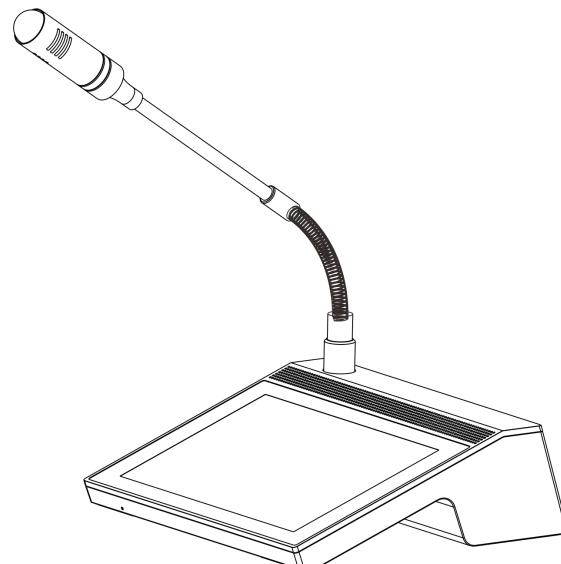




User Manual

IP Remote Microphone

IP-107RM



Thank you very much for purchasing this TOA product.

Please read the instructions carefully to ensure long-term, and trouble-free operation of the unit.

TOA Corporation

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1. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
- Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
- After reading, keep this manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.

WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.



Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

When Installing the Unit

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down and causing personal injury and/or property damage.
- Since the unit is designed for indoor use, do not install it outdoors. If installed outdoors, the aging of parts causes the unit to fall off, resulting in personal injury. Also, when it gets wet with rain, there is a danger of electric shock.

When the Unit is in Use

- Should the following irregularity be found during use, immediately cut off the power supply from a PoE switching hub and contact your nearest TOA dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
 - If you detect smoke or a strange smell coming from the unit If water or any metallic object gets into the unit.
 - If the unit falls, or the unit case breaks.
 - If the LAN cable is damaged (exposure of the core, disconnection, etc.).
 - If the speaker suddenly stops producing sound.
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to qualified service personnel.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not insert nor drop metallic objects or flammable materials in the ventilation slots of the unit's cover, as this may result in fire or electric shock.
- Do not touch the unit and LAN cable during thunder and lightning, as this may result in electric shock.

CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.



Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

When Installing the Unit

- Never plug in or remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down and causing personal injury and/or property damage.

IMPORTANT NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

2. PRODUCT DESCRIPTION

2.1 Overview

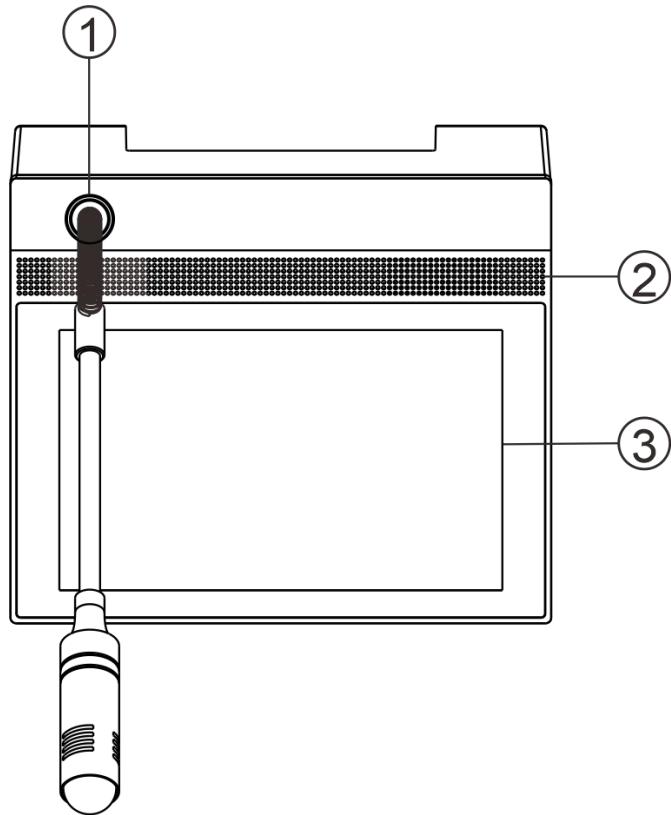
IP Remote Microphone IP-107RM is a high-performance intercom paging device based on TCP/IP, SIP, UDP and other transmission protocols. As a simplified IP-based paging device, its commonly used functions include emergency broadcasting, zone paging, initiate/receive intercom and device monitoring;

IP Remote Microphone IP-107RM adopted modern minimalist style product appearance design. The product shell is designed with integrated hardware structure of glass and aluminum alloy. This unique product is equipped with high-definition 7" digital HD touch screen, user-friendly interactive GUI design and simple & straightforward HMI (Human-Machine Interaction), which can significantly improve user experience while still guarantee the reliability and ease of use for most of its critical operations. Other features are as follows:

- (1) 7 inch high definition display; Capacitive touch screen (resolution: 800*1280).
- (2) Support file broadcast、pre-record broadcast、TTS(Text-To-Speech)broadcast to designated zones or terminals.
- (3) Support of initiating & receiving offline call without server.
- (4) Support standard SIP protocol for easy integration with mainstream SIP PBX.
- (5) Support online viewing of the working status of other terminals, which is convenient of debugging and maintenance.
- (6) Support self-defined ringtone of incoming call and broadcast.
- (7) Support incoming/outgoing call record and query function.

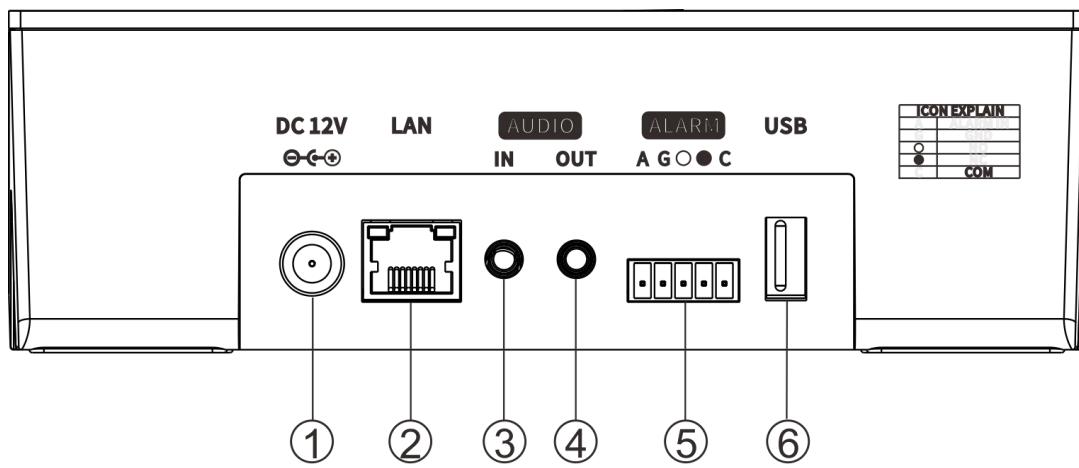
2.2 Interface Description

Front Panel Layout



- ① Rods Socket: Plug the microphone rods to collect sounds.
- ② Speakers: Restore remote and local sound
- ③ Touch Screen

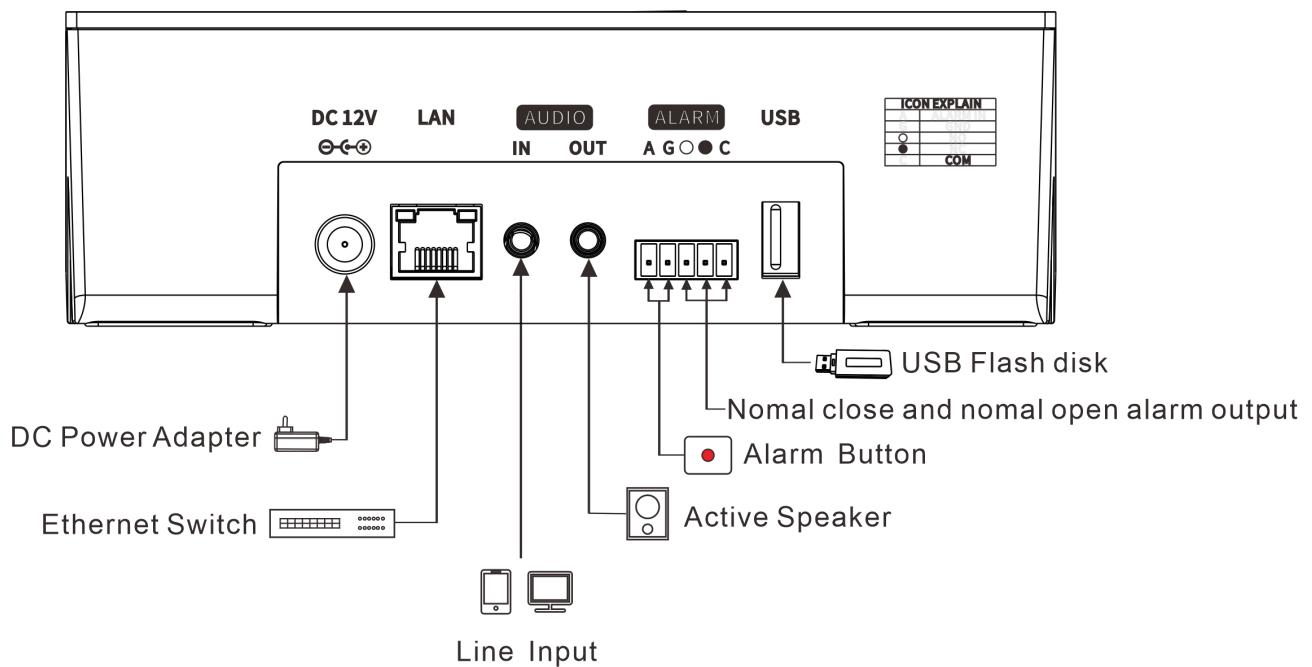
Connector Layout



- ① Power Input Port: Connect with DC12V/1.5A power adaptor
- ② Network Port: To connect with Ethernet switch
- ③ Audio Input Port: To connect with mobile phone or laptop.etc
- ④ Audio Output Port: To connect with active speaker or amplifier
- ⑤ Alarm Input/Output Port
- ⑥ USB Port: Store the audio/TXT file for broadcast

3. WIRING AND INSTALLATION

3.1 Wiring



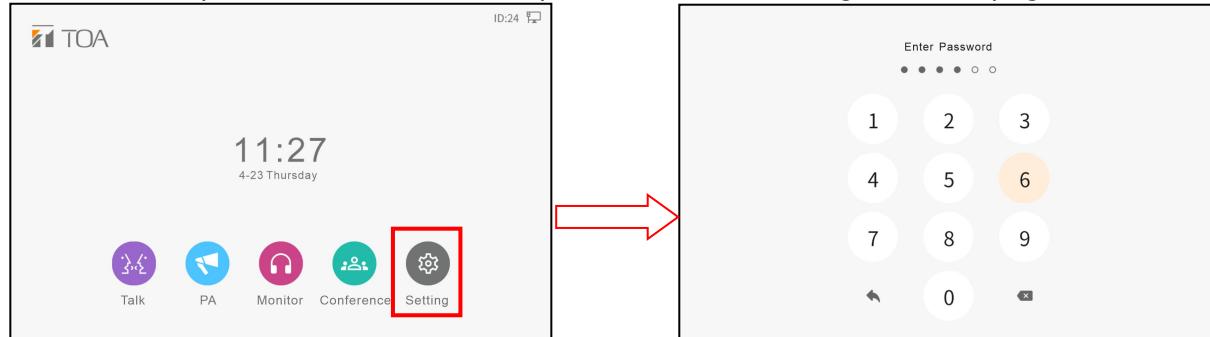
3.2 Basic Network Setting

After connecting IP remote microphone to a standard local area network, please change the network parameters according to site usage environment. There are two methods for reference:

1. Setting up on devices

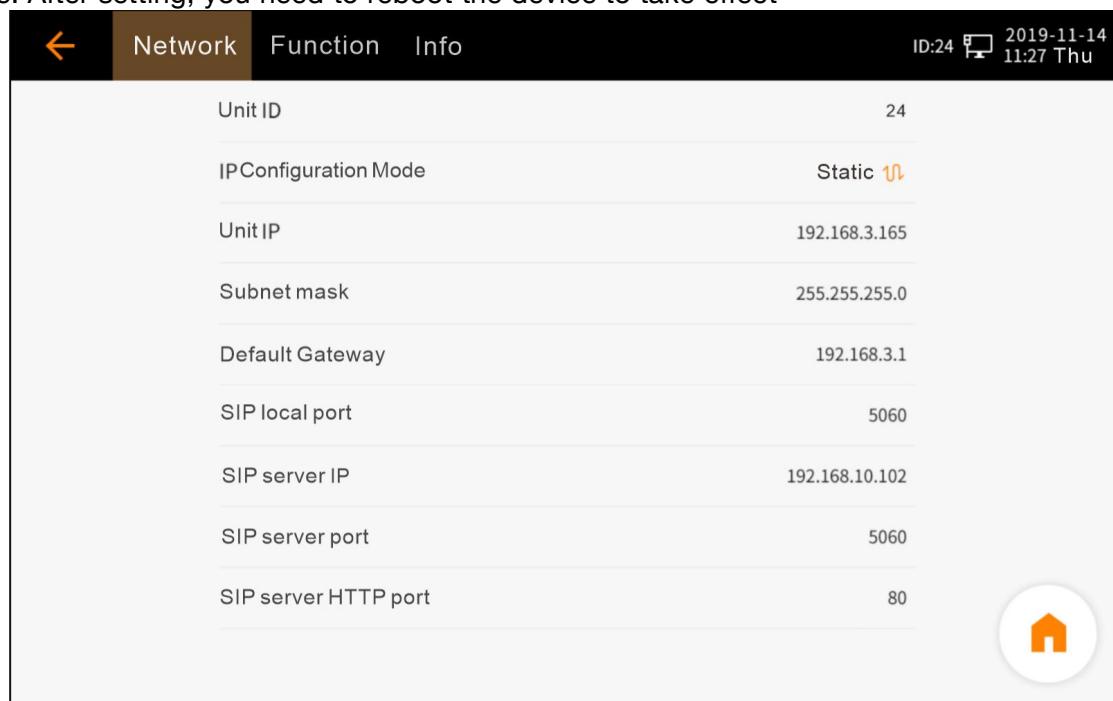
(1) Click on 【Setting】 button and enter password to log into setting page.

Note: Default password is 123456. The password can be changed in web page.



(2) Click on 【Network】 after enter setting page. Set the device ID, local IP, server IP, gateway, sub net mask, and other network parameters in this page.

Note: After setting, you need to reboot the device to take effect



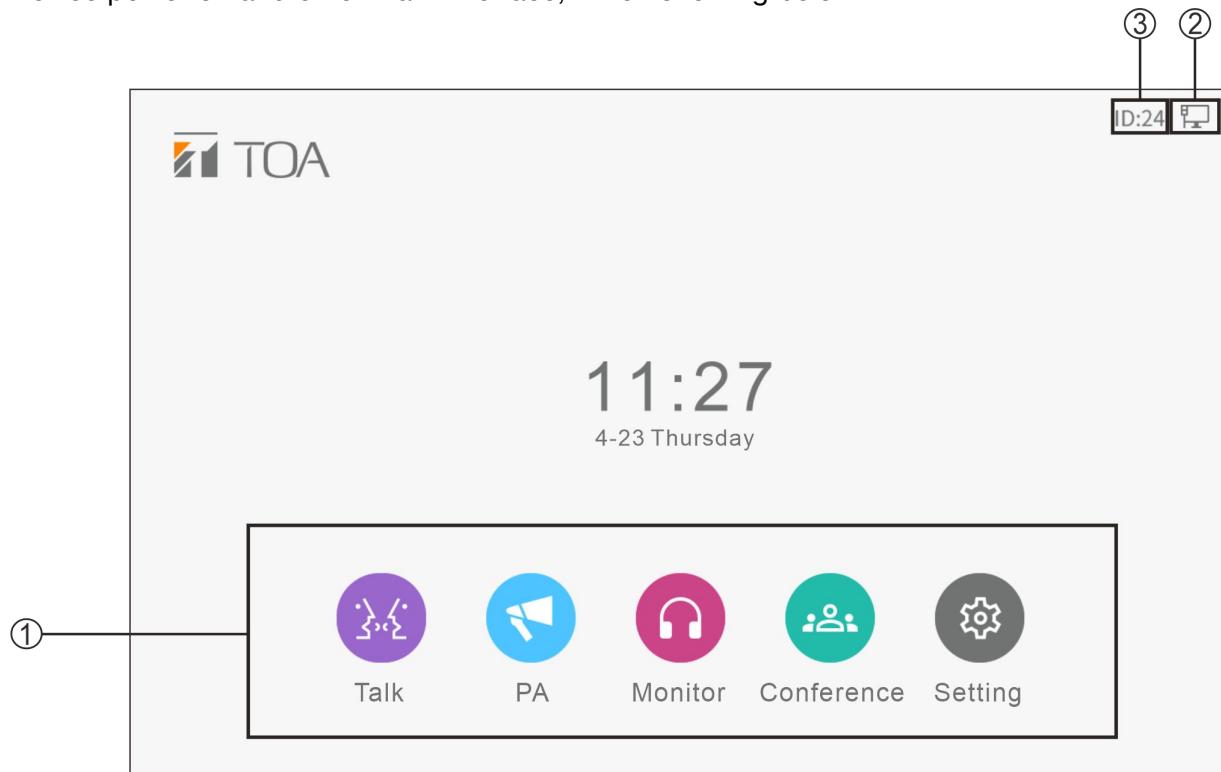
2. Setting up on web page

After enter the web page, you can change the network parameters according to site usage environment.

For details, refer to Protocol Settings and Terminal Settings in below basic setting.

4. MAIN INTERFACE INTRODUCTION

Device power on and enter main interface, which showing below:



①Function Menu: click to enter the corresponding function interface

②Network Status Icons

Name	Icons	Introductions
Network Status Icons		The device logs in to the server successfully
		The device has connected to the network but have not logged in to the server
		The network cable is not inserted.

③Devices ID (Note:The ID contains a maximum of 7 characters)

5. WEB BROWSER SETUP

5.1 Accessing the web page

After connecting IP remote microphone to a standard local area network via the RJ-45 Ethernet port on its bank panel, you can try to log in to the device's web interface.

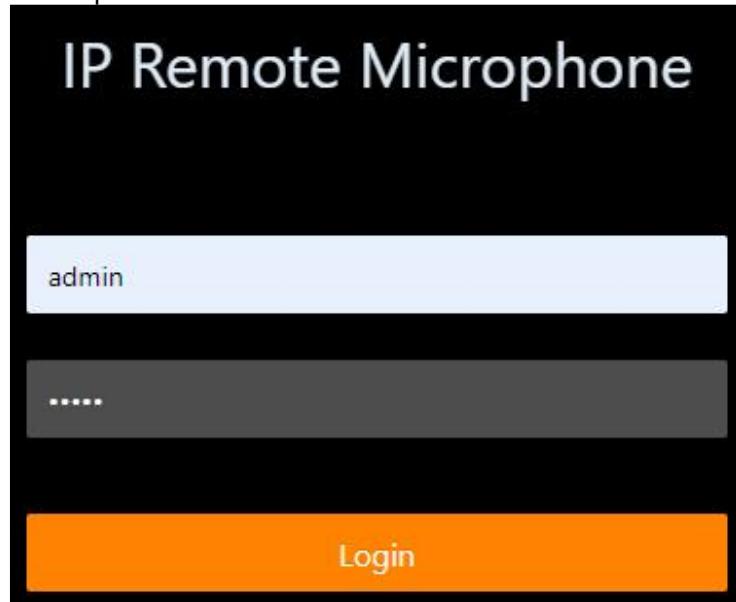
- (1) The web interface can be accessed by entering IP remote microphone's IP address into a web browser (Microsoft Edge, Google Chrome, Mozilla Firefox, etc.).

Note: Default IP Address: <https://192.168.1.101>

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

It is highly recommended to change the default password after the first login, especially when the device is directly connected to public network.

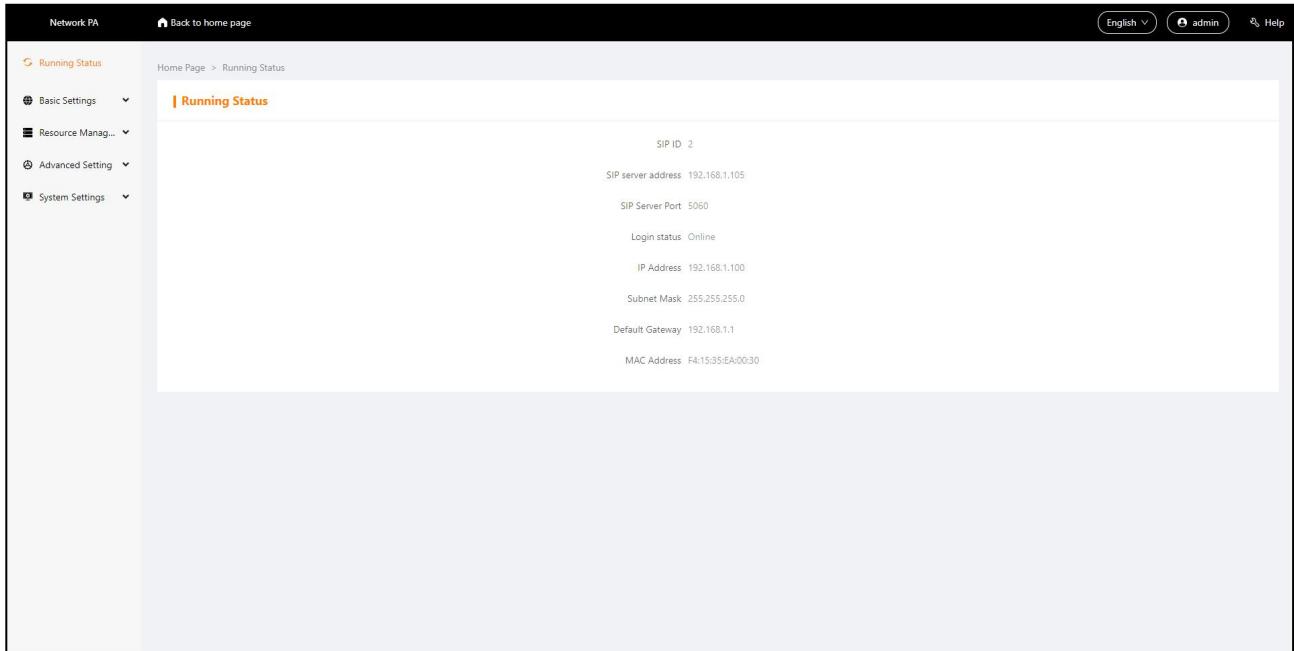
Note: Default username and password are both admin.



