



Wifi Full Digital Conference System

User Manual

TS-W103/W103A

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.

Working temperature : -10°C~ 60°C.

Humidity is limited to 5% to 90% (non-condensing).

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:

| | |
|--|--|
| | Applicable to 2000 meters above sea level and below safe use |
| | Safe use only in non-tropical climates |

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.

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1. System introduction

The wireless full digital conference system adopts ITC original network communication and digital transmission processing technology with completely independent intellectual property rights. Digital technology and network technology are applied to conference systems. Wireless WIFI and wired full digital are perfectly combined, which can be regarded as groundbreaking in the conference field.

2. Product introduction

TS-W103/TS-W103A 4.3 inch WiFi conference chairman / delegate unit

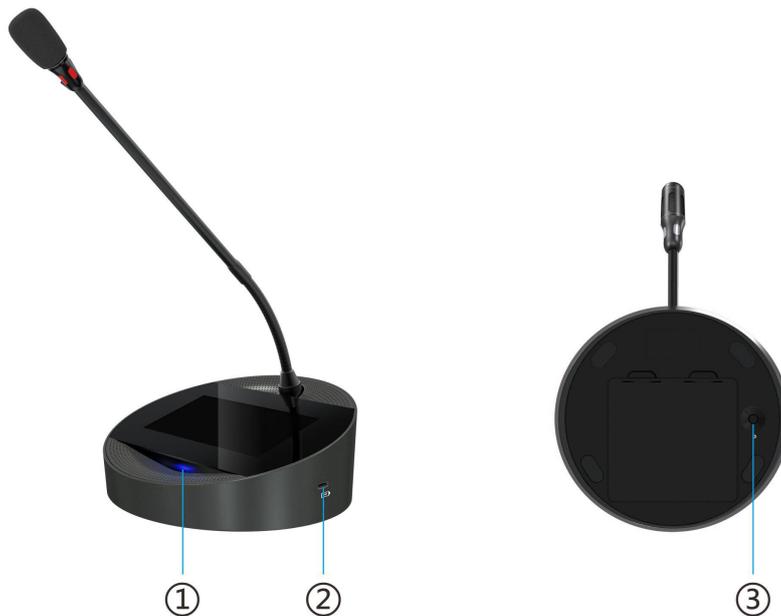


2.1 Features

1. Microphone adopts 48KHz sampling rate.
2. Adopt advanced chip architecture and unique processing algorithm. It takes only 5 seconds starting and connecting microphone.
3. Strong system compatibility. Can integrate with TS-W101 / TS-W101A, TS-W102 / TS-W102A.
4. With the function of intelligent faults detection, it prompts the user for AP failure, host communication failure, weak signal, etc.
5. You can switch between Chinese and English by PC software.
6. With simple USB setting SSID, password function. Ensure that the expansion system will not connect to the wrong AP.
7. With speech timer and speech stopwatch function.
8. The delegate unit can apply for a speech, and the applicant is allowed to speak through the approval of chairman unit.

9. Support voice control. The microphone can be turned on intelligently. You can adjust the voice sensitivity and set the off time via software.
10. Support sign-in function. Set and start sign-in through PC software.
11. Adopt 128-bit AES encryption technology and WPA/WPA2 wireless security technology to prevent eavesdropping and unauthorized access, provide higher confidentiality of the conference system.
12. With wireless transmission technology, the venue can be well prepared at a short time for activities.
13. The chairman has a priority function to turn off all delegate microphones that are speaking.
14. Built-in 18650 lithium battery supports 14 hours of continuous speech.
15. Built-in antenna greatly improves the efficiency of WiFi network transmission.
16. Support USB port for program upgrade.
17. 4.3-inch capacitive touch screen.

2.2 Function introduction of each part



- ① Charge indicator;
- ② USB Type-C interface;
- ③ Power switch.

