



User Manual

DNAKE 902D-B9

REMARK

Please follow the user manual for correct installation and testing. If there is any doubt please call our tech-supporting and customer center.

Our company applies ourselves to reformation and innovation of our products. No extra notice for any change. The illustration shown here is only for reference. If there is any difference, please take the actual product as the standard.

The product and batteries must be handled separately from household waste. When the product reaches the end of service life and needs to be discarded, please contact the local administrative department and put it in the designated collection points in order to avoid the damage to the environment and human health caused by any disposal. We encourage recycling and reusing the material resources.

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PRODUCT FEATURE

1. Powered by PoE or power adapter (DC12V/2A)
2. Open the door by face recognition (10,000 users)
3. Liveness detection
4. Open the door by IC card (100,000 users)
5. Support SIP 2.0 protocol, easy integration with other SIP devices
6. Easy integration with elevator control system
7. 2MP camera with WDR mode

TECHNICAL PARAMETER

Power Supply: PoE (802.3af) or DC 12V/2A

Standby Power: 3 W

Rated Power: 10 W

Video Resolution: up to 1920 x 1080

Working Temperature: -10°C to +55°C (default); -40°C to +55°C (with heating film)

Storage Temperature: -40°C to +70°C

Working Humidity: 10% to 90% (non-condensing)

PACKAGE CONTENT

MODEL: 902D-B9 (Flush Mounting)



902D-B9



Screw Fixing Seat
(4 pcs)



PA4x25 (4 pcs)



PA3x8 (2 pcs)



Seal Ring



Rear Cover



Wrench Screw

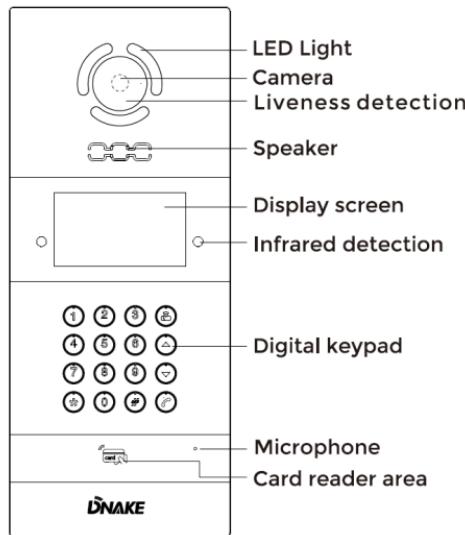


Wires



Quick Start Guide

OVERVIEW



902D-B9 Overview



BASIC OPERATION

1. Call and Monitor

1.1. Call Indoor Monitor

In standby mode, press room numbers +#/dial on Door Station to call Indoor Monitor. During the call, press * on Door Station again to end the call. If the call fails or Indoor Monitor is busy, Door Station will make a beep sound.

1.2. Monitor Door Station

Click Monitor icon on Indoor Monitor's homepage to monitor Door Station.

2. Phonebook

Press up or down button to enter phonebook page. You can dial any residents in this phonebook.

3. Unlock

Press #+PIN Code+# to unlock.

4. Concierge

Press concierge button to call Master Station.

5. Add Cards by Admin Card

5.1. Add other cards

Step 1: Tap the admin card once;

Step 2: And then tap other cards immediately. Other cards you have tapped can be used to open the door;

Step 3: Tap the admin card again to finish.

5.2. Delete other cards one by one

Step 1: Tap the admin card twice;

Step 2: And then tap other cards immediately. Other cards you have tapped will be deleted;

Step 3: Tap the admin card again to finish.

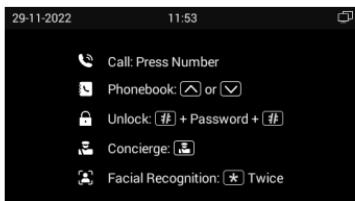
5.3. Delete all other cards

Tap the admin card five times. All the other cards will be deleted.

Tips: The admin card can only be used to manage cards. It cannot be used to open the door.

DEVICE SETTING

Connect Door Station and PC to a network switch in the same LAN. You can enter the admin settings of Door Station by pressing # twice and entering default password (123456). This is where you can configure the device.



1. Device Settings

Numbers here are basic settings for making a call to Indoor Monitor. For Door Station, the building and unit number should be the same as those in Indoor Monitor. For Villa Station with one button, the building, unit, and room number should be the same as those in Indoor Monitor.

