



DS-K3G411 Series Tripod Turnstile

Quick Start Guide

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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.

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



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 Dangers and Cautions:

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

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

| | |
|---|---|
|  |  |
| Dangers: Follow these safeguards to prevent serious injury or death. | Cautions: Follow these precautions to prevent potential injury or material damage. |

Danger:

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- The equipment must be connected to an earthed mains socket-outlet.
- Shock hazard! Disconnect all power sources before maintenance.
- Do not touch the bare metal contacts of the inlets after the circuit breaker is turned off. Electricity still exists.
- This equipment is not suitable for use in locations where children are likely to be present.
- To prevent possible hearing damage, do not listen at high volume levels for long periods.
- 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.
If the top caps should be open and the device should be powered on for maintenance, make sure:
 - Power off the fan to prevent the operator from getting injured accidentally.
 - Do not touch bare high-voltage components.
 - Make sure the switch's wiring sequence is correct after maintenance.
- 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.
- Do not ingest battery, Chemical Burn Hazard.
This product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it

can cause severe internal burns in just 2 hours and can lead to death.

Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

- 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.)
- The Terminal PE of the switch should be connect to a ground wire.

⚠Cautions:

- The equipment shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the equipment.
- The equipment has been designed, when required, modified for connection to an IT power distribution system.
- Ensure correct wiring of the terminals for connection to an AC mains supply.
- Provide a surge suppressor at the inlet opening of the equipment under special conditions such as the mountain top, iron tower, and forest.
- The equipment has been designed, when required, modified for connection to an IT power distribution system.
- No naked flame sources, such as lighted candles, should be placed on the equipment.
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains, etc. The openings shall never be blocked by placing the equipment on a bed, sofa, rug or other similar surface.
- This equipment is suitable for mounting on concrete or other non-combustible surface only.
- The serial port of the equipment is used for debugging only.
 - Install the equipment according to the instructions in this manual.
 - To prevent injury, this equipment must be securely attached to the floor/base of the turnstile in accordance with the installation instructions.
- Keep straight down when moving or using the equipment.
- Never place the equipment in an unstable location. The equipment may fall, causing serious personal injury or death.
- Stainless steel may be corroded in some circumstances. You need to clean and care the device by using the stainless steel cleaner. It is suggested to clean the device every month.
- 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.
- Biometric recognition products are not completely applicable to anti-spoofing environments. If you require a higher security level, use multiple authentication modes.
- Do not stay in the lane when the device is rebooting.
- RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.
- SUITABLE FOR MOUNTING ON CONCRETE OR OTHER NON-COMBUSTIBLE SURFACE ONLY.
- The instructions shall require connection of the equipment protective earthing conductor to the installation protective earthing conductor.

Available Models

| Product Name | Model |
|------------------|-----------|
| Tripod Turnstile | DS-K3G411 |

Scan the QR code to get User Manual of Tripod Turnstile. Note that mobile data charges may apply if Wi-Fi is unavailable.



Figure 1-1 QR Code

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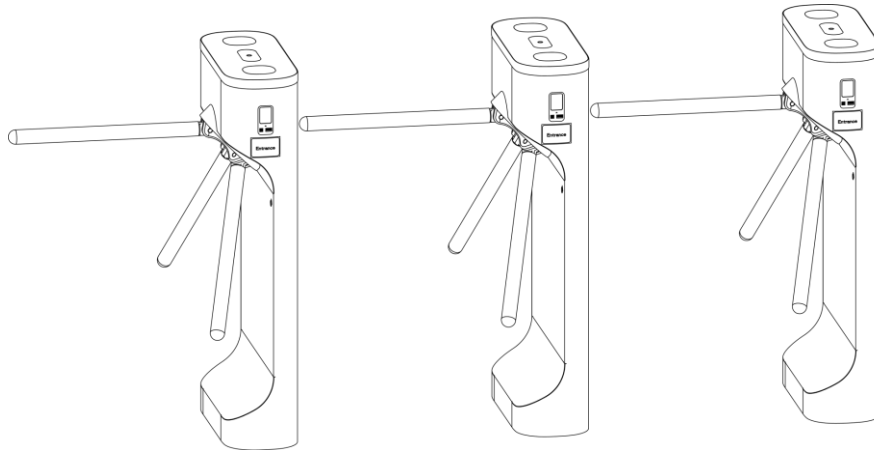
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Chapter 1 Overview

1.1 Introduction



The tripod turnstile is designed to detect unauthorized entrance or exit. By adopting the turnstile integratedly with the access control system, person should authenticate to pass through the lane via swiping IC or ID card, scanning QR code, etc. It is widely used in attractions, stadiums, construction sites, residences, etc.

1.2 Main Features

- 32-bit high-speed processor
- TCP/IP network communication
The communication data is specially encrypted to relieve the concern of privacy leak
- Remaining open/closed mode selectable
- Bidirectional (Entering/Exiting) lane
The barrier opening and closing speed can be configured according to the visitor flow
- Self-detection, Self-diagnostics, and automatic alarm
- Remote control and management
- Online/offline operation
- LED indicates the entrance/exit and passing status
- Barrier is in free status when powered down. People can pass through the lane along single/both single and double directions
- Fire alarm passing
When the fire alarm is triggered, the barrier will be dropped down automatically for emergency evacuation
- Valid passing duration settings
System will cancel the passing permission if a person does not pass through the lane within the

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valid passing duration

- Opens/Closes barrier according to the schedule template
- Up to 3000 visitor cards and up to 60,000 cards except for visitor cards can be added
- Up to 180,000 presenting card events can be recorded
- Adjustable strip light brightness

Chapter 2 System Wiring

The preparation before installation and general wiring.

Steps

1. Draw a central line on the installation surface of the left or right pedestal.
2. Draw other parallel lines for installing the other pedestals.

Note

The distance between the nearest two line is $581+200$ mm. L represents the lane width.

3. Slotting on the installation surface and dig installation holes according to the hole position diagram.

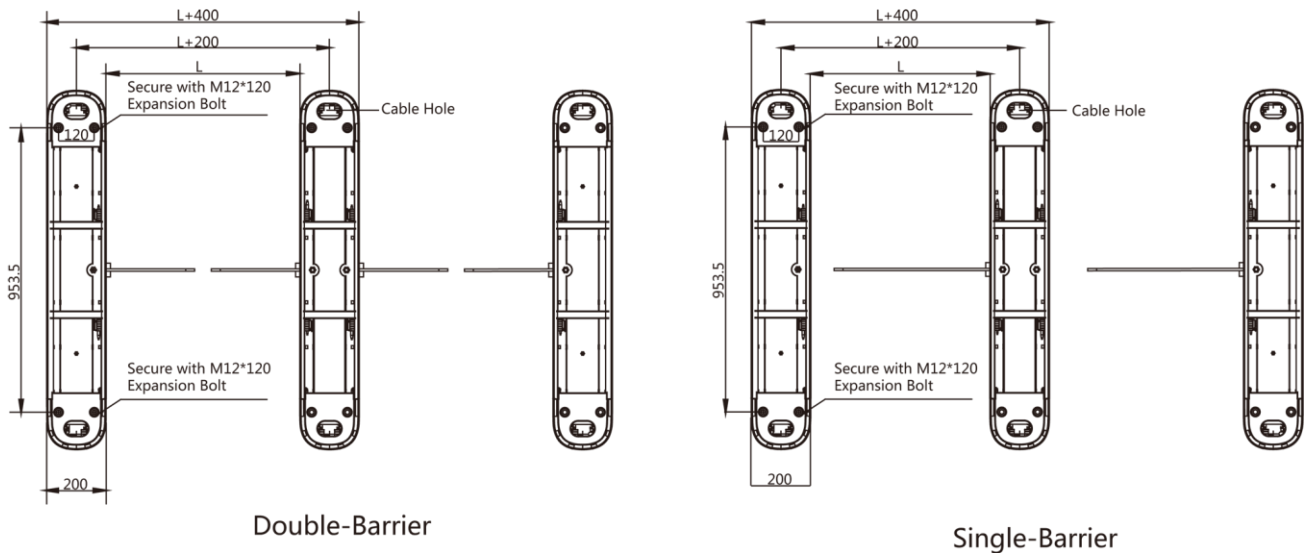


Figure 2-1 Hole Position Diagram

4. Bury cables. Each lane buries 1 network cable and 1 high voltage cable. For details, see the system wiring diagram below.

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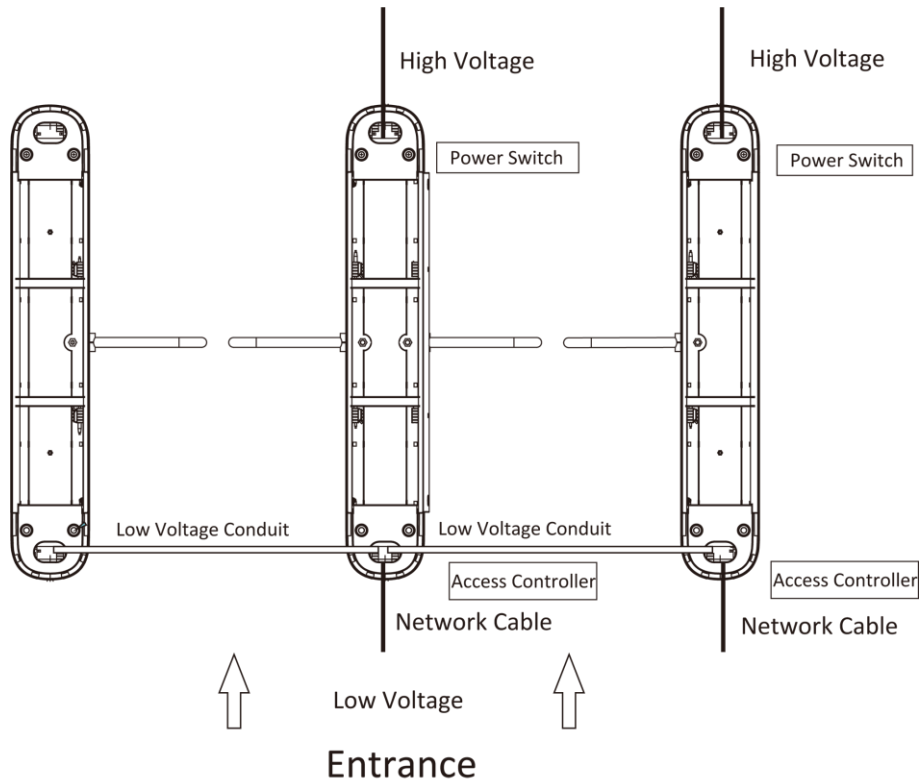


Figure 2-2 System Wiring Diagram

Note

- The suggested inner diameter of the low voltage conduit is larger than 30 mm.
 - If the face recognition module are required to be connected on the left lane, you should increase the conduit diameter or bury another conduit for the external cables.
 - You should bury one network cable and one high voltage conduit for the right and middle lane.
 - The network cable must be CAT5e or the network cable has better performance. And the suggested network cable length should be less than 100 m.
-

Chapter 3 Installation

3.1 Disassemble Pedestals

Before installation, you should use the key to open the pedestals.
View the pictures below to find the lock holes.

