

About This Manual

Thank you for choosing the Akuvox IT88 series indoor monitor. This manual is intended for the administrators who need to properly configure the indoor monitor. This manual applies to the 88.30.110.302 version, and it provides all the configurations for the functions and features of the IT88 series door phone. Please visit the Akuvox forum or consult technical support for any new information or the latest firmware.

Related Documentation

You are advised to refer to the related documents for more technical information via the link below:

<https://knowledge.akuvox.com>



FCC Caution:

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.**

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .

This transmitter must not be co - located or operating in conjunction with any other antenna or transmitter.

This equipment should be installed and operated with minimum distance 20cm between the radiator&you body.

1. Product Overview

IT88 series is an Android SIP-based with a smooth touch-screen indoor monitor. It can be connected with the Akuvox door phone for audio/video communication, unlocking, and monitoring. Residents can communicate with visitors via audio/video call, and it supports unlocking the door remotely. It is more convenient and safer for residents to check the visitor's identity through its video preview function. IT88A series are often applied to scenarios such as villas, apartments, and buildings.

2. Change Log

The change log will be updated here along with the changes in the new software version

3. Introduction to Configuration Menu

Status: This section gives you basic information such as product information, Network Information, and account information, etc.

Account: This section concerns SIP account, SIP server, proxy server, transport protocol type, audio&video codec, DTMF, session timer, etc.

Network: This section mainly deals with DHCP&Static IP setting, RTP port setting, and device deployment, etc.

Phone: This section includes Time&language, call feature, dial management, data import&export, door log, web relay.

Contacts: This section allows the user to configure the local contact list store in the device.

Upgrade: This section covers Firmware upgrade, device reset&reboot, configuration file auto-provisioning, PCAP.

Security: This section is for Password modification, account status & session time out configuration, as well as service location switching.

Settings: This section is including the RTSPD & voice assistance set up.

Arming: This section covers the configuration including, arming zone setting, arming mode, disarm code, and alarm action.

- **Mode selection:**

Discovery mode: It is a plug and plays configuration mode. Akuvox devices will configure themselves automatically when users power on the devices and connect them to the network. It is super time-saving mode and it will greatly bring users convenience by reducing manual operations. This mode requires no prior configurations previously by the administrator.

Cloud mode: Akuvox SmartPlus is an all-in-one management system. Akuvox SmartPlus is the mobile service that allows audio, video, remote

access control between smartphones and Akuvox intercoms. All configurations in the device will be issued automatically from the cloud. If users decide to use Akuvox SmartPlus, please contact Akuvox technical support, and they will help you configure the related settings before using them.

SDMC mode: SDMC (**SIP Device Management Controller**) is a simple and comprehensive software for building management. It provides a topography for a community while offering you a graphical configuration interface for the door access, intercom, monitoring, alarm, etc. It is a convenient tool for property managers to manage, operate, and maintain the community.

- **Tool selection**

Akuvox has many configuration tools for you to set up devices more conveniently. Here we list some common tools, please contact your administrator to get the tool if you need them.

1. **SDMC:** SDMC is suitable for the management of Akuvox devices in large communities, including access control, resident information, remote device control, etc.
2. **Akuvox Upgrade tool:** upgrade Akuvox devices in batch on a LAN(**Local Area Network**)
3. **Akuvox PC Manager:** distribute all configuration items in batch on a LAN.
4. **IP scanner:** it is used to search Akuvox device IP addresses on a LAN.
5. **FacePro:** manage face data in batch for the door phone on a LAN.

4. Access the Device

Akuvox indoor monitor system settings can be either accessed on the device directly or on the device web interface.

4.1. Device Start-up Network Selection

Akuvox indoor monitor system settings can be either accessed on the device directly or on the device's web interface. After the device boots up initially, you are required to select the network connection for the device. You can either select ethernet or wireless network connection according to your need.



Note:

- Please refer to the chapter on **Network Setting&Other connection** for the configuration of the Ethernet and wireless network connection.

4.2. Accessing the Device Setting on the Device

4.2.1. Accessing Device Basic Setting.

You can access the device's basic setting and advance setting where you
AKUVOX SMART INTERCOM www.akuvox.com

can configure different types of functions as needed. To access the device basic setting by pressing **Setting** icon. To checking the basic information like MAC, firmware and ect.

4.2.2. Accessing Device Advanced Setting

To access the advanced setting, press **Setting** then press **Advanced Settings** icon. Press password 123456 to enter the advanced setting.

4.3. Access the Device Setting on the Web Interface

You can also enter the device IP address on the web browser in order to log in the device web interface by user name and password **admin/admin** where you can configure and adjust parameter etc.

For checking IP address you can search in device **Setting > System Info > Network** screen. Or searching by IP scanner tool which in the same LAN with the devices.

**Note:**

- You can also obtain the device IP address using the Akuvox IP scanner to log in the device web interface. Please refer to the URL below for the IP scanner application:

<https://knowledge.akuvox.com/docs/akuvox-ip-scanner>

**Note:**

- Google Chrome browser is strongly recommended.
- The Initial user name and password are "**admin**" and please be case-sensitive to the user names and passwords entered.

5. Language and Time Setting

5.1. Language Setting

When you first set up the device, you might need to set the language to your need or you can do it later if needed. Language setting can be configured on the device that allows you to select or change the language for screen display to your preference. To configure the language display on the device **Settings > Time&Language** screen.

5.2. Time Setting

Time setting can be set up on the device and on the device web interface in terms of time zone, date and time format etc.

5.2.1. Time Setting on the Device

To set up time setting on the device **Settings > Time&Language** screen.

Parameter Set-up:

- **Automatic Date:** automatic Date is switched on by default, which allows the date& time to be automatically set up and synchronized with the default time zone and the NTP server (Network Time Protocol). You can also set it up manually by checking off the square box and then enter the time and date you want and press the Save tab to save the setting.
- **Time Zone:** select the specific time zone depending on where the device is used. The default time zone is GMT+0.00.
- **Date Format:** select the date format as you like among the three format options. The three formal options are **Y-M-D**, **Y/M/D**, **D-M-Y**, **D/M/Y**, **M-D-Y**, **M/D/Y**.
- **Time Format:** select 12 hour or 24 hour time format as you like.
- **NTP Server:** enter the NTP server you obtained in the NTP server field.

 **Note:**

- When the **Automatic Date&Time** toggle switch is toggled off then parameters related to NTP server will become uneditable. And when the switch is toggled on, then time and date will be denied editing.

5.2.2. Time Setting on the Device Web Interface

Time setting on the web **Device >Time** interface also allows you to set up the NTP server address that you obtained to automatically synchronize your time and date. And when your time zone is selected, the device will automatically notify the NTP server of its time zone so that the NTP server can synchronize

the time zone setting in your device.

Parameter Set-up:

- **NTP Server:** enter the NTP server you obtained in the **NTP server** field.

6. Screen Display Configuration

IT88 series indoor monitor allow you to enjoy a variety of screen displays to enrich your visual and operational experience through the customized setting to your preference.

6.1. Screen Display setting on the Device

You can configure a variety of features of the screen display in terms of brightness, screen saver and font size, etc. To do this configuration on device **Setting > Display** screen.

Parameter set-up:

- **Brightness:** press on the brightness setting and move the yellow dots to adjust the screen brightness. The default brightness is "145".
- **Sleep Time:** set the timing for the device screen to be turned off. You can select the timing among eight options: **15 seconds, 30 seconds, 1 minute, 2 minutes, 5 minutes, 10 minutes, 30 minutes, 1 hour**. For example, if you set it as 1 minute then the screen will be turned off if there is no operation on the device for 1 minute. However, if you turn on the function, then the device screen will not be turned off until screen saver display reaches its configured time duration.
- **Screen Saver Lock Time:** set the time duration for the screen saver among 4 options: **30 minutes, 1 hour, 2 hours, Never**. for example , if select **Never** then the screen saver will stay permanently on.
- **Screen Saver:** tick the square box to enable the screen saver function.
- **Screen Saver Type:** select screen saver type among seven options: **SDMC Pictures, Local Pictures, SDMC+Local Pictures, SDMC Videos, Local Videos, SDMC+Local Videos, Clock**. Details for the screen saver types are shown below:

NO	Screen Saver Type	Type Description
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1	SDMC Pictures	Display pictures from SDMC as the screen saver.
2	Local Pictures	Display picture uploaded to the indoor monitor as the screen saver.
3	SDMC+Local Pictures	Display pictures from SDMC and the indoor monitor in rotation as the screen saver.
4	SDMC Videos	Display videos from SDMC as the screen saver.
5	Local Videos	Display videos from the indoor monitor as the screen saver
6	SDMC+Local Videos	Display videos from SDMC and the door phone in rotation as the screen saver.
7	Clock	Display the clock as the screen saver.

