Access Standalone

User Manual

V1.0.3

Foreword

General

This manual introduces the functions and operations of the Access Standalone (hereinafter referred to as the Device). Read carefully before using the device, and keep the manual safe for future reference.

Safety Instructions

The following signal words might appear in the manual.

Signal Words	Meaning
DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
TIPS	Provides methods to help you solve a problem or save time.
NOTE	Provides additional information as a supplement to the text.

Revision History

Version	Revision Content	Release Time
V1.0.3	Deleted descriptions in"Configuring Door Parameters" chapter.	February 2026
V1.0.2	Updated the wiring diagram.	April 2025
V1.0.1	Added initialization description.	December 2024
V1.0.0	First release.	September 2024

Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, audio, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.
- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

Important Safeguards and Warnings

This section introduces content covering the proper handling of the Device, hazard prevention, and prevention of property damage. Read carefully before using the Device, and comply with the guidelines when using it.

Transportation Requirement

Transport, use and store the Device under allowed humidity and temperature conditions.

Storage Requirement

Store the Device under allowed humidity and temperature conditions.

Installation Requirements

- Do not connect the power adapter to the Device while the adapter is powered on.
- Strictly comply with the local electric safety code and standards. Make sure the ambient voltage is stable and meets the power supply requirements of the Device.
- Do not connect the Device to two or more kinds of power supplies, to avoid damage to the Device.
- Improper use of the battery might result in a fire or explosion.
- Please follow the electrical requirements to power the device.
  - Following are the requirements for selecting a power adapter.
    - The power supply must conform to the requirements of IEC 60950-1 and IEC 62368-1 standards.
    - The voltage must meet the SELV (Safety Extra Low Voltage) requirements and not exceed ES-1 standards.
    - When the power of the device does not exceed 100 W, the power supply must meet LPS requirements and be no higher than PS2.
  - We recommend using the power adapter provided with the device.
  - When selecting the power adapter, the power supply requirements (such as rated voltage) are subject to the device label.

- Personnel working at heights must take all necessary measures to ensure personal safety including wearing a helmet and safety belts.
- Do not place the Device in a place exposed to sunlight or near heat sources.
- Keep the Device away from dampness, dust, and soot.
- Install the Device on a stable surface to prevent it from falling.
- Install the Device in a well-ventilated place, and do not block its ventilation.

- Use an adapter or cabinet power supply provided by the manufacturer.
- Use the power cords that are recommended for the region and conform to the rated power specifications.
- The Device is a class I electrical appliance. Make sure that the power supply of the Device is connected to a power socket with protective earthing.
- The device must be installed at a height of 2 meters or below.
- If the product has a metal case, we recommend you install it in an environment with a temperature lower than 40℃ (104°F) to avoid overheating and affecting your experience.

Operation Requirements

- Check whether the power supply is correct before use.
- Ground the device to protective ground before you power it on.
- Do not unplug the power cord on the side of the Device while the adapter is powered on.
- Operate the Device within the rated range of power input and output.
- Use the Device under allowed humidity and temperature conditions.
- Do not drop or splash liquid onto the Device, and make sure that there is no object filled with liquid on the Device to prevent liquid from flowing into it.
- Do not disassemble the Device without professional instruction.
- This product is professional equipment.
- The Device is not suitable for use in locations where children are likely to be present.

Table of Contents

1 Product Overview

1.1 Overview

The Device is intended for access management in a controlled area.

It has the following main features:

- Supports touch keyboard and TCP/IP protocol.
- Supports 30,000 valid cards and can store up to 150,000 records.
- Supports unlocking the door through the following modes:
  - Card
  - User ID + Password
  - Card + Password
  - Card or (User ID + Password)
- Supports overtime alarm, intrusion alarm, duress alarm, and tamper alarm.
- Supports guest card, duress card, blocklist/allowlist card, and patrol card.
- Support 128 groups of time schedules, 128 groups of period, and 128 groups of holiday period.

1.2 Structure

Figure 1-1 Structure

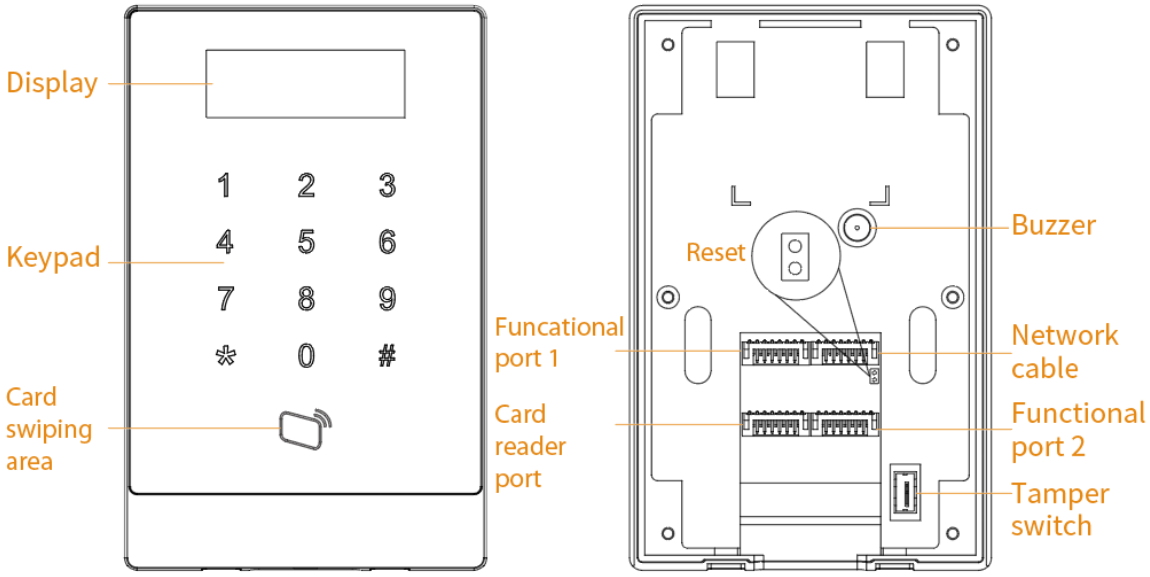


Table 1-1 Description of components and ports

Component/Port	Description
Display	Displays the operation menu and other information.

Component/Port	Description
Keypad	• 2: The selected option can be shifted in upward direction on the screen using the button. • 8: The selected option can be shifted in downward direction on the screen using the button. • *: Return to the previous step or exit. • #: Enter or confirm.
Card Swiping Area	Swipe the authorized cards to open the door.
Reset	Use the tweezers to press the reset button within 5 minutes after the Device is powered on. • Press the button for less than 5 seconds, and the Device can be restored to the factory settings except for user information, logs, public passwords and IP. • Press the button for more than 5 seconds, and all the configurations, including the information, are restored to the factory settings.
Functional Port 1	Includes RS-485 port, alarm input and alarm output port.
Card Reader Port	Includes RS-485 port, Wiegand port and power output port.
Functional Port 2	Includes door detector, exit button, lock port and power input port.
Network Port	Connects to the network cable.
Tamper Switch	If the Device is removed from the wall, the tamper alarm is triggered, and the Device alarms.
Buzzer	The Device beeps.

2 Wiring and Installation

2.1 Installation Requirements

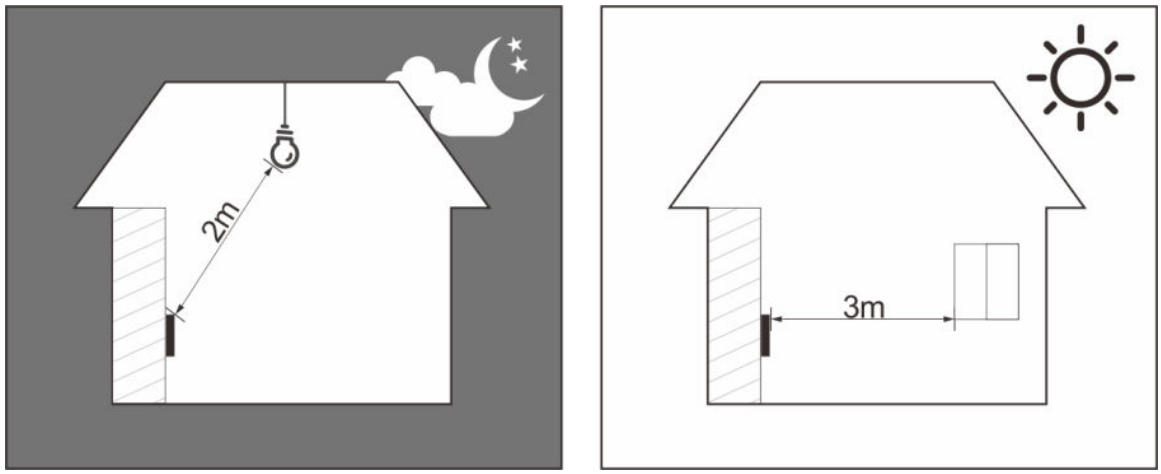
- The installation height is recommended to be from 1.2 m to 1.6 m(from the lens to the ground).
- The light at the 0.5 meters away from the Device should be no less than 100 lux.
- We recommend you install the indoors, at least 3 meters away from windows and doors, and 2 meters away from the light source.
- Avoid backlight, direct sunlight, close light, and oblique light.

Ambient Illumination Requirements

Figure 2-1 Ambient illumination requirements

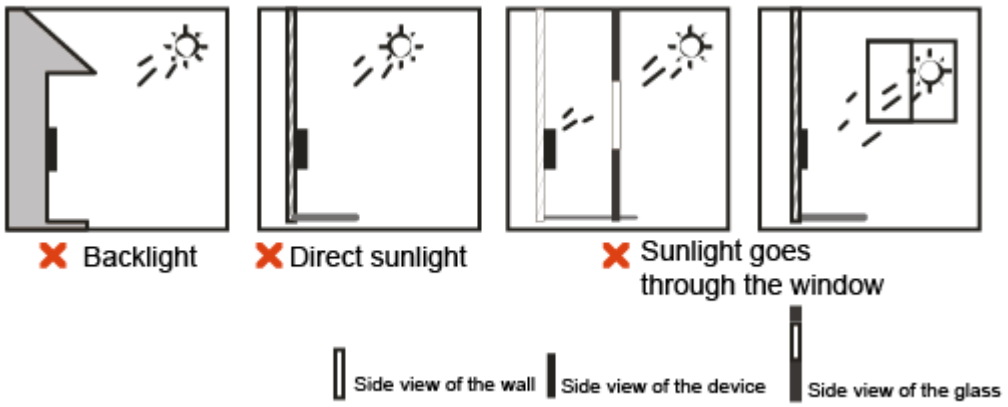
Recommended Installation Location

Figure 2-2 Recommended installation location



Installation Location Not Recommended

Figure 2-3 Installation location not recommended



2.2 Wiring

Connect the cables to the corresponding ports.