The Index number here is to distinguish different Door Stations when more than one Door Station in one building.

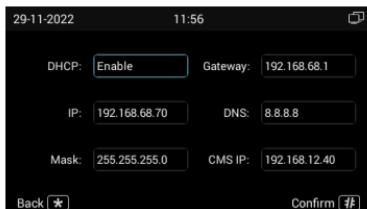


Mode:	Mode for apt., wall or villa (Unit and wall)
Building:	Number of the building (Building range: 1-999);
Unit:	Number of the unit (Unit range: 1-99);
Index:	Number of the Index (Unit range: 1-9);
Language:	16 languages supported (简体中文, English, 繁體中文, עברית, Deutsch, Español, Türk, Tiếng Việt, Nederlands, Português, Polski, Русский, عربي, Français, Italiano, slovenský);
Volume:	Volume of System can be set from 1 to 6;

Resolution:	3 resolutions supported (320 × 240, 640 × 480, 1280 × 720, 1920 × 1080);
Password:	Administrator password of the Device (Default 123456);

2. Network Settings

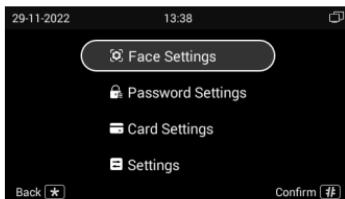
The device network can be set to either DHCP or a static IP address. CMS parameters should be configured here when you try to register this device to CMS.



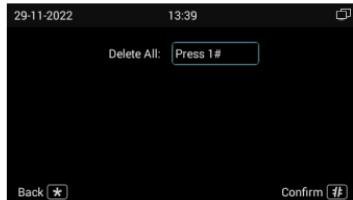
DHCP:	Enable DHCP (Dynamic Host Configuration Protocol) to dynamically distributing network configuration parameters;
IP:	Configure Static IP address to manually distributing network configuration parameters;
Mask:	Subnetmask;
Gateway:	A component that is part of two networks, which use different protocols;
DNS:	Domain Name Server of the device;
Server:	Server address of CMS;

3. Access Settings

You can configure access ways like face, PIN Code, cards.

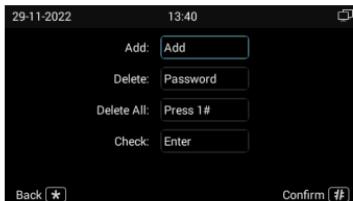


3.1. Face Settings



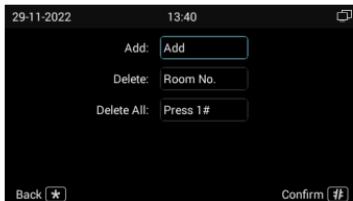
Delete All: Press 1 and # to delete all face data;

3.2. Password Settings



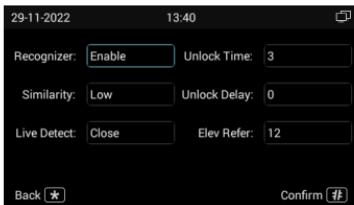
Add:	Click to add password;
Delete:	Enter password to delete it;
Delete All:	Press 1 and # to delete all passwords;
Check:	Check the password can be used or not;

3.3. Card Settings



Add:	Click to add card;
Delete:	Enter room number to delete cards registered here;
Delete All:	Press 1 and # to delete all cards;

3.4. Settings



Recognizer:	Enable facial recognition;
Similarity:	sensitivity of facial similarity analyzer (low, normal, high);
Live Detect:	Sensitivity of live detect (close, normal, high);
Unlock Time:	The length of unlock time (1-9s);
Unlock Delay:	The length of unlock delay time (1-9s);
Elev Refer:	The floor Door Station is installed at (Range: -99-99);

4. About System

You can find basic information displayed in About System.

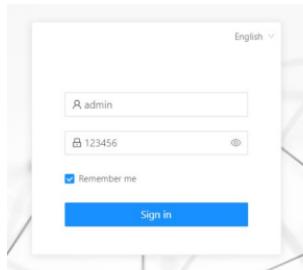


Firmware Version:	Firmware version of the device;
IP:	Current IP address of the device;
MAC:	MAC address of the device;
SIP:	Status of SIP registration of the device;

WEB SETTING

Connect Door Station and PC to a network switch in the same LAN. You can enter the IP address of Door Station in the web browser search bar and log in with the default account (admin) and password (123456). This is where you can configure the device.

