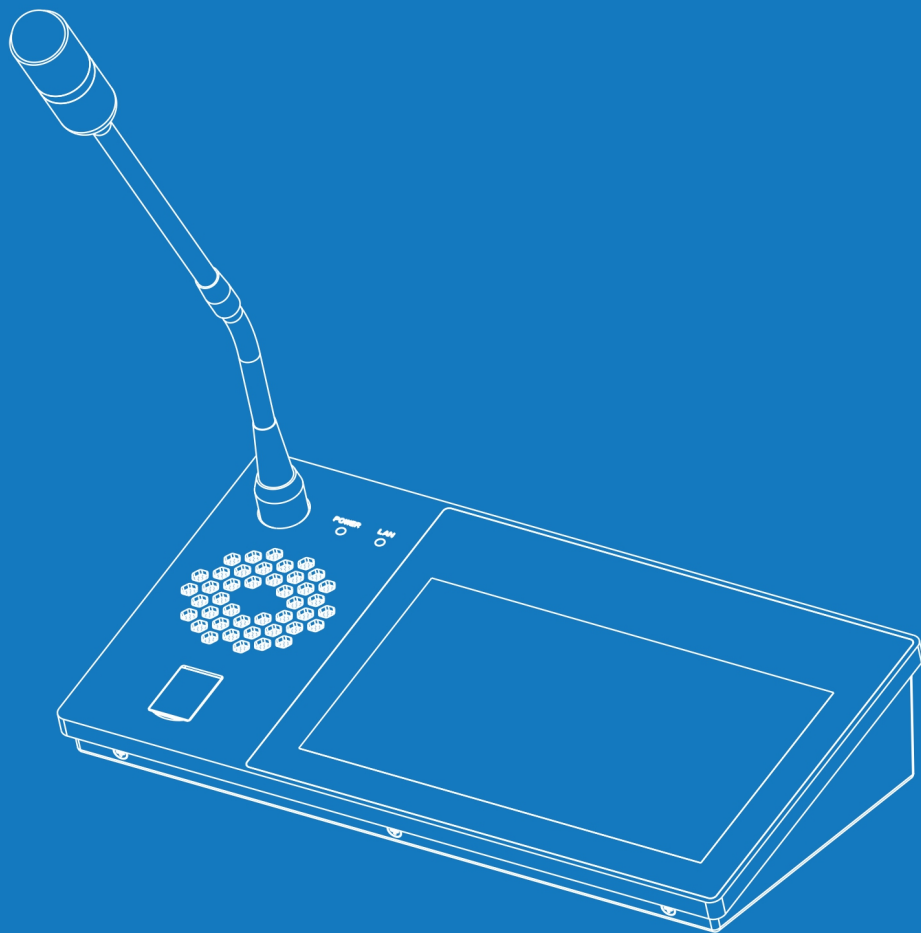


***SPON***

# IP DESKTOP AUDIO PAGING MICROPHONE

## User Manual



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## Overview

### Safety Precautions

- Please abide by the warnings and related safety instructions.
- Please read the User Manual carefully before use and keep it in a convenient place for future reference.

#### Warning



This marking signifies that opening the device has potential safety hazards, misoperation done by laypeople may lead to severe injury or death.



This marking is used to remind the user that the enclosed documents of this device contain important operation and maintenance (repair) instructions.

#### During the installation of the equipment

- 1) Avoid getting wet

Don't expose the equipment to rain or any other environments that may be contaminated by water or other liquids, otherwise it may cause fire or electric shock.

- 2) Please don't use unspecified supply voltage.

Please use the specified supply voltage for the device.

Using voltage higher than the specified voltage may cause fire or electric shock.

- 3) Please don't scratch the power cord.

Please 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 Desktop Audio Paging Microphone adopts IP digital network audio technology, equipped with 3.5mm TRS Line Inputs, 3.5mm TRS Line Outputs, USB 2.0 Interface and Micro SD Card Interface, etc. It can be used not only for one-way paging broadcasting in the IP PA system (support playing live announcements or pre-recorded voice messages to specific or multiple zones)), but also for two-way intercom with other intercom terminals.

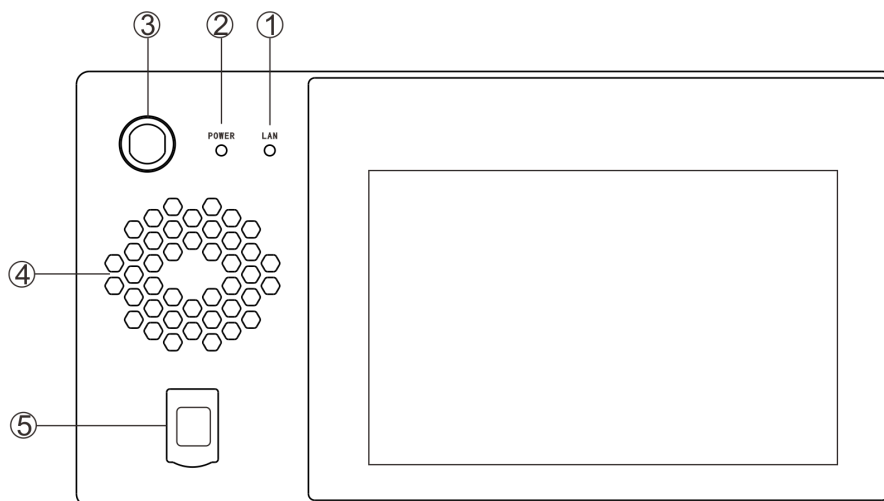


- Professional console design, high-grade aluminum alloy shell, sturdy and durable.
- Equipped with 7" digital TFT true color LCD display & capacitive touch screen (resolution: 1280×800).
- Built-in 3W loudspeaker and unidirectional condenser microphone for two-way hands-free intercom, receiving paging broadcasting and audio monitoring.
- Support paging broadcasting to all zones, part zones or specific front-end device.
- Support file broadcasting and playing pre-recorded voice messages to specific or multiple zones.
- Equipped with red emergency button, support one-touch emergency broadcasting to preset zones.
- Support CID (Caller Identification), available to display the caller name of the incoming & outgoing calls for identification.
- Support playing audio file in the USB flash disk to the front-end device.
- Compatible with FTP (File Transfer Protocol), available for the storage of audio files, ringtones, configuration information and backup file, support remote modification and firmware remote upgrade.
- Equipped with standard RJ45 Ethernet port, accessible to the server wherever Ethernet is available, support cross-segment and cross-router.

