

Akuvox Smart
Intercom



R26C



R23C

R26/R23 Series Door Phone Admin Guide

About This Manual

Thank you for choosing Akuvox's R26/R23 series door phone. This manual is intended for end users, who need to properly configure the door phone. This manual is applicable to 26.0.3.xx version, and it provides all functions' configurations of R26/R23. 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.

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1. Product Overview

1.1. Product Description

Akuvox R26/R23X is a SIP-compliant, hands-free one button video outdoor phone. It can be connected with users Akuvox indoor monitors for remote access controlling and monitoring. Users can operate the indoor phone to communicate with visitors via voice and video, and use RFID cards to unlock the door (R26C/R23C only). It's applicable in villas, offices and so on.

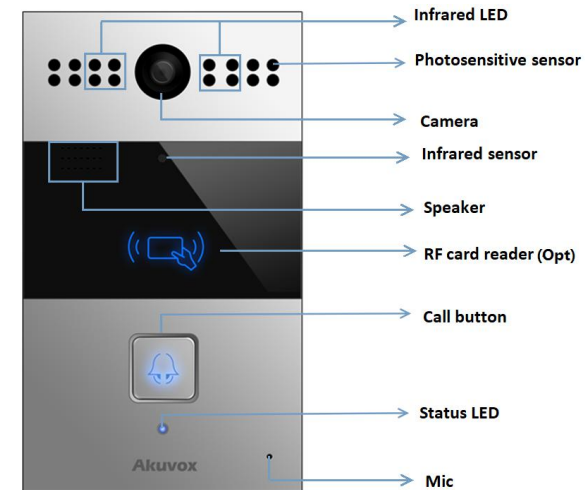


Figure 1.1 Product description

1.2. Connector Introduction

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

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

RS485A/B: RS485 terminal.

DOORA/B: Trigger signal input terminal.

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

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

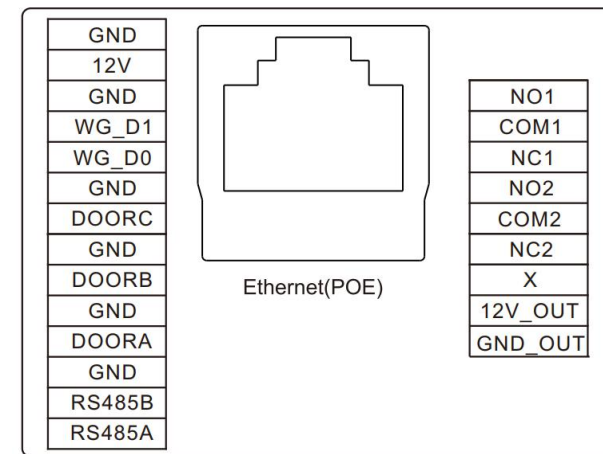


Figure 1.2-1 R26/R23's interface

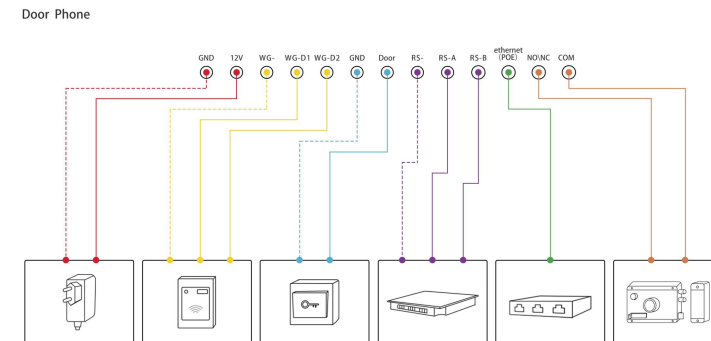


Figure 1.2-2 General interface

1.3. LED Status Information

LED Status		Description
Blue	Always on	Normal status
	Flashing	Calling
Red	Flashing	Network is unavailable
Green	Always on	Talking on a call
	Flashing	Receiving a call
Pink	Flashing	Upgrading

2. Daily Use

2.1. Make a Call

Press the call button to dial out the predefined number or IP address.

If LED turns green, it means the call has been answered.

2.2. Receive a Call

Users can use phone or indoor monitor to call R26/R23X and R26/R23X will answer it automatically by default. If auto answer function is disabled, pressing call button to answer incoming call.

2.3. Unlock by RFID Card (Optional)

Place the predefined RFID card on the card reader. The door phone will announce “the door is now opened” and unlock the door.

13.56MHz RF card is supported on R26C/R23C.

3. Basic Features

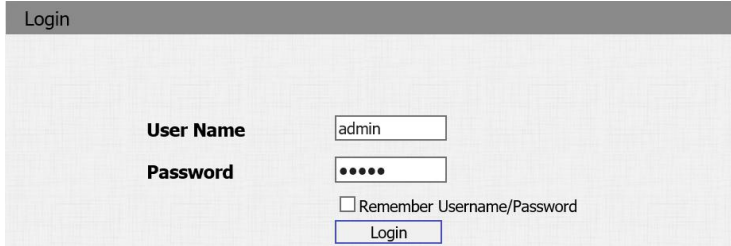
3.1. Access the Website Setting

3.1.1. Obtain IP Address

While R26/R23X power up normally, hold the call button for several seconds after the statue LED turns blue and it will enter IP announcement mode. In announcement mode, the IP address will be announced periodically and “IP 0.0.0.0” would be announced if no IP address is obtained. Press call button again to quit the announcement mode.

3.1.2. 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



Login

User Name admin

Password •••••

☐ Remember Username/Password

Login

Figure 3.1.2 Access the device website

administrator user name and password are shown below:

User Name: **admin**

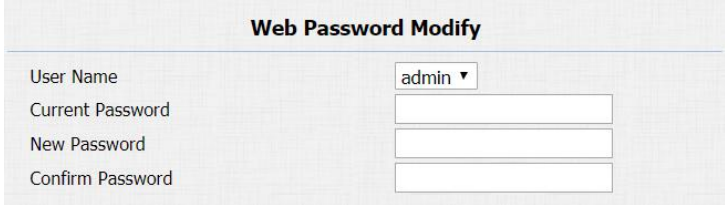
Password: **admin**

3.2. Password Modification

Go to **Security - Basic** to modify password and session time.

3.2.1. Modify the Web Password

To modify password of “admin” or “user” account.

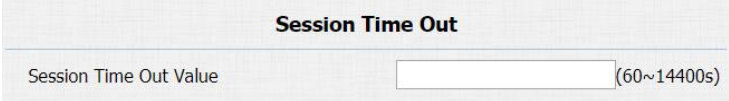


The form is titled "Web Password Modify". It contains four fields: "User Name" with a dropdown menu showing "admin", "Current Password" with a text input field, "New Password" with a text input field, and "Confirm Password" with a text input field.

