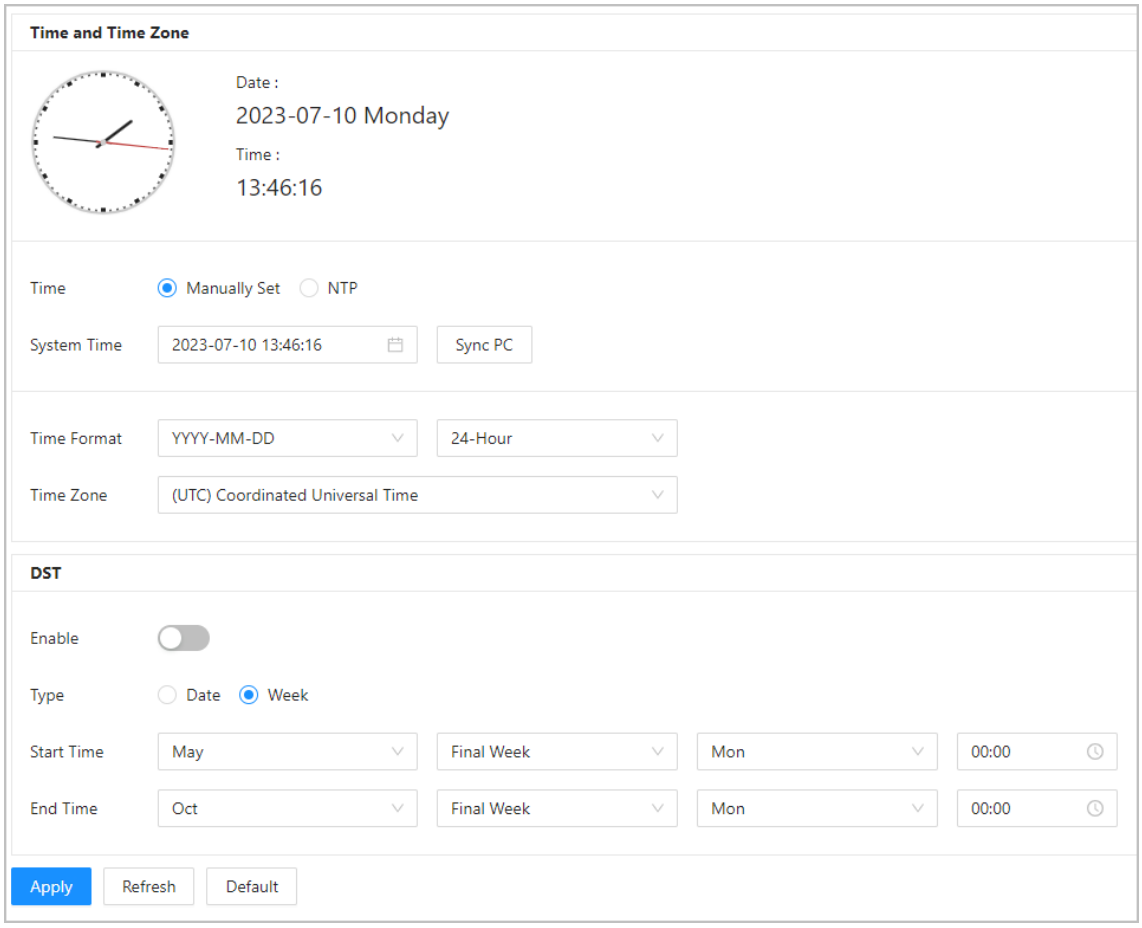



Table 7-3 Parameter description

| Module | Parameter | Description |
|---|---|---|
| Time and Time Zone | Time | • Manually Set<br>• NTP |
| | System Time | The time of the VTO system.<br>⚠<br>Changing system time might cause problems on video searching and information publication. Turn off video recording and auto snapshot before changing it.<br>📖<br>Only applicable under the **Manually Set** mode. |
| | Sync PC | Synchronize the VTO system time with your PC.<br>📖<br>Only applicable under the **Manually Set** mode. |

| Module | Parameter | Description |
|---|---|---|
| | Server | The address of the NTP server.<br>Only applicable under the **NTP** mode. |
| | Manual Update | Click the icon and the device time of the VTO will be automatically synchronized with server.<br>Only applicable under the **NTP** mode. |
| | Port | NTP server port number.<br>Only applicable under the **NTP** mode. |
| | Interval | VTO time update cycle. 30 minutes at most.<br>Only applicable under the **NTP** mode. |
| | Time Format | For the date format, select from one of the following:<br>• YYYY-MM-DD<br>• MM-DD-YYYY<br>• DD-MM-YYYY<br>For the time format, select from one of the following:<br>• 24-Hour<br>• 12-Hour |
| | Time Zone | Select the time zone for the VTO system. |
| DST | Enable | Click to enable the **DST** function. |
| | Type | Select **Date** or **Week** as needed, and then configure the specific period. |
| | Start Time | Configure the start time and end time of DST. |
| | End Time | |

Step 3 Click **Apply**.

# 7.4 ONVIF User

Add accounts for devices to monitor the VTO through the ONVIF protocol.

## Procedure

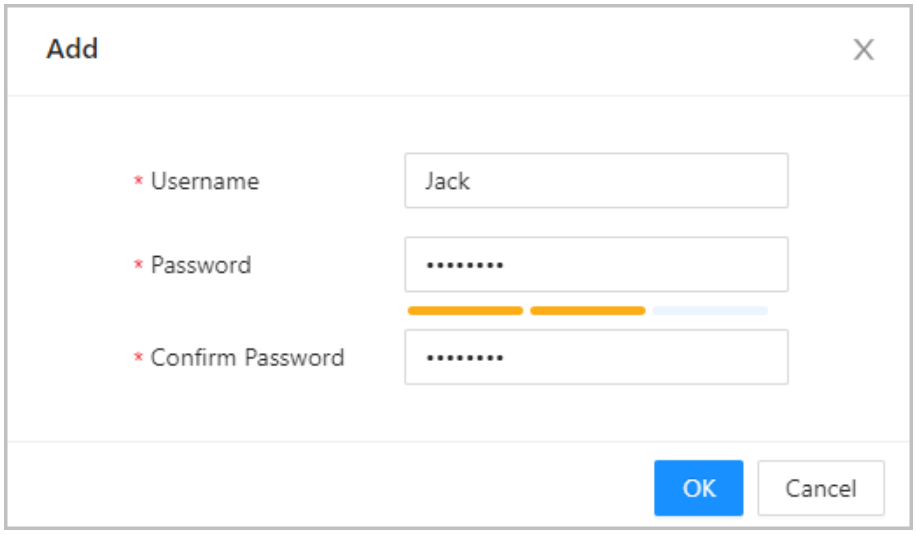
Step 1 Select **System** > **ONVIF User**.

Step 2 Click **Add**.

Step 3 Enter the information, and then click **OK**.

ONVIF devices can monitor the VTO by using the account.

Figure 7-4 ONVIF user




## 7.5 Config

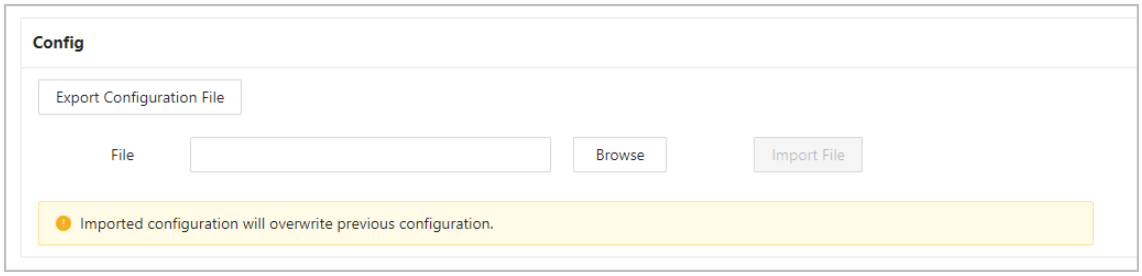
You can export and import the configuration file.

### Procedure

Step 1 Select **System** > **Config**.

Step 2 Click **Export Configuration File**, or click **Browse** to select the file from local computer, and then click **Import file**.

Figure 7-5 Config



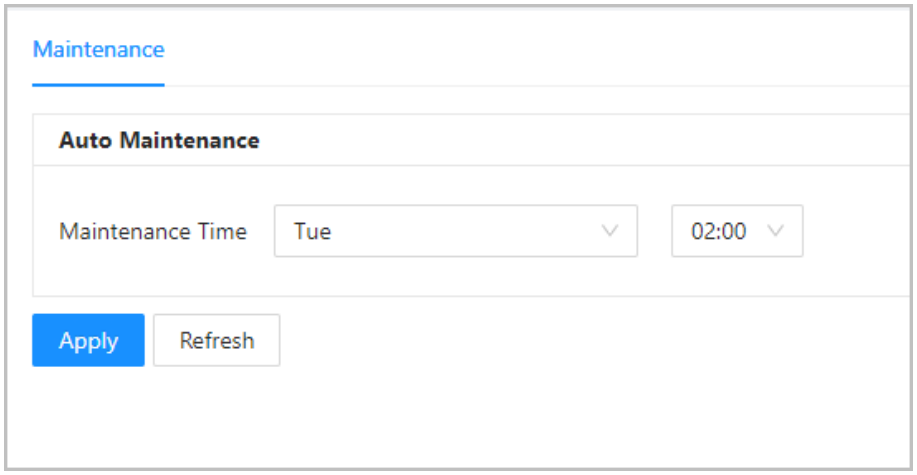

## 7.6 Maintenance

### Procedure

Step 1 Select **System** > **Maintenance**.

Step 2 Configure the auto maintenance time.

Figure 7-6 Auto Maintenance




Step 3 Click **Apply**.

## 7.7 Updating

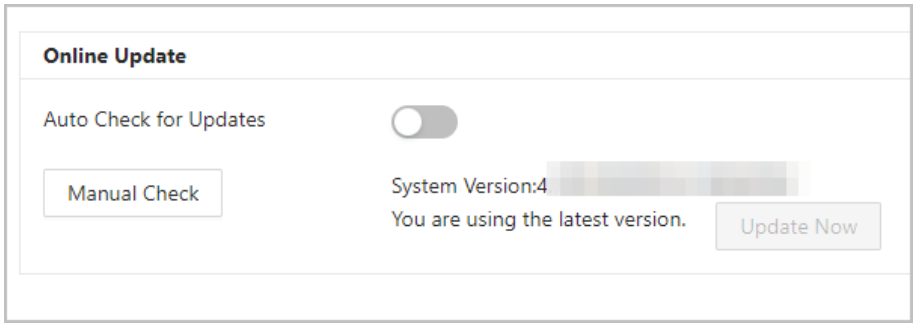
### Procedure

Step 1 Select **System** > **Update**.

Step 2 Select ways to check the update.

- **Auto Check** : Select the function to check automatically whether there is a new system version.
- **Manual Check** : Select the function to check whether there is a new system version.

Figure 7-7 Update




## 7.8 Legal Information

Select **System** > **Legal Info**. You can view related legal information notices in this section.

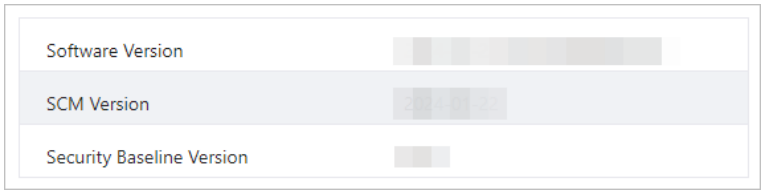
## 7.9 System Information

### Procedure

Step 1 Select **System** > **System Info**.

Step 2 View the software version, SCM version and security baseline version.

Figure 7-8 System information



# 8 Device Setting

This chapter introduces how to add, modify, and delete VTO, VTH, VTS, and IPC, and how to send messages from the SIP server to VTOs and VTHs when the VTO works as the SIP server. If you are using other servers as the SIP server, see the corresponding manual for details.

## 8.1 VTO No. Management

You can add VTOs to the SIP server, and all the VTOs connected to the same SIP server can call each other.

### Procedure

Step 1 Log in to the webpage of the VTO that works as the SIP server.

Step 2 Select **Device Setting**.

Step 3 Click **Add**.

Step 4 Configure the parameters.