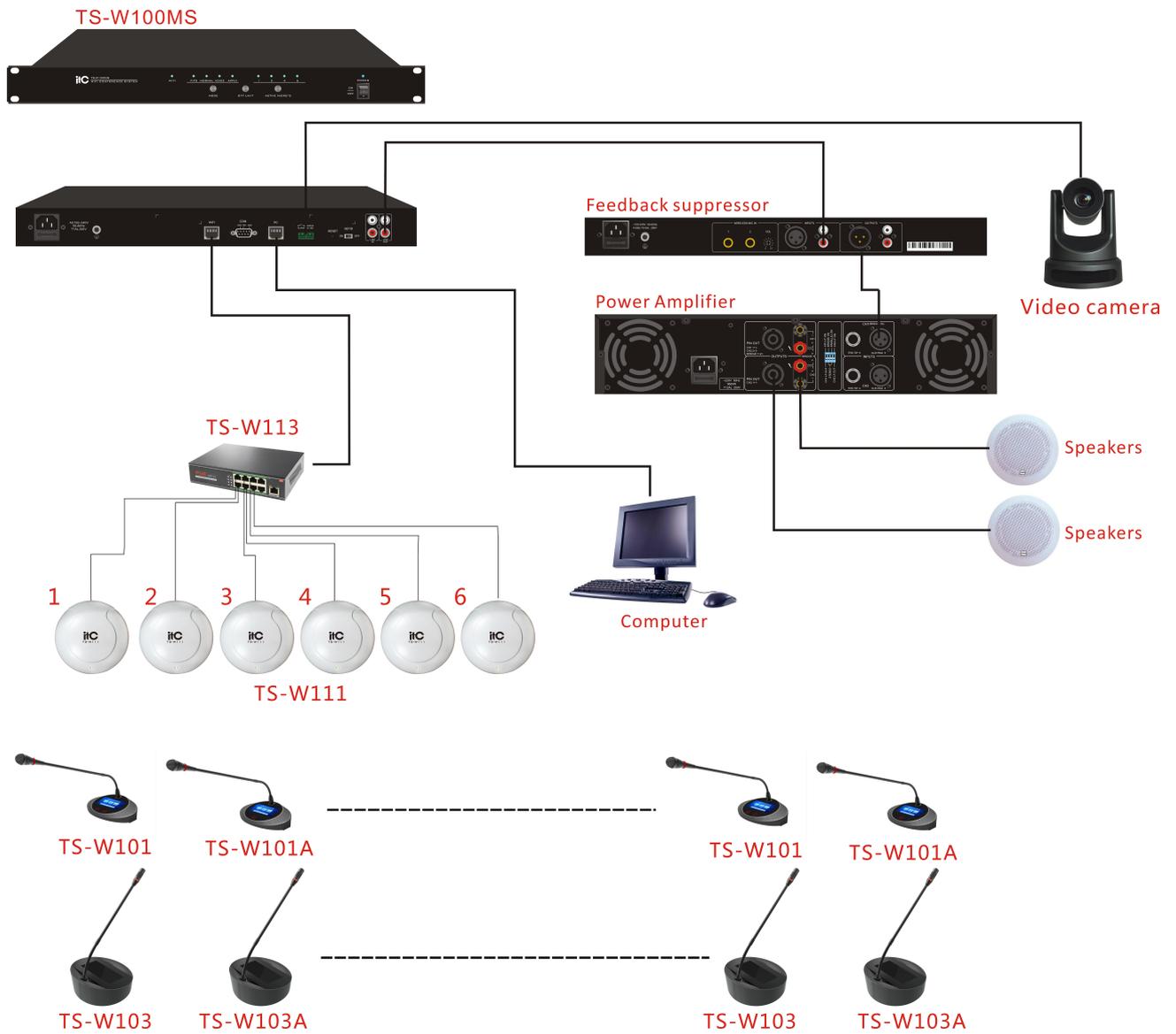
Charging method:

- 1) It can be fully charged only when it is turned off and 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.

