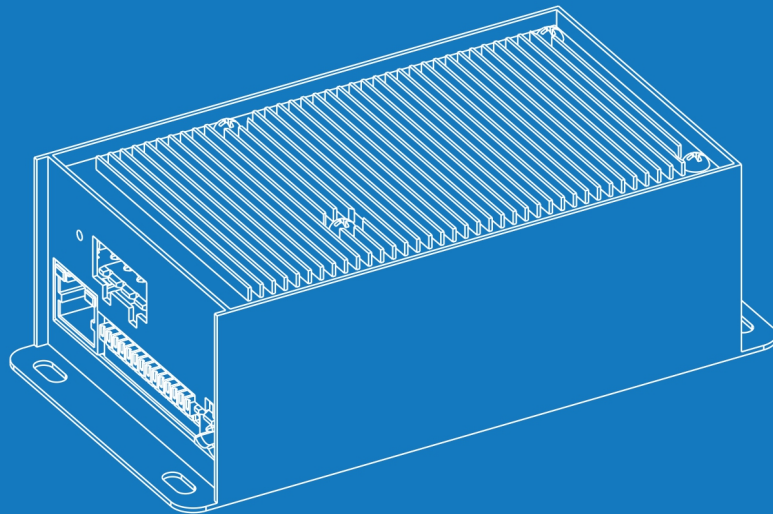


SPON

IP NETWORK PA MODULE

User Manual



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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

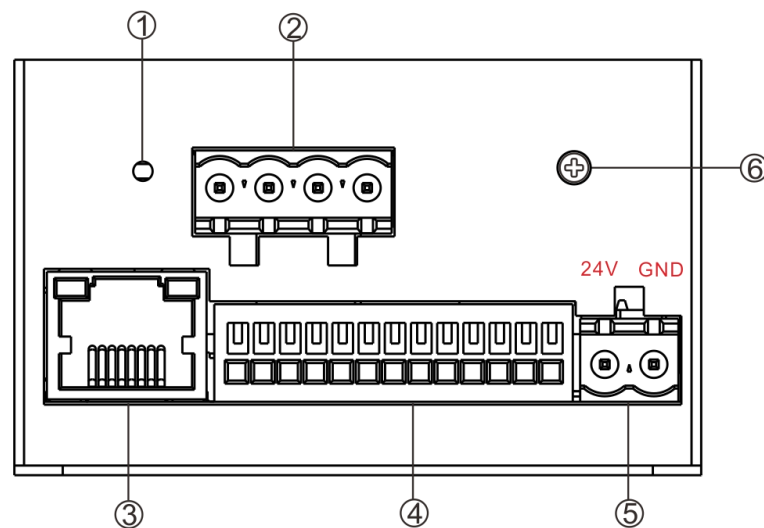
IP Network PA module is a standard-SIP-based sound decoder and converter with an amplifier. It is equipped with power supply interface , Ethernet interface ,etc. having the function of receiving broadcast initiating from IP paging microphone , software or other terminal.



Features

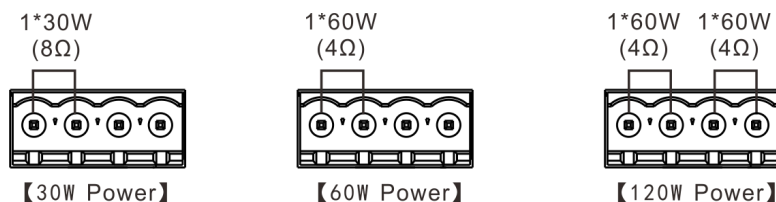
- Modular design, small and light appearance, convenient and simple installation.
- Providing 30W/60W/120W power supply IP Network PA module.
- With 1×Line Input and 1×Line Output.
- Capable of realizing on-time belling , real-time sound collecting and playing , offline broadcasting task ect function with the use of software.
- Possessing loop-fault-detect function to check the speaker’s working status and to display it on the software.
- Realizing personalized configuration through managing the speaker’s network parameters, audio parameters, task priority in web page.
- Operable in the Ethernet network and LAN network

Hardware Interface Introduction



①Reset Button: When the device is offline, short press this button to broadcast the local IP address of the device, and press it again during the broadcast to stop the broadcast. Long press this button for 5 seconds to restore factory settings and restart the device. Press and hold the reset button and then power on the device to force into the upgrade mode.

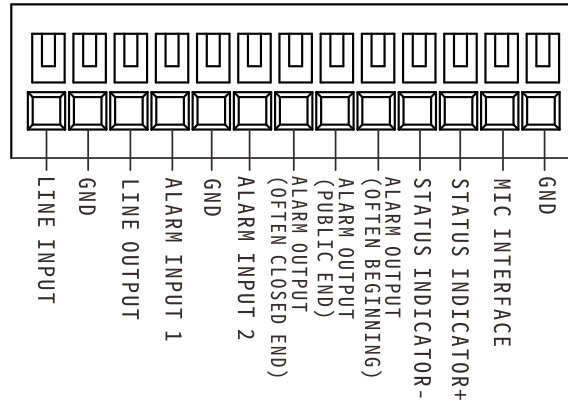
②Amplifier Output Interface: Three optional power level (1*30W/1*60W/2*60W) to choose from:



③Network Interface: Plug in the network cable to connect the device to Ethernet switch so that the device can log on to the server software normally.

Network status indicator light: On the right is the power indicator light: green light will be always on when the device is powered on; On the left is the data transmission indicator light: orange light will be flashing slowly when the network cable is plugged in; orange light will be always on when the device is logged on the server software; orange light will be flashing quickly when there's data transmission, it will flashing faster when there's more data transmission.