For getting the IP address, you can search by DNAKE Remote Upgrade Tool which is installed in the same LAN with the devices.



1. General

1.1. General > Information

When you first log in to the web interface, you can find basic information displayed in this dashboard.

Product		
Model	902D-B9	Firmware Version
Framework	1.9.0 20220815	UI
	1.1.40 20221202	MCU
		1.6.3

Network		
DHCP	Enabled	IP Address
		192.168.0.106
Gateway		DNS
192.168.68.97		8.8.8.8

SIP Account		
Account	100	Status
CMS IP	192.168.12.40	Disabled

Model:	Model of the device;
Firmware Version:	Firmware version of the device;
MAC Address:	MAC address of the device;
Framework:	Framework of the device;
UI:	UI of the device;
MCU:	MCU of the device;
DHCP:	Status of DHCP;
IP Address:	Current IP address of the device;
Mask:	Subnet mask of the device;
Gateway:	Gateway of the device;
DNS:	Domain Name Server of the device;
Account:	SIP account of the device;
Status:	Status of SIP registration of the device;
CMS IP:	IP address of CMS;
Status:	Status of CMS registration;

1.2. General > Basic

Language, resolution and volume of the device can be configured in this column.

Language:	16 languages supported (简体中文, English, 繁體中文, עברית, Deutsch, Español, Türk, Tiếng Việt, Nederlands, Português, Polski, Русский, عربی, Français, Italiano, slovenský);
Resolution:	3 resolutions supported (320 × 240, 640 × 480, 1280 × 720);
Intercom:	Volume of Intercom can be set from 1 to 6;
System:	Volume of System can be set from 1 to 6;

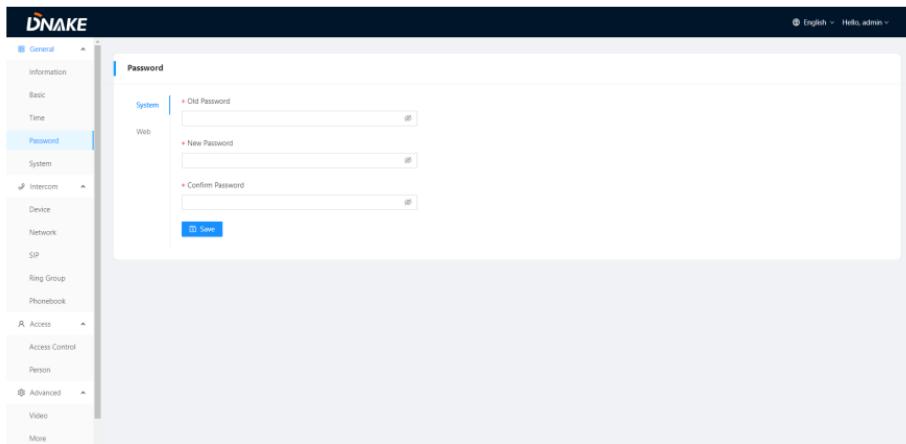
1.3. General > Time

Time of the device can be configured.

Auto (Time):	Enable to synchronize computer time;
Date&Time:	Date and time can be set manually;
NTP URL:	Network Time Protocol (NTP) is a protocol used to synchronize computer time;
Time Zone:	A region that observes a uniform standard time;
12H/24H:	Select 12H or 24H format to display on the device;
Time Format:	3 kinds of time formats supported (YYYY-MM-DD, DD-MM-YYYY, MM-DD-YYYY);

1.4. General > Password

The System password is for the administrator to log in settings on the device while the Web password is for the administrator to log in settings on the web. The default password for both of them is 123456.



System Old Password:	Current administrator password of the Device (Default 123456);
System New Password:	New administrator password of the Device;
System Confirm Password:	Confirm administrator password of the Device;
Web Old Password:	Current administrator password of the web (Default 123456);
Web New Password:	New administrator password of the web;
Web Confirm Password:	Confirm administrator password of the web;

1.5. General > System

The system column is designed for data backup and restore, firmware upgrade, factory default, device reboot, packet capture, logs capture, and obtaining UI screenshots.

