Prestel

Prestel VCS-G20

Split 4K UHD Video Conferencing
Terminal Operating Manual

OPERATING MANUAL

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Warning

Operating this equipment in a residential environment may cause radio interference.

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1 Overview

This manual can effectively guide you in configuring, conference control, management, routine maintenance, and exception handling for HD video conference terminals (hereafter referred to as terminals).

1.1 Administrator Definition

The terminal administrator refers to the management and maintenance personnel responsible for the regular operation of the terminal system in the enterprise. The main job responsibilities of the terminal administrator are as follows:

- **Terminal configuration and management**
- **Terminal system routine maintenance**
- **Terminal system exception handling**
- **Ordinary user terminal usage question and answer**

1.2 Administrator Requirements

Mastering basic knowledge and collecting terminal environment and system information will help you manage and maintain your terminal.

Basic Knowledge

- **Windows operating system.**
- **GK (Gatekeeper) server, SIP (Session Initiation Protocol) server.**
- **Computer network knowledge such as Ethernet, TCP/IP, Client/Server.**
- **H.323 and SIP protocols.**
- **Familiar with electronic and electrical knowledge, with safe operating skills in electrical and electronic equipment.**
- **Familiar with common maintenance tools.**
- **Familiar with video conferencing system functions and services.**

Required Environmental and System Information Collection

Category	Preparation	Description
Device Information	Device Location	Record the detailed address of each device, ensuring quick identification based on descriptions.
	Network Setup	Record the network topology and hardware connection diagram, which must be detailed for each device.
	Device Information	List the device IP addresses, usernames, and passwords to log in during emergencies quickly. If passwords are inconvenient to list, they can be omitted but must be memorized.
Software and Tools	Software Versions and Tools Preparation	List the software versions corresponding to each device for reference when upgrading. Prepare the necessary tools for troubleshooting.
Contact Information	Purchased Parts Service Information	Record manufacturer's contact information, serial numbers, and the maintenance commitment terms.
	Technical Support Contact Information	Please keep a record of the technical support personnel list, their contact information, and responsibilities.
Spare Parts	Spare Parts	List the spare parts inventory and acquisition methods, including what service providers can provide spare parts and how to obtain them.
	Utilizable Surplus or Temporary Equipment	For example, backup file servers, database servers, etc.

1.3 Safety Precautions

You must carefully read and observe the safety precautions in daily operation and maintenance.

Basic Requirements

- **Kept dry during storage, transportation and use of equipment.**
- **In storing, transporting and using equipment, it is necessary to avoid violent**

collisions.

- **Do not disassemble the device by yourself. If the device is faulty, please contact the manufacturer.**
- **No unit or individual may change the equipment's structural, safety and performance design without authorization.**

- **The person responsible for installing and maintaining the terminal equipment must master the correct operation methods and safety precautions before installing, operating, maintaining the equipment, removing the safety equipment and repairing the equipment.**
- **When using this device, you should follow relevant laws and regulations and respect the legal rights of others.**

Environmental Requirements

- **Please install the equipment in strict accordance with the manufacturer's requirements.**
- **Place the equipment on a stable workbench. Hang the wall-mounted equipment in strict accordance with the manufacturer's requirements.**
- **Place the device in a ventilated, non-glare environment.**
- **Do not place the device and its accessories in an environment where the temperature is too low or too high.**
- **Do not place the device near water or in a damp area.**
- **Do not place anything on the device. It is recommended to leave more than 10cm of heat dissipation space around the device.**
- **Do not place the device near easily burnt objects, such as foam.**
- **Keep the equipment clean and avoid dust pollution.**
- **Keep away from heat sources or exposed sources of ignition, such as electric heaters and candles.**
- **Avoid appliances with strong magnetic or electric fields, such as microwave ovens, refrigerators, and mobile phones.**

Usage Notice

- **Do not allow children to play with equipment and gadgets to avoid suffocation caused by playing with product packaging bags and to avoid dangers such as swallowing.**
- **Before touching the device and holding the card, circuit board, IC chip, etc., to prevent the human body from damaging the sensitive components, you must wear an anti-static wrist strap and ground the other end of the anti-static wrist strap.**
- **Please use the accessories that come with the product and the accessories recommended by the manufacturer, such as power adapters, batteries, etc.**
- **Please ensure that the device's power supply voltage meets the device's input voltage requirements. Please use the matching lightning protection**

power strip.

- Please ensure that the protection ground of the three-phase socket is effectively grounded and that the neutral line and the live line are not reversed.
- Please keep the power plug clean and dry. Do not use damaged or aged cables to avoid the risk of electric shock.
- Do not step on, pull, or excessively bend the device cable to avoid equipment failure.
- Do not scratch or wear the outer casing of the device. Otherwise, the peeling paint may cause allergies or abnormal equipment. If it falls into the main unit, it may cause a short circuit.
- Prevent foreign objects (such as metal) from entering the device through the heat dissipation holes to avoid abnormal equipment.
- Keep your hands dry when plugging and unplugging the device cables.
- Before plugging or unplugging the device cable, stop using the device and disconnect the power.
- Do not allow water or other liquids to flow into the device. If any liquid accidentally flows into the device, immediately disconnect the power supply and unplug all the cables connected to the device, such as the power cable, video cable, audio cable, network cable, and serial cable.
- If there is any abnormality, such as smoke, abnormal sound, or odor, please stop using it immediately, disconnect the power supply, and remove all cables connected to the device, such as power cable, video cable, audio cable, and network cable. And serial cable.
- In the thunderstorm, please disconnect the power of the device and unplug all the cables connected to the device, such as the power cable, video cable, audio cable, network cable, and serial cable, to prevent the device from being damaged by lightning.
- When not using the device for a long time, disconnect the power supply and unplug all the cables connected to the device, such as the power cable, video cable, audio cable, network cable, and serial cable.

Cleaning Instructions

- Before cleaning, stop using the device, disconnect the power supply, and unplug all the cables connected to the device, such as the power cable, video cable, audio cable, network cable, and serial cable.
- Do not use cleaning liquid or spray cleaner to clean the device casing. Wipe

the device case with a soft cloth.

Remote Control Battery Usage Instructions

- **Please use the correct type of battery and install the battery in the correct polarity.**
- **When the battery does not fit properly into the device, do not squeeze the battery hard to prevent the battery from leaking or bursting.**
- **It should be replaced immediately if the battery leaks, emits smoke, or emits an odor.**
- **Do not mix old and new batteries. When replacing batteries, replace all batteries at the same time.**

2 Operation (Remote Control)

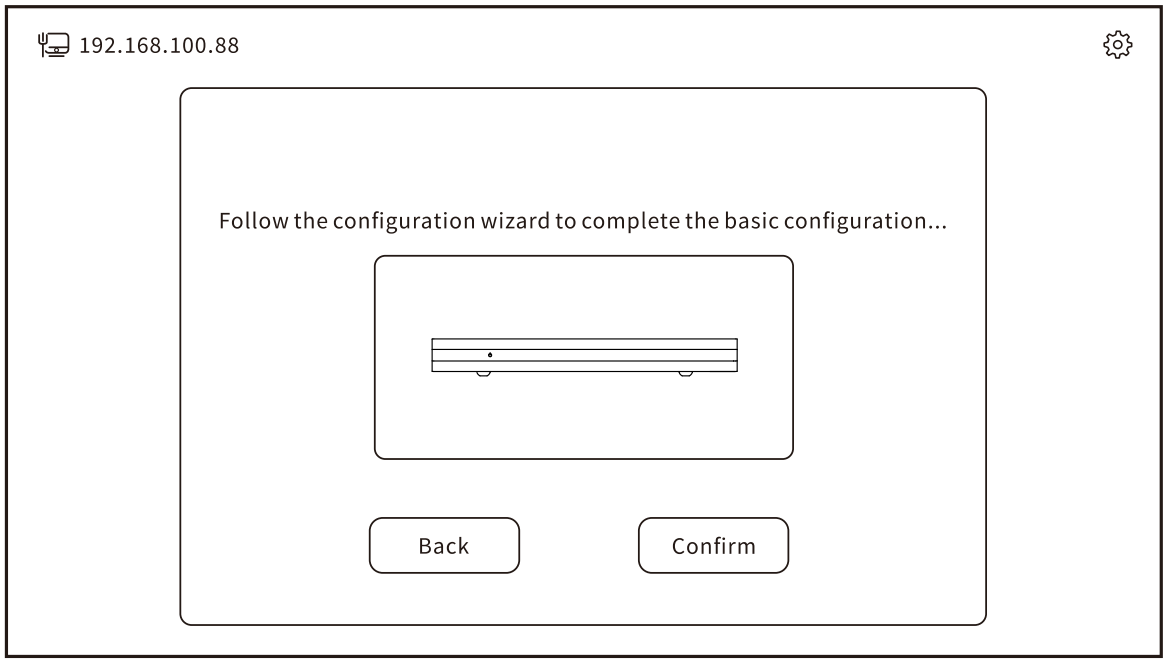
2.1 Terminal Guide

Note

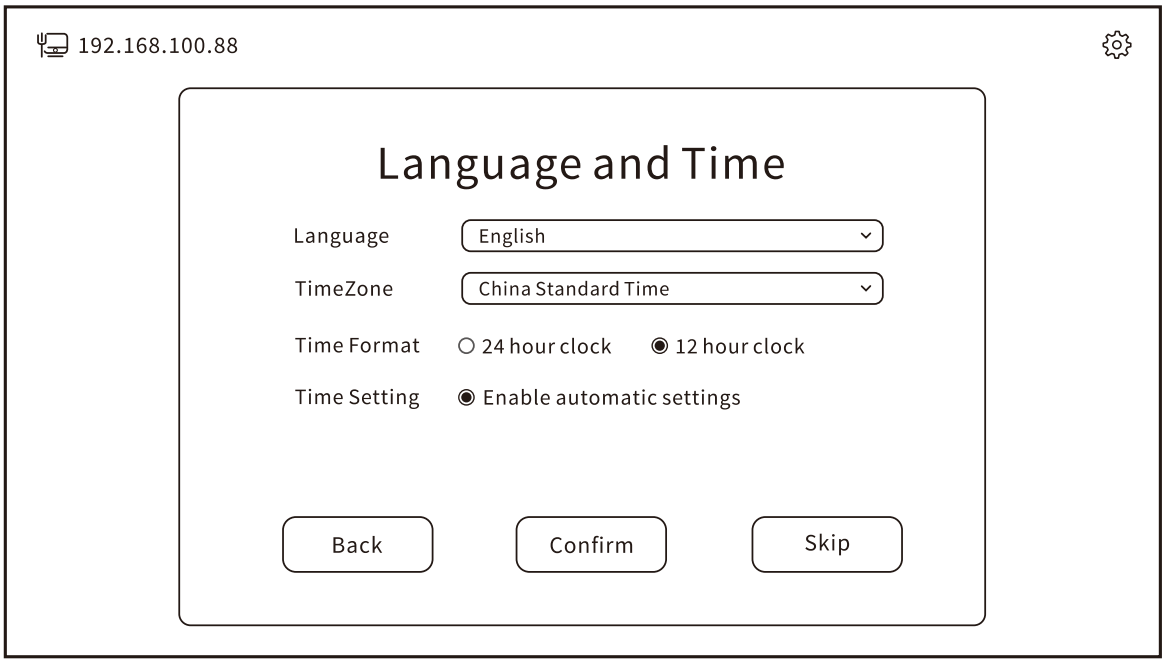
The device will automatically enter the Terminal Guide interface when using this product for the first time.

On the GUI main menu interface, select “ > > Quick Configuration” and manually initiate the terminal guide to complete the basic settings.

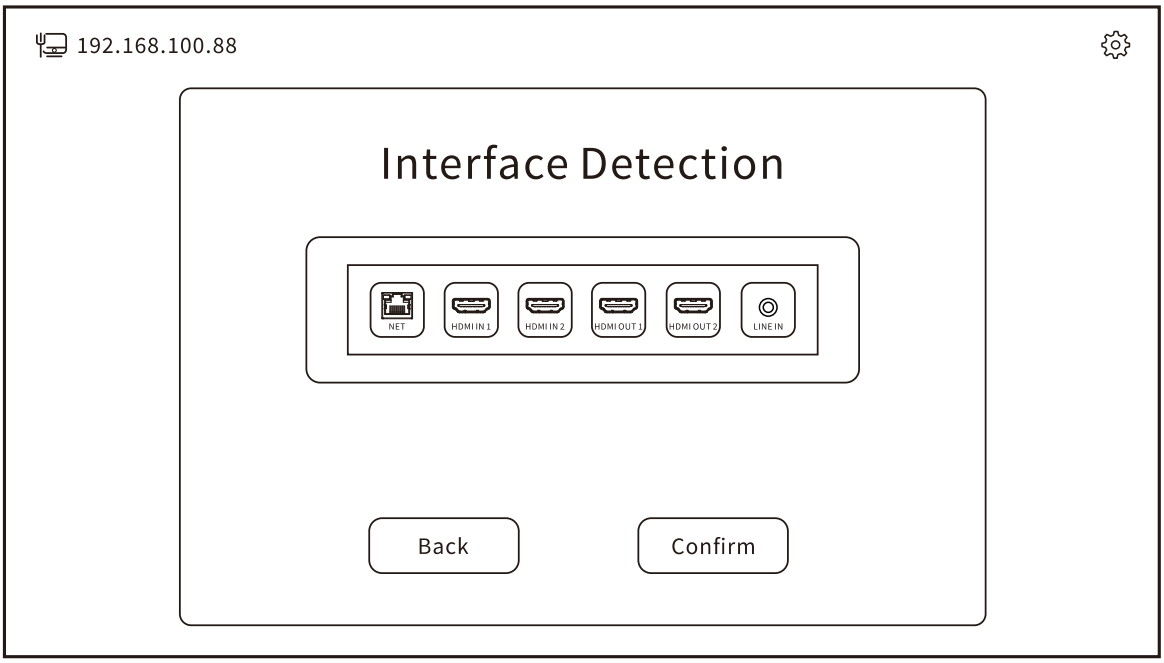
1. **Navigate to the configuration Guide interface, choose “Confirm” and follow the configuration guide to complete the basic device setup (select “Back” to cancel the configuration and return to the previous menu).**



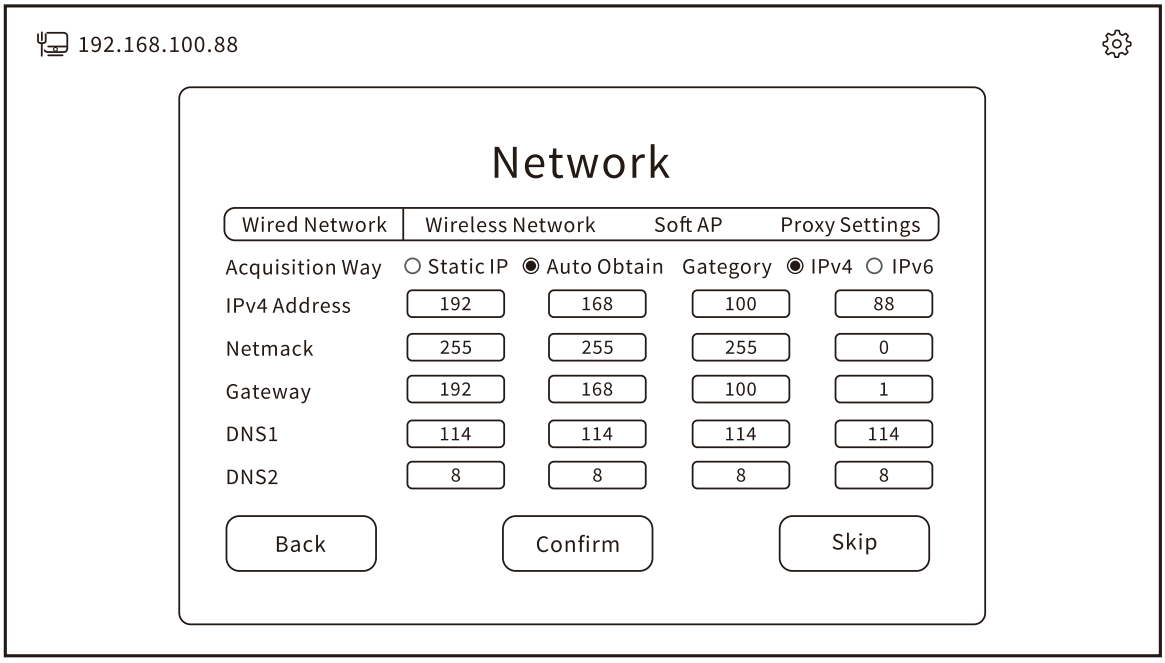
2. Set the Language and Time parameters and select “Confirm” to go ahead.



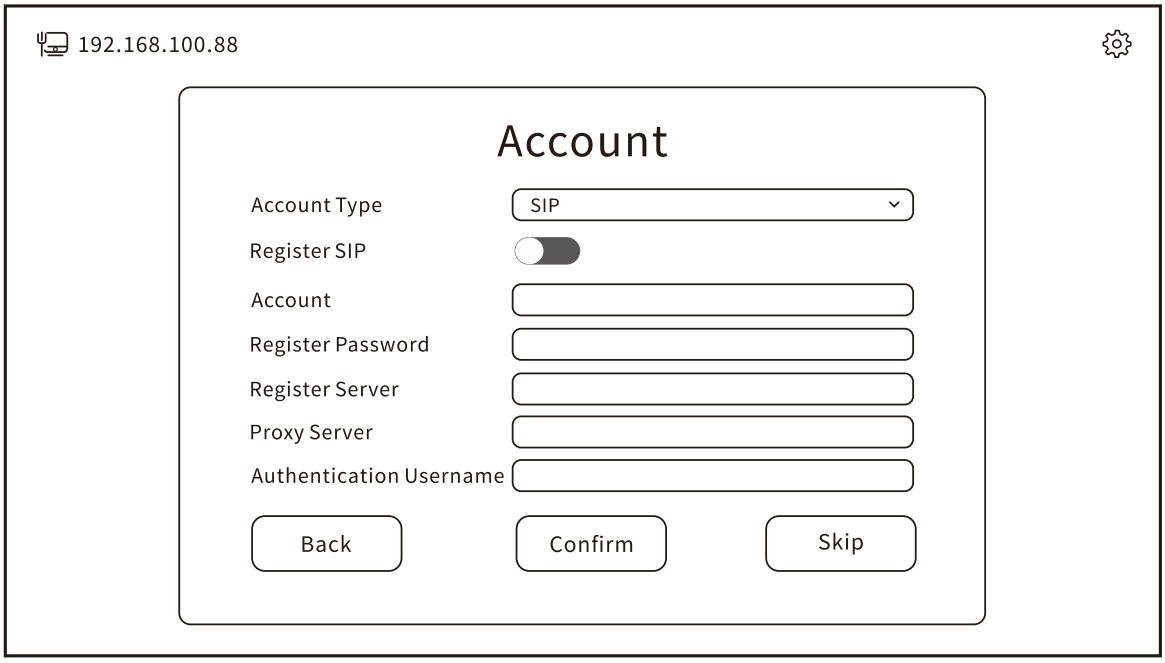
3. Enter the “Interface Detection” interface to check the device interface connection status (if the connection is abnormal, it is recommended to follow the instructions to complete the connection), select “Confirm” to go ahead.



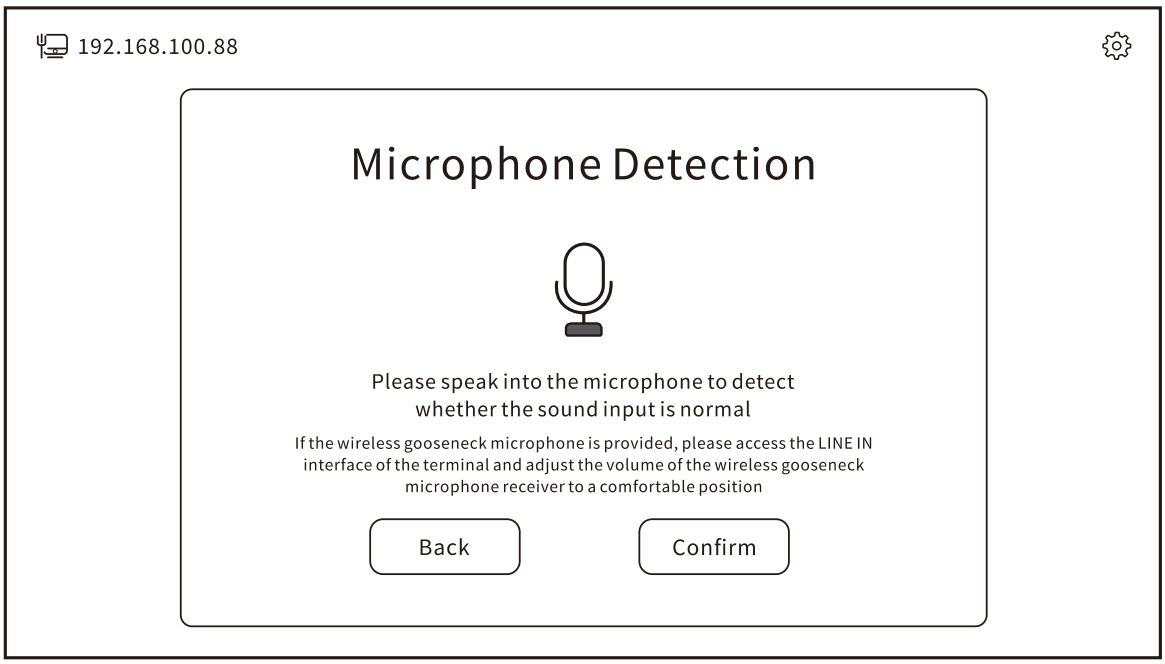
4. **Configure the Network parameters (in Wired Network mode, if selected static IP, you need to manually configure the IP address, Netmask, Gateway and DNS address), select "Confirm" to go ahead.**



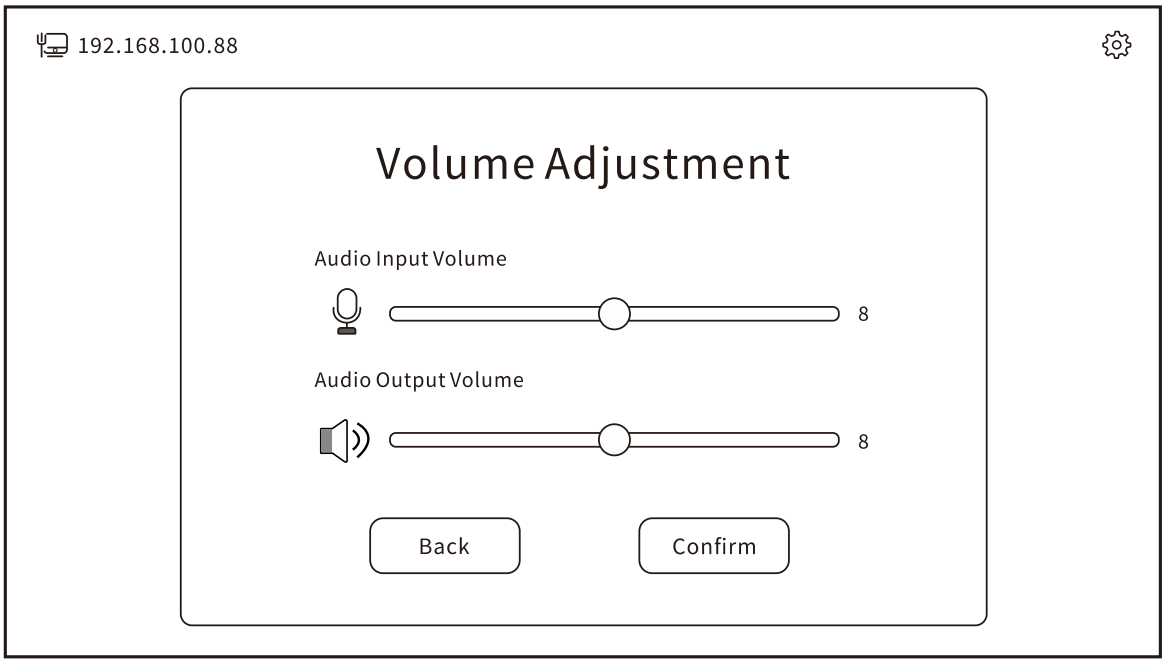
5. **Configure the Account parameters and select "Confirm" to go ahead.**



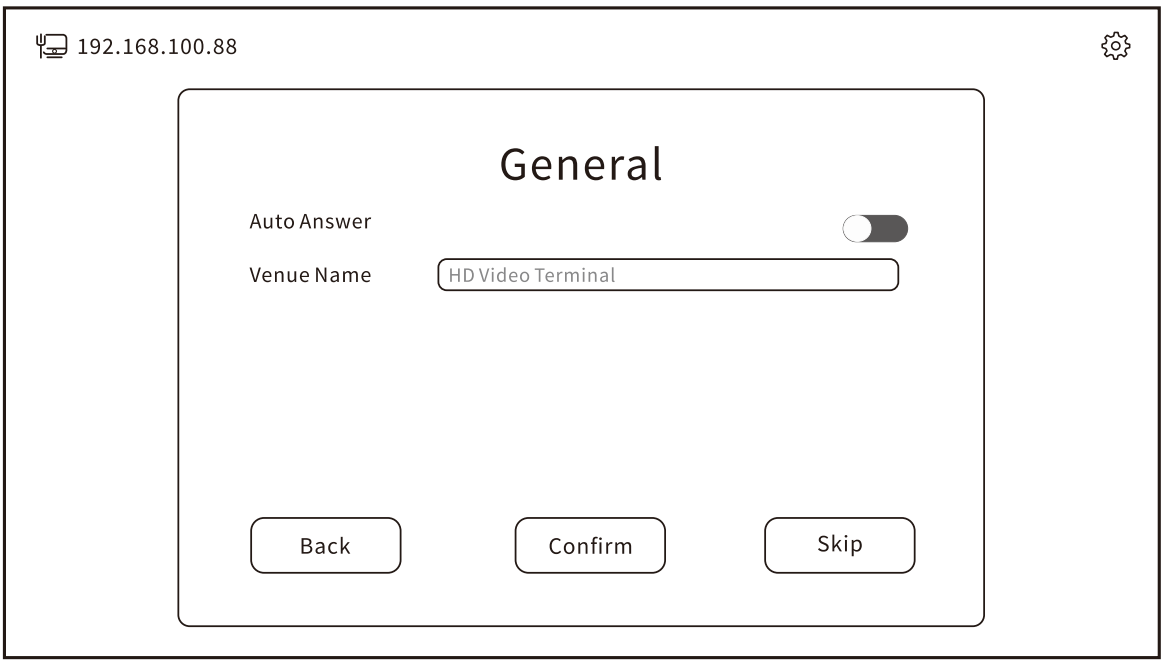
6. In the "Microphone Detection" interface, speak into the microphone to detect whether the sound input is normal, select “Confirm” to go ahead.



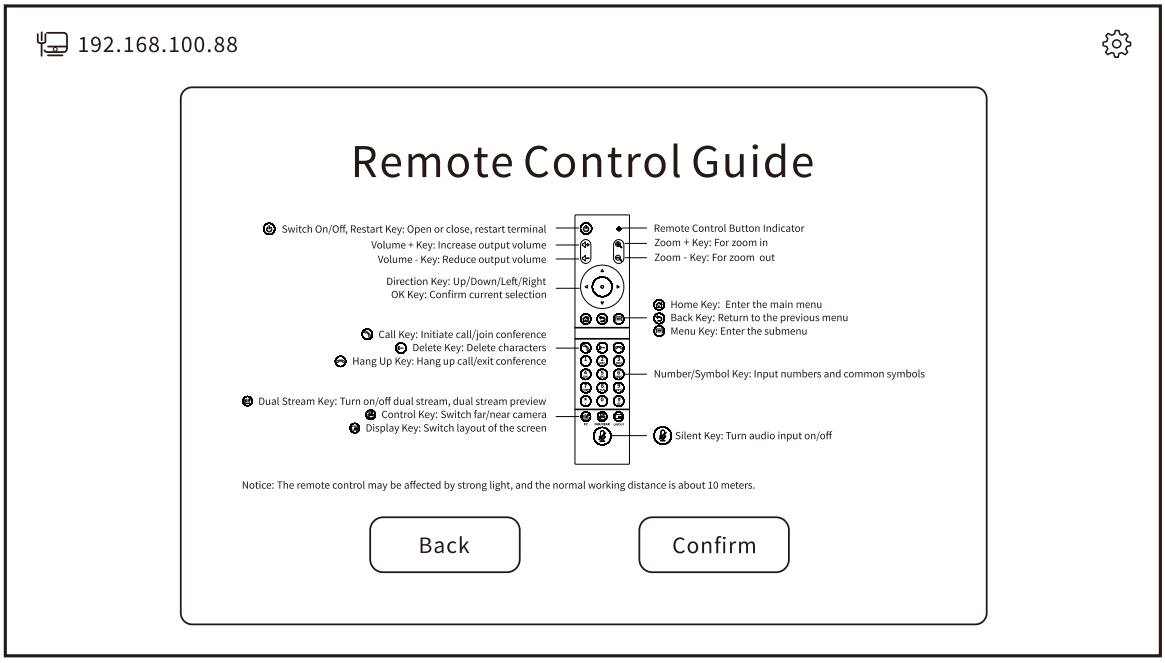
7. Configure the Volume parameters and select “Confirm” to go ahead.



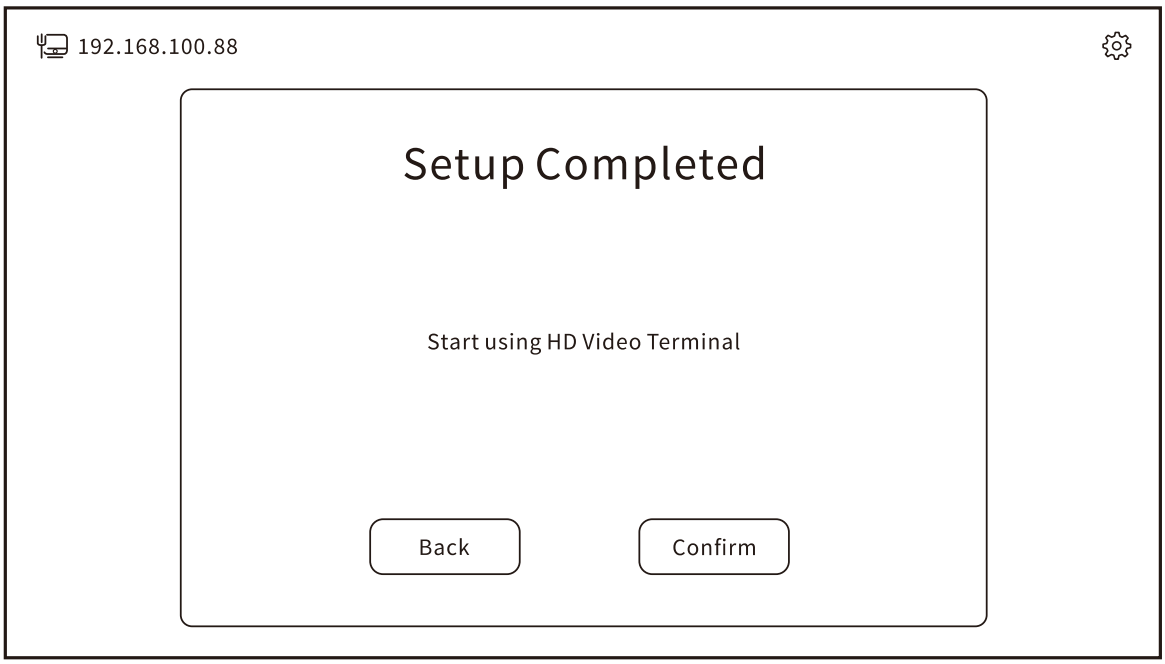
8. Enable or disable the Auto Answer function, configure the Venue Name and select “Confirm” to go ahead.



9. Enter the Remote Control Guide interface to check the remote control key instructions and select “Confirm” to go ahead.



10. On the "Setup Completed" interface, select “Confirm” to exit the "Quick Configuration" interface.

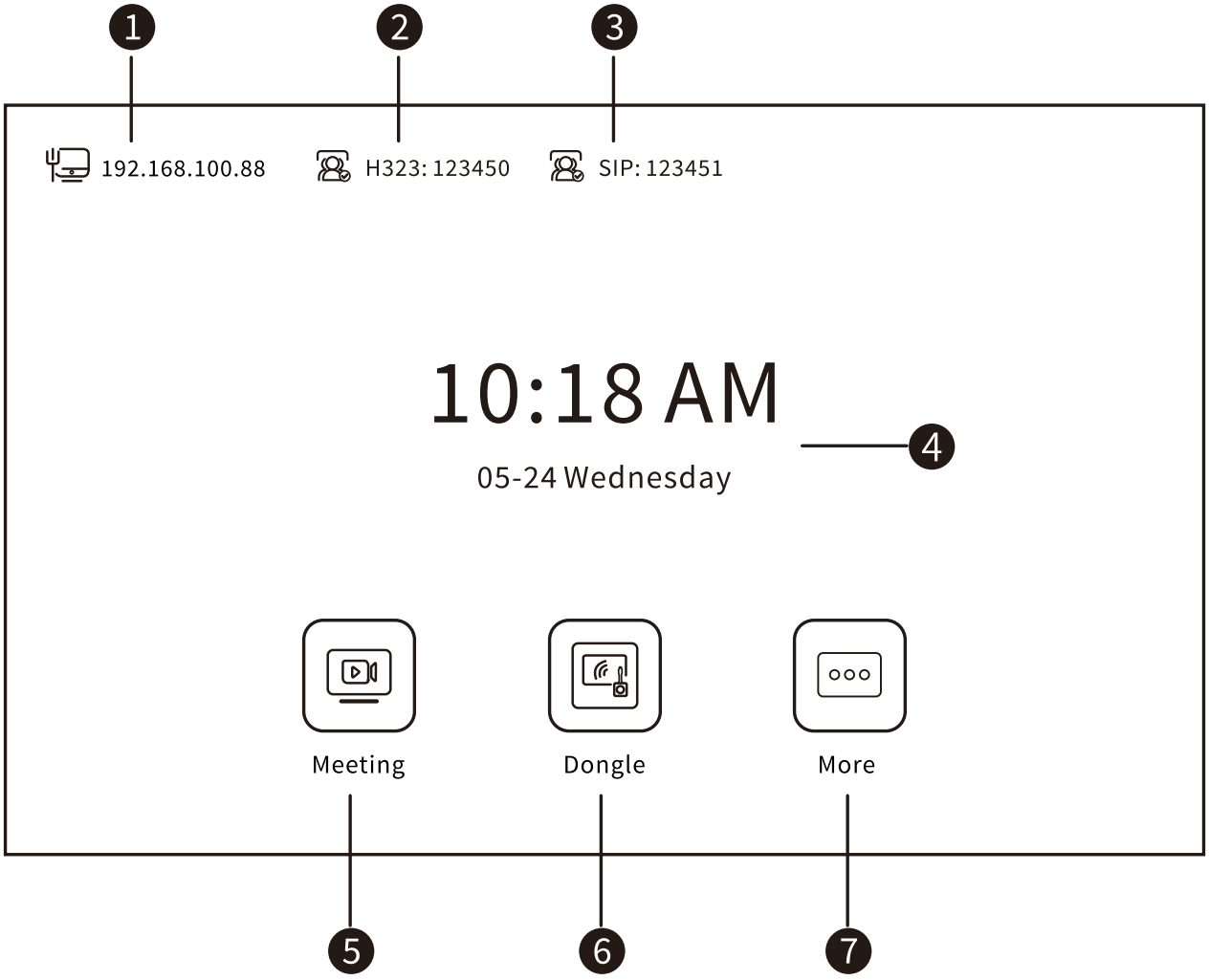


Note

Select “Back” to go back and modify the configuration. Interface includes “Skip” can be selected to skip the current configuration interface.

2.2 Main Interface

Press the main menu key "⌂" on remote control to enter the GUI main interface which is shown as below.



No.	Description	No.	Description
1	IP Address	5	Meeting Menu
2	H 323 Registration Status	6	Dongle Menu
3	SIP Registration Status	7	More Menu
4	System Time	-	-

Move the cursor to "▣" and press the "◎" key on the remote control to enter the Meeting menu interface; Move the cursor to "📡" and press the "◎" key on the remote control to enter the Dongle menu interface; Move the cursor to "···" and press the "◎" key on the remote control to enter the More menu interface to

select and enter the Settings or Camera menu interface for corresponding operations.

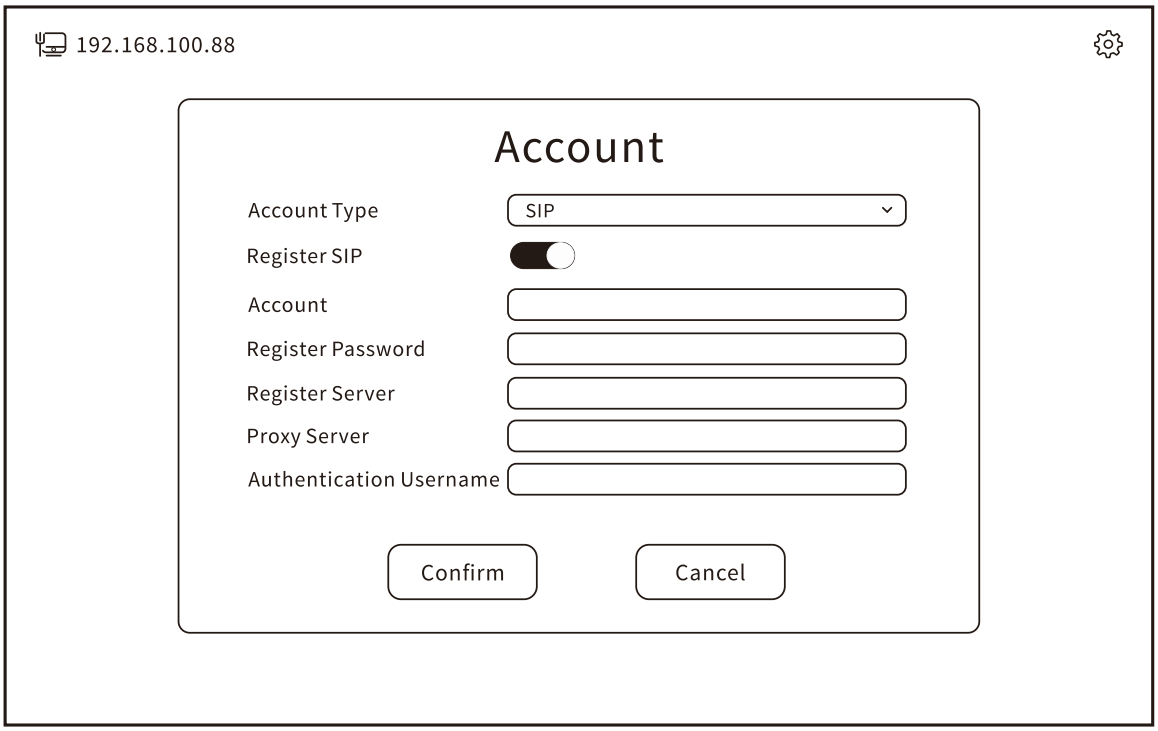
2.3 Register Account

After successfully registering the account, the terminal can make account calls (only IP point-to-point calls are supported before the account is logged).

2.3.1 Register SIP Account

➢ **Operating Steps**

Step 1 On the main menu interface, select " > > Account" to enter the Account menu interface.



Step 2 Select the Account Type: SIP.

Step 3 Open the "Register SIP".

Step 4 Enter the information of Account Number, Registration Password, Registration Server, Proxy Server and Authentication Username.

Step 5 Select "Confirm" to register the SIP account.

Note

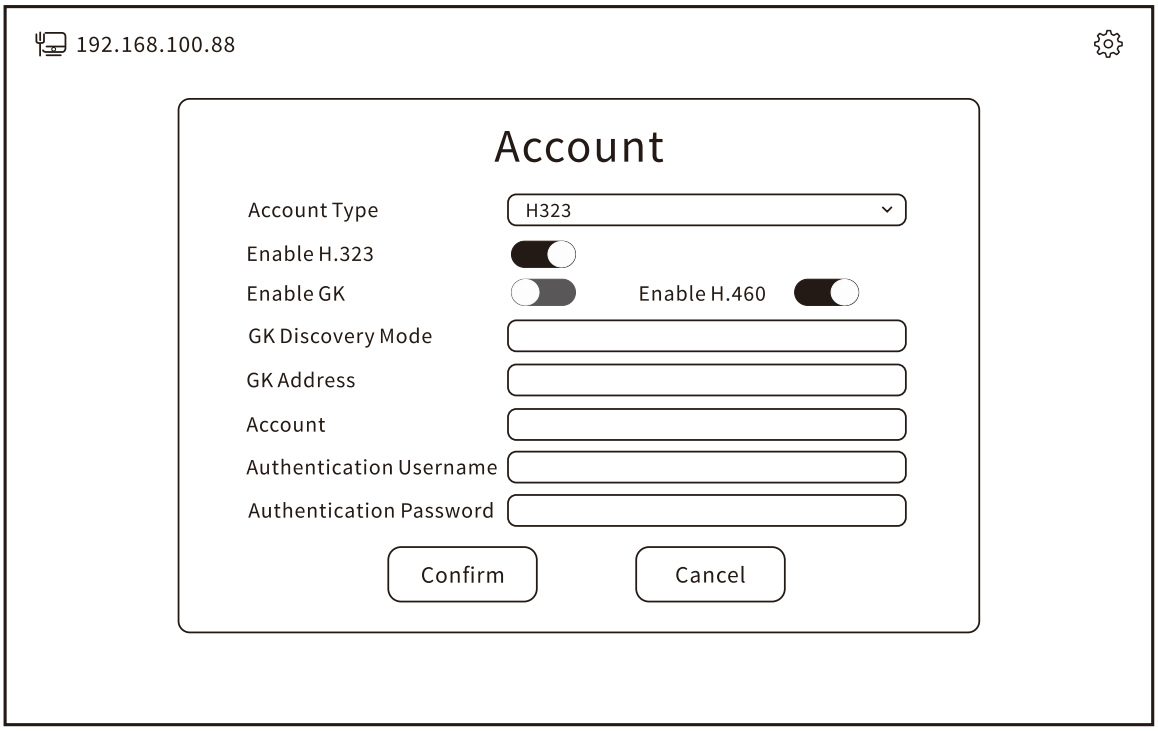
After the SIP account is successfully registered, the terminal will automatically block the SIP server calls of the non-registered account (the

H323 server is not affected). Please login the WEB configuration page and select “Settings > Protocol > SIP” to uncheck “Ignore calls from unregistered server” to cancel.

2.3.2 Register H323 Account

➢ **Operating Steps**

Step 1 On the main menu interface, select “ > > Account" to enter the Account menu interface.



Step 2 Select the Account Type: H323.

Step 3 Open the “Enable H323”.

Step 4 Open the “Enable GK”, configure GK Discovery Mode (Manual/Auto), enter GK Address, Account, Authentication Username and Authentication Password.

Step 5 Select "Confirm" to register the H323 account.