Figure 3.2.1 Modify the web password

3.2.2. Session Time Out

To configure session time out value. Over the value, users need to login again to continue configuring.



The form is titled "Session Time Out". It contains one field: "Session Time Out Value" with a text input field and a range indicator "(60~14400s)" to the right.

Figure 3.2.2 Session time out

3.3. Phone Configuration

3.3.1. Time/Lang

Go to **Phone - Time/Lang** to configure it.

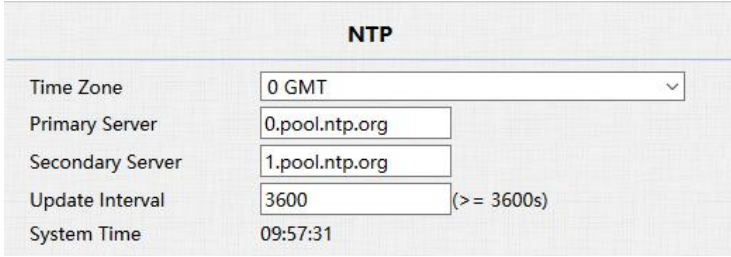
Time Zone: To select local time zone for NTP server.

Primary Server: To configure primary NTP server address.

Secondary Server: To configure secondary NTP server address, it takes effect if primary NTP server is unreachable.

Update Interval: To configure interval between two consecutive NTP requests.

System Time: The current time of the phone.



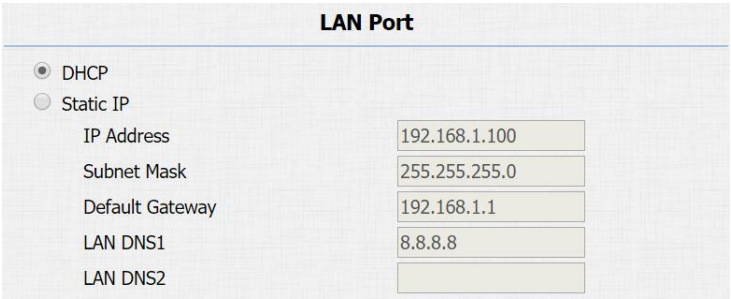
NTP	
Time Zone	0 GMT
Primary Server	0.pool.ntp.org
Secondary Server	1.pool.ntp.org
Update Interval	3600 (>= 3600s)
System Time	09:57:31

Figure 3.3.1 Time

3.3.2. Network

3.3.2.1. DHCP Mode

Go to **Network - Basic**.



LAN Port	
☒ DHCP	
☐ 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 3.3.2.1 DHCP mode

R26/R23X uses DHCP by default, and it will obtain IP address, subnet mask, default gateway and DNS server address from DHCP server automatically.

3.3.2.2. Static IP Mode

Go to **Network - Basic** to configure.
If selected, users could manually set IP address, subnet mask, default gateway and DNS server. The figure below shows static IP setting.

LAN Port

☐ DHCP

☒ 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 3.3.2.2 Static IP mode

3.3.2.3. Local RTP

Go to **Network - Advanced** to configure. To display and configure Local RTP settings.
Max RTP Port: Determine the maximum port that RTP stream can use.

Local RTP

Starting RTP Port

11800

(1024~65535)

Max RTP Port

12000

(1024~65535)

Figure 3.3.2.3 Local RTP

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

3.3.2.4. SNMP

Go to **Network - Advanced** to configure. 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, and it could be an IP address or any valid URL domain name.

Note: SNMP (Simple Network Management Protocols) is Internet-standard protocol for managing devices on IP networks.

3.3.2.5. VLAN

Go to **Network - Advanced** to configure. To display and configure VLAN settings.

SNMP	
Active	Disabled ▼
Port	(1024~65535)
Trusted IP	

Figure 3.3.2.4 SNMP

VLAN	
LAN Port	Active ▼
	VID (1~4094)
	Priority

Figure 3.3.2.5 VLAN

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 users administrator for specific VLAN settings in your networking environment.

3.3.2.6. TR069

Go to **Network - Advanced** to configure. 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, CPE is short for customer-premise equipment as client side devices.

URL: To configure URL address for ACS or CPE.

User Name: To configure username for ACS or CPE.

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

Figure 3.3.2.6 TR069

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

3.3.3. 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, users will not hear the prompt voice when the door is opened.

Mic Volume	
Mic Volume	8 (1~15)

Speaker Volume	
Speaker Volume	1 (1~15)

Open Door Warning	
Open Door Warning	Enabled

IP Announcement	
IP Announcement active time	0 (0~180)

Figure 3.3.3-1 Sound

IP Announcement: To setup the IP announcement active time. Over the configured value, the phone will not announce the IP when users hold the button.

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

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

The screenshot shows two identical upload sections. The top section is titled 'RingBack Upload' and the bottom section is titled 'Opendoor Tone Upload'. Each section contains a 'Choose File' button, the text 'No file chosen', an 'Upload' button, and a 'Delete' button. Below the buttons, the file format specifications are listed: 'File Format: wav, size: < 200KB, samplerate: 16000, Bits: 16'.

Figure 3.3.3-2 Sound

3.4. Intercom Call

3.4.1. Direct IP Call

Without sip server, users can also use IP address to call each other, but this way is only suitable in the LAN.

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

Then, go to **Intercom - Basic** to configure the IP address of the destination(E.g. IP address 192.168.1.100). It supports up to 8 lines simultaneously.

The screenshot shows a configuration section for 'Direct IP'. It includes a label 'Direct IP' and a dropdown menu currently set to 'Enabled'.

Figure 3.4.1-1 Direct IP call

Push Button				
Key	Number	Number2	Number3	Number4
Push Button	192.168.35.26			

Figure 3.4.1.1 Push button

After all, press the push button to make direct IP call.

If you would like to call multiple numbers at the same time, divide them by semicolon.

Note: The push button number can also enter the SIP account.

3.4.2. 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 phone first. Then press the push button to make SIP call.

3.4.2.1. SIP Account

Status: To display register result.

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

SIP Account	
Status	Registered
Account	Account 1 ▼
Account Active	Enabled ▼
Display Label	R26
Display Name	Door_R26
Register Name	9003
User Name	9003
Password	*****

Figure 3.4.2.1 SIP account

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

Register Name: To enter extension number you 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.

3.4.2.2. 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, the phone will re-register automatically within registration period.

