



R27

R27 Series Door PhoneAdmin Guide

About This Manual

Thank you for choosing Akuvox's R27A/V door phone. This manual is intended for end users who need to properly configure the door phone. This manual is applicable to 27.0.3.xx version, and it provides all functions' configurations of R27A/V. Please visit Akuvox forum or consult technical support for any new information or latest firmware.

Note: Please refer to universal abbreviation form in the end of manual when meet any abbreviation letter.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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: 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.

Content

| | |
|--|----------|
| 1. Product Overview | 1 |
| 1.1. Product Description | 1 |
| 1.2. Connector Introduction | 1 |
| 2. Daily Use | 3 |
| 2.1. Make a Call | 3 |
| 2.2. Receive a Call | 3 |
| 2.3. Unlock | 4 |
| 2.3.1. Unlock by Public Pin Codes | 4 |
| 2.3.2. Unlock by Private Pin Codes | 4 |
| 2.3.3. Unlock by RFID Cards (Optional) | 5 |
| 2.3.4. Unlock by DTMF Codes | 5 |
| 3. Basic Features | 6 |
| 3.1. Access the System Setting | 6 |
| 3.1.1. Administrator Interface | 6 |
| 3.1.2. User Interface | 6 |
| 3.2. Access the Website Setting | 7 |

| | |
|--|----|
| 3.2.1. Obtain IP Address | 7 |
| 3.2.2. Access the Device Website..... | 7 |
| 3.3. Password Modification | 8 |
| 3.3.1. Modify the Device Admin Code..... | 8 |
| 3.3.2. Modify the Device Service Code..... | 8 |
| 3.3.3. Modify the Web Password | 9 |
| 3.4. Phone Configuration | 9 |
| 3.4.1. Language..... | 9 |
| 3.4.2. Time..... | 9 |
| 3.4.3. Network..... | 10 |
| 3.4.3.1. DHCP Mode | 10 |
| 3.4.3.2. Static IP Mode | 11 |
| 3.4.3.3. Local RTP | 11 |
| 3.4.3.4. SNMP | 12 |
| 3.4.3.5. VLAN | 13 |
| 3.4.3.6. TR069..... | 13 |
| 3.4.4. Display | 14 |

| | |
|--------------------------------------|----|
| 3.4.5. Sound | 15 |
| 3.4.6. DND | 16 |
| 3.5. Intercom Call | 16 |
| 3.5.1. Direct IP Call | 16 |
| 3.5.2. SIP Call | 17 |
| 3.5.2.1. SIP Account | 17 |
| 3.5.2.2. SIP Server 1&2 | 18 |
| 3.5.2.3. Outbound Proxy Server | 19 |
| 3.5.2.4. Transport Type | 19 |
| 3.5.2.5. NAT | 19 |
| 3.5.3. Dial Plan | 20 |
| 3.5.4. Speed Dial | 21 |
| 3.5.5. Auto Answer | 22 |
| 3.5.6. Web Call | 22 |
| 3.5.7. Multicast | 23 |
| 3.6. Security | 23 |
| 3.6.1. Live view | 23 |

| | |
|--|----|
| 3.6.2. RTSP | 24 |
| 3.6.3. ONVIF | 25 |
| 3.7. Access Control | 25 |
| 3.7.1. Relay..... | 25 |
| 3.7.2. Unlock via DTMF Codes | 26 |
| 3.7.3. Unlock via RFID Cards (Optional)..... | 27 |
| 3.7.3.1. RFID Cards in Device | 27 |
| 3.7.3.2. RFID Cards in Website | 29 |
| 3.7.4. Unlock via Pin Codes..... | 30 |
| 3.7.4.1. Public Pin Codes in Device..... | 30 |
| 3.7.4.2. Public Pin Codes in Website..... | 30 |
| 3.7.4.3. Private Pin Codes in Device | 31 |
| 3.7.4.4. Private Pin Codes in Website | 31 |
| 3.7.5. Unlock via HTTP command | 32 |
| 3.7.6. Unlock via Exit Button | 33 |
| 3.8. Reboot | 33 |
| 3.9. Reset..... | 34 |

| | |
|------------------------------|----|
| 3.9.1. Reset in Device..... | 34 |
| 3.9.2. Reset in Website..... | 34 |

4. Advanced Features35

| | |
|---|----|
| 4.1. Phone Configuration | 35 |
| 4.1.1. LED..... | 35 |
| 4.1.2. IR LED | 35 |
| 4.1.3. RFID Card Code Display Related | 36 |
| 4.1.4. Key Display Related | 36 |
| 4.2. Intercom | 37 |
| 4.2.1. Call Time Related | 37 |
| 4.2.2. AEC Level | 37 |
| 4.2.3. Intercom..... | 38 |
| 4.2.4. Return Code When Refuse..... | 38 |
| 4.2.5. SIP Call Related..... | 38 |
| 4.2.6. Codec | 40 |
| 4.2.7. Subscribe..... | 41 |
| 4.2.8. DTMF | 42 |

| | |
|--|----|
| 4.2.9. Session Timer | 42 |
| 4.2.10. BLF List..... | 42 |
| 4.2.11. Encryption | 43 |
| 4.2.12. NAT | 43 |
| 4.2.13. User Agent | 44 |
| 4.3. Access Control | 44 |
| 4.3.1. Web Relay | 44 |
| 4.3.2. Wiegand..... | 45 |
| 4.4. Security | 46 |
| 4.4.1. Anti-alarm..... | 46 |
| 4.4.2. Motion | 47 |
| 4.4.3. Action | 47 |
| 4.4.3.1. Action Parameters | 47 |
| 4.4.3.2. No Answer Action | 49 |
| 4.4.3.3. Call Event | 49 |
| 4.4.3.4. Input Interface Triggered Action..... | 50 |
| 4.4.3.5. Motion Triggered Action | 50 |

| | |
|--|----|
| 4.4.3.6. Unlock via RFID Card Action | 51 |
| 4.5. Upgrade | 51 |
| 4.5.1. Web Upgrade..... | 51 |
| 4.5.2. Autop Upgrade..... | 52 |
| 4.5.3. Backup Config File..... | 54 |
| 4.6. Log | 54 |
| 4.6.1. Call Log..... | 54 |
| 4.6.2. Door Log | 55 |
| 4.6.3. System Log..... | 55 |
| 4.6.4. PCAP | 55 |

1. Product Overview

1.1. Product Description

Akuvox R27 is a SIP-compliant, hands-free and video door phone. It can be connected with Akuvox indoor monitors for remote access controlling and monitoring. Users can communicate with visitors via audio and video calls, and unlock the door if they need. Users can also use RFID cards to unlock the door. It is applicable in villas, offices and so on.

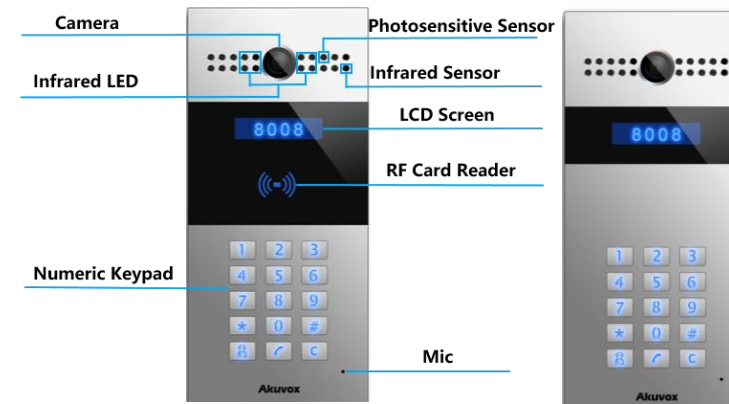


Figure 1.1 Product Description

1.2. Connector Introduction

Ethernet (POE): Ethernet (POE) connector which it can provide both power and network connection.

12V/GND: External power supply terminal if POE connector is not available.

RS485A/B: RS485 terminal.

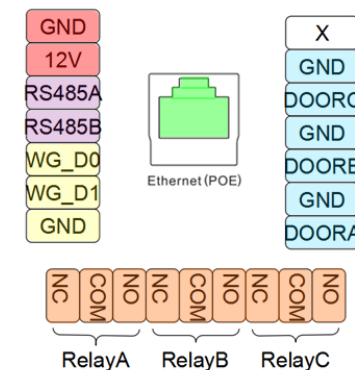


Figure 1.2-1 R27's interface

WG_D0/WG_D1: Wiegand terminal.

DOORA/B/C: Trigger signal input terminal.

RelayA/B/C (NO/NC/COM): Relay control terminal.

Note: The general door phone interface diagram is only for reference.

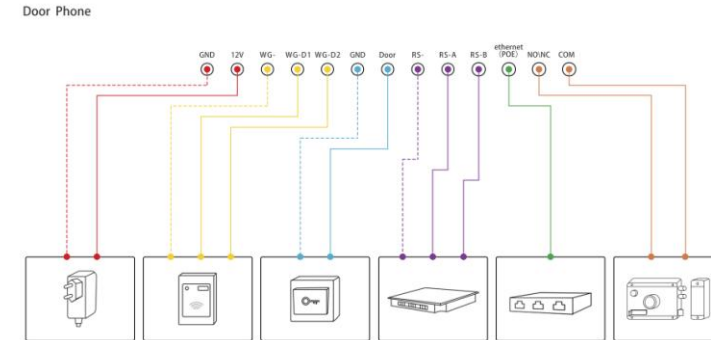


Figure 1.2-2 General interface

2. Daily Use

2.1. Make a Call

In the idle interface, press the SIP account or IP address and “Dial key” to make a call.

Management center call: Users can make a speed dial to management center by pressing “Management center key.”

2.2. Receive a Call

R27 will auto answer the incoming call by default. If users disable auto answer function, they can press “Dial key” to answer the incoming call.

2.3. Unlock

2.3.1. Unlock by Public Pin Codes

Users can unlock doors by using predefined public pin code. Press “#,” public pin code, “#” to unlock, and then users will hear “The door is now opened.” If users press wrong public pin code, the screen will show “Incorrect Code.” The default public pin code is 33333333. The default public pin code is 8 digits, and it can be changed to 3 to 8 digits.

2.3.2. Unlock by Private Pin Codes

Users can unlock doors by using predefined private pin code. Press “#,” private pin code, “#” to unlock, and then users will hear “The door is now opened.” If users press wrong private pin code, the screen will show “Incorrect Code.” The default private pin code is 8 digits, and it can be changed to 3 to 8 digits.

2.3.3. Unlock by RFID Cards (Optional)

Place the predefined user cards in RFID card reader to unlock. Under normal conditions, R27A will announce “The door is now opened.” If the card has not been registered, R27A will show “Unauthorized.” Both 13.56MHz and 125KHz RFID cards are supported on R27A.