## Hardware Interface Description

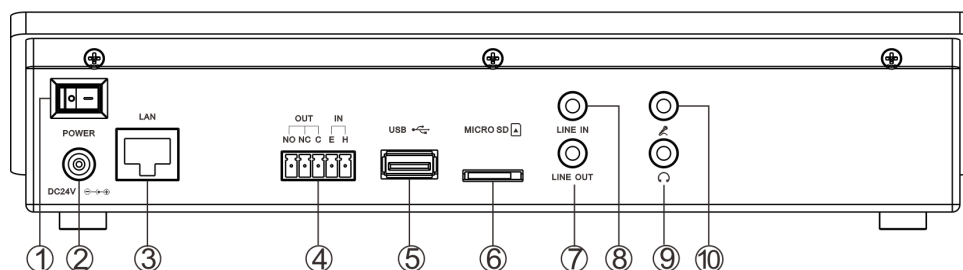
### 【Front Panel】





- ① Network Indicator Light: red light flash slowly when the device is not registered on server (offline), green light on when the device has been successfully registered on server (online).
- ② Power Indicator Light
- ③ Microphone Socket: used for plugging the microphone and collect voice.
- ④ Loudspeaker
- ⑤ Emergency Button: used for one-touch emergency broadcasting to preset zones.

#### 【Back Panel】

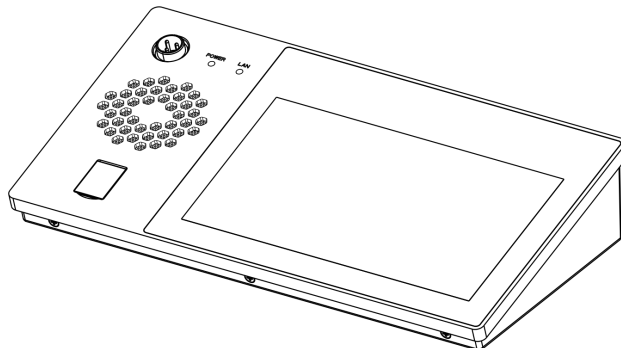


- ① Power Switch: press "0" to turn on the device, press "-" to turn off the device.
- ② Power Port: connecting with DC 24V/1A power supply.
- ③ RJ45 Ethernet Port: connecting to Ethernet switch via network cable to register the device on server.
- ④ Alarm Input/Output Interface: used for external linkage with emergency button, infrared detector, smoke detector, alarm light or electronic door lock, etc.
- ⑤ USB 2.0 Interface
- ⑥ TF Card (Micro SD Card) Interface
- ⑦ 3.5mm TRS Line Input
- ⑧ 3.5mm TRS Line Output
- ⑨ 3.5mm TRS Headphone Output
- ⑩ 3.5mm TRS Mic Input

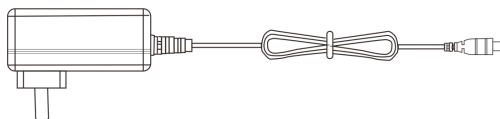
## Basic Introduction

IP Desktop Audio Paging Microphone is equipped with accessories as below, please check the accessories before installation, if any accessories are missing, please contact your local distributor.

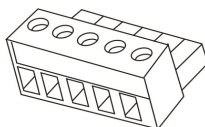
- (1) IP Desktop Audio Paging Microphone 1PCS



- (2) DC 24V/1A Power Adapter 1PCS



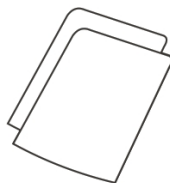
- (3) 5-Pin Screw Terminal Block (3.5-5P) 1PCS



- (4) Detachable Gooseneck Microphone Rod (IM-320) 1PCS



- (5) Installation Manual 1PCS



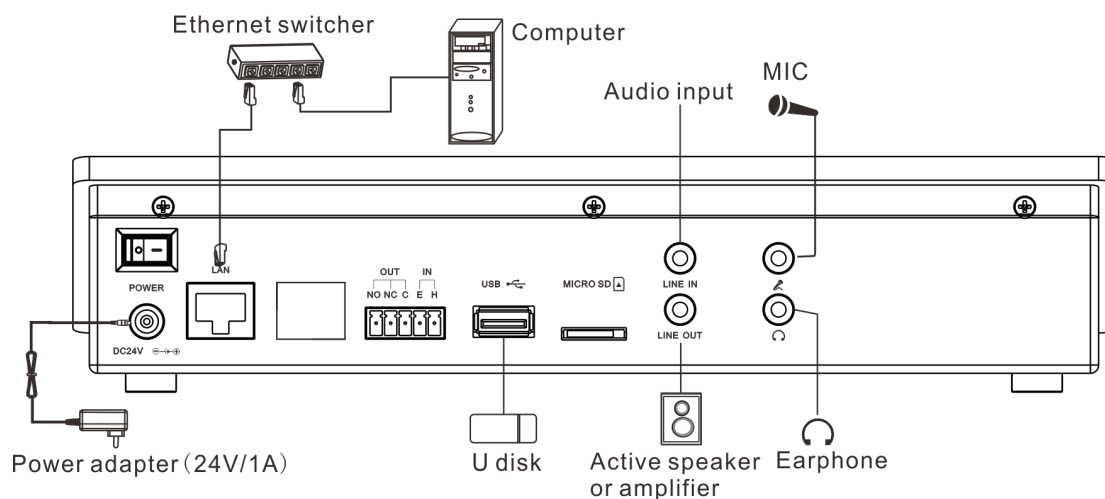
- (6) certification 1 pcs



## Wiring

(1) Connect one side of the power adapter to the power port of the device, and connect the other side to the electrical outlet.

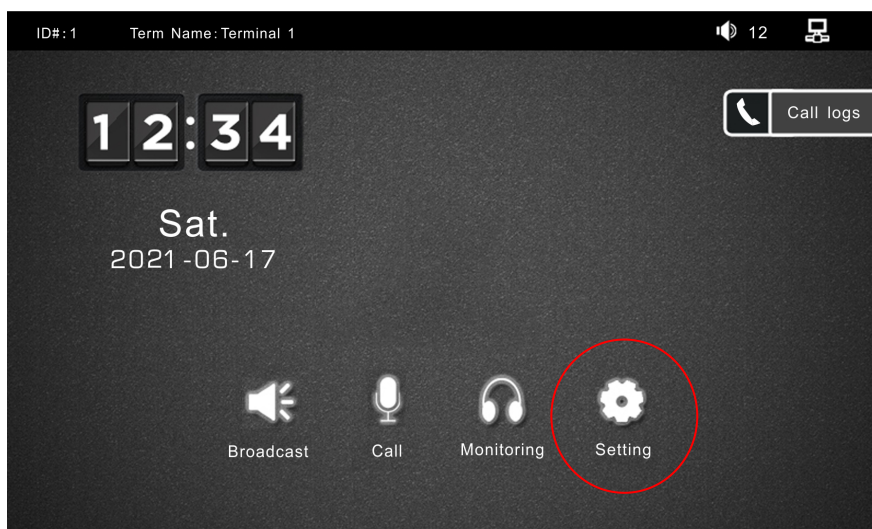
(2) Connect one side of the Ethernet cable to the RJ45 Ethernet port of the device, and connect the other side to the Ethernet switch.



