

## **Two-Wire Video Intercom Bundle**

Quick Start Guide

### **Regulatory Information**

#### **FCC Information**

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**FCC compliance:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

#### **FCC Conditions**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

#### **EU Conformity Statement**



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: <a href="https://www.recyclethis.info">www.recyclethis.info</a>



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info

#### **Industry Canada ICES-003 Compliance**

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and

(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radioexempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This equipment should be installed and operated with a minimum distance 20cm between the radiator and your body.

Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps.

#### **Available Models**

This manual is applicable to the two-wire video intercom bundle.

This bundle includes 1 indoor station (DS-KH8340-TCE2), 1 villa door station (DS-KV8103-IME2) and 1 video/audio distributor (DS-KAD709).

#### **Symbol Conventions**

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

Symbol	Description				
DANGER	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.				
<b>!</b> WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.				
NOTE	Provides additional information to emphasize or supplement important points of the main text.				

#### Safety Instruction



#### WARNING

- The working temperature of the indoor station is from -10 °C to 55 °C.
- The working temperature of the door station is from -30 °C to 60 °C.
- The working temperature of the video/audio distributor is from -10 °C to 55 °C.
- All the electronic operation should be strictly compliance with the electrical safety regulations, fire prevention regulations and other related regulations in your local region.
- Please use the power adapter, which is provided by normal company. The power consumption cannot be less than the required value.
- Do not connect several devices to one power adapter as adapter overload may cause over-heat or fire hazard.
- Please make sure that the power has been disconnected before you wire, install or dismantle the device.
- When the product is installed on wall, the device shall be firmly fixed.
- If smoke, odors or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the device yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)



#### WARNING

- Do not drop the device or subject it to physical shock, and do not expose it to high electromagnetism radiation. Avoid the equipment installation on vibrations surface or places subject to shock (ignorance can cause equipment damage).
- Do not place the device in extremely hot (refer to the specification of the device for the detailed operating temperature), cold, dusty or damp locations, and do not expose it to high electromagnetic radiation.
- The device cover hall be kept from rain and moisture.
- Exposing the equipment to direct sun light, low ventilation or heat source such as heater or radiator is forbidden (ignorance can cause fire danger).
- Do not aim the device at the sun or extra bright places. A blooming or smear may occur otherwise (which is not a malfunction however), and affecting the endurance of sensor at the same time.
- Please use the provided glove when open up the device cover, avoid direct contact with the device cover, because the acidic sweat of the fingers may erode the surface coating of the device cover.
- Please use a soft and dry cloth when clean inside and outside surfaces of the device cover, do not use alkaline detergents.
- Please keep all wrappers after unpack them for future use. In case of any failure occurred, you need to return the device to the factory with the original wrapper.

Transportation without the original wrapper may result in damage on the device and lead to additional costs.

 The power supply must conform to LPS. The recommended adaptor models and manufacturers are shown as below. Use the attached adapter, and do not change the adaptor randomly.

Model	Manufacturer	
KPL-060M-II	Channel Well Technology Co., Ltd.	

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# **1** Appearance Description

## 1.1 Indoor Station

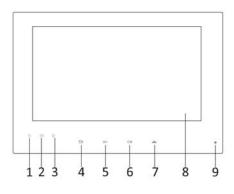


Figure 1-1 Front Panel

No.	Description		
1	Power Supply Indicator		
2	Information Indicator		
3	Alarm Indicator		
4	Call Accept/Decline Key		
5	Unlock Key		
6	Live View Key		
7	Management Center Key		
8	LCD Display Screen		
9	Microphone		

Table 1-1 Components Description

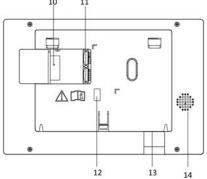


Figure 1-2 Rear Panel

Table 1-2 Components Description

No.	Description		
10	Two-Wire Interface		
11	Terminals		
12	Serial Port		
13	TF Card Slot		
14	Loudspeaker		

### 1.2 Door Station

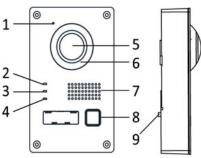


Figure 1-3 Door Station Appearance

Table 1-3 Components Description

No.	Description
1	Microphone
2	Calling Indicator
3	Speaking Indicator
4	Open Door Indicator
5	Built-in Camera
6	Supplement Light
7	Loudspeaker
8	Call Button
9	Tamper Button



- The calling indicator turns yellow when calling.
- The speaking indicator turns red when speaking.
- The open door indicator turns blue when the door opening.