- **Screen Lock:** tick the screen lock if you want to lock the screen after the screen is turned off (turn dark). You are required to enter the system code to unlock the screen or you can unlock the screen by facial recognition.
- **Screen Clean:** press on Screen clean feature first before you start wiping the screen clean. And this helps you avoid unwanted changes in the settings incurred while you are wiping the screen.
- **Font Size:** select the font size among four options "Small", "Normal", "Large", "Huge" according to your need.
- **Breathing Light:** move the toggle switch to enable the breathing light.
- **Wallpaper:** click to select the local wallpaper.

6.2. Screen Display Setting on the Web Interface

IT88 series indoor monitor allows you to enjoy a variety of screen displays to enrich your visual and operational experience through the customized setting to your preference.

6.2.1. Upload Screen Saver

You can upload screen saver pictures separately or in batch to the device and to the device web **Device > Display Setting > Screen Saver Setting** interface for a public purpose or for a greater visual experience.

 **Note:**

- The pictures uploaded should be in **JPG, JPEG, PNG format** with 2M maximum.

 **Note:**

- The previous pictures with a specific ID order will be overwritten when repetitive designation of pictures to the same ID order occurred.

6.2.2. Upload Wall Paper

You customize your screen background picture on device web **Device >**

Display Setting > Wall Paper interface in order to achieve the visual effect and experience you need for your personalized screen background display.

 **Note:**

- The pictures uploaded should be in **JPG, JPEG, PNG format** with 2M maximum.

6.2.3.Upload Device Booting Image

You can upload the booting image to be displayed during the device's booting process if needed on device web **Device > Display Setting> Boot Logo** interface.

 **Note:**

- The pictures uploaded should be in **.png or .zip format**.

6.3. Icon Screen Display Configuration

IT88 series indoor monitor allows you to customize icon display on the home screen and one more screen for the convenience of your operation on device web **Device > Display Setting > Home Page Display** interface. This article helps you to set up the icon display properly on the screens according to your preference.

Parameter Set-up:

- **Type:** click to select among sixteen icon options: "DND", "Message", "Contact", "Call", "Display", "System info", "Setting", "Sound", "Arming", "SOS", "Browser", "Motion Detection", "Custom APK", "Relays", "Unlock", "N/A" is selected, the icon display in the corresponding area will disappear.
- **Value:** select the value if you select the icon type "Custom APK" and "Browser". For example, when you select "Custom APK", choose **Home Center** in the corresponding **Value** field before the APK icon can be displayed on the home screen. If "Browser" is selected, you are required to enter the URL of the browser before the browser icon can be displayed. while you the value is not applicable to other icon types.
- **Label:** click to rename the icon if need, while DND icon cannot be renamed.
- **Icons:** click to select the picture to be uploaded as the icon to be displayed. The maximum icon size is 50*50. The picture format can be JPG, JPEG and PNG.

**Note:**

- You can configure 4 icons in area 1,2,3, and 4 on the home screen.

To configure the more icon display on **More Page Display** on the same interface.

7. Sound and Volume Configuration

Akuvox IT88 series indoor monitors provide you with various types of ringtone and volume configuration ranging from Mic volume, Ring volume, Talk volume, Tone volume and Media volume. You can configure them on the device directly or on the web interface.

7.1. Volume Configuration

7.1.1. Configure Volume on the Device

To set up the volumes on the device **Setting > Sound** screen.

Parameter Set-up:

- **Ring Volume:** adjust the incoming call ringtone volume.
- **Talk Volume:** adjust the speaker volume during the call.
- **Mic Volume:** adjust the volume of your voice to be heard.
- **Tone Volume:** adjust the dial tone volume.
- **Media Volume:** adjust the volume for the video screen saver.
- **Touch Sound:** enable or disable the touch sound.
- **Phone Ringtone:** select ringtone for incoming calls.
- **Notification Sound:** select ringtone for the incoming messages.

7.1.1.1. Configure Volume on the Web Interface

You can configure the volumes and tones and customize your doorbell sound and alarm ringtone to your preference on device web **Device > Audio** interface.

**Note:**

- Doorbell sound files and Alarm Ringtone files to be uploaded must be **.WAV** or **MP3** format. No limitation for the file size.

8. Phone Book Configuration

8.1. Phone Book Configuration on the Device

You can configure the contacts list in terms of adding and modifying contact groups or contacts on the device **Contacts > Local Contacts** directly.

8.1.1. Add contact

Parameter Set-up:

- **Account1**: select which account to use to dial out, Account 1 or Account 2.
- **New Contact Name**: enter the name to save.
- **Number**: enter the IP or SIP number to save.
- **CameraUrl**: enter the RTSP URL for video preview.



Note:

- Akuvox devices RTSP URL format is `rtsp://device IP/live/ch00_0`. if you use the third party device, please confirm the URL format with their company.

8.1.2. Edit Contact

You can check and edit the exited contacts in the phonebook list. Choose one and click **Edit** key to modify.

8.1.3. Block List setting on the device

Choose which contact on the contact list you want to be added to the blocklist.



Note:

- You can delete contacts regardless of whether it is on the **All Contacts** screen or the **Blocklist** screen.

8.2. Phone Book Configuration on the Web Interface

8.2.1. Contact Configuration

To conduct contact configuration on web **Contacts > Local Contacts > Local Contacts List** interface.

Parameter set-up:

- **Name:** enter the contact name to be saved.
- **Number:** enter the contact number (SIP or IP number) to be saved.
- **Group:** select Default or Blocklist group.
- **Dial Account:** select Account1 or Account2.

8.2.2. Contact Management

You can search, display, edit, and delete the contacts in your contacts list on web **Contacts > Local Contacts > Local Contacts List** interface.

You can dial out using the contact phone number on **Contacts > Local Contacts > Dial Number** interface.

8.2.3. Block List Setting on the Web Interface

You can set the blocklist directly in the contact list on the web **Contacts > Local Contacts > Contacts List Setting** interface or set it when editing a contact.

**Note:**

- If you want to remove the contact from the blocklist on the web interface, you can change the group to the "**Default**" when editing the contact.

8.2.4. Contacts Import and Export on the Web Interface

When the contact becomes so many that you can not afford to manage each contact one by one manually, you can import and export the contacts in batch on the device web **Contacts > Local Contacts > Local Contacts List** interface.

**Note:**

- The contact file can only be imported or exported in .xml or .csv format.

9. Network Setting & Other Connection

9.1. Device Network Configuration

You can check for the door phone's network connection info and configure the default DHCP mode (**Dynamic Host Configuration Protocol**) and static IP connection for the device either on the device or on the device web interface.

9.1.1. Configuring Device Network Connection on the Device

To check and configure the network connection on the device **Settings > Advance Settings > Network** screen.

Parameter Set-up:

- **DHCP:** select the **DHCP** mode by moving the toggle switch to the right. DHCP mode is the default network connection. If the DHCP mode is turned on, then the door phone will be assigned by the DHCP server with IP address, subnet mask, default gateway, and DNS server address automatically.

- **Static IP:** select the static IP mode by checking off the DHCP check box. When static IP mode is selected, then the IP address, subnet mask, default gateway, and DNS servers address have to be manually configured according to your actual network environment.
- **IP Address:** set up the IP Address if the static IP mode is selected.
- **Subnet Mask:** set up the subnet Mask according to your actual network environment.
- **Default Gateway:** set up the correct gateway default gateway according to the IP address of the default gateway.
- **Preferred&Alternate DNS Server:** set up preferred or alternate DNS Server (**Domain Name Server**) according to your actual network environment. Preferred DNS server is the primary DNS server address while the alternate DNS server is the secondary server address and the door phone will connects to the alternate server when the primary DNS server is unavailable.