SIP Server 1		
Server IP	120.78.230.239	Port 5070
Registration Period	1800	(30~65535s)

Figure 3.4.2.2-1 SIP server 1&2

SIP Server 2		
Server IP		Port 5060
Registration Period	1800	(30~65535s)

Figure 3.4.2.2-2 SIP server 1&2

3.4.2.3. Outbound Proxy Server

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

3.4.2.4. Transport Type

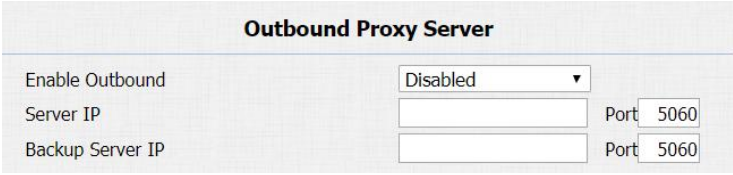
To display and configure transport type for SIP message.

- 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.

3.4.2.5. NAT

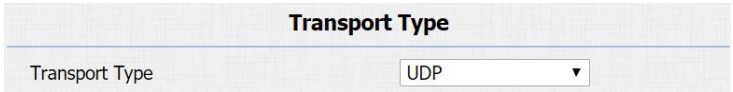
To display and configure NAT (Net Address Translator) settings.

- STUN: Short for simple traversal of UDP over NATs, a solution to solve NAT issues.



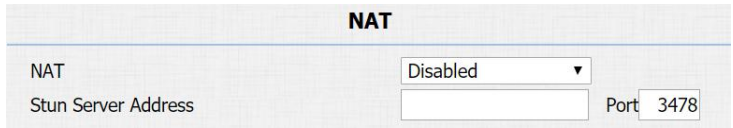
The screenshot shows the 'Outbound Proxy Server' configuration window. It has a title bar 'Outbound Proxy Server'. Below it, there are three rows of configuration options: 'Enable Outbound' with a dropdown menu set to 'Disabled', 'Server IP' with a text input field, and 'Backup Server IP' with a text input field. To the right of the 'Server IP' and 'Backup Server IP' fields, there are 'Port' labels and input fields, both set to '5060'.

Figure 3.4.2.3 Outbound proxy server



The screenshot shows the 'Transport Type' configuration window. It has a title bar 'Transport Type'. Below it, there is a single row with the label 'Transport Type' and a dropdown menu set to 'UDP'.

Figure 3.4.2.4 Transport type



The screenshot shows the 'NAT' configuration window. It has a title bar 'NAT'. Below it, there are two rows of configuration options: 'NAT' with a dropdown menu set to 'Disabled', and 'Stun Server Address' with a text input field. To the right of the 'Stun Server Address' field, there is a 'Port' label and an input field set to '3478'.

Figure 3.4.2.5 NAT

Note: By default, NAT is disabled.

3.4.3. Auto Answer

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

Go to **Phone - Call Feature** to enable auto answer feature for direct IP call without SIP proxy.

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 by default.

Then incoming call will be answered automatically.

3.4.4. Web Call

Go to **Intercom - Basic** to dial out or answer incoming call from website.



Auto Answer	Enabled ▼
-------------	-----------

Figure 3.4.3-1 Auto answer



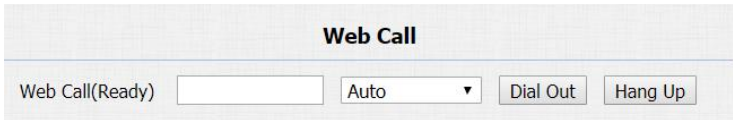
Direct IP AutoAnswer	Enabled ▼
----------------------	-----------

Figure 3.4.3-2 Auto answer



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

Figure 3.4.3-3 Auto answer



Web Call				
Web Call(Ready)		Auto ▼	Dial Out	Hang Up

Figure 3.4.4 Web call

3.4.5. No Answer Call

Go to **Intercom - Basic** and enable the no answer call.

Go to **Intercom - Basic** and set the no answer call number.



Figure 3.4.5-1 No Answer call



Figure 3.4.5-2 No answer call

3.4.6. Multicast

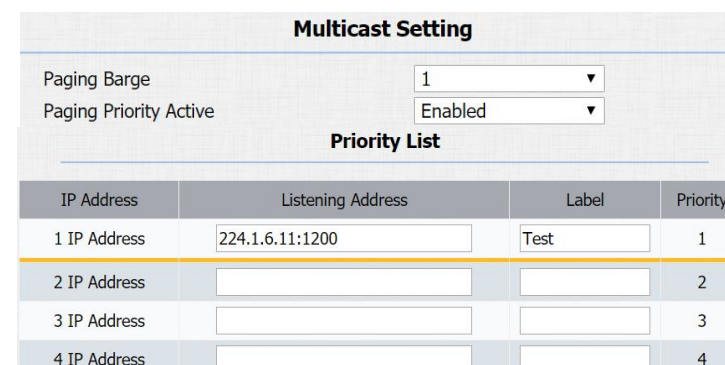
Go to **Intercom - Multicast** to configure.

Paging Barge: Choose the multicast number, the range is 1-10.

Paging priority Active: Enable to disable the multicast.

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

Label: Input the label for each listening address.



IP Address	Listening Address	Label	Priority
1 IP Address	224.1.6.11:1200	Test	1
2 IP Address			2
3 IP Address			3
4 IP Address			4

Figure 3.4.6 Multicast

3.4.7. Push To Hang Up

Go to **Intercom - Basic** to configure. To enable or disable pushing button to hang up.

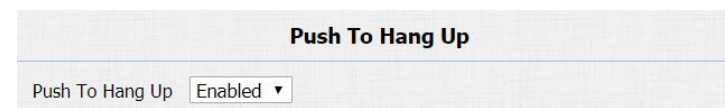


Figure 3.4.7 Push to hang up

3.5. Security

3.5.1. Live View

Go to **Intercom - Live Stream** to check the real-time video from R26/R23X. In addition, users also can check the real-time picture via URL: **`http://IP_address:8080/picture.jpg`**

Users can also check the real-time video via URL: **`http://IP_address:8080/video.cgi`**

PelcoController: The R26/R23X doorphone can support the pelco-d protocol and control the direction of camera cradle head.

3.5.2. RTSP

R26/R23X supports RTSP stream, go to **Intercom - RTSP** to enable or disable RTSP server. The URL for RTSP stream is:



Figure 3.5.1 Live view



Figure 3.5.2-1 RTSP

rtsp://IP_address/live/ch00_0.

RTSP Stream: To enable RTSP video and select the video codec.

R26/R23X supports H.264 video codec.

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 bitrate of MPEG4.

