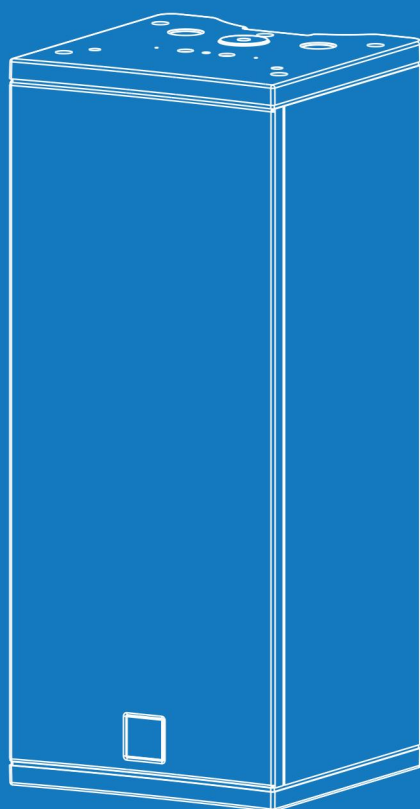


***SPON***

# IP NETWORK COLUMN

User Manual



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## Summary

### Safety precaution

Please abide by the warning and the relevant safety tips.

Please take this manual in convenient place after you reading the guide for future reference.

### Warning



The sign means there is potential safety hazard, when operate wrong may result in death or serious injury.



The sign is used to remind user of this equipment is attached the important data of operation and maintenance.

### Setting and Installation

- (1) Avoid being wet with the water.

Don't make the machine or exposed to rain water or other liquid contamination of the environment, or lead to fire or get an electric shock.

- (2) Don't use voltage outside of the designation

Using the marked voltage on the machine.

Using more than the logo of voltage could lead to fire or shock.

- (3) Don't scratch the power cord.

Don't scratch the power cord or cut it.

Simultaneous, keep the power line far way from heated objects, put heavy things on it will lead to fires or electric shock.

### Using machine

- (1) Once the anomalies

In use, immediately cut off power supply when finding the abnormal phenomena, please connect with the agency. if you continue to use, it will likely fires or shock.

- The smoke or odor of the machine.
- The inside of the machine is flooded by water or foreign bodies intrusion.
- Machine falling or machine shell damage.
- The power cord damage (wire core is exposed of broken, etc)
- Fault (eg it can't network, no sound ect)

- (2) Don't open the machine internal or modification of the machine.

Do not let foreign matters invade the machines internal.

Don't let the metal items or inflammable objects inserting machine such as foreign inserting machines or throw into the vents machines internal, otherwise will likely cause fires or electric shock.

- (3) Please do not touch it when thunder

To avoid electric shock, please do not touch the machine and the plug when lightning, etc.

- (4) Please do not place containers with liquid or small metal objects on machine above.

If gets upset containers, and let the fluid inflow to the machine that will likely fires or cause shock.

- (5) Do not open the machine internal or modification of the machine.

The machine internal contains high voltage parts, once the open cover, or modification of the machine, it will likely fires or cause shock. All about maintenance and other such matters within the machine to transform should be operated by professional personnel.

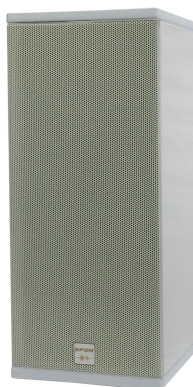
- (6) Maintenance or the precautions when not in use for long time.

When Maintenance, if the machine not in use in 10 days or more than 10 days, in order to ensure the safe, please shut off power supply switch, and will power plug. If failure to comply with this provision, it will likely cause electric shock or fires.

