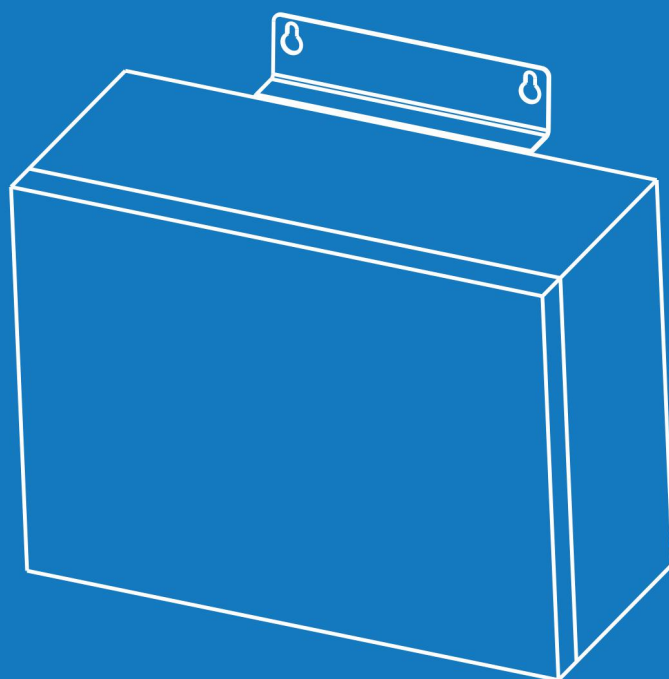


***SPON***

# IP AUDIO SPEAKER

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

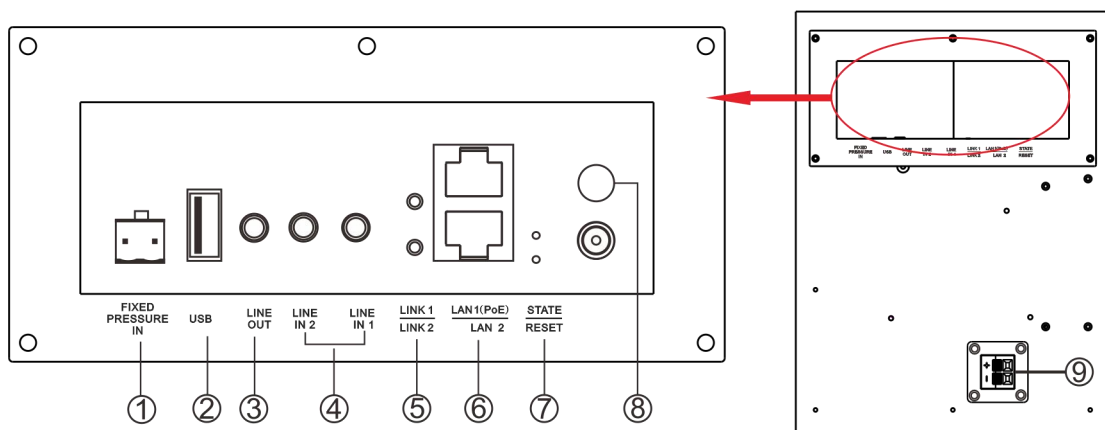
The IP audio speaker uses embedded IP Audio digital network audio technology with intellectual property rights. The set is equipped with power input, network interface, line in and line out ect..supportive of receiving the broadcast initiating from other terminal or server.



- With an integration of the network audio decoding, digital amplifier and audio speaker.
- Built-in class-D digital amplifier, power output:2\*30W 8Ω
- Supportive of realizing on-time belling, real-time broadcast, offline broadcast, local on-time task ect. with the use of software
- With 2 line input and 1 line input
- With a built-in loop detector to detect the speaker's status and displaying it at software.
- With double Ethernet port, one is for POE power supply, another is for connecting another speaker.
- Possessing NTP automatic time correction function to avoid the ringing task failure caused by long time offline
- Optional: wireless receiving module, 2.4G wireless microphone.
- Optional: constant voltage backup module, connecting 100V constant voltage broadcasting circuit as the backup line. Once enabling examination mode, it can automatically switch from digital network broadcasting to constant voltage broadcasting when under abnormal network.