- (3) Click the [Login] button to access IP remote microphone's web interface.

5.2 Running State

When login to the web page, click **【Running Status】** will show the information of: Sip ID, Sip server address, Sip server port, Login status, Device IP address, Default gateway, Device MAC address, and other information.

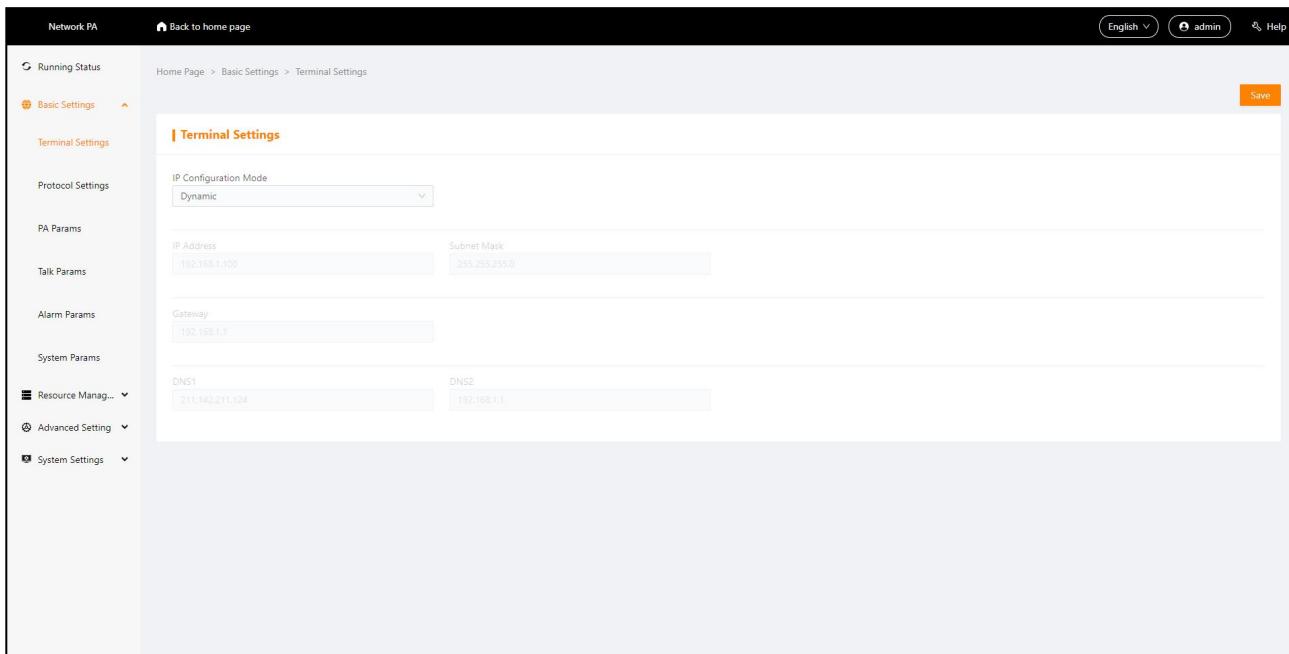


The screenshot shows the device's web interface with the following details:

- SIP ID:** 2
- SIP server address:** 192.168.1.105
- SIP Server Port:** 5050
- Login status:** Online
- IP Address:** 192.168.1.100
- Subnet Mask:** 255.255.255.0
- Default Gateway:** 192.168.1.1
- MAC Address:** F4:15:35:EA:00:30

5.3 Terminal Settings

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



The screenshot shows the 'Terminal Settings' page within the Network PA software. The left sidebar contains navigation links for Running Status, Home Page, Basic Settings, Protocol Settings, PA Params, Talk Params, Alarm Params, System Params, Resource Management, Advanced Setting, and System Settings. The main content area is titled 'Terminal Settings' and includes the following configuration fields:

- IP Configuration Mode: Dynamic (selected)
- IP Address: 192.168.1.100
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.1.1
- DNS1: 211.142.211.124
- DNS2: 192.168.1.1

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

Description:

IP Configuration Mode	Supports static IP and dynamic IP address configuration mode. Static IP: User-defined IP address and other information, the default is static IP. Dynamic IP: Assign IP address via DHCP.
IP Address	IP address of the device, the factory default IP is 192.168.1.101, not to be repeated with other terminals.
Subnet mask	The subnet mask to the network on which the Unit is located.
Gateway	The default gateway to the network on which the Unit is located.
DNS1	The IP address of the preferred domain name resolver for the network on which the Unit is located.
DNS2	The IP address of the alternate domain name resolver for the network on which the Unit is located.

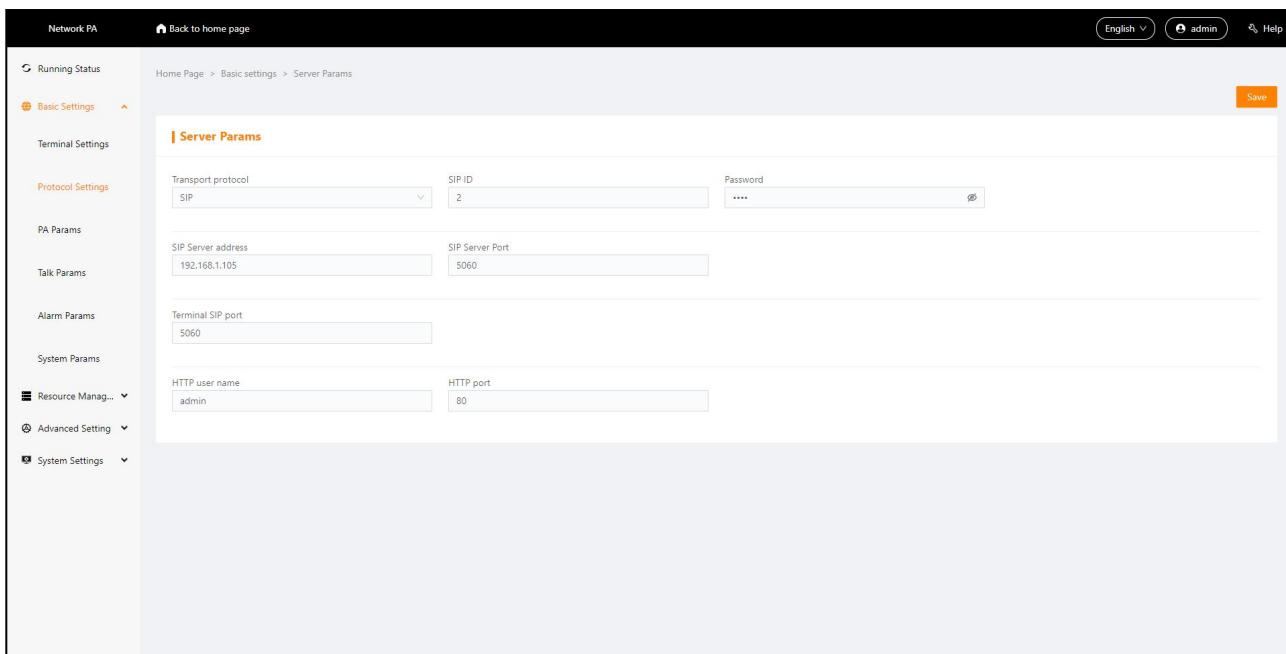
5.4 Protocol Settings

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

Note: Default protocol is SIP protocol.

SIP Protocol

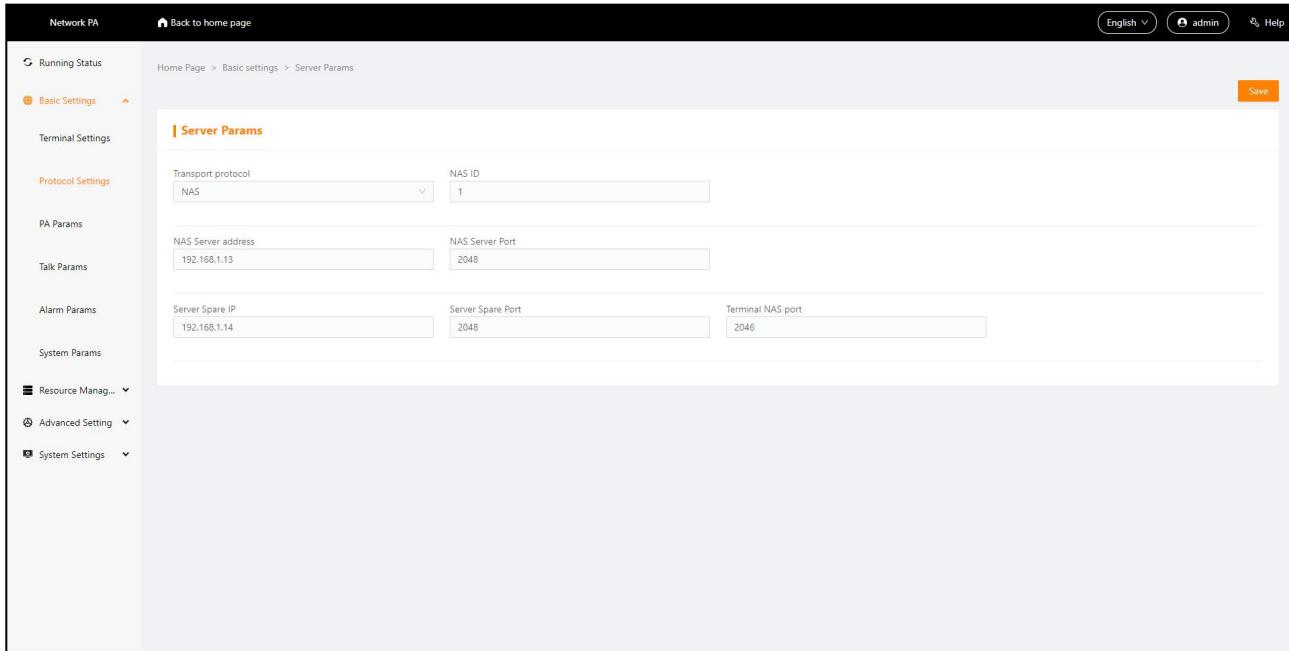
The default is SIP protocol. If the device is logged into the NAS (intercom) protocol server, you need to select the NAS protocol here, please refer to the NAS protocol setting introduction for specific parameter settings.



Description:

Transport Protocol	Setting the protocol for normal communication between device and sever. (Default is SIP protocol)
SIP ID	Unique number to identify the device, it cannot be duplicated with terminals or other hosts.
Password	Password for terminal login to SIP server, default is 1234.
SIP Server IP & Port	IP address of the SIP server that the terminal logs into. Please enter the correct IP address or domain name of the SIP server. The port number cannot be changed except in special cases (the default is 5060)
Terminal SIP Port	Set the local network port based on the actual situation. The default is 5060.
HTTP User Name	Default is admin.
HTTP Port	Port for logging in to the WEB page. Default is 80.

NAS Protocol



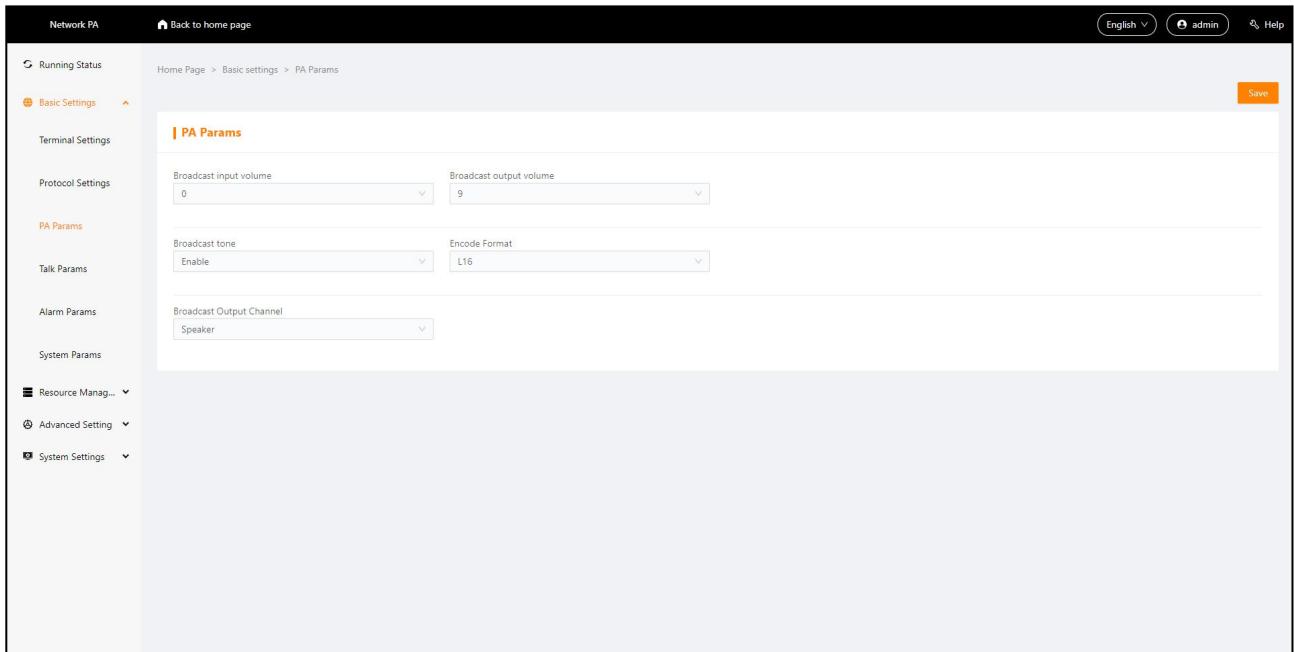
The screenshot shows the 'Server Params' configuration page within the Network PA software. The left sidebar contains a navigation menu with items like 'Running Status', 'Basic Settings' (selected), 'Terminal Settings', 'Protocol Settings', 'PA Params', 'Talk Params', 'Alarm Params', 'System Params', 'Resource Management', 'Advanced Setting', and 'System Settings'. The main content area is titled 'Server Params' and contains the following fields:

Setting	Value
Transport protocol	NAS
NAS ID	1
NAS Server address	192.168.1.13
NAS Server Port	2048
Server Spare IP	192.168.1.14
Server Spare Port	2048
Terminal NAS port	2046

Description:

Transport Protocol	Setting the protocol for normal communication between device and sever. (Default is SIP protocol)
NAS ID	Unique number to identify the device, cannot be duplicated with terminals or other hosts.
NAS Server IP & Port	IP address of the NAS server that the terminal logs into. 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)
Server Spare IP & Port	The IP address and port of the backup NAS service.
Terminal NAS Port	Set the local network port based on the actual situation. The default is 2046.

5.5 PA Params



The screenshot shows the 'PA Params' configuration page. The left sidebar includes 'Running Status', 'Basic Settings' (selected), 'Terminal Settings', 'Protocol Settings', 'PA Params' (selected), 'Talk Params', 'Alarm Params', 'System Params', 'Resource Management', 'Advanced Setting', and 'System Settings'. The main content area is titled 'PA Params' and contains the following settings:

- Broadcast input volume: 0
- Broadcast output volume: 9
- Broadcast tone: Enable
- Encode Format: L16
- Broadcast Output Channel: Speaker

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

Description:

Broadcast Input Volume	You can modify the broadcast input volume as required.
Broadcast Output Volume	You can modify the broadcast output volume as required Note: The broadcast input and output volume is only effective in the offline state. When the device is online, the broadcast input and output volume is controlled by the server.
Broadcast tone	Enable or disable the broadcast prompt tone. When enabled, a broadcast prompt tone will be played when a broadcast is received.
Encode Format	Setting the broadcast encoding format, L16 and MP3 are optional.
Broadcast Output Channel	When you setting a broadcast, the audio output channel can be selected from the speaker/line out output. Default is speaker output.

5.6 Talk Params

The screenshot shows the 'Talk Params' configuration page. The left sidebar lists various settings categories: Network PA, Running Status, Basic Settings (selected), Terminal Settings, Protocol Settings, PA Params, Talk Params (selected), Alarm Params, System Params, Resource Manager, Advanced Setting, and System Settings. The main content area is titled 'Talk Params' and contains the following settings:

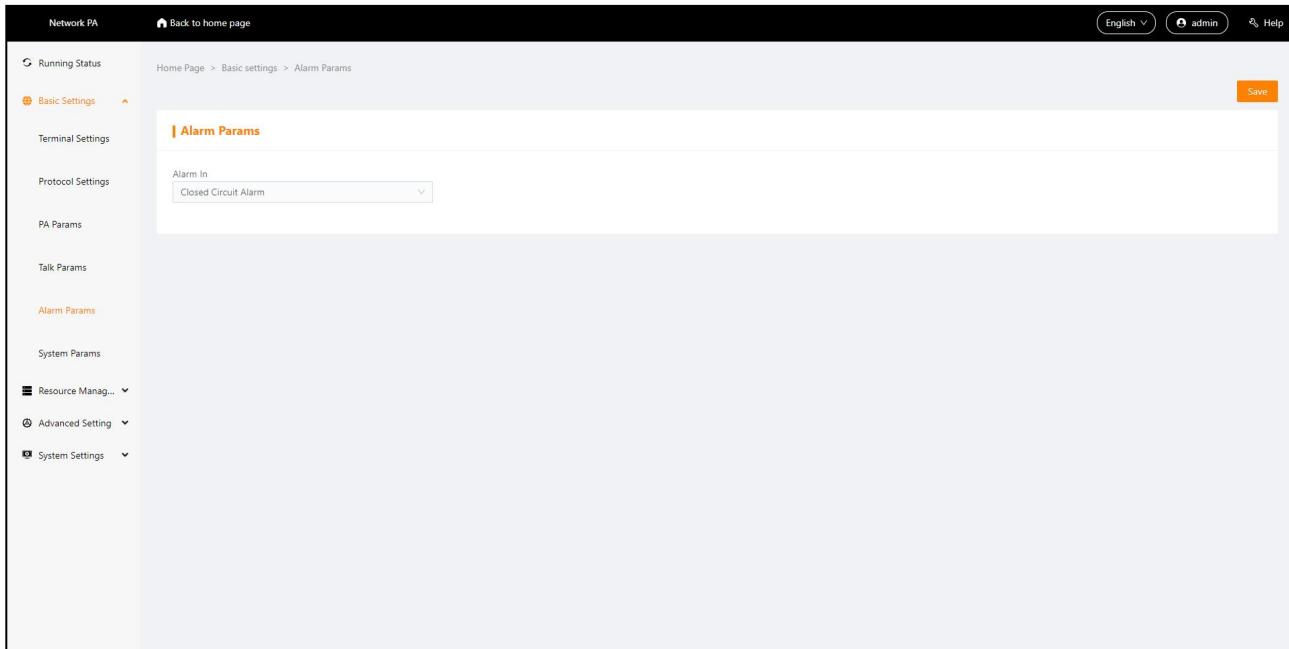
- Talk And Monitor input volume: 9
- Talk And Monitor output volume: 9
- TTS Play: Disable
- Ring output volume: 9
- Talk Input Channel: Microphone
- Talk Output Channel: Speaker
- Answer mode: Manual answer
- Auto Answer Time: 3
- Three party call: Enable
- Echo Cancellation: Enable
- Echo Cancellation Mode: webrtc
- Monitor enable: Disable
- Loop Monitoring Interval: 25

Description:

Talk And Monitor Input Volume	Setting the input volume for offline intercom and monitoring.
Talk And Monitor output volume	Setting the output volume for offline intercom and monitoring Note: Talk and Monitor input and output volume is only effective in the offline state. When the device is online, the broadcast input and output volume is controlled by the server
TTS Play	When this function is enabled, IP remote microphone will broadcast the terminal name of device who is calling in. Default is disable.
Ring output volume	Setting the volume of broadcast and intercom ringtone.
Talk Input Channel	When you setting intercom, the audio input channel can be selected from the microphone/ Line in/Auto. Default is microphone input. When set to auto, insert the audio cable, the microphone pole light will go off, the audio input will be “line in” input.
Talk Output Channel	When you setting intercom, the audio output channel can be selected from the speaker/ line out.
Answer mode	Manual answer and auto answer are available. Default is manual answer, when calling is coming, you need to press answer button to answer the call.
Auto Answer Time	Setting the auto answer time of the device.
Three party call	Setting whether to enable Three party call function.
Echo Cancellation	Setting whether to enable echo cancellation function.

Echo Cancellation Mode	Speex and webrtc are available.
Monitor enable	After it is enabled,The device can receive monitor from other terminals. If it is disabled,the device can not be monitored. Default is disable
Loop Monitoring Interval	When monitoring multiple terminals in a loop, set the monitoring interval for each terminals and skip to the next terminal according to the set time.