2.3.4. Unlock by DTMF Codes

Users can press the predefined DTMF code from an answer unit to remotely unlock the door during the call. Users will also hear “The door is now opened.”

3. Basic Features

3.1. Access the System Setting

3.1.1. Administrator Interface

Press “*2396#” to enter administrator interface. Administrator interface provides some advanced permissions to administrators, including “System Information,” “Admin Settings” and “System Settings.”

3.1.2. User Interface

Press “*3888#” to enter user interface. User interface includes “Public Pin Modif,” “Add User Cards” and “Add Private Pin.” These functions can only be accessed by administrator.

3.2. Access the Website Setting

3.2.1. Obtain IP Address

R27 use DHCP IP by default. Press “*2396#” to enter administrator interface. Press “1” to enter system Information interface to check the IP address.

3.2.2. Access the Device Website

Open a web browser, and access the corresponding IP address. Enter the default user name and password to login. The default administrator's user name and password are shown below:

User Name: **admin**

Password: **admin**

Note: The recommended browser is Google Chrome.

A screenshot of a web browser showing a login page for a device. The page has a dark grey header with the word "Login" in white. Below the header, the background is a light grey grid pattern. In the center, there are two labels: "User Name" and "Password". Next to "User Name" is a text input field containing the word "admin". Next to "Password" is a text input field containing six dots. Below these fields, there is a checkbox labeled "Remember Username/Password" which is currently unchecked. At the bottom right of the form area is a blue button with the word "Login" in white.

Figure 3.2.2 Access the device website

3.3. Password Modification

3.3.1. Modify the Device Admin Code

Admin code is used to enter administrator interface. The default code is 2396.

Press “*2396#” to enter administrator interface. Press “2” to enter admin settings interface. Press “2” to enter admin code setting interface to input a 4-digit new admin code, and press “Dial key” to save.

3.3.2. Modify the Device Service Code

Service code is used to enter user interface. The default code is 3888.

Press “*2396#” to enter administrator interface. Press “2” and “3” to enter service code setting interface to input a 4-digit new user code, and press “Dial key” to save.

3.3.3. Modify the Web Password

Go to **Security - Basic** to modify password for webpage.
To modify password for“admin” or “user” account.



The 'Web Password Modify' form contains four input fields: 'User Name' with a dropdown menu showing 'admin', 'Current Password', 'New Password', and 'Confirm Password'.

Figure 3.3.3 Modify the web password

3.4. Phone Configuration

3.4.1. Language

Go to **Phone-Time/Lang** to select language for webpage.



The 'Web Language' form has a single dropdown menu labeled 'Type' with 'English' selected.

Figure 3.4.1Language

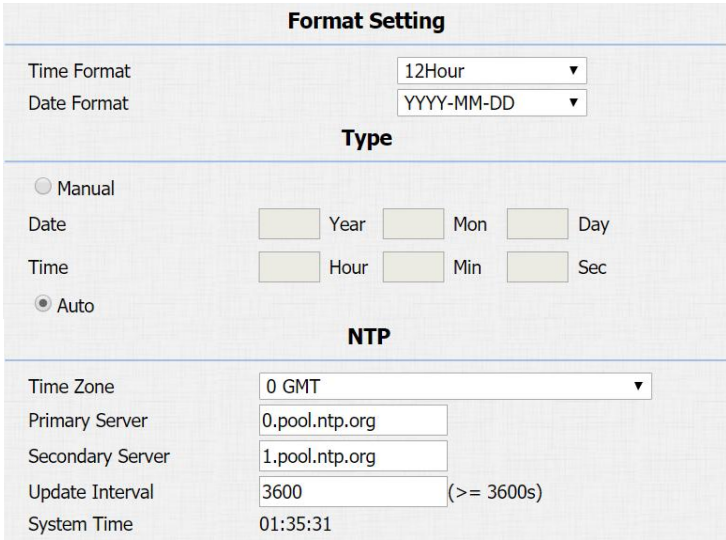
3.4.2. Time

Go to **Phone-Time/Lang**to configure the time related features.

Format Setting: To select time format and date format.

Type: To select configure the time manually or automatically.

NTP: To select local time zone for NTP server.



The 'Format Setting' form includes dropdowns for 'Time Format' (12Hour) and 'Date Format' (YYYY-MM-DD). Below it, the 'Type' section has radio buttons for 'Manual' and 'Auto'. The 'Manual' type shows input fields for Date (Year, Mon, Day) and Time (Hour, Min, Sec). The 'NTP' section includes a 'Time Zone' dropdown (0 GMT), 'Primary Server' (0.pool.ntp.org), 'Secondary Server' (1.pool.ntp.org), 'Update Interval' (3600) with a note '(>= 3600s)', and 'System Time' (01:35:31).

Figure 3.4.2Time

3.4.3. Network

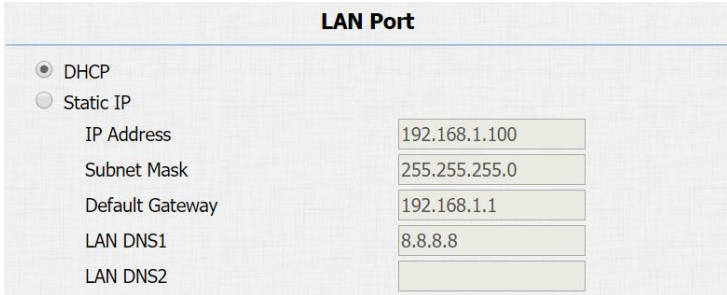
3.4.3.1. DHCP Mode

At device side, press “*2396#” to enter administrator interface. Press “3” to enter system setting interface, and press “1” to enter network setting interface.

Select DHCP mode, and R27 will access network automatically.

In website, go to **Network - Basic**.

R27 uses DHCP mode by default which will get IP address, subnet mask, default gateway and DNS server address from DHCP server automatically.



The screenshot shows the 'LAN Port' configuration page. At the top, 'DHCP' is selected with a radio button, while 'Static IP' is unselected. Below this, there are five input fields with the following values: IP Address (192.168.1.100), Subnet Mask (255.255.255.0), Default Gateway (192.168.1.1), LAN DNS1 (8.8.8.8), and LAN DNS2 (empty).

| LAN Port | |
|---------------------------------------|---------------|
| <input checked="" type="radio"/> DHCP | |
| <input type="radio"/> Static IP | |
| IP Address | 192.168.1.100 |
| Subnet Mask | 255.255.255.0 |
| Default Gateway | 192.168.1.1 |
| LAN DNS1 | 8.8.8.8 |
| LAN DNS2 | |

Figure 3.4.3.1DHCP mode

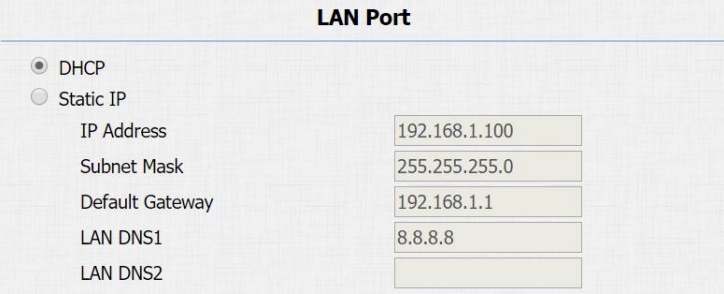
3.4.3.2. Static IP Mode

At device side, press “*2396#” to enter administrator interface. Press “3” to enter system setting interface, and press “1” to enter network setting interface.

Select static IP mode, users need to setup IP address, subnet mask, default gateway and DNS server address. Press “Dial key” when finish each step.

In Website, go to **Network - Basic**.

If select static IP, users should manually setup IP address, subnet mask, default gateway and DNS server address. The figure right shows static IP settings.



The screenshot shows the 'LAN Port' configuration window. At the top, there are two radio buttons: 'DHCP' (selected) and 'Static IP'. Below the 'Static IP' option, there are five input fields with their respective values: IP Address (192.168.1.100), Subnet Mask (255.255.255.0), Default Gateway (192.168.1.1), LAN DNS1 (8.8.8.8), and LAN DNS2 (empty).

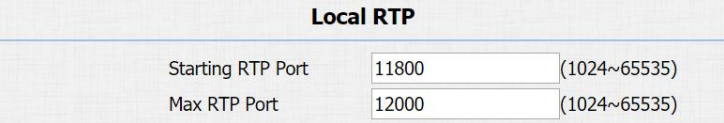
| LAN Port | |
|---------------------------------------|---------------|
| <input checked="" type="radio"/> DHCP | |
| <input type="radio"/> Static IP | |
| IP Address | 192.168.1.100 |
| Subnet Mask | 255.255.255.0 |
| Default Gateway | 192.168.1.1 |
| LAN DNS1 | 8.8.8.8 |
| LAN DNS2 | |

Figure 3.4.3.2 Static IP mode

3.4.3.3. Local RTP

Go to **Network - Advanced** to configure.

Local RTP: To display and configure local RTP settings.



The screenshot shows the 'Local RTP' configuration window. It contains two rows of settings: 'Starting RTP Port' with a value of 11800 and a range of (1024~65535), and 'Max RTP Port' with a value of 12000 and a range of (1024~65535).

| Local RTP | |
|-------------------|--------------------|
| Starting RTP Port | 11800 (1024~65535) |
| Max RTP Port | 12000 (1024~65535) |

Figure 3.4.3.3 Local RTP

Starting RTP Port: Determine the minimum port that RTP stream can use.

Max RTP Port: Determine the maximum port that RTP stream can use.

3.4.3.4. SNMP

Go to **Network - Advanced** to configure.

SNMP: To display and configure SNMP settings.

Active: To enable or disable SNMP feature.

Port: To configure SNMP server's port.

Trusted IP: To configure allowed SNMP server address. It could be an IP address or any valid URL domain name.

Note: SNMP is Internet-standard protocol for managing devices on IP networks.

| SNMP | |
|------------|-----------------------------------|
| Active | Disabled ▼ |
| Port | <input type="text"/> (1024~65535) |
| Trusted IP | <input type="text"/> |

Figure 3.4.3.4SNMP

3.4.3.5. VLAN

Go to **Network - Advanced** to configure.

VLAN: To display and configure VLAN settings.

Active: To enable or disable VLAN feature for designated port.

VID: To configure VLAN ID for designated port.

Priority: To select VLAN priority for designated port.

Note: Please consult administrator for specific VLAN settings in the networking environment.

| VLAN | | |
|----------|----------|------------|
| LAN Port | Active | Disabled ▼ |
| | VID | 1 (1~4094) |
| | Priority | 0 ▼ |

Figure 3.4.3.5VLAN

3.4.3.6. TR069

Go to **Network - Advanced** to configure.

TR069: To display and configure TR069 settings.

Active: To enable or disable TR069 feature.

Version: To select supported TR069 version (version 1.0 or 1.1).