④Synthesis Interface, the interface functions are as below:



- 1) Line Input: can be connected to external audio source such as PC or CD player;
- 2) Line Output: can be connected to external active speaker or power amplifier for sound reinforcement;
- 3) Relay Input: the audio file in [Ringtone] - [ShortIn] in the FTP server will be played automatically when the relay input interface is being activated.
- 4) Reply Output: can be activated on the server software.
- 5) Status Indicator Light: Two-color light, when online, the green light is always on in idle state, and the green light flashes quickly when there is audio playback; when offline: the red light flashes slowly when idle, and the red light flashes quickly when there is audio playback.
- 6) MIC interface: The loop detection function can be enabled on the web page, and the working status of the speaker can be detected through the MIC. At the same time, it supports the automatic volume adjustment function for recognizing environmental noise.

⑤Power Input Interface: DC 24V power input.

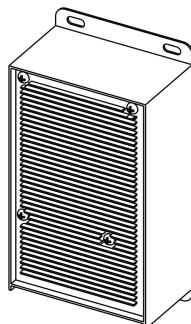
⑥Ground Terminal.

Supplementary Information

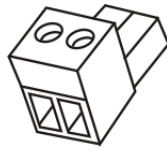
Packing list

The IP Network PA module includes the following accessories. Please check following parts. Contact your reseller if any parts are missing.

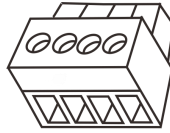
- (1) IP Network PA module 1PCS



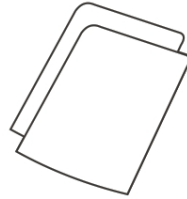
- (2) Wiring Terminal (5.08-2P) 1PCS



(3) Wiring Terminal (5.08-4P) 1PCS



(4) Installation instructions 1PCS



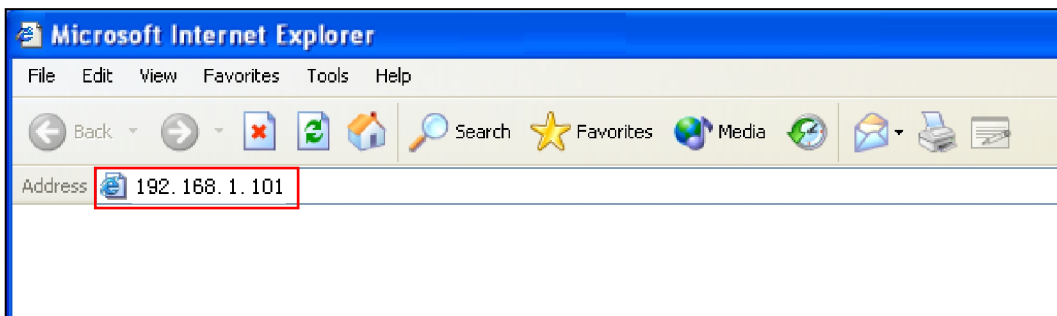
(5) Certification 1pcs



User-defined web page settings

Login web interface

- (1) Use a web browser and navigate to the IP address of the IP Network PA module (factory default is http://192.168.1.101), then press Enter.



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

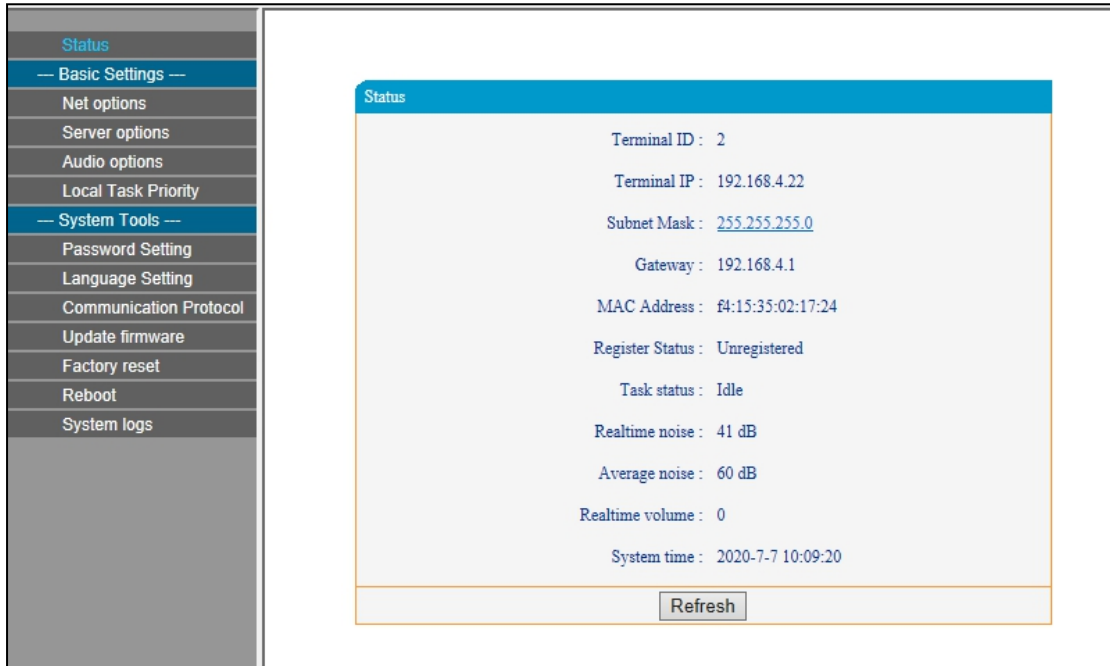


- (2) After pressing Enter, you will arrive in the configuration web page of the IP Network PA module. (Note :After saving the parameters in web page , if it doesn't take effect , please clear your browser caches , then

re-configuring it)