5.7 Alarm Params



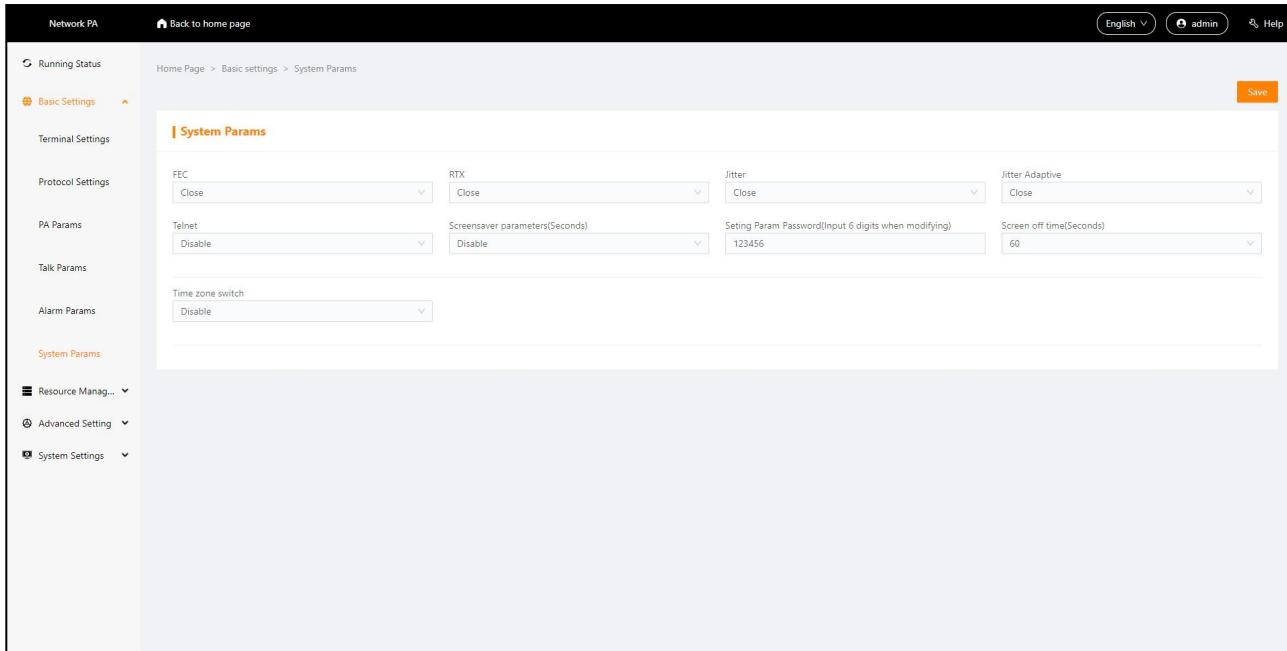
The screenshot shows a web-based configuration interface for a device. The top navigation bar includes 'Network PA', 'Back to home page', 'English', 'admin', and 'Help'. The left sidebar contains links for 'Running Status', 'Basic Settings' (which is currently selected and highlighted in orange), 'Terminal Settings', 'Protocol Settings', 'PA Params', 'Talk Params', 'Alarm Params' (selected in orange), 'System Params', 'Resource Manag...', 'Advanced Setting', and 'System Settings'. The main content area is titled 'Alarm Params' and contains a dropdown menu labeled 'Alarm In' with the option 'Closed Circuit Alarm' selected. In the top right corner of the content area, there is a blue 'Save' button.

Description:

Alarm Input	<p>Closed Alarm: The external device is in normally open state, when the alarm input port is closed it will be reported to the server.</p> <p>Open Alarm: The external device is in normally closed state, when the alarm input port is open, it will be reported to the server.</p> <p>Status Alarm: The external device is in normally open or closed state, when the alarm input port is closed or open, it will be reported to the server.</p>
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5.8 System Settings

After finished setting, you need to click [save] and reboot the device to take effect.



The screenshot shows the 'System Params' configuration page within the Network PA software. The page includes the following fields:

- FEC: Set to 'Close'.
- RTX: Set to 'Close'.
- Jitter: Set to 'Close'.
- Jitter Adaptive: Set to 'Close'.
- Telnet: Set to 'Disable'.
- Screensaver parameters(Seconds): Set to 'Disable'.
- Setting Param Password(Input 6 digits when modifying): Set to '123456'.
- Screen off time(Seconds): Set to '60'.
- Time zone switch: Set to 'Disable'.

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

Description:

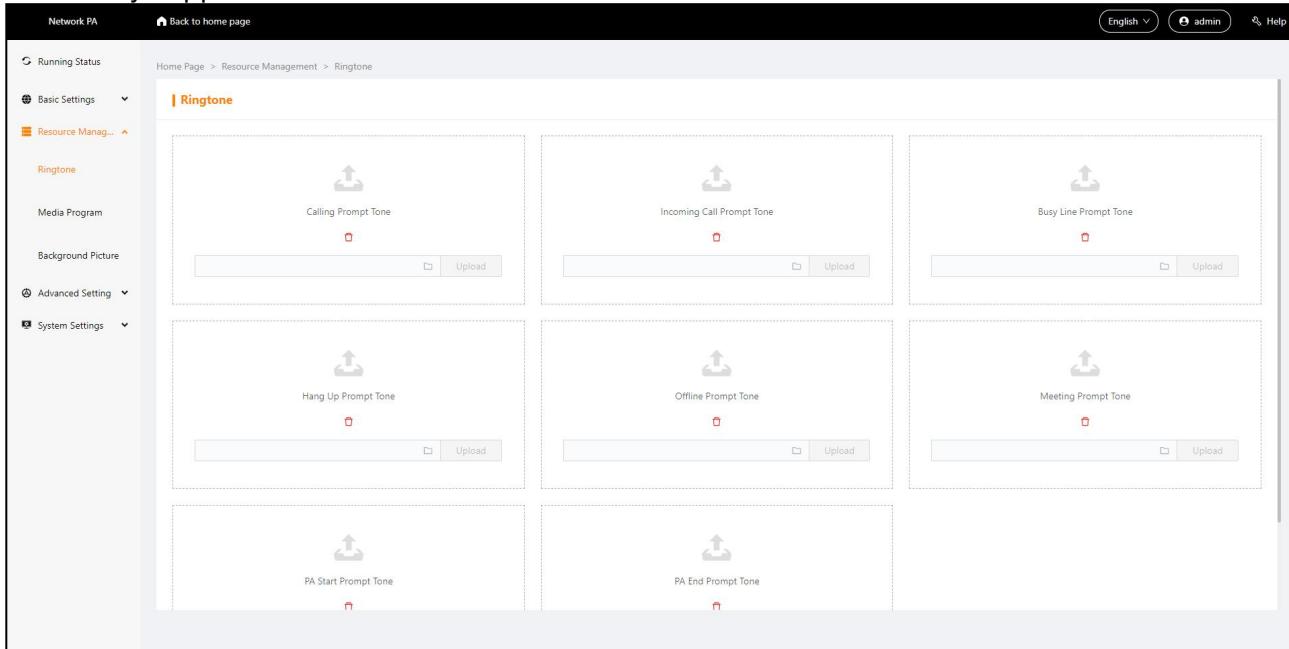
FEC	When it is enabled, within 15% of the network packet loss, the device can still make normal audio and video intercom. In a poor network environment, you are recommended to enable this function
RTX	When it is enabled, it will improve video quality in poor network environments.
Jitter & Jitter Adaptive	These two are only available in SIP protocol, but not in NAS protocol. After enabling, you must also "Enable" the "FEC and RTX function in "Advanced Settings" - "Composite"--"Network Adaptive" of SIP service software. (Note: The way to open FEC and RTX function is based on SIP service software manual)
Telnet	When it is enabled, the device can be remotely logged in via Telnet command
Screensaver parameters(Seconds)	Enable the screen saver interface when the device is idle; the default is disabled. After enabling the screen saver, you can set the automatic screen lock time according to actual needs, and the screen will be automatically locked according to the set time when the terminal does not have any operation.
Setting Param Password(Input 6 digits when modifying)	If the device has enabled the screen saver function, you need to set the unlock password, the password only supports 6 digits, the default is 123456. (Note: The screen saver password is the same with the password for device entering into the "Settings" module)
Screen off	In a certain period of time, no operation, and no intercom,

time(Seconds)	broadcast, monitor and other tasks, the screen will automatically turn the backlight to the lowest. Default time is 60s.
Time zone switch	Set whether to enable Time Zone setting function. If it is enabled, you can set the Time Zone.

5.9 Audio Ringtones

You can customize the prompt tones for calling, incoming calling, busy line, etc. according to your needs. Click "  "button to select the audio file you want to modify for upload, and press "Upload" button to upload the audio.

Note: Only support with WAV format.

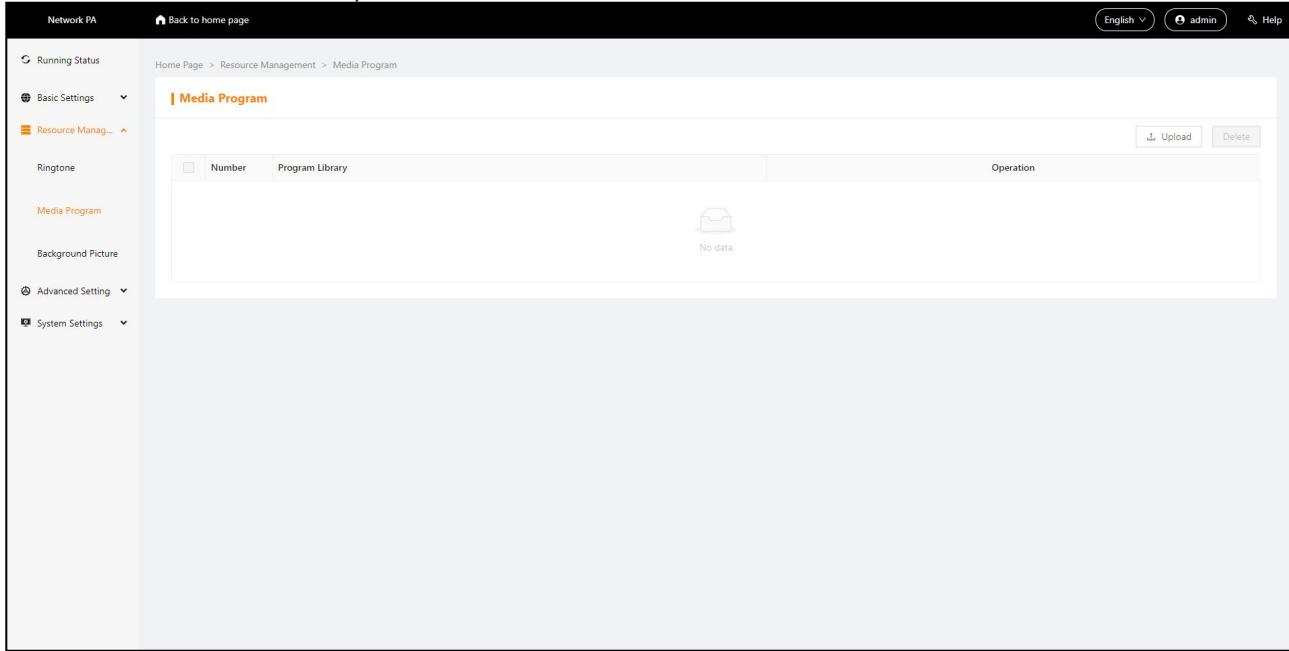


5.10 Media Program

You can upload WAV, MP3, TXT format files to be used as broadcast audio sources. After the file is successfully uploaded, you need to reboot the device to take effect

Note: The size of a single WAV file must be 22K. A single TXT file supports up to 2500 Chinese characters (including punctuation). TXT files are recommended to use UTF-8 encoding format)

When initiating a broadcast operation, click "Source Selection" to select an uploaded audio file or TXT file for broadcasting. (TXT file is Initiating a broadcast to the target area by converting text from TXT text to audio)

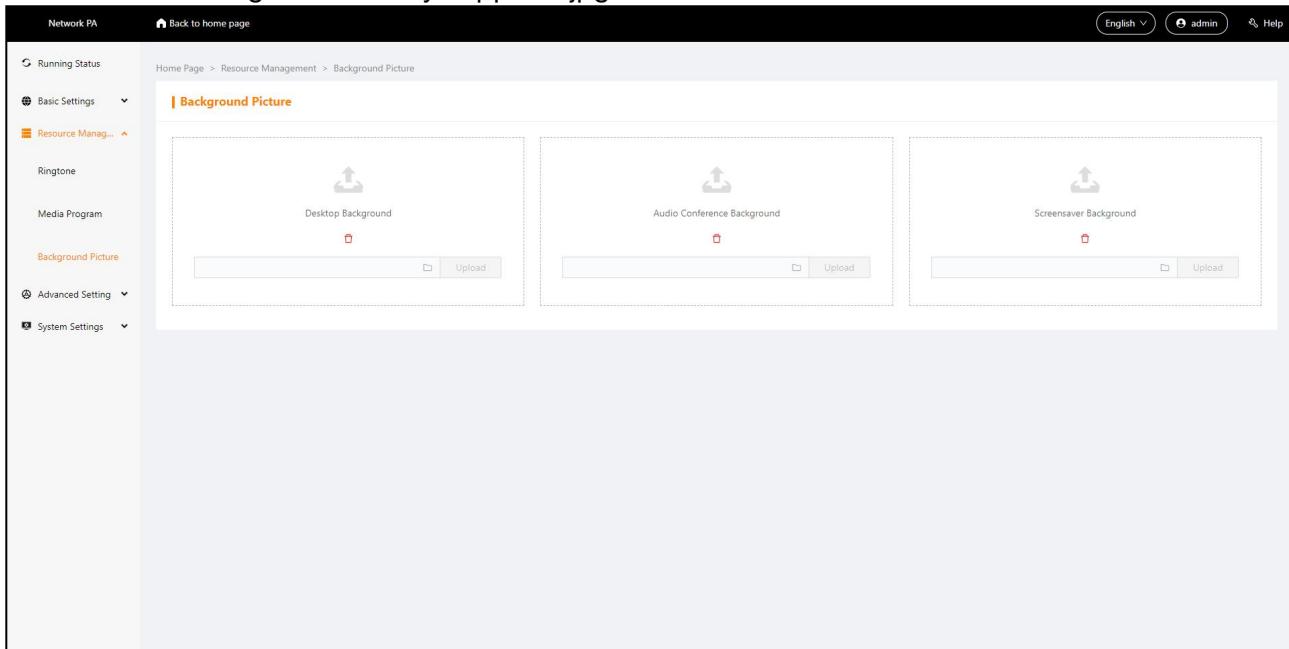


The screenshot shows the 'Media Program' section of the device's configuration interface. The left sidebar has 'Media Program' selected. The main area is titled 'Media Program' and shows a table with columns for 'Number' and 'Program Library'. A message 'No data' is displayed. There are 'Upload' and 'Delete' buttons at the top right of the table.

5.11 Background Images

You can customize terminal desktop background, audio conference background, terminal screensaver background according to your needs, click "📁" button, select the image to be modified for upload, press the "Upload" button to upload the image, and it will take effect after rebooting the device.

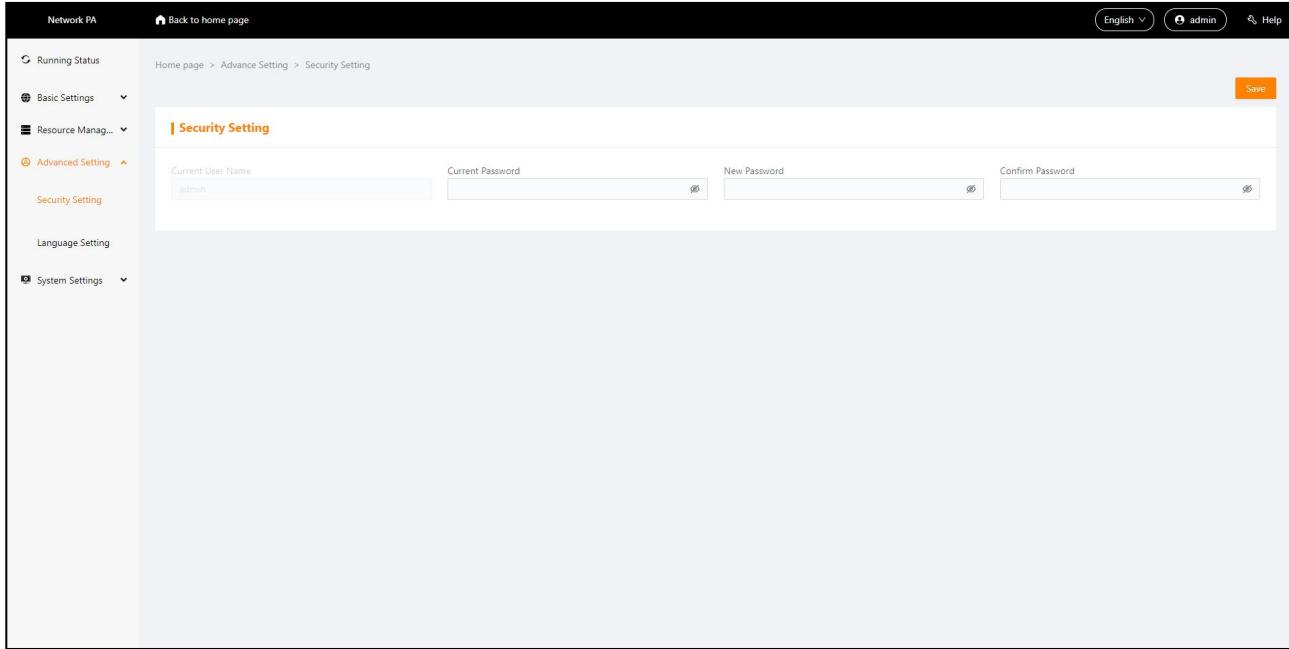
Note: The image format only supports jpg format.



The screenshot shows the 'Background Picture' section of the device's configuration interface. The left sidebar has 'Background Picture' selected. The main area is titled 'Background Picture' and shows three separate upload fields. Each field has a placeholder 'Desktop Background', 'Audio Conference Background', and 'Screensaver Background' respectively. Each field includes a '📁' browse button and an 'Upload' button.

5.12 Security Setting

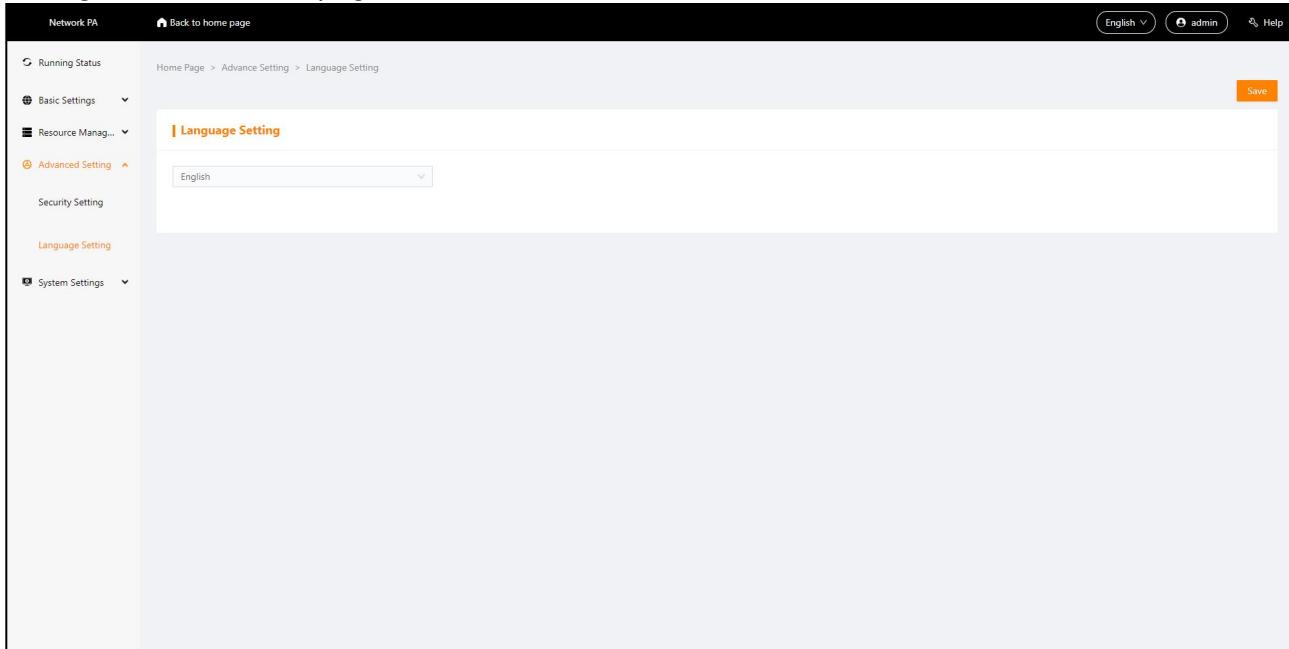
You can change the password for logging into the WEB in this page. After saving the password change, reboot the web page to take effect.



The screenshot shows the 'Security Setting' page within a web-based management interface. The left sidebar contains navigation links: Running Status, Basic Settings, Resource Management, Advanced Setting (which is expanded to show Security Setting), Language Setting, and System Settings. The main content area is titled 'Security Setting' and contains four input fields: 'Current User Name' (set to 'admin'), 'Current Password', 'New Password', and 'Confirm Password'. A large orange 'Save' button is located in the top right corner of the form area.

5.13 Language Setting

You can change the language in this page, supporting Chinese and English. After saving setting, reboot the web page to take effect.