MJPEG Video Parameters: Called motion joint photographic experts group. It is a video encoding format, in which each image is

RTSP Stream	
RTSP Video Enabled	☒
RTSP Video Codec	H.264 ▼

H.264 Video Parameters	
Video Resolution	VGA ▼
Video Framerate	30 fps ▼
Video Bitrate	256 kbps ▼

MPEG4 Video Parameters	
Video Resolution	VGA ▼
Video Framerate	30 fps ▼
Video Bitrate	2048 kbps ▼

MJPEG Video Parameters	
Video Resolution	VGA ▼
Video Framerate	30 fps ▼
Video Quality	90 ▼

Figure 3.5.2-2 RTSP

compressed separately by JPEG. MJPEG compression can produce high quality video image and has a flexible configuration in video definition and compressed frames.

To modify the resolution, framerate and bitrate of MJPEG.

3.5.3. ONVIF

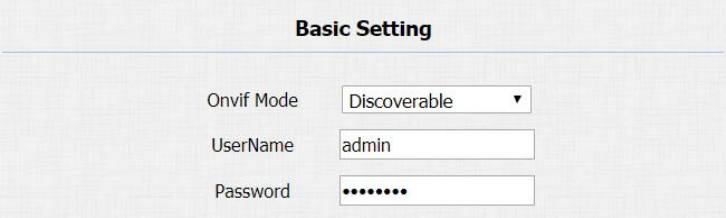
R26/R23X supports ONVIF protocol, which means R26/R23X's camera can be searched by other devices, like NVR, which supports ONVIF protocol as well.

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

Switching ONVIF mode to undiscoverable means that users must program ONVIF's URL manually.

The ONVIF's URL is:

http://IP_address:8090/onvif/device_service



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

Figure 3.5.3 ONVIF

3.6. Access Control

3.6.1. Relay

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

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

Relay ID: R26/R23X supports two 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.

DTMF Option: To select digit of DTMF code, R26/R23X supports maximum 4 digits DTMF code.

DTMF: To configure 1 digit DTMF code for remote unlock.

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

Figure 3.6.1 Relay

Multiple DTMF: To configure multiple digits DTMF code for remote unlock.

Relay Status: Low means that COM is connecting to NC while High means that COM is connecting to NO.

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

3.6.2. Card Setting (Optional)

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

Import/Export Card Data

R26C/R23C 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 template RFID cards data file.



Figure 3.6.2-1 Card setting

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 you want to open and the valid day and time;
- Click “Add” to add it into list.

Note: Users can use card to access only when card status has been switched to “Normal”.

Door Card Management

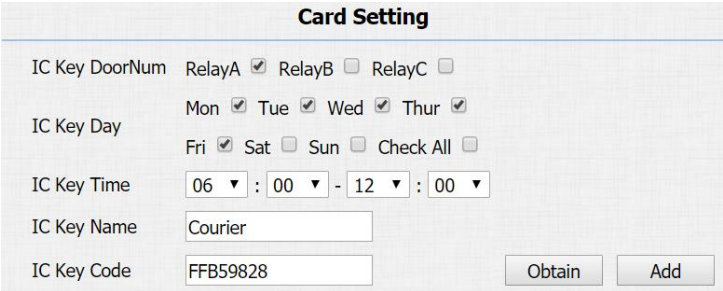
Valid card information will be shown in the list. Administrator could delete one card’s access permission or empty all the list.

3.6.3. Open Relay via HTTP

Users can use a URL to remote unlock the door.

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

Switch: Enable this function. Disable by default.



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

Figure 3.6.2-2 Card setting



Index	Name	Code	Door	
1				☐
2				☐
3				☐
4				☐
5				☐
6				☐
7				☐
8				☐
9				☐
10				☐

Page 1 ▾ Prev Next Delete Delete All

Figure 3.6.2-3 Card setting

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

URL format:

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

3.6.4. Unlock via Exit Button

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

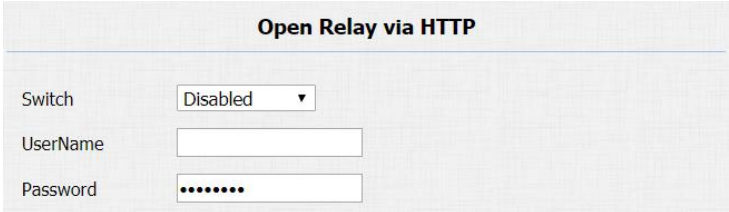
R26/R23X supports two input triggers Input A/B (DOOR A/B).

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.

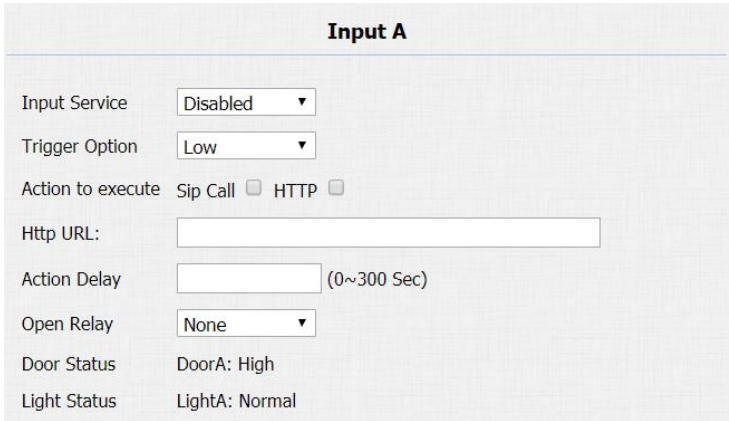
Action to execute: To choose which action to execute after the input terminal is triggered.

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



Open Relay via HTTP	
Switch	Disabled ▼
UserName	
Password	

Figure 3.6.3 Open relay via HTTP



Input A	
Input Service	Disabled ▼
Trigger Option	Low ▼
Action to execute	Sip Call ☐ HTTP ☐
Http URL:	
Action Delay	(0~300 Sec)
Open Relay	None ▼
Door Status	DoorA: High
Light Status	LightA: Normal

Figure 3.6.4-1 Unlock via exit button

Open Relay: To configure relay to open.

Door Status: To show the status of input signal.

3.7. Reboot

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

A horizontal form with a light gray background. On the left, the text "Reboot" is displayed. On the right, there is a button labeled "Submit".

Reboot	Submit
--------	--------

Figure 3.7 Reboot

3.8. Reset

Go to **Upgrade - Basic**, users can reset to factory setting.

A horizontal form with a light gray background. On the left, the text "Reset To Factory Setting" is displayed. On the right, there is a button labeled "Submit".

Reset To Factory Setting	Submit
--------------------------	--------

Figure 3.8 Reset

4. Advance Feature

4.1. Phone Configuration

4.1.1. LED

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

To setup the LED lighting mode.

State: There is five states: Normal, Offline, Calling, Talking and Receiving.

