

Video Intercom Two-Wire Bundle

User Manual

Legal Information

©2021 Hangzhou Hikvision Digital Technology Co., Ltd. All rights reserved.

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 (<u>https://www.hikvision.com/</u>).

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

Trademarks

HIKVISION and other Hikvision's trademarks and logos are the properties of Hikvision in various jurisdictions.

Other trademarks and logos mentioned are the properties of their respective owners.

Disclaimer

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THIS MANUAL AND THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, ARE PROVIDED "AS IS" AND "WITH ALL FAULTS AND ERRORS". HIKVISION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE. THE USE OF THE PRODUCT BY YOU IS AT YOUR OWN RISK. IN NO EVENT WILL HIKVISION BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA, CORRUPTION OF SYSTEMS, OR LOSS OF DOCUMENTATION, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY, OR OTHERWISE, IN CONNECTION WITH THE USE OF THE PRODUCT, EVEN IF HIKVISION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS.

YOU ACKNOWLEDGE THAT THE NATURE OF THE INTERNET PROVIDES FOR INHERENT SECURITY RISKS, AND HIKVISION SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER-ATTACK, HACKER ATTACK, VIRUS INFECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, HIKVISION WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.

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 LATTER PREVAILS.

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.
A Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
🗍 i Note	Provides additional information to emphasize or supplement important points of the main text.

Safety Instruction

🕂 Warning

- 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.)

\land Caution

- 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.
- Input voltage should meet both the SELV and the Limited Power Source according to 60950-1 standard.
- 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	Standard
ADS-24S-12 1224GPCN	SHENZHEN HONOR ELECTRONIC CO.,LTD	CEE
G0549-240-050	SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO.,LTD	CEE
TS-A018-120015Ec	SHENZHEN TRANSIN TECHNOLOGIES CO., LTD	CEE

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.

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
- 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

1 About this Maunal 1
2 Appearance 2
3 Terminal and Wiring Description 7
3.1 Terminal Description 7
3.2 Wiring Description
4 Installation 11
4.1 Install Indoor Station 11
4.1.1 Configure Indoor Station Address 11
4.1.2 Wall Mounting 12
4.2 Install Door Station 14
4.2.1 Configure Sub Module Address 14
4.2.2 One-Module Installation 16
4.2.3 Two-Module Installation
4.2.4 Three-Module Installation 31
4.2.5 More-Than-Three Module Installation 39
4.3 Install Network Distributor 52
4.4 Install Analog Distributor 53
5 Activation
5.1 Connect to Network 55
5.1.1 Connect to Wired Network 55
5.1.2 Connect to Wireless Network 55
5.2 Activate Device via Client Software 55

Video Intercom Two-Wire Bundle User Manual

5.3 Activate via SADP 56
5.4 Activate Device via Web
6 Remote Configuration via Web 59
6.1 Login and Logout
6.1.1 Log in the Web 59
6.1.2 Logout 59
6.2 Quick Configuration
6.3 Device Management
6.4 Configuration
6.4.1 System Settings61
6.4.2 Network Settings
6.4.3 Intercom Settings 64
A. Cables
B. Communication Matrix and Device Command

1 About this Maunal

Get the manual and related software from or the official website (http:// www.hikvision.com).

Product	Model
Two-Wire Door Station	DS-KD8003-IME2
Two-Wire Indoor Station	DS-KH1201
Network Distributor	DS-KAD7040
Analog Distributor	DS-KAD1040

2 Appearance

Two-Wire Door Station





Table 2-1 Appearance Description

No.	Description	
1	Microphone	
2	Low Illumination IR Supplement Light	
3	Built-in Camera	
4	Loudspeaker	
5	Call Button	
6	Nametag	
7	TAMPER	



Figure 2-2 Bottom Panel

Table 2-2 Appearance Description

No.	Description
8	Network Interface
9	Module-connecting Interface (output)
10	Terminals

Two-Wire Indoor Station



Figure 2-3 Appearance of Indoor Station

No.	Description	No.	Description
1	Screen	8	Live View/Switch
2	Microphone	9	Terminals
3	Volume-	10	Loudspeaker

No.	Description	No.	Description
4	Volume+	11	Four-Wire Terminal
5	Receive/Decline	12	DIP Switch
6	Unlock Door 2	13	Debugging Port
7	Unlock Door 1	14	Jumper

🗇 Note

The Debugging Port is used for debugging only.

Network Distributor



Figure 2-4 Appearance of Distributor

No.	Description	No.	Description
1	Cascade Input & Output (Reserved)	5	Network Interface
2	Cascade Channels	6	Power Indicator
3	Power Input	7	Cascade Indicator
4	Reset Button	8	Network Interface (Supports for PoE Output)

Table 2-4 Description

间 Note

The appearance may vary according to different device models. Refers to the actual device.

