



---

# **Wifi Digital Conference System**

## **User Manual**

**TS-W301/W301A**

**Before using this system, please read this manual carefully**

# Notification



## WARNING

To ensure the reliability of the equipment and the safety of personnel, please observe the following when installing, using and maintaining:

- If any of the following conditions are found, please immediately turn off the power, plug out and quickly contact your nearest dealer. Do not continue using this unit, which may cause a fire or electric shock.
  - If you find smoke or have a strange taste from the machine.
  - If water or metal falls into the machine.
  - If the unit is dropped or the case is damaged.
  - If the wire is damaged (wire core exposure, broken wire, etc.).
- If the machine contains high-pressure parts, in order to avoid the fire or electric shock, absolutely don't open the case, if any questions please inform your nearest dealer.
- Do not place cups, bowls, vases or metal and other water-filled substances on the unit. Serious spilled liquid may cause a fire or electric shock.
- Never expose the unit to rain and any moisture or water, which may cause electric shock or fire.
- Do not place metal objects or flammable materials from the vents on the machine cover, nor place coins, which may cause fire or electric shock.
- Do not place heavy objects on the unit to avoid personal injury or property damage when the unit is slipping.
- Make sure that the volume is turned on at the beginning of the boot, and the high volume of the boot may cause hearing problems.
- Make sure that the volume is turned on at the beginning of the boot, and the high volume of the boot may cause hearing problems.
- For long-term accumulation of dust to be cleaned, please inform your dealer to regularly clean the machine, so as to avoid damage to the machine or cause a fire.
- The battery must be replaced with the same type of product and the correct installation should be made in order to avoid electrical damage and explosion hazard.
- The product is a Class III device. The device must be well connected to ground. The power plug must be connected to a power outlet with a grounding device to ensure that the equipment is fully grounded.

- This product uses a power plug or appliance input socket as a disconnecting device with the power supply, and must be disconnected if necessary for safety reasons.



- This equipment is only suitable for safe use at altitudes under 2000 meters.

**Precautions**

1. The installation environment

When installing the unit, in order to ensure the normal cooling of the host, should avoid the poor ventilation of the place or high temperature environment, to avoid direct sunlight.

Recommend to install cabinet or other well-ventilated place indoor. If you use the machine in the outdoors, please pay attention to waterproof, moisture, lightning protection measures.

Avoid installing in a violent place of vibration; do not place other equipment on the machine.

2. To avoid electric shock and fire

Do not touch the hands and the source with wet hands

Do not spill liquid on the machine, so as to avoid short-circuit or fire inside the machine.

Do not place other equipment directly on the top of the unit.

Non-professional service personnel Do not disassemble the unit yourself to avoid damage and electric shock.

3. Transport and handling

The packaging of the machine is designed and tested to ensure that the host will not be accidentally damaged during transport. It is best to use the original packaging when handling the unit.

Do not move the host device between the place or cold or over hot to avoid condensation inside the machine, affecting equipment life.

4. Please follow the warning instructions on this product, the warning signs on behalf of:

	<p>Applicable to 2000 meters above sea level and below safe use</p>
	<p>Safe use only in non-tropical climates</p>

## 5. Agreement

Please strictly follow the instructions in this manual. The software, hardware and appearance of this product will be upgraded and updated continually. The above changes will be made without notice.

Non-professional maintenance personnel, do not remove the product, to avoid damage and electric shock.

## 6. Note

If it is not used for a long time or stored for more than half a year, it must be taken out and fully charged again to avoid battery damage.

# CONTENT

<b>1.System introduction.....</b>	<b>- 5 -</b>
<b>2.Product introduction.....</b>	<b>- 5 -</b>
2.1 FEATURE.....	- 5 -
2.2 PRODUCT FUNCTION INTRODUCTION.....	- 6 -
2.3 SPECIFICATION.....	- 7 -
<b>3.System connection diagram.....</b>	<b>- 8 -</b>
<b>4. TS-W301/TS-W301A Instruction.....</b>	<b>- 9 -</b>
4.1. BOOT.....	- 9 -
4.2. UNIT TYPE.....	- 9 -
4.3. MEETING MANAGEMENT.....	- 10 -
4.4. SIGN IN.....	- 11 -
4.5. VOTE.....	- 12 -
4.6. FIRE ALARM.....	- 14 -
4.7. MENU PAGE.....	- 14 -
4.8. SYSTEM SETTING.....	- 14 -
4.9. LANGUAGE SETTING.....	- 15 -
4.10. SYSTEM STATUS PAGE.....	- 15 -
4.11. SCREEN BRIGHTNESS ADJUSTMENT.....	- 16 -
4.12. SERVICE APPLICATION.....	- 16 -
4.13. WIRELESS AP DROP DETECTION FUNCTION.....	- 17 -
4.14. CONTROLLER OFFLINE DETECTION FUNCTION.....	- 18 -
4.15. WIFI SSID AND PASSWORD MODIFICATION.....	- 18 -
4.16. DUPLICATE ID DETECTION.....	- 18 -
4.17. EDIT ID FUNCTION.....	- 19 -
4.18. SPEECH COUNTDOWN AND SPEECH TIMEKEEPING.....	- 19 -
4.19. CHARGE, BATTERY LEVEL, WIFI SIGNAL STRENGTH, CHARGING MODE INDICATION.....	- 20 -
4.20. SHORT MESSAGE.....	- 20 -
4.21. AUTOMATIC LOW-BATTERY SHUTDOWN.....	- 21 -
4.22. SWITCH BUTTON FUNCTION.....	- 21 -
4.23. LOW SIGNAL STRENGTH INDICATION.....	- 21 -
4.24. QUICK CHARGE MODE DESCRIPTION.....	- 22 -
<b>Appendix.....</b>	<b>- 23 -</b>

