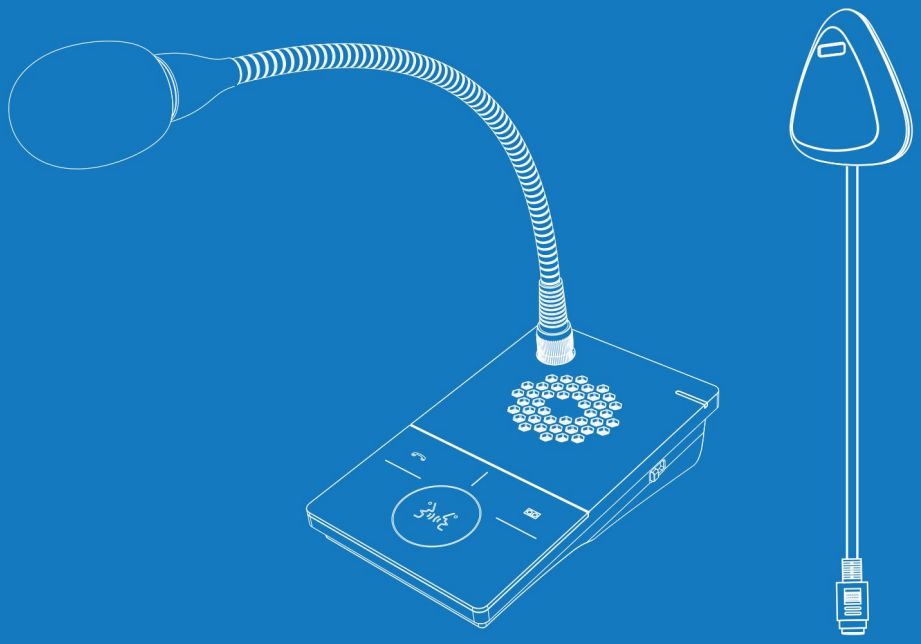
SPON

IP DIGITAL WINDOW INTERCOM

User Manual



IP NETWORK INTERCOM SYSTEM

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Summary

Safety precautions

• Please abide by the warning and the relevant safety tips.
• Please take this manual in convenient place for future reference.

Warning and Reminding

This symbol means there are potential safety issues, it may cause death or serious injury when incorrectly operating.

This symbol draws the attention to important operation and maintenance instructions.

Settings and Installation

- Avoid making the device wet.
- Do not expose the device to rain or water or other humid environment, as it may lead to fire or an electric shock.
- Do not use other power voltages than indicated on the power supply adapter.
- Use the device only with the indicated voltage to connect it.
- It may lead to fire or electric shock if using higher voltage.
- Do not damage, cut or twist the power cord.
- Keep the power cable away from any heating objects and do not put heavy things on it, as it may lead to fire or electric shock.

Using the intercom

Please shut off the power supply immediately when the following phenomena happen. Please contact the supplier. It may cause fire or electric shock when continuing to use it.

- When the device is smoking or smelling strange.
- When water or other things entered in the device.
- When the device fell or the device housing is damaged.
- When the power cord is damaged (copper wire is exposed or broken etc.).
- When the device is in a faulty state (cannot connect to the network, there is no sound etc.).
- Do not open or modify the device
- Don`t let other things enter into the device
- Don’t let metal items or inflammable objects enter the device, as this might result in fire or electric shock.
- Do not touch the device when lightning storms are active
- Do not put any liquid containers or metal objects on the device. If the container fell and liquids penetrated the device, this may lead to fire or electric shock.
- The device contains parts under high voltage. Opening the cover or modifying the device may lead to fire or cause shock. All maintenance and modifications to the device should be done by a qualified professional.

When not using the device for a longer period:

- Please shut down the power and pull out the power adapter when doing maintenance or not using the device for longer than 10 days.

Product introduction

The IP digital window intercom uses embedded IP Audio digital network audio technology with intellectual property rights to realize digital full-duplex intercom. The set is made of an internal and external window intercom module, equipped with power input, communication interface, recording output port.

Internal window intercom

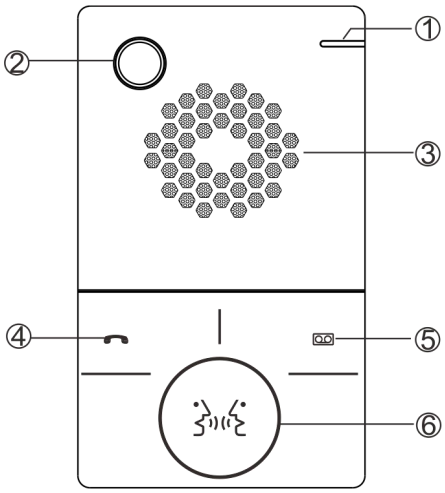
External window intercom

Features

- Adopt single DSP multi-channel language auto-control technology, avoiding feedback and disturbances to realize real digital full-duplex intercom.
- Using touchkeys with an ergonomic design, avoiding key-click sounds in the intercom conversation, and use light indicators.
- Recognizing sound source, control environment noise, automatically adjust volume and restore the original sound.
- Providing three mode-scenes (quiet, standard, noisy), support one-button adjustment.
- Wiring between external and internal intercom over a single cable, avoiding poor contacts caused by moving the device on the desk. This keeps the desk clear and tidy.
- Professional metal structure design, adopting hard metal housing to prevent resonance, purify and naturalize the sound to make it transparent.
- Personalized and customized service message playback: “Hello, welcome”, “Thank you. See you next time”.
- Support for remote supervisor intercom, one-button call to the terminal specified by the server.
- Intelligent equipment self-check, detects the state of internal and external components. Abnormalities are indicated with a local prompt.
- distinguished LED shows the state of the internal window intercom.
- Accessible via a Ethernet port and LAN network

Hardware interface introduction.

Internal window intercom Module 【Front】



① Network status indication: red light is offline, green light is online

② Gooseneck microphone socket: plug the gooseneck microphone and fix the screw.

③ Loudspeaker: amplify the audio from the external window intercom.

④ Voice broadcast button/ remote intercom button (left):

- When the intercom button ⑥ is on (blue light ON):
- Press voice broadcast button shortly to broadcast "Hello, welcome" message
- Press long (1 second) to broadcast "Thank you, welcome next time.".

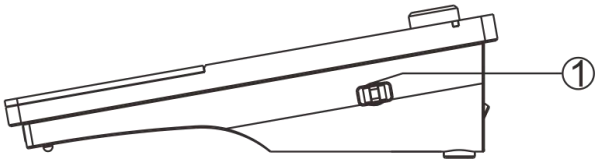
  The broadcast button flashes green during broadcasting.