Figure 2-4 Cables

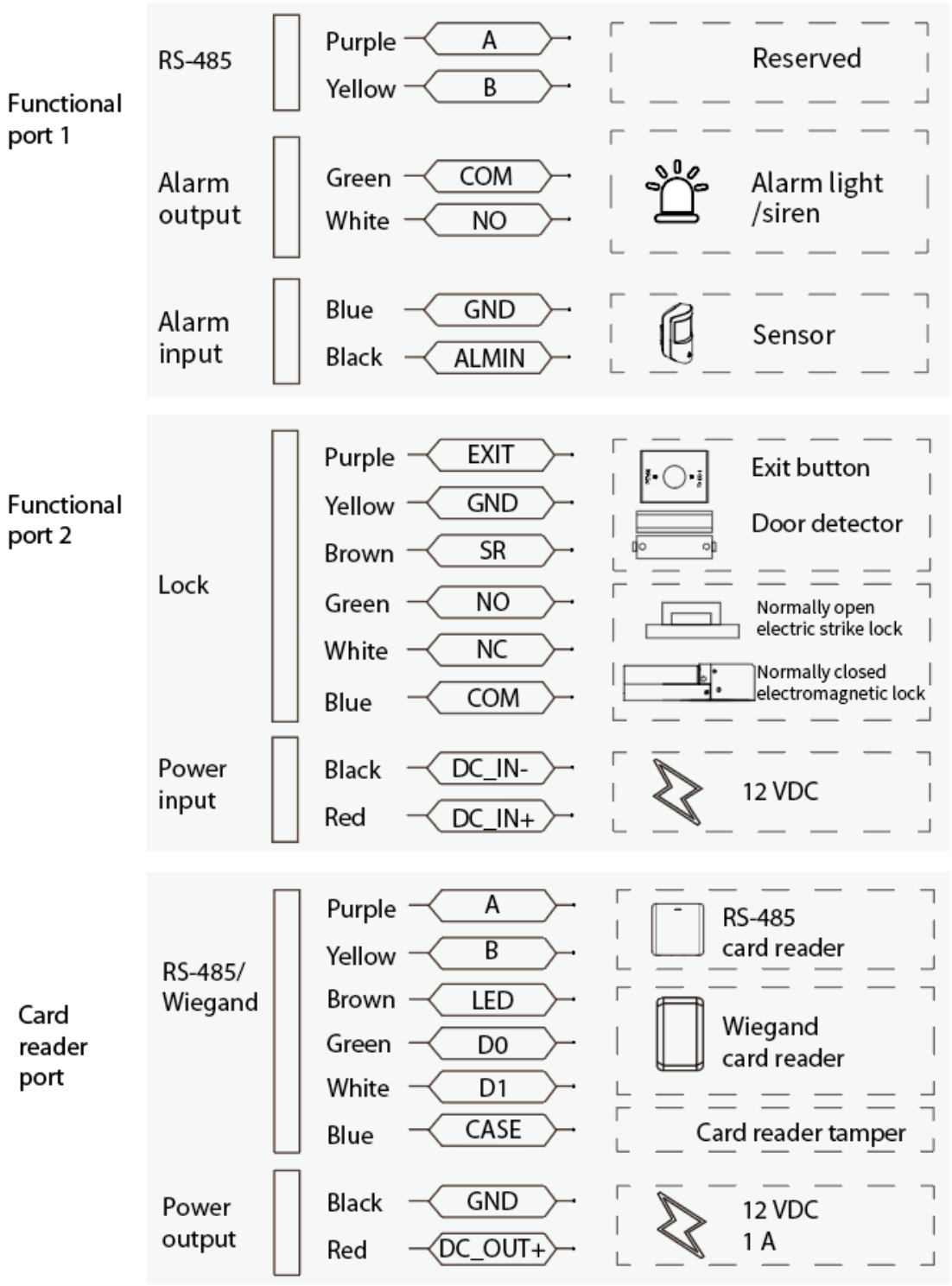


Figure 2-5 Wiring

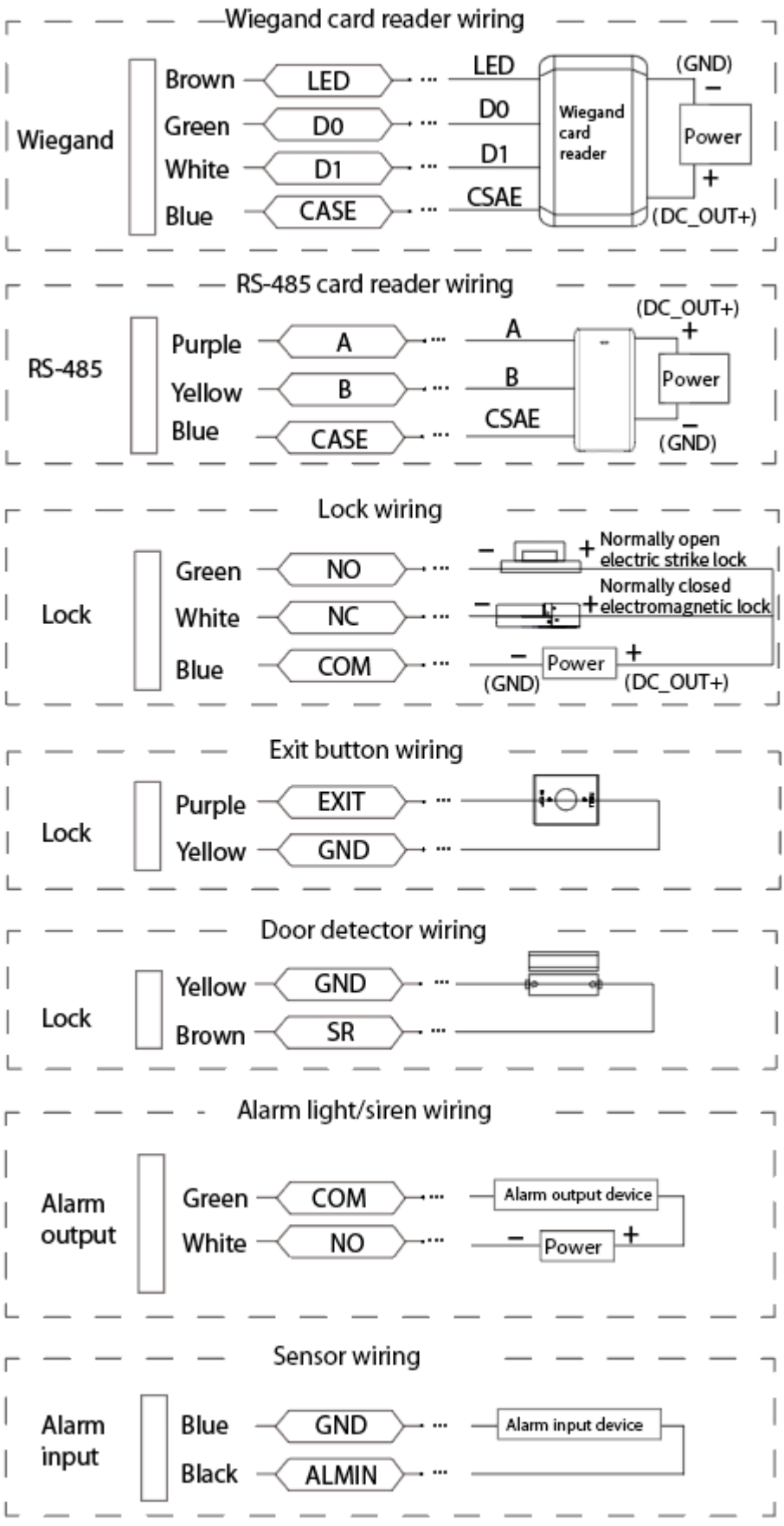
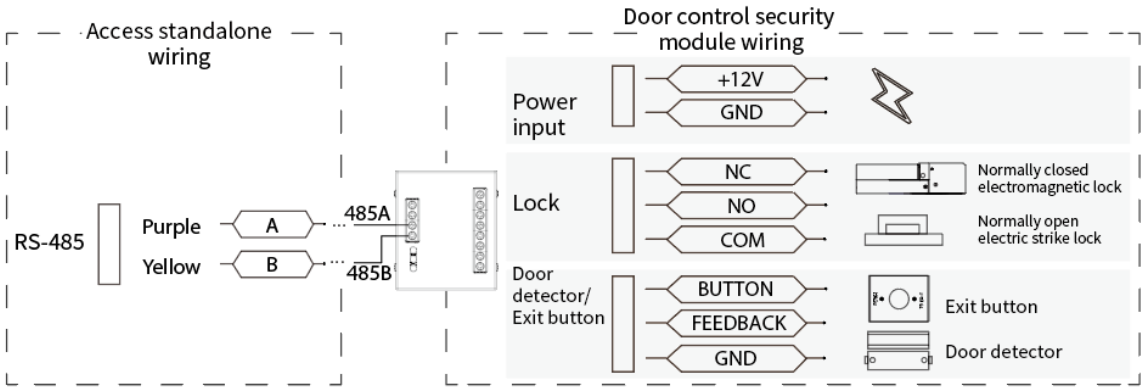


Figure 2-6 Door control security module wiring



- If you select **Connect to Door Control Security Module** in **Communication** > **Mode Settings** > **Controller Mode Config** > **RS-485 Config**, you need to separately purchase the corresponding door control security module, and the module should be powered by the separate external power.

  After the door control security module is enabled, the exit button of the current device and the opening that linked to the current device are invalid.
- The lock can be powered by the access standalone (through DC_OUT+ and GND) or the independent power supply. If the power supply distance exceeds 30 m, we recommend you use the independent power supply.

Figure 2-7 Power wiring

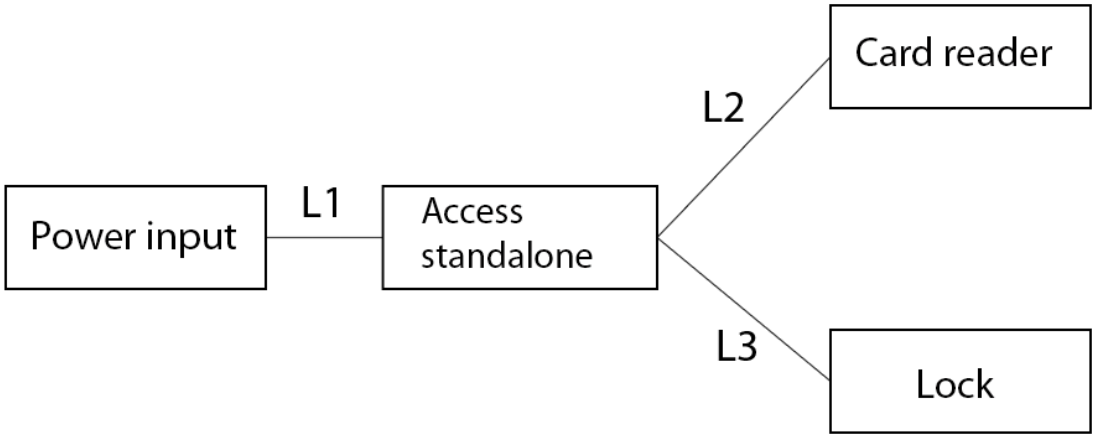


Table 2-1 Cable specification description

No.	Name	Recommended Model and Specification	Recommended Max Power Supply Distance (Use RVV ×1.0 cable, and the impedance within 100 meters ≤ 2 Ω
L1	Power Cord	RVV2 × 1.0	• Access standalone: The distance of L1 should be less than 100 m. • Access standalone and card reader: The distance of L1 and L2 should be less than 50 m. • Access standalone and lock: The distance of L1 and L3 should be less than 30 m. • Access standalone and lock and card reader: The distance of L1 and L2 should be less than 25 m. The distance of L1 and L3 should be less than 25 m.
L2	Card Reader Cable	RVV2 × 1.0, RVV4 × 1.0 or CAT5E network cable	
L3	Lock Cable		

- If the card reader is powered by the access standalone, we recommend you select a card reader with a maximum current not exceeding 200 mA. The selected card reader should support wide voltage operation, with the lowest operating voltage not exceeding 9 V.
- If the lock is powered by the access standalone, we recommend you select a lock with a maximum current not exceeding 1000 mA. The selected lock should support wide voltage operation, with the lowest operating voltage not exceeding 10 V.
- The wiring distance of L1, L2, and L3 is affected by the voltage of the power supply and the power supply cable specification. During actual construction, the power supply voltage should be ensured not to be lower than the lowest operating voltage of the access standalone, card reader, and lock. Additionally, L2 and L3 should not share the same wire.
- When using CAT5E (impedance within 100 m ≤ 9 Ω) for the power supply of locks or card readers, we recommend you allocate the extra wires, apart from the necessary signal wires, evenly for the power supply of locks or card readers in order to minimize power supply loss.

2.3 Installation

2.3.1 Wall-Mount Installation

Procedure

Step 1 Loosen the screw at the bottom of the Device, and then remove the installation rear panel.

Step 2 According the holes' positions of the installation rear panel, drill 4 holes in the wall and insert the expansion tubes.

The wiring slot in the wall is required for in-wall wiring.

Step 3 Attach the installation rear panel to the wall using 4 ST3 self-tapping screws.

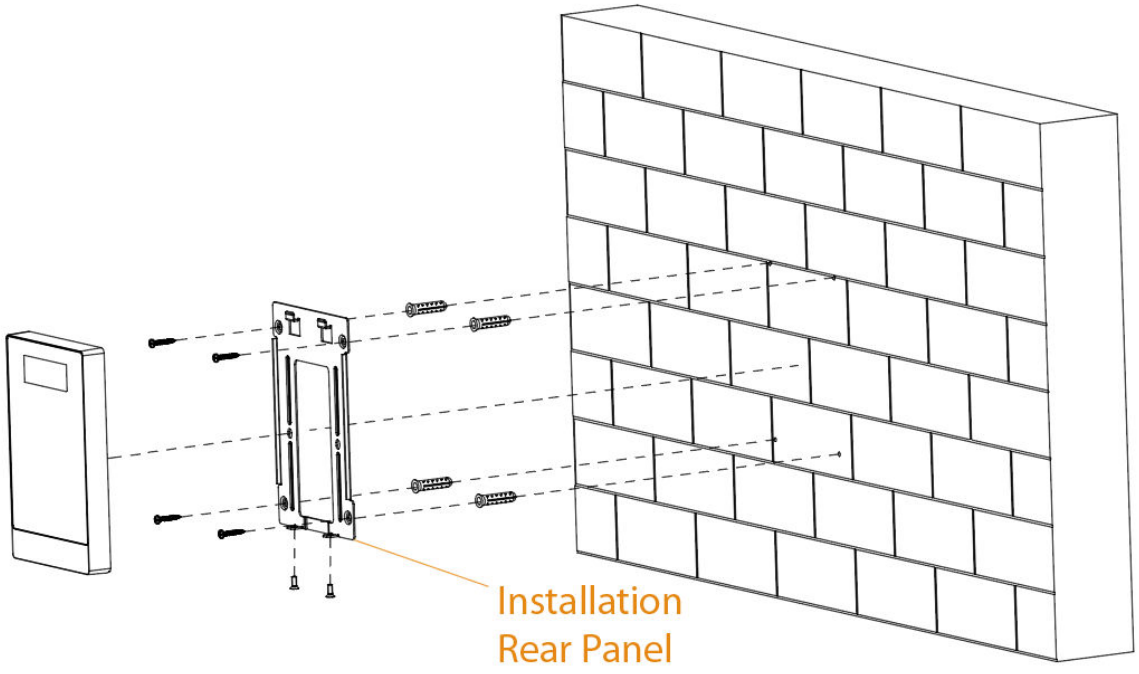
For the surface-mounted wiring, you need to thread the cables first, and then attach the installation rear panel.

Step 4 Connect the cables. For details on wiring, see "2.2 Wiring".

Step 5 Attach the Device to the installation rear panel.

Step 6 Insert 2 screw at the bottom of the Device, and then tighten the screw to finish the installation.

Figure 2-8 Installation



2.3.2 86-Box Installation

Procedure

Step 1 Loosen the screw at the bottom of the Device, and then remove the installation rear panel.

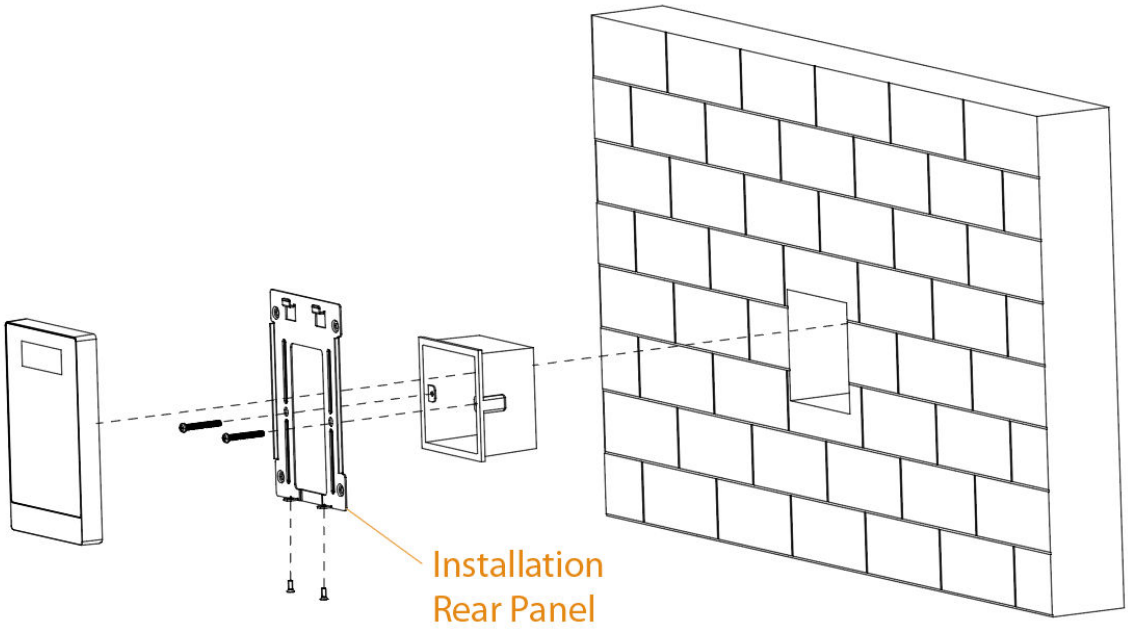
Step 2 Attach the installation rear panel to the 86-box using 2 M4 screws.