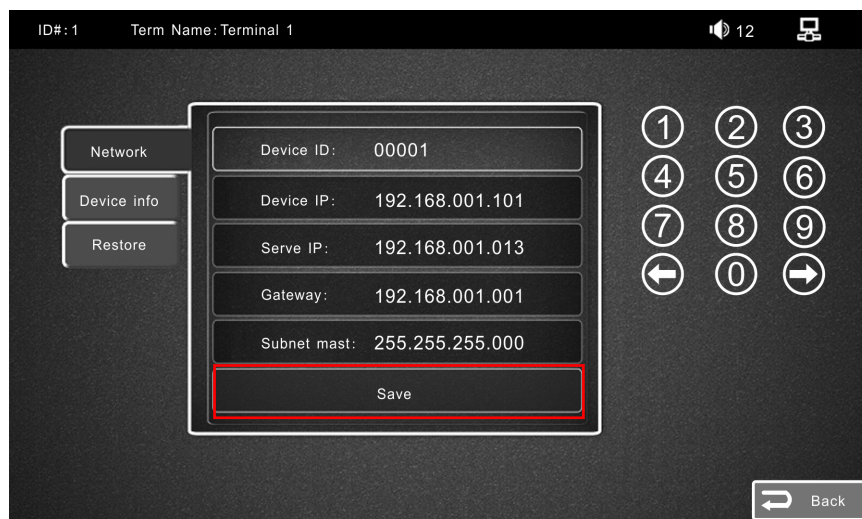
## Basic Network Settings

## Touch Screen Operation

(1) Click "Setting" one the home screen of the device, enter the password ("123456" by default) on the pop-up dialog box.

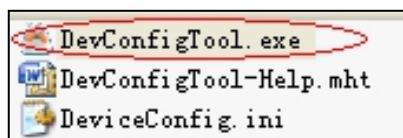


(2) Click specific parameters on the setting interface, enter the parameters on the numeric keypad on the right, then click "Save" to save the settings and reboot the device for the settings to take effect.

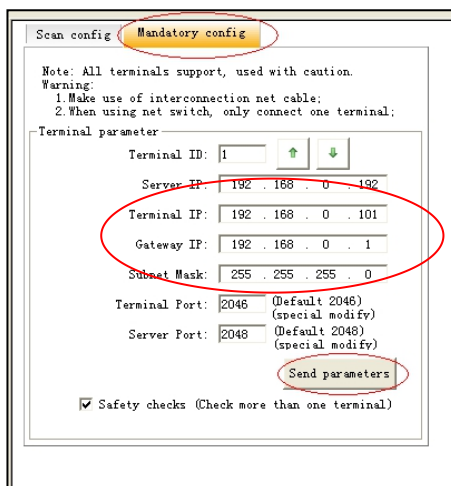


## Device Configuration Tool

- (1) Run the "DevConfigTool" and enter the password ("123456" by default).



- (2) Choose **【Mandatory Configuration】**, enter all the parameters on each columns of **【Terminal Parameter】**, click "Send Parameters" to complete the configuration.



**Note:**

- (1) If using Windows 7 operating system during configuration, please run the "DevConfigTool" as administrator and disable the firewall.
- (2) Using the "DevConfigTool" can only configure one terminal at a time, please make sure that your server PC is only connecting to one terminal during the configuration.
- (3) If needing "DevConfigTool", please contact SPON customer service center.

### Web Page Configuration

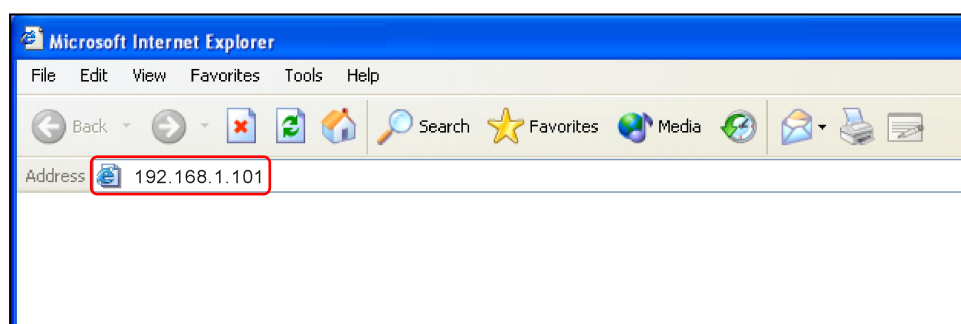
Access to the web page of the device, modify the network parameters according to the actual condition, and click "Save" after the configuration.

For detailed operating procedures, please refer to the "Network Parameter Settings" of "Terminal Parameter Customization" on this manual.

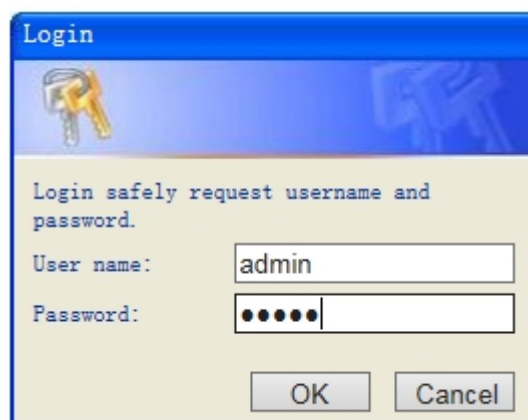
## User-Defined Terminal Parameter Settings

### Web Page Login

- (1) Input the IP address ("192.168.1.101" by default) of the device on the address bar of your browser and press Enter button to confirm.



- (2) Input the username and password on the login window of the web page. (the default user name and password is admin)



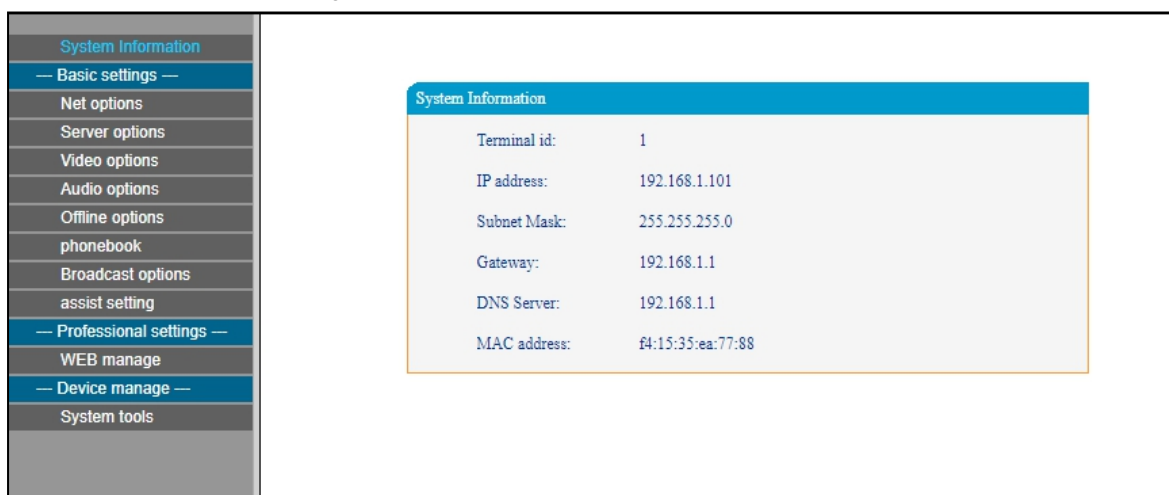
**Login**

Login safely request username and password.