⑤ Remote intercom button (right) : when the terminal is connected to the server, press button to make a call to the supervisor intercom terminal specified by the server.

⑥ Intercom button: press the button to communicate with the external window intercom, finish the conversation by pressing

the button again. The intercom button light blue during conversation.

【Side】



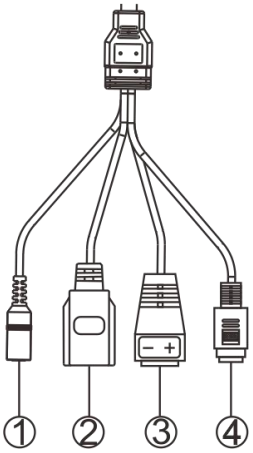
① Scene mode adjustment switch:

3 scene modes are available:

1. noisy（to the front)
2. standard（in the middle）
3. quiet（to the back)

Standard is the default mode.

【connection wiring】



① Power interface: connect with 12V/1.5A power.

② Network interface: insert the cable to switcher

③ Analog audio output interface: output analog audio, connect with DVR or IP camera.

④ External window intercom interface.

【External window intercom module】

① Loudspeaker/MIC：

Loudspeaker：amplify the audio from the internal window intercom

Microphone：pick up the audio at the external window intercom module

② Connector to the internal window intercom module

Introduction

Packing list

The Window intercom system includes the following accessories.

Please check following parts. Contact your reseller if any parts are missing.

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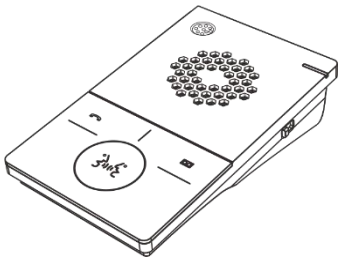
Please check following parts. Contact your reseller if any parts are missing.

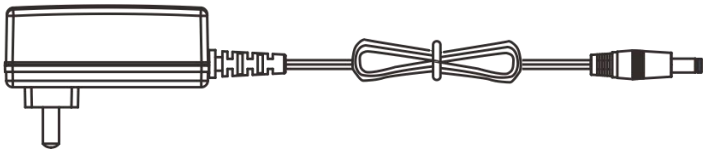
（1）Internal window intercom module 1 set



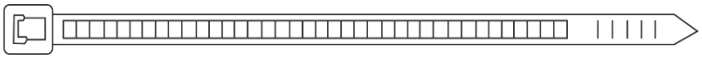
（2）External window intercom module 1 set

（3）Gooseneck microphone (DC-300B) 1 PCS

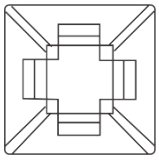
（4）Power adapter（DC12V/1.5A）**(Optional)**（International standard/European standard /American standard /British standard/ Australian standard） 1 PCS



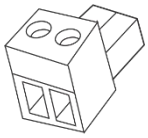
（5）Wire binder（3*100mm） 3 PCS



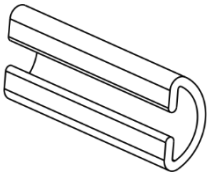
（6）Self adhesive cable clamp (HC-100) 3 PCS



（7）Wire terminal (3.81-2P) 1 PCS



（8）Bushings (cable guidance) 1 PCS



（9）EV-cotton （SPEV-63） 1PCS

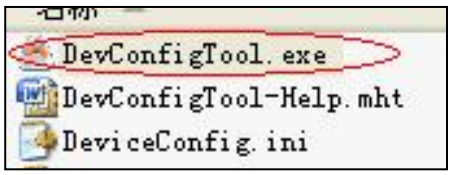
（10）Installation manual 1 PCS

（11）Certification 1 PCS

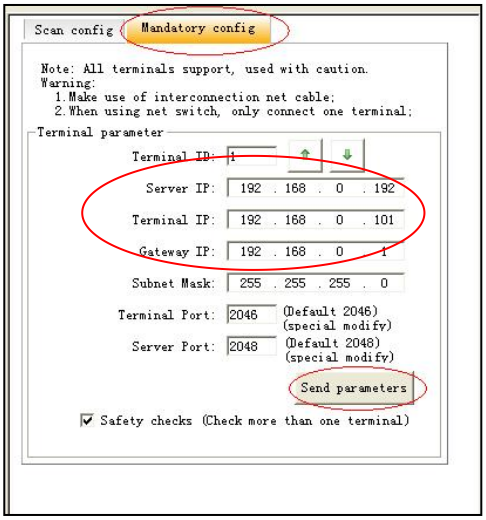
Basic network settings

Using the Terminal Scanning Tool

1. Locate and run “DevConfigTool.exe” in the folder [optical disc:\tool software\ ].
   Enter the default password “123456”.



2. Select the right tab【Mandatory config】, and fill out the correct parameters in the【terminal parameters】section.
   Click "send parameters" button to complete the IP parameters Settings.



Note:

1. **When using the windows 7 system, please use the administrator mode, and switch off the firewall and any 3rd party firewall software.**
2. **This scanning tool can only be used when the computer and intercom are on the same network. Please ensure that the computer and the target intercom are the only devices connected to the network or use a direct (crossover) cable between computer and intercom.**

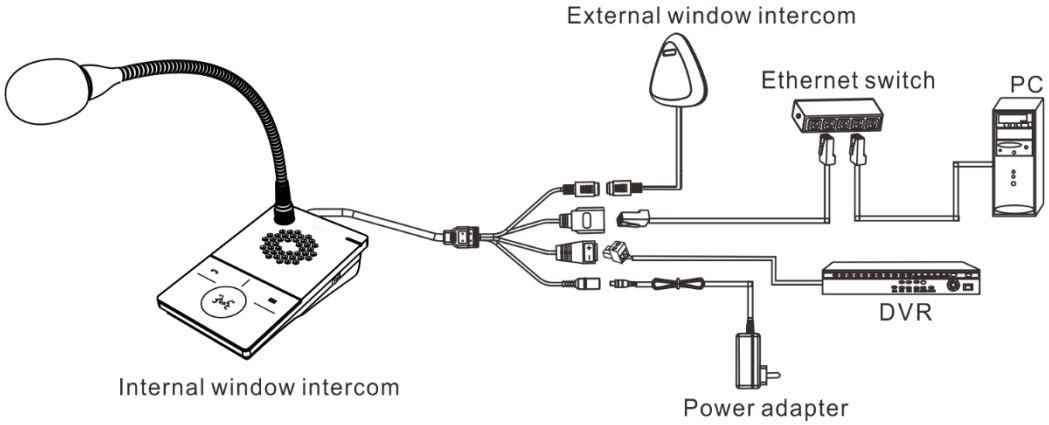
Using the intercom built-in WEB page

Use a web browser and navigate to the Web page of the IP digital window intercom. The default IP address is http://192.168.1.101. Make sure you set the IP address of your computer to a correct static IP address in the same range (e.g. 192.168.1.50 with a subnet mask of 2545.255.255.0). According to the situation, modify each parameters of the network settings. Click “save” when ready.