ACS/CPE: ACS is short for auto configuration servers as server side, and CPE is short for customer-premise equipment as client

| TR069 | | |
|-----------------|-------------------|-------------------|
| ACS | Active | Disabled ▼ |
| | Version | 1.0 ▼ |
| | URL | |
| | User Name | |
| | Password | •••••• |
| Periodic Inform | Active | Disabled ▼ |
| | Periodic Interval | 1800 (3~24×3600s) |
| CPE | URL | |
| | User Name | |
| | Password | •••••• |

Figure 3.4.3.6TR069

side devices.

URL: To configure URL address for ACS or CPE.

User Name: To configure username for ACS or CPE.

Password: To configure password for ACS or CPE.

Periodic Inform: To enable periodically inform.

Periodic Interval: To configure interval for periodic inform.

Note: TR-069 is a technical specification entitled CPE WAN Management Protocol (CWMP). It defines an application layer protocol for remote management of end-user devices.


3.4.4. Display

Go to **Intercom - Basic** to configure display related features.

Display Number: To enable to display the number in LCD or not. If disabled, each number will be displayed as a star.


Go to **Intercom - Advanced** to configure display related features.

LCD Text: Users can customize the LCD text during the idle by themselves, such as "Welcome" or something else.



| Display Number | |
|----------------|------------|
| Display Number | Disabled ▼ |

Figure 3.4.4-1 Display number



| LCD Text | |
|-----------------------|----------------------|
| AccountStatus Enabled | Disabled ▼ |
| LCD Text Enable | Disabled ▼ |
| LCD Text | <input type="text"/> |

Figure 3.4.4-2 LCD display

AccountStatus Enabled: The LCD text will only be shown if the account is valid.

LCD Text Enable: Switch this feature.

LCD Text: Display content.

3.4.5. Sound

Go to **Phone-Voice** to configure volume and upload tone file.

Mic Volume: To configure microphone volume.

Speaker Volume: To configure speaker volume.

Open Door Warning: Disable it, and users will not hear the prompt voice when the door is opened.

RingBack Upload: To upload the ring back tone by users themselves.

Opendoor Tone Upload: To upload the opendoor tone by users themselves.

| Mic Volume | |
|--|--|
| Mic Volume | <input type="text" value="8"/> (1~15) |
| Speaker Volume | |
| Speaker Volume | <input type="text" value="8"/> (1~15) |
| Open Door Warning | |
| Open Door Warning | <input type="text" value="Enabled"/> |
| RingBack Upload | |
| <input type="button" value="Choose File"/> | No file chosen <input type="button" value="Upload"/> <input type="button" value="Delete"/> <input type="button" value="Export"/> |
| File Format: wav, size: < 200KB, samplerate: 16000, Bits: 16 | |
| Opendoor Tone Upload | |
| <input type="button" value="Choose File"/> | No file chosen <input type="button" value="Upload"/> <input type="button" value="Delete"/> <input type="button" value="Export"/> |
| File Format: wav, size: < 200KB, samplerate: 16000, Bits: 16 | |

Figure 3.4.5Sound

3.4.6. DND

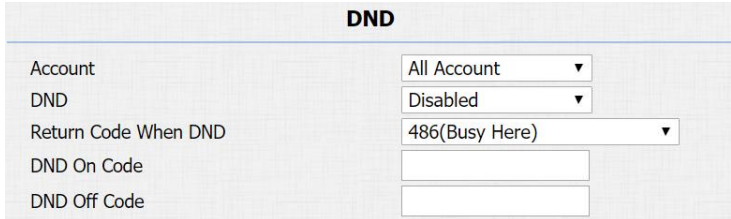
Go to **Phone - Call Feature** to configure DND feature.

DND: DND allows phones to ignore any incoming calls.

Return Code when DND: Determine what response code should be sent back to server when there is an incoming call if DND is on.

DND On Code: The code is used to turn on DND on server's side, if configured, door phones will send a SIP message to server to turn on DND on server side if users press DND when DND is off.

DND Off Code: The code is used to turn off DND on server's side, if configured, door phones will send a SIP message to server to turn off DND on server side if users press DND when DND is on.



| DND | |
|----------------------|----------------------|
| Account | All Account ▼ |
| DND | Disabled ▼ |
| Return Code When DND | 486(Busy Here) ▼ |
| DND On Code | <input type="text"/> |
| DND Off Code | <input type="text"/> |

Figure 3.4.6DND

3.5. Intercom Call

3.5.1. Direct IP Call

Go to **Phone - Call Feature** to enable the direct IP call for door



| | |
|-----------|-----------|
| Direct IP | Enabled ▼ |
|-----------|-----------|

Figure 3.5.1Direct IP call

phones first.

In the idle interface, press the IP address (like IP address 192.168.1.100, users need to press “192*168*1*100”) and “Dial key”to make a direct IP call.

3.5.2. SIP Call

SIP calls which use SIP numbers to make or receive calls should be supported by SIP server. Users need to register accounts and fill SIP feature parameters before using it.

Go to **Account - Basic** to configure SIP account and SIP server for door phones first.

3.5.2.1. SIP Account

Status: To display register result.

Display Label: To configure label displayed on the phone's LCD screen.

| SIP Account | |
|----------------|---------------------|
| Status | Registration Failed |
| Account | Account 1 ▼ |
| Account Active | Enabled ▼ |
| Display Label | R27 |
| Display Name | Door_R27 |
| Register Name | 5101100001 |
| User Name | 5101100001 |
| Password | •••••• |

Figure 3.5.2.1 SIP account

Display Name: To configure name sent to the other call party for displaying.

Register Name: To enter extension number which users want and the number is allocated by SIP server.

User Name: To enter user name of the extension.

Password: To enter password for the extension.

3.5.2.2. SIP Server 1&2

Server IP 1: To enter SIP server's IP address or URL.

Server IP 2: To display and configure secondary SIP server settings. This is for redundancy, if registering to primary SIP server fails, the phone will go to secondary SIP server for registering.

Registration Period: The registration will expire after registration period, and the phone will re-register automatically within registration period.

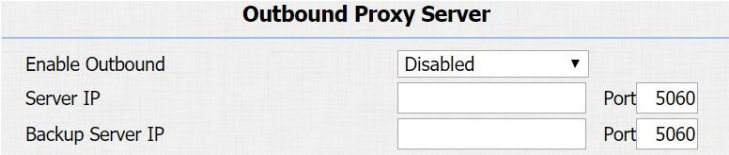
| SIP Server 1 | | |
|---------------------|---|--|
| Server IP | <input type="text" value="120.78.230.239"/> | Port <input type="text" value="5070"/> |
| Registration Period | <input type="text" value="1800"/> | (30~65535s) |

| SIP Server 2 | | |
|---------------------|-----------------------------------|--|
| Server IP | <input type="text"/> | Port <input type="text" value="5060"/> |
| Registration Period | <input type="text" value="1800"/> | (30~65535s) |

Figure 3.5.2.2SIP server 1&2

3.5.2.3. Outbound Proxy Server

An outbound proxy server is used to receive all initiating request messages and route them to the designated SIP server.



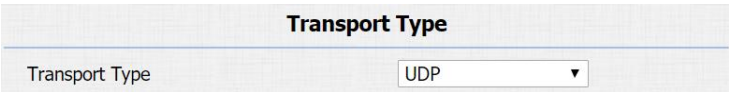
The screenshot shows the 'Outbound Proxy Server' configuration window. It contains three fields: 'Enable Outbound' is a dropdown menu set to 'Disabled'; 'Server IP' is an empty text box; 'Backup Server IP' is an empty text box. To the right of the 'Server IP' field is a 'Port' label and a text box containing '5060'. To the right of the 'Backup Server IP' field is another 'Port' label and a text box containing '5060'.

Figure 3.5.2.3 Outbound proxy server

3.5.2.4. Transport Type

To display and configure transport type for SIP message.

- UDP: UDP is an unreliable but very efficient transport layer protocol.
- TCP: Reliable but less-efficient transport layer protocol.
- TLS: Secured and reliable transport layer protocol.
- DNS-SRV: DNS record for specifying the location of services.



The screenshot shows the 'Transport Type' configuration window. It contains one field: 'Transport Type' is a dropdown menu set to 'UDP'.

Figure 3.5.2.4 Transport type

3.5.2.5. NAT

To display and configure NAT settings.

- STUN: Short for session traversal utilities for NAT, a solution to solve NAT issues.



The screenshot shows the 'NAT' configuration window. It contains two fields: 'NAT' is a dropdown menu set to 'Disabled'; 'Stun Server Address' is an empty text box. To the right of the 'Stun Server Address' field is a 'Port' label and a text box containing '3478'.

Figure 3.5.2.5 NAT

Note:By default, NAT is disabled.

In the idle interface, press the a SIP account and “Dial key”to make a SIP call.

3.5.3. Dial Plan

This feature allows users to modify selected rules information.

Once users dial prefix value, it will call out replace number.

Go to **Intercom - Basic** to configure first.

Rules Management

R27 supports to import or export the dial plan rules, which is convenient for administrator to deal with a large number of dial plan.

The maximum dial plan is 200.

Note: Please consult administrator for the .xml format dial plan template file.

Edit Dial plan

- Click “Add” to add new replace rules.



Figure 3.5.3-1Dial plan rules management

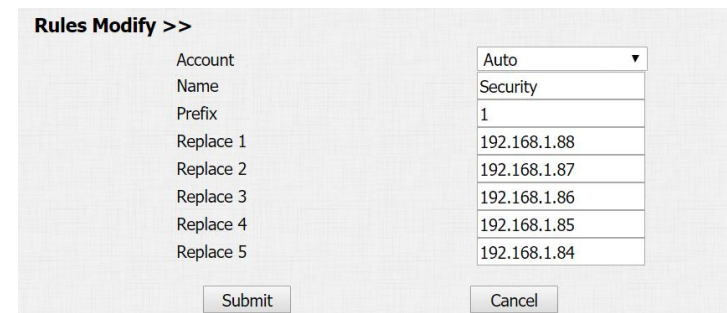


Figure 3.5.3-2Dial plan rules

- Select account for the replace rule.
- Enter a display name for the prefix value. Input a suitable prefix value. Enter the replace number.
- Click “Submit” to save.

All replace rules will show in the list. Users can edit or delete the existed replace rules.

In the idle interface, press the prefix and “Dial key” to make a call.

3.5.4. Speed Dial

Speed dial feature is used to call out 4 numbers at the same time.

Go to **Intercom - Basic** to configure first.