## Product Introduction

### Summary

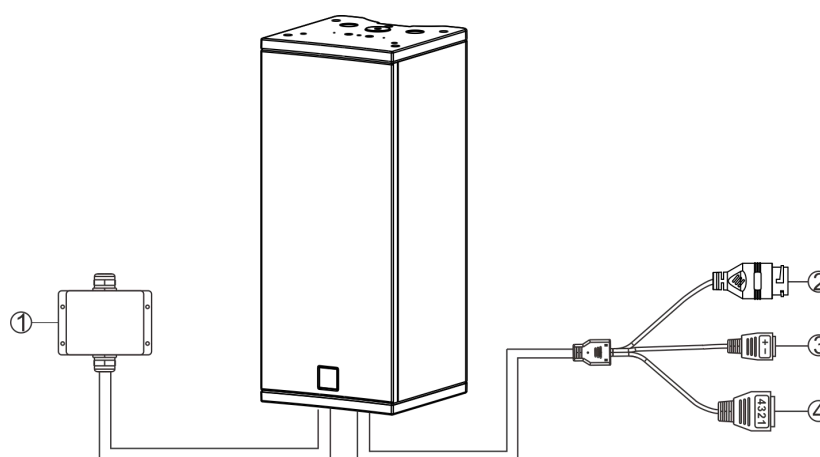
IP network column which is embedded with the IP Audio digital network audio technology of independent intellectual property rights, the terminal is equipped with power input interface, network interface, short-circuit input/output interface.



### Features

- Integration wall-mounted design, exquisite workmanship, integrated network audio decoding, amplifier and column speaker.
- Waterproof and dustproof design, protection degree is IP 55.
- With built-in loop detection to remotely monitoring the working status of the speaker, easily to maintenance.
- Remotely digital volume adjustment.
- Support 1 way alarm input and alarm output.
- Support environmental noise detection in free status, adjusting broadcast output volume according to the noise level.
- Accessible to the system if the Ethernet is available, support cross network segment and router.

### Hardware Interface Introduction



①The power input interface: DC24V/5A.

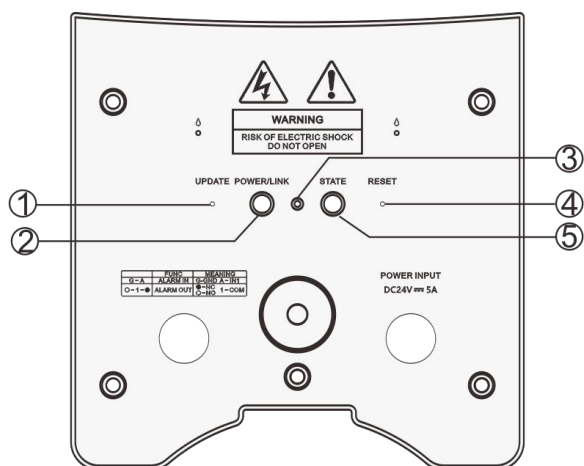
②Network interface: connect to network.

③Short-circuit input interface: when the short-circuit interface is triggered, the speaker will automatically play audio files under the alarmin catalog of FTP.

④Short-circuit output interface:

- 1: Short-circuit output NO port;
- 2: Short-circuit output common port;
- 3: Short-circuit output NC port;
- 4: Free port.

## Back view



## ①Mandatory upgrade key

Use tweezers or small pin to press the button and connect the power about 5 seconds, it can force the terminal to upgrade status.

## ②Power and network indicator light

After connected the power, if internet is connect, the green light is on; If offline, the red light is ON.

## ③Microphone

## ④Reset button

## ⑤Status indicator light

Offline: red light slowly flashes.

Online: green light normally ON.

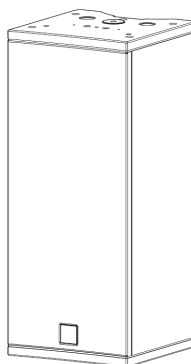
Receive broadcast task: green light quickly flashes.

## Introduction

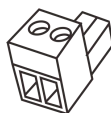
## Packing List

IP network column including the following parts, please check all the parts before the installation, if any missing, please contact your supplier.