User name:

Password:

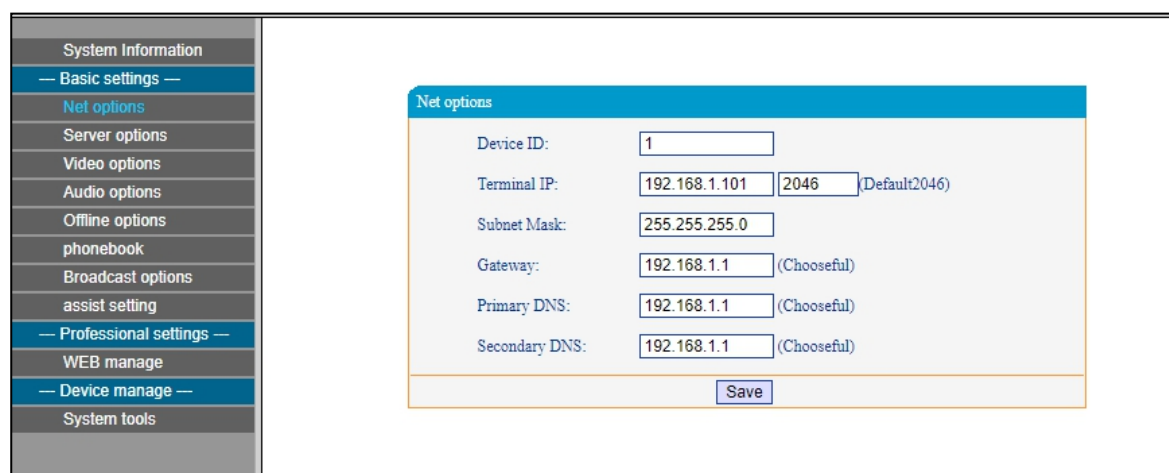
(3) Click OK to enter the web page of the device.



System Information	
Terminal id:	1
IP address:	192.168.1.101
Subnet Mask:	255.255.255.0
Gateway:	192.168.1.1
DNS Server:	192.168.1.1
MAC address:	f4:15:35:ea:77:88

## Network Parameters

Please modify the network parameters according to the actual condition, and click "Save" after the configuration.



Net options	
Device ID:	<input type="text" value="1"/>
Terminal IP:	<input type="text" value="192.168.1.101"/> <input type="text" value="2046"/> (Default 2046)
Subnet Mask:	<input type="text" value="255.255.255.0"/>
Gateway:	<input type="text" value="192.168.1.1"/> (Chooseful)
Primary DNS:	<input type="text" value="192.168.1.1"/> (Chooseful)
Secondary DNS:	<input type="text" value="192.168.1.1"/> (Chooseful)
<input type="button" value="Save"/>	

The meaning of the parameters would be as below:

Device ID	The only number to identify the device, can't be the same as other terminals or server.
Device IP	The IP address and port number of the device ("192.168.1.101" and "2046" by default). Note: port number shall not be modified except in special circumstances.
Subnet Mask	The subnet mask of the device.
Default Gateway	Gateway of the local network.

Preferred DNS Server	The IP address of the preferred DNS resolver of the local network.
Alternate DNS server	The IP address of the alternate DNS resolver of the local network.

## Server Parameters

Set the parameters of the server platform, and click "Save" after the setting.

The meaning of the parameters would be as below:

Main Server	The IP address of the server that the device login to.
Standby Server	The IP address of the standby server that the device login to when the main server crashes.
Version Server	The IP address and port number of the auto-update server of the designated terminal.
File Server	The IP address and port number of the server for the storage of audio files, ringtones, configuration information and backup file, ringtones and other resource files can be updated via FTP (File Transfer Protocol).
Login Request Time Interval	The time interval of the login request to the server when the device is offline.

## Audio Parameters

Set the audio parameters of the device, and click "Save" after the setting.

The meaning of the parameters would be as below:

Input Volume	The master volume (0~15) of the audio input of the device.
Output Volume	The master volume (0~15) of the audio output of the device.
Ringing Volume	The volume of the ringing when there's incoming calls.
PTT Mode	<p>The setting of PTT mode ("click trigger" by default).</p> <p>"click trigger": user just needs to click the PTT button to activate the PTT mode during intercom, the microphone will be turned off (only listening and no talking), click the PTT button again to turn on the microphone and turn off the loudspeaker (only talking and no listening).</p> <p>"press trigger": user can only activate the PTT mode by pressing and holding the PTT button during intercom, the microphone will be turned on (only talking and no listening), let go of the PTT button will turn off the microphone and turn on the loudspeaker (only listening and no talking).</p>
Three-Party Conference	<p>"Enable": click the third party intercom button, input the ID of the designated terminal and click the intercom button to activate three-party conference, all three parties can hear the voice of the other two parties clearly during three-party conference.</p> <p>"Disable": disable the function of three-party conference.</p>
Auto Answer	Set whether to enable the auto answer function or not. If choosing "Disable", then the user will need to click the "answer" button to answer any incoming calls.

## Offline Parameters

Setting the IP address and port number of the offline target terminals, the device can initiate calls to these target terminals in offline state. click "Save" after the setting and reboot the device for the settings to take effect.



System Information
— Basic settings —
Net options
Server options
Video options
Audio options
Offline options
phonebook
Broadcast options
assist setting
— Professional settings —
WEB manage
— Device manage —
System tools

### Offline options-1

ID	IP	port
1		2046
2		2046
3		2046
4		2046
5		2046
6		2046
7		2046
8		2046
9		2046
10		2046
11		2046
12		2046
13		2046
14		2046
15		2046
16		2046

1 2 3 4

Save

## Phone Book

The phone book is used for quick dialing when initiating intercom, up to 4 groups (40 numbers in total) can be set, corresponding to group 1, group 2, group 3, group 4 of the telephone directory on the LCD screen of the device.

Input the ID of the target terminal on "Terminal ID", set the function to be "Talk", then one-touch calling to the designated terminal can be achieved by clicking the corresponding ID of the phone book on the LCD screen.

Note: Pickup number, name and SIP function are reserved function at present.

System Information
— Basic settings —
Net options
Server options
Video options
Audio options
Offline options
phonebook
Broadcast options
assist setting
— Professional settings —
WEB manage
— Device manage —
System tools

### phonebook-1

ID	Terminal id	Pickup Number	name	Function
1:	1	*08		<input checked="" type="radio"/> Talk <input type="radio"/> SIP
2:	2	*08		<input checked="" type="radio"/> Talk <input type="radio"/> SIP
3:	3	*08		<input checked="" type="radio"/> Talk <input type="radio"/> SIP
4:	4	*08		<input checked="" type="radio"/> Talk <input type="radio"/> SIP
5:	5	*08		<input checked="" type="radio"/> Talk <input type="radio"/> SIP
6:	6	*08		<input checked="" type="radio"/> Talk <input type="radio"/> SIP
7:	7	*08		<input checked="" type="radio"/> Talk <input type="radio"/> SIP
8:	8	*08		<input checked="" type="radio"/> Talk <input type="radio"/> SIP
9:	9	*08		<input checked="" type="radio"/> Talk <input type="radio"/> SIP
10:	10	*08		<input checked="" type="radio"/> Talk <input type="radio"/> SIP

1 2 3 4

Save



## Broadcasting Parameters

**Emergency Button Definition:** customize the terminal's red emergency button function. User can choose to broadcast to all zones, part zones or simply disable this function.