Step 3 Connect the cables. For details on wiring, see "2.2 Wiring".

Step 4 Attach the Device to the installation rear panel.

Step 5 Insert 2 screw at the bottom of the Device, and then tighten the screw to finish the installation.

Figure 2-9 Installation



3 Local Operations

3.1 Initialization

After the Device is powered on for the first time, you need to set the administrator password. The administrator password is used to enter the main menu of the Device.

Procedure

Step 1 Power on the Device.

Step 2 Enter the password, and then press **#**.

Step 3 Enter the password again to confirm, and then press **#**.

Related Operations

After you complete the initialization on the Device, you can use it. If you need to connect the Device to the network, use ConfigTool or the platform to initialize the Device.

When you use ConfigTool or the platform to initialize the Device, after configuring the network account and password, the device will automatically complete initialization and enter the standby status. The local admin password is converted from the network password. If the password exceeds 8 characters, only the first 8 characters are kept. The letters are converted into digits according to the E.161 standard. The password conversion is case-insensitive, and all other symbols are converted to 0.

- After the initialization, if you modify the network password, the local admin password will not be affected.
- If you initialize through the Device first, then initialize through the ConfigTool or the platform, the local admin password will not be affected.

Figure 3-1 E.161 (T9 keypad)

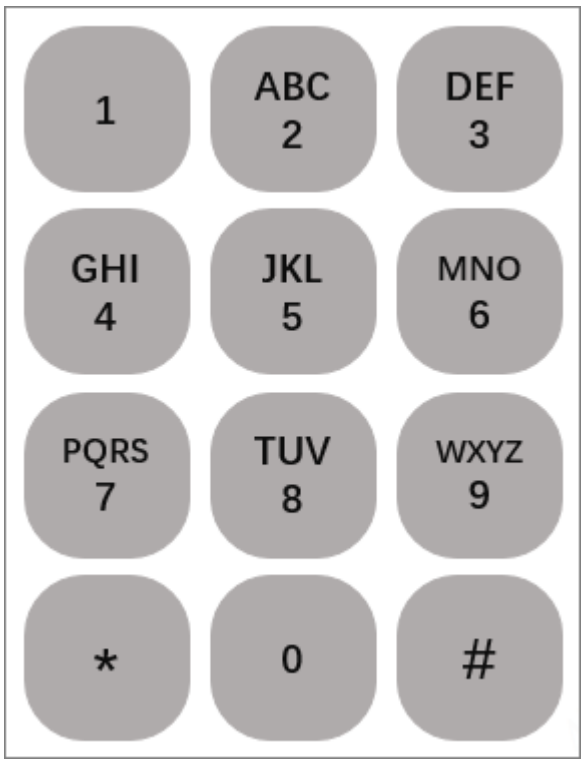


Table 3-1 Conversion example

Network Password	Local Admin Password
ABC12345	22212345
admin123	23646123
admin12!	23646120
admin123456	23646123

3.2 Main Menu

Entering Main Menu

Wake up the Device, press **#** , enter the administrator password, and then press **#**.

Buttons Description

- Press **2** to select the option in the upward direction.
- Press **8** to select the option in the downward direction.
- Press **#** to enter or confirm the configuration.
- Press ***** to return to previous step or exit.

Related Prompts

- The indicator flashes green once, and the buzzer beeps once, which means that the operation or access control verification is successful.
- The indicator flashes red once, and the buzzer beeps 3 times, which means that the operation or access control verification failed.
- If the indicator is solid blue, it means the Device is in the standby status.
- After you press the keypad to wake up the Device, the keypad light is blue.
- The keypad light turns off after no operation within 30 seconds.
- When the Device is in the standby mode, if you swipe the card, the keypad light will not turn on.

3.3 User Management

3.3.1 Adding User

Procedure

Step 1 Log in to the main menu.

Step 2 Select **Users** > **Create User**.

Step 3 Enter the user ID, and then press **#**.

You can only enter numbers for the ID on the Device. The ID must be unique.

Step 4 Swipe the card.

- Press **#** to confirm the card. You can add up to 5 cards.
- If you do not need to configure the card, press **#** to skip it.

Step 5 Enter the user password, and then press **#**.

If you do not need to set the user password, press **#** to skip it.

The duress password is the password +1. For example, if the user password is 12345, the duress password will be 12346. If the function is enabled, a duress alarm will be triggered when a duress password is used to unlock the door.

- The password can be 1 to 8 characters in length.
- Make sure that you have added one method of card and password when creating the user.

Step 6 Configure the period, and then press **#**.

The access permissions of the user are valid within the configure period.

Step 7 Configure the validity period in the format of year-month-date.

The access permissions of the user are valid within the configure period.

Step 8 Select the user type, and then press **#**.

- **General User** : General users can unlock the door.
- **Blocklist User** : When users on the blocklist unlock the door, a blocklist alarm will be triggered.
- **Guest User** : Guests can unlock the door within a defined period or for a designated number of times. After the defined period expires or the unlocking times run out, they cannot unlock the door.
- **Patrol User** : Patrol users can take attendance on the Access Controller, but they do not have door permissions.
- **VIP User** : When VIP users unlock the door, service personnel will receive a notification.
- **Other User** : When they unlock the door, the door will stay unlocked for 5 more seconds.

  The delay time is not available for remote verification methods.
- **Custom User 1/Custom User 2** : Same with general users.

Step 9 Press **#** to save the configurations.

3.3.2 Deleting User

Delete the User One by One

Log in to the main menu, select **Users** > **Delete User**.

- Select **Delete by User ID** , enter the existed user ID, press **#**, and then press **#** to confirm.
- Select **Delete by Card No.** , swipe the existed card, press **#**, and then press **#** to confirm.

Delete Users in Batches

Log in to the main menu, select **Users** > **Delete All Users**, and then press **#**.

3.3.3 Public Password Management

Add and enable the public password. Public password can be used to unlock the door in any unlock modes.

Log in to the main menu, and then select **Users** > **Public Password**.

Add Public Password

1. Select **Configure Public Password** , enter the new password, and then press **#**.
2. Enter the password again to confirm, and then press **#**.
3. Press **#** to save the configurations.

Enable Public Password

Select **Enable Public Password** , press **2** or **8** to select **Enable** or **Do Not Enable**, and then press **#**.

Delete Public Password

Select **Delete Public Password**.

- Select **Delete One Password** , enter the password, and then press **#**.
- Select **Delete All Passwords** , and then press **#** to delete all the passwords.

3.4 Configuring Door Unlock Mode

Procedure

Step 1 Log in to the main menu.

Step 2 Press **2** or **8** to select **Unlock Mode**, and then press **#**.

- **Unlock by Card** : Swipe the added card to open the door.
- **Password Unlock** : Enter the user ID and user password to open the door.
- **Card + Password** : Swipe the card first, and then enter the password to open the door.
- **Card or Password** : Swipe the added card or enter the user ID and user password to open the door.
- **By Period** : Unlock the door using the corresponding mode according to the configured mode period.

3.5 Configuring Period

3.5.1 Period

Configure the period, and the access permissions of the user are valid within the period.

Procedure

Step 1 Log in to the main menu.

Step 2 Select **Period Settings** > **Period**, and then press **#**.

Step 3 Enter the period number, and then press **#**.

Step 4 Select **Mon** , and then press **#**.

Step 5 Configure the period 1 to period 4, and then press **#**.

Step 6 Repeat Step 4 to Step 5 to configure other days.

Step 7 Press * , and then press **#** to save the configurations.

3.5.2 Mode Period

If you select **By Period** as the unlock mode, you can open the door according to the configured period and the unlock mode.

Procedure

Step 1 Log in to the main menu.

Step 2 Select **Period Settings** > **Mode Period**, and then press **#**.

Step 3 Select **Mon** , and then press **#**.

Step 4 Configure the time range of the period 1, and then press **#**.

Step 5 Configure the unlock mode, and then press **#**.

Step 6 Repeat Step 4 and Step 5 to configure other periods.

Step 7 Repeat Step 3 to Step 6 to configure other days.

Step 8 Press * , and then press **#** to save the configurations.

3.6 Communication Settings

3.6.1 Network Settings

3.6.1.1 Configuring IP

Procedure

Step 1 Log in to the main menu.

Step 2 Select **Communication** > **Network** > **IP Settings**, and then press **#**.

Step 3 Configure parameters.

Configure the IP address, subnet mask and default gateway. Press **#** to continue your configuration.

Step 4 Press **#** to save the configurations.

3.6.1.2 Configuring Auto Registration

Add the device to a management platform, so that you can manage it on the platform.

Procedure

Step 1 Log in to the main menu.

Step 2 Select **Communication** > **Network** > **Auto Registration**.

Step 3 Configure parameters.

Configure the server IP, server port and sub-device ID. Press **#** to continue your configuration.

Table 3-2 Description of auto registration parameters

Parameter	Description
Server IP	The IP address of the management platform.
Server Port	The port No. of the management platform.
Sub-Device ID	Enter the device ID (user defined). When you add the Device to the management platform, the registration ID you enter on the management platform must conform to the defined registration ID on the Device.

Step 4 Press **2** or **8** to select **On**, and then press **#**.

Step 5 Press **#** to save the configurations.

3.6.2 Mode Settings

3.6.2.1 Controller Mode

The Device functions as an access controller, and connects to an external card reader, access controller or door control security module.

Procedure

Step 1 Log in to the main menu.

Step 2 Select **Communication** > **Mode Settings** > **Mode Settings**.

Step 3 Press **2** or **8** to select **Controller Mode**, and then press **#**.

Step 4 Press ***** to return to the **Mode Settings** screen, and then configure RS-485 and Wiegand parameters.

- Select **Controller Mode** > **RS-485 Config**.

  If you connect to other devices using the RS-485 port, configure the parameters.

Table 3-3 Description of RS-485 parameters

Parameter	Description	Remark
Controller	Connects to other access controllers when the Device functions as a card reader, and sends data to other external access controllers to control access. ◇ No.: Outputs data based on the user ID. ◇ Card Number: Outputs data based on card number when users swipe card to unlock door; outputs data based on user's first card number when they use other unlock methods.	If the Device is connected to external access controller, when the people verify the identification on the Device, different permissions allow the people to control different doors. ◇ If the people have access permissions on the Device and the external access controller, the Device and the external access controller can be controlled. ◇ If the people only have access permissions on the Device, the external access controller cannot be controlled. ◇ If the people only have access permissions on the external access controller, the external access controller can be controlled.
Card Reader	The Device functions as an access controller, and connects to an external card reader.	—
Door Control Security Module	The door exit button, lock and fire linkage are not effective after the security module is enabled.	

- Select **Controller Mode** > **Wiegand Settings**.

  If you connect to other devices using the Wiegand port, configure the parameters.

Table 3-4 Description of auto registration parameters

Parameter	Description
Direction Config	◇ Select **Wiegand Input** when you connect an external card reader to the Device. ◇ Select **Wiegand Output** when the Device functions as a card reader, and you need to connect it to another access controller, and select output data type. ○ User ID: Outputs data based on user ID. ○ Card: Outputs data based on user's first card number.
Wiegand Format	Configure this parameter when the **Direction Config** is set to **Wiegand Output**. Select a Wiegand format to read card numbers or ID numbers. ◇ Wiegand 26: Reads 3 bytes or 6 digits. ◇ Wiegand 34: Reads 4 bytes or 8 digits. ◇ Wiegand 66: Reads 8 bytes or 16 digits.

3.6.2.2 Card Reader Mode

Connects to other access controllers when the Device functions as a card reader, and sends data to other external access controllers to control access.

Procedure

Step 1 Log in to the main menu.

Step 2 Select **Communication** > **Mode Settings** > **Mode Settings**.

Step 3 Press **2** or **8** to select **Card Reader Mode**, and then press **#**.

Step 4 (Optional) Configure the Wiegand format.

1. Press ***** to return to the **Mode Settings** screen.
2. Select **Card Reader Mode Config** > **Wiegand Format**.
3. Press **2** or **8** to configure the Wiegand format.
   - Wiegand 26: Reads 3 bytes or 6 digits.
   - Wiegand 34: Reads 4 bytes or 8 digits.
   - Wiegand 66: Reads 8 bytes or 16 digits.

- The cables connection when the Device is in the card reader mode should be the same as the connection of the card reader.
- As the tamper alarm output, the COM and NC cables of the lock port connect to CASE and GND cables of the access controller respectively.

3.7 System Settings

3.7.1 Configuring Date

Procedure

Step 1 Log in to the main menu.

Step 2 Select **System** > **Date & Time**.

Step 3 Configure the date, and then press **#**.

Step 4 Configure the time, and then press **#**.

Step 5 Press **#** to save the configurations.

3.7.2 Configuring Door Parameters

After the door sensor is enabled, the door timeout alarm is enabled at the same time by default.

Procedure

Step 1 Log in to the main menu.

Step 2 Select **System** > **Door Parameters**.

Step 3 Configure the parameters.