Figure 8-1 Add VTO

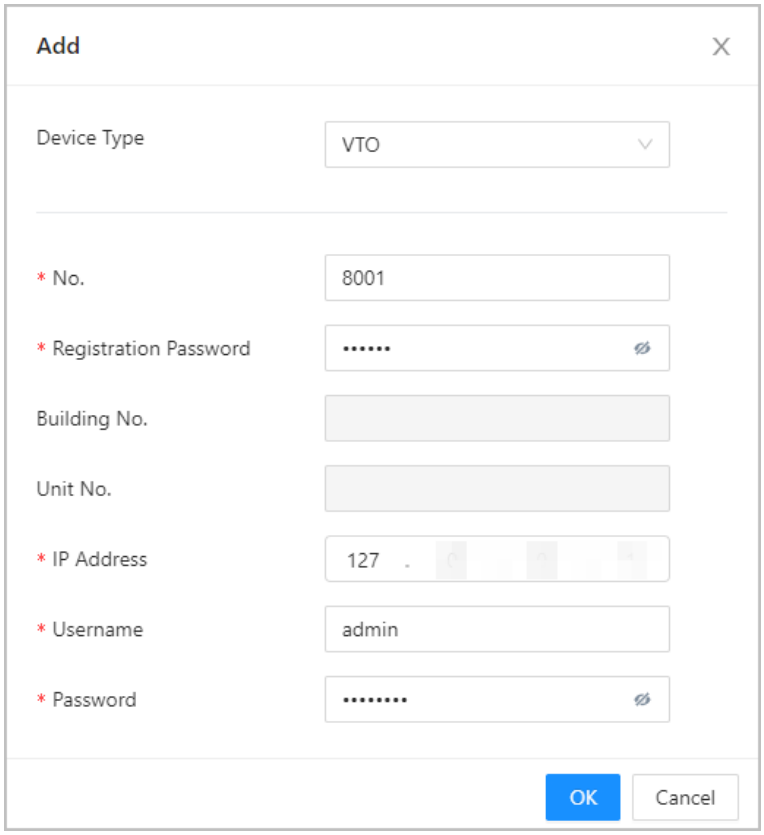



Table 8-1 Add VTO configuration

| Parameter | Description |
|---|---|
| Device Type | Select **VTO**. |
| No. | The VTO number you configured. |
| Registration Password | Leave it as default. |

| Parameter | Description |
| --- | --- |
| Building No. | Available only when the platform servers work as the SIP server. |
| Unit No. | |
| IP Address | IP address of the VTO. |
| Username | Username and password used to log in to the webpage of the VTO. |
| Password | |

Step 5 Click **OK**.

Click  to edit the VTO, or  to delete added VTOs, but the one that you have logged in to cannot be modified or deleted.

## 8.2 VTH Management

You can add room numbers to the SIP server, and then configure the room number on the VTHs to connect them to the network.

### Procedure

Step 1 Log in to the webpage of the SIP server.

Step 2 Select **Device Setting**.

Step 3 Click **Add**.

Step 4 Configure the parameters.

- Select the add mode as **Add One by One**.

Figure 8-2 Add VTH one by one

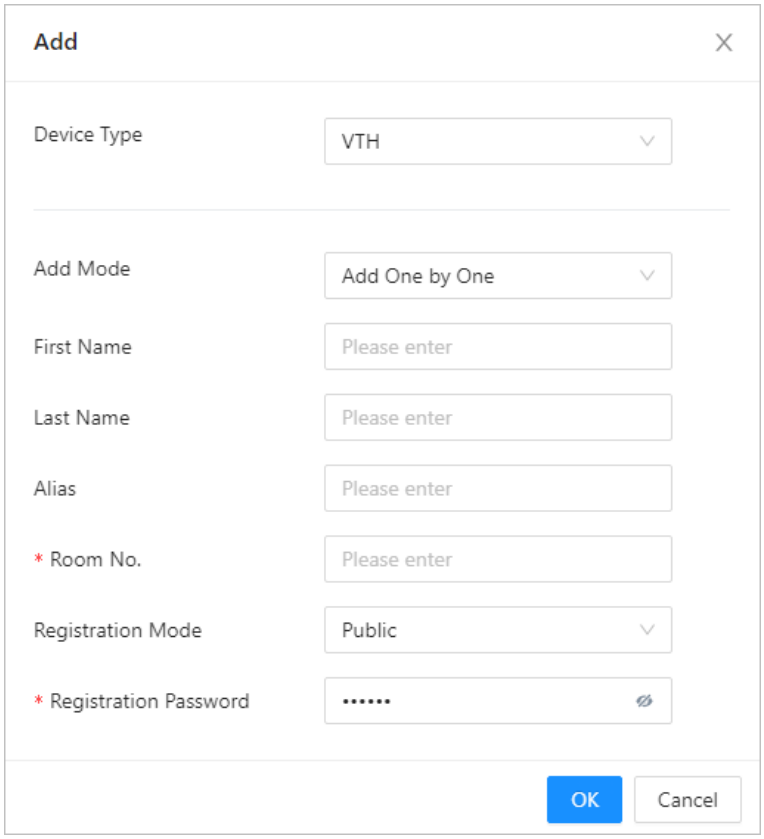



Table 8-2 Parameters description

| Parameter | Description |
|---|---|
| First Name | Enter the information you need to differentiate each room. |
| Last Name | |
| Alias | |
| Room No. | Enter a room number, and then configure the number on a VTH to connect it to the network. |
| Registration Mode | Select **Public**. |
| Registration Password | Leave it as default. |

- Select the add mode as **Add in Batches**.

Figure 8-3 Add VTH in batches

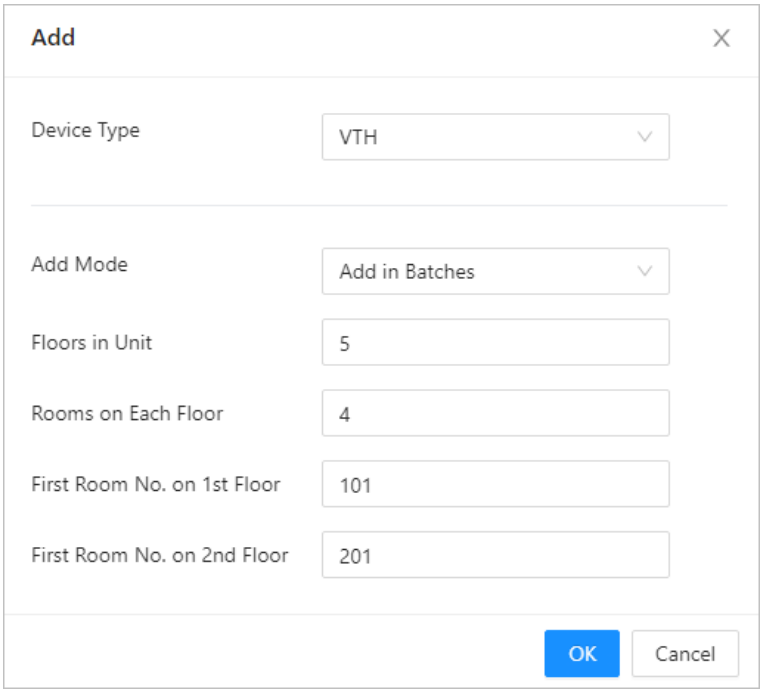



Table 8-3 Parameters description

| Parameter | Description |
|---|---|
| Floors in Unit | Configure the number of floors, rooms. |
| Rooms on Each Floor | |
| First Room No. on 1st Floor | Configure the first room number on the first and second floor, the room number will be automatically generated. |
| First Room No. on 2nd Floor | |

Step 5 Click **OK**.

Click to edit the VTH, or to delete added VTHs, but the one that you have logged in to cannot be modified or deleted.

# 8.3 VTS Management

You can add a VTS to the SIP server, and then it can be used as the management center. It can also manage, call, or receive calls from all the VTOs and VTHs in the network. See the corresponding user's manual for details.

## Procedure

Step 1 Log in to the webpage of the VTO that works as the SIP server.

Step 2 Select **Device Setting**.

Step 3 Click **Add**.

Step 4 Configure the parameters.

Figure 8-4 Add VTS

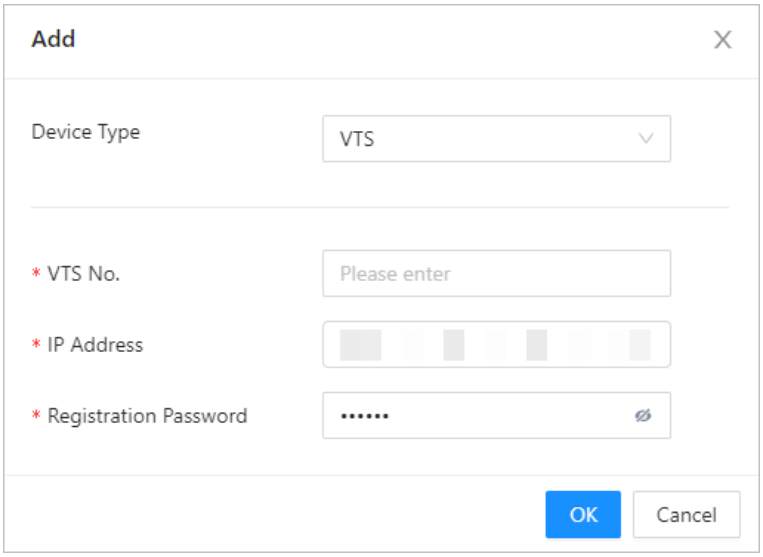



Table 8-4 Add VTS configuration

| Parameter | Description |
|---|---|
| Device Type | Select **VTS**. |
| VTS No. | The number of the VTS. |
| Registration Password | Leave it as default. |
| IP Address | VTS IP address. |

Step 5 Click **OK**.

# 9 Person Management

Adding personnel information.

The card and fingerprint functions are available on select models or when the device is connect to the corresponding modules.

## Procedure

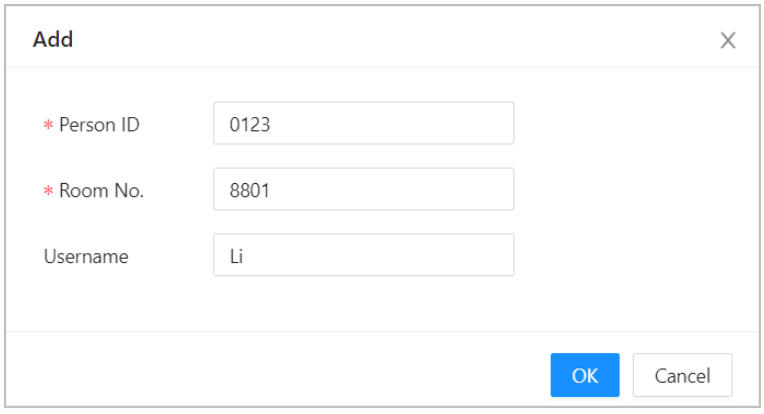
Step 1 Log in to the webpage of the VTO.

Step 2 Select **Person Management**.

Step 3 Click **Add**.

- VTO that do not have other functions or modules: Enter the room ID, room number, username, and then click **OK**.

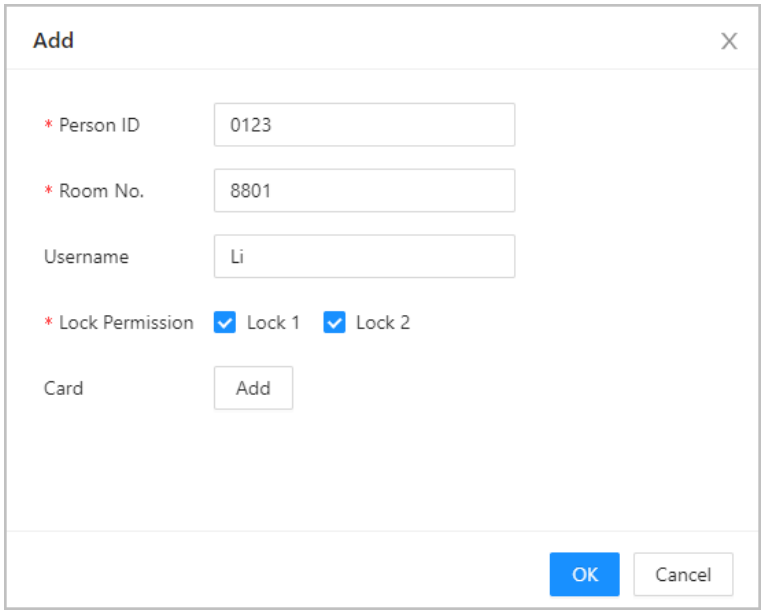
Figure 9-1 Add person




- VTO that has card issuing function or module:
  1. Enter the room ID, room number, username and select the lock permission.
     - Lock1: Local lock.
     - Lock 2: 485 lock.

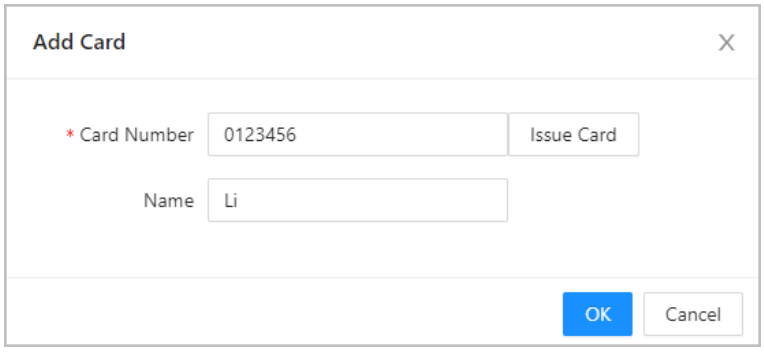
       Only models that have 485 ports support 2 types of locks.