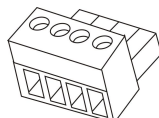
- (1) IP network column 1 pcs



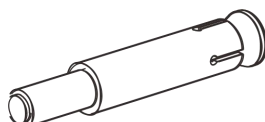
- (2) Wiring port(3.81-2P) 1 pcs



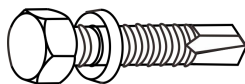
- (3) Wiring port (3.81-4P) 1 pcs



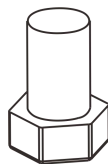
- (4) Expansion screw (M8\*100),with spring washer/big gasket/nut) 2 sets



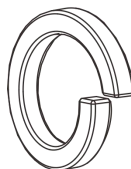
- (5) Hexagonal self drilling screws (M5.2\*2 with gasket) 4 pcs



- (6) Hexagonal screw (M8\*10) 2 pcs



- (7) Spring washer (φ8) 2 pcs



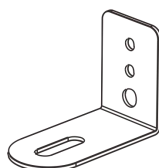
- (8) Gasket (φ8) 2 pcs



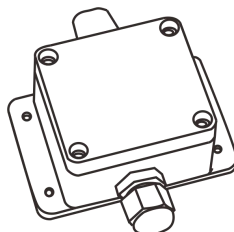
- (9) Waterproof tail circuit connector 1 set



- (10) Bracket 2 pcs



- (11) Waterproof wiring box 1 set



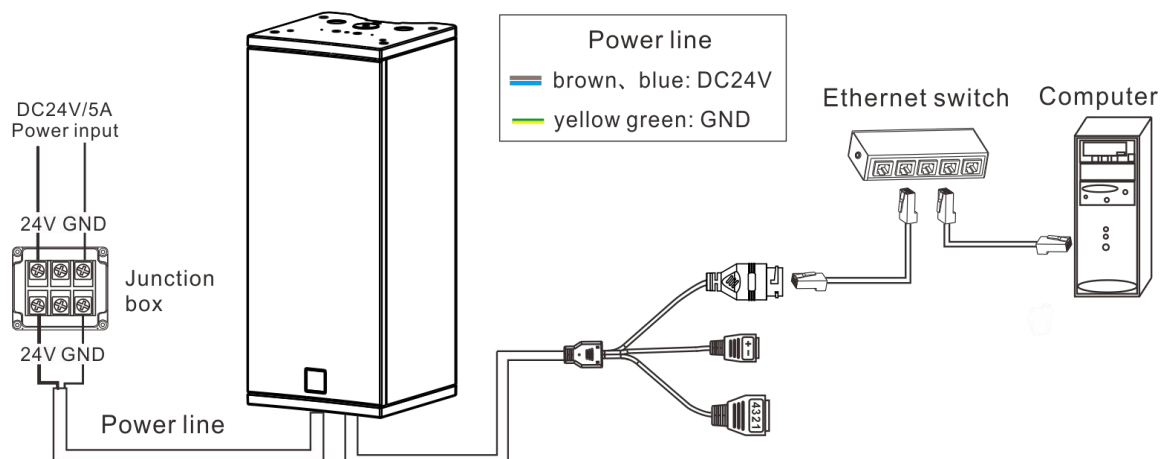
- (12) Quick installation manual 1 pcs



- (13) Certification 1pcs



## Wiring

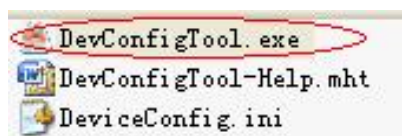


## Basic Network Settings

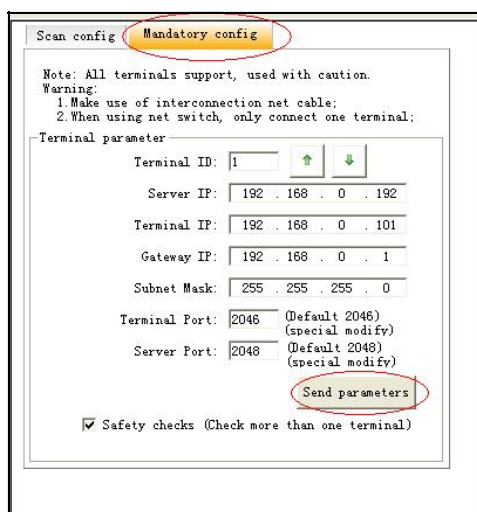
Connect the terminal with cable, then modify the terminal network parameter according to the live environment. There are two ways:

### Terminal Devices Scanning Tool

(1) Under the menu of [optical disc:\tool software\] found "Devconfigtool.exe" and run it, after starting, input the defaulted password "123456"



(2) Please select the [mandatory config] from the right menu, then filling each correct parameters in the [terminal parameter]. It will be finished IP parameter configuration once pressed "sending parameters". **(It will be effective after reboot the device if you modified the IP.)**



**Note:** 1. If use Win7 system operating, please taking the administrator mode to run and close all the firewall and related software.

2. The terminal scanning tools can only set the network parameter configuration to one terminal at one time, so please ensure one computer only connect with the one target terminal when using this ways.

### Webpage Mode

Enter into the IP network column interface, then modify the terminal each parameters according to the environment, after

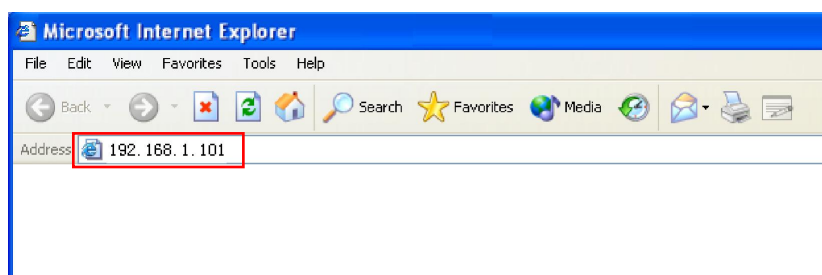
setting completed, click "save".

Specific operation please refer to the custom terminal network parameters setting.

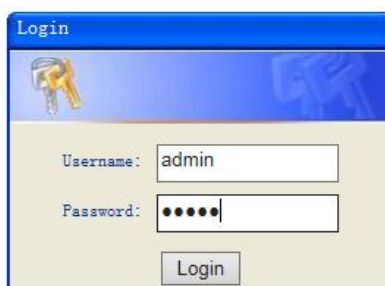
## User-define Terminal Parameters

### Login Web interface

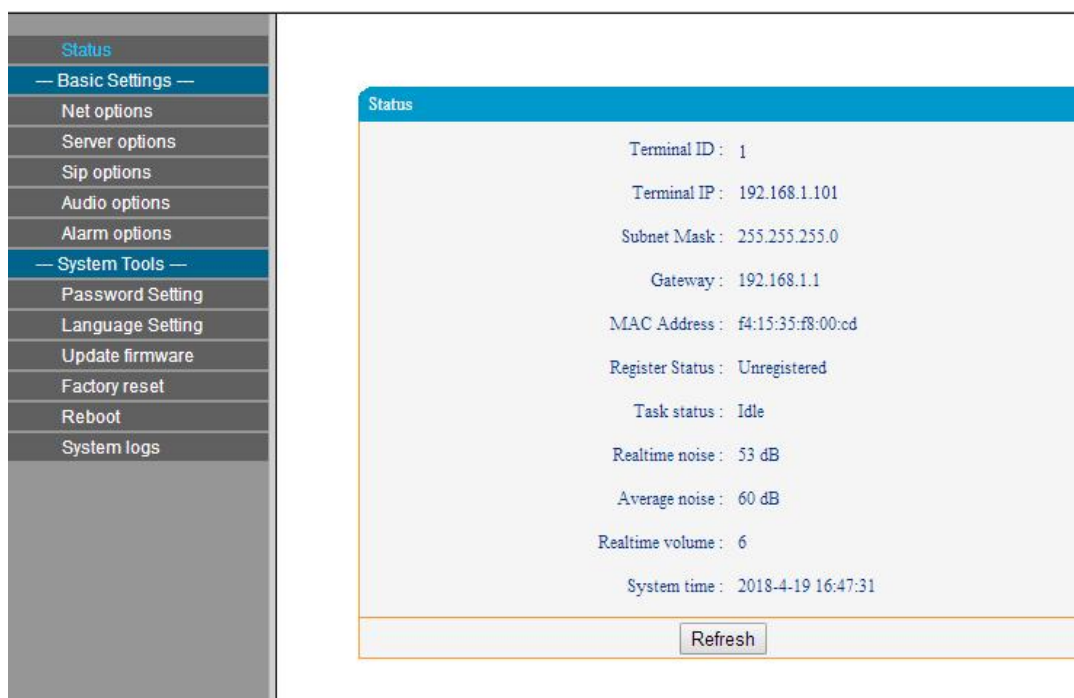
(1) Please input the IP network column IP address to the browser address column (the factory default IP address is 192.168.1.101), then enter.