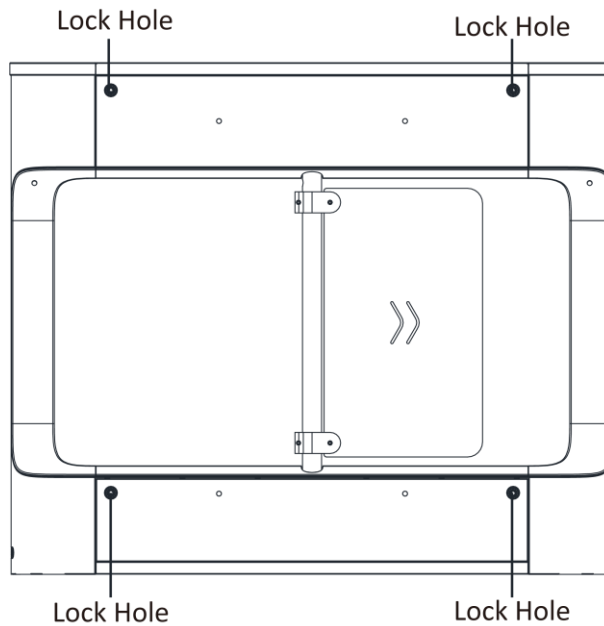


Figure 3-1 Lock Holes

3.2 Install Pedestals

Before You Start

Prepare for the installation tools, check the device and the accessories, and clear the installation base.

Steps

Note

- The device should be installed on the concrete surface or other non-flammable surfaces.
- No face recognition terminal installed: If the installation area is too close to the wall, make sure the distance between the pedestal and the wall should be more than 20 mm, or the surface may be scratched.

Face recognition terminal installed: If the installation area is too close to the wall, make sure the distance between the pedestal and the wall should be more than 20 mm, or the surface may be scratched.

- The dimension is as follows.

Figure 3-2 Dimension

1. Prepare for the installation tools, check the components, and prepare for the installation base.
2. Drill holes on the ground according to the installation holes on the pedestals and insert the expansion sleeves.
3. Seal the bottom of the turnstile to avoid water from entering.

Note

Make sure the installation holes on the pedestals and the base are aligned with each other.

4. Secure the pedestals with expansion bolts.

Note

- Do not immerse the pedestal in the water. In special circumstances, the immersed height should be no more than 690 mm.
- The installation footprint is as follows:

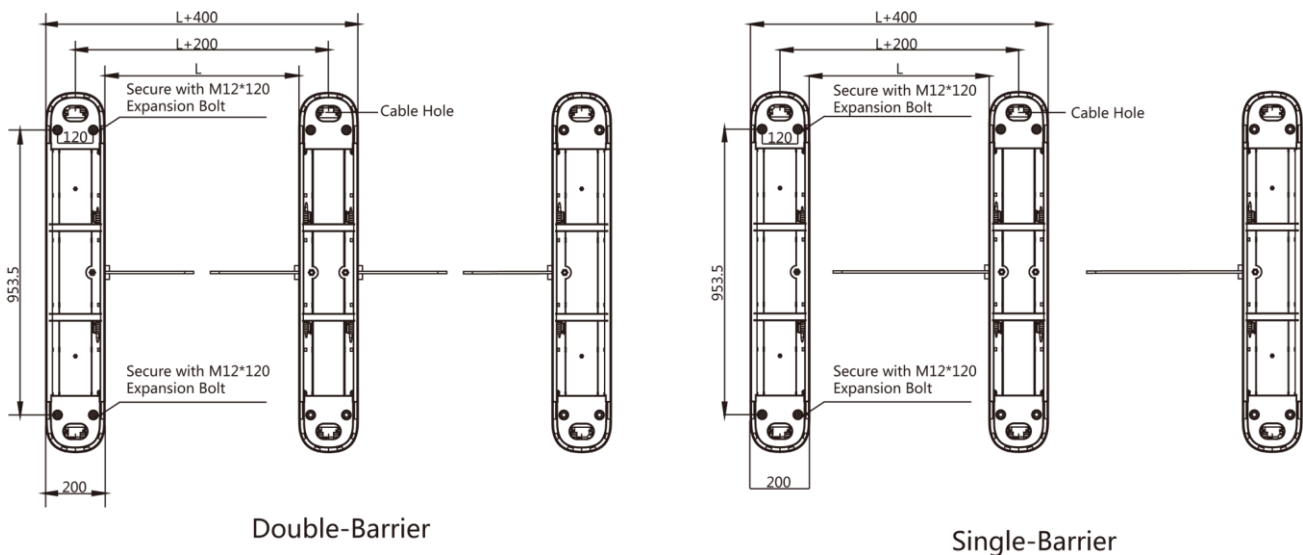


Figure 3-3 Installation Footprint

5. Install the arms with 3 screws.

 **Note**

Apply thread glue on the screws before securing the arms, in order to prevent the arms from dropping down because of the vibration or the long time usage of the device.

Chapter 4 General Wiring

4.1 Components Introduction

By default, basic components of the turnstile are connected well. The turnstile supports wiring the AC electric supply for the whole system's power supply.

 **Note**

The voltage fluctuation of the electric supply is between 100 VAC and 220 VAC, 50 to 60 Hz.

The picture displayed below describes each component's position on the turnstile.

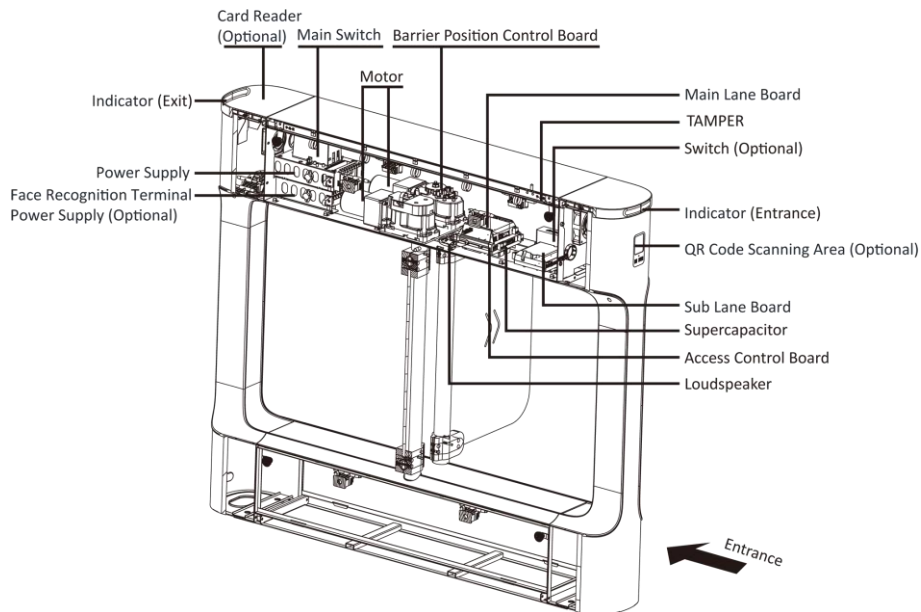
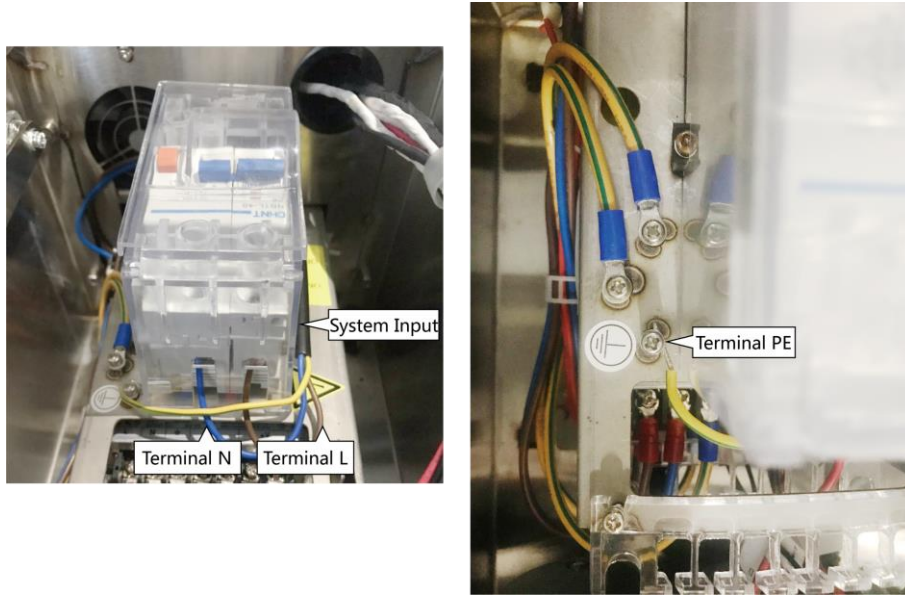


Figure 4-1 Components Diagram 1

4.2 Wiring Electric Supply

Wire electric supply with the switch in the pedestal. Terminal L and terminal N are on the switch,

while terminal PE should connect to a ground wire (yellow and green wire).