Figure 9-2 Add a person




2. Click **Add** next to **Card**, and then enter the card number and name.

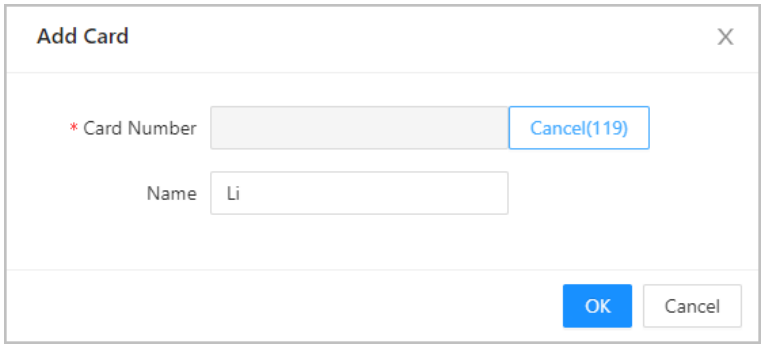
Figure 9-3 Issue card




3. Click **Issue Card**.

   The webpage displays the countdown prompt (120 seconds). Once the countdown starts, you need to swipe the card on the card reader of the VTO within this time period. After the swiping, the card number will be automatically recognized by the VTO.

Figure 9-4 Countdown




4. Click **OK** after swiping to complete the issuing process.

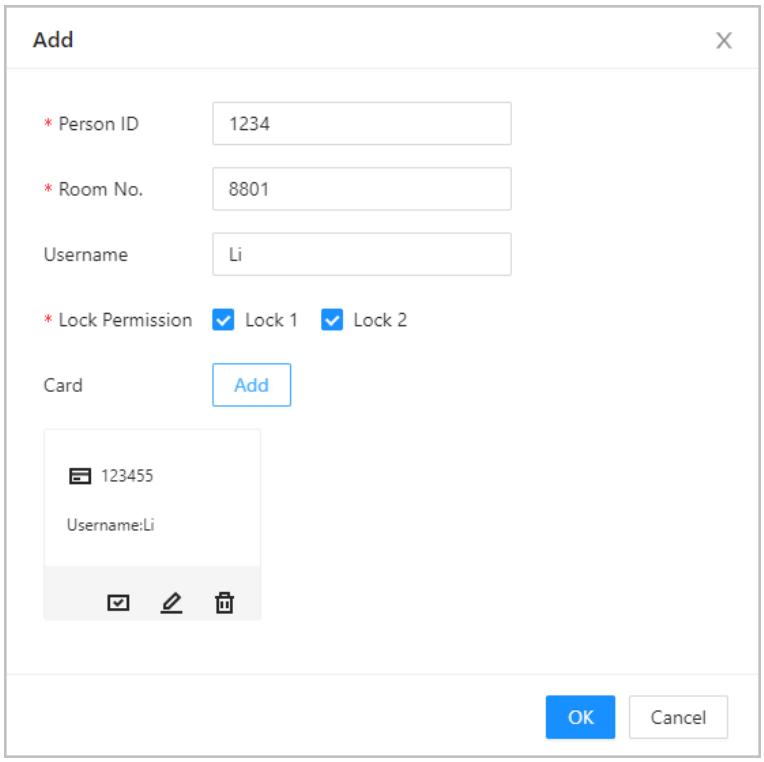
   Then the window goes back to the **Add**, with a card being added.

◇ : Report lost card. After clicking the icon, it becomes .

◇ : Edit the card information.

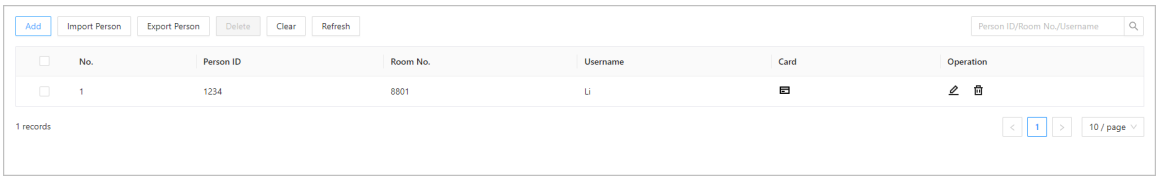
◇ : Delete the added card.

Figure 9-5 Card issued




5. Click **OK**.

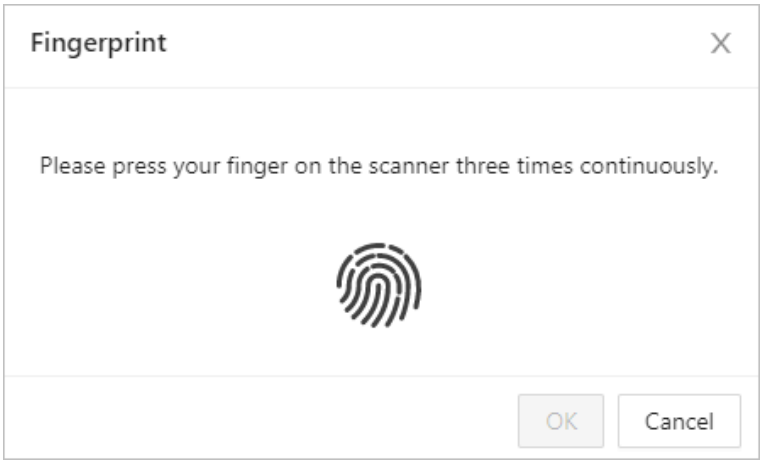
Figure 9-6 Card added successfully




- VTO that has fingerprint function or module:

1. Enter the room ID, room number, username and select the lock permission.
2. Click **Add** next to **Fingerprint**, and then press your finger according to the prompt.

Figure 9-7 Issue card




3. Click **OK**.

   Then the window goes back to the **Add**, with a fingerprint being added. You can edit the name of the fingerprint.
4. Click **OK**.

## Related Operations

- Click **Export Person**, and then enter the encryption password for the file to export the person information.
- Click **Import Person**, and then select the file to import the person information.

# 10 Network Settings

This chapter introduces how to configure the network parameters.

## 10.1 TCP/IP

You need to configure the TCP/IP information to connect the VTO to the network.

### Procedure

Step 1 Log in to the webpage of the VTO.

Step 2 Select **Network Settings** > **TCP/IP**.

Step 3 Configure the TCP/IP parameters.

Figure 10-1 TCP/IP

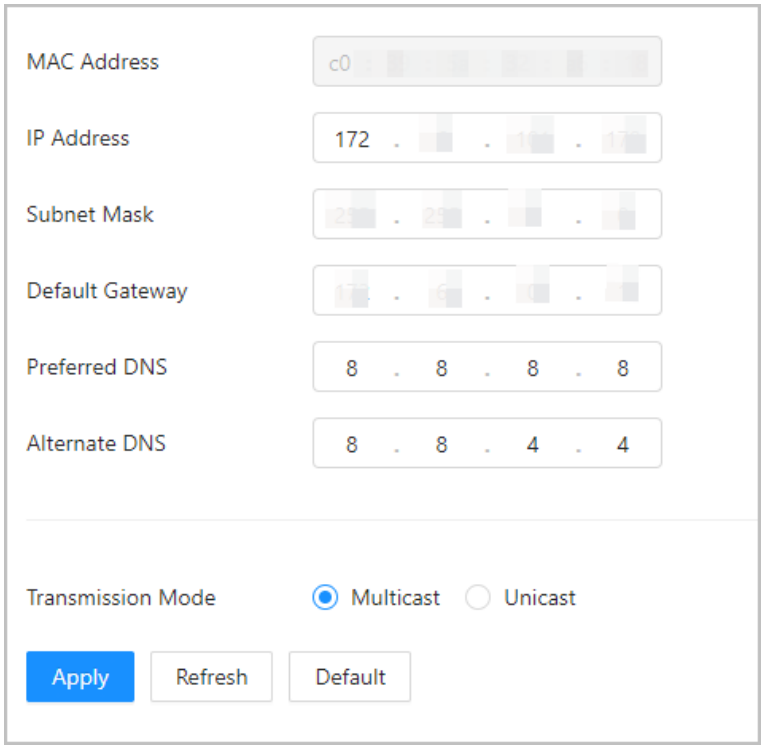



Table 10-1 Parameter description

| Parameter | Description |
|---|---|
| IP Address | Your planned IP address for the VTO. |
| Preferred DNS | It is 8.8.8.8 by default. |
| Alternate DNS | It is 8.8.4.4 by default. |
| Transmission Mode | • Multicast.<br>• Unicast.<br>Unicast is preferred when the switch does not support multicast function, or when the network connection is not good. |

## 10.2 Port

Figure 10-2 Port

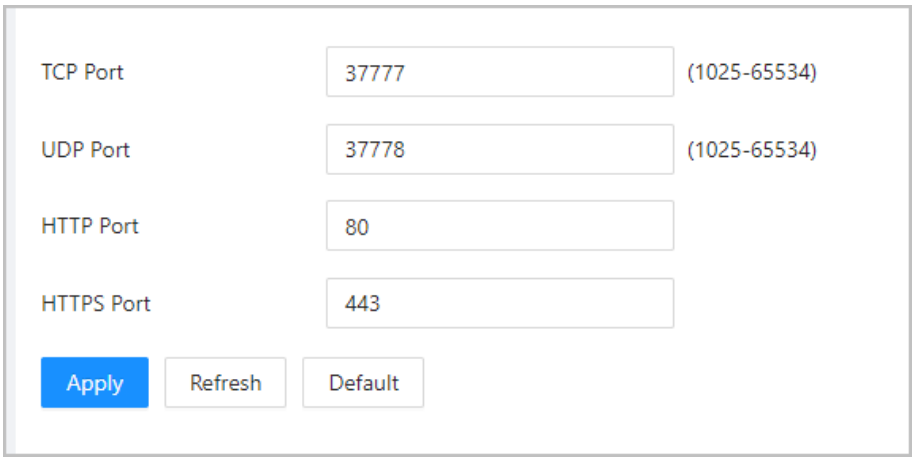



Table 10-2 Parameter description

| Parameter | Description |
|---|---|
| HTTP Port | You can now enter http://VTO IP address: HTTPS Port to log in to the VTO. |
| TCP/UDP Port | Used for accessing the VTO with devices in other networks. |
| HTTPS Port | You can now enter https://VTO IP address: HTTPS Port to log in to the VTO. |

## 10.3 SIP Server

There must be a SIP server in the network for all connected VTOs and VTHs to call each other. You can use a VTO or other servers as the SIP server.

### Procedure

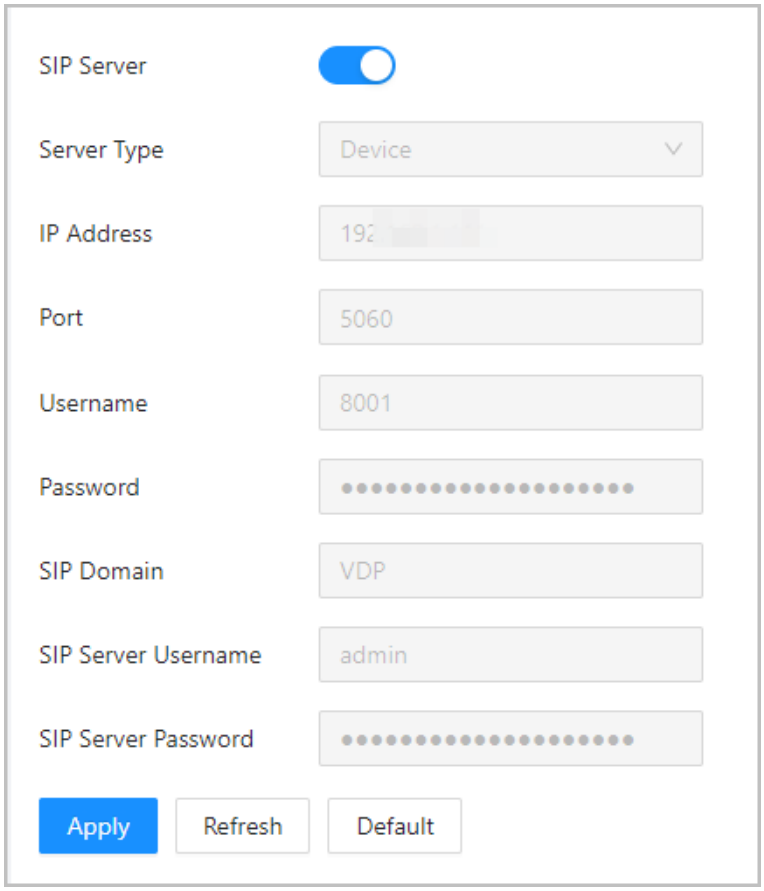
Step 1 Select **Network Settings** > **SIP Server**.

