



XT-20P

Ceiling SIP IP Speaker

Contents

Summary	3
Safety Precaution.....	3
Product Introduction.....	4
Interface Description.....	4
Introduction	5
Packing List.....	5
Wiring.....	6
User-define Terminal Parameters	6
Login Webpage	6
Running Status.....	7
Network Parameter.....	8
Server Parameter.....	9
Audio Parameter	11
Alarm options.....	12
Multicast	12
System Settings	13
Language Settings.....	13
Time To Restart	14
Protocol Settings.....	15
User Management	15
Upgrade.....	16
System Logs.....	16
Fault Exclude	17
Copyright Statement	18

Summary

Safety Precaution

- Read the safety precaution carefully before installing or using.
- Please abide by the warning and the relevant safety tips. Please put this manual in convenient place for future reference.

Warning



This symbol means there are potential safe troubles, it may cause death or serious injury with incorrect operation.



This symbol used to remind the user that this device attached the important operation and maintenance instructions.

Setting and Installing Device

- 1) Avoid wet by water.

Do not put the machine to be exposed to rain water or other liquid stained environment, otherwise it may lead to fire or get an electric shock.

- 2) Do not use the other power voltage.

Using the device marked voltage to connect it.

It may lead to fire or electric shock if using the higher voltage.

- 3) Do not scratch the power cord.

Don't scratch, cut or twist the power cord .

Please keep the power line far away from the heated object and do not put heavy things on it, otherwise it may lead to fires or electric shock.

Using Machine

- 1) In case of the anomalies appears

Please shut off the power supply immediately when finding the following abnormal phenomena within using, please contact with supplier. It may cause fires or electric shock if it's still using it .

- When the device with smoking or strange flavor .
- The device internal is invaded by water or other things.
- Device fall off or device shell is damaged.
- The power cord is damaged (wire core is exposed or broken etc).
- Device fault (it can't connect network, no sound etc.).

- 2) Do not open the device internal or modify the device

Don't make other things invaded to the device internal.

Don't make the metal items or inflammable objects inserting to device internal, otherwise it will cause fires or electric shock.

- 3) Do not touch when lightning

To avoid electric shock, please do not touch the device and the plug while lightning.

- 4) Do not put the liquid container or metal object on the device

If the container is fall down and make the liquid permeate into the device, it will cause fire or electric shock.

- 5) Do not open the device internal or modify the device

The device internal contains high voltage parts, once open the cover or modify the device, it may cause fires or cause shock.

All about device maintenance and modification should be operated by professional personnel.

- 6) The notice for maintenance or long time without using

Please shut down the power and pull out the power line while maintenance or the device won't be used for 10 days or more. It may cause electric shock or fires if do not make it.

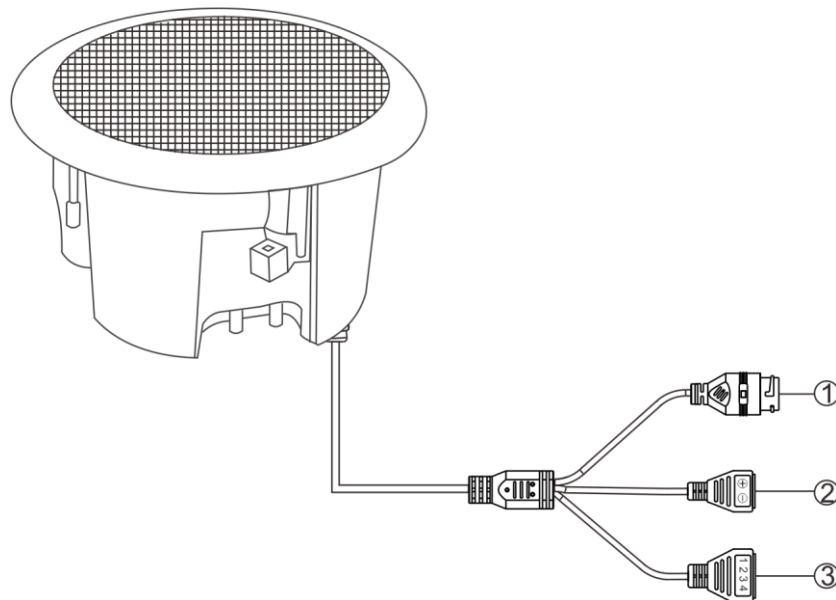
Product Introduction

IP network ceiling speaker embedded IP Audio Digital Network audio technology with independent intellectual property rights. It can accept broadcasting initiated by other terminals and servers and support function settings through browser. With Circuit fault detection function, it can detect the working status of the horn and display on the server software.



- Receive broadcast: it can receive a broadcast from a server or other terminals.
- Circuit detection: With Circuit fault detection function, it can detect the working status of the speaker.
- Timing broadcast: it will upload all the audio source need to be daily broadcast on server, and make broadcasting schedule.
Ceiling speakers can be configured by the server's scheduled task to achieve automatic broadcast.
- System settings through browser: the user can set the network parameters, audio parameters, and change the password etc. to realize the personalization.
- Support POE power supply.

Interface Description



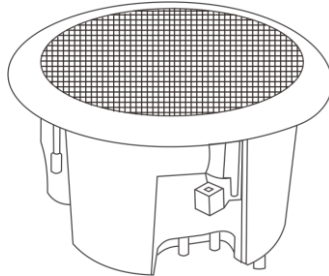
- ① Network interface: Insert a cable to the switch or POE switch.
- ② Power Supply Port: DC24V/1A, provide the power for IP ceiling speaker. (This equipment is supportive of POE power supply. If the network interface has connected to POE switcher, it does not need to connect to the power.)
- ③ Line in port: 3 is Line in, 4 is GND; 1 and 2 are reserved.

Introduction

Packing List

IP ceiling speaker is including the following fittings, please check the fittings before the installation, if any missing, please contact the distributor.