All Zones Broadcasting:

Part Zones Broadcasting:

MP3 Broadcasting: not supporting MP3 format audio file for file broadcasting by default, if "enable" this function, please click "Save" after the setting and reboot the device for the settings to take effect.

System Information	<div>Broadcast options</div> <div>Emergency Type: <input checked="" type="radio"/> All BC <input type="radio"/> Area BC <input type="radio"/> Disable</div> <div>Area List: <input type="text" value="1"/> (Asterisk Separate)</div> <div>MP3_broadcas: <input checked="" type="radio"/> Disable <input type="radio"/> Enable</div> <div>Save</div>
— Basic settings —	
Net options	
Server options	
Video options	
Audio options	
Offline options	
phonebook	
Broadcast options	
assist setting	
— Professional settings —	
WEB manage	
— Device manage —	
System tools	

## Auxiliary Settings

**Lock Screen Switch:** set whether to turn on the lock screen function or not ("closed" by default), if enabled, user needs to input the password when the device enters the screensaver state.

**Note:** The lock screen password is the same as the password to enter the "Settings" page, please set the password on server software - advanced settings - parameter 2 - password management.

**Auto Update Address:** please input the correct IP address and port number of the server on the "Auto Update URL" (format: http://192.168.1.13:80/firmware/NAS-8532), so that when the device is powered on, it'll automatically obtain updated program for firmware upgrade.

**Note:** the updated firmware of the device must be uploaded on "Advanced" - "Device Upgrade" on the server in advance.

System Information	<div>assist setting</div> <div>lockerscreen: <input checked="" type="radio"/> close <input type="radio"/> open</div> <div>auto update url: <input type="text"/></div> <div>Save</div>
— Basic settings —	
Net options	
Server options	
Video options	
Audio options	
Offline options	
phonebook	
Broadcast options	
assist setting	
— Professional settings —	
WEB manage	
— Device manage —	
System tools	

## Password Setting

The username and password for the login of the web page can be modified on "Web Management". After the modification is completed, please click "Save" and restart the browser for the settings to take effect.

The screenshot shows the 'Web password settings' dialog box. The left sidebar contains the following menu items: System Information, Basic settings (selected), Net options, Server options, Video options, Audio options, Offline options, phonebook, Broadcast options, assist setting, Professional settings (selected), WEB manage (selected), Password settings, Device manage, and System tools. The main content area displays the 'Web password settings' dialog with the following text: 'Change username and password this page, not length than 15 bytes.' Below this text are five input fields: 'Old user:', 'Old key:', 'New user:', 'New key:', and 'Key confirm:'. At the bottom of the dialog are two buttons: 'Save' and 'Cancel'.

## Device Reboot

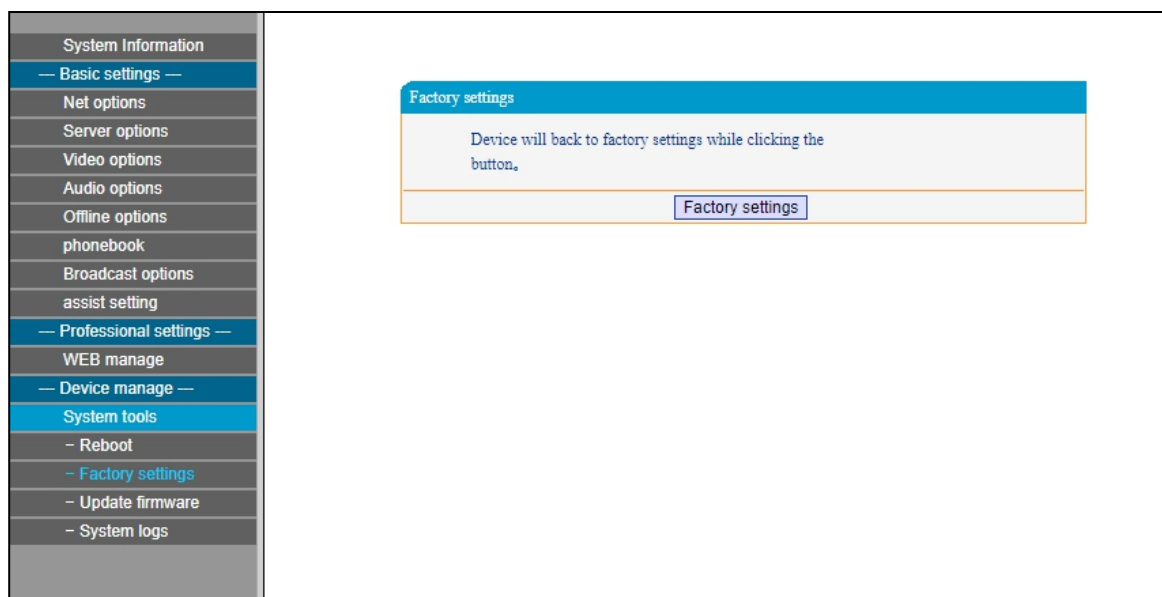
Reboot the device. (Note: the modification of all the parameters can only take effect after rebooting the device)

The screenshot shows the 'Reboot' dialog box. The left sidebar contains the following menu items: System Information, Basic settings, Net options, Server options, Video options, Audio options, Offline options, phonebook, Broadcast options, assist setting, Professional settings, WEB manage, Device manage, System tools (selected), Reboot (selected), Factory settings, Update firmware, and System logs. The main content area displays the 'Reboot' dialog with the following text: 'It will reboot while clicking the button.' Below this text is a single button: 'Reboot'.

## Restore Factory Default Setting

Restore Previous Settings: all the parameters will be restored to the settings of the server login last time.