Step 2 Select a server type.

- The VTO you have logged in as the SIP server: Select the SIP type as **Device**, and configure the parameters for the VTO, and then click next to **SIP Server**.

The parameters would become grey after enabling the **SIP Server** function.

Figure 10-3 Current VTO as SIP server




- If another VTO works as the SIP server: Select the SIP type as **Device**, and configure the parameters for the VTO working as the SIP.

  If the VTO you have logged in does not work as the SIP server, do not enable **SIP Server**. Otherwise, the connection would fail.

Figure 10-4 Another VTO as SIP server

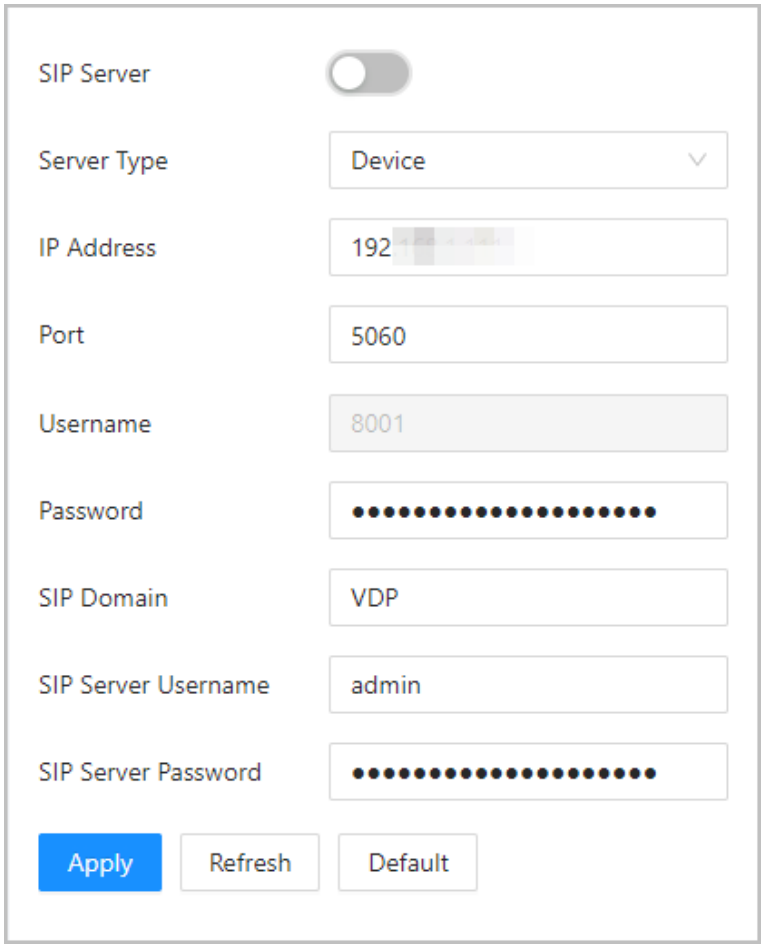



Table 10-3 SIP server configuration (VTO as the SIP server)

| Parameter | Description |
|---|---|
| IP Address | Planned IP address of the VTO. |
| Port | 5060 by default. |
| Username | Leave it as default. |
| Password | |
| SIP Domain | |
| SIP Server Username | Username and password used to log into the webpage of the SIP server. |
| SIP Server Password | |

- The DSS platform works as the SIP server: Set **Server Type** as **Private SIP Server**, and then configure the parameters.

Figure 10-5 Private SIP server

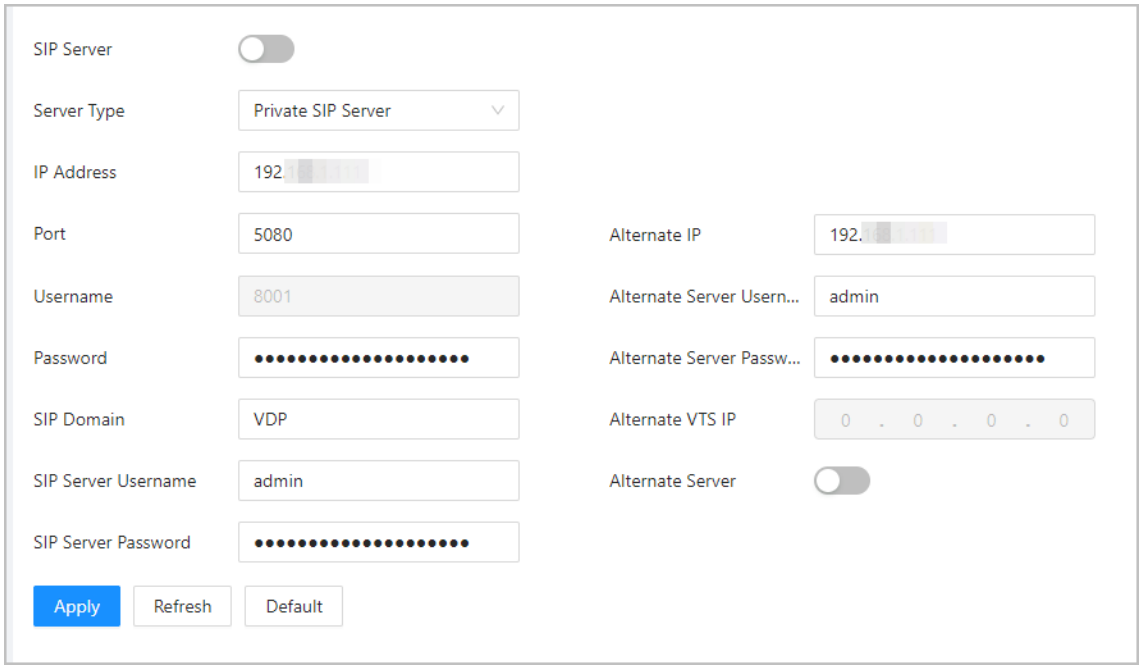



Table 10-4 SIP server description (platform as the SIP server)

| Parameter | Description |
|---|---|
| IP Address | IP address of the SIP server. |
| Port | 5080 by default when the platform works as the SIP server. |
| Username/Password | Leave it as default. |
| SIP Domain | |
| SIP Server Username/ Password | Used to log in to the SIP server. |
| Alternate IP | The alternate server will be used as the SIP server when Express/DSS stops responding. We recommend you configure the alternate IP address.<br>◇ If you enable **Alternate Server**, the current VTO you have logged in serves as the alternate server.<br>◇ If you want another VTO serve as the alternate server, you need to enter the IP address of that VTO in the **Alternate IP** textbox. Do not enable **Alternate Server** in this case. |
| Alternate Server Username/ Password | Used to log in to the alternate server. |
| Alternate VTS IP | IP address of the alternate VTS. |
| Alternate Server | Enable it so that you can configure the Alternate VTS IP. |

Step 3 Click **Apply**.

# 10.4 Second Confirmation Station Cascading

It applied to the situation when the second confirmation station cascades to the VTH.

## Prerequisites

The software version of the VTH must be V4.7 and later.

## Procedure

Step 1 Select **Network Settings** > **SIP Server**.

Step 2 Configure the second confirmation station information in **Local Device Config** > **Basic Settings**.

The device type should be set as **Second Confirmation Station**.

Step 3 Set **Server Type** as **Device**, and then configure the parameters.

In this cascading situation, the VTH works as the SIP server.

Figure 10-6 SIP server configuration (VTH as the SIP server)

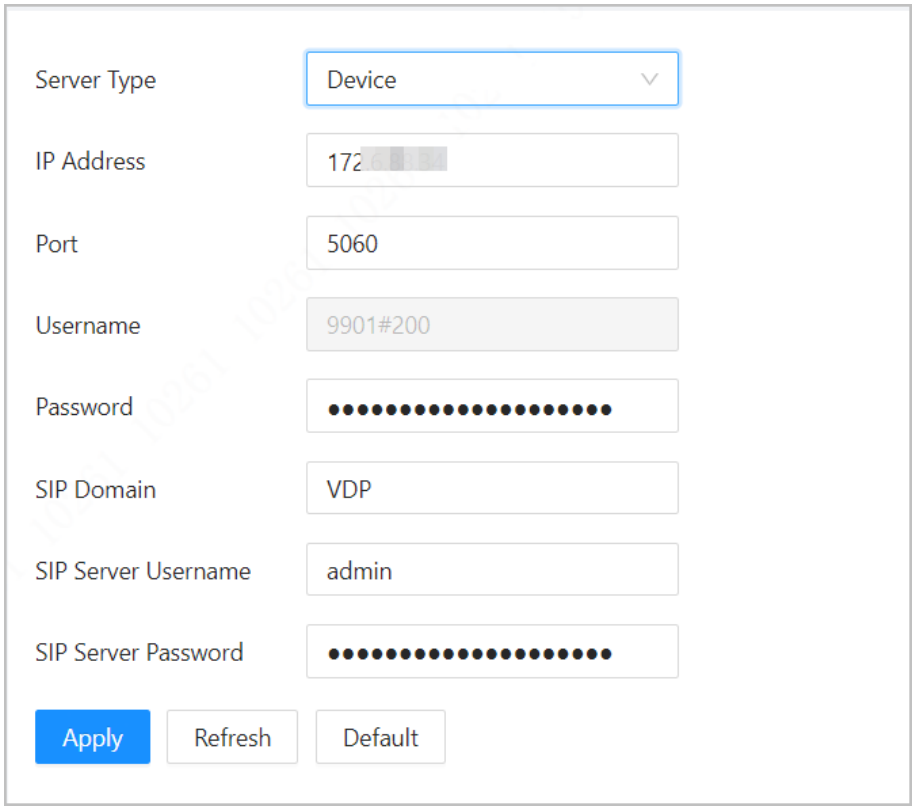



Table 10-5 SIP server configuration description (VTH as the SIP server)

| Parameter | Description |
|---|---|
| IP Address | Your planned IP address of the VTH. |
| Port | 5060 by default. |
| Username | Leave it as default. |
| Password | |
| SIP Domain | |

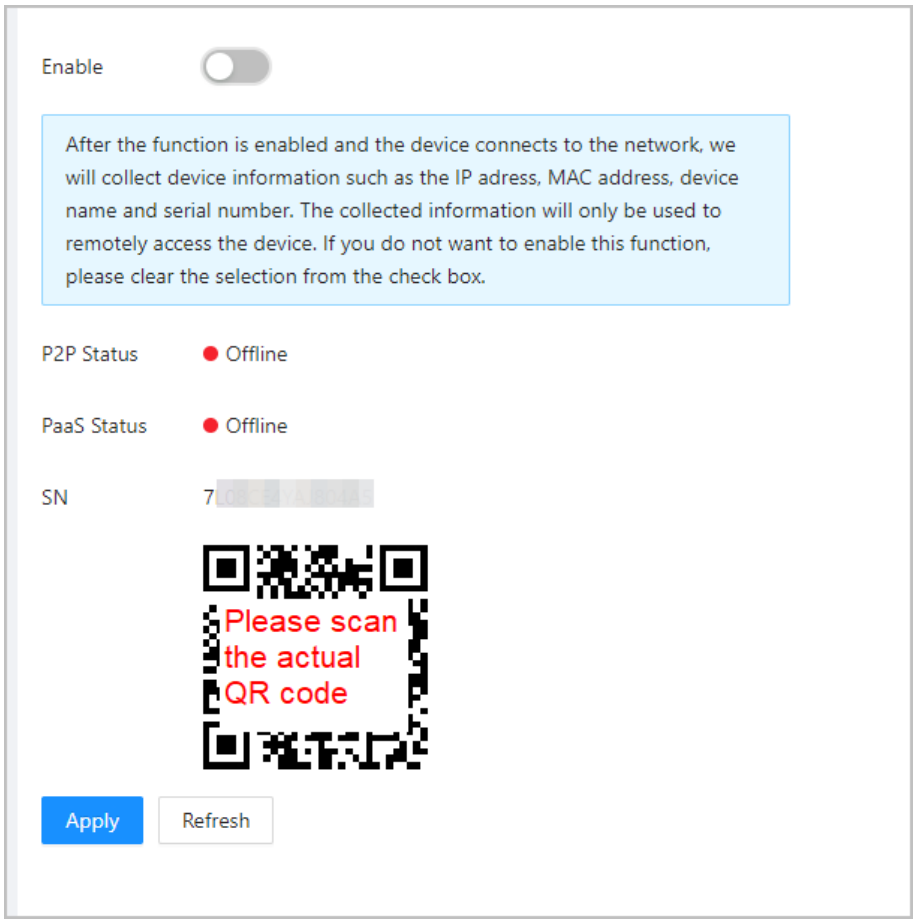
| Parameter | Description |
| --- | --- |
| SIP Server Username | Username and password used to log into the VTH that serves as the SIP server. |
| SIP Server Password | |

Step 4 Click **Apply**.

## 10.5 Cloud Service

Enable the **Cloud Service** function, and then you can scan the QR code with your phone to add the VTO to the app on your phone.