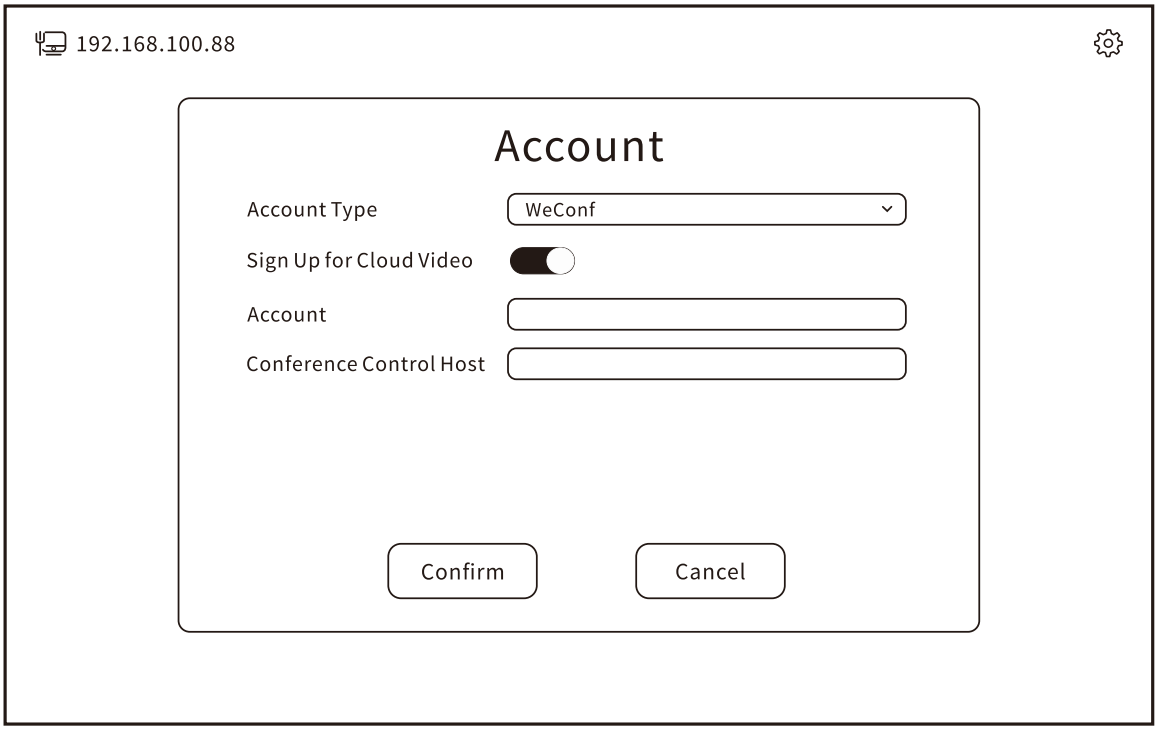
2.3.3 Register WeConf Account (Optional)

➢ **Prerequisites**

Before registering for a WeConf account, you need to inform the platform administrator of the terminal serial number to apply for an account.

➢ **Operating Steps**

Step 1 On the main menu interface, select “ > > Account" to enter the Account menu interface.



Step 2 Select the Account Type: WeConf.

Step 3 Open the “Sign Up for Cloud Video”.

Step 4 Configure the “Conference Control Host” information.

Step 5 Select "Confirm" to register the WeConf account.

Note

The WeConf account can only be registered in GUI.

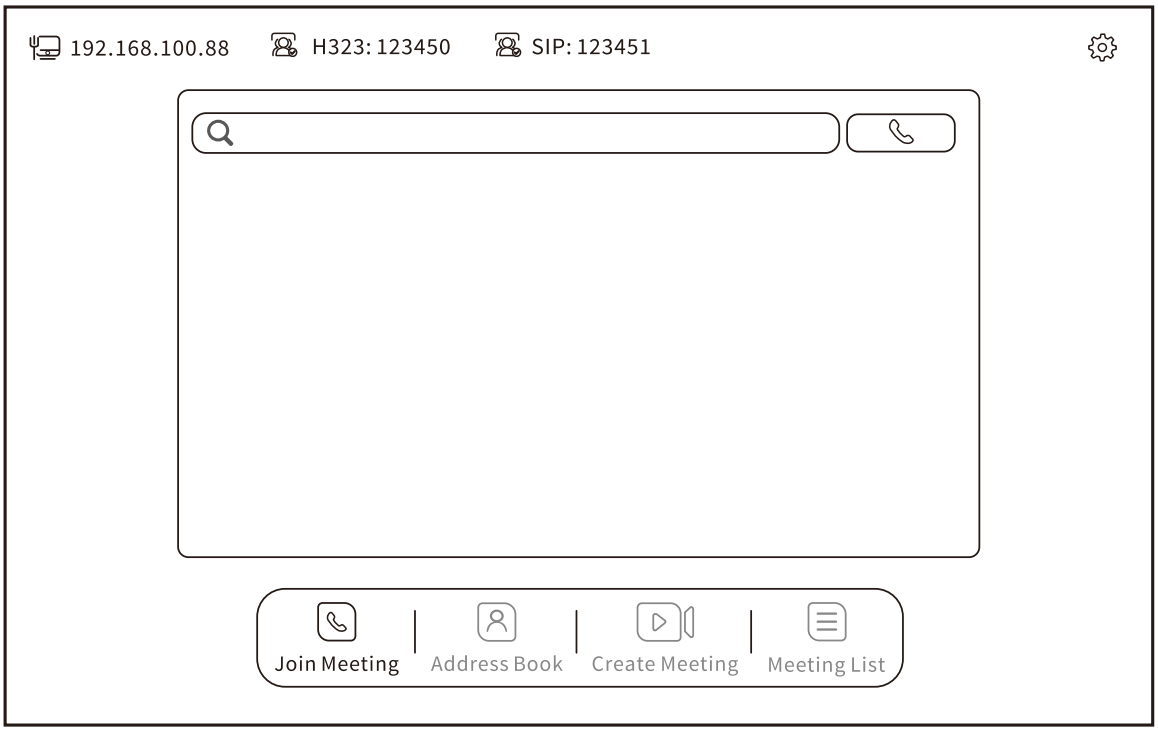
2.4 Meeting Calling

The terminal supports meeting initiation through the address book, call record and input meeting account, number or IP address.

➢ **Operating Steps**

Step 1 Select "" on the main menu interface and press the "" key on the remote control

to enter the call menu interface.



Step 2 There are several ways to choose the distal venue:

- **Manually enter the remote venue Account, Number or IP Address in the input box;**
- **Select the remote venue Account, Number or IP Address to be called in the call list;**
- **Select the remote venue Account, Number, or IP Address in the address book list.**

Step 3 The configuration venue parameters are shown in the table below.

Parameter	Parameter Declaration	Parameter Setting
Venue Account, Number and IP Address	Remote venue Account, Number, or IP Address.	The venue Account, Number/IP Address of the latest call are displayed by

		default
Call Protocol	**Select the call protocol: H.323, SIP, WeConf (optional).**	**Default Protocol: SIP**
Call Rate	**Select call rates: 64K, 128K, 192K, 256K, 384K, 512K, 768K, 1M, 1.5M, 2M, 4M, 6M, 8M.**	**Default Rate: 2M**

Step 4 Select the interface button "" or press the call key " " on remote control to initiate the meeting.

Step 5 Press the hang up key " " on remote control to end the meeting.

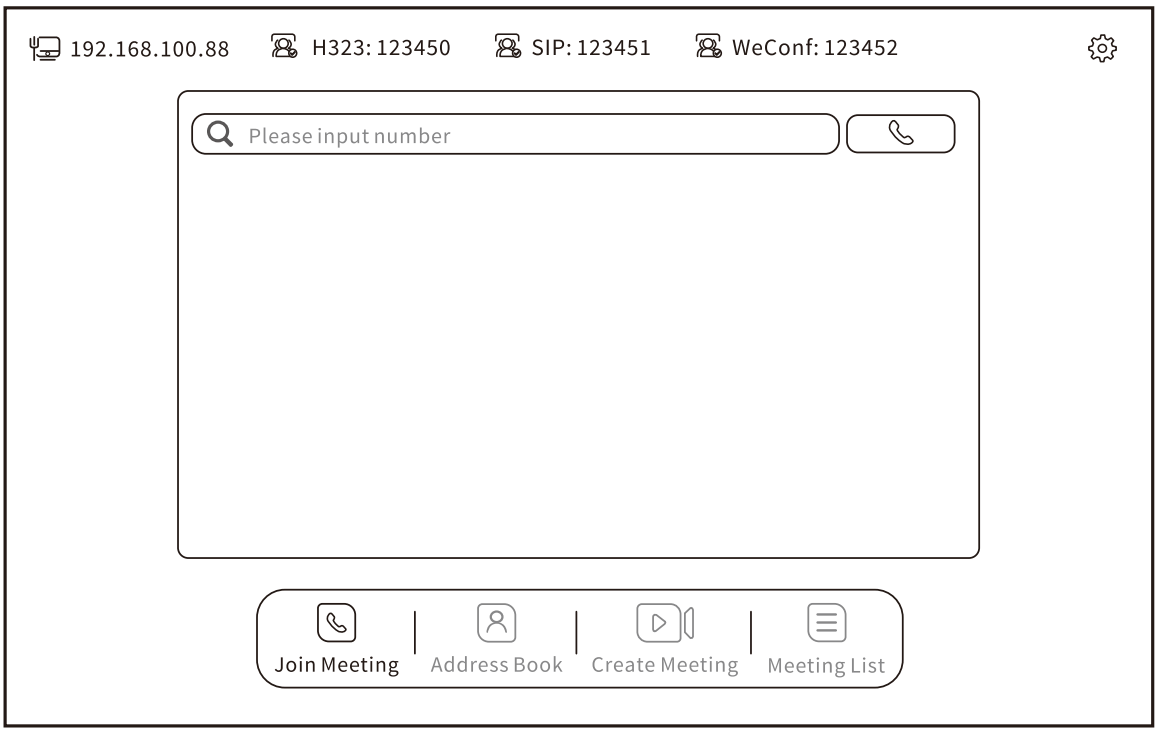
2.5 Join Meeting (Optional)

After registering a WeConf account, the terminal supports joining the meeting either by calling in the conference number or through the Meeting List.

2.5.1 Join Meeting with Conference Number

➢ **Operation**

Step 1 On the main menu interface, select " > Join Meeting".



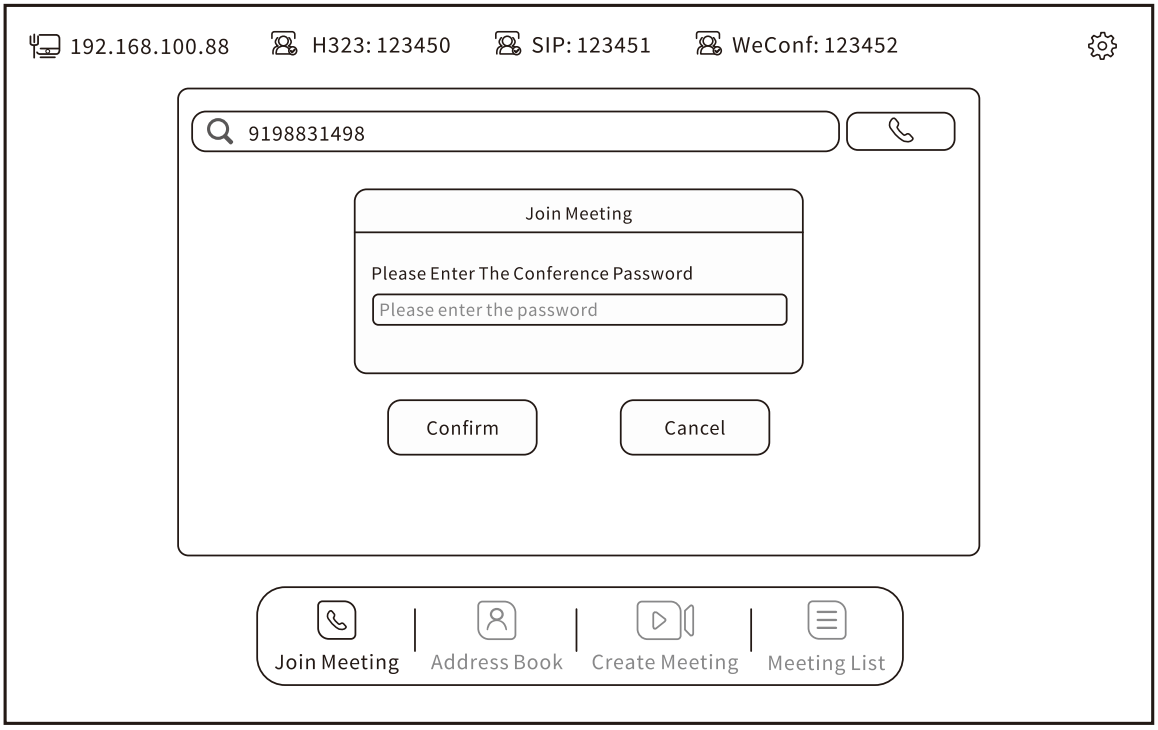
Step 2 **Enter the conference number and move the cursor to select the interface button "" to**

select the Weconf protocol and confirm with the "" key.

Step 3 **Select the interface button "" or press the call key "" on remote control to join the**

meeting.

Or, if there is a meeting password is needed, the interface will pop-up the "Joining Meeting" dialog box as below:



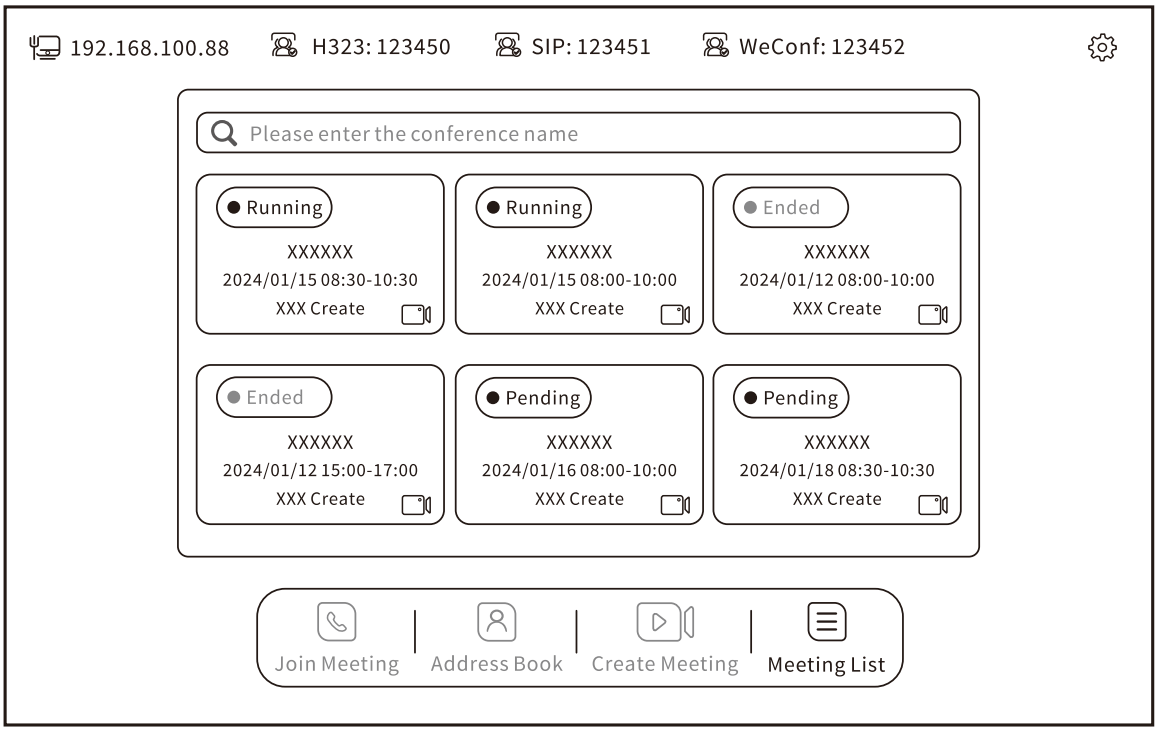
Step 4 **Enter the conference password and select "Confirm" to join the meeting.**

Step 5 **Press the hang up key "" on remote control to exit the meeting.**

2.5.2 Join Meeting through the Meeting List

➢ **Operation**

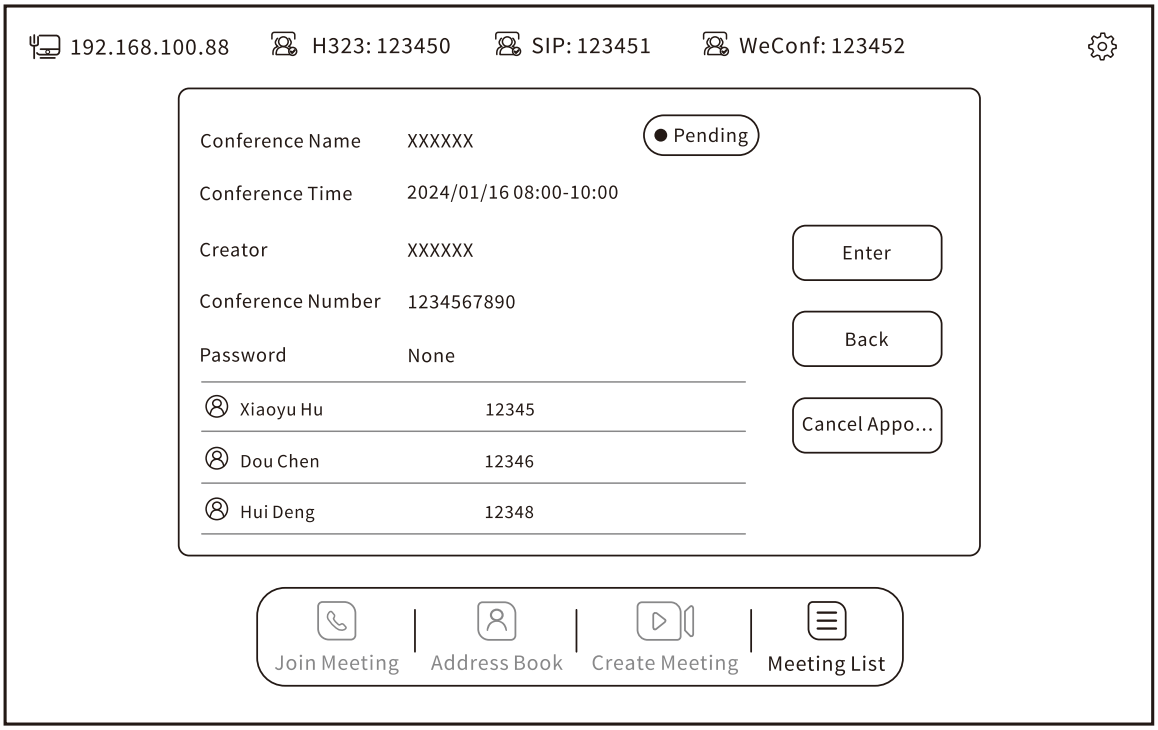
Step 1 **On the main menu interface, select "> Meeting List".**


192.168.100.88
H323: 123450
SIP: 123451
WeConf: 123452
Please enter the conference name
Running
XXXXXX
2024/01/15 08:30-10:30
XXX Create
Running
XXXXXX
2024/01/15 08:00-10:00
XXX Create
Ended
XXXXXX
2024/01/12 08:00-10:00
XXX Create
Ended
XXXXXX
2024/01/12 15:00-17:00
XXX Create
Pending
XXXXXX
2024/01/16 08:00-10:00
XXX Create
Pending
XXXXXX
2024/01/18 08:30-10:30
XXX Create
Join Meeting
Address Book
Create Meeting
Meeting List

Step 2 Move the cursor to select the meeting and press the "⊙" key on remote control to enter

the conference detail interface.

- **When selected "Pending" meeting, the conference detail interface will show as below:**

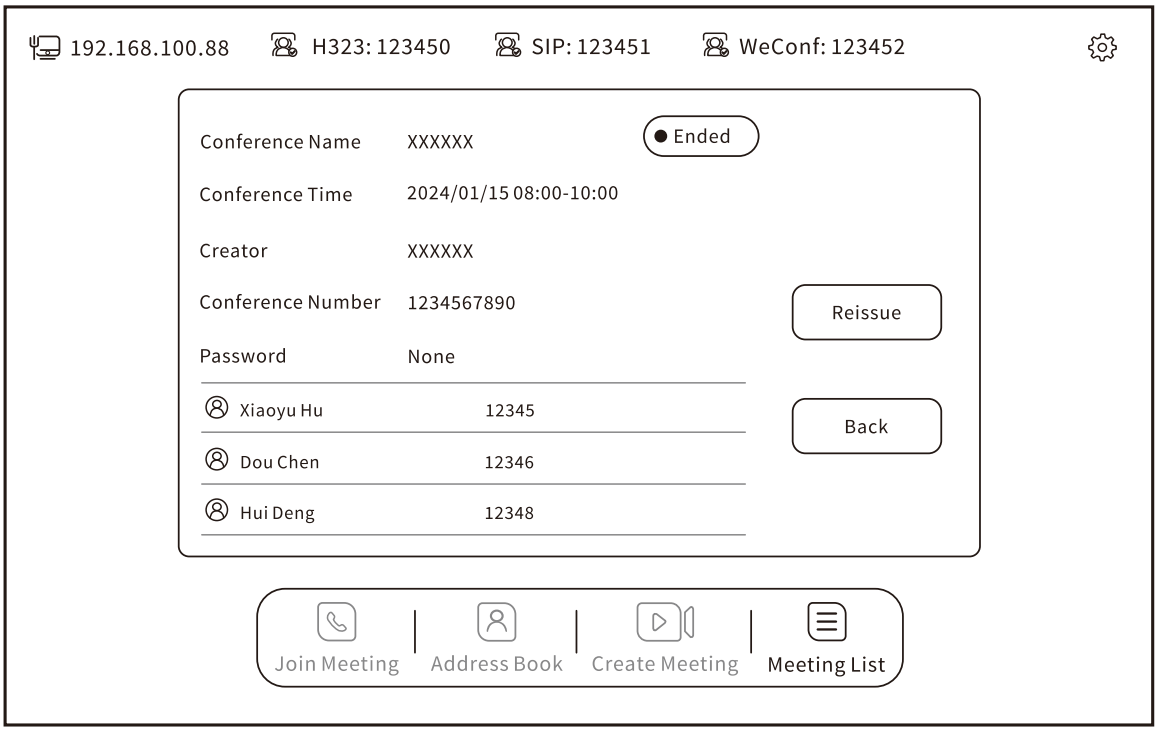


Step 1 Select "Enter" to pop-up the "Initiate a Meeting?" dialog box.

Step 2 Select "Re-invite" or "Join Only" to join the meeting.

Step 3 Press the hang up key "⌒" on remote control to exit or end the meeting.

- **When selected "Ended" meeting, the conference detail interface will show as below:**



Step 1 Select "Reissue" to restart the ended meeting, and the original participants will be automatically added to the meeting.

Step 2 Select "Re-invite" or "Join Only" to join the meeting.

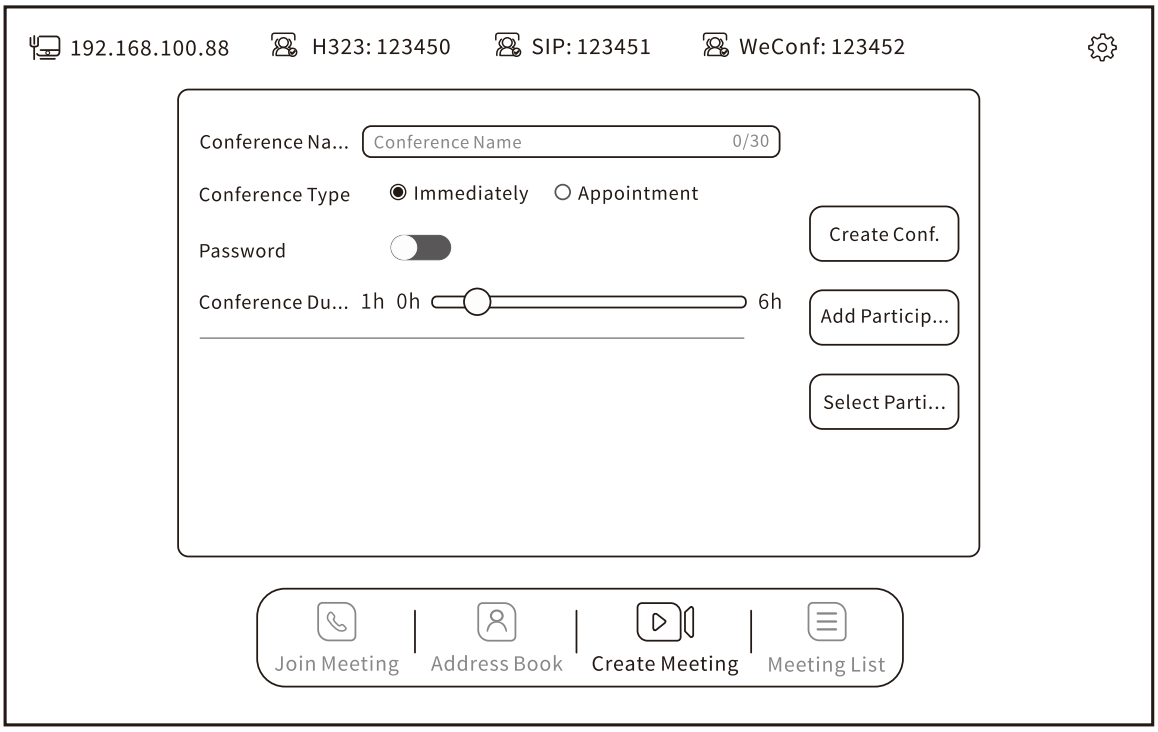
Step 3 Press the hang up key " " on remote control to exit or end the meeting.

2.6 Create Meeting (Optional)

After registering a WeConf account, the terminal supports create the Immediately Conference and the Appointment Conference.

- **Operation**

Step 1 On the main menu interface, select " > Create Meeting".



Step 2 Configure the parameters of Conference Name, Conference Type, Password and Conference Duration.

Step 3 Select "Add Participants" to enter the Address Book interface to add the participants.

Step 4 Select "Create Conference" to create a meeting.

2.7 Call Answering

When there is a conference call, the terminal rings and the call ID interface pops up.

- **Select the screen button "🎤"to establish the audio meeting.**
- **When receiving the video call, select the screen button "📹" or press the call key "📞" on remote control to establish the video meeting.**
- **Select the screen button "📵" or press the hang up key "📵" on remote control to end the meeting.**

Note

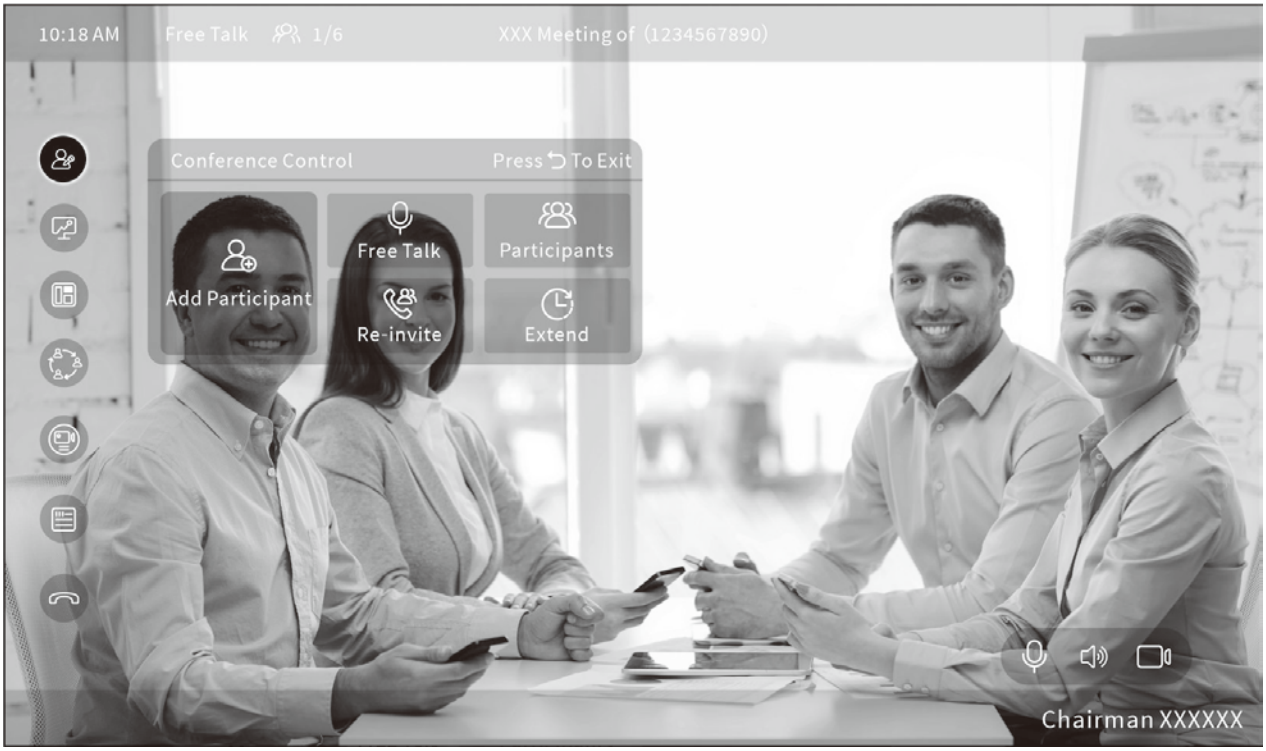
If the incoming call is from a contact stored in the address book, it is displayed as the contact name + number, otherwise, only the number will be displayed.

2.8 Conference Control

In the conference control interface, you can choose to send presentation, switch picture layout, check call information, control camera PTZ and do other functional operations etc.

2.8.1 Conference Control

During the WeConf meeting, press the menu key "☰" on the remote control and select the screen icon "⚙" to enter the conference control interface (see below figure), move the cursor to select to view the Participants, Add Participant, Re-invite, Extend and set Free Talk etc.



2.8.2 Carousel (Optional)

During the WeConf meeting, press the menu key "☰" on the remote control and select the screen icon "⟳" to enter the carousel interface to configure the Carousel Status and the Carousel Time.

2.8.3 Send Presentation

Connect a computer or HD camera to the terminal through an HDMI cable as the auxiliary stream source. Or use the computer as a wireless auxiliary stream

source through a wireless screen projector. When the terminal detects the secondary stream source, it can send presentation and the remote end can see the shared screen of the local end.

Prerequisite>>

The terminal accesses the secondary video source and is in the conference normally, and the remote terminal supports dual streams.

- **Operating Steps**

Step 1 Press the menu key "☰" on the remote control and select the screen icon "📈" to send presentation to participating terminals. Or press the dual-stream key "📊" on the remote control to send or close dual-stream.

Step 2 Press the hang up key "📞" on the remote control to exit the conference.

2.8.4 Picture Switching

During the meeting, press the menu key "☰" on the remote control and select the screen icon "▭" to configure the HDMI1 video display screen; Or press the display key "▭" on the remote control to switch the screen layout.

2.8.5 Call Information

During the meeting, press the menu key "☰" on the remote control and select the screen icon "📋" to check the call information in real time, such as Call Status, Video Information, Audio Information and Network Information etc.

2.8.6 Camera Control

During the meeting, press the direction keys on the remote control to control the local/remote camera to rotate up/down/left/right, press the "⊙" key to refresh the video image. Press the zoom keys on the remote control to zoom in/out the camera image.

2.9 Address Book

The terminal support Local Contact and Enterprise Contact, you can directly initiate calls to relevant contacts in the address book.

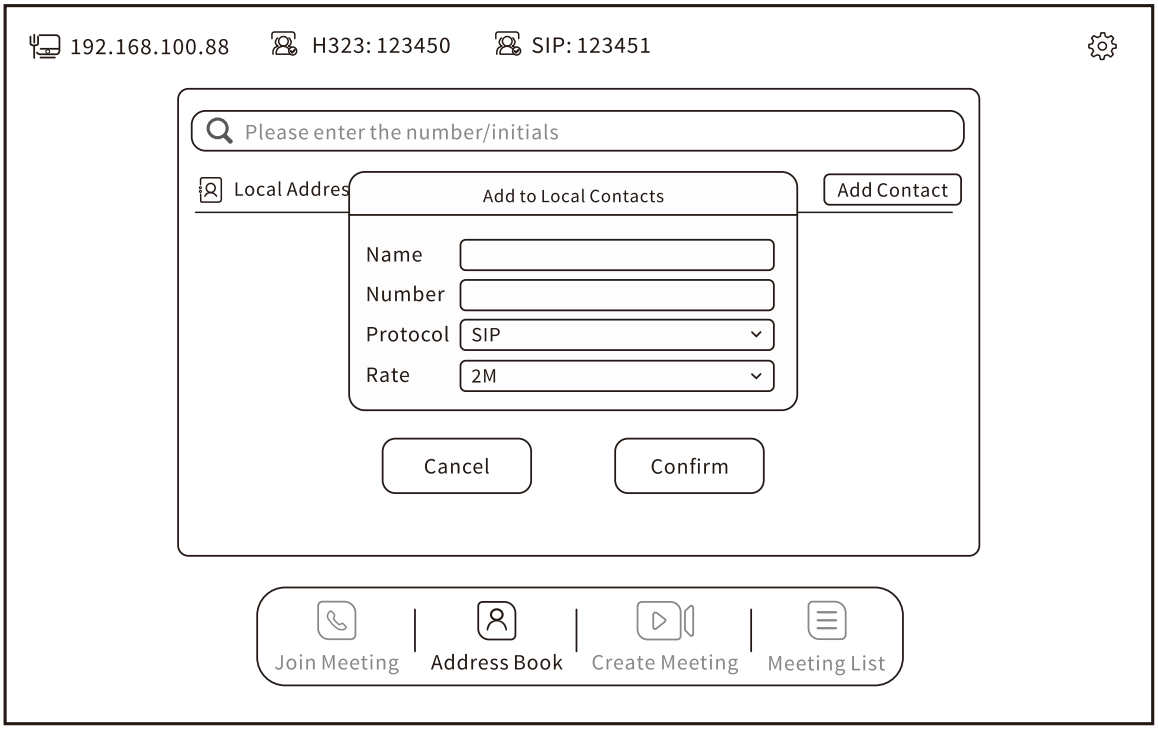
2.9.1 Local Contact

The local contact support Add, Edit, and delete contact.

2.9.1.1 Add Contact

➢ **Operating Steps**

Step 1 On the main menu interface, select "> Address Book> Add Contact".



Step 2 Enter the contact Name and Number.

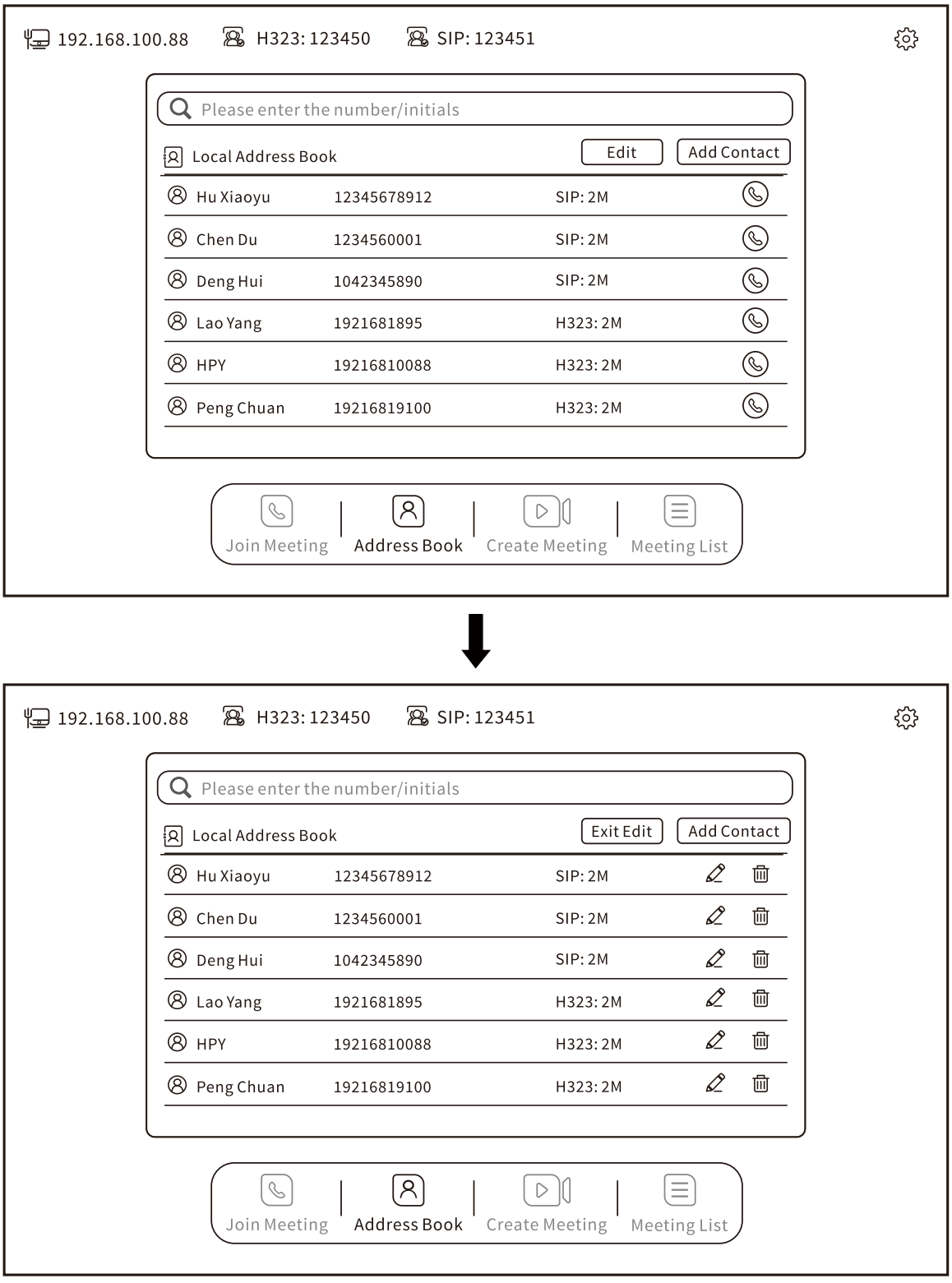
Step 3 Select the Protocol and Rate.

Step 4 Select "Confirm" to save.

2.9.1.2 Edit Contact

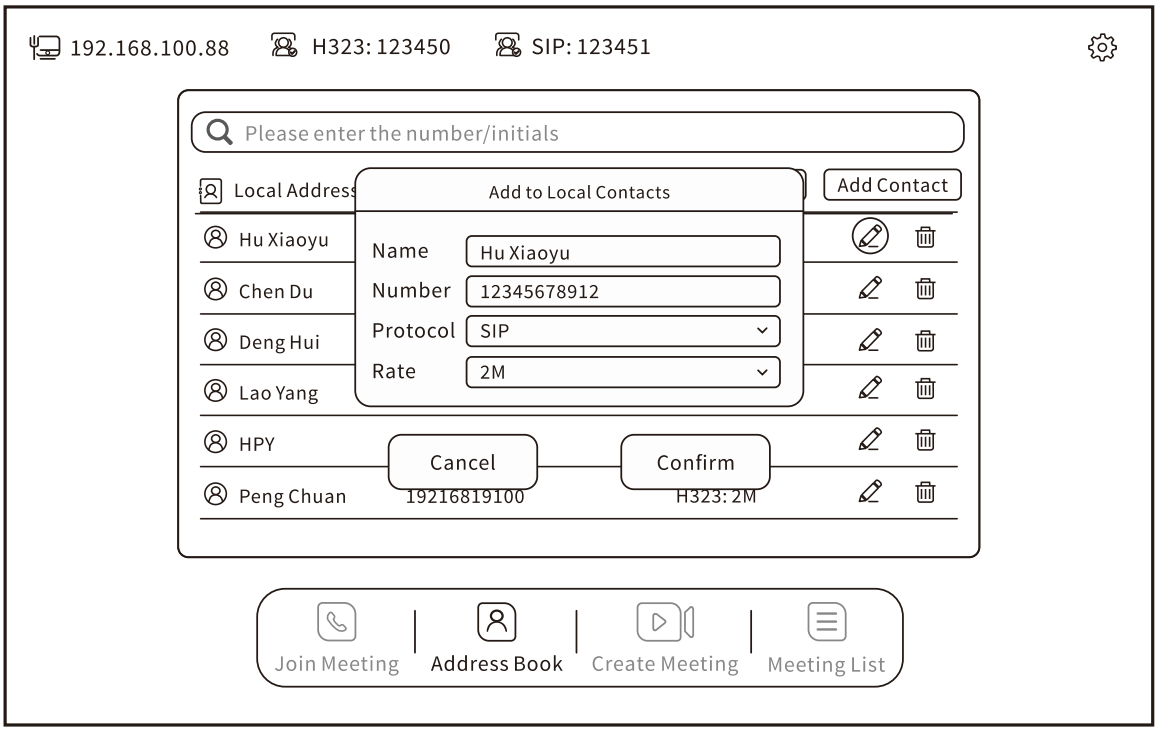
➢ **Operating Steps**

Step 1 On the main menu interface, select "> Address Book> Edit".



Step 2 Move the cursor to choose the contact for editing, then click "✎" to enter the "Add to

Local Contacts" interface.



Step 3 Edit the contact Name and Number.

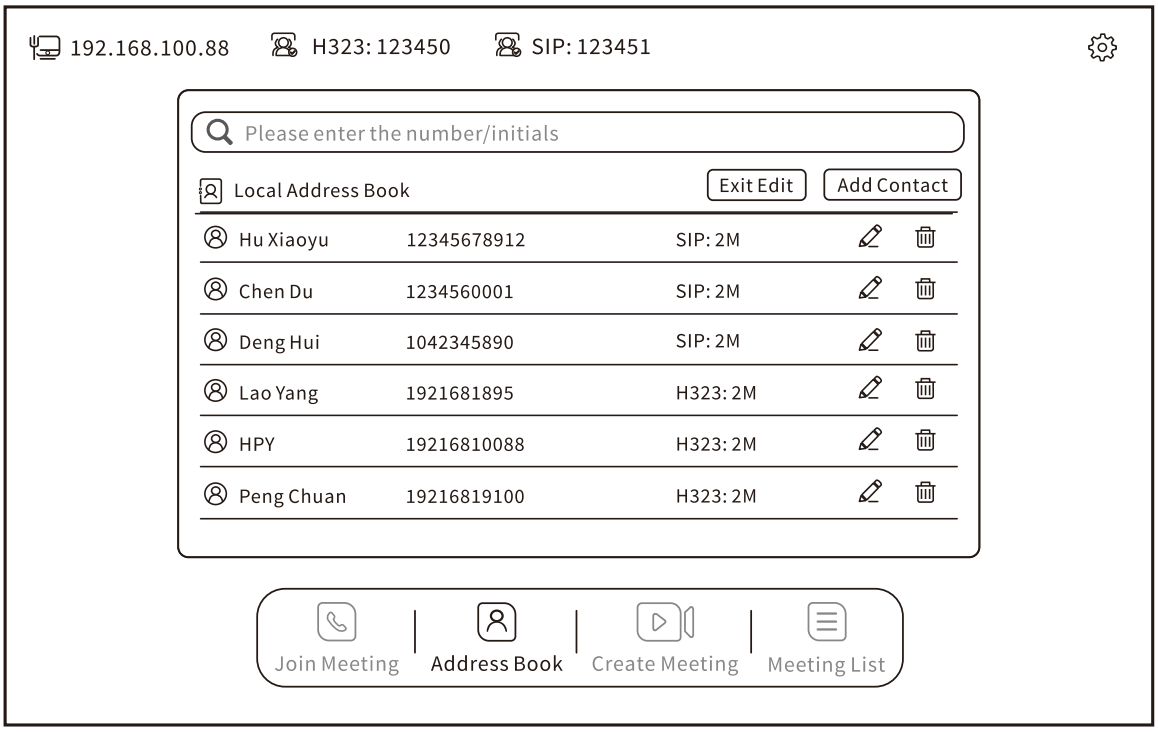
Step 4 Select the Protocol and Rate.

Step 5 Select "Confirm" to save.