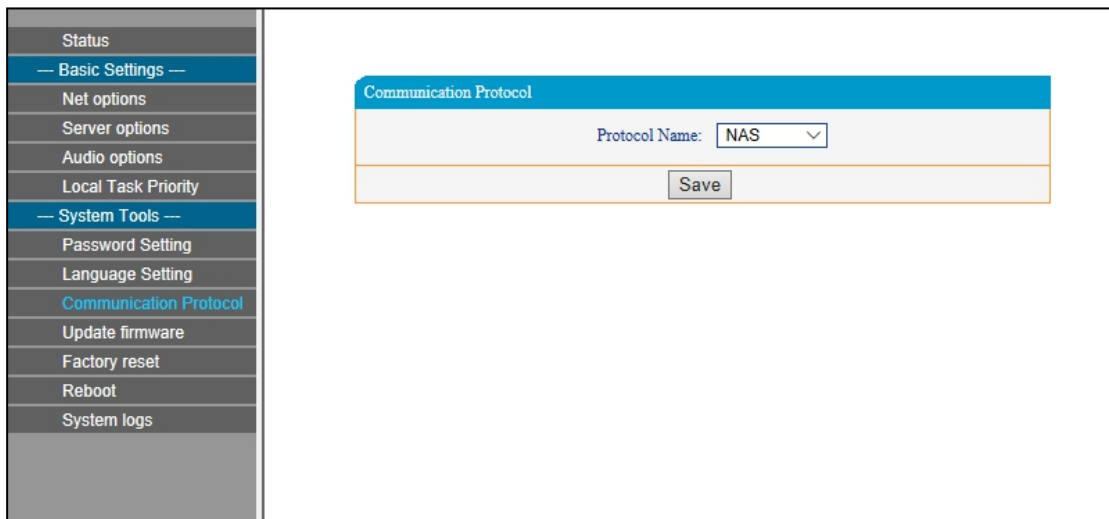
System Tools

In this window , user can check device 's ID, IP address , subnet mask ect. parameters , simultaneously checking the status of device and task , noise level , real time volume and so on.



Protocols

IP Network PA module support SPON NAS Protocol and Standard SIP protocol (the default is SIP protocol) . Please select the protocol correspond to the type of software which device will log in . After saving , please clear the browse cache and restart the browse to let it take effect.(Note : Choosing different protocol will have different options at left side , please subject to real interface)



Network Parameters

Status
— Basic Settings —
Net options
Server options
Audio options
Local Task Priority
— System Tools —
Password Setting
Language Setting
Communication Protocol
Update firmware
Factory reset
Reboot
System logs

Net options

Terminal IP :

Subnet Mask :

Gateway :

DNS1(Optional) :

DNS2(Optional) :

Surge Protection :

The parameters have the following meanings:

Device IP	Device IP address (the default is 92.168.1.101 and it cannot be repeated against other device)
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
Surge Protection	<p>After enabling surge protection , when the speaker is attacked by the surge or static electricity, the speaker will automatically detect them ,letting the network restore to normal automatically.(on the premise of all network parts undamaged)</p> <p>Note : This function can only detect the status of network . It will not deal with the issues when other parts not related network are attacked by the surge or static electricity.</p>

Sip parameters (When choosing SIP protocol)

Status
— Basic Settings —
Net options
Sip options
Audio options
Local Task Priority
— System Tools —
Password Setting
Language Setting
Communication Protocol
Update firmware
Factory reset
Reboot
System logs

Sip options

Sip Server: :

Account:

Password:

Local Port:

Audio port:

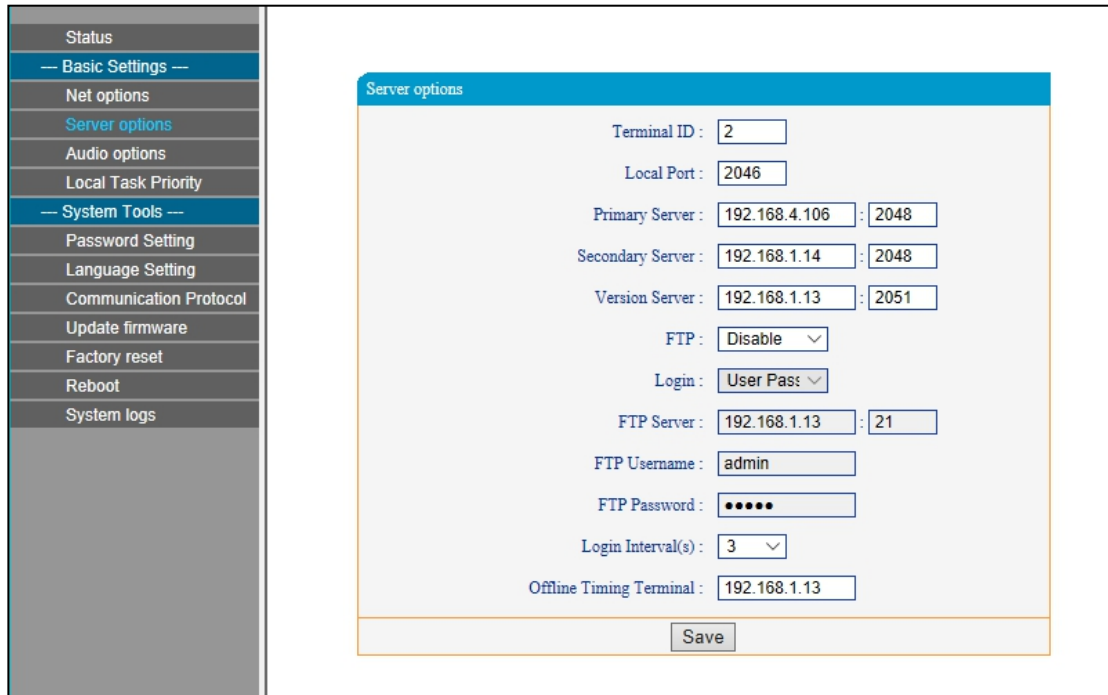
Offline Timing Server:

The parameters have the following meanings:

SIP Server	SIP address of the device, please do not modify the SIP server port if without special needs (The default port is 5060)
Account	SIP account of the device and it cannot be repeated with other device.

Password	The password of device when login SIP server.
Local Port	Please set up local port based on real situation.
Audio Port	Please set up audio port based on real situation.
Offline auto-time-correction server	Please set up the IP address of offline time-correction server. After turning on speaker , when it isn't connecting to the software within 60s to 100s , the speaker will correct time once . In addition , the speaker will correct time every 6 hours when speaker are offline.

