HIKVISION

Video Door Phone

User Manual

Legal Information

This user manual is intended for users of the models below:

Product	Model
Video Door Phone	DS-KIS204T
Door Station	DS-KB2411T-IM
Indoor Station	DS-KH2220-S

About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the Hikvision website (***https://www.hikvision.com/***).

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

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Disclaimer

YOU AGREE TO USE THIS PRODUCT IN COMPLIANCE WITH ALL APPLICABLE LAWS, AND YOU ARE SOLELY RESPONSIBLE FOR ENSURING THAT YOUR USE CONFORMS TO THE APPLICABLE LAW. ESPECIALLY, YOU ARE RESPONSIBLE, FOR USING THIS PRODUCT IN A MANNER THAT DOES NOT INFRINGE ON THE RIGHTS OF THIRD PARTIES, INCLUDING WITHOUT LIMITATION, RIGHTS OF PUBLICITY, INTELLECTUAL PROPERTY RIGHTS, OR DATA PROTECTION AND OTHER PRIVACY RIGHTS. YOU SHALL NOT USE THIS PRODUCT FOR ANY PROHIBITED END-USES, INCLUDING THE DEVELOPMENT OR PRODUCTION OF WEAPONS OF MASS DESTRUCTION, THE DEVELOPMENT OR PRODUCTION OF CHEMICAL OR BIOLOGICAL WEAPONS, ANY ACTIVITIES IN THE CONTEXT RELATED TO ANY NUCLEAR EXPLOSIVE OR UNSAFE NUCLEAR FUEL-CYCLE, OR IN SUPPORT OF HUMAN RIGHTS ABUSES.

IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATER PREVAILS.

Data Protection

During the use of device, personal data will be collected, stored and processed. To protect data, the development of Hikvision devices incorporates privacy by design principles. For example, for device with facial recognition features, biometrics data is stored in your device with encryption method; for fingerprint device, only fingerprint template will be saved, which is impossible to reconstruct a fingerprint image.

As data controller, you are advised to collect, store, process and transfer data in accordance with the applicable data protection laws and regulations, including without limitation, conducting security controls to safeguard personal data, such as, implementing reasonable administrative and physical security controls, conduct periodic reviews and assessments of the effectiveness of your security controls.

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.
⚠ **Caution**	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.

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 B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help

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

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, RE Directive 2014/53/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: www.recyclethis.info

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 (B)/NMB-3(B) standards requirements.

1. This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: this device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

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

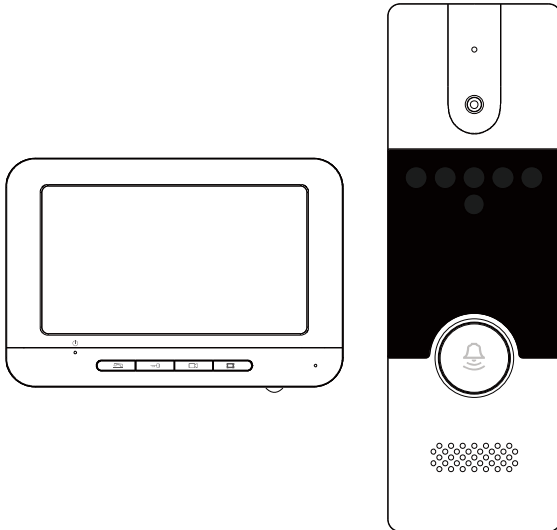This equipment should be installed and operated with a minimum distance 20cm between the radiator and your body.

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

Contents

Chapter 1 Introduction

1.1 Overview

The video door phone is composed of a four-wire indoor station and a four-wire door station. Featuring in the convenient installation and easy operation, it is mainly applied in the buildings for improving the living security.