2.9.1.3 Delete Contact

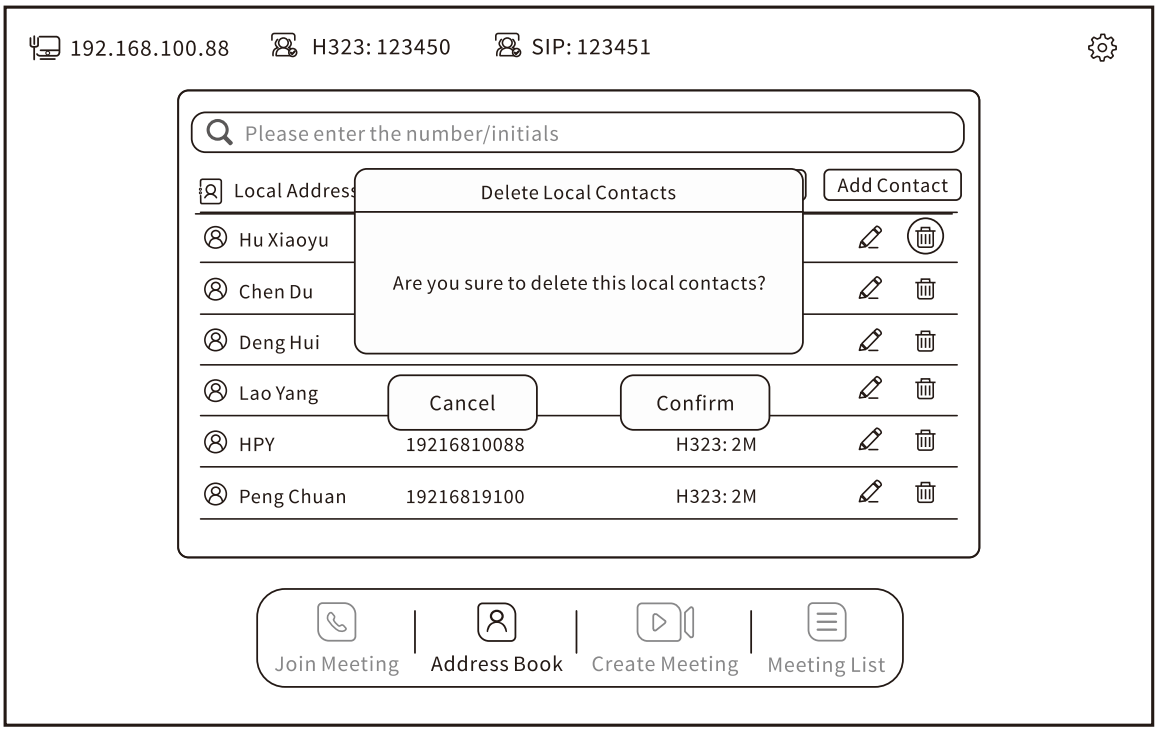
➢ **Operating Steps**

Step 1 On the main menu interface, select "> Address Book> Edit".



Step 2 Move the cursor to select the contact to delete, select the icon "🗑" to pop up the

"Delete Local Contacts" dialog box.



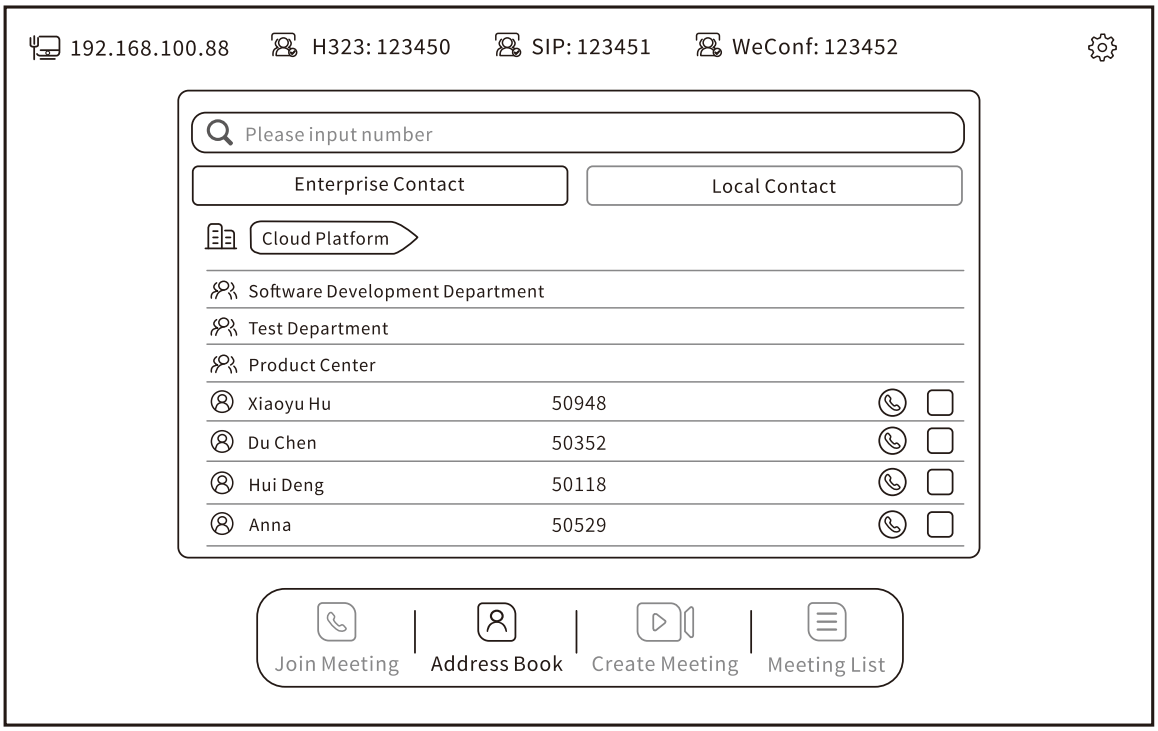
Step 3 Select "Confirm" to delete the contact.

2.9.2 Enterprise Contact (Optional)

After registering a WeConf account, terminals can automatically download the contact information from the address book server and achieve synchronized updates.

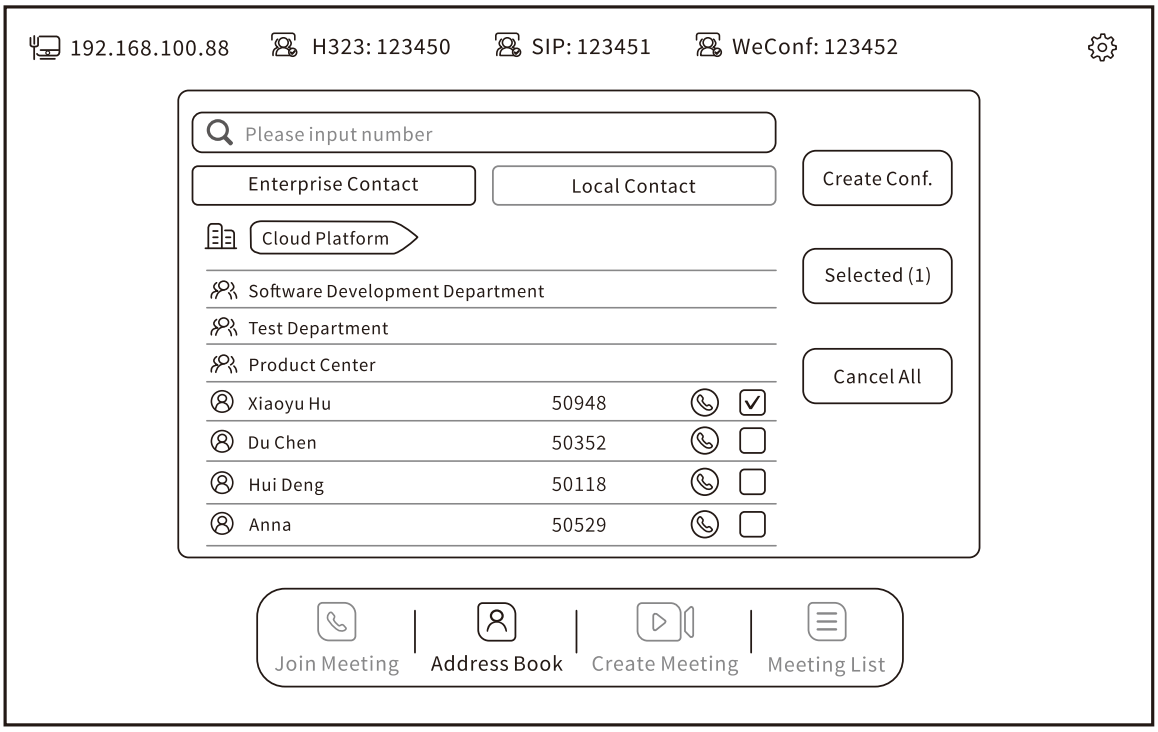
➢ **Operating Steps**

Step 1 On the main menu interface, select "> Address Book> Enterprise Contact".

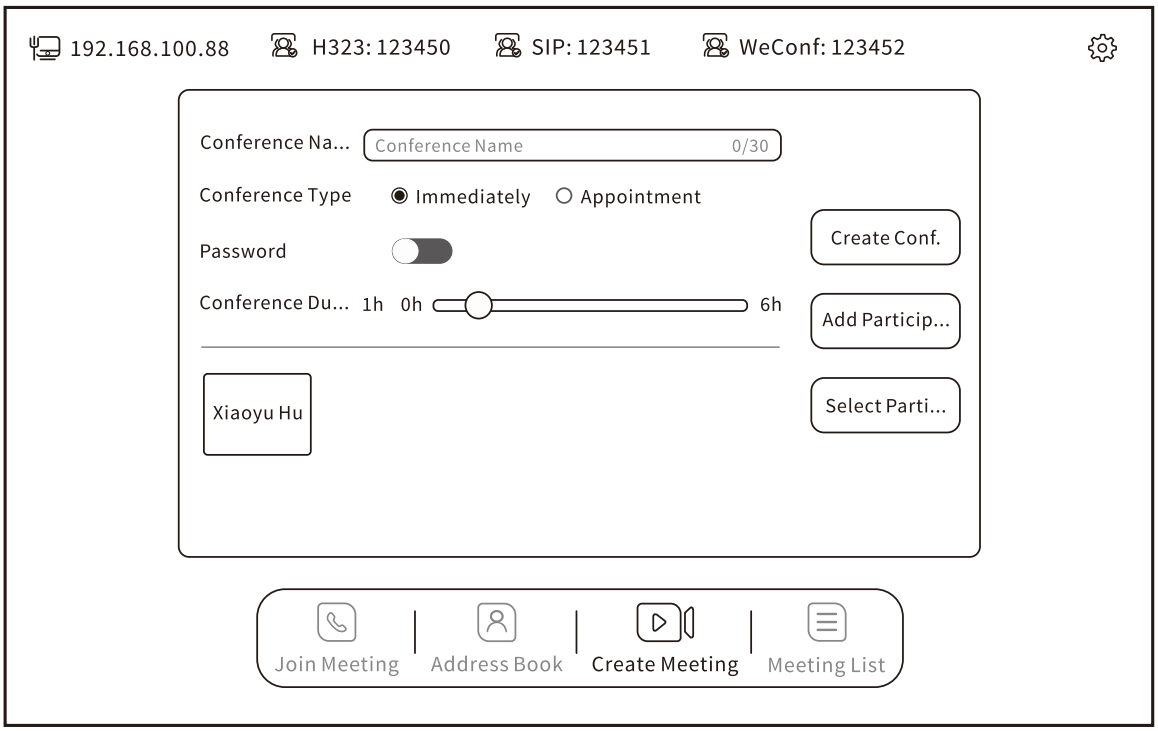


Step 2 Move the cursor to the contact and confirm with "" key to pop-up Create Conf.,

Selected (1), Cancel All option box.



Step 3 Select "Create Conf." to enter to the Create Meeting interface.

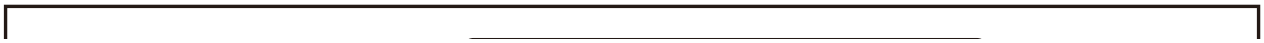


Step 4 After configuring the conference parameters, select "Create Conf." to create the meeting.

2.10 Tencent Meeting Rooms (Optional)

The Tencent Meeting is a third-party application software that supports the creation and joining of Tencent Meeting.

After entering the Tencent Meeting operation interface (as shown below), you can choose "⚙ > About Us > Help Center" to scan the QR code to enter the official website of Tencent Meeting to check the use guide of "Tencent Meeting Rooms".



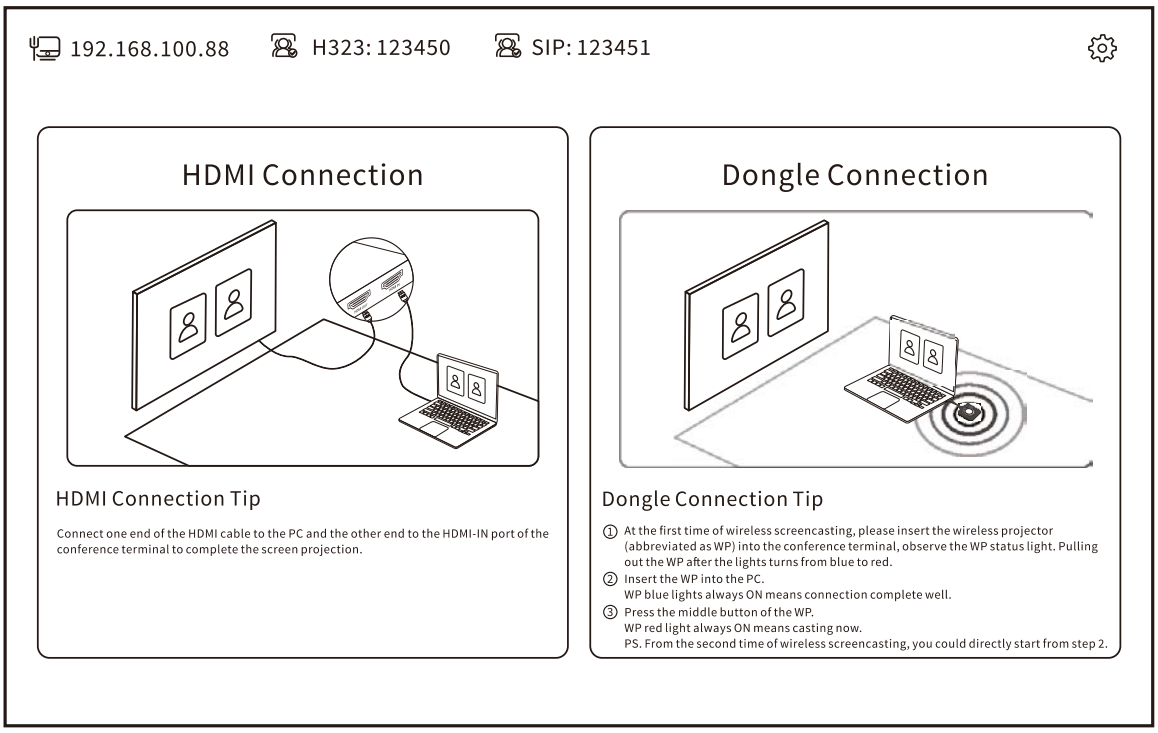
2.11 Dongle

The terminal supports both wired and wireless Dongle as input sources for local preview or remote transmission.

➢ **Operating Steps**

Step 1 On the main menu interface, select "" to enter the conference terminal Dongle

Instruction interface.



Step 2 Please refer to the Dongle Help Instructions to complete the operation and project the

PC display screen to the terminal.

Step 3 Press the "" key on remote control to exit the Dongle Instructions interface.

2.12 Camera

The camera default previews the main video screen. If the terminal is connected to the auxiliary video stream, it will preview the auxiliary video screen by default.

- **Operating Steps**

Step 1 **Select "⋯ > Camera", or press the "☰" key on main menu interface to enter the camera interface.**

Step 2 **Press the control keys (such as the Direction, Zoom keys etc.) to control the camera lens; the terminal receives auxiliary video. After connected to the auxiliary video stream, press the "▭" key on remote control to switch the screen layout.**

Step 3 **Press the "↩" key on remote control to exit the camera interface.**

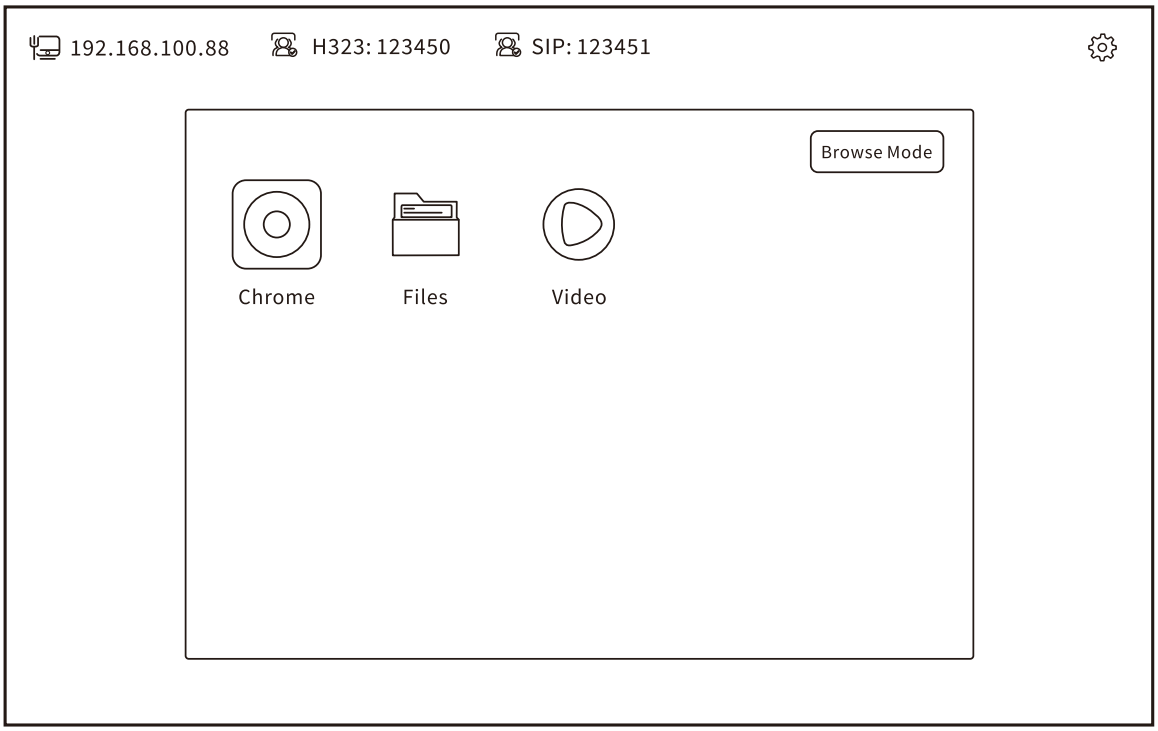
2.13 Application (Optional)

This terminal supports the installation of third-party applications, and the newly installed

applications will be displayed after the installation. Chrome, Files, and Video bring in applications for the terminal, and the system pre-installed application is not allowed to be uninstalled.

- **Operating Steps**

Step 1 On the main menu interface, select "[ooo] > APP".



Step 2 Select the application icon to enter the application interface for relevant operations.

Step 3 Select "Browse Mode" and press "⊙" key on remote control to switch to "Uninstall Mode".

Step 4 Move the cursor to select the APP icon and press "⊙" key on remote control to delete the application.

Step 5 Press the "↩" key on remote control to exit the Application interface.

Note

The terminal only supports the installation of applications in the whitelist. If you need to install other applications that are not in the system whitelist, please log in to the WEB interface, select "Settings > Others > White List > Application White List > " to add the application package name to the whitelist according to the interface steps.

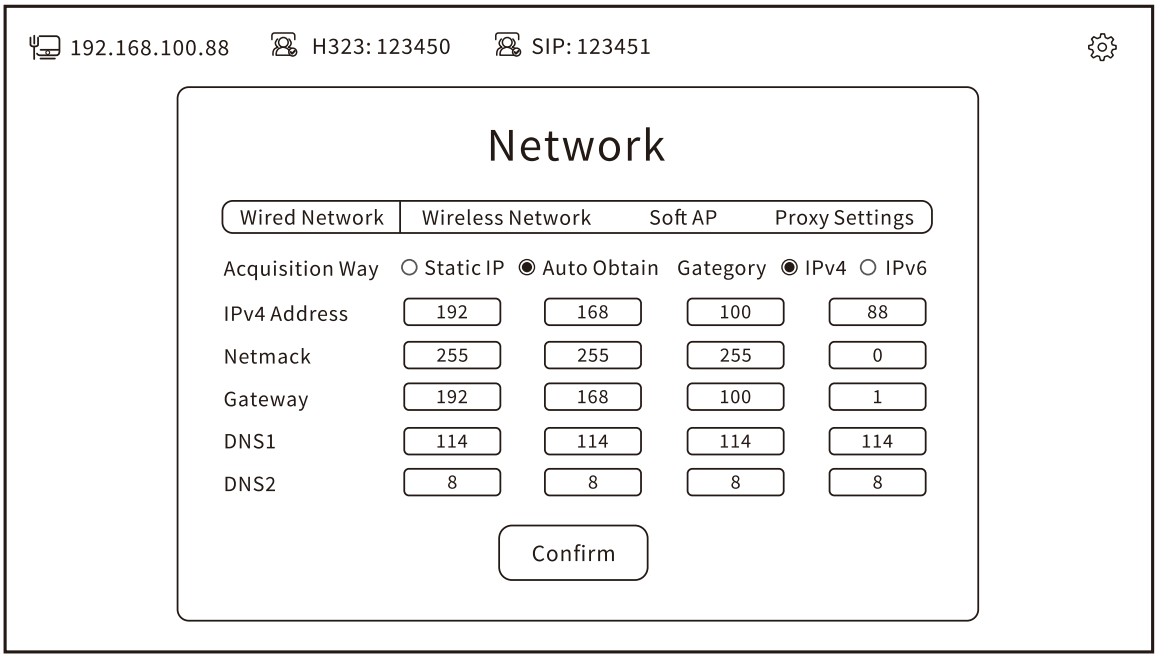
2.14 GUI Setting

2.14.1 Network

The conference terminal supports a wired network and wireless network (Wi-Fi) connection. Ethernet parameters (such as IP address, subnet mask, gateway information, etc.) must be configured before using the static IP of a wired network.

➢ **Operating Steps**

Step 1 On the main menu interface, select "[ooo] > ⚙ > Network > Wired Network".



Step 2 Configure the Ethernet parameters, which are shown in the following table.

Step 3 Select "Confirm" to save.

Parameter	Parameter Declaration	Parameter Setting
Acquisition Way	• Auto obtain: The terminal automatically obtains the IP address through the DHCP server. • Static IP: The IP address of the terminal is assigned by the network administrator, with the IP address, subnet mask, default gateway, and DNS address being	Default: Auto obtain

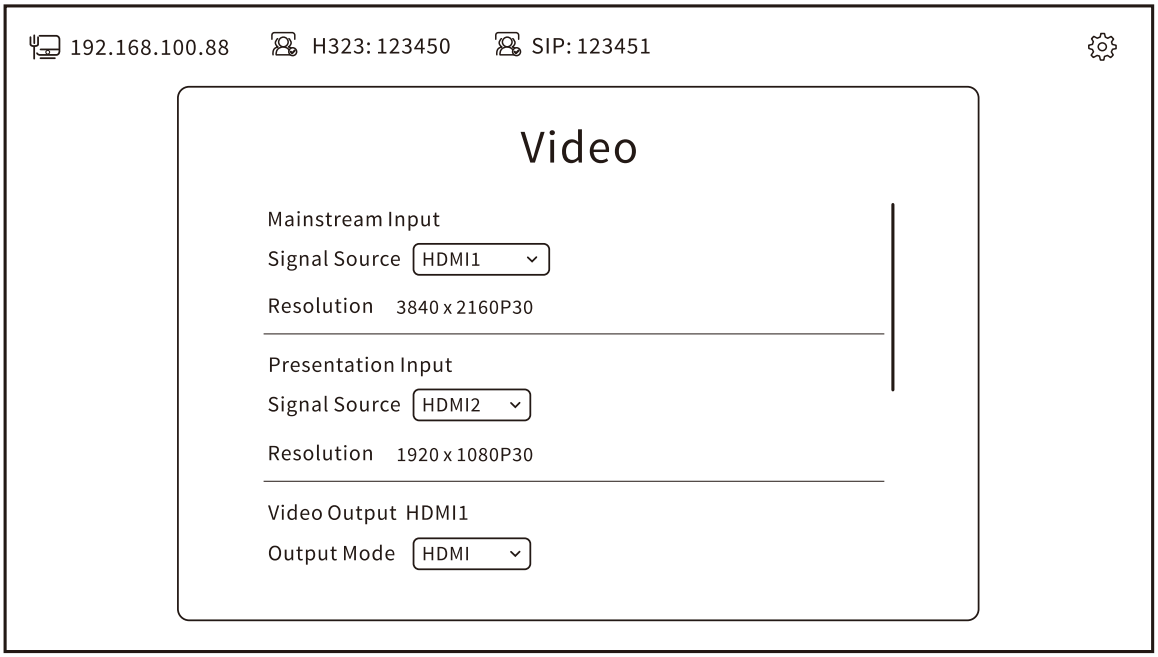
Parameter	Parameter Declaration	Parameter Setting
	configured.	
Protocol	Configure the network protocol: IPv4, IPv6.	Default: IPv4
IPv4/6 Address	Configure the IP address of the terminal.	Default: Auto obtain
Netmask	Configure the subnet mask for the terminal.	Default: Auto obtain
Gateway	Configure the gateway address corresponding to the terminal's IP.	Default: Auto obtain
DNS	After the IP address of the DNS server is configured, the domain name can be used for the address of the GK server and the SIP server. The DNS server will resolve the IP address of the GK server and the SIP server according to the domain name.	Default: Auto obtain

2.14.2 Video

Configure Video Mainstream Input, Presentation Input, Video Output, Media Optimization, and Camera Settings parameters etc.

➢ **Operating Steps**

Step 1 On the main menu interface, select "ooo > ⚙ > Video".



Step 2 Configure the "Video" parameters, which are shown in the following table.

Step 3 Press the "⮌" key on remote control to save and return to the upper-level interface.

Parameter	Parameter Declaration	Parameter Setting
Mainstream Input	Signal source: HDMI1, HDMI2, Camera Compose, USB Extension Camera, VCH.	Default: HDMI1
	Resolution: Displays the resolution value of the mainstream input signal source.	Default: Displays the actual value for the current signal input
Presentation Input	Signal source: The default signal source is HDMI2	Default: HDMI2
	Resolution: Displays the resolution value of the presentation input signal source.	Default: Displays the actual value for the current signal input
Video Output HDMI1	Output mode: The default output mode is HDMI.	Default: HDMI
	Resolution: 4KP60, 4KP30, 1080P60, 1080P50, 720P60, 720P50 (the output resolution is obtained through EDID negotiation, and different monitors negotiate different resolutions).	Default: 4KP30
Video Output HDMI2	Output mode: The default output mode is HDMI.	Default: HDMI
	Resolution: 4KP60, 4KP30, 1080P60, 1080P50, 1080I50, 720P60, 720P50 (the output resolution is obtained through EDID negotiation, and different monitors negotiate different resolutions).	Default: 4KP30
Media Optimization	Enable/disable the media optimization feature.	Default: Disabled
Camera Settings	Focusing: Select "Start" to enter the camera interface to adjust the PTZ (Pan-Tilt-Zoom), enabling control for moving the camera up//down/left/right and zooming in and out of the image.	/
	Image mode: Default, Standard, Outdoor,	Default: Default

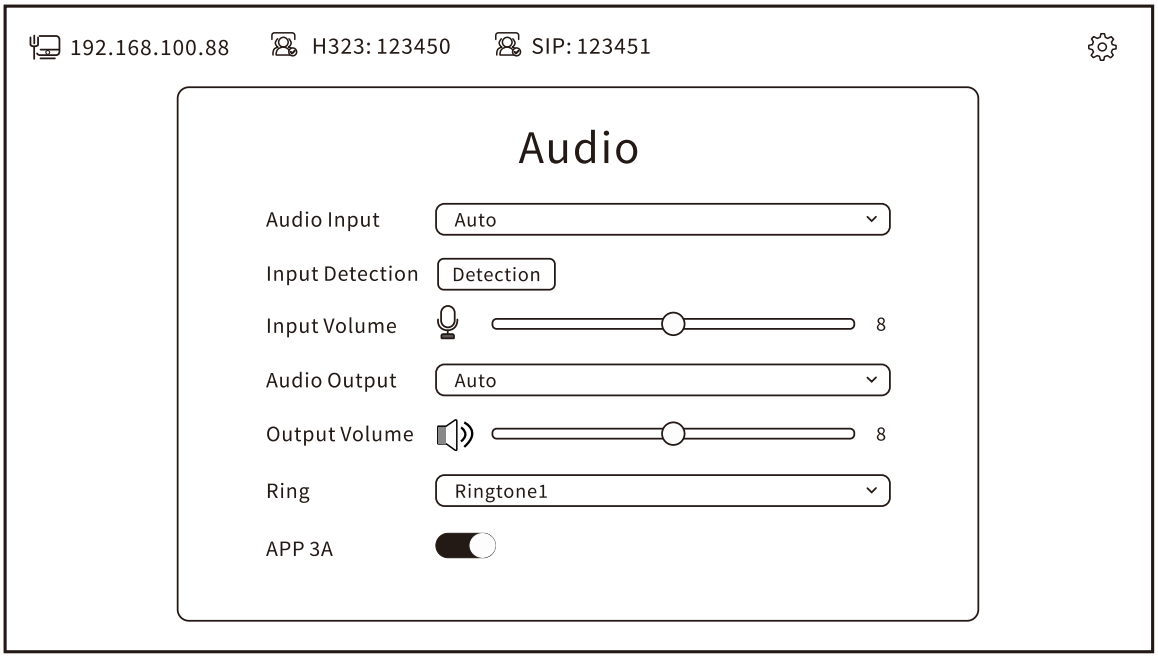
Parameter	Parameter Declaration	Parameter Setting
	Warm, Light.	
	Preset position: Select "Edit" to enter the Preset Position interface to set the preset bit (1~9).	/

2.14.3 Audio

Configure Audio Input, Input Detection, Audio Output, Output Volume, Ring and others parameters.

➢ **Operating Steps**

Step 1 On the main menu interface, select "[ooo] > ⚙ > Audio".



Step 2 Configure the "Audio" parameters, which are shown in the following table.

Step 3 Press the "↩" key on remote control to save and return to the upper-level interface.

Parameter	Parameter Declaration	Parameter Setting
Audio Input	Configure the audio input: Auto, Customize.	Default: Auto
Input Detection	Select "Detection" to enter the Microphone Detection interface. Please speak into the microphone to detect whether the sound input is normal.	/

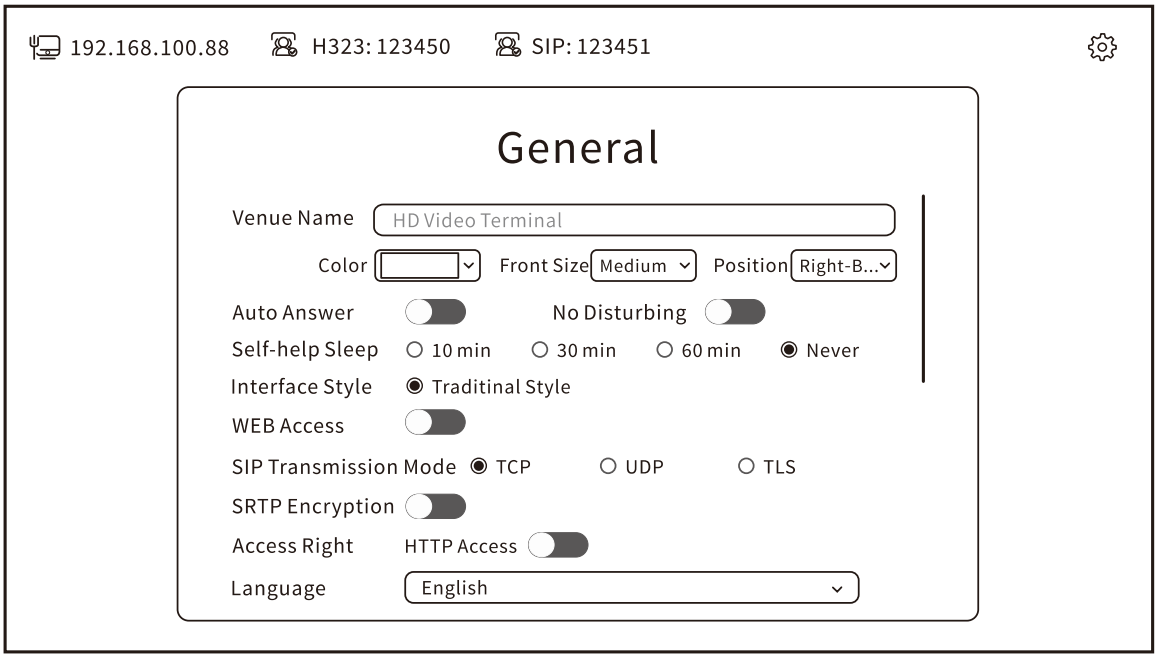
Parameter	Parameter Declaration	Parameter Setting
Input Volume	Configure the audio input gain.	Default: 8
Audio Output	Configure the audio output: Auto, Customize.	Default: Auto
Output Volume	Configure the audio output gain.	Default: 8
Ring	The default ring is Ringtone 1.	Default: Ringtone 1
APP 3A	Enable/disable the APP 3A function, when APP 3A is enabled, third-party applications will use system 3A to process the audio.	Default: Enabled

2.14.4 General

Configure the terminal Venue Name, Self-help Sleep, SIP Transmission Mode, Language, Time Zone, and select whether to enable Auto Answer, No Disturbing, WEB Access, and other functions.

➢ **Operating Steps**

Step 1 On the main menu interface, select "> > General".



Step 2 Configure the "General" parameters, which are shown in the following table.

Step 3 Press the "" key on remote control to save and return to the upper-level interface.

Parameter	Parameter Declaration	Parameter Setting

Parameter	Parameter Declaration	Parameter Setting
Venue Name	Venue name: Configuration terminal display name.	Default: Empty
	Color: Select the text display color.	Default: White
	Size: Select the text display size	Default: Medium
	Location: Select the text display location.	Default: Right-bottom
Auto Answer	Enable/disable Auto Answer, the terminal will automatically answer the call meeting when enabled.	Default: Disabled
No Disturbing	Enable/disable No Disturbing, the terminal will enter call no disturb mode and refuse to answer all call meetings when enabled.	Default: Disabled
Self-help Sleep	Configure the terminal self-service sleep time: 10min, 30min, 60min, Never.	Default: Never
Interface Style	The default terminal Interface style is Traditional Style.	Default: Traditional Style
Web Access	Enable/disable the WEB access rights.	Default: Disabled
Automatically Close in 30 Minutes	Enable/disable automatically close in 30 minutes (valid only when WEB access is enabled).	Default: Enabled
SIP Transmission Mode	Configure the SIP transmission mode: TCP, UDP, TLS.	Default: TCP
SRTP Encryption	Enable/disable the SRTP encryption function.	Default: Disabled
Access Right	Enable/disable HTTPS access right.	Default: Disabled
Language	Configuration of terminal system language: 中文(简体), 中文(繁体), English.	Default: 中文(简体)
Time Zone	Select the time zone of the area.	Default: China Standard Time
Time Format	Configure the system time display format: 24 Hours Clock, 12 Hours Clock.	Default: 12 Hours Clock
Set Time Automatically	Enable/disable the automatic setting time. When this function is enabled, the system	Default: Enabled

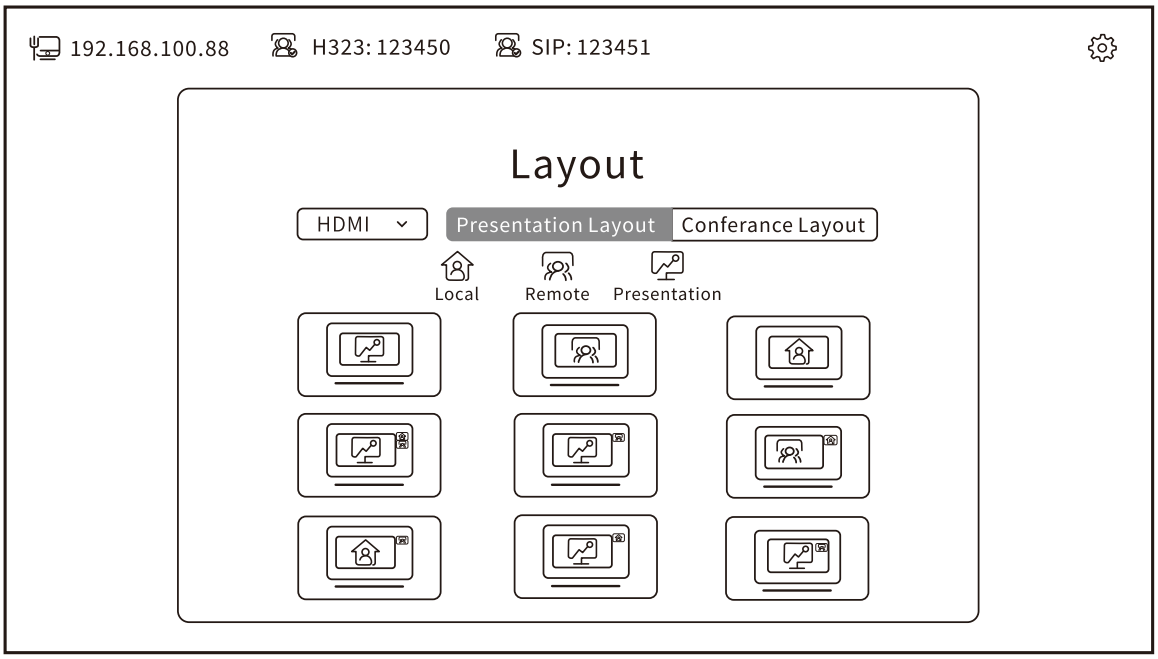
Parameter	Parameter Declaration	Parameter Setting
	automatically obtains the network time.	
Enable Infrared Transmission	Enable/disable infrared transmission.	Default: Disabled

2.14.5 Layout

When you need to watch a combined image of the venue video and the demonstration screen on a display device, you can choose to switch the screen layout.

➢ **Operating Steps**

Step 1 On the main menu interface, select "[ooo] > ⚙ > Layout".



Step 2 Configure the Picture Layout parameters, which are shown in the following table.

Step 3 Press the "↩" key on remote control to save and return to the upper-level interface.

Parameter	Parameter Declaration
Layout Output Interface	Select the video output interface to switch the layout.
Layout Options	Select the layout option: Presentation Layout, Conference Layout.
Presentation Layout	Configure the presentation layouts.

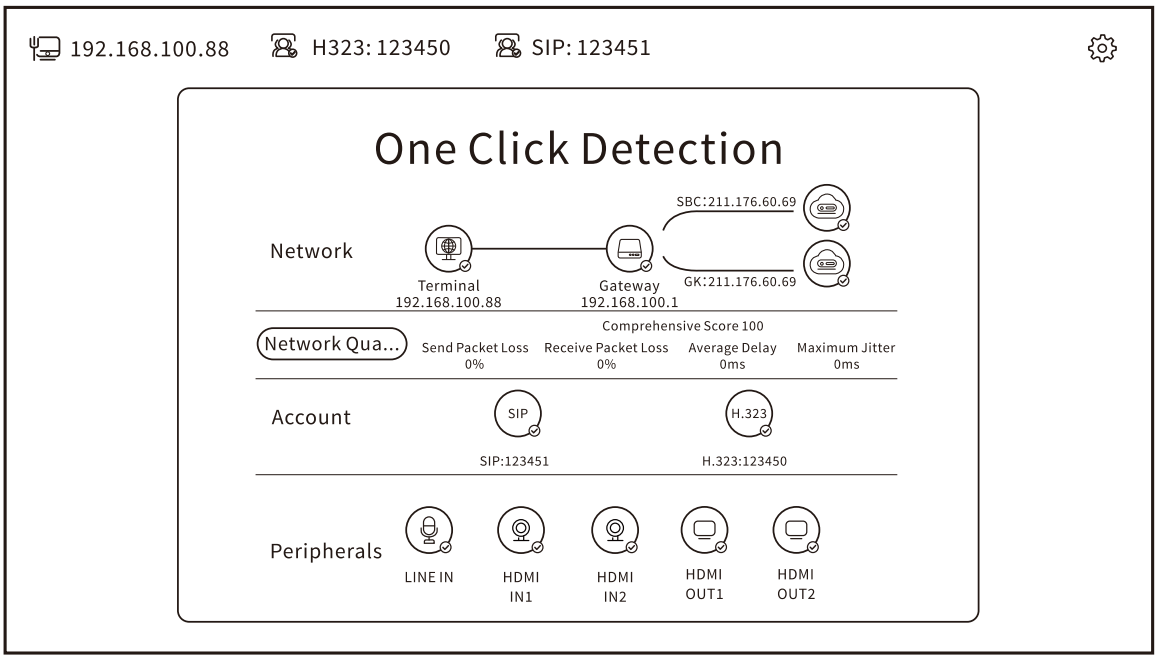
Parameter	Parameter Declaration
Conference Layout	Configure the conference Layouts.

2.14.6 One Click Detection

On the One-click Detection interface, you can check the terminal network, account, and whether each interface recognizes device access.

➢ **Operating Steps**

Step 1 On the main menu interface, select "[ooo] > [gear] > One Click Detection".



Step 2 Press the "[back]" key on remote control to save and return to the upper-level interface.

2.14.7 About

In the "About" interface, you can view Device Model, SN, Software Version etc., and operate equipment upgrade and reset to factory settings.

2.14.7.1 Upgrade

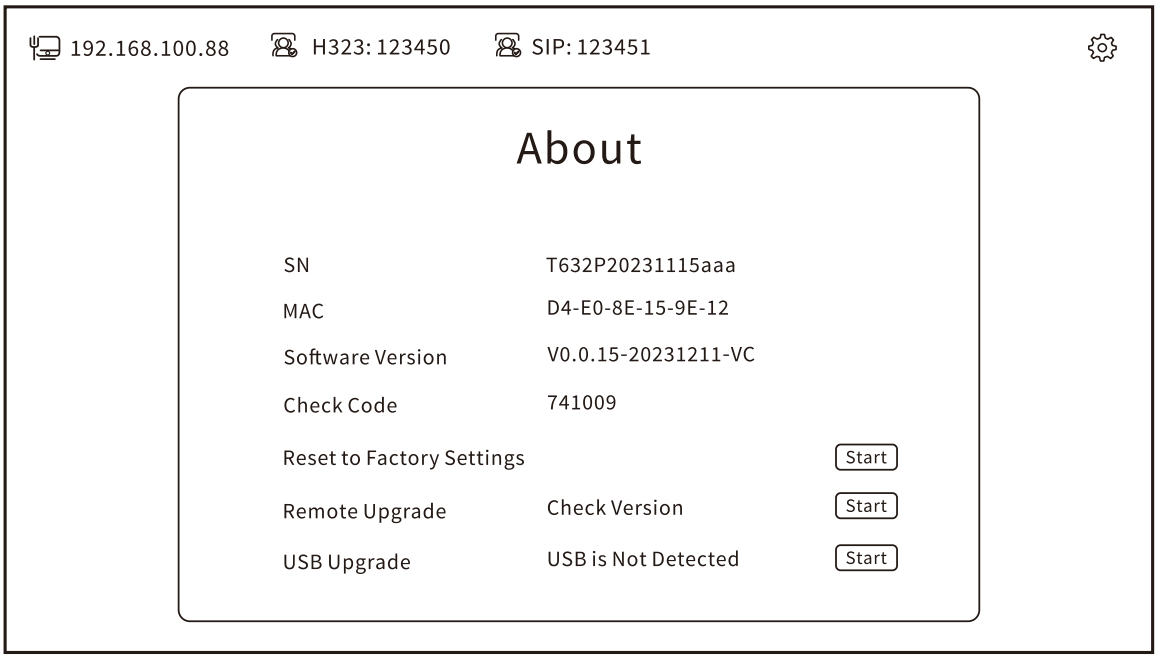
Upgrade Mode: USB Upgrade, Remote Upgrade.