After setup the number which users need to call, in the idle interface, press “Managecenter key” (Manager Dial) or “Dial key” (Speed Dial) to call.

| Index | Account | Name | Prefix | Replace 1 | Replace 2 | Replace 3 | Replace 4 | Replace 5 | |
|-------|---------|----------|--------|--------------|--------------|--------------|--------------|--------------|--------------------------|
| 1 | Auto | Security | 1 | 192.168.1.88 | 192.168.1.87 | 192.168.1.86 | 192.168.1.85 | 192.168.1.84 | <input type="checkbox"/> |
| 2 | | | | | | | | | <input type="checkbox"/> |
| 3 | | | | | | | | | <input type="checkbox"/> |
| 4 | | | | | | | | | <input type="checkbox"/> |
| 5 | | | | | | | | | <input type="checkbox"/> |
| 6 | | | | | | | | | <input type="checkbox"/> |
| 7 | | | | | | | | | <input type="checkbox"/> |
| 8 | | | | | | | | | <input type="checkbox"/> |
| 9 | | | | | | | | | <input type="checkbox"/> |
| 10 | | | | | | | | | <input type="checkbox"/> |

Page 1 ▾ Add Edit Delete Prev Next

Figure 3.5.3-Dial plan

| Manager Dial | |
|---------------|--------------|
| Key | Number |
| Manager Dial | 5100100052 |
| Manager Dial2 | 192.168.1.33 |
| Manager Dial3 | 5100100053 |
| Manager Dial4 | 5100100054 |
| Speed Dial | |
| Key | Number |
| Speed Dial | 5100100055 |
| Speed Dial2 | 5100100056 |
| Speed Dial3 | 192.168.1.57 |
| Speed Dial4 | 5100100057 |

Figure 3.5.4Speed dial

3.5.5. Auto Answer

Go to **Account - Advanced** to enable auto answer feature for SIP calls.

Go to **Phone - Call Feature** to enable auto answer feature for direct IP calls.

Auto Answer Delay: To configure delay time before an incoming call is automatically answered.

Auto Answer Mode: To set video or audio mode for auto answer feature. It is video by default.

Then incoming calls will be answered automatically.




Auto Answer Enabled ▾

Figure 3.5.5-1 Auto answer for sip calls



Direct IP AutoAnswer Enabled ▾

Figure 3.5.5-2 Auto answer for direct IP calls

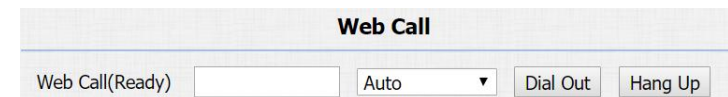


Auto Answer Delay 0 (0~5s)
Auto Answer Mode Video ▾

Figure 3.5.5-3 Auto answer options' parameters

3.5.6. Web Call

Go to **Intercom - Basic** to dial out or hang up incoming calls from website.



Web Call

Web Call(Ready) Auto ▾

Figure 3.5.6 Web call

3.5.7. Multicast

Go to **Intercom - Multicast** to configure.

Paging Barge: Choose the multicast number, and the range is from 1 to 10.

Paging priority Active: Enable or disable the multicast.

Listening Address: Enter IP address which users need to listen.

Label: Input the label for each listening address.

| Multicast Setting | | | |
|------------------------|--|-----------------------------------|----------|
| Paging Barge | <input type="text" value="1"/> | | |
| Paging Priority Active | <input type="text" value="Enabled"/> | | |
| Priority List | | | |
| IP Address | Listening Address | Label | Priority |
| 1 IP Address | <input type="text" value="224.1.6.11:1200"/> | <input type="text" value="Test"/> | 1 |
| 2 IP Address | <input type="text"/> | <input type="text"/> | 2 |
| 3 IP Address | <input type="text"/> | <input type="text"/> | 3 |
| 4 IP Address | <input type="text"/> | <input type="text"/> | 4 |
| 5 IP Address | <input type="text"/> | <input type="text"/> | 5 |

Figure 3.5.7 Multicast

3.6. Security

3.6.1. Live view

Go to **Intercom - Live Stream** to check the real-time video from R27.

In addition, user also can check the real-time picture via URL:
http://IP_address:8080/picture.jpg.



Figure 3.6.1 Live view

3.6.2. RTSP

R27 supports RTSP stream, go to **Intercom - RTSP** to enable or disable RTSP server. The URL for RTSP stream is:

rtsp://IP_address/live/ch00_0.

RTSP Stream: To enable RTSP video and select the video codec. R27 supports H.264 video codec by default.

H.264 Video Parameters: H.264 is a video stream compression standard. Different from H.263, it provides an approximately identical level of video stream quality but a half bit rate. This type of compression is sometimes called MPEG-4 part 10. To modify the resolution, framerate and bitrate of H.264.

MPEG4 Video Parameters: MPEG4 is one of the network video image compression standard. It supports the maximum compression ratio 4000:1. It is an important and common video function with great communication application integration ability and less core program space. To modify the resolution, framerate and

| RTSP Basic | |
|------------------------|-------------------------------------|
| RTSP Server Enabled | <input checked="" type="checkbox"/> |
| RTSP Stream | |
| RTSP Video Enabled | <input checked="" type="checkbox"/> |
| RTSP Video Codec | H.264 ▼ |
| H.264 Video Parameters | |
| Video Resolution | VGA ▼ |
| Video Framerate | 30 fps ▼ |
| Video Bitrate | 2048 kbps ▼ |
| MPEG4 Video Parameters | |
| Video Resolution | VGA ▼ |
| Video Framerate | 30 fps ▼ |
| Video Bitrate | 2048 kbps ▼ |

Figure 3.6.2 RTSP

bitrate of MPEG4.

3.6.3. ONVIF

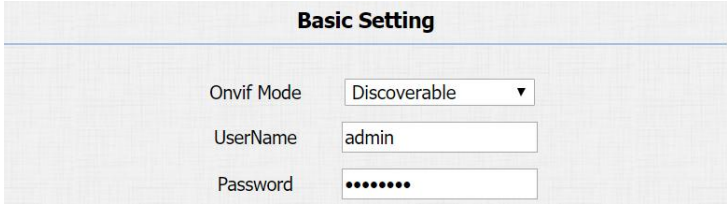
R27 supports ONVIF protocol, which means R27's camera can be searched by other devices, like NVR which supports ONVIF protocol as well.

Go to **Intercom - ONVIF** to configure ONVIF mode, its username and password.

Switching ONVIF mode to "Undiscoverable," and it means users must program ONVIF's URL manually.

The ONVIF's URL

is: **http://IP_address:8090/onvif/device_service**.



The screenshot shows a web interface titled "Basic Setting" for ONVIF configuration. It contains three fields: "Onvif Mode" with a dropdown menu set to "Discoverable", "UserName" with a text box containing "admin", and "Password" with a text box containing seven dots.

| Basic Setting | |
|---------------|----------------|
| Onvif Mode | Discoverable ▼ |
| UserName | admin |
| Password | ••••••• |

Figure 3.6.3 ONVIF

3.7. Access Control

3.7.1. Relay

Go to **Intercom - Relay** to configure relay settings.

There are three terminals of relay: NO, NC and COM. NO stands for normally open contact. NC stands for normally closed contact.

Relay ID:R27 supports three relays. Users can configure them respectively.

Relay Type:Default state means NC and COM are normally closed, while Invert state means NC and COM are normally opened.

Relay Delay:To configure the duration of opened relay. Over the value, the relay would be closed again.

Relay Status: While the relay is triggered, the statues will be switched. When COM connects to NC, the status is low.

Note:Relay operate a switch and does not deliver power, so users should prepare power adapter for external devices which connects to relay.

| Relay | | | |
|------------------|-----------------|-----------------|-----------------|
| Relay ID | RelayA ▼ | RelayB ▼ | RelayC ▼ |
| Relay Type | Default state ▼ | Default state ▼ | Default state ▼ |
| Relay Delay(sec) | 3 ▼ | 3 ▼ | 3 ▼ |
| DTMF Option | 1 Digit DTMF ▼ | | |
| DTMF | 0 ▼ | 0 ▼ | 0 ▼ |
| Multiple DTMF | | | |
| Relay Status | RelayA: Low | RelayB: Low | RelayC: Low |

Figure 3.7.1 Relay

3.7.2. Unlock via DTMF Codes

Users can unlock via a DTMF code when in a call.

Go to **Intercom - Relay** to configure DTMF code parameters.

DTMF Option:To select digit of DTMF code, R27 support maximum to 4 digits' DTMF code.

DTMF&Multiple DTMF:To configure DTMF code for remote unlocking.

3.7.3. Unlock via RFID Cards (Optional)

3.7.3.1. RFID Cards in Device

Add/Clean admin card

Press “*2396#” to enter administrator interface. Press “2” to enter admin settings interface. Press “2” to enter admin card setting interface.

Press “1” to quickly add an admin card. When users see “Please Swipe Admin Card...,” please place admin card in the RFID card reader area. After the screen shows “An admin card is added +1,” it means adding successfully.

Press “2” to delete the current admin card. When users see

“Please Swipe Admin Card....,” and place the added admin card which users want to delete in the RFID card area. After the screen shows “An admin card is deleted,” it means deleting successfully.

Add/Deleteuser card

Users card is used to unlock. Press “*3888#” to enter user interface. Press “2” to enter user card modify interface. Before adding or deleting users card, users need to swipe admin card or enter admin code.

Press “1” to add a user card, when users see “Please Swipe IC Card...,” place user card in the RFID card reader area. Then the screen will show “Add IC Card +1,” it means adding successfully. Press “2” to delete the current user card. When users see “Please Swipe IC Card....,” and place the added IC card which users want to delete in the RFID card area. After the screen shows “An IC card is deleted,” it means deleting successfully.

3.7.3.2. RFID Cards in Website

Go to **Intercom-Card setting** to manage card access system.

Import/Export Card Data

R27A supports import or export the card data file, which is convenient for administrator to deal with a large number of cards.

The maximum card data file is 200K which is around 500 cards.

Note: Please consult administrator for the .xml format RFID cards template file.

Obtain and Add Card

- Switch card status to “Card Issuing” and click “Apply”;
- Place card on the card reader area and click “Obtain”;
- Name card, choose which door users want to open and the valid day and time;
- Click “Add” to add it into list.

Valid card information will be shown in the list. Administrator could delete onecard’s access permission or empty all the list.

Import/Export Card Data(.xml)

Choose File No file chosen Import Export

Card Status

Card Status Card Issuing Apply

Card Setting

IC Key DoorNum RelayA ☒ RelayB ☐ RelayC ☐

IC Key Day Mon ☒ Tue ☒ Wed ☒ Thur ☒ Fri ☒ Sat ☐ Sun ☐ Check All ☐

IC Key Time 06 : 00 - 12 : 00

IC Key Name Courier

IC Key Code FFB59828 Obtain Add

Door Card Management

| Index | Name | Code | Relay | |
|-------|---------|----------|-------|-------------------------------------|
| 1 | Courier | FFB59828 | 1 | <input checked="" type="checkbox"/> |
| 2 | | | | <input type="checkbox"/> |
| 3 | | | | <input type="checkbox"/> |
| 4 | | | | <input type="checkbox"/> |
| 5 | | | | <input type="checkbox"/> |
| 6 | | | | <input type="checkbox"/> |
| 7 | | | | <input type="checkbox"/> |
| 8 | | | | <input type="checkbox"/> |
| 9 | | | | <input type="checkbox"/> |
| 10 | | | | <input type="checkbox"/> |

Page 1 Prev Next Delete Delete All

Figure 3.7.3.2 RFID cards in website

Note: Remember to set Card Status back to “Normal” after adding cards.