1.2 Features

Indoor Station Features

- Hands-free video intercom communication
- Supports three indoor stations simultaneously in the intercom system
- Supports monitoring the door station and the external analog camera
- Supports capturing images and viewing captured images in the indoor station
- Remote unlocking
- Convenient installation and easy operation

Door Station Features

- Hands-free video intercom communication
- Supports two door stations simultaneously in the intercom system
- Self-adaptive IR supplement (with photoresistor)
- One-touch calling
- Camera with 1920 x 1080 @ 25 fps
- Unlock controlling
- Anti-oxidant aluminium alloy
- Convenient installation and easy operation
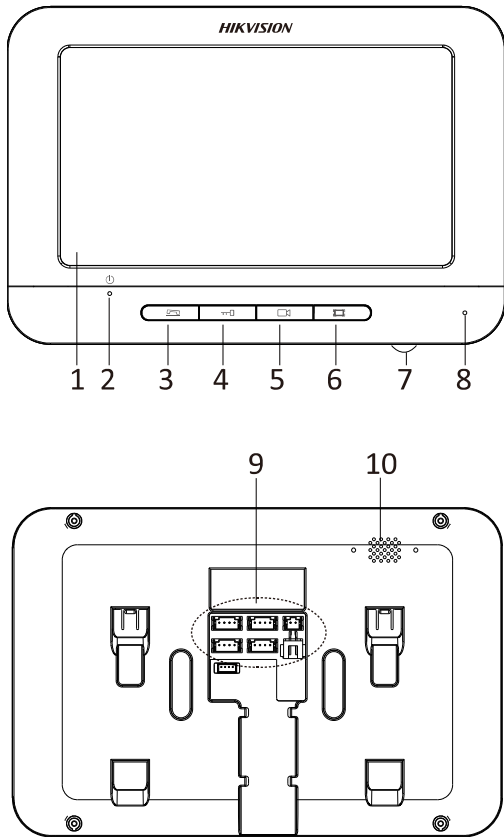
Chapter 2 Appearance Description

2.1 Indoor Station

Table 2-1 Components Description

No.	Description
1	LCD Display Screen
2	Power Supply Indicator
3	Call Accept/Decline Key
4	Unlock Key
5	Live View Key
6	Image Key
7	Volume Wheel
8	Microphone
9	Terminals and Interfaces
10	Loudspeaker

Figure 2-1 Indoor Station Appearance

2.2 Door Station

Figure 2-2 Door Station Appearance
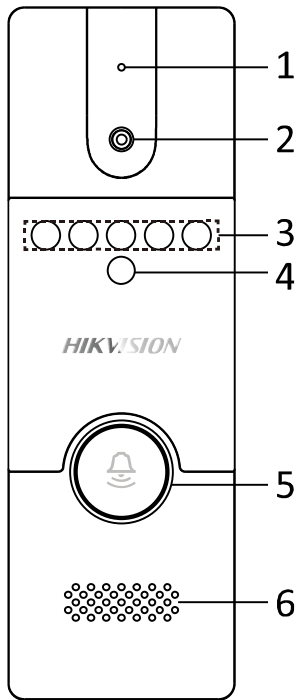
Table 2-2 Components Description

No.	Description
1	Microphone
2	Built-in Camera
3	IR Supplement Lights
4	Photoresistor
5	Call Button
6	Loudspeaker

Chapter 3 Terminals and Wirings
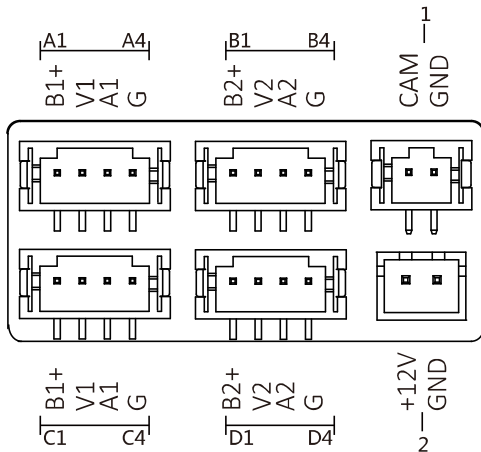
3.1 Terminals and Interfaces