Warning

Terminal PE should connect to a ground wire to avoid hazard when people touching the device.

Note

- The cable bare part should be no more than 8 mm. If possible, wear an insulation cap at the end of the bare cable. Make sure there's no bare copper or cable after the wiring.
 - The Terminal L and the Terminal N cannot be wired reversely. Do not wire the input and output terminal reversely.
 - To avoid people injury and device damage, when testing, the ground resistance of the equipotential points should not be larger than 2 Ω .
-

4.3 Wire Network Switch

Connect the network cable and the network switch.

Steps

1. Use the key to open the side panel of the pedestal.

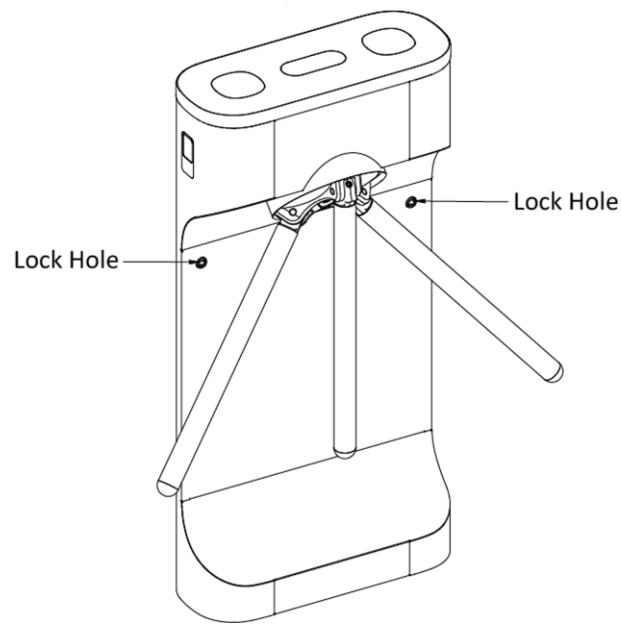


Figure 4-2 Open Side Panel

2. Connect the network cable with the network switch.

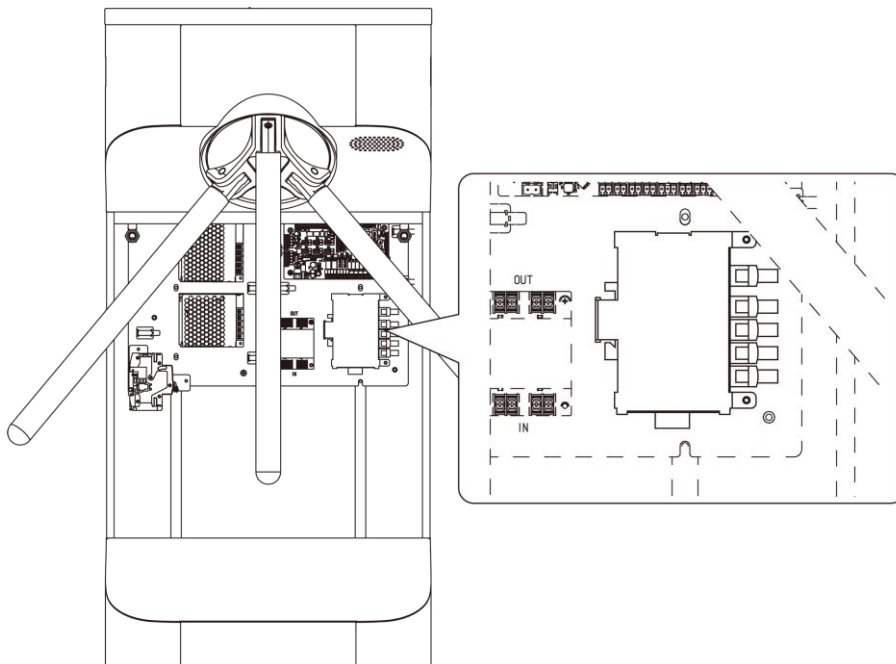


Figure 4-3 Network Switch Position

4.4 Terminal Description

4.4.1 Access Control Board Terminal and BUS Terminal Description

Access Control Board Description

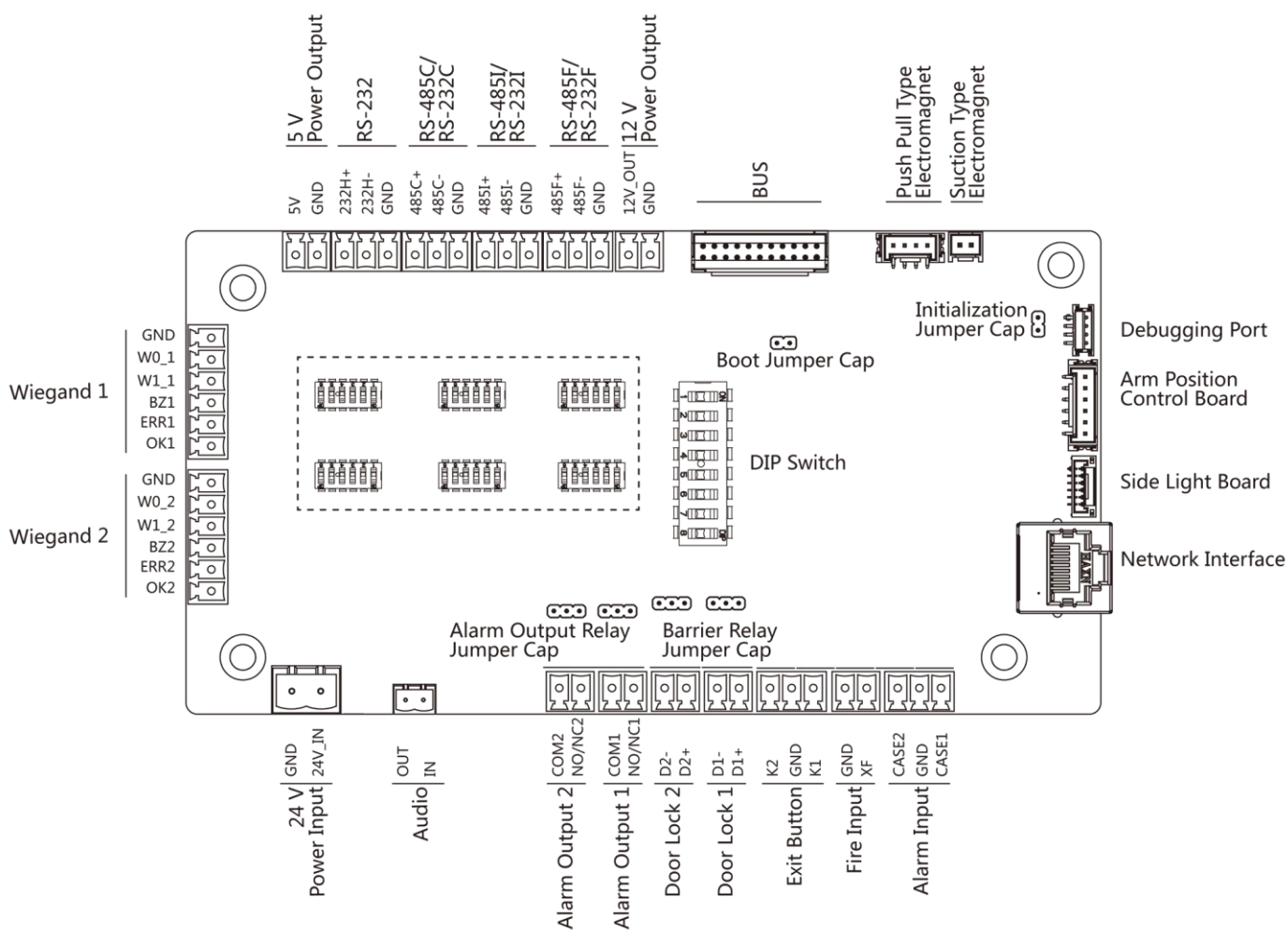





Figure 4-4 Access Control Board Diagram



Table 4-1 Access Control Board Terminal Description Table

| Interface Name | Terminal Name | Description | Remark |
|------------------|---------------|-------------------|--------|
| 24 V Power Input | +24 V | 24 V Power Output | / |
| | GND | Grounding | |
| Audio | OUT | Audio Output | / |
| | IN | Audio Input | |



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| Interface Name | Terminal Name | Description | Remark |
|----------------|---------------|---------------------------------------|---|
| Alarm Output 2 | NO/NC2 | Alarm Output Relay 2 (Dry Contact) |  Note The alarm output supports relay output. |
| | COM2 | | |
| Alarm Output 1 | NO/NC1 | Alarm Output Relay 1 (Dry Contact) |  Note The alarm output supports relay output. |
| | COM1 | | |
| Door Lock 2 | D2+ | Door 2 Relay Output (Dry Contact) |  Note For any requirements, the door lock can control the door barrier status of the third party. D1 controls the barrier opening for entrance, while D2 controls the door opening for exit. For details, see <i>Barrier Control Relay Output Mode.</i> |
| | D2- | | |
| Door Lock 1 | D1+ | Door 1 Relay Output | |