3.7.4. Unlock via Pin Codes

3.7.4.1. Public Pin Codes in Device

Press “*3888#” to enter user interface. Press “1” to enter public pinmodify interface. The default public pin code is 33333333. Before users modify public pin code, they need to swipe admin card or enter admin code, and then users can enter 8-digit new public pin code, click “Dial key” to save.

3.7.4.2. Public Pin Codes in Website

Go to **Intercom - Basic** to configure public pin codes.

Key Switch: To enable or disable the password unlock, it is much useful for some special occasion which do not allow to use passwords.

| Public Key | |
|------------|-----------------------------|
| Key Switch | Enabled ▾ |
| Send Key | Enabled ▾ |
| Key Value | 33333333 (3-8 digit number) |

Figure 3.7.4.2 Public pin code in website

Key Value: The public key for the all occupants in a building.

3.7.4.3. Private Pin Codes in Device

Press “*3888#” to enter user interface. Press “3” to enter add privatepin interface. Before adding private pin code, users need to swipe admin card or enter admin code. Then enter a 8-digit private pin code, and click “Dial key” to save.

3.7.4.4. Private Pin Codes in Website

Go to **Intercom - PrivateKey** to configure private pin code.

Import /Export Private Key

R27 supports import or export the private key file, which is convenient for administrator to deal with a large number of private keys.

The maximum private key is 500.

Note: Please consult administrator for the .xml format private key

Import/Export Private Key(.xml)

Choose File No file chosen Import Export

Private Key Setting

PKey DoorNum RelayA ☐ RelayB ☒ RelayC ☐

PKey Day Mon ☒ Tue ☒ Wed ☒ Thur ☒ Fri ☒ Sat ☐ Sun ☐ Check All ☐

PKey Time 08 : 00 - 23 : 00

PKey Name Troye

PKey Code 2333 Add

Figure 3.7.4.4-1 Private pin code in website

template file.

Obtain and Add Private Key

- Enter the “PKey Name” and 3-8 digits “PKey Code”;
- Select the valid day and time;
- Choose which door users want to open;
- Click “Add” to add it into list.

Valid private key information will be shown in the list. Administrator could delete private key information or empty all the list.

| Private Key Management | | | | |
|--------------------------------------|-------|------|-------|--------------------------|
| Index | Name | Code | Relay | |
| 1 | Troye | 2333 | 2 | <input type="checkbox"/> |
| 2 | | | | <input type="checkbox"/> |
| 3 | | | | <input type="checkbox"/> |
| 4 | | | | <input type="checkbox"/> |
| 5 | | | | <input type="checkbox"/> |
| 6 | | | | <input type="checkbox"/> |
| 7 | | | | <input type="checkbox"/> |
| 8 | | | | <input type="checkbox"/> |
| 9 | | | | <input type="checkbox"/> |
| 10 | | | | <input type="checkbox"/> |
| Page 1 ▾ Prev Next Delete Delete All | | | | |

Figure 3.7.4.4-2 Private pin code management

3.7.5. Unlock via HTTP command

Users can use a URL to remote unlock the door.

Go to **Intercom - Relay** to configure.

Switch: Enable this function. Disable by default.

UserName&Password: Users can setup the username and password for HTTP unlock.

URL format:

| Open Relay via HTTP | |
|---------------------|--------------------------|
| Switch | Disabled ▾ |
| UserName | <input type="text"/> |
| Password | <input type="password"/> |

Figure 3.7.5 Unlock via HTTP command

`http://IP_address/fcgi/do?action=OpenDoor&UserName=&Password=&DoorNum=1.`

3.7.6. Unlock via Exit Button

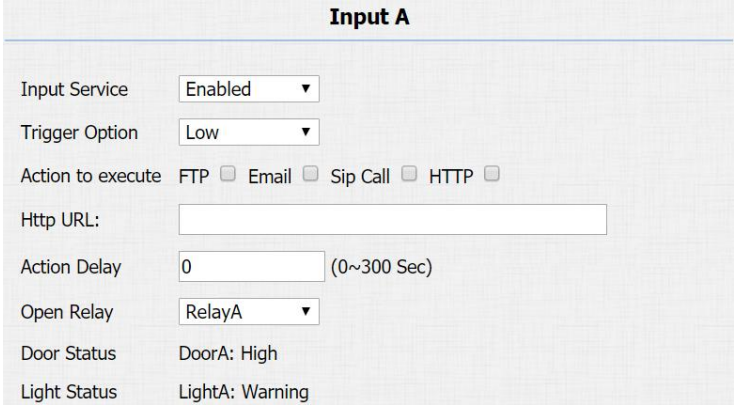
Go to **Intercom - Input** to configure input settings.

R27 supports three input triggers “Input A/B/C(DOOR A/B/C).”

Input Service:To enable or disable input trigger service.

Trigger Option:To choose open circuit trigger or closed circuit trigger.“Low” means that connection between door terminal and GND is closed, while “High” means the connection is opened.

Door status: To show the status of input signal.



| Input A | |
|-------------------|---|
| Input Service | Enabled |
| Trigger Option | Low |
| Action to execute | FTP <input type="checkbox"/> Email <input type="checkbox"/> Sip Call <input type="checkbox"/> HTTP <input type="checkbox"/> |
| Http URL: | |
| Action Delay | 0 (0~300 Sec) |
| Open Relay | RelayA |
| Door Status | DoorA: High |
| Light Status | LightA: Warning |

Figure 3.7.6 Unlock via exit button

3.8. Reboot

Go to **Upgrade - Basic**, users can reboot the phone.



| | |
|--------|--------|
| Reboot | Submit |
|--------|--------|

Figure 3.8 Reboot

3.9. Reset

3.9.1. Reset in Device

Press “*2396#” to enter administrator interface. Press “3” to enter system setting interface, and then press “2” to enter restore default setting interface. After users are sure to make the device reset to factory setting, they can swipe admin card or enter admin code, and then the device will restore.

Note: All configurations will be reset after restore. Please backup the data if users need.

3.9.2. Reset in Website

Go to **Upgrade - Basic**, users can reset the phone to factory settings.



Figure 3.9.2 Reset in website

4. AdvancedFeatures

4.1. Phone Configuration

4.1.1. LED

Go to **Intercom - LED Setting** to configure.

Users can control three parts' LED, screen, keypad and card area.

Users can also setup the valid time. For example, start time from 18 to 23 means the LED will light up from 6pm to 11pm.

4.1.2. IR LED

Go to **Intercom - Advanced** to configure.

Photoresistor: The setting is for night vision, when the surrounding of R27 is very dark, infrared LED will turn on and R27 will turn to night mode.

| LED Control | |
|-------------------|----------------|
| Screen LED Enable | Disabled ▾ |
| Start Time (H) | 18 - 23 (0~23) |
| KeyPad LED Enable | Disabled ▾ |
| Start Time (H) | 18 - 23 (0~23) |
| Card LED Enable | Disabled ▾ |
| Start Time (H) | 18 - 23 (0~23) |

Figure 4.1.1 LED

| Photoresistor | |
|-----------------------|-----------------|
| Photoresistor Setting | 15 - 30 (0~100) |

Figure 4.1.2 IR LED


Photoresistor value relates to light intensity and larger value means that light intensity is smaller.

Users can configure the upper and lower bound and when photoresistor value is larger than upper bound, infrared LED will turn on. As contrast, when photoresistor value is smaller than lower bound, infrared LED will turn off and device turns to normal mode.

4.1.3. RFID Card Code Display Related

Go to **Intercom - Advanced** to configure.

Display mode: To be compatible different card number formats in different systems. The default 8HN means hexadecimal.



| RFID | |
|----------------------|-------|
| RFID Display Mode | 8HN ▼ |
| IDCARD Display Mode | 8HN ▼ |
| WIEGAND Display Mode | 8HN ▼ |

Figure 4.1.3 RFID card code display related

4.1.4. Key Display Related

Go to **Intercom - Basic** to configure.

Send Key: Limit to use the “#” key. It will prevent someone to enter the LCD setting illegally.



| | |
|----------|-----------|
| Send Key | Enabled ▼ |
|----------|-----------|

Figure 4.1.4-1 Send key

DialPad Input Number Limit: To limit the input numbers to prevent unnecessary security problems.

4.2. Intercom

4.2.1. Call Time Related

Go to **Intercom - Basic** to configure.

Max Call Time: To configure the max call time.

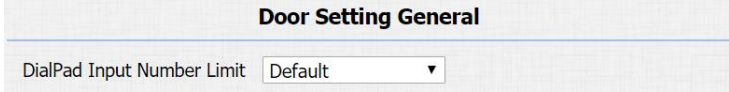
Dial In Time: To configure the max incoming dial time, available when auto answer is disabled.

Dial Out Time: To configure the max no answer call time.

4.2.2. AEC Level

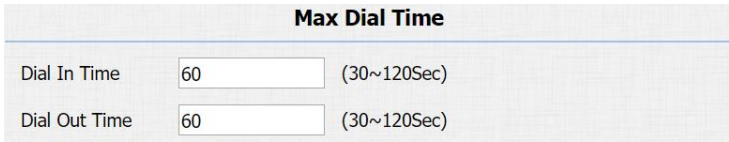
Go to **Intercom - Basic** to configure.

AEC Level: AEC is used to adjust the echo effect during the communication. The default value is 700. Increase the level, the echo control is better.



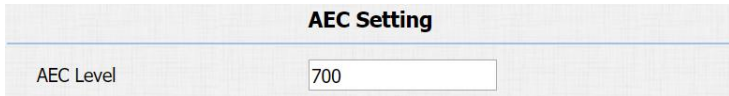
| Door Setting General | |
|----------------------------|---------|
| DialPad Input Number Limit | Default |

Figure 4.1.4-2 Dialpad input number limitation



| Max Dial Time | |
|---------------|----------------|
| Dial In Time | 60 (30~120Sec) |
| Dial Out Time | 60 (30~120Sec) |

Figure 4.2.1 Call time related



| AEC Setting | |
|-------------|-----|
| AEC Level | 700 |

Figure 4.2.2 AEC level


4.2.3. Intercom

Go to **Phone - Call Feature** to configure.

Intercom:Intercom allows users to establish a call directly with the callee.

Active: To enable or disable Intercom feature.

Intercom Mute: If enabled, once the call established, the callee will be muted.



| Intercom | |
|---------------|------------|
| Active | Enabled ▼ |
| Intercom Mute | Disabled ▼ |

Figure 4.2.3 Intercom

4.2.4. Return Code When Refuse

Go to **Phone - Call Feature** to configure.