## 1.System introduction

The wireless all-digital conference system adopts ITC's original network communication and digital transmission processing technology with completely independent intellectual property rights. The digital technology and network technology are applied to the conference system products. The perfect combination of wireless wifi and wired all-digital makes new breakthrough in the conference field.

## 2.Product introduction

### TS-W301/TS-W301A 4.3-inch WiFi conference chairman/delegate unit



TS-W301 Chairman Unit

TS-W301A Delegate Unit

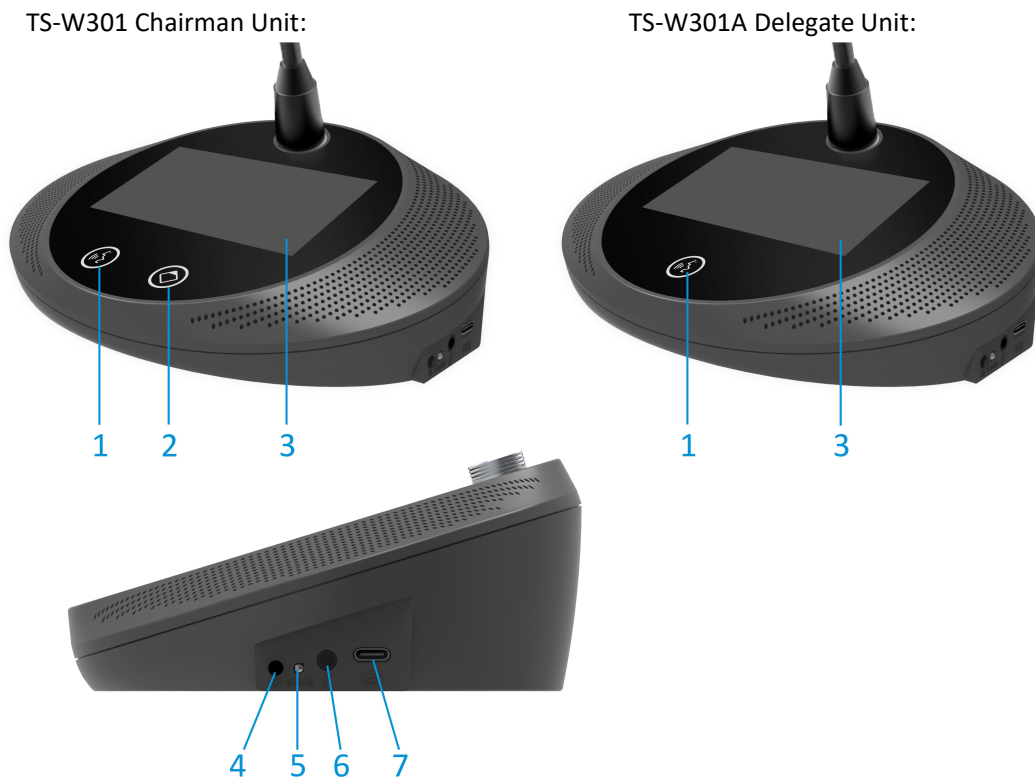
### 2.1 Feature

- ✧ The microphone adopts 48kHz sampling rate. The CD sound quality is better than CD, clear and bright. There is DSP audio processing inside, there is no low-frequency impact sound; the internal feedback suppression function can effectively prevent howling.
- ✧ It has the function of speech countdown and speech timekeeping.
- ✧ The chairman has the priority function to turn off all the microphones of the delegates who are speaking. The delegate machine has the function of applying for speech, and the chairman can approve the application.
- ✧ With voice control function. The sensitivity of voice control can be adjusted, the microphone can be turned on intelligently and the closing time can be set.
- ✧ With 5-band EQ adjustment function (PC software input password is adjustable), different sound effects can be adjusted according to the voice characteristics of the speaker until the perfect effect is achieved.
- ✧ With custom voting function. Flexible and convenient.
- ✧ 128-bit AES encryption technology. Support WPA/WPA2 wireless security technology to prevent eavesdropping and unauthorized access, and provide higher confidentiality of the conference system.
- ✧ With a 4.3-inch color screen, it can display information such as microphone on/off, ID setting, power, signal strength. Support digital display of power percentage; support multi-touch

capacitive buttons.