**Note:**

- You can press **System Info** icon and then press **Network** tab on the **Settings** screen to check the device network status.
- The default system code is "123456".

9.1.2. Configuring Device Network Connection on the Web Interface

To check the network on the web **Status > Network information** interface.

To check and configure network connection on the device web **Network > Basic > LAN Port** interface.

Parameter Set-up:

- **DHCP:** select the **DHCP** mode by checking the DHCP box. DHCP mode is the default network connection. If the DHCP mode is selected, then the indoor monitor will be assigned by the DHCP server with IP address, subnet mask, default gateway, and DNS servers address automatically.
- **Static IP:** select the Static IP mode by checking off the DHCP square box. When static IP mode is selected, then the IP address, subnet mask, default gateway, and DNS servers address have to be manually configured according to your actual network environment.
- **IP Address:** set up the IP address if the static IP mode is selected.
- **Subnet Mask:** set up the subnet mask according to your actual network environment.
- **Default Gateway:** set up the correct gateway default gateway according to the IP address of the default gateway.
- **Preferred/Alternate DNS Server:** set up DNS (**Domain Name Server**) according to your actual network environment. **Preferred DNS Server** is the primary DNS server address while the **Alternate DNS Server** is the secondary server address and the door phone connects to the alternate DNS server when the preferred DNS server is unavailable.

9.2. Device Deployment in Network

Akuvox IT88 series indoor monitors should be deployed before they can be properly configured in the network environment in terms of their location, operation mode, address and extension numbers as opposed to other devices for device control and the convenience of the management. To deploy the device in the network on web **Network > Advanced > Connect Setting** interface.

Parameter Set-up:

- **Connect Mode:** It is automatically set up according to the actual device connection with a specific server in the network such as **SDMC** or **Cloud and None**. **None** is the default factory setting indicating the device is not in any server type, therefore you are allowed to choose Cloud, SDMC in discovery mode.
- **Discovery Mode:** check to turn on the discovery mode of the device so that it can be discovered by other devices in the network, and uncheck if you want to conceal the device so as not to be discovered by other devices.
- **Device Node:** specify the device address by entering device location info from the left to the right: **Community, Unit, Stair, Floor, Room** in sequence.
- **Device extension:** enter the device extension number for the device you installed.
- **Device Location:** enter the location in which the device is installed and used.

9.3. Device NAT Setting

NAT (**Network Address Translation**) allows hosts in an organization's private intranet to transparently connect to hosts in the public domain. There is no need for internal hosts to have registered Internet addresses. It is a way to translate the internal private network IP address into a legal network IP address technology. To set up NAT, you can do it on web **Account >**

Advanced > NAT interface.

Parameter Set-up:

- **RPort**: check the RPort when the SIP server is in WAN (**Wide Area Network**).

9.4. Device Bluetooth Setting

9.4.1. Device Bluetooth Pairing

After IT88 series indoor monitors turn on the Bluetooth on the device **Settings > Bluetooth** screen, it can be paired with other device via Bluetooth.

9.4.2. Device Bluetooth Data Transmission

To transfer data via Bluetooth by pressing **Pair new device**.

 **Note:**

- After successful Bluetooth pairing, data transmission can be carried out.

9.5. Device Wi-Fi Setting

In addition to wired connection, the device also supports Wi-Fi connection. To set the Wi-Fi on device **Settings > Advance Settings > WIFI** screen.

10. Intercom Call Configuration

10.1. IP call & IP Call Configuration

IP calls and SIP calls can be made directly on the intercom device by entering the IP number on the device. And you can also disable the direct IP call if you allow no IP call to be made on the device.

10.1.1. Make IP Calls

To make a directly IP call on the device **Call** screen. Enter the IP address you which to call on the soft keyboard, press **Audio** or **Video** tab to call out.

In addition, you can also make IP calls on the **Local Contacts** on your device.

10.1.2. IP Call Configuration

To configure the IP call feature and port on the device web **Device > Call Feature > Others** interface.

Parameter Set-up:

- **Direct IP Call:** tick the check box to enable the direct IP call. For example, if you do not allow direct IP call to be made on the device, you can untick

the check box to terminate the function.

- **Direct IP Call Port:** the direct IP Call Port is "5060" by default with the port range from 1-65535. And you enter any values within the range other than the 5060, you are required to check if the value entered is consistent with the corresponding value on the device you wish to establish a data transmission with.

10.2. SIP Call & SIP Call Configuration

You can make SIP call (**Session Initiation Protocol**) in the same way as you do for making the IP calls on the device. However, SIP call parameters related to its account, server, and transport type need to be configured first before you can make calls on the device.

10.3. SIP Account Registration

Akuvox IT88 series indoor monitors support two SIP accounts that can all be registered according to your applications. For example, you can switch between the two SIP accounts. The SIP account can be configured on the device and on the device interface. To configure the SIP account on the device **Settings > Advance Settings > Account** screen.

Parameter Set-up:

- **Account1/Account2:** select Account1 or Account2. Account1 is the default SIP account.
- **SIP Port:** enter the SIP server port for communication. The SIP port is

"5060" by default.

The parameter settings for SIP account registration can be configured on the Account setting screen and they can also be configured on the device web **Account > Basic > SIP Account** interface.

Parameter setup:

- **Status:** check to see if the SIP account is registered or not.
- **Account:** select Account1 or Account2.
- **Account Enabled:** check to active the registered SIP account.
- **Display Label:** configure the device label to be shown on the device screen.
- **Display Name:** configure the name, for example, the device's name to be shown on the device being called to.
- **Register Name:** enter the SIP account register Name obtained from the SIP account administrator.
- **Username:** enter the user name obtained from SIP account administrator.
- **Password:** enter the password obtained from the SIP server.

10.4.SIP Server Configuration

SIP server can be set up for device in order to achieve call session through

SIP server between intercom devices. To perform the SIP account setting on the Web **Account > Basic > SIP Server** interface.

Parameter Set-up:

- **Server Address:** enter the Server's IP address number or its URL.
- **Sip Server Port:** set up SIP server port for data transmission.
- **Registration Period:** set up SIP account registration time pan. SIP re-registration will start automatically if the account registration fails during the registration time span. The default registration period is "1800", ranging from **30-65535s**.

10.5.Outbound Proxy Server configuration

An outbound proxy server is used to receive all initiating request messages and route them to the designated SIP server in order to establish call session via port-based data transmission. To configure outbound Proxy server on **Account > Basic > Outbound Proxy Server** interface.

Parameter Set-up:

- **Outbound Enable:** check or uncheck to turn on or turn off the outbound proxy server.

- **Preferred Outbound Proxy Server:** enter the SIP address of the outbound proxy server.
- **Preferred Outbound Proxy Port:** enter the Port number for establish call session via the outbound proxy server.
- **Alternate Outbound Proxy Server:** set up Backup Server IP for the backup outbound proxy server.
- **Alternate Outbound Proxy Port:** enter the Port number for establish call session via the backup outbound proxy server.

10.6.SIP Call DND & Return Code Configuration

DND (**Do not disturb**) setting allows you not to be disturbed by any unwanted incoming SIP calls. You can set up DND related parameters properly on the device web **Device > Call Feature > DND** interface to block SIP calls you do not intend to answer. In the meantime, you can also define the code to be sent to the SIP server when you want to reject the call.

Parameter Set-up:

- **DND:** check **Whole Day** or **Schedule** to enable the DND function. DND function is disabled by default.
- **Return Code When DND:** select what code should be sent to the calling device via SIP server. **404** for "Not Found"; **480** for "Temporary Unavailable"; **486** for "Busy Here".

10.7.Device Local RTP configuration

For the device network data transmission purpose, device needs to be set up with a range of RTP port (**Real-time Transport Protocol**) for establishing an exclusive range of data transmission in the network. To set up device local RTP on web **Network > Advanced > Local RTP** interface.

Parameter set-up:

- **Starting RTP Port:** enter the Port value in order to establish the start point for the exclusive data transmission range.
- **Max RTP port:** enter the Port value in order to establish the end point for the exclusive data transmission range.