Return Code When Refuse: Allows users to assign specific code as return code to SIP server when an incoming call is rejected.



| Others | |
|-------------------------|------------------|
| Return Code When Refuse | 486(Busy Here) ▼ |

Figure 4.2.4 Return code when refuse

4.2.5. SIP Call Related

Go to **Account - Advanced** to configure the SIP call related.

MaxLocal SIP Port:To configure maximum local SIP port for

designated SIP account.

MinLocalSIPPort:To configure maximum local SIP port for designated SIP account.

Caller ID Header:To choose caller ID header format.

Provisional Response ACK:100% reliability for all provisional messages, this means it will send ACK every time the phone receives a provisional SIP message from SIP server.

Register with user=phone:If enabled, the phone will send user=phone within SIP message.

Anonymous Call:If enabled, R27 will block its information when calling out.

Anonymous Call Rejection: If enabled,calls who block their information will be screened out.

Missed Call Log:If enabled, any missed call will be recorded into call log.

Prevent Hacking:If enabled, it will prevent SIP messages from hacking.

| Call | | |
|--------------------------|----------|--------------|
| Max Local SIP Port | 5062 | (1024~65535) |
| Min Local SIP Port | 5062 | (1024~65535) |
| Caller ID Header | FROM | ▼ |
| Auto Answer | Enabled | ▼ |
| Provisional Response ACK | Disabled | ▼ |
| Register with user=phone | Disabled | ▼ |
| Invite with user=phone | Disabled | ▼ |
| Anonymous Call | Disabled | ▼ |
| Anonymous Call Rejection | Disabled | ▼ |
| Missed Call Log | Enabled | ▼ |
| Prevent SIP Hacking | Disabled | ▼ |

Figure 4.2.5 SIP call related

4.2.6. Codec

Go to **Account - Advanced** to configure SIP call related codec.

Sip Account: To choose which account to configure.

Audio Codec: R27 support four audio codecs: PCMA, PCMU, G729, G722. Different audio codecs require different bandwidth, users can enable/disable them according to different network environment.

Note: Bandwidth consumption and sample rates are as below:

| Codec | Bandwidth | Sample Rates |
|-------|-----------|--------------|
| PCMA | 64kbit/s | 8kHz |
| PCMU | 64kbit/s | 8kHz |
| G729 | 8kbit/s | 8kHz |
| G722 | 64kbit/s | 16kHz |

Video Codec: R27 support H.264 standard, which provides better video quality at substantially lower bit rates than previous

The screenshot displays the 'SIP Account' configuration page. At the top, there's a section for 'Account' with a dropdown menu set to 'Account 1'. Below this is the 'Codecs' section, which contains two lists: 'Disabled Codecs' (currently empty) and 'Enabled Codecs' (containing PCMU, PCMA, G722, and G729). Between these lists are buttons for moving codecs (>> and <<), and to the right of the 'Enabled Codecs' list are up and down arrow buttons. Below the 'Codecs' section is the 'Video Codec' section, which includes a 'Codec Name' dropdown set to 'H264' (with a checkmark), and three other dropdowns: 'Codec Resolution' set to '4CIF', 'Codec Bitrate' set to '2048', and 'Codec Payload' set to '104'.

Figure 4.2.6-1 SIP call related codec

standards.

Codec Resolution: R27 support four resolutions, QCIF, CIF, VGA, 4CIF and 720P.

Codec Bitrate: To configure bit rates of video stream.

Codec Payload: To configure RTP audio video profile.

Go to **Phone - Call Feature** to configure multicast related codec.

4.2.7. Subscribe

Go to **Account-Advanced** to configure.

MWI: Message waiting indicator which is used to indicate whether there is unread new voice message.

BLF: BLF is short for busy lamp field which is used to monitor the designated extension status.

ACD: Automatic call distribution is often used in offices for customer service, such as call center. The setting here is to negotiate with the server about expire time of ACD subscription.



Figure 4.2.6-2 Multicast related codec



Figure 4.2.7 Subscribe

4.2.8. DTMF

Go to **Account - Advanced** to configure RTP audio video profile for DTMF and its payload type.

Type:Support inband, info, RFC2833 or their combination.

How To Notify DTMF: Only available when DTMF type is info.

DTMF Payload: To configure payload type for DTMF.

| DTMF | |
|--------------------|---|
| Type | <input type="text" value="RFC2833"/> |
| How To Notify DTMF | <input type="text" value="Disabled"/> |
| DTMF Payload | <input type="text" value="101"/> (96~127) |

Figure 4.2.8 DTMF

4.2.9. Session Timer

Go to **Account-Advanced** to configure.

If enabled, the on going call will be disconnected automatically once the session expired unless it's been refreshed by UAC or UAS.

| Session Timer | |
|-------------------|--|
| Active | <input type="text" value="Disabled"/> |
| Session Expire | <input type="text" value="1800"/> (90~7200s) |
| Session Refresher | <input type="text" value="UAC"/> |

Figure 4.2.9 Session timer

4.2.10. BLF List

Go to **Account-Advanced** to configure to display or configure BLF list URI address.

BLF List URI: BLF List is short for busy lamp field list.

| BLFList | |
|----------------------|----------------------|
| BLFList URI | <input type="text"/> |
| BLFList Pickup Code | <input type="text"/> |
| BLFList BargeIn Code | <input type="text"/> |

Figure 4.2.10 BLF list

BLFList PickUp Code: To set the BLF pick up code.

BLFList Bargain Code: To set the BLF barge in code.

4.2.11. Encryption

Go to **Account-Advanced** to configure.

If enabled, voice will be encrypted.



| Encryption | |
|------------------------|------------|
| Voice Encryption(SRTP) | Disabled ▼ |

Figure 4.2.11 Encryption

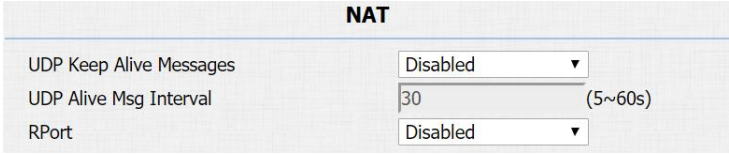
4.2.12. NAT

Go to **Account - Advanced** to display NATrelated settings.

UDP Keep Alive message: If enabled, the phone will send UDP keep-alive message periodically to router to keep NAT port alive.

UDP Alive Msg Interval: Keepalive message interval.

Rport: Remote port, if enabled, it will add remote port into outgoing SIP message for designated account.

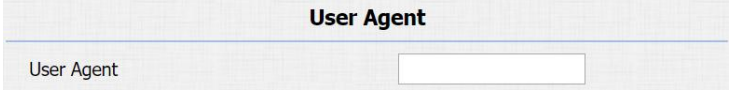


| NAT | |
|-------------------------|------------|
| UDP Keep Alive Messages | Disabled ▼ |
| UDP Alive Msg Interval | 30 (5~60s) |
| RPort | Disabled ▼ |

Figure 4.2.12 NAT

4.2.13. User Agent

Go to **Account - Advanced** to configure. One can customize user agent field in the SIP message. If user agent is set to specific value, users can see the information from PCAP. If user agent is not set by default, users can see the company name, model number and firmware version from PCAP.



The screenshot shows a configuration form titled "User Agent". It contains a single text input field labeled "User Agent".

Figure 4.2.13 User Agent

4.3. Access Control

4.3.1. Web Relay

R27 can support to connect to web relay.


Go to **Phone - WebRelay** to configure.

Type: Connect web relay and choose the type.

IP Address: Enter web relay's IP address.

User Name: it is an authentication for connecting web relay.

Password: It is an authentication for connecting web relay.



The screenshot shows a configuration form titled "WebRelay". It contains four fields: "Type" (a dropdown menu with "ControlByWeb" selected), "IP Address" (a text input field with "192.168.1.2" entered), "UserName" (a text input field), and "Password" (a text input field).

Figure 4.3.1-1 Web relay

Web Relay Action: Web relay action is used to trigger the web relay. The action URL is provided by web relay vendor.

Web Relay Key: If the DTMF keys are same with the local relay, the web relay will be open with local relay. But if there are different, the web relay is invalid.

Web Relay Extension: The webrelay can only receive the DTMF signal from the corresponding extension number.

Note: Users can modify username and password in web relay website.

4.3.2. Wiegand

Using this feature to integrate with some wiegand access control. R27 can be used as wiegand input or output.

Go to **Intercom - Advanced** to configure.

Wiegand Type: Support Wiegand 26 or 34. The different number means different bits.

| Web Relay Action Setting | | | |
|--------------------------|------------------------|---------------|---------------------|
| Action ID | Web Relay Action | Web Relay Key | Web Relay Extension |
| Action ID 01 | state.xml?relayState=2 | 1 | 192.168.1.99 |
| Action ID 02 | | | |
| Action ID 03 | | | |
| Action ID 04 | | | |
| Action ID 05 | | | |
| Action ID 06 | | | |
| Action ID 07 | | | |
| Action ID 08 | | | |
| Action ID 09 | | | |
| Action ID 10 | | | |

Figure 4.3.1-2 Web relay action settings

| Wiegand | |
|--------------|--------------|
| WiegandType | wiegand-26 ▼ |
| Wiegand Mode | Input ▼ |

Figure 4.3.2 Wiegand

Wiegand Mode: Input or output. Typically, when users select input, we generally connect the wiegand input device, such as the wiegand card reader. Or R27 can be used as output, it is generally used to connect the third-party access control, and R27 change the card information as wiegand signal, and then transfer to the access control module.

4.4. Security

4.4.1. Anti-alarm

Go to **Intercom - Advanced** to configure.

Tamper Alarm: R27 integrates internal gravity sensor for its own security. After enabling tamper alarm, if the gravity of R27 changes dramatically, it will alarm. Gravity sensor threshold stands for sensitivity of sensor. Smaller the value, the more sensitive it is.

| Tamper Alarm | |
|--------------------------|------------|
| Tamper Alarm | Disabled ▼ |
| Gravity Sensor Threshold | 32 (0~127) |

Figure 4.4.1 Anti-alarm

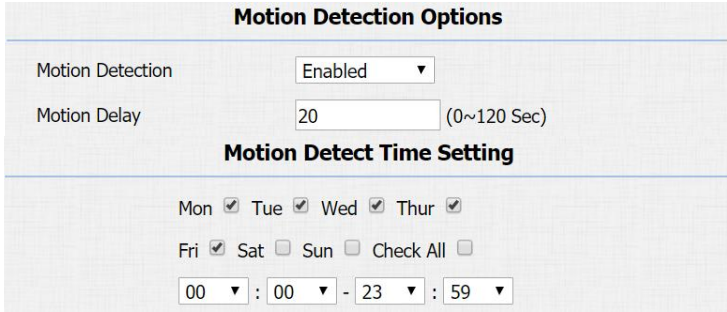
4.4.2. Motion

R27 supports motion detection, go to **Intercom - Motion** to configure detection related parameters.