2.3 Technical specifications

| Model | TS-W103/TS-103A |
|----------------------------|---|
| Microphone type | Cardioid direct electret |
| Frequency response | 80Hz~16KHz |
| Microphone input impedance | 1K Ω |
| Sensitivity | -46 dBV/Pa |
| Maximum SPL | 100dB(THD>3%) |
| SNR | >80dB(A) |
| Crosstalk | >70dB |
| Dynamic Range | >80dB |
| THD | <0.3% |
| Maximum power consumption | 3W |
| Standard | IEC60914 |
| Power Supply | 18650 lithium battery |
| Charging method | Connect TS-W180 to charge via USB interface |
| Color | Black |
| Sign-in function | Touch screen sign-in |
| Screen | 4.3 inch LED capacitive touch screen |
| Size (LxWxH) | 50*145*60mm |
| Installation method | Desktop |
| Wireless frequency range | 5.15~5.85GHz |
| Battery capacity | 800mAh |
| Weight | 0.95Kg |
| Speech mode working hours | 14 hours |
| Mixed mode working time | 14 hours |

3. System connection diagram



4.TS-W103 / TS-W103A operating instructions

4.1. Boot

Power on the host to start the conference system, the screen displays "System Loading ...", the page is as follows;



After boot, the touch screen displays the LOGO interface. After connecting to the host network, enter the home page, the interfaces are as follows:





4.2. Unit type

The chairman unit touch screen can be used to switch microphones on and off, switch off all delegate microphones, switch between Chinese and English, and adjust brightness.

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

4.3. Conference management

The switch microphone of the unit is controlled by the conference management, and its permission is configured by the conference host. For the logic used, refer to the conference mode description of the host.

Press the MIC switch button to switch the microphone on and off. The unit display is as follows:



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



At this time, the chairman unit is displayed as follows:



Prompt as follows when the number of applicants is full:



In the NOMAL mode, the excess delegate unit enters the waiting state. When the waiting number is full, the user is prompted to full:



Press the chairman unit priority button to turn off the microphones of all delegate units. This chairman unit switch is as follows:



4.4. Sign in

When sign-in is initiated through the wired chairman unit or PC software, the corresponding light flashes as follows. If it remains on the main interface, the unit is forbidden to check in.



Press the Sign In button on the screen or press the Speech button to sign in. After that, the indicator light keep flashing as follows:



4.5. Vote

The wired chairman unit can initiate a vote with three fixed buttons; the PC software can initiate a vote with three/five fixed buttons, and 2/3/4/5 custom buttons, which is as follows:

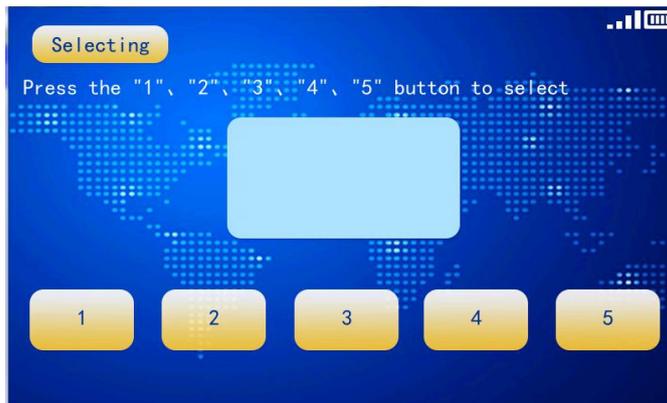
The process of vote with three fixed buttons:



Vote with three fixed buttons, press one button and it displays accordingly:



The process of vote with five fixed buttons:



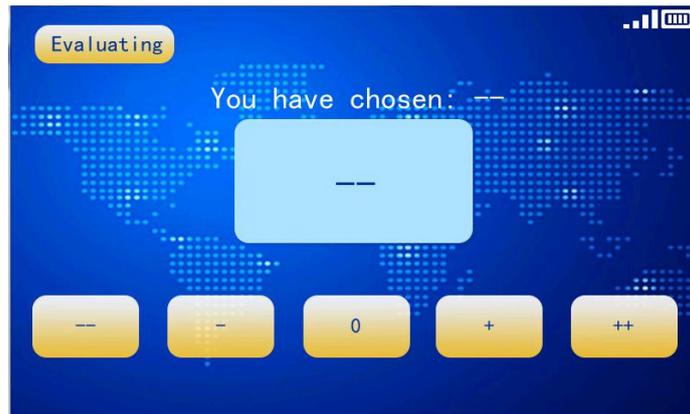
Vote with five fixed buttons, press one button and it displays accordingly:



The process of rating with five fixed buttons:



Rate with five fixed buttons, press one button and it displays accordingly:



The process of vote with 2/3/4/5 custom buttons:



Vote with 2/3/4/5 custom buttons, press one button and it displays accordingly:



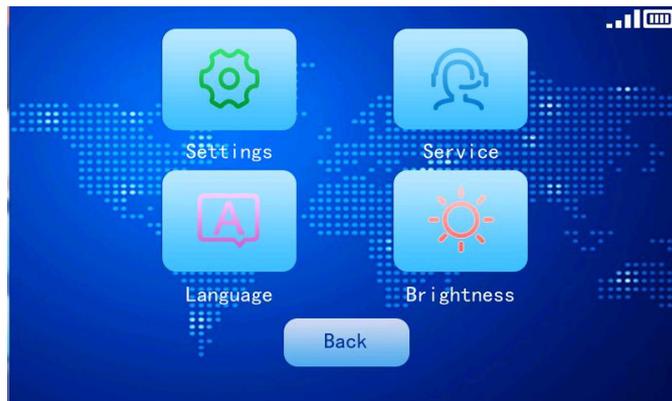
4.6. Fire alarm

When the host sends out a fire alarm message, the unit will display a "Fire alarm" prompt, and the red light of the microphone will flash until the host cancels the alarm, and the unit restores to the normal state. Under the alarm state, buttons are invalid.



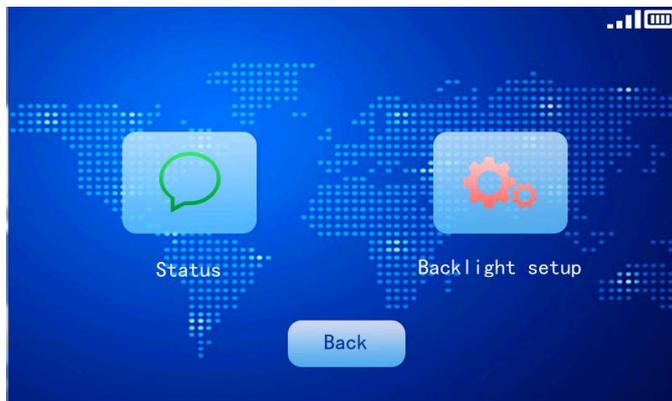
4.7. Menu page

Enter the menu page as shown in the figure below; there are system settings, service application, language settings, brightness adjustment.



4.8. System settings

Enter the system settings page, as shown in the figure below, there are system status query, backlight settings.



4.9. Language settings

Click the Language Setting button, enter the language switching page; you can switch between Chinese and English, which can be saved though 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 host

Version number: local software version number



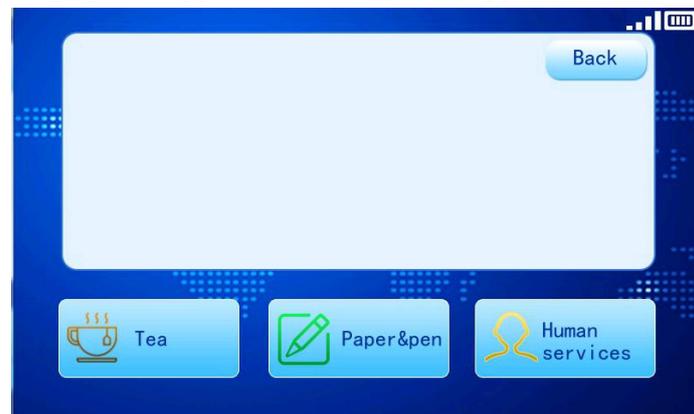
4.11. Screen brightness adjustment

Click the Brightness Adjustment button to enter the menu page, and you can adjust the brightness level from 1 to 64(64 is the maximum brightness), which can be saved though power off.