DNKE

General Information Basic Time Password **System** Intercom Device Network SIP Ring Group Phonebook Access Access Control Person Advanced Video More

System

Backup&Import

Debug

Backup & Restore

Upgrade

Reset

Reboot

DNKE

General Information Basic Time Password **System** Intercom Device Network SIP Ring Group Phonebook Access Access Control Person Advanced Video More

System

Backup&Import

Debug

Start

Logs

Screenshot

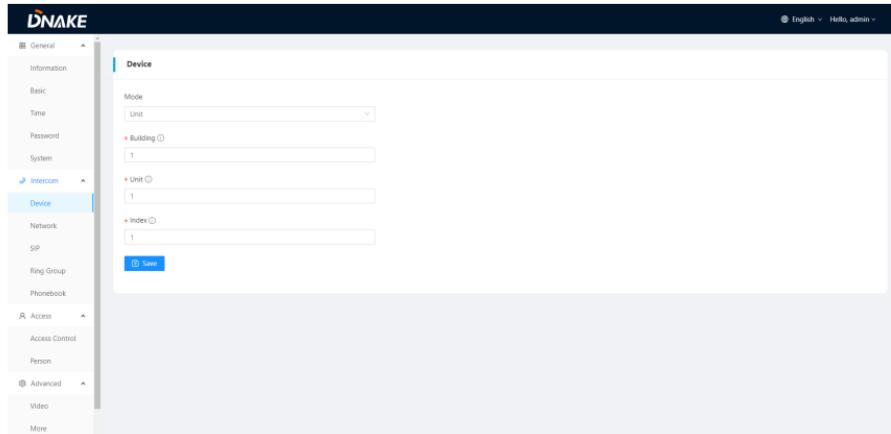
Backup&Restore:	Backup all setting and restore settings;
Upgrade:	Upgrade equipment;
Reset:	Reset to factory settings;
Reboot:	Reboot the device;
Packet Capture:	Capturing packets can help developers reproduce positioning problems;
Logs:	Device logs;
Screenshot:	Screenshot device interface;

2. Intercom

2.1. Intercom > Device

Numbers here are basic settings for making a call to Indoor Monitor. For Door Station, the building and unit number should be the same as those in Indoor Monitor. For Villa Station with one button, the building, unit, and room number should be the same as those in Indoor Monitor.

The index number here is to distinguish different Door Stations when more than one Door Station is in one building.



Mode:	Mode for apt., wall or villa (Unit and wall)
Building:	Number of the building (Range: 1-999);
Unit:	Number of the unit (Range: 1-99);
Index:	Number of the device (Range: 1-9);

2.2. Intercom > Network

The device network can be set to either DHCP or a static IP address. CMS parameters should be configured here when you try to register this device to CMS.

DHCP:	Enable DHCP (Dynamic Host Configuration Protocol) to dynamically distribute network configuration parameters;
IP Address:	Configure Static IP address to manually distribute network configuration parameters;
Mask:	Subnetmask;
Gateway:	A component that is part of two networks, which use different protocols;
DNS:	Domain Name Server of the device;
CMS:	Enable to use CMS software to manage devices;
CMS IP:	Server address of CMS;
Password:	Password you set for this device's CMS registration;

2.3. Intercom > SIP

The SIP column concerns SIP registration, Proxy, Display Name, User, User ID, Password, Transfer Protocol, H.264, etc.

SIP

General Information Basic Time Password System

Intercom

SIP

Ring Group Phonebook

Access Access Control Person

Advanced Video More

Proxy: sip.192.168.12.40

Display Name:

User: 100

User ID:

Password:

Transfer Protocol: UDP

H.264: 102

SIP:	Enable to use SIP;
Proxy:	Proxy of SIP; the default port is 5060;
Display Name:	Display name of SIP;
User:	User of SIP;
User ID:	User ID of SIP;
Password:	Password of SIP;
Transfer Protocol:	Transfer Protocol (UDP, TCP, TLS);
H.264:	Advanced video coding (Range:96-167);

2.4. Intercom > Ring Group

Ring group is for setting up SIP calls or call mode. Concierge button, the length of the call and ring time can also be configured here.