- ✧ Support clock display function. It can display date and time: year, month, day, hour, minute.
- ✧ With a 3.5mm stereo headphone jack and built-in speakers, and a volume adjustment function.
- ✧ Come standard with 6 large-capacity lithium batteries with a battery capacity of 12900mA/h, which can last for 15 hours of speech or work continuously for 24 hours.
- ✧ Built-in dual antennas greatly improve the efficiency of WiFi network transmission.
- ✧ With USB charging interface. Compatible with the upgrade program.
- ✧ Support Chinese and English language interface switching.

## 2.2 Product function introduction



1. Unit microphone key (touch type);
2. Priority button of the chairman unit (touch type);
3. 4.3 inch capacitive touch screen;
4. Power switch key;
5. Charging indicator;
6. Microphone interface;
7. USB interface.

### Charging method:

- 1) It needs to be turned off and charged to be fully charged, and it is fully charged when the red power indicator goes out.
- 2) Please use the USB cable and charger provided with the product for the charging cable. The fast charging function requires an adapter to be purchased separately.

## 2.3 Specification

Model	TS-W301/TS-W301A
Microphone type	Cardioid directional electret
Frequency response	80Hz~16kHz
Microphone input impedance	1K $\Omega$
Sensitivity	-46 dBV/Pa
Maximum SPL	100dB(THD>3%)
SNR	>80dB(A)
Crosstalk	>70dB
Dynamic range	>80dB
THD	<0.1%
Maximum power consumption	4 W
Headphone load	>16 $\Omega$
Headphone volume	Max 40mW
Headphone jack	3.5mm mono jack
Standard	IEC60914
Power supply	Battery powered
Colour	Gray
Voting	Five-button election, three-button voting, custom voting
Sign-in	Button sign in
Display screen	4.3 inch color screen
Installation method	Desktop
Wireless frequency range	5GHz
Battery capacity	12900Amh
Dimension (L×W×H)	196×134×63 mm
Weight	About 0.7kg
Working time in standby mode	24 hours
Working hours of speech mode	15 hours
Working hours in mixed mode	14 hours

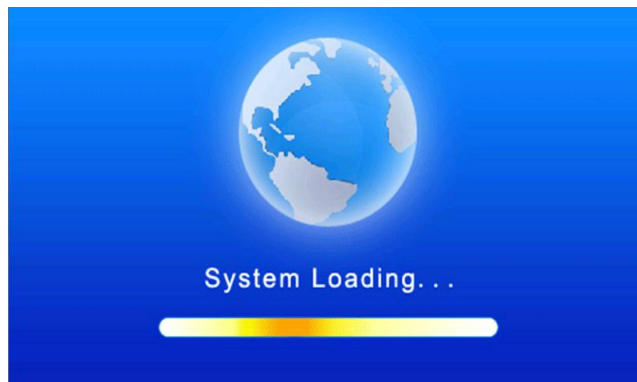




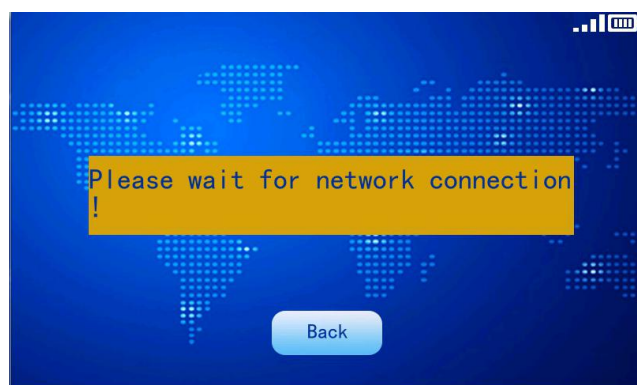
## 4. TS-W301/TS-W301A Instruction

### 4.1. Boot

Turn on the power of the controller to start the conference system, and the controller will display on the screen "System Loading...", The page is as follows:



After the boot, the touch screen displays the LOGO interface; enter the home page after connecting to the controller network, the interface is as follows:



### 4.2. Unit type

On the touch screen of the chairman unit, you can switch microphones, turn off all delegate microphones, switch between Chinese and English, and adjust brightness.

On the touch screen of the delegate unit, you can switch the microphone, switch between Chinese and English, and adjust the brightness.

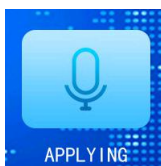
### 4.3. Meeting management

The microphone switch of the unit is controlled by the conference management, and its permission is configured by the conference controller. Refer to the controller's conference mode description for the logic of use.

Press the MIC switch button to switch the microphone, the unit display is as follows:



In APPLY mode, when a delegate unit applies to turn on the microphone, the delegate display is as follows:



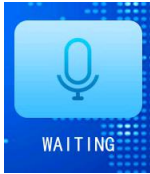
The chairman unit displays as follows:



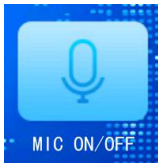
When the number of applicants is full, it prompts that it is full:



In the NOMAL mode, the delegate units that exceed the number enter the waiting state. When the number of people is full, the user is prompted for FULL:



Press the priority button of the chairman unit to turn off the microphones of all delegate units. The chairman unit turns on the microphone delegate unit and the display is as follows:



#### 4.4. Sign in

The wired chairman machine or PC software initiates sign-in, and the corresponding light is on, and the display is as follows. If you still stay on the main interface, it means that the unit is forbidden to sign in.