Table 3-5 Description of door parameters

Parameter	Description	Operation
Unlock Time	After a person is granted access, the door will remain unlocked for a defined time for them to pass through. The value is 3 seconds by default.	Enter the time, and then press **#**.
Door Detector Switch	• Close: The sensor is in a shorted position when the door or window is closed. • On: An open circuit is created when the window or door is actually closed.	Press **2** or **8** to select **On**, and then press **#**.
Door Timeout Duration	When the door remains unlocked for longer than the defined timeout duration, the door timeout alarm will be triggered and last for the defined time. The value of **Door Timeout Duration** must be higher than that of **Unlock Time**.	Enter the time, and then press **#**.
Door Status	• Always open: The door remains unlocked all the time. • Always closed: The door remains locked all the time. • Normal: The door will be locked and unlocked according to your settings.	Press **2** or **8** to select the status, and then press **#**.
Always Open Period	If you configure the **Door Status** to **Normal**, the door will be locked and unlocked according to the configured period.	Enter the period number, and then press **#**.
Always Closed Period		

3.7.3 Configuring Alarm

Procedure

Step 1 Log in to the main menu.

Step 2 Select **System** > **Alarm**.

Step 3 Configure the parameters.

Table 3-6 Description of alarm parameters

Parameter	Description	Operation
Unlock Timeout Alarm	When the door remains unlocked for longer than the defined timeout duration, the door timeout alarm will be triggered and last for the defined time.	Press **2** or **8** to select **On**, and then press **#**.
Intrusion Alarm	If the door is opened abnormally, an intrusion alarm will be triggered and last for a defined time.	
Duress Alarm	An alarm will be triggered when a duress card, duress password or duress fingerprint is used to unlock the door.	

3.7.4 Changing Menu Password

Procedure

Step 1 Log in to the main menu.

Step 2 Select **System** > **Change Menu Password**.

Step 3 Enter the old password, and then press **#**.

Step 4 Enter the new password, and then press **#**.

Step 5 Enter the confirm password, and then press **#**.

Step 6 Press **#** to save the configurations.

3.7.5 Configuring Card Number Inversion

When the Device connects to a third-party device through the Wiegand input port, and the card number read by the Device is in the reverse order from the actual card number. In this case, you can turn on **Card No. Inversion** function.

Log in to the main menu, select **System** > **Card No. Inversion**, press **2** or **8** to select **On**, and then press **#**.

3.7.6 Configuring Card Parameters

Procedure

Step 1 Log in to the main menu.

Step 2 Select **System** > **Card Config**.

Step 3 Configure the parameters.

Table 3-7 Description of card parameters

Parameter	Description	Operation
IC Card	The IC card can be read when this function is turned on	Press **2** or **8** to select **On**, and then press **#**.

Parameter	Description	Operation
IC Encryption	The encrypted card can be read when this function is turned on Make sure **IC Card** is turned on.	
Block NFC Cards	The copied NFC card cannot be used to open the door when this function is turned on. • This function is available on select modes of devices. • This function is available on select models of mobile phones.	

3.7.7 Main Card Management

Add Main Card

1. Log in to the main menu.
2. Select **System** > **Main Card Management** > **Add Main Card**.
3. Swipe the card, and then press **#**.

Delete Main Card

1. Log in to the main menu.
2. Select **System** > **Main Card Management** > **Delete Main Card**.
3. Press **#**.

Related Operations

On the standby screen, swipe the main card to enter the main card mode. The Device displays the times that you have swiped the main card. If there is no operation in 10 seconds or swipe the main card again, the Device return to the standby screen.

If a user card is set to main card, it will not be able to unlock the door.

- Swipe the main card once, and then swipe the card to add it. Supports adding cards continuously.
- Swipe the main card twice, and then swipe the card to delete it. Supports deleting cards continuously.
- Swipe the main card for 5 times in a row, and all the users will be deleted.

3.7.8 Restoring to Factory Settings

Procedure

Step 1 Log in to the main menu.

Step 2 Select **System** > **Factory Defaults**.

Step 3 Select the mode, and then press **#**.

- **Keep User Info** : Retain user information, logs, public passwords and IP.
- **Restore All to Default** : Restore all information except for IP.

3.8 Rebooting the System

Log in to the main menu, select **System Reboot** , and then press **#** to reboot the system.

3.9 Viewing Device Information

Log in to the main menu, and then select **Local Info** to view the number of users, IP addresses, MAC addressed, unlock records and other information.

3.10 Unlocking the Door

3.10.1 Unlocking by Card

Swipe the user card to unlock the door.

If a user card is set to main card, it will not be able to unlock the door.

3.10.2 Unlocking by Card and Password

If you set the unlock mode to **Card + Password** , swipe the user card and enter the user password, and then press **#** to unlock the door.

3.10.3 Unlocking by User ID and Password

If you set the unlock mode to **User ID + Password** , enter the user ID, press **#**, enter the user password, and then press **#** to unlock the door.

3.10.4 Unlocking by Card or Password

If you set the unlock mode to **Card or Password** , swipe the user card to unlock the door, or enter the user ID, press **#**, enter the user password, and then press **#** to unlock the door.

3.10.5 Unlocking through Public Password

Enter the public password, and then press **#** to open the door. For details on how to set public passwords, see "3.3.3 Public Password Management".

Public password can be used to unlock the door in any unlock modes.

4 Smart PSS Lite Configuration

This section introduces how to manage and configure the device through Smart PSS Lite. For details, see the user's manual of Smart PSS Lite.

4.1 Installation

Contact technical support or go to the official website to get the SmartPSS Lite. If you get the software package of the SmartPSS Lite, install and run the software according to page instructions.

4.2 Initialization

Initialize SmartPSS Lite when you log in for the first time, including setting a password for login and security questions for resetting password.

Procedure

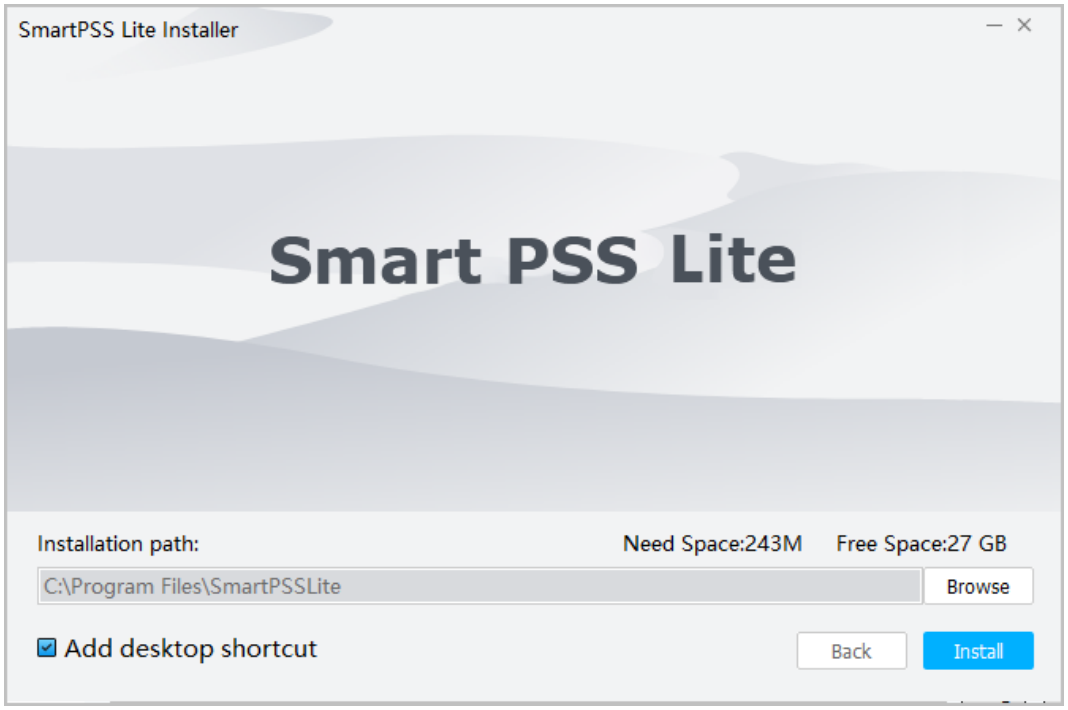
Step 1 Double-click SmartPSSLite.exe.

Step 2 Select the language from the drop-down list, select **I have read and agree the software agreement** , and then click **Next**.

Figure 4-1 Select language

Step 3 Click **Browse** to select installation path, and then click **Install**.

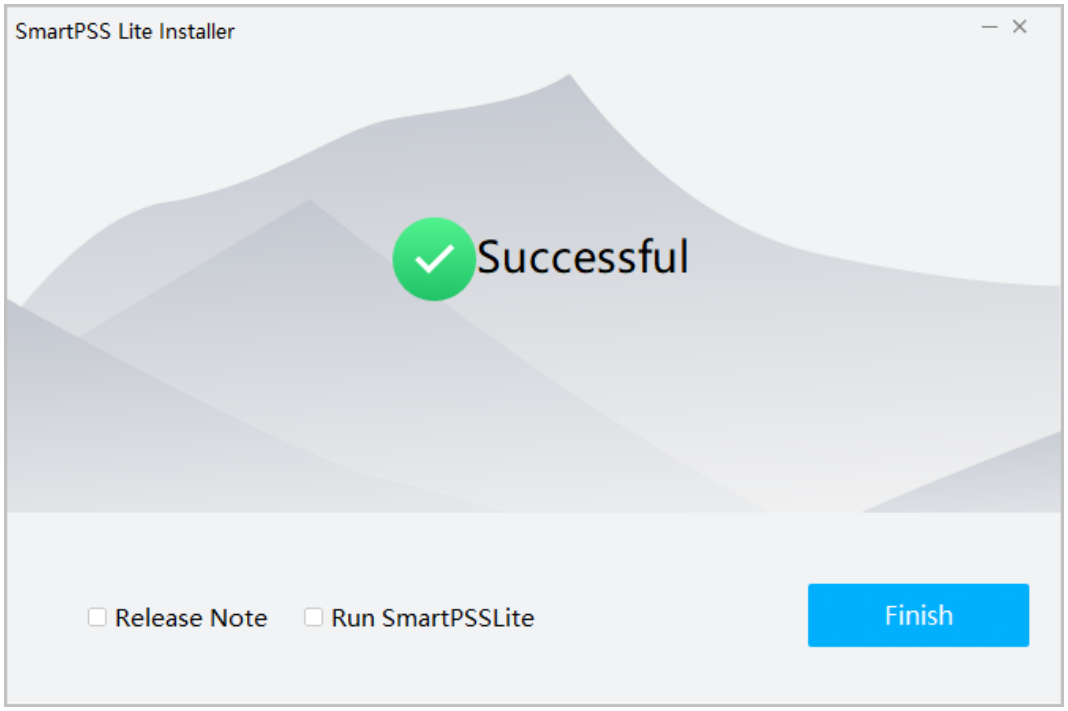
Figure 4-2 Select installation path



Step 4 Click **Finish** to complete the installation.

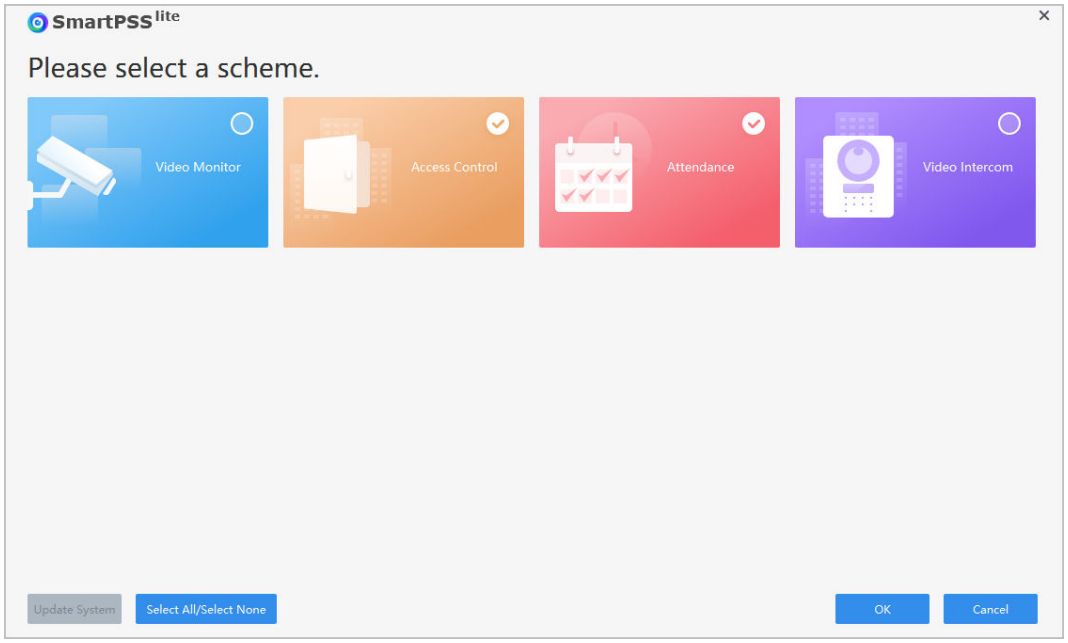
Select **Run SmartPSSLite** to start SmartPSS Lite.

Figure 4-3 Install complete



Step 5 Select the application scenes you want to add, and then click **OK**.

Figure 4-4 Select application scenes



Step 6 Click **Agree and Continue** to agree **Software License Agreement** and **Product Privacy Policy**.

Step 7 Set password on the **Initialization** page, and then click **Next**.