The screenshot shows the Dnake software interface with the following details:

- Left Sidebar:** Includes sections for General, Information, Basic, Time, Password, System, Intercom (selected), Device, Network, SIP, Ring Group (selected), Access, Access Control, Person, Advanced, Video, and More.
- Top Bar:** Shows "Dnake", "English - Hello, admin", and two blue buttons labeled "Import" and "Export".
- Content Area:**
 - Ring Group:** Sub-section "Mode" is set to "one by one". Buttons: "Add" (blue), "Delete All" (red), "Reset".
 - Call Concierge:** Sub-section "URL" is set to "tel:192.168.1.100:12345". Buttons: "Add" (blue), "Delete All" (red).
 - Settings:** Sub-sections include "Dial Mode" (Normal, Repeat), "Ring Time" (10s, 20s, 35s, 45s, 60s, 90s, 120s), and "Call Time" (30s, 60s). Buttons: "Add" (blue), "Delete All" (red).

Mode:	2 modes supported (one by one, all at once);
URL:	URL of the concierge button;
Dial Mode:	2 dial modes supported (Normal, Repeat);
Ring Time:	The ring will be ended automatically after a period of time (10s, 20s, 35s, 45s, 60s, 90s, 120s)
Call Time:	The call will be ended automatically after a period of time (120s, 300s, 600s, 1200s, 1800s);

2.5. Intercom > Phonebook

All contacts on Door Station can be edited here.

The screenshot shows the Dnake software interface with the following details:

- Left Sidebar:** Includes sections for General, Information, Basic, Time, Password, System, Intercom (selected), Device, Network, SIP, Ring Group, Phonebook (selected), Access, Access Control, Person, Advanced, Video, and More.
- Top Bar:** Shows "Dnake", "English - Hello, admin", and two blue buttons labeled "Import" and "Export".
- Content Area:**
 - Phonebook:** Sub-section "Name" and "Number" are empty. Buttons: "Add" (blue), "Delete All" (red), "Search" (blue), "Reset" (blue).
 - Action:** Buttons: "Import" (blue), "Export" (blue).

Search: Fill in text inputs to search;

Reset:	Click reset to clear words in text inputs;
Delete All:	Delete all data on the chart;
Import:	Import all data to the chart;
Export:	Export all data on the chart;

3. Access

3.1. Access > Access Control

Relays, access cards, PIN code can be configured here.

Relay 1:	1 relay supported;
DTMF:	Dual-tone multi-frequency signaling (Relay1:#, Relay2:0, relay3: *);
Unlock Delay:	The length of unlock delay time (1-9s);
Unlock Time:	The length of unlock time (1-9s);
Lift Reference Floor:	The floor Door Station is installed at (Range: -9-99);
Unlock Password:	Click to add PIN code or delete all;
Human Body Induction:	Enable to trigger facial recognition once human movement is detected;
Facial Recognition:	Enable facial recognition;
Similarity:	sensitivity of facial similarity analyzer (low, normal, high);
Live Detect:	Sensitivity of live detect (close, normal, high);

3.2. Access > Person

Person column is for access authorization.

No.	Name	Room No.	Person Type	Card No.	Relay	Photo	Status	Action
1	household01	1111	Household	14802654	1	None	Enabled	
2	household02	1111	Household	14767070	2,3	None	Enabled	

Search:	Fill in text inputs to search;
Reset:	Click reset to clear words in text inputs;
Delete All:	Delete all data on the chart;
Export:	Export all data on the chart;

4. Advanced

4.1. Advanced > Video

Real-time video from IP cameras can be obtained by filling in its URL (RTSP). On the talking interface of Indoor Monitor, you can click the little keyboard icon to switch to IP cameras' video. (No.1 on the keyboard stands for Door Station while No.2 to No.5 stands for IP camera)

The screenshot shows the DNKE device configuration interface. The left sidebar contains a navigation menu with categories like General, Information, Basic, Time, Password, System, Intercom, Device, Network, SIP, Ring Group, Phonebook, Access, Access Control, Person, Advanced, Video, and More. The 'Advanced' category is currently selected, and the 'Video' sub-category is highlighted. The main content area is titled 'Video' and contains a section for 'RTSP Feed' with a dropdown menu set to 'Disabled'. A blue 'Save' button is located at the bottom right of this section.

