

SPON

IP NETWORK INTERFACE UNIT

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 the user that attached is the important operation and maintenance data.

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 unspecified voltage.

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) In case of the anomalies

Please turn off the power supply immediately 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 or broken, etc)
- Fault (eg: it can't network, no sound ..etc)

(2) Don't open the machine internal or modify 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 thundering

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 modify the machine

The machine internal contains high voltage parts, once open the cover or modify the machine, it will likely fires or cause shock. All the maintenance and other machine modification should be operated by professional personnel.

(6) Maintenance and the precautions for not using in a long time

While maintenance, if the machine is not using for 10 days or more , please shut off power supply switch for safety. If do not

comply with this provision, it will likely cause electric shock or fires.

Product introduction

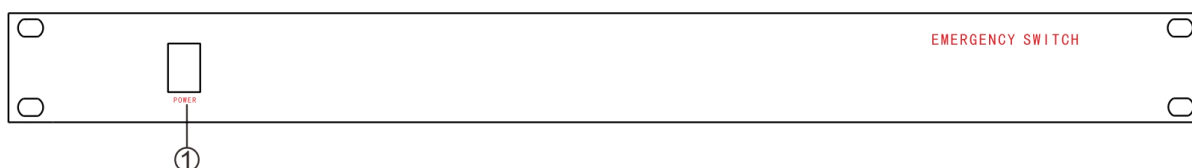
IP network interface unit is built-in independent intellectual property rights of the IP Audio digital network audio technology, it's equipped with the power input interface, alarm input/output interface, RJ45 network interface, etc.



- Using high-speed industrial dual-core chip (ARM + DSP), the start up time is less than 3 seconds.
- It can use multiple IP network interface unit in this system, to expand the interface. With 32 alarm input interface and 8 short circuit output interface.
- Auto-send alarm information to the server to execute playing task (support the next layer and all zones alarm).
- Alarm sound files is prestored in the server to spare "alert generator".
- Works everywhere as long as Ethernet available, support across the network segment and routing.

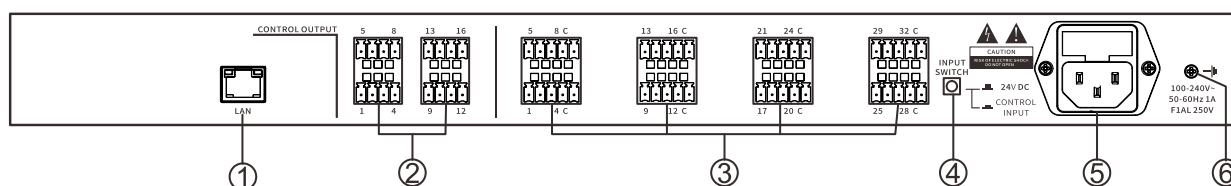
Hardware interface introduction

Front



- ① POWER: The power switch and power indicator light.

Back



- ①LAN: RJ45 network interface that connect with Ethernet switcher.

②SHORT CIRCUIT OUT: Alarm output interface to provide 8 channels switch value signal, this interface is normally open contact, the contact capacity is DC24V / 1A.

③Alarm input interface: providing 32 alarm signal input, this interface can set as " switch volume input" / "power input" through "INPUT SWITCH"; Clicking the "INPUT SWITCH" to "CONTROL IN" is switch volume input; Clicking again the "INPUT SWITCH" to "24VDC" is voltage input and the controlled power range is DC12V~DC24V.

④Change-over switch: Control alarm input interface, it can directly change from switch value input and voltage input.

⑤Power input interface: the suitable voltage range is AC100V-240V/50Hz~60Hz.

⑥Ground connection terminal.

Introduction

Packing list

IP network interface unit is including the following fittings, please check the fittings before the installation. Please contact your supplier if any missing.

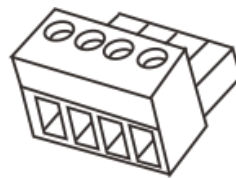
- (1) IP network interface unit 1pcs



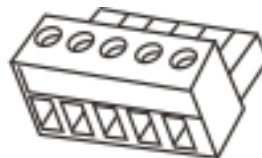
- (2) Double triangle plug the power cord (3*1.0mm²/1.5m) 1pcs