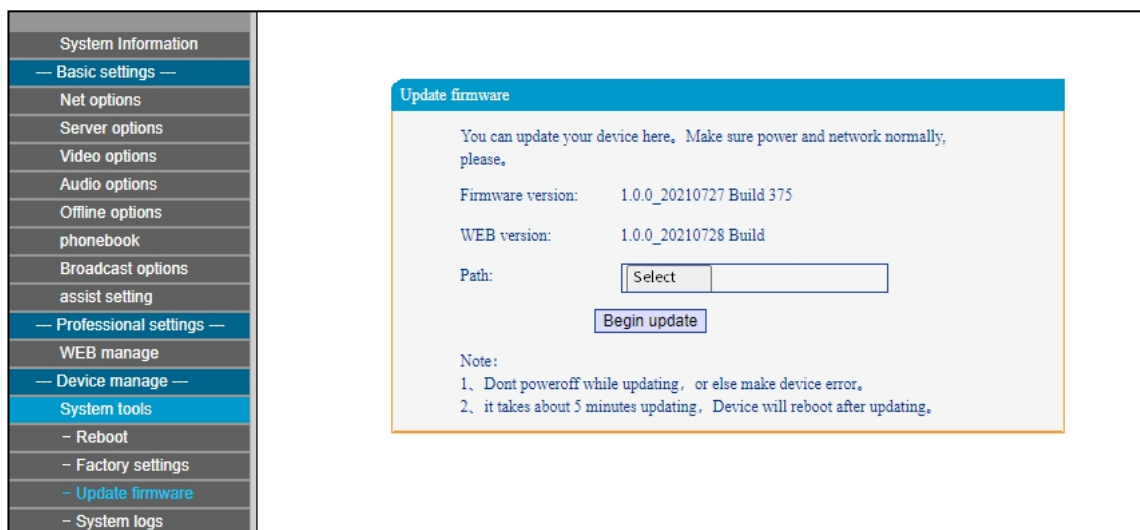
Restore Factory Default Setting: all the parameters will be restored to factory default settings.



### Firmware Upgrade (Note: please do not upgrade the firmware unless there's special need)

Please select the firmware upgrade file on the web page and click "Start Update" button to start the firmware upgrade.

**Note: please do not power off the device during the process of firmware upgrade, otherwise it may cause failure of the upgrade or device fault. Please reboot the device when the firmware upgrade is completed**



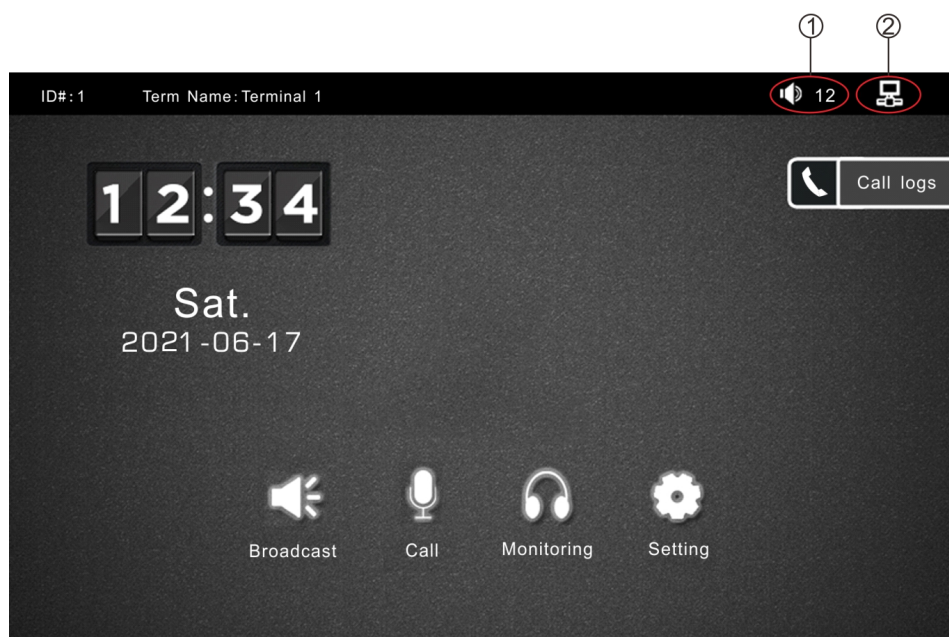
### Other Functions

In addition to the above functions, scheduled broadcasting and real-time broadcasting file broadcasting can also be realized in cooperation with server software, please refer to the user manual of the server software for the specific operation procedures.



## Basic Functions

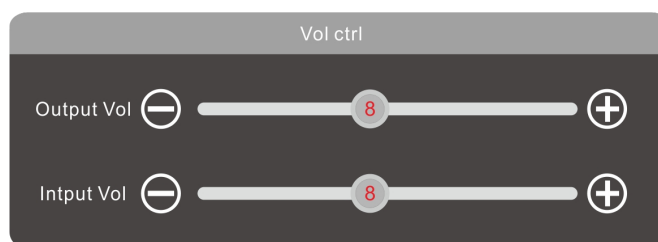
### Interface Introduction

About 40 seconds after power-on, the device will successfully enter the main interface after booting. The time, date and function icons will be displayed on the main interface.






### ①Output Volume

**Volume adjustment:** press the volume icon , on the pop-up volume control window, click "+" "-" (or slide the middle circular icon ) to increase or decrease the input/output volume, press the return key to return to the main interface after setting.

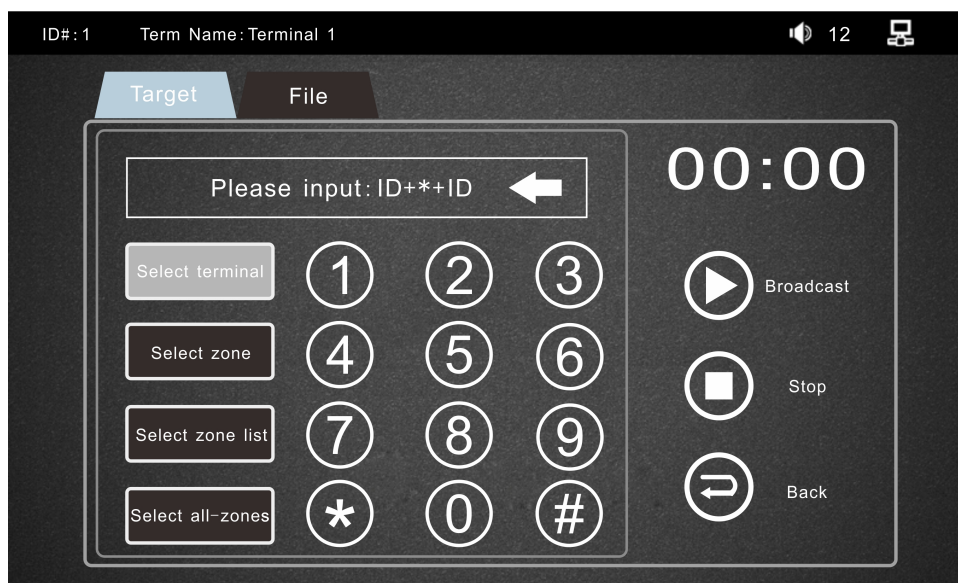


**Note:** User can also set the input and output volume of the IP network paging microphone on the web page and server software. (For details, please refer to the web page "audio parameter" setting and server software user manual)

### ②Terminal Status Icon

Icon (Color)	Terminal Status
	Terminal login to server successfully
	Terminal fails to login to server
	network cable is not connected properly

## Broadcasting



### Initiate Broadcasting

- 1) On the main interface of the IP network paging microphone, press the [Broadcast] key to enter the broadcasting operation page;
- 2) On the broadcasting operation interface, you can choose to initiate terminal broadcasting (select terminal), part zones broadcasting (select zones/select zoning table [Note: the zoning table is the zoning table set on the server]), and the all zones broadcasting (select the whole area);
- 3) Press the number keys to input the target terminal ID number or zone number; (press the cancel key to cancel the input)
- 4) Press the start broadcasting button on the right to initiate broadcasting to the target;
- 5) Press the stop button to stop the broadcasting, or press the return button to return to the previous interface and stop the broadcasting.