- **USB Upgrade: The terminal automatically detects the new version in the USB flash drive for differential upgrade.**
- **Remote Upgrade: The terminal will get the upgrade file from the specified server and upgrade automatically.**

2.14.7.2Reset to Factory Settings

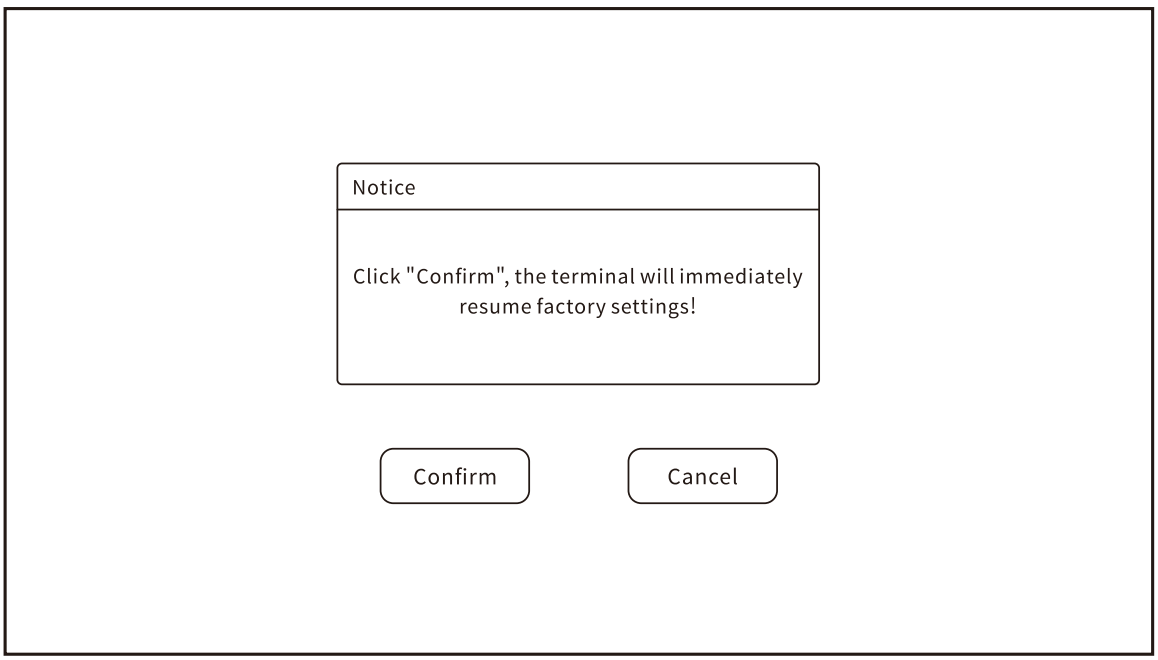
➢ **Operating Steps**

Step 1 On the main menu interface, select “ > > About”.



Step 2 Select the “Start” button in the Reset to Factory Settings bar to pop-up the recovery

factory settings notice

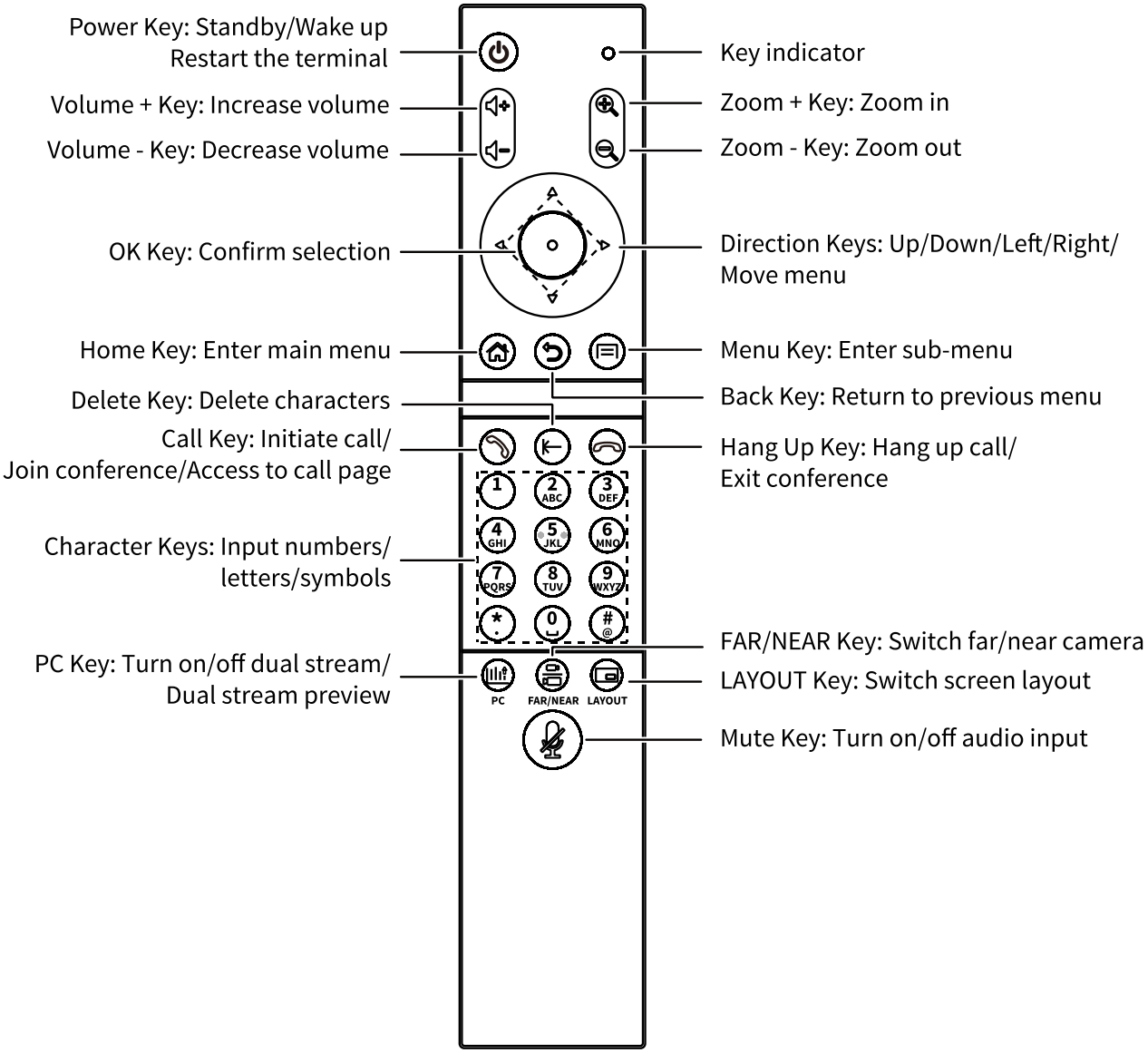


Step 3 Select "Confirm" to immediately restore the factory settings and restart the terminal.

Notice

After restoring the factory setting, all the previous configured parameters will be lost. Please perform this operation with caution.

2.15 Remote Control



Notice

The performance of the remote control may be affected by strong light, with an effective operating distance of about 10 meters.

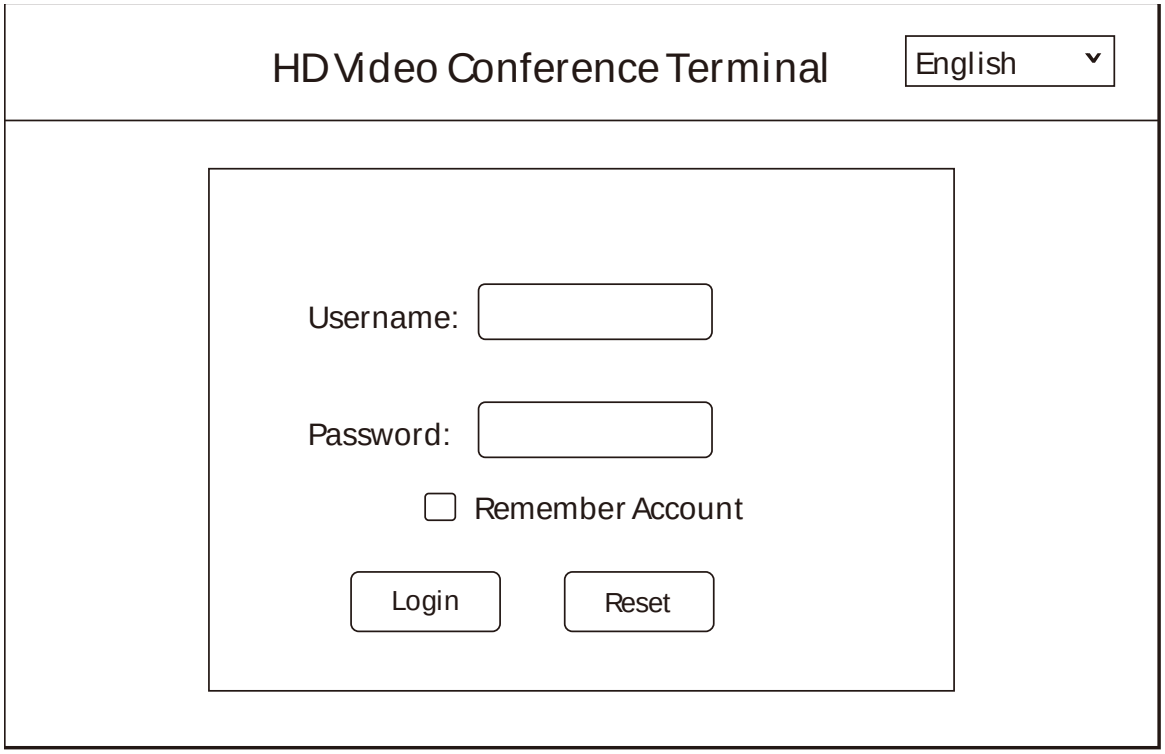
Remote Control Shortcut Key Instruction:

Shortcut Key	Function
Press [Hang Up] key for 5 times	Upload the log to the log server
Press [#] + [*] + [#] keys sequentially	Lock the terminal
Press *] + [#] + [*] keys sequentially	Unlock the terminal
Press [Hang Up] key + Numeric key 1 sequentially	Switch HDMI OUT1 output resolution
Press [Delete] key + Numeric keys 1-9 sequentially	Call presets
Press [*] + [#] + Numeric keys 1/2/3/4/5 sequentially	Switch the main video source: HDMI1, HDMI2, Camera Compose, USB Extension Camera, VCH
In Tencent Meeting, press [ZOOM+/-] key	Enter PTZ control mode, allowing control of PTZ rotation via directional keys
In Tencent Meeting, press [ZOOM+/-] key + any key other than the directional key	Exit PTZ control mode

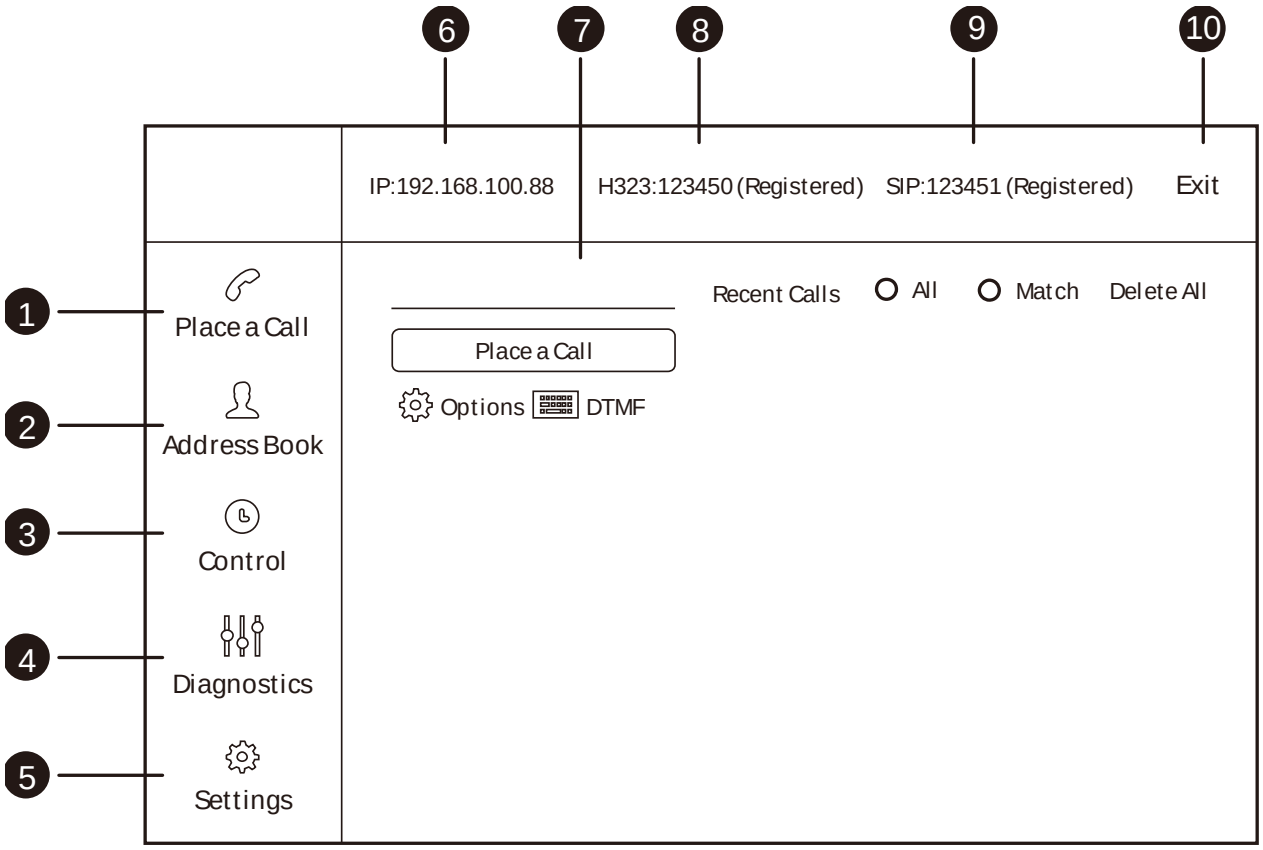
3 Operational (WEB)

3.1 Login

1. **Access the terminal IP address + port number (8081) in the browser to enter the terminal WEB login page (before logging in to the WEB page, you must first select "> > General" in the GUI interface to enable the "WEB Access" permission).**



2. **Enter the default username "admin" and default password "Cw111000$", select "Login" to enter the terminal WEB configuration page (as shown below).**



Number	Name	Explain
1	Place a Call	Move the cursor to select and enter the Place a call menu page to configure the relevant parameters.
2	Address Book	Move the cursor to select and enter the address book menu page to configure relevant parameters.
3	Control	Move the cursor to select and enter the control menu page to configure the relevant parameters.
4	Diagnostics	Move the cursor to select and enter the diagnostics menu page to configure the relevant parameters.
5	Settings	Move the cursor to select and enter the Settings menu page to configure relevant parameters.
6	IP Address	Displays the current IP address.
7	Place a Call	Displays the place a call menu page parameters options, such as: recent calls, delete all, match, etc.
8	H323 Account	H 323 account registration status.
9	SIP Account	SIP account registration status.

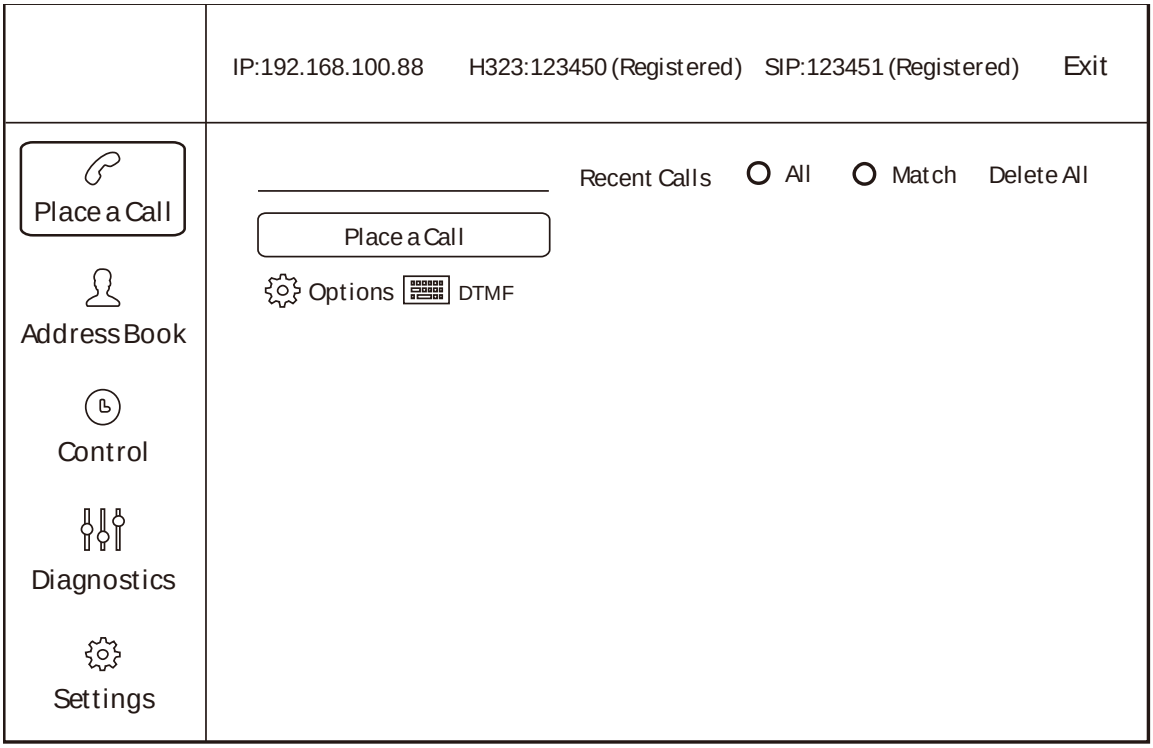
Number	Name	Explain
10	Exit	Move the cursor to select and exit the terminal WEB configuration page.

3.2 Meeting Calling

The terminal supports meeting initiation through address book, call record and input meeting account, number or IP address.

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "" to enter the call menu page.



Step 2 There are several ways to choose the remote venue:

- **Manually enter the remote venue account, number or IP address in the input box;**
- **Select the remote venue account, number or IP address to be called in the call list;**
- **Select the remote venue account, number, or IP address in the address book list.**

Step 3 The configuration venue parameters are shown in the table below.

Parameter	Parameter Declaration	Parameter Setting
Venue Account/Number/IP	Remote venue account, number, or IP address.	The venue account/number/IP address of the latest call are displayed by

		default
Options	Select call rates: 64Kbps, 128Kbps, 192Kbps, 256Kbps, 384Kbps, 512Kbps, 768Kbps, 1Mbps, 1.5Mbps, 2Mbps, 4Mbps, 6Mbps, and 8Mbps.	Default Rate: 2Mbps
	Select the call protocol: SIP, H.323, automatic.	Default Protocol: SIP
Parameter	Parameter Declaration	Parameter Setting
DTMF	DTMF Keyboard: used to enter the meeting number or meeting password.	/

Step 4 Click "Call" to initiate the meeting.

Step 5 Click "" to end the meeting.

3.3 Presentation

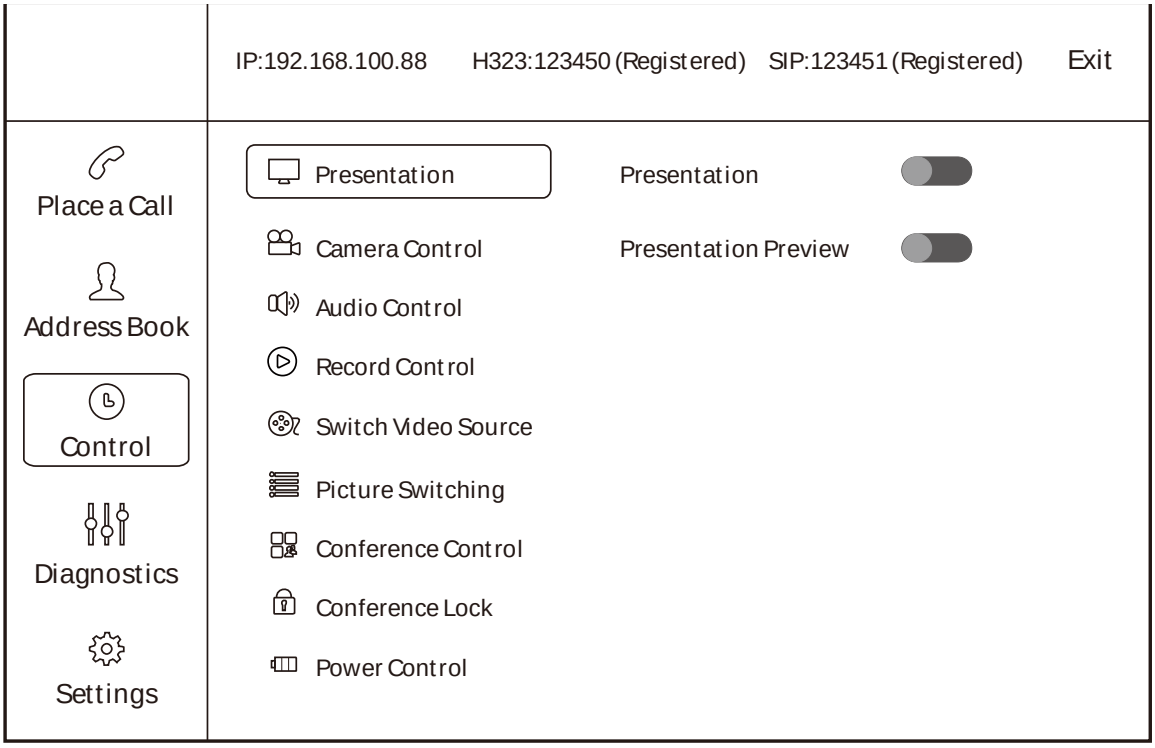
Connect a computer or HD camera to the terminal via HDMI for the auxiliary stream or wirelessly project from a computer. The terminal sends dual streams only when a secondary source is detected, allowing the remote end to view the shared local screen during dual-stream transmission.

Prerequisite>>

The terminal is connected to the auxiliary video source and is normally in the meeting, and the opposite terminal supports dual streams.

- **Operating Steps**

Step 1 On the WEB configuration page, select "> Presentation".



Step 2 Select enabling "Presentation" to send the second video to the participating terminal,

enable "Presentation Preview" only support the local preview of the Presentation.

Step 3 Go to the call menu page and select "" to end the meeting.

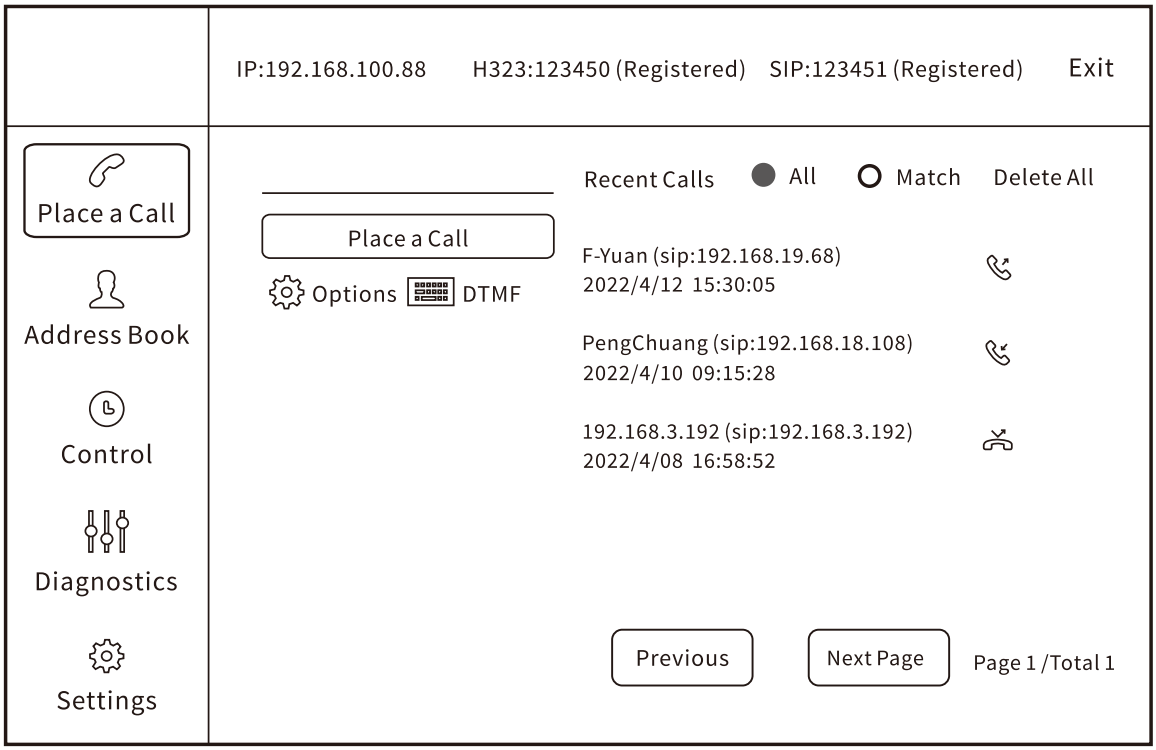
3.4 Call Records

On the latest call page, you can view all, incoming and outgoing records of the terminal, or clear the call records.

3.4.1 View All Call Records

➢ **Operating Steps**

Step 1 On the WEB configuration page, select"☎ > All" to view all call records.

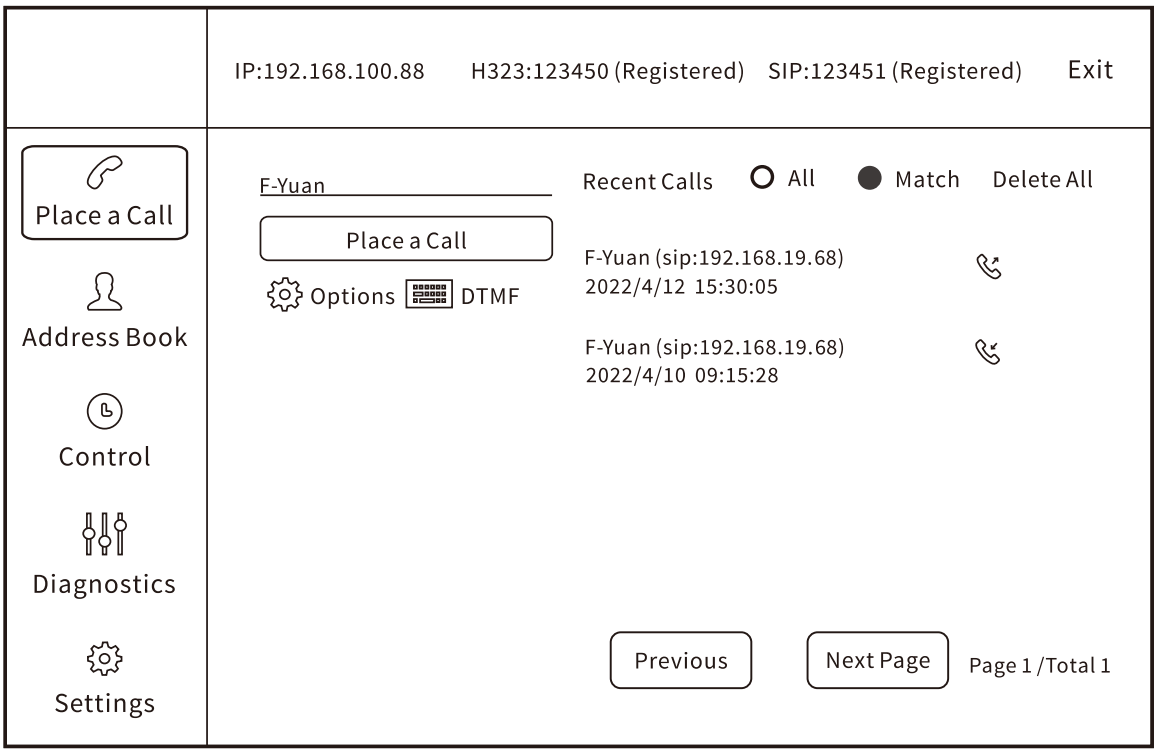


3.4.2 Match Call Records

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "☎" enter the account, IP address or name to

be matched in the input field, select "Match" to view the match call records.



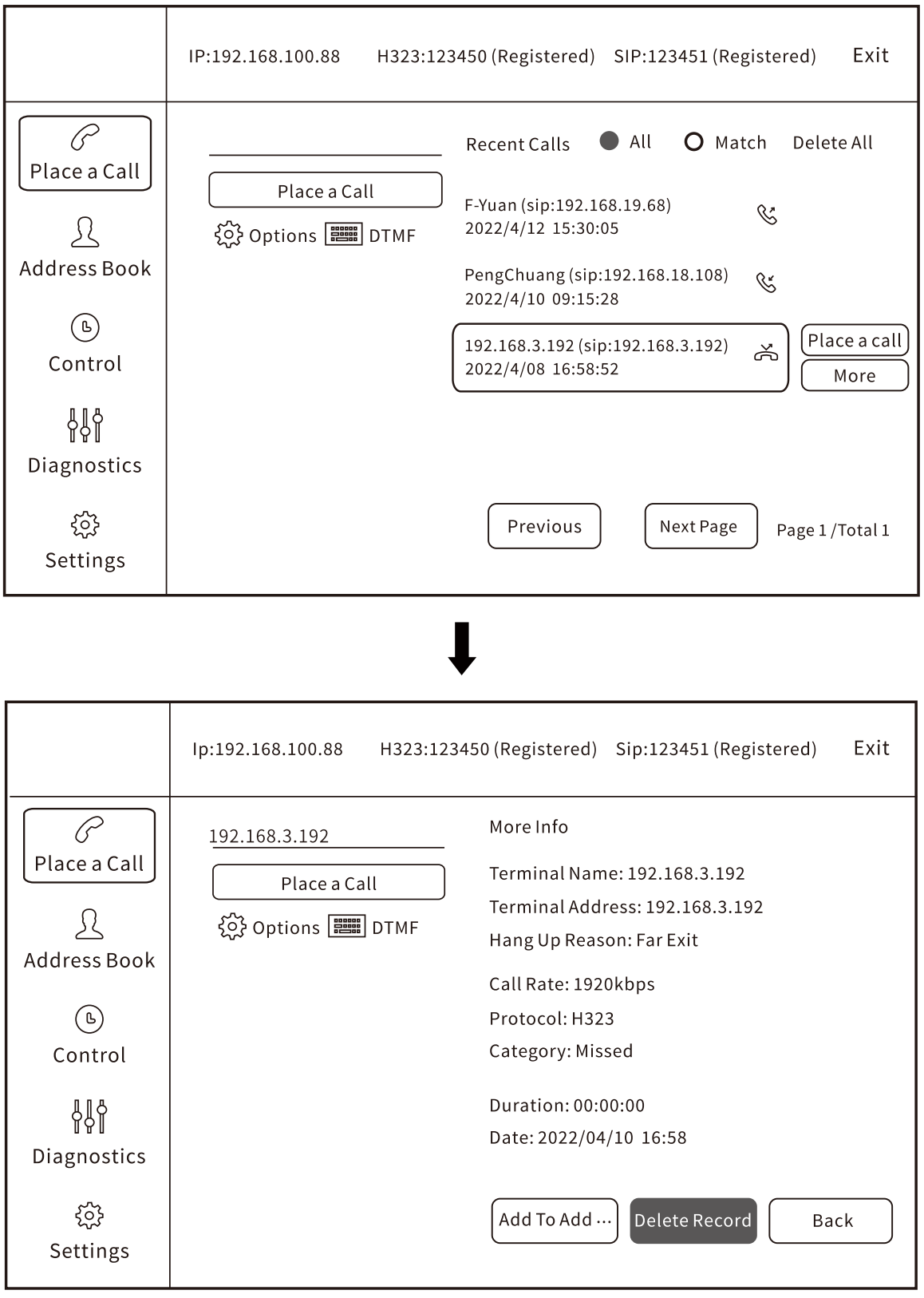
3.4.3 Clear Call Records

3.4.3.1 Delete One by One

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "> All".

Step 2 Move the cursor to select the record to be deleted and select "More".

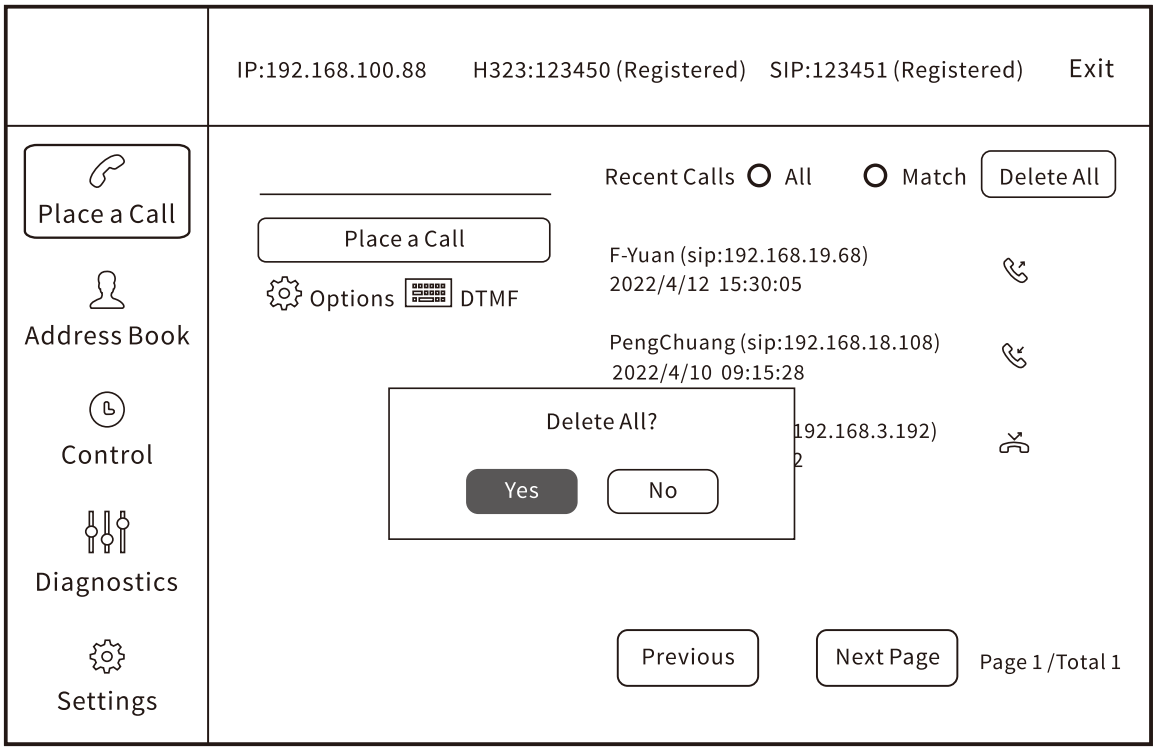


Step 3 Select "Delete Record" to clear the selected call record.

3.4.3.2 Delete All

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "> Delete All" to pop-up the "Delete All?" dialog box.



Step 2 Select "Yes" to clear all the call records.

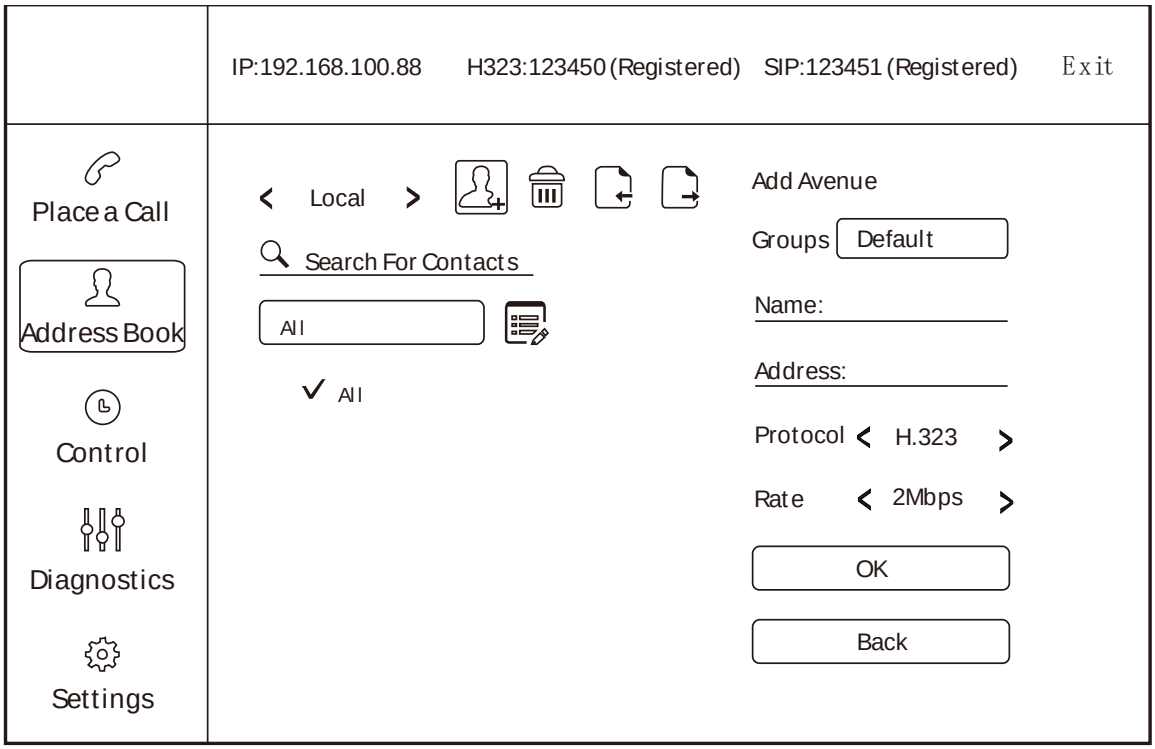
3.5 Address Book

The address book is used to store contact information. Using the address book, you can directly initiate calls to relevant contacts in the address book.

3.5.1 Add Address

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "> Local > " to enter the Add Avenue page.



Step 2 Click the "Groups" box drop-down list to select Venue Group.

Step 3 Enter the Venue Name that you need to add in the Name bar.

Step 4 Enter the Venue Number or IP Address in the Address bar.

Step 5 Select the Call Protocol and Rate.

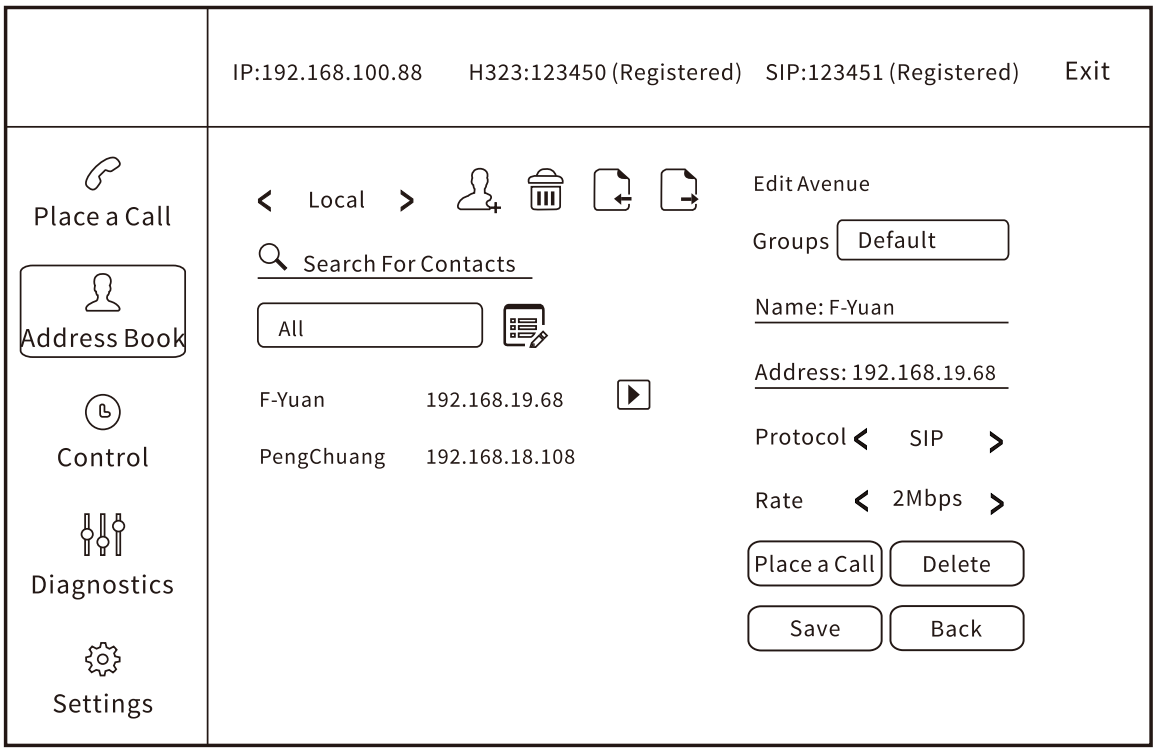
Step 6 Select "OK" to save the information.

3.5.2 Edit Address

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "".

Step 2 Move the cursor to select the venue to be edited to enter the venue modification page.



Step 3 Click the "Group" box drop-down list to select Venue Group.

Step 4 Edit the Venue Name in the “Name” field.

Step 5 Edit the Address Number or IP Address in the “Address” field.

Step 6 Select the “Protocol” and “Rate”.

Step 7 Select “Save”.

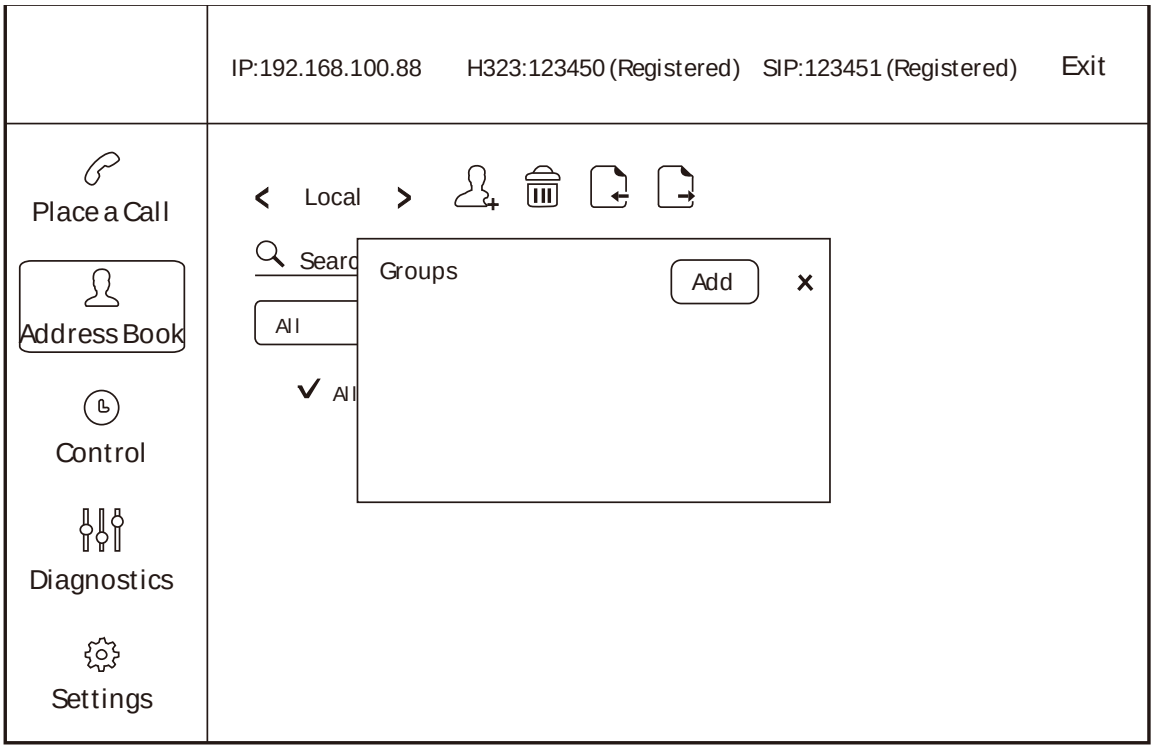
3.5.3 Management Group

Address books support adding, editing, and deleting groups.