- (3) Connection terminal (3.81-4P) 4 pcs



- (4) Connection terminal (3.81-5P) 8 pcs



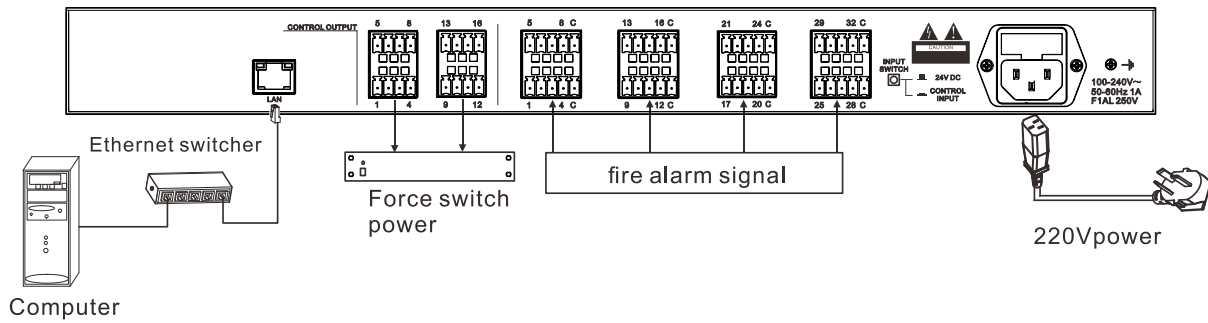
- (5) Quick installation manual 1pcs



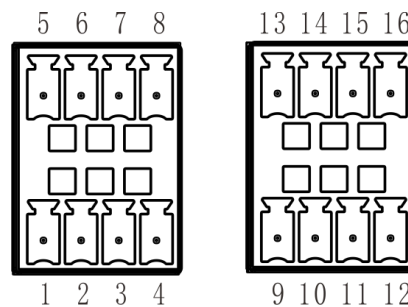
- (6) Certification 1pcs



Wiring



- (1) Terminal "LAN" port can connect with switcher network output port.
- (2) Alarm output interface.

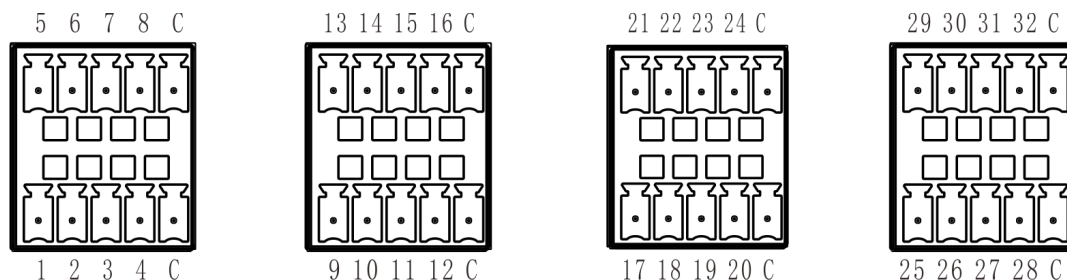


- | | |
|--------------------------|---------------------------|
| ① 1、2 pin: alarm output1 | ⑤ 9、10pin: alarm output5 |
| ② 3、4 pin: alarm output2 | ⑥ 11、12pin: alarm output6 |
| ③ 5、6pin: alarm output3 | ⑦ 13、14pin: alarm output7 |
| ④ 7、8pin: alarm output4 | ⑧ 15、16pin: alarm output8 |

Force switch power

From real time broadcasting, timing ringing, fire alarm...etc these server tasks to select control force synchronizing signal, it can control force switch power. According to selected zones, terminal will close the corresponding Short circuit output port; Please refer to the server software operation manual for the detailed operation.

- (3) Short circuit input interface: it can connect alertor, alarm button, alarm switch and fire alarm signal...etc.



- | | |
|-------------------------------|-------------------------------|
| ① 17-20pin: alarm input 17-20 | ① 1-4pin: alarm input 1-4 |
| ② 21-24pin: alarm input 21-24 | ② 5-8pin: alarm input 5-8 |
| ③ 25-28pin: alarm input 25-28 | ③ 9-12pin: alarm input 9-12 |
| ④ 29-32pin: alarm input 29-32 | ④ 13-16pin: alarm input 13-16 |

C: common port/voltage input negative

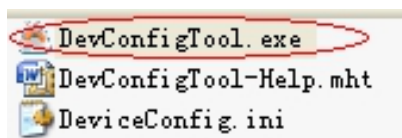
- (4) Make the double triangle plug power line one end to connect with IP network interface unit and the other end connect with power socket.