Color Off: The default status is OFF.

Color On: It can support three color: Red, Green, Blue.

Blink Mode: To setup the different blink frequency.

LED Control:

Use HTTP URL to remote control the LED status.

Http format:

http://PhoneIP/fcgi/do?action=LedAction&State=1&Color=1&Mode=2500

Status: 1=Idle; 2=OffLine; 3=Calling; 4=Talking; 5=Receiving;

Color: 1=Green; 2=Blue; 3=Red; Mode: 0=Always On; 1=Always

Off; 500/1000/1500/2000/25000/3000

LED Status			
State	Color Off	Color On	Blink Mode
NORMAL ▼	OFF ▼	Blue ▼	Always On ▼
OFFLINE ▼	OFF ▼	Red ▼	2500/2500 ▼
CALLING ▼	OFF ▼	Blue ▼	2500/2500 ▼
TALKING ▼	OFF ▼	Green ▼	Always On ▼
RECEIVING ▼	OFF ▼	Green ▼	2500/2500 ▼

Figure 4.1.1-1 LED

LED Control	
LED Control	Disabled ▼

Figure 4.1.1-2 LED

4.1.2. IR LED

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

Photoresistor: The setting is for night vision, when the surrounding of R26/R23X is very dark, infrared LED will turn on and R26/R23X will turn to night mode. 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.

A screenshot of a web interface for configuring the Photoresistor. The title is "Photoresistor". Below it, there is a label "Photoresistor Setting" followed by two input fields: the first contains "15" and the second contains "30", separated by a hyphen. To the right of the second field is the text "(0~100)".

Photoresistor	
Photoresistor Setting	15 - 30 (0~100)

Figure 4.1.2 IR LED

4.1.3. RF Card Code Display Related

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

RFID Display Mode: To be compatible different card number formats. The default 8HN means hexadecimal.

A screenshot of a web interface for configuring the RFID. The title is "RFID". Below it, there is a label "RFID Display Mode" followed by a dropdown menu. The dropdown menu is open, showing the selected option "8HN".

RFID	
RFID Display Mode	8HN

Figure 4.1.3 RF card code display related

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.

Hang Up After Open Door: To set the time that hang up the call after open the door.

4.2.2. Return Code When Refuse

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

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

Max Call Time		
Max Call Time	5	(0~120Minutes)

Figure 4.2.1-1 Call time related

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

Figure 4.2.1-2 Call time related

Hang Up After Open Door		
Time Out	5	(0~15)

Figure 3.4.8 Hang up after open door

Return Code When Refuse	486(Busy Here)
-------------------------	---

Figure 4.2.2 Return code when refuse

4.2.3. SIP Call Related

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

Max Local SIP Port: To configure maximum local SIP port for designated SIP account.

Min Local SIP Port: To configure maximum local SIP port for designated SIP account.

Caller ID Header: To choose caller ID header format.

Anonymous Call: If enabled, R26/R23X 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	RPID-FROM	▼
Auto Answer	Enabled	▼
Anonymous Call	Disabled	▼
Anonymous Call Rejection	Disabled	▼
Missed Call Log	Enabled	▼
Prevent SIP Hacking	Disabled	▼

Figure 4.2.3-1 SIP call related

SIP Account	
Account	Account 1 ▼

Figure 4.2.3-2 SIP call related

4.2.4. Codec

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

SIP Account: To choose which account to configure.

Audio Codec: R26/R23X support four audio codec: PCMA, PCMU, G729, G722. Different audio codec requires 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: R26/R23X supports H.264 standard, which provides better video quality at substantially lower bit rates than previous

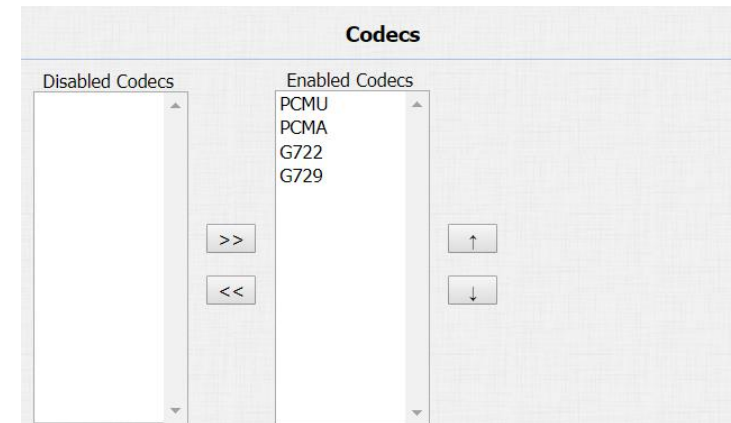


Figure 4.2.4-1 Codec

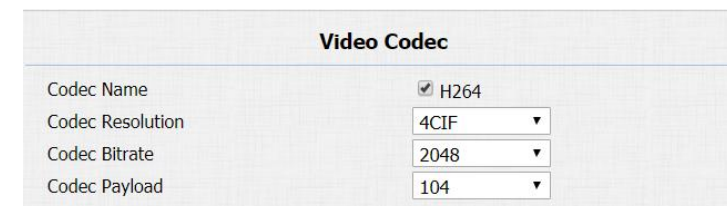


Figure 4.2.4-2 Codec

standards.

Codec Resolution: R26/R23X supports 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.



Multicast Codec	PCMU ▼
-----------------	--------

Figure 4.2.4-3 Codec

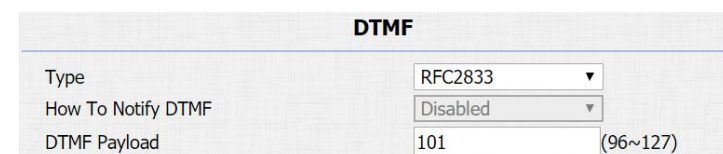
4.2.5. DTMF

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.



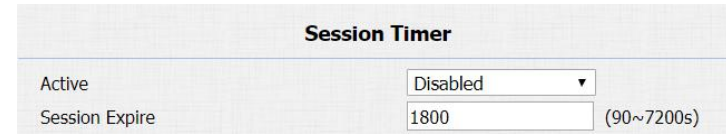
DTMF	
Type	RFC2833 ▼
How To Notify DTMF	Disabled ▼
DTMF Payload	101 (96~127)

Figure 4.2.5 DTMF

4.2.6. Session Timer

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

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



The screenshot shows the 'Session Timer' configuration window. It has a title bar 'Session Timer'. Below it, there are two settings: 'Active' with a dropdown menu set to 'Disabled', and 'Session Expire' with a text input field containing '1800' and a range indicator '(90~7200s)' to its right.