(2) Enter the user name and password in the web page (the default user name and password is admin) .



(3) Click OK to enter terminal web page.





## Network Parameters

Click “Network parameters” enter into the basic settings and network parameters modification interface, you can modify network parameters as the following picture shows, and then click save to finish network parameters settings.

The screenshot shows the 'Net options' configuration window. The left sidebar has a menu with 'Net options' selected. The main configuration area includes the following fields:

- Terminal IP : 192.168.1.101
- Subnet Mask : 255.255.255.0
- Gateway : 192.168.1.1
- DNS1(Optional) :
- DNS2(Optional) :

A 'Save' button is located at the bottom right of the configuration area.

Parameters as following:

Terminal IP	Terminal IP address and port, the factory default IP address is 192.168.1.101
Subnet mask	The subnet mask of the terminal
Default gateway	The network gateway of the terminal
Preferred DNS server	The preferred domain name interpreter IP of terminal
Alternate DNS server	The standby domain name interpreter IP of terminal

## Server Parameters

The screenshot shows the 'Server options' configuration window. The left sidebar has a menu with 'Server options' selected. The main configuration area includes the following fields:

- Terminal ID : 1
- Local Port : 2046
- Primary Server : 192.168.1.13 : 2048
- Secondary Server : 192.168.1.14 : 2048
- Version Server : 192.168.1.13 : 2051
- FTP Server : 192.168.1.13 : 21
- FTP Username : admin
- FTP Password : \*\*\*\*\*
- Login Interval(s) : 3

A 'Save' button is located at the bottom right of the configuration area.

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 DNS server	Server address of terminal login, factory default is 192.168.1.13.

Alternate DNS server	Login alternate DNS server, when the preferred DNS server can not be connected. When preferred DNS server can be connected, terminal relogin the preferred 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.
FTP password	Password of login FTP server.
Login interval(s)	Interval of login FTP server.

## SIP Parameters

The screenshot shows the 'SIP options' configuration window. The 'Sip' dropdown is set to 'Enable'. The 'Sip Server' field contains '192.168.1.13' and '5060'. The 'Account' field contains '10'. The 'Password' field is masked with four asterisks. The 'Local Port' field contains '5060'. The 'Audio port' field contains '7080'. The 'Multicast Contact' dropdown is set to 'Disable'. The 'Multicast Address' field contains '224.0.0.0' and '8060'. A 'Save' button is located at the bottom center of the window.