Analog Distributor



Figure 2-5 Appearance of Distributor

No.	Description	No.	Description
1	Cascade Output Terminal 1	4	Cascade Output Terminal 4
2	Cascade Output Terminal 2	5	Two-Wire Input Terminal
3	Cascade Output Terminal 3	6	Two-Wire Output Terminal

Table 2-5 Description

3 Terminal and Wiring Description

3.1 Terminal Description

Two-Wire Main Unit Terminal



Figure 3-1 Two-Wire Main Unit Terminal

Table 3-1 Description	s of Terminals	and Interfaces
-----------------------	----------------	----------------

No.	Interface	Description
A1	NC1	Door Lock Relay Output (NC)
A2	NO1	Door Lock Relay Output (NO)
A3	СОМ	Common Interface
A4	NC2	Door Lock Relay Output (NC)
A5	NO2	Door Lock Relay Output (NO)
A6	GND	Grounding
A7	12 VDC	Reserved
A8	GND	Grounding
B1	AIN2	For the access of Door Magnetic 2
B2	AIN1	For the access of Door Magnetic 1

No.	Interface	Description
В3	AIN3	For the access of Exit Button 1
B4	AIN4	For the access of Exit Button 2
B5	485-	Module-connecting Interface
B6	485+	
B7	12 V OUT	
B8	GND	
С	Two-Wire Interface	Two-Wire Interface

Two-Wire Indoor Station



Figure 3-2 Terminal of Indoor Station

Interface	Description
L1+	For the access of BUS
L1-	
L2+	For the access of indoor station
L2-	

3.2 Wiring Description

Typical application of the system is shown as below.



Figure 3-3 Wiring

间 Note

- Up to 10 indoor stations can be connected hand-by-hand.
- Up to 150 indoor stations can be connected to one terminal of the distributor.
- When connecting the doorbells to indoor stations, up to 85 indoor stations can be connected to one terminal of the distributor.

\land Caution

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

Two-Wire door station should be connected to CH1 (48 V,15 W) of the distributor with 2-wire cables.

Two-Wire Analog Distributor should be connected to any terminal of CH2 to CH5 (48 V,15 W) of the distributor with 2-wire cables.

Network door station can be connected to LAN(PoE) of the distributor with Network Cable.

1 distributor can only connect 1 door station to build the communication.

The distributor supports standard PoE.

🕕 Note

The distributor can only connect 1 door station. Network door station and two-wire door station can not be connected to the distributor at the same time.

4 Installation

4.1 Install Indoor Station

4.1.1 Configure Indoor Station Address

DIP switches are used to coding the room No. of indoor station. The No. should be unique.

The No. of DIP switches from left to right is $1 \sim 10$.



Figure 4-1 DIP Switch



Table 4-1 Description

For example, binary value of the following status is: 00 0000 1100. And its decimal value is 12.



Figure 4-2 Example

4.1.2 Wall Mounting

It supports wall mounting. There are two installation modes.

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 48 VDC. Please make sure your power supply matches your indoor station.
- Make sure all related equipments are power-off during the installation.
- Check the product specification for the installation environment.

There are 2 size of the gang boxes adapted to the device.

- Size 1: 75 mm (width) × 75 mm (length) × 50 mm (depth).
- Size 2: 55 mm (width) × 101 mm (length) × 38.5 mm (depth).

The dimension of mounting plate is shown as below.



Unit:mm

Figure 4-3 Mounting Plate

Steps

1. Cave a hole in the wall.

🚺 Note

The suggested dimension fo the installation hole should be larger than the gang box.

- 2. Insert a gang box to the hole chiseled on the wall.
- **3.** Fix the wall mounting plate to the gang box with 2 screws.

🫈 Note

- If you install the device with a gang box (75 mm(width) × 75 mm(length) × 46 mm(depth)), the left and right holes will be applied.
- If you install the device with a gang box (55 mm(width) × 101 mm(length) × 48.5 mm(depth)), the upper and lower holes will be applied.
- **4.** 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 4-4 Wall Mounting

4.2 Install Door Station

4.2.1 Configure Sub Module Address

You need to set the sub module address via DIP switch before installation.

Steps

1. Remove the rubber cover on the rear panel of the sub module to expose the DIP switch.



Figure 4-5 DIP Switch

2. Set the sub module address according to the DIP rules, and install the rubber cover back.

🚺 Note

- Bit 1, 2, 3, 4 are used to coding the sub module address. Bit 5, 6, 7 are reserved. Set Bit 8 as on to enable a resistance (120Ω) .
- Valid sub module address is from 1 to 8. The address should be unique for connecting to the main unit.

The sub module address and its corresponding switch status are displayed as below.

Sub Module Address	1	2	3	4	5	6	7	8
Bit 1	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Bit 2	OFF	ON	ON	OFF	OFF	ON	ON	OFF
Bit 3	OFF	OFF	OFF	ON	ON	ON	ON	OFF
Bit 4	OFF	ON						

|--|

4.2.2 One-Module Installation

One-Module Surface Mounting

Before You Start



Figure 4-6 Mounting Frame

፲ Note

- The dimension of one module mounting frame (W \times H \times D) is: 117 mm \times 107 mm \times 32.7 mm.
- The dimensions above are for reference only. The actual size can be slightly different from the theoretical dimension.

