HIKVISION

Video Door Phone
Door Station and Indoor Station

User Manual

<u>**User Manual**</u>

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

Series	Model
Door Station	DS-KB2411-IM
Indoor Station	DS-KH2200

It includes instructions on how to use the Product. The software embodied in the Product is governed by the user license agreement covering that Product.

About this Manual

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Disclaimer

Support

Should you have any questions, please do not hesitate to contact your local dealer.

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Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into **Warnings** and **Cautions**:

Warnings: Neglecting any of the warnings may cause serious injury or death.

Cautions: Neglecting any of the cautions may cause injury or equipment damage.

⚡	⚠️
Warnings Follow these safeguards to prevent serious injury or death.	**Cautions** Follow these precautions to prevent potential injury or material damage.

⚡ **Warnings**

● 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 or ceiling, 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.)

⚠️ **Cautions**

● 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.

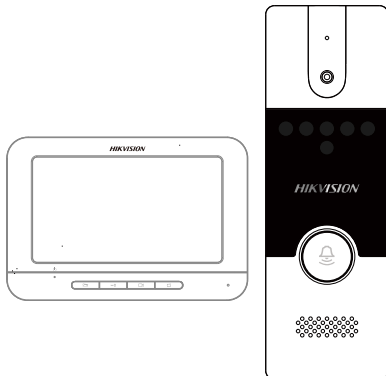● The device cover for indoor use shall be kept from rain and moisture.

● 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.

● Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

Table of Contents

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

● 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

● Pinhole camera with 720 x 576 @ 25 fps

● Unlock controlling

● Anti-oxidant aluminium alloy

● Convenient installation and easy operation

2 Appearance Description

2.1 Indoor Station
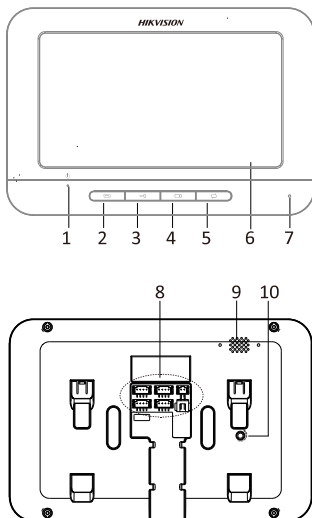
Figure 2-1 Indoor Station Appearance

Table 2-1 Components Description

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

2.2 Door Station
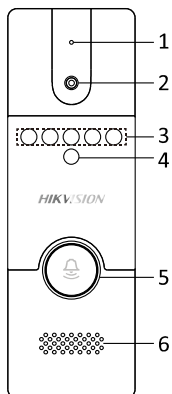
Figure 2-2 Door Station Appearance

Table 2-2 Components Description

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

3 Terminals and Interfaces

Figure 3-1 Terminals of Indoor Station
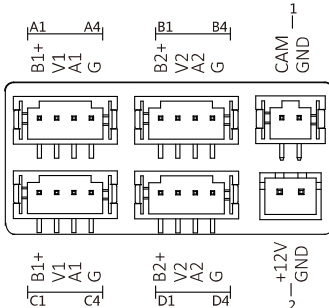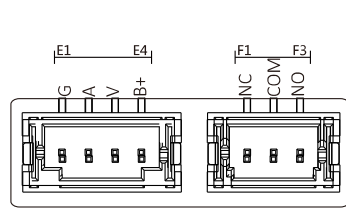

Figure 3-2 Terminals of Door Station

Table 3-1 Descriptions of Terminals and Interfaces (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

4 Installation and Wiring

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

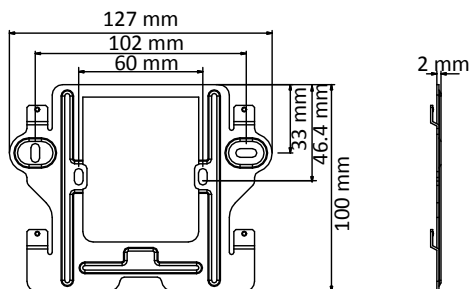### 4.1.1 Wall Mounting Plate (Indoor Station)

Figure 4-1 Wall Mounting Plate

NOTE

● Two ways of installation are for reference: installation with junction box, and installation without junction box.