Press the sign-in button on the screen or press the switch microphone button to sign-in. After sign-in, the indicator light is always on, and the display is as follows:



#### 4.5. Vote

The wired chairman unit can initiate 3-button voting for fixed options; PC software can initiate 3-button voting for fixed options, 5-button elections for fixed options, 5-button ratings for fixed options, and custom options 2/3/4/5 key elections. The display is as follows:

The 3-button voting process for fixed options:



3-button voting for fixed options, press the button to display accordingly:

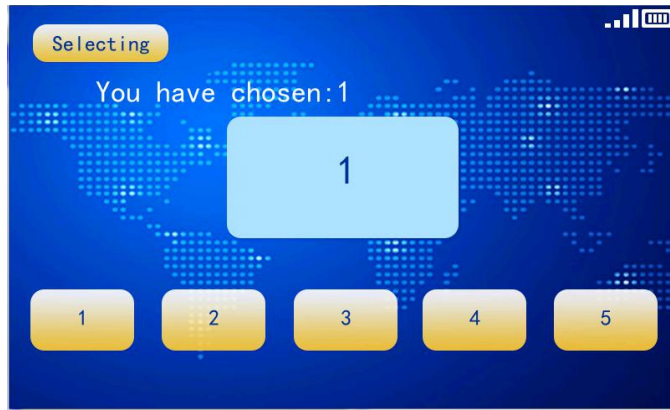


The 5-button election process for fixed options:



The 5-button election of fixed options will be displayed when the button is pressed:

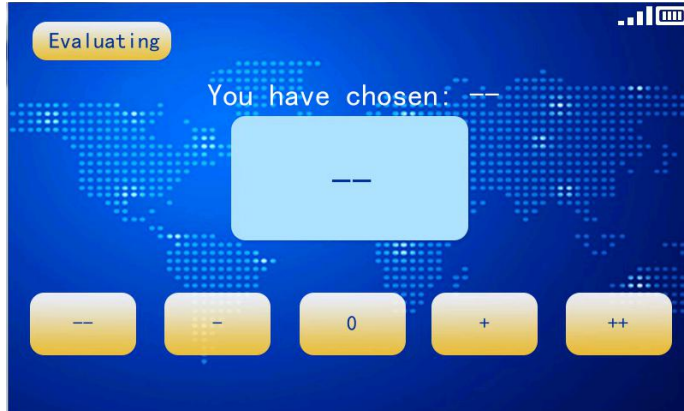




5-button rating process for fixed options:



The 5-button rating of the fixed options will be displayed when the button is pressed:



Custom option 2/3/4/5 button election process:



Custom option 2/3/4/5 button election, press the button to display correspondingly:



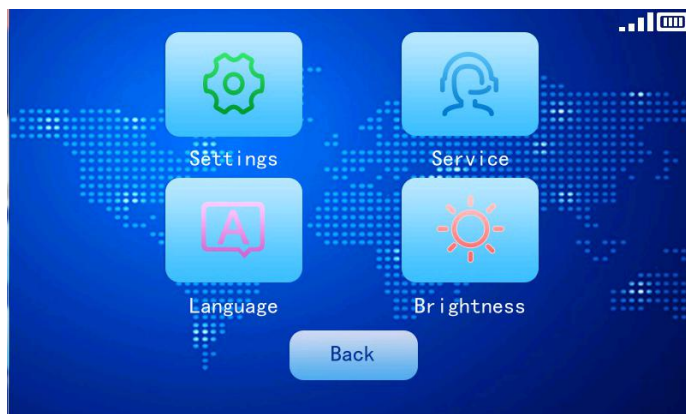
#### 4.6. Fire alarm

When the controller sends a fire alarm message, the controller screen will display "Fire warning" Prompt, the red light of the microphone pole will flash until the controller cancels the fire alarm and the controller resumes its pre-alarm state. In the fire alarm, the button is invalid.



#### 4.7. Menu page

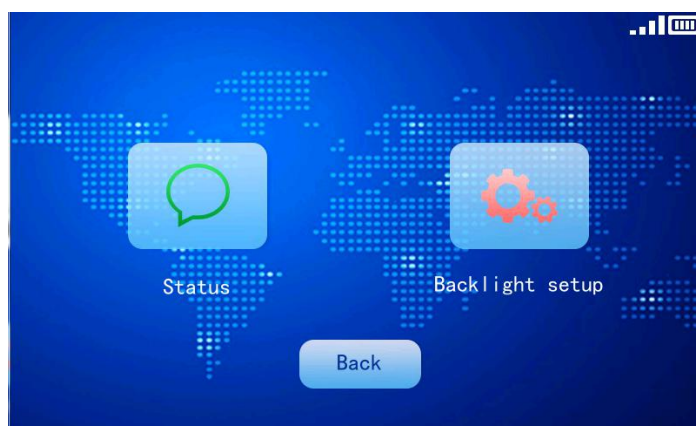
Enter the menu page as shown in the figure below. There are system settings, service application language, setting functions, and brightness adjustment.