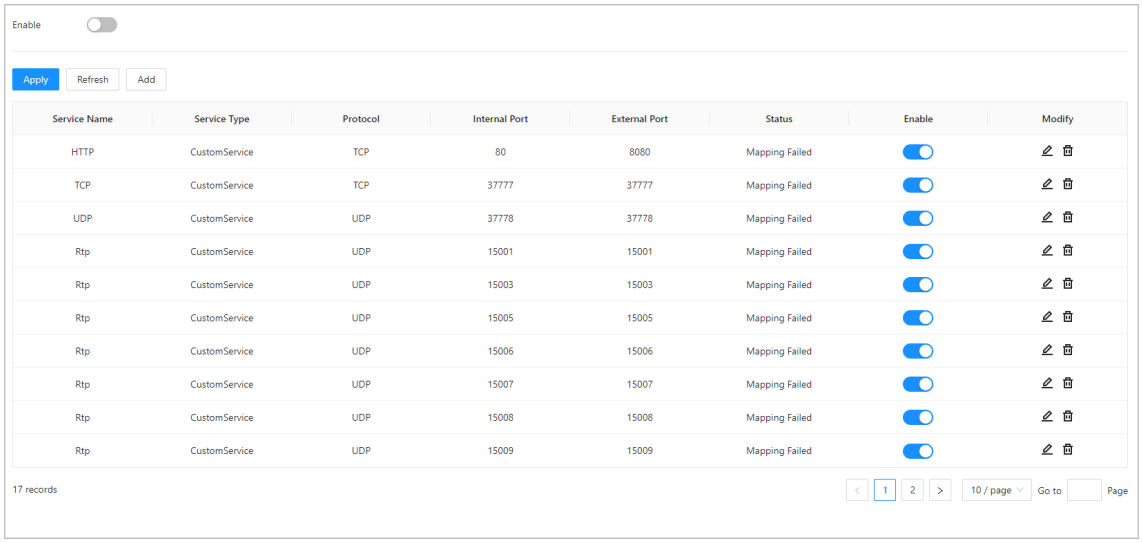
Figure 10-7 Cloud service




## 10.6 UPnP

When the VTO works as the SIP server, you can configure the UPnP function to allow WAN devices to log in to the VTO.

Figure 10-8 UPnP




## Preparation

- Enable the UPnP function on the router, and then configure a WAN IP address for the router.
- Connect the VTO to the LAN port of the router.

# 10.6.1 Enabling UPnP Services

## Procedure

Step 1 Select **Network Settings** > **UPnP**.

Step 2 Enable the services listed.

Step 3 Select **Enable**.

Step 4 Click **Save**.

# 10.6.2 Adding UPnP Services

## Procedure

Step 1 Select **Network Settings** > **UPnP**.

Step 2 Click **Add**.

Step 3 Configure the parameters, and then click **OK**.

Figure 10-9 Add a UPnP service

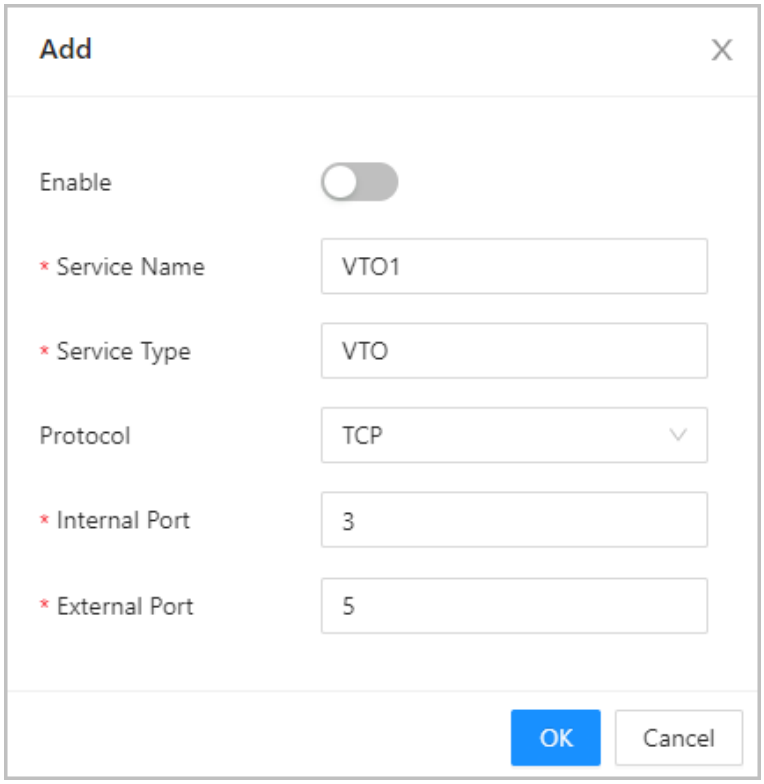



Table 10-6 Parameter description

| Parameter | Description |
|---|---|
| Service Name | Enter the name and type of the service. |
| Service Type | |
| Protocol | Select **TCP** or **UDP**. |
| Internal Port | Internal port of the service.<br>● If you need to configure this function for multiple devices, make sure that the ports are not the same.<br>● The port number you use must not be occupied.<br>● The internal and external port number must be the same. |
| External Port | External port of the service.<br>● If you need to configure this function for multiple devices, make sure that the ports are not the same.<br>● The port number you use must not be occupied.<br>● The internal and external port number must be the same. |

## 10.7 Wi-Fi

If the VTO supports Wi-Fi function, then configure the parameters here.

### Procedure

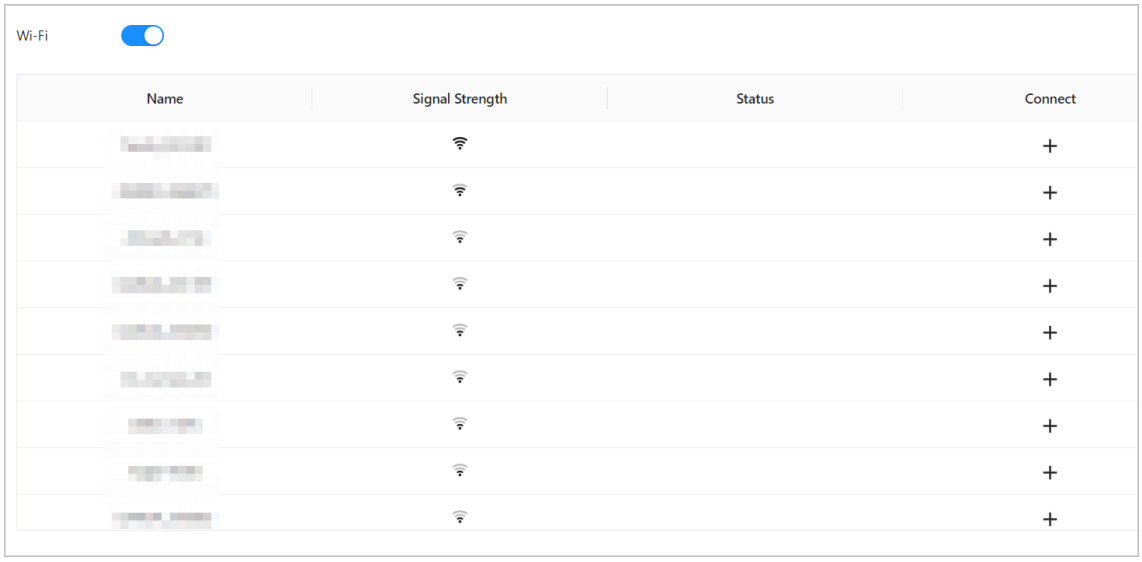
Step 1 Log in to the webpage of the VTO.

Step 2 Select **Network Settings** > **Wi-Fi**.

Step 3 Set the **Wi-Fi** status as **On**.

All the networks available are displayed.

Figure 10-10 Wi-Fi




Step 4 Click **+** of the Wi-Fi you chose, enter the password of it, and then connect to the network.

## 10.8 Basic Services

Configure functions that involve device security.

### Procedure

Step 1 Select **Network Settings** > **Basic Services**.

Step 2 Enable the security functions based on your needs.

Figure 10-11 Basic services

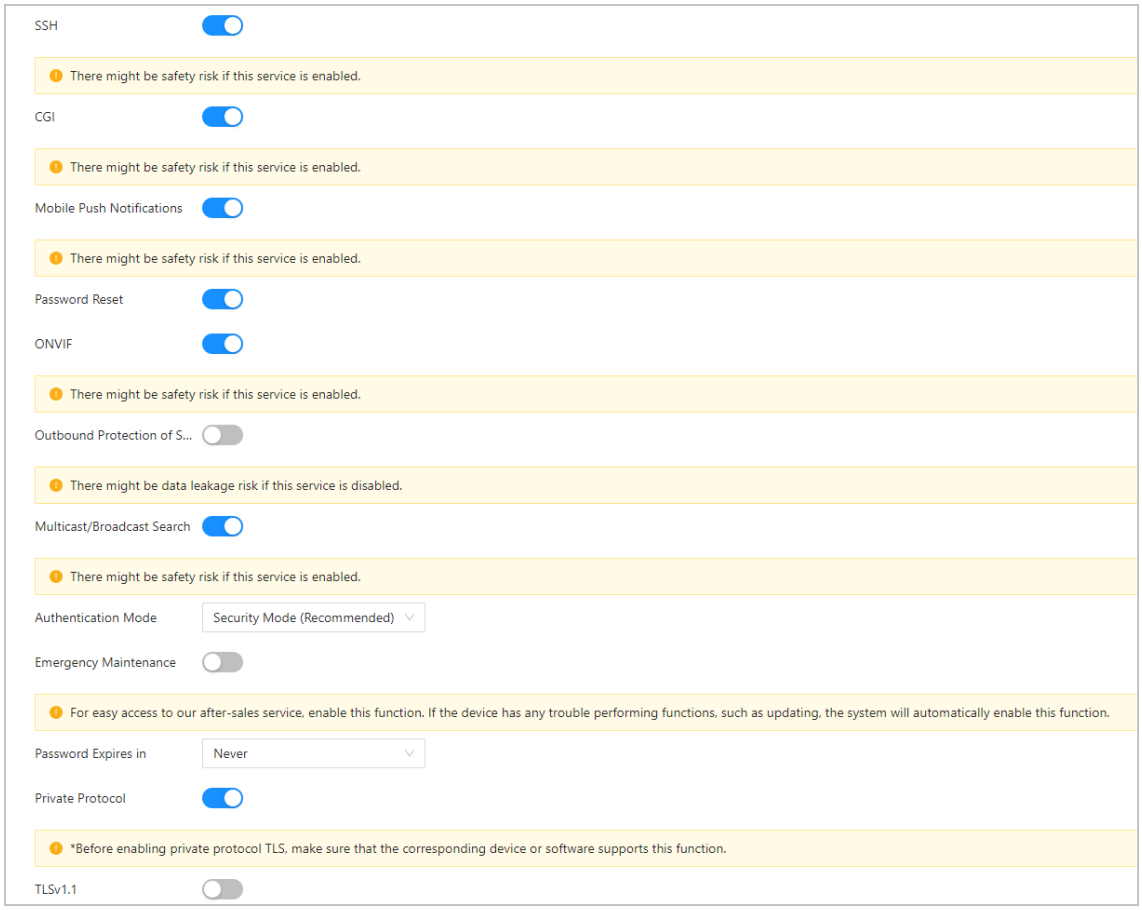



Table 10-7 Security parameter description

| Parameter | Description |
|---|---|
| SSH | A secure alternative to unsecured remote protocols.<br>We recommend you turn it off because there might be safety risk if this service is enabled. |
| CGI | The use of CGI command.<br>We recommend you turn it off. Otherwise, the VTO might be exposed to security risks and data leakage. |
| Mobile Push Notification | Send information to the app on the phone.<br>We recommend you turn it off if you do not need this function. Otherwise, the VTO might be exposed to security risks and data leakage. |
| Password Reset | If turned off, you will not be able to reset password. |

| Parameter | Description |
| --- | --- |
| ONVIF | Allow third-party to pull video stream of the VTO through the ONVIF protocol.<br>We recommend turning it off. Otherwise, the VTO might be exposed to security risks and data leakage. |
| Outbound Service Information Protection | Protect your passwords.<br>We recommend you turn it on. Otherwise, the VTO might be exposed to security risks and data leakage. |
| Multicast/Broadcast Search | Enable it so that the VTO will be found by other devices.<br>We recommend you turn it off. Otherwise, the VTO might be exposed to security risks and data leakage. |
| Authentication Mode | • **Security Mode** (recommended): Support logging in with Digest authentication.<br>• **Compatibility Mode** : Use the old login method.<br>We recommend you use the security mode. Compatible mode might expose the VTO to security risks and data leakage. |
| Emergency Maintenance | For easy access to our after-sales service, enable this function. If the device has any trouble performing functions, such as updating, the system will automatically enable this function. |
| Password Expires in | • Select an expiration period from **30** days, **60** days, **90** days, **180** days, **Custom** and **Never**.<br>• If you select **Custom**, you need to configure an expiration day between 0 and 180. |
| Private Protocol | Before enabling private protocol TLS, make sure that the corresponding device or software supports this function. |
| TLSv1.1 | We recommend you turn it off because there might be safety risk if this service is enabled. |

Step 3 Click **Apply**.