10.8.Data Transmission Type Configuration

SIP message can be transmitted in three data transmission protocols: **UDP (User Datagram Protocol)**, **TCP (Transmission Control Protocol)**, **TLS (Transport Layer Security)** and **DNS-SRV**. In the meantime, you can also identify the server from which the data come from. To do this configuration on web **Account > Basic > Transport Type** interface.

Parameter Set-up:

- **UDP:** select “**UDP**” for unreliable but very efficient transport layer protocol. UDP is the default transport protocol.
- **TCP:** select “**TCP**” for Reliable but less-efficient transport layer protocol.

- **TLS:** select "TLS" for Secured and Reliable transport layer protocol.
- **DNS-SRV:** select "DNS-SRV" to obtain DNS record for specifying the location of services. And **SRV** not only records the server address but also the server port. Moreover, SRV can also be used to configure the priority and the weight of the server address.

10.9. Call Setting

IT88 will auto answer all incoming calls if call auto-answer is enabled and receive live stream if live stream is enabled.

10.9.1. Call Auto-answer Configuration

IT88 will auto answer all incoming calls if call auto-answer is enabled and receive live stream if live stream is enabled. To do the configuration on web **Account > Advanced > Call > Auto Answer** and **Device > Call Feature > Others** interface.

Parameter Set-up:

- **Auto Answer:** turn on the the Auto Answer function by ticking the square box .
- **Auto Answer Delay:** set up the delay time (from 0-30 sec.) before the call can be answered automatically. For example, if you set the delay time as 1 second, then the call will be answered in 1 second

automatically.

- **Answer Mode:** set up the video or audio mode you preferred for answering the call automatically.
- **Indoor Auto Answer:** turn on the Auto Answer function for call from other indoor monitors by ticking the check box .

10.9.2. Auto-answer Allow List setting

Auto answered can only be applicable to the SIP or IP numbers that are already added in the auto-answer white-list of your indoor monitor. Therefore, you are required to configure or edit the numbers in the white-list on web **Device > Call Feature > Auto Answer AllowList** interface.

SIP/IP numbers can be imported to or exported out of the indoor monitor in batch on web **Device > Call Feature > Auto Answer AllowList > Import/Export** interface.

 **Note:**

- SIP/IP number files to be imported or exported must be in either .xml or .csv format.
- SIP/IP number must be set up in the phone book of the indoor monitor before they can be valid for the auto-answer function

10.9.3. Live Stream Setting

Receive Live Stream on the indoor monitor allows you to see the video image (one way video stream) from the calling device such as a door phone whether or not you answered the call in audio or video mode, while the video image from your indoor monitor will not be sent to the calling devices in order to protect your privacy. To do the configuration on web **Device > Call Feature > Audio Call Settings** interface.

After the feature is enabled, once a caller require a video call:

- If we received the coming call as Video call at IT88 side, will build two-way video conversation, be able to see each other.
- If we received the coming call as Audio call at IT88 side, will build one-way video conversation, only be able to see the live streaming from caller.

 **Note:**

- Only device with camera module will have this feature.

10.10. Intercom Call Configuration (intercom preview, mute)

If you want to see the image at the door station before answering the incoming call, you can enable the intercom preview function on web **Device > Intercom > Intercom** interface.

Parameter Set-up:

- **Intercom Active:** tick the check box to enabled or disabled intercom function.
- **Intercom Mute:** tick the check box to enable mute the voice from the callee side and vice versa.
- **Intercom Preview:** tick the check box to enable the incoming call preview function. If enable intercom preview, the group call is not available.

10.11. Emergency Call Setting

Emergency call is used to call out three emergency contacts when you are in urgent status. Especially for the elders and children. To display Emergency call softkey on web **Device > Display Setting > Home Page Display/More Page Display** interface.

After setup on web, you also need to do the configuration on device **Settings > Advance Settings > SOS** screen.

Parameter Set-up:

- **Call Number:** to setup 3 SOS numbers. Once users press SOS key on the home page (SOS display key shall be set on the web manually), indoor monitors will call out the number in order.
- **Call Timeout:** setup the timeout for each number. Once users call out, if the other side will not answer within the timeout, indoor monitors will continue to call the next number.
- **Loop Times:** to setup the call loop times.

10.12. Multicast Configuration

IT88 allows you to conduct one-to-many broadcasting via multicast function on web **Device > Multicast > Multicast List** interface.

10.13. Call Forwarding Setting

Call Forward is a feature used to redirect an incoming call to the specific third party. Users can redirect the incoming call based on different scenarios. Typically, call forward has three modes: **Always Forward/ No Answer Forward /Busy Forward**.

10.13.1. Call Forwarding Configuration on the Device

To do the configuration on the device **Settings > Call Feature** interface.

Parameter Set-up:

- **Account:** to choose which account shall implement call forwarding feature.
- **Always Forward:** to enable always forwarding function; all incoming calls will be automatically forward to a specific number.
- **Busy Forward:** to enable busy forwarding function; incoming calls will be forwarded to a specific number if phone is busy.
- **No Answer Forward:** to enable no answer forwarding function; incoming calls will be forwarded to a specific number if phone is not picked within no answer ring time.
- **Target Number:** to enter the specific forward number if IT88 enables always forward / busy forward / no answer forward.

10.13.2. Call Forwarding Configuration on the Web

Interface

To set up forward function on web **Device > Call Feature > Call Forward** interface.

Parameter Set-up:

- **Always Transfer:** to enable always forwarding function; all incoming calls will be automatically forward to a specific number.

- **Busy Transfer:** to enable busy forwarding function; incoming calls will be forwarded to a specific number if phone is busy.
- **No Answer Transfer:** to enable no answer forwarding function; incoming calls will be forwarded to a specific number if phone is not picked within no answer ring time.
- **Designated Call Forward Number:** to enter the specific forwarding number if IT88 enables always forwarding / call forwarding busy / no answer forwarding.
- **No Answer Call Transfer Duration (Sec) :** to set the no answer time interval from 0-120 seconds before the call is transferred to a designated number.

11. Intercom Message Setting

You can read, create, and delete messages on the **Message** screen.

11.1. Manage Messages

You can check, create and clear messages as needed on the IT88 indoor monitor **Message** screen. Click **Add** to create a new text message and **Clean** icon to delete the existed messages.

Parameter Set-up:

- **Notification:** the message from property manager, this feature is only available when using SDMC or Akuvox SmartPlus.
- **Text MSG:** to send or receive or manage the text message here.
- **Owner MSG:** if you enable this feature, and no body answer the incoming call within the pre-configure ring time ,the visitor will hear the owner audio message.
- **Visitor MSG:** if you enable visitor message feature, and no body answer the incoming call within the pre-configure ring time , it will save the visitor record.
- **Family MSG:** you can record the audio messages for your family members.

11.2. Configure Voice Message (MWI)

MWI (Message Waiting Indicator) is a notification that notifies you when you have a new voice mail message. To do the configuration on web **Account > Advanced > Subscribe** interface.

Parameter Set-up:

- **MWI Subscribe:** tick the check box to enable MWI function.
- **Voice Mail Number:** enter the voice mail number for accessing your voice mail messages.
- **MWI Subscribe Period:** set up interval between the MWI Subscribe messages.

12. Audio & Video Codec Configuration for SIP Calls

12.1. Audio Codec Configuration

Akuvox indoor monitor supports seven types of Codec (iLBC_13_3, iLBC_15_2, L16, PCMU, PCMA, G729, G722 for encoding and decoding the audio data during the call session. Each type of codec varies in terms of sound quality. You can select the specific codec with different bandwidth and sample rate flexibly according to the actual network environment. To do the configuration on web **Account > Advanced > SIP Account** interface.

Please refer to the bandwidth consumption and sample rate for the four codec types below:

Codec Type	Bandwidth Consumption	Sample Rate
PCMA	64 kbit/s	8kHz
PCMU	64 kbit/s	8kHz
G729	8 kbit/s	8kHz
G722	64 kbit/s	16kHz
iLBC_13_3	8,16 kbit/s	13.3kHz
iLBC_15_2	8,16 kbit/s	15.2kHz
L16	128 kbit/s	variable

12.2.Video Codec Configuration

IT88 series supports VP8, H263, H264, H265 codec that provides a better video quality at a much lower bit rate with different video quality and payload. To do the configuration on web **Account > Advanced > Video Codecs** interface. Choose a available video codecs and setup the codecs parameters.