Motion Detection: To enable or disable motion detection.

Motion Delay: To configure minimum time gap between two snapshots.

Motion Detect Time Setting: To configure motion detect time schedule.



The screenshot shows the 'Motion Detection Options' configuration page. It has two main sections. The first section, 'Motion Detection Options', contains 'Motion Detection' set to 'Enabled' and 'Motion Delay' set to '20' seconds, with a range of '(0~120 Sec)'. The second section, 'Motion Detect Time Setting', shows a schedule for Monday through Thursday (all checked), Friday (checked), Saturday (unchecked), and Sunday (unchecked). There is also a 'Check All' checkbox which is unchecked. At the bottom, a time range is set from '00:00' to '23:59'.

| Motion Detection Options | |
|--------------------------|----------------|
| Motion Detection | Enabled |
| Motion Delay | 20 (0~120 Sec) |

| Motion Detect Time Setting | |
|----------------------------|-------------------------------------|
| Mon | <input checked="" type="checkbox"/> |
| Tue | <input checked="" type="checkbox"/> |
| Wed | <input checked="" type="checkbox"/> |
| Thur | <input checked="" type="checkbox"/> |
| Fri | <input checked="" type="checkbox"/> |
| Sat | <input type="checkbox"/> |
| Sun | <input type="checkbox"/> |
| Check All | <input type="checkbox"/> |
| 00 : 00 - 23 : 59 | |

Figure 4.4.2 Motion

4.4.3. Action

R27 supports to send notifications, snapshots via email and ftp transfer method, or calls via sip call method, when trigger specific actions.

4.4.3.1. Action Parameters

Go to **Intercom - Action** to set action receiver.

Email Notification

Sender's email address: To configure email address of sender.

Receiver's email address: To configure email address of receiver.

SMTP server address: To configure SMTP server address of sender.

SMTP user name: To configure user name of SMTP service(usually it is same with sender's email address).

SMTP password: To configure password of SMTP service(usually it is the same with the password of sender's email).

Email subject: To configure subject of email.

Email content: To configure content of email.

Email Test: To test whether email notification is available.

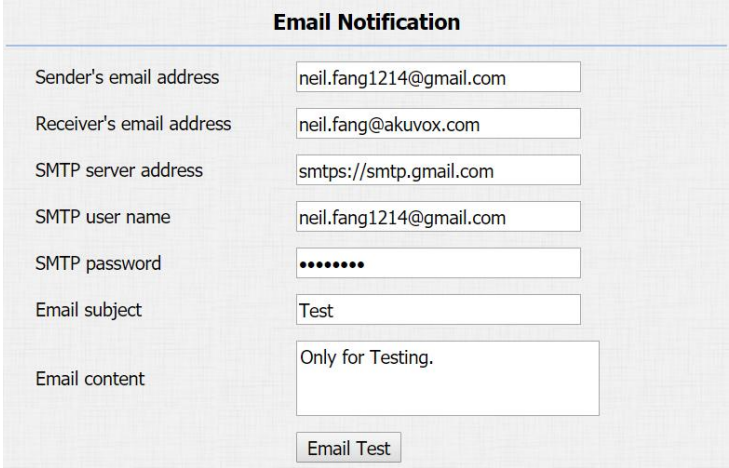
FTP Notification

FTP Server: To configure URL of FTP server.

FTP User Name: To configure user name of FTP server.

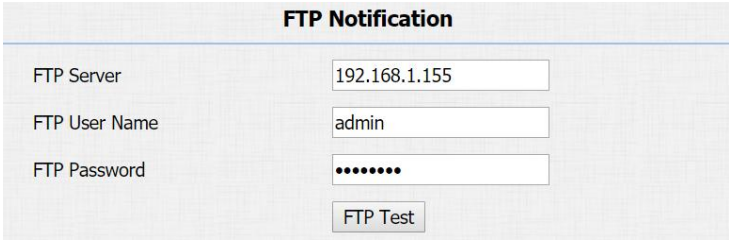
FTP Password: To configure password of FTP server.

FTP Test: To test whether FTP notification is available.



The screenshot shows the 'Email Notification' configuration page. It contains several input fields: 'Sender's email address' (neil.fang1214@gmail.com), 'Receiver's email address' (neil.fang@akuvox.com), 'SMTP server address' (smtps://smtp.gmail.com), 'SMTP user name' (neil.fang1214@gmail.com), 'SMTP password' (masked with dots), 'Email subject' (Test), and 'Email content' (Only for Testing.). There is an 'Email Test' button at the bottom right.

Figure 4.4.3.1-1 Email notification parameters



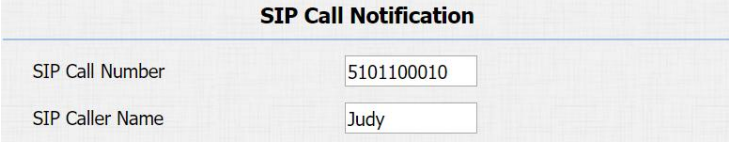
The screenshot shows the 'FTP Notification' configuration page. It contains three input fields: 'FTP Server' (192.168.1.155), 'FTP User Name' (admin), and 'FTP Password' (masked with dots). There is an 'FTP Test' button at the bottom right.

Figure 4.4.3.1-2 FTP notification parameters

SIP Notification

SIP Call Number: To configure sip call number.

SIP Call Name: To configure display name of R27.



The screenshot shows a configuration form titled "SIP Call Notification". It contains two input fields: "SIP Call Number" with the value "5101100010" and "SIP Caller Name" with the value "Judy".

Figure 4.4.3.1-3 SIP call notification parameters

Five specific actions which will be triggered in R27:

4.4.3.2. No Answer Action

Go to **Intercom - Basic** to configure.

No Answer Action: For sending the notification to specified email if the call is not answered.



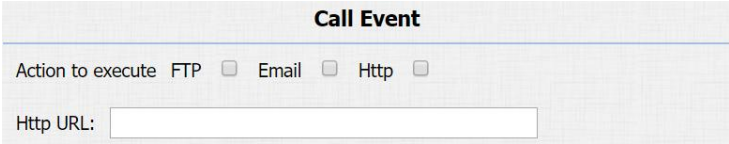
The screenshot shows a configuration field for "No Answer Action" with a dropdown menu set to "Disabled".

Figure 4.4.3.2 No answer action

4.4.3.3. Call Event

Go to **Intercom - Basic** to configure.

Action to execute: To choose suitable way to receive message or snapshot when dialing out.



The screenshot shows a configuration form titled "Call Event". It has three radio buttons for "Action to execute": "FTP", "Email", and "Http". Below these is a text field labeled "Http URL:".

Figure 4.4.3.3 Call event

HTTP URL: If users choose HTTP mode, enter the URL format:
http://http server IP address/any information.

4.4.3.4. Input Interface Triggered Action

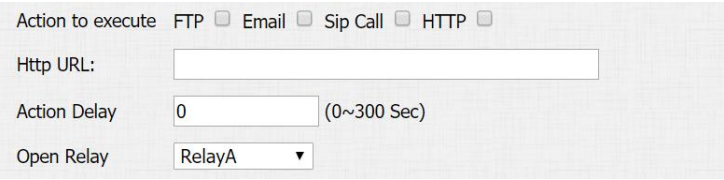
Go to **Intercom - Input** to configure.

Action to execute: To choose which action to execute after triggering.

Http URL: To configure URL, if HTTP action is chosen.

Action Delay: To configure after how long to execute to send out notifications and trigger relay.

Open relay: To configure which relay to trigger.



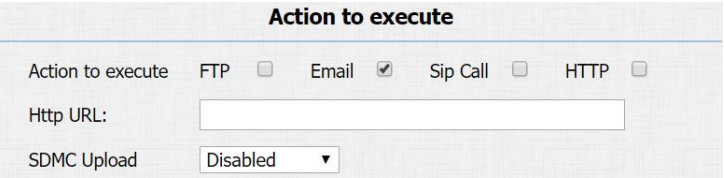
The screenshot shows a configuration form titled 'Input Interface Triggered Action'. At the top, there are four radio buttons for 'Action to execute': FTP, Email, Sip Call, and HTTP. The 'HTTP' radio button is selected. Below this, there is a text input field for 'Http URL:'. Underneath that is a numeric input field for 'Action Delay' with a value of '0' and a range '(0~300 Sec)' to its right. At the bottom, there is a dropdown menu for 'Open Relay' with 'RelayA' selected.

Figure 4.4.3.4 Input interface triggered action

4.4.3.5. Motion Triggered Action

Go to **Intercom - Motion** to configure.

Action to execute: To choose which action to execute after triggering.



The screenshot shows a configuration form titled 'Motion Triggered Action'. At the top, there are four radio buttons for 'Action to execute': FTP, Email, Sip Call, and HTTP. The 'Email' radio button is selected. Below this, there is a text input field for 'Http URL:'. Underneath that is a dropdown menu for 'SDMC Upload' with 'Disabled' selected.

Figure 4.4.3.5 Motion triggered action

Http URL: To configure URL, if HTTP action is chosen.

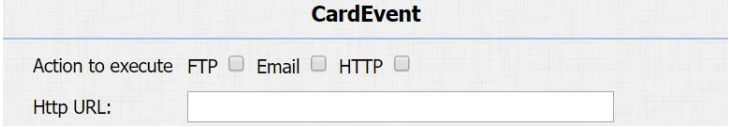
SDMC Upload: Upload the capture to the SDMC.

4.4.3.6. Unlock via RFID Card Action

Go to **Intercom - Card Setting** to configure.

Action to execute: To choose which action to execute after unlocking via a RFID card.

Http URL: To configure URL, if HTTP action is chosen.



The screenshot shows a web form titled "CardEvent". It contains a section "Action to execute" with three radio buttons: "FTP", "Email", and "HTTP". Below this is a text input field labeled "Http URL:".

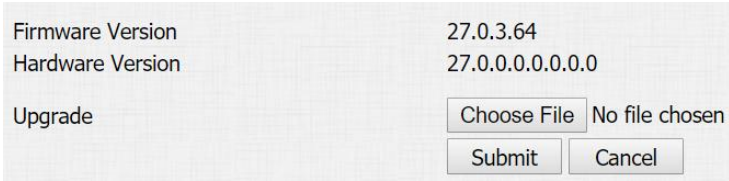
Figure 4.4.3.6 Unlock via RFID card action

4.5. Upgrade

4.5.1. Web Upgrade

Go to **Upgrade - Basic** to do web upgrade.

Upgrade: Choose .rom firmware from the PC, and then click "Submit" to start update.