Server parameters (NAS protocol)

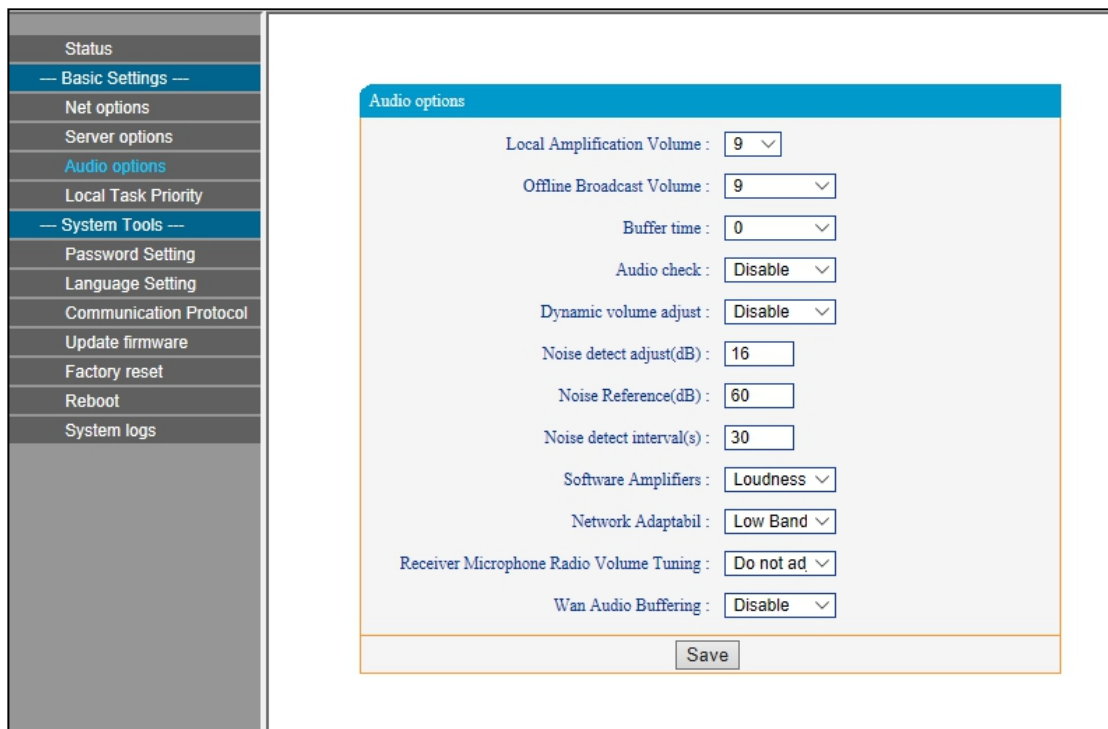


The parameters have the following meanings:

The device number	Terminal ID, this number identifies IP Network PA module when more than one intercom is in the network. Range 1-999, the factory default is 1.标
Local port	The device local port, please do not modify it if without special needs . The factory default is 2046
Preferred server	The IP address of the preferred server for this IP Network PA module, the factory default is 192.168.1.13.
Standby server	When the preferred server is not available, the IP Network PA module will log in to the standby server
Server version	Server version IP. When there are many IP Network PA module in a project . They all set up same server version IP . Once user upload the new Firmware at server version IP address , all the speaker will automatically update after being restarted.
FTP	User can enable or disable FTP function. When enable FTP function, user can use FTP to update the offline tasks automatically. Note: When user use XC software to push offline tasks, then need to close FTP function.
Method of Login	User can log in with username and password , or login directly without inputting any information.
FTP server	IP User can set up FTP server address.

FTP Name, FTP Password	FTP Name: The factory default is admin; FTP Password: The factory default is admin
Request Login Interval time	When the intercom is offline, this timer will define the interval of login requests that are sent to the server.
Terminal time-correcting IP address	Input other terminal 's IP address as a reference. When terminal are offline , terminal will correct the time based on yr referenced terminal if offline time-correction server fails to correct the time, and will correct time every 6 hours (Note: all the terminal should use NAS protocol to log in software)

Audio parameters



The parameters have the following meanings: :

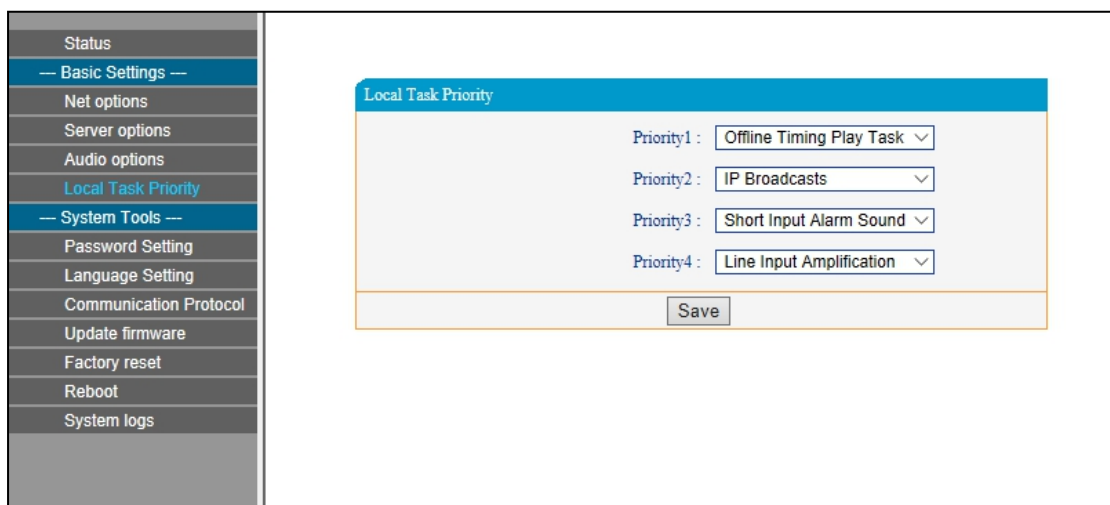
Local sound volume	Finished products do not have line-in interface and this function is reserved.
Offline speaker broadcast volume	Rang from 0-15 Note: when speaker are online , sound volume will be controlled by software
Buffer time	Buffer time means when device receiving network task, the time that the device will delay to broadcast to make sure the sound quality under poor network
Audio Check	Audio check means loop detection function .After enabling the function, the device will play sound through built-in microphone after receiving server tasks. When there are problem like speaker unit fault or cable fault, the device will self-judge the problem and feedback to server.
Dynamic volume adjustment	After enabling it , the IP Network PA module can automatically adjust broadcasting sound volume as per the noise level. For example : when nearby noise sound larger than referenced noise value , and larger than noise detection correction value , the IP network PA module 's real time sound volume will be increased. And vice versa When disable it, no this function.
Noise detection	The default is 16dB.