Basic Network Setting

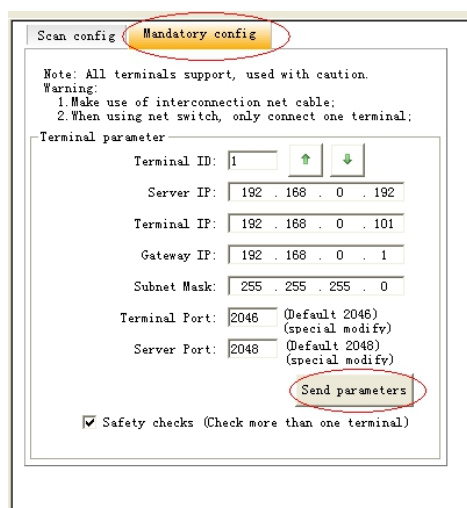
Connect the cable and power on as per the installation manual, then revise the terminal network parameters according to the live environment.

Terminal Equipment Scanning Tool

(1) From [CD: \tools \] directory to find and run "IP configuration tool" audio terminal, 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.



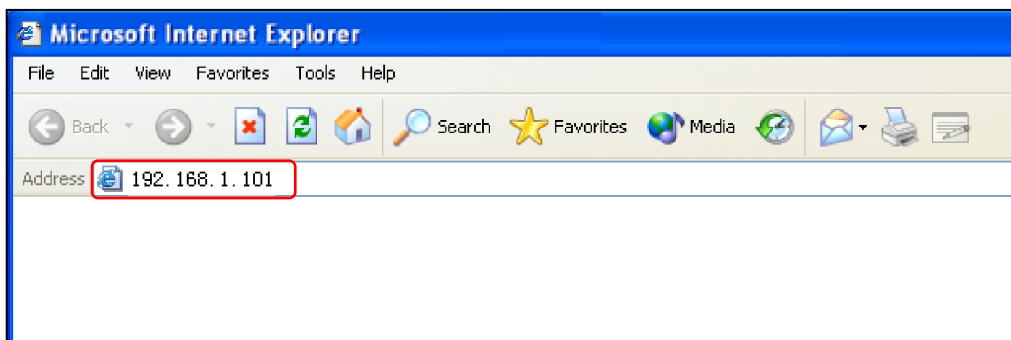
Remark:

1. When operate on win7 system, please running with administrator mode, and close firewall software.
2. Terminal scanning tools can only configure network parameters for one terminal at one time. When using this method to configure terminal network parameters, please make sure that a computer is only corresponding to a target terminal.

Terminal Parameters Customization

Web Interface Login

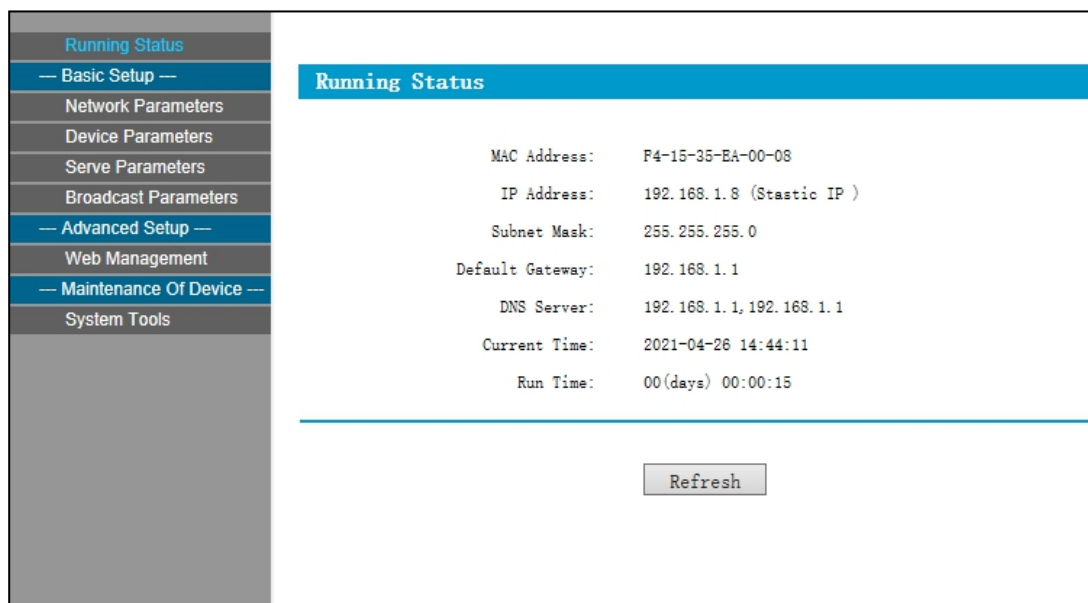
(1) Enter the IP address (Factory Default IP is 192.168.1.101) of the IP Network Interface Unit in the browser address bar, then press the Enter key.