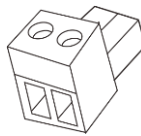
(1) IP ceiling speaker 1 pcs



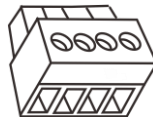
(2) Waterproof connector 1 pcs



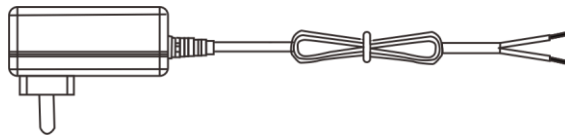
(3) Wiring terminal (3.81-2P) 1 pcs



(4) Wiring terminal (3.81-4P) 1 pcs



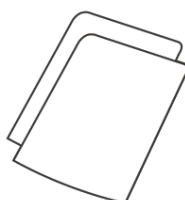
(5) Power adapter (24V/1A) 1pcs (Optional)



(6) certification 1 pcs

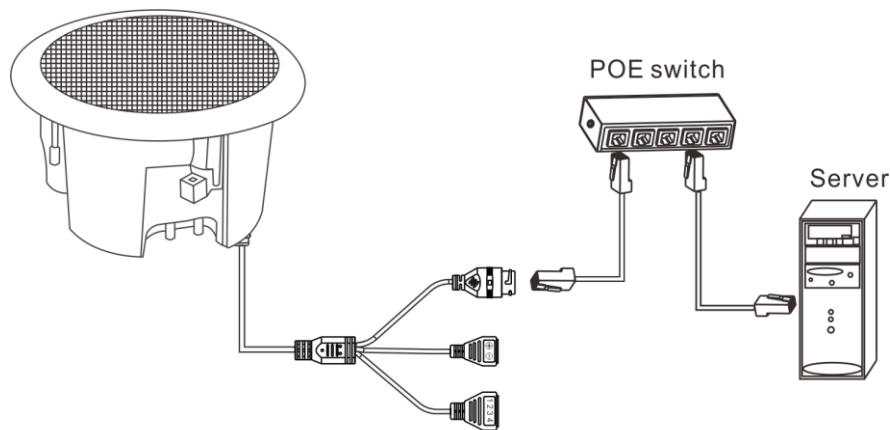


(7) Installation manual 1pcs

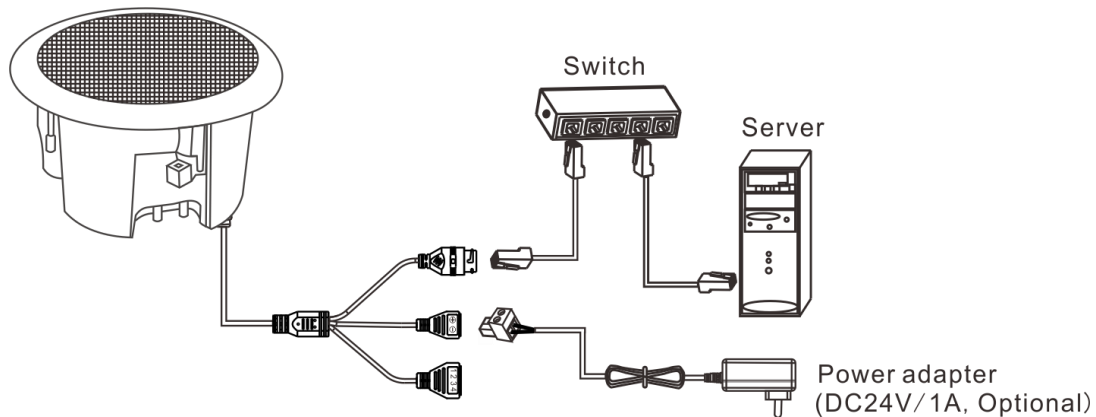


Wiring

Wiring method 1:



Wiring method 2:



Note: POE switcher can not be connected, when using power adapter.

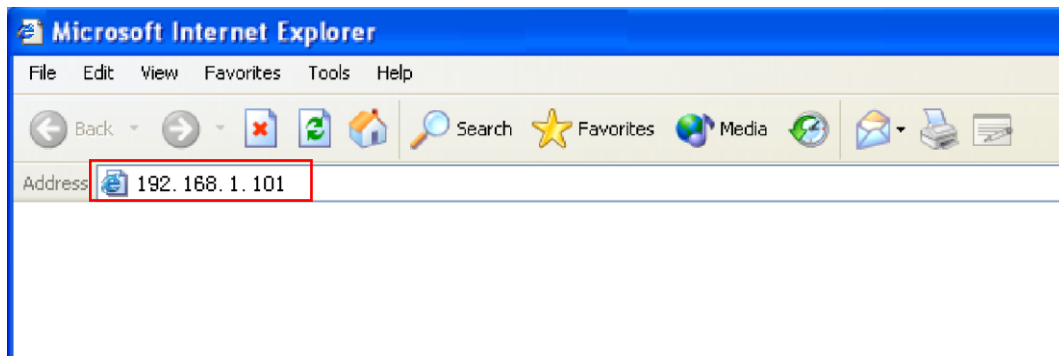
Basic Network Settings

Enter into the webpage of IP ceiling speaker, and then modify all the parameters according to the live environment. After finishing, click "save".

User-define Terminal Parameters

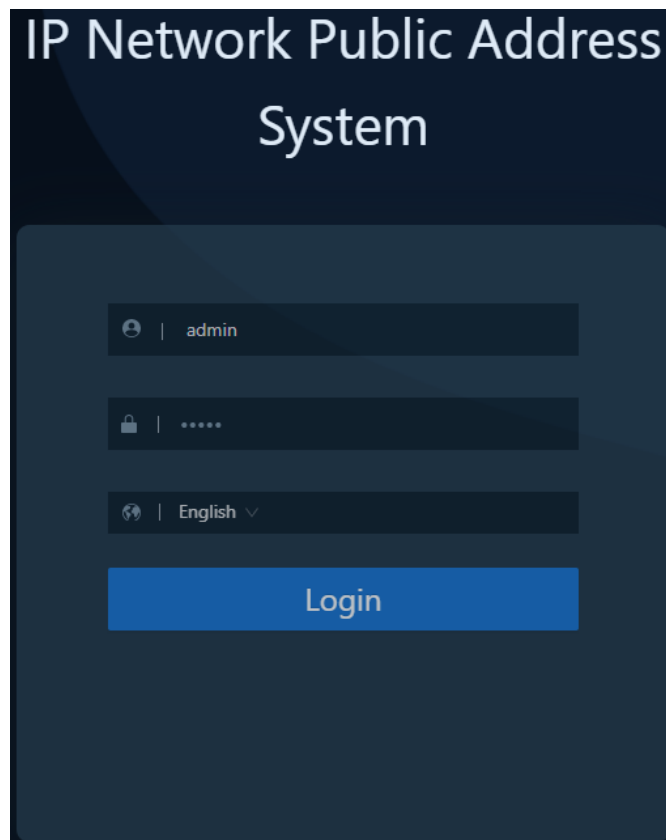
Login Webpage

(1) Please input the IP address of IP ceiling speaker to the address column of the browser (the factory default IP address is **192.168.1.101**, it will automatically play the IP address when the press the terminal key without the cable inserted), then enter.



(2) Enter the username and password to log in.

Note: Default username and password are both admin.



(3) Press login to enter IP ceiling speaker web page.

(Note: If the relevant parameter modification in the web page does not take effect after saving, please clear the cache and set them again.)

Running Status

When login to the web page, click "Running Status", it will show the information of: Terminal ID, server IP, server port, device task status, MAC address, terminal IP, gateway and other information.