## 1.3 Video/Audio Distributor

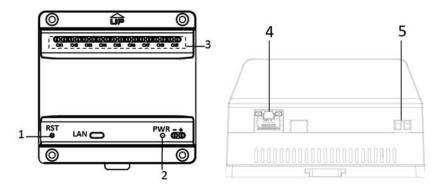


Figure 1-4 Video/Audio Distributor Appearance

Table 1-4 Components Description

No.	Description			
1	Reset Button			
2	Power Indicator			
3	Two-Wire Interface			
4	RJ-45 Interface			
5	Power Supply Interface			

# 2 Terminal and Wiring

## 2.1 Terminals and Interfaces

## **2.1.1 Indoor Station Terminals**

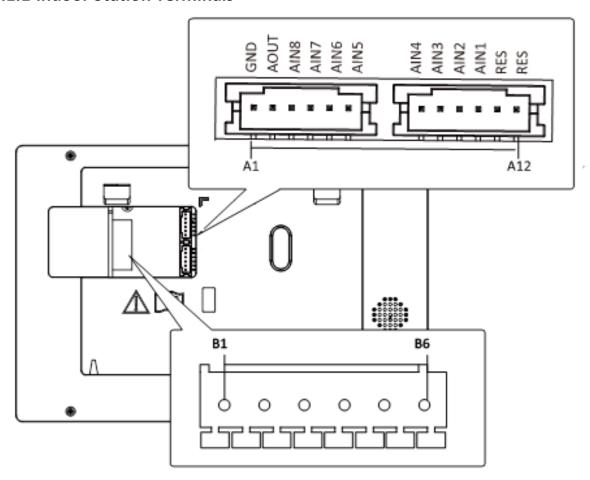


Figure 2-1 Indoor Station Terminals

Table 2-1 Descriptions of Terminals and Interfaces

Name	No.	Interface	Description	
Grounding	A1	GND	Grounding	
ALARM OUT	A2	AOUT	Alarm Relay Out	
ALARM IN	А3	AIN8	Zone Detector Input Terminal 8	
	A4	AIN7	Zone Detector Input Terminal 7	

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Name	No.	Interface	Description		
	A5	AIN6	Zone Detector Input Terminal 6		
	A6	AIN5 Zone Detector Input Terminal 5			
	A7	AIN4 Zone Detector Input Terminal 4			
	A8	AIN3	Zone Detector Input Terminal 3		
	A9	AIN2	Zone Detector Input Terminal 2		
	A10	AIN1	Zone Detector Input Terminal 1		
DEC	A11	RES	Reserved		
RES	A12	RES	Reserved		
	B1				
	B2		3 groups of two-wire interfaces (B1 and B2,		
Power Supply and Network Transmission	В3	Two-Wire	B3 and B4, B5 and B6) for power supply and network transmission of the indoor station.		
	B4	Interface	network transmission of the indoor station.		
	B5				
	В6				

## **2.1.2 Door Station Terminals**

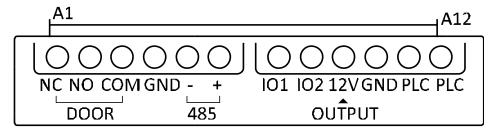


Figure 2-2 Door Station Terminals

Table 2-2 Descriptions of Terminals and Interfaces

Name	No.	Interface	Description	
	A1	NC	Normally Close	
	A2	NO	Normally Open	
	A3 COM		COM Port	
Terminals	A4	GND	Grounding	
	A5	485-	Reserved	
	A6	485+	Reserved	
	A7	IO1	Alarm Input 1	

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Name	No.	Interface	Description	
		102	Alarm Input 2	
	A9	12V	Power Supply Output	
	A10	GND	Grounding	
	A11	PLC	Power Input	
A12 PLC		PLC	Power Output	

### 2.1.3 Video/audio Distributor Terminals and Interfaces



Figure 2-3 Video/audio distributor Terminals

The video/audio distributor contains 9 groups of two-wire interfaces for the access of other devices.

## 2.2 Wiring



#### **Cautions**

Make sure all the related equipment is power-off during the installation.

Choose power cables according to the distance between the door station and the video/audio distributor.