For specific operations, please refer to the user-defined terminal parameters.

Wiring

1. Connect the connector of the power adapter to the power interface of internal window intercom (red colored connector).
2. Connect the connector of the external window intercom module with the corresponding connector of the internal window intercom module.
3. Connect the Ethernet LAN cable to the RJ45 connector of the internal window communication module.



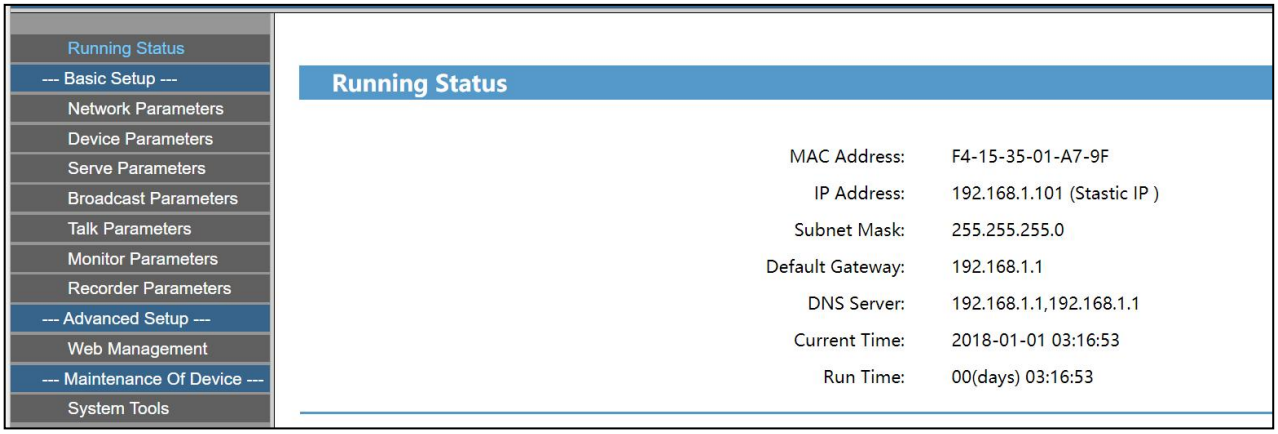
User-defined terminal parameters

Login web interface

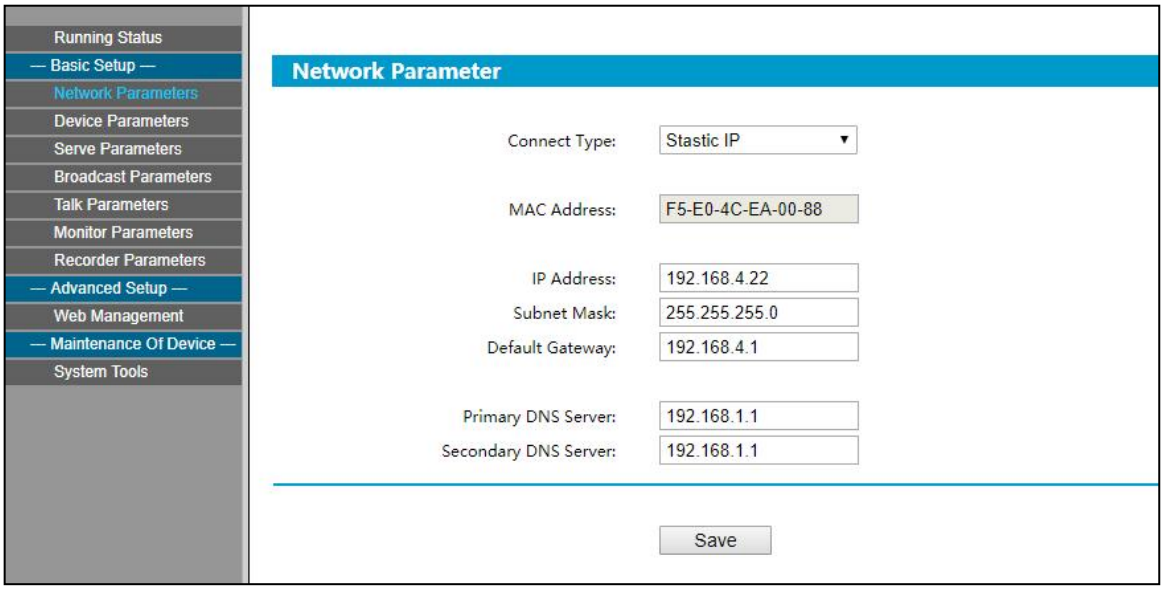
Use a web browser and navigate to the IP address of the IP internal window intercom module (factory default is http://192.168.1.101), then press Enter.

Enter user name and password in the login window of the Web page (the default is : admin, password : Rdc070#*).

After pressing Enter, you arrive in the configuration web page of the IP internal window intercom module.



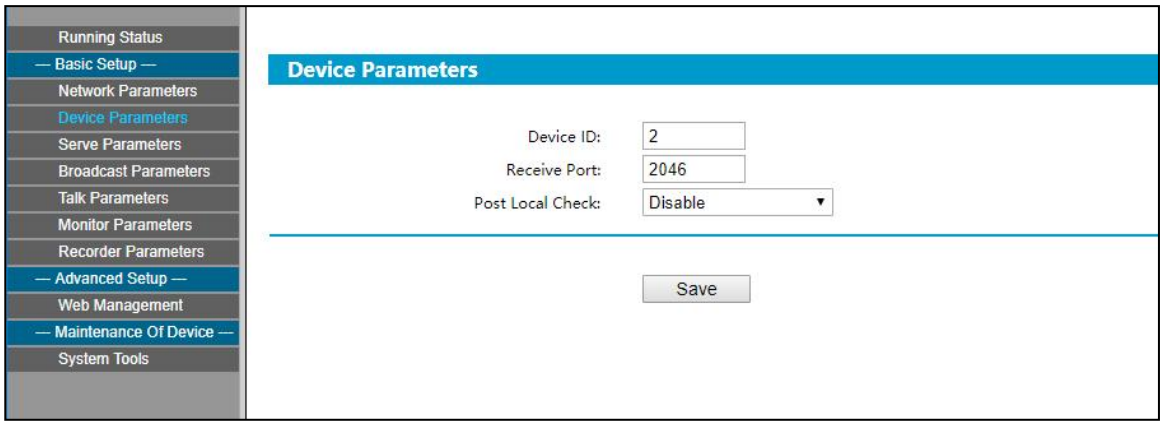
Network parameters



The parameters have the following meanings:

Connection type	You can choose to set a static IP manually or obtain an IP automatically from DHCP server
MAC address	The physical address of the terminal. This cannot be modified
IP address	Terminal IP address, factory default is 192.168.1.101
Subnet mask	The subnet mask of the LAN network.
Default gateway	The gateway of the network
Preferred DNS server	IP address of the preferred domain name resolver on the network
Alternate DNS server	IP address of the alternate domain name resolver on the network

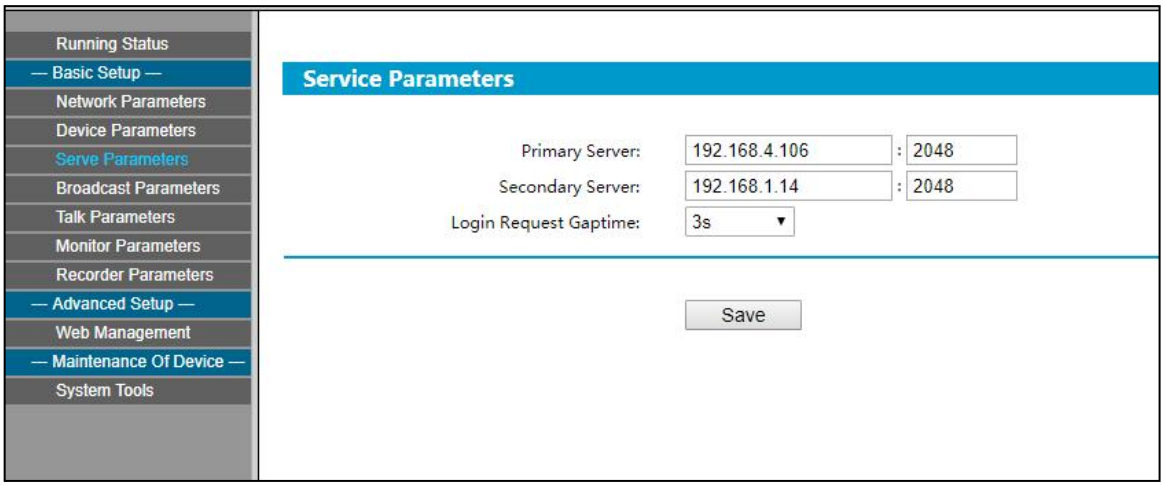
Device parameters



The parameters have the following meanings:

The device number	Terminal ID, this number identifies the intercom module when more than one intercom is in the network. Range 1-999, the factory default is 1.
Receive port	Device communication port
Power-on local detection	When Enabled, the device will automatically detect whether the microphone and speaker are working properly by sending out a tone during startup.

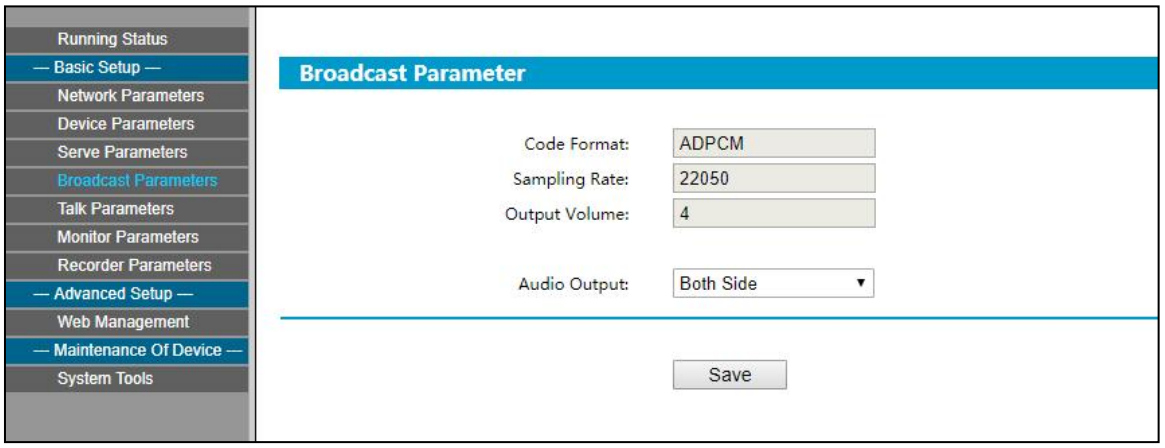
Server parameters



The parameters have the following meanings:

Preferred server	The IP address of the preferred server for this intercom, the factory default is 192.168.1.13. Most of the advanced functions of the intercom depend on the server to work properly.
Standby server	When the preferred server is not available, the intercom will log in to the standby server.
Request Login Interval time	When the intercom is offline, this timer will define the interval of login requests that are sent to the server.