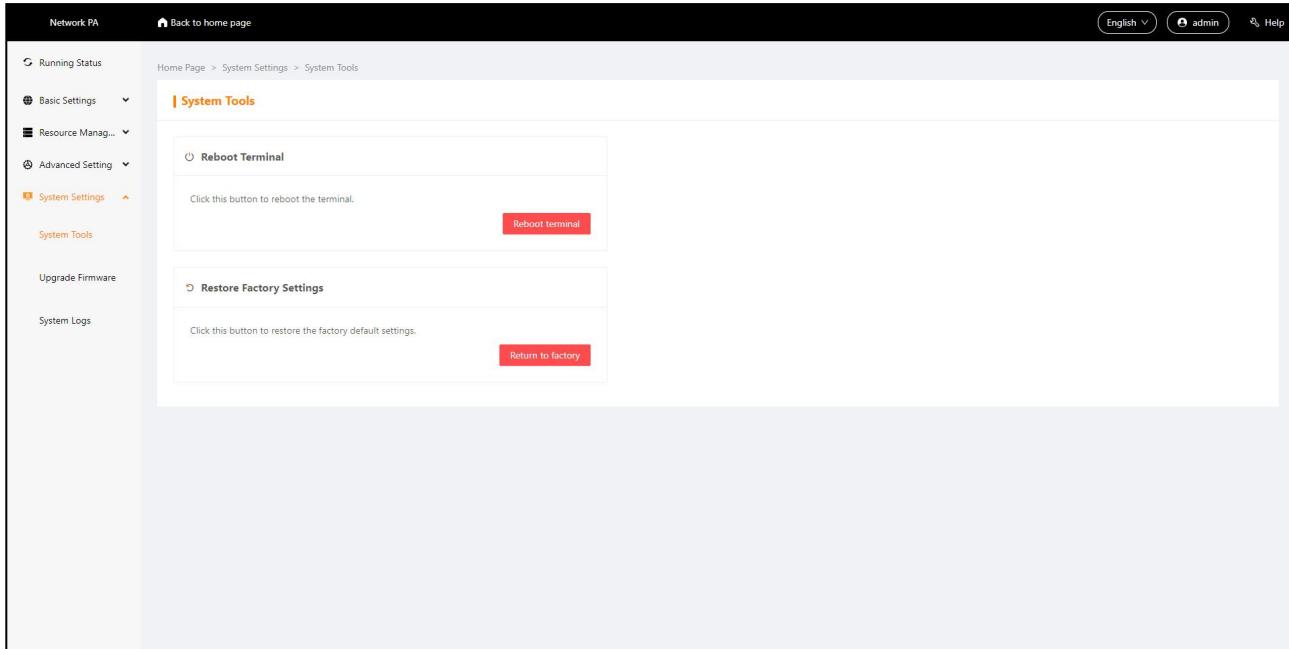


The screenshot shows the 'Language Setting' page within the same web-based management interface. The left sidebar includes the same navigation links as the previous page. The main content area is titled 'Language Setting' and features a single dropdown menu with 'English' selected. A large orange 'Save' button is located in the top right corner of the form area.

5.14 System Tools

Reboot Device: Clicking on this button to reboot the device

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



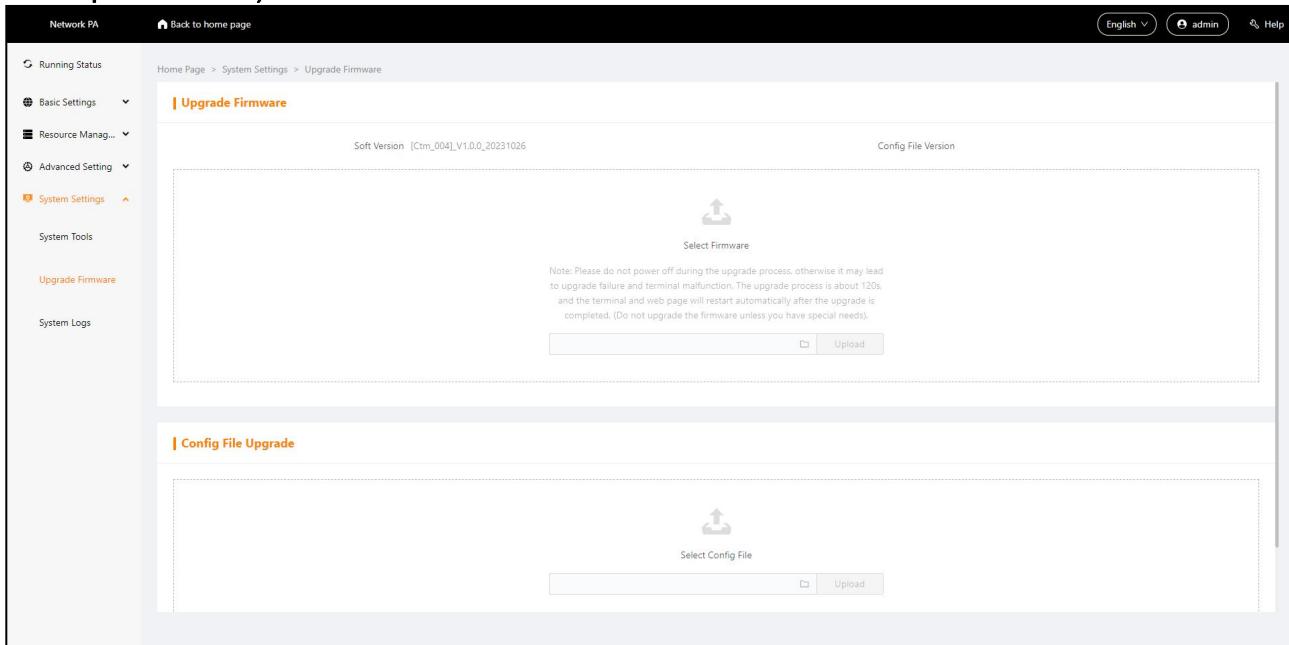
The screenshot shows the 'System Tools' section of the device's configuration interface. On the left, there is a sidebar with various settings: Running Status, Basic Settings, Resource Management, Advanced Setting, System Settings (which is currently selected and highlighted in orange), System Tools, Upgrade Firmware, and System Logs. The main content area is titled 'System Tools' and contains two sections: 'Reboot Terminal' and 'Restore Factory Settings'. The 'Reboot Terminal' section has a note 'Click this button to reboot the terminal.' and a red 'Reboot terminal' button. The 'Restore Factory Settings' section has a note 'Click this button to restore the factory default settings.' and a red 'Return to factory' button. The top right of the page shows language settings ('English'), user information ('admin'), and a 'Help' link.

5.15 Update Firmware

Soft Version, Config File Version: It displays the current soft version, and config file version of the device.

Terminal Upgrade, Config File Upgrade: Click "📁" button, select the firmware upgrade file or config file provided by the manufacturer, click "Upload" button to start the upgrade

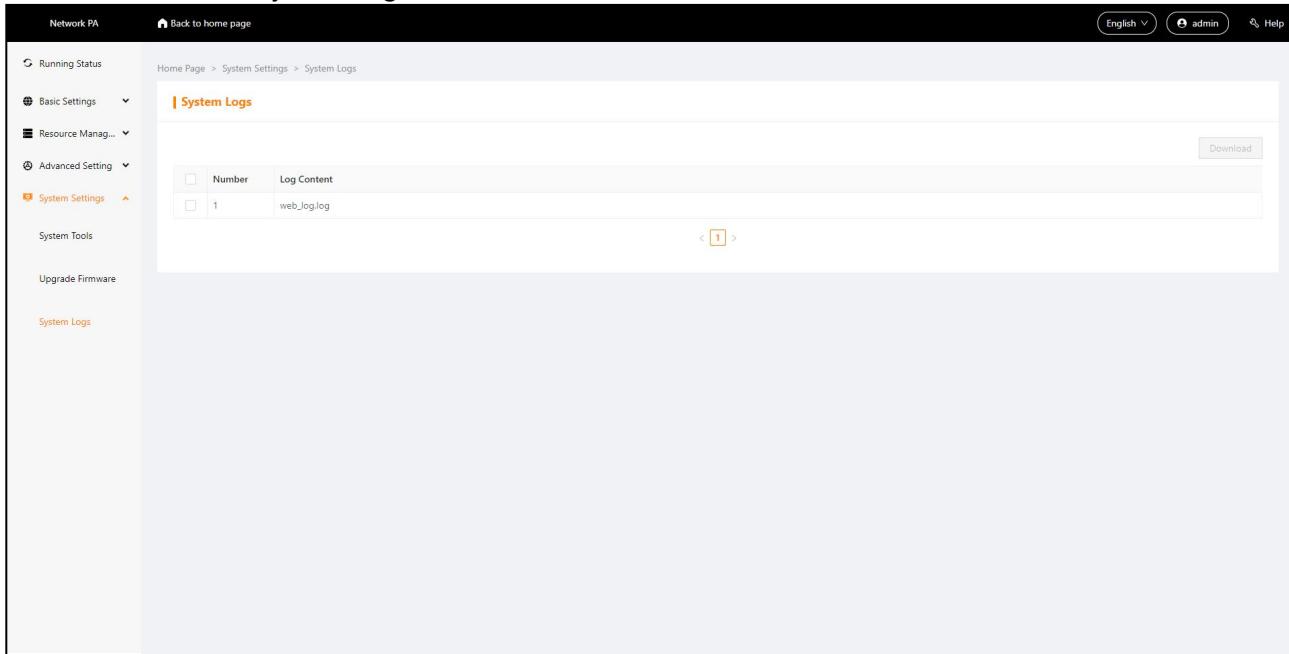
Note: Please do not power off during the upgrade process, otherwise it may lead to upgrade failure and device malfunction. The upgrade process is about 120s, the device and WEB page will reboot automatically after the upgrade is completed. (Do not upgrade the firmware unless you have special needs)



The screenshot shows the 'Upgrade Firmware' section of the device's configuration interface. The sidebar on the left is identical to the one in the previous screenshot. The main content area is titled 'Upgrade Firmware' and contains two sections: 'Soft Version' and 'Config File Version'. The 'Soft Version' section shows 'Soft Version [Ctn_004]_V1.0.0_20231026' and a note: 'Note: Please do not power off during the upgrade process, otherwise it may lead to upgrade failure and terminal malfunction. The upgrade process is about 120s, and the terminal and web page will restart automatically after the upgrade is completed. (Do not upgrade the firmware unless you have special needs.)'. It has a 'Select Firmware' button and a 'Upload' button. The 'Config File Version' section has a 'Select Config File' button and an 'Upload' button. Below these sections is another section titled 'Config File Upgrade' with a 'Select Config File' button and an 'Upload' button.

5.16 System Log

The device can automatically record the running process and generate logs, and support users to download system logs.



Home Page > System Settings > System Logs

System Logs

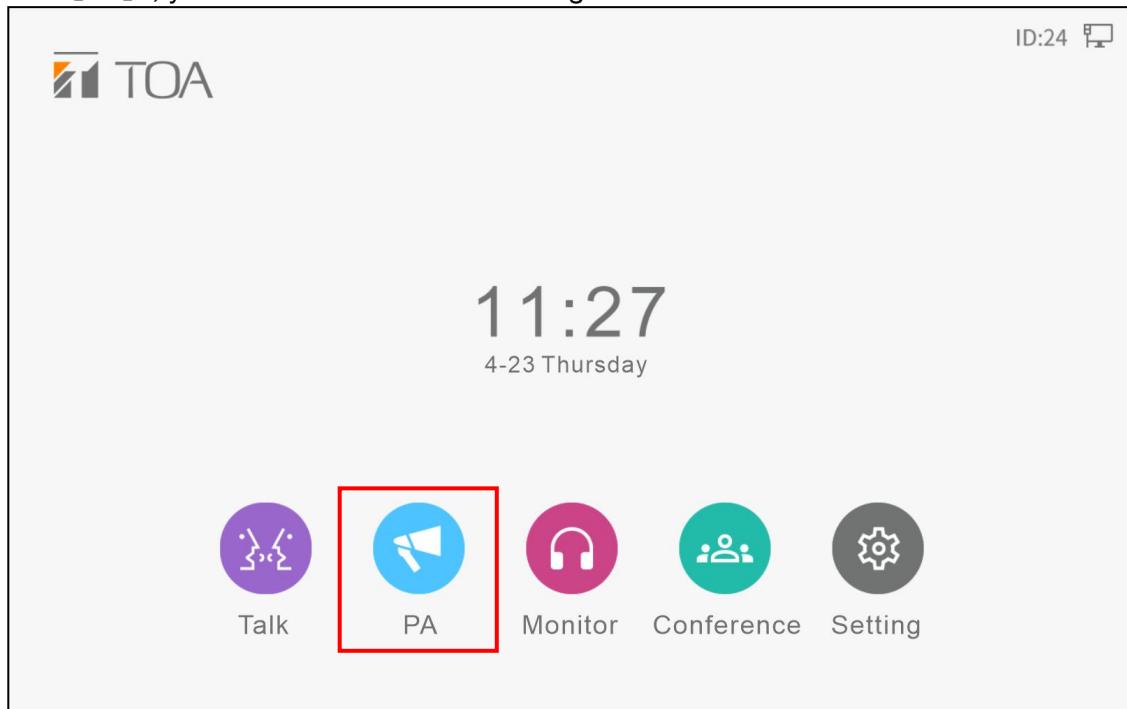
	Number	Log Content
<input type="checkbox"/>	1	web_log.log

Download

6. BASIC FUNCTIONS

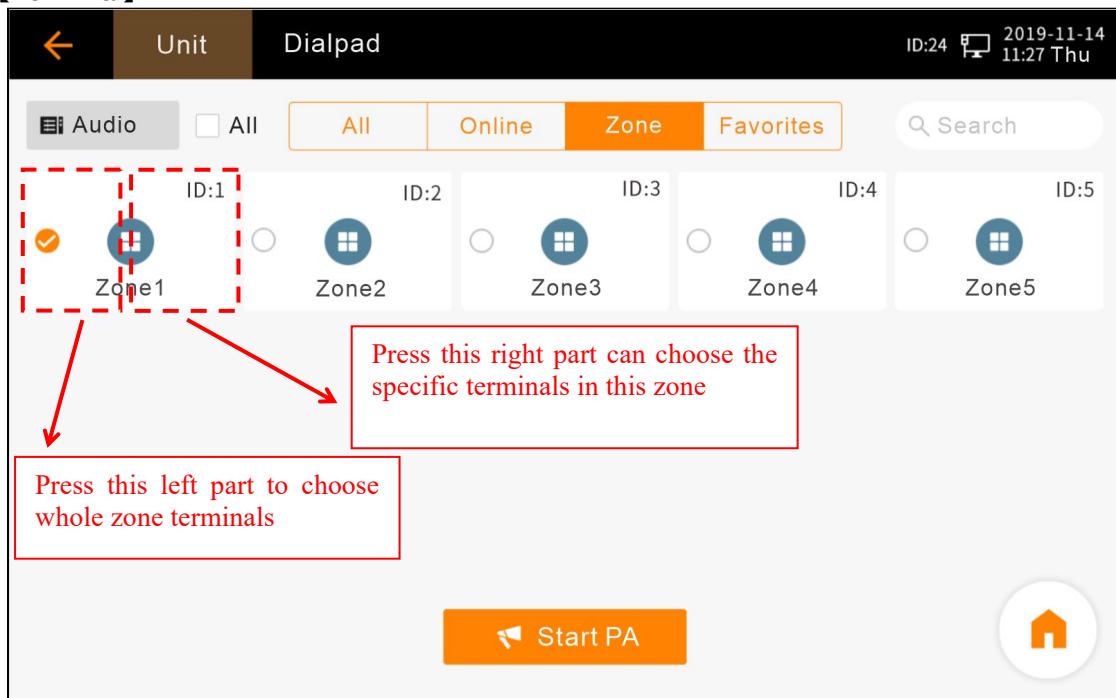
6.1 Broadcasting Function

Press **【PA】** , you can enter into broadcasting module.



6.1.1 Zone/ Terminal Broadcasting

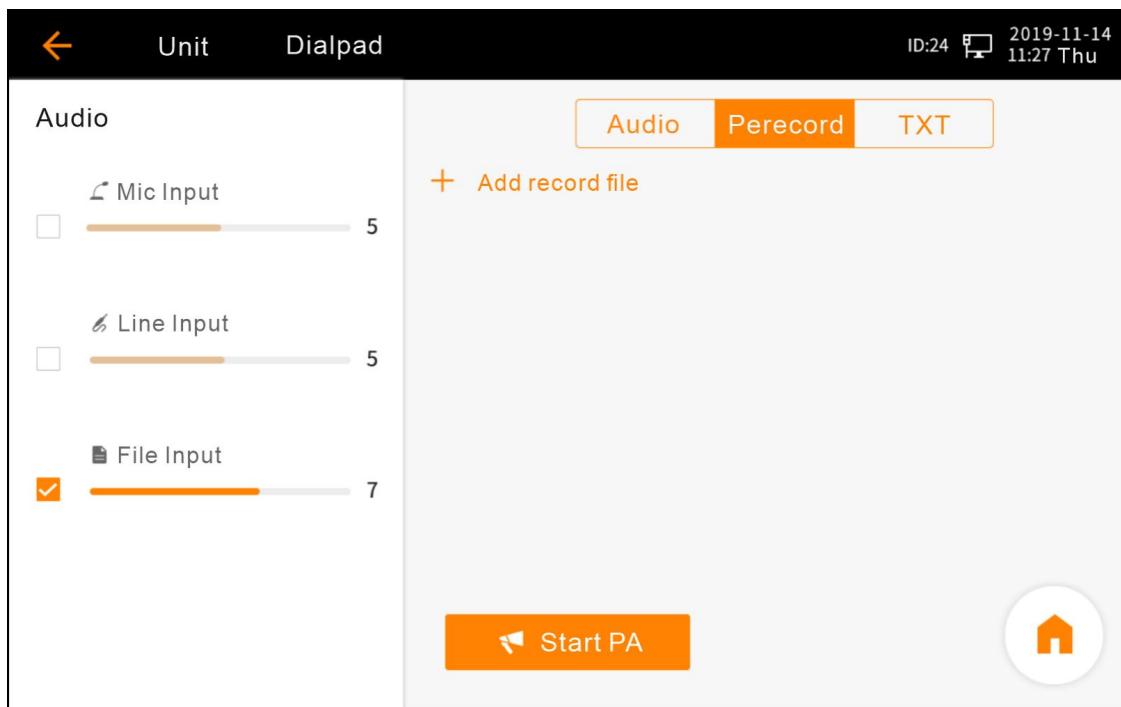
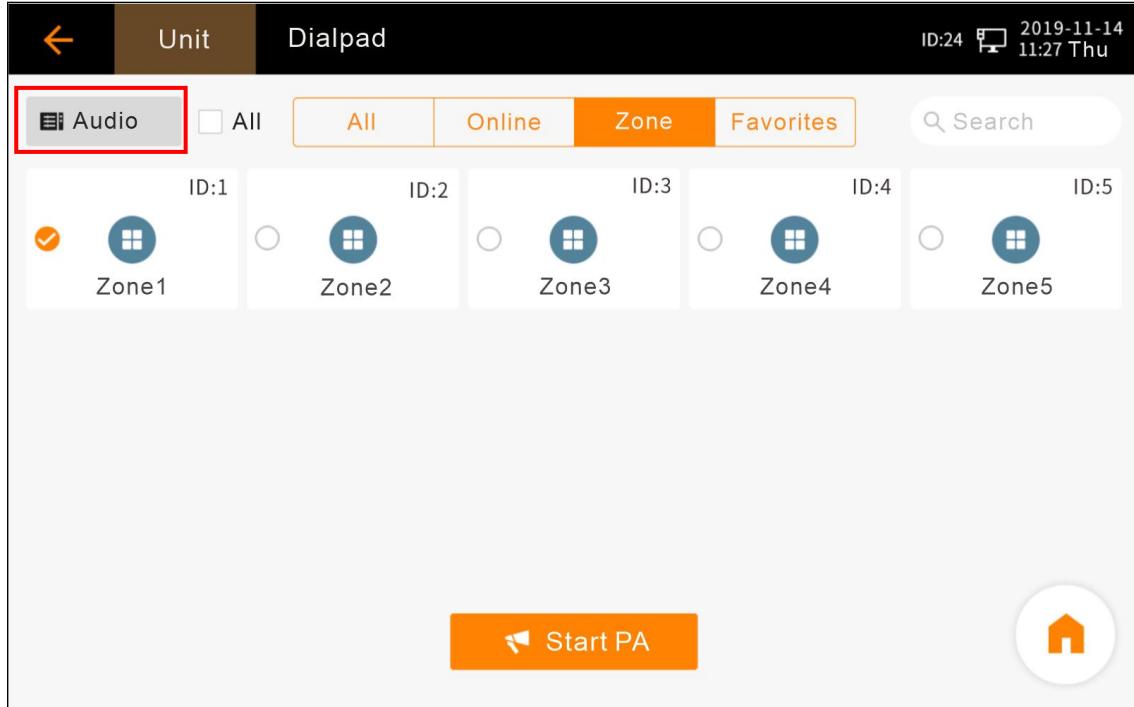
(1) You can choose the target zones or terminals to receive broadcasting by press **【Terminal】**



(2) Audio Source

There are three different broadcasting audio source are available: Mic input, line input and file input.

When initiating a broadcast, click the audio source icon, where you can adjust the volume of the microphone input.



Mic Input: The audio source is input from Mic, users can make real-time broadcasting from Mic to target areas;

Line Input: The audio source in phone and computer can be played by contacted from AUDIO IN interface;

File Input:

①**Audio:** The audio source are the media audio files uploaded under "Media Programs" in the WEB interface, or the audio files in WAV and MP3 formats read from USB.