IP Network Public Address System

Running Status

Basic Settings

Advanced Settings

Back to home page

Current Location > Home Page > Running Status

Terminal ID: 2

Server IP: 192.168.4.101

Server Port: 5060

Terminal IP: 192.168.4.22

Subnet Mask: 255.255.255.0

Gateway: 192.168.4.1

MAC Address: 00:E0:4C:EA:00:01

Register Status: Registered

Task Status: Idle

Realtime Volume: 9

Network Parameter

Please set the terminal's network parameters according to the environment of the terminal. Click [save] after setting, the parameters will take effect after reboot.

IP Network Public Address System

Running Status

Basic Settings

Network Parameter

Server Parameter

Audio Parameter

Alarm Options

Multicast

Advanced Settings

Back to home page

Current Location > Home Page > Basic Settings > Network Parameter

Save

Network Parameter

IP Address

Subnet Mask

Default Gateway

192.168.1.101

255.255.255.0

192.168.1.1

Primary DNS

Secondary DNS

192.168.1.1

192.168.1.1

The relevant Settings of network parameters are as follows:

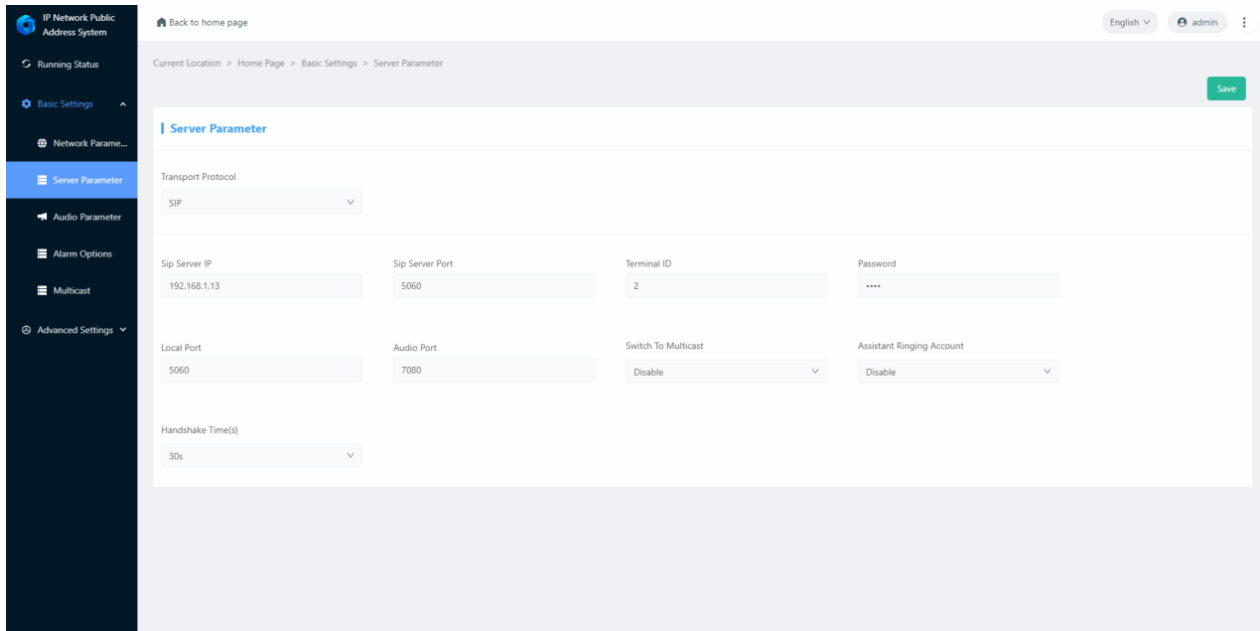
Terminal IP	The IP address of the device, the factory default IP is 192.168.1.101, which cannot be duplicated with other terminals.
Subnet Mask	The subnet mask of the LAN network.
Gateway	The gateway of the network.
Primary DNS	The IP address of the preferred DNS server (domain name resolver) for the network.
Secondary DNS	The IP address of the alternate DNS server (domain name resolver) for the network.

Server Parameter

IP ceiling speaker support with SIP protocol and NAS protocol, you can choose the transport protocol based on the actual server you log in to.

SIP Protocol

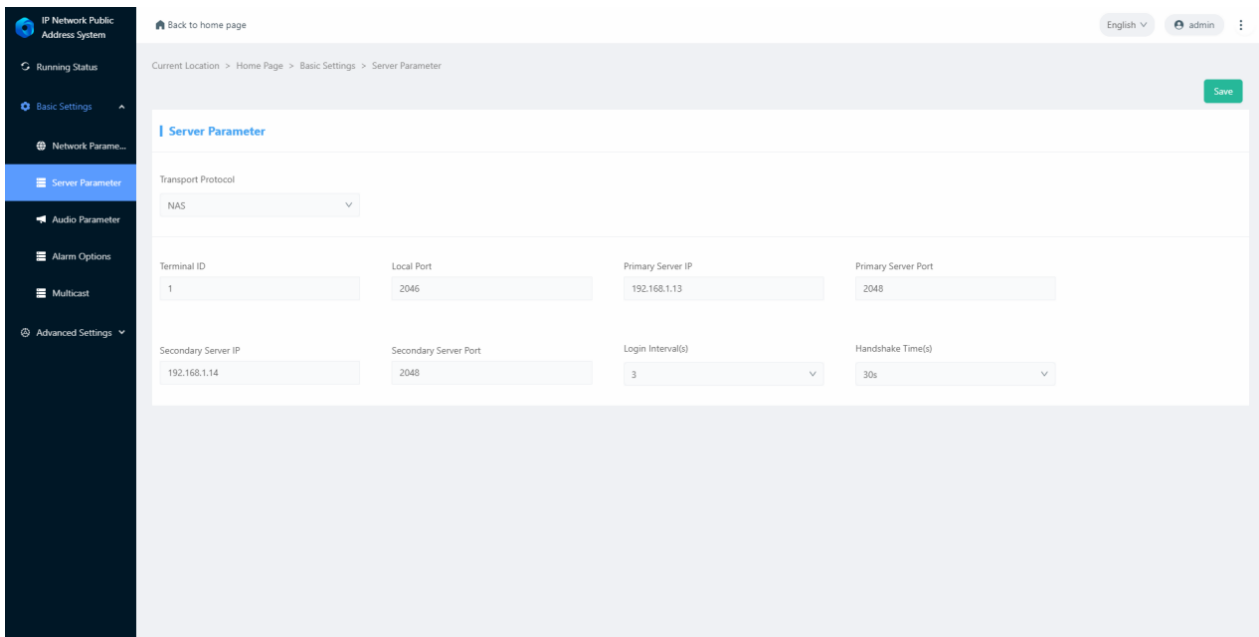
The default is SIP protocol. If the device is logged into the NAS (intercom) protocol server, you need to select the NAS protocol here, please refer to the NAS protocol setting introduction for specific parameter settings.