(2) Enter the user name and password (Defaults are both “admin”) in the login window of the Web interface.



(3) Press “Login”, then enter the Web interface of the IP Network Interface Unit. (Remark: Please clear caches then set up again if former saved parameters don't take effect in the web page.)



Network Parameters

Set the network parameters, please modify the parameters according to the live environment, save setting, and restart the device to take effect.

Running Status	<div>Network Parameter</div> <div> Connect Type: <input type="text" value="Static IP"/> </div> <div> MAC Address: <input type="text" value="F4-15-35-EA-00-08"/> </div> <div> IP Address: <input type="text" value="192.168.1.8"/> </div> <div> Subnet Mask: <input type="text" value="255.255.255.0"/> </div> <div> Default Gateway: <input type="text" value="192.168.1.1"/> </div> <div> Primary DNS Server: <input type="text" value="192.168.1.1"/> </div> <div> Secondary DNS Server: <input type="text" value="192.168.1.1"/> </div> <div> <input type="button" value="Save"/> </div>
— Basic Setup —	
Network Parameters	
Device Parameters	
Serve Parameters	
Broadcast Parameters	
— Advanced Setup —	
Web Management	
— Maintenance Of Device —	
System Tools	

Meanings of the parameters:

Connection Type	<p>Static IP: static IP is used by default, user-defined IP address and other information.</p> <p>Dynamic IP: IP address is dynamically allocated through DHCP.</p>
IP address	The IP address of the terminal, factory default IP is 192.168.1.101, it cannot be the same as other terminals.
Subnet Mask	Subnet Mask of the device.
Default Gateway	The gateway of the network of the device.
Primary DNS server	The IP of the primary DNS of the network of the device.
Secondary DNS server	IP of the secondary DNS of the network of the device.

Device Parameters

Set the terminal Device parameters and save, then restart the device to take effect.

Running Status	<div>Device Parameters</div> <div> Device ID: <input type="text" value="8"/> </div> <div> Receive Port: <input type="text" value="2046"/> </div> <div> Alarm Output: <input type="text" value="Enable"/> </div> <div> <input type="button" value="Save"/> </div>
— Basic Setup —	
Network Parameters	
Device Parameters	
Serve Parameters	
Broadcast Parameters	
— Advanced Setup —	
Web Management	
— Maintenance Of Device —	
System Tools	

Meanings of the parameters:

Device ID	The unique number of the identified device, which cannot be repeated with the terminal or other host, factory default is 1.
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Receive port	The port of the device. Note: the port should not be modified except under special circumstances.
Alarm output	Open: alarm input can linkage alarm output; Forbid: alarm input cannot linkage alarm output;

Service Parameters

Set server platform parameters for terminal login. Save after setting, restart the device to take effect.

Meanings of the parameters:

Primary Server	The server address where the device is logged in, the factory default setting is 192.168.1.13.
Secondary Server	When the primary server fails to connect, the secondary server can be logged in. After the primary server can be connected, the terminal can log in again to the primary server, the factory default setting is 192.168.1.14.
FTP User Name	The user name used for the login of FTP, factory default is admin.
FTP Password	The password used for the login of FTP, factory default is admin.
Login Request Gaptime	When the device is offline, the interval time of applying to the login to the server.

Broadcast Parameters

The encoding format and sampling rate of audio parameters are controlled by the server without setting.

The broadcast volume in the broadcast parameter is the volume when the terminal is offline broadcast. The broadcast volume is controlled by the server when the terminal is online.

Running Status	<div>Broadcast Parameter</div> <div>Code Format: <input type="text" value="PCM"/></div> <div>Sampling Rate: <input type="text" value="22050"/></div> <div>Broadcast volume: <input type="text" value="7"/></div> <div><input type="button" value="Save"/></div>
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Password Settings

You can modify the account and password through web management parameters .After setting, please restart the web page

Running Status	<div>Modify WEB Management Password</div> <div>The Original User Nname: <input type="text" value="admin"/></div> <div>The Original Password: <input type="text"/></div> <div>New User Name : <input type="text"/></div> <div>New Password: <input type="text"/></div> <div>Confirm New Password: <input type="text"/></div> <div><input type="button" value="Save"/> <input type="button" value="Empty"/></div>
— Basic Setup —	
Network Parameters	
Device Parameters	
Serve Parameters	
Broadcast Parameters	
— Advanced Setup —	
Web Management	
— Modify Password	
— Modify Port	
— Modify language	
— Maintenance Of Device —	
System Tools	

Modify Port

For the port to access this WEB page, if it is not port 80, please add the corresponding port after the address when accessing this WEB page.(example: set the port to 8888, then the access address is: http://XXX.XXX.XXX.XXX:8888).