Figure 3-1 Terminals of Indoor Station   **Figure 3-2 Terminals of Door Station**
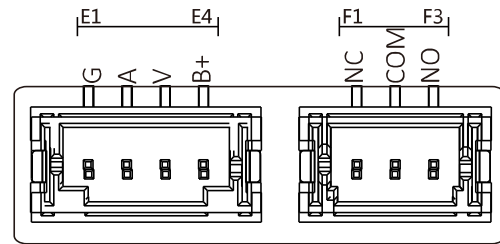
Table 3-1 Descriptions of Terminals (Indoor Station)

Name	No.	Interface	Description
Camera	1	CAM	Analog Camera Access
Power Supply	2	12 VDC	12 VDC Power Supply Input
Four-Wire Interface	A1/B1/C1/D1	B1+/B2+	Power Supply for Door Station
	A2/B2/C2/D2	V1/V2	Video Input
	A3/B3/C3/D3	A1/A2	Audio Input/Output
	A4/B4/C4/D4	G	Grounding Signal

Table 3-2 Descriptions of Terminals and Interfaces (Door Station)

Name	No.	Interface	Description
Four-Wire Interface	E1	G	Grounding Signal
	E2	A	Audio Input/Output
	E3	V	Video Output
	E4	B+	Power Supply (from Indoor Station)
Lock	F1	NC	Door Lock Relay Output/Normally Closed
	F2	COM	Door Lock Relay Output/Common
	F3	NO	Door Lock Relay Output/Normally Open

3.2 Wiring Description

Purpose:

A four-wire video intercom system is mainly composed of the indoor station and the door station. You can connect the analog camera to the indoor station, and connect the electric bolt to the door station.

Up to 2 door stations are supported simultaneously in the intercom system.

Up to 3 indoor stations are supported simultaneously in the intercom system.

Here take 3 wirings as example.

⌯**i**Note

● According to different transmission distances among door stations and indoor stations, different RVV4 cable specifications are demanded.

Transmission Distance (TD)	RVV4 Cable Specification
TD ≤ 10 m	RVV4 * 0.2 mm ^2
10 m < TD ≤ 30 m	RVV4 * 0.5 mm ^2
30 m < TD ≤ 50 m	RVV4 * 0.75 mm ^2
50 m < TD ≤ 100 m	RVV4 * 1.5 mm ^2