Figure 4-5 Set password

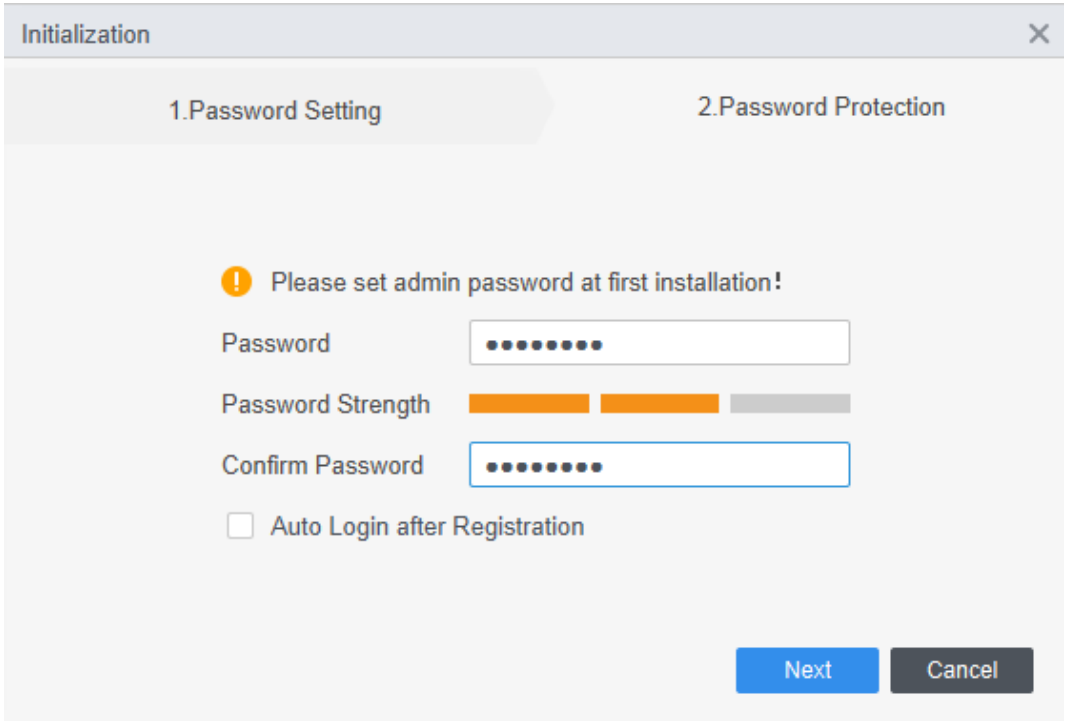
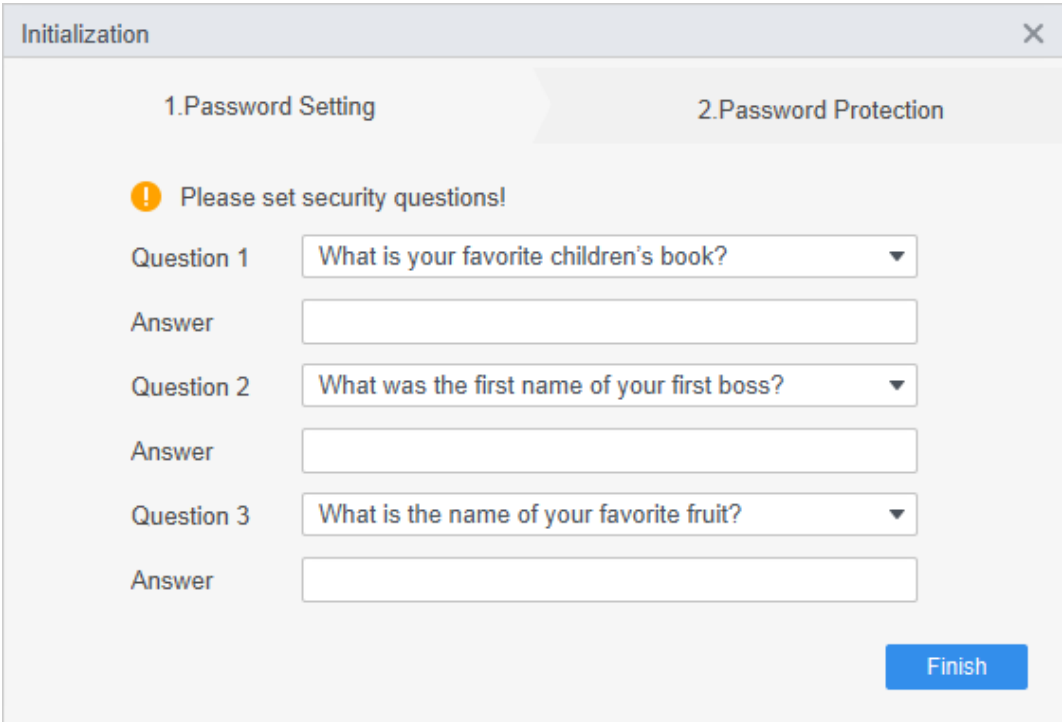


Table 4-1 Initialization parameters

Parameter	Description
Password	The password must consist of 8 to 32 non-blank characters and contain at least two types of characters among uppercase, lowercase, number, and special character (excluding ' " ; : &).
Password Strength	Displays the effectiveness of a password against guessing or brute-force attacks. Green means the password is strong enough, and red means less strong. Set a password of high security level according to the password strength prompt.
Confirm Password	Enter the password again to confirm the password.
Auto Login after Registration	Enable **Auto Login after Registration** so that the SmartPSS Lite will log in automatically after initialization; otherwise the login page is displayed.

Step 8 Set security questions, and then click **Finish**.

Figure 4-6 Set security questions



4.3 Adding Devices

There are several methods available to add devices.

- Automatically search
- Manually adding
- Import in batches

4.3.1 Adding Device by Searching

You can add multiple devices by searching for them on the current network segment or other network segments.

Background Information

We recommend you add devices through searching when want to add multiple devices that are on the same network segment, or when you want to add devices with a known network segment but you do not know the exact IP address of the devices.

Procedure

Step 1 On the home page, click **Devices**.

Step 2 Select a search method.

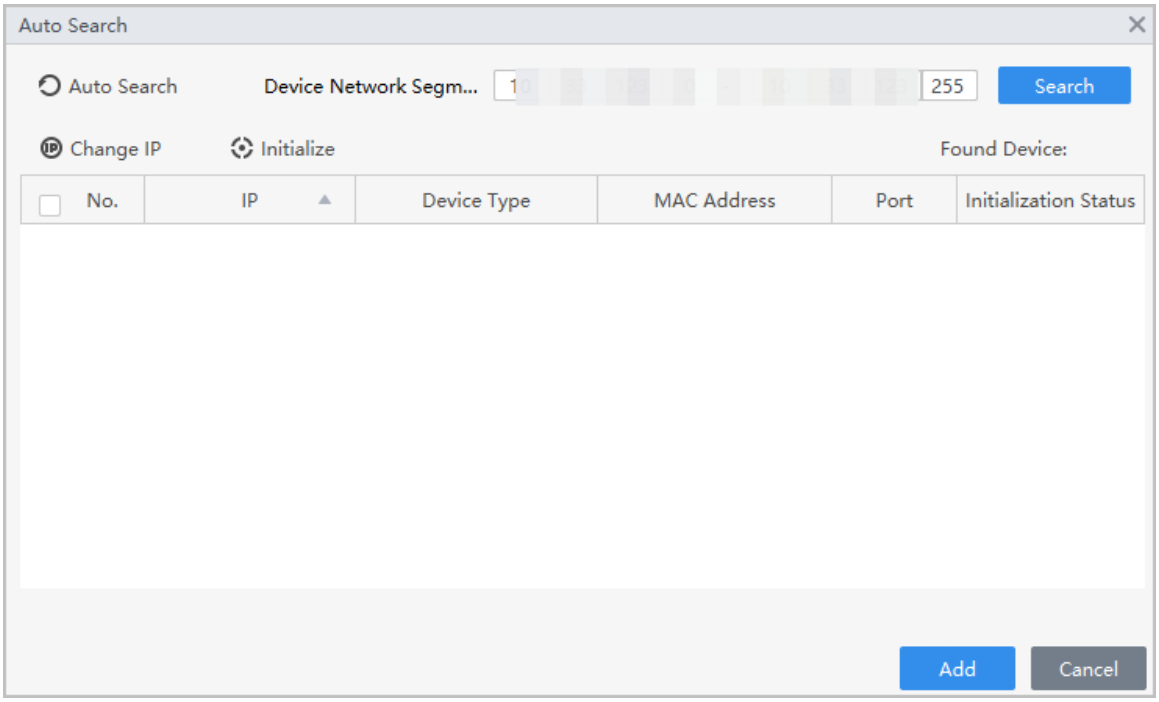
- Auto Search: Enter the username and the password of the device. The system will automatically search for devices that are on the same network to your computer.
- Device Network Segment: Enter the username and the password of the device, and then define the start IP and the end IP. The system will automatically search for devices in this IP range.

Step 3 Click **Auto Search**.

Step 4 Enter a IP range, and then click **Search**.

The system automatically searches for devices in this IP range. You can also click **Auto Search** to automatically search for devices on the same network your computer is connected to.

Figure 4-7 Search for devices



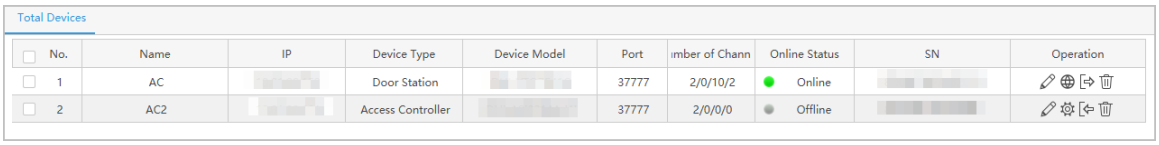
Step 5 Select devices, and then click **Add**.

Step 6 Enter the login username and password of the selected devices, and then click **OK**.

Step 7 Enter the login user name and password, and then click **OK**.

The devices will be added to the platform.

Figure 4-8 Added devices



- : Change the information of the device.
- : Goes to the **Device Config** module in the platform.
- : Goes to the webpage of the device.
- : Log out of the device, and the status of the device will become **Offline**.
- : Log in to the device, and the status of the device will become **Online**.
- : Delete the device.

Related Operations

- Change IP one by one: Select a device, and then click **Change IP** to change the IP of the device.
- Change IP in batches: Select multiple devices, and then click **Change** to change their IP.

  Enter the start IP, and the system will automatically assign IP to devices through increasing the IP by one based on the start IP. For example, if the start IP is 10.XX.XXX.52, and the following IP of devices will be 10.XX.XXX.53, 10.XX.XXX.54, and more.
- Initialize devices: Click **Initialize** to initialize devices.

  Only support activating devices which are on the same network segment to your computer.

  When you use ConfigTool or the platform to initialize the Device, after configuring the network account and password, the device will automatically complete initialization and enter the standby status. The local admin password is converted from the network password. If the password exceeds 8 characters, only the first 8 characters are kept. The letters are converted into digits according to the E.161 standard. The password conversion is case-insensitive, and all other symbols are converted to 0.

  ◇ After the initialization, if you modify the network password, the local admin password will not be affected.
  ◇ If you initialize through the Device first, then initialize through the ConfigTool or the platform, the local admin password will not be affected.

Figure 4-9 E.161 (T9 keypad)

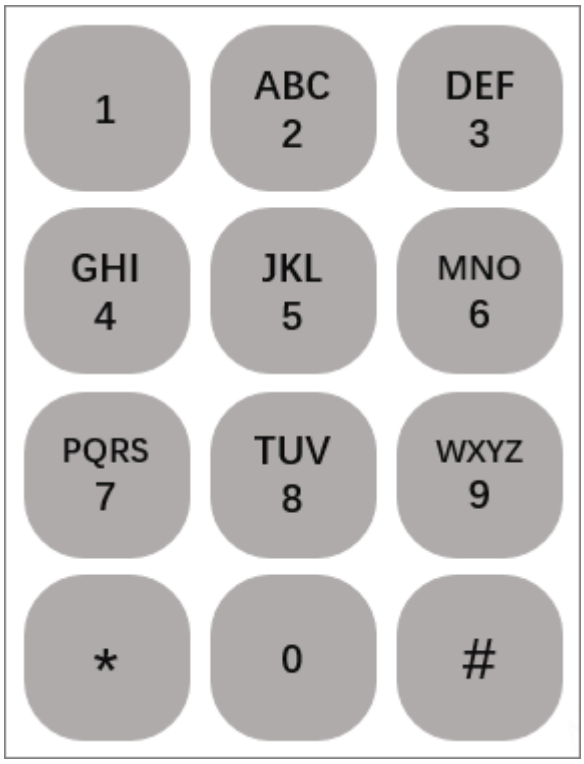


Table 4-2 Conversion example

Network Password	Local Admin Password
ABC12345	22212345
admin123	23646123
admin12!	23646120
admin123456	23646123

4.3.2 Adding Device One by One

If you already know the IP address of a device, you can manually add it to the platform.

Procedure

Step 1 On the home page, click **Devices**.

Step 2 Click **Add**, and then enter the device information.

Figure 4-10 Add devices

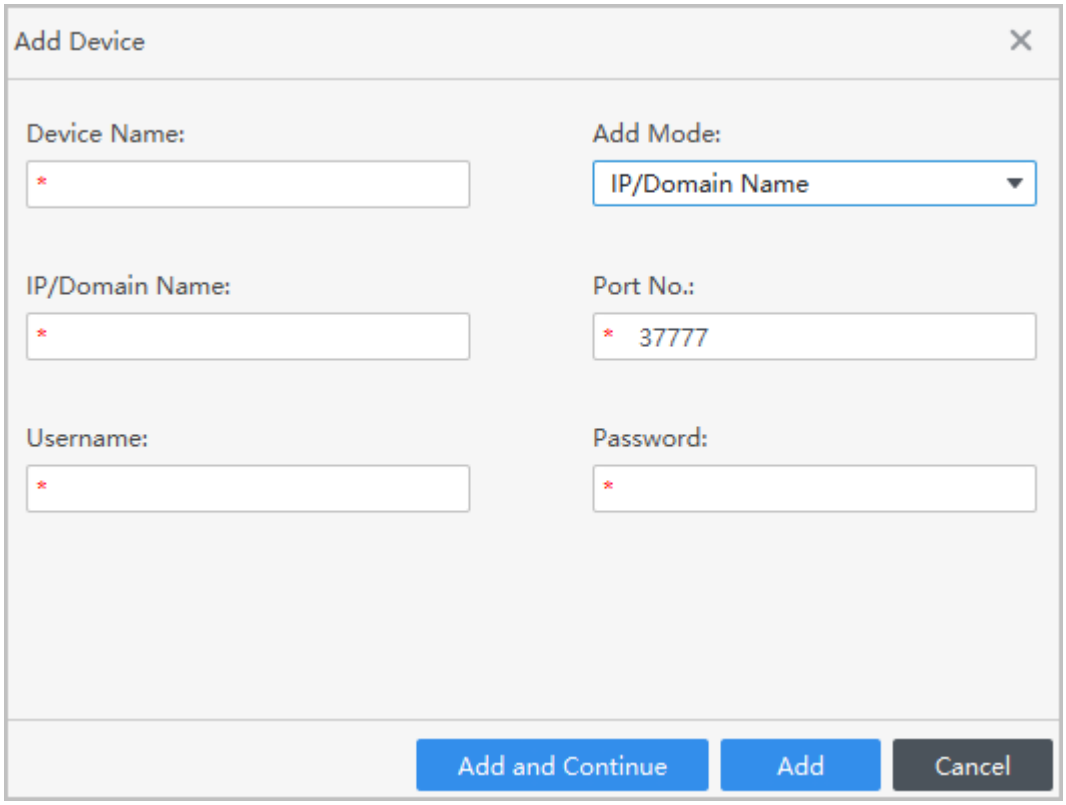


Table 4-3 Parameters of IP adding

Parameter	Description
Device Name	The name of the device.
Add Mode	• IP/Domain Name: Add devices through IP Address. • SN (Available on devices that support P2P): Add devices through their serial number.
IP/Domain Name	Enter the IP address or domain name of the device.
Port No.	Enter the port number (80 by default).
Username	Enter the username and the password of the device.
Password	

Step 3 Click **Add**.