Running Status	<div>Modify Web Management Port</div> <div>Web Management Port: <input type="text" value="80"/></div> <div><input type="button" value="Save"/></div>
— Basic Setup —	
Network Parameters	
Device Parameters	
Serve Parameters	
Broadcast Parameters	
— Advanced Setup —	
Web Management	
– Modify Password	
– Modify Port	
– Modify language	
— Maintenance Of Device —	
System Tools	

Language Settings

Users can change it between Chinese and English through web settings .

Running Status	<div>Modify Web Language</div> <div>Web Language: <input type="text" value="English"/></div> <div><input type="button" value="Save"/></div>
— Basic Setup —	
Network Parameters	
Device Parameters	
Serve Parameters	
Broadcast Parameters	
— Advanced Setup —	
Web Management	
– Modify Password	
– Modify Port	
– Modify language	
— Maintenance Of Device —	
System Tools	

Reboot Device

Click “reboot the device” button can manually reboot the device.

Running Status	<div>Restart Device</div> <div>Click the restart button, will enable restarting the device.</div> <div><input type="button" value="Restart"/></div>
— Basic Setup —	
Network Parameters	
Device Parameters	
Serve Parameters	
Broadcast Parameters	
— Advanced Setup —	
Web Management	
— Maintenance Of Device —	
System Tools	
– Restart Device	
– Reset Parameters	
– Upgrade Firmware	
– System log	

Restore Factory Default Settings

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

Running Status	
— Basic Setup —	Reset Parameters
Network Parameters	<input type="button" value="Factory Settings"/> All device set back to factory default state.
Device Parameters	
Serve Parameters	
Broadcast Parameters	
— Advanced Setup —	
Web Management	
— Maintenance Of Device —	
System Tools	
– Restart Device	
– Reset Parameters	
– Upgrade Firmware	
– System log	

Firmware Upgrade (Note: Do not upgrade the firmware unless there's a special need)

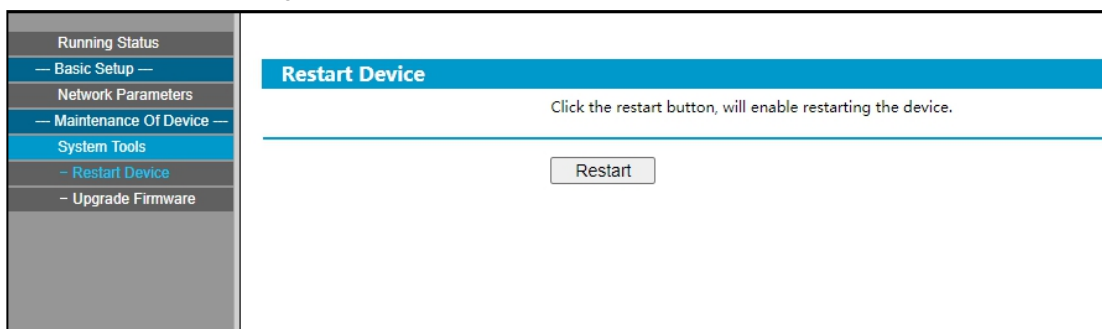
(1) Click the “Press” button, the device will enter into upgrade mode in 10s. (If the web shows an exception after entering upgrade mode, please clear the cache and login the web page again)

Running Status	
— Basic Setup —	Upgrade Firmware
Network Parameters	Firmware Version: Firmware_[Std_2021]_V1.0.0_20210420
Device Parameters	BIOS Version: Bootload_[Std_2021]_V1.0_20210310
Serve Parameters	
Broadcast Parameters	
— Advanced Setup —	
Web Management	
— Maintenance Of Device —	<input type="button" value="Into Firmware Upgrade"/>
System Tools	
– Restart Device	
– Reset Parameters	
– Upgrade Firmware	
– System log	

(2) After entering into the firmware upgrade mode, select the firmware upgrade file provided by the manufacturer, then click the “upgrade” button to start upgrade. (Do not power off during the upgrade process, otherwise it may cause the upgrade failure and equipment failure)

