

Installation and Operation manual

For TCP/IP With 280 System

■ 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 further 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**.*

CATALOG

| | |
|--|-----------|
| Product description | 1 |
| Product appearance | 1 |
| Basic function | 8 |
| Technical parameter | 8 |
| Product executive standard | 8 |
| Package contents | 9 |
| Basic operation | 10 |
| WEB settings | 11 |
| System connection diagram | 18 |
| Wiring diagram of outdoor panel | 19 |
| Installation instructions | 22 |
| Troubleshooting | 27 |
| Safety & Precautions | 28 |

Product description

Application:

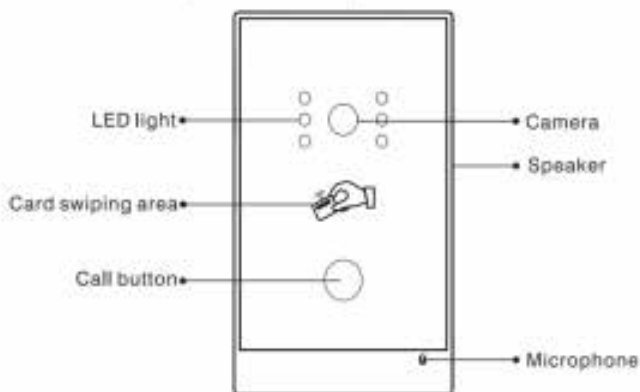
280SD is outdoor panel based on TCP/IP communication protocol, supporting digital video intercom and SIP communication protocol.

280AC is an Internet access control system based on TCP/IP protocol.

Operating system: Linux

Product appearance

Model: 280SD-C5(With Glass Surface)



Basic function

- ◇ Call indoor monitor by one button;
- ◇ Support unlocking by IC/ID access control card or password
- ◇ IC/ID card information can be registered on outdoor panel. Registration information of max. 100,000 IC/ID cards can be stored ;
- ◇ Support unlocking by Exit button and door magnetic detection;
- ◇ Support LED light for night vision;
- ◇ Support POE power supply (optional).

Technical parameter

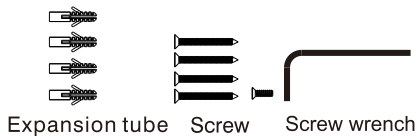
- ◇ **Working voltage:** DC12V
- ◇ **Rated power:** 3W
- ◇ **Standby power:** 1.5W
- ◇ **Camera resolution:** 1280x720
- ◇ **Working temperature:** -40~+70℃
- ◇ **Storage temperature:** -10~+70℃
- ◇ **Storage relative humidity:** 20%~93%
- ◇ **CPU frequency:** 1GHz

Product executive standard

- ◇ GA 1210-2014 "Security Technical Requirements for Building Intercom Systems".
- ◇ GB/T 31070.1-2014 "Building Intercom Systems—Part 1: General Technical Requirements".
- ◇ GA/T 678-2007 "Specifications of Video Intercom Connected Networks System".

Package contents

Model: SD-R2



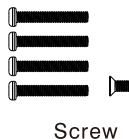
Model: SD-R10



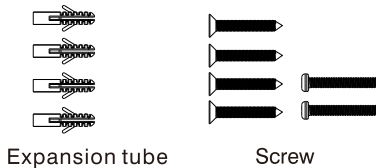
Model: SD-C12 (flush mounted type)



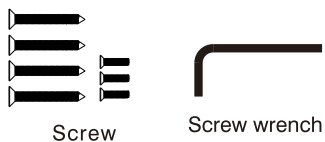
Model: SD-C12 (surface mounted)



Model: SD-R5



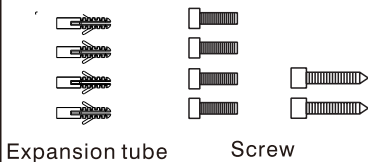
Model: SD-C3



Model: SD-C5/C7



Model: AC-C5



Basic operation

1. Call indoor monitor

In standby mode, press the call button on outdoor panel to call indoor monitor. During the call, press the call button on outdoor panel again to end the call. If the call fails or indoor monitor is busy, outdoor panel will emit a beep.

2. Unlocking by card

Put the registered IC/ID card on card reader area of the outdoor panel. If ID/IC card has been authorized, after unlocking the door by card, the system will issue a voice message that "the door has been opened", otherwise it will emit a beep.