Cable	Resistance per 100 m	Max. Transmission Distance	Max. Distance (Door station doesn't supply power for electric lock.)	Max. Distance (Door station supplies power for electric lock.)
24AWG	10 Ω	50 m	50 m	30 m
20AWG	7 Ω	100 m	100 m	80 m
18AWG	4 Ω	150 m	150 m	100 m



- The input voltage for electric lock is 12 V and the maximum current is 200 mA.
- When use the wire in network cable as the 24AWG cable, use two wires connect to one device and spare the other six.

Wire the three devices with power supply cables as the picture shown below.

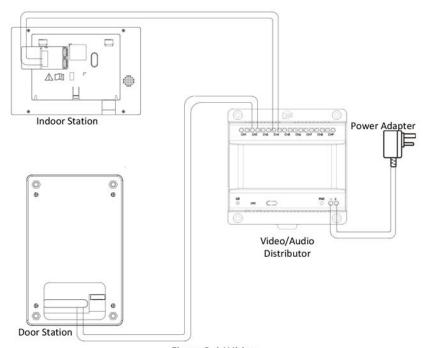


Figure 2-4 Wiring



It's suggested to connect only one video/audio distributor to one switch. If you need to connect more than one video/audio distributor to the switch, please set the PLC channel.

It's suggested to set the PLC channel when there are two or more sets of bundles in use and the distance between the wires of two bundles are less than 1 m. The PLC channel function is made to avoid crosstalk between channels.

The steps as follow:

#### Steps:

1. Press call button on the door station for 20 seconds to enable PLC setting mode.

The door station plays 8 rings on a continuous loop.

- 2. Press the button during the ring you selected.

  The door station prompts "Setting succeeded." after 1 to 2 mins.
- 3. Check the PLC setting on the indoor station.

# 3 Installation

## 3.1 Indoor Station Installation

#### **Installation Accessory Description**

The wall mounting plate is required to install the indoor station onto the wall.

The dimension of wall mounting plate is shown in below.

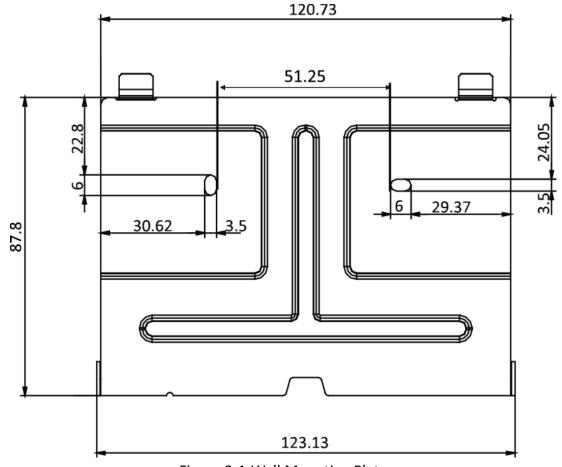


Figure 3-1 Wall Mounting Plate

#### **Mount Indoor Station**

#### Before you start:

- Make sure the device in the package is in good condition.
- Make sure all the related equipment is power-off during the installation.
- Connect cables to the indoor station before mounting.

#### Steps:

- 1. Fix the wall mounting plate to the wall with 2 screws.
- 2. Hook the indoor station to the wall mounting plate tightly by inserting the plate hooks into the slots on the rear panel of the indoor station, during which the lock catch will be locked automatically.

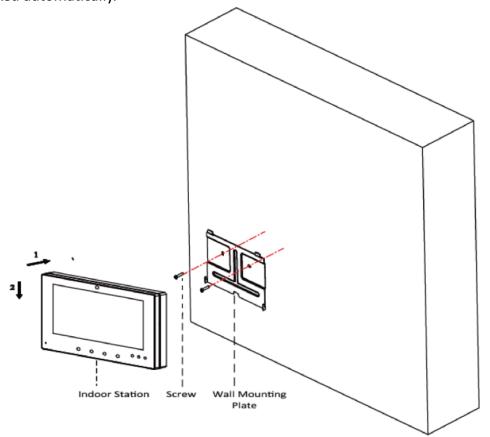


Figure 3-2 Hooking the Indoor Station to the Plate

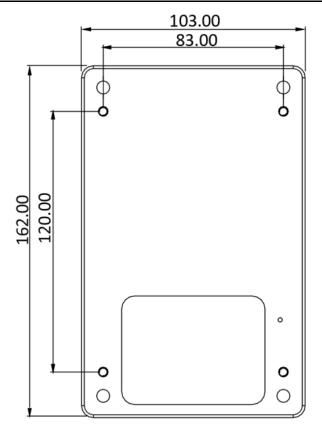
## 3.2 Door Station Installation

The door stations supports flush mounting and surface mounting.