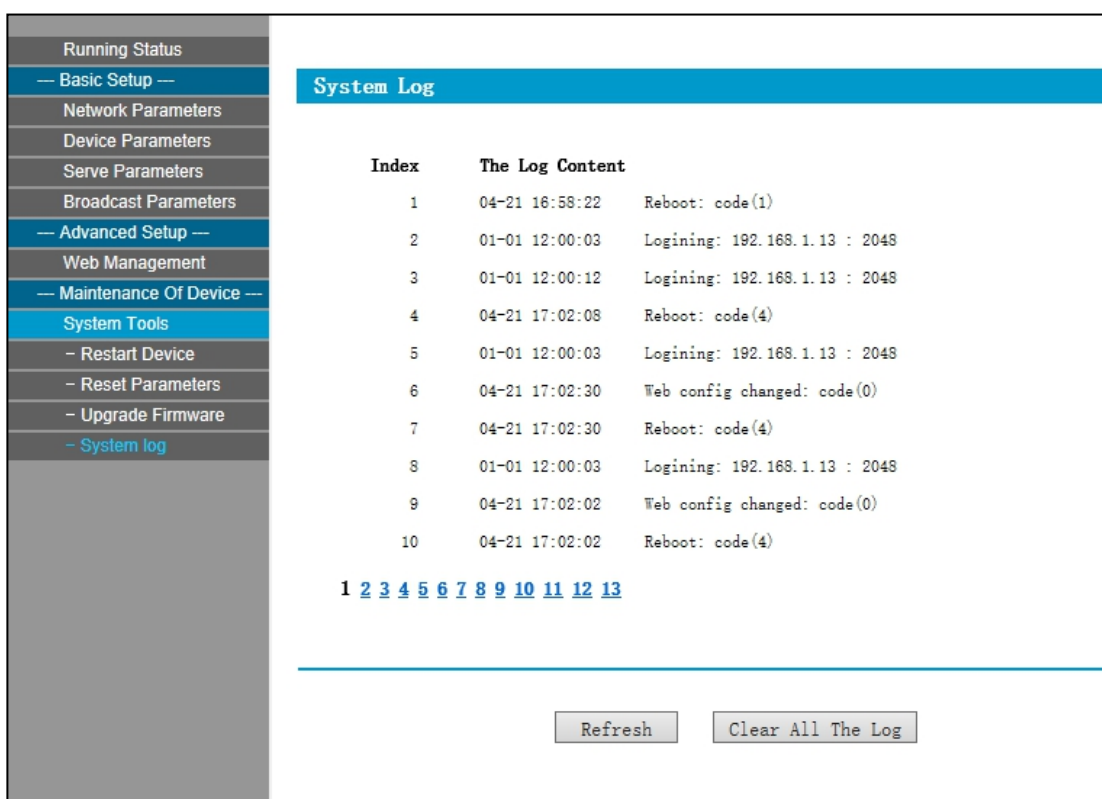
Running Status	
— Basic Setup —	Upgrade Firmware
Network Parameters	
— Maintenance Of Device —	
System Tools	
– Restart Device	Update File: <input type="button" value="Select"/>
– Upgrade Firmware	BIOS Version: Bootload_[Std]_V1.0_20210329
	<input type="button" value="Do Firmware"/>

Exit upgrade mode: If click the “upgrade” button by mistake, you can click the “reboot the device” button in the upgrade mode, then reboot the device to get back to normal mode.