correction(dB)	Note: Noise detection correction value = the noise value of decibel test machine-Noise reference value (under the premise of setting up noise detection correction value as 0).
Noise reference(dB)	It means the average noise level when under normal environment. The default is 60dB.
Noise detect interval(s)	It means setting the intervals of average noise detection time . The default is 30s. And it changes based on what user set up.
Software Amplifiers	It can set up the quality of digital audio source. It has two choices , one priority of audio quality, another priority of audio loudness. We recommend you to choose the option of priority of audio loudness if requiring higher audio loudness.
Network Adaptability	User can set up the network adaptability . The default is low band. If user choose the option of low band , it can make sure to broadcast complete audio data when receiving network broadcast tasks . But it may occur broadcast delay when under poor network. If user choose the option of proper delay , it can make sure to broadcast real time. But it may occur the situation of discontinuous packet loss when under poor network. Note: We recommend you to choose the option of low band if requiring higher complete audio data. ; And recommending you to choose the option of proper delay if requiring synchronous broadcasting.
Receiver Microphone Radio Volume Tuning	The volume of the receiving microphone broadcast can be properly attenuated (1dB, 2dB, 3dB or 4dB) to avoid sound distortion due to excessive volume. The default is no adjustment.
Wan Audio Buffering	Once enable this function , it can improve the audio sound quality when the network is congested

Priority of local task.

In this window, user can set up the priority of task.

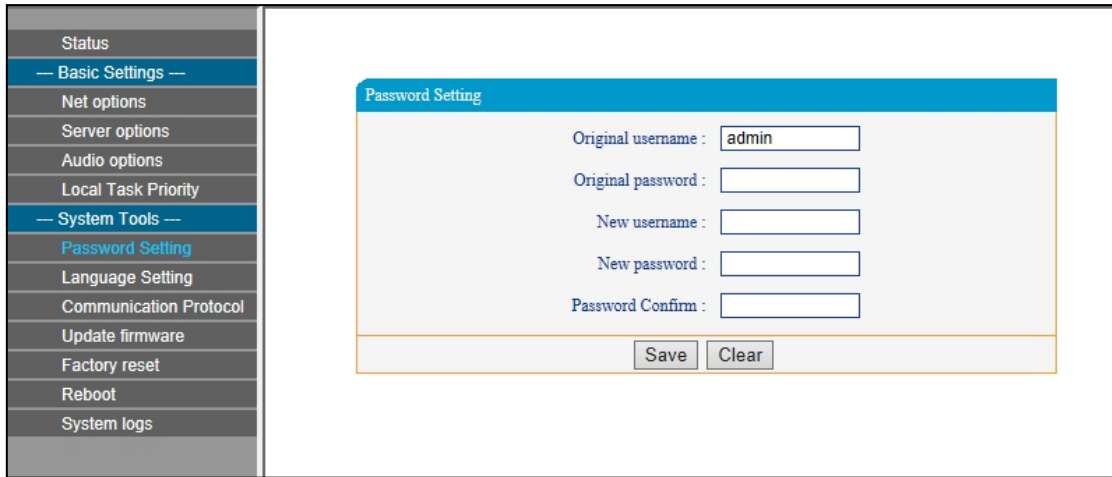
Default priority order :Offline on-time task>IP Broadcasting> Short-circuit input alarm > Line in local sound reinforcement 设



Password modification

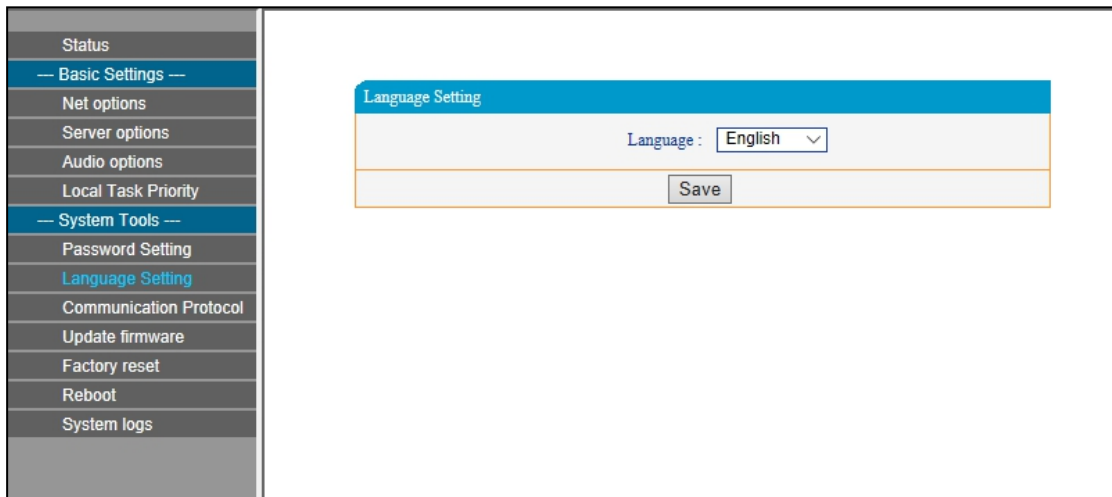
You can change the web page login-in account and password here, it will be effective after

clicking on “Save”.