Broadcast parameters

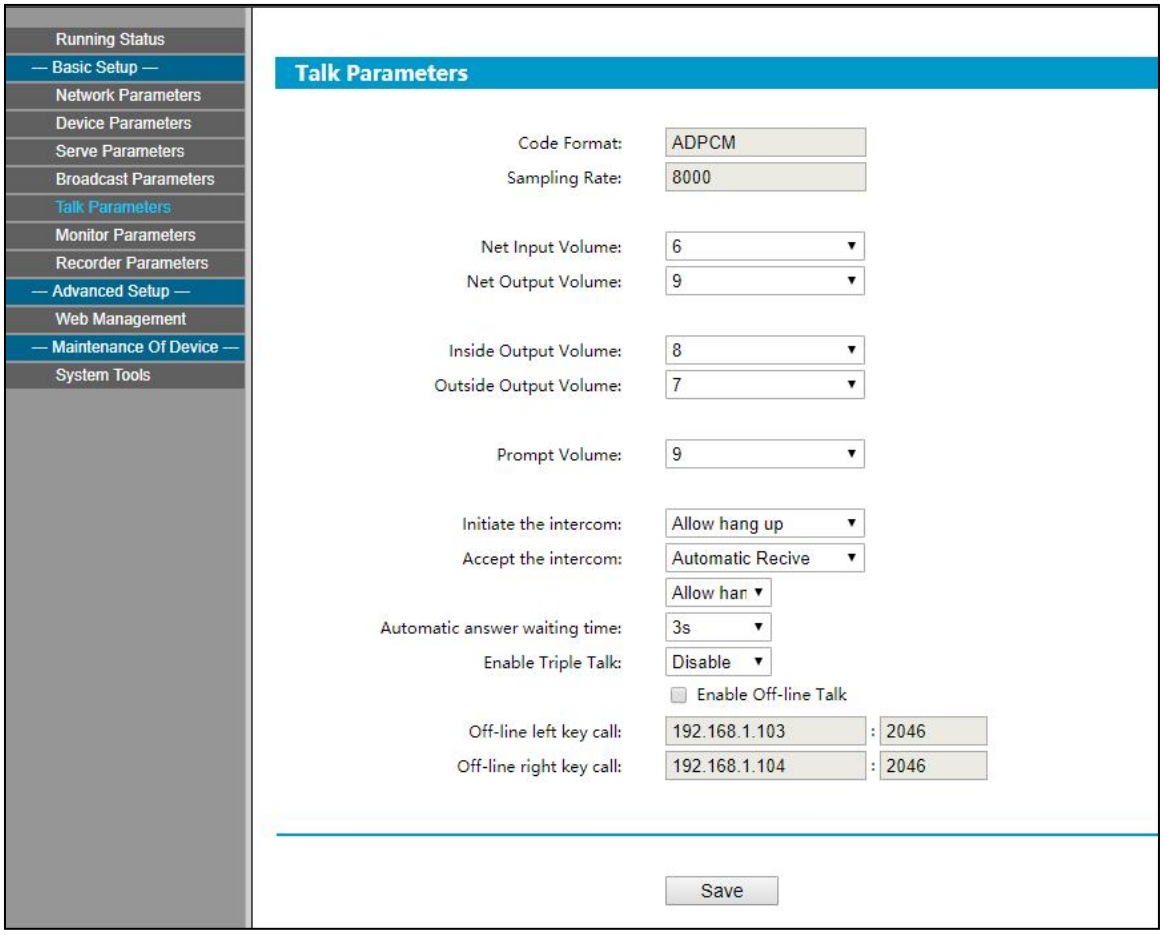


The parameters have the following meanings:

Encoding format	The encoding format of the host during broadcast, controlled by the server.
Sampling rate	The sampling rate of the host during broadcast, controlled by the server.
Output Volume	The volume of the audio output when the host is broadcasting, controlled by the server.
Audio Output	When the broadcast is configured, the audio is being output to the internal **or** external unit or to the internal **and** external units. Both sides: When broadcasting, the sound is being output on the speaker of internal and external units. Only inside: When broadcasting, the sound is being output on the speaker

	of the internal unit only. Only outside: When broadcasting, the sound is being output on the speaker of the external unit only.

Intercom parameters



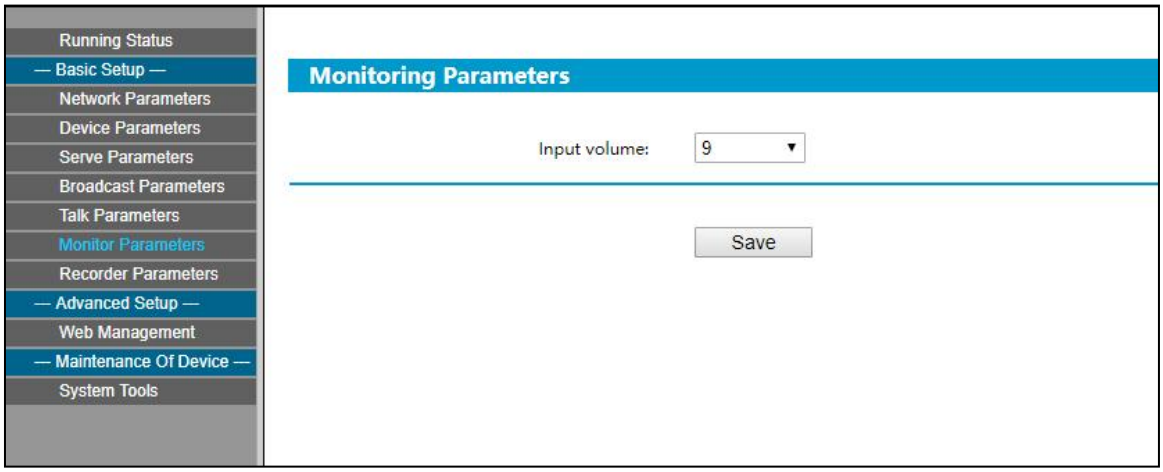
The parameters have the following meanings:

Encoding format	The encoding format of the host during intercom, controlled by the server.
Sampling rate	The sampling rate of the host during intercom, controlled by the server.
Network intercom input volume	The volume of the network input source during intercom.
Network intercom Output Volume	The volume of the network output source during intercom.
Internal output volume	The output volume of the internal window intercom during intercom.
External output volume	The output volume of the external window intercom during intercom.
Prompt tone volume	The volume of the key-clicks, button tone, busy tone, hanging tone, etc. during intercom; the volume of welcome and Goodbye prompt during local intercom.
When initiating intercom	As the intercom initiator, you can set whether allow to hang up the intercom.
When receiving intercom	As the intercom receiver, you can choose to answer automatically or manually, allow to hang up or forbid to hang up.
Allow three-party intercom	Enabled: during the conversation with the remote terminal, press the

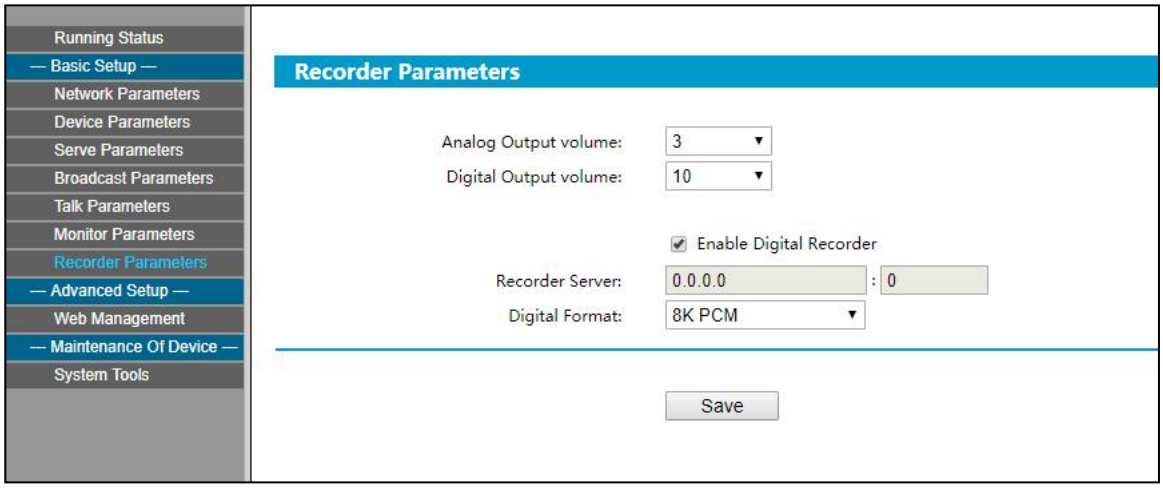
	intercom button to add external window intercom into the conversation to make a three-party intercom conversation; **During the three-party conversation, the three parties in the conversation can hear the voices of the other two parties.** Disabled: three-party intercom cannot be initiated.
Whether to enable offline intercom	When Checked: when offline, the terminal can call the target set in the offline parameters Left-click call: when offline, enter the IP address corresponding to the remote intercom (left) button; Right-click call: when offline, enter the IP address corresponding to the remote intercom (right) button; Port cannot be modified except for special situations (the defaults is 2046)

Monitor parameters

Input volume: The volume of the host during monitoring.



