



**R23C** 

R23P

# **R23X Door Phone Admin Guide**

# **About This Manual**

Thank you for choosing Akuvox's R23X door phone. This manual is intended for end users, who need to properly configure the door phone. It provides all functions and configuration of R23X, the information detailed in this user manual applicable to firmware version 26.0.2.57 rom or lower version.

- Please verify the packaging content and network status before setting.
- The old firmware may be a little different from 26.0.2.57 rom about some configuration. Please consult your administrator for more information.

# **Contact us**

For more information about the product, please visit us atwww.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.

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# **1. Product Overview**

## **1.1.** Instruction

Akuvox R23A is a SIP-compliant, hands-free one button video outdoor phone. It can be connected with your Akuvox IP Phone for remote unlock control and monitor. Users can operate the indoor phone to communicate with visitors via voice and video, and use RF card to unlock the door. It's applicable in villas, office and so on.



# 1.2. At a Glance

Features	
	Body material: all-aluminum
	Camera: 3 Mega pixels, automatic lighting, 120° wide angle
Physical & Power	Button: 1 call button
Physical & Power	12V DC connector&POE
	Water-proof & Dust-proof: IP65
	RF Card Reader:13.56MHz Supported (R23C only)
	SIP v1(RFC2543), SIP v2(RFC3261)
	Audio codecs: G.711a, G.711µ, G.722, G.729
Sip Endpoint	Video codecs: H.264
	Echo Cancellation
	Voice Activation Detection & Comfort Noise Generator
	Resolution: up to 720p
Video	Maximum image transfer rate: 720p - 30fps
	High intensity IR LEDs for picture lighting during dark hours with internal light sensor

	Compatible to 3rdPartyVideo components, e.g. NVRs
	Relays controlled individually by DTMF tones
	Camera permanently operational
	White balance: auto
Door Entry Features	Auto-night mode with LED illumination
	Office door phone with on-site or hosted IP-PBX
	Remote site entry over Internet
	Apartment/flat intercom with door access control

# 1.3. Daily Use

## 1.3.1. Making a Call

Press the call button to call out the predefined number or IP address and if LED turns green, it means the call has been answered.

#### 1.3.2. Receiving a Call

User can use IP phone or indoor monitor to call R23X and R23X will answer it automatically by default. If user disable auto answer, pressing button to answer incoming call.

#### 1.3.3. Unlock by RF Card (R23C Only)

Place the predefined RF card on the card sensor area. The door phone will announce 'the door is now opened' and open the door. 13.56MHz RF card is supported by R23C.

## **1.4. Connector Introduction**

Connector	
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 for automation system
	control(e.g. Elevator control).
D00R1/2	Trigger signal input terminal(e.g. Press indoor
	button to open relay).
RelayA/B	NO/NC Relay control terminal.

# 2. Basic Setting

# 2.1. Getting Started

#### 2.1.1.IP Announcement

While R23X starts up normally, hold the call button for several seconds after the Status LED turns blue, voice system 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 gained. Press Call Button again to quilt the announcement mode.

#### 2.1.2. Access the device website

Open a web browser, access the corresponding IP address. Then, enter the default user name and password to login.

The default administrator User Name and Password are shown below:

User name: admin

Password: admin

## 2.2. Network Setting

Go to Network->Basic, dynamically or statically to obtain address.

Login	
User Name	admin
Password	•••••
	Remember Username/Password
	Login

#### 2.2.1.DHCP

R23X uses DHCP by default, it will get IP address, Subnet Mask, Default Gateway and DNS server address from DHCP server automatically.

#### 2.2.2. Static IP

If selected, you 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	192.168.1.118
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
LAN DNS1	192.168.1.1
LAN DNS2	

## 2.3. Account

Go to Account->Basic to configure sip account and sip server.

#### 2.3.1.SIP Account

Status: To display register result.

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

**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.

#### 2.3.2.SIP Sever 1

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

## 2.4. Call Setting

Go to Intercom->Basic, to configure basic call setting.

	SIP Account	
Status	Registered	
Account	Account 1	•
Account Active	Enabled	•
Display Label	172	
Display Name	R23	
Register Name	172	
Jser Name	172	
Password	•••••	
	SIP Server 1	
Server IP	192.168.10.27	Port 5060
Pagistration Pariod	1800	(20.,65525c)

#### 2.4.1.No Answer Call

Enable it, if there is no answer from push button number over 60s (default value), R23X will call predefined 'No Answer Call' number.

#### 2.4.2. Push Button

**Push Button:** To configure the destination number or IP you want to contact with. If you would like to call multiple numbers at same time, divide them by semicolon.