The relevant Settings are as follows:

Transport Protocol	Setting the protocol for normal communication between device and sever.
Sip Server IP, port	IP address of the SIP server that the terminal logs into. Please enter the correct IP address of the SIP server. The port number cannot be changed except in special cases. (Default is 5060)
Account	The SIP account of the terminal, it can not be duplicated with other terminals.
Password	Password for terminal to login to SIP server, default is 1234.
Local port	Configure the local port according to the actual situation; the default is 5060.
Audio port	Configure the audio port according to the actual situation.
Switch To Multicast	Set whether to enable telephone transfer to multicast function. If enable it , when receiving a SIP call initiated by an IP phone, multicast streams are simultaneously initiated to a plurality of other SIP speakers including themselves.
Assistant Ringing Account	Enable and set the assistant ringing SIP account, any call or broadcast to the auxiliary ringing account, the speaker will output the ringing sound. The ringing SIP account and SIP phone can be put into a group. When calling a phone in the group, all terminals in the same group will ring. After the call is connected, all ringing in the group will stop. XC service software ring group configuration method: Add a ring group in the service software [Basic Settings] - [Intercom Settings].
Handshake time(s)	Set the time to make handshake with server.

NAS Protocol



The screenshot shows the 'Server Parameter' configuration page in the XonTel IP Network Public Address System. The left sidebar contains navigation options: Running Status, Basic Settings, Network Parameters, Server Parameter (selected), Audio Parameter, Alarm Options, Multicast, and Advanced Settings. The main content area displays the following settings:

- Transport Protocol:** NAS (dropdown menu)
- Terminal ID:** 1
- Local Port:** 2046
- Primary Server IP:** 192.168.1.13
- Primary Server Port:** 2048
- Secondary Server IP:** 192.168.1.14
- Secondary Server Port:** 2048
- Login Interval(s):** 3 (dropdown menu)
- Handshake Time(s):** 30s (dropdown menu)

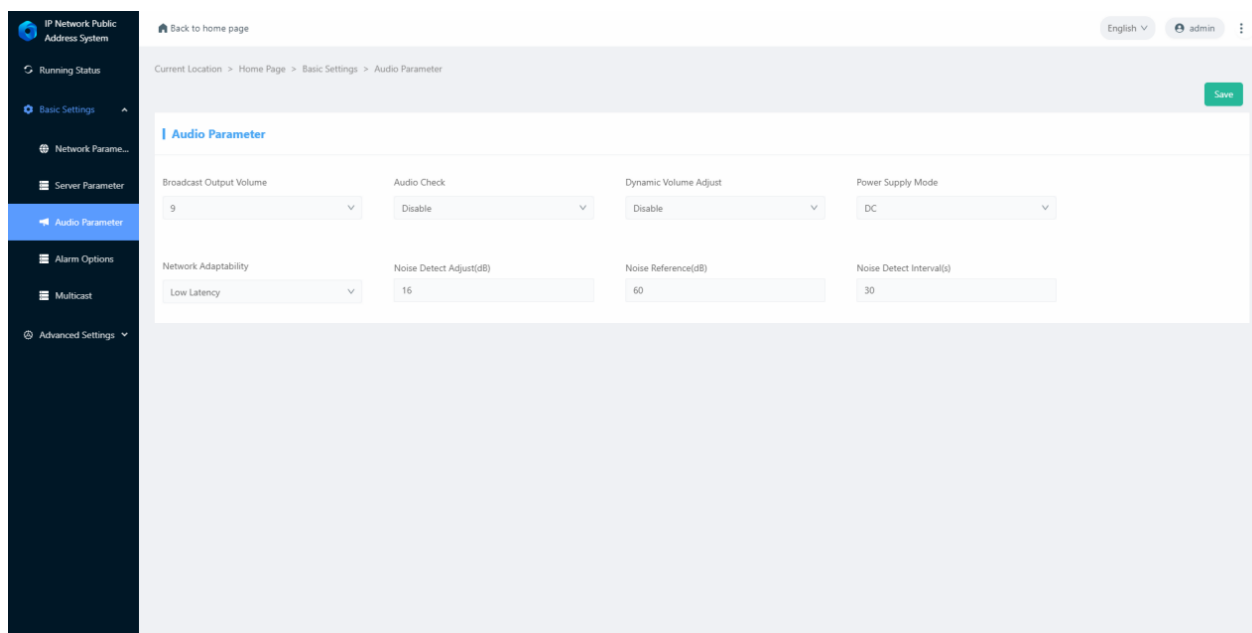
A 'Save' button is located in the top right corner of the configuration area.

The relevant Settings are as follows:

Transport Protocol	Setting the protocol for normal communication between device and sever.
Terminal ID	Unique number to identify the terminal and cannot be duplicated with terminals or other hosts.
Local port	Configure the local port according to the actual situation; the default is 5060.
Primary Server IP, port	IP address of the NAS server that the terminal logs in to. Please enter the correct IP address or domain name of the NAS server. The port number cannot be changed except in special cases (the default is 2048).
Secondary Server IP, Port.	The IP address and port of the backup NAS server.
Login Interval(s)	Interval of login server.
Handshake time(s)	Set the time to make handshake with server.

Audio Parameter

Set the audio related parameters of the device, Click [save] after setting, the parameters will take effect after reboot.