● On the rear panel of the indoor station, four-wire interface A and four-wire interface C compose a cascading group; and four-wire interface B and four-wire interface D compose a cascading group.
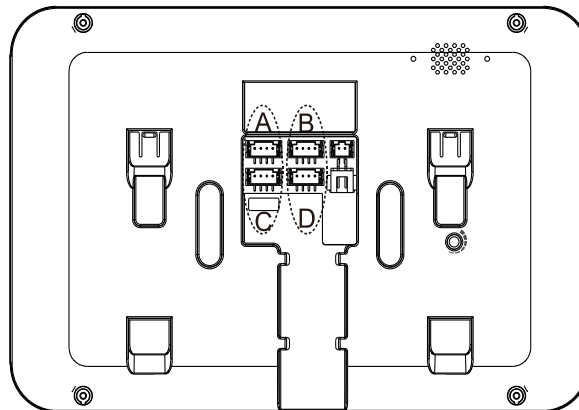
● The communication between A and B/D cannot be realized.
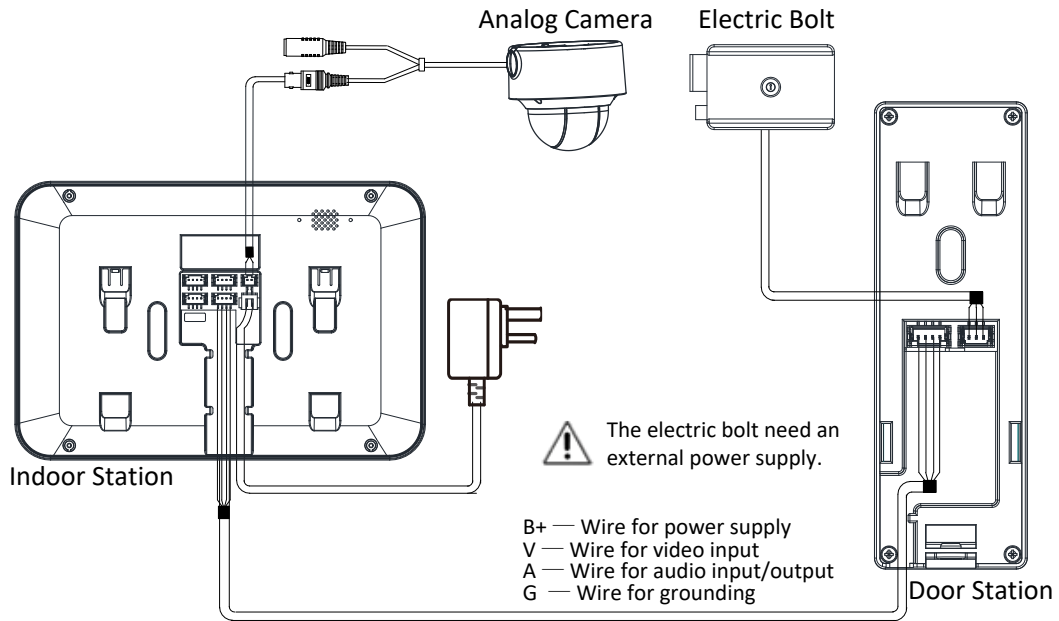● The communication between C and B/D cannot be realized.

⚠**Caution**

Do not connect the power wire of the four-core cable to the V pin (video wire) or A pin (audio wire) of the four-wire interface.

3.2.1 Wiring 1 (1 Door Station and 1 Indoor Station)

⚠️**Caution**

- Do not pull power cables on the rear panel of the door station hard to avoid the disconnection of power cables.
- Use the insulated tape to tape the bare wires, so as to avoid the short circuit.


Analog Camera   Electric Bolt

⚠️ The electric bolt need an external power supply.

Indoor Station

Door Station

B+ — Wire for power supply
V — Wire for video input
A — Wire for audio input/output
G — Wire for grounding

Figure 3-3 Wiring 1 (1 Door Station and 1 Indoor Station)

3.2.2 Wiring 2 (1 Door Station and 3 Indoor Stations)

⚠️**Caution**

- Do not pull power cables on the rear panel of the door station hard to avoid the disconnection of power cables.
- Use the insulated tape to tape the bare wires, so as to avoid the short circuit.
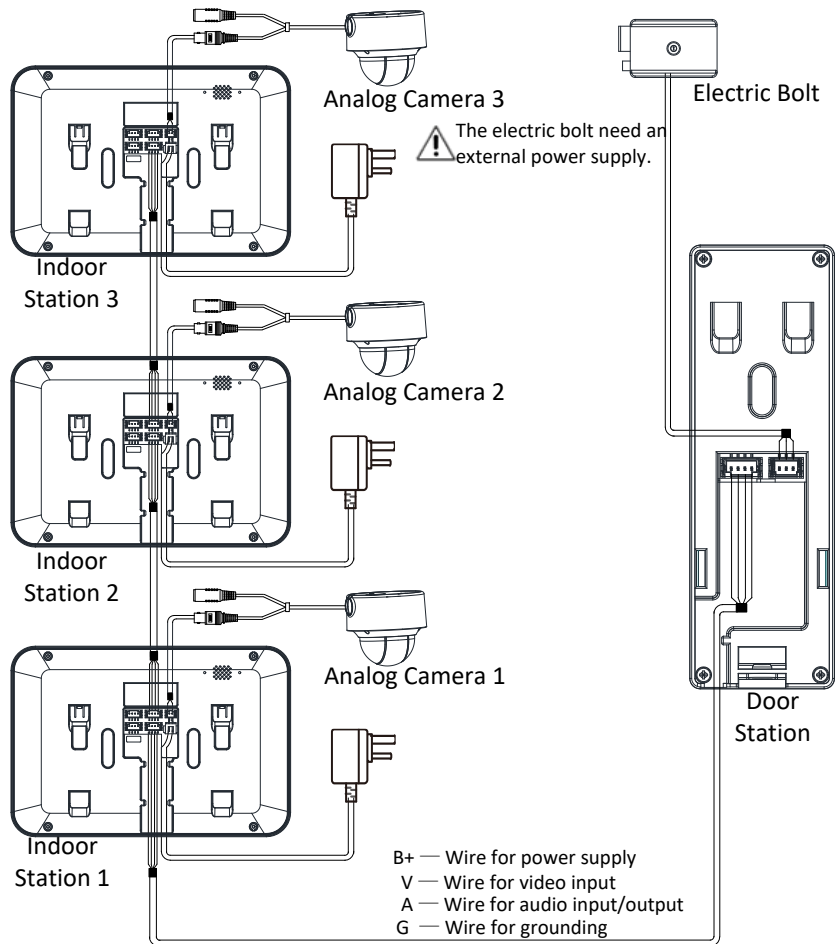
Figure 3-4 Wiring 2 (1 Door Station and 3 Indoor Stations)