No Answer Call 1&2: To setup one or two no answer call number.

	Basic	
Select Account	Auto 🗸	
No Answer Call	Disabled $\checkmark$	
	Push Butt	on
Кеу	Push Butt	on
Key Push Button	Push Butt Number 192.168.35.57	on
Key Push Button No Answer Call1	Push Butt Number 192.168.35.57	on

#### 2.4.3. Push Button Action

Action To Execute: To choose suitable way to receive message or snapshot when pushing button.

**HTTP URL:** If you tick HTTP URL, enter corresponding HTTP server IP address in the HTTP URL area.

#### 2.4.4.Web Call

To dial out or answer incoming call from website.

#### 2.4.5.Call&Dial Time

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.

Action to execute	FIP Emai	II 📋 Http URL 📋	
Http URL:			
		Web Call	
Web Call(Ready)		Auto 🗸	Dial Out Hang Up
		Max Call Time	
Max Call Time	5	(2~120Minutes)	
		Max Dial Time	
Dial In Time	60	(30~120Sec)	
Dial Out Time	60	(30~120Sec)	
	Di	ush To Hang Un	

#### 2.4.6. Push to Hang up

To enable or disable pushing button to hang up.

### 2.5. Action

Go to Intercom->Action to set action receiver.

#### **2.5.1. 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 namer of SMTP service(usually it is same with sender's email address).

E	mail Notification	
Sender's email address	wanzheyu@gmail.com	
Receiver's email address	william.wan@gmail.com	
SMTP server address	smtp.gmail.com	
SMTP user name	wanzheyu@gmail.com	
SMTP password	•••••	
Email subject	test	
Email content	test	
Email Test	Test Email	

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Push To Hang Up En	abled 🗸		

**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.

#### 2.5.2. 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.

#### 2.5.3.SIP Notification

SIP Call Number: To configure sip call number.

FTP Server	ftp://192.168.35.118
FTP User Name	admin
FTP Password	•••••
FTP Test	Test FTP
	SIP Call Notification
SIP Call Number	1101
CID Callor Namo	william

SIP Call Name: To configure display name of R23X.

## 2.6. Card Setting(R23C Only)

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

#### 2.6.1.Import/Export Card Data

R23X supports import or Export the card data file, which is convenient for administrator to deal with a large number of cards.

#### 2.6.2. Obtain and Add Card

①Switch card status to 'Card Issuing' and click 'Apply';

2)Place card on the card reader area and click 'Obtain';

③Name card and choose which door you want to open ;

Card	Setting	
		Import/Export Card Data(.xml)
		浏览 Import Export
		Card Status
	Card Status	Card Issuing V Apply
		Card Setting
	IC Key DoorNum	
	IC Key Name	
	IC Key Code	Obtain Add

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(4) Click 'Add' to add it into list.

 2.6.3.D.oor Card Management has been switched to 'Normal'.
 Valid card information will be shown in the list. Administrator could delete one card's access permission or empty all the list.

## 2.7. Relay Setting

Go to Intercom->Relay, to configure relay.

#### 2.7.1.Relay

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

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

Door Card Management								
Index	Name	Ca	ode	Door				
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
Page 1 >	Prev	Next	Delete	Delete A	1			

**Relay ID:** R23X supports two relays, user 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, R23X supports maximum 4 digits DTMF code.

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

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

Relay					
Relay ID	RelayA 🗸	RelayB 🗸			
Relay Type	Default state $\checkmark$	Default state $\lor$			
Relay Delay(sec)	3 ~	3 ~			
DTMF Option	1 Digit DTMF $\vee$				
DTMF	# ~	0 ~			
Multiple DTMF					
Relay Status	RelayA: Low	RelayB: Low			

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

#### 2.7.2. Web Relay

R23X supports extra web relay.

**Type:** To choose web relay type(only supports 2N web relay currently).

IP Address: To enter corresponding web relay IP address.

UserNmae: To enter correct UserName of web relay.

Password: To enter correct Password of web relay.

#### 2.7.3. Open Relay via HTTP

User can use a URL to remote unlock the door.

Switch: Enable this function. Disable by default.

	WebRelay	
Туре	Disabled V	
IP Address		
UserName		
Password	•••••	
	Open Relay via HTTP	
Switch		
Switch		
UserName		
Password	•••••	

**Username & password:** Users can setup the username and password for HTTP unlock.

#### URL format:

http://IP\_address/fcgi/do?action=OpenDoor&UserName=&Pa ssword=&DoorNum=1

## **2.8.** Input

R23X supports two input triggers Input A/B(DOOR A/B), and go to Intercom->Input to configure.