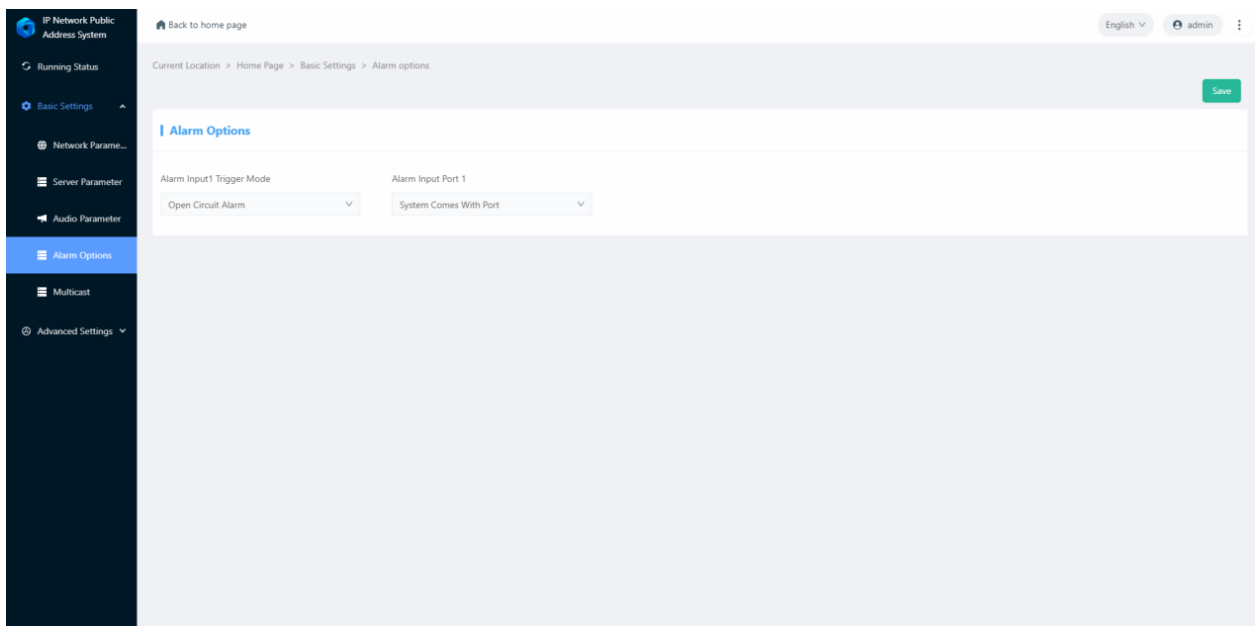


The relevant Settings are as follows:

Broadcast output volume	The total volume of audio input by the device during broadcasting, range: 0-15;
Audio Check	When enable it, if the real-time noise of the device is less than or equal to the average noise, the server will pop up the window to display the fault information.
Dynamic Volume Adjust	<p>When you enable dynamic volume adjustment, the device will adjust the output volume during broadcasting according to the surrounding environment noise level.</p> <p>For example, when the average noise of the surrounding environment is greater than the reference noise and the range exceeds the set noise detection calibration value, the real-time volume level of equipment broadcasting will increase;</p> <p>When the average noise of the surrounding environment is less than the reference noise and the range of less than the set noise detection calibration value, the real-time volume level of the equipment broadcast will be reduced.</p> <p>Dynamic volume adjustment function is invalid when it is disabled.</p>
Power Supply Mode	Select the power supply mode, support POE and DC.
Network Adaptability	Audio quality can be adjusted according to network environment. Low latency, low bandwidth, and custom are optional. You can customize the audio cache time when you choose Custom.
Noise Detect Adjust	<p>Set the calibration value of noise detection (default is 16dB). The larger the value, the larger the real-time noise value detected.</p> <p>Remarks: Noise detection calibration value = noise decibel value measured by decibel meter when calibration value is 0-average noise decibel value detected by equipment.</p>
Noise Reference	The average decibel value of noise in normal environment. The default is 60dB.
Noise Detect Interval	<p>Set the average noise detection interval. It is 30S by default.</p> <p>Average noise varies according to the setting time.</p>

Alarm options

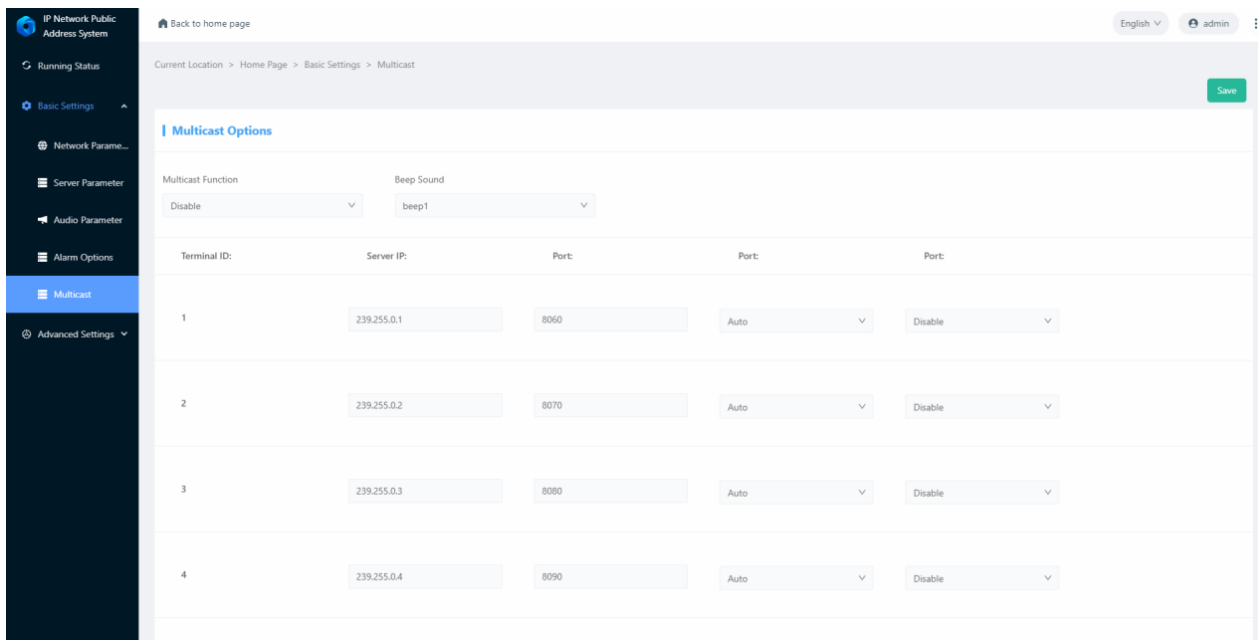
Reserved.



The screenshot shows the 'Alarm Options' configuration page in the IP Network Public Address System. The left sidebar contains a menu with options: Running Status, Basic Settings, Network Parameter, Server Parameter, Audio Parameter, Alarm Options (selected), Multicast, and Advanced Settings. The main content area has a breadcrumb trail: Current Location > Home Page > Basic Settings > Alarm options. The 'Alarm Options' section includes two dropdown menus: 'Alarm Input1 Trigger Mode' set to 'Open Circuit Alarm' and 'Alarm Input Port 1' set to 'System Comes With Port'. A 'Save' button is located in the top right corner.

Multicast

Set whether to enable multicast or not. Support up to 10 multicast addresses as maximum.