#### 4.8. System setting

Enter the system settings page as shown in the figure below. There are system status query and

backlight settings.



#### 4.9. Language setting

Click the language setting button to enter the Chinese-English switching page to switch the four languages of Chinese, English, Russian, French, and save when power off. The setting page is as follows:



#### 4.10. System status page

Click the system status button to enter the query system, the page is as follows:

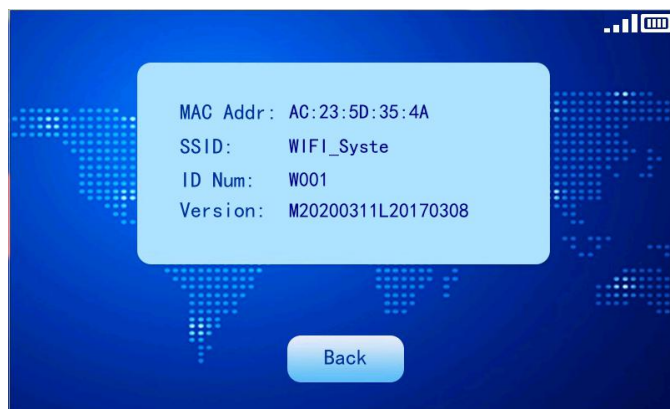
MAC address: wireless network card MAC address.

Network name: SSID of wireless AP.

ID number: ID number assigned by the controller.

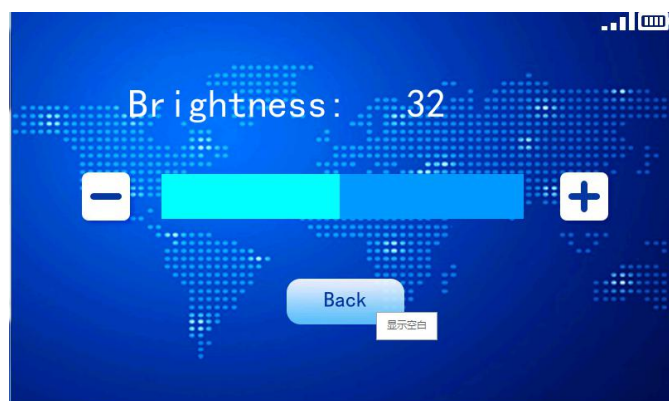
Version number: the software version number of the machine.





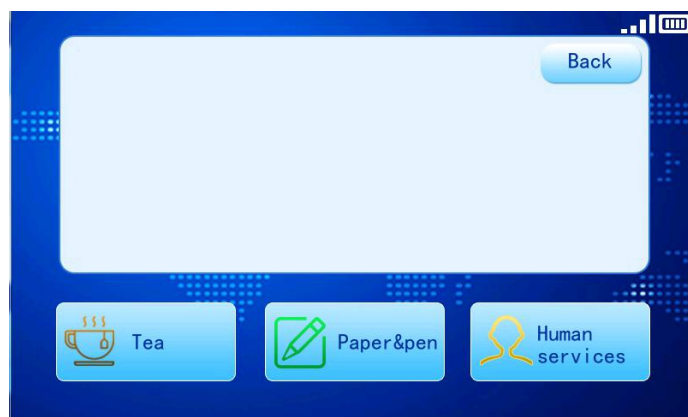
#### 4.11. Screen brightness adjustment

Click the brightness adjustment button to enter the menu page, you can adjust the brightness of the machine, the adjustable range of brightness is 1 to 64, 64 is the maximum brightness. Support power-off memory.



#### 4.12. Service application

Participants can send "tea application", "paper and pen application", "manual service application" to the background according to actual needs, click on the service item on the menu page, and enter the page for sending the application. At this time, you can choose the application items to be sent.



When the application item is selected, the software will prompt whether to send the application, if yes, send it, otherwise it will return.

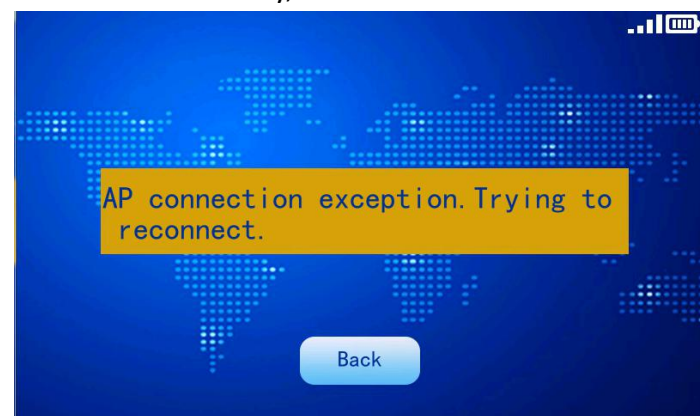


After sending the application, you can see the corresponding prompt on the PC, and the unit will also display the corresponding prompt.