Parameter Set-up:

- **Name:** Check to select the H264 video codec format for the door phone video stream. H264 is the video codec by default.
- **Resolution:** select the code resolution for the video quality among four

options: "QCIF", "CIF", "VGA", "4CIF" and "720P" according to your actual network environment. The default code resolution is 4CIF.

- **Bitrate:** select the video stream bit rate (Ranging from 320-2048). The greater the bitrate, the data transmitted in every second is greater in amount therefore the video will be clearer. While the default code bitrate is 2048.
- **Payload:** select the payload type (ranging from 90-118) to configure audio/video configuration file. The default payload is 104.

13. Security

13.1. Monitor and Image

13.1.1. Monitor Setting

You can configure the monitor setting on the web **Device > Monitor** interface. Enter IP/SIP number of door phone in Device number and fill in device name. Then set up the RTSP address. The RTSP format of the Akuvox door phone is rtsp://deviceIP/live/ch00_0. Enable or disable display in the call. If enabled, when there is an incoming call from the monitor, the video will be displayed.

13.1.2. Video Image Capturing

To capture video image by pressing **Monitor > Capture** on device screen.

13.2. Alarm and Arming Configuration

Alarm feature is used to connect some alarm detection devices to protect your home safe. Akuvox indoor monitors support 8 alarm connectors which means you can connect 8 different alarm sensors in different rooms of your house. For example, connecting a smoker sensor in your kitchen to detect if the gas leak, the indoor monitor will ring up and send the alarm message to the target, like community property.

13.2.1. Configure Alarm and Arming on the Device

To configure the arming and disarm code on device **Arming > Arming/Disarm Code** screen. Change the current password and save it.

To check the zone status on **Arming > Zone Status** screen.

13.2.2. Configure Alarm and Arming on the Web Interface

To set up a location-based alarm sensor on the device web **Arming > Zone Setting > Zone Setting** interface.

Parameter Set-up:

- **Location:** set up the location according to where the alarm sensor is installed. You can select among ten location types: "**Bedroom**", "**Gate**", "**Door**", "**Guest room**", "**Hall**", "**Window**", "**Balcony**", "**Kitchen**", "**Study**" and "**Bathroom**".
- **Zone Type:** set up the alarm sensor types. You can select among five sensor types: "**Infrared**", "**Drmagnet**", "**Smoke**", "**Gas**", "**Urgency**".
- **Trigger Mode:** set sensor trigger mode between "**NC**" and "**NO**" according to your need.
- **Status:** set the alarm sensor status among three options: "Enable", "Disable", "24H". Select "Enable" if you want to enable to the alarm, however, you are required to set the alarm again after an alarm is disarmed. Select "Disable" if you want to disable the alarm, and select "24H" if you want alarm sensor to stay enabled for 24 hours without needing to set up the alarm manually again after the alarm is disarmed.

13.2.3. Configure Location-based Alarm

Configure the alarm sensor in the same way you do on the web interface.

Parameters set up:

- **Location:** to select which location the detection device is in, including Bedroom, Guest room, Hall, Window, Balcony, Kitchen, Study and Bathroom.

- **Zone type:** to select which type of detection device is, including Infrared, Drmagnet, Smoke, Gas, and Urgency.
- **Defence delay:** it means when users change the arming mode from other modes, there will be 90 seconds delay time to get activated.
- **Alarm delay:** it means when the sensor triggered, there will be 90 seconds delay time to announce the notification.
- **Status:** to enable or disable Arming mode on the corresponding Zone.

13.2.4. Configure Alarm Text

After the alarm sensor is set up, you are allowed to customize your alarm text shown on the screen when an alarm is triggered on web **Arming> Zone Setting > Zone Setting** interface. Enter the alarm text for the alarm at each location according to your need.

13.2.5. Configure Arming mode

To switch arming mode, disarm the alarm on **Arming** screen by pressing their respective icons. Press **Disarm** icon if you want to clear the Arming Mode.

13.2.6. Configure Alarm Ringtone

You can upload customized alarm ringtone by choosing the local audio file on web **Phone-Audio-Alarm Ringtone Upload** interface.

**Note:**

- The file format of customized ringtone should be .wav.

13.2.7. Alarm Action Configuration

The triggering of the alarm sensor can be accompanied by the the actions you configured in forms of HTTP command, SIP Message, Call, Local Relay for different security purposes.

13.2.7.1. Select Alarm Action Types

To select and set up actions on web **Arming > Alarm Action** interface.

Parameter Set-up:

- **HTTP Command:** enable HTTP command if you want the action to be implemented on a designated third party device
- **SIP Message:** enable SIP message if you want the SIP message to be sent to a designated SIP account as an action. This feature should be

enabled by using Autop.

- **Call:** enable Call if you want you a call to go to a designated SIP or IP number.

13.2.7.2. Configure Alarm Action via HTTP Command

To set up the HTTP Command action, you can click “**Enable**”in the **Send HTTP** field to enable the actions for the alarm sensor installed in different locations. Then enter the HTTP command provided by the manufacturer of the device on which the action is to be carried.

13.2.7.3. Configure Alarm Action via SIP Message

To set up the SIP message action receiver on the same web interface. Enter the SIP account to which you want to send the configured SIP message as an action when the alarm is triggered.

13.2.7.4. Configure Alarm Action via SIP Call

To set up the call action, you can enter the SIP or IP number of the device to be called as an action, then enable **Alarm Siren** for arming zone as needed.

13.2.8. Check Alarm Log

To check alarm log on device **Settings > Arming Log** screen.

13.3. Screen Unlock Setting

You can enable screenlock function directly on the device **Settings > Display Setting** screen. The device screen will be locked over the sleep time. You are required to wake up the device through the face recognition (Face ID) or password.

13.3.1. Screen Unlock by PIN code

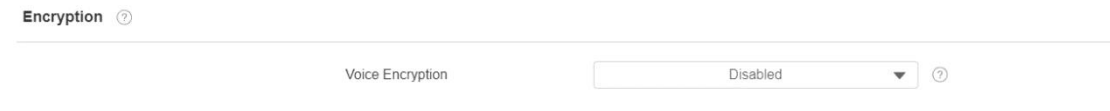
You can unlock IT88 device screen by entering the pre-configured PIN code when the screen is locked.

 **Note:**

- Default unlock PIN is 123456.

13.4. Voice Encryption

The encryption function provides you with greater security for the intercom call. And, IT88 series support three modes of voice encryption: SRTP(compulsory), SRTP(Optional), ZRTP(Optional) on web **Account > Advanced > Encryption** interface.



Parameter Set-up:

- **Voice Encryption:** select encryption mode from four options. If you select to Disable it, the call will not be encrypted. **SRTP(Compulsory)**, all audio signals (technically speaking it is RTP streams) will be encrypted to improve security. SRTP(Optional), encrypts voice from the called party, if the called party also enables SRTP, the voice signals will also be encrypted. **ZRTP(Optional)** is the protocol that the two parties use to negotiate the SRTP session key.

13.5.Remote Control

Remote control function supports configuring a specific server to send HTTP commands or request to the indoor monitor to do some specific action on web **Device > Relay > Remote Control** interface.

14. Door Access Control Configuration

14.1. Relay Switch Setting

14.1.1. Local Relay Setting

Local relays in IT88 indoor monitor can be used to trigger relay for the door access and trigger Chime bell as needed in different scenarios. You can do this configuration on web **Phone > Relay > Relay Setting > Local Relay** interface.

Parameter Set-up:

- **Relay Delay:** set the relay delay time after the relay is triggered.
- **Relay Type:** set relay action type. There are two types of relay, chime bell and open door. **Chime Bell**, when there is a call, the chime bell will ring. **Open door**, when press the unlock icon, the local relay will be opened.

- **Remote Control:** enable it to trigger local relay by DTMF and vice versa.
- **DTMF:** set the DTMF to trigger the local relay when you enable Remote control.

14.1.2. Remote Relay Switch Setting

You can use the unlock tab during the call to open the door on web **Phone > Relay > Relay Setting > Remote Relay** interface. You are required to set up the same DTMF code in the door phone and indoor monitor.

