

Door Station

Installation Guide

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.
i Note	Provides additional information to emphasize or supplement important points of the main text.

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1 Appearance

Front and Side Panel



Figure 1-1 Front and Side Panel Table 1-1 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	

Bottom Panel



Figure 1-2 Bottom Panel Table 1-2 Appearance Description

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

2 Terminal and Wiring

2.1 Terminal Description



Figure 2-1 Terminals and Interfaces Table 2-1 Descriptions 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	Power Supply Output	
A8	GND	Grounding	
B1	AIN1	For the access of Door Magnetic 2	
B2	AIN2	For the access of Door Magnetic 1	
B3	AIN3	For the access of Exit Button 1	
B4	AIN4	For the access of Exit Button 2	
B5	485-	Module-connecting Interface	

No.	Interface	Description
B6	485+	
B7	12 V OUT	
B8	GND	
С	LAN	Power and Network Interface

2.2 Wiring Description

2.2.1 Power Supply Wiring

A Caution

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

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

Door station should be connected to CH6 of the video/audio distributor with two-wire cables.

Indoor Station should be connected to any terminal of CH1 to CH5 of the video/ audio distributor with two-wire cables.

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Figure 2-2 Wiring Description

2.2.2 Door Lock Wiring



Figure 2-3 Door Lock Wiring

i Note

- Terminal NC1/COM is set as default for accessing magnetic lock/electric bolt; terminal NO2/COM is set as default for accessing electric strike.
- Lock should be powered by itself. Max. voltage and current for relay is 30V and 1A.

2.2.3 Door Magnetic Wiring





🚺 Note

AIN1 and AIN2 are defaulted to connect door magnetic. Door magnetic connected to AIN1 detects status of the lock that connected to NC1/NO1; Door magnetic connected to AIN2 detects the status of the lock connected to NC2/NO2.

2.2.4 Exit Button Wiring

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i Note

AIN3 and AIN4 are set as default for connecting exit button. Exit button connected to AIN3 opens the lock connected to NC1/NO1; Exit button connected to AIN4 controls the lock that connected to NC2/NO2.

3 Installation

🧾 Note

- Make sure the device in the package is in good condition and all the assembly parts are included.
- Make sure the place for surface mounting is flat.
- Make sure all the related equipment is power-off during the installation.
- Tools that you need to prepare for installation: Drill (ø6), cross screwdriver (PH1*150 mm), and gradienter.

3.1 Configure Sub Module Address

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

Steps

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



Figure 3-1 DIP Switch

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

🧾 Note

- Digit 1, 2, 3, 4 are used to coding the sub module address; Digit 5, 6, 7 are reserved; Digit 8 is a resistance (120Ω) is you set it as on.
- Valid sub module address range is 1 to 8. The No. should be unique for sub modules that connected to the same main unit.

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

The sub module address and corresponding switch status as below.

Table 3-1 Description

3.2 One-Module Installation

3.2.1 Surface Mounting





Figure 3-2 Mounting Frame

i Note

- The dimension of one module mounting frame is: 117(W)×107(H)×32.7(D) 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 leveled via measuring with the gradienter.
- 2. Chisel 4 holes with drill align to the screw holes on the sticker.

i Note

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



Figure 3-3 Chisel Screw Hole

- 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.

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Figure 3-4 Fix the Mounting Frame

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



Figure 3-5 Insert the Main Unit

6. Fix the cover onto the frame.







3.2.2 Flush Mounting





Figure 3-7 Front and Side View of the Gang Box

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Figure 3-8 Gang Box

🚺 Note

- The dimension of one-module gang box is: 115(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

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

🗓 Note

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



Figure 3-9 Cave the Installation Hole

- **2.** Remove the plastic sheet in the cable entry.
- **3.** Insert the gang box into the hole and pull out the cables through the cable entry. Mark the screw holes' position with a marker, and take out the gang box.



Figure 3-10 Mark the Screw Holes

4. Chisel 4 holes with drill align to marks on the wall, and insert the expansion sleeves into the screw holes.

🧾 i Note

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

5. Fix the gang box with 4 expansion bolts.



Figure 3-11 Fix the Gang Box

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



Figure 3-12 Remove the Mounting Ears

- **7.** Insert the mounting frame together with the locating plates into the hole, and fix it with 4 expansion bolts.
- **8.** Connect the cables to the corresponding interfaces of the main unit and insert it into the gang box.



Figure 3-13 Insert the Main Unit

9. Use the hexagon wrench in the package fix the cover.



Figure 3-14 Fix the Cover

3.3 Two-Module Installation

3.3.1 Two-Module Surface Mounting



Figure 3-15 Mounting Frame

🚺 Note

- The dimension of two-module mounting frame is: 219(W)×107 (H)×32.7(D) 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 leveled via measuring with the gradienter.
- Chisel 4 holes with drill align 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 3-16 Chisel 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 3-17 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 3-18 Placement of Lines

- 6. Connect the cables.
 - Connect the cables 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 line with cable tie in the package. The suggested line connection picture as below.



Figure 3-19 Line Connection Effect Picture

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



Figure 3-20 Insert the Modules

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

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3.3.2 Two-Module Flush Mounting

Before You Start





Figure 3-22 Gang Box

🚺 Note

- The dimension of one-module gang box is: 237(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 220(W)×108(H)×45.5(D) mm. The suggested length of cables left outside is 270 mm.



Figure 3-23 Cave the Installation Hole

- 2. Remove the plastic sheet of the cable entry which will be used.
- Insert the gang box into the hole and pull out the cables through the cable entry. Mark the screw holes' position with a marker, and take out the gang box.