3.5.3.1 Add Groupings

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "> " to enter the Groups page.



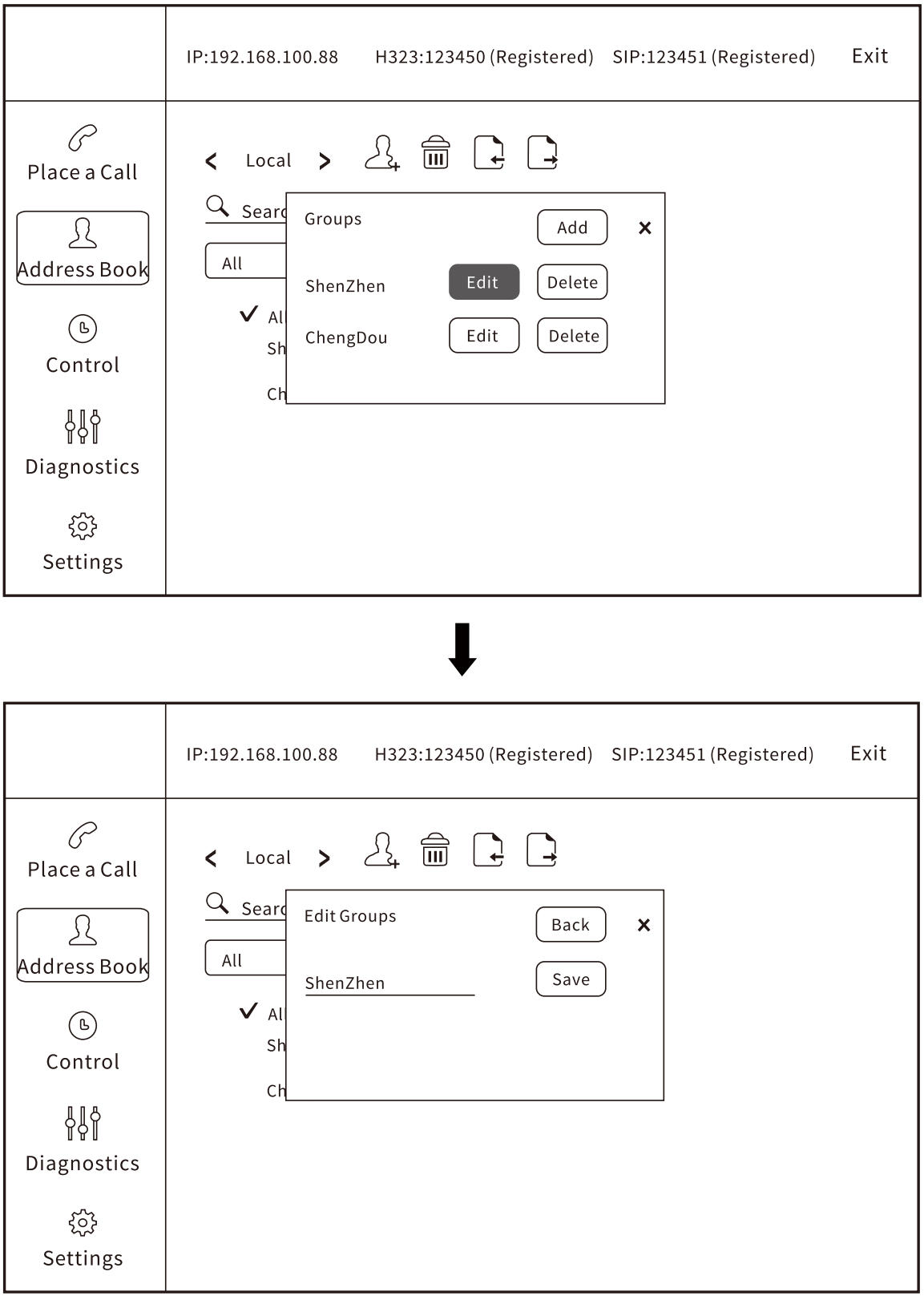
Step 2 Select "Add" to create a new grouping.

Step 3 Select "Save".

3.5.3.2 Edit Grouping

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "> > Edit" to enter the Edit Groups page.

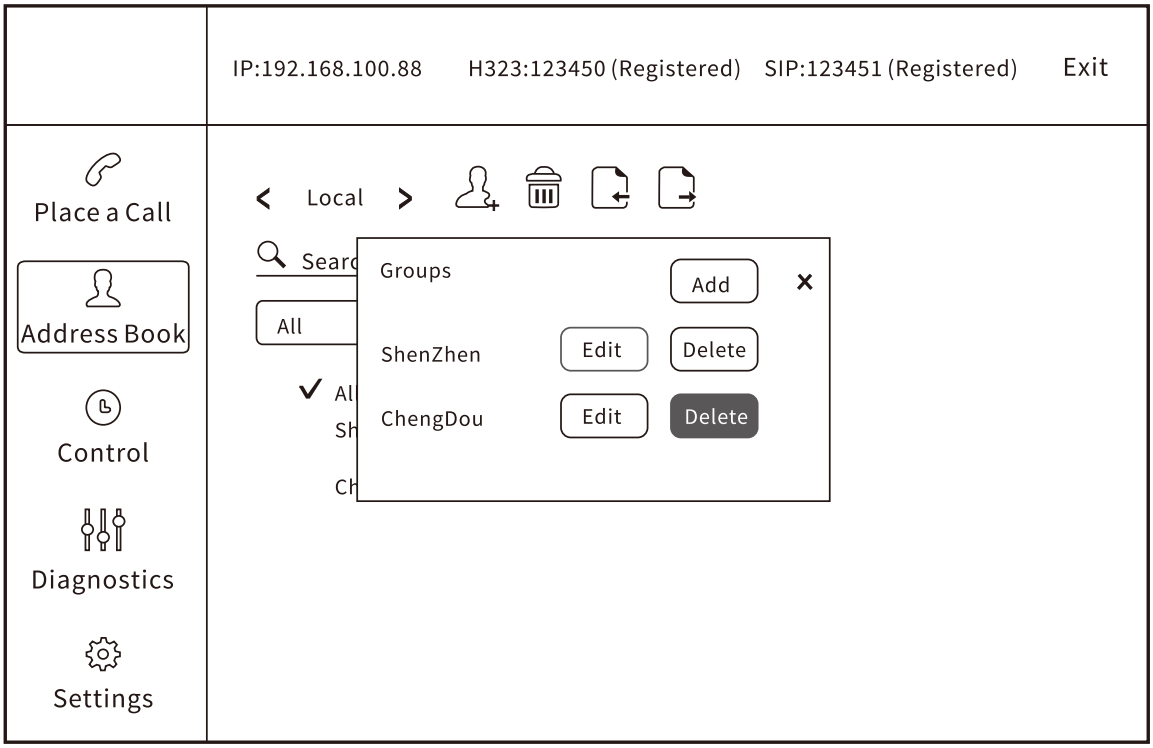


Step 2 Select “Save”.

3.5.3.3 Delete Grouping

➢ **Operating Steps**

Step 1 On the WEB configuration page, select “ > > Delete” to delete the group directly.



3.5.4 Delete Address

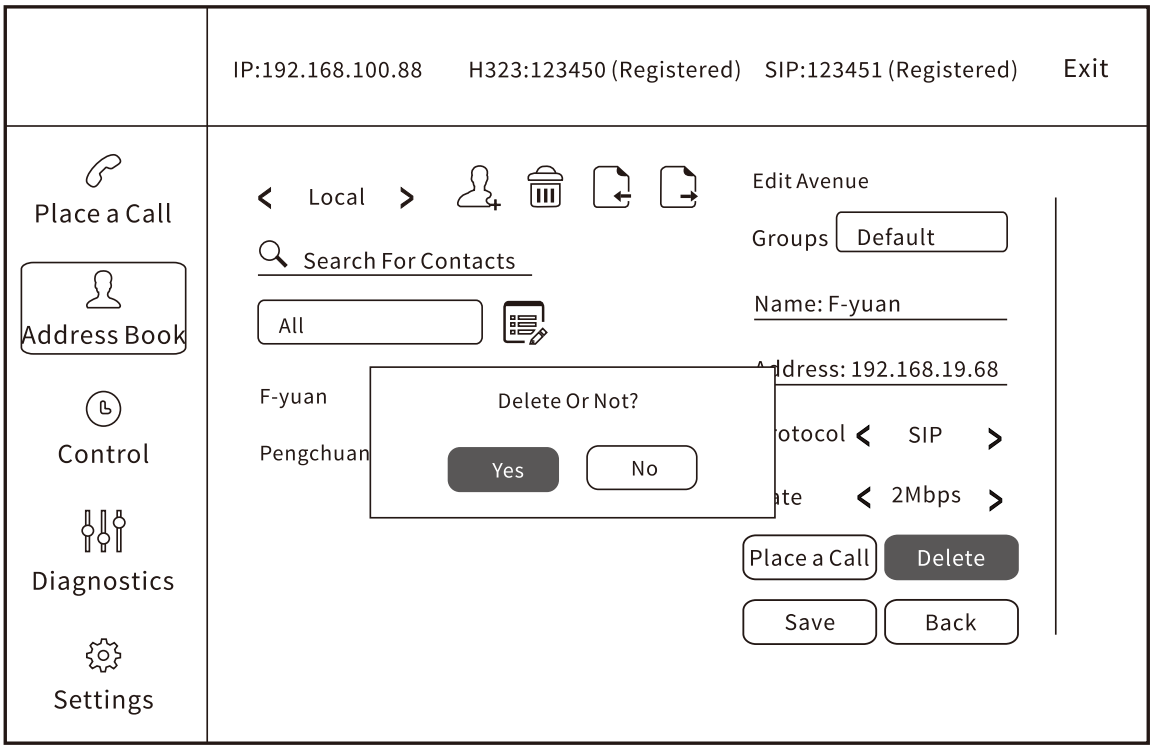
3.5.4.1 Delete One by One

➢ **Operating Steps**

Step 1 On the WEB configuration page, select “”.

Step 2 Move the cursor to select the venue to delete, select "Delete" to pop-up “Delete or Not?"

dialog box.

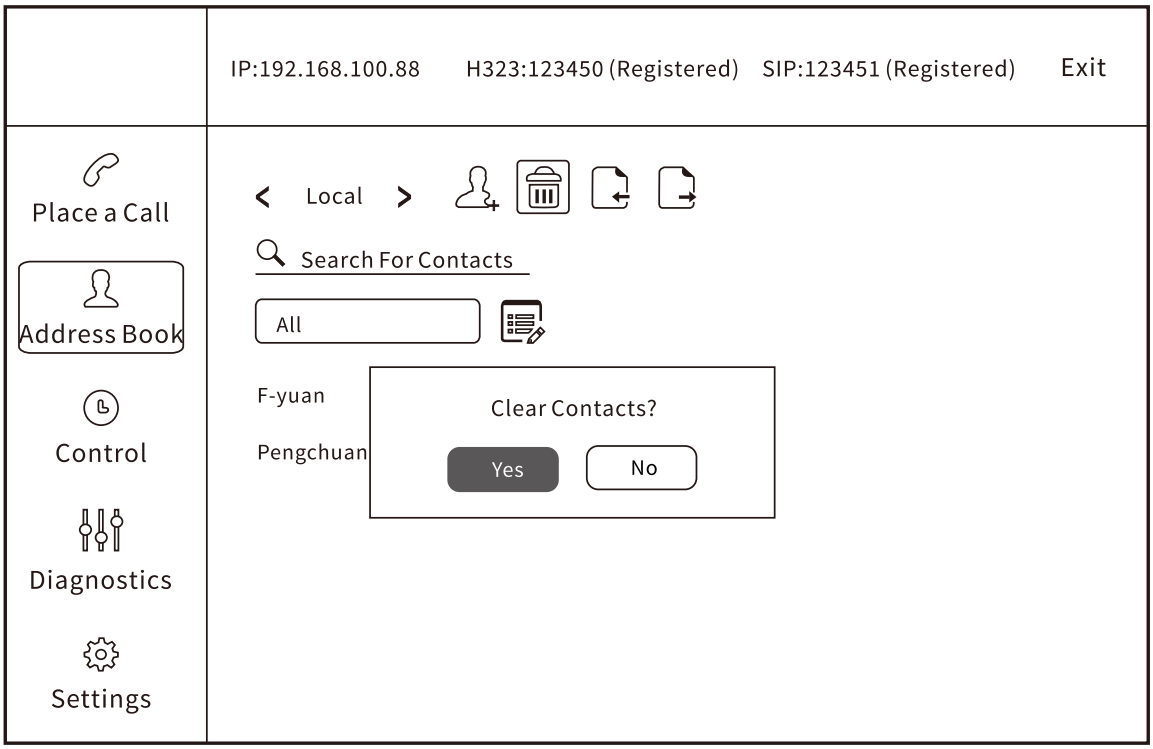


Step 3 Select "Yes" to delete the address.

3.5.4.2 Delete All

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "> " to pop-up "Clear Contacts?" dialog box.



Step 2 Select "Yes" to clear the address book venue information.

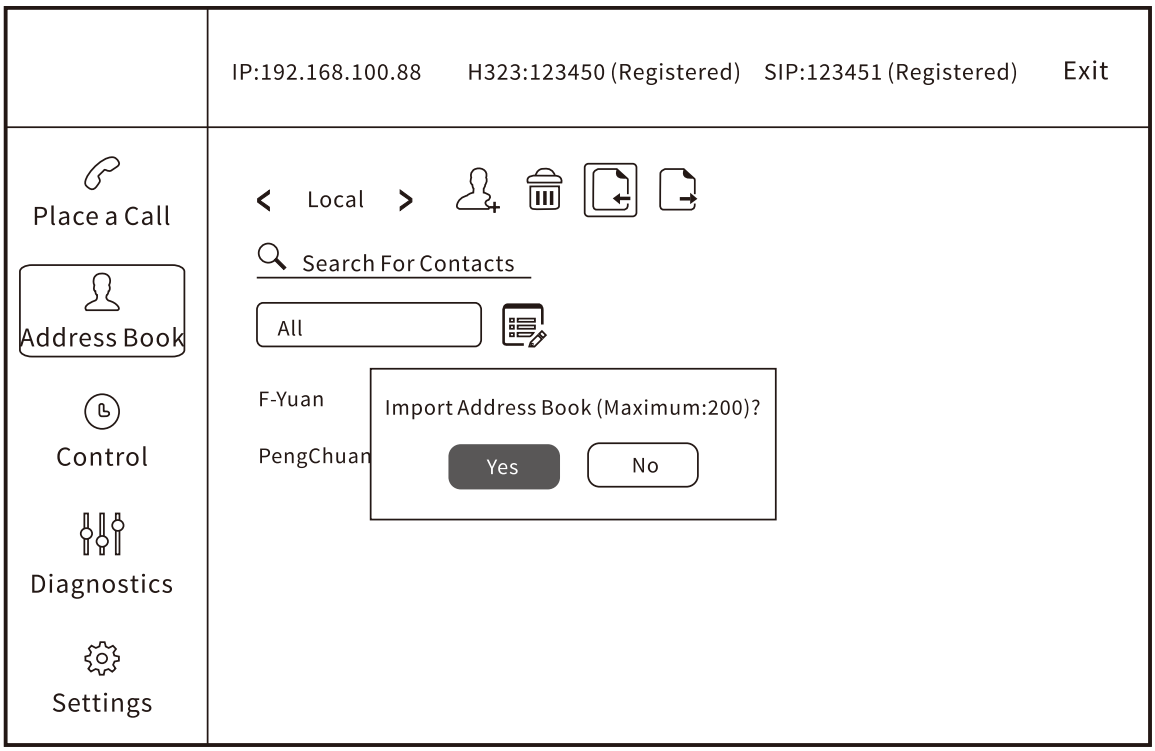
3.5.5 Import Address Book

The terminal supports batch import of address books.

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "> " to pop-up the "Import Address Book

(Maximum)?" dialog box.



Step 2 Select "Yes" to confirm (follow the page steps).

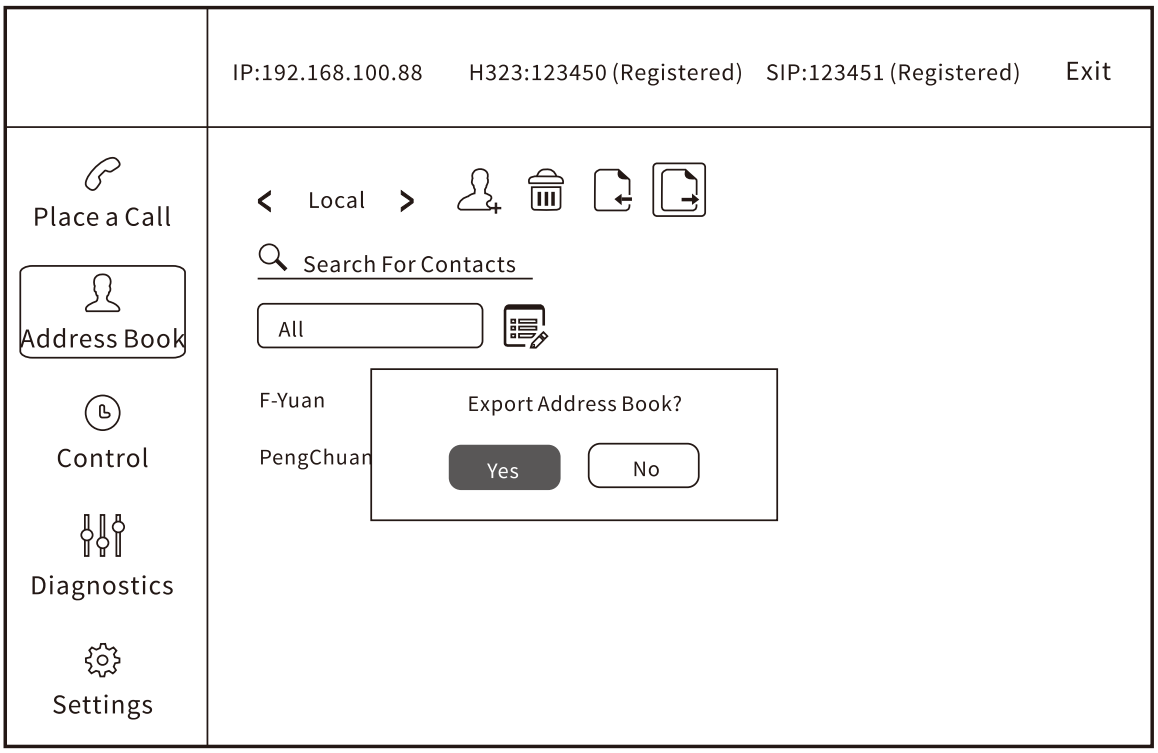
3.5.6 Export Address Book

The terminal supports batch export of address books.

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "> " to pop-up the "Export Address Book?"

dialog box.



Step 2 Select “Yes” to confirm (follow the page steps).

3.6 Control

On the control menu page, select and configure the second video, video camera control, recording control, video source and other parameters.

3.6.1 Presentation

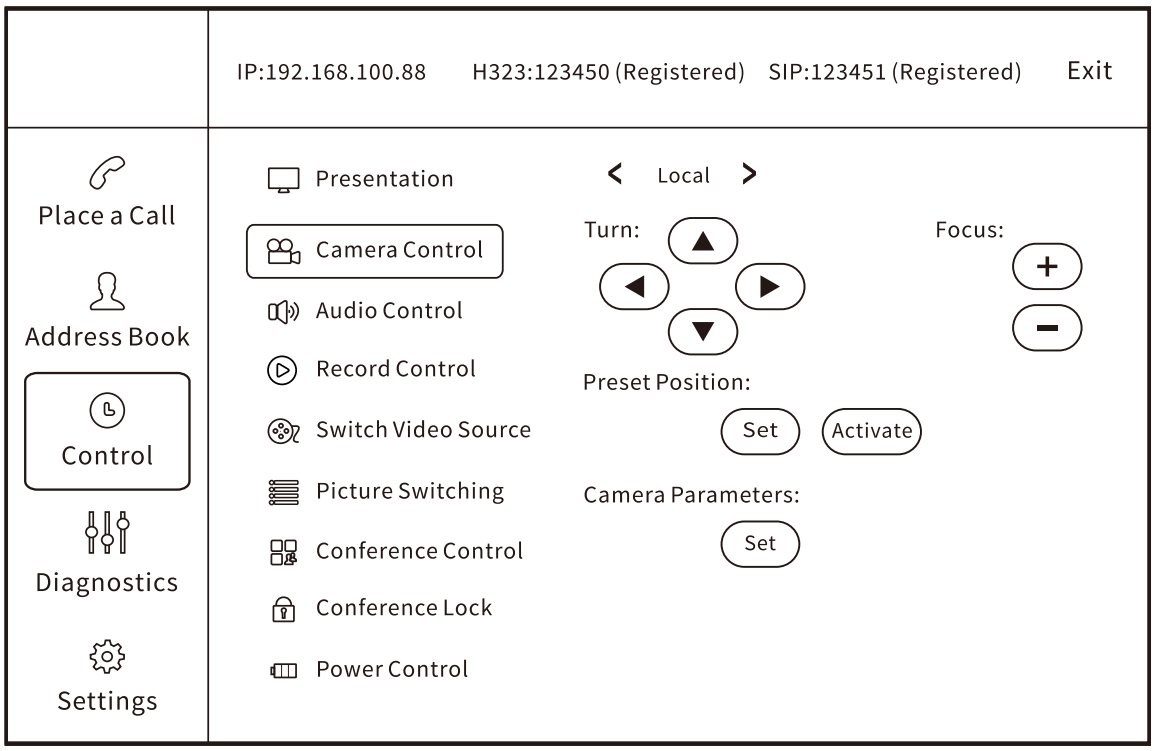
Control the presentation, select whether to open Presentation or Presentation Preview.

3.6.2 Camera Control

On the camera control page, you can choose to perform PTZ (Pan/Tilt/Zoom) control on local or remote cameras, set preset positions, and other operations.

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "> Camera Control".



Step 2 For the camera control operation, please refer to the following table:

Parameter Option	Parameter Declaration
Local/Remote	Switch between local or remote cameras.
Directions	▲: Turning the camera upward. ▶: Turning the camera to the right. ▼: Turning the camera down.

Parameter Option	Parameter Declaration
	◀: Turning the camera to the left.
Focus	Click the "+" repeatedly to enlarge the image.
	Click the "-" repeatedly to shrink the image.
Preset Position	Setting: Set the preset bit (1~9).
	Activation: Call the camera to reach the preset position.
Camera Parameters	Image parameters: Configure image Contrast, Brightness, Aperture Mode, and Aperture Value.
	Backlighting settings: Select whether to enable the Backlight Compensation.
	Flinker mode: Off, 50Hz and 60Hz.
	Others: Select whether Flip Vertical and Mirroring are enabled.

3.6.3 Audio Control

- Select whether to enable Input Mute and Output Mute.
- Configure the audio input/output digital gain.

3.6.4 Record Control

- Select to enable or disable Start Remote Record, Start RTMP, or Start USB Record.
- Select “Clear” to delete all files from the USB recording local file list.

3.6.5 Switch Video Source

Select the main video source: HDMI1, HDMI2, Camera Compose, USB Extension Camera, VCH.

3.6.6 Picture Switching

Switch the video screen: Configure HDMI-1 layout, HDMI-2 layout, and combined view layout screen.

3.6.7 Conference Control

In the meeting, select and call out the chairman, who will control the window to conduct the chairman's operation.

3.6.8 Conference Lock

Select whether to enable the conference lock function, when enabled, the terminal will not be able to create and receive the meeting.

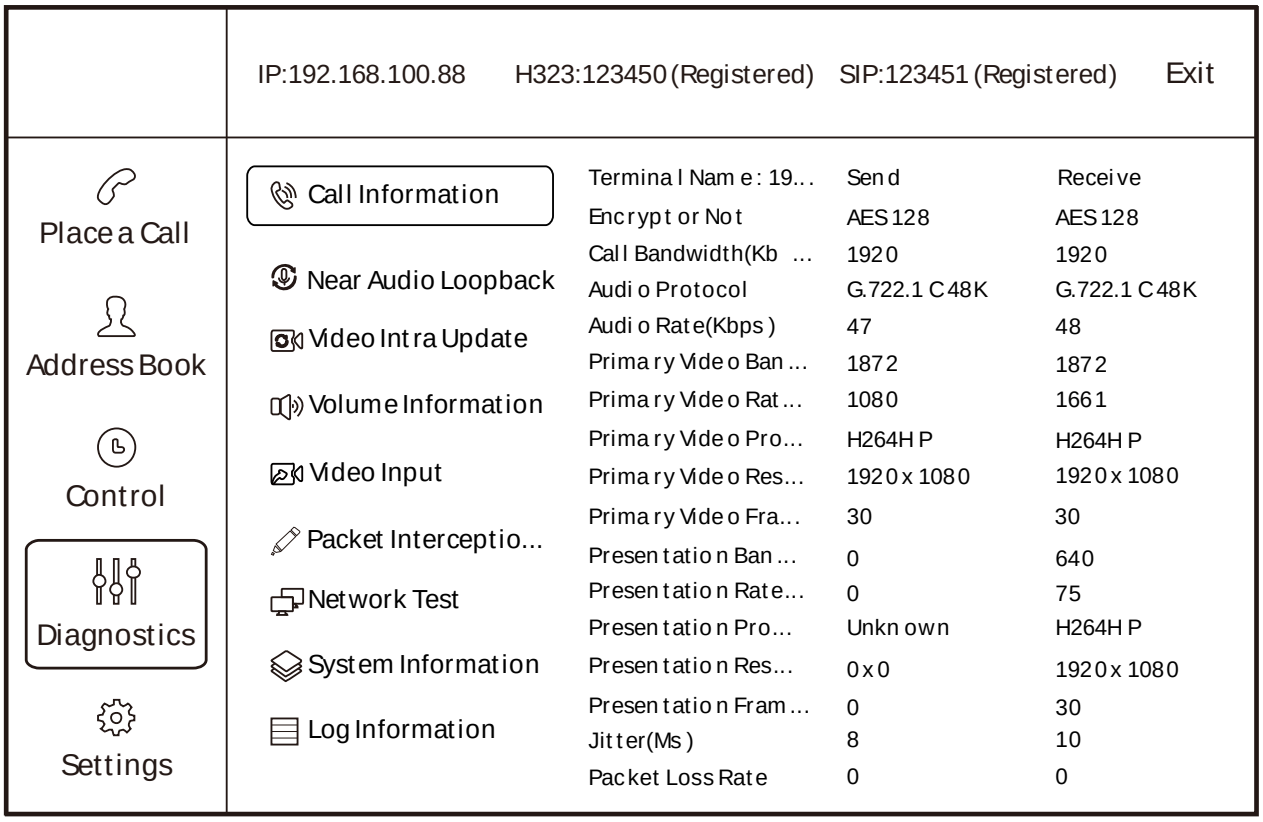
3.6.9 Power Control

Control the terminal Power Off, Restart, or Standby/Resume operation.

3.7 Diagnostics

3.7.1 Call Information

After the meeting begins, select "⚙ > Call Information" to know the quality of the meeting in real time (please refer to the following table for parameters).



Parameter	Parameter Declaration
Encrypt or Not	**Meeting encryption status.**
Call Bandwidth (kbps)	**The actual call bandwidth after the negotiation.**
Audio Protocol	**Capability is negotiated after the actual audio protocol.**
Audio Rate (kbps)	**The real-time rate of the audio value will change dynamically in real-time.**
Primary Video Bandwidth (kbps)	**The bandwidth allocated to the main video.**
Primary Video Rate (kbps)	**The real-time rate of the main video, this value will change dynamically in real time.**
Primary Video	**Capability is negotiated after the actual master video protocol.**

Parameter	Parameter Declaration
Protocol	
Primary Video Resolution	Main video at the resolution of the current session.
Primary Video Frame Rate (fps)	The number of frames sent or received for the primary video per second, depending on the dynamics of the current network environment.
Presentation Bandwidth (kbps)	Bandwidth allocated to the secondary video.
Presentation Rate (kbps)	The real-time rate of the auxiliary video, this value will change dynamically in real time.
Presentation Protocol	Capability negotiation after the actual supplementary video agreement.
Presentation Resolution	Auxiliary video at the resolution of the current session.
Presentation Frame Rate (fps)	The number of frames sent or received per second for the auxiliary video, depending on the dynamics of the current network environment.
Jitter (ms)	The degree of variation in the network delay.
Packet Loss Rate	Network packet loss is caused by network instability.

3.7.2 Near Audio Loopback

When the Near Audio Loopback Test is enabled, audio input from the audio output of the local side.

3.7.3 Video Intra Update

Click "Video Refreshing" to refresh the current video encoding data.

3.7.4 Volume Information

Check whether the terminal's audio input and audio output are normal.

3.7.5 Video Input

Display the video image input resolution of HDMI1, HDMI2 and USB Extension Camera. When there is no external video input, "XXX: No Input" is displayed.

3.7.6 Packet Interception Function

Select “Start” to start the packet interception function after configuring the TCP, UDP, or TCP/UDP protocol.

3.7.7 Network Test

Support for network testing via Gateway, DNS, IP, IP v 6, GK address, or SIP proxy server.

3.7.8 System Information

Displays the Serial Number, MAC Address, System Version, Terminal Version, Terminal Model, and Verification Code of the terminal.

3.7.9 Log Information

- **Select “Download Log” to download the log information to the computer.**
- **Select “Clear Log” to clear the log information directly.**

3.8 Settings

3.8.1 Network

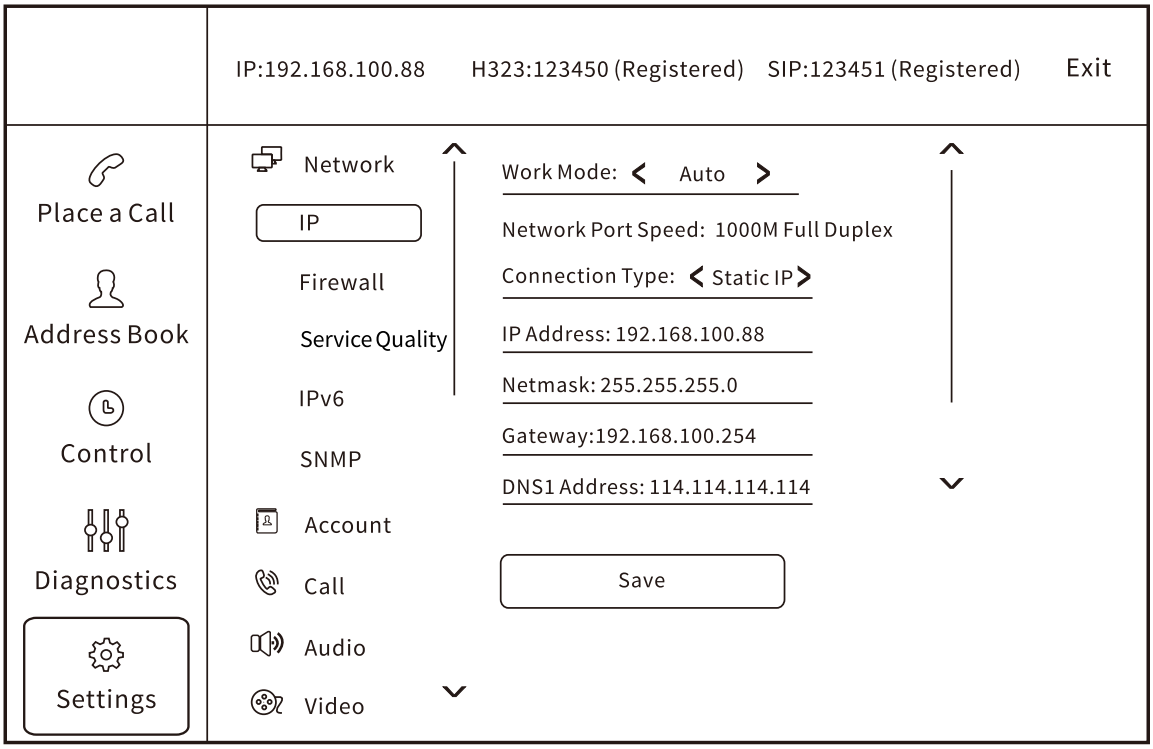
Configure the terminal's network based on its deployment to ensure proper communication with other devices.

3.8.1.1 Network Setting

Before using Ethernet for video communication, configure the terminal's Ethernet parameters, including the IP address, subnet mask, and gateway address.

➢ **Operating Steps**

Step 1 On the WEB configuration page, select " > Network > IP".



Step 2 Configure the "IP" parameters, which are shown in the following table.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Work Mode	Configuring network working mode: automatic, 10M full duplex, 100M full duplex, 1000M full duplex.	Default: Auto

Parameter	Parameter Declaration	Parameter Setting
Connection Type	Configure the network connection type: ● Automatic IP acquisition: The terminal automatically obtains the IP address through the DHCP server. ● Static IP: The IP address of the terminal is assigned by the network administrator, and the IP address, Subnet mask, Gateway and DNS address need to be set.	Default: Automatic IP acquisition
IP Address	Configure the IP address of this terminal.	Default: Auto obtain
Netmask	Configure the subnet mask of this terminal.	Default: Auto obtain
Gateway	Configure the default gateway address corresponding to the IP of the terminal.	Default: Auto obtain
DNS Address	After the IP address of the DNS server is configured, the domain name can be used for the address of the GK server and the SIP server. The DNS server will resolve the IP address of the GK server and the SIP server according to the domain name.	Default: Auto obtain

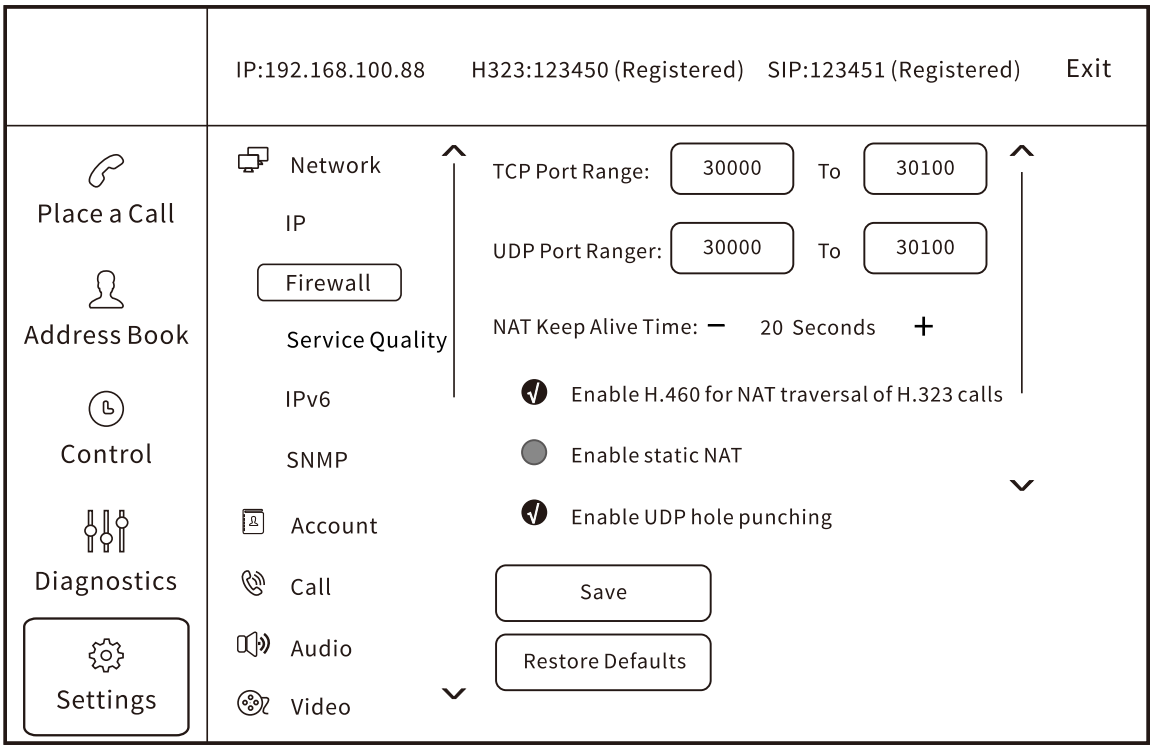
3.8.1.2 Firewall

Configure firewall parameters to enable video conferencing through the network security system.

Note: If your LAN uses NAT (Network Address Translation) technology, configure the NAT public network address at the terminal. NAT involves using an internal IP address for a device within an internal LAN network and an external IP address for communication with devices outside the network.

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Network > Firewall".



Step 2 Configure the "Firewall" parameters, which are shown in the following table.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
TCP Port Range	When the terminal communicates with the remote end, the terminal receives TCP communication of data packets port.	Default Range: 30000~30100
UDP Port Range	Receiving the UDP communication of the packet locally port.	Default Range: 30000~30100
NAT Keep Alive Time	In order to avoid reversing the TCP connection of the network device without packets for a long time, the terminal needs to regularly send the active message when there is no data transmission.	Default: 20 seconds
Enable H.460 For NAT Traversal of H.323 Calls	When this function is enabled, when the terminal is identified as a private network terminal, the H460 protocol will be used for crossing.	Default: Enabled
Enable Static NAT	When this function is enabled, private network terminals are treated as public	Default: Disabled

Parameter	Parameter Declaration	Parameter Setting
	network terminals. After enabling static NAT, enter the NAT device's public network IP address in the "Public Network Address" input box, choose Static NAT Type, and indicate whether to enable Automatic Public Network Address.	
Enable UDP For Punch Holes	At the media reception port, periodically send the empty UDP package through the NAT.	Default: Enabled

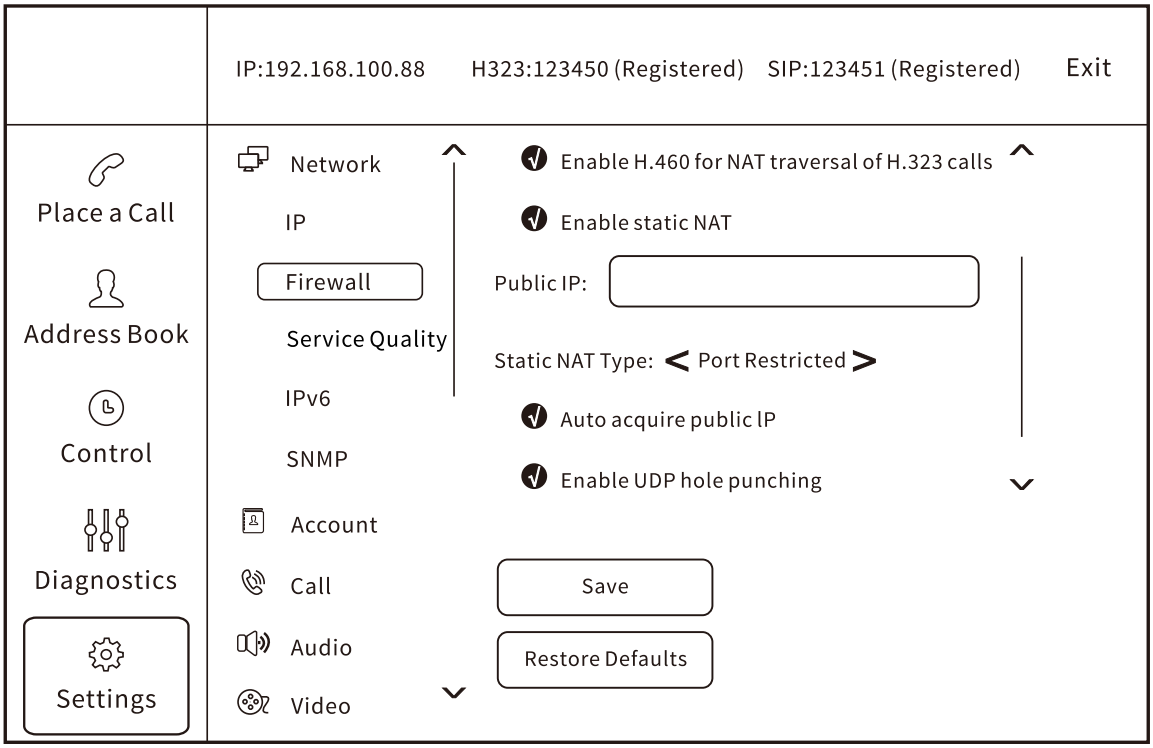
When selecting "Enable Static NAT", you need to set the router simultaneously.

➢ **Operating Steps**

Step 1 Disable the ALG functionality in the router.

Step 2 Configure the router to expose terminals to the Internet and map the TCP and UDP port ranges of terminals to the router.

Step 3 Enter the Settings menu page and select "Networks > Firewall > Enable Static NAT".



Step 4 Enter the IP address of the router WAN port in the "Public IP" input box.

Step 5 Select the static NAT type.

Step 6 Select whether to enable "Auto Acquire Public IP" access.

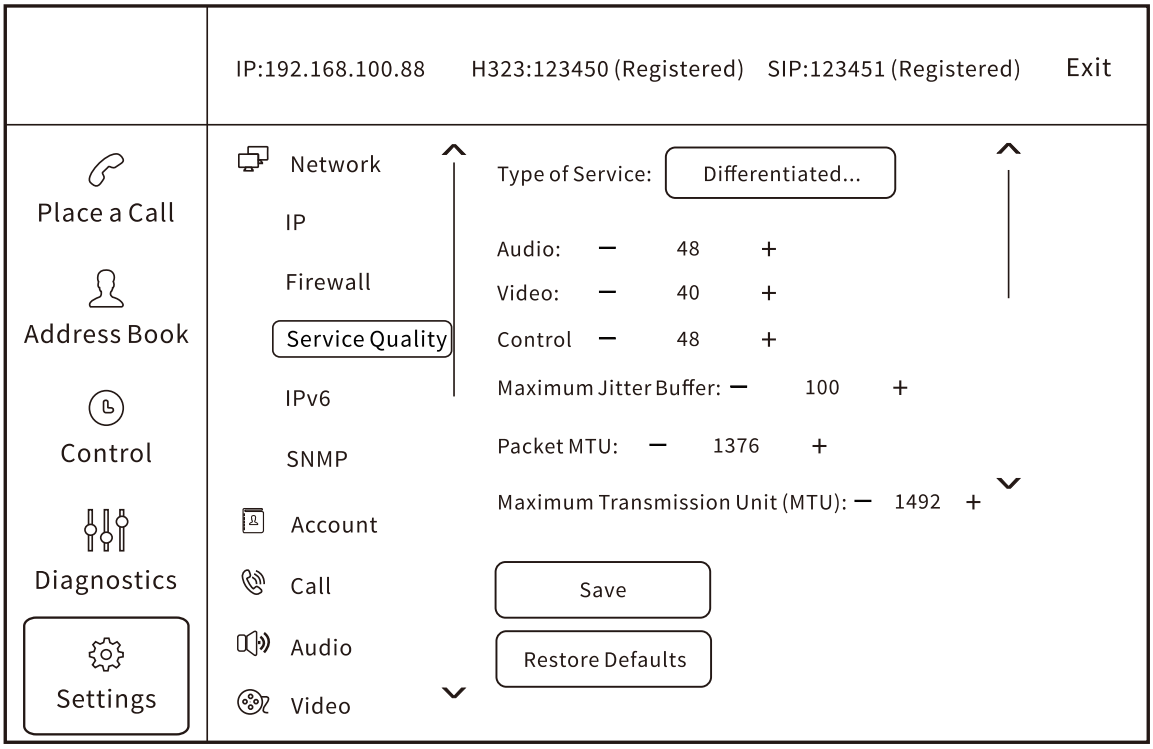
Step 7 Select "Save".