## Hardware Interface Introduction

### Back



- ① Constant voltage input port: supporting 100V audio input. It can automatically switch to analog constant voltage broadcasting when under abnormal network or without power (Optional).
- ② USB Port: Use for downloading program or connecting LED screen, clock. (Optional)
- ③ Line output port
- ④ Line input port
- ⑤ Network task indicator light: After connecting cable, green light is always on if not receiving software task; The green light will flash when receiving software task.LINK1 and LINK2 is correspond to network port 1 and network port 2

separately.

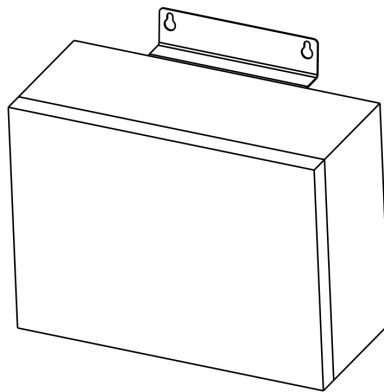
- ⑥ Network port: for connecting switch to assure it to be logged in the software normally.(With double network port , the first one is for POE power supplying )
- ⑦ Status indicator light/ reset button  
Status indicator light demonstrate the device status. The red light will slowly flash when the device is offline, while the green light will be always on when the device is online.  
Reset button: Pressing it with the use of small pin, the device will broadcast device ID, IP address. 5 second long time press to reset the device.
- ⑧ Power supply port: Connecting AC220V power supply.
- ⑨ Constant resistance output port: For connecting deputy speaker (30W/Ω) ,the red presents positive, the black presents negative

## Introduction

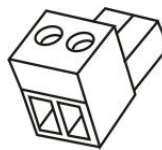
### Packing List

The IP audio speaker includes the following parts, please check all the parts before the installation, if any missing, please contact your supplier

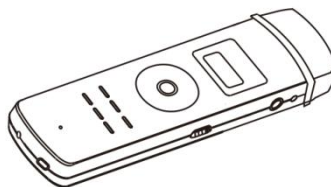
- (1) IP audio speaker 1pcs



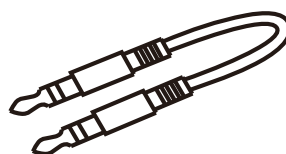
- (2) Wiring port (5.08-2P) 1pcs **(It is only equipped for device with constant voltage backup)**



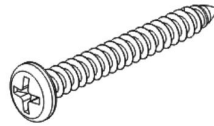
- (3) Remote control 1pcs (optional for device with wireless module)



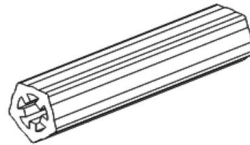
- (4) Double connector 3.5 audio cable (2.5m) 1pcs



- (5) Semi-round head cross screw (ST4\*35) 3pcs



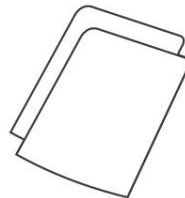
(6) Plastic expansion sleeves (F7) 3pcs



(7) Certification 1pcs



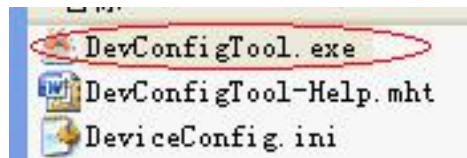
(8) Installation manual 1pcs



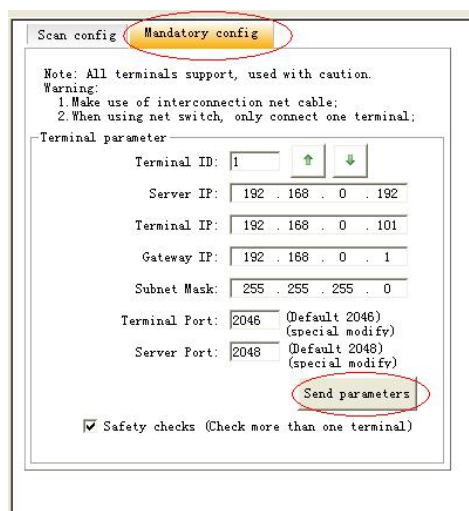
## Basic Network settings

### Terminal Equipment Scanning Tool

(1) From [CD: \ tools \] directory to find and run "EdvConfigTool.exe ", after start it , please enter the default password "123456".