RTSP Feed:	4 IP cameras supported to switch while talking on Indoor Monitor;
URL:	IP camera's URL;

4.2. Advanced > More

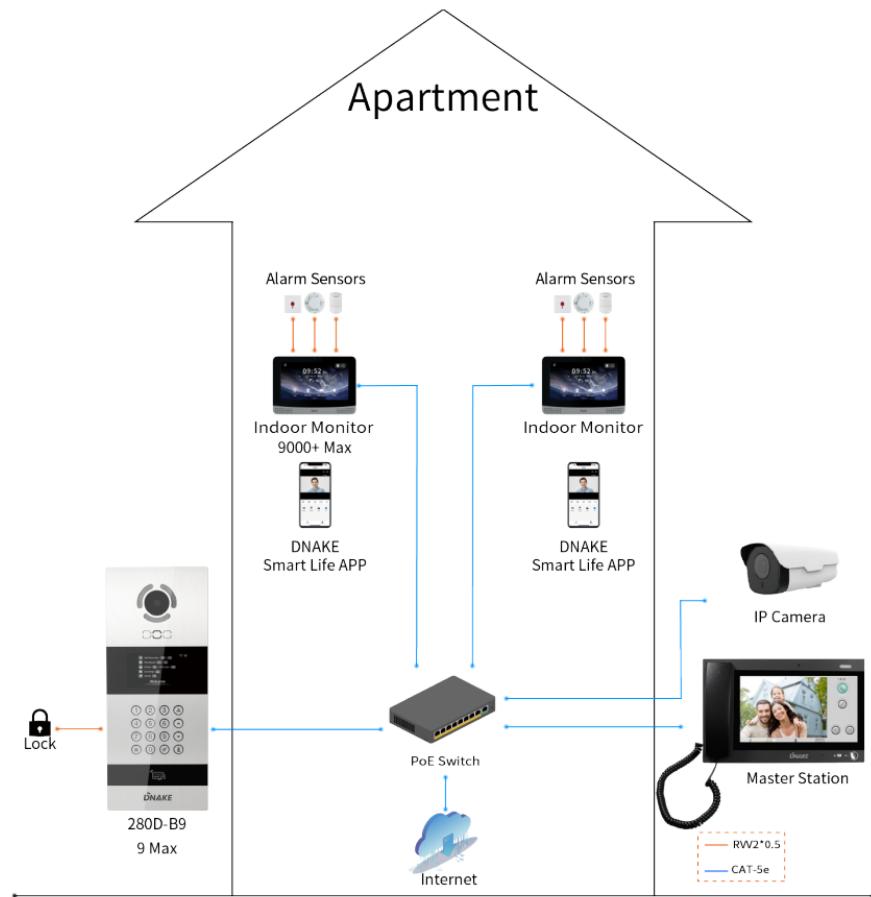
More column is for Tamper Alarm and ONU Penetration.

The screenshot shows the DNKE device configuration interface. The left sidebar contains a navigation menu with categories like General, Information, Basic, Time, Password, System, Intercom, Device, Network, SIP, Ring Group, Phonebook, Access, Access Control, Person, Advanced, Video, and More. The 'Advanced' category is currently selected, and the 'More' sub-category is highlighted. The main content area is divided into two sections: 'Advertise' and 'Other'. The 'Advertise' section contains a toggle switch labeled 'Advertise' (which is off), a 'URL' input field containing 'http://192.168.12.40/ad.html', and a 'Time (minutes)' dropdown set to '300'. A blue 'Save' button is located at the bottom right of this section. The 'Other' section contains a toggle switch labeled 'ONU Penetration' (which is off) and a blue 'Save' button at the bottom right.

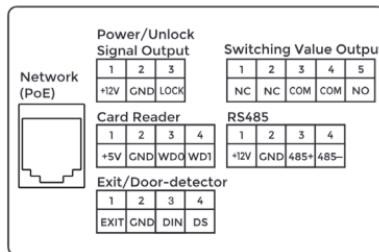
Advertise:	Enable to advertise on the screen saver of the device;
URL:	Advertise URL (Uniform Resource Locator);
Time (minutes):	The time length of advertising display (10mins, 20mins, 30mins);

ONU Penetration:	Enable to prevent ONU from banning multicast;
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SYSTEM DIAGRAM



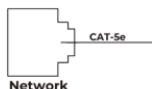
DEVICE WIRING



1. Network (PoE)

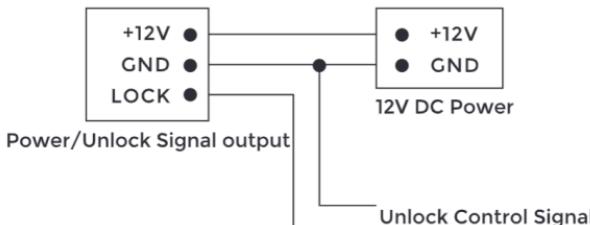
Standard RJ45 interface used to connect to the Master Station, Indoor Monitor, and/or other network equipment via a network switch.