(Note: You need to upload audio files in advance on WEB page "Resource Management" - "Media Program", WAV and MP3 format audio are supported)

②**Pre-recording Files:** The audio source are the recording files set from IP remote microphone microphone by follow steps:

In the pre-recording interface, click "Add record file"  **Add record file** to add a new recording, then click  to start Recording, then IP remote microphone will automatically capture the audio input from the microphone and save it, click  to stop recording. After recording, click the audition icon  to check the audio. Click  to clear the current recording. Note: Support up to 10 groups of recording files

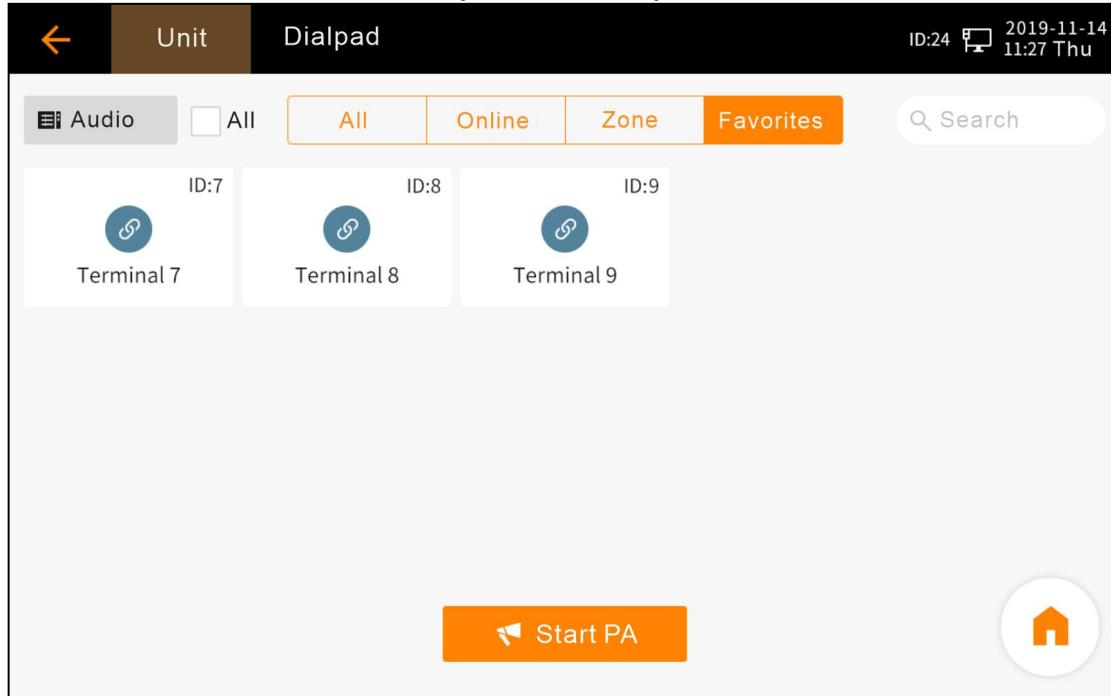
③**TEXT Files:** The audio source is a TXT file uploaded under "Media Programs" in the WEB interface, or a TXT file read from USB. You need to upload the TXT files in advance on WEB page "Resource Management" - "Media Program".

(Note: Pre-recorded and text files cannot be mixed with the Mic input and Line input.)

(3)After you selected the terminal and audio source, press the "Start PA" button on the interface to initiate the broadcast.

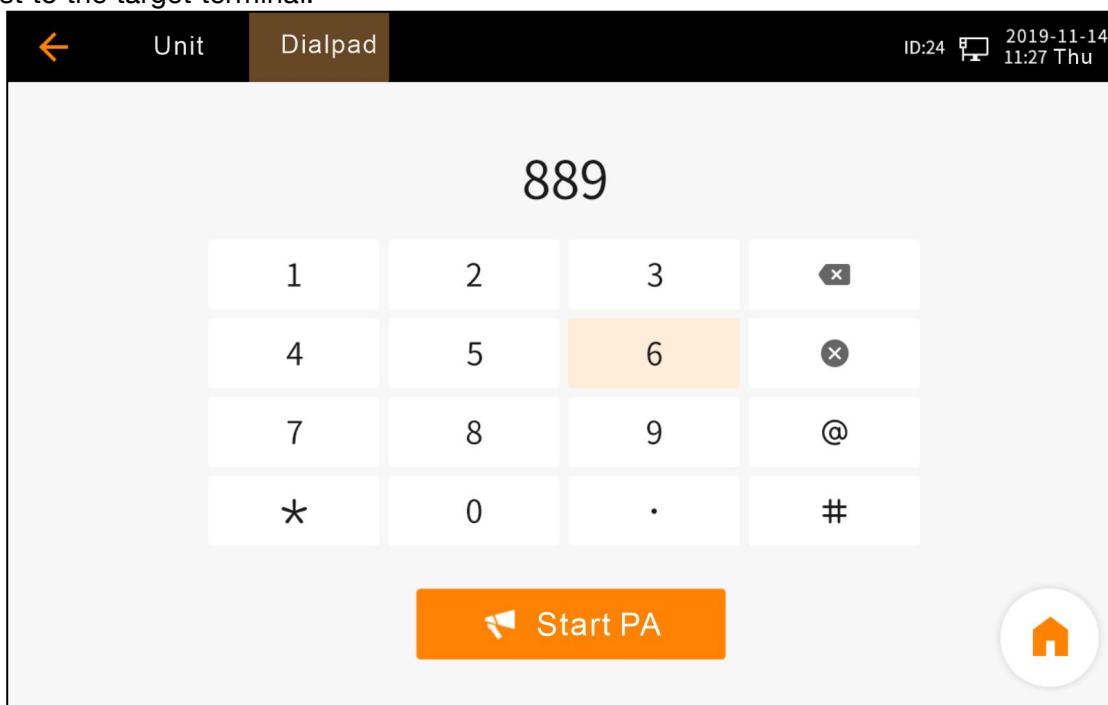
6.1.2 Favorites Broadcasting

You can set the favorites in the terminal "Setting"- "Function"- "Add Favorite". The favorites terminals can be shown under "Favorites", you can directly click the terminals to broadcast to it.



6.1.3 Dialpad Broadcasting

In the broadcast module, select "Dialpad", enter the ID number of the target terminal in the pop-up numeric keyboard and then click "Start PA", the IP remote microphone will launch a broadcast to the target terminal.



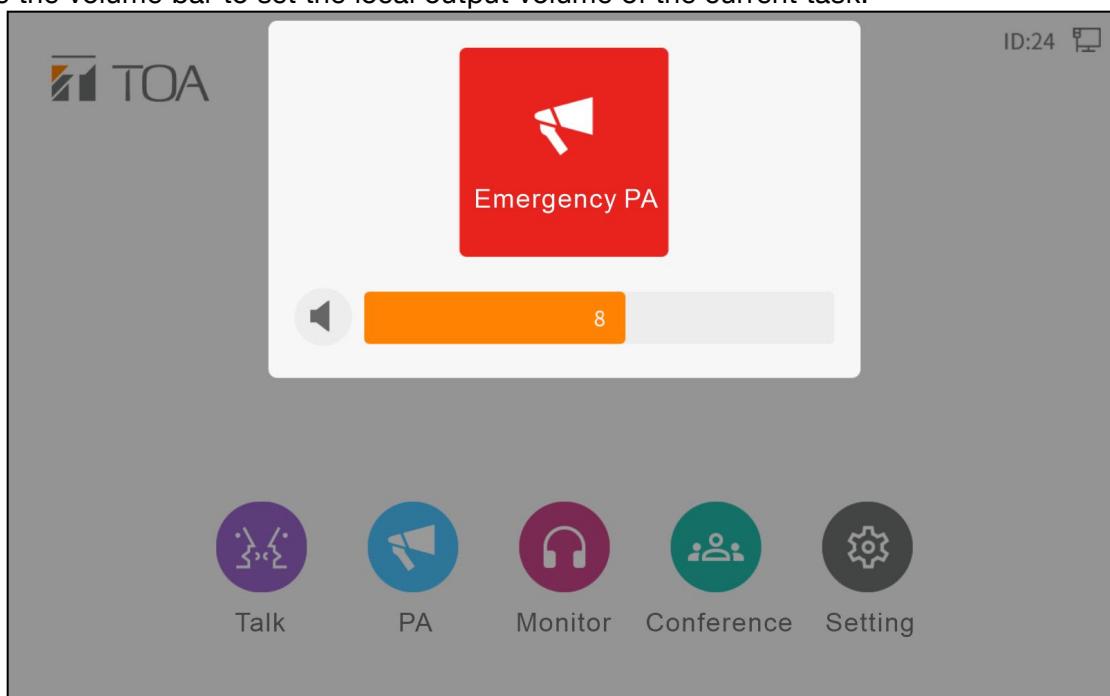
6.1.4 Offline Broadcasting

When the device is offline, enter the target terminal ID@IP, such as 1@192.168.1.101 in the broadcast dialpad and click Call to make offline broadcast.

6.1.5 Emergency Broadcasting

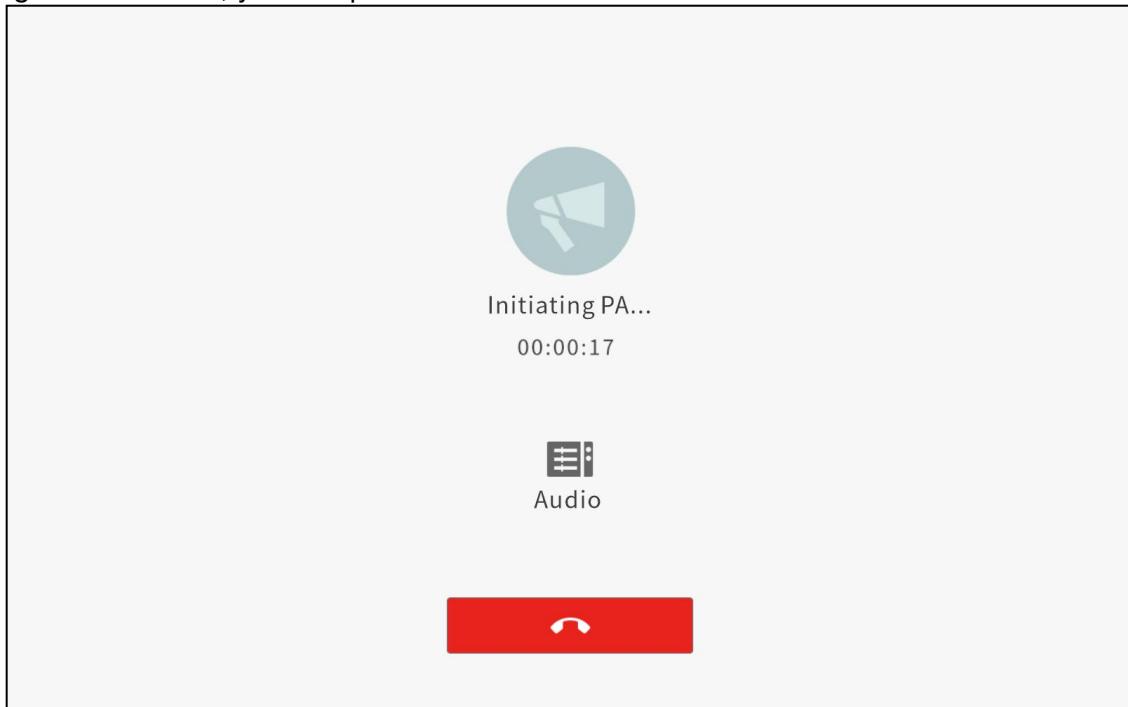
Pull down and slide out emergency broadcast menu at the main interface top edge of the device, press the "Emergency PA" button to make a quickly whole zone broadcasting , and all terminal IDs will enter the receiving broadcast status. Press the Emergency Broadcast menu again to stop broadcasting.

Slide the volume bar to set the local output volume of the current task.



6.1.6 End Broadcasting

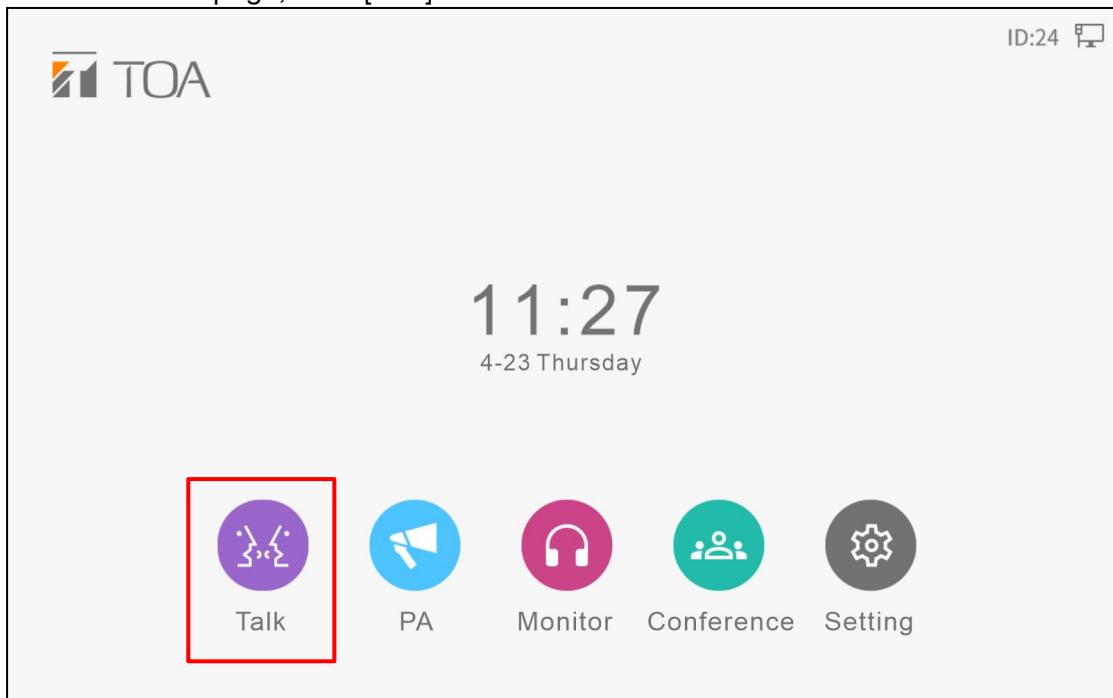
During the broadcast, you can press  button to end the broadcast.



6.2 Intercom Function

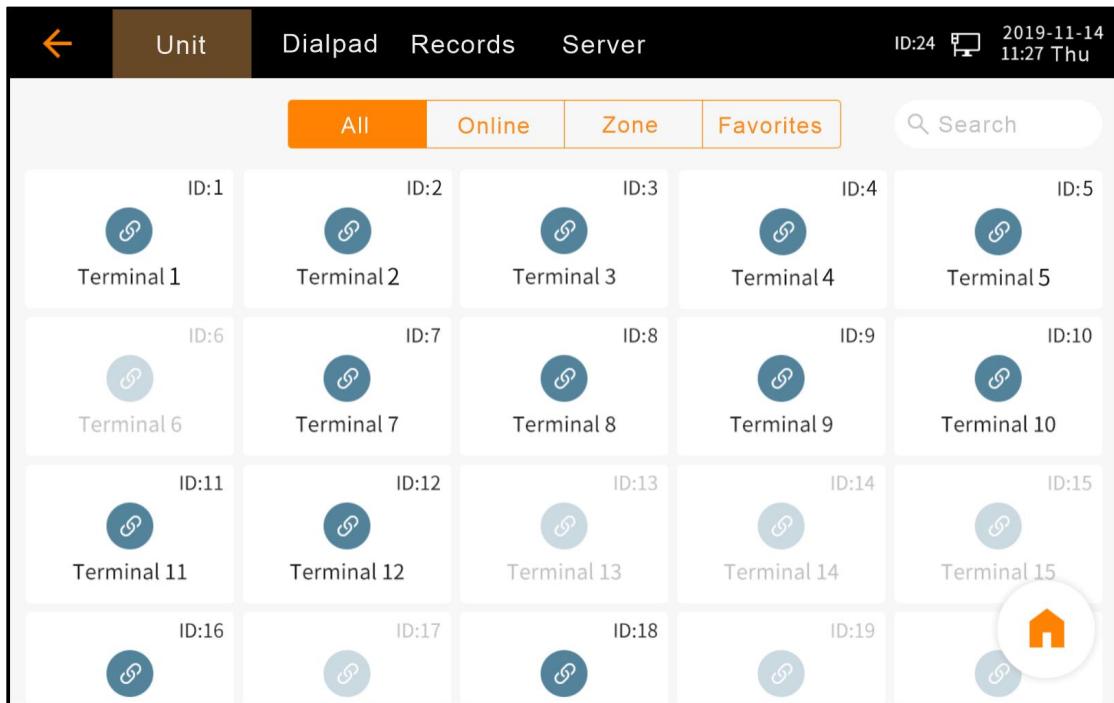
6.2.1 Initiate Intercom

In the device home page, click [Talk] to enter the intercom module.



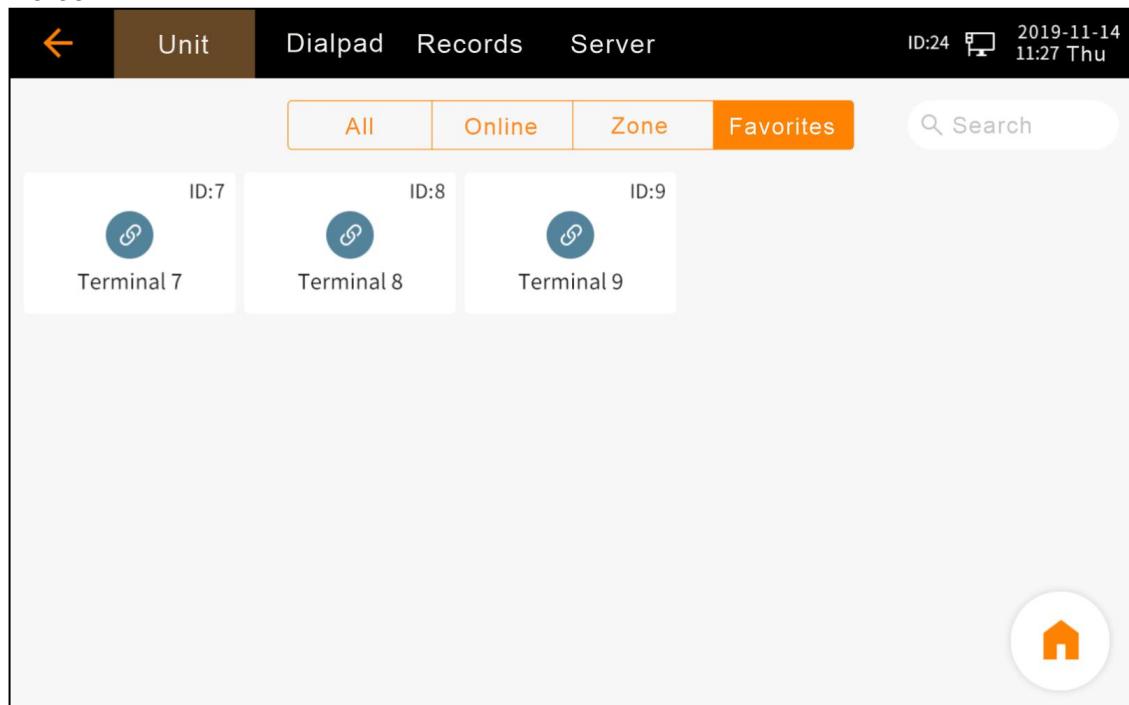
(1)One Click Call

In the intercom module, select [Terminal], then click [All, [Online], [Zone] or [Favorites], a list of terminals or a list of Zones will be displayed, then click the target terminals to initiate a intercom with one click.



(2) Favorites Call

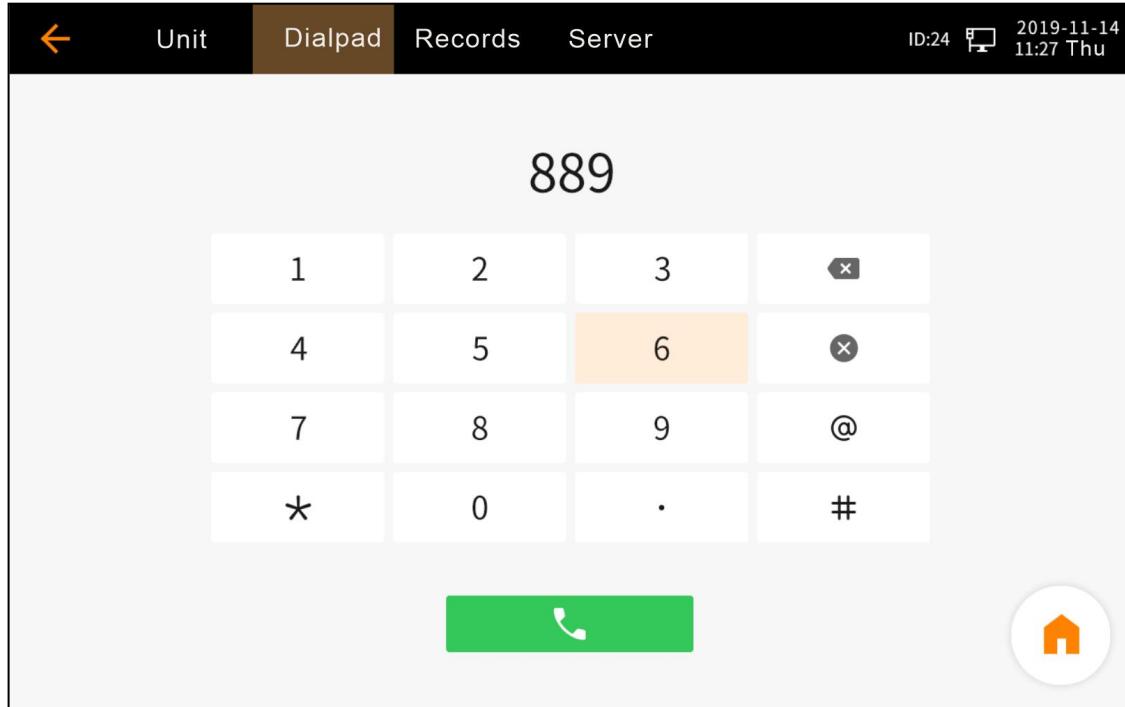
You can add a favorite terminals under "Settings" - "Function"- "Add Favorite". The favorite terminals will be displayed under "Favorites", and you can directly click the terminals to initiate an intercom.