(2) From the right menu choose **【Mandatory config】** , then fill the correct parameters in the **【terminal parameters】** , click "send parameters" button to complete the IP parameters Settings.



### Note:

1. When using the Windows 7 operating system, please use the administrator mode, then close the firewall and the related software.

**2. Terminal equipment scanning tools can only configure one terminal at one time. When using this method, please make sure that a computer is only corresponding to one target terminal.**

#### Web page mode

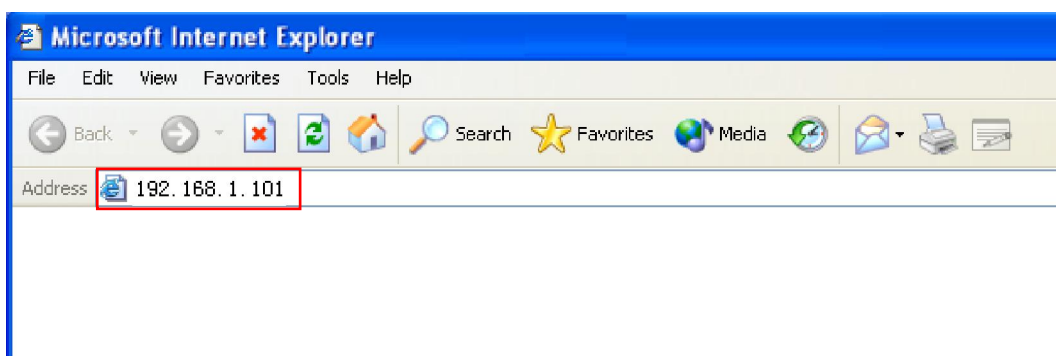
Enter the web interface of the IP audio speaker, modify the parameters of the network parameters according to the scene environment, and click "save" after setting up.

The specific operation steps refer to the network parameters settings in the user-define terminal parameters.

## User-Define Terminal Parameters

### Login web interface

(1) Please enter the IP audio speaker's IP address( the factory default IP address is 192.168.1.101, when you press the reset button, the terminal will automatically broadcast the IP address without network) ,then enter



(2) Enter the username and password in the web page login window (the default is admin)



(3) Click OK to enter the web page of the IP audio speaker.

Status
— Basic Settings —
Net options
Sip options
Audio options
Ied board options
— System Tools —
Password Setting
Language Setting
Versions Setting
Update firmware
Factory reset
Reboot
Time To Restart
System logs

Status

Terminal ID : 1

Terminal IP : 192.168.4.26

Subnet Mask : 255.255.255.0

Gateway : 192.168.4.1

MAC Address : f4:15:35:01:fd:f5

Register Status : Registered

Task status : Idle

Realtime volume : 9

System time : 2022-4-18 13:17:21

Refresh

## Network Parameters

Status
— Basic Settings —
Net options
Sip options
Audio options
Ied board options
— System Tools —
Password Setting
Language Setting
Versions Setting
Update firmware
Factory reset
Reboot
Time To Restart
System logs

Net options

Terminal IP :

Subnet Mask :

Gateway :

DNS1(Optional) :

DNS2(Optional) :

Save

Parameters as following:

Device IP	The only identify device No., it can't repeat with other device.(The default is 192.168.1.101)
Subnet mask	The subnet mask of the terminal
Gateway	The gateway of the terminal
DNS1	The network preferred domain name interpreter's IP of the terminal
DNS2	The network reserved domain name interpreter's IP of the terminal



## Server Parameters

The screenshot shows the 'Server options' configuration page. On the left is a sidebar menu with options: Status, Basic Settings, Net options, **Server options**, Audio options, led board options, System Tools, Password Setting, Language Setting, Versions Setting, Update firmware, Factory reset, Reboot, Time To Restart, and System logs. The main content area is titled 'Server options' and contains the following fields:

- NAS Server: ☐ Enable
- Terminal ID:
- Local Port:
- Primary Server:  :
- Secondary Server:  :
- Version Server:  :
- FTP:
- FTP Server:  :
- FTP Username:
- FTP Password:
- Login Interval(s):
- 