Figure 3-24 Mark the Screw Holes

- Chisel 4 holes with drill align 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 3-25 Fix the Gang Box

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



Figure 3-26 Remove the Mounting Ears

- 7. Connect wires 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.
 - 2) Connect the other end of Cable 2 to the input interface of the sub module. Insert it into the lower grid.



Figure 3-27 Connect Wires 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. Use the hexagon wrench in the package fix the cover.



Figure 3-28 Fix the Cover

3.4 Three-Module Installation

3.4.1 Three-Module Surface Installation

Before You Start



Figure 3-29 Mounting Frame

🚺 Note

- The dimension of two-module mounting frame is: 320.8 (W) \times 107 (H) \times 32.7(D) 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 leveled via measuring with the gradienter.
- Chisel 4 holes with drill align 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 3-30 Chisel Screw Hole

- 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 3-31 Fix the Mounting Frame

i Note

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



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

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Figure 3-33 Placement of Lines

- 6. Connect the cables.
 - 1) Connect the cables 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 line1 to the input interface of the sub module. Connect two sub modules via module-connecting line 2.
 - 3) Organize the line with cable tie in the package. The suggested line connection picture as below.







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



Figure 3-35 Insert the Modules into the Frame

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



Figure 3-36 Fix the Cover

3.4.2 Three-Module Flush Mounting

Before You Start





🚺 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 3-38 Cave the Installation Hole

- 2. Remove the plastic sheet of the cable entry which will be used.
- **3.** Insert the gang box into the hole and pull out the cables through the cable entry. Mark the screw holes' position with a marker, and take out the gang box.



Figure 3-39 Mark the Screw Holes

- Chisel 4 holes with drill align 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 3-40 Fix the Gang Box

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





- 7. Connect wires 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.
 - 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.
 - Connect the other end of Cable 3 to the input interface of Sub Module 2. Insert it into the bottom grid.





🧾 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. Use the hexagon wrench in the package to fix the cover onto the gang box.





3.5 More-Than-Three Module Installation

3.5.1 More-Than-Three Module Surface Mounting

Before You Start





🧾 Note

- It takes two three-module mounting frames. The dimension of three-module mounting frame is: 320.8(W)×107 (H)×32.7(D) 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 leveled via measuring with the gradienter.
- Chisel 8 holes with drill align 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.
- 3. Pull out the cable through the cable hole of the left sticker.



Figure 3-45 Chisel 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 3-46 Place the Grounding Line and Module-Connecting Line

间 Note

- There are 6 module-connecting lines in the package: 190 mm × 4 and 400 mm × 2.
- Take the 400 mm one 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 3-47 Fix the Mounting Frame

7. Pass the main unit connecting lines 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 below:





8. Connect the cables.

- 1) Connect the cables 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 line1 to the input interface of the sub module. Connect all sub modules via module-connecting lines.
- 3) Organize the line with cable tie in the package. The suggested line connection picture as below.



Figure 3-49 Line Connection Effect Picture

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



Figure 3-50 Insert the Modules

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





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



Figure 3-52 Fix the Cover

3.5.2 More-Than-Three Module Flush Mounting



🚺 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 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) × 315 (H) × 45.5 (D) mm. The suggested length of cables left outside is 270 mm.



Figure 3-54 Cave the Installation Hole

2. Connect two gang boxes as below.



Figure 3-55 Connect Two Gang Boxes

3. Remove the plastic sheet of the cable entry which will be used.

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



Figure 3-56 Remove the Plastic Sheets

5. Insert the gang boxes into the hole and pull out the cables through the cable entry. Mark the screw holes' position with a marker, and take out the gang boxes.



Figure 3-57 Mark the Screw Holes

- Chisel 8 holes with drill align 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.
- 7. Fix the gang boxes with 8 expansion bolts.



Figure 3-58 Fix the Gang Boxes

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





🚺 Note

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

- 9. Connect wires 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.

- 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 3-60 Install Mounting Frame

The cables connect to each module shown as below.



Figure 3-61 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 3-62 Connect the Grounding Line to the Cover

11. Use the hexagon wrench in the package fix the cover onto the gang box.



Figure 3-63 Fix the Cover

A. Extension Modules

Module Door station has the modules below:

Model	Appearance	Description
DS-KD-KK		Nametag Module
DS-KD-IN	¢ P	Indicator Module
DS-KD-KP		Keypad Module
DS-KD-M(E)		Card Reader Module
DS-KD-BK		Blank Module

B. Cables

Routing Path	24AWG (0.2mm²)	20AWG (0.5mm²)	18AWG (0.8mm²)	RVV 4
DS-KAD706 - DS-KAD706-S	Transmission Distance ≤ 60 m	Transmission Distance ≤ 60 m	Transmission Distance ≤ 60 m	Transmission Distance ≤ 35 m
DS-KAD706-S - DS-KAD706-S	Transmission Distance ≤ 60 m	Transmission Distance ≤ 60 m	Transmission Distance ≤ 60 m	Transmission Distance ≤ 35 m
DS-KAD706- DS-KD8003- IME2	Transmission Distance ≤ 35 m	Transmission Distance ≤ 60 m	Transmission Distance ≤ 60 m	Transmission Distance ≤ 35 m
DS-KAD706- DS-KH6320- WTE2	Transmission Distance ≤ 35 m	Transmission Distance ≤ 60 m	Transmission Distance ≤ 60 m	Transmission Distance ≤ 35 m

Table B-1 Wiring Cables