Figure 4.2.6 Session timer

4.2.7. Encryption

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

If enabled, voice will be encrypted.



The screenshot shows the 'Encryption' configuration window. It has a title bar 'Encryption'. Below it, there is one setting: 'Voice Encryption(SRTP)' with a dropdown menu set to 'Disabled'.

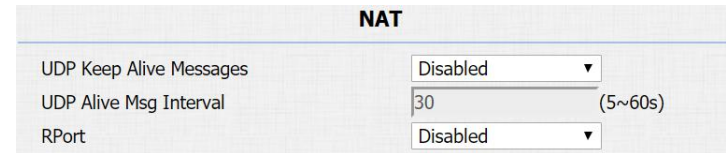
Figure 4.2.7 Encryption

4.2.8. NAT

Go to **Account - Advanced** to display NAT related settings.

UDP Keep Alive message: If enabled, R26/R23X will send UDP keep-alive message periodically to router to keep NAT port alive.

UDP Alive Msg Interval: Keep alive message interval.



The screenshot shows the 'NAT' configuration window. It has a title bar 'NAT'. Below it, there are three settings: 'UDP Keep Alive Messages' with a dropdown menu set to 'Disabled', 'UDP Alive Msg Interval' with a text input field containing '30' and a range indicator '(5~60s)' to its right, and 'RPort' with a dropdown menu set to 'Disabled'.

Figure 4.2.8 NAT

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

4.2.9. User Agent

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

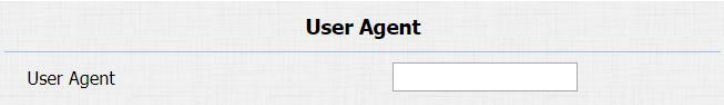
To customize user agent field in the SIP message.

If users agent is set to specific value, users could see the information from network package. If user agent is not set by default, users could see the company name, model number and firmware version from network package.

4.3. Access Control

4.3.1. Web Relay

R26/R23X can support extra web relay which is connected with the door phone via network.



The screenshot shows a configuration window titled "User Agent". Inside the window, there is a label "User Agent" followed by a text input field.

Figure 4.2.9 User agent



The screenshot shows a configuration window titled "Web Relay". Inside the window, there are four fields: "Type" with a dropdown menu showing "Default", "IP Address" with a text input field, "UserName" with a text input field, and "Password" with a password input field (masked with dots).

Figure 4.3.1-1 Web relay

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

Type: Connect web relay and choose the type.

IP Address: Enter web relay's IP address.

UserName: It is an authentication for connecting web relay.

Password: It is an authentication for connecting 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 same as 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.

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

4.4. Security

4.4.1. Anti-alarm

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

R26/R23X integrates internal gravity sensor for the own security, and after enabling tamper alarm, if the gravity of R26/R23X changes dramatically, the phone will alarm. Gravity sensor threshold stands for sensitivity of sensor.

Tamper Alarm	
Tamper Alarm	Disabled ▾
Gravity Sensor Threshold	32 (0~127)

Figure 4.4.1 Anti-alarm

4.4.2. Motion

R26/R23X supports motion detection, go to **Intercom - Motion** to configure detection parameter.

Motion Detection: To enable or disable motion detection

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

Motion Detection Options	
Motion Detection	Disabled ▾
Motion Delay	10 (0~120 Sec)

Figure 4.4.2-1 Motion

Motion Detect Time Setting: To make motion detect time for a whole week.

4.4.3. Action

R26/R23X 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

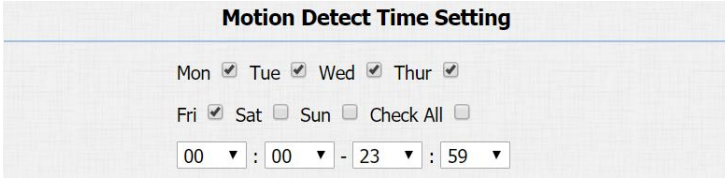
Go to **Intercom - Action** to set action receiver.

Email Notification

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

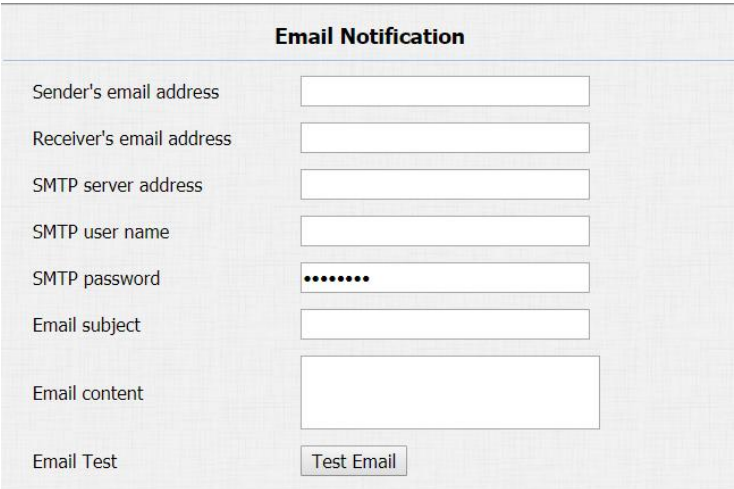
Receiver's email address: To configure email address of receiver.

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



The screenshot shows the 'Motion Detect Time Setting' window. It includes checkboxes for days of the week: Mon (checked), Tue (checked), Wed (checked), Thur (checked), Fri (checked), Sat (unchecked), and Sun (unchecked). There is also a 'Check All' checkbox which is unchecked. Below the checkboxes is a time selection area with dropdown menus for hours (00), minutes (00), and seconds (23), separated by colons and a hyphen, followed by another set of dropdowns for hours (59) and minutes (59).

Figure 4.4.2-2 Motion



The screenshot shows the 'Email Notification' configuration window. It contains several input fields: 'Sender's email address', 'Receiver's email address', 'SMTP server address', 'SMTP user name', 'SMTP password' (masked with dots), 'Email subject', and 'Email content' (a larger text area). At the bottom, there is an 'Email Test' label and a 'Test Email' button.

Figure 4.4.3.1-1 Action parameters

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 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.

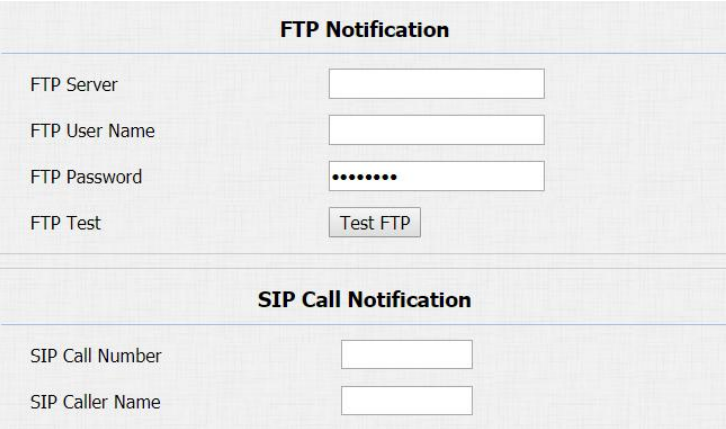
FTP Password: To configure password of FTP server.