● If you refer to the installation with junction box, the dimension of junction box should be 75 mm (width) x 75 mm (length) x 50 mm (depth).

4.1.2 Wall Mounting (Indoor Station)

Steps:

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

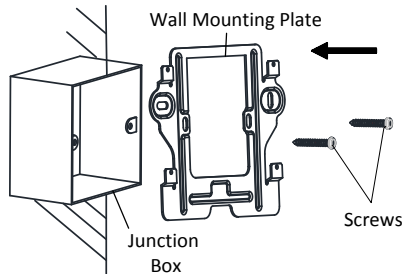2. Fix the wall mounting plate to the junction box with 2 screws.

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.
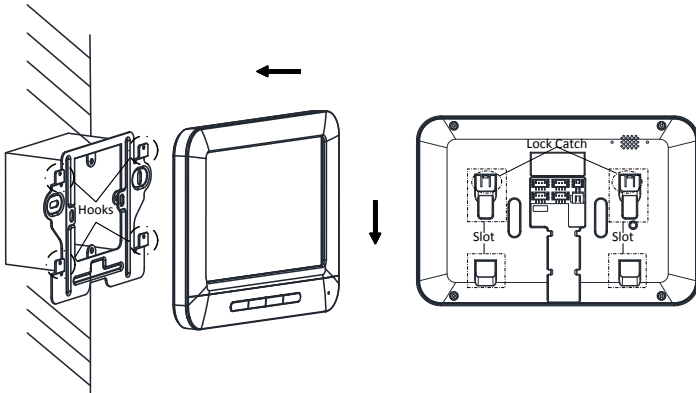

Figure 4-3 Hooking the Indoor Station to the Plate

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

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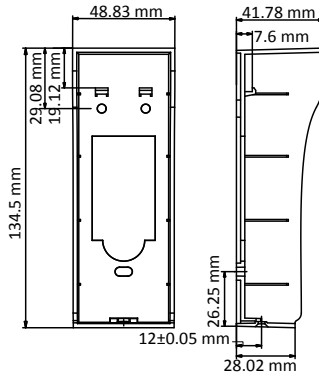
Figure 4-4 Wall Mounting Shield

4.2.2 Wall Mounting (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

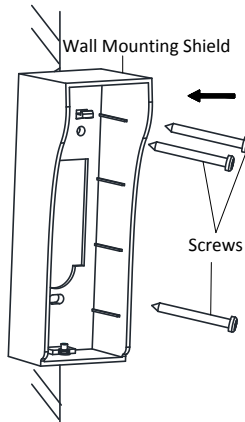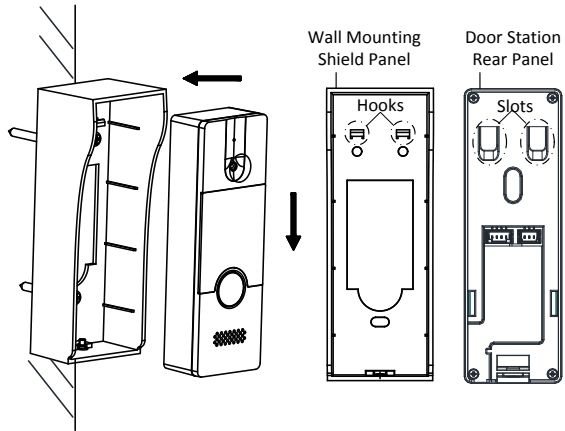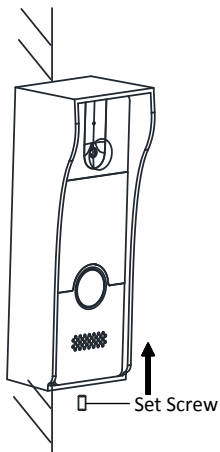# 4.3 Wiring Description