You can also click **Add and Continue** to add more devices.

4.3.3 Importing Device in Batches

You can export the device information, and then import it to another platform to add them in batches. We recommend you add devices by importing them when the devices are not on the same network segment.

Prerequisites

A .xml file of device information was exported. For details, see the corresponding user's manual.

Procedure

Step 1 On the home page, click **Devices**.

Step 2 Click **Import** to import the file the platform.

Devices will be logged in automatically after adding.

4.4 User Management

Add users, assign cards to them, and configure their access permissions.

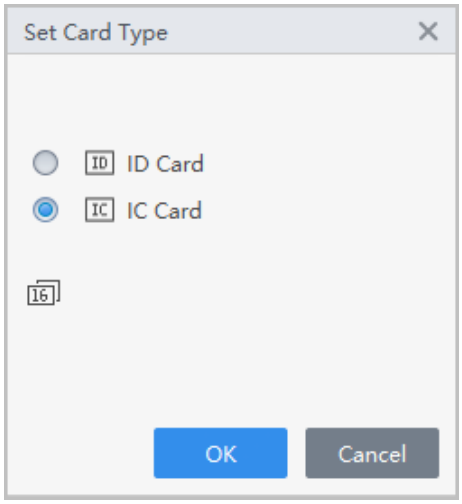
4.4.1 Setting Card Type

Select **Person** > **Person Management**, and then **Card Type**.

Before issuing card, set card type first. For example, if the issued card is ID card, select type as ID card.

The system uses hexadecimal card number by default. Click to change it to decimal card number.

Figure 4-11 Set card type



4.4.2 Configuring Card Type

Set the card type before you assign cards to users. For example, if the assigned card is an ID card, set card type to ID card.

Procedure

Step 1 Log in to Smart PSS Lite.

Step 2 Click **Access Solution** > **Personnel Manager** > **User**.

Step 3 On the **Card Issuing Type** and then select a card type.

Make sure that the card type is same to the actually assigned card; otherwise, the card number cannot be read.

Step 4 Click **OK**.

4.4.3 Adding Users

4.4.3.1 Adding Personnel One by One

Procedure

Step 1 Select **Person** > **Person Management**, and then click **Add**.

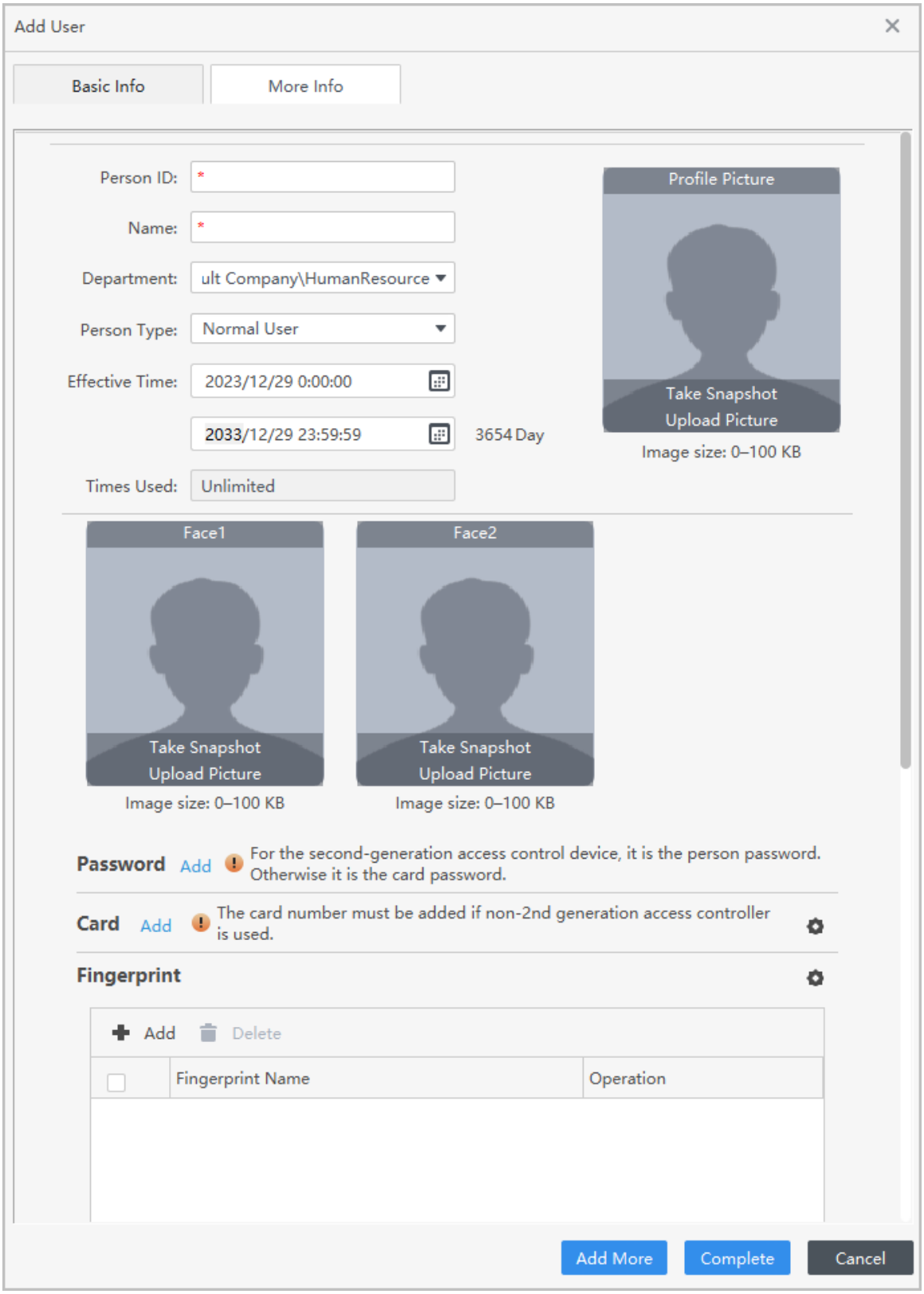
Step 2 Enter basic information of person.

1. Select **Basic Info**.
2. Add basic information of personnel.
3. Take snapshot or upload picture, and then click **Finish**.
4. Configure identity verification methods.
   - Set password

     Click **Add** to add the password. For second-generation access controllers, set person passwords; for other devices, set card passwords. New passwords must consist of 6-8 digits.
   - Configure card
     a. Click to select **Device** or **Card issuer** as card reader.
     b. Add card.
     c. After adding, you can select the card as main card or duress card, or replace the card with a new one, or delete the card.
     d. Click to display the QR code of the card.

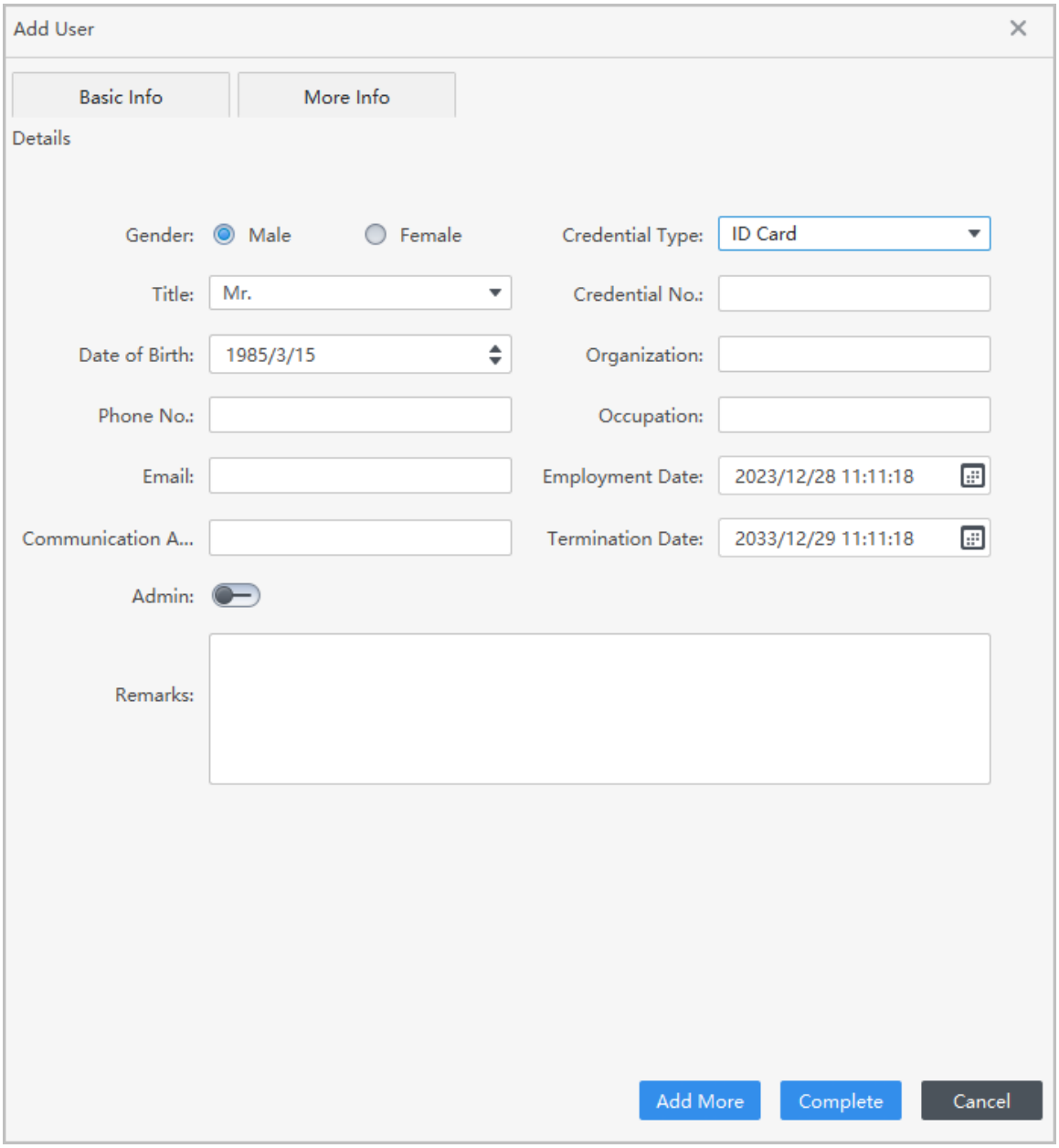
     Only 8-digit card number in hexadecimal mode can display the QR code of the card.
   - Configure fingerprint
     a. Click to select **Device** or **Fingerprint Scanner** as the fingerprint collector.
     b. Add fingerprint. Select **Add** > **Add Fingerprint**, and then press finger on the scanner for three times continuously.
   - Configure feature codes
     a. Click , and then select a device.
     b. Click **Extract**, and then the device will extract the features of the face.

Figure 4-12 Add basic information



Step 3 Click **More Info** tab to add extended information of the staff, and then click **Complete**.

Figure 4-13 Add more information



Step 4 Click **Complete**.

After completing adding, you can click to modify information or add details in the list of person.

Related Operations

- Click to modify information or add details in the list of staff.
- Click to delete all information of the person.
- Click to freeze the card, and then the card cannot be used normally.

4.4.3.2 Adding Personnel in Batches

Procedure

Step 1 Select **Person** > **Person Management**, and then click **Batch Add**.

Step 2 Select the device type, set the start number, number of card.

Step 3 Set the department, and the effective time and expiration time of card.

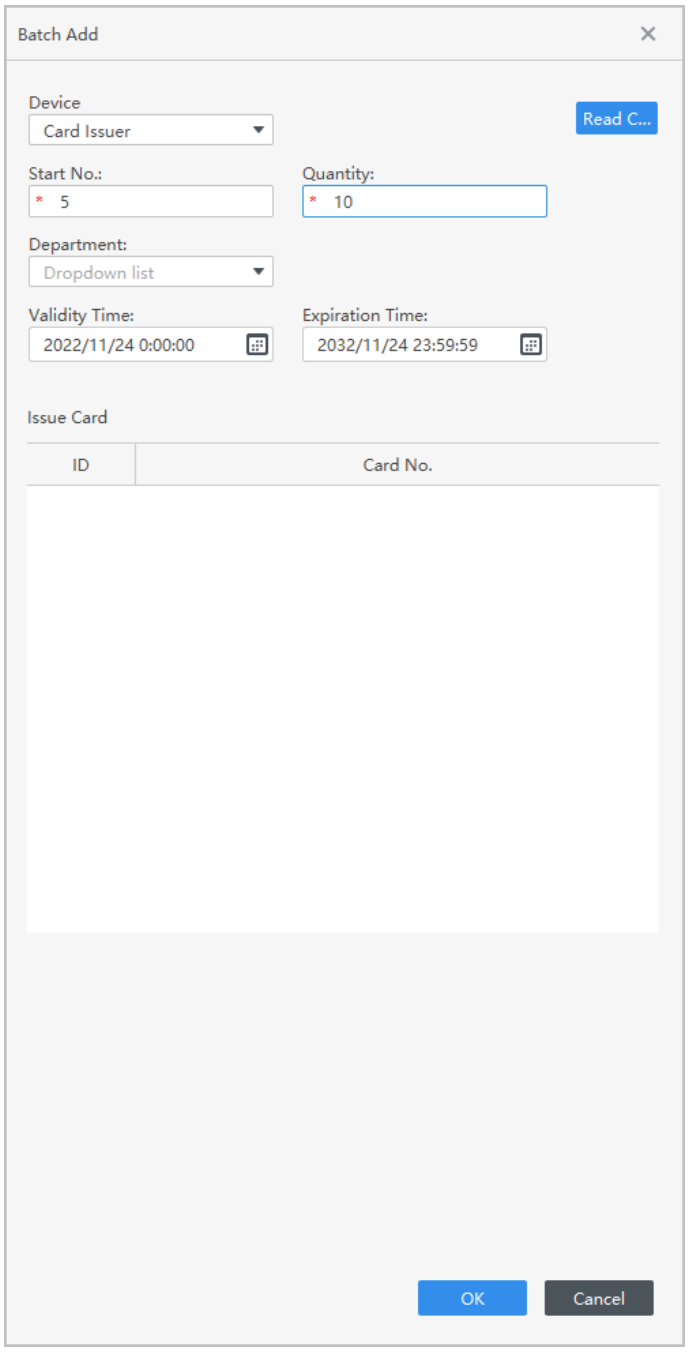
Step 4 Click **Read Card No.**.