Parameters as following:

Terminal ID	The only Number to identify terminal, it can't repeat with other device or hosts, the factory default is 1
Local port	The terminal port .Note: can't modify otherwise special situation of terminal(default is 2046)
Preferred server	The IP address of the preferred server for this IP audio speaker, the factory default is 192.168.1.13.
Alternate server	When the preferred server is not available, the IP audio speaker will log in to the standby server.
Version Server	Version server IP, connecting version server to automatically upgrade program when terminal restart.
FPT server	File server IP, download the pointed files by FTP server to built-in memory via FTP.
FTP User name	User name of login FTP server, the factory default is admin
FTP password	Password of login FTP server, the factory default is admin.
Login interval(s)	Interval of login FTP server.

## SIP Parameters

Status	
— Basic Settings —	
Net options	
Sip options	
Audio options	
led board options	
— System Tools —	
Password Setting	
Language Setting	
Versions Setting	
Update firmware	
Factory reset	
Reboot	
Time To Restart	
System logs	

Parameters as following:

SIP Server	The address of the SIP server of the device. Please fill in the IP address or domain name of the SIP server correctly. Do not modify without special situation (default is 5060).
Account	The SIP account of the terminal, it can not repeat with other terminals..
Password	The password for the terminal to log in to the SIP server
Local Port	Configure the local port according to actual situation.
Audio Port	Configure the audio port according to actual situation.
Offline timing server	Set the IP of offline server, and enable it when offline.
Offline Timing terminal	Please input device IP address here.
Extra Type	Setting up clock type of this USB interface. It can be clock or LED.
Exam mode	After enabling it , when under normal network , it will broadcast via executing network task. However the device will broadcast via constant voltage amplifier when under the abnormal network.
Exam mode check time	Setting network monitoring time, it is available only in the examination mode. Configuration range is 2ms to 3000ms.

## Audio parameters

Status	<div>Audio options</div> <div> Local Audio Output Volume : 9  Offline Broadcast Volume : 9  Line In detect Threshold : 5  Reverberation elimination : 0  howling detection : Disable  Equalizer : Speech  Buffer time : 0  Audio check : Disable  EQ Mode : Enable  EQ Value : <table border="1"><tr><td>-1</td><td>-1</td><td>2</td></tr><tr><td>2</td><td>1</td><td>-4</td></tr><tr><td>-10</td><td></td><td></td></tr></table> </div> <div>Save</div>	-1	-1	2	2	1	-4	-10		
-1		-1	2							
2		1	-4							
-10										
— Basic Settings —										
Net options										
Sip options										
Audio options										
led board options										
— System Tools —										
Password Setting										
Language Setting										
Versions Setting										
Update firmware										
Factory reset										
Reboot										
Time To Restart										
System logs										

Parameters as following:

Local audio source output volume	Configuration range from 0 to 15
Broadcast volume without server	Configuration range from 0 to 15
Line In detect Threshold	Set the threshold for line input detection To avoid line noise and sound source generated by the body noise output from the speaker, When the line input audio amplitude is less than a certain value (line input threshold), the power amplifier will be automatically turned off within the specified time (the specified time can be set in line input recovery time). The higher the threshold, the higher the sound requirement for opening the power amplifier.
Reverberation elimination	User should set up its level first. The higher level, the better reverberation elimination quality.
Howling Detection	After enabling it, the howling caused by 2.4G wireless microphone close to speaker will be effectively suppressed. Note: If enabling this function, equalizer will switch to standard mode and it cannot be modified.
Equalizer	Before enable equalizer, user must disenable howling detection The equalizer is main aimed at the sound quality of 2.4G wireless, supporting standard, bass, popular, classic, rock, speech, voice and user-defined mode.
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.
EQ Mode EQ Value	The sound effect of current network task can be adjusted after enable the EQ. <b>Note:EQ value must be adjusted by personnel with relevant professional knowledge, non-professional personnel do not adjust at will, otherwise it will</b>

lead to poor sound quality.