### File Broadcasting

After starting the broadcasting, press the file button, and then select the audio under the file menu to play the audio to the target terminal. Press the return button to stop playing and return to the broadcast interface.



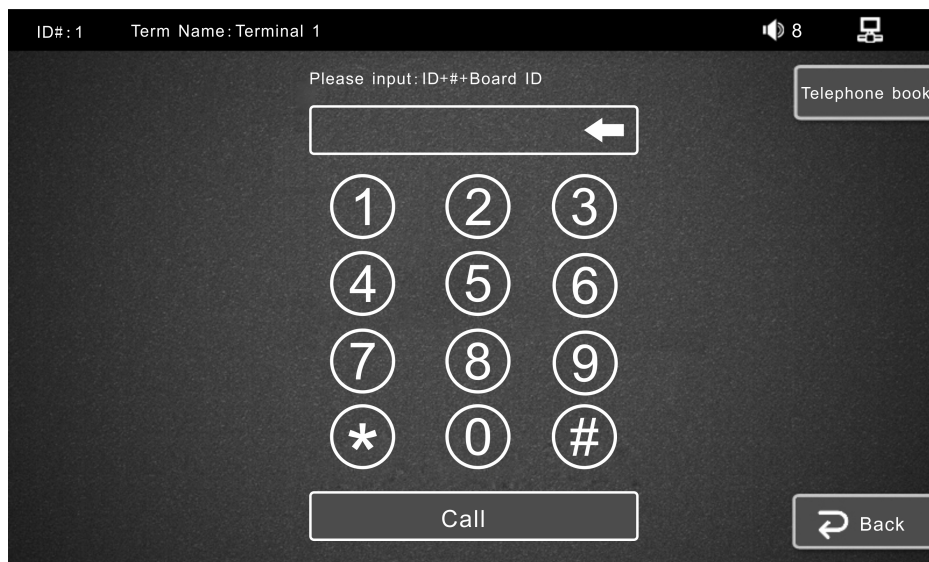
Audio file setting method: Create a new MUSIC folder in the root directory of the USB flash disk, and store WAV format, 22KHz mono audio files in the folder (you can use the "WAV program production tool" that comes with the service software for

format conversion), and the setting is complete. Then insert the USB flash disk into the USB interface of the IP network paging microphone.




### Receive Broadcasting

Support receiving broadcasting from the server or from the terminal.

### Intercom



#### Initiate Intercom

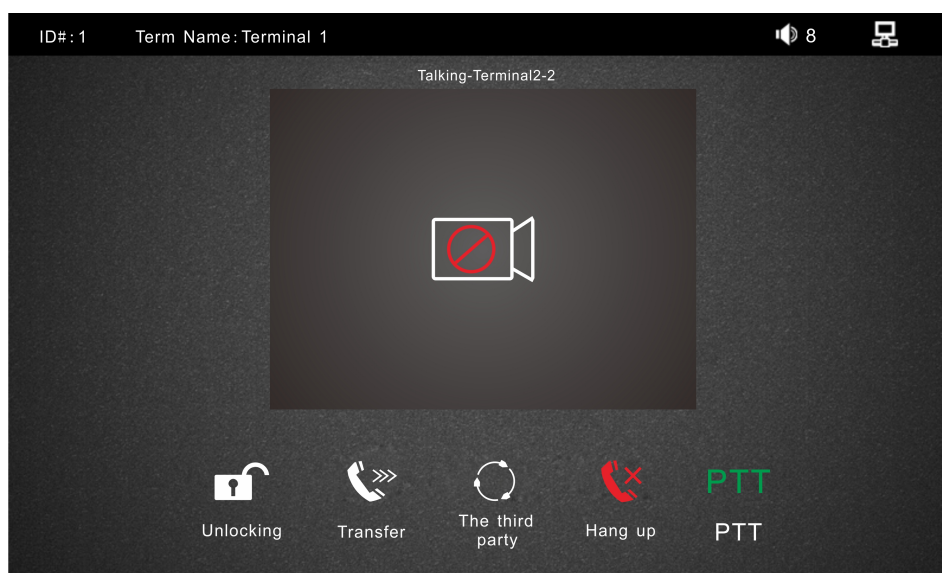
- 1) On the main interface of the IP network paging microphone, press the [Intercom] key to enter the interface for initiating an intercom operation;
- 2) Press the number keys to input the target terminal ID number (or input ID+#+panel ID); (press the cancel key  to cancel the input)
- 3) Press the intercom key to initiate intercom;
- 4) Press the hang-up key  to exit the intercom state, and press the return key  to return to the previous interface.

#### Phone book

In the initiating intercom interface, press the side phone book to enter the fast dial list, and directly click the target terminal to initiate the intercom, no key operation is required; (Note: For the phone book settings, please refer to the web operation)

#### Unlock/transfer/three-way intercom/PTT





1) Unlock: During the intercom, press the [Unlock] button to trigger the short-circuit output action of the other party (requires the other party's support).

2) Transfer: During the intercom, press the [Transfer] button, enter the ID number of the target terminal, and then press the intercom key, the intercom will automatically transfer the call to the set target terminal, and interrupt the intercom of the terminal at the same time.

3) Three-Party Conference: During the intercom, press the [Third Party] button, enter the ID number of the terminal that needs to be added to the intercom, and then press the [Intercom] key to initiate a three-party conference. During the three-party conference, all three parties in the intercom can clearly hear the voices of the other two parties (you can press the hang-up button on the three-party conference page to interrupt the call with a target terminal).

**Note: The three-party conference function can be enabled or disabled on the web page.**

4) PTT Intercom: Press the PTT button once during a call to enter the PTT mode, the microphone is turned off (only listening but not talking), press the PTT button again, the microphone is turned on (only talking but not listening).

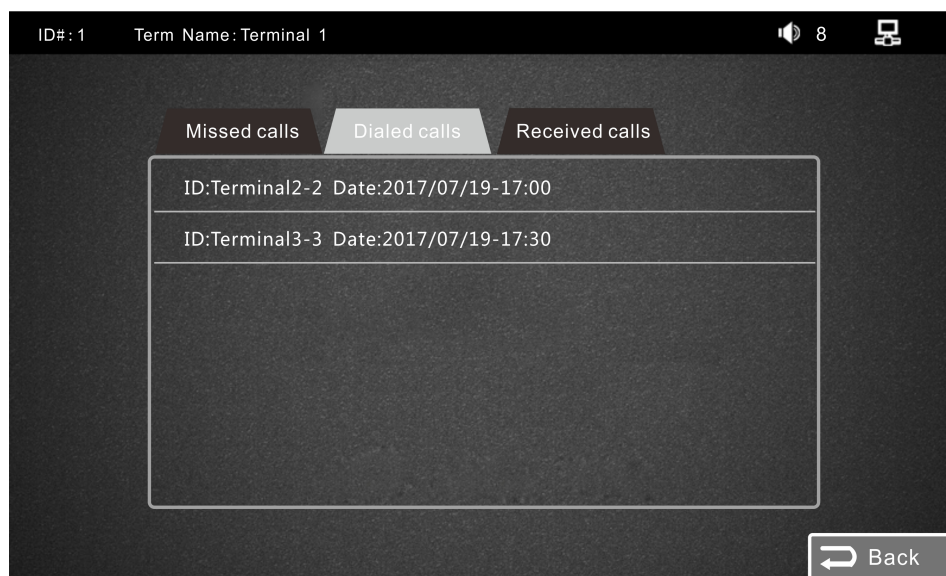
**Note: You can set the PTT mode to press trigger in the audio parameters of the web page. When switching to press trigger, you must press and hold the PTT button to speak to the other party to hear the sound.**