The screenshot shows the 'Multicast' configuration page in the IP Network Public Address System. The left sidebar is the same as in the previous screenshot. The main content area has a breadcrumb trail: Current Location > Home Page > Basic Settings > Multicast. The 'Multicast Options' section includes two dropdown menus: 'Multicast Function' set to 'Disable' and 'Beep Sound' set to 'beep1'. Below these are four rows of configuration for multicast addresses, each with a 'Terminal ID', 'Server IP', 'Port', and two additional dropdown menus for 'Port' and 'Disable'. The data is as follows:

Terminal ID	Server IP	Port	Port	Port
1	239.255.0.1	8060	Auto	Disable
2	239.255.0.2	8070	Auto	Disable
3	239.255.0.3	8080	Auto	Disable
4	239.255.0.4	8090	Auto	Disable

Parameters as following:

Multicast function	<p>Set whether to enable multicast function or not.</p> <p>In the case where there are multiple servers in the LAN, different servers must fill in different addresses and port numbers when they initiate multicast broadcasts without interference.</p> <p>Support up to 10 multicast addresses as maximum and priority settings (priority from high to low is 1-10).</p>
--------------------	---

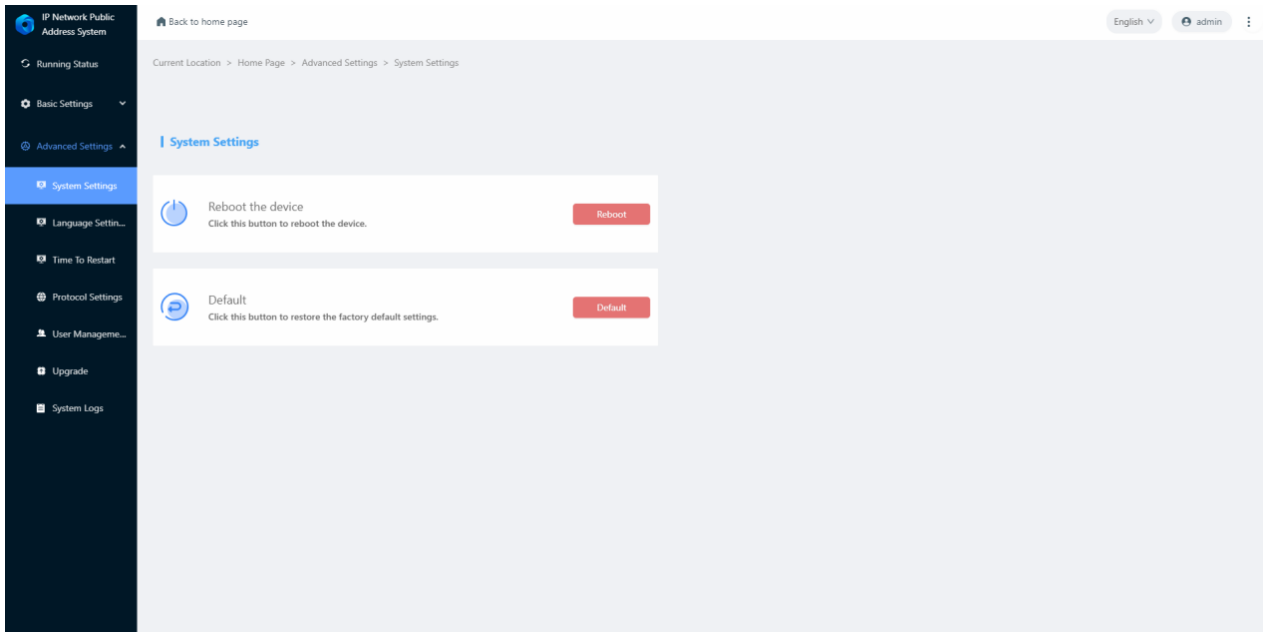
Beep Sound

Set whether to enable the broadcast prompt tone or not.

System Settings

Reboot the device: Click on this button will reboot the device.

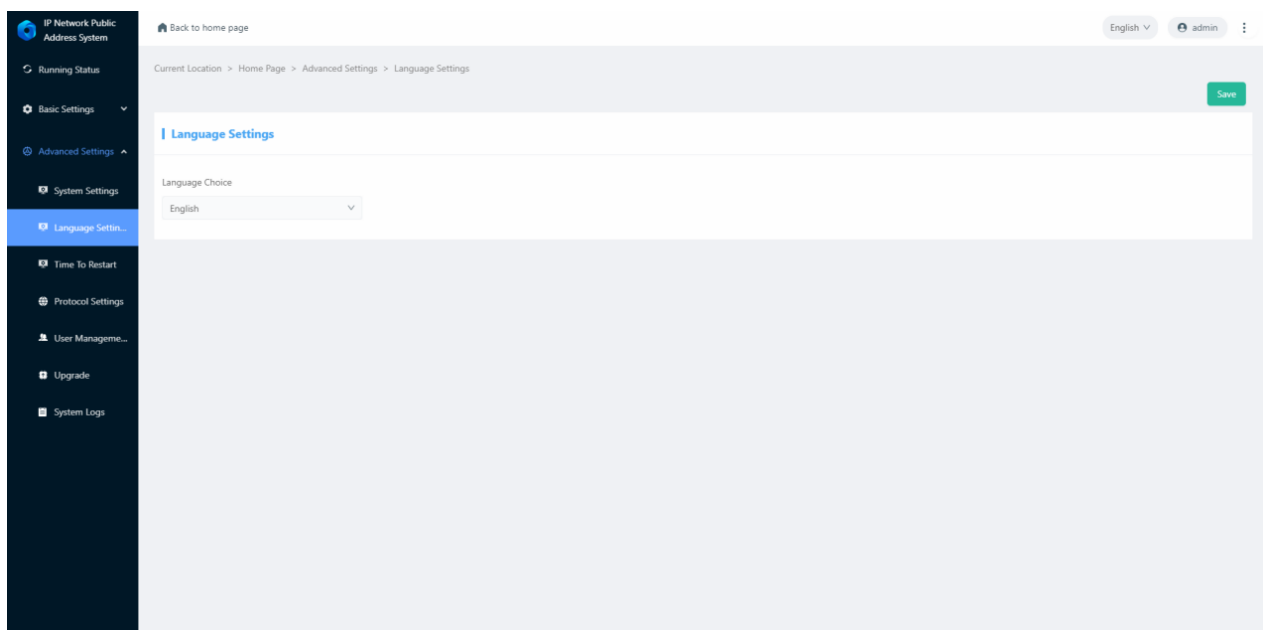
Default: Click this button and all parameters of the device will be restored to factory Settings (please use with caution)



Language Settings

You can change the language in this page. It supports Chinese and English.

After save the setting, rebooting the web page to take effect.



Time To Restart

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

IP Network Public Address System

Running Status

Basic Settings

Advanced Settings

System Settings

Language Settin...

Time To Restart

Protocol Settings

User Manageme...