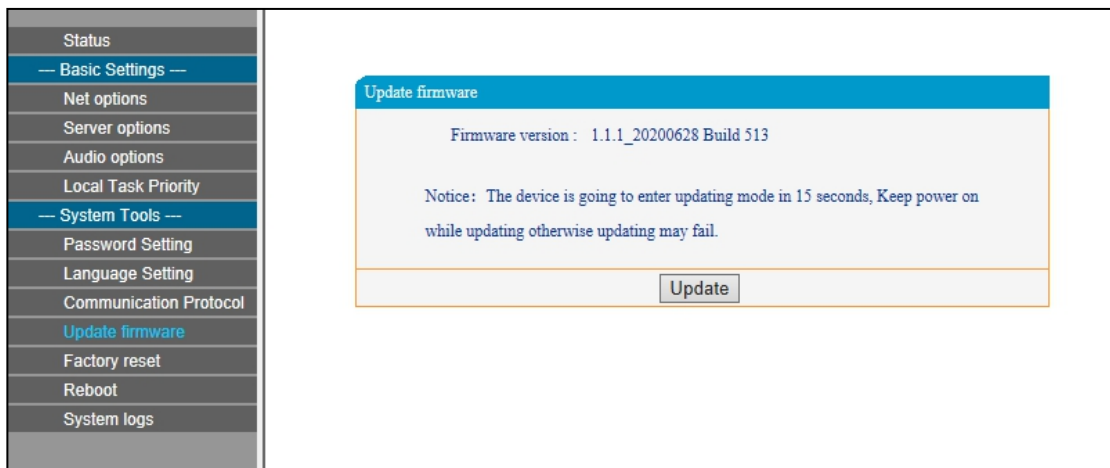
Language settings

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



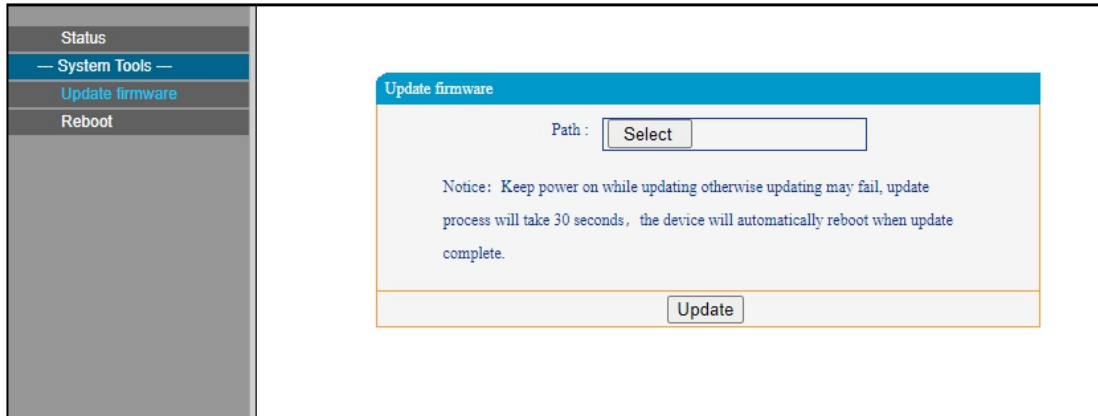
Upgrade the firmware (Note: please do not upgrade the firmware without any special needs)

Click “System Tools” and “Upgrade Firmware” to enter the firmware upgrade page.(if meeting abnormal web when enter to upgrade mode , please clear all cache of browser , then re-log in to web page.



After successfully choosing the right Firmware provided by factory , then click “update” (please note that do not cut off power

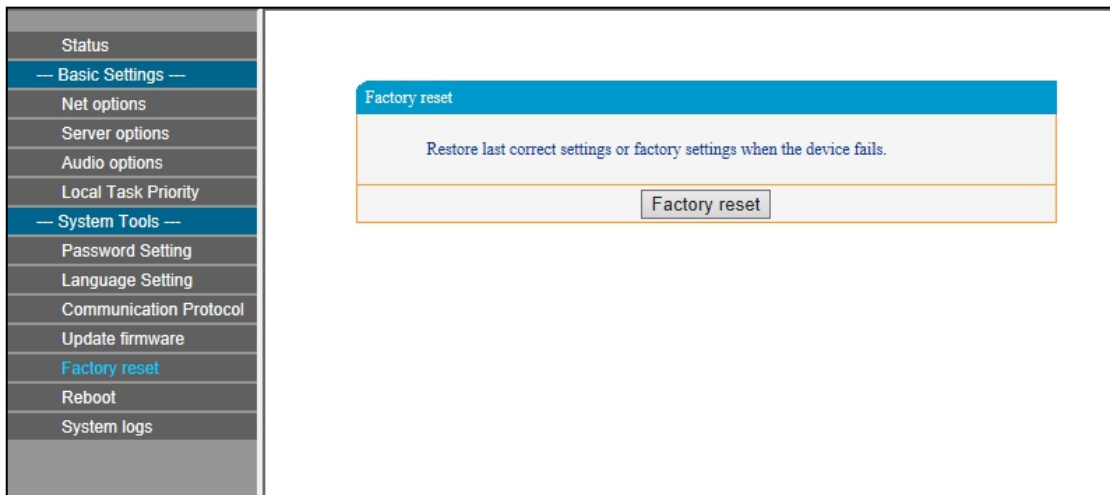
of device , it will cause upgrade failed.)



Then click reboot and back to normal settings.