3.8.1.3 Service Quality

Configure IP service type (TOS) and maximum jitter buffer time, select whether to enable media optimization.

➢ **Operating Steps**

Step 1 On the WEB configuration page, select " > Network > Service Quality".



Step 2 Configure the "Service Quality" parameters, which are shown in the following table.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Type of Service	Select the service type: distinguish the service, IP priority.	Default: Distinguish Between Services
Audio	Configure the audio gain.	Default: 48
Video	Configure the video gain.	Default: 40
Control	Configuration control gain.	Default: 48

Parameter	Parameter Declaration	Parameter Setting
Maximum Jitter Buffer	Configure the maximum jitter buffer time gain	Default: 100
Packet MTU	Configure the packet MTU gain.	Default: 1376
Maximum Transmission Unit	Configure the maximum transmission unit (MTU) gain.	Default: 1492
Enable Media Optimization	Select whether to enable media optimization.	Default: Disabled
Enable RTP Packet Loss Retransmission	Select whether to enable RTP packet loss and retransmission.	Default: Disabled
Enable RTP Auto Adaptive Rate	Select Enable or Disable Start Auto Lift.	Default: Enabled

Parameter	Parameter Declaration	Parameter Setting
Enable Simple Retransmission	Select whether to enable simple retransmission.	Default: Disabled
Enable Flow Control	Select whether to enable the flow control.	Default: Disabled

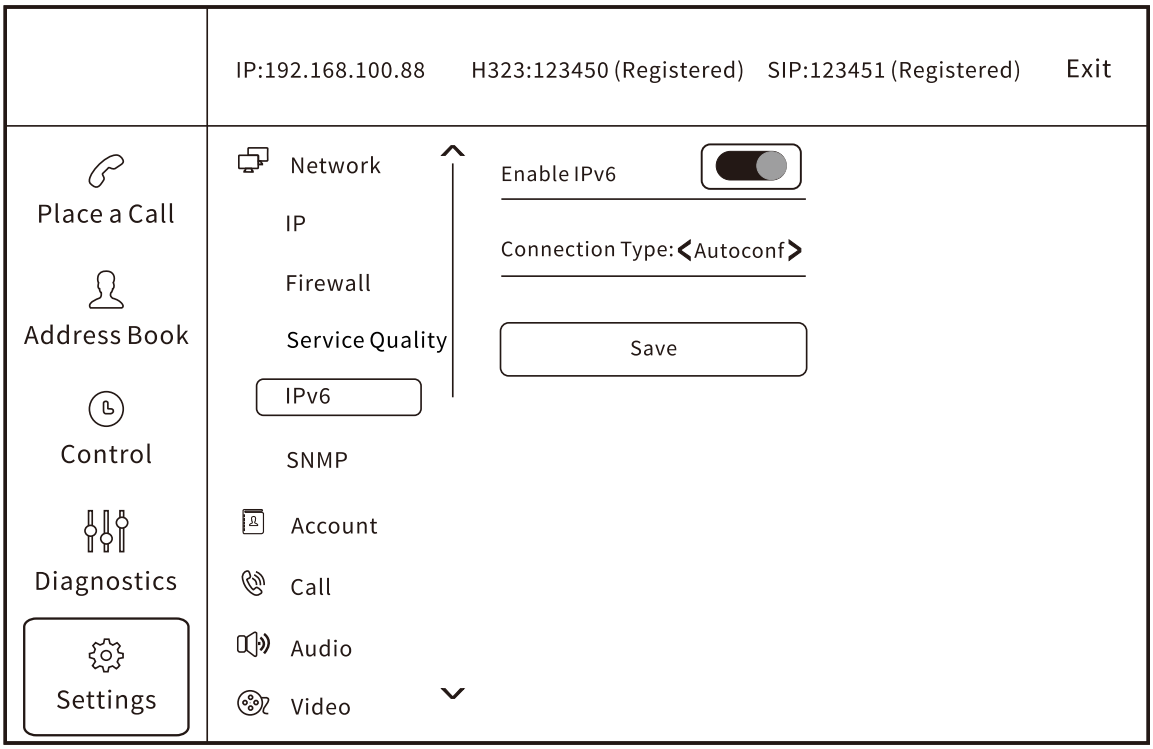
3.8.1.4 IPv6

Enable IPv6, select Autoconf (Auto configuration), DHCP or static IP.

- **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Network > IPv6".

Step 2 Open Enable IPv6 and configure the connection type (configure the IP address, Subnet prefix length, Gateway Address, DNS Address of the terminal when selected "Static IP").



Step 3 Select "Save".

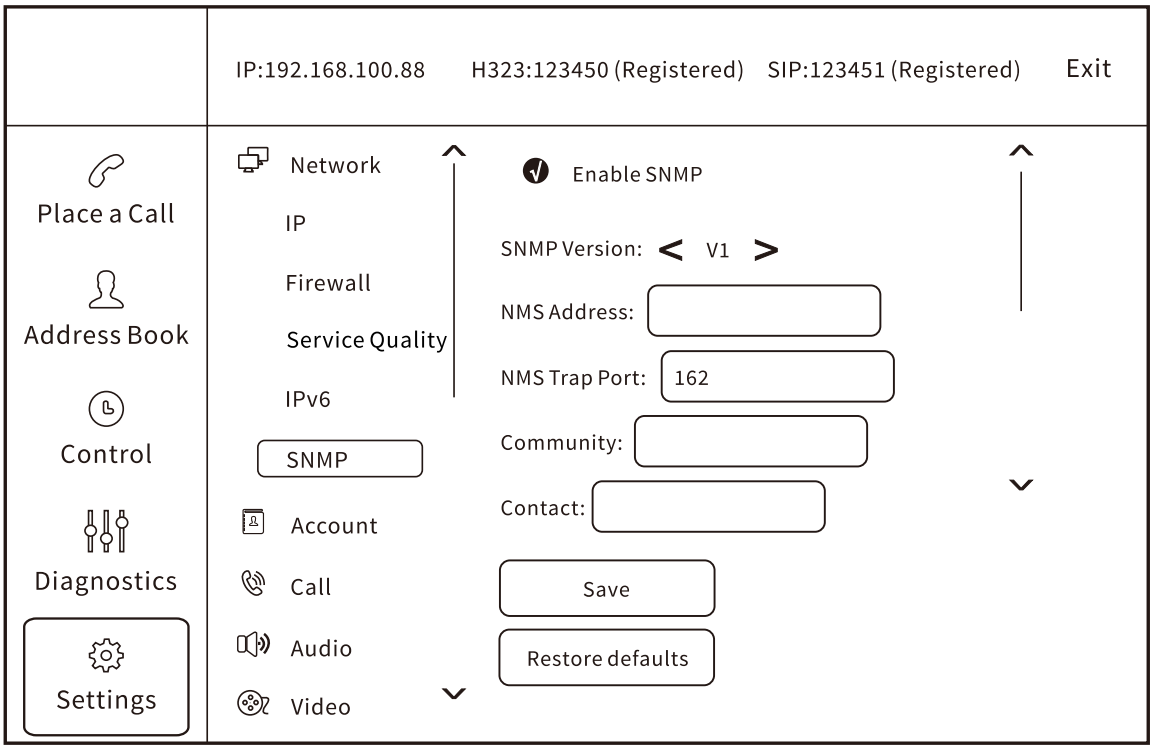
3.8.1.5 SNMP

Enable SNMP, select SNMP Version, and configure NMS Address, TRAP port, contacts and other information.

- **Operating Steps**

Step 1 On the WEB configuration page, select the "⚙ > Networks> SNMP".

Step 2 Select "Enable SNMP".



Step 3 Select the SNMP Version, and configure the NMS address, NMS Trap Port, Community,

Contact, Location, System Name and System Description.

Step 4 Select "Save".

3.8.2 Account

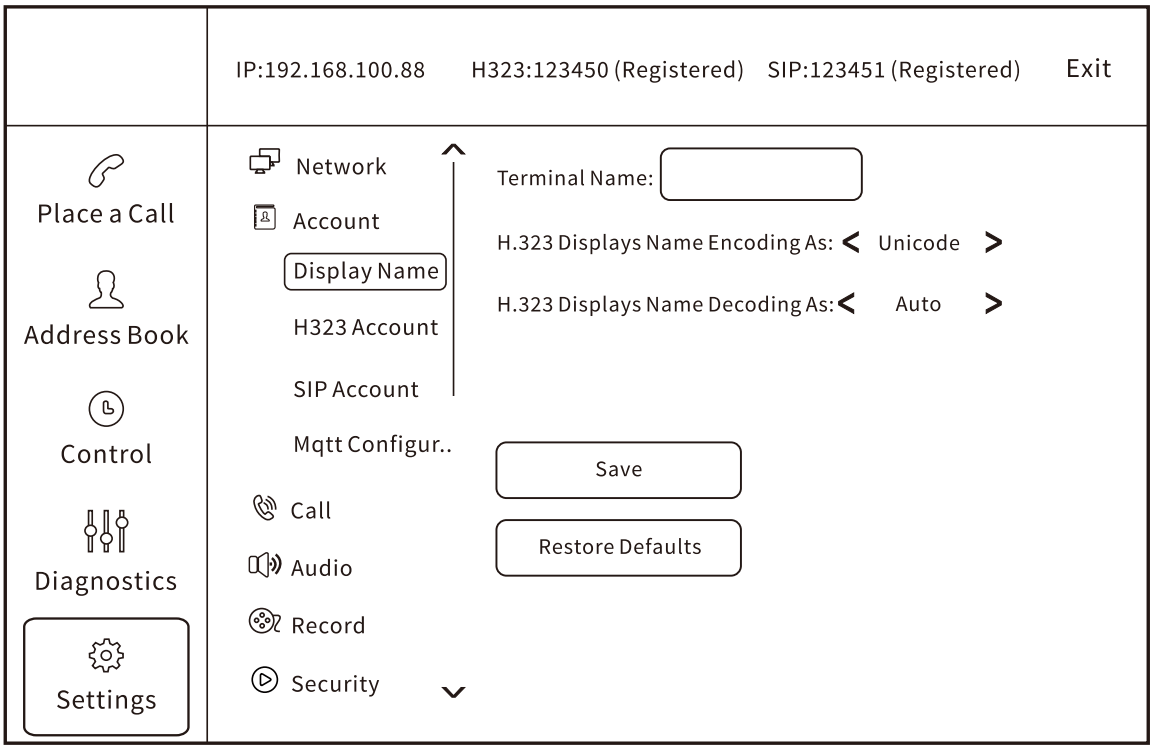
Configure H323 Account, SIP Account, Display Name and other parameters.

3.8.2.1 Display Name

Configure the terminal display name, H.323 Show the name encoding as and H.323 displays the name decoding as.

- **Operating Steps**

Step 1 On the WEB configuration page, select " > Account > Display Name".



Step 2 Configure the "Display Name" parameters, which are shown in the following table.

Step 3 Select "Save".

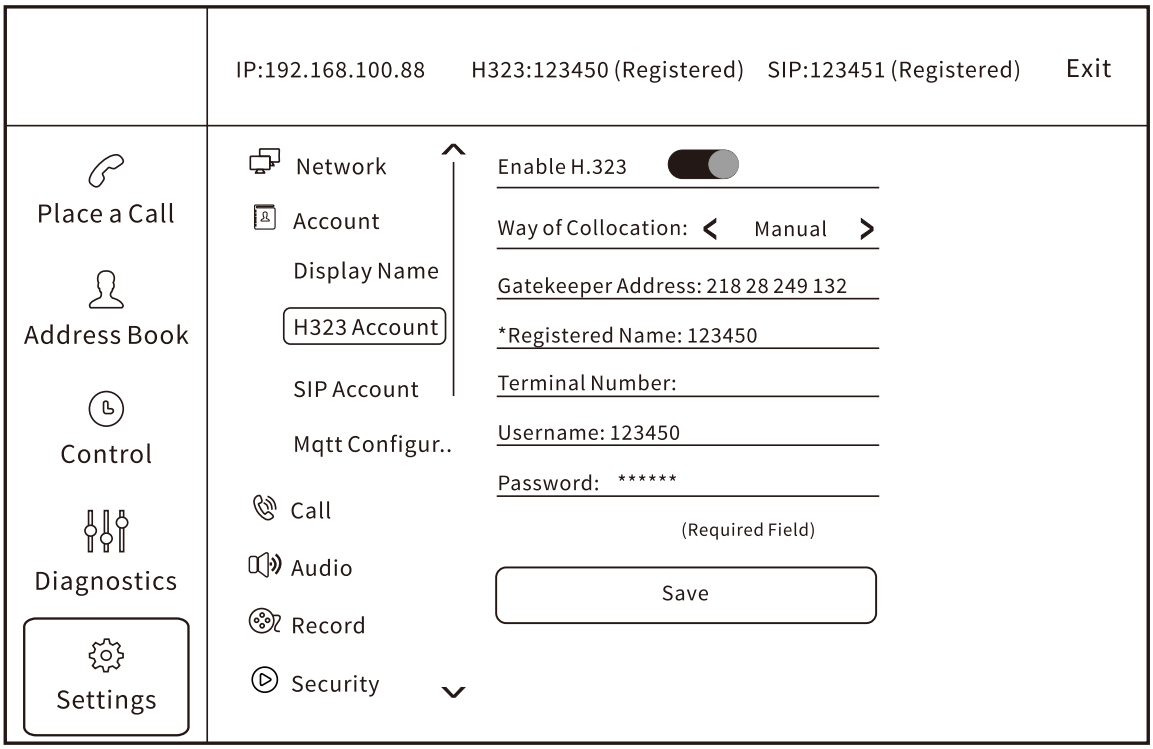
Parameter	Parameter Declaration	Parameter Setting
Terminal Name	Configure the terminal display name.	Default: Empty
H.323 Display Name Encoding As	Configure H.323 Display the name encoding mode: Unicode, GBK.	Default: Unicode
H.323 Display Name Encoding As	configure H.323 Display the name decoding mode: Auto, Unicode, GBK.	Default: Auto

3.8.2.2 H323 Account

When using the H.323 protocol for video communication, H323 account information such as GK Address, Registered Name and other parameters shall be configured.

- **Operating Steps**

Step 1 On the WEB configuration page, select " > Account > H323 Account".



Step 2 Configure the "H323 Account" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Enable H.323	Select whether to enable the H.323.	Default: Enabled
Way of Collection	Select H.323 Account configuration mode: Manual, Unregister.	Default: Manual
Gatekeeper Address	Set up the IP address or domain name of the GK server. When set to the domain name, you need to enable the DNS server and set the correct mapping on the DNS server.	No default value (consult GK server administrator)
Registered Name	The name of the terminal registered on the GK. After the terminal is registered to the GK server, the GK server identifies the terminal with that name.	No default value (consult GK server administrator)
Terminal Number	The venue number corresponding to the terminal. After the terminal is registered to the GK	No default value (consult GK server administrator)

Parameter	Parameter Declaration	Parameter Setting
	server, other terminals can use the number to call the terminal.	
Username	Username of the terminal registered on GK.	No default value (consult GK server administrator)

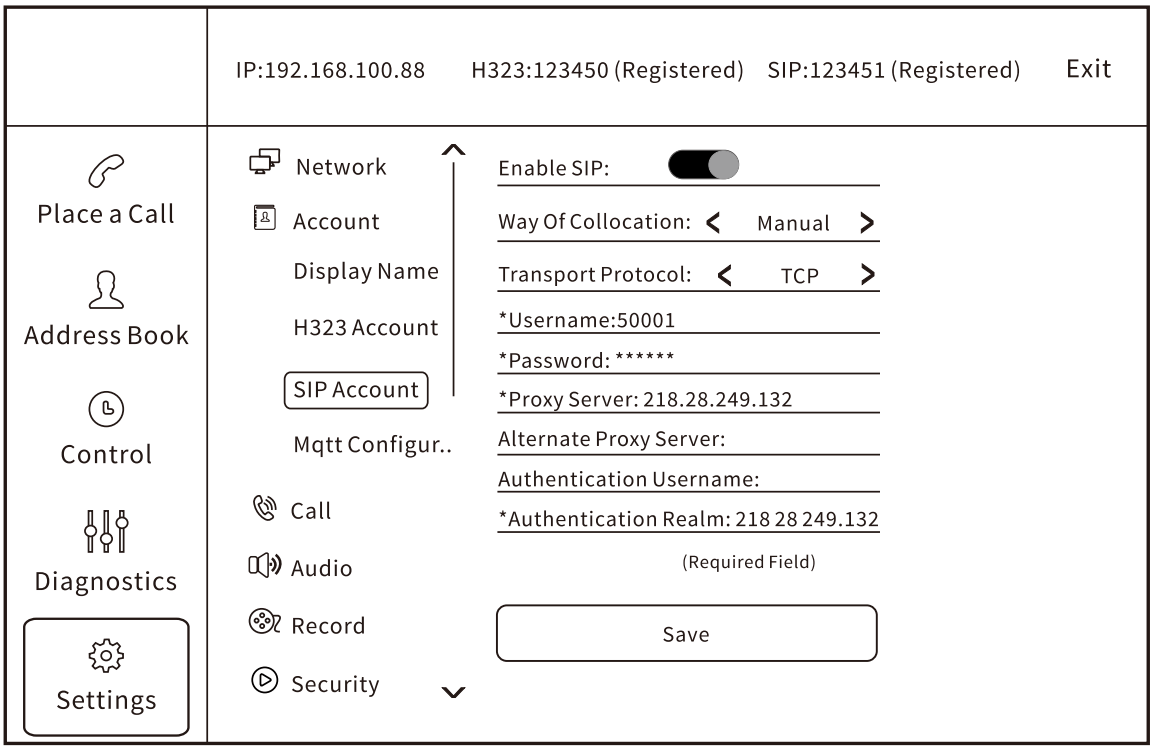
Parameter	Parameter Declaration	Parameter Setting
Password	The password registered by the terminal with the GK server is used for the GK server to authenticate the legitimacy of the terminal.	No default value (consult GK server administrator)

3.8.2.3 SIP Account

When using the SIP (Session Initiation Protocol) protocol for video communication, the SIP account information such as the Username, Password and other parameters should be configured.

- **Operating Steps**

Step 1 On the WEB configuration page, select " > Account > SIP Account".



Step 2 Configure the "SIP Account" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Enable SIP	Select whether to enable SIP.	Default: Enabled
Way of Collocation	Select the SIP account configuration mode: Manual, Unregister.	Default: Manual

Parameter	Parameter Declaration	Parameter Setting
Transport Protocol	Select transport protocol: TCP, UDP, TLS, Auto.	Default: TCP

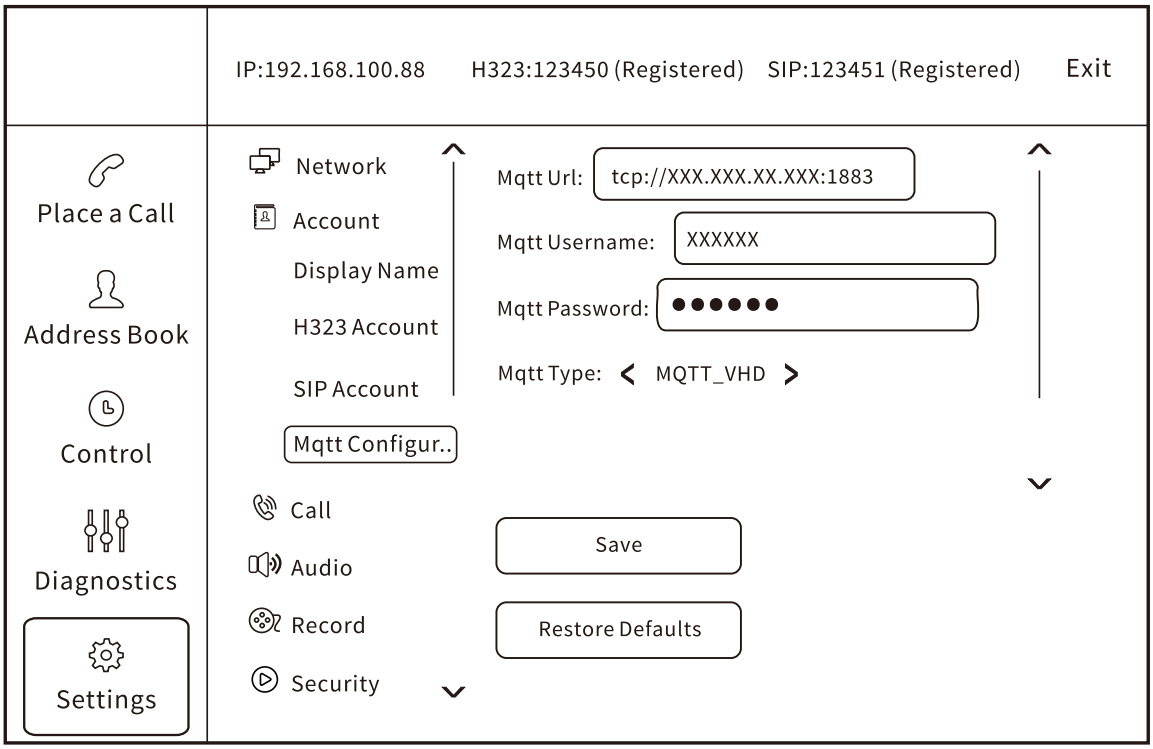
Parameter	Parameter Declaration	Parameter Setting
Username	Enter the username used to register with the SIP server. After registration, the SIP server identifies the terminal by this name.	No default values (please refer to the SIP Server Administrator)
Password	Input the password for registering with the SIP server, ensuring the terminal's legitimacy during authentication. The password set on the terminal must match the one pre-set on the SIP server during authentication.	No default values (please refer to the SIP Server Administrator)
Proxy Server	Enter the IP address or domain name of the SIP proxy server. Enable this option when the user's network environment requires a proxy server.	No default values (please refer to the SIP Server Administrator)
Alternate Proxy Server	Enter the IP address or domain name for the SIP alternate proxy server.	No default values (please refer to the SIP Server Administrator)
Authentication Username	Enter the username used for the authentication.	No default values (please refer to the SIP Server Administrator)
Authentication Realm	Enter the domain name used for authentication.	No default values (please refer to the SIP Server Administrator)

3.8.2.4 Mqtt Configuration

Mqtt connects to the device management platform. After configuration, the terminal automatically connects to the device management platform, so that the platform can see the status and some basic information of the terminal, as well as the remote operation of the terminal.

- **Operating Steps**

Step 1 On the WEB configuration page, select " > Account> Mqtt Configuration".



Step 2 Configure the Mqtt Url, Mqtt Username and Mqtt Password, select the Mqtt Type.

Step 3 Select "Save".

3.8.3 Call

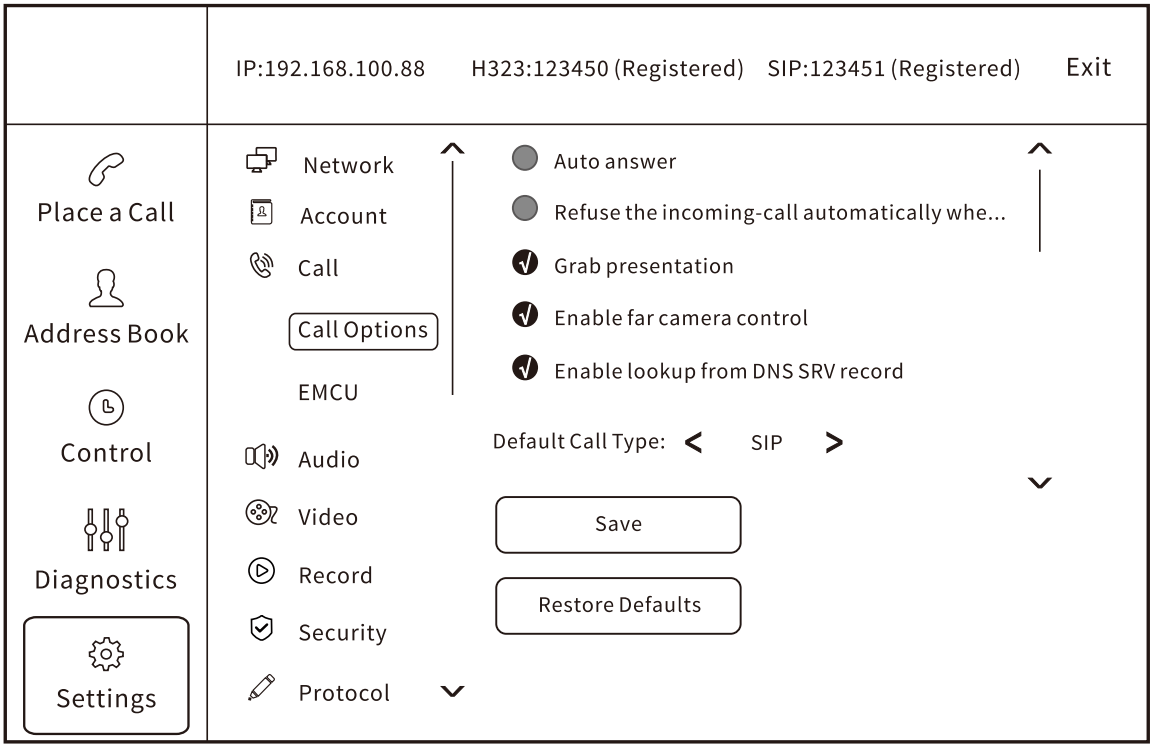
Configure the call Options and the EMCU parameters.

3.8.3.1 Call Options

Configure whether to enable Auto answering, Automatic rejection when password error, preemption and other parameter information.

- **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Call > Call Options".



Step 2 Configure the "Call Options" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Auto Answer	Enable or disable auto answer: ● Disable Auto Answer: When a call is received, terminal popup prompts the user to accept the call. ● Enable Auto Answer: When the terminal is not in a meeting, it will answer all incoming calls automatically.	Default: Disabled
Refuse The Incoming-call Automatically When The Passport Does Not Match	When enabled, you need to set the Call-in password. When calling the terminal remotely, you need to add the # # * * password after the number. The terminal will automatically reject the call if the password is not included or is wrong.	Default: Disabled
Grab Presentation	After enabling the preemption secondary stream, the dual stream can also be sent at	Default: Enabled

Parameter	Parameter Declaration	Parameter Setting
	the remote end.	
Enable Far camera Control	When enabled, the remote camera will support controlled or remote controlled.	Default: Enabled
Enable Lookup from DNS SRV Record	When enabled, the DNS SRV records are made as a query for the domain names.	Default: Enabled
Default Call Type	Configure the terminal default call type: H.323, SIP, automatic.	Default: SIP
Default Call Rate	Terminal default call rate, improper call bandwidth setting will affect the quality of video communication or cause unsuccessful call.	Default: 1,920 kbps
Maximum Transmission Bandwidth	The uplink bandwidth limit, regardless of the call rate, the actual transmission rate will not exceed the transmission bandwidth.	Default: 8,000 kbps
Maximum Receiving Bandwidth	Downlink bandwidth limit, regardless of the call rate, the actual receiving rate will not exceed the receiving bandwidth.	Default: 8,000 kbps
Presentation Bandwidth Percentage	When sending a secondary stream, the bandwidth ratio allocated for the secondary stream.	Default: 30%
Primary Video Mode	Select the appropriate video mode according to the set main video protocol: ● Clear: Prioritize image resolution. ● Smooth: Prioritize frame rate. ● Extremely smooth: Prioritize the frame rate to reach 60 frames.	Default: Smooth
Secondary Video Mode	Select the appropriate video based on the set presentation video protocol Mode: ● Smooth: Prioritize frame rate. ● Clear: Prioritize image resolution. ● Extremely smooth: Prioritize the frame rate to reach 60 frames. ● PPT: Prioritize document.	Default: Smooth

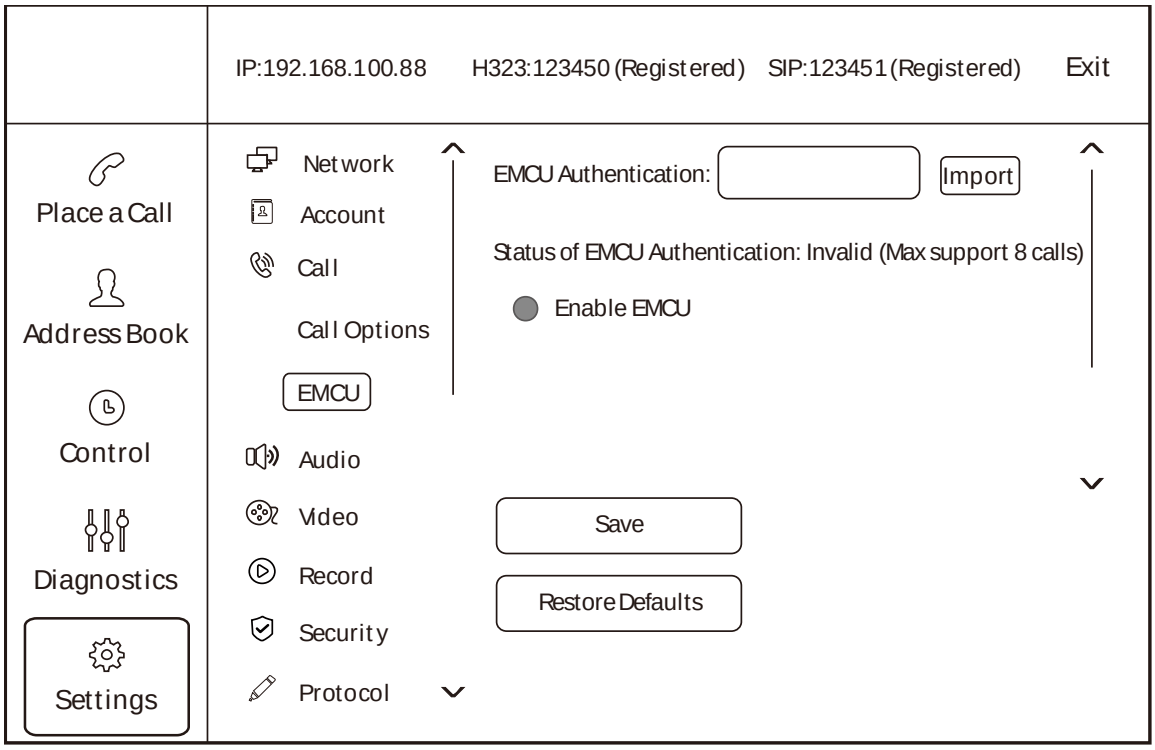
Parameter	Parameter Declaration	Parameter Setting
Media Waiting Time	Configure the media waiting time.	Default: 60 seconds
I Frame Request Filter Time	Configure the I frame request filter time.	Default: 3 seconds
Interval Time of IDR Frame	Configure the Send I frame time.	Default: 0

3.8.3.2 EMCU

Configure the EMCU authorization and whether to enable the EMCU.

- **Operating Steps**

Step 1 On the WEB configuration page, select " > Call >EMCU".



Step 2 Configure the "EMCU" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
EMCU Authorization	Manually configure the EMCU authorization.	Default: Empty
Status of EMCU Authorization	Displays the EMCU authorization status.	Default: Invalid

Parameter	Parameter Declaration	Parameter Setting
Enable EMCU	Select whether to enable EMCU features.	Default: Disabled

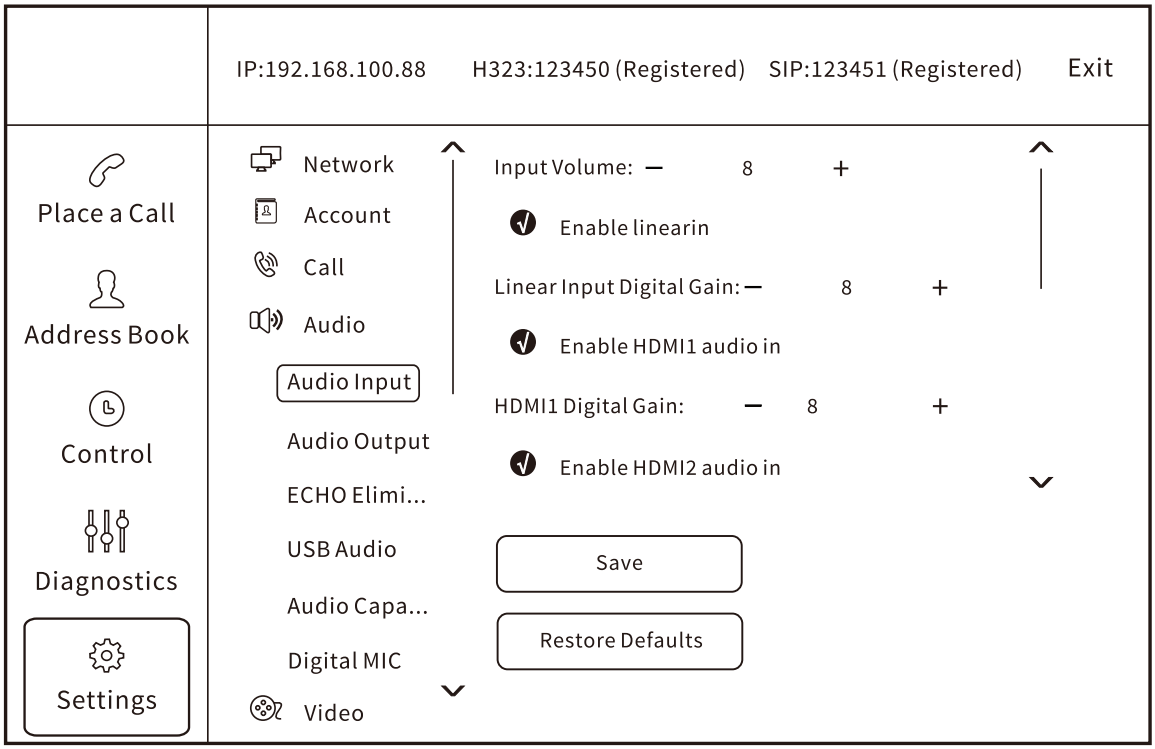
3.8.4 Audio

Configure parameter information such as Audio Input, Audio Output, ECHO Elimination, and audio capability etc.

3.8.4.1 Audio Input

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Audio > Audio Input".



Step 2 Configure the "Audio Input" parameters, which are shown in the table below.

Step 3 Select "Save".

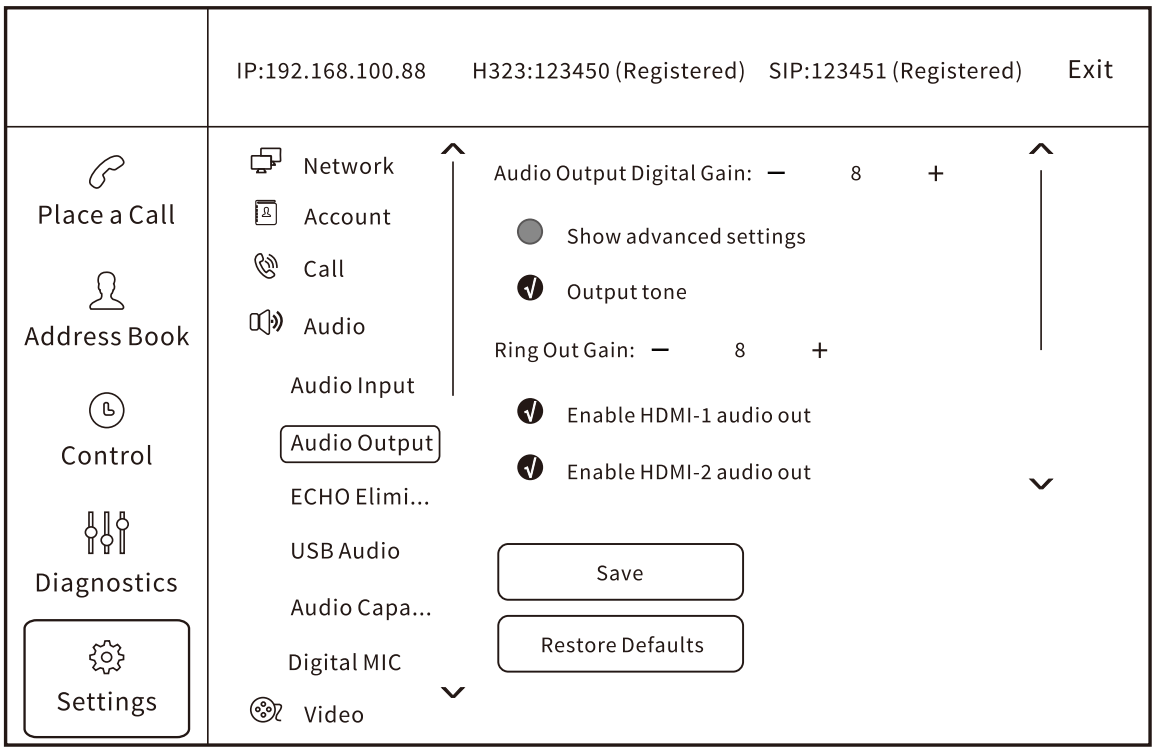
Parameter	Parameter Declaration	Parameter Setting
Input Volume	Configure the input volume gain.	Default: 8
Enable Linear In	After the linear input is enabled and the "LINE IN" interface on the rear panel of the terminal correctly connects the audio input, the linear input at the remote end.	Default: Enabled

Parameter	Parameter Declaration	Parameter Setting
Linear Input Digital Gain	Configure the linear input gain.	Default: 8
Enable HDMI IN1 Audio In	After the HDMI-IN input is enabled and the "HDMI-IN1" interface on the rear panel of the terminal is correctly connected to the audio input, the remote end can receive the local end's HDMI-IN input.	Default: Enabled
HDMI IN1 Digital Gain	After the built-in microphone input is enabled, the remote end can receive the local built-in microphone input.	Default: 8
Enable HDMI IN2 Audio In	After the HDMI-IN2 input is enabled and the "HDMI-IN2" interface on the rear panel of the terminal is correctly connected to the audio input, the remote end can receive the local end's HDMI-IN2 input.	Default: Enabled
HDMI IN2 Digital Gain	Configure HDMI-IN-2 input gain.	Default: 8
Enable Cannon-mic Audio In	After the XLR input is enabled and the "MIC IN" interface on the rear panel of the terminal is correctly connected to the audio input, the remote end can receive the local MIC IN.	Default: Enabled
Cannon-mic Digital Gain	Configure XLR input gain.	Default: 8
Take HDMI IN2 As Presentation Audio	Enable or disable HDMI IN2 audio input as presentation audio.	Default: Disabled
Take Linear in As Presentation Audio	Enables or disables linear input as presentation audio	Default: Disabled
Mute During Conference	Enable or disable mute during conference function.	Default: Disabled

3.8.4.2 Audio Output

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Audio > Audio Output".



Step 2 Configure the "Audio Output" parameters, which are shown in the table below.

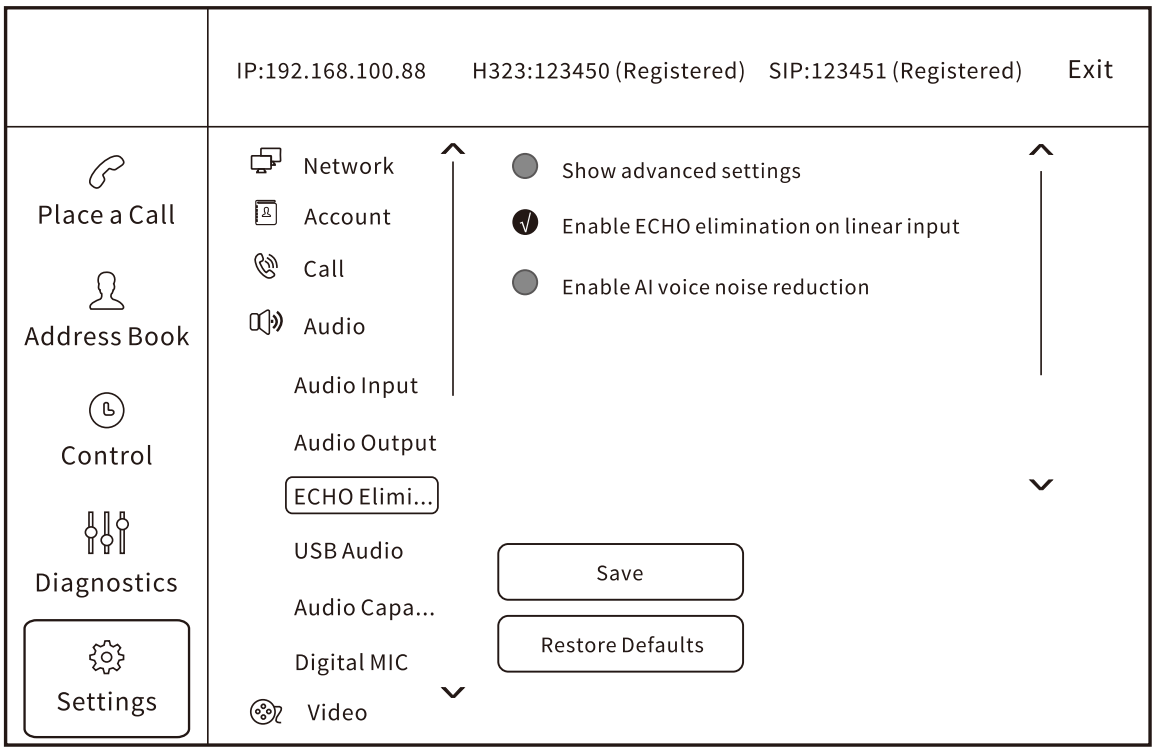
Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Audio Output Digital Gain	Configure the audio and make the output gain available.	Default: 8
Show Advanced Settings	Turns on or off displaying advanced settings.	Default: Disabled
Output Tone	Enable or disable the output ring tone. After enabling, you can hear the ring tone of the remote call from the local.	Default: Enabled
Ring Out Gain	Configure the ring tone output gain.	Default: 8
Enable HDMI-1 Audio Out	Select whether to enable HDMI-1 audio output.	Default: Enabled
Enable HDMI-2 Audio Out	Select whether to enable HDMI-2 audio output.	Default: Enabled
Enable Linear Out	Select whether to enable linear output.	Default: Enabled

3.8.4.3 ECHO Elimination

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Audio > ECHO Elimination".



Step 2 Configure the "ECHO Elimination" parameters, which are shown in the table below.