2. Unlocking by access password

In standby mode, enter "unlocking password+#". After unlocking, the system will issue a voice message that "the door has been opened", otherwise it will emit a beep (for C3 digital keypad model).

WEB settings

Connect outdoor panel to PC through the switch. Input IP address of outdoor panel in the web browser of PC (The IP addresses of PC and outdoor panel must be on the same network segment. Default IP address is 192.168.68.90), then input user name and password (default user name is "admin" and the password is "123456") to enter into the following interface:



1.Network Settings

Click the icon "Network" on the left side to enter the interface as shown below:



DHCP: dynamic IP function.

IP address: for the same system on the same network segment, IP address can not be repeated.

Subnet mask: the original subnet mask is 255.255.255.0, which normally doesn't need to be changed.

Default gateway: according to the project site IP network allocation

DNS: refers to IP address of the DNS server

Server IP: IP address of digital management software installed in the management center computer

Access password: IP access password for management software

Normally, management center, indoor monitor and outdoor panel are in the same LAN for communication; if they are not in the same LAN, the call can be realized on the internet; in this case, SIP server needs to be set.

After the setup is completed, click the icon "Submit" to enable the settings.

2.Device Settings



Building No. and Unit No. are the ones where outdoor panel is located.

The No. can be set from 1 to 9. Device No. is mainly used for distinguishing the outdoor panel when it is watched by indoor monitor.

Password refers to the one used in your login to the webpage for outdoor panel settings (default password is 123456).

Outdoor Panel Mode: Person Panel (Villa Outdoor Panel)

Language selection: only support simplified Chinese and English.

System volume: adjust the system volume with 6 level for selection.

Video size: 320x240, 640x480 or 1280x720.

Call forwarding: the call can be made one by one or simultaneously.

After the setup is completed, click the icon "Submit" to enable the settings.

3.Access Settings

Click the icon "Access" on the left side to enter the interface as shown below:



Unlock Timeout is used for controlling the unlocking time ranging from 1 to 9s.

Unlock Delay refers to the delayed time of opening the door ranging from 0 to 9s.

Elev refer is used for setting the floor of outdoor panel ranging from 01~99.

Card registration

The Admin Card is used for registering user card. There are two ways of registering the admin card:

1. The user enters card No. of the admin card in the box after "Admin Card" and then click the key "Submit". In this case, the admin card is registered successfully.

2. If the user isn't aware of admin card No., please enter 0 in the box first and click the key "Submit". Then place the admin card close to the swiping area. When the system gives an indication tone, it means that the admin card is registered successfully.

Then register the user card. The user shall swipe the admin card first. The system emits a beep. Then place the card to be registered near the swiping area within 10 seconds. When the system gives an indication tone, it means that the user card is registered successfully. When registering the user card, the card to be registered shall be swiped 10 seconds after the admin card is swiped. Once a user card is registered, the registration time will postpone for 10 seconds. When there is no activity for 10 seconds, the system will exit from registration status automatically. To register a new user card, the user shall swipe the admin card again.

4.SIP Settings

Click the icon "VOIP" on the left side to enter into the following interface:



Proxy: URL of SIP proxy server in format: sip:ip or sip:domain name.

Realm: realm of the device, usually the same as IP or domain name.

User name: refers to the name of the SIP proxy server, provided by the SIP proxy server administrator.

Password: the password to access the SIP proxy server, provided by the SIP proxy server administrator.

STUN IP and Port refer to the IP and port of public server for NAT traversal of audio and video.

Once this is set up, click the key "Submit" to enable new settings.

5.Call Forwarding

Click the icon "Forward" on the left side of the page to enter the interface as shown below:



The room number can be bound with the telephone number. When a visitor calls but there is no answer within 25 seconds, the system will automatically forward the call to the phone. Specific steps are as follows:

1. Enter the room number first, then enter the phone number you want to bind;
2. To delete this account, check the box;
3. Once this is set up, click the key "Submit" to enable new settings.

(**Note:** This item requires support of extension module or local SIP service provider.)

6.Advanced Settings

Click the icon "Advanced" on the left side of the page to enter the interface as shown below:



Quick Call: Check the box to enable this function. It refers to the call to management center. Enter the SIP address of specified management center device in the box after URL. The device can be indoor monitor or SIP phone of other manufacturers.