PSE shall comply with IEEE 802.3at (PoE+) and its output power not less than 30W and its output voltage not be less than 50V.



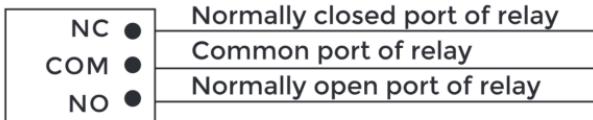
2. Power/Unlock Signal Output

The power interface of Door Station connects to 12V DC power. Unlock signal input connects with unlock module. Unlocking current can reach Max.3.5A.



3. Switching Value Output

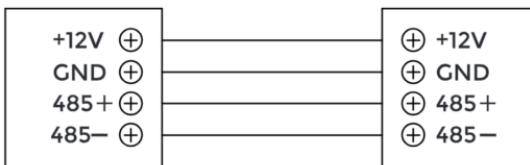
Connect to the lock module (an independent power supply is necessary for the lock).



Switching Value Output

4. RS485

Enable to connect equipment with RS485 interface. RS485 interface can output 12V/100mA power. +12V isn't required for wiring if it is unused.

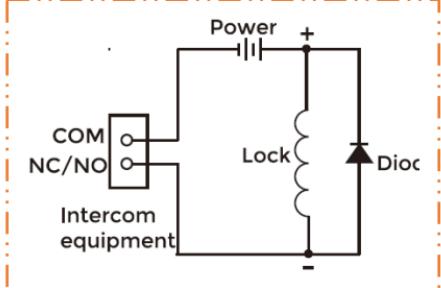


RS485 Interface

RS485 Equipment

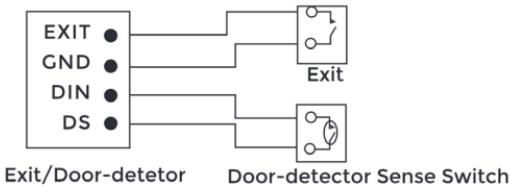
⚠ Warning!

- When connecting to an inductive load device such as a relay or electromagnetic lock, you are recommended to use a diode 1A/400V (included in the accessories) in anti-parallel with the load device to absorb inductive load voltage peaks. The intercom will be better protected in this way.
- The load current of the relay cannot be greater than 2A. See attached picture for more details.



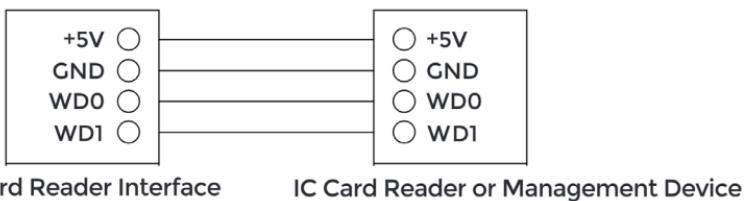
5. Exit/Door-detector

Connected with Exit/Door-detector.



6. Card Reader Interface

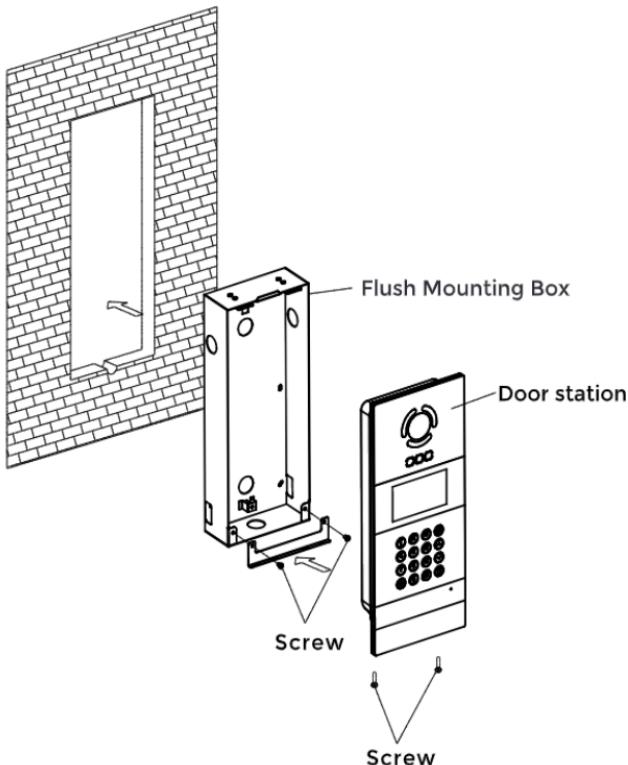
The interface can be connected to one IC/ID card reader or be used for reading the information of built-in card reader. It can output the power 5V/100mA. If the card reader doesn't need the power from the interface, connection of +5V isn't required.