# 11 Log Management

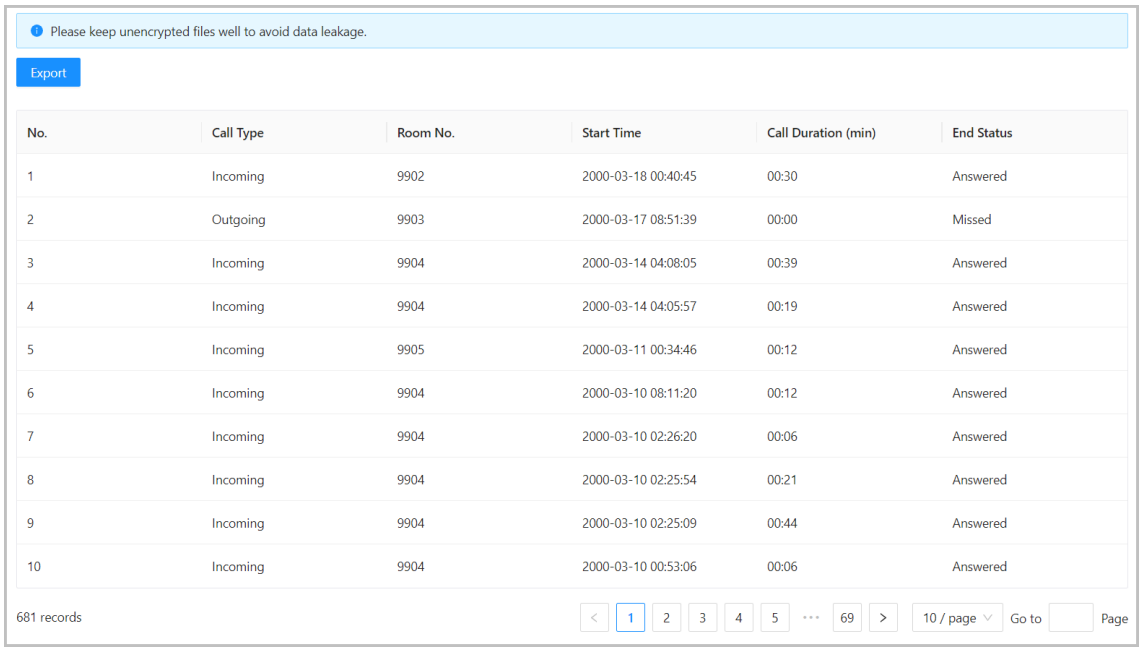
Select **Log**. You can search for different logs, and export them to your local computer.

If storage is full, the oldest records will be overwritten. Back up the records in time.

## 11.1 Call History

Select **Log** > **Call History**.

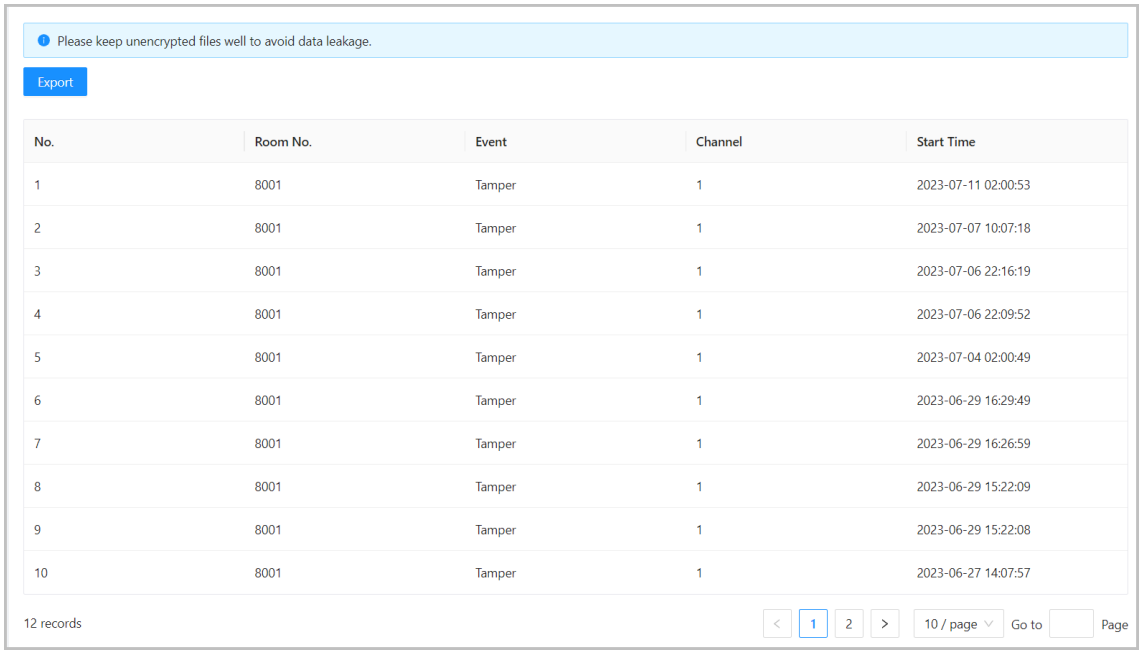
Figure 11-1 Call history




## 11.2 Alarm Logs

Select **Log** > **Alarm Logs**.

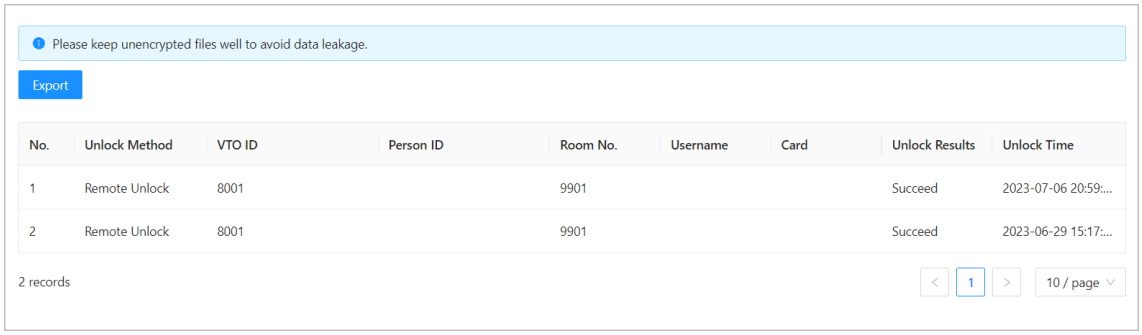
Figure 11-2 Alarm




# 11.3 Unlock Records

Select **Log** > **Unlock Records**.

Figure 11-3 Unlock

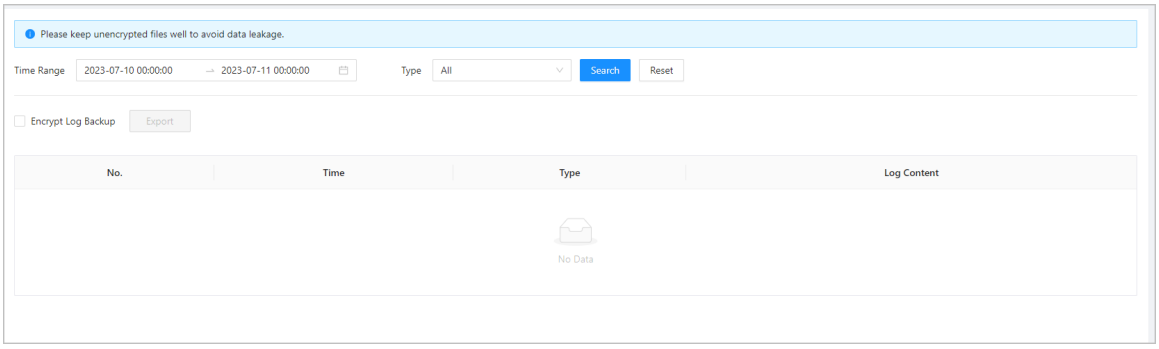



# 11.4 Log

Select **Log** > **Log**.

Select time range and type, and then you can see all the log information.

Figure 11-4 Log

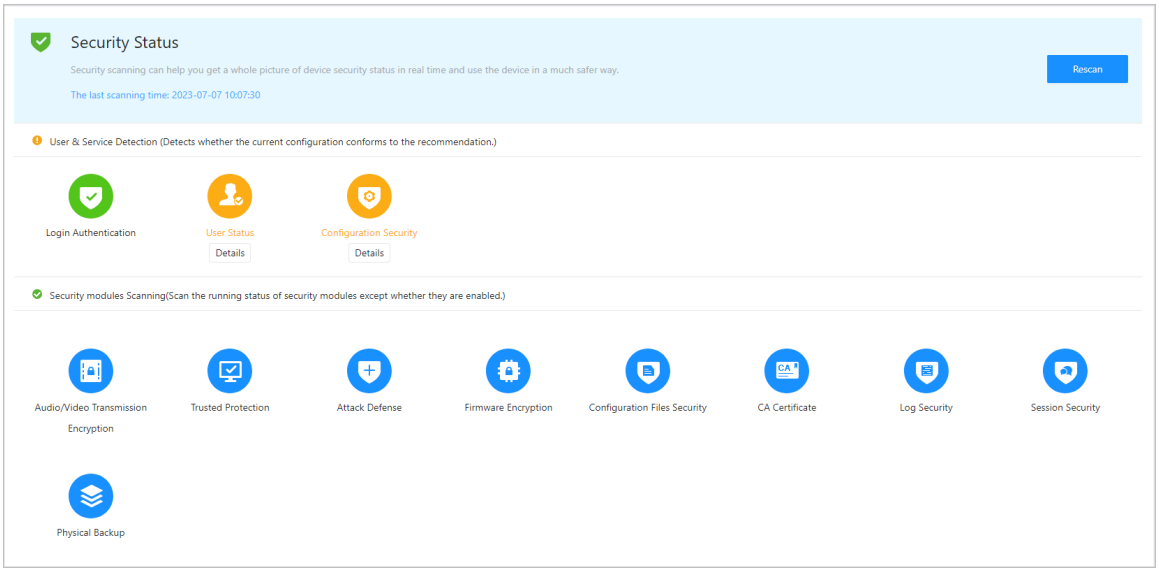


# 12 Security Management

## 12.1 Security Status

On the home page, click , and then select **Security Status**.

Figure 12-1 Security status



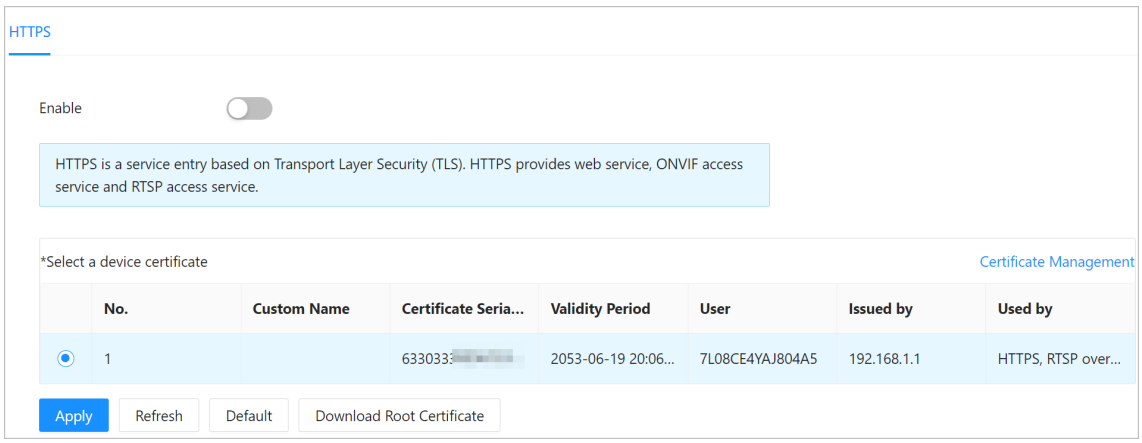

## 12.2 System Service

### Procedure

Step 1 On the home page, click , and then select **System Service**.

Step 2 Select a device certificate, and then enable the HTTPS function.

Figure 12-2 System service




Step 3 Click **Apply**.

# 12.3 Attack Defense

## 12.3.1 Firewall

You can enable different firewall types to control network access to the VTO.