FTP Test: To test whether FTP notification is available.

SIP Notification

SIP Call Number: To configure SIP call number.

SIP Call Name: To configure display name of R26/R23X.



The screenshot displays a configuration interface with two main sections: 'FTP Notification' and 'SIP Call Notification'. The 'FTP Notification' section includes fields for 'FTP Server', 'FTP User Name', and 'FTP Password' (masked with dots), along with a 'Test FTP' button. The 'SIP Call Notification' section includes fields for 'SIP Call Number' and 'SIP Caller Name'.

FTP Notification	
FTP Server	
FTP User Name	
FTP Password	
FTP Test	Test FTP

SIP Call Notification	
SIP Call Number	
SIP Caller Name	

Figure 4.4.3.1-2 Action parameters

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.



Figure 4.4.3.2 No answer action

4.4.3.3. Push Button Action

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

Enable this function, the device will record any changes of the surrounding environment then send the message or picture to the corresponding receiver.

Action to execute: Tick the suit the suitable way to receive the action message.

HTTP URL: If you tick HTTP URL, and then enter the HTTP server IP address in the HTTP URL area. When the device detects any changes, it will send HTTP network package.

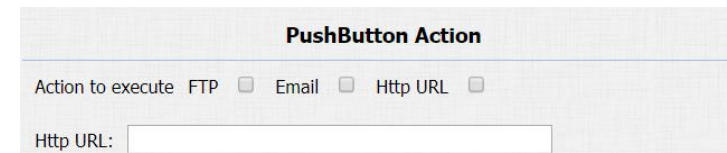


Figure 4.4.3.3 PushButton action

4.4.3.4. Input Interface Triggered Action

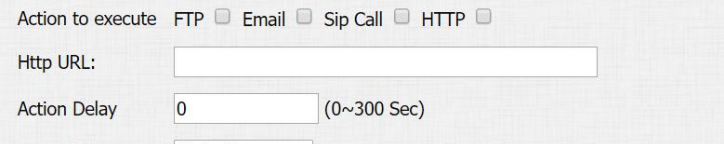
Go to **Intercom - Input** to configure.

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 for the 'Input Interface Triggered Action'. It includes a section 'Action to execute' with four radio buttons: FTP, Email, Sip Call, and HTTP. The 'Http URL' field is a text input box. The 'Action Delay' field is a numeric input box with a value of 0 and a range indicator '(0~300 Sec)'.

Figure 4.4.3.4 Input interface trigger action

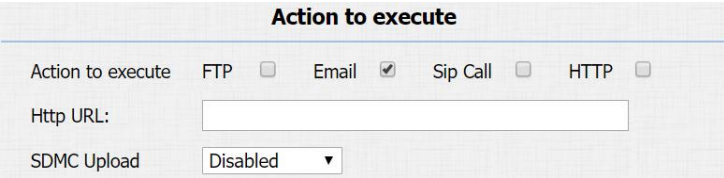
4.4.3.5. Motion Triggered Action

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

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

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

SDMC Upload: Upload the capture to the SDMC.



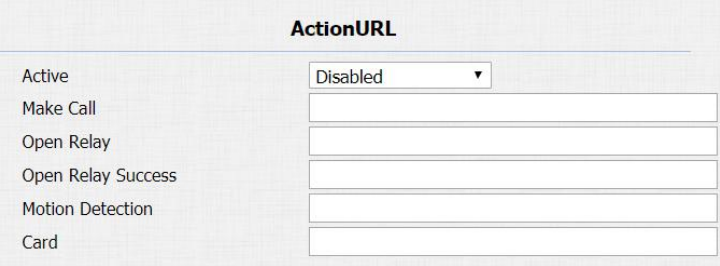
The screenshot shows a configuration form for the 'Motion Triggered Action'. It includes a section 'Action to execute' with four radio buttons: FTP, Email, Sip Call, and HTTP. The 'Email' radio button is selected. The 'Http URL' field is a text input box. The 'SDMC Upload' field is a dropdown menu with the value 'Disabled'.

Figure 4.4.3.5 Motion trigger action

4.4.3.6. Action URL

Action URL can be triggered by some predefined incidents.

Go to **Phone - Action URL**, pick **Active** to be “Enabled”, pick to demand triggered incident, each “HTTP” request to have to including the key and value, use “=” to separate, each value starting with “\$.” For example, “**Open Relay Success**” incident, input **http://server IP address/help.xml?mac=\$mac**, when the relay of R26/R23X is triggered successfully, the phone will send a HTTP packet to the server, through the HTTP package to know the MAC of the phone.



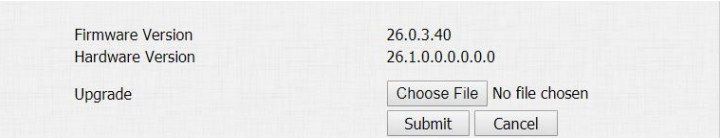
ActionURL	
Active	Disabled ▼
Make Call	
Open Relay	
Open Relay Success	
Motion Detection	
Card	

Figure 4.4.3.6 Action URL

4.5. Upgrade

4.5.1. Web Upgrade

Go to **Upgrade - Basic**, users can upgrade firmware. Reset to factory setting and reboot.



Firmware Version	26.0.3.40
Hardware Version	26.1.0.0.0.0.0.0
Upgrade	Choose File No file chosen Submit Cancel

Figure 4.5.1 Web update

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

4.5.2. Autop Upgrade

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

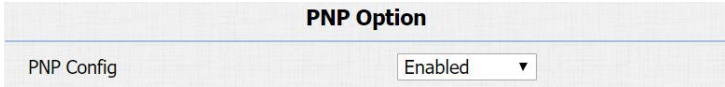
PNP Option

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).