### Call Records

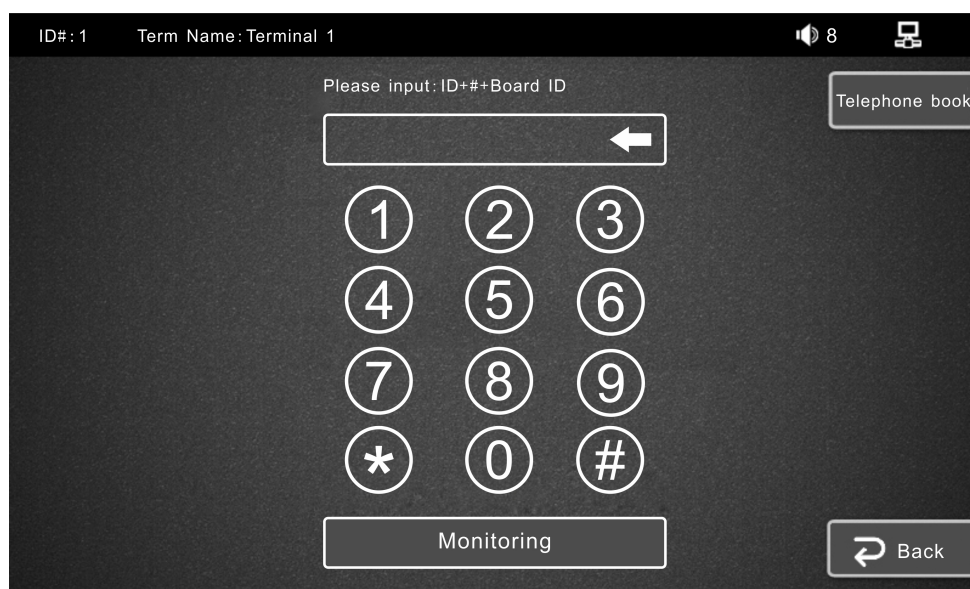
Click the call log button on the main interface of the LCD screen to view the missed calls/placed calls/received calls of the terminal.




Click on any record to directly initiate a call to the terminal, and the record will automatically disappear after the call is initiated.

Press the return button to return to the main interface.



## Monitoring



- 1) On the main interface of the IP network paging microphone, press the [Monitor] key to enter the monitoring page;
- 2) Press the number keys to input the ID number of the monitored terminal; (press the cancel key  to cancel the input)
- 3) Press the monitor button to monitor the target;
- 4) Press the hang-up key  to exit the monitoring state, and press the return key  to return to the previous interface.

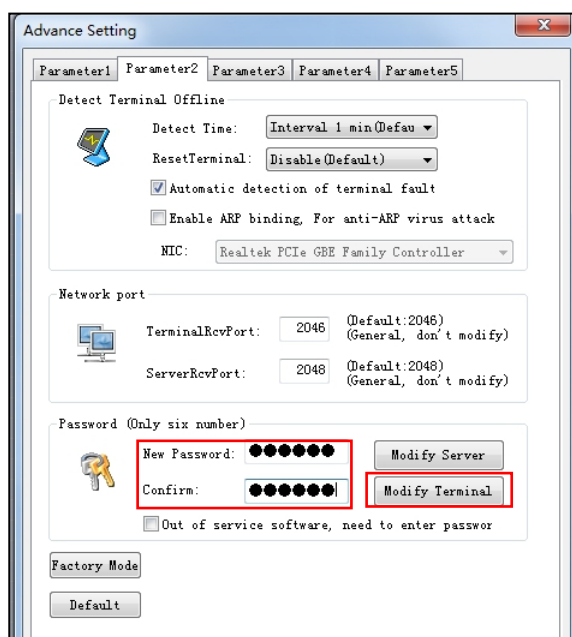
**Note: The IP network paging microphone does not support being monitored.**

## Settings

On the main interface of the IP network paging microphone, click the [Settings] icon and enter the password (the factory default is 123456) to enter the setting interface. You can set parameters such as device ID, IP, service IP, and restore factory settings; at the same time, you can view the information of the machine.

**Note:** Modifying the terminal password can only be achieved through the server. The specific steps are: Settings - Advanced Settings - Enter the server password (default is 123456) - Parameter 2 - Enter the new password - Modify all terminal passwords - OK.





After choosing to modify all terminal passwords, all terminal passwords connected to the same server will be changed to the same.

## Change Background Image

The IP network paging microphone can replace the background image of the main interface of the LCD screen and the operation interface. The operation method is as follows:

Enter My Computer/FTP://Terminal IP/user-res/background directory, place the picture that needs to be replaced, the picture format is uniformly png format, 800\*480 pixels; the main interface background picture is named as mainwindowbg.png; The name of the background image of the operation interface is fixed as othermainwindowbg.png;

After the picture is changed, restart the device to take effect. (Click on the IP network paging microphone-Settings-General Settings, click Save without modifying any parameters to restart the device)

**Note: Direct power-off to reboot the device will not take effect.**

## Troubleshooting

### Cannot login the device to the server?

1、Check whether the server software and the server PC are turned on normally. Before opening the server software, user needs to turn off all firewalls (including the firewall that comes with the system and firewalls contained in other anti-virus software);

2、Check whether the network connection is normal. After the terminal is powered on, the green indicator of the network port will be on. At the same time, the orange indicator will flash, indicating that the hardware connection of the network cable is normal. If you find that the green indicator of the network port does not light up, it means that there is a problem with the network connection. Check the network cable and the switch connected to the terminal to see if there is any failure such as damage, or poor contact;

3、Check the network settings of the terminal. Check whether the terminal ID number, server IP address, local IP address, gateway IP address and other parameters are set correctly.

### How to solve the "terminal network service (UDP) failed to start" warning when starting the server software?

The local network connection of the server has been disconnected, connect the local network cable, exit the server software, and restart the server software.

### Web page display is abnormal?

Clear the cache or change the browser.

### How to change the username and password for logging in to the web page?

- 1、Click the password setting on the web page;
- 2、Enter the old username and password in the original username bar and original password bar respectively;
- 3、Enter the new username and password in the new username bar and new password bar respectively;
- 4、Enter the new password again in the password confirmation bar'
- 5、Click "Save";
- 6、The new username and password will take effect after rebooting the device.

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