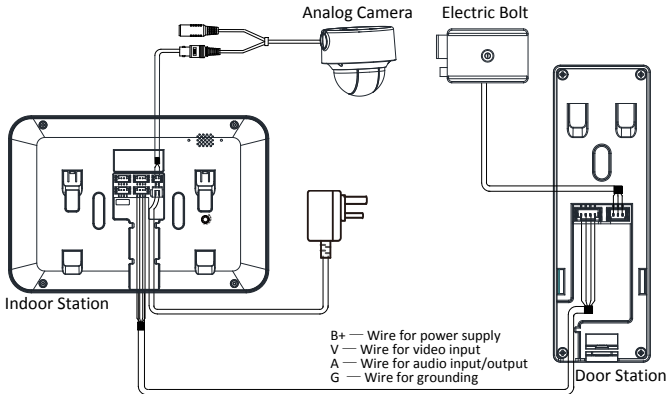## 4.3.1 Wiring 1 (1 Door Station and 1 Indoor Station)

Figure 4-8 Wiring 1 (1 Door Station and 1 Indoor Station)

4.3.2 Wiring 2 (1 Door Station and 3 Indoor Stations)
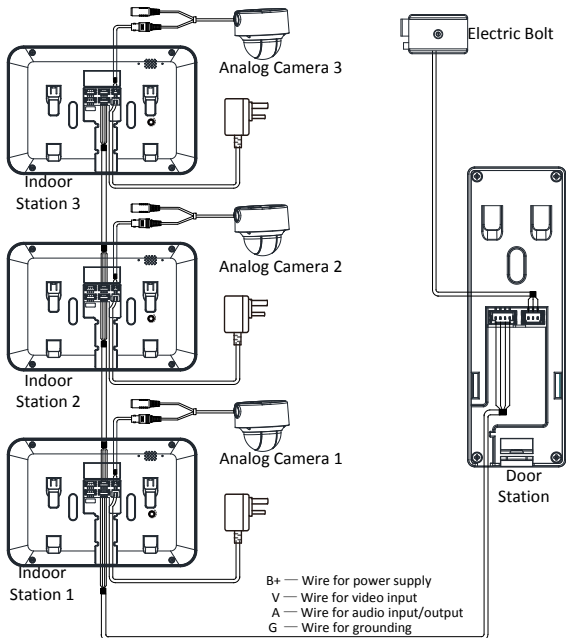
Figure 4-9 Wiring 2 (1 Door Station and 3 Indoor Stations)

4.3.3 Wiring 3 (2 Door Stations and 3 Indoor Stations)
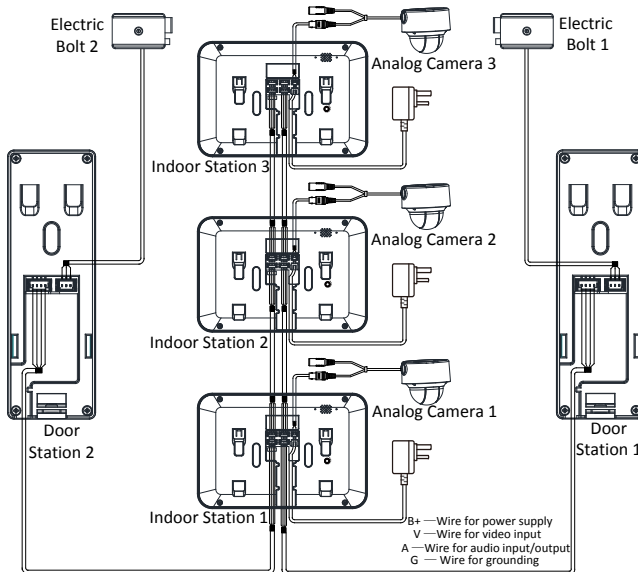
Figure 4-10 Wiring 3 (2 Door Stations and 3 Indoor Stations)

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

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

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

● DS-2CE16A2P-IT3 (6mm) analog camera is recommended to connect to the indoor station.