## LED Board Options

Status	
— Basic Settings —	
Net options	
Sip options	
Audio options	
led board options	
— System Tools —	
Password Setting	
Language Setting	
Versions Setting	
Update firmware	
Factory reset	
Reboot	
Time To Restart	
System logs	

After IP audio speaker connect a LED clock , user can configure the LED's relevant function in this module.

LEDboard Checkself	<p>After enabling it , all the display light units will be on and slowly flash 4 times at 15 seconds , then will off .During that time , user can check whether all the display light units in LED board is okay or not.</p> <p>Note: If user has issued the message information at LED, after enabling this function, the LED board will not display the message again and user should re-set up task in server.</p>
Ledboard bright	<p>The LCD brightness mode is set to low by default. You can set the LCD brightness based on the actual environment. The Settings take effect immediately after you save the Settings.</p> <p>Note: The brightness mode can be changed only when screen detection is disabled. If the screen detection is enabled, the brightness mode is low by default and cannot be changed.</p>
LED Panel Version Query	<p>Click it to let the LED to display LED ' s version and it will off after 5 seconds.</p> <p>Note: If user has issued the message information at LED, after enabling this function, the LED board will not display the message again and user should re-set up task in server.</p>
LED panel update	<p>Click "browse" to select update file which provide by the LED board factory to realize online update</p>

## Password Settings

The account and password of the login web page can be modified in the WEB management parameters and they will take effect after reboot.

The screenshot shows the 'Password Setting' page. On the left is a sidebar menu with the following items: Status, Basic Settings (expanded), Net options, Sip options, Audio options, led board options, System Tools (expanded), Password Setting (highlighted), Language Setting, Versions Setting, Update firmware, Factory reset, Reboot, Time To Restart, and System logs. The main content area has a title bar 'Password Setting' and contains the following fields: 'Original username' with a text box containing 'admin', 'Original password' with an empty text box, 'New username' with an empty text box, 'New password' with an empty text box, and 'Password Confirm' with an empty text box. At the bottom right of the form are 'Save' and 'Clear' buttons.

## Language Settings

The language of the web page can be switched between Chinese and English.

The screenshot shows the 'Language Setting' page. The sidebar menu is identical to the previous screenshot, but 'Language Setting' is now highlighted under the 'System Tools' section. The main content area has a title bar 'Language Setting' and contains a 'Language' dropdown menu currently set to 'English'. At the bottom right of the form is a 'Save' button.

## Protocol settings

User can select corresponding protocol according to terminal's logging in method. If using NAS software, then choose NAS Protocol(I). If using XC software, then select SIP protocol(II).

ICMP: This function should be used together with IP config tool. When user use the latest IP config tool to configure the device network parameters, we suggest to disable ICMP function.

FTP: Set whether to enable FTP remote file transfer function. The default value is disable.

TELNET: Set whether to enable the TELNET remote login function. The default value is disable.

The screenshot shows the 'Versions Setting' window. On the left is a sidebar menu with options: Status, Basic Settings, Net options, Sip options, Audio options, led board options, System Tools, Password Setting, Language Setting, Versions Setting (highlighted), Update firmware, Factory reset, Reboot, Time To Restart, and System logs. The main content area displays the 'Versions Setting' dialog with the following fields:

- Versions: II(SIP) (dropdown menu)
- ICMP: Enable (dropdown menu)
- FTP: Disable (dropdown menu)
- TELNET: Disable (dropdown menu)
- Save (button)

## Firmware Upgrade

Click the "Upgrade" button, you will enter the firmware upgrade mode after 15 seconds, click "Browser", select the upgrade file provided by the manufacturer, and click "Upgrade" to start the upgrade.