System Log

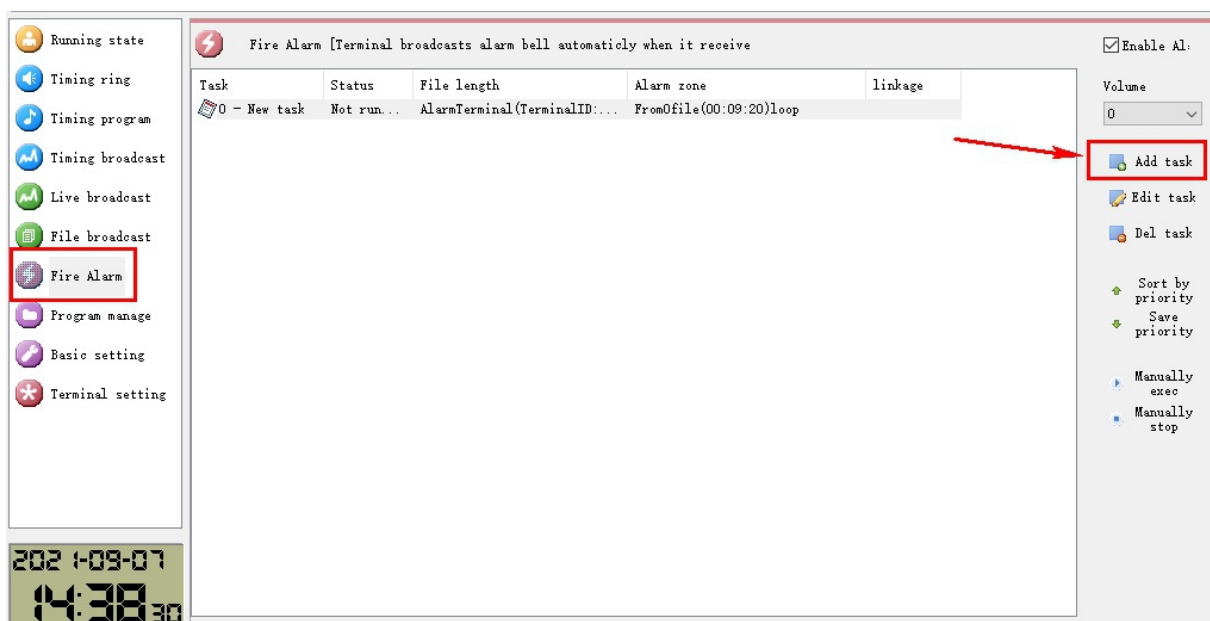
IP network terminal can record the operating condition and form log, the user can browser the system log in web page.



Basic function

Brief operation instructions

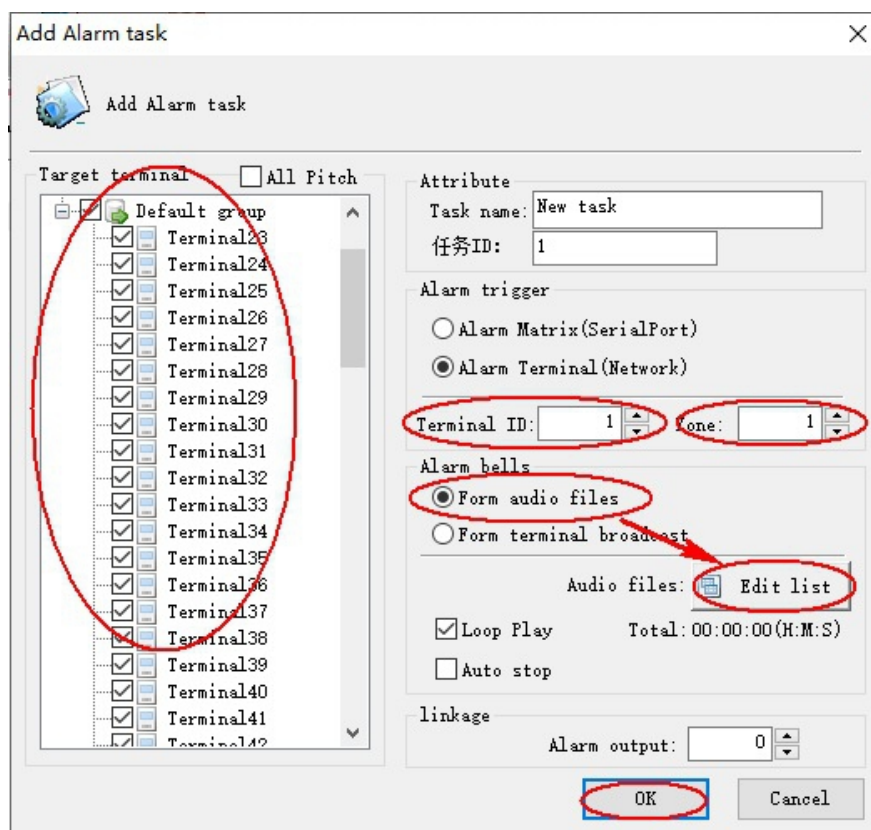
Running digital IP audio server software, click “fire alarm”, enter into fire alarm interface;