Reset to Defaults

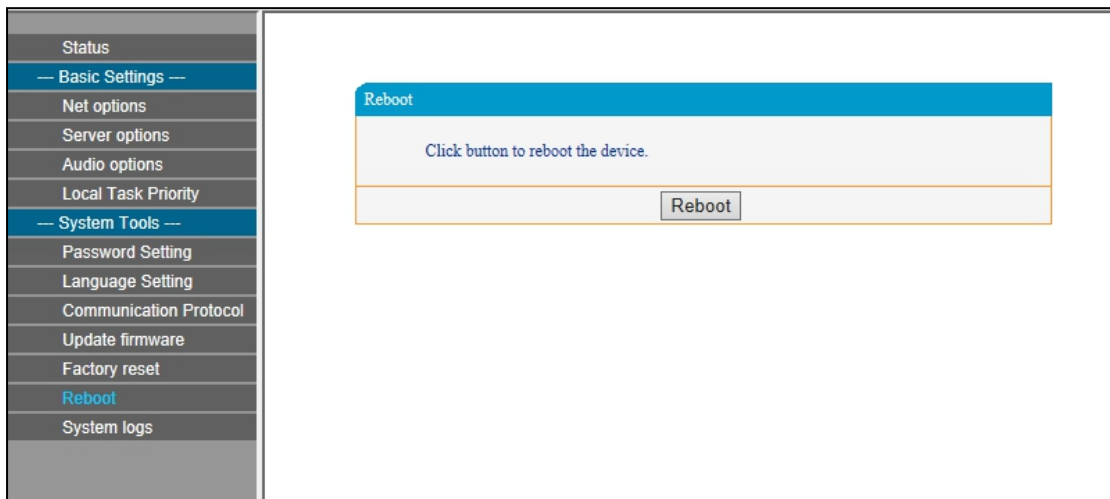
Reset to defaults: all parameters need to be reset to defaults



Restart device

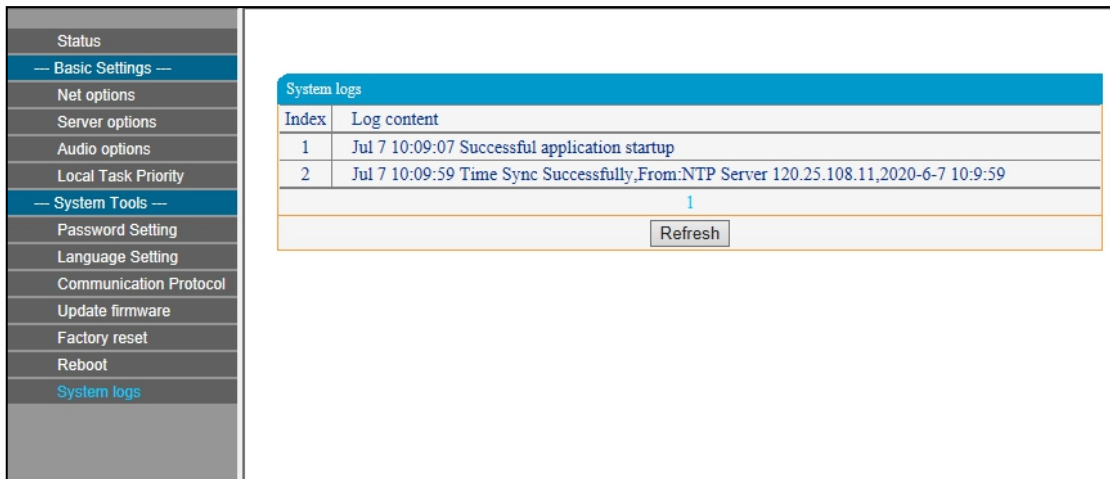
Restart the device

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



System log

The logfile contains all system events of IP Network PA module.



Basic functions

Receive Broadcast

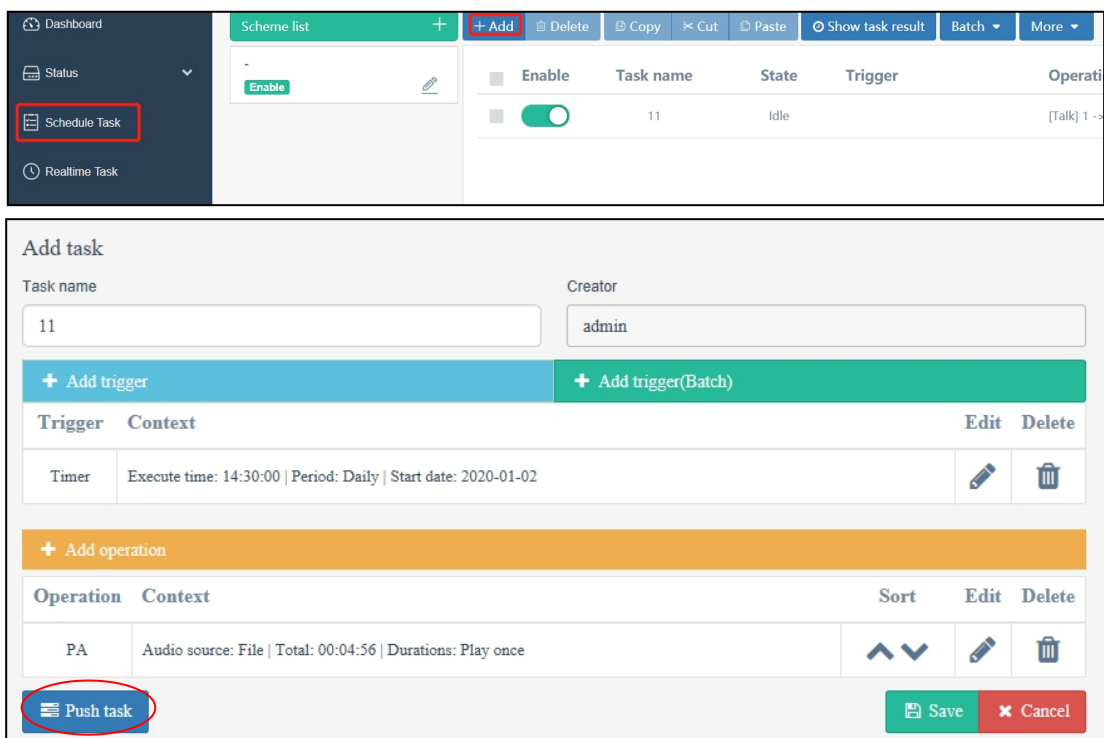
Support receive broadcast initiating by server or other terminals.