3.2.3 Wiring 3 (2 Door Stations and 3 Indoor Stations)

⚠️**Caution**

- Do not pull power cables on the rear panel of the door station hard to avoid the disconnection of power cables.
- Use the insulated tape to tape the bare wires, so as to avoid the short circuit.
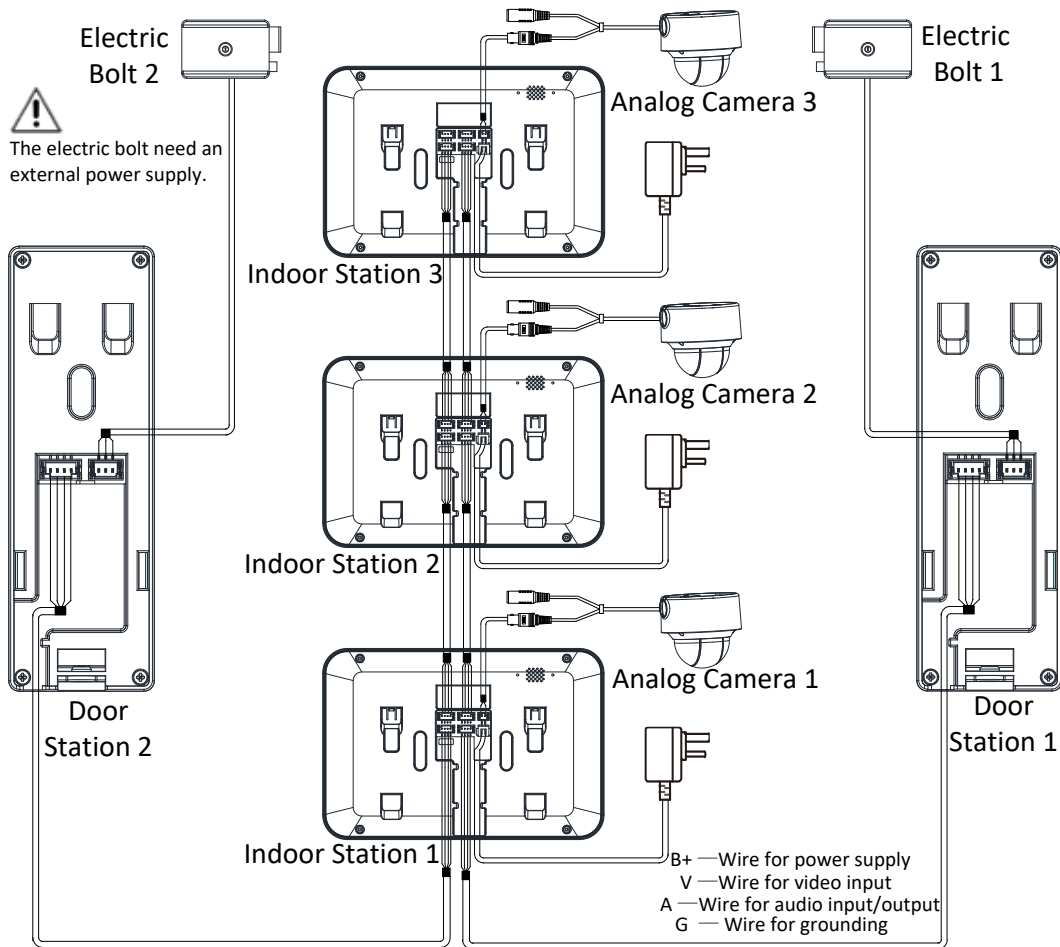
Figure 3-5 Wiring 3 (2 Door Stations and 3 Indoor Stations)