Parameter Set-up:

- **DTMF Code:** To set DTMF code for the remote relay, which is “#” by default.

14.2. Web Relay Setting

In addition to the relay that is connected to IT88, you can also control the door access using the network-based web relay. To do this configuration on web **Device > Relay > Web Relay** interface.

Parameter Set-up:

- **IP address:** enter the web relay IP address.
- **User Name:** enter the User name provided by the web relay manufacturer.
- **Password:** enter the password provided by the web relay manufacturer. The password is authenticated via HTTP and you can define the passwords using "http get" in Action.
- **Web Relay Action:** enter the specific web relay action command provided by the web manufacturer for different actions by the web relay.
- **IP/SIP:** Enter the relay extension information, which can be a IP address or SIP account of an intercom device such as an indoor monitor, so that the specific action command will be sent when unlock is performed on the intercom device, while this setting is optional. And please refer to the example below:
<http://admin:admin@192.168.1.2/state.xml?relayState=2>.

14.3. Door Unlock Configuration

14.3.1. Door Unlock by DTMF Code

DTMF codes can be configured on the web **Account > Advanced > DTMF** interface where you can set up identical DTMF code on the corresponding intercom devices, which allows residents to enter the DTMF code on the soft keypad or press DTMF code attached unlock tab on the screen to unlock the door for visitors etc., during a call.

Parameter Set-up:

- **Type:** select DTMF type among four options: "**Inband**", "**RFC2833**", "**Info+Inband**" and "**Info+RFC2833**" according to your need.
- **How to Notify DTMF:** select among four options: "**Disable**" "**DTMF**" "**DTMF-Relay**" "**Telephone-Event**" according to your need.
- **DTMF Payload:** select the payload 96-127 for data transmission identification.

**Note:**

- Please refer to the chapter **Relay Switch Setting** for the specific DTMF code setting. Intercom devices involved must be consistent in the DTMF type, otherwise DTMF code cannot be applied.

14.3.2. Door Unlock via HTTP Command

You can unlock the door remotely without approaching the device physically for the door access by typing the created the HTTP command (URL) on the web browser to trigger the relay when you are not available by the door for the door access. To do this configuration on web **Device > Relay > Open Relay via HTTP** interface.

Parameter Set-up:

- **Switch:** Enable it to allow the relay to be triggered remotely using HTTP command.
- **Username:** Enter the device username to be used as a part of HTTP command to trigger the local relay.

- **Password:** Enter the device password to be used as part of HTTP command to trigger the local relay.
- Please refer to the following example:
<http://192.168.35.127/fcgi/do?action=OpenDoor&UserName=admin&Password=12345&DoorNum=1>

 **Note:**

- DoorNum in the HTTP command above refers to the relay number #1 to be triggered.

15. Lift Control

You can summon lift at home via lift control feature.

15.1. Configure Lift Control

To enable and set the display status Lift icon on device web **Device > Lift> Lift Control** interface.

Parameter set-up:

- **Status:** click to enable or disable the lift button.
- **Icon:** click to select icon for the button.
- **Label:** enter the title for the button.
- **HTTP Command:** select http:// or https:// for head of http command and enter http command.

15.2. Configure Lift Control Prompt

When the lift controller receive the http command, it will feedback the current lift status with a prompt. To do this configuration on web **Device > Lift > Hints** interface. Edit the **HTTP Status Code**, feedback code from Lift control board.

If there are huge amounts of Prompts need to be added, you can click **Export** tab to export a template, after editing to import/export.

16. Firmware Upgrade

16.1.1. Configure Alarm Action via HTTP Command

Firmwares of different versions for indoor monitor can be upgraded on the device web **Upgrade > Basic** interface.

**Note:**

- Firmware files should be **.zip** format for upgrade.

17. Backup

Configuration files can be imported to or exported out of the device to your local PC on the device web **Upgrade > Advanced > Others** interface if needed.

18. Auto-provisioning via Configuration File

18.1. Provisioning Principle

Auto-provisioning is a feature used to configure or upgrade the devices in batch via third party servers. **DHCP, PNP, TFTP, FTP, HTTPS** are the protocols used by the Akuvox intercom devices to access the URL of the address of the third party server which stores configuration files and firmwares, which will then be used to update the firmware and the corresponding parameters on the door phone.

Please see the flow chart below:

18.2. Introduction to the Configuration Files for Auto-Provisioning

Configuration files have two formats for the auto-provisioning. one is the general configuration files used for the general provisioning and other one is the MAC-based configuration provisioning.

The difference between the two types of configuration files is shown as below:

- **General configuration provisioning:** a general file is stored in a server from which all the related devices will be able to download the same

configuration file to update parameters on the devices. For example :
cfg.

- **MAC-based configuration provisioning:** MAC-based configuration files is used for the auto-provisioning on a specific device as distinguished by its unique MAC number. And the configuration files named with device MAC number will be matched automatically with the device MAC number before being downloaded for the provisioning on the specific device.

**Note:**

- If a server has these two types of configuration files, then IP devices will first access the general configuration files before accessing the MAC-based configuration files.

18.3. Autop Schedule

Akuvox provides you with different Autop methods that enable the indoor monitor to perform provisioning for itself in a specific time according to your schedule. To set up the schedule on device web **Upgrade > Advanced > Automatic Autop** interface.

Please see the picture below:

Parameter Set-up:

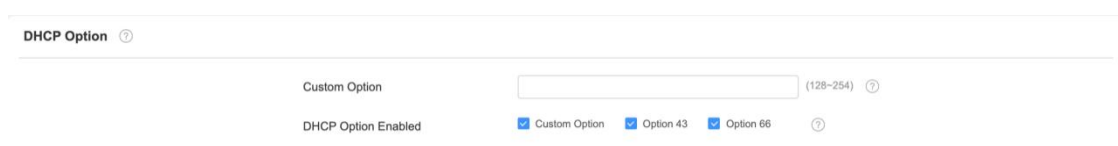
- **Power On:** select "**Power on**", if you want the device to perform Autop every time it boots up.
- **Repeatedly:** select "**Repeatedly**", if you want the device to perform autop according to the schedule you set up.
- **Power On + Repeatedly:** select "**Power On + Repeatedly**" if you want to combine **Power On** Mode and **Repeatedly** mode that will enable the device to perform Autop every time it boots up or according to the schedule you set up.
- **Hourly Repeat:** select "**Hourly Repeat**" if you want the device to perform Autop every hour.

18.4.DHCP Provisioning Configuration

Auto-provisioning URL can also be obtained using DHCP option which allows device to send a request to a DHCP server for a specific DHCP option code. If you want to use **Custom Option** as defined by users with option code range from 128-255), you are required to configure DHCP Custom Option on the web **Upgrade > Advanced > Automatic Autop** interface.

 **Note:**

- The custom Option type must be a string. The value is the URL of TFTP server.




The screenshot shows the DHCP Option configuration interface. At the top, it says "DHCP Option" with a help icon. Below that, there is a "Custom Option" label and a text input field. To the right of the input field is the range "(128-254)" with a help icon. Below the input field, there is a "DHCP Option Enabled" label and three checkboxes: "Custom Option", "Option 43", and "Option 66". All three checkboxes are checked. There is also a help icon to the right of the checkboxes.

Parameter Set-up:

- **Custom Option:** enter the DHCP code that matched with corresponding URL so that device will find the configuration file server for the configuration or upgrading.
- **DHCP Option 66:** If none of the above is set, the device will automatically use DHCP Option 66 for getting the upgrade server URL. This is done within the software and the user does not need to specify this. To make it work, you need to configure the DHCP server for the option 66 with the update server URL in it.
- **DHCP Option 43:** If the device does not get an URL from DHCP Option 66, it will automatically use DHCP Option 43. This is done within the software and the user does not need to specify this. To make it work, you need to configure the DHCP server for the option 43 with the update server URL in it.

Note:

 The general configuration file for the in-batch provisioning is with the format "**cfg**" taking R29 as an example "r000000000029.cfg (10 "zeros" in total while the MAC-based configuration file for the specific device provisioning is with the format "MAC_Address of the device.cfg, for example "**0C110504AE5B.cfg**."