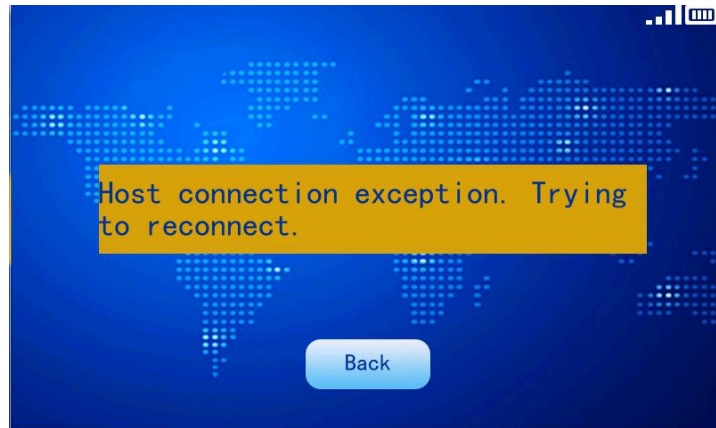
#### 4.13. Wireless AP drop detection function

Turn off the wireless AP power for about 10 seconds, the interface will pop up the following dialog box. If the wireless AP works normally, the interface will return to the main page.



#### 4.14. Controller offline detection function

Turn off the power of the controller or the controller network cable fails for about 60 seconds, the interface will pop up the following dialog box. If the controller works normally, the interface will return to the main page.



#### 4.15. WIFI SSID and password modification

In the boot state, the USB port of the wireless controller is connected to the PC. Then use the SSID to modify the software. After the modification is successful, the wireless controller will prompt the following interface, and it will automatically shut down after 2 seconds.



#### 4.16. Duplicate ID detection

If the controller connected to the controller has the same ID, it will be displayed as follows. At this time, you need to press the ID button on the controller to reprogram the ID.



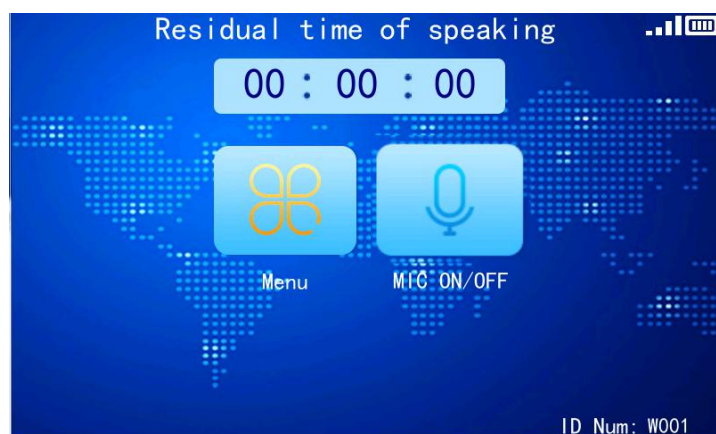
#### 4.17. Edit ID function

After the controller presses the Edit ID, it enters the Edit ID mode. At this time, press the set button or press the microphone button to set the ID.

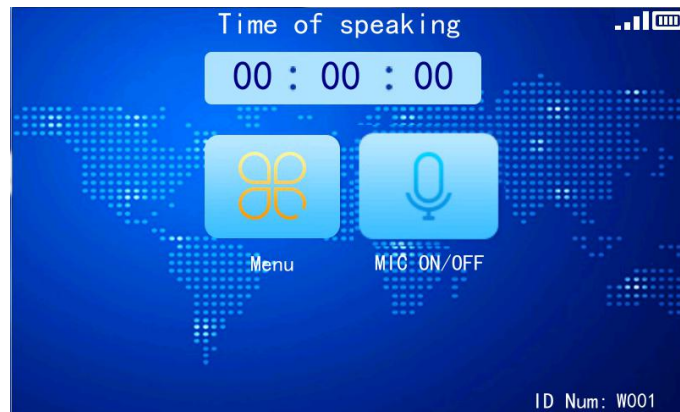


#### 4.18. Speech countdown and speech timekeeping


This function needs to be controlled by the conference PC software. For details, please refer to the PC operating instructions. Its function is for switching the microphone. When speaking at a fixed time, the PC will issue the time for speaking at a fixed time, the unit will count down and display the remaining speech time, and the microphone will be automatically turned off when the time is up.





In the speech timekeeping, the PC designates the unit for speech timekeeping, and the unit accounting displays the speech time.