Recording parameters



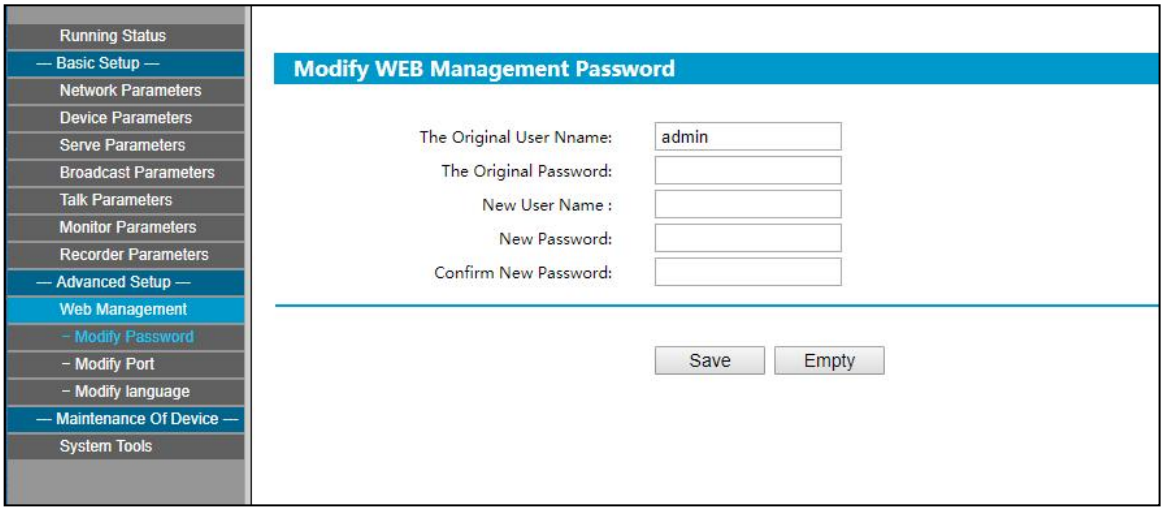
The parameters have the following meanings:

Analog Output Volume	Set the output volume for analog recording.
Digital Output Volume	Set the output volume for digital recording.
Enable digital recording	Check “Enable Digital Recorder” to enable intercom 24-hour digital recording. Recording server: Enter the IP address and port of the digital recording

	server. After checking “Enable Digital Recorder” , the system will automatically obtain it. Digital recording format: Set the output format of digital recording, only 8K PCM format is supported for the moment.

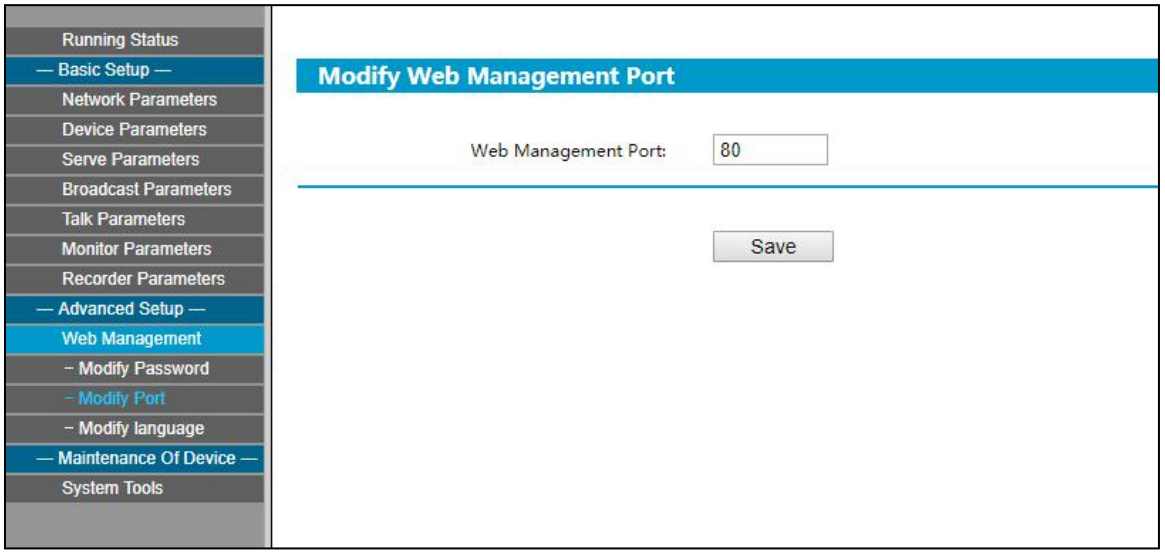
Password modification

You can change the web page login-in account and password in the WEB management parameters, it will be effective after clicking on “Save”.



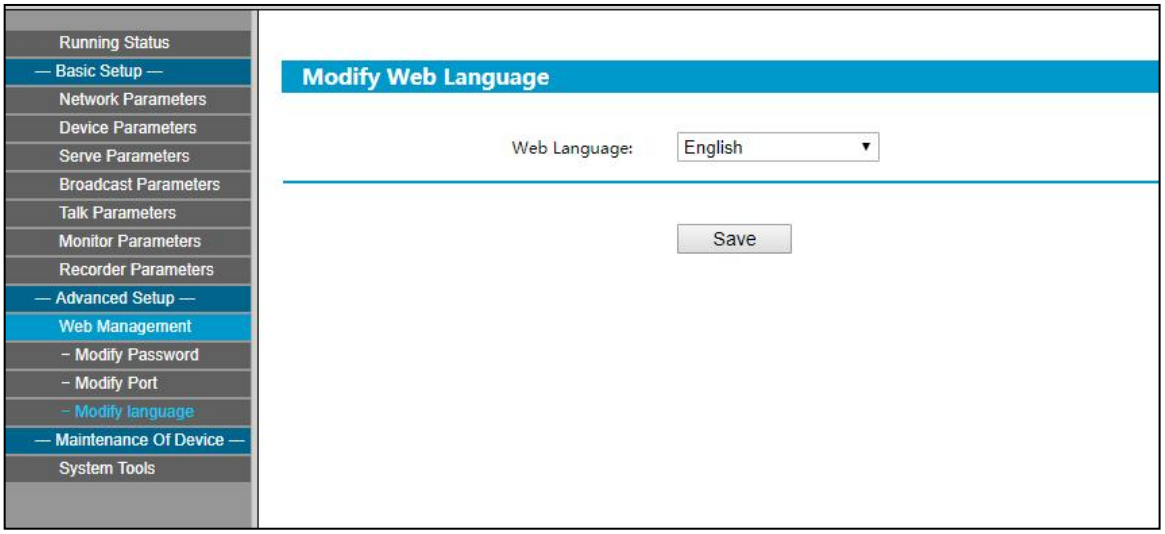
Port modification

You can change the port of the WEB access. When not using port 80, please add the corresponding port behind the address when accessing this WEB page. (e.g.: if the port is 8888, the access address will be http://XXX.XXX.XXX.XXX:8888.