## 3.2.1 Flush Mounting

#### **Installation Accessory Description**

To install the door station into the wall, you are required to utilize a matched gang box. The dimension of gang box is shown in below.



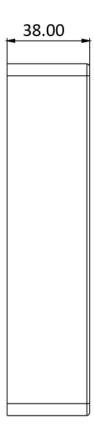


Figure 3-3 Gang Box

#### Before you start:

- Make sure the device in the package is in good condition.
- Make sure all the related equipment is power-off during the installation.
- Connect cables to the door station before mounting.

#### Steps:

- 1. Take the gang box and screws from the packing box.
- 2. Chisel a hole in the wall. The size of the hole should be 104 mm (width)  $\times$  163 mm (length)  $\times$  39 mm (depth).
- 3. Insert the gang box to the hole chiseled on the wall, fix the gang box with 4 screws.
- 4. Install the door station into the gang box, and fix it with 4 screws.

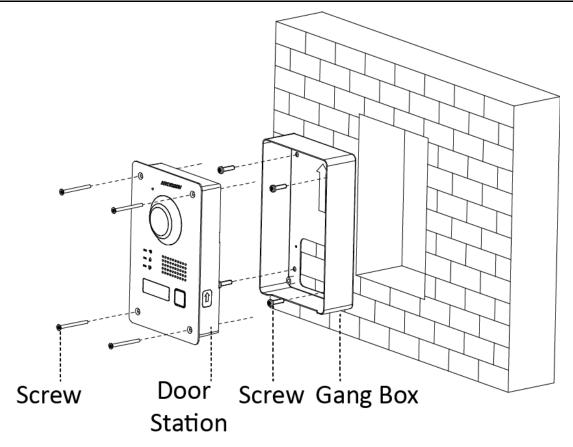


Figure 3-4 Flushing Mounting

#### 3.2.2 Surface Mounting

For surface mounting, you are required to utilize a matched gang box or protective shield.

Protective shield is a separate purchase. The suggested dimension of the protective shield is: 113.4 mm (width)  $\times$  184.4 mm (length)  $\times$  60.55 mm (depth).

#### Before you start:

- Make sure the device in the package is in good condition.
- Make sure all the related equipment is power-off during the installation.
- Connect cables to the door station before mounting.

#### Steps:

- 1. Take the door station and screws from the packing box.
- 2. Fix the protective shield (or gang box) onto the wall with 4 screws
- 3. Install the door station into the protective shield (or gang box), and fix it with 4 screws.

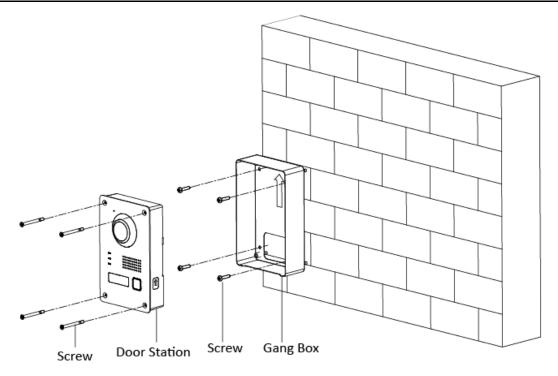


Figure 3-5 Surface Mounting with Gang Box

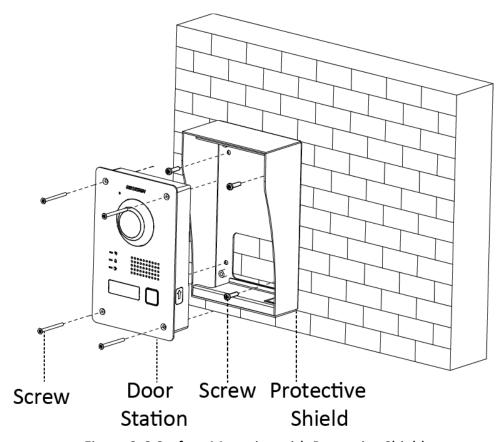


Figure 3-6 Surface Mounting with Protective Shield

## 3.3 Video/Audio Distributor Installation

You can mount the video/audio distributor with screws or DIN rail.

#### Before you start:

- Make sure the device in the package is in good condition.
- Make sure all the related equipment is power-off during the installation.
- Check the product specification for the installation environment.

#### Mode 1

#### Steps:

- 1. Take the video/audio distributor and screws from the packing box.
- 2. Fix the video/audio distributor onto the wall with 4 screws, as shown in the figure below.