Steps

- **1.** Paste the installation Sticker 1 onto the wall. Make sure the sticker is placed horizontally via measuring with the gradienter.
- 2. Drill 4 holes according to the screw holes on the sticker.

🧾 Note

- The suggested size of hole is 6 (diameter) × 25 (depth) mm.
- The suggested length of cables left outside is 100 mm.



Figure 4-7 Drill Screw Holes

- **3.** Remove the stricker and insert the expansion sleeves into the screw holes.
- **4.** Fix the mounting frame onto the wall with 4 expansion bolts.



Figure 4-8 Fix the Mounting Frame

5. Connect the cables to the corresponding interfaces of the main unit and insert the main unit into the frame.



Figure 4-9 Insert the Main Unit

6. Fix the cover onto the frame.



Figure 4-10 Fix the Cover

One-Module Flush Mounting

Before You Start



Figure 4-11 Front and Side View of the Gang Box



Figure 4-12 Gang Box

፲ Note

The dimension of one-module gang box is: 115 (W) \times 134 (H) \times 56 (D) mm. The dimension is for reference only.

Steps

1. Drill an installation hole, and pull the cables out.

间 Note

- The suggested dimension of installation hole is 118 (W) \times 108 (H) \times 45.5 (D) mm.
- The suggested length of cables left outside is 100 mm.



Figure 4-13 Drill Installation Hole

- 2. Remove the plastic sheet of the cable entry.
- 3. Mark the gang box screw holes on the wall.
 - 1) Route the cables through the gang box hole.
 - 2) Insert the gang box into the installation hole.
 - 3) Mark the gang box screw holes' position with a marker, and take out the gang box.



Figure 4-14 Mark the Screw Holes

4. Drill 4 holes according to marks on the wall, and insert the expansion sleeves into the screw holes.

🔃 Note

The suggested size of the hole is 6 (diameter) × 45 (depth) mm.

5. Route the cables through the gang box hole. Insert the gang box into the installation hole. Fix the gang box with 4 expansion bolts.



Figure 4-15 Fix the Gang Box

6. Fill the gap between the gang box and the wall with concrete. Remove the 4 mounting ears with tool after concrete is dry.



Figure 4-16 Remove the Mounting Ears

7. Connect the cables to the corresponding interfaces of the main unit and insert the unit into the gang box.



Figure 4-17 Insert the Main Unit

8. Fix the cover and the main unit with 2 socket head cap screws by using a hexagon wrench (supplied).



Figure 4-18 Fix the Cover

4.2.3 Two-Module Installation

Two-Module Surface Mounting

Before You Start



Figure 4-19 Mounting Frame

🔃 Note

- The dimension of two-module mounting frame (W \times H \times D) is: 219 mm \times 107 mm \times 32.7 mm.
- The dimensions above are for reference only. The actual size can be slightly different from the theoretical dimension.

Steps

- **1.** Paste the installation Sticker 1 onto the wall. Make sure the sticker is placed horizontally via measuring with the gradienter.
- Drill 4 holes according to the screw holes on the sticker. The suggested size of hole is 6 (diameter) × 25 (depth) mm. The suggested length of cables left outside is 270 mm.



Figure 4-20 Drill Screw Holes

- **3.** Remove the sticker and insert the expansion sleeves into the screw holes.
- 4. Fix the mounting frame onto the wall with 4 expansion bolts.



Figure 4-21 Fix the Mounting Frame

5. Thread the module-connecting line across the thread hole of the frame. Pass the main unit connecting lines across the thread hole to the upper grid.



Figure 4-22 Placement of Lines

- 6. Connect the cables.
 - 1) Connect the lines and module-connecting line to the corresponding interfaces of the main unit, then place the main unit into the upper grid.
 - 2) Connect the other end of the module-connecting line to the input interface of the sub module.
3) Organize the cable with cable tie in the package. The suggested cable connection picture as shown below.



Figure 4-23 Line Connection Effect Picture

7. Insert the modules into the frame after wiring. The main unit must be placed in the top grid.



Figure 4-24 Insert the Modules

8. Use the hexagon wrench in the package to fix the cover onto the frame.





Two-Module Flush Mounting

Before You Start



e)

6

Figure 4-26 Gang Box

፲ Note

The dimension of two-module gang box is: 237 (W) \times 134 (H) \times 56 (D) mm. The dimension is for reference only.

Steps

1. Drill the installation hole, and pull the cable out.

🧵 Note

- The suggested dimension of installation hole is 220 (W) \times 108 (H) \times 45.5 (D) mm.
- The suggested length of cables left outside is 270 mm.