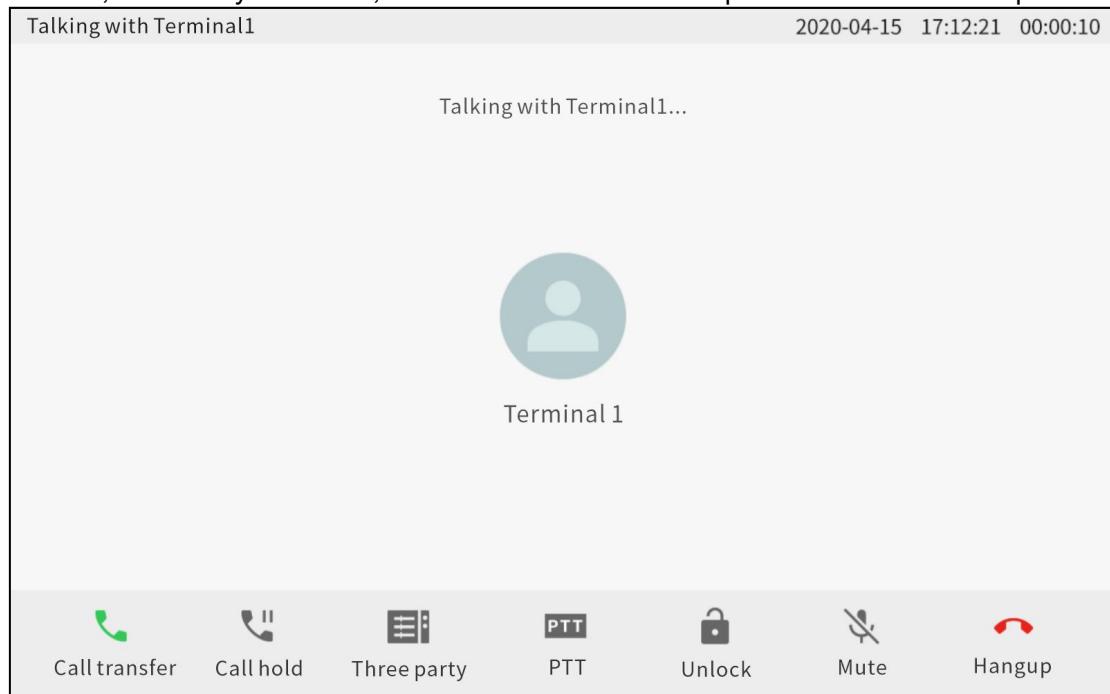
(3) Dialing Call

In the intercom module, click [Dialpad], enter the ID number of the target terminal in the dialpad interface and then click the call button, the IP remote microphone will initiate a call to the target terminal.

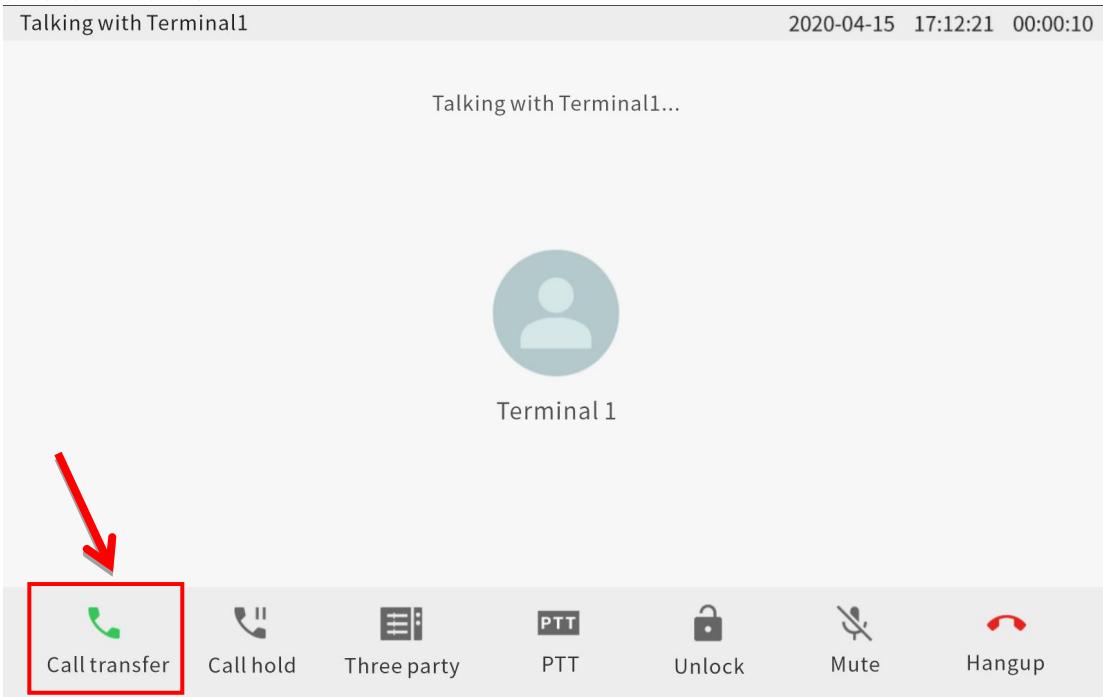
Dialing mode supports calling to the panel, enter the target terminal number # panel number and then click the call button to talk to the panel, for example, "1#7" means calling panel #7 under terminal #1



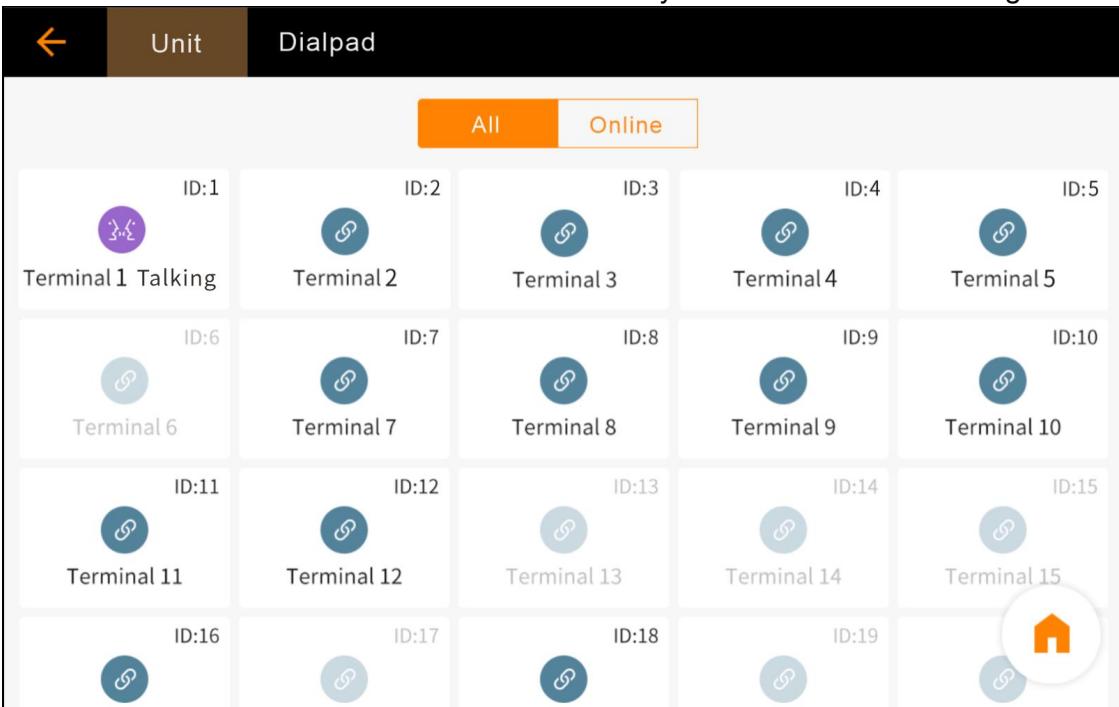
After the other party is connected, it enters the intercom status. During the intercom process, call transfer, three-way intercom, PTT intercom and other operations can also be performed.



6.2.2 Transfer Intercom



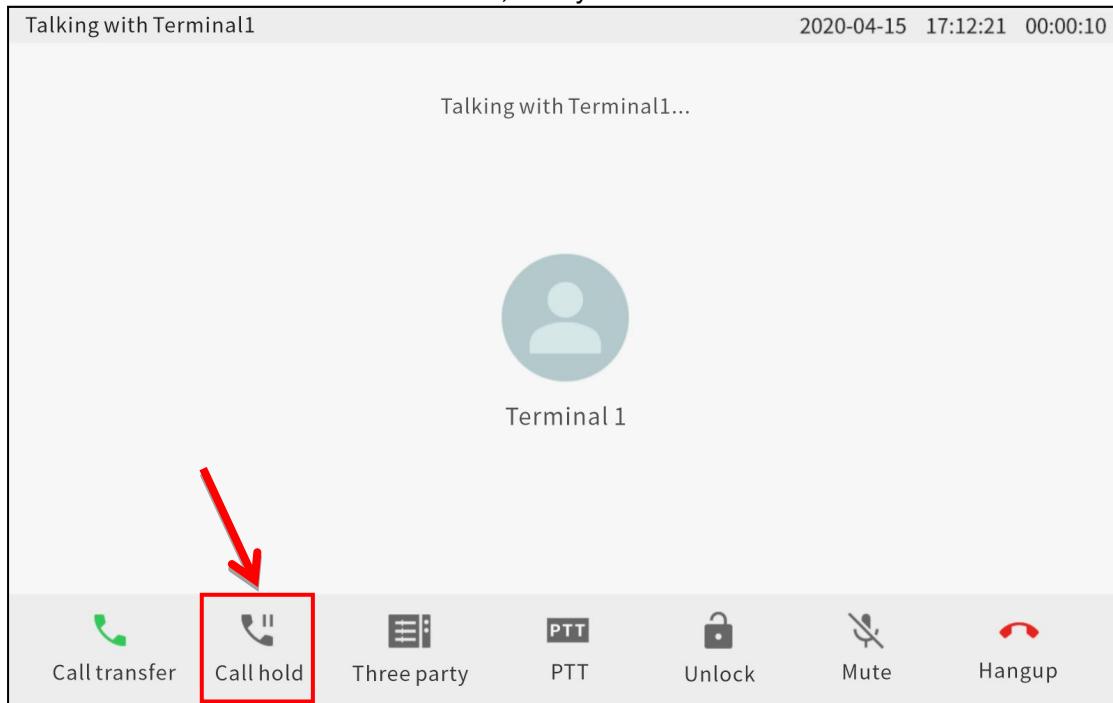
During the intercom process, select call transfer, click the target terminal or enter the ID number of the transferred target terminal in the dial pad, the IP remote microphone will cut off the intercom with the current terminal and automatically call to the transferred target terminal.



6.2.3 Hold Intercom

During the intercom process, select "Call hold", the terminal will hold the current intercom and the speaker will play the hold waiting tone.

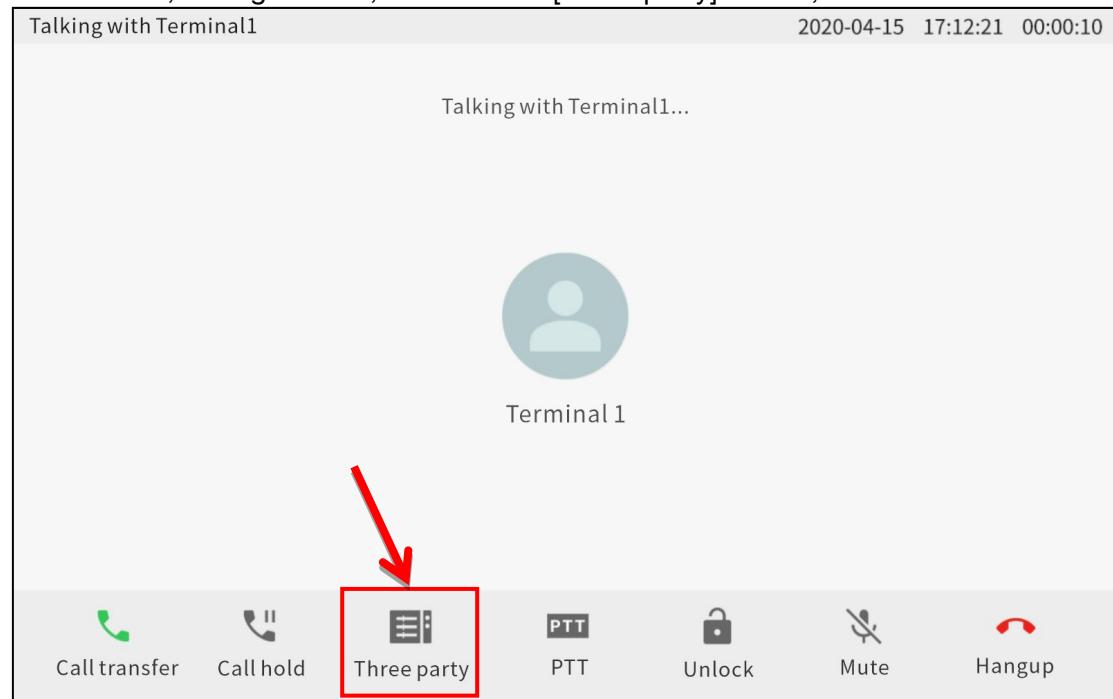
Press "Cancel Hold" to end the hold state, and you can continue the intercom.



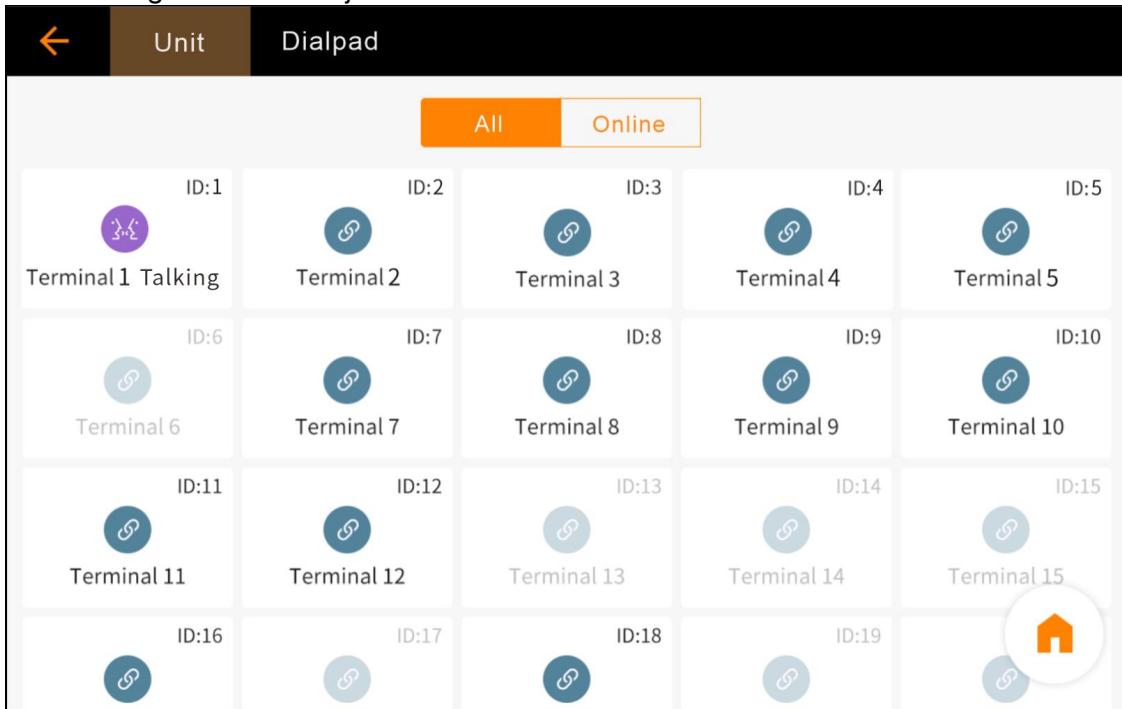
6.2.4 Three Party Intercom

(1) The three party talk is disabled by default, you must set the function of three party talk to "Enable" on the WEB page "Talk Params", or open it in the "Settings" module of the device under the "Function" interface.

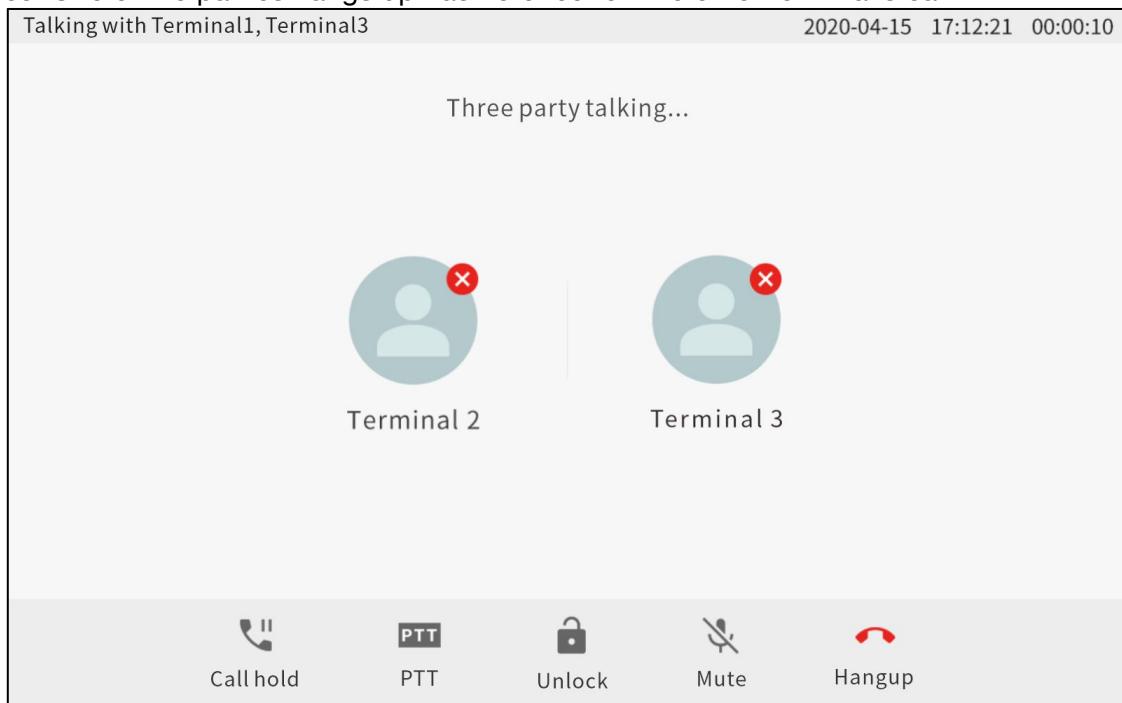
(2) After enabled, during the call, there will be [Three party] button, click the button.



(3) Invite the target terminal to join the call.



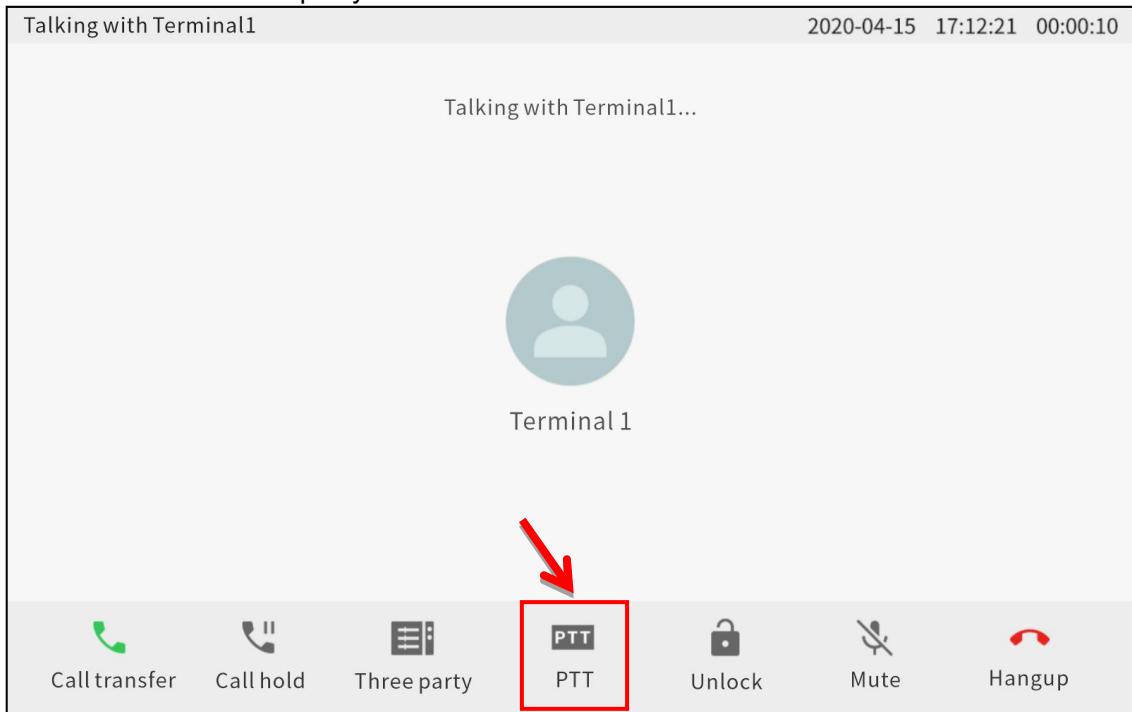
(4) When the invited parties answered, it will enter to the three party intercom. During the three party intercom, the terminals involved in the intercom can clearly hear the voice of other parties. One of the parties hangs up has no effect on the other terminal's call.



Note: During three party intercom, the call transfer and remote unlock functions are unavailable.

6.2.5 PTT Intercom

IP remote microphone supports PTT intercom function. If you press the "PTT" button on the device during the intercom process, the IP remote microphone will enter PTT mode, and the audio will be turned off. Under PTT mode you must press the "PTT" button to talk, otherwise only the voice of the other party can be heard.