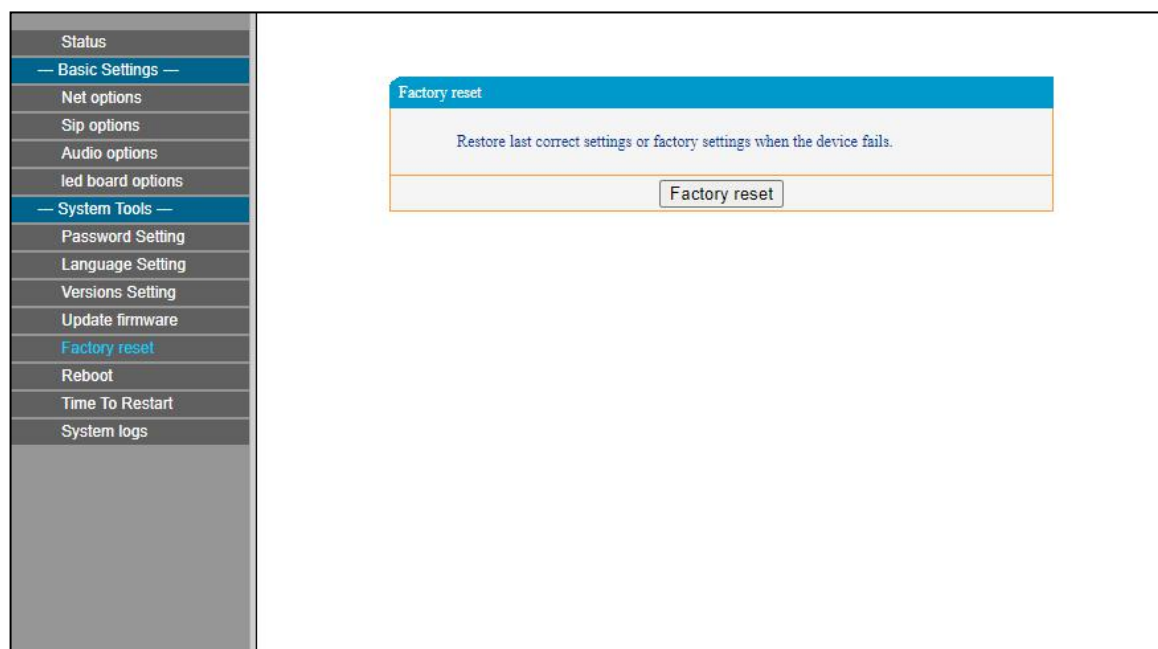
Note: Do not power off during the upgrade process, otherwise the upgrade may fail and the device fails.

The screenshot shows the 'Update firmware' window. On the left is a sidebar menu with options: Status, Basic Settings, Net options, Sip options, Audio options, led board options, System Tools, Password Setting, Language Setting, Versions Setting, Update firmware (highlighted), Factory reset, Reboot, Time To Restart, and System logs. The main content area displays the 'Update firmware' dialog with the following information:

- Firmware version: [Std]\_1.2.4\_20220402 Build 909
- Notice: The device is going to enter updating mode in 15 seconds, Keep power on while updating otherwise updating may fail.
- Update (button)