Upgrade

System Logs

Back to home page

Current Location > Home Page > Advanced Settings > Time To Restart

Save

Time To Restart

Time To Restart

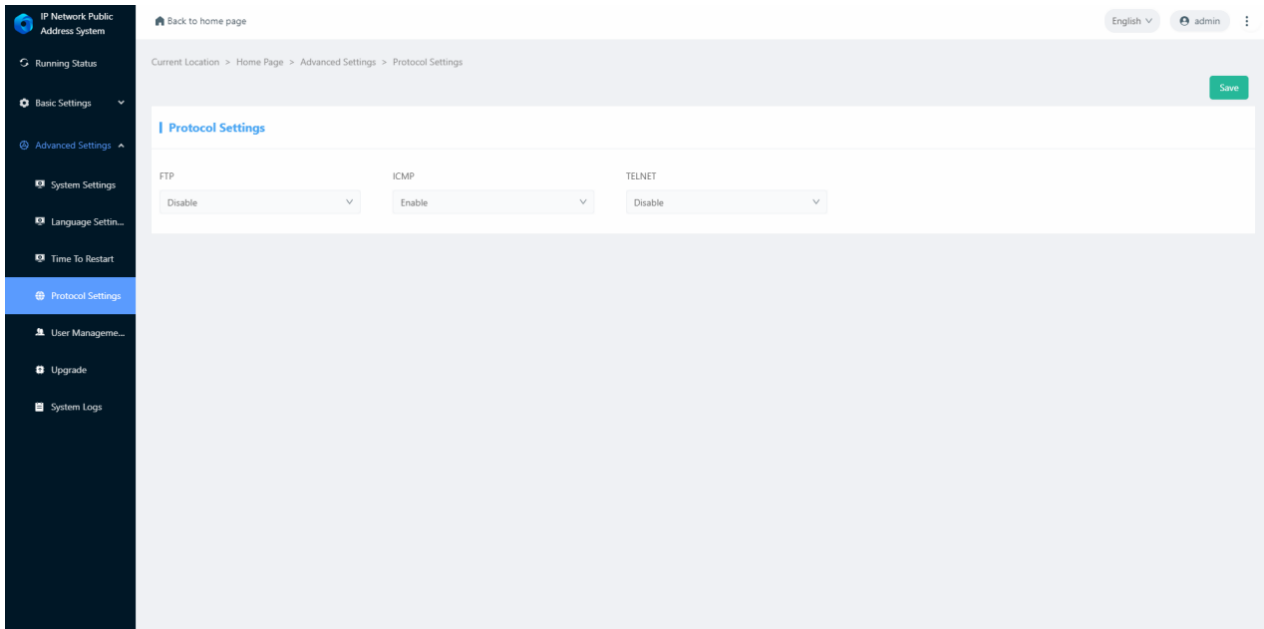
Disable

Protocol Settings

ICMP: You are advised to disable ICMP when using the new IP configuration tool to configure network parameters.

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.



Back to home page

English admin

Current Location > Home Page > Advanced Settings > Protocol Settings

Protocol Settings

FTP: Disable

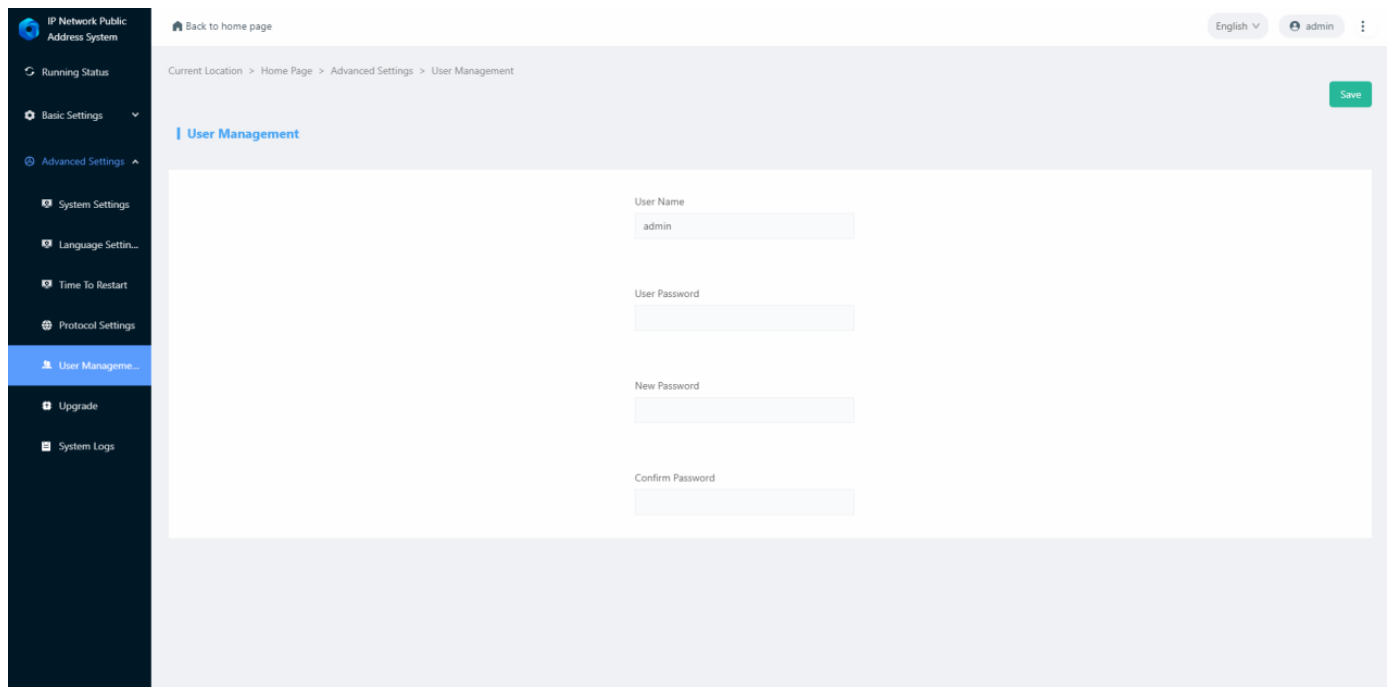
ICMP: Enable

TELNET: Disable

Save

User Management

You can change the password for logging into the WEB in this page. After save the password change, rebooting the web page to take effect.