Parameters as following:

SIP server	SIP server IP address of the terminal, please input right SIP server IP address or domain name, do not modify without any special situation (the defaults is 5060)
Account	SIP account of terminal, it can not repeat with other terminals.
Password	Password of terminal login SIP server, it can not repeat with other terminals.
Local port	Configure local port according to the real situation.
Audio port	Configure audio port according to the real situation.
Multicast	When there are multiple sever in the LAN and different server initiate multicast, it is necessary to fill different IP address and port to avoid interference.

## Audio Parameters

The screenshot shows the 'Audio options' configuration page. The left sidebar contains a menu with the following items: Status, Basic Settings, Net options, Server options, Sip options, Audio options (highlighted), Alarm options, System Tools, Password Setting, Language Setting, Update firmware, Factory reset, Reboot, and System logs. The main content area is titled 'Audio options' and contains the following settings:

- Broadcast Volume: 0
- Buffer time: 0
- Audio check: Enable
- Dynamic volume adjust: Enable
- Noise detect adjust(dB): 16
- Noise Reference(dB): 60
- Noise detect interval(s): 30
- Save button

Parameters as following:

Broadcast output volume	The total output volume of IP network column in broadcasting (0~15) .
Buffer time	Set buffer time of broadcasting (after receiving the broadcast task, how many time delay to broadcast), it is to ensure broadcast output quality under a bad network environment.
Loop detection	Enable: when the real-time noise of IP network column is less than average noise, the server will pop-up trouble information. Disable: not start-up loop detection function;
Dynamic volume adjustment (dB)	Enable: IP network column can adjust broadcast output volume according to the noise level. Disable: dynamic volume adjustment function is invalid, system information interface of Web page displays the real-time volume level.
Noise monitoring calibration (dB)	Setting noise monitoring calibration figure(defaults as 16dB), calibration figure is greater, the greater the detected real-time noise will be. Notes: noise monitoring calibration figure=when the calibration figure is 0, the noise dB figure of dB tester - average noise dB figure monitored by terminal.
Reference noise(dB)	Under normal circumstances, the defaults noise average dB figure is 60dB
Noise monitoring interval(s)	Setting average noise monitoring interval time, defaults as 30s, the average noise is changing according to time setting.

## Alarm Parameters

Status	<div>Alarm options</div> <div>Alarm Input1 trigger mode : Closed circuit alarm ▼</div> <div>Save</div>
— Basic Settings —	
Net options	
Server options	
Sip options	
Audio options	
Alarm options	
— System Tools —	
Password Setting	
Language Setting	
Update firmware	
Factory reset	
Reboot	
System logs	

Closed circuit alarm: the external terminal is normally in open circuit status, when it is in closed circuit status, it will trigger alarm.

Open circuit alarm: the external terminal is normally in closed circuit status, when it is in open circuit status, it will trigger alarm.

## Password Settings

Modifying the user-name and password in Web parameters of the web page.

Status	<div>Password Setting</div> <div>Original username : admin</div> <div>Original password : <input type="password"/></div> <div>New username : <input type="text"/></div> <div>New password : <input type="password"/></div> <div>Password Confirm : <input type="password"/></div> <div>Save Clear</div>
— Basic Settings —	
Net options	
Server options	
Sip options	
Audio options	
Alarm options	
— System Tools —	
Password Setting	
Language Setting	
Update firmware	
Factory reset	
Reboot	
System logs	

## Language Settings

You can switch Web language between Chinese and English.

Status	<div>Language Setting</div> <div>Language : English ▼</div> <div>Save</div>
— Basic Settings —	
Net options	
Server options	
Sip options	
Audio options	
Alarm options	
— System Tools —	
Password Setting	
Language Setting	
Update firmware	
Factory reset	
Reboot	
System logs	

## Firmware upgrade(Notes: No Upgrade otherwise special needs )

In the firmware upgrade web page, selecting the upgraded files provided by manufacturer, click “upgrade” to start. Click “Update firmware” button enter into firmware upgrade mode, and click “View” to select upgrade files offered by supplier, and then click “update” to start upgrade.