● On the rear panel of the indoor station, four-wire interface A and four-wire interface C are composed of a cascading group; and four-wire interface B and four-wire interface C are composed of a cascading group.

● The communication between A and B/D cannot be realized.

● The communication between C and B/D cannot be realized.
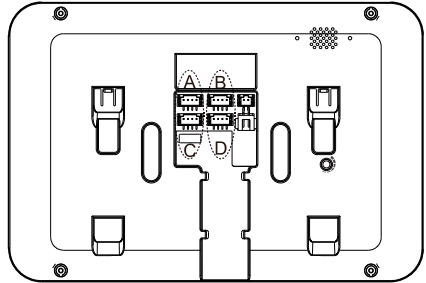
Do not connect the power wire of the four-core cable to the V pin (video wire) or A pin (audio wire) of the four-wire interface.

5 Local Operation

5.1 Door Station Local Operation

Steps:
Press the call button to call the resident.
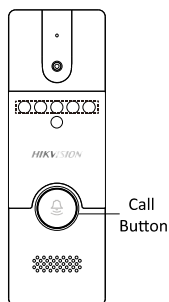
NOTE

When press the call button to call the resident, the maximum ring duration of the indoor station is 30s.

Call
Button

Figure 5-1 Call Button of Door Station

5.2 Indoor Station Local Operation

Table 5-1 Indoor Station Local Operation Description

Keys	Description	
☎	Accept or decline the incoming call.	
⊤⊤❘	Unlock the door.	
☐◁	Open or close the live view.	
⊏⊐	Switch the live view among the first door station, the second door station, and the analog camera.	
◎	Counterclockwise rotation	Increase the volume.
	Clockwise rotation	Decrease the volume.

NOTE

● The maximum live view duration is 60s; and the maximum speaking duration is 60s.

● During the ring duration, speaking duration, or live view duration, the resident can unlock the door. The unlocking status can maintain 5 seconds after pressing the Unlock key.

● 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.

Appendix

Installation Notice

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

![NOTE]

Here devices refer to indoor stations, and door stations.

Specification

Specification of DS-KH2200

Model Parameters	DS-KH2200
Display parameters	
Display screen	7-Inch Colorful TFT LCD
Resolution	800 × 480
Operation method	Physical Button
Audio parameters	
Audio input	Build-in Omnidirectional Microphone
Audio output	Build-in Loudspeaker
Audio quality	Noise Suppression and Echo Cancellation
Device interfaces	
Four-wire interface	4 Four-Wire Interfaces
	1-ch Video Input, 1-ch Audio Input/Output, 1-ch Power Supply, 1-ch Grounding
General	
Power supply	12 VDC
Power consumption	Max. 5W
Working temperature	-10° C to +55° C (14° F to 131° F)
Working humidity	10% to 90%
Dimension (L x W x H)	195.8 mm × 132.8 mm × 18.39 mm (7.7" × 5.2" ×0.7")

Specification of DS-KB2411-IM

Model Parameters	DS-KB2411-IM
Video parameters	
Camera	1/4" CMOS
Resolution	720 x 576
Video frame rate	PAL: 25 fps
Audio parameters	
Audio input	Built-in Omnidirectional Microphone
Audio output	Built-in Loudspeaker
Audio quality	Noise Suppression and Echo Cancellation
Light supplement	
Light supplement mode	Photosensitive IR Supplement, IR Range: 2 Meters
Device interfaces	
Four-wire interface	1 Four-Wire Interface (1-ch Video Input, 1-ch Audio Input/Output, 1-ch Power Supply, 1-ch Grounding)
I/O output	1 Relay Output
General	
Material	Aluminum Alloy
Power consumption	Max. 3W
Working temperature	-30° C to +60° C (-22° F to 140° F)
Working humidity	10% to 90%
Dimension (L x W x H)	128 mm × 42 mm × 24.8 mm (5.0" × 1.7" × 0.9")

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