18.5. Static Provisioning Configuration

You can manually set up a specific server URL for downloading the firmware or configuration file on device web **Upgrade > Advanced > Automatic Autop**

interface. If an autop schedule is set up, the indoor monitor will perform the auto provisioning on a specific timing according to autop schedule you set up. In addition, TFTP, FTP, HTTP, and HTTPS are the protocols that can be used for upgrading the device firmware and configuration.

Parameter set-up:

- **URL:** set up tftp, http, https, ftp server address for the provisioning
- **User Name:** set up a user name if the server needs an user name to be accessed to otherwise leave it blank.
- **Password:** set up a password if the server needs a password to be accessed to otherwise leave it blank.
- **Common AES Key:** set up AES code for the intercom to decipher general Auto Provisioning configuration file.
- **AES Key (MAC):** set up AES code for the intercom to decipher the MAC-based auto provisioning configuration file.

**Note:**

- AES is one type of encryption, it should be configured only when the config file is encrypted with AES, otherwise leave the field blank.

 **Note:**

- **Server Address format:**
 - TFTP: <tftp://192.168.0.19/>
 - FTP: <ftp://192.168.0.19/> (allows anonymous login)
 - <ftp://username:password@192.168.0.19/> (requires a user name and password)
 - HTTP: <http://192.168.0.19/> (use the default port 80)
 - <http://192.168.0.19:8080/> (use other ports, such as 8080)
 - HTTPS: <https://192.168.0.19/> (use the default port 443)

 **Note:**

- Akuvox do not provide user specified server.
- Please prepare TFTP/FTP/HTTP/HTTPS server by yourself.

19. Voice Assistant

You can configure voice assistant named "**Albert**" to perform a variety of functions related to intercom call, open-door, arming modes etc. on the device. And you can also set up the specific relay to be triggered by the voice assistant for the door access control. To configure the voice assistant on device **Settings > Voice Assistance** screen.

Parameter Set-up:

- **Language Type:** select the language according to your need.
- **Recognition Sensitivity:** adjust the voice assistance recognition sensitivity among "**Low**", "**Normal**" and "**High**" according to your need.
- **Talk Mode:** move the toggle switch to the right if you want to enable the the talk mode. When the Talk mode is enabled, voice assistant will stay on to receive your voice commands during a time span of 30 seconds

without your needing to call “Albert” again to wake up the voice assistant., while if you disable it, the voice assistant will be wake up again for each voice command.

- **Not Disturb At Night:** move the toggle switch to the left to enable the function. This function is applied when you want the voice assistant to stay silent while carrying out what it is made to do according to your voice commands.
- **Supported Command:** enable or disable the 22 voice commands according to your need.

Please see the voice command details below:

NO	Voice Command	Description	Voice Prompt
1	Intruder mode off	Use it when you want to clear the arming mode when the arming alarm is triggered. (you are required to enter the disarm password in the pop-out window initiated by the voice assistant)	Please Input Password
2	Clear arming	ibid	ibid
3	night mode	Use it when you want to change the arming mode to night mode	<ul style="list-style-type: none"> • Started it, sweet dreams! • Made it, good night • Sure, sleep mode is on • OK, start sleep mode, have a good night <p>Alright, sleep mode is opened, have a nice dream</p>
4	sleep mode	Use it when you want to change the arming mode to sleep mode	<ul style="list-style-type: none"> • Sure, sleep mode is on • OK, start sleep mode, have a good night • Alright, sleep mode is opened, have a nice

			<p>dream</p> <ul style="list-style-type: none"> • Made it, good night • Started it, sweet dreams!
5	away mode	Use it when you want to change the arming mode to away mode	<ul style="list-style-type: none"> • Sure, away mode is on • OK, start away mode • Alright, away mode is opened • Made it • Made it, have a good day • Done, away mode is started
6	home mode	Use it when you want to change the arming mode to home mode	<ul style="list-style-type: none"> • Sure, home mode is on • OK, start home mode • Alright, home mode is opened • Made it • Done, home mode is started
7	open door	Use it when you want to open the door	<ul style="list-style-type: none"> • Sure, the door is open • The door is open for you • No problem, open the door • Opened, always here for you <p>Yep, door is opened now</p>
8	open the door	Use it when you want to open the door	<ul style="list-style-type: none"> • Sure, the door is open • The door is open for you • No problem, open the door • Opened, always here for you <p>Yep, door is opened now</p>
9	disable DND	Use it when you want to disable the DND mode	<ul style="list-style-type: none"> • Yes, closed it for you • Welcome back, DND is

			<ul style="list-style-type: none"> off DND is closed, to mingle with the world Sure, DND is off
10	enable DND	Use it when you want to enable the DND mode	<ul style="list-style-type: none"> OK, DND is on Done, enjoy yourself DND is on, feel your inner peace Turn on it now
11	emergency	Use it when you want to dial SOS number	<ul style="list-style-type: none"> Got it, calling SOS as soon as possible OKay, be relaxed, making a emergency call now Calling ambulance now Calling SOS now, please hold on God bless you, calling emergency now Hold on please, calling emergency right now Take it easy, calling emergency right now
12	help me	ibid	ibid
13	call manager	use it when you want to call "manager" you name set up in the phonebook	<ul style="list-style-type: none"> Please choose one for calling sorry I didn't get that
14	call staff	use it when you want to call "stuff" you named and set up in the phonebook	<ul style="list-style-type: none"> Please choose one for calling sorry I didn't get that
15	call carer	use it when you want to call "carer" you named and set up in the phonebook	<ul style="list-style-type: none"> Please choose one for calling sorry I didn't get that
16	open message	use it when you want to check text message.	<ul style="list-style-type: none"> Got it, please check OK, message is opened, you can write

			<p>some contents to send</p> <ul style="list-style-type: none"> • Message is ready for you • already opened it for you
17	open monitor	use it when you want to check monitor	Got it ,please check
18	homepage	use it when you want to go to home screen	<ul style="list-style-type: none"> • Home page is already for you. <p>Already got it for you</p>
19	enable mute	use it when you want to mute your voice on the indoor monitor so that the caller or callee will be not be able to hear you.	<ul style="list-style-type: none"> • OK, mute is on • Done, enjoy yourself • Mute is on, feel your inner peace • Set it now
20	disable mute	use it when you want to unmute your voice on the indoor monitor so that the caller or calle will be be able to hear you.	<ul style="list-style-type: none"> • Sure, mute is off • Mute is closed, to mingle with the world • Welcome back, mute is off • Yes, closed it for you
22	shut down/cancel	Use it when you want to turn off the voice assistant function	<ul style="list-style-type: none"> • See you • See you later • Bye • Good bye • See you next time • Bye, best regards • See you, have a great time

- **Answer Call Permission:** enable it when you so that you can answer or reject the incoming call via voice assistant by replay " **Yes**" or " **No**"
- **Call Fuzzy Match:** Enable it to allow fuzzy matching of the contact name , for example , if you have Tom and Tomy in your phonebook , then Tomy

will also appear when you call " Tom", and you are required to select the right contact manually.

To enable the voice assistant and set the voice assistant-controlled relay on the web **Setting > Voice Assistant > Voice Assistant Setting** interface, you can tick the check box to enable the voice assistant function. Then go to **Voice Command Setting** section to elect specific relay to be triggered via voice assistant.

20. Call Log

If you want to check on the calls inclusive of the dial-out calls, received calls, and missed calls in a certain period of time, you can check and search the call log on the device web **Contacts > Call Logs** interface and export the call log from the device if needed.

Parameter Set-up:

- **Capture Delay:** set the image capturing starting time when the device goes into video preview.
- **Upper Limit:** set the maximum screenshot storage capacity, when the capacity is reached the previous screenshots would be overwritten.
- **Call History:** select call history among four options: **"All"**, **"Dialed"**, **"Received"**, **"Missed"** for the specific type of call log to be displayed.

21. Debug

21.1. System Log for Debugging

Capturing a System log for debugging

System log in the door phone can be used for debugging purpose. If you want to export the system out to a local PC or to a remote server for

debugging , you can set up the function on the web **Upgrade > Diagnosis > System Log** interface.