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| Interface Name | Terminal Name | Description | Remark |
|-------------------|---------------|---------------------|---|
| | D1- | (Dry Contact) | <hr/>  Note For any requirements, the door lock can control the door barrier status of the third party. D1 controls the barrier opening for entrance, while D2 controls the door opening for exit. For details, see <i>Barrier Control Relay Output Mode.</i> <hr/> |
| Exit Button | K1 | Door 1 Signal Input | / |
| | GND | Grounding | |
| | K2 | Door 2 Signal Input | |
| Fire Input | XF | Fire System Input | / |
| | GND | Grounding | |
| Event Input | CASE1 | Event Alarm Input 1 | <hr/>  Note The alarm input hardware interface is normally open by default. So only the normally open signal is allowed. It can be linked to the buzzer of the card reader and access controller, and the alarm relay output and open door relay output. <hr/> |
| | GND | Grounding | |
| | CASE2 | Event Alarm Input 2 | |
| Network Interface | LAN | Network Accessing | / |

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| Interface Name | Terminal Name | Description | Remark |
|------------------------------|---------------|---|--|
| Side Light Board | / | Light Board Accessing | / |
| Arm Position Control Board | / | Arm Position Control Board Accessing | / |
| Debugging Port | / | For Debugging Only | / |
| Suction Type Electromagnet | / | Suction Type Electromagnet Accessing | / |
| Push Pull Type Electromagnet | / | Push Pull Type Electromagnet Accessing | / |
| BUS | / | BUS Accessing | <p> Note</p> <p>For details, see the BUS terminal description table below.</p> |
| RS-485F/RS-232F | 485F+ | RS-485+ Terminal of Face Recognition Terminal Accessing (Default) | <p> Note</p> <ul style="list-style-type: none"> ● The DIP of RS-485 card ID is set as 1 and 4 by default. 1 is for entering, and 4 is for exiting. ● If the visitor card is configured, you should wire two card readers for the exiting side. One's DIP address is 4, and the other is 3. Card Reader 3 can be applied together with the card receiver. The normal user can authenticate on Card Reader 4 and the visitor can |
| | 485F- | RS-485- Terminal of Face Recognition Terminal Accessing (Default) | |
| | GND | Grounding | |

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| Interface Name | Terminal Name | Description | Remark |
|-----------------|---------------|---|---|
| | | | <p>authenticate on Card Reader 3.</p> <ul style="list-style-type: none"> You can switch the communication mode between RS-485 and RS-232. For details about the DIP switch description, see <i>Access Control Board DIP Switch Description</i> |
| RS-485I/RS-232I | 485I+ | RS-485+ Terminal of Face Recognition Terminal Accessing (Default) | <p> Note</p> <ul style="list-style-type: none"> The DIP of RS-485 card ID is set as 1 and 4 by default. 1 is for entering, and 4 is for exiting. If the visitor card is configured, you should wire two card readers for the exiting side. One's DIP address is 4, and the other is 3. Card Reader 3 can be applied together with the card receiver. The normal user can authenticate on Card Reader 4 and the visitor can authenticate on Card Reader 3. You can switch the communication mode between RS-485 and RS-232. |
| | 485I- | RS-485- Terminal of Face Recognition Terminal Accessing (Default) | |
| | GND | Grounding | |

| Interface Name | Terminal Name | Description | Remark |
|-----------------|---------------|--|---|
| | | | <p>For details about the DIP switch description, see <i>Access Control Board DIP Switch Description</i></p> |
| RS-485C/RS-232C | 485C+ | RS-232_RX Terminal of Fingerprint Recorder Accessing (Default) | <p> Note</p> <ul style="list-style-type: none"> ● The DIP of RS-485 card ID is set as 1 and 4 by default. 1 is for entering, and 4 is for exiting. ● If the visitor card is configured, you should wire two card readers for the exiting side. One's DIP address is 4, and the other is 3. Card Reader 3 can be applied together with the card receiver. The normal user can authenticate on Card Reader 4 and the visitor can authenticate on Card Reader 3. ● You can switch the communication mode between RS-485 and RS-232. For details about the DIP switch description, see <i>Access Control Board DIP Switch Description</i> |
| | 485C- | RS-232_TX Terminal of Fingerprint Recorder Accessing (Default) | |
| | GND | Grounding | |

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| Interface Name | Terminal Name | Description | Remark |
|-----------------------|---------------|---|---|
| | | | |
| RS-232H | 232H+ | RS-232_RX Terminal of QR Code Scanner Accessing (Default) |  Note The terminal is for RS-232 communication only. You cannot switch its communication mode. |
| | 232H- | RS-232_TX Terminal of QR Code Scanner Accessing (Default) | |
| | GND | Grounding | |
| 5 V Power Output | 5 V | 5 V Power Output | / |
| | GND | Grounding | |
| Wiegand Card Reader 1 | OK1 | Indicator of Card Reader Control Output (Invalid Card Output) |  Note The Wiegand card reader 1 refers to the card reader (entering). |
| | ERR1 | Indicator of Card Reader Control Output (Valid Card Output) | |
| | BZ1 | Card Reader Buzzer Control Output | |
| | W1_1 | Wiegand Reading Data Input Data1 | |
| | W0_1 | Wiegand Reading Data Input Data0 | |
| | GND | Grounding | |
| Wiegand Card Reader 2 | OK2 | Indicator of Card Reader Control Output (Invalid Card Output) |  Note The Wiegand card reader 1 refers to the card reader (entering). |
| | ERR2 | Indicator of Card Reader Control Output (Valid Card Output) | |

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| Interface Name | Terminal Name | Description | Remark |
|----------------|---------------|-----------------------------------|--------|
| | BZ2 | Card Reader Buzzer Control Output | |
| | W1_2 | Wiegand Reading Data Input Data1 | |
| | W0_2 | Wiegand Reading Data Input Data0 | |
| | GND | Grounding | |

BUS Terminal Description

You can connect the card reader, QR code scanner, etc. via the BUS terminal.




Table 4-2 BUS Terminal Description Table

| Interface Name | Terminal Name | Color | Description |
|-------------------------------|---------------|--------|--|
| Lane Controller Light Board 1 | 12V | Red | |
| | PD_485+ | Yellow | RS-485+ of Light Board Accessing |
| | PD_485- | Blue | RS-485- of Light Board Accessing |
| | GND | Black | Grounding |
| Lane Controller Light Board 1 | 12V | Red | 12 V Power Terminal |
| | PD_485+ | Yellow | RS-485+ of Light Board Accessing |
| | PD_485- | Blue | RS-485- of Light Board Accessing |
| | GND | Black | Grounding |
| UART 1 (In Card Reader) | 12V | Red | 12 V Power Terminal |
| | PA_485/232+ | Yellow | RS-485+ of Card Reader Accessing (Default) |
| | PA_485/232- | Blue | RS-485- of Card Reader Accessing (Default) |
| | GND | Black | Grounding |
| TAMPER | TAMPER | Brown | TAMPER |



Note

For RS-485A/RS-232A

| Interface Name | Terminal Name | Color | Description |
|--|---------------|--------|---|
| | GND | Brown | Grounding |
| UART 8 (QR Code) <hr/>  Note For RS-232G | 5V | Red | 5 V Power Terminal |
| | 232+ | Blue | RS-232- of QR Code Scanner Accessing (Default) |
| | 232- | Green | RS-232- of QR Code Scanner Accessing (Default) |
| | GND | Black | Grounding |
| UART 5 (Out Card Reader) <hr/>  Note For RS-232E/RS-485E | 12V | Red | 12 V Power Terminal |
| | 485/232+ | Yellow | RS-485+ of Card Reader Accessing (Default) |
| | 485/232- | Blue | RS-485- of Card Reader Accessing (Default) |
| | GND | Black | Grounding |
| UART 2 (Out Fingerprint) <hr/>  Note For RS-232B/RS485B | 5V | Red | 5 V Power Terminal |
| | PB_485/232+ | Purple | RS-232_RX of Fingerprint Recorder Accessing (Default) |
| | PB_485/232- | Yellow | RS-232_TX of Fingerprint Recorder Accessing (Default) |
| | GND | Black | Grounding |

4.4.2 Access Control Board DIP Switch Description

You can set the device mode, switch the communication mode between RS-232 and RS-485, initialize the device via the DIP switch on the access control board.