Chapter 4 Installation

Before you start:

● Make sure the device in the package is in good condition and all the assembly parts are included.
● The power supply the indoor station supports is 12 VDC. Please make sure your power supply matches your indoor station.
● Make sure all the related equipment is power-off during the installation.
● Check the specification of the product for the installation environment.

4.1 Indoor Station Installation

The indoor station supports the wall mounting, including the wall mounting with the junction box, and the wall mounting without the junction box.
For the wall mounting with junction box, the wall mounting plate and the junction box are required. And for the wall mounting without junction box, only the wall mounting plate is required.
(Optional) The dimension of the junction box is 75 mm (width) x 75 mm (length) x 50 mm (depth). The dimension of the wall mounting plate is shown below.
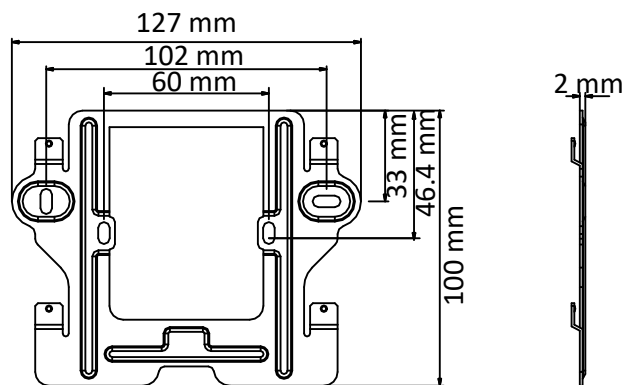
Wall Mounting Plate (Indoor Station)

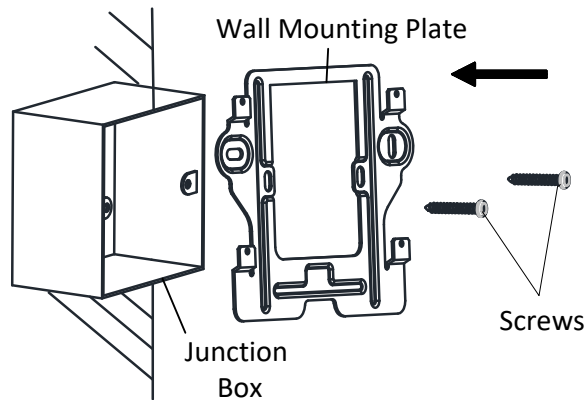**Figure 4-1 Wall Mounting Plate**

Wall Mounting (Indoor Station)

You can follow the following steps to install the indoor station.
Here we take the wall mounting with the junction box as example.