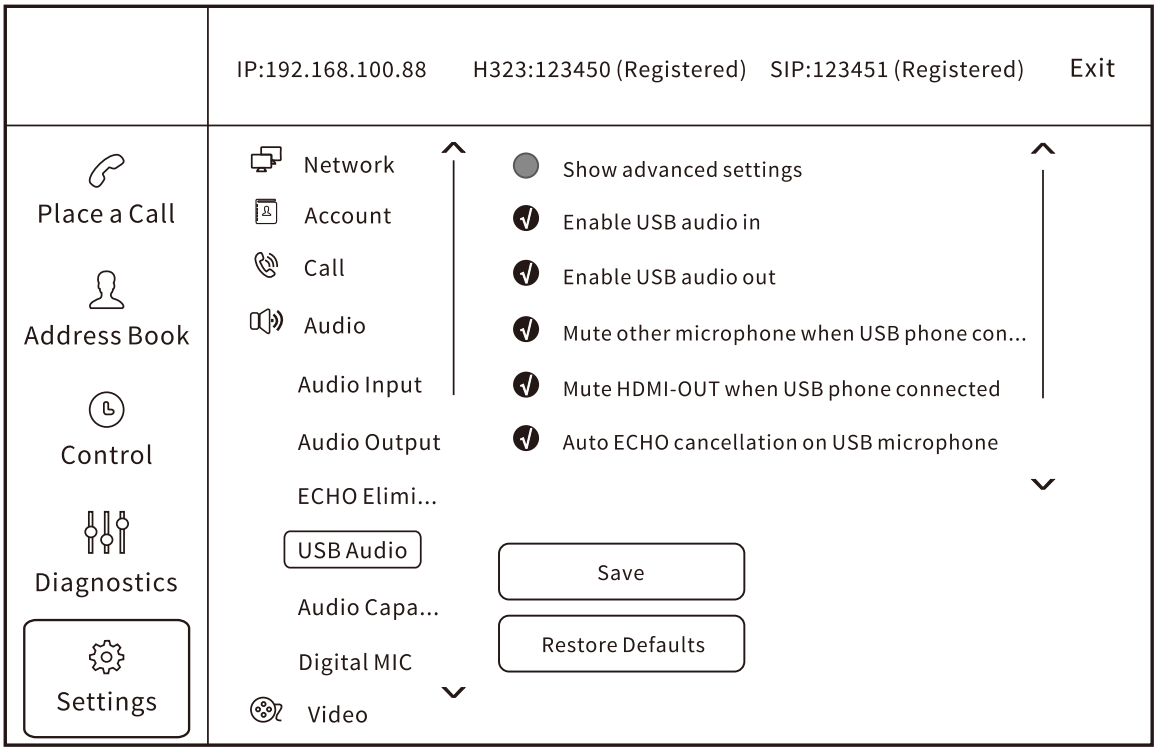
Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Show Advanced Settings	Enable or disable showing advanced settings.	Default: Disabled
Enable ECHO Elimination on Linear Input	Enable or disable echo cancellation for linear input. When enabled, the terminal will perform echo cancellation processing for linear input audio.	Default: Enabled
Enable AI Voice Noise Reduction	Select whether to enable AI noise reduction. After enabling it, the terminal will reduce ambient noise.	Default: Disabled

3.8.4.4 USB Audio

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Audio > USB Audio".



Step 2 Configure the "USB Audio" parameters, which are shown in the table below.

Step 3 Select "Save".

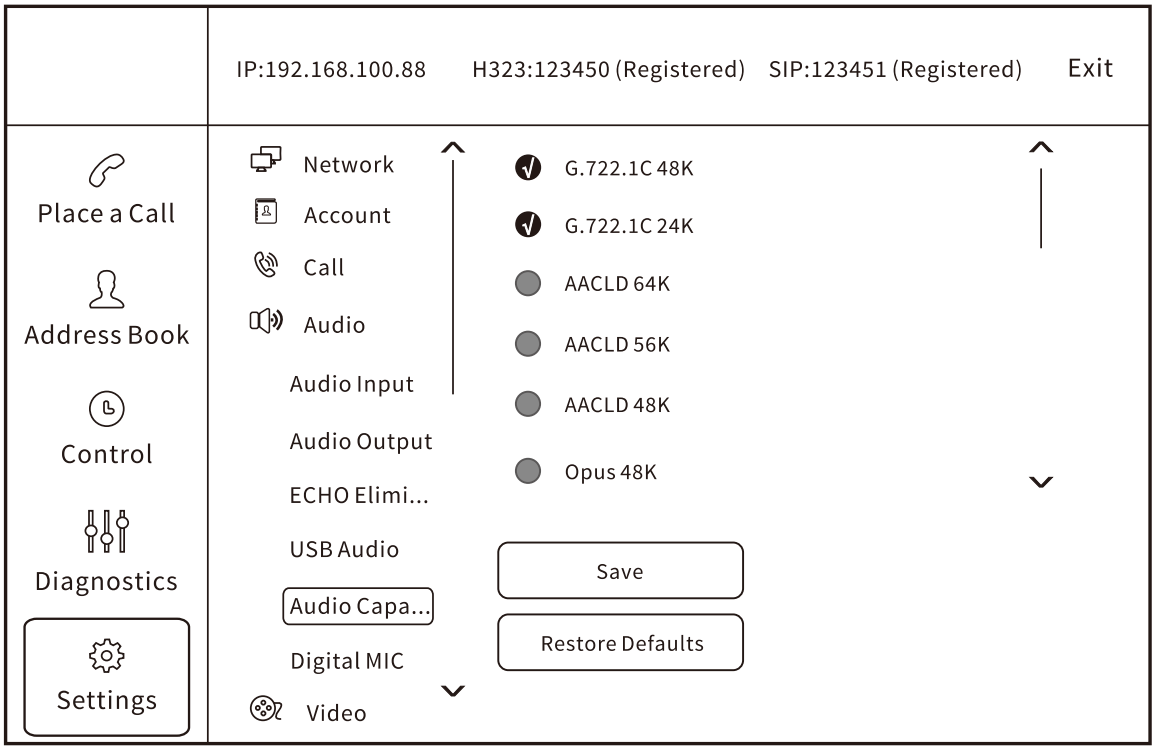
Parameter	Parameter Declaration	Parameter Setting
Show Advanced Settings	Enables or disables displaying advanced settings.	Default: Disabled
Enable USB Audio In	Select whether to enable the USB audio input.	Default: Enabled
Enable USB Audio Out	Select whether to enable the USB audio output.	Default: Enabled
Parameter	**Parameter Declaration**	**Parameter Setting**
Mute Other Microphone When USB Phone Connected	Enable or disable mute other microphones when USB phone connected.	Default: Enabled
Mute HDMI-OUT When USB Phone Connected	Enable or disable mute HDMI-OUT when USB phone connected.	Default: Enabled

Auto ECHO Cancellation on USB Microphone	**Enable or disable automatic echo cancellation for the USB microphone. When enabled, the terminal automatically echo cancels the USB microphone audio.**	**Default: Enabled**

3.8.4.5 Audio Capabilities

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Audio > Audio Capabilities".



Step 2 Configure the "Audio Capabilities" parameters, which are shown in the table below.

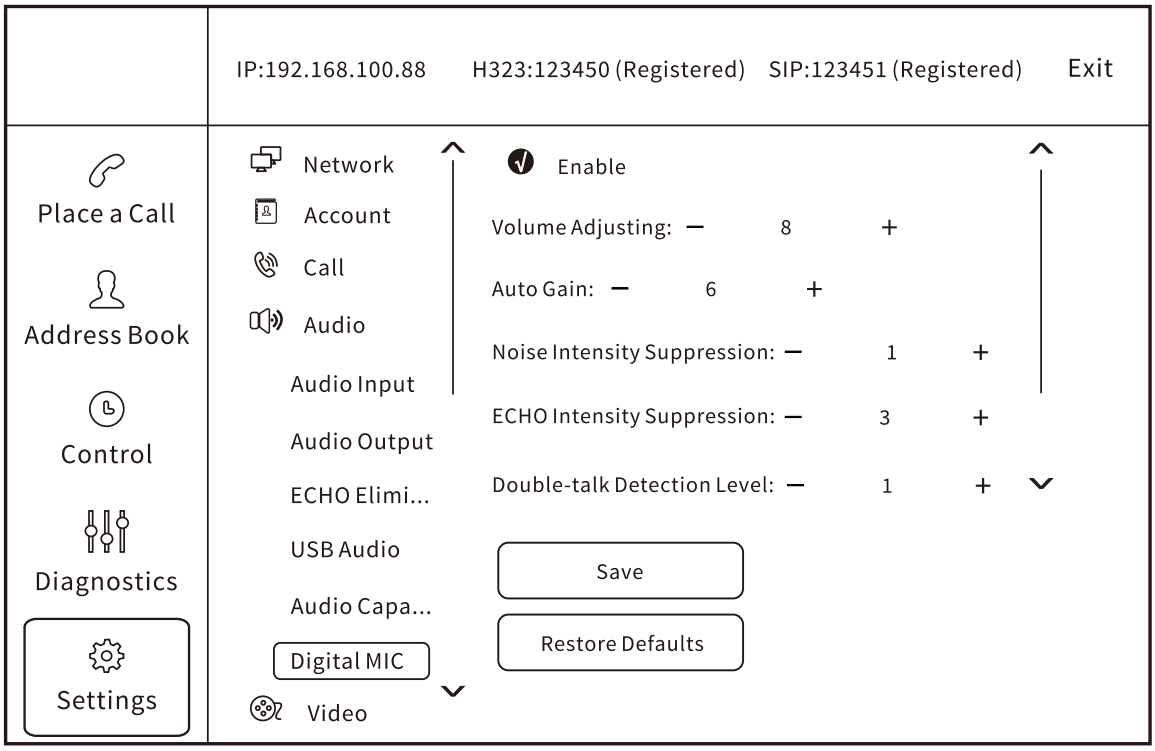
Step 3 Select "Save".

Audio Capability
G.722.1C 48K, G.722.1C 24K, AACLD 64K, AACLD 56K, AACLD 48K, Opus 48K, Opus 16K, Opus 8K, SILK 8K, SILK 16K, G.722, G.711μ-Law, G.711 A-Law, G.726 40K, G.726 32K, G.726 24K, G.729, G.711μ-Law 384K, G.711 A-Law 384。

3.8.4.6 Digital Mic

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Audio > Digital Mic".



Step 2 Configure the "Digital Mic" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Enable	Select whether to enable the digital mic.	Default: Enabled
Volume Adjusting	Configure the digital mic volume gain.	Default: 8
Auto Gain	Configure the digital mic automatic gain.	Default: 6
Noise Intensity Suppression	Configure the digital mic noise suppression intensity gain.	Default: 1
ECHO Intensity Suppression	Configure the digital mic echo suppression intensity gain.	Default: 3
Double-talk Detection Level	Configure the digital mic dual-end speech detection intensity gain.	Default: 1
RT60	Configure the digital mic reverberation time RT60 value.	Default: 400ms

3.8.5 Video

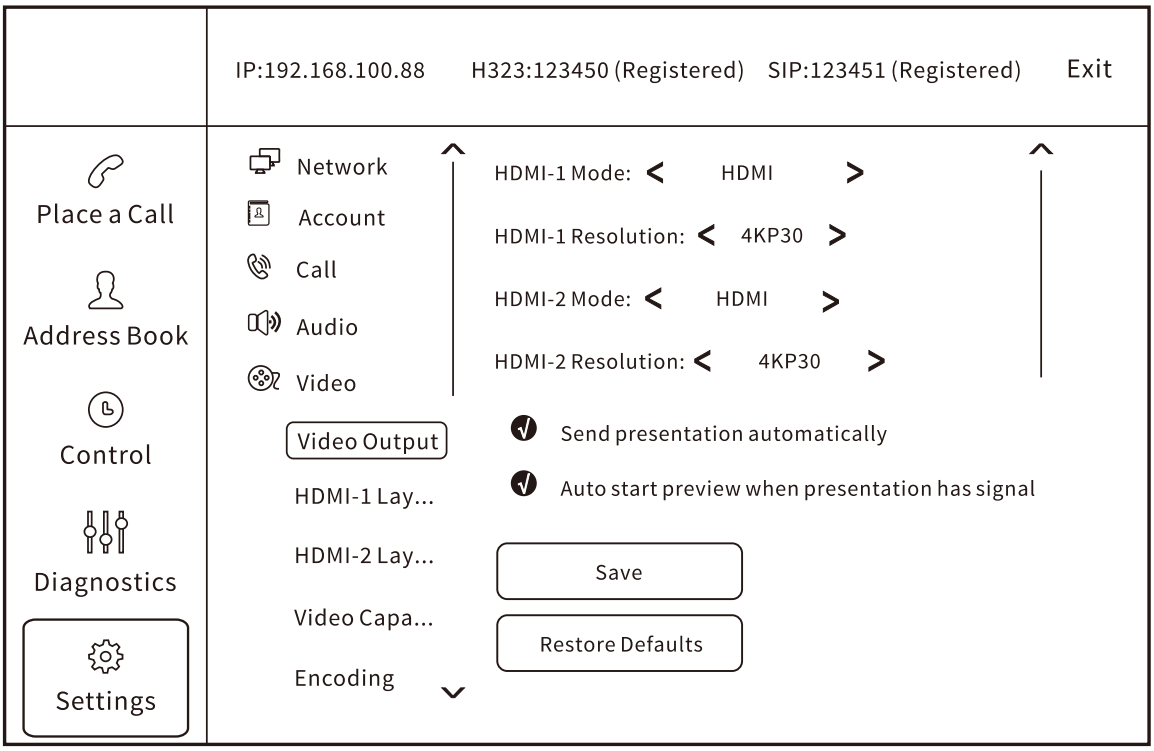
Configure the Video Output, Video Capability, HDMI Layout and other parameters.

3.8.5.1 Video Output

The terminal has two video output interfaces: HDMI OUT1 and HDMI OUT2.

- **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Video > Video Output".



Step 2 Configure the "Video Output" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
HDMI-1 Mode	The default output mode is HDMI.	Default: HDMI
HDMI-1 Resolution	Set HDMI-1 video output resolution to: 4KP60, 4KP30, 1080P60, 1080P50, 720P60, 720P50 (resolution negotiated through EDID, varying for different monitors).	Default: 4KP30

Parameter	Parameter Declaration	Parameter Setting
HDMI-2 Mode	The default output mode is HDMI.	Default: HDMI

Parameter	Parameter Declaration	Parameter Setting
HDMI-2 Resolution	Configure HDMI-2 video output resolution: 4KP60, 4KP30, 1080P60, 1080P50, 1080I50, 720P60, 720P50 (the output resolution is obtained through EDID negotiation, and different monitors negotiate different resolutions).	Default: 4KP30
Send Presentation Automatically	Enable or disable the automatic transmission of the auxiliary stream when there is a signal from the auxiliary video source.	Default: Enabled
Auto Start Preview When the Presentation Has Signal	Enable or disable automatic preview of auxiliary streams when there are signals from auxiliary video sources.	Default: Enabled
Show Presentation	Enable or disable auxiliary stream display. If disabled, layouts with auxiliary streams will not be shown.	Default: Enabled

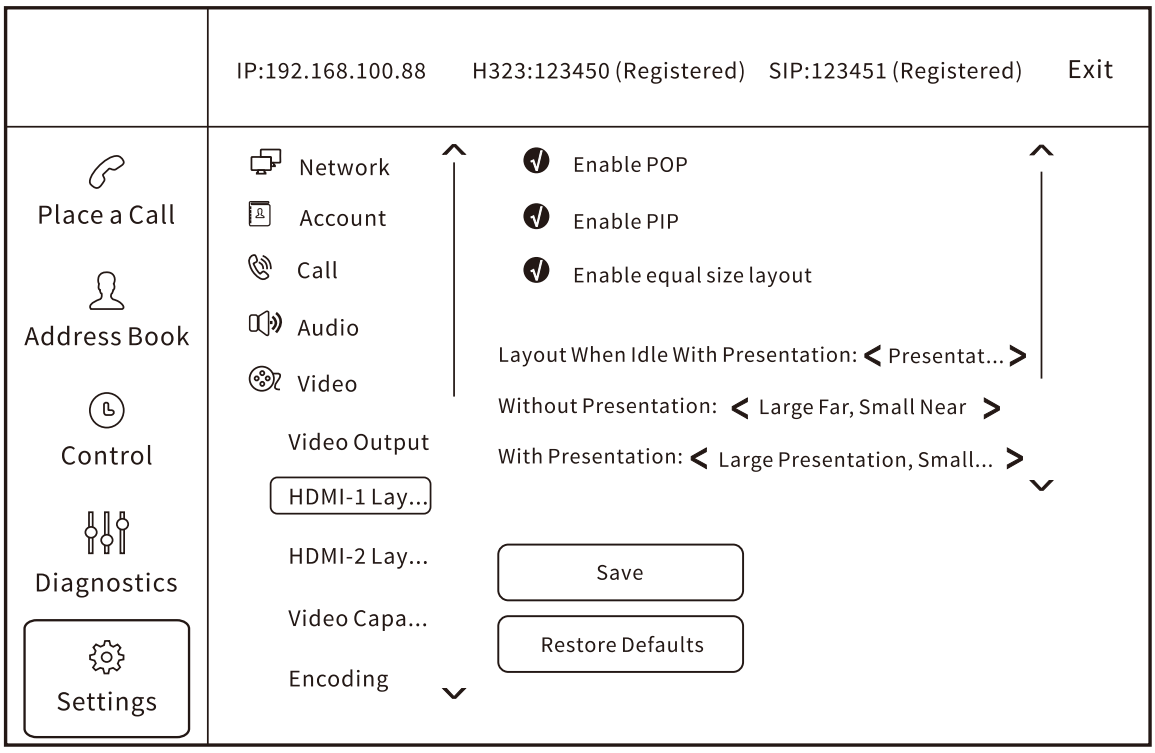
3.8.5.2 Picture Layout

When need to watch a combined image of the venue video and the demonstration screen on a display device, you can choose to switch the screen layout.

3.8.5.2.1 HDMI-1 Layout

- **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Video> HDMI-1 Layout".



Step 2 Configure the "HDMI-1 Layout" parameters, which are shown in the table below.

Step 3 Select "Save".

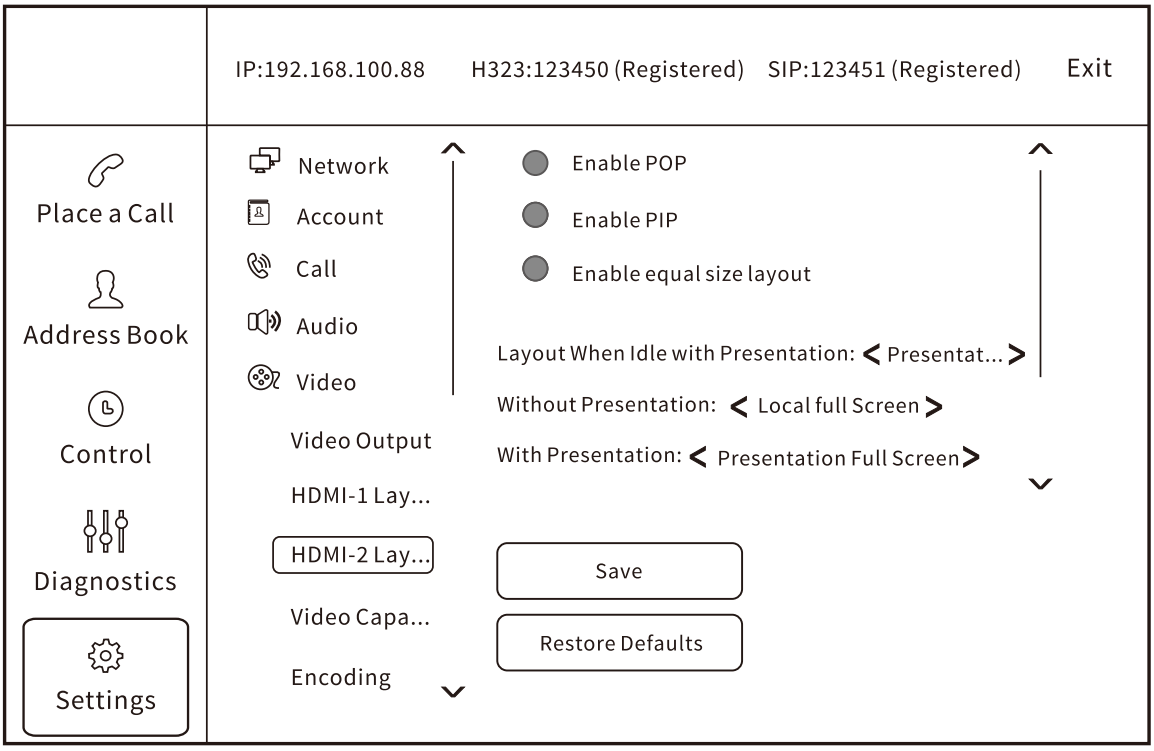
Parameter	Parameter Declaration	Parameter Setting
Enable POP	**Choose whether to enable the picture-by-picture layout. If not enabled, layouts of all sidebar types will not be displayed.**	**Default: Enabled**
Enable PIP	**Select whether to enable the picture-by-picture layout, and all in-picture types will not be displayed.**	**Default: Enabled**
Enable Equal Size Layout	**Choose whether to enable the equal-size layout. If not enabled, layouts of all Equal Size types will not be displayed.**	**Default: Enabled**
Layout When Idle with Presentation	**Choose the layout for idle presentation. The terminal will automatically switch to this layout when in idle presentation mode.**	**Default: Presentation Full Screen**
Without Presentation	**Choose the layout for the situation when there is no presentation in the meeting. The terminal will automatically switch to this layout in the absence of a presentation.**	**Default: Far Full Screen**

Parameter	Parameter Declaration	Parameter Setting
With Presentation	Choose the layout for the situation when there is a presentation in the meeting. The terminal will automatically switch to this layout when a presentation is active.	Default: Large Far, Small Near

3.8.5.2.2HDMI-2 Layout

➢ **Operating Steps**

Step 1 On the WEB configuration page, select " > Video> HDMI-2 Layout".



Step 2 Configure the "HDMI-2 Layout" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Enable POP	Choose whether to enable the picture-by-picture layout. If not enabled, layouts of all sidebar types will not be displayed.	Default: Disabled
Enable PIP	Select whether to enable the picture-by-picture layout, and all in-picture types will not be displayed.	Default: Disabled

Parameter	Parameter Declaration	Parameter Setting
Enable Equal Size Layout	Choose whether to enable the equal-size layout. If not enabled, layouts of all Equal Size types will not be displayed.	Default: Disabled
Layout When Idle with Presentation	Choose the layout for idle presentation. The terminal will automatically switch to this layout when in idle presentation mode.	Default: Presentation Full Screen
Without Presentation	Choose the layout for the situation when there is no presentation in the meeting. The terminal will automatically switch to this layout in the absence of a presentation.	Default: Local Full Screen
With Presentation	Choose the layout for the situation when there is a presentation in the meeting. The terminal will automatically switch to this layout when a presentation is active.	Default: Presentation Full Screen

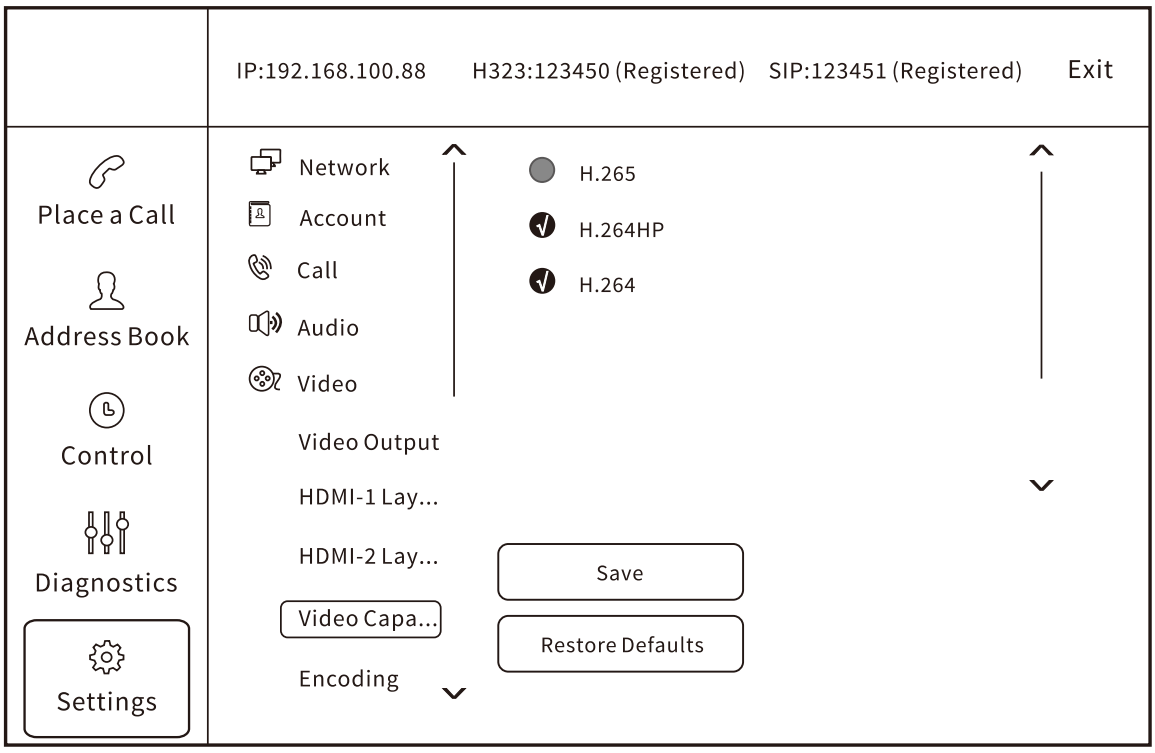
Note

In addition to the pre-configured layout, you can also switch the screen layout during the meeting, select "Control> Picture Switching" to configure the HDMI-1 and HDMI-2 layouts.

3.8.5.3 Video Capabilities

➢ **Operating Steps**

Step 1 On the WEB configuration page, select " > Video > Video Capabilities".



Step 2 Select the video protocol: H.265, H.264HP, H.264.

Step 3 Select "Save".

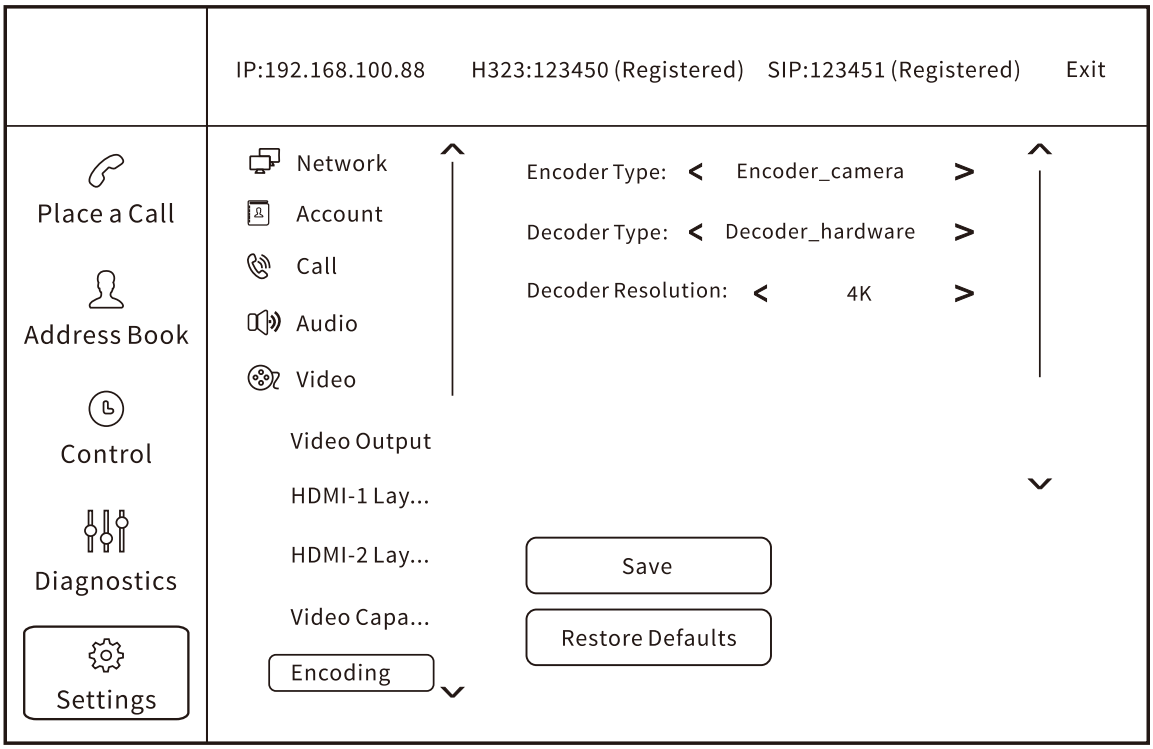
Note

- **Select at least one video protocol to ensure that the terminal can set up a video call.**
- **If you select all video capabilities, H.265 is preferred by default.**
- **4K encoding is only supported with H.265 video capability.**

3.8.5.4 Encoding

➢ **Operating Steps**

Step 1 On the WEB configuration page, select " > Video > Encoding".



Step 2 Configure the "Encoding" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Encoded Type	Configuration encoding mode: Encoder_camera, Encoder_hardware.	Default: Encoder_camera
Decoder Type	Default configuration decoding mode is Decoder_hardware	Default: Decoder_hardware
Decoder Resolution	Configuration the decoder resolution: 4K, 1080P.	Default: 4K

3.8.6 Record

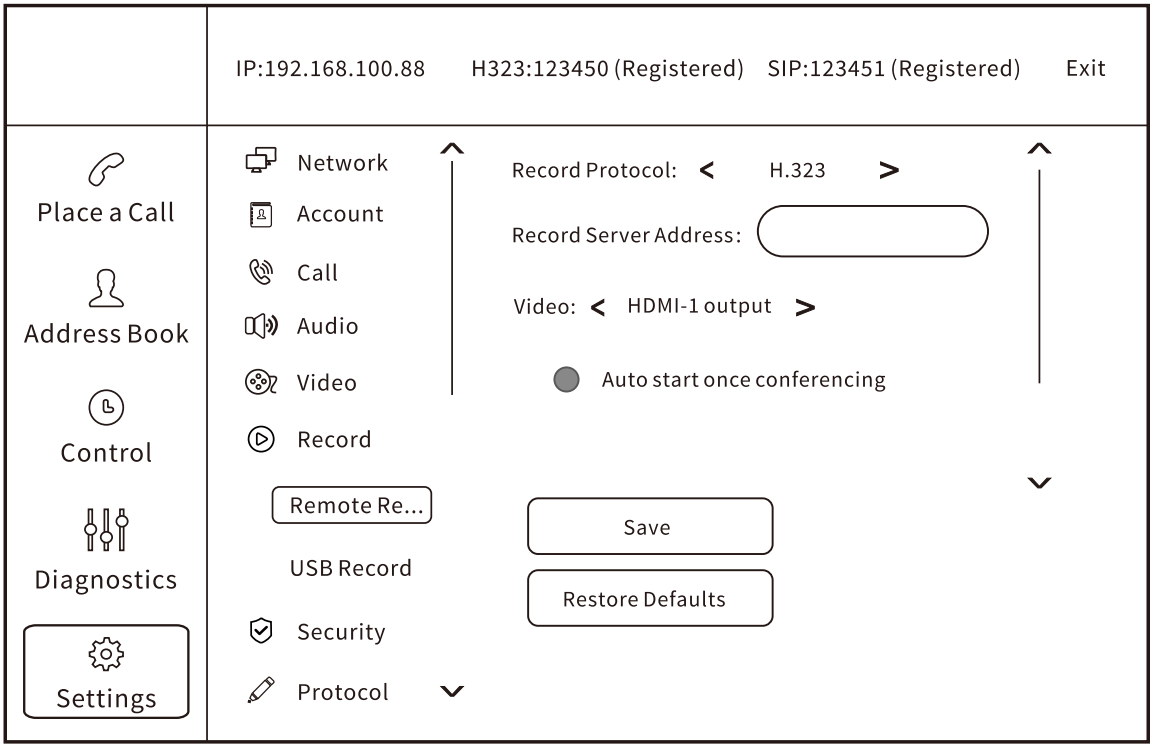
While using the terminal, you can record the main video source or HDMI-1 output, and the recorded video can be saved and played. The terminal supports two recording methods: remote recording, storing content on the recording server, and USB recording, storing content on a local USB drive. Due to limited recording resources, remote recording and USB recording cannot be used simultaneously. Please disable the other method when using one.

3.8.6.1 Remote Record

Before using the remote recording function, the necessary configuration of Record Protocol, Record Server Address and Record Source are required.

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Record > Remote Record".



Step 2 Configure the "Remote Record" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Record Protocol	Select the record protocol: H.323, RTMP.	Default: H.323

➢ **Parameter Table of the Record Protocol as H.323**

Parameter	Parameter Declaration	Parameter Setting
Record Server Address	Configure the address of the recording server and remote recording using the H.323 Agreement, where the address is an H.323 of the address, as in the form of 3212@192.168.1.240.	According to the actual configured recording server settings
Video	Select the content to record: ● Main video source: The main video source of the terminal, generally for the camera input. ● HDMI-1 output: The first route output of the terminal.	Default: HDMI-1 Output
Auto Start Once Conferencing	When enabled, the terminal will automatically open the remote recording after initiating the meeting, conveying the recording to the remote recording server. The recording will be automatically terminated after the meeting without additional intervention.	Default: Disabled

➢ **Parameter Table of the Record Protocol as RTMP**

Parameter	Parameter Declaration	Parameter Setting
RTMP Server Address	Configure the RTMP server address.	Configuration according to the actual requirements
Auto Complete Address	Enable or disable the automatic complete address function.	Default: Disabled
Bit Rate	Configure the RTMP push stream code rate.	Default: 768Kbps
Audio	Configure RTMP push stream audio source: Local and Remote, Local.	Default: Local and Remote
Video	Configure RTMP push video source: Primary Video Source, HDMI-1 Output.	Default: Primary Video Source
Start Mode	Configure RTMP push stream start mode: Manual Start, Auto Start Once Power On, Auto Start Once Conferencing.	Default: Manual Start

Note

In the case of selecting manual startup mode, manual control of remote recording is required. Move the cursor to select and enter “Control > Record Control” to turn on or off the Remote Broadcast function.

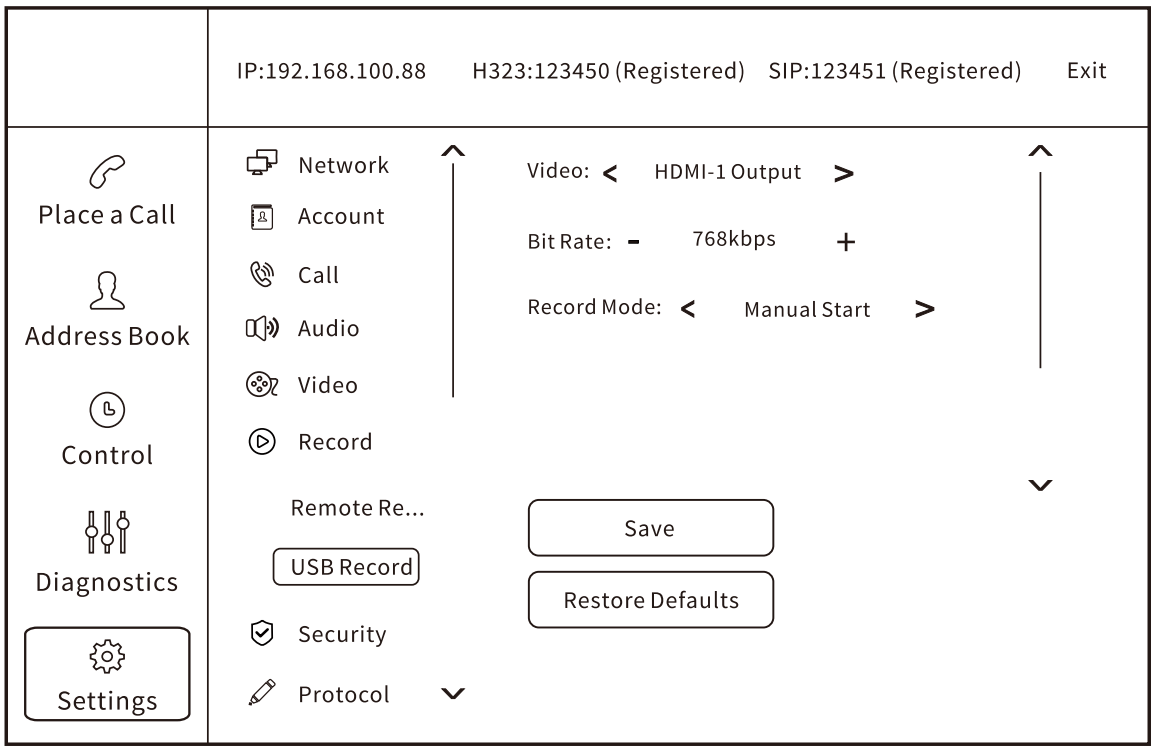
3.8.6.2 USB Record

USB recording utilizes rolling loop recording, automatically deleting the earliest recording file on the USB flash drive when full. Each recording file is 30 minutes long, with a size equivalent to the data amount of a 30-minute video. The file name follows the format "Terminal name + recording start time + mp4" suffix. USB recording file management is accessible only through the web interface. Playback of a single file is possible in local browsers, with Chrome and Firefox recommended. Additionally, you can download recorded files to the local computer for playback through a media player.

To use USB recording, insert a USB flash drive into the terminal's USB interface. Ensure proper configuration of video source, resolution, bit rate, and mode for the desired recording effect.

- **Operating Steps**

Step 1 On the WEB configuration page, select “ > Record > USB Record”.



Step 2 Configure the "USB Record" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Video	Select the content to record: ● Main video source: The main video source of the terminal, generally for the camera input. ● HDMI-1 output: The first route output of the terminal.	Default: HDMI-1 Output
Bit Rate	The bitrate of recorded video content data can be adjusted as required.	Default: 768kbps
Record Mode	Select the recording mode: ● Start from start: start automatically start USB recording. ● Self-start: USB recording will automatically start. ● Manual start: manually start the USB recording.	Default: Manual Start

Note

The startup method of USB record depends on the "record mode. Manually turn off the USB record and ensure the USB flash drive is formatted as FAT32. Do not remove the USB flash drive without turning off USB record to prevent damage to recorded files and the USB flash drive device.

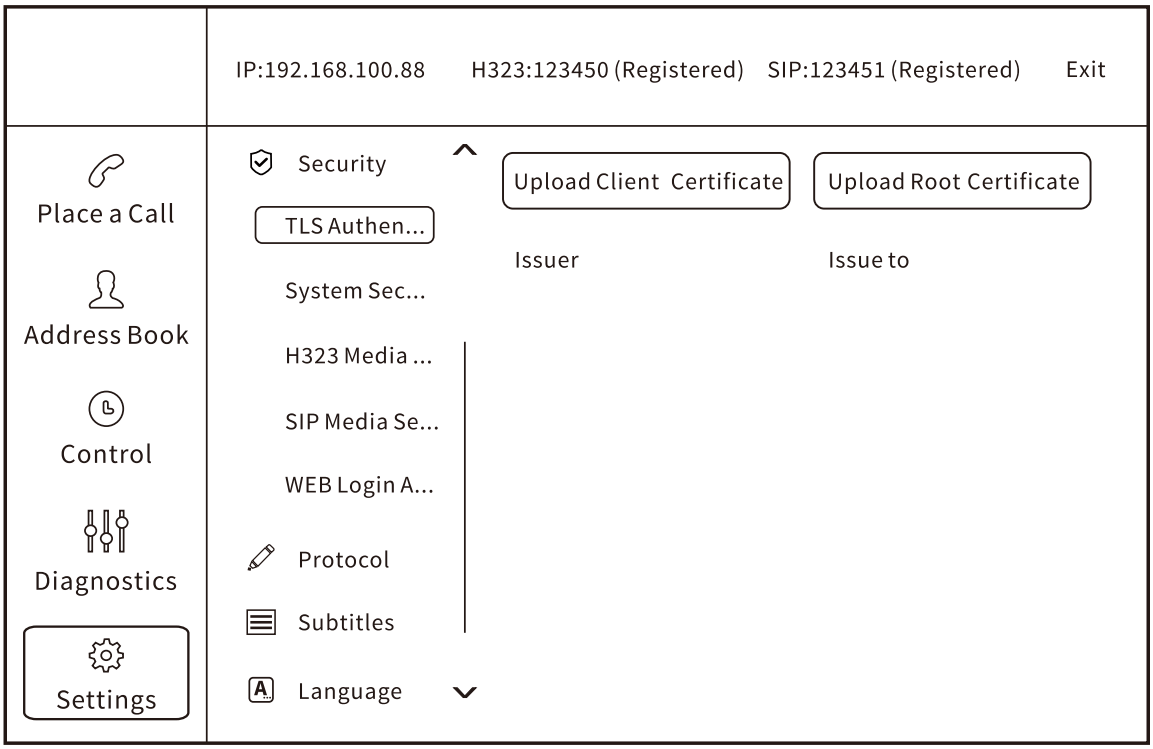
3.8.7 Security

To improve conference security, the conference data can be encrypted.

3.8.7.1 TLS Authentication

➢ **Operating Steps**

Step 1 On the WEB configuration page, select " > Security > TLS Authentication".

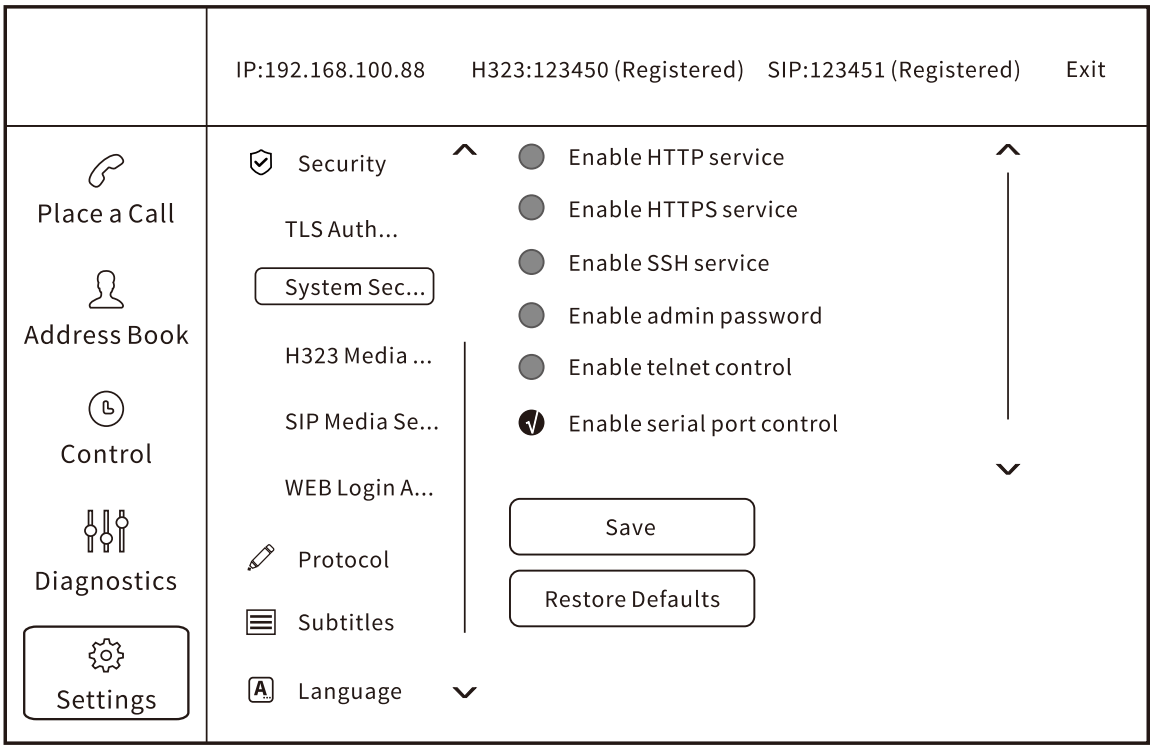


Step 2 Select "Upload Client Certificate" or "Upload Root Certificate" and complete the operation according to the prompts.

3.8.7.2 System Security

➢ **Operating Steps**

Step 1 On the WEB configuration page, select " > Security > System Security".



Step 2 Configure the "System Security" parameters, which are shown in the table below.