Parameter Set-up:

- **Log Level:** select log levels from 1 to 7 levels. You will be instructed by Akuvox technical staff about the specific log level to be entered for debugging purpose. The default log level is "3".the higher the level is, the more complete the log is.
- **Export Log:** click the **Export** tab to export temporary debug log file to a local PC.
- **Export Debug Log:** click the **Export** tab to export debug log file to a local PC.
- **Remote System Log:** select "Enable" or "Disable" if you wan to enable or disable the remote system log.
- **Remote System Server:** enter the remote server address to receive the the device And the remote server address will be provide by Akuvox technical support.

21.2. PCAP for Debugging

PCAP in Akuvox indoor monitor is used to capture the data package going in and out of the devices for debugging and troubleshooting purpose. You can set up the PCAP on the device web **Upgrade > Advanced > PCAP** interface properly before using it.

Parameter set-up:

- **Specific Port:** select the specific ports from 1-65535 so that only the data packets from the specific port can be captured. You can leave the field blank by default.
- **PCAP:** click "**Start**" tab and "**Stop**" tab to capture the data packets before clicking **Export** tab to export the data packets to your local PC.
- **PCAP Auto Refresh:** select "**Enable**" or "**Disable**" to turn on or turn off the PCAP auto refresh function. If you set it as "**Enable**" then the PCAP will continue to capture data packets even after the data packets reached its 50M maximum in capacity. If you set it as "**Disable**" the PCAP will stop data packet capturing when the data packet captured reaches the maximum capturing capacity of 1MB.

21.3. User Agent

User agent is used for the identification purpose when you are doing analysis on the SIP data packet. To do this configuration on web **Account > Advanced** interface.

22. Device Integration with Third Party

22.1. Enter Applications Screen

The content of this part mainly teaches you how to enter the APK interface through hidden operations. To do the configuration on device **Settings > System Info** interface, you can press on **User Mode** for 10 times and press **"Admin Mode"** and press **"Confirm"** for the confirmation

22.2. Install Third-party App

You can install the third-party App to your device on the device web **Device > Third Party APK** interface. Choose a suitable .apk file from PC to upload. If you want to clear the apk file uploaded, click **Reset**.

To configure the installed the third-party app, you can click **App Name** field to select the specific name of the installed APK files for configuration. Then tick the check boxes of the each field for specific configuration you need.

Parameter Set-up:

- **App Name:** select the App Name to be configured.
- **Interval Without Operating (Sec):** tick the check box to set the app returning time-interval when there is no operation on the device.
- **Start Up Enable:** tick the check box of Start UP Enable if you want to the app to be run automatically when the device is turned on.
- **Turn Back App After Awakening:** tick the check box of if you want the device to return to the app when the screen is awakened
- **APP Keep-Alive :**tick the check box of if you want the app to stay running without being turn off.
- **Turn Back App After Calling:** tick the box if you want the app to return automatically after finishing a call (This features applies to all the apps)
- **Show App Icon:** tick the box if you want the app icon to be displayed on the screen.

23. PBX Feature

IT88 Android indoor monitor has built in the PBX server which makes the indoor station not only used as a intercom monitor also a SIP PBX, users do not bother to prepare an extra SIP PBX again. The PBX supports call, forward, transfer, conference, ring group feature and so on. You can set up on device screen or web interface.

23.1.PBX Configuration on The Device

Enable the PBX feature on device **Advance Settings > PBX** screen to check and manage SIP accounts.

23.1.1. Enable PBX Service

In the PBX interface,click **Setting** on the right top corner enable the PBX.

23.1.2. Manage PBX Accounts

You can check the basic PBX information like PBX server and port and accounts status.

Parameter Set-up:

- **Status:** to show whether the account is registered or not.
- **Username:** T=to enter the extension number registered onto SIP server.
- **Display Name:** to enter the display name of this account, which will show on other devices when making calls.
- **Password:** to enter the password of the corresponding users.
- **Enabled Status:** to activate SIP account.
- **Call IN/Call Out:** the calling status of this account.
- **Calling Party:** the calling party number.
- **Caller Party:** the caller party number.

23.1.3. Manage PBX Groups

Click **Group** on the right top corner to add a new ring group or edit the existing group. One number can be added in different ring groups. Once receiving an incoming call, the numbers in one group will be ring up at the same time.

Parameter Set-up:

- **Group Name:** the name of a ring group.

- **Quick Dial:** a number of this ring group.

23.2.PBX Configuration on The Web Interface

You can do the same configuration on web **PBX > Basic** and **PBX > Ring Group** interface.

24. Password Modification

24.1.Modify Device Basic Setting Password

To do the configuration on device **Settings > Advanced Settings > Protected Code** screen to choose **System Code** to change a new password. The default password is 123456.

24.2. Modify Device Advanced Setting Password

This password is used to enter the advanced settings of the device, including password settings, account numbers, SOS numbers, network settings, etc. To modify the advanced setting password on device **Settings > Advanced Settings > Protect Code > Setting Code** screen. The default password is 123456.

24.3. Modify Device Web Interface Password

To modify web interface password, you can do it on device web **Security > Basic > Web Password Modify interface**. Select "**Admin**" for the administrator account and "**User**" for the User Account. Click the **Change Password** tab to change the password.

**Note:**

- There are two accounts, one is admin, its password is admin, the other is user, its password is user.

24.4. Modify Browser Password

This password is used to lock the browser on the device in case someone abuses the browser for any unwanted application. You can do this configuration on device **Settings > Advanced Settings > Protected Code > Browser Code** screen. The default password is 123456.

25. System Reboot&Reset

25.1. Reboot

25.1.1. Reboot on the Device

If you want to restart the system setting of the device, you can operate it directly on the device setting screen or on the device web interface.

To restart to the system setting on device **Settings > Advance Settings > Reset&Reboot** screen.

25.1.2. Reboot on the Web Interface

If you want to restart the device system, you can operate it on the device web **Upgrade > Basic** interface as well. More over, you can set up schedule for the device to be restarted.

To set up the device restart schedule on web **Upgrade > Advanced > Reboot Schedule** interface.

25.2. Reset

25.2.1. Reset on the Device

If you want to reset the whole device system to the factory setting, you can operate it directly on the device **Settings > Advance Settings > Reset&Reboot** screen.

If you only want to reset the configuration file to the factory setting instead of the whole device system, you can press **Reset Config To Factory Setting** tab.

25.2.2. Reset on the Web Interface

Device system can also be reset on device web **Upgrade > Basic** interface without approaching the device.

If you only want to reset to the configuration file to the factory setting, you can click **Reset Config** on the same page.

26. Abbreviations

ACS: Auto Configuration Server

Auto: Automatically

AEC: Configurable Acoustic and Line Echo Cancelers

ACD: Automatic Call Distribution

Autop: Automatical 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 Socket Layer

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

SMTP: 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

27. FAQ

Q1: How to obtain IP address of IT88?

A1: You can use the display screen to get the IP information, just check the IP address at setting, basic info.

You can also use Akuvox IP Scanner to search Akuvox devices in the same LAN network.

Q2: Do Akuvox devices support Opus codec?

A2: For now, only Akuvox Android video IP phone R48G can support Opus audio codec. Door phone and indoor monitor still not supports.

Q3:What is the resolution of the 7 inch touch screen of IT88?

A3: The ratio is 16:10, and resolution is 1280*800.

Q4:What operation system is IT88?

A4:IT88 based on Android 9.0.

Q5:Can I install apps at Akuvox indoor monitor?

A5:Akuvox have indoor monitor based on Linux system and Android system. For Linux system device (IT80/IT81/C312/C313 series), no possible to install third party app. For android system device (C315/C317/IT83/IT83/X933/C319/IT88 series).You can install third party apps as your wish.

Q6:Can I connect electrical lock to indoor monitor?

A6:Akuvox indoor monitor have relay component, so you can connect electrical lock to indoor monitor.

Q7:Can I communicate other indoor monitor with indoor monitor?

A7:Akuvox device can communicate with each other, no matter it is indoor monitor,door phone or ip phone. Of course indoor monitor can call to other indoor monitor, also if you want, you can set other indoor monitor as auto answer mode.

28. 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: support@akuvox.com

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

We highly appreciate your feedback about our products.