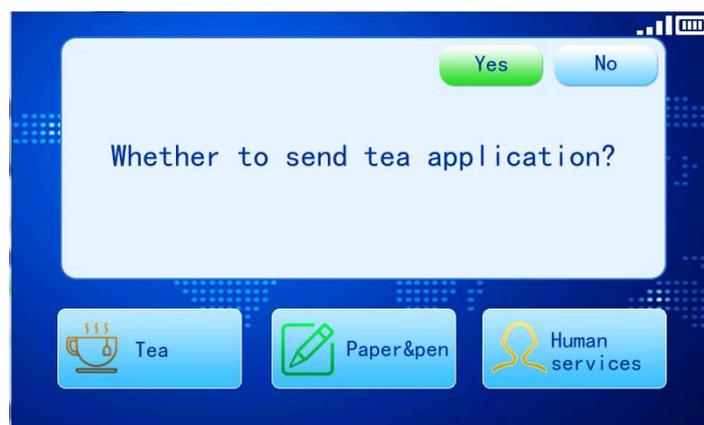


4.12. Service application

Participants can send "tea application", "paper and pen application", "human service application" to the background according to actual demands, click the Service Application button on the menu page to enter the page for application, choose the application items to be sent .



After selecting a application item, the software will prompt “Are you sure to send the application?”, click Yes to send it, click No to cancel.

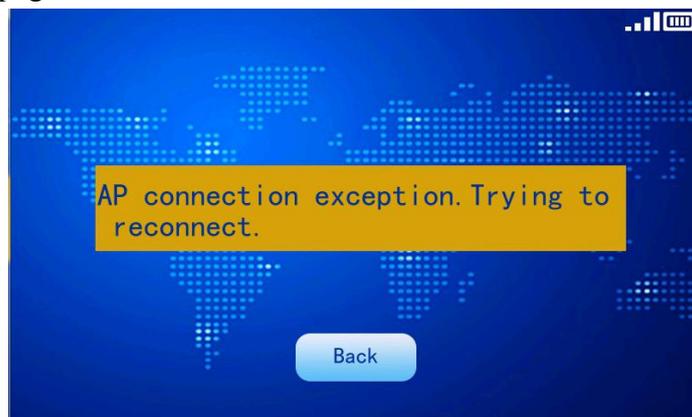


After sending the application, you can see the corresponding prompt on the PC, and the unit will also have the prompt.



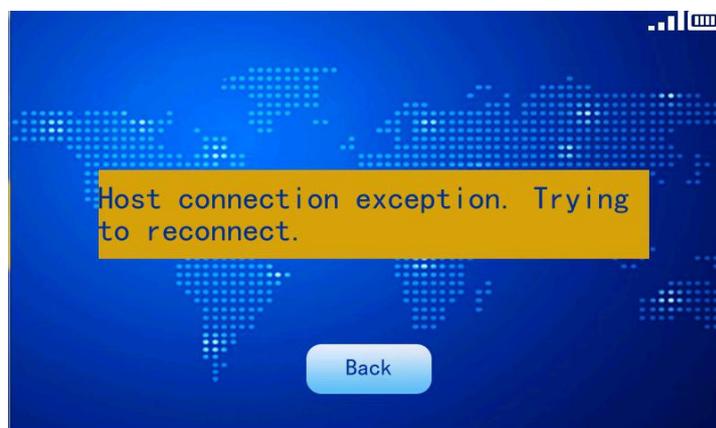
4.13. Wireless AP disconnection detection function

Turn off the wireless AP power for about 10 seconds, TS-W103 / TS-W103A will pop up the following dialog box. If the wireless AP works normally after being powered on again, the interface will return to the main page.



4.14. Host disconnection detection function

After unplugging the network cable or turning off the host power for about 60 seconds, TS-W103 / TS-W103A will pop up the following dialog box. If the host works normally after being powered on again, the interface will return to the main page.



4.15. WIFI SSID and password change

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



4.16. Duplicate ID detection

If the ID of the unit connected to the host has already existed, it will be displayed as follows. And you are required to press the ID button on the host to create a new ID



4.17. Create ID

After you press the Create ID, it enters the creation mode. After that, press the Set button or Speech button to set the ID.