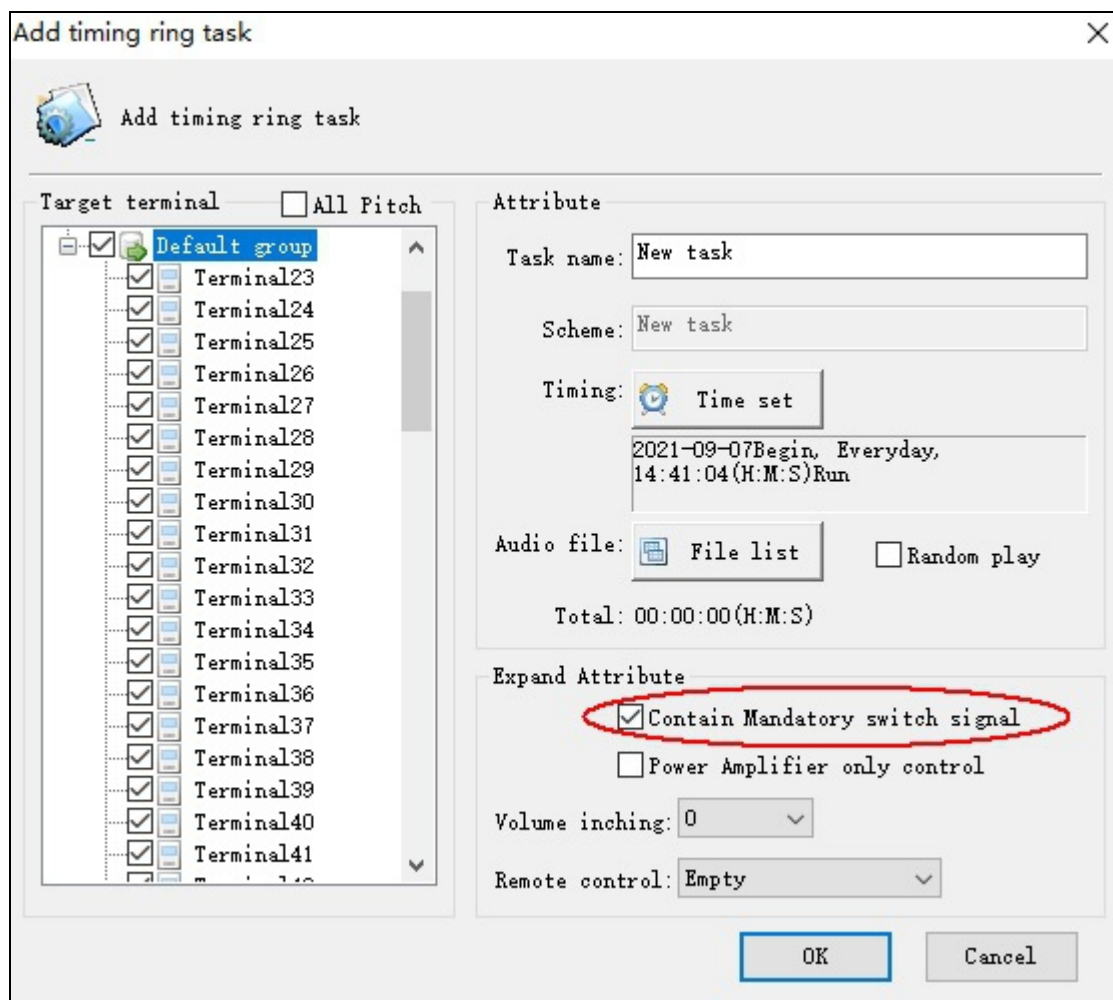
Click "add task", the following interface will pop up:

In this dialog box, please operate as follows:

- ① From the target area option to select the corresponding zone box .
- ② From the trigger device option to select the "alarm terminal (network)" and input the corresponding terminal ID and port number (1-32) .
- ③ Select "from the audio file" in alarm option, it is necessary to add the audio files in the edit list.
- ④ Connect the system equipment and open the power, the power indicator will be brighter.
- ⑤ When the alarm triggered the signal, it will auto-inform the server for fire alarm.



Note: Please refer to the server software operation manual for specific operation.



Mandatory Switch Power Supply

In real-time broadcasting, scheduled broadcasting, fire alarm and other tasks of the server software, select the "Contain Mandatory Switch Signal", then you can control the power supply. According to the selected zones, the terminal will close the corresponding short-circuit output interface. Please refer to the user manual of the server software of the specific operation procedures.

Fault Exclude

Why it appears "terminal network services (UDP) start fail" warning within the process of start server software?

Appearing this warning information, it's usually the local network connection has been disconnected, please connect the local network cable well and exit the software, then restart it.

Why the terminal is still "offline"?

- 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.

Copyright Announcement

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