Figure 4-27 Drill the Installation Hole

- 2. Select a cable entry and remove the plastic sheet.
- 3. Mark the gang box screw holes on the hole.
 - 1) Routs the cables through the gang box hole.
 - 2) Insert the gang box into the installation hole.
 - 3) Mark the gang box screw holes' position with a marker, and take out the gang box.



Figure 4-28 Mark the Screw Holes

- 4. Drill 4 holes according to the marks on the wall, and insert the expansion sleeves into the screw holes. The suggested size of hole is 6 (diameter) × 45 (depth) mm.
- 5. Fix the gang box with 4 expansion bolts.



Figure 4-29 Fix the Gang Box

6. Fill the gap between the gang box and the wall with concrete. Remove the mounting ears with tool after concrete is dry.



Figure 4-30 Remove the Mounting Ears

- 7. Connect cables and insert the modules.
 - 1) Connect Cable 1 and one end of Cable 2 to the corresponding interfaces of the main unit, then insert the main unit into the upper grid.
 - 2) Connect the other end of Cable 2 to the input interface of the sub module. Insert it into the lower grid.



Figure 4-31 Connect Cables and Insert the Modules

🧾 Note

Cable 1 refers to the cables pulled out from the wall that connected to the main unit. Cable 2 refers to the module-connecting line in the accessory package.

8. Fix the cover with 2 socket head cap screws by using a hexagon wrench (supplied).



Figure 4-32 Fix the Cover

4.2.4 Three-Module Installation

Three-Module Surface Installation

Before You Start



Figure 4-33 Mounting Frame

📜 Note

- The dimension of two-module mounting frame (W \times H \times D) is: 320.8 mm \times 107 mm \times 32.7 mm.
- The dimensions above are for reference only. The actual size can be slightly different from the theoretical dimension.

Steps

- **1.** Paste the installation sticker 1 onto the wall. Make sure the sticker is placed horizontally via measuring with the gradienter.
- Drill 4 holes according to the screw holes on the sticker. The suggested size of hole is 6 (diameter) × 25 (depth) mm. The suggested length of cables left outside is 270 mm.



Figure 4-34 Drill Screw Holes

- **3.** Remove the sticker and insert the expansion sleeves into the screw holes.
- 4. Fix the mounting frame onto the wall with 4 expansion bolts.





🚺 Note

The mounting frame should be placed exactly as shown below for this step. The tamper plate should be at the low right of the first grid.



Figure 4-36 Mounting Frame

5. Thread the module-connecting line across the thread holes of the frame. Pass the main unit connecting line across the thread hole to the top grid.



Figure 4-37 Placement of Lines

- 6. Connect the cables.
 - 1) Connect the lines and module-connecting line 1 to the corresponding interfaces of the main unit, then place the main unit into the upper grid.
 - 2) Connect the other end of the module-connecting line 1 to the input interface of the sub module. Connect two sub modules via module-connecting line 2.
 - 3) Organize the cables with cable tie in the package. The suggested cable connection picture as shown below.



Figure 4-38 Line Connection Effect Picture

7. Insert the modules into the frame after wiring. The main unit must be placed in the top grid.



Figure 4-39 Insert the Modules into the Frame

8. Use the hexagon wrench in the package to fix the cover onto the frame.



Figure 4-40 Fix the Cover

Three-Module Flush Mounting

Before You Start



Figure 4-41 Gang Box

🧊 Note

- The dimension of one-module gang box is: 338.8(W)×134(H)×56(D) mm.
- The dimensions above are for reference only. The actual size can be slightly different from the theoretical dimension.

Steps

 Cave the installation hole, and pull the cable out. The suggested dimension of installation hole is 321.8(W)×108(H)×45.5(D) mm. The suggested length of cables left outside is 270 mm.



Figure 4-42 Cave the Installation Hole

- 2. Select a cable entry and remove the plastic sheet.
- 3. Mark the gang box screw holes on the wall.
 - 1) Route the cables through the gang box hole.
 - 2) Insert the gang box into the installation hole.
 - 3) Mark the gang box screw holes' position with a marker, and take out the gang box.



Figure 4-43 Mark the Screw Holes

- **4.** Drill 4 holes according to marks on the wall, and insert the expansion sleeves into the screw holes. The suggested size of hole is 6 (diameter) × 45 (depth) mm.
- 5. Fix the gang box with 4 expansion bolts.



Figure 4-44 Fix the Gang Box

6. Fill the gap between the gang box and wall with concrete. Remove the mounting ears with tool after concrete is dry.



Figure 4-45 Remove the Mounting Ears

- 7. Connect cables and insert the modules.
 - 1) Connect Cable 1 and one end of Cable 2 to the corresponding interfaces of the main unit, then insert the main unit into the upper grid.
 - 2) Connect the other end of Cable 2 to the input interface of Sub Module 1. Connect one end of Cable 3 to the output interface of Sub Module 1 and insert it into the middle grid.
 - 3) Connect the other end of Cable 3 to the input interface of Sub Module 2. Insert it into the bottom grid.