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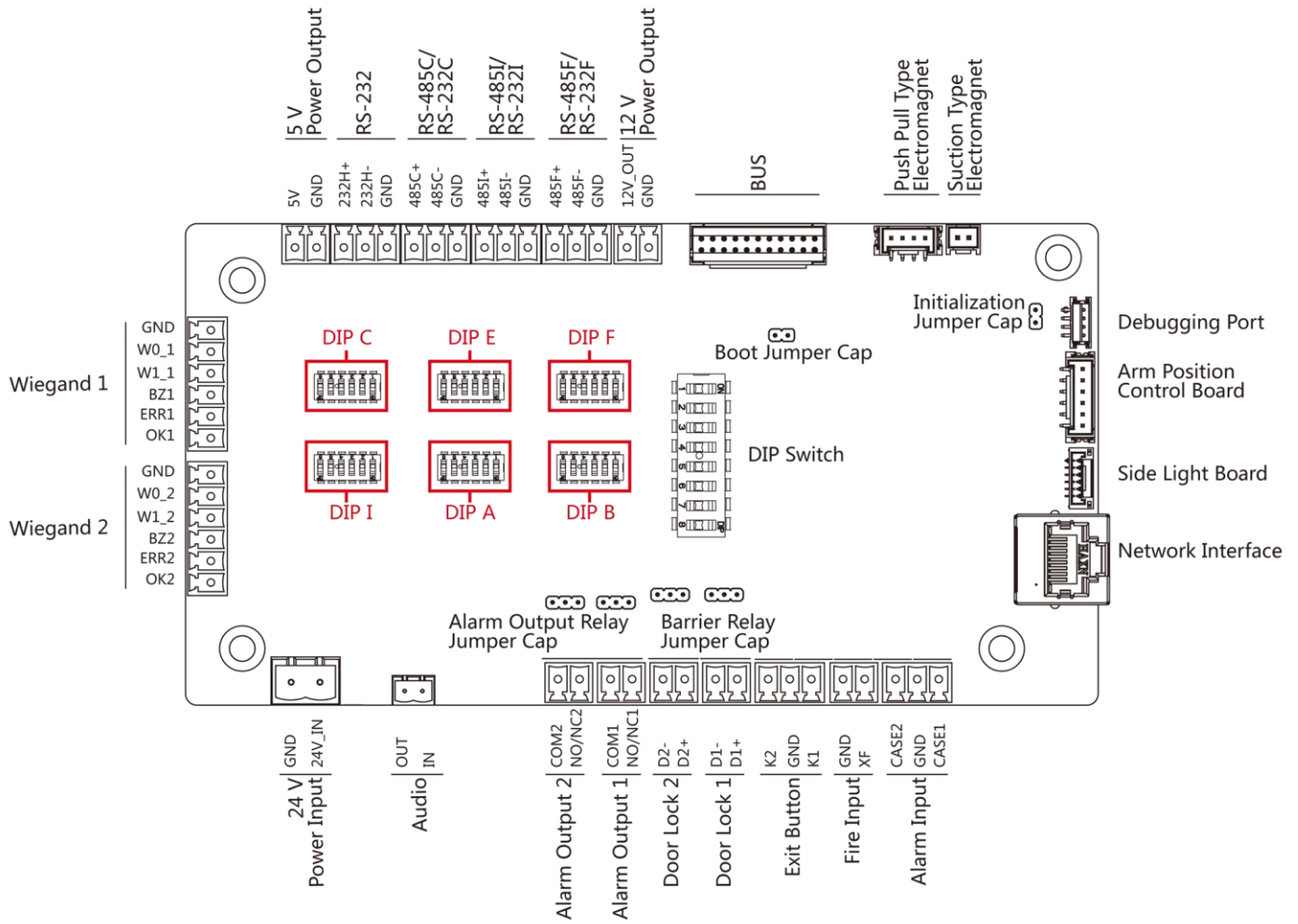


Figure 4-5 DIP Switch on Access Control Board

You can set the device mode via the 8-bit DIP switch.

You can switch the communication mode between RS-232 and RS-485 via DIP A, DIP B, DIP C, DIP E, DIP F, and DIP I.

The corresponded UART No. of the DIP switch is as follows:

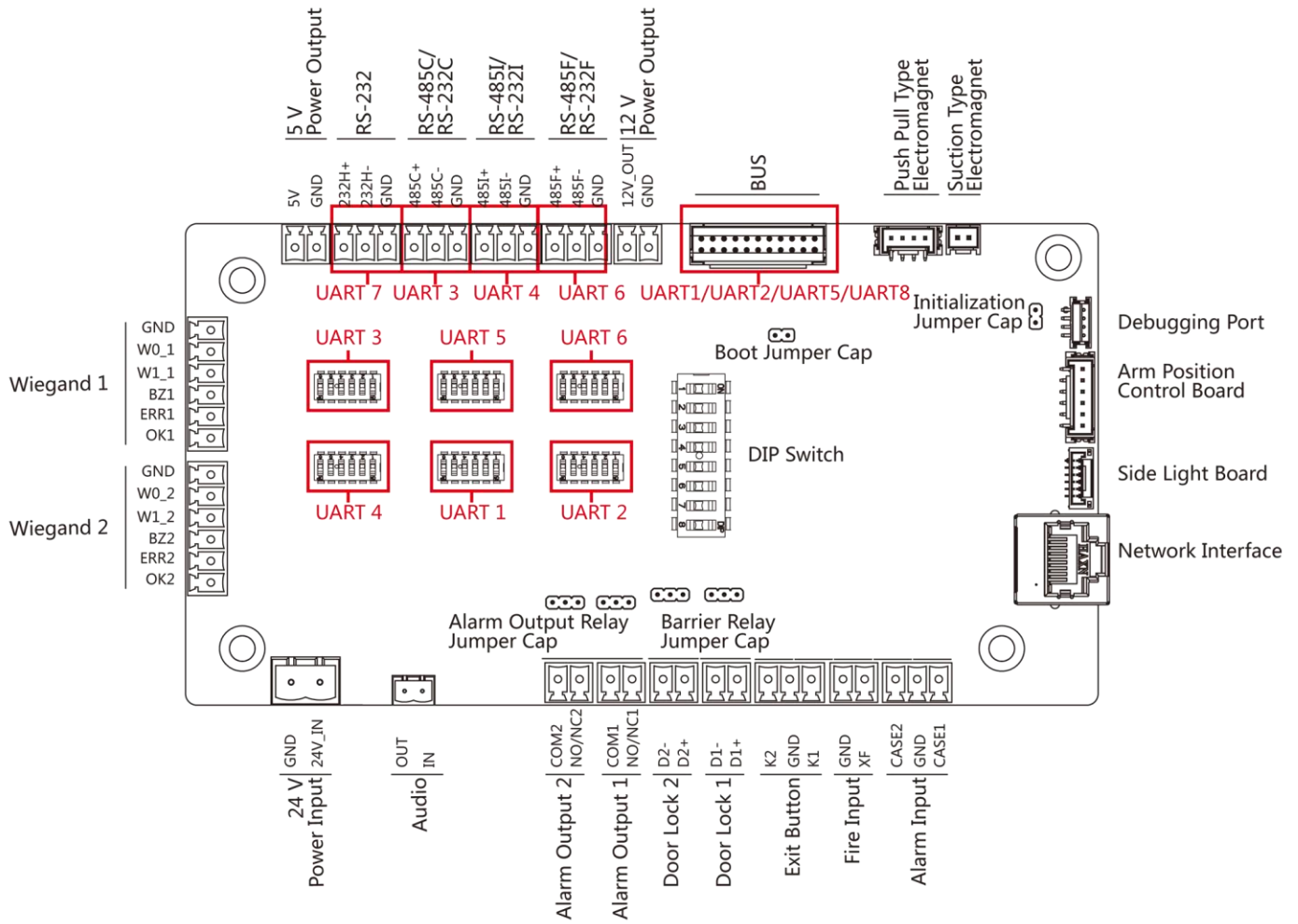













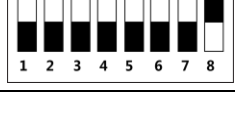
Figure 4-6 UART No. Diagram

The function of different DIP switches are as follows:

Table 4-3 Function of DIP Switch

| DIP Switch Name | DIP Switch Bit | UART No. | Function | Diagram |
|------------------|--------------------|----------|--------------------|---------|
| 8-bit DIP Switch | 1 to 2 (Work Mode) | / | Normal Mode | |
| | | | Test Mode | |
| | 3 (Memory Mode) | / | Enable Memory Mode | |

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| DIP Switch Name | DIP Switch Bit | UART No. | Function | Diagram |
|-----------------|-------------------------|----------|---------------------------------------|---|
| | 4 (Keyfob Pairing Mode) | / | Disable Memory Mode |  |
| | | | Enable Keyfob Pairing Mode |  |
| | | | Disable Keyfob Pairing Mode |  |
| | 5 to 8 (Passing Mode) | / | Controlled Bi-direction |  |
| | | | Controlled Entrance and Prohibit Exit |  |
| | | | Controlled Entrance and Free Exit |  |
| | | | Free Bi-direction |  |
| | | | Free Entrance and Controlled Exit |  |
| | | | Free Entrance and Prohibit Exit |  |
| | | | Prohibited Bi-direction |  |
| | | | Prohibit Entrance and Controlled Exit |  |
| | | | Prohibit Entrance and Free Exit |  |
| DIP A | 1 to 3 | UART 1 | ON: UART 1 is RS-232A | / |

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| DIP Switch Name | DIP Switch Bit | UART No. | Function | Diagram |
|-----------------|----------------|----------|---------------------------------|---------|
| | | | Interface | |
| | 4 to 6 | | ON: UART 1 is RS-485A Interface | / |
| DIP B | 1 to 3 | UART 2 | ON: UART 2 is RS-232B Interface | / |
| | 4 to 6 | | ON: UART 2 is RS-485B Interface | / |
| DIP C | 1 to 3 | UART 3 | ON: UART 3 is RS-232C Interface | / |
| | 4 to 6 | | ON: UART 3 is RS-485C Interface | / |
| DIP E | 1 to 3 | UART 5 | ON: UART 5 is RS-232E Interface | / |
| | 4 to 6 | | ON: UART 5 is RS-485E Interface | / |
| DIP F | 1 to 3 | UART 6 | ON: UART 6 is RS-232F Interface | / |
| | 4 to 6 | | ON: UART 6 is RS-485F Interface | / |
| DIP I | 1 to 3 | UART 4 | ON: UART 4 is RS-232I Interface | / |
| | 4 to 6 | | ON: UART 4 is RS-485I Interface | / |

 **Note**

Bit 1 to 3 and bit 4 to 6 of DIP switch A, B, C, E, F, and I cannot be ON at the same time.