Language settings

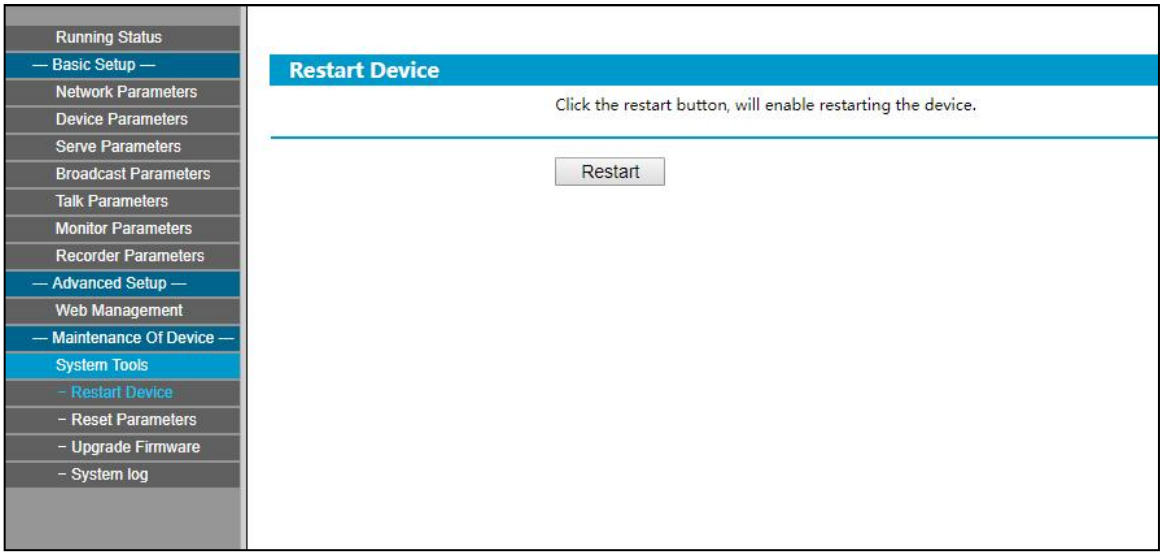
You can switch the Web page language between Chinese and English, save the modification and restart the intercom to activate the changes.



Restart device

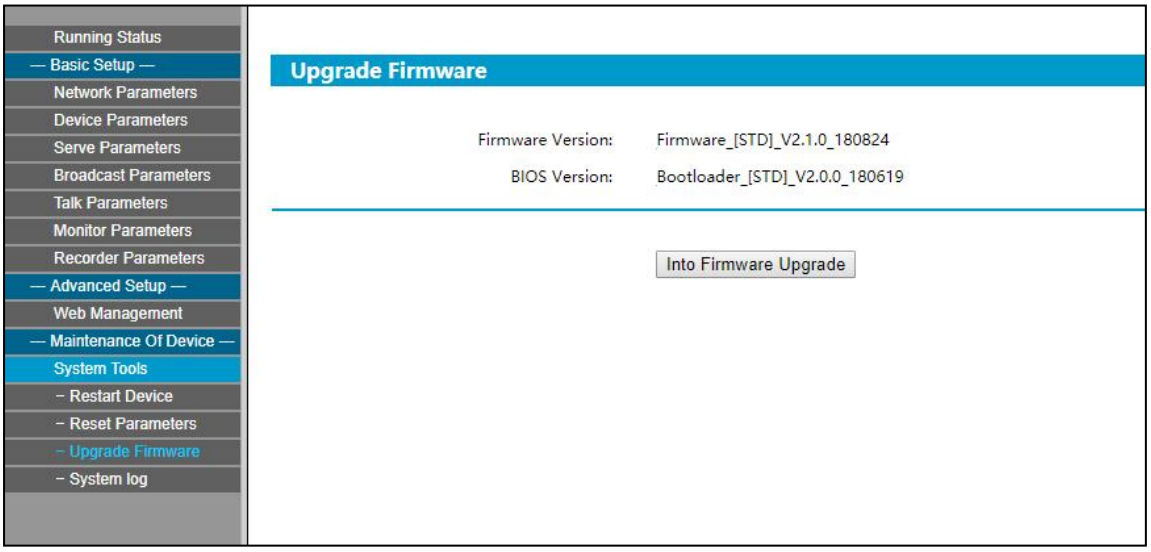
Restart the device

Note: the all modified parameters on the web page will be effective after restarting the device.



Upgrade the firmware (Note: please do not upgrade the firmware without any special needs)