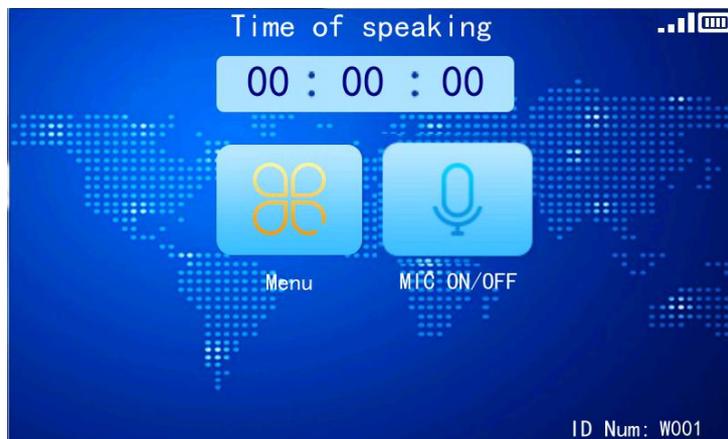


4.18. Speech timer and speech stopwatch

This function is required to be switched by the conference PC software, please refer to the PC software user manual for details. Its function is for speech. For speech timer, the PC set the countdown for speaking. The unit will count down to display the remaining time. The microphone will be automatically turned off when the time is up.



For speech stopwatch, the PC designates the unit for speech timekeeping, and the unit displays the elapsed time.



4.19. Charging, power, WIFI signal strength indication

WIFI signal strength, a total of 4 white signal bar, no signal is gray: 

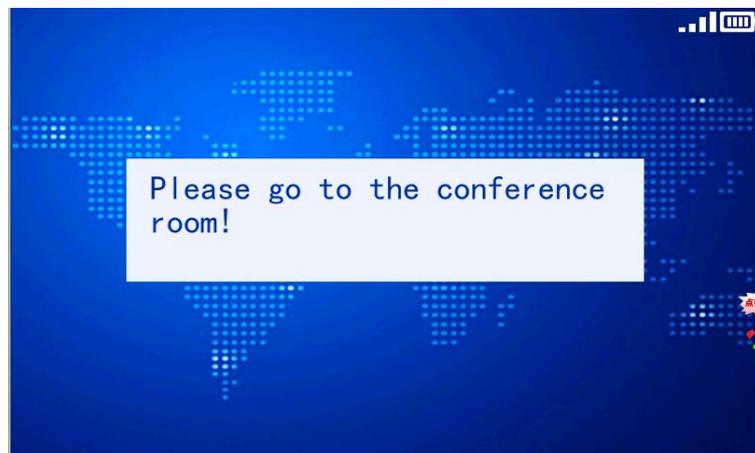
Electricity, a total of 4 bars: 

Charging: 

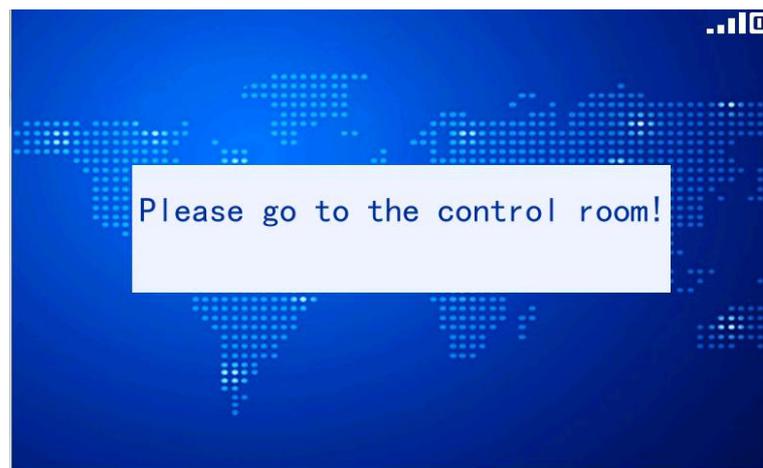
4.20. Short message

This function is required to be switched by the conference PC software, please refer to the PC software user manual for details. PC can send / broadcast messages to the unit to remind the unit messenger on the screen. Examples are as follows:

Fixed message display:



Custom message display:



4.21. Low battery automatic shutdown function

When the power is too low, the wireless unit automatically shuts down after prompting as follows.