#### 4.19. Charge, battery level, WIFI signal strength, charging mode indication

WIFI signal strength, a total of 4 white bars, no signal means no icon: 

There are 4 bars in full charge, the icon is: 

The icon of the charging plug is 

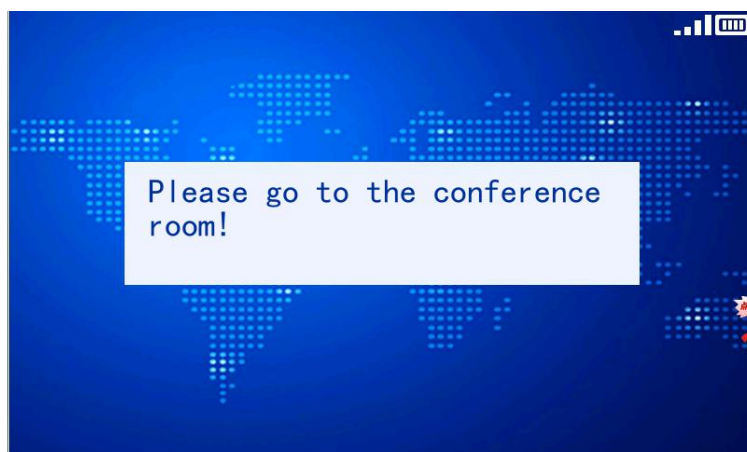
Fast charge mode: 

Ordinary charging: 

#### 4.20. Short message

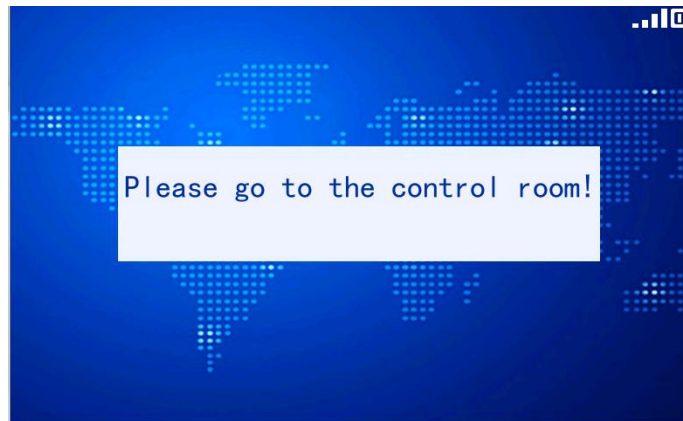
This function needs to be controlled by the conference PC software. For details, please refer to the PC operating instructions. Its function is that the PC can send/broadcast messages to the display screen of the unit to remind the users of the unit. Examples are as follows:

Fixed message:



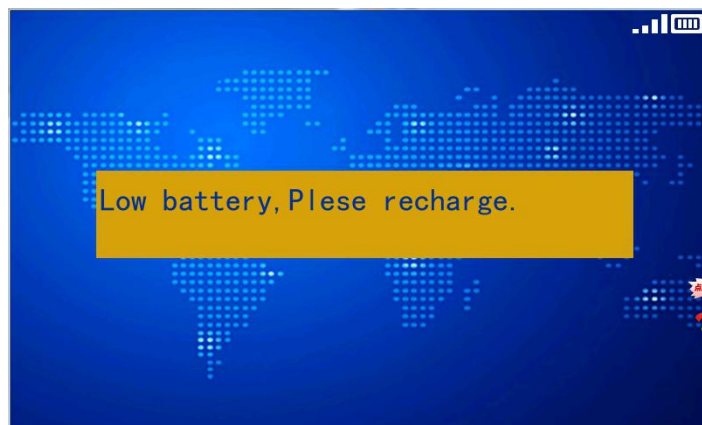


Custom message:



#### 4.21. Automatic low-battery shutdown

When the battery is too low, the wireless controller will automatically shut down after prompting the following picture.



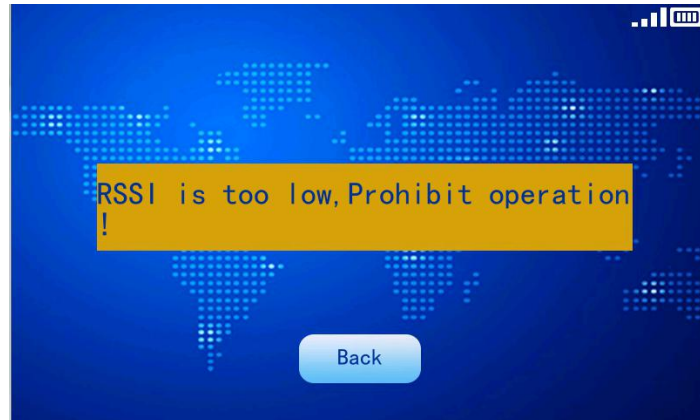
#### 4.22. Switch button function

In the shutdown state, short press the button to turn on the system.

In the power-on state, long press the button for 3s, system shutdown.

#### 4.23. Low signal strength indication

When the signal strength is too low and the connection with the AP is not disconnected, the following interface appears. At this time, the microphone and other functions cannot be operated, and the user needs to move closer to the AP to make the signal  $\geq 1$  bar before it can resume normal operation.