Step 5 Place cards on the card issuer or the card reader.

The card number will be read automatically or filled in automatically.

Step 6 Click **OK**.

Figure 4-14 Add personnel in batches



4.4.4 Assigning Access Permissions

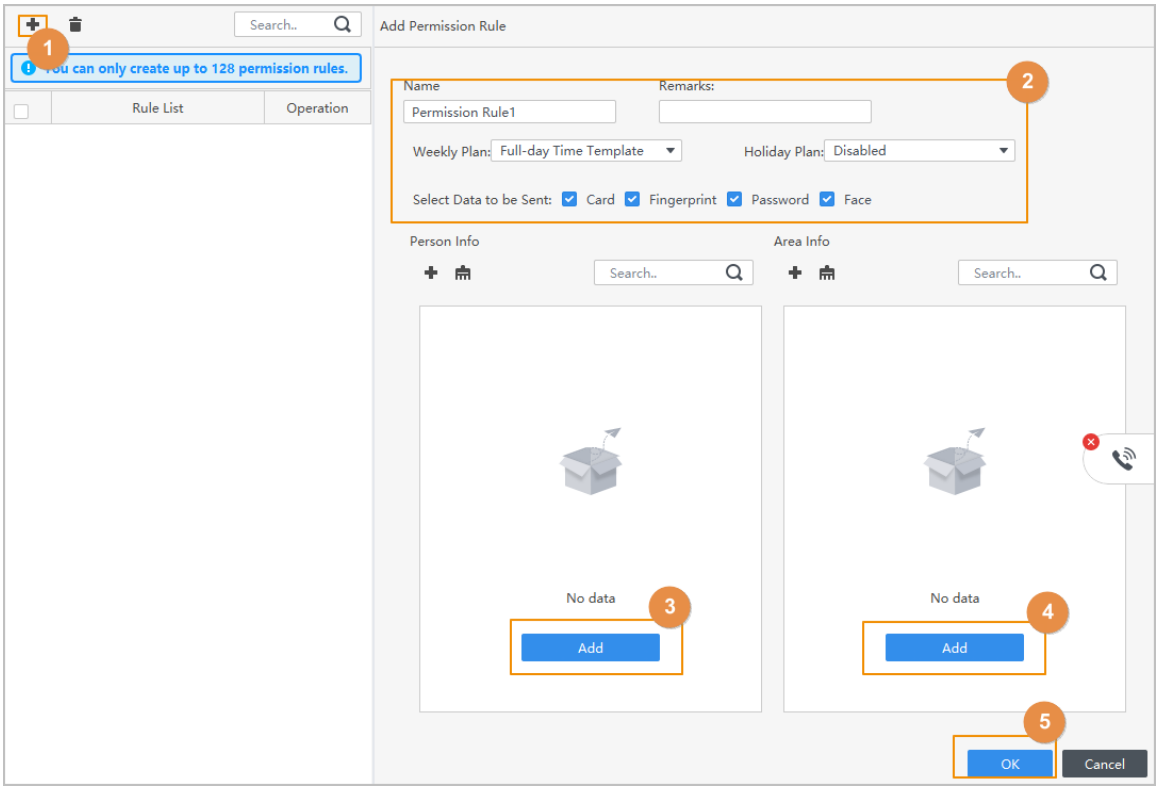
The method to configure permission for department and for personnel is similar, and here uses department as an example.

Procedure

Step 1 Select **Access Control Config** > **Permission Settings**.

Step 2 Click ➕ to add a permission rule.

Figure 4-15 Assign permissions rules



Step 3 Enter the name of the permission rule, select the time plan and unlock methods.

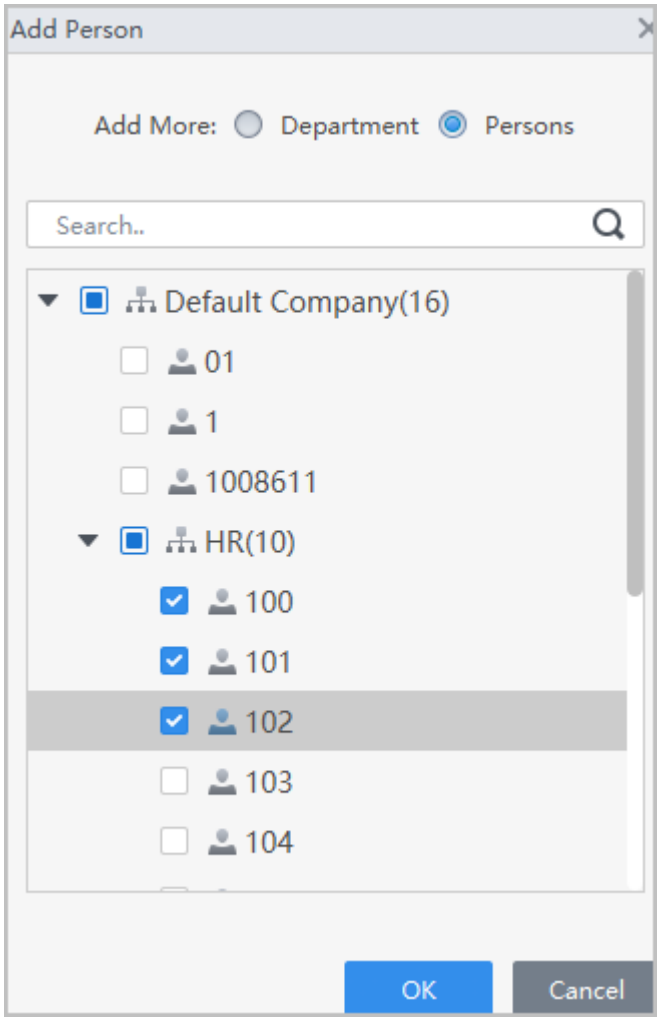
Step 4 In the **Person Info** area, click **Add** to select personnel, and then click **OK**.

You can select personnel on the department or individual users.

- Dept: All personnel in the department will be assigned with access permissions.
- User: Only selected users will be assigned with access permissions.

When you want to assign permission to a new person or change access permissions for an existing person, you can simply add the user in a existing department or link them with a existing role, they will be automatically assigned access permissions set for the department or role.

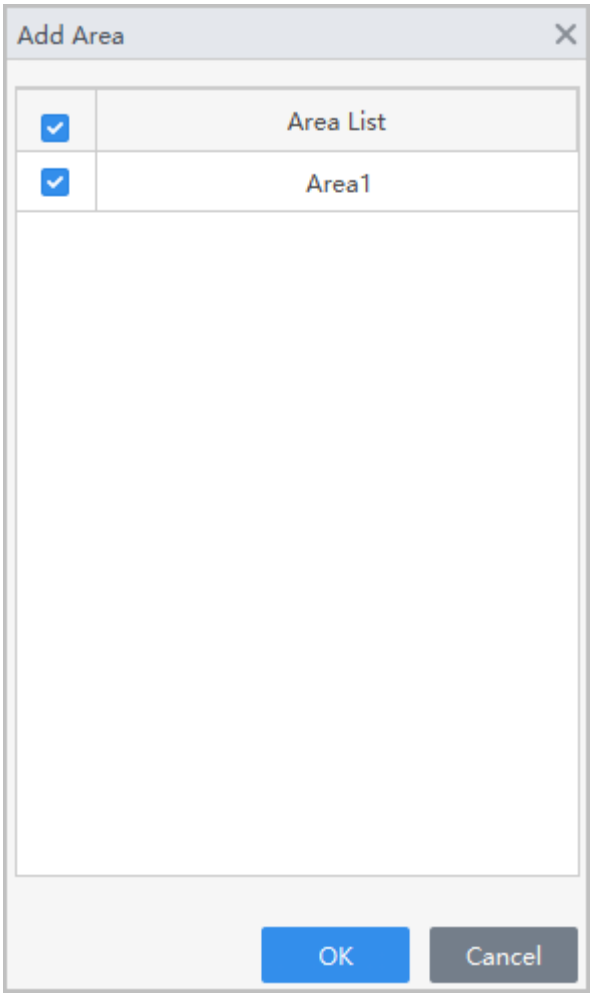
Figure 4-16 Add users



You can click + to create new permission areas. For details on creating permission areas, see the corresponding user's manual.

Step 5 In the **Area Info** , click **Add** to select an area, and then click **OK**.

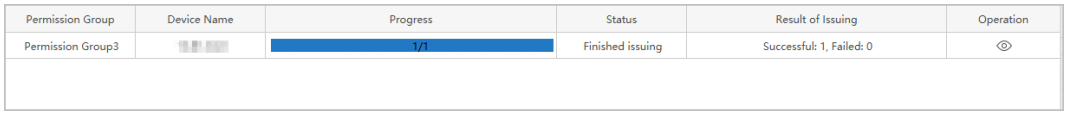
Figure 4-17 Add area



Step 6 Click **OK**.

Step 7 If authorization failed, click in the list to view the possible reason.

Figure 4-18 Authorization progress



4.4.5 Assigning Attendance Permissions

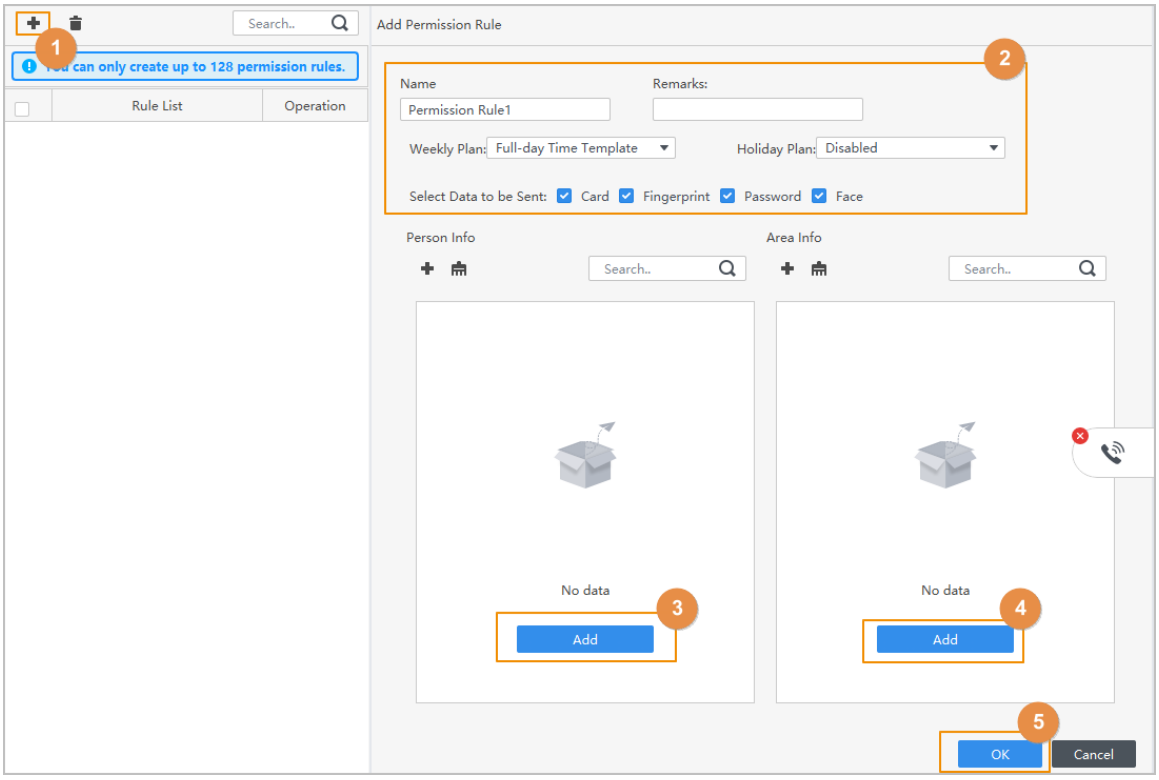
The method to configure permission for department and for personnel is similar, and here uses department as an example.

Procedure

Step 1 Select **Access Control Config** > **Permission Settings**.

Step 2 Click to add a permission rule.

Figure 4-19 Assign permissions rules



Step 3 Enter the name of the permission rule, select the time plan and unlock methods.