Figure 4-46 Connect Cables and Insert Modules

📜 Note

Cable 1 refers to the cables pulled out from the wall that connected to the main unit. Cable 2 and Cable 3 refer to the module-connecting line in the accessory package.

8. Fix the cover and the main unit with 2 socket head cap screws by using a hexagon wrench (supplied).



Figure 4-47 Fix the Cover

4.2.5 More-Than-Three Module Installation

More-than-Three Module Surface Mounting

Before You Start



Figure 4-48 Mounting Frame

🚺 Note

- It takes two three-module mounting frames. The dimension of three-module mounting frame (W \times H \times D) is: 320.8 mm \times 107 mm \times 32.7 mm.
- The dimensions above are for reference only. The actual size can be slightly different from the theoretical dimension.

Steps

- 1. Paste two Sticker 1 onto the wall. Make sure the stickers are placed horizontally via measuring with the gradienter.
- 2. Drill 8 holes according to the screw holes on the sticker.

🧾 Note

- The suggested size of hole is 6 (diameter) × 25 (depth) mm.
- The suggested length of cables left outside is 270 mm.
- 3. Pull out the cable through the cable hole of the left sticker.



Figure 4-49 Drill Screw Holes

- **4.** Remove the stickers and insert the expansion sleeves into the screw holes.
- **5.** Thread the module-connecting line (400 mm) and grounding line across the thread hole of both frames.



Figure 4-50 Place the Grounding Line and Module-Connecting Line

🧾 Note

- There are 6 module-connecting lines in the package: 190 mm \times 4 and 400 mm \times 2.
- Take the 400 mm module-connecting line for this step.
- The green-yellow line in the package is for grounding.
- 6. Fix the mounting frame onto the wall with 8 expansion bolts.



Figure 4-51 Fix the Mounting Frame

7. Pass the main unit connecting line across the thread hole to the top grid of the left frame. Thread the module-connecting line (190 mm) across the thread hole of the frame. The lines should be placed as shown below.



Figure 4-52 Placement of Lines

- 8. Connect the cables.
 - 1) Connect the cables from the wall and module-connecting line 1 to the corresponding interfaces of the main unit, then place the main unit into the upper grid.
 - 2) Connect the other end of the module-connecting line 1 to the input interface of the sub module. Connect all sub modules via module-connecting lines.
 - 3) Organize the cable with cable tie in the package. The suggested cable connection picture as shown below.



Figure 4-53 Line Connection Effect Picture

9. Insert the modules into the frame after wiring. The main unit must be placed in the top grid on the left.



Figure 4-54 Insert the Modules

10. Pull the grounding line out and fixed its two end to the screw on the cover.



Figure 4-55 Connect the Grounding Line to the Cover

11. Use the hexagon wrench in the package to fix the cover onto the frame.



Figure 4-56 Fix the Cover

More-Than-Three Module Flush Mounting

Before You Start



🧊 Note

It takes two three-module gang boxes. The dimension of the gang box is: 338.8 (W) \times 134 (H) \times 56 (D) mm. The dimension is for reference only.

Steps

 Drill the installation hole, and pull the cable out. The suggested dimension of installation hole is 321.8 (W) × 315 (H) × 45.5 (D) mm. The suggested length of cables left outside is 270 mm.



Figure 4-58 Cave the Installation Hole

2. Connect two gang boxes as below.



Figure 4-59 Connect Two Gang Boxes

3. Select a cable entry and remove the plastic sheet.

4. Remove the plastic sheets on the side of the gang boxes (shown as 1 and 2) below:



Figure 4-60 Remove the Plastic Sheets

- 5. Mark the gang box screw holes on the wall.
 - 1) Route the cables through the gang box hole.
 - 2) Insert the gang box into the installation hole.
 - 3) Mark the gang box screw holes' position with a marker, and take out the gang box.



Figure 4-61 Mark the Screw Holes

- 6. Drill 8 holes according to the marks on the wall, and insert the expansion sleeves into the screw holes. The suggested size of hole is 6 (diameter) × 45 (depth) mm.
- 7. Fix the gang boxes with 8 expansion bolts.



Figure 4-62 Fix the Gang Boxes

8. Fill the gap between the gang box and wall with concrete. Remove the mounting ears with tool after concrete is dry. Route the grounding line through the cable entries.





🧾 Note

The green-yellow line in the package is for grounding.

9. Connect cables and insert the modules.

- 1) Connect Cable 1 and one end of Cable 2 to the corresponding interfaces of the Main Unit, then place the Main Unit into the upper grid of the left gang box.
- 2) Connect the other end of Cable 2 to the input interface of Sub Module 1. Connect one end of Cable 3 to the output interface of Sub Module 1 and insert it into the middle grid of the left gang box.
- 3) Finish the wiring and inserting according to the cable number and the position shown as below.



Figure 4-64 Install Mounting Frame

The cables connect to each module shown as below.