The UART No., the related tag, and the tag's position are as follows:

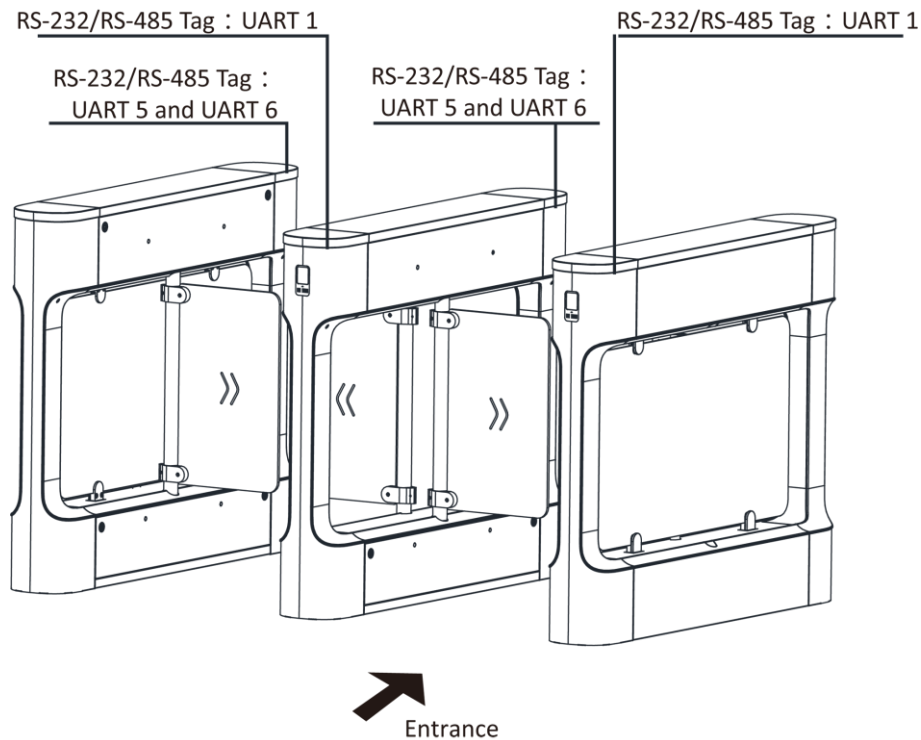
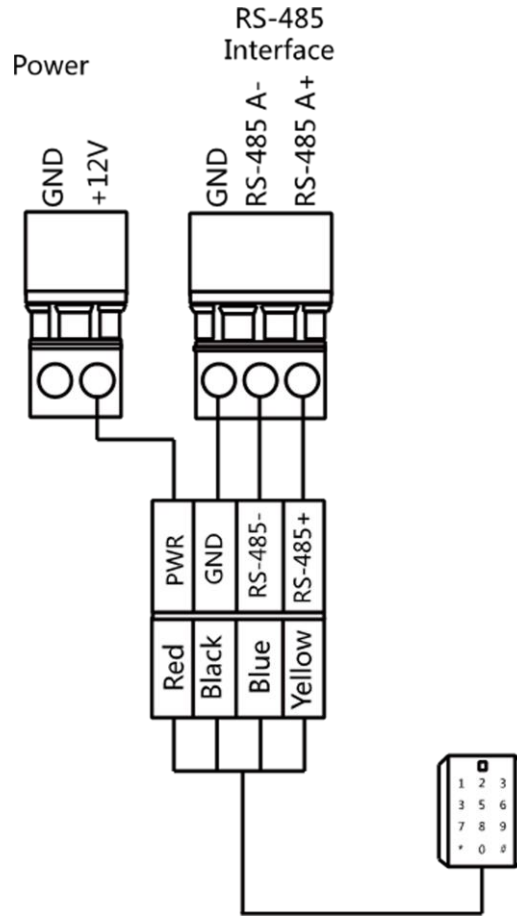


Figure 4-7 Interface and Corresponded UART No.

4.4.3 RS-485 Wiring

Note

- When the RS-485 terminal should connect with card reader, the DIP switch for entrance is 1, for exit is 4.
 - The RS-485 ID should not be duplicated when connecting to multiple RS-485 devices.
-



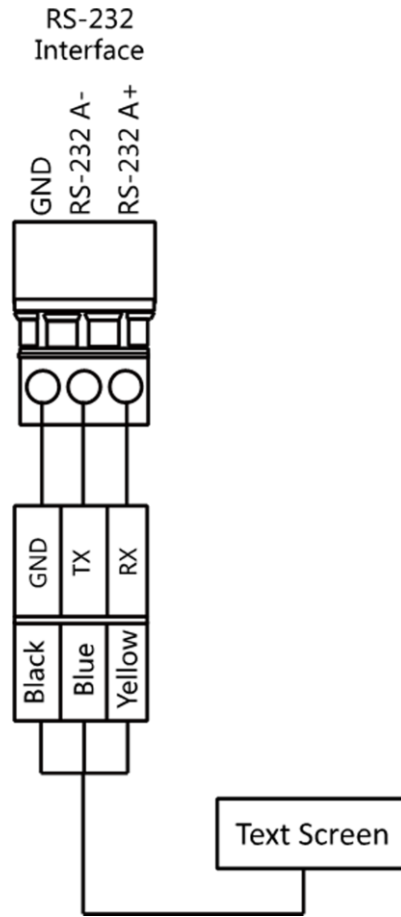
Note

- There are four RS-485 interfaces, which are for connecting ID card reader, IC card reader, QR code scanner, fingerprint and card reader, card recycler, text screen, fingerprint reader, and face recognition terminal. Take the wiring of RS-485 card reader as an example.
 - For details about text screen, see *Configuring Screen Parameters* in *User Manual of iVMS-4200 AC Client Software*.
-

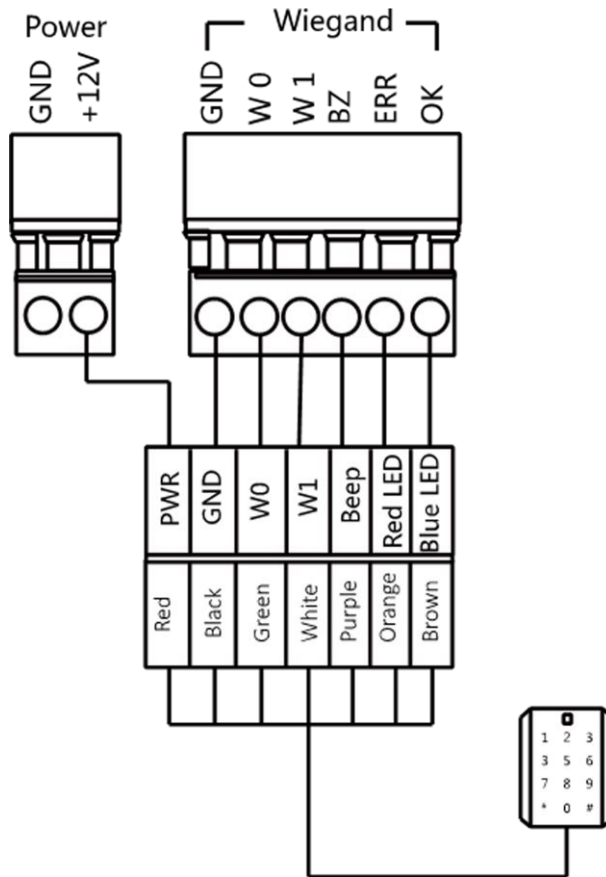
4.4.4 RS-232 Wiring

Note

- The RS-232 interfaces can connect QR code scanner, card recycler, and text screen.
 - For details about text screen, see *Configuring Screen Parameters* in *User Manual of iVMS-4200 AC Client Software*.
 - Take the wiring of text screen as an example.
-



4.4.5 Wiegand Wiring



Note

Connect the OK/ERR/BZ if the access controller should control the LED and buzzer of the Wiegand card reader.

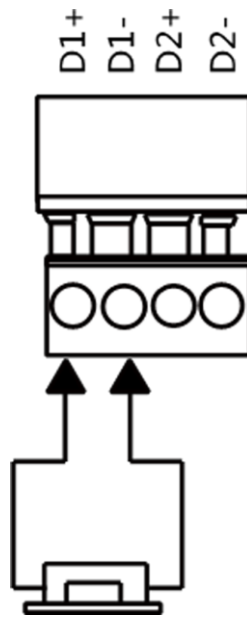
4.4.6 Barrier Control Wiring

By default, the barrier has connected with the access control board. If possible, the device can connect with a third party control board to control the third party barriers. Interface D1 controls barrier opening for entrance, while interface D2 controls barrier opening for exit.

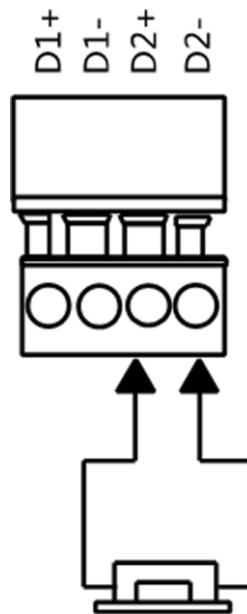
Note

The output signal is relay. The terminals cannot connect with the devices carrying voltage.

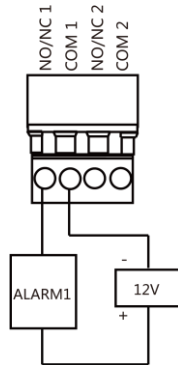
Entering Wiring



Exiting Wiring



4.4.7 Alarm Output Wiring



Note

For details about changing the relay output status via the jumper cap, see **Alarm Relay Output Mode (NO/NC)**.

4.4.8 Fire Alarm Module Wiring

You can view the fire alarm module wiring diagram.

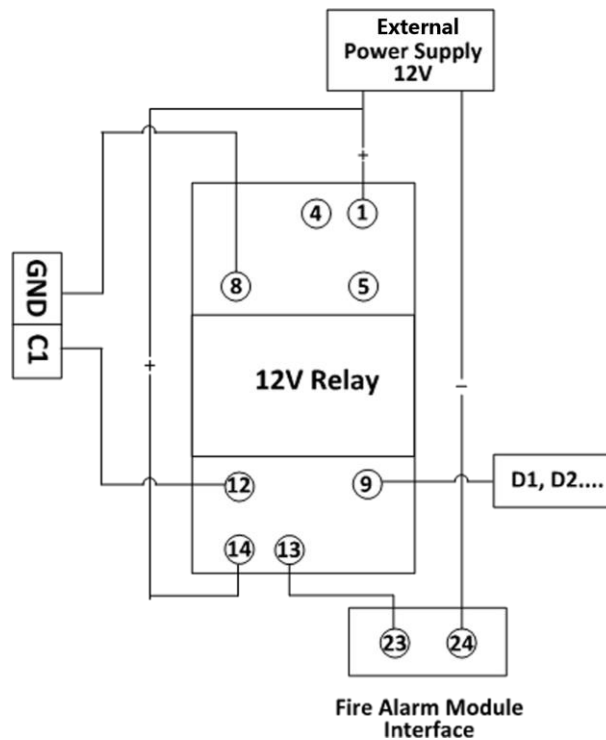


Figure 4-8 Fire Alarm Module Wiring

Chapter 5 Device Settings

You can also set the turnstile to passing mode and memory mode, pair the keyfob, initialize the hardware, switching between RS-485 communication mode and RS-232 communication mode, and view relay output NO/NC diagram by setting the DIP switch on the access control board.