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 triggering.

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ut	
	Input A
Input Service	Disabled
Trigger Option	Low
Action to execute	FTP 🗆 Email 🔲 Sip Call 🔲 HTTP 🔲
Http URL:	
Open Relay	None
Door Status	DoorA: High
	Input B
InputB Service	Disabled
Trigger Option	Low
Action to execute	FTP 🗆 Email 🔲 Sip Call 🗌 HTTP 🗔
Http URL:	
Open Relay	None
Door Status	DoorB: High

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

**Open relay:** To configure relay to open

**Door status:** To show the status of input signal.

# **3. Advance Setting**

### 3.1. Intercom-Advanced

**Photoresistor:** The setting is for night vision, when the surrounding of R23X is very dark, infrared LED will turn on and R23X will turn to night mode. Photoresistor value relates to light intensity and larger value mean that light intensity is smaller. User can configure the upper and lower bound and when photoresistor value is larger than upper bound, IF LED

Intercom-Advanced	
	Photoresistor
Photoresistor Setting	30 - 37 (0~100)
	Tamper Alarm
Tamper Alarm	Disabled V
Gravity Sensor Threshold	32 (0~127)

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

**Tamper Alarm:** R23X integrates internal gravity sensor for the own security, and after enabling Tamper Alarm, if the gravity of R23X changes dramatically, the phone will alarm. Gravity Sensor Threshold stands for sensitivity of sensor.

# 3.2. LED Setting

There are five LED statuses for R23X: NORMAL, OFFLINE, CALLING, TALKING and RECEIVING.

Go to Intercom->Led setting, to configure corresponding LED response.

Setting							
			LED S	Status			
State		Colo	r Off	Color	On	Blink Mod	le
NORMAL	$\sim$	OFF	$\checkmark$	Blue	$\sim$	Always On	$\checkmark$
OFFLINE	$\sim$	OFF	$\sim$	Red	$\sim$	2500/2500	$\sim$
CALLING	$\sim$	OFF	$\checkmark$	Blue	$\sim$	2500/2500	$\checkmark$
TALKING	$\sim$	OFF	$\checkmark$	Green	$\sim$	Always On	$\sim$
RECEIVING	$\sim$	OFF	$\sim$	Green	$\sim$	2500/2500	$\checkmark$

### 3.3. Account-Advanced

Go to Account->Advanced to configure advanced settings for account.

#### 3.3.1. Audio Codec

Sip Account: To choose which account to configure.

**Audio Codec:** R23X support four audio codec: PCMA, PCMU, G729, G722. Different audio codec requires different bandwidth, user can enable/disable them according to different network environment.

Bandw	idth consu	nption and	d sample rates.	
PCMA:	64kbit/s	8kHz		
PCMU:	64kbit/s	8kHz		
€7200	\$khit∕e	Ջ⊮H <del>7</del>	l past consumption	

Acco	unt-Advanced	
		SIP Account
	Account	Account 1
		Codecs
	Disabled Codecs	Enabled Codecs PCMU PCMA G729 G722

#### 3.3.2.DTMF

To configure RTP audio video profile for DTMF and its

Payload type.

#### 3.3.3.Call

**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

Auto Answer: If enabled, incoming call will be answered automatically.

**Anonymous Call:** If enabled, R23X will lock its information when calling out.

	DTMF	
Туре	RFC2833	•
How To Notify DTMF	Disabled	
DTMF Payload	101	(96~12

	Call	
Max Local SIP Port	5062	(1024~65535)
Min Local SIP Port	5062	(1024~65535)
Caller ID Header	FROM	$\sim$
Auto Answer	Enabled	$\sim$
Anonymous Call	Disabled	$\sim$
Anonymous Call Rejection	Disabled	$\sim$
Missed Call Log	Enabled	$\sim$
Prevent SIP Hacking	Disabled	$\sim$

**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 message from hacking

#### 3.3.4. Session Timer

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

#### 3.3.5. Encryption

If enabled, voice will be encrypted.

Active	Disabled $\checkmark$	
Session Expire	1800 (	90~7200s)
Session Refresher	UAC 🗸	
	Encryption	

## 3.4. Time/Lang

Go to Phone->Time/Lang, to select local Time Zone for NTP server.

## 3.5. Call Feature

Go to Phone->Call Feature, to configure Phone-Call Feature.

Return Code When Refuse: To configure return sip status code.

**Auto Answer Delay:** To configure answer delay when receiving a call.

Auto Answer Mode: To choose Video or Audio mode for auto answer.