Back to home page

English admin

Current Location > Home Page > Advanced Settings > User Management

User Management

User Name: admin

User Password:

New Password:

Confirm Password:

Save

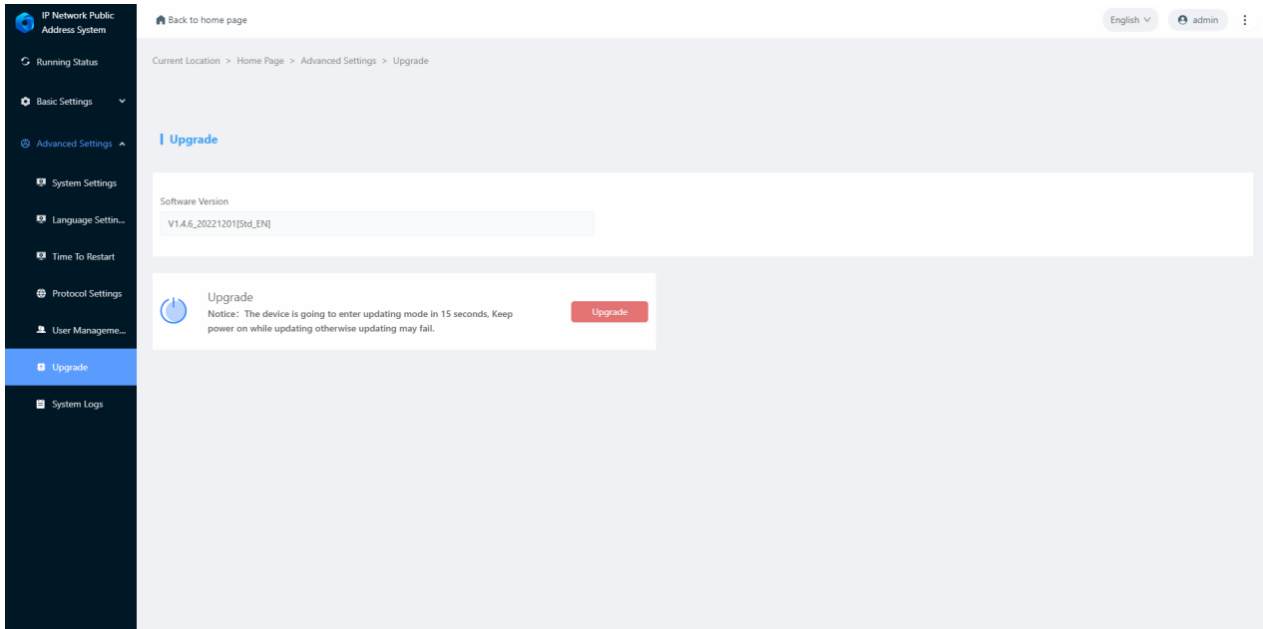
Upgrade

Click the "Upgrade" button, you will enter the firmware upgrade mode after 15 seconds.

Click on "Select file", select the upgrade file provided by the manufacturer, and click "Start upload" to start the upgrade.

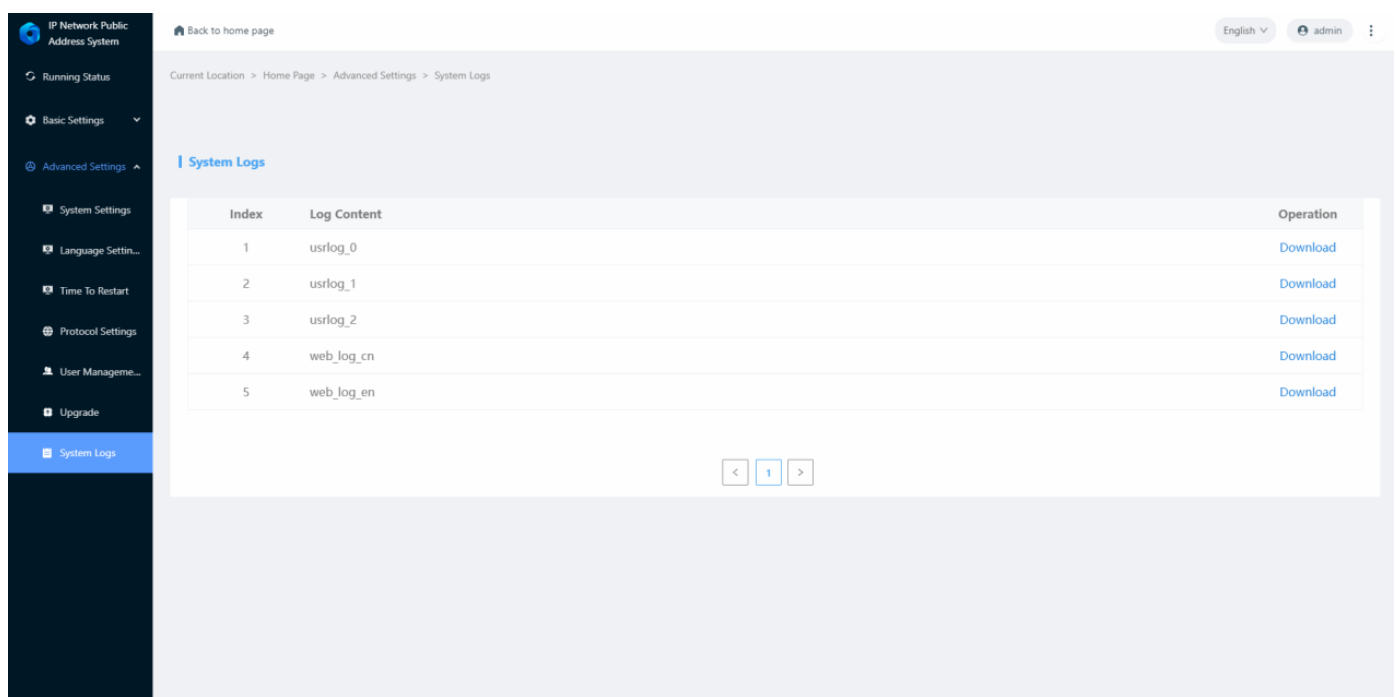
Note: Do not power off during the upgrade process, otherwise the upgrade may fail and the device fails.

Finally, click reboot and back to normal settings.



System Logs

IP ceiling speaker can automatically record the running process and generate logs, and support users to download system logs.



Fault Exclude

Why the terminal cannot login the server?

- 1).Check the software server and the main controller is normal opened or not. It`s required to close all firewall before open the software server (including system built-in firewall and other antivirus software firewall).
- 2).Check the network connection is normal or not. After the terminal powered on, the network port green light is norm on, meantime the orange light will be short and fast flash, it means the network cable hard-connected normal. If the network port green light is not on, it means the network hard-connected problem, please check the terminal network cable and switcher whether they work normal, damaged and disconnect or not etc.
- 3).Check the terminal IP setting. Please check the terminal ID, sever IP, local IP, gateway IP ...etc parameters.

Why web show abnormal?

Please clear the caches or change the browser.

How to change the web login password?

1. Click the user management in webpage.
2. Input the old pass word in old password column.
3. Input the new pass word in new password column.
4. Input the new password again for confirmation
- 5.Click save.

The new password will be effective after reboot.

Copyright Statement

Copyright

The copyright is reserved of the XonTel Technology Co., LTD, if without the permission of the company in written form, any company and personage shall not arbitrarily excerpt, copy mentioned file information, and shall not spread in any forms.

According to the legal provisions, copy including translate to other language or switch to other format.

Mentioned document spreading in network media, XonTel allow download and print for personal uses.

Any parts of the document cannot be modified and for commercial uses. If any damage and losses which is caused by illegality modify and switch the document, XonTel shall not take any responsibility.