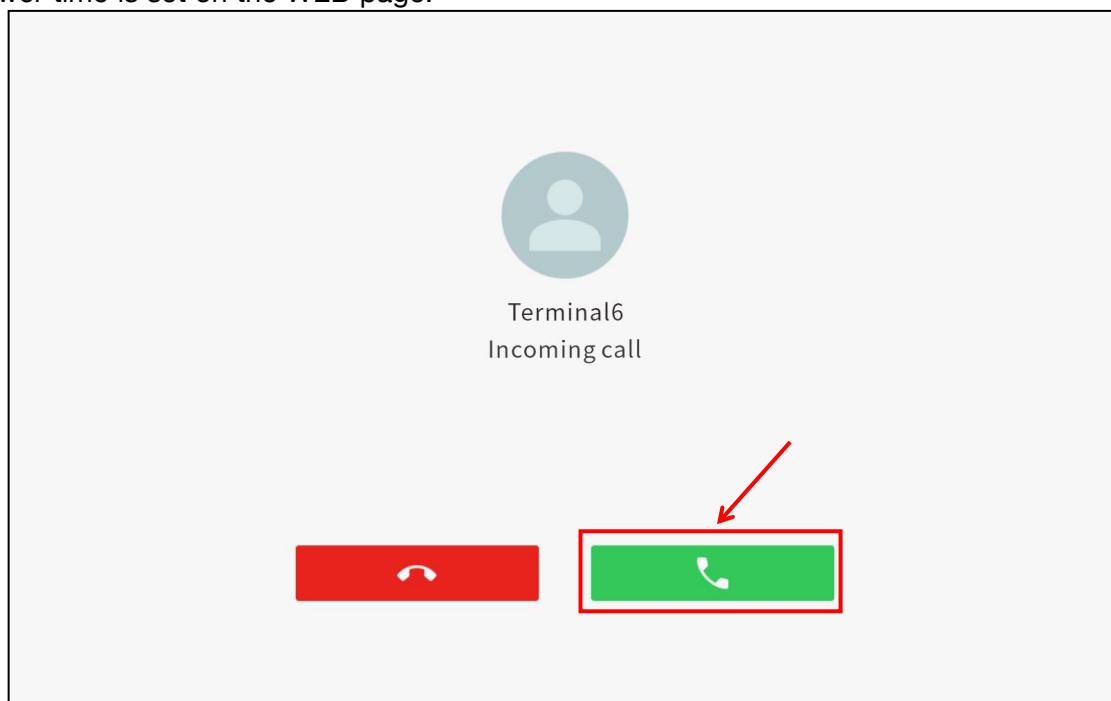


6.2.6 Receive Intercom

You can set the answer mode to "Auto Answer" or "Manual Answer" in "Talk Params" on WEB page.

The default is "Manual answer", when there is a terminal call, you need to manually press the answer button to receive the call;

If you set it to "Auto Answer", the intercom will be answered automatically. And the auto answer time is set on the WEB page.



6.2.7 Offline Intercom

When the device is offline, enter the ID@IP of the target terminal(Such as: 1@192.168.1.101) and click Call to make an offline intercom.

6.2.8 Intercom Records

IP remote microphone can save all call records and support filtering by category (missed calls, incoming call records and calling out records).

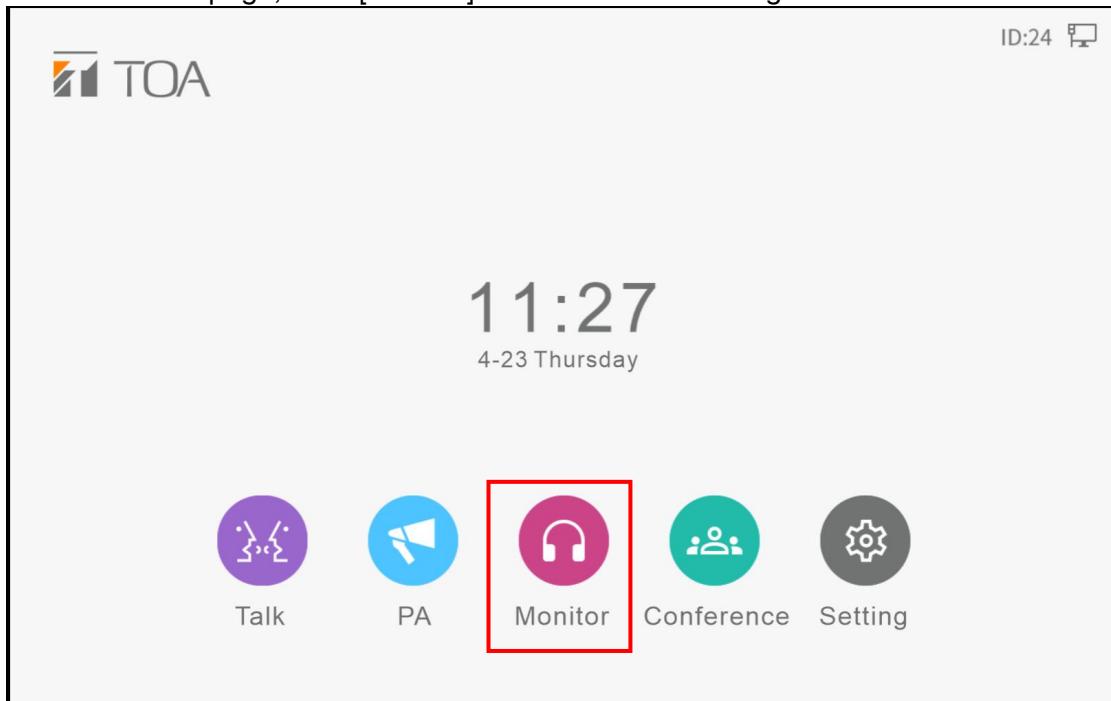
In the intercom module, click [Call Records] to enter the call records interface.

Unit	Dialpad	Records	Server	ID:24	2019-11-14	11:27 Thu
		All	Online	Zone	Favorites	
	Terminal1 1				2020-05-12 10:23	
	Terminal3 3				2020-05-12 09:18	
	Terminal3 3				2020-05-12 09:12	
	Terminal1 1				2020-05-13 10:23	
	Terminal3 3				2020-05-13 09:18	
	Terminal3 3				2020-05-13 09:12	
	Terminal3 3				2020-05-13 09:12	

6.3 Monitoring Function

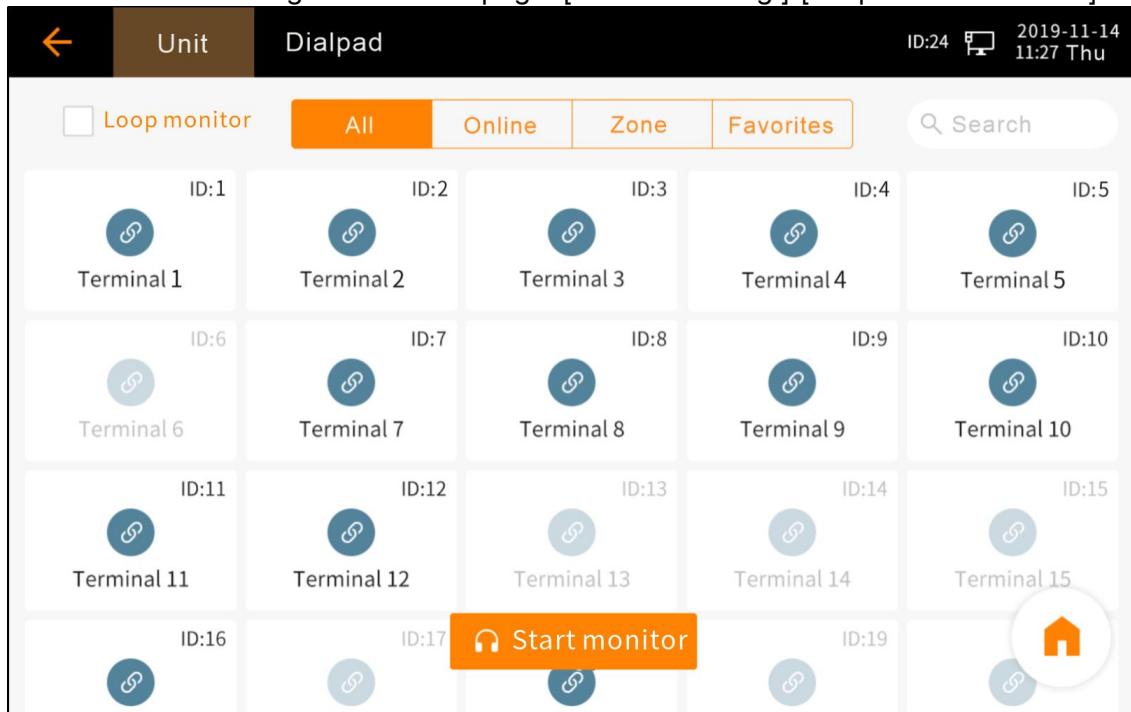
IP remote microphone can monitor one or more terminals online in the same server. If the monitored terminal is equipped with a camera, video monitor can be realized at the same time.

In the device home page, click [Monitor] to enter the monitoring module.



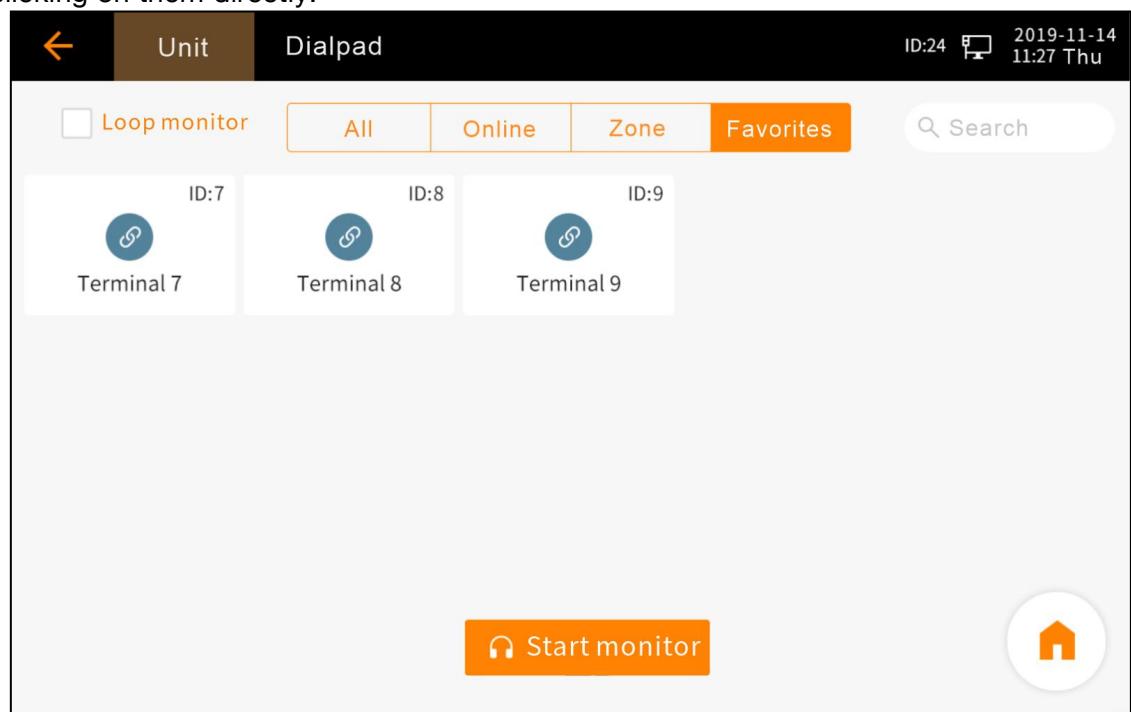
6.3.1 Single Monitoring/Loop Monitoring

You can set the monitoring time in WEB page: [Monitor Setting]-[Loop Monitor Interval].



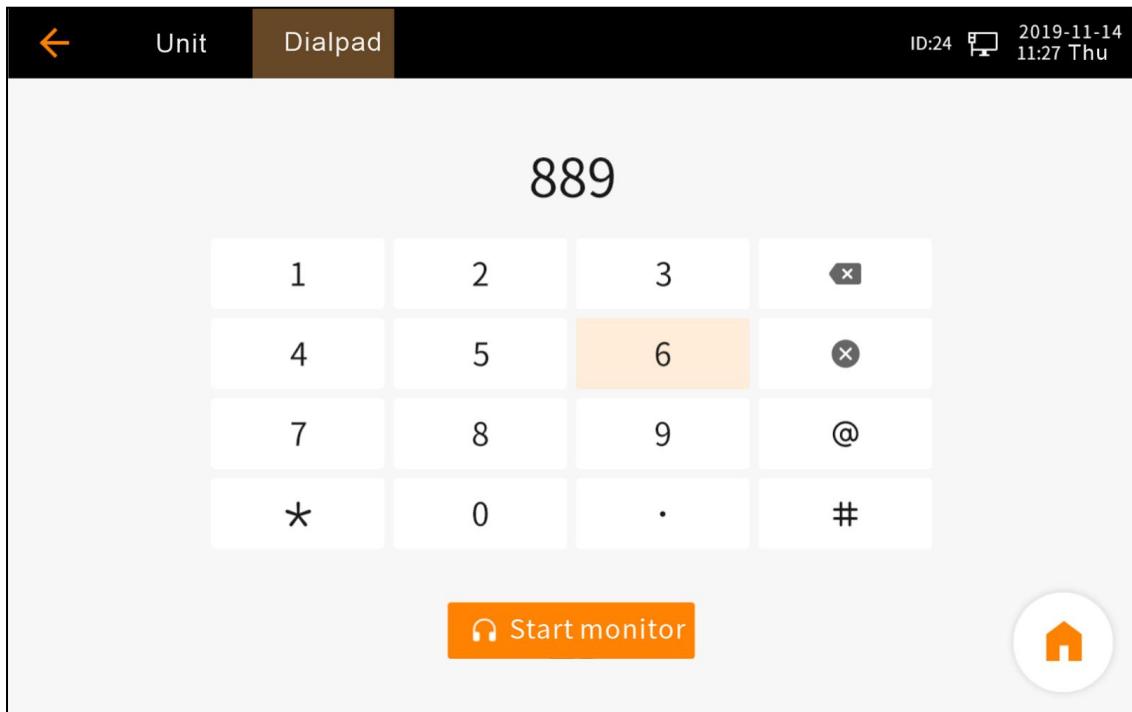
6.3.2 Favorites Monitoring

You can add a favorite terminal to the "Favorites" by below steps: [Settings]-- [Function]--[Add Favorite]. The favorite devices are displayed under "Favorites", and you can monitor to them by clicking on them directly.



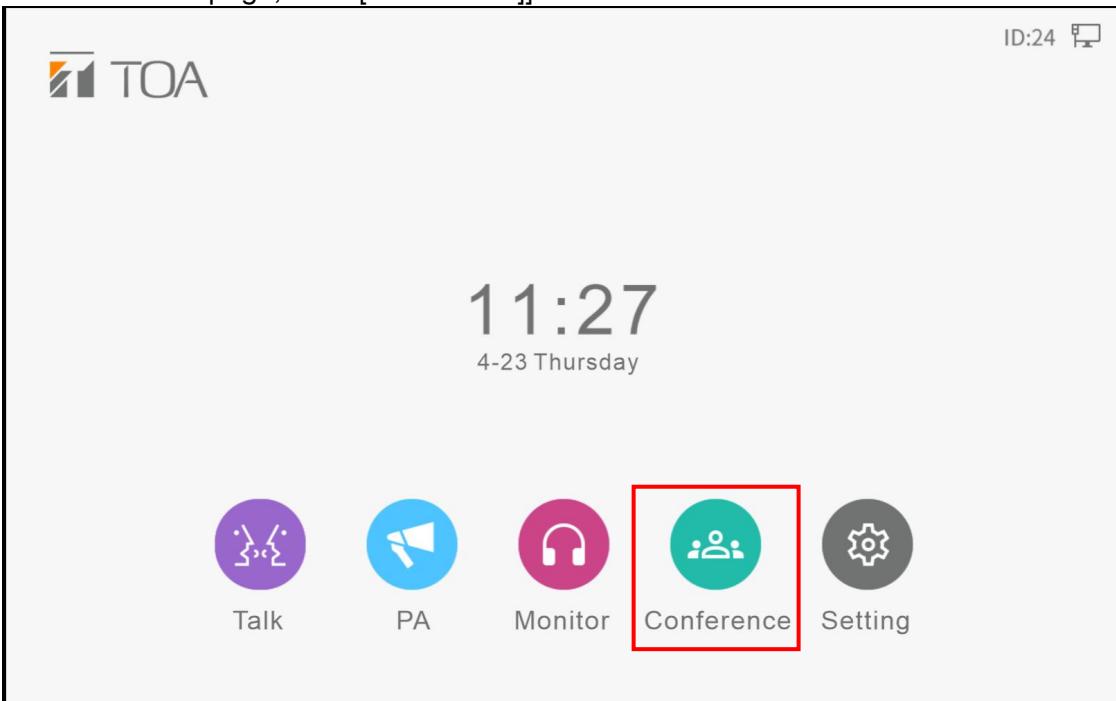
6.3.3 Dial-pad Initiated Monitoring

You can Click [Dialpad], and enter the ID of the target terminal you want to monitor, and press  button to initiate monitor.



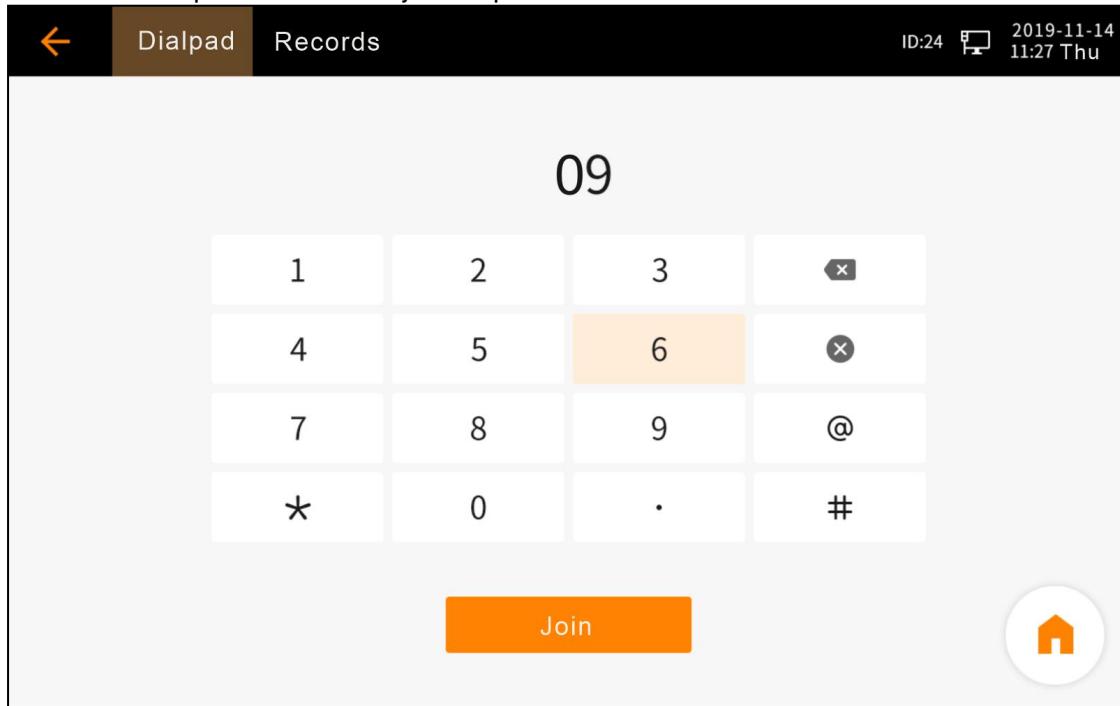
6.4 Conference Function

In the device home page, click [Conference] to enter the conference module.



6.4.1 Join the Conference

Input 0 & meeting room No. in the dailpad and click on [Join],
The host can accept or refuse the join request.

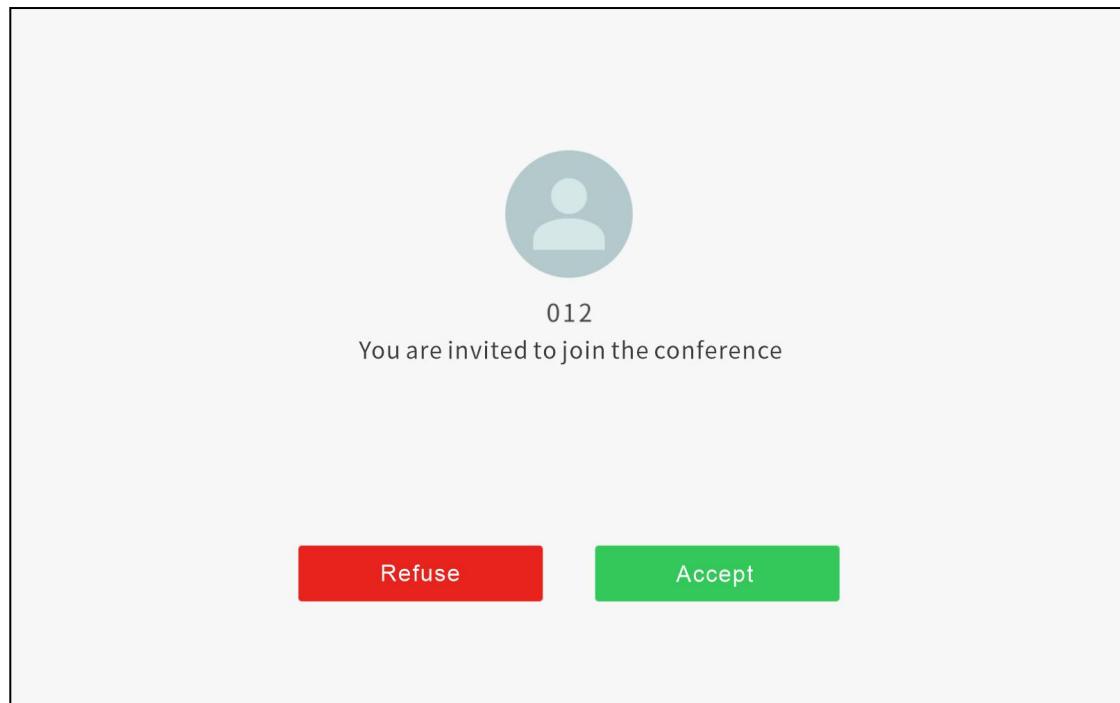


6.4.2 In the Conference

During the meeting, you can click the button [Apply] to speak, or you can click on [Exit] to exit the meeting.