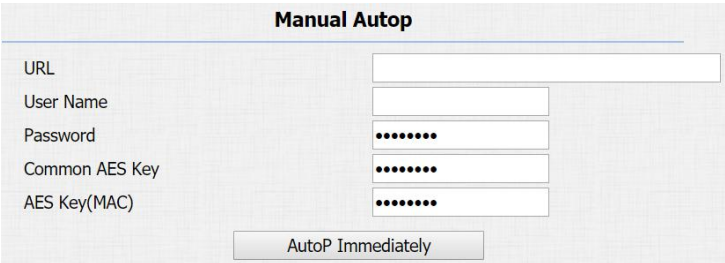
Manual Autop

Autop (Auto-Provisioning) is a centralized and unified upgrade of telephone. It is a simple and time-saving configuration for phone. It is mainly used by the device to download corresponding



PNP Option	
PNP Config	Enabled ▼

Figure 4.5.2-1 Autop update



Manual Autop	
URL	
User Name	
Password	
Common AES Key	
AES Key(MAC)	
AutoP Immediately	

Figure 4.5.2-2 Autop update

configuration document from the server using TFTP / FTP / HTTP / HTTPS network protocol. To achieve the purpose of updating the device configuration, making the users to change the phone configuration more easily. This is a typical C/S architecture upgrade mode, mainly 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 phone to decipher common auto provisioning configuration file.

AES Key (MAC): Used for 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.

This auto provisioning mode is actually self-explanatory.

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

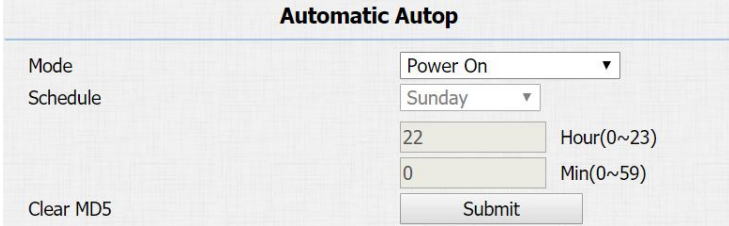
Note: Please refer to the related feature guide from Akuvox forum.

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.



Automatic Autop

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

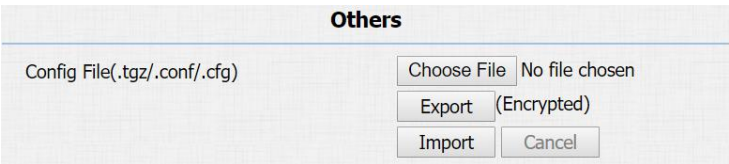
Figure 4.5.2-3 Autop update



Export Autop Template

Export

Figure 4.5.3-1 Backup config file



Others

Config File(.tgz/.conf/.cfg)	Choose File	No file chosen
	Export	(Encrypted)
	Import	Cancel

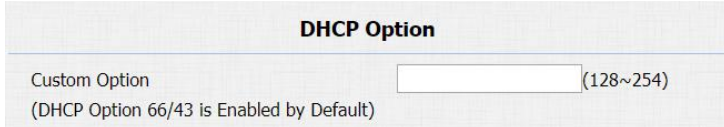
Figure 4.5.3-2 Backup config file

4.5.4. DHCP Option

To display and configure DHCP setting for AutoP. Option 66/43 is enable by default. It can support HTTPS, HTTP, FTP, TFTP server.

Customer Option: Enter the server URL. Click “Submit” to save.

Note: To make DHCP autop URL works, the PNP should be disable.

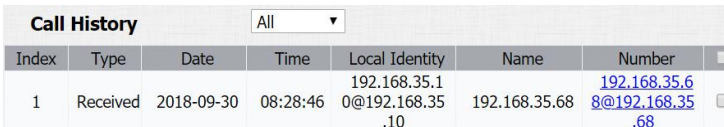


DHCP Option

Custom Option (128~254)

(DHCP Option 66/43 is Enabled by Default)

Figure 4.5.4 Backup confia file



Index	Type	Date	Time	Local Identity	Name	Number	
1	Received	2018-09-30	08:28:46	192.168.35.10@192.168.35.10	192.168.35.68	192.168.35.68@192.168.35.68	☐

Figure 4.6.1 Call log

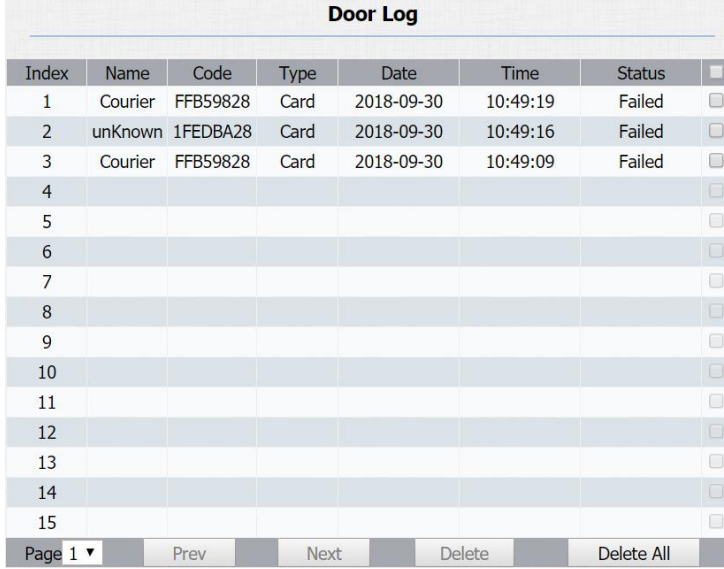
4.6. Log

4.6.1. Call log

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

4.6.2. Door Log

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



Index	Name	Code	Type	Date	Time	Status	
1	Courier	FFB59828	Card	2018-09-30	10:49:19	Failed	☐
2	unKnown	1FEDBA28	Card	2018-09-30	10:49:16	Failed	☐
3	Courier	FFB59828	Card	2018-09-30	10:49:09	Failed	☐
4							☐
5							☐
6							☐
7							☐
8							☐
9							☐
10							☐
11							☐
12							☐
13							☐
14							☐
15							☐

Page 1 ▾ Prev Next Delete Delete All

Figure 4.6.2 Door log

4.6.3. System Log

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

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

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

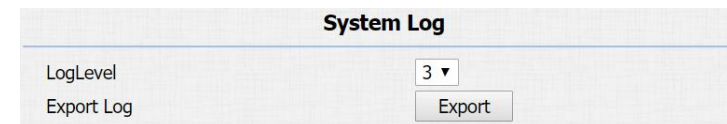


Figure 4.6.3 System log

4.6.4. PCAP

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

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

Stop: To stop capturing packets.

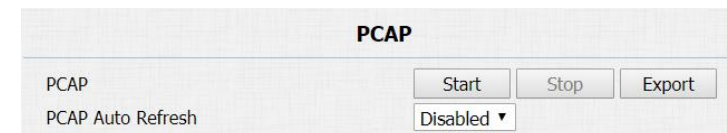


Figure 4.6.4 PCAP

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

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We highly appreciate your feedback about our products.



FCC Statement:

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.