Note: Door Station can only be connected to one card reader or management device at a time.

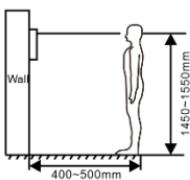
INSTALLATION

Flush Mounting



Product size: 380 × 158 × 55.7 mm
Flush Mounting Box size: 358 × 142 × 59.5 mm
Mounting hole size: 364 × 148 × 56 mm

Tips:



1. The camera should be 1450~1550mm above the ground. The camera at this height can capture human face perfectly.
2. Seal up the cracks between Door Station and the wall with glass glue.

TROUBLESHOOTING

The Indoor Monitor cannot start up or power off automatically.

- Check whether it has power-failure, and power it on again
-

The Indoor Monitor display screen is too dim.

- Check whether the brightness and contrast settings of screen are correct.
-

No sound during the communication.

- Check whether the Indoor Monitor is set as mute mode, or the volume is set to the lowest.
-

The Indoor Monitor cannot monitor the Door Station.

- Other user is using the system, so you can use it once he/she finished the operation.
-

Multimedia files cannot be played normally.

- Check whether the system supports the file format. Please refer to the multimedia setting for details.
-

No response when clicking Indoor Monitor display screen.

- Press "Unlock" button for 5s, or slowly slide horizontally or vertically on the LCD to make touchscreen calibration. It needs to be calibrated.
-

Touchscreen responses slowly or cannot make calibration.

- Take down any protective paster, since it may affect identification
 - and input for device;
 - Ensure the finger is dry and clean when clicking touchscreen;
 - Restart the device to clear any temporary software error.
-

The temperature of device is too high.

- Long-term use leads to high temperature. It's normal and will not affect the device's use life and performance.
-

SAFETY INSTRUCTION

In order to protect you and others from harm or your device from damage, please read the following information before using the device.

- Do not install the device in the following places:
- Do not install the device in high-temperature and moist environment or the area close to magnetic field, such as the electric generator, transformer or magnet.
- Do not place the device near the heating products such as electric heater or the fluid container.
- Do not place the device in the sun or near the heat source, which might cause discoloration or deformation of the device.
- Do not install the device in an unstable position to avoid the property losses or personal injury caused by the falling of device.

Guard against electric shock, fire and explosion:

- Do not use damaged power cord, plug or loose outlet.
- Do not touch the power cord with wet hand or unplug the power cord by pulling.
- Do not bend or damage the power cord.
- Do not touch the device with wet hand.
- Do not make the power supply slip or cause the impact.
- Do not use the power supply without the manufacturer's approval.
- Do not have the liquids such as water go into the device.

Clean Device Surface

- Clean the device surfaces with soft cloth dipped in some water, and then rub the surface with dry cloth.

Other Tips

- In order to prevent damage to the paint layer or the case, please do not expose the device to chemical products, such as the diluent, gasoline, alcohol, insect-resist agents, opacifying agent and insecticide.
- Do not knock on the device with hard objects.
- Do not press the screen surface. Overexertion might cause flopover or damage to the device.
- Please be careful when standing up from the area under the device.
- Do not disassemble, repair or modify the device at your own discretion.
- The arbitrary modification is not covered under warranty. When any repair required, please contact the customer service center.
- If there is abnormal sound, smell or fume in the device, please unplug the power cord immediately and contact the customer service center.
- When the device isn't used for a long time, the adaptor and memory card can be removed and placed in dry environment.
- When moving, please hand over the manual to new tenant for proper usage of the device.



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