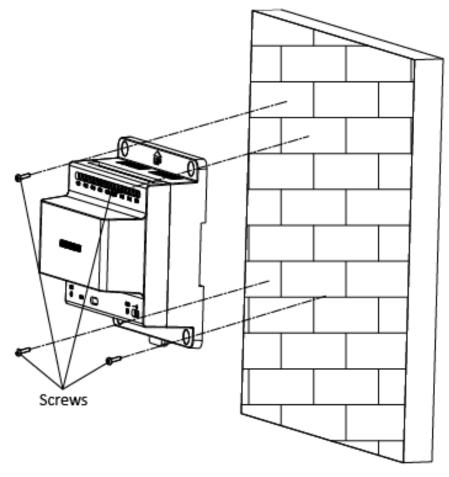


Figure 3-7 Fix the Video/Audio Distributor

#### Mode 2

#### Steps:

1. Take the video/audio distributor from the packing box.

2. Fix the DIN rail onto the wall.



You are required to utilize a matched DIN rail.

The suggested dimension for the DIN rail as below

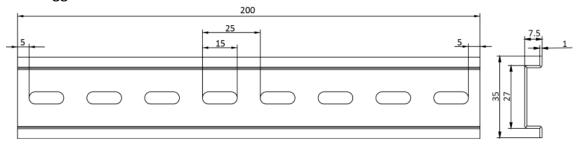


Figure 3-8 DIN Rail Dimension

3. Press the red clip upward, and lock it to the DIN rail.

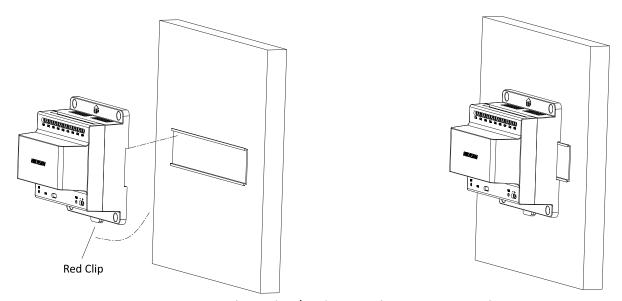


Figure 3-9 Fix the Video/Audio Distributor to DIN Rail

## **4 Getting Started**

## 4.1 Activate Device via Batch Configuration Tool

#### Purpose:

You are required to activate the device first by setting a strong password for it before you can use the device. The three devices can be activated in the same way.

Activation via Batch Configuration Tool, and Activation via iVMS-4200 are supported. Here take activation via Batch Configuration Tool as example to introduce the device activation. Please refer to the user manual for the activation via iVMS-4200.

#### Before you start:

- Make sure the video/audio distributor is connected to the internet via network cable.
- Make sure the indoor station and door station are connected to the video/audio distributor via power cables.
- Make sure all devices are power-on during the activation.
- The bundle doesn't need to work with master station, SIP server, etc.

#### Steps:

1. Run the Batch Configuration Tool.

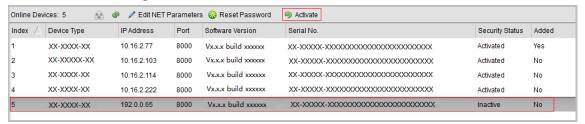


Figure 4-1 Select Inactive Device

2. Select an inactivated device and click the **Activate** button.

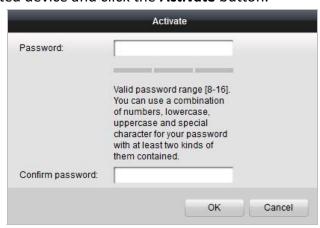


Figure 4-2 Activation

3. Create a password, and confirm the password.

strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters.) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security

recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

4. Click the **OK** button to activate the device.



- When the device is not activated, the basic operation and remote operation of device cannot be performed.
- You can hold the **Ctrl** or **Shift** key to select multiple devices in the online devices, and click the **Activate** button to activate devices in batch.

## **4.2 Editing Network Parameters**

#### Purpose:

To operate and configure the device via LAN (Local Area Network), you need connect the device in the same subnet with you PC. You can edit network parameters via batch configuration tool, and iVMS-4200 software. Here take editing network parameters via batch configuration tool as example.

#### Steps:

Select an online activated device and click the Edit NET Parameters button.



Figure 4-3 Click Edit NET Parameters Button

- Change the device IP address and gateway address to the same subnet with your computer.
- 3. Enter the password and click the OK button to activate the network parameters modification.