Steps:

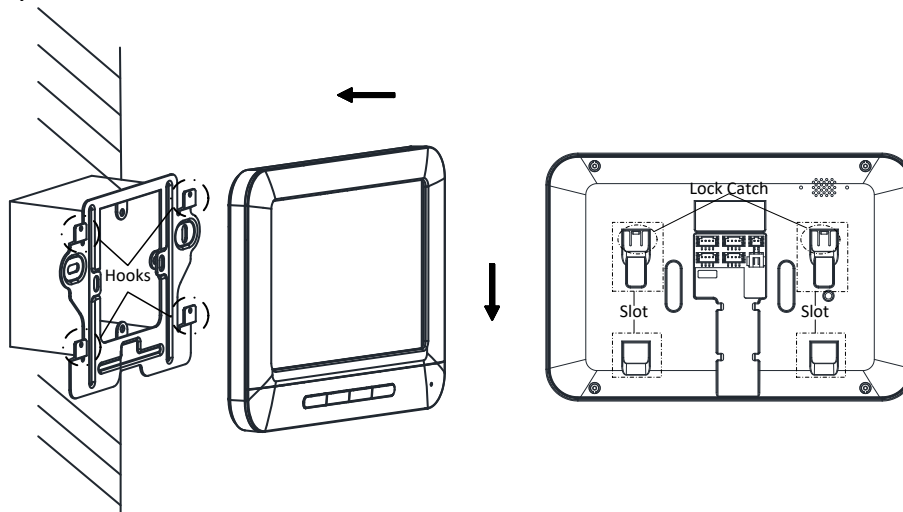1. Insert the junction box to the hole chiseled on the wall.

2. Fix the wall mounting plate to the junction box with 2 screws.

Figure 4-2 Installing the Plate

3. 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 4-3 Hooking the Indoor Station to the Plate

ℹ️**Note**

For the installation without the junction box, you should fix the wall mounting plate to the wall with 2 expansion screws first, and then hook the indoor station.

4.2 Door Station Installation

To install the door station, the wall mounting shield is required.
The dimension of the wall mounting shield is shown below.

Wall Mounting Shield (Door Station)
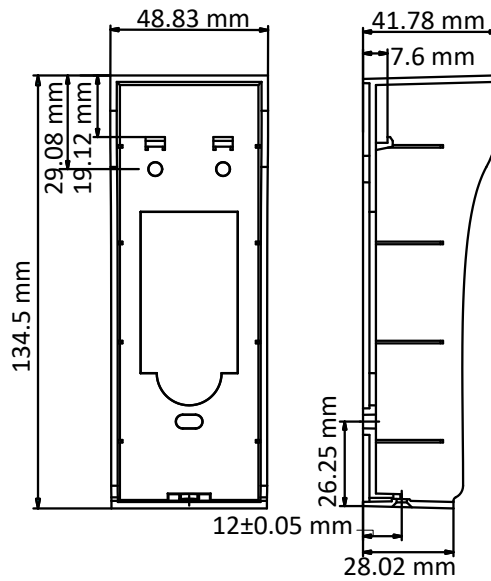
Figure 4-4 Wall Mounting Shield

Wall Mounting (Door Station)

You can follow the following steps to install the door station.

Steps:

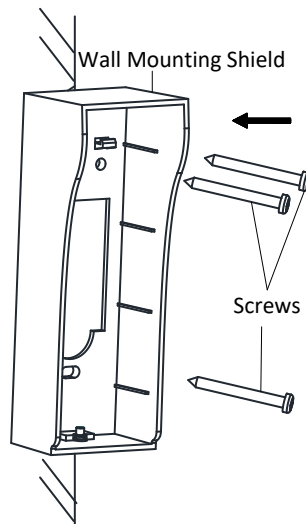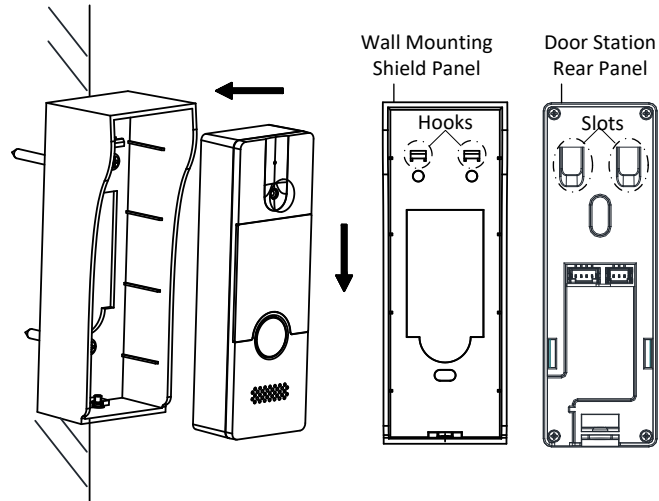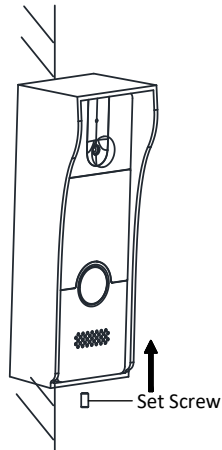1. Fix the wall mounting shield to the wall with 3 screws.

Figure 4-5 Installing the Shield

2. Hook the door station to the shield tightly by inserting the hooks of shield panel into the slots on the rear panel of the door station.

Figure 4-6 Hooking the Door Station to the Shield

3. Secure the door station with the mounting shield with the set screw.

Figure 4-7 Securing the Door Station

Chapter 5 Local Operation

5.1 Getting Started

Before you start:

- Make sure all devices in the four-wire system have been well connected.
- The power supply the indoor station supports is 12 VDC. Please make sure your power supply matches your indoor station.

Steps:

1. Power on the indoor station.
2. The door station will be powered on via the four-wire cable between the indoor station and the door station.

Note

The electric bolt connected to the door station need an external power supply.

5.2 Set Indoor Station

Steps:

1. Hold ⬜ 5 seconds to enter System Configuration page.
2. Press ⤒ (UP) or ⬜ (DOWN) to switch among items.
3. You can set the ring, the date, and the time, and view the model in this page.

5.3 Initiate Video Intercom

Connect the indoor station with door station. You can call the indoor station via the door station. And the indoor station will capture the image automatically once the door station initiates a call to the indoor station.

Steps:

1. Press the Call button on the door station to start a video call to indoor station.
2. Press ⬜ in the indoor station to answer the call.

Note

- The maximum ring duration of the indoor station is 30s.
- The maximum speaking duration is 60s.

●   To achieve the optimal pickup effect, the recommended distance range between the speaker and the microphone of the indoor station or the door station is 30 to 40 cm.

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5.4 Live View

Connect the indoor station with door station and camera. You can get the live view of door station and analog camera in the indoor station.

For one indoor station, up to 2 door stations and 1 camera can be connected to.

Before you start:

Make sure all devices in the four-wire system have been well connected.

Start Live View

Press ⃞◁ to start the live view of door stations or camera.

Switch Live View

Press ⃞◁ to switch the live view among the first door station, the second door station, and the camera.

ⓘNote

The maximum live view duration is 60s. The live view will be stopped automatically when the live view lasts 60s.

5.5 Unlock the Door

In the following 3 situations, you can unlock the door remotely on the indoor station.
● When someone press the Call button on the door station to call the indoor station, press ⊓◻ to unlock the door.
● When you are answering the call from the door station, press ⊓◻ to unlock the door.
● When you are view the live view of the door station, press ⊓◻ to unlock the door.

ⓘNote

The unlocking status maintains 5 seconds after pressing ⊓◻.

5.6 Capture Image

Auto-Capture

The indoor station will capture one piece of image once the door station calls the indoor station.

Manual-Capture

In the following 3 situations, you can capture the image manually.
● When someone press the Call button on the door station to call the indoor station, press ⬜ to capture the image.
● When you are answering the call from the door station, press ⬜ to capture the image.
● When you are view the live view of the door station or the camera, press ⬜ to capture the image.

See Far, Go Further