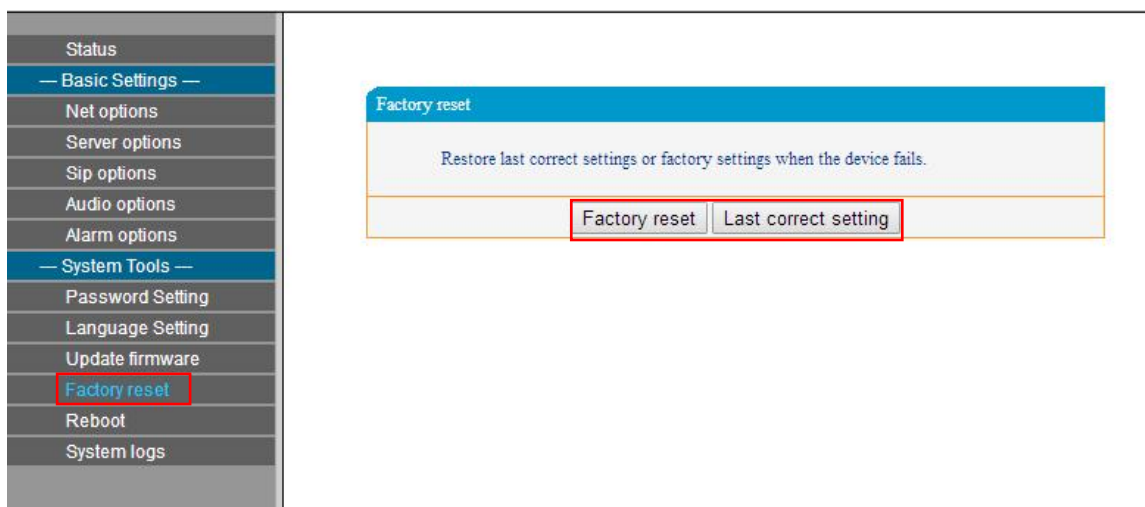
**Note: please do not power down during updating, it may cause update failed or devices trouble.**

Status	<div>Update firmware</div> <div>Firmware version : 1.1.4_20180416 Build 248</div> <div>Notice: The device is going to enter updating mode in 15 seconds, Keep power on while updating otherwise updating may fail.</div> <div>Update</div>
— Basic Settings —	
Net options	
Server options	
Sip options	
Audio options	
Alarm options	
— System Tools —	
Password Setting	
Language Setting	
Update firmware	
Factory reset	
Reboot	
System logs	

## Reset to defaults

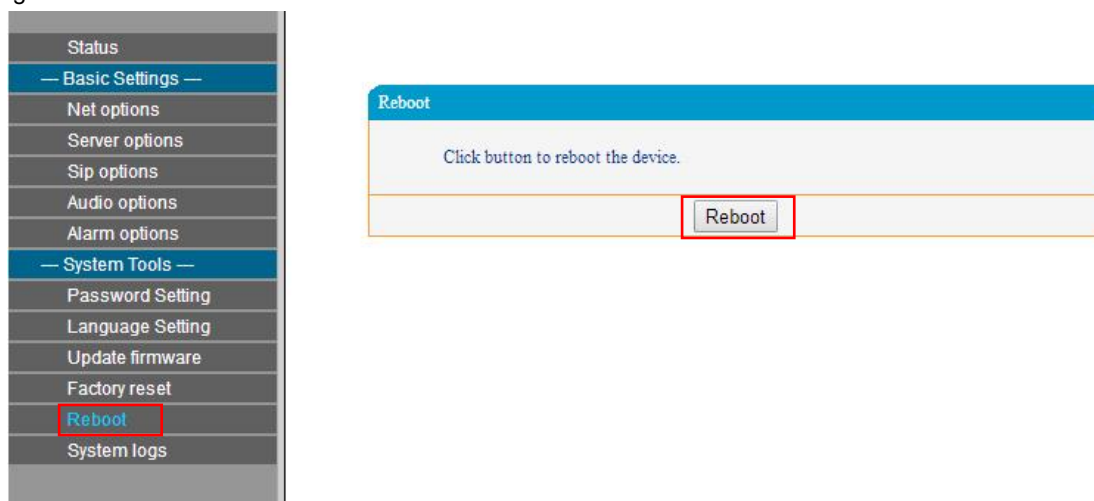
Restore factory setting: all parameters were restored to factory setting.