Multicast Codec: To configure video codec for multicast.

Direct IP: If disabled, incoming direct IP call will be blocked.

Time/Lang					
		NTP			
Time Zone		0 GMT		$\checkmark$	
Primary Serv	er	0.pool.ntp.org			
Secondary Se	erver	1.pool.ntp.org			
Update Inter	val	3600	(>= 3600s)		
System Time		10:54:38			

Pho	one-Call Feature		
		Others	
	Return Code When Refuse	486(Busy Here)	$\sim$
	Auto Answer Delay	0	(0~5s)
	Auto Answer Mode	Video 🗸	
	Multicast Codec	PCMU 🖂	
	Direct IP	Enabled $\checkmark$	

	Mic Volume	
Mic Volume	8	(1~15)
	Speaker Volume	
Speaker Volume	8	(1~15)

2

### **3.6. Voice**

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

**IP Announcement:**To setup the IP Announcement active time. Over the configured value, the phone will not announce its IP address, even you hold the button.

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

**Opendoor Tone Upload:**To upload the Opendoor tone by yourself.

# 3.7. Log

## 3.7.1.Call Log

Go to Phone->Call Log, user can see a list of call which have dialed, received or missed. And user can delete calls from list.

### 3.7.2. Door Log

Go to Phone->Call Log, user can see a list of door log which records card information and date.

Cal	l Log						
Ci	all Histo	ry	All	→ Hand Up			
Index	Туре	Date	Time	Local Identity	Name	Number	
1	Received	2017-12-22	06:35:09	192.168.35.3 5@192.168.35 .35	Unknown	<u>192.168.35.7</u> <u>8@192.168.35</u> <u>.78</u>	
2	Received	2017-12-21	10:39:07	192.168.35.3 5@192.168.35 .35	Unknown	<u>192.168.35.2</u> 2@192.168.35 .22	
3	Received	2017-12-21	10:38:50	192.168.35.3 5@192.168.35 .35	Unknown	<u>192.168.35.2</u> 2@192.168.35 .22	
4	Dialed	2017-12-21	09:57:26	11151@ <u>47.88.77.14</u>	Unknown	11100@47.88.77.14	
5	Dialed	2017-12-21	08:48:45	11151@ <u>47.88.77.14</u>	Unknown	<u>11100@47.88.77.14</u>	
6	Received	2017-12-21	01:59:01	11151@ <u>47.88.77.14</u>	Extension 11103	11103@47.88.77.14	
7	Dialed	2017-12-21	01:43:21	11151@ <u>47.88.77.14</u>	Unknown	<u>11100@47.88.77.14</u>	
8	Dialed	2017-12-20	09:25:45	11151@ <u>47.88.77.14</u>	Unknown	<u>11100@47.88.77.14</u>	
9							
10							
11							
12							
13							
14							
15							
Pag	$pe 1 \sim$	Prev		Next	Delete	Delete All	

oor Log					
		I	Door Log		
Index	Name	Code	Date	Time	
1	William	57EAC741	2017-12-22	10:30:34	
1	Windin	3/1AC/41	2017-12-22	10.50.54	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					E
12					E
13					
14					E
15					
Page 1	✓ Pr	ev Nex	t Delete	Delete All	1

## 3.8. Upgrade

#### 3.8.1.Upgrade-Basic

Go to Upgrade->Basic, user can upgrade firmware; Reset to factory setting and reboot.

#### 3.8.2. Upgrade-Advanced

**System log:** System log is used to debug, higher LogLevel means more specific system log will be recorded. When device failure occur, user can export System Log send to Akuvox techsupport and we would try our best to address the issue for you.

**PCAP:** To capture packet which is useful for us to address issue.

**Other:** To export and import config file.

Upgrade-Basic	
Firmware Version Hardware Version	26.0.2.57 23.0.0.0.0.0.0
Upgrade	浏览… Submit Cancel
Reset To Factory Setting	Submit
Reboot	Submit

System Log	
LogLevel 3 V	
Export Log Export	
Rean	
РСАР	
PCAP Start Stop Export	
PCAP Auto Refresh Disabled V	
Others	
Config File(.tgz/.conf/.cfg) 浏览…	
Export (Encrypted)	
Import Cancel	

# 3.9. Security-Basic

Go to Security->Basic, to modify password and session time.

### 3.9.1. Web Password Modify

To modify password of 'admin' or 'user' account.

#### 3.9.2. Session Time Out

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

	Web Password Modify			
User Name	admin 🗸			
Current Password				
New Password				
Confirm Password				
Sessio	n Time Out			