Check the box of Voice GW to enable voice gateway. The settings are as follows:

1. Connect LAN port of voice module to the computer through the switch, set the computer's IP address to 192.168.2.*, open IE browser, and enter http: //192.168.2.1 and default password "admin" to the setup interface;
2. According to the situation of used internet, assign appropriate IP address to WAN port of voice module (IP of WAN port cannot be on the same network segment as the one of LAN port. If WAN port is set to 192.168.2.*, the gateway of LAN port will be adjusted automatically rather than 192.168.2.1). Enable the access permission of WAN port and click "Apply".
3. FXO port settings: set the SIP user ID of the port, set DTMF mode to RFC2833 and click "Apply".
4. IP address of WAN port for voice gateway is in the URL for system development module of outdoor panel. The final port No. is default port of the system. The format of URL bar is: [SIP user ID of FXS port] @ [IP of WAN Port]: 5062.
5. Once this is set up, click "Submit" to enable new settings.

Speed Dial: press a number key to call directly;

ONU Pass: check the box to enable ONU settings;

4G Dongle: check the box to enable 4G Internet;

RTSP Feed: check the box to bind media address of third-party video network management.

Once this is set up, click "Submit" to enable new settings.

7.Other Settings

Click the icon "Others" on the left side of the page to enter the interface as shown below:



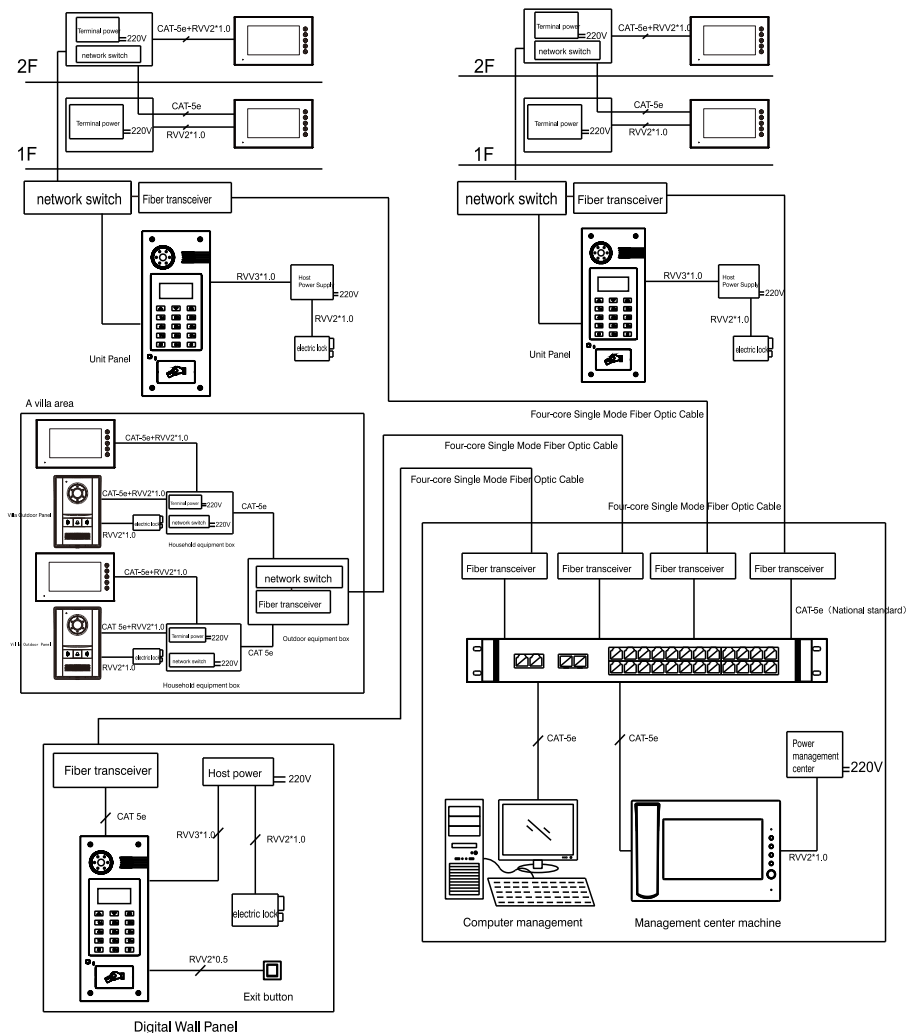
Click Reboot to restart the system.

8.Logout

Click the icon "Logout" on the left side. In next page, click the icon "Submit" to log out the system.