- Normal Mode: The device will work properly.
- Passing Mode: There are 9 passing modes, including controlled bi-direction, controlled entrance and prohibited exit, controlled entrance and free exit, free bi-direction, free entrance and controlled exit, free entrance and prohibited exit, prohibited bi-direction, prohibited entrance and free exit.
- Memory Mode: By default, the memory mode is enabled. When multiple cards are presented and authenticated, it allows multiple persons passing through the lane. When it counts the passing people number is equal to the card presented times, or no person passing through the lane after the last person passing, the barriers will be closed.

Note

You can also set the DIP switch on the access control board to control the entrance and exit controlling type, keyfob pairing, etc. For details about the DIP switch value, see .

5.1 Pair Keyfob (Optional)

Pair the remote control to the device through DIP switch to open/close the barrier remotely.

Before You Start

Ask our technique supports or sales and purchase the keyfob.

Steps

1. Power off the turnstile.
2. Set the No.4 switch of the 8-digit DIP Switch on the access control board to the ON side.



3. Power on the turnstile and it will enter the keyfob pairing mode.
4. Hold the **Close** button for more than 10 seconds.
The keyfob's indicator of the will flash twice if the pairing is completed.
5. Set the DIP switch as OFF (the number side), and reboot the turnstile to take effect.

Note

- You can also pair the keyfob via the client software. For details, see *Managing Keyfob* in *User*

Manual of iVMS-4200 AC Client Software.

- Only one turnstile can pair the keyfob. If multiple turnstiles are in the pairing mode, the keyfob will select only one of them to pair.
- For details about DIP switch value and meaning, see .

6. Optional: Go to **System** → **User** → **Keyfob User** on the remote control page of the client software to delete the keyfob.

5.2 Initialize Device

Steps

1. Remove the jumper cap of initialization pin on the access control board.

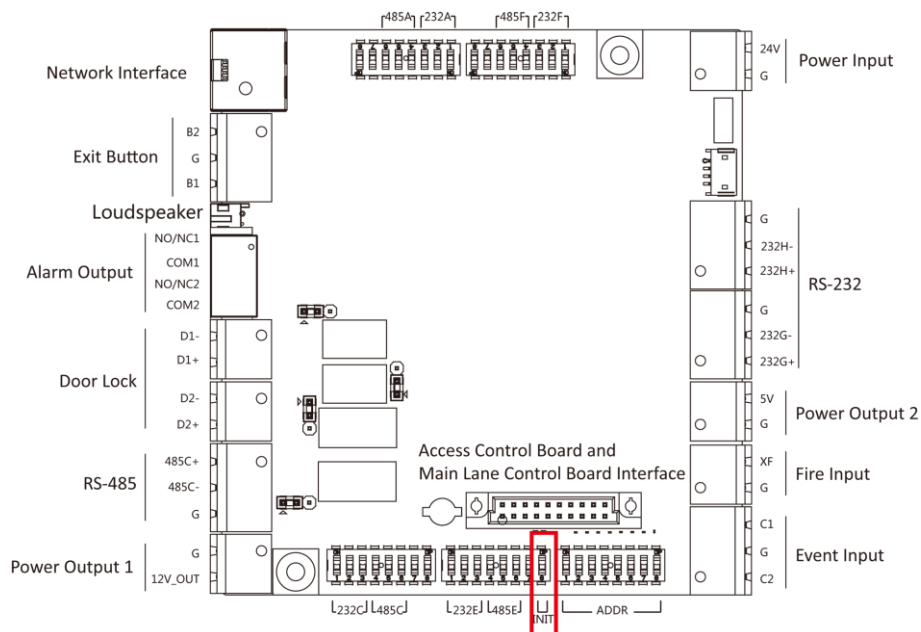


Figure 5-1 Initialization Jumper Cap

2. Disconnect the power and reboot the device. The device buzzer buzzes a long beep.
3. When the beep stopped, plug the jumper cap back.
4. Disconnect the power and power on the device again.

Caution

The initialization of the device will restore all the parameters to the default setting and all the device events are deleted.

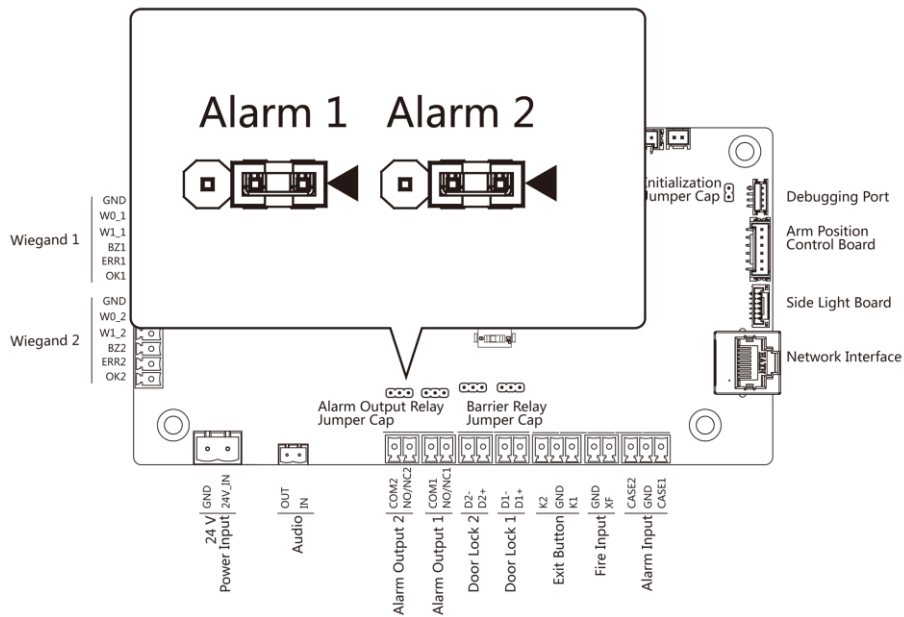
Note

Make sure no persons are in the lane when powering on the device.

5.3 Relay Output NO/NC Settings

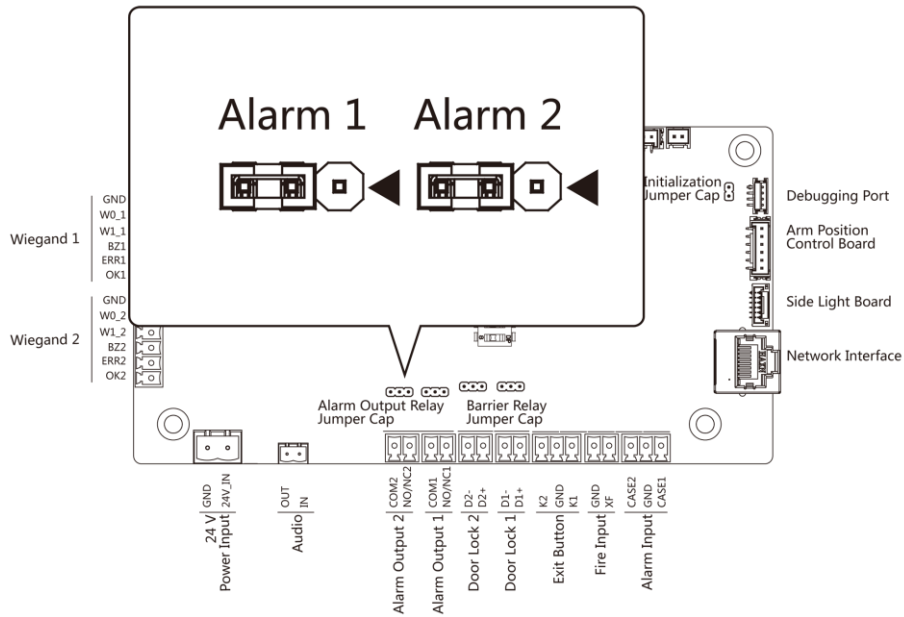
5.3.1 Alarm Relay Output Mode (NO/NC)

Alarm Relay Output Mode (NO):



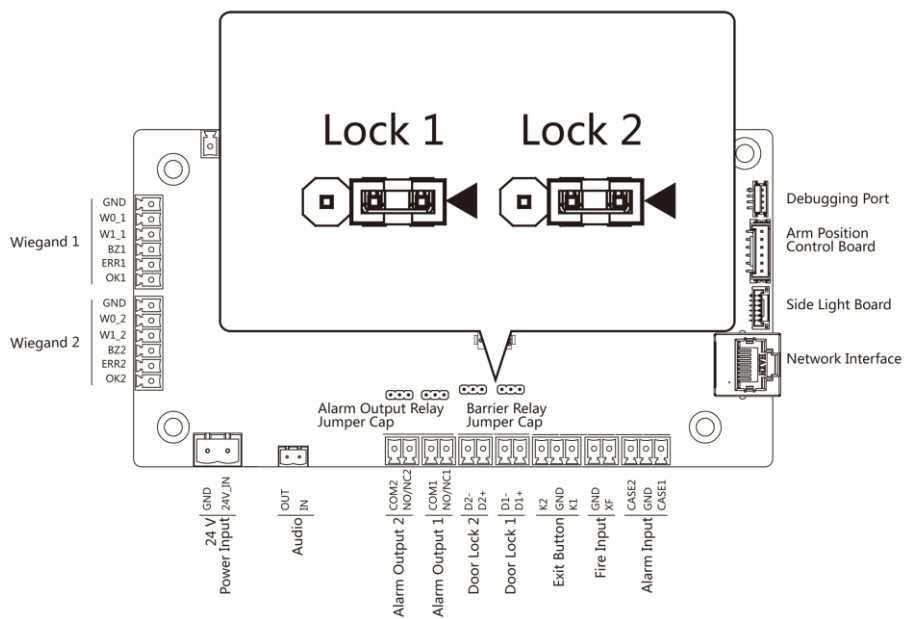
Alarm Relay Output Mode (NC):