Figure 4-65 Cables Connection

🧊 Note

- Cable 2,3,5 and 6 are the module-connecting lines (190 mm) in the package.
- Cable 4 is the module-connecting line (400 mm) in the package.
- Main unit must be put in the top grid.

10. Pull the grounding line out and fixed its two end to the screw on the cover.



Figure 4-66 Connect the Grounding Line to the Cover

11. Fix the cover with 2 socket head cap screws by using a hexagon wrench (supplied).



Figure 4-67 Fix the Cover

4.3 Install Network Distributor

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.

Steps

1. Fix the DIN rail onto the wall and pull the clip downward.

📜 Note

You are required to utilize a matched DIN rail.

2. Lock the distributor to the DIN rail.







Figure 4-68 Wall Mounting

4.4 Install Analog Distributor

It supports wall mounting.

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.

Steps

1. Drill 2 holes according to the screw holes, and insert the expansion sleeves to the holes.



Figure 4-69 Drill Screw Holes

🚺 Note

The suggested size of the hole is 7.5 (diameter) × 25 (Depth) mm.

2. Fix the device to the wall with 2 screws.



Figure 4-70 Fix the Device

5 Activation

5.1 Connect to Network

The network distributor supports two ways to connect to network.

5.1.1 Connect to Wired Network

You can connect the device to the network via connecting network cables.

Steps

1. Use the network cable to connect your computer to distributor.

2. Enter the default IP address of the device in the address bar of web browser.

What to do next

Activate the device and login to configure parameters remotely.

5.1.2 Connect to Wireless Network

The network distributor supports Wi-Fi AP mode. You can connect the device to the network via wireless network.

Steps

- 1. Enable the Wi-Fi AP mode of the device.
- **2.** Connect the computer to distributor via wireless network.
- **3.** Enter any content in the address bar of web browser, the configuration page of the distributor will pop up automatically.

What to do next

Activate the device and login to configure parameters remotely.

5.2 Activate Device via Client Software

You can only configure and operate the door station after creating a password for the device activation.

Default parameters of door station are as follows:

- Default IP Address: 192.0.0.65.
- Default Port No.: 8000.
- Default User Name: admin.

Steps

- Run the client software, click Maintenance and Management → Device Management → Device to enter the page.
- 2. Click Online Device.
- 3. Select an inactivated device and click Activate.
- 4. Create a password, and confirm the password.

🚺 Note

We highly recommend you to create a strong password of your own choosing (using a minimum of 8 characters, including at least three kinds of 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 change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

5. Click OK to activate the device.

📜 Note

- 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.

5.3 Activate via SADP

SADP is a tool to detect, activate and modify the IP address of the device over the LAN.

Before You Start

- Get the SADP software from the supplied disk or the official website <u>http://</u> <u>www.hikvision.com/</u>, and install the SADP according to the prompts.
- The device and the PC that runs the SADP tool should belong to the same subnet.

The following steps show how to activate one device and modify its IP address. For batch activation and IP address modification, refer to *User Manual of SADP* for details.

Steps

- 1. Run the SADP software and search the online devices.
- 2. Find and select your device in online device list.
- 3. Input new password (admin password) and confirm the password.

\land Caution

STRONG PASSWORD RECOMMENDED-We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including 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 system, resetting the password monthly or weekly can better protect your product.

4. Click Activate to start activation.

END+								0
1						limit	Select.	Automate the Devitor
I D I A Dear Spe	1 Hours	LTH ADDR	Line	I labor later [PAGeos		ter i tera S	-	
20	100	0.144.20	1.000	Printing and a second s		_		
	Arres	WAAA21	0.000	- pussing		-		4
-	ALC: Y	(0148,8,737)			101	_		
-	1000	(plakity)	-		10	-		The device is not activated
	April (40.18A.207	-	MANAGE	int.	1.000	-	
-	a lossy	intakge:		Mikizu			_	
007	14		H.,	Inactive	192.168.1.64		1.1.64	1
M interested	Se	lect in	activ	ve device.	-		-	Not part modify the reduced perpension of the latent automation
				Input and confirm			tion Payment (
							Confere Party and Andrease	
				passworu.			and the second s	
				password.				Carlier Personni Annanan (antio Medicanan

Status of the device becomes Active after successful activation.

- 5. Modify IP address of the device.
 - 1) Select the device.
 - 2) Change the device IP address to the same subnet as your computer by either modifying the IP address manually or checking **Enable DHCP**.
 - 3) Input the admin password and click **Modify** to activate your IP address modification.

5.4 Activate Device via Web

You are required to activate the device first by setting a strong password for it before you can use the device.

Default parameters of the door station are as follows:

- Default IP Address: 192.0.0.65.
- Default Port No.: 8000.
- Default User Name: admin

Steps

- 1. Power on the device, and connect the device to the network.
- **2.** Enter the IP address into the address bar of the web browser, and click **Enter** to enter the activation page.