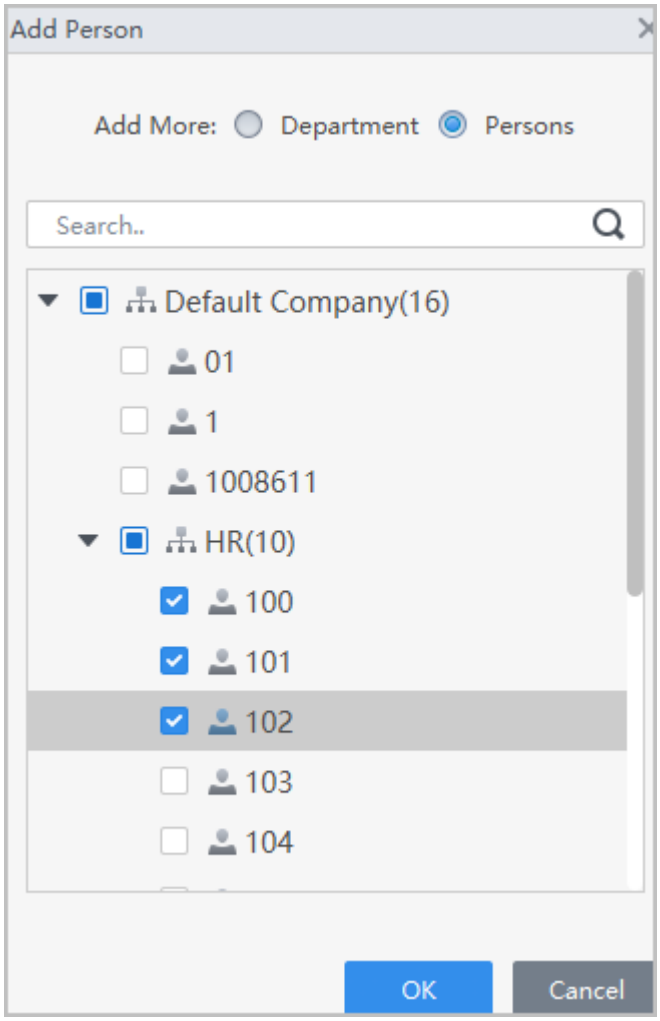
Step 4 In the **Person Info** area, click **Add** to select personnel, and then click **OK**.

You can select personnel on the department or individual users.

- Dept: All personnel in the department will be assigned with access permissions.
- User: Only selected users will be assigned with access permissions.

When you want to assign permission to a new person or change access permissions for an existing person, you can simply add the user in a existing department or link them with a existing role, they will be automatically assigned access permissions set for the department or role.

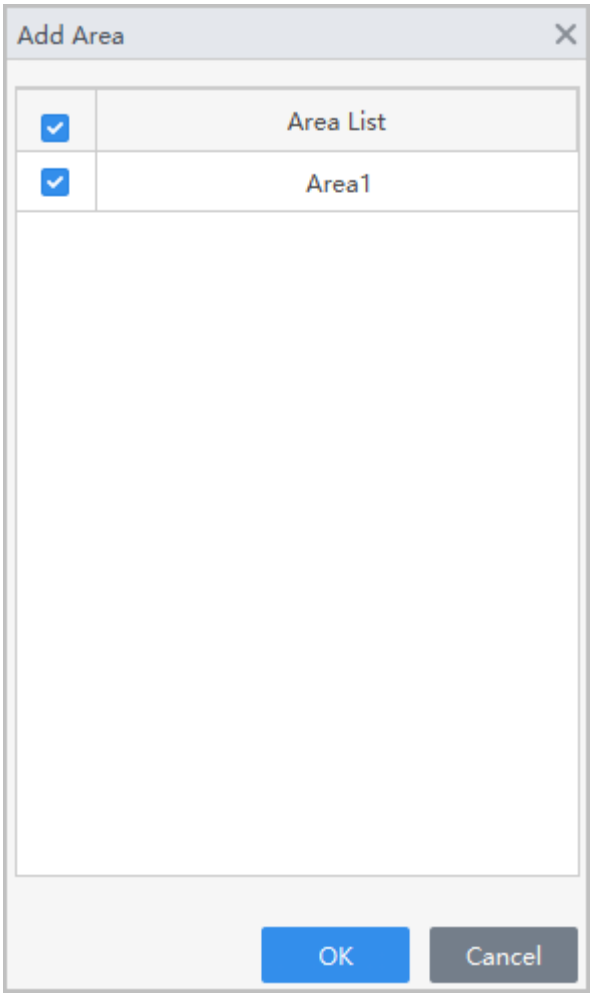
Figure 4-20 Add users



You can click + to create new permission areas. For details on creating permission areas, see the corresponding user's manual.

Step 5 In the **Area Info** , click **Add** to select an area, and then click **OK**.

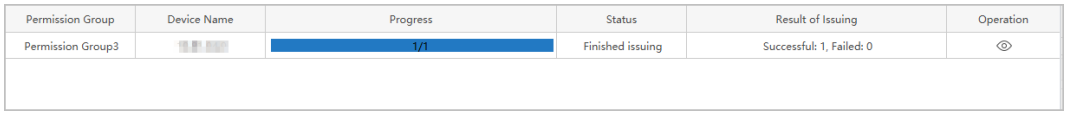
Figure 4-21 Add area



Step 6 Click **OK**.

Step 7 If authorization failed, click in the list to view the possible reason.

Figure 4-22 Authorization progress



4.5 Access Control Monitoring

Procedure

Step 1 Click **Access Control Monitoring** on the home page.

Step 2 Manage the door.

Figure 4-23 Monitor the door

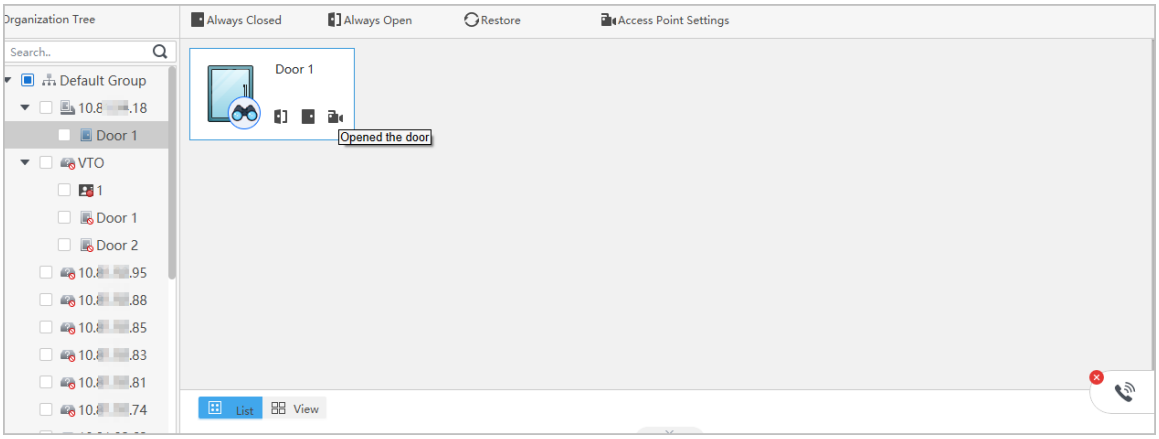


Table 4-4 Parameters description

Function	Description
Remotely control the door	Remotely control the door. ● Method 1: Right-click a door, and then select **Open** or **Close**. ● Method 2: Click or to open or close the door.
	View the video captured by the camera of the access controller or the linked external camera. If you cannot view real-time video, it means that the access control device has no camera and is not connected to an external camera. Please configure an external camera for access controller. For details, see the corresponding user's manual.. If you want to view multiple live videos at the same time, click View, and then drag the access control device in the organization tree to windows, or double-click the access control device in the organization tree.
Always Open	After setting always open or always closed, the door is open or closed all the time and cannot be controlled manually. If you want to manually control the door again, click **Normal** to reset the door status.
Always Closed	
Restore	
Access Point Settings	Set devices (NVR, IPC, IVSS and more) that support target recognition as the access control point. After setting, the door unlock records will be uploaded to the platform.

Step 3 Right-click a access control device to manage the device.

Figure 4-24 Manage the device

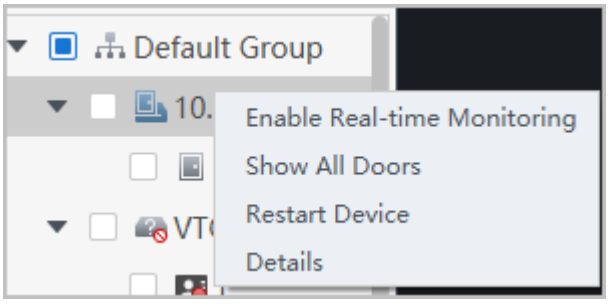


Table 4-5 Parameters description

Parameter	Description
Enable Real-time Monitoring	Start real-time event monitoring.
Show all Doors	Show all doors connected to the access control device.
Restart Device	Restart the access control device.
Details	View the device information, such as version, and more.

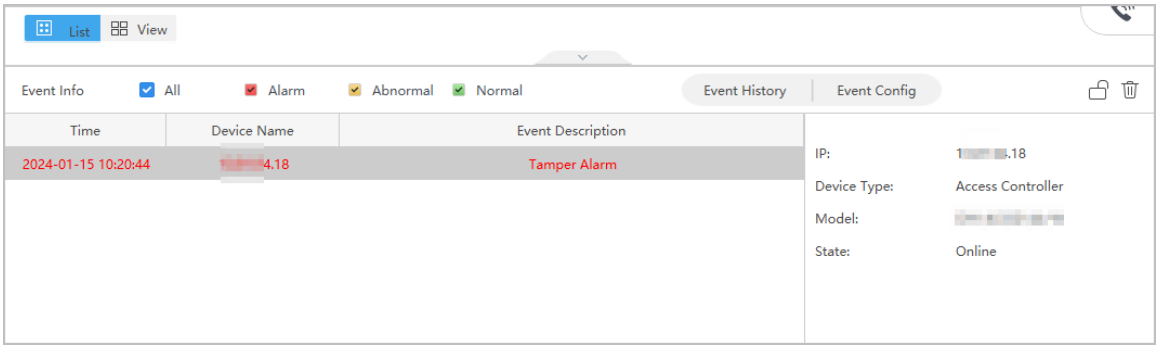
Step 4 View door status on **Event Info** list. For details, see the corresponding user's manual.

Related Operations

Click to open the **Event Info** list.

- View access control information: You can view real-time access information in the **Event Info** list. The information will be cleared after the platform restarts.
- Filter events: Select the event type in the **Event Info** , and the event list displays events of the selected types. For example, select **Alarm**, and the event list only displays alarm events.
- Lock or unlock the event list: Click on the right side of **Event Info** to lock or unlock the event list, and then the real-time events cannot be viewed.
- Delete events: Click on the right side of **Event Info** to clear all events in the event list.
- Click **Event History** to jump to the **Access Control Record** page, and click **Event Config** to jump to the **Event Config** page.

Figure 4-25 Event information



Appendix 1 Security Recommendation

Account Management

1. **Use complex passwords**

   Please refer to the following suggestions to set passwords:

   - The length should not be less than 8 characters;
   - Include at least two types of characters: upper and lower case letters, numbers and symbols;
   - Do not contain the account name or the account name in reverse order;
   - Do not use continuous characters, such as 123, abc, etc.;
   - Do not use repeating characters, such as 111, aaa, etc.
2. **Change passwords periodically**

   It is recommended to periodically change the device password to reduce the risk of being guessed or cracked.
3. **Allocate accounts and permissions appropriately**

   Appropriately add users based on service and management requirements and assign minimum permission sets to users.
4. **Enable account lockout function**

   The account lockout function is enabled by default. You are advised to keep it enabled to protect account security. After multiple failed password attempts, the corresponding account and source IP address will be locked.
5. **Set and update password reset information in a timely manner**

   The device supports password reset function. To reduce the risk of this function being used by threat actors, if there is any change in the information, please modify it in time. When setting security questions, it is recommended not to use easily guessed answers.

Service Configuration

1. **Enable HTTPS**

   It is recommended that you enable HTTPS to access web services through secure channels.
2. **Encrypted transmission of audio and video**

   If your audio and video data contents are very important or sensitive, it is recommended to use encrypted transmission function in order to reduce the risk of your audio and video data being eavesdropped during transmission.
3. **Turn off non-essential services and use safe mode**

   If not needed, it is recommended to turn off some services such as SSH, SNMP, SMTP, UPnP, AP hotspot etc., to reduce the attack surfaces.

   If necessary, it is highly recommended to choose safe modes, including but not limited to the following services:

   - SNMP: Choose SNMP v3, and set up strong encryption and authentication passwords.
   - SMTP: Choose TLS to access mailbox server.
   - FTP: Choose SFTP, and set up complex passwords.
   - AP hotspot: Choose WPA2-PSK encryption mode, and set up complex passwords.
4. **Change HTTP and other default service ports**

   It is recommended that you change the default port of HTTP and other services to any port between 1024 and 65535 to reduce the risk of being guessed by threat actors.

Network Configuration

1. **Enable Allowlist**

   It is recommended that you turn on the allowlist function, and only allow IP in the allowlist to access the device. Therefore, please be sure to add your computer IP address and supporting device IP address to the allowlist.
2. **MAC address binding**

   It is recommended that you bind the IP address of the gateway to the MAC address on the device to reduce the risk of ARP spoofing.
3. **Build a secure network environment**

   In order to better ensure the security of devices and reduce potential cyber risks, the following are recommended:

   - Disable the port mapping function of the router to avoid direct access to the intranet devices from external network;
   - According to the actual network needs, partition the network: if there is no communication demand between the two subnets, it is recommended to use VLAN, gateway and other methods to partition the network to achieve network isolation;
   - Stablish 802.1x access authentication system to reduce the risk of illegal terminal access to the private network.

Security Auditing

1. **Check online users**

   It is recommended to check online users regularly to identify illegal users.
2. **Check device log**

   By viewing logs, you can learn about the IP addresses that attempt to log in to the device and key operations of the logged users.
3. **Configure network log**

   Due to the limited storage capacity of devices, the stored log is limited. If you need to save the log for a long time, it is recommended to enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

Software Security

1. **Update firmware in time**

   According to the industry standard operating specifications, the firmware of devices needs to be updated to the latest version in time in order to ensure that the device has the latest functions and security. If the device is connected to the public network, it is recommended to enable the online upgrade automatic detection function, so as to obtain the firmware update information released by the manufacturer in a timely manner.
2. **Update client software in time**

   It is recommended to download and use the latest client software.

Physical Protection

It is recommended that you carry out physical protection for devices (especially storage devices), such as placing the device in a dedicated machine room and cabinet, and having access control

and key management in place to prevent unauthorized personnel from damaging hardware and other peripheral equipment (e.g. USB flash disk, serial port).