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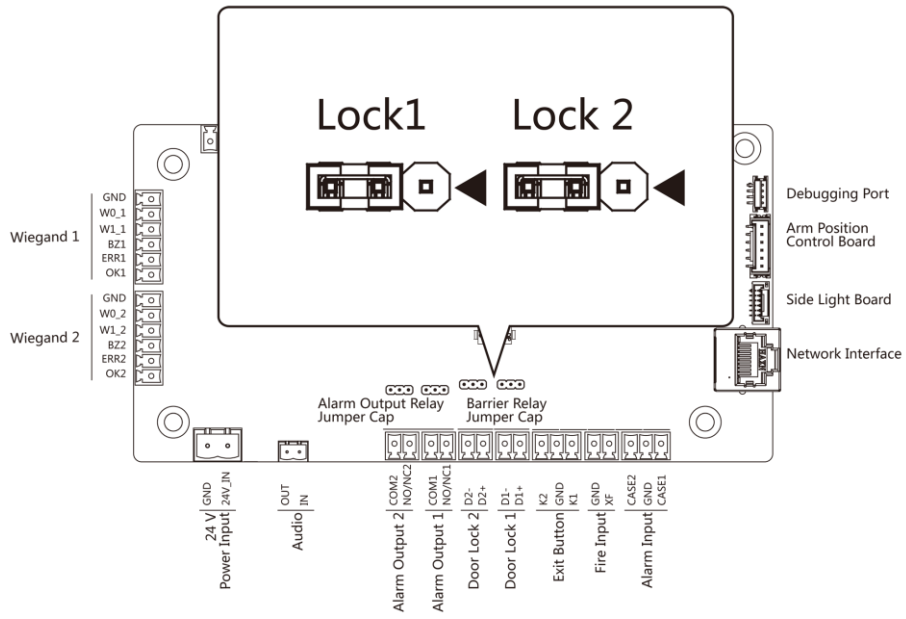
5.3.2 Barrier Control Relay Output Mode

Barrier Control Relay Output Mode (NO):



Barrier Control Relay Output Mode (NC):

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Chapter 6 Activation

You should activate the device before the first login. After powering on the device, the system will switch to Device Activation page.

Activation via the device, SADP tool and the client software are supported.

The default values of the device are as follows:

- The default IP address: 192.0.0.64
- The default port No.: 8000
- The default user name: admin

6.1 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 <http://www.hikvision.com/en/>, and install the SADP according to the prompts.
- The device and the PC that runs the SADP tool should be within the same subnet.

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

Steps

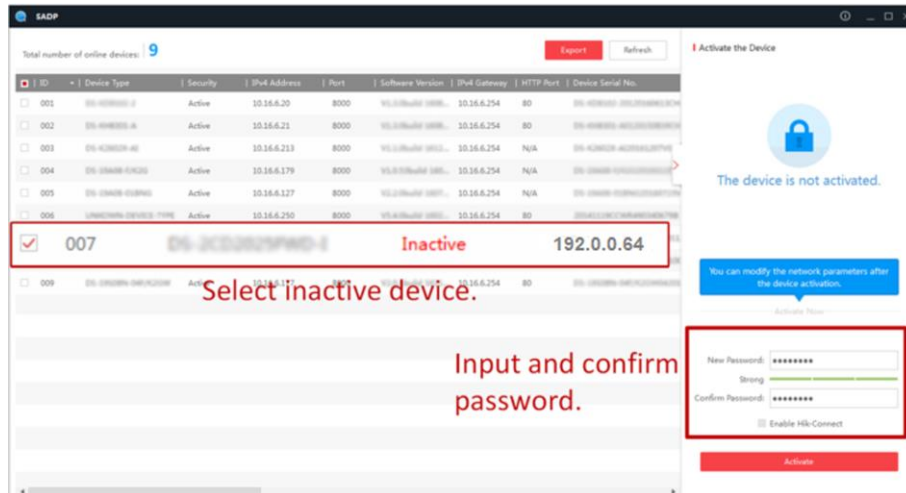
1. Run the SADP software and search the online devices.
2. Find and select your device in online device list.
3. Input new password (admin password) and confirm the password.

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.

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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.


6.2 Activate Device via Client Software

For some devices, you are required to create the password to activate them before they can be added to the software and work properly.

Steps

Note

This function should be supported by the device.

1. Enter the Device Management page.
2. Click  on the right of **Device Management** and select **Device**.
3. Click **Online Device** to show the online device area.
The searched online devices are displayed in the list.
4. Check the device status (shown on **Security Level** column) and select an inactive device.
5. Click **Activate** to open the Activation dialog.
6. Create a password in the password field, and confirm the password.

Caution

The password strength of the device can be automatically checked. We highly recommend you change the 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.

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

7. Click **OK** to activate the device.

A. Tips When Collecting/Comparing Face Picture

The position when collecting or comparing face picture is as below:

Expression

- Keep your expression naturally when collecting or comparing face pictures, just like the expression in the picture below.



- Do not wear hat, sunglasses, or other accessories that can affect the facial recognition function.
- Do not make your hair cover your eyes, ears, etc. and heavy makeup is not allowed.

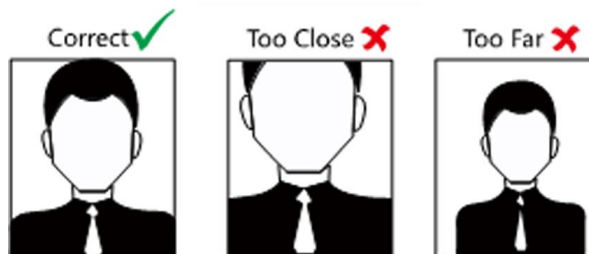
Posture

In order to get a good quality and accurate face picture, position your face looking at the camera when collecting or comparing face pictures.



Size

Make sure your face is in the middle of the collecting window.



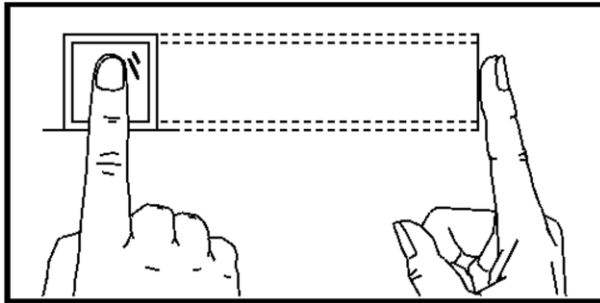
B. Tips for Scanning Fingerprint

Recommended Finger

Forefinger, middle finger or the third finger.

Correct Scanning

The figure displayed below is the correct way to scan your finger:

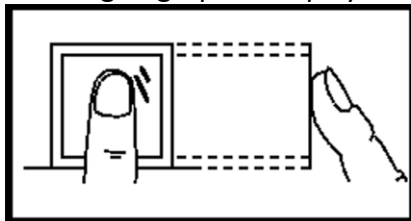


should press your finger on the scanner

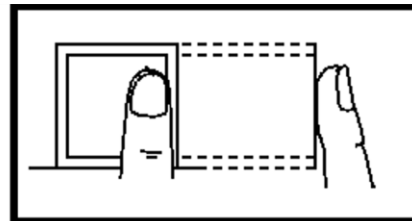
horizontally. The center of your scanned finger should align with the scanner center.

Incorrect Scanning

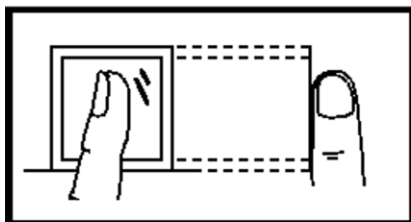
The figures of scanning fingerprint displayed below are incorrect:



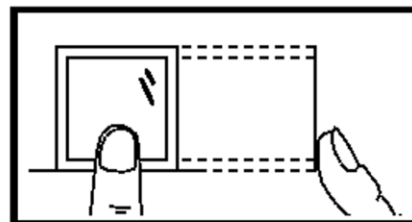
Vertical



Edge I



Side



Edge II

Environment

The scanner should avoid direct sun light, high temperature, humid conditions and rain. When it is dry, the scanner may not recognize your fingerprint successfully. You can blow your finger and scan again.

Others

If your fingerprint is shallow, or it is hard to scan your fingerprint, we recommend you to use other

authentication methods.

If you have injuries on the scanned finger, the scanner may not recognize. You can change another finger and try again.

C. DIP Switch Description

The DIP switch is on the access control board. No.1 to No 8 is from the low bit to the high bit.



When the switch is towards ON, it means the switch is enabled, otherwise, the switch is off. If you set the DIP switch like the figure displayed below, its binary value is 00001100, and its decimal value is 12.



D. Event and Alarm Type

| Event | Alarm Type |
|-----------------|------------|
| Passing Timeout | None |

E. Table of Audio Index Related Content

| Index | Content |
|-------|------------------------------------|
| 1 | Authenticated. |
| 2 | Card No. does not exist. |
| 3 | Card No. and fingerprint mismatch. |
| 4 | Passing timeout. |
| 5 | No permissions. |
| 6 | Authentication time out. |
| 7 | Authentication failed. |
| 8 | Expired card. |

F. 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 F-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 F-2 Device Command



See Far, Go Further