🚺 Note

The computer and the device should belong to the same subnet.

- **3.** Create and enter a password into the password field.
- 4. Confirm the password.
- 5. Click OK to activate the device.

6 Remote Configuration via Web

6.1 Login and Logout

6.1.1 Log in the Web

After you activate the device and get the IP address, you can access the device via web browser.

Steps

- 1. Open the web browser and input the IP address of the device in the address bar and then press the Enter key to enter the login page.
- 2. Enter the user name and password.
- 3. Click Login.

6.1.2 Logout

Click Logout on the upper-right of the page to logout.

6.2 Quick Configuration

After login the device ,the wizard page will pop up. Configure the parameters quickly to make the devices in the system work properly.

Steps

- 1. Set the network parameters and click Next.
 - Edit IPv4 Address, IPv4 Subnet Mask, and IPv4 Default Gateway manually.
 - Enable DHCP, the device will get network parameters automatically.
- 2. Set two-way communication parameters and click Next.
 - 1) Create a Registration Password.
 - 2) Link related device, including Main Door Station IP, Main Station IP and Private Server IP.
- 3. Set Start Dialing Address, Start Room No., Batch Adding Devices and Batch Adding Floor No. to configure device parameters in batch.
- 4. Click Complete to enable the settings.

6.3 Device Management

You can manage the linked device on the page.

Click Device Management to enter the settings page.

Add Device

- Click **Add** to add the indoor station or sub door station. Enter the parameters and click **OK** to add.
- Click **Import**. Enter the information of the device in the template to import devices in batch.

Export

Click Export to export the information to the PC.

Delete

Select the device and click **Delete** to remove the selected device from the list.

Refresh

Click Update Device Status to get the device information.

🗇 i Note

The refreshing will last 1 to 20 minutes, do not power off during the refreshing.

Optional: Set Device Information

- Click ^{III} to edit device information.
- Click
 to delete device information from the list.
- Select Status to search devices.

6.4 Configuration

6.4.1 System Settings

Follow the instructions below to configure the system settings, include System Settings, Maintenance, Security, and User Management, etc.

Click **Configuration** \rightarrow **System** to enter the settings page.

Basic Information

Click System Settings → Basic Information to enter the settings page. On the page, you can edit Device Name and Device No., and select System Type according to your needs.

Click Save to enable the settings.

View Source Software License

Click System Settings \rightarrow About , and click View License to view the source software license.

Maintenance

Click Maintenance → Upgrade & Maintenance to enter the settings page.

- Reboot: Click **Reboot** to reboot the device.
- Restore

Click **Default** to reset the parameters to the default settings, except the IP parameters and user information.

Restore All

Click Restore All to restore all parameters to default settings.

- Export parameters:
 - 1. Click **Export** to pop up the dialog box.
 - 2. Set and confirm the encryption password.
 - 3. Click **OK** to export parameters.
- Import Config. File:
 - 1. Click \square to select the configuration file.
 - 2. Click Import and enter the encryption password to import.
- Upgrade: Click **Browse** to select the upgrade file.
🕕 Note

The upgrading process will last 1 to 10 minutes, do not power off during the upgrading. The device reboots automatically after upgrading.

Security Service

Click **Security** \rightarrow **Security Service** to enter the settings page.

Enable SSH: When the device needs to be debugged in remote, you can slide **Enable SSH**. If the device needn't to be debugged in remote, you should disable it to improve the device security.

After Settings, click Save to enable the settings.

Certificate Management

Click **Security** \rightarrow **Cerificate Management** to enter the settings page.

Certificate Files

Select Cerificate Type.

Click Create and enter the parameters to create certificate files.

Import Passwords

Select **Certificate Type** and click \Box to install the certificate file.

Import Communication Certificate

Select **Certificate Type** and click \square to install the certificate file.

User Management

Click User Management to enter the settings page.

Click d to modify user password, and click **OK** to save the settings.

፲ i Note

We highly recommend you to create a strong password of your own choosing (using a minimum of 8 characters, including at least three kinds of 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 change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

6.4.2 Network Settings

TCP/IP Settings

TCP/IP settings must be properly configured before you operate the device over network. The device supports IPv4.

Steps

- 1. Click Network → Basic Settings → TCP/IP to enter the settings page.
- 2. Configure the network parameters.
 - Check DHCP, the device will get the parameters automatically.
 - Set the IPv4 Address, IPv4 Subnet Mask and IPv4 Default Gateway manually.
- 3. Click Save to enable the settings.

Port Settings

Steps

- 1. Click Network → Basic Settings → Port to enter the settings page.
- 2. Set the ports of the device.

HTTP Port

The default port number is 80, and it can be changed to any port No. which is not occupied.

Server Port

The default server port number is 8000, and it can be changed to any port No. ranges from 2000 to 65535.