### Procedure

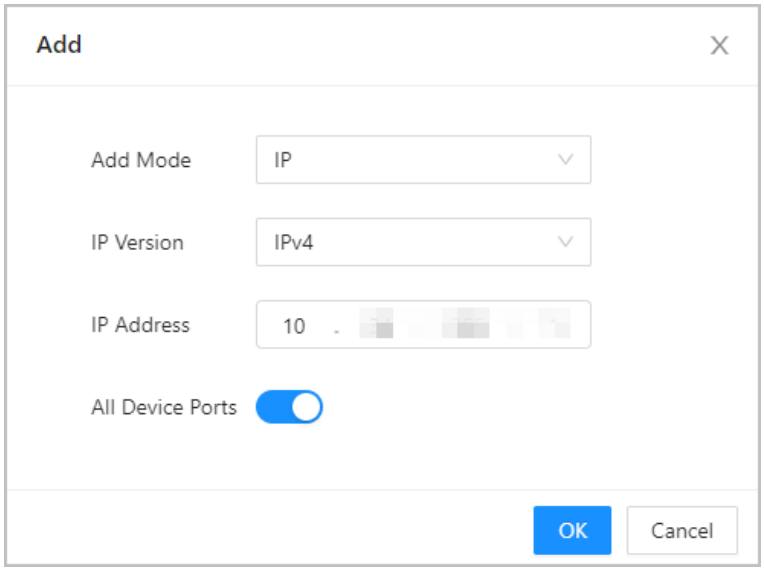
Step 1 On the home page, click , and then select **Attack Defense** > **Firewall**.

Step 2 Select the **Mode** as either **Allowlist** or **Blocklist**.

- Allowlist: Devices that have been granted an access.
- Blocklist: Devices that have been forbidden an access.

Step 3 Click **Add** to add the IP address for allowlist or blocklist.

Figure 12-3 Add

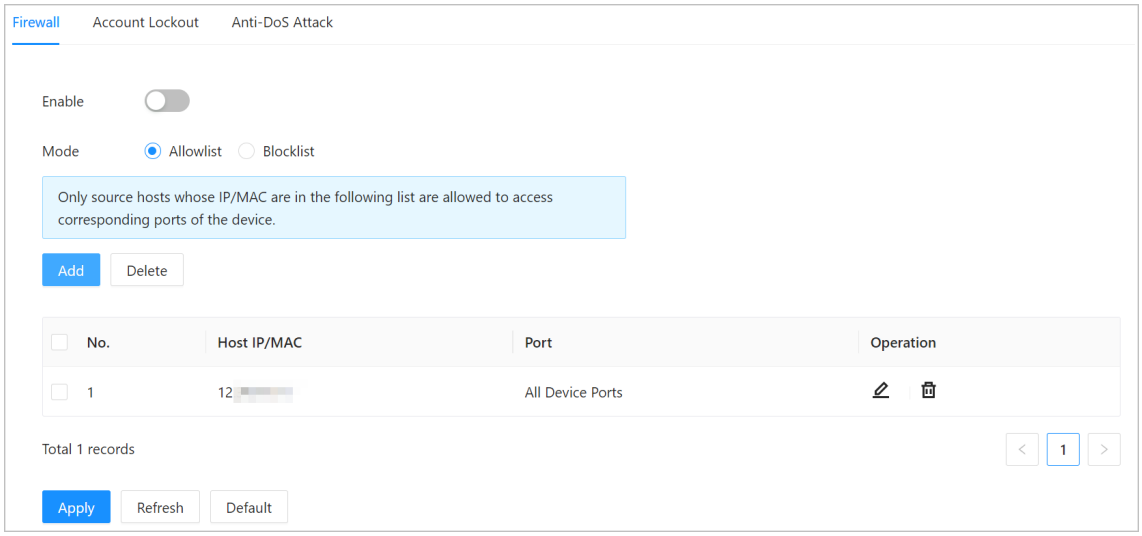



Step 4 Click **OK**.

Step 5 Click next to **Enable**.

Step 6 Select an added IP address for allowlist or blocklist, and then click **Apply**.

Figure 12-4 Apply



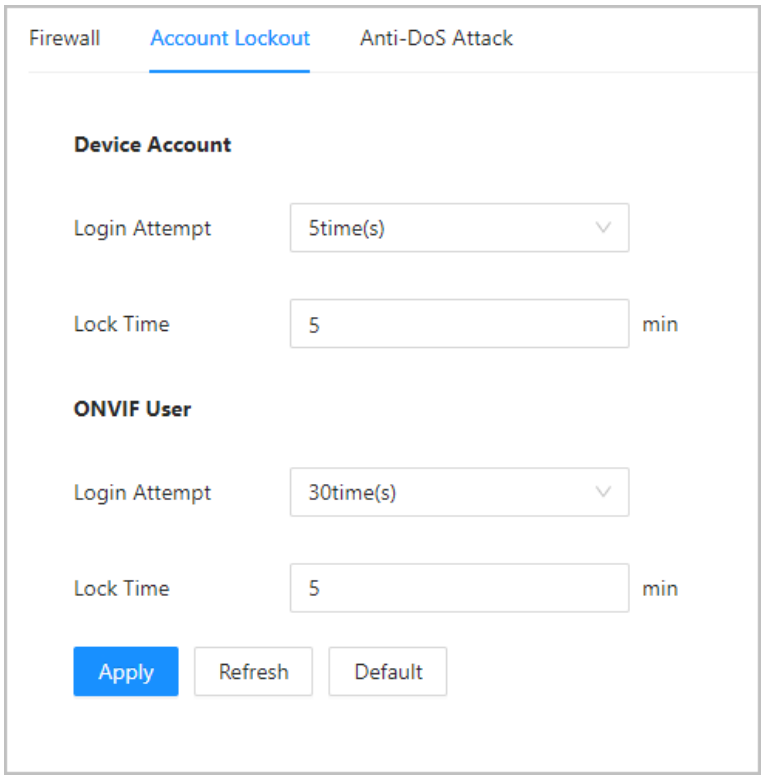

## 12.3.2 Account Lockout

### Procedure

Step 1 On the home page, click , and then select **Attack Defense** > **Account Lockout**.

Step 2 Configure the login attempts and lock time.

Figure 12-5 Account lockout




Step 3 Click **Apply**.

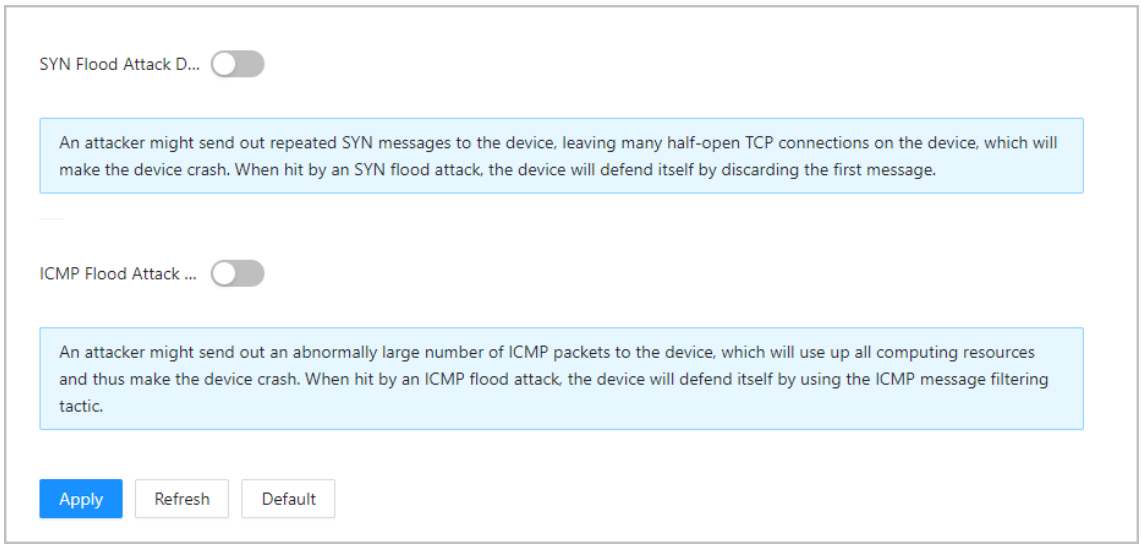
### 12.3.3 Anti-DoS Attack

#### Procedure

Step 1 On the home page, click , and then select **Attack Defense** > **Anti-DoS Attack**.

Step 2 Enable or disable the **SYN Flood Attack Defense** or **ICMP Flood Attack Defense** function.

Figure 12-6 Anti-DoS attack




Step 3 Click **Apply**.

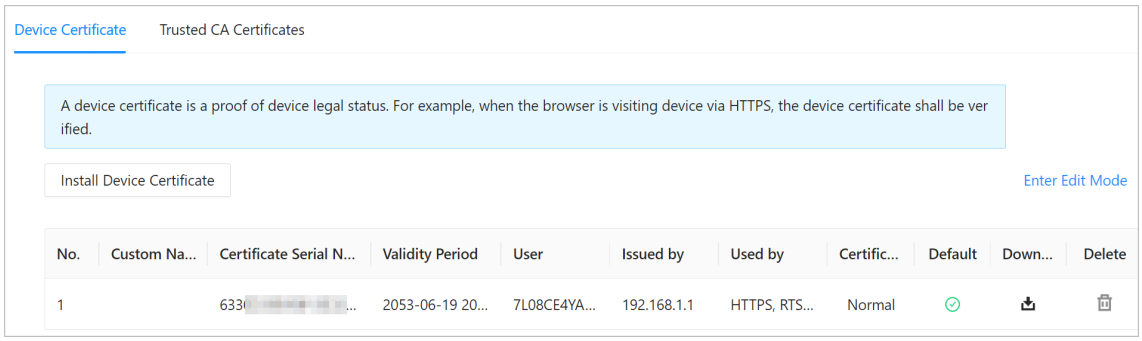
## 12.4 CA Certificate

#### Procedure

Step 1 On the home page, click , and then select **CA Certificate**.

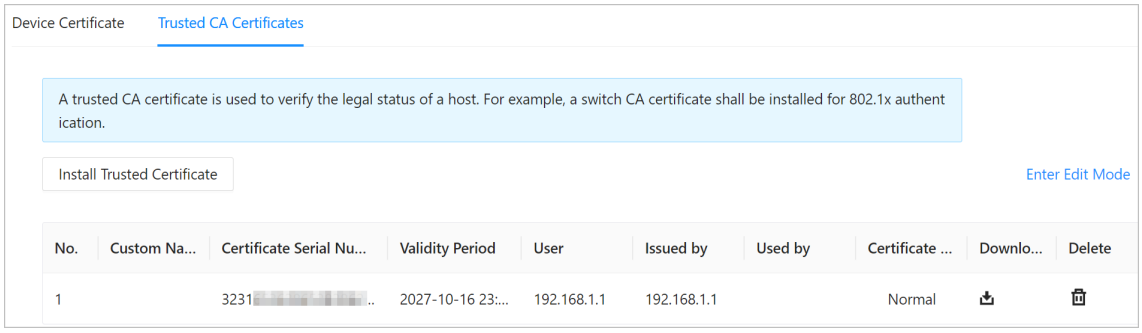
- Device Certificate

Figure 12-7 Device Certificate




- Trusted CA Certificates

Figure 12-8 Trusted CA Certificates



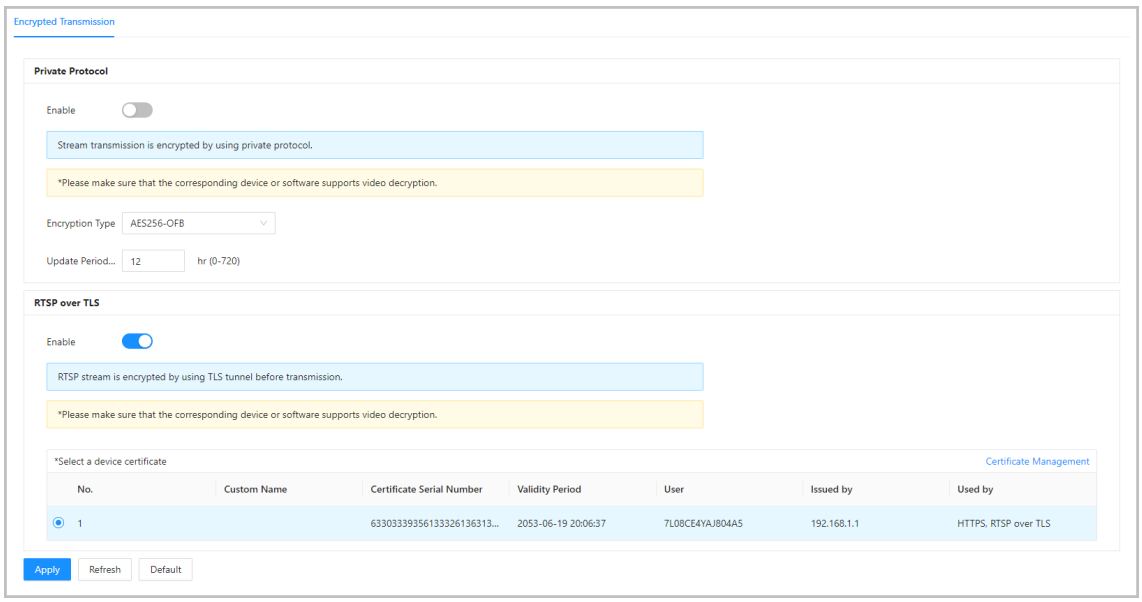

# 12.5 Video Encryption

## Procedure

Step 1 On the home page, click , and then select **Video Encryption**.