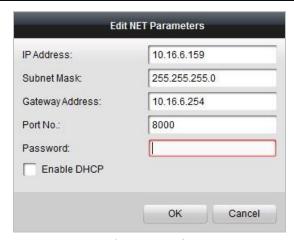


Figure 4-4 Edit Network Parameters



- The default port No. is 8000.
- After editing the network parameters of device, you should add the devices to the device list again.

## 4.3 Adding Device

For batch configuration tool and iVMS-4200 software, you should add device to the software so as to configure the device remotely.

3 ways for adding the device are supported: adding active online devices within your subnet, adding device by IP address, and adding device by IP segment. Here take adding online device and adding device by IP address via batch configuration tool as example.

## 4.3.1 Adding Online Devices

#### Steps:

1. Select an active online device or hold the **Ctrl** or **Shift** key to select multiple devices in the online devices list.



Figure 4-5 Online Devices Interfaces

2. Click the 🔒 button to pop up the login dialog box.



Figure 4-6 Login Dialog Box

- 3. Enter the user name and password.
- 4. Click the **OK** button to save the settings.



- Only devices successfully logged in will be added to the device list for configuration.
- If you add devices in batch, please make sure selected devices have the same user name and password.

### 4.3.2 Adding by IP Address

#### Purpose:

You can add the device by entering IP address.

#### Steps:

1. Click the 🛨 button to pop up the adding devices dialog box.

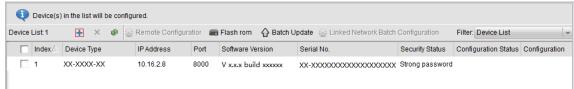


Figure 4-7 Click Adding Button

- 2. Select IP Address in the adding mode drop-down list.
- 3. Enter the IP address, and set the port No., user name and password of the device.

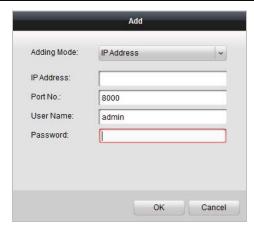


Figure 4-8 Add by IP Address

4. Click the **OK** button to add the device to the device list.



- You cannot add the device(s) to the device list if the user name and password are not identical.
- When you add devices by IP Address, or IP Segment, the devices should be online devices.

## 4.4 Set Indoor Station

#### 4.4.1 Set Room No.

You can set the indoor station No. via batch configuration tool remotely. You can dial the Room No. to call the indoor station resident.



Make sure you have activated the indoor station, and add it to the batch configuration tool.

#### Steps:

1. Click **Remote Configuration->ID Configuration** to enter the ID configuration page.



Figure 4-9 Set the Indoor Station Room No.

- 2. Select the device type as **Indoor Station**, and set the Room No.
- 3. Click Save.

#### 4.4.2 Set Linked Network Parameters

Linked network configuration is a basic setting for the communication among devices.



Make sure you have activated the indoor station, and add it to the batch configuration tool.

#### Steps:

1. Click **Remote Configuration->Network >Linked Network Configuration** to enter the linked network configuration page.



Figure 4-10 Linked Network Configuration

- 2. Enter the IP address of linked devices based on your requirements.

  For example, we set the door station IP address as 10.15.3.208, so as to realize the communication between the door station and the indoor station.
- 3. Click Save.

## 4.5 Add Device to App

You can realize remote control via the App.

You need to set up the app and add the door station to Hik-Connect by scanning the QR code on the door station or entering the device serial number.

## 4.5.1 Set up the App

### Before You Start

Make sure your mobile device has been connected to Wi-Fi.

# **5 Video Intercom Operation**

You can call the resident by pressing the call button.

#### Steps:

- 1. Press the call button of the door station.
- 2. The resident can receive/decline the video call, unlock the door, etc.



- When the video intercom between you and the resident is realized, you can speak to the resident, and the live view of door station will be displayed on the connected indoor station.
- When the door station is calling the resident, the door station will detect the brightness of video automatically. When the brightness is lower than the expected threshold, the supplement light will be enabled.
- When the supplement light is enabled, the backlight of key will be auto-enabled, otherwise, the door station will detect the brightness of live view and enable the backlight of key when the brightness of live view is lower than expected threshold.

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# **Appendix**

## **Installation Notice**

While installing the door station, please make sure that the distance between any two devices is far as possible to avoid the howling and echo. The distance between two devices is recommended to be longer than 10 meters.



Devices here refer to indoor station, door station, and video/audio distributor.