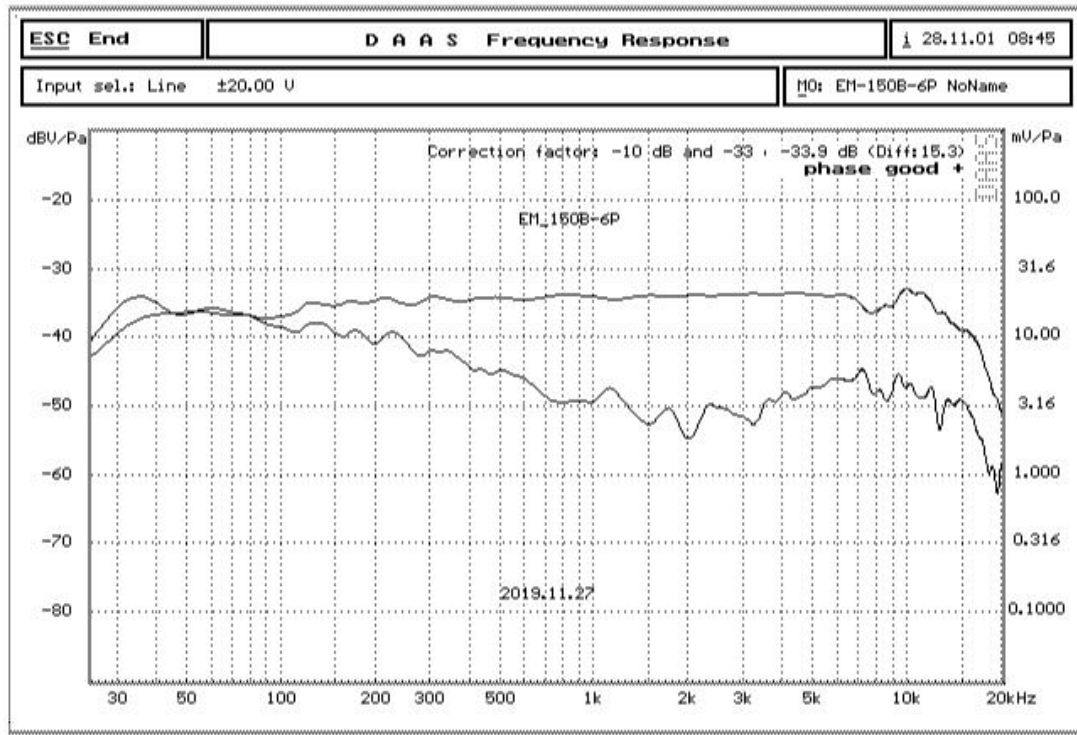


#### 4.24. Quick charge mode description

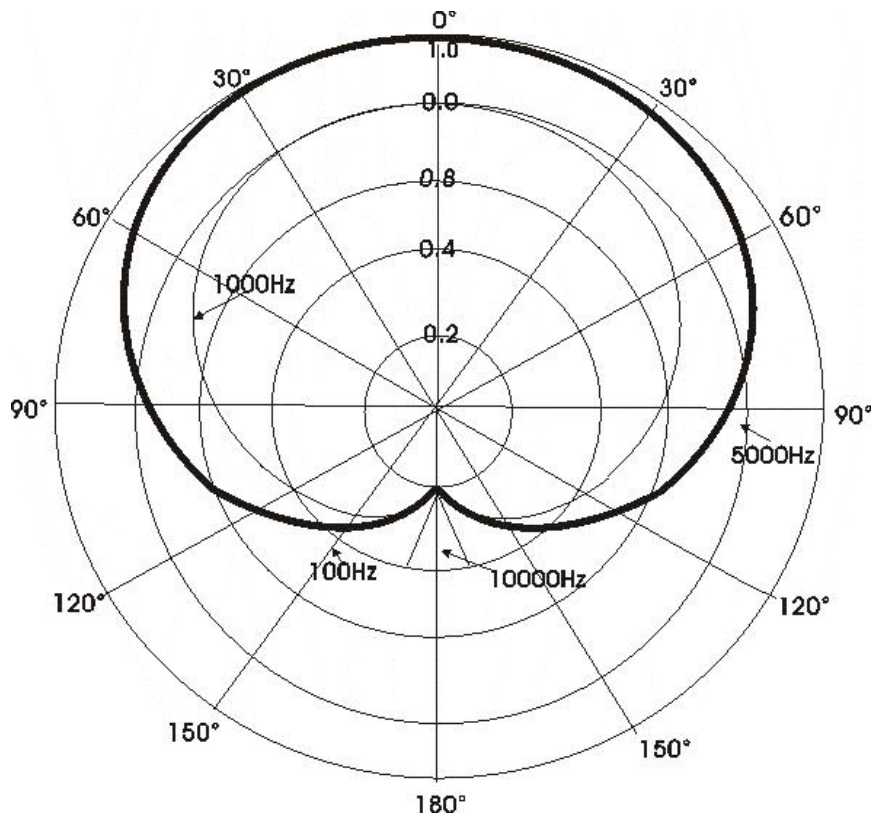
Type-C port supports USB Power Delivery (PD2.0/PD3.0) protocol, supports FCP/AFC/SFCP fast charge protocol. Compatible with BC1.2, Apple, Samsung mobile phone fast charge, etc.

# Appendix

## 1. Microphone frequency response curve



## 2. Microphone cardioid curve





# Wifi Digital Conference System