Step 2 Configure **Private Protocol** and **RTSP over TLS** parameters.

Figure 12-9 Video encryption




Step 3 Click **Apply**.

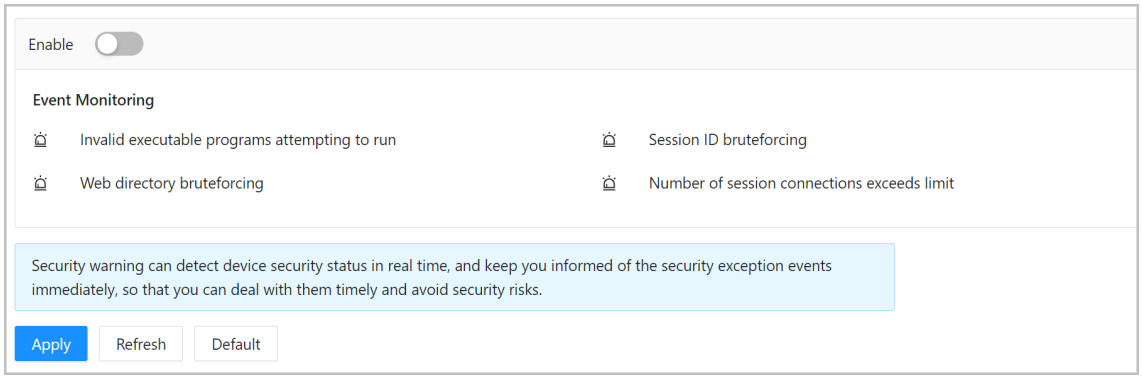
# 12.6 Security Warning

## Procedure

Step 1 On the home page, click , and then select **Security Warning**.

Step 2 Enable event monitoring function, and then click **Apply**.

Figure 12-10 Security warning



# 13 Button Model Configuration

The button model can be connected to the VTH to work as an alarm input button. Press the button on the front panel of the model, and then the VTH receives an alarm signal.

## 13.1 Cable Connection

Connect the KEY port of the button model to any one of the alarm input ports of the indoor monitor (VTH) with a cable thread.

Figure 13-1 Button model

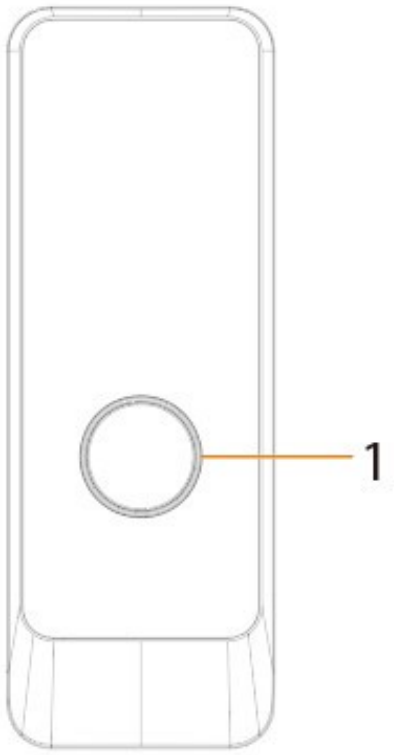
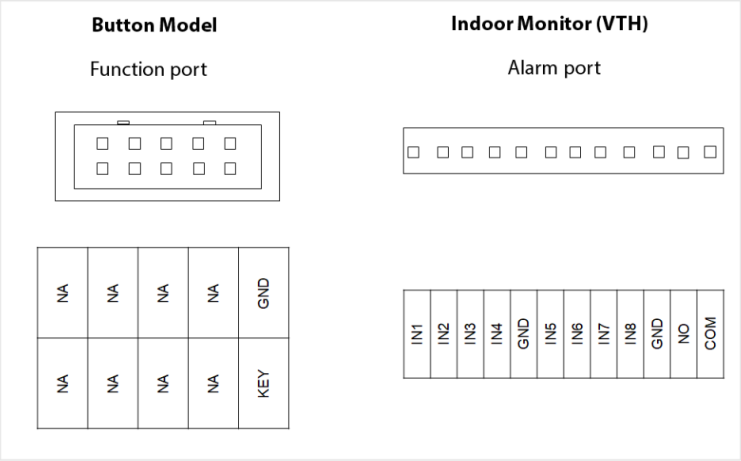



Table 13-1 Component

| No. | Name | Function |
|---|---|---|
| 1 | Press button | The button model can be connected to the VTH. Press the button on the model and the VTH receives an alarm signal. |

Figure 13-2 Cable connection




## 13.2 VTH Configuration

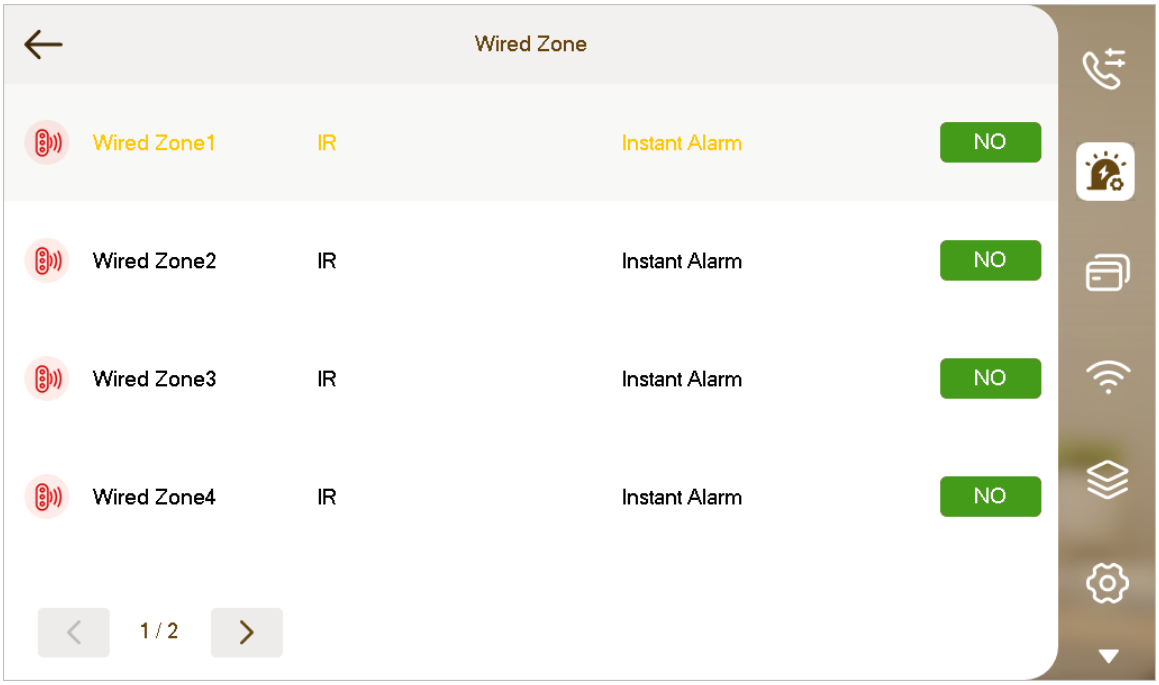
After completing cable connection, you need to set the **wired zone type** as **Doorbell** on the VTH to receive alarm signals once you press the button model.

### Procedure

Step 1 Power on the VTH.

Step 2 Select **Setting** > **Alarm** > **Wired Zone** on the VTH.

Figure 13-3 Wired zone setting




Step 3 Set the **Type** as **Doorbell**, and configure the rest of the parameters.

Table 13-2 Parameter description

| Parameter | Description |
|---|---|
| Area | The number cannot be modified. |
| NO/NC | Select NO (normally open) or NC (normally closed) according to detector type. It must be the same as detector type. |
| Type | Select corresponding type according to detector type. |
| Status | • **Instant Alarm** : After armed, if an alarm is triggered, the device produces siren at once and enters alarm status.<br>• **Delay Alarm** : After armed, if an alarm is triggered, the device enters alarm status after a specified time, during which you can disarm and cancel the alarm.<br>• **Bypass** : Alarm will not be triggered in the area. After disarmed, this area will restore to normal working status.<br>• **Remove** : The area is invalid during arm/disarm.<br>• **24 Hour** : Alarm will be triggered all the time in the area regardless of arm or disarm.<br>  <br>A zone in **Remove** status cannot be bypassed. |
| Enter Delay | After entering delay, when armed area triggers an alarm, entering armed area from non-armed area within the delay time period will not lead to linkage alarm. Linkage alarm will be produced if delay time comes to an end and it is not disarmed. |
| Exit Delay | After arm, **Delay Alarm** area will enter arm status at the end of **Exit Delay**.<br>  <br>If multiple areas set the exit delay, screen prompt will conform to maximum delay time. |

Delay is only valid to the areas of **Delay Alarm**.

# Appendix 1 Security Recommendation

## Account Management

1. **Use complex passwords**

   Please refer to the following suggestions to set passwords:

   - The length should not be less than 8 characters;
   - Include at least two types of characters: upper and lower case letters, numbers and symbols;
   - Do not contain the account name or the account name in reverse order;
   - Do not use continuous characters, such as 123, abc, etc.;
   - Do not use repeating characters, such as 111, aaa, etc.
2. **Change passwords periodically**

   It is recommended to periodically change the device password to reduce the risk of being guessed or cracked.
3. **Allocate accounts and permissions appropriately**

   Appropriately add users based on service and management requirements and assign minimum permission sets to users.
4. **Enable account lockout function**

   The account lockout function is enabled by default. You are advised to keep it enabled to protect account security. After multiple failed password attempts, the corresponding account and source IP address will be locked.
5. **Set and update password reset information in a timely manner**

   The device supports password reset function. To reduce the risk of this function being used by threat actors, if there is any change in the information, please modify it in time. When setting security questions, it is recommended not to use easily guessed answers.

## Service Configuration

1. **Enable HTTPS**

   It is recommended that you enable HTTPS to access web services through secure channels.
2. **Encrypted transmission of audio and video**

   If your audio and video data contents are very important or sensitive, it is recommended to use encrypted transmission function in order to reduce the risk of your audio and video data being eavesdropped during transmission.
3. **Turn off non-essential services and use safe mode**

   If not needed, it is recommended to turn off some services such as SSH, SNMP, SMTP, UPnP, AP hotspot etc., to reduce the attack surfaces.

   If necessary, it is highly recommended to choose safe modes, including but not limited to the following services:

   - SNMP: Choose SNMP v3, and set up strong encryption and authentication passwords.
   - SMTP: Choose TLS to access mailbox server.
   - FTP: Choose SFTP, and set up complex passwords.
   - AP hotspot: Choose WPA2-PSK encryption mode, and set up complex passwords.
4. **Change HTTP and other default service ports**

   It is recommended that you change the default port of HTTP and other services to any port between 1024 and 65535 to reduce the risk of being guessed by threat actors.

## Network Configuration

1. **Enable Allow list**

   It is recommended that you turn on the allow list function, and only allow IP in the allow list to access the device. Therefore, please be sure to add your computer IP address and supporting device IP address to the allow list.
2. **MAC address binding**

   It is recommended that you bind the IP address of the gateway to the MAC address on the device to reduce the risk of ARP spoofing.
3. **Build a secure network environment**

   In order to better ensure the security of devices and reduce potential cyber risks, the following are recommended:

   - Disable the port mapping function of the router to avoid direct access to the intranet devices from external network;
   - According to the actual network needs, partition the network: if there is no communication demand between the two subnets, it is recommended to use VLAN, gateway and other methods to partition the network to achieve network isolation;
   - Stablish 802.1x access authentication system to reduce the risk of illegal terminal access to the private network.

## Security Auditing

1. **Check online users**

   It is recommended to check online users regularly to identify illegal users.
2. **Check device log**

   By viewing logs, you can learn about the IP addresses that attempt to log in to the device and key operations of the logged users.
3. **Configure network log**

   Due to the limited storage capacity of devices, the stored log is limited. If you need to save the log for a long time, it is recommended to enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

## Software Security

1. **Update firmware in time**

   According to the industry standard operating specifications, the firmware of devices needs to be updated to the latest version in time in order to ensure that the device has the latest functions and security. If the device is connected to the public network, it is recommended to enable the online upgrade automatic detection function, so as to obtain the firmware update information released by the manufacturer in a timely manner.
2. **Update client software in time**

   It is recommended to download and use the latest client software.

## Physical Protection

It is recommended that you carry out physical protection for devices (especially storage devices), such as placing the device in a dedicated machine room and cabinet, and having access control

and key management in place to prevent unauthorized personnel from damaging hardware and other peripheral equipment (e.g. USB flash disk, serial port).