3. Click Save to enable the settings.

SIP Setting

Steps

1. Click Network → Basic Settings → SIP to enter the settings page.

		Register User Name
		Registration Password
		Server Address
	5060	Server Port
) minute(60	Expiry Time-
		Register Status
		Number
		Display User Name

Figure 6-1 SIP Settings

- 2. Check Enable VOIP Gateway.
- 3. Configure the SIP parameters.
- 4. Click Save to enable the settings.

HTTP Listening

Click **Configuration** \rightarrow **Network** \rightarrow **Advanced** \rightarrow **HTTP Listening** to enter the settings page.

Enter the parameters according to the page and click **Save** to enable the function.

Capture Network Packet

Click **Network** → **Capture Network Packet** to enter the settings page.

Slide to adjust the Capture Packet Duration and Capture Packet Size.

Click **Capture** to get the network packet.

6.4.3 Intercom Settings

Device No. Settings

You can set the No. of the device to manage more than two devices.

Steps

- **1.** Click **Configuration** → **Intercom** → **Device No.** to enter the settings page.
- 2. The Device Type is Decoder Station by default.
- 3. Edit the Communication No., Building No. and Unit No.
- 4. Click Save to enable settings.

Session Settings

You can set session to establish the communication between main station with indoor station, outerdoor station, door station or video intercom server.

Click Configuration → Intercom → Session Settings .

Set Registration Password, Main Door Station IP, Main Station IP and Private Server IP.

Registrater Number

The register number of the device. It has been set by default.

Registration Password

The registration password of the communicated indoor station, outerdoor station, and door station.

Main Door Station IP

The IP address of main door station.

Main Station IP

The IP address of main station.

Private Server IP

The IP address of private server.

Click Save.

Call Settings

You can set the max. call duration and max. message duration of the device.

Steps

1. Click Configuration → Intercom → Call Settings to enter the settings page.

2. Slide to adjust Max. Call Duration and Max. Message Duration.

A. Cables

Cables and Wiring

- When there are multiple cores in one parallel line, only one pair of closed cores are allowed to transmit signal. It is not allowed to use multiple pair of cores in one cable to transmit signal.
- When using parallel lines, it is suggested to use those with shielding layer. If dual core or multiple core parallel lines without shielding layer are routed, stability of signal transmission can be effected. You need to run a test before installation.
- Impedance of cable should not be over suggested value, or distributor cannot transmit enough power to indoor station or door station.
- Strong electricity and weak electricity cannot be wired in the same route, they need to be wired separately and the distance should be more than 0.5 meter.
- All the cables used need to follow the restriction in the following table.

Routin g Path	Twisted Pair				Parallel Lines			
17AW	20AW	24AW	23AW	17AW	20AW	24AW	23AW	
G	G	G	G	G	G	G	G	
DS- KAD70 40 - DS- KD800 3-IME2	Transm ission Distanc e ≤ 50 m	Transm ission Distanc e ≤ 60 m	Transm ission Distanc e ≤ 35 m	Transm ission Distanc e ≤ 35 m	Transm ission Distanc e ≤ 50 m	Transm ission Distanc e ≤ 50 m	Transm ission Distanc e ≤ 35 m	Transm ission Distanc e ≤ 35 m
DS-	Transm							
KAD70	ission							
40 -	Distanc							

Table A-1 Wiring Cables

Routin g Path	Twisted Pair				Parallel Lines			
DS- KAD10 40	e ≤ 100 m	e ≤ 100 m	e ≤ 100 m	e ≤ 100 m	e ≤ 100 m	e ≤ 90 m	e ≤ 80 m	e ≤ 80 m
DS- KAD10 40 - DS- KH120 1	Transm ission Distanc e ≤ 200 m	Transm ission Distanc e ≤ 200 m	Transm ission Distanc e ≤ 80 m	Transm ission Distanc e ≤ 100 m	Transm ission Distanc e ≤ 120 m	Transm ission Distanc e ≤ 120 m	Transm ission Distanc e ≤ 80 m	Transm ission Distanc e ≤ 80 m

Video Intercom Two-Wire Bundle User Manual

Device Installation

- Installation environment (temperature, moisture etc.) need to follow requirements in specification or power output can be effected.
- Power consumption of modular door station (main module and sub modules) should be less than 48W. Please reach local technical support if you are not sure about power consumption of each module. Door station should be connected to CH1 of the video/audio distributor.
- Up to 15 video/audio distributor can be cascaded. If more distributors are needed, you should cascade network switch supporting 1000Mbps. The whole 2-wire system can have up to 600 devices.
- Power supply must be certified by Hikvision.

B. Communication Matrix and Device Command

Communication Matrix

Scan the following QR code to get the device communication matrix.

Note that the matrix contains all communication ports of Hikvision access control and video intercom devices.



Figure B-1 QR Code of Communication Matrix

Device Command

Scan the following QR code to get the device common serial port commands.

Note that the command list contains all commonly used serial ports commands for all Hikvision access control and video intercom devices.



Figure B-2 Device Command