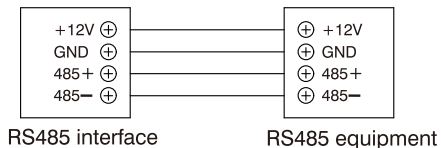
System connection diagram



1.1 RS485 interface

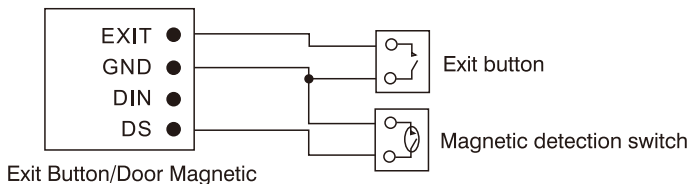
It can connect to the equipment with RS485 interface.

RS485 interface can output 12V/100mA power. Connection of +12V isn't required if it is unused.



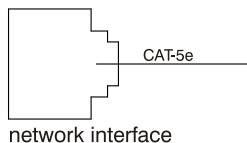
1.2 Exit Button/Door Magnetic Switch

Connect with Exit button and door magnetic switch; DIN is reserved terminal, please don't connect it.



2. Network Interface

Connect to management center, indoor monitor or other network device through network switch.



3.Power / Unlock Signal Output

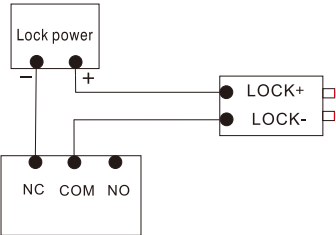
Connect power interface of outdoor panel to 12V DC power. Wiring diagram is as follows:



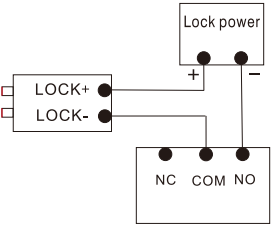
4.Switching Value Output

It provides contact signal of switching value and needs, independent power supply for the lock.

The electric lock can be connected in two ways including normally-open connection and normally-closed connection. Wiring diagram is as below:

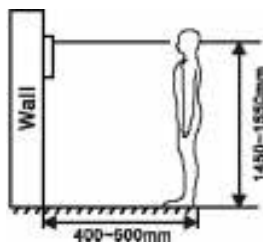


Switching Value Output:
Normally-closed connection



Switching Value Output:
Normally-open connection

Installation notes:



[Suggestion]: During the installation, the display screen should be 1450~1550mm from the ground.

Troubleshooting

Some common failures and troubleshooting methods are listed for your reference. In case of failure which cannot be repaired, do not disassemble or repair the product by yourself. Please contact the after-sales service department.

When outdoor panel fails to call indoor monitor:

- a. When setting villa outdoor panel, please make sure building No. and unit No. of outdoor panel are the same as the ones of indoor monitor;
- b. Please check whether the network is connected;
- c. Please check if there are any security settings for the network, such as VLAN configuration;
- d. Indoor monitor cannot be set as sub device only. Main device is required.

Safety & Precautions

Safety & Precautions

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

Do not install equipment in the following areas:

- Do not install equipment in high temperature, humidity, near the magnetic field, such as generators, transformers or magnets, etc.
- Do not place the equipment near the heating items such as the electric heater or the liquid container.
- Do not place the device directly in the sun or near the heat source, which may cause the body to be discolored or deformed.
- Do not install the equipment in an unstable position to avoid the property losses or personal injury caused by the falling of device.

Prevent electric shock, fire and explosion

- Do not use damaged power cord, plug or loose power outlet.
- Do not touch the power cord with wet hands or unplug the power source by pulling the power supply.
- Do not bend or damage the power cord.
- Do not touch the equipment with wet hands.
- Do not let the power slide, or cause a collision.
- Do not use power supply without manufacturer approval.
- Do not splash water or other liquids into the equipment.

Clean surface

- Use a soft cloth dipped in a small amount of water to clean the surface of the machine and dry it with a dry cloth.

Other matters needing attention

- In order to prevent damage to the paint or housing, do not expose the device to chemical products, such as thinner, gasoline, alcohol, insect repellent, sunscreen, or pesticides, etc.
- Do not beat or hit the device with a hard object.
- Do not disassemble, refit 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.
- When the device emits abnormal sound, smell or smoke, unplug the power immediately and contact the customer service center in time.
- If you do not use the device for a long time, it is recommended to unplug the power adapter, take out memory card and put the device in a dry environment.

FCC Warning

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.