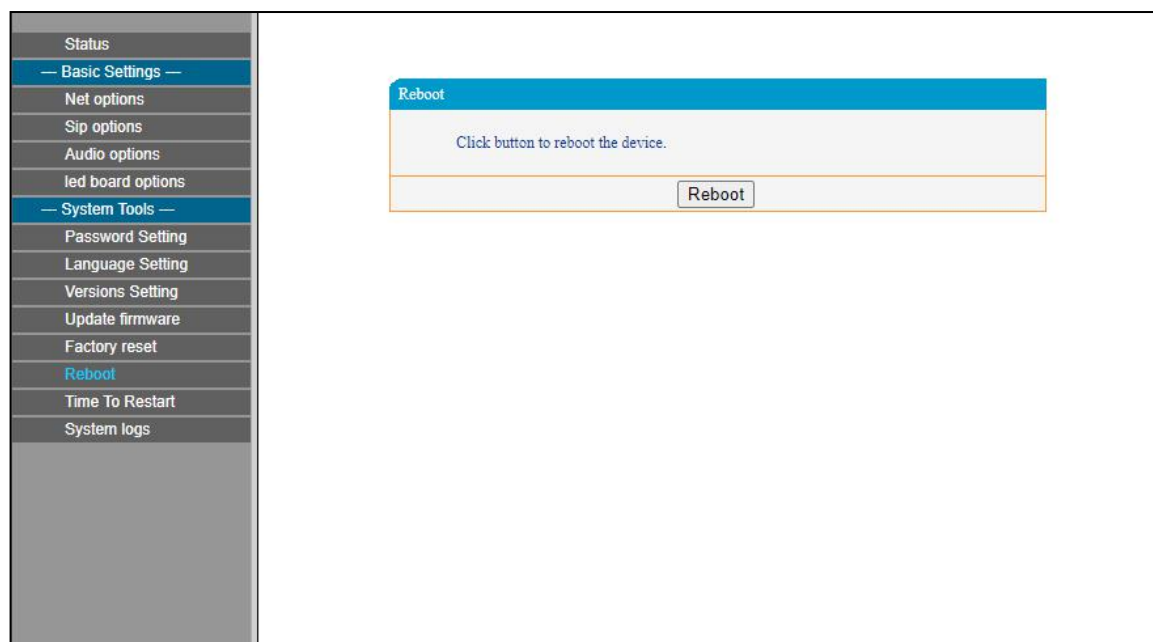
## Reset to Defaults

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



## Reboot Device

User can click "Reboot" to reboot the device



## Time To Restart

After this function is enabled, you can set the time for restarting the device every day. The default value is disabled.

Time To Restart

Time To Restart : Disable ▼

Timed Restart Time :

Save

## System Log

IP audio speaker can record the operating condition and form log, the user can browser the system log in web page.

System logs	
Index	Log content
1	Apr 18 11:58:44 Started successfully
2	Apr 18 11:58:47 Login sever 192.168.4.101:2048
3	Apr 18 13:16:30 Reboot
4	Apr 18 13:16:45 Started successfully
5	Apr 18 13:16:50 Login Sip sever 192.168.4.101:5060
6	Apr 18 13:17:07 Started successfully
7	Apr 18 13:17:13 Login Sip sever 192.168.4.101:5060

Refresh



## Basic Functions

### Receive Broadcast

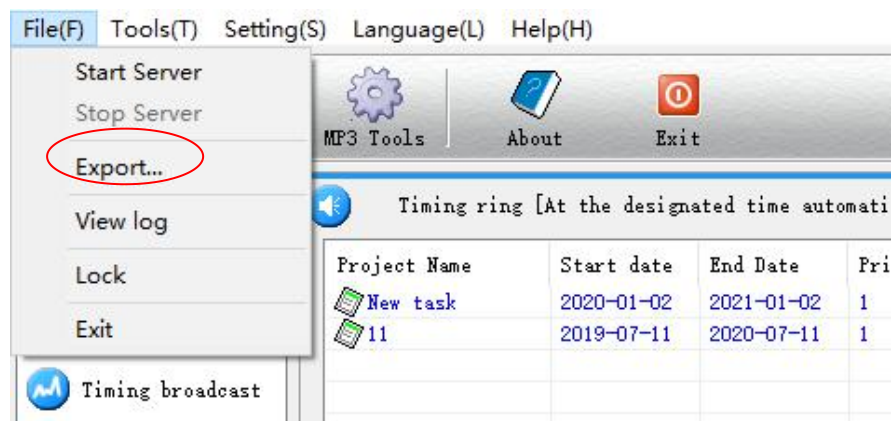
Support receive broadcast of other servers or terminals.

### Offline Broadcast

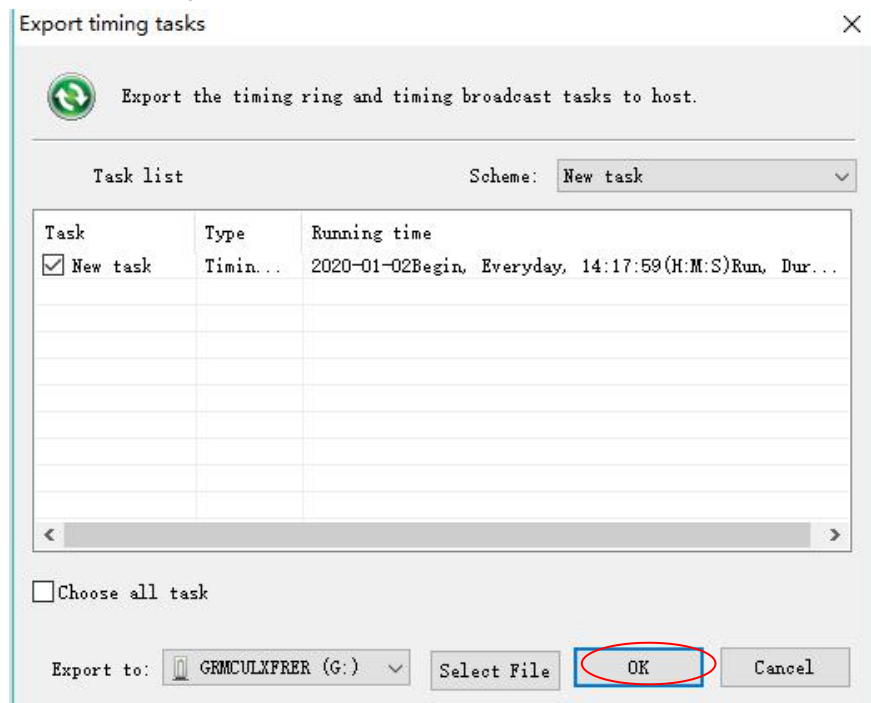
IP audio speaker support offline broadcast, when offline, terminal can timing play ring bell task set by the server. the setting steps of offline broadcast as follows:

#### Steps under NAS software

1) Setting “timing ring bell” task in the server software (the specific operation 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.

**Steps under XC software:**

- 1) User can add a "On-timing 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.

The screenshot displays the 'Add task' interface in the XC software. On the left sidebar, the 'Schedule Task' option is selected. The main area shows a form with the following details:

- Task name:** 11
- Creator:** admin
- Triggers:** One trigger of type 'Timer' is configured with 'Execute time: 14:30:00 | Period: Daily | Start date: 2020-01-02'.
- Operations:** One operation of type 'PA' is configured with 'Audio source: File | Total: 00:04:56 | Durations: Play once'.
- Buttons:** A 'Push task' button is highlighted with a red circle at the bottom left. 'Save' and 'Cancel' buttons are at the bottom right.

**2. 4G Local sound reinforcement(Requiring device with 2.4G wireless module)**

Using a 2.4G wireless microphone to reinforce the sound and it will take effect after successfully auto pairing.

**Information Issue**

Under the circumstance of the device ' USB port connecting with LED clock, user can set up LED clock displaying message here.

**Detailed steps as the below:**

- (1) Making sure the device is successfully logging in the XC-9000 software.
- (2) In "Schedule Task >>> Add >>> Add Operation", selecting " Command" type in Operation and then selecting Publish Info in Command Type, then inputting the information in Send Content, finally choosing the Target ID at right and click save.

User-defined settings: Speed, Effect, Time format, Time duration, Text duration

Add operation

Operation

Command

Enable the event source terminal id

Enable event opposite source terminal number

Command type

Publish info

Send content

Welcome

Speed

1

Effect

Only display time

Time format

[YYYY-MM-DD HH:MM:SS]

Time duration

None

Text duration

1min

Durations

unlimited User defined

00 : 00 : 00 s

AlarmPA

Save Cancel

Target

- All
- 1\_Zone1
- 1-1
- 2\_Zone2
- 3\_Zone3
- Undefined zone

(3) After successfully save, user can operate it automatically or manually in Schedule Task interface.

Schedule Task(Current scheme: music)

Scheme list + Add Delete Copy Cut Paste Show task result Batch More

Calendar

music Enable

Enable	Task name	State	Trigger	Operation	Manual	More
<input checked="" type="checkbox"/>	welcome	Idle		[Command] Publish info,		...

Run scheduled tasks

**Note:** When adding a task, user can decide whether to add a trigger according to real situation. If a trigger has not been added, then need to run information issuing task manually.

## 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. When the terminal is power on, the network port green indicator light will be normal on, and orange indicator light will rapidly short flicker, it means the cable hard-link is normal. If the network port green indicator light is not light up, there is network hard-link problem, please check the cable and switch which is connected the terminal, check if there is any damage and poor contact abnormal working.
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.

### 2.4G wireless microphone no sound.

1. Checking whether microphone has successfully connected to device . If not , closing the microphone and re-connect.
2. Check whether microphone has connected to other devices. If yes, closing it and re-connect .
3. After successfully paired , increase the microphone sound volume

### When web show abnormal?

Please clear the caches or change the browser

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