The last time correct settings: it will recover to the last login server parameters.



## Reboot the device

Setting reboot



Modification of the parameters in web page will be workable after the device rebooted.

## System Log

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



## Basic Functions

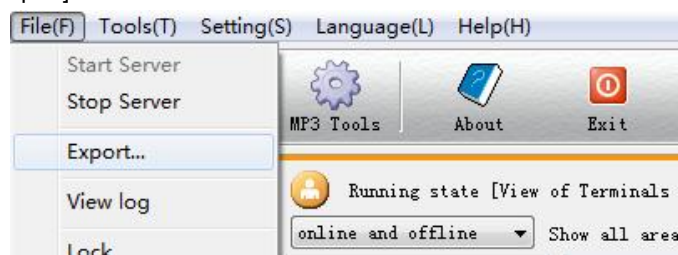
### Receive Broadcast

Support receive broadcast of other servers or terminals.

### Offline Broadcast

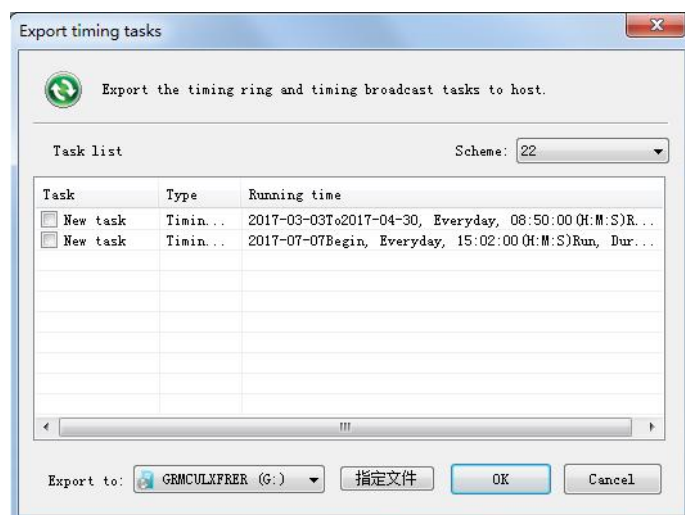
IP network column support offline broadcast, when offline, terminal can timing play ring bell task set by the server. the setting steps of offline broadcast as follows:

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) Check the needed export task in the "Export timing tasks" list, and then click "OK", tasks will be exported to USB root directory.

(Notes: timing ring bell can't support computer export, please insert USB to computer first.)



3) Access to terminal FTP:// terminal IP(the defaults user name and password is admin),put the timing ring bell “NAS2007”of the USB to the FTP root directory, it will be effective after reboot device.

**Notes: offline broadcast only support MP3 format audio.**

## Receive Monitor

IP network column can receive monitor initiated by other terminals.

## Other Functions

Except above functions it also can realize time-fixed ringing, real-time broadcasting, fixed-time broadcasting and so on, through the cooperation with server .The details please refer to the server software operation manual.

## 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.

### How to solve the warning of “terminal network service (UDP)” failed during the process of the starting the service software?

Server local network connection is disconnected, connect the local network cable, exit the service software and Restart, it will be ok.

### Web display abnormal?

Emptying the cache or change the browser.

### How to modify the account number and password to login the web page?

1. Click the password setting of the web page.
2. Please input previous user name and password under the original user name and password respectively.
3. Input the new user name and password in the new one.
4. Input the new password in the command confirmation.
5. Click for save.
6. The new user name and password will be workable after restarted the equipment.



## Copyright Announcement.

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