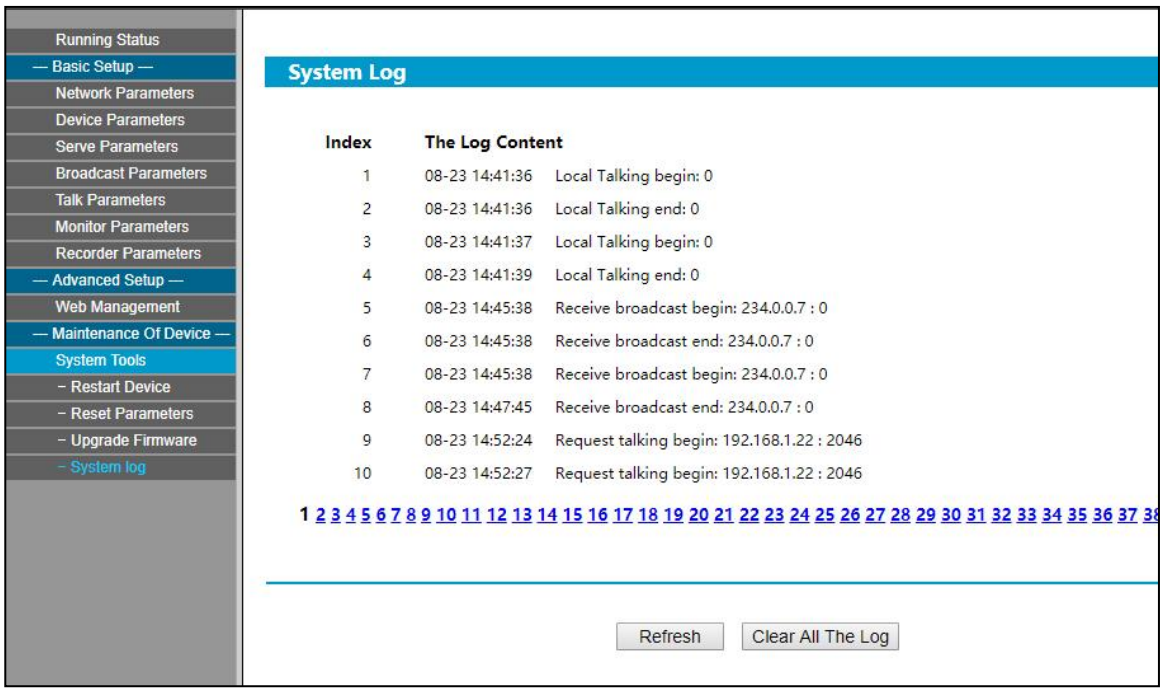
Click “System Tools” and “Upgrade Firmware” to enter the firmware upgrade page.
Click on “Into Firmware Upgrade” to put the device in firmware upgrade mode.



System log

The logfile contains all system events.

Click “Clear All The Log” to empty the log.



Basic functions

Local intercom

After connecting the internal and external window intercom modules, turn on the power.

Press the intercom button of internal window intercom (the blue light goes ON). The internal window intercom can perform digital full-duplex HD intercom with the external window intercom. Press the intercom button again to end the intercom (the blue light goes OFF).

In coordination with an IP HD recording server, full-duplex 32K or 16K HD intercom can be achieved.

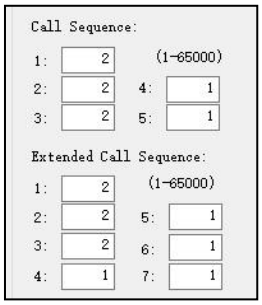
Warm prompt

During intercom conversation, press shortly on the voice broadcast button (left button). The window intercom system will automatically broadcast the welcome prompt "Hello, welcome". Press longer on the left button to broadcast the goodbye prompt "Thank you, welcome next time." Press the button again or short press any other buttons to end the prompt during broadcasting.

Remote intercom

When the internal window intercom is online, press left or right remote intercom button to call the different target terminals specified by the server.

In the terminal setting dialog box of the service software, set the target called by terminal. The Call Sequence button mapping order corresponds to the left button, the Extended Call Sequence button mapping order corresponds to right button.



After the above operations are completed, if the called terminal is idle, the terminal will play a waiting tone while waiting for an answer from other party, and the called terminal will play a ringing tone. If the called terminal is busy or refuses to answer, the calling terminal will play a busy tone.

Note: The default call is the intercom terminal with ID number 001. Multiple call objects can be set in the server. When the called object is busy, the call can be automatically transferred to the next object.

Three-party intercom

During the intercom conversation with the remote terminal, press the intercom button to add the external window intercom into the conversation to make a three-party intercom;

During the three-party intercom, the three parties in the conversation can hear the voices of the other two parties.

Note: three-party conversation must be enabled on the Web page. When disabled, three-party intercom cannot be initiated.

Receiving broadcasts

Are automatically answered without pressing any button.

Recording

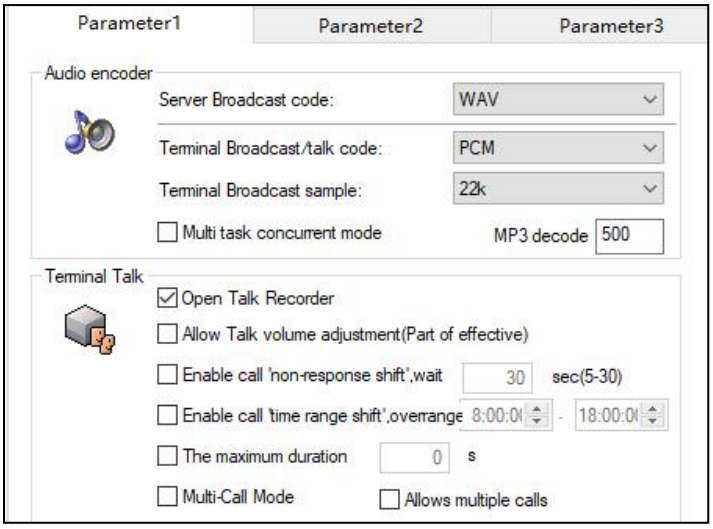
Analog recording

The internal window intercom can output analog audio and be connected to a DVR to automatically record on the hard disk of the recorder recorder.

Network recording

In the WEB page recording parameters, Check "Enable Digital recorder", and check “Open talk recorder” on the “Terminal talk” of “Parameter 1” of “Server Advanced settings”

When the window intercom system is online, the IP window intercom will automatically send the audio stream to the server during the conversations, realizing a 24-hour recording. The recording file can be queried, retrieved and played back in the PC-side recording tool.



Engineering mode - volume adjustment without web access

1) When the device is in the standby state, long press the intercom button and the left button at the same time.

2) Release the button after hearing 3 key clicks and the intercom button is ON ,enter the engineering mode(the left and right button always ON , the intercom button flashing).

3) Press the left button to adjust the volume of internal unit : click once volume +, long press volume-.
Press the right button to adjust the volume of external unit : click once volume+,long press volume-.

4) After adjusting the volume , long press the intercom button. Release the button after hearing one key tone will save parameter settings; Release the button after two key tones will cancel the settings.

Troubleshooting

Why can’t the terminal talk to others?

1. Check the internal window intercom logs with regards to the server.
2. Check whether the mapping settings of the server are correct.

Why is the terminal "offline"?

1. Check the server software and the firewall. It`s advised to stop all firewalls before launching the software on the server (including Windows built-in firewall and other antivirus software firewall).

2. Check the network connection. After the terminal has been powered on, the network port light should normally be green. When the network port light is flashing orange (fast and slow), it means that the network cable is connected normally. If the network port light is not green, it means a network related problem. Please check the terminal network cable and LAN switch whether they work normal, not damaged or disconnected etc.

3. Check the terminal IP parameters : terminal IP, terminal ID, sever IP, local IP, gateway IP ...etc.

Web page is behaving abnormally?

Please clear the web browser cache or use another web browser.

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