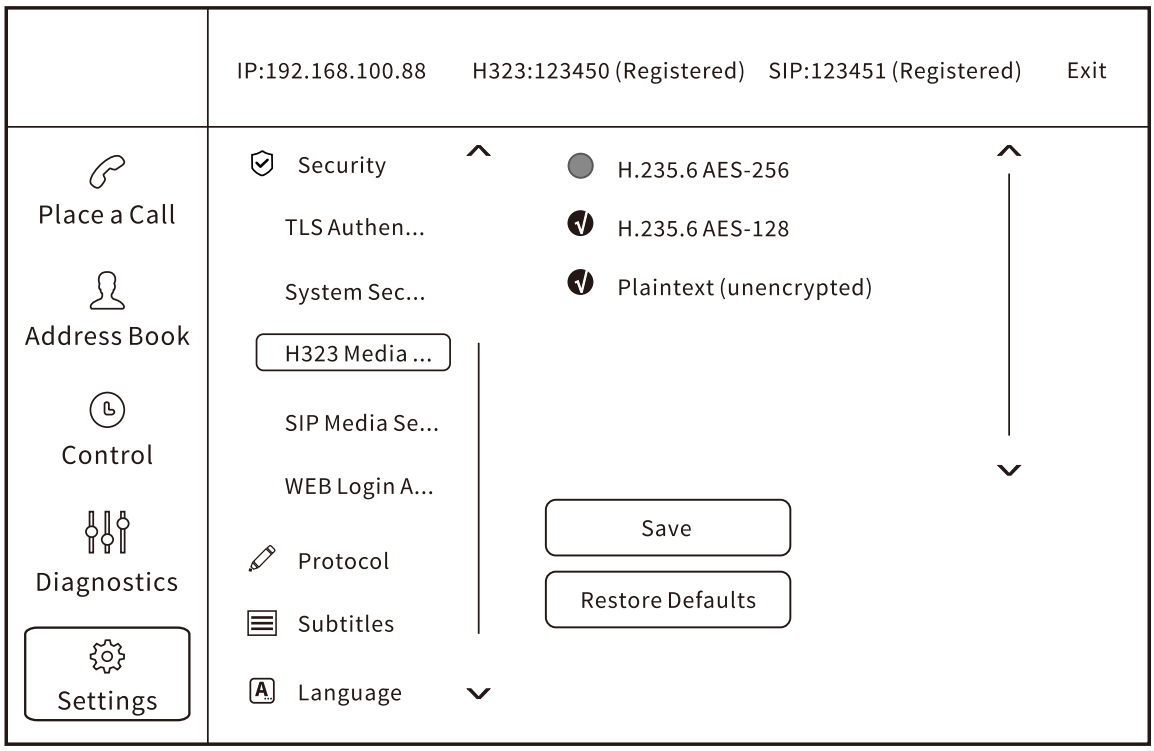
Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Enable HTTP Service	**Access the terminal WEB interface or API without encryption.**	**Default: Disabled**
Enable HTTPS Service	**Access the terminal WEB interface or API by encryption.**	**Default: Disabled**
Enable SSH Service	**The SSH protocol encrypts the data transmission of both parties. After the SSH service is enabled, the terminal can be logged in remotely and securely.**	**Default: Disabled**
Enable Admin Password	**Select whether to enable the administrator password.**	**Default Password: Admin123$**
Enable Telnet Control	**Select whether to enable the Telnet control.**	**Default: Disabled**
Enable Serial Port Control	**Select whether to turn on and enable Serial Control.**	**Default: Enabled**

3.8.7.3 H323 Media Security

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Security > H323 Media Security".



Step 2 Configure the "H323 Media Security" parameters, which are shown in the table below.

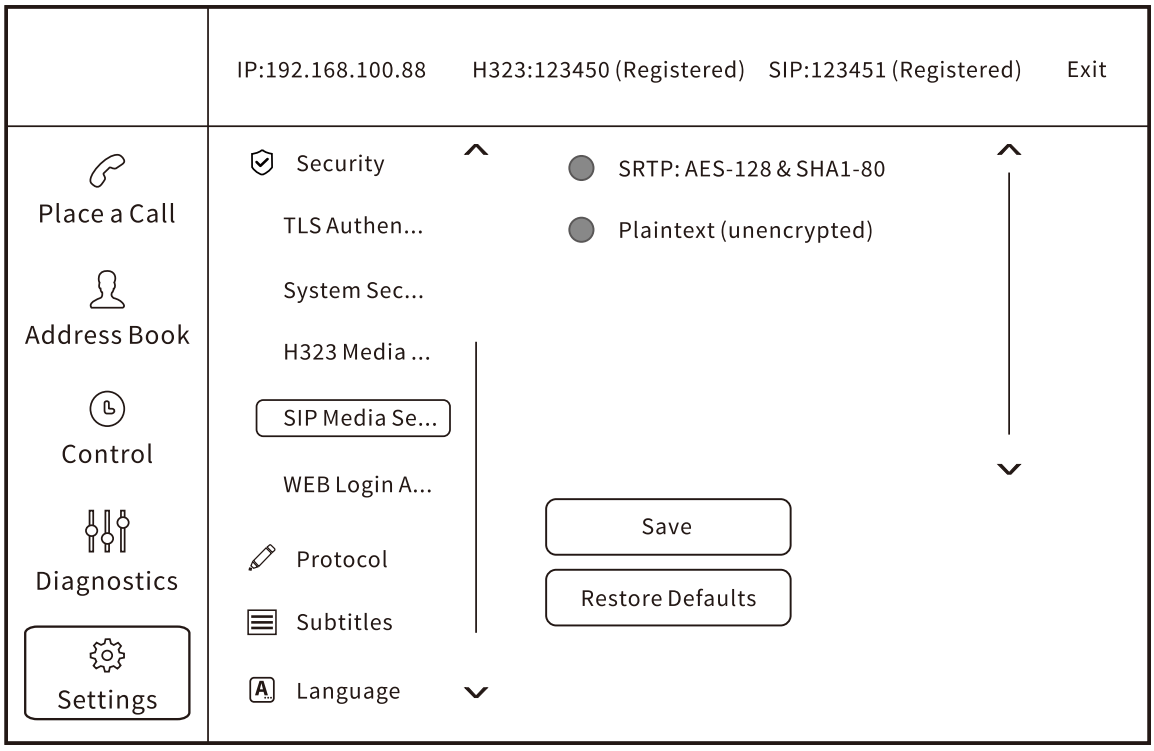
Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
H.235.6 AES-256	Enable or disable the H.235.6 AES-256.	Default: Disabled
H.235.6 AES-128	Enable or disable the H 235.6 AES-128.	Default: Enabled
Plaintext (unencrypted)	Enable or disable plaintext (without encryption).	Default: Enabled

3.8.7.4 SIP Media Security

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Security > SIP Media Security".



Step 2 Configure the "SIP Media Security" parameters, which are shown in the table below.

Step 3 Select "Save".

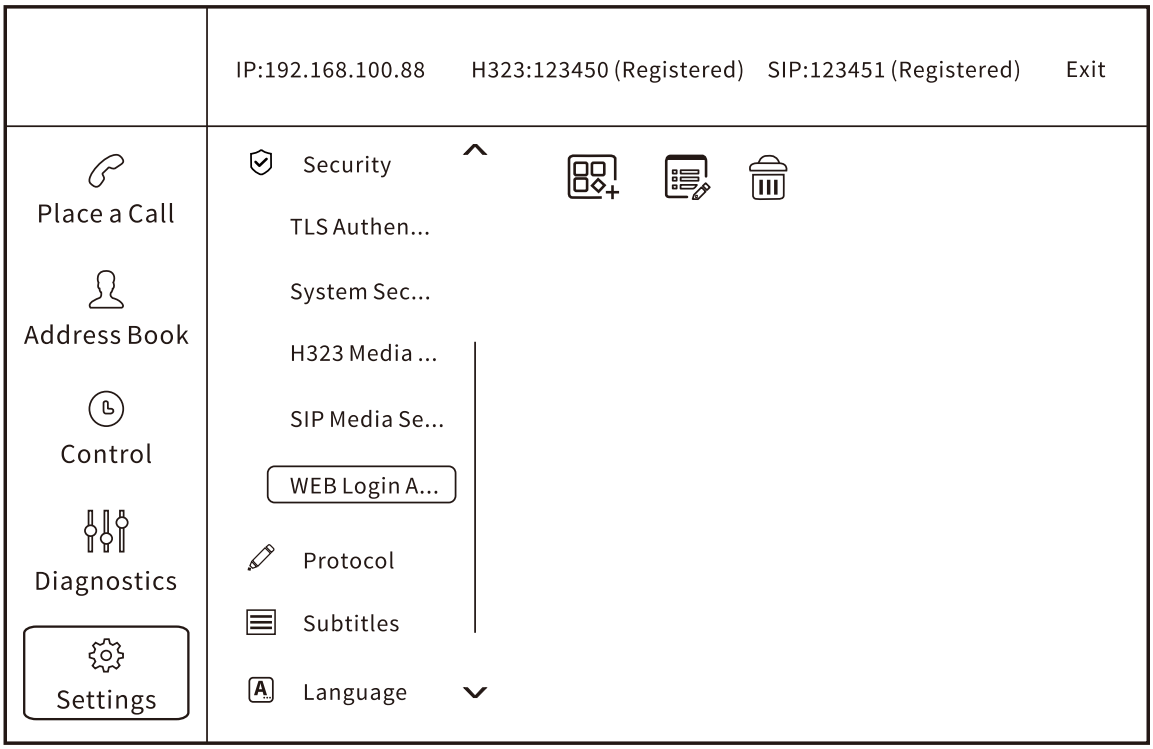
Parameter	Parameter Declaration	Parameter Setting
SRTP: AES-128 & SHA1-80	Enable or disable SRTP: AES-128 & SHA 1-80.	Default: Disabled
Plaintext (unencrypted)	Enable or disable plaintext (no encryption).	Default: Disabled

3.8.7.5 WEB Login Apply Blacklist

The terminal supports adding, editing and deleting the IP blacklist, and the IP address On the WEB login blacklist page forbids access to the terminal Web.

➢ **Operating Steps**

Step 1 On the WEB configuration page, select " > Security > WEB Login Apply Blacklist".



Step 2 Select to add, edit, or delete IP blacklist information.

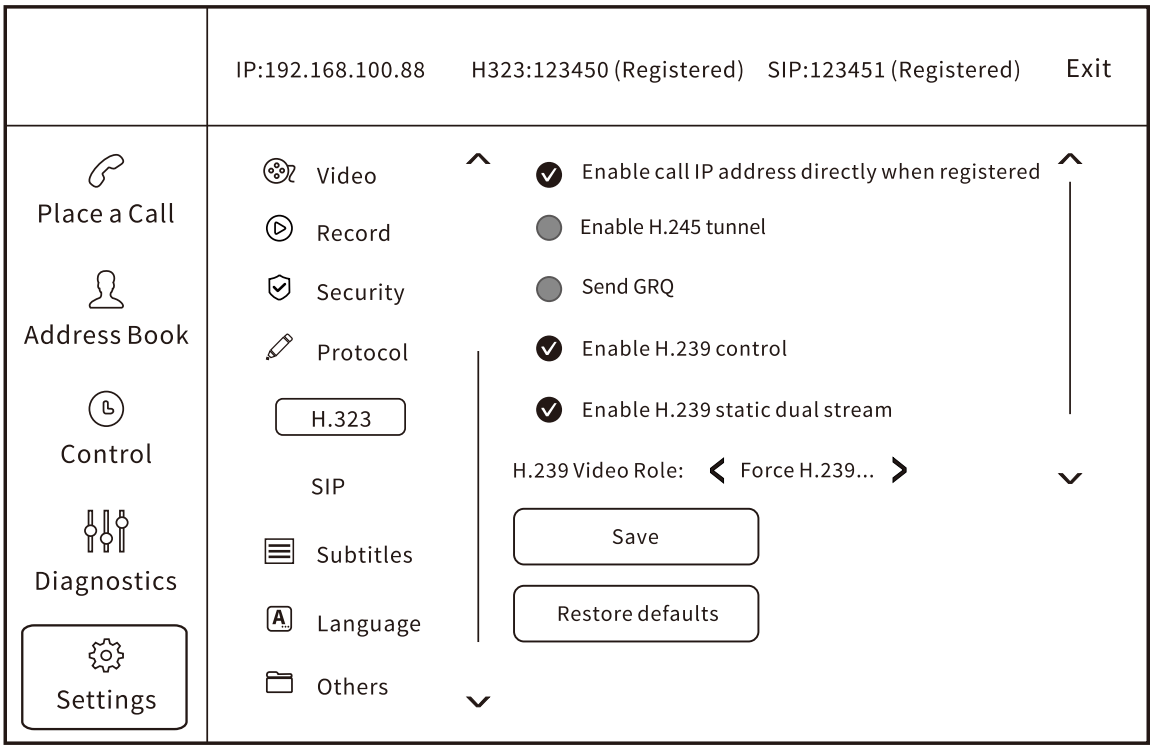
3.8.8 Protocol

Configure the H.323 or SIP registration information as required.

3.8.8.1 H.323

➢ **Operating Steps**

Step 1 On the WEB configuration page, select " > Protocol > H.323".



Step 2 Configure the "H.323 Protocol" parameters, which are shown in the table below.

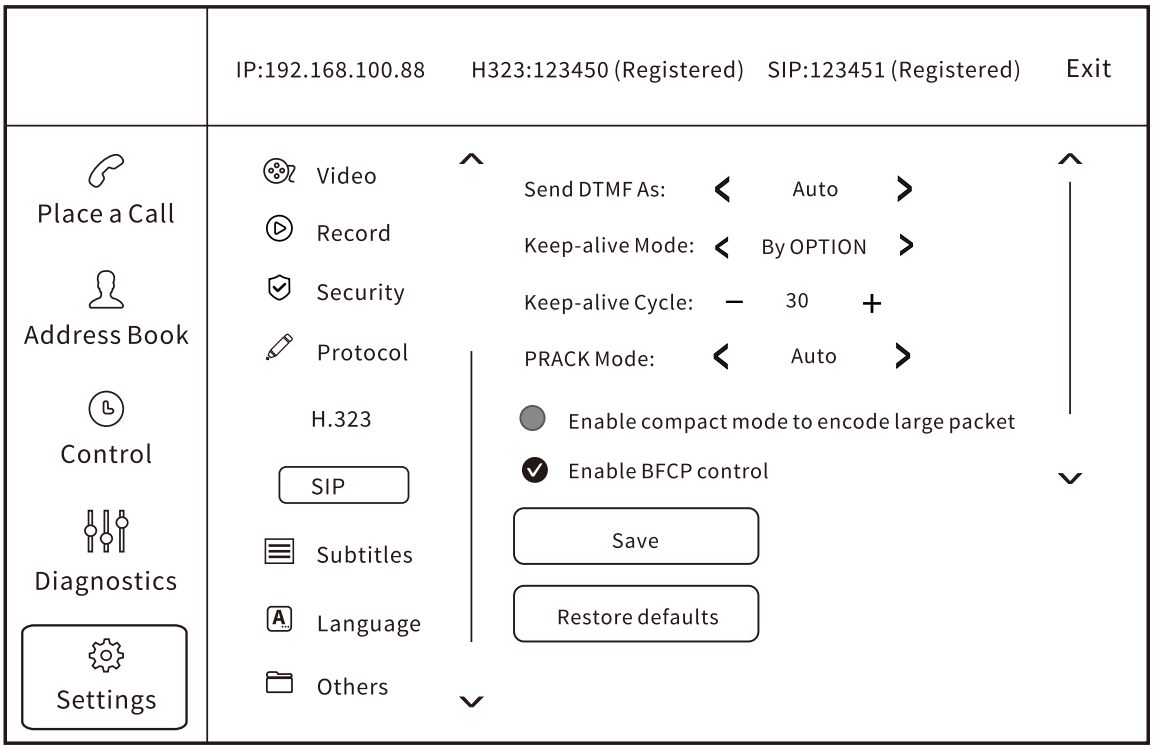
Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Enable Call IP Address Directly When Registered	Enable or disable the function of allowing a terminal to call an IP address directly when the terminal is registered with H.323.	Default: Enabled
Enable H.245 Tunnel	Select whether to enable the H.245 Tunnel.	Default: Disabled
Send GRQ	Enable or disable sending a GRQ.	Default: Disabled
Enable H.239 Control	Select whether to enable the H.239 Control.	Default: Enabled
Enable H.239 Static Dual Stream	Select whether to enable the H.239 A static two-stream flow.	Default: Enabled
H.239 Video Role	Configure H.239 Video character: Disable H.239 Dual Streaming, Force H.239 Presentation Mode.	Default: Force H.239 Presentation Mode
Send DTMF As	Configure to send the DTMF to the type: String, Audio Frequency, RFC2833, Q.931, In Band.	Default: RFC2833

3.8.8.2 SIP

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Protocol > SIP".



Step 2 Configure the "SIP Protocol" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Send DTMF as	Configure sending DTMF as type: Auto, RFC2833, INFO, in-band.	Default: Auto
Keep-alive Mode	Configuring SIP keepalive method: By OPTION, No Keep-alive, By CRLF.	Default: By OPTION
Keep-alive Cycle	Configure the SIP keepalive cycle gain.	Default: 30
PRACK Mode	Configure the PRACK mode: Auto, Supported and Disabled.	Default: Auto
Enable Compact Mode to Encode Large Packet	Enable or disabled the use compact mode to encode long message.	Default: Disabled
Enable BFCP	Select whether to enable the BFCP feature.	Default: Enabled

Parameter	Parameter Declaration	Parameter Setting
Control		
BFCP Client as Default	Enable or disable the default to the BFCP client.	Default: Enabled
BFCP Transmission Mode	Configure the BFCP transmission mode: TCP, UDP.	Default: UDP
Enable UDP Monitoring	Select whether to enable the UDP listening function.	Default: Enabled
UDP Monitoring Port	Configure the UDP listening port number.	Default: 5060
Enable TCP Monitoring	Select whether it's possible to enable TCP listening.	Default: Enabled
TCP Monitoring Port	Configure the TCP listening port number.	Default: 5060
Ignore Call from Unregistered Servers	Enable or disable ignore call from non-registered server.	Default: Enabled
Using Prefix SIP in TLS Mode	Enable or disable using the prefix sip in TLS mode.	Default: Enabled
Caller Dose Not Send Re-invitation	Enable or disable the primary call does not send a re-invite.	Default: Disabled
Send Info Request Key Frame	Enable or disable send info request for keyframes.	Default: Disabled
BFCP Support RFC8855	Enable or disable BFCP support RFC8855.	Default: Disabled

3.8.9 Subtitles

Configure the Terminal Name, Banner and Scroll Caption parameters.

3.8.9.1 Terminal Name

On the WEB configuration page, select "⚙ > Subtitle > Terminal Name", choose to enable or disable Subtitle Display. When enabling, you need to configure the Font Size, Font Color, and background Color etc.

3.8.9.2 Banner

On the WEB configuration page, select "⚙ > Subtitle > Banner" to configure the Title Type, Font Size, Font Color and Banner Content sent to the remote venue.

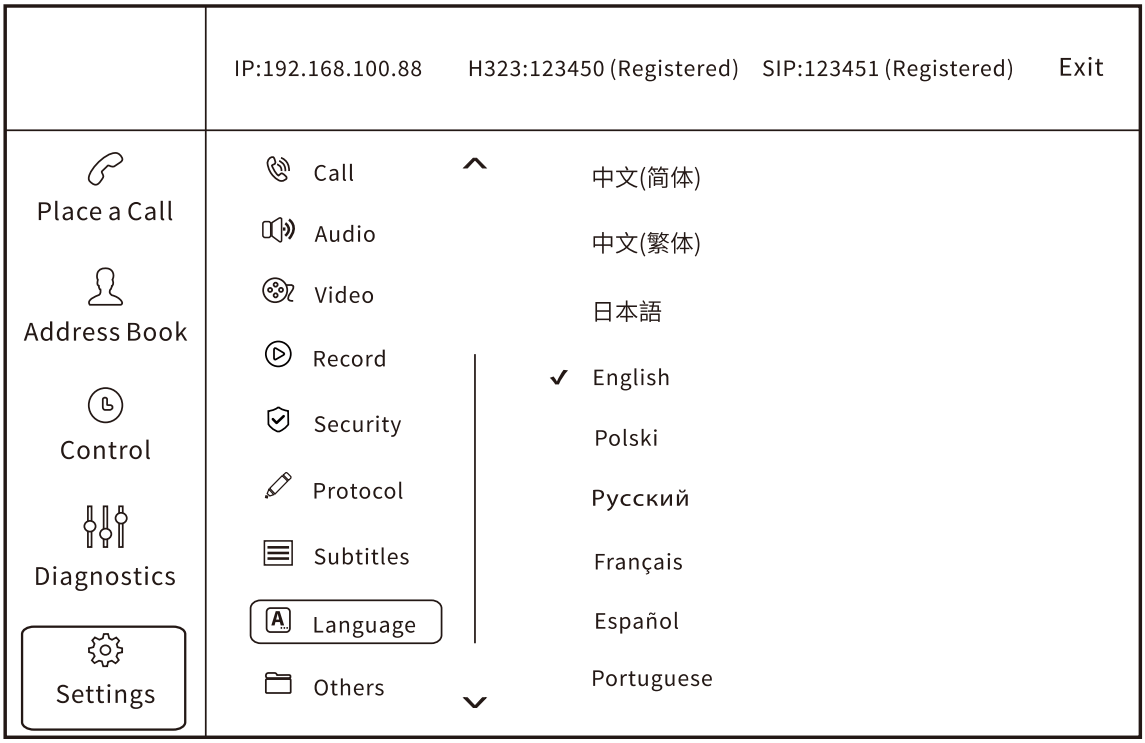
3.8.9.3 Scroll Caption

On the WEB configuration page, select "⚙ > Subtitles > Scroll Caption" to configure the Title Type, Font Color, Background Color and Caption Content sent to the remote venue.

3.8.10 Language

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Languages".



Step 2 After configuring the system language, log back to the WEB page.

3.8.11 Others

On the "Other" menu page, select configuration terminal Date, Logging, Upgrade, etc.

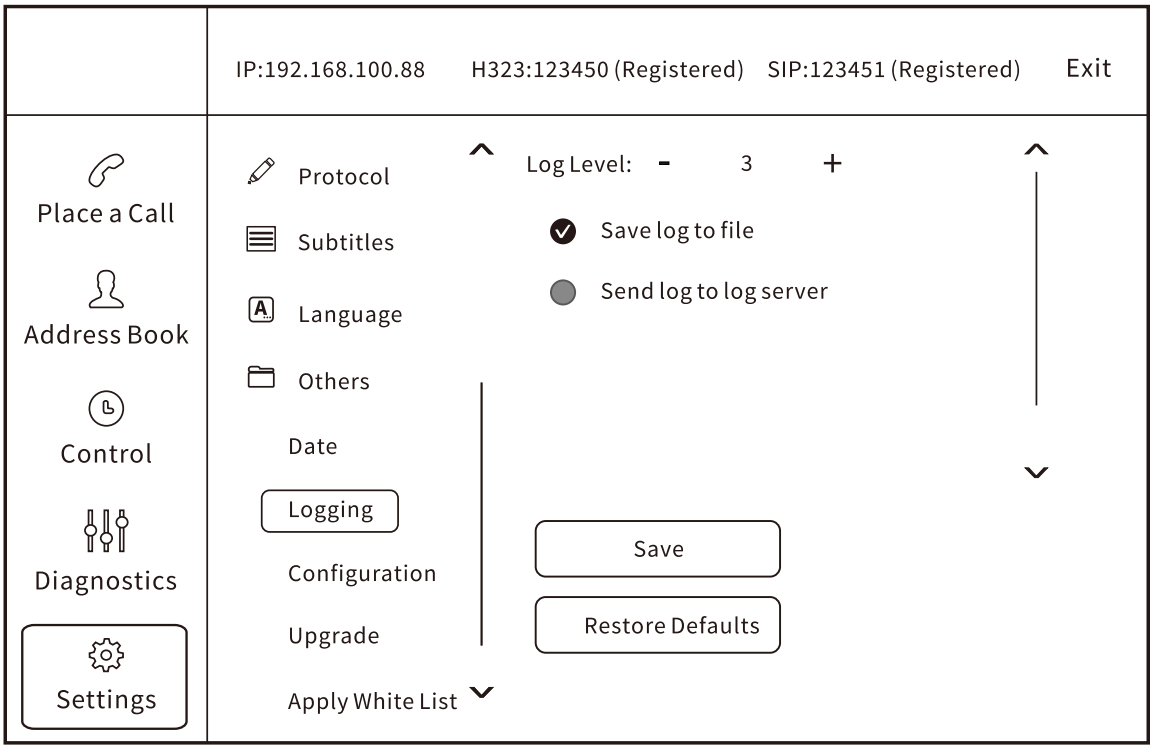
3.8.11.1 Date

On the WEB configuration page, select "⚙ > Others > Date" to configure the NTP Server Mode. When select the "Custom" mode, you need to configure the NTP Server Address.

3.8.11.2 Logging

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Others > Logging".



Step 2 Configure the "Logging" parameters, which are shown in the table below.

Step 3 Select "Save".

Parameter	Parameter Declaration	Parameter Setting
Log Level	Configure the log-level gain.	Default: 3
Save Log to File	Enable or disable save the log to local.	Default: Enabled
Send Log to Log Server	Enables or disables sending logs to the log server. When enabled, you need to configure the "log server address and log server" port ".	Default: disabled

3.8.11.3 Configuration

On the WEB Configuration page, select “ > Others> Configuration” to select “Export the Configuration to a USB Drive” or “Import Configuration from USB Drive.”

Note

Before importing and exporting the configuration, insert the flash drive of FAT32 format.

3.8.11.4 Upgrade

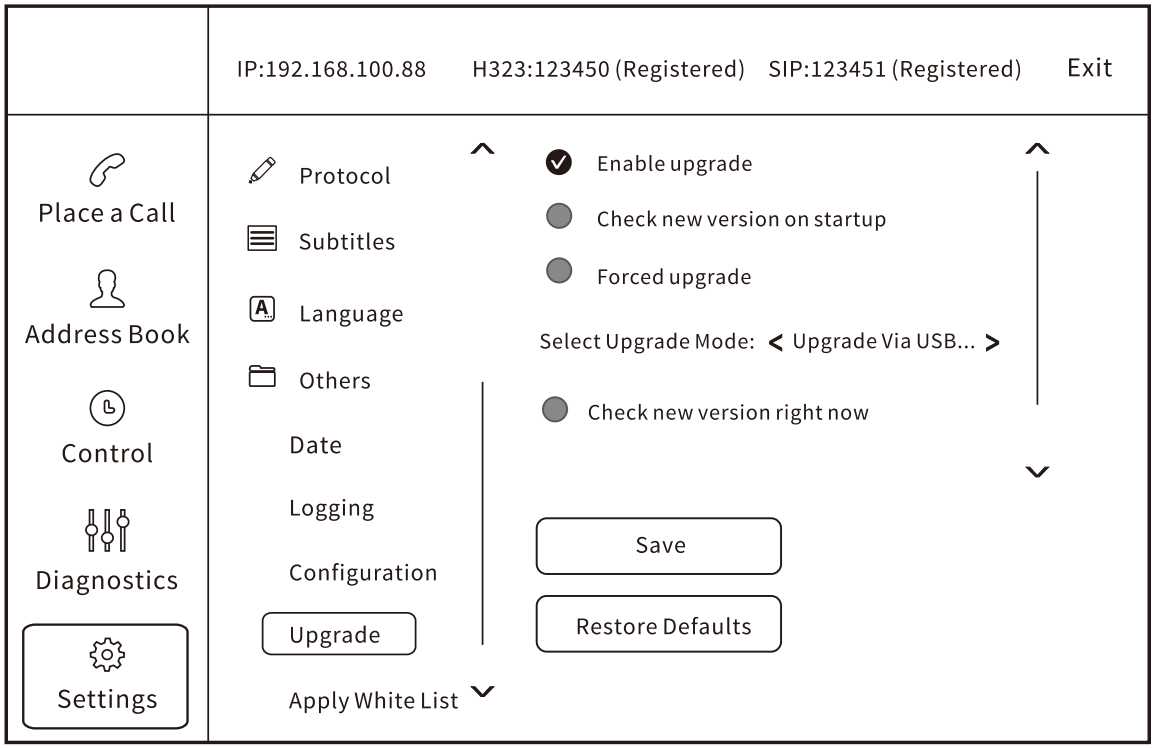
Upgrade mode: Upgrade Via USB Storage, Upgrade by Uploading Via Browser, Upgrade Via Network.

- **Upgrade via USB storage: the terminal automatically detects the new version in the USB flash drive and upgrades according to the prompts.**
- **Upgrade by uploading via browser: upload the upgrade compression package from the local computer, and upgrade according to the prompts.**
- **Upgrade via network: The terminal will obtain the upgrade file from the specified HTTP server and upgrade as prompted.**

3.8.11.4.1 Upgrade Via USB Storage

➢ **Operating Steps**

Step 1 On the WEB configuration page, select "⚙ > Others > Upgrade" and check "Enable Upgrade".



Step 2 Select "Upgrade Via USB Storage" upgrade mode.

Step 3 Select "Save".

Step 4 Place the upgrade file under the root of the USB flash drive and insert the USB flash

drive into the USB interface in the rear panel.

Step 5 Please follow the prompts to complete the upgrade.

Notice

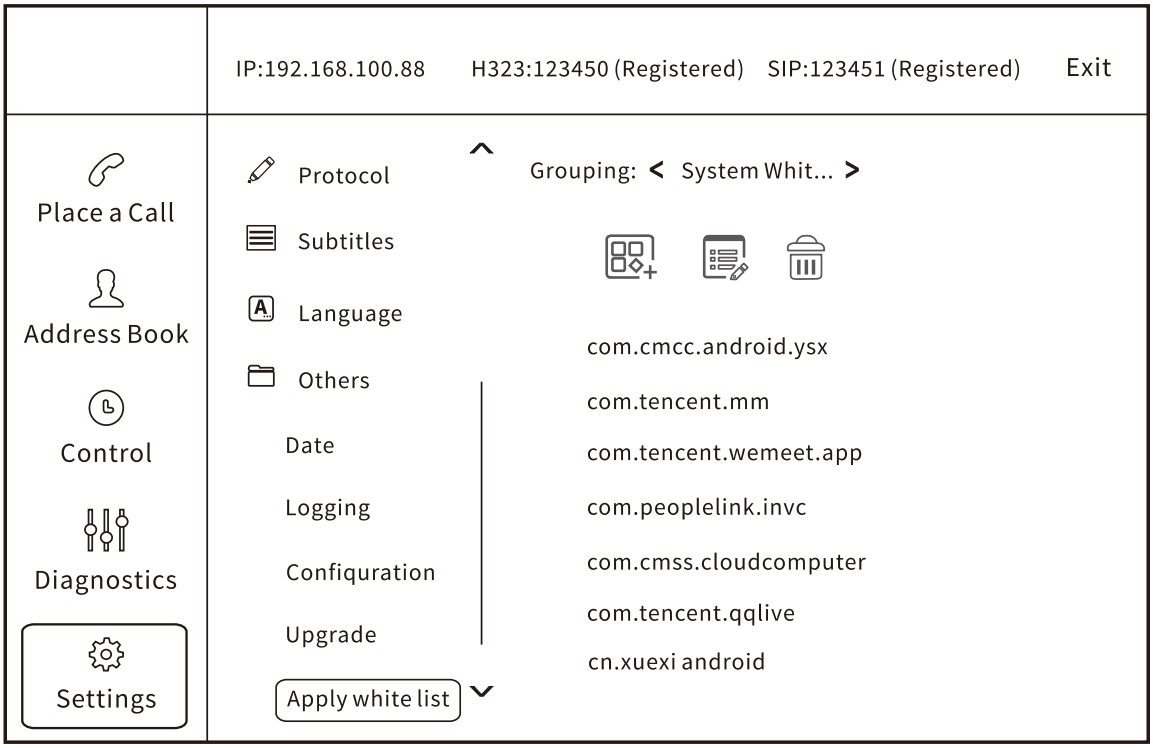
- **The first partition of the USB flash drive must be used, and the partition format must be FAT 32. When the hidden partition exists, delete it. Use Windows's Disk Management tool to see if there are hidden partitions.**
- **After the download is complete and "OK" is selected, if the terminal does not restart automatically, the terminal needs to restart manually.**

3.8.11.5 White List

This terminal supports the whitelist function, only in the white list application, the terminal is allowed to be installed.

➢ **Operating Steps**

Step 1 On the WEB configuration page, select " > Others > White List".



Step 2 When selected "Application White List", you can Add, Edit, and Delete white list package

names.

4 Troubleshooting

Master the terminal fault diagnosis method and the common fault solution method, which can help to solve the terminal fault in time.

Common image failures, possible causes and solutions are shown below.

Fault Phenomenon	Possible Cause	Countermeasure
Boot stuck	System stuck	If the startup logo is stuck, hold down the Reset button to power on the system until the startup logo is displayed and release the button to restore the backup system.
		Stuck in startup animation: Long press the Reset button for 3 seconds to restore factory settings.
Terminal is started but the conference is not joined, and the device displays a black screen	Display device is not powered on	Power on the display device.
	Video output cable connection is loose	Tighten the video output cable connecting the terminal to the display device.
	The output format of the display device does not match the terminal	On the WEB configuration page, choose "⚙ > Video > Video Output" to switch to video output resolution; Or use the short key of remote control to switch the resolution.
After joining the conference, the local end sends an abnormal content presentation	No secondary video source connected	Connect the external HD camera or a second video source to the HDMI IN2 or VCH1 interface of the terminal; Or input a second video image through the wireless projection screen.
	Auxiliary video source is	Tighten the video output cable

	connected, but the cable is loose	connecting of the terminal to the auxiliary streaming device.

Fault Phenomenon	Possible Cause	Countermeasure
After joining the conference, there is an echo when the peer speaks	Echo cancellation is not enabled	Enter the WEB configuration page and select "⚙ > Audio > Echo Elimination" to select "Enable ECHO elimination on linear input".
Local image flickering	Indoor light frequency causes camera images to flicker	Adjust the corresponding anti-flicker value according to the local AC frequency.
No audio input	Audio input is not enabled	Enter the WEB configuration page, select "⚙ > Audio > Audio Input" to enable the corresponding audio input.
	Audio input device abnormality	Enter the WEB configuration page, select "Diagnosis > Near Audio Loopback" to enable the "Near Audio Loopback Test" and test whether the local audio device is normal.
	Audio input gain is small	Press the volume "+" key on the remote control to increase the audio input gain (default is 8).
No audio output	HDMI audio output is not enabled	Enter the WEB configuration page, select "⚙ > Audio > Audio Output" to enable HDMI audio output, linear output, etc.
	Audio output gain is small	Press the volume "+" button on the remote control to increase the audio output gain (default is 8).
The resolution on the terminal will not reach 4K	does not support MCU	If the platform does not support it, replace it with an MCU platform that supports 4K.
	Video capability does not check H.265	Enter the WEB configuration page, select "⚙ > Video > Video Capabilities" to check H.265.

Fault Phenomenon	Possible Cause	Countermeasure
Unable to control camera pan and zoom using remote control	RS232 control line is not connected or wrongly connected	Connect one end of the RS232 cable (network port) to the terminal COM interface, and the other end (Din8) to the RS232 IN interface of the HD camera. Connecting other interfaces may cause the terminal to be unable to control the camera.

5 Technical Term

Technical Term	Explanation
A	
AAC-LD	**Advanced Audio Coding-Low Delay.**
AC	**Alternating Current.**
AEC	**Acoustic Echo Cancellation. A signal processing technique commonly used in telecommunication conferences. In hands-free full-duplex mode, where sound signals at both ends of a call are continuously transmitted as a multicast, a feedback loop can occur at the near end, resulting in the caller hearing an echo. Acoustic echo cancellation is the process of addressing and resolving this issue.**
AES	**Advanced Encryption Standard. A block encryption standard adopted by the US federal government to replace DES (Data Encryption Standard). It is designed for unclassified, public use and employs a symmetric encryption algorithm. AES uses a fixed block size of 128 bits, and the key size can be 128, 192, or 256 bits.**
C	
CA	**Certificate Authority: Certificate issuing center.**
CIF	**Common Intermediate Format: Universal image format.**
CRC	**Cyclic Redundancy Check. A method for detecting errors in data transfer. It involves complex calculations on transmitted data to generate a number. The sending device performs this calculation before sending the data and shares the result with the receiving device. If both devices' results match, the transmission is considered correct. This process is called a redundancy test because each transmission includes not only the data but also an additional error-checking value.**
D	
DHCP	**Dynamic Host Configuration Protocol. A client-server network protocol. The DHCP server provides configuration parameters for requests from DHCP clients, typically information needed when the client connects to**

Technical Term	Explanation
	the Internet. DHCP also automates the assignment of IP addresses to host machines.

Technical Term	Explanation
DNS	Domain Name Server. A functional entity in the TCP/IP network that allows users to access servers using domain names. In TCP/IP networks, domain names correspond to IP addresses. While domain names are easy to remember, servers can only identify each other using IP addresses. Domain name resolution, the conversion between domain names and IP addresses, is carried out by a DNS server. DNS handles the resolution process.
DVI	Digital Visual Interface. When a device in the network is overloaded or fails to receive data at a specified time, the data messages are discarded.
F	
Firewall	Firewall. A combination of a series of components set up between different networks or network security domains. Monitoring, restricting, and changing the data flow across the firewall blocks the information, structure, and health of the external network as much as possible so as to realize the security protection of the network.
G	
G.711	The speech codec standard (A or U laws) uses pulse-coded modulation (PCM) with a data speed of 64 k bit/s.
G.722	The speech coding standard of adaptive differential pulse coding modulation (ADPPCM) is adopted. The data speeds were 48 k bit/s, 56 k bit/s, or 64 k bit/s.
GMT	Greenwich Mean Time.
GUI	Graphical User Interface.
H	
H.239	ITU-T recommends the standard for allowing the simultaneous delivery of data content such as video and computer desktop in a video conferencing.
H.264	H.264 by using only the H.263 Half of the bit rate provides the same high-quality images with strong anti-error code characteristics.
H.323	Communication control protocol developed by the ITU to provide multimedia services in a packet switching network. Call control is an important part of this and can be used to establish point-to-point media sessions and multi-point media meetings.

HD	**High Definition.**
HDMI	**High Definition Multimedia Interface.**

Technical Term	Explanation
HTTP	Hypertext Transfer Protocol. An application-layer communication protocol between a client browser or other programs and a Web server. HTTP operates on a request/response model. The client sends a request to the server, including a request header with details like the requested method, URL, protocol version, and a message structure containing modifiers, client information, and content resembling MIME. The server responds with a state line containing the message protocol version, success or error encoding, server information, entity element details, and potential entity content. For more information, refer to the RFC2616 protocol.
HTTPS	Hypertext Transfer Protocol Secure. The HTTP protocol running on the TLS (Transport Layer Security) or SSL (Secure Sockets Layer) protocol. Used to establish an information security channel to provide encrypted communications and identification of the network server. For details, see the RFC2818 protocol.
Ring Back Test	Audio and video data simulation is actually applied to the pathway transmission to test whether the expected output can be obtained. The loopback test can test the local network connection, or then return to the local network connection to test the remote network connection.
I	
IP	Internet Protocol: Internet protocol.
IP Address	A 32-bit (four-byte) binary digital device that uniquely identifies a host (computer) connected to the Internet and is distinguished from other hosts on the Internet to communicate in the form of packet transmission. The IP address is represented as a "dot" consisting of four decimal digits, separated by periods (for example, 127.0.0.1). The first byte, second byte, or third byte of the IP address indicates the host-connected network; the remaining bits indicate the host itself.
IPv4	Internet Protocol Version 4. Current version of the Internet Protocol (IP). IPv4 uses 32 bytes as the host address, each one of categories A, B, C, D and E. The address is 32-bit encoded and is usually expressed by a 4-point decimal number. Each address consists of a network code, an (optional) subnet code, and a host code. Network code and (optional) subnet code are used for routing, and host code is used to address within a network or

	subnet to a specific host.
ITU-T	International Telecommunication Union-Telecommunication standardization sector.

Technical Term	Explanation
L	
LAN	**Local Area Network. The network consists of personal computers and workstations within the same building or a radius of several kilometers, which is characterized by high speed and low error rate. Ethernet, FDDI and token ring are the three main implementation technologies of LAN. Today's LAN is generally built on switching Ethernet or Wi-Fi technologies, running at 1000 Mb/s (1 Gb/s).**
N	
NAT	**Network Address Translation: Network address conversion. A standard of the Internet Engineering Task Group. It allows an IP address far less than its internal network nodes to access the Internet. Network address transformation technology converts the private IP addresses of a router, firewall, or PC (such as those within 192.168.0.0) on an internal private network into one or more Internet public IP addresses. It converts Baotou into new addresses and monitors them through its internal platform. When the packet feeds back from the Internet, the network address change uses these platforms to reverse the IP address of the user's host.**
NTP	**Network Time Protocol: Network time protocol.**
Q	
QoS	**Quality of Service: Quality of service. One of the commonly used performance indicators of a communication system or channel. Different systems and businesses have different definitions, including jitter, time delay, packet loss rate, bit error rate, signal to noise ratio, etc. Use to measure the transmission quality and service effectiveness of a transmission system, and evaluate the ability of service providers to meet customer needs.**
R	
RAS	**Registration Admission and Status. Establish connections between nodes and GK and GK management nodes.**
RTCP	**Real-time Transport Control Protocol. Protocol used to monitor the transmission of the data. With this protocol, the receiver can detect any message discard and compensate for the delay jitter.**
RTP	**Real-time Transport Protocol. Real-time transmission protocol is a**

	protocol defined by IETF to transmit audio and video streaming. RTP is built on UDP, and then a time stamp is defined in the head of the RTP message, which ensures the real-time transmission and synchronization of audio and video.H.323 It is based on the RTP protocol.

Technical Term	Explanation
S	
SRTP	**Secure Real-time Transport Protocol. On the basis of RTP protocol, the real-time transmission protocol of secure encryption mechanism is added.**
SSH	**Secure Shell. A set of standards and network protocols allows the establishment of secure channels between local and remote computers. When users log in remotely through a secure network environment, SSH features can provide secure information guarantee and powerful authentication functions to protect the network from attacks such as IP address fraud and simple password interception.**
SSL	**Secure Sockets Layer. A security protocol working on the socket layer. This layer is located between the TCP layer and the application layer, for encryption and decryption of data and authentication of related entities.**
Dual Streaming	**Dual Streaming. Generally, the desktop content of the local computer is displayed by the local venue to the remote venue, such as spreadsheets, charts, slides, etc.**
T	
TCP	**Transmission Control Protocol. The protocol in TCP / IP is used to decompose data information into information packets to be sent through SIP protocol; and verify the information packets received by IP protocol and assemble them into complete information. TCP is a reliable connection-oriented protocol that ensures the correct transmission of information and corresponds to the transmission layer in the ISO/OSI benchmark model.**
TCP/IP	**Transmission Control Protocol/Internet Protocol: Transmission control protocol/Internet protocol.**
U	
UDP	**User Datagram Protocol. Standard TCP/IP protocol that allows the application on one device to send a datagram to the application on the other. UDP uses IP protocol to send data and provide unreliable unconnected message sending service for the application. So UDP messages may be discarded, repeated, delayed, or scrambled. UDP is used to transmit data messages, that is, the destination will not actively confirm whether the correct data message has been received.**

URL	**Uniform Resource Locator. An address that uniquely identifies web pages and other resource locations on the Internet. Typically starting with http://, for example, http://www.microsoft.com, it may include details such as the name of the hypertext webpage (often with extensions like .html or .htm).**

Technical Term	Explanation
USB	Universal Serial Bus. Standard for a serial bus with interface devices, initially designed specifically for computers, such as personal computers, Apple's Macintosh computers, etc. However, as it became widespread, it became widely used in computer games and personal digital assistant's businesses.
W	
Gateway	A device that connects two network segments using different protocols. Its function is to translate the data using different transmission protocols in two network segments.
Network Jitter	A way of sound adjustment. The larger the network jitter parameter value, the better the sound continuity. By adjusting the value, the network can also solve the difference.