Offline Broadcast

IP Network PA module supports offline broadcast, when device is offline, terminal can play on-time ring bell task set up by the server. the setting steps of offline broadcast as follows:

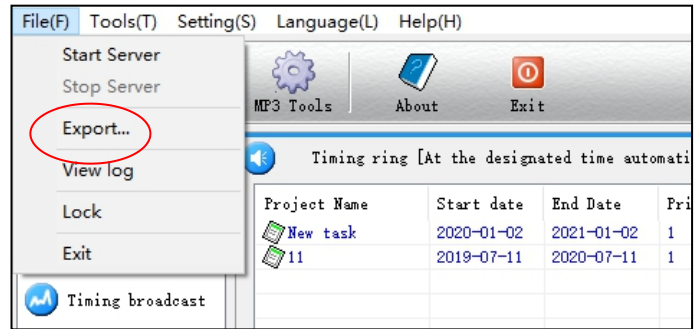
- 1) User can add a “On-time Ringing ” task in the schedule task interface .Click icon “Add” to do detailed operations such as setting up executing time and schedule type in Add Trigger interface, or setting up terminal ID and file in Add Operation interface ect.
- 2) After click save, then click push task icon in the left bottom.

Notes: offline broadcast only support MP3 format audio.

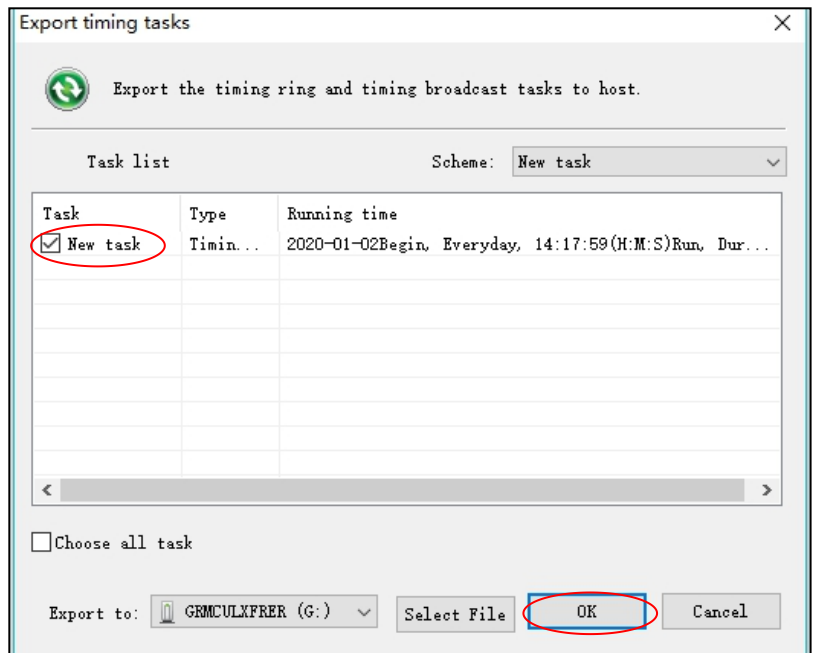


Steps under NAS software

1) Setting “time ring bell” task in the server software (for the specific steps, please refer to server software Operation Manual), and then click [File(F)]-[Export].

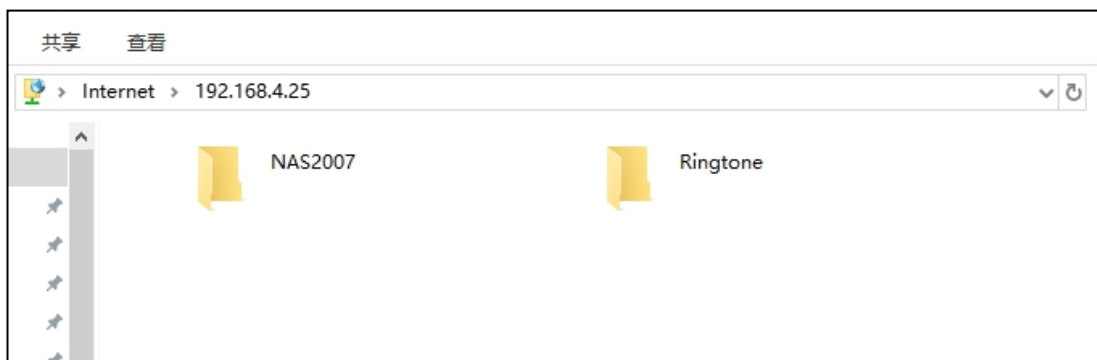


2) Select the task in the “Export timing tasks” list, and then click “OK”, tasks will be exported to specified path.



3) Access to terminal FTP:// terminal IP(the defaults user name and password is admin), put the exporting timing ring bell document to “NAS2007” under FTP (note :If there is no folder named as NAS2007 ,please crease a new one), It will be effective after reboot device.

Notes: offline broadcast only support MP3 format audio.



Receive Monitor

IP Network PA module can receive monitor initiated by other terminals.

Fault Exclude

Terminal can not login to the server?

1. Check the server software and main control computer is normally open or not. It must close all the firewall before open the service software, (including the systemic firewall and other antivirus software).
2. Check the network connection is normally working or not.
3. Check the terminal IP setting. Checking the terminal ID No., server IP, local IP and gateway IP these parameters is correct or not.

No sound when receiving broadcast

1. Check whether the device is online or not
2. Check whether device sound volume in server and in web page to be 0 , if yes , please increase it.

When web show abnormal?

Please clear the caches or change the browser

No sound after relay input has been activated

1. Enter the device FTP and check whether there are audio files in the [Ringtone]-[ShortIn] folder. If not, please place the audio file in the following format:
The naming is fixed as: alarmin1 or alarmin2 (alarmin1 is alarm input 1 prompt sound, alarmin2 is alarm input 2 prompt sound), the file must be in mp3 format, 128Kbps file.
2. The alarm input trigger tone only takes effect when the device is offline.

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