6.4.3 Conference Invitation

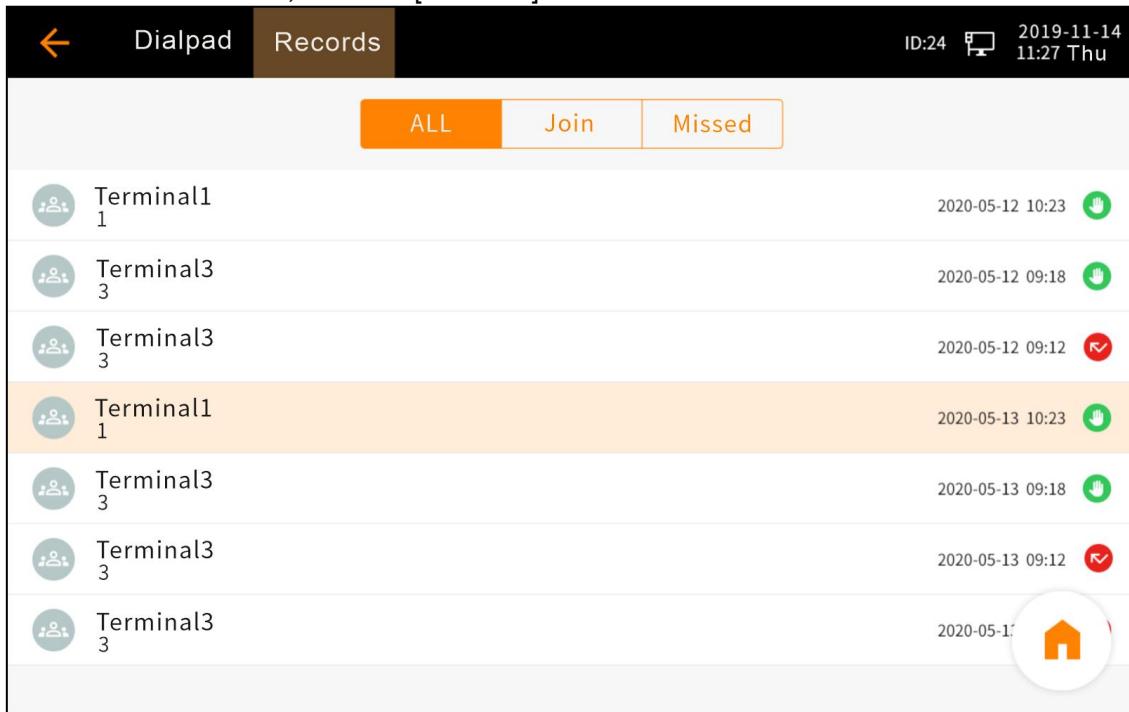
IP remote microphone can accept conference invitations from other devices. Click "Agree" to join the conference.



6.4.4 Conference Records

IP remote microphone can save all the conference records and you can search by different category like joined meeting, missed meeting.

In the conference module, click on [Records] to enter the conference record interface.

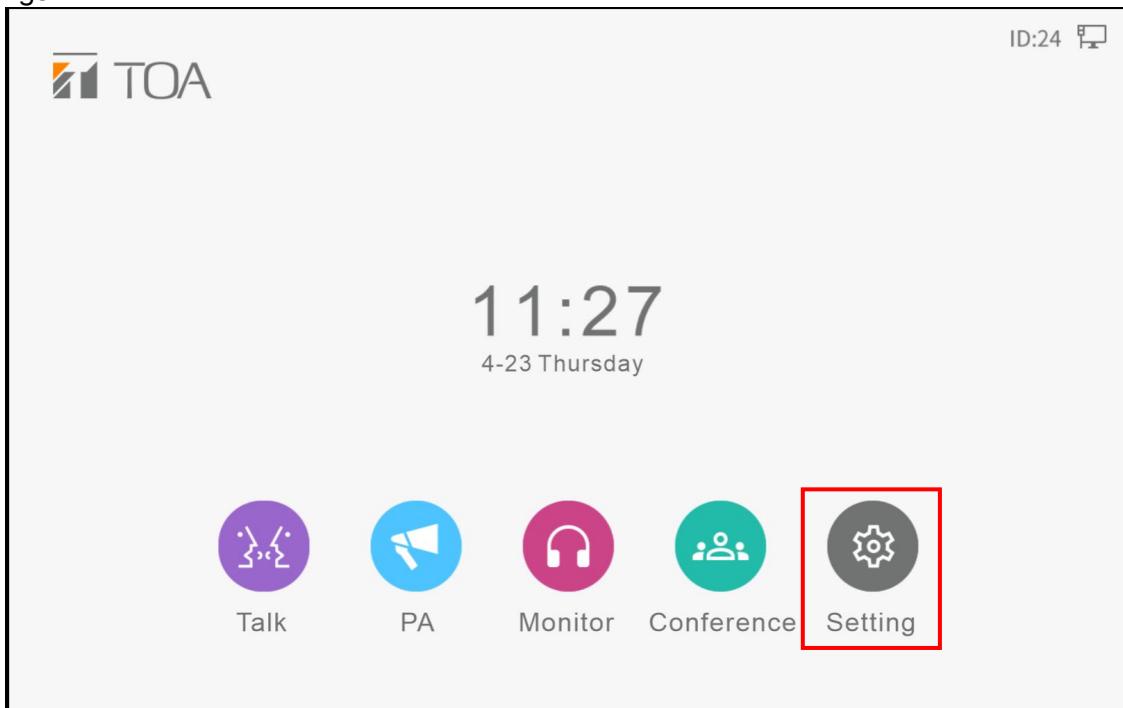


The screenshot shows a list of conference records. The top navigation bar includes a back arrow, 'Dialpad', 'Records' (selected), and a timestamp 'ID:24 2019-11-14 11:27 Thu'. Below the navigation is a filter bar with 'ALL' (selected), 'Join', and 'Missed'. The list contains the following entries:

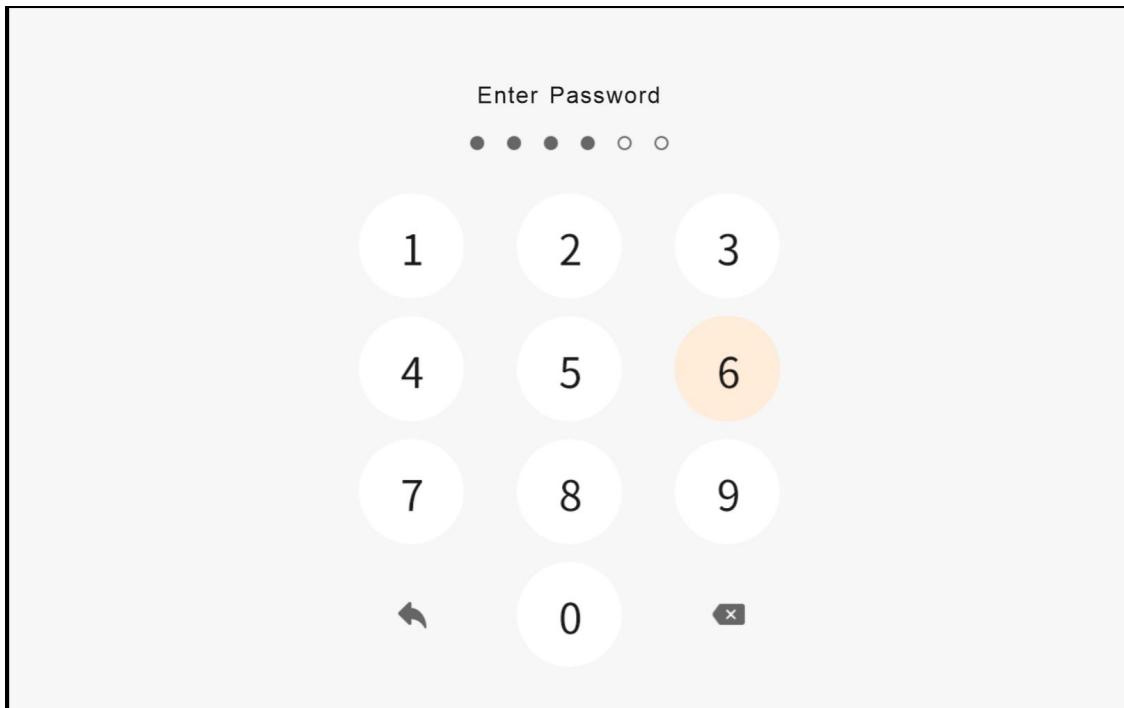
Terminal	Date	Action
Terminal1 1	2020-05-12 10:23	
Terminal3 3	2020-05-12 09:18	
Terminal3 3	2020-05-12 09:12	
Terminal1 1	2020-05-13 10:23	
Terminal3 3	2020-05-13 09:18	
Terminal3 3	2020-05-13 09:12	
Terminal3 3	2020-05-13 09:12	

6.5 Settings

In the device home page, click on [Setting] and then enter the terminal password (default is 123456) you can make network parameters settings, function settings and other related settings.



The screenshot shows the device home page. It features the TOA logo at the top left, a large digital clock displaying '11:27', and a date '4-23 Thursday' below it. At the bottom, there are five function icons: 'Talk' (purple), 'PA' (blue), 'Monitor' (pink), 'Conference' (teal), and 'Setting' (grey with a gear icon). The 'Setting' icon is highlighted with a red box.



6.5.1 Network Setting

In this page, you can set the device ID, IP address, server IP, default gateway, subnet mask and other network parameters. After saving the settings, restart the device to take effect.

Note: The IP address must be unique which can not be the same with other terminals. The default is: 192.168.1.101.

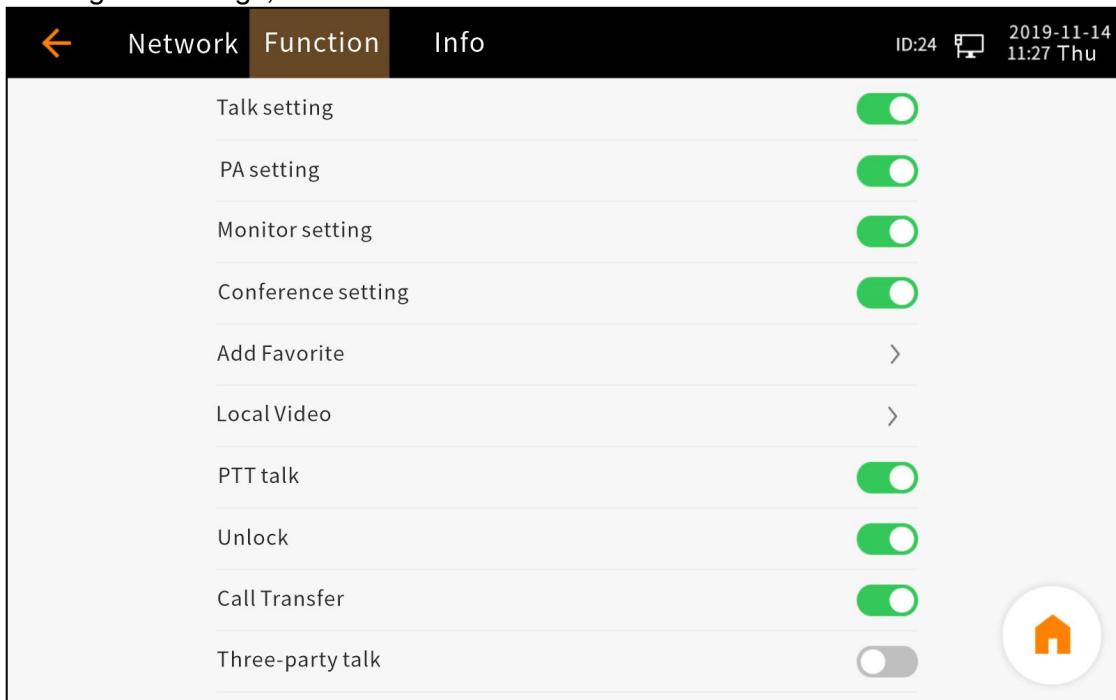
Network		Function	Info	ID:24	2019-11-14 11:27 Thu
Unit ID	24				
IP Configuration Mode	Static				
Unit IP	192.168.3.165				
Subnet mask	255.255.255.0				
Default Gateway	192.168.3.1				
SIP local port	5060				
SIP server IP	192.168.10.102				
SIP server port	5060				
SIP server HTTP port	80				

6.5.2 Function Setting

In this page, you can set whether to open the intercom interface, broadcasting interface and monitoring interface. The default is open, if you set it to close, in the home page, these modules will not be shown.

You also can set whether to enable PTT talk, remote unlocking, call transfer, three-way talk and other functions.

After saving the settings, restart the device to take effect.



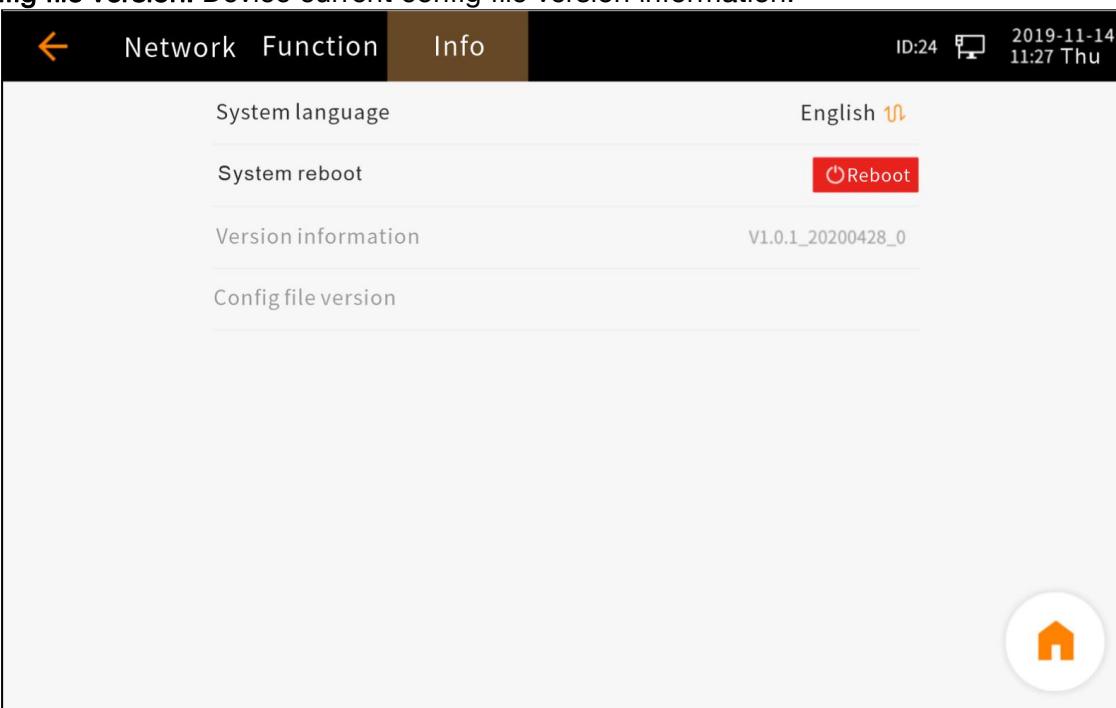
6.5.3 System Information

System Language: Support with English and Chinese.

System Reboot: Click on [Reboot] button, the device will reboot.

Version information: Device current firmware version information.

Config file version: Device current config file version information.

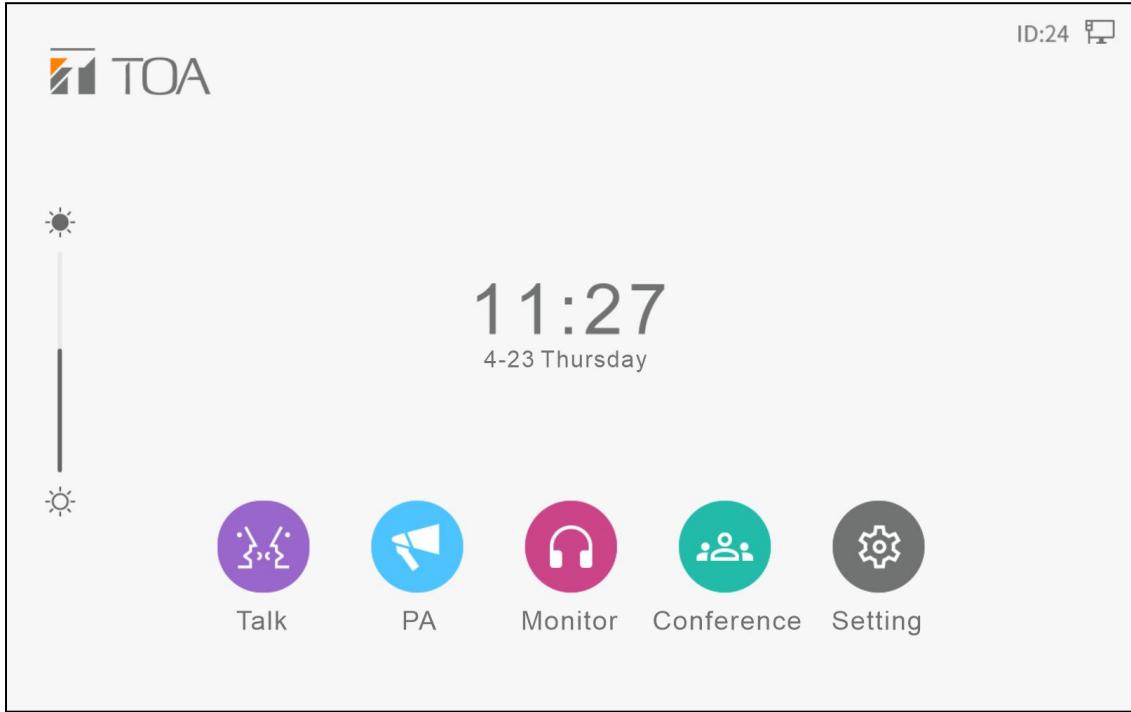


6.6 Turn to Home Page

Click on  button can return to the home page

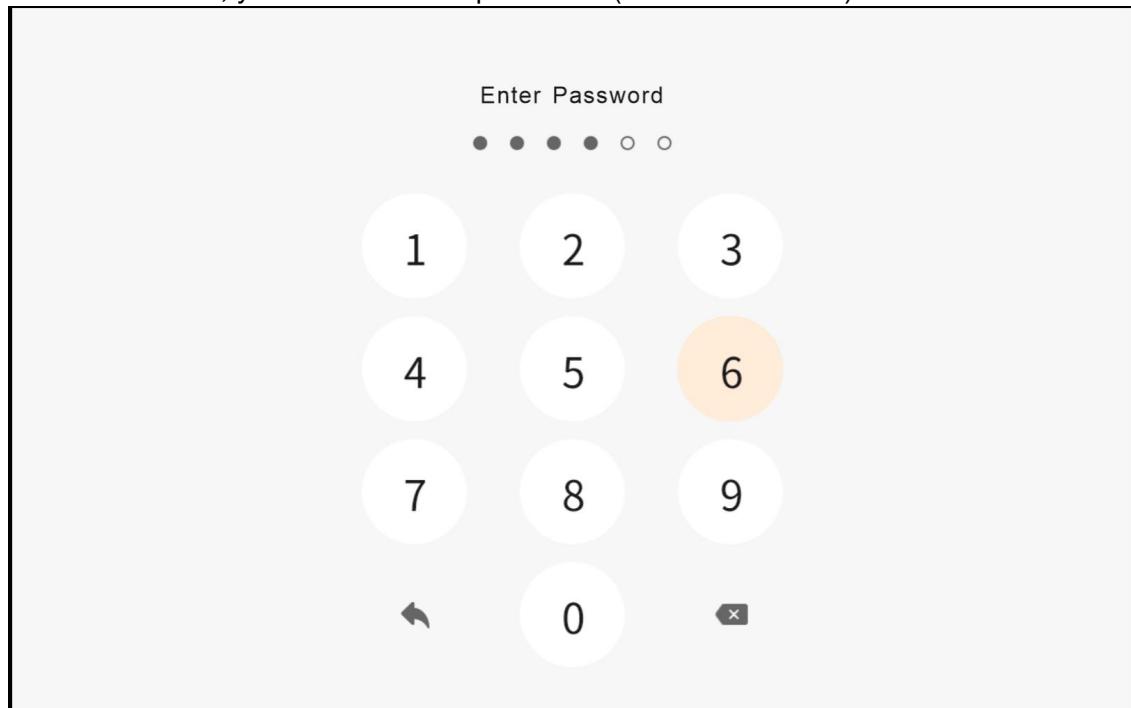
6.7 Brightness Adjustment

In the home page, slide your finger from top to bottom or from bottom to top to adjust the brightness of the screen.



6.8 Lock Screen

You can open the screen saver function in WEB "Basic Settings" - "System Parameters". If the screen is locked , you need to enter password.(default is 123456)



7. BASIC FUNCTION

7.1 Receive Broadcast

IP Speaker Adapter can receive broadcasts initiated by server or other terminals.

8. APPENDIX

8.1 Specifications

Power Supply	DC12V/1.5A
Power consumption	≤10W (AC adapter)
Amplifier Rated Output	3W
Frequency response	40 - 18KHz
Microphone	Goose-neck type, electret microphone
Audio Digital Data	Sampling frequency: 8k – 44.1kHz, Quantization size: 16bit, Bitrate: 8k – 320kbps
Supported Audio codec	MP3, PCM, ADPCM
Internal messages	Maximum 1GB
Network I/F	100Base-TX, MDI/MID-X, RJ45
Network protocol	TCP/IP, UDP, ARP, ICMP, IGMP, HTTP, SIP, RTP
Interface	Control Input *1, Control Output (Normal Open/Normal Close) *1, Audio Line Input *1, Audio Line Output *1, RJ45 *1
Screen	7 inch touch panel color LCD screen
Language	English(default)/Chinese (Selectable)
Operating temperature	0 – 45°C
Operating humidity	90% or less (no condensation)
Finish	Aluminum black, ABS back
Dimensions	183.9(W) * 169.0(H) * 58.4(D) mm
Weight	0.72kg
Accessories	Gooseneck Microphone*1, Connection Terminal(3.5-5P)*1

Traceability Information for USA

Authorized representative:

TOA Electronics, Inc.

1 Harmon Plaza, Suite 700, Secaucus, New Jersey 07094, USA

Traceability Information for Canada

Authorized representative:

TOA Canada Corporation

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Traceability Information for Europe

Authorized representative:

TOA Electronics Europe GmbH

Suederstrasse 282, 20537 Hamburg, Germany

URL USA : <https://www.toaelectronics.com/>

URL Canada: <https://www.toacanada.com/>

URL Global : <https://www.toa-global.com/en>

TOA Corporation

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