The screenshot shows a web form for "Web Upgrade". It displays "Firmware Version" as 27.0.3.64 and "Hardware Version" as 27.0.0.0.0.0.0.0. Below this is a section labeled "Upgrade" with a "Choose File" button, the text "No file chosen", and "Submit" and "Cancel" buttons.

Figure 4.5.1 Web upgrade

4.5.2. Autop Upgrade

Go to **Upgrade - Advanced** to configure automatically update server's settings.

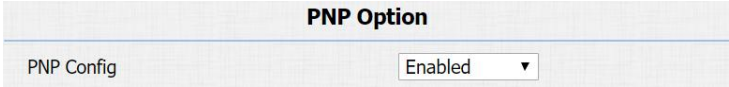
PNP

Plug and Play, once PNP is enabled, the phone will send SIP subscription message to PNP server automatically to get auto provisioning server's address.

By default, this SIP message is sent to multicast address 224.0.1.75(PNP server address by standard).

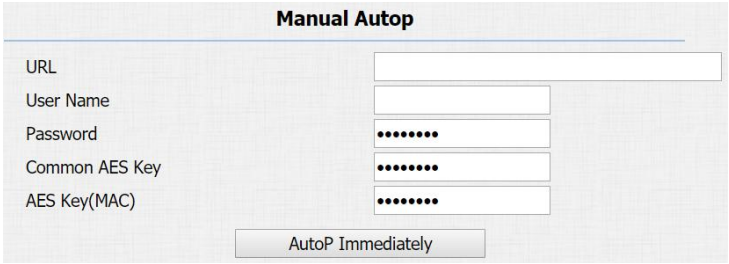
Manual Autop

Autop is a centralized and unified upgrade for phones. It is also a simple and time-saving configuration for phones. It is mainly used by devices to download corresponding configuration documents from the server which is using TFTP / FTP / HTTP / HTTPS network protocol. Achieving the purpose for updating devices's configurations and making users to change the phone configuration

The image shows a configuration window titled "PNP Option". Inside the window, there is a label "PNP Config" followed by a dropdown menu that is currently set to "Enabled".

| PNP Option | |
|------------|-----------|
| PNP Config | Enabled ▼ |

Figure 4.5.2-1 PNP

The image shows a configuration window titled "Manual Autop". It contains five input fields: "URL", "User Name", "Password", "Common AES Key", and "AES Key(MAC)". The "Password", "Common AES Key", and "AES Key(MAC)" fields are masked with dots. Below the input fields is a button labeled "AutoP Immediately".

| Manual Autop | |
|--|--------------------------|
| URL | <input type="text"/> |
| User Name | <input type="text"/> |
| Password | <input type="password"/> |
| Common AES Key | <input type="password"/> |
| AES Key(MAC) | <input type="password"/> |
| <input type="button" value="AutoP Immediately"/> | |

Figure 4.5.2-2 Manual auto provision

more easily, it is a typical C/S architecture upgrade mode, which is mainly used by the terminal device or PBX server to initiate an upgrade request.

URL:Auto provisioning server address.

User Name: Configure if server needs an username to access, otherwise left blank.

Password: Configure if server needs a password to access, otherwise left blank.

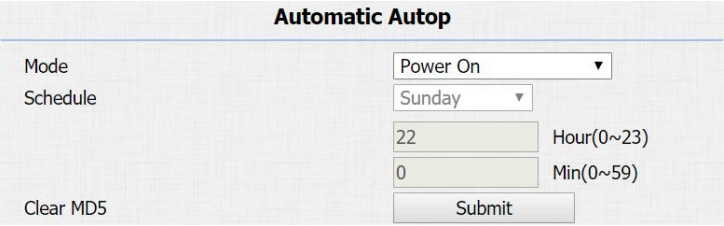
Common AES Key: Used for the phone to decipher common auto provisioning configuration file.

AES Key (MAC): Used for the phone to decipher MAC-oriented auto provisioning configuration file(for example, file name could be 0c1105888888.cfg if phone's MAC address is 0c1105888888).

Note: AES is one of many encryption, it should be configured only when configure file is ciphered with AES, otherwise left blank.

Automatic Autop

To display and configure auto provisioning mode settings.



The screenshot shows a web-based configuration interface titled "Automatic Autop". It contains several input fields and a submit button. The "Mode" field is a dropdown menu currently set to "Power On". The "Schedule" field is a dropdown menu currently set to "Sunday". Below the schedule dropdown are two numeric input fields: the first is set to "22" and is labeled "Hour(0~23)", and the second is set to "0" and is labeled "Min(0~59)". At the bottom left is a "Clear MD5" link, and at the bottom right is a "Submit" button.

| Automatic Autop | |
|-----------------|---------------|
| Mode | Power On |
| Schedule | Sunday |
| | 22 Hour(0~23) |
| | 0 Min(0~59) |
| Clear MD5 | Submit |

Figure 4.5.2-3 Automatic provision

This auto provisioning mode is actually self-explanatory.

For example, mode“Power on”means the phone will go to do provisioning every time it powers on.

Note: Please refer to the related feature guide from forum.

4.5.3. Backup Config File

Go to **Upgrade - Advanced** to backup the config file.

Export Autop Template: To export current config file.

Others:To export current config file (Encrypted) or import new config file.

The screenshot shows a web interface with two main sections. The top section, 'Export Autop Template', contains an 'Export' button. The bottom section, 'Others', contains a label 'Config File(.tgz/.conf/.cfg)', a 'Choose File' button, and the text 'No file chosen'. Below this are three buttons: 'Export (Encrypted)', 'Import', and 'Cancel'.

Figure 4.5.3 Backup config file

4.6. Log

4.6.1. Call Log

Go to **Phone - Call Log**, users can see a list of call logs which have dialed, received or missed. Users can delete call logs from list.

| Call History | | | | | | | |
|--------------|----------|------------|----------|-------------------------------------|---------------|---|--------------------------|
| All | | | | | | | |
| Index | Type | Date | Time | Local Identity | Name | Number | |
| 1 | Received | 2018-09-30 | 08:28:46 | 192.168.35.1 0@192.168.35 .10 | 192.168.35.68 | 192.168.35.6 8@192.168.35 .68 | <input type="checkbox"/> |
| 2 | Received | 2018-09-30 | 08:26:40 | 192.168.35.1 0@192.168.35 .10 | 192.168.35.68 | 192.168.35.6 8@192.168.35 .68 | <input type="checkbox"/> |

Figure 4.6.1 Call log

4.6.2. Door Log

Go to **Phone - Door Log**, users can see a list of door logs which records card information and date.

4.6.3. System Log

Go to **Upgrade - Advanced** to configure system log level and export system log file.

System log level: From level 0 to 7. The higher level means the more specific system log is saved to a temporary file. It's level 3 by default.

Export Log: Click to export temporary system log file to local PC.

4.6.4. PCAP

Go to **Upgrade - Advanced** to start, stop packets capturing or to export captured packet file.

| Door Log | | | | | | | |
|--------------------------------------|---------|----------|------|------------|----------|--------|--------------------------|
| Index | Name | Code | Type | Date | Time | Status | |
| 1 | Courier | FFB59828 | Card | 2018-09-30 | 10:49:19 | Failed | <input type="checkbox"/> |
| 2 | unKnown | 1FEDBA28 | Card | 2018-09-30 | 10:49:16 | Failed | <input type="checkbox"/> |
| 3 | Courier | FFB59828 | Card | 2018-09-30 | 10:49:09 | Failed | <input type="checkbox"/> |
| 4 | | | | | | | <input type="checkbox"/> |
| 5 | | | | | | | <input type="checkbox"/> |
| 6 | | | | | | | <input type="checkbox"/> |
| 7 | | | | | | | <input type="checkbox"/> |
| 8 | | | | | | | <input type="checkbox"/> |
| 9 | | | | | | | <input type="checkbox"/> |
| 10 | | | | | | | <input type="checkbox"/> |
| 11 | | | | | | | <input type="checkbox"/> |
| 12 | | | | | | | <input type="checkbox"/> |
| 13 | | | | | | | <input type="checkbox"/> |
| 14 | | | | | | | <input type="checkbox"/> |
| 15 | | | | | | | <input type="checkbox"/> |
| Page 1 ▾ Prev Next Delete Delete All | | | | | | | |

Figure 4.6.2 Door log

| System Log | |
|------------|--------|
| LogLevel | 3 ▾ |
| Export Log | Export |

Figure 4.6.3 System log

| PCAP | | |
|-------------------|------------|--------|
| PCAP | Start | Stop |
| PCAP Auto Refresh | Disabled ▾ | Export |

Figure 4.6.4 PCAP

Start:To start capturing all the packets file sent or received from phone.

Stop: To stop capturing packets.

Abbreviations

ACS:Auto Configuration Server

Auto:Automatically

AEC:Configurable Acoustic and Line Echo Cancelers

ACD:Automatic Call Distribution

Autop:Automatic Provisioning

AES:Advanced Encryption Standard

BLF:Busy Lamp Field

COM:Common

CPE:Customer Premise Equipment

CWMP:CPE WAN Management Protocol

DTMF:Dual Tone Multi-Frequency

DHCP:Dynamic Host Configuration Protocol

DNS:Domain Name System

DND:Do Not Disturb

DNS-SRV:Service record in the Domain Name System

FTP: File Transfer Protocol

GND: Ground

HTTP: Hypertext Transfer Protocol

HTTPS: Hypertext Transfer Protocol Secure

IP: Internet Protocol

ID: Identification

IR: Infrared

LCD: Liquid Crystal Display

LED: Light Emitting Diode

MAX: Maximum

POE: Power Over Ethernet

PCMA: Pulse Code Modulation A-Law

PCMU: Pulse Code Modulation μ -Law

PCAP: Packet Capture

PNP: Plug and Play

RFID: Radio Frequency Identification

RTP: Real-time Transport Protocol

RTSP: Real Time Streaming Protocol

MPEG: Moving Picture Experts Group

MWI: Message Waiting Indicator

NO: Normal Opened

NC: Normal Connected

NTP: Network Time Protocol

NAT: Network Address Translation

NVR: Network Video Recorder

ONVIF: Open Network Video Interface Forum

SIP: Session Initiation Protocol

SNMP: Simple Network Management Protocol

STUN: Session Traversal Utilities for NAT

SNMP: Simple Mail Transfer Protocol

SDMC: SIP Devices Management Center

TR069: Technical Report069

TCP: Transmission Control Protocol

TLS: Transport Layer Security

TFTP: Trivial File Transfer Protocol

UDP: User Datagram Protocol

URL: Uniform Resource Locator

VLAN: Virtual Local Area Network

WG: Wiegand

Contact us

For more information about the product, please visit us at www.akuvox.com or feel free to contact us by

Sales email: sales@akuvox.com

Technical support email: techsupport@akuvox.com

Telephone: +86-592-2133061 ext.7694/8162

We highly appreciate your feedback about our products.