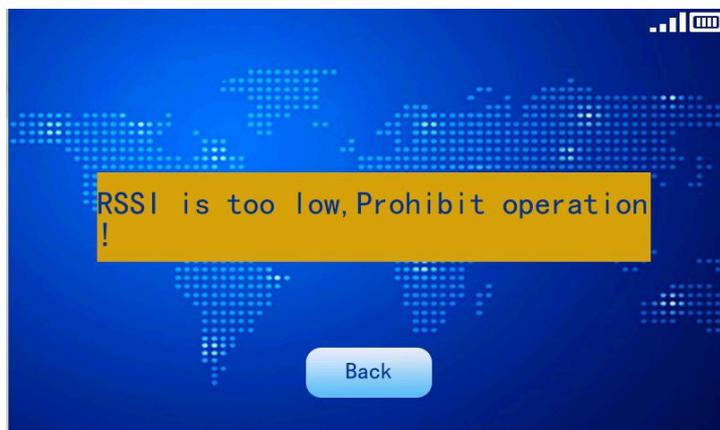
4.22. Power button function

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

In the power-on state, long press the button for 3 seconds to shut down.

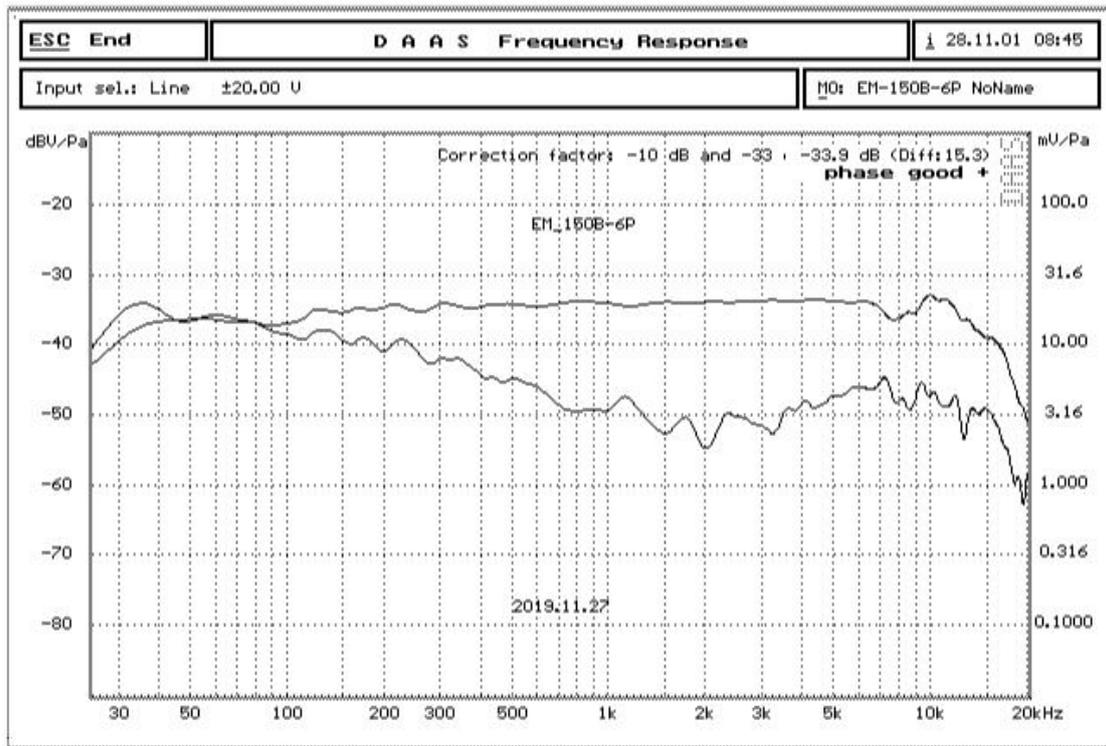
4.23. Low signal strength indication

When the signal strength is too low and the connection with the AP is not disconnected, the interface is as follows. At this time, the microphone and other functions cannot be operated, and the user is required to move closer to the AP position for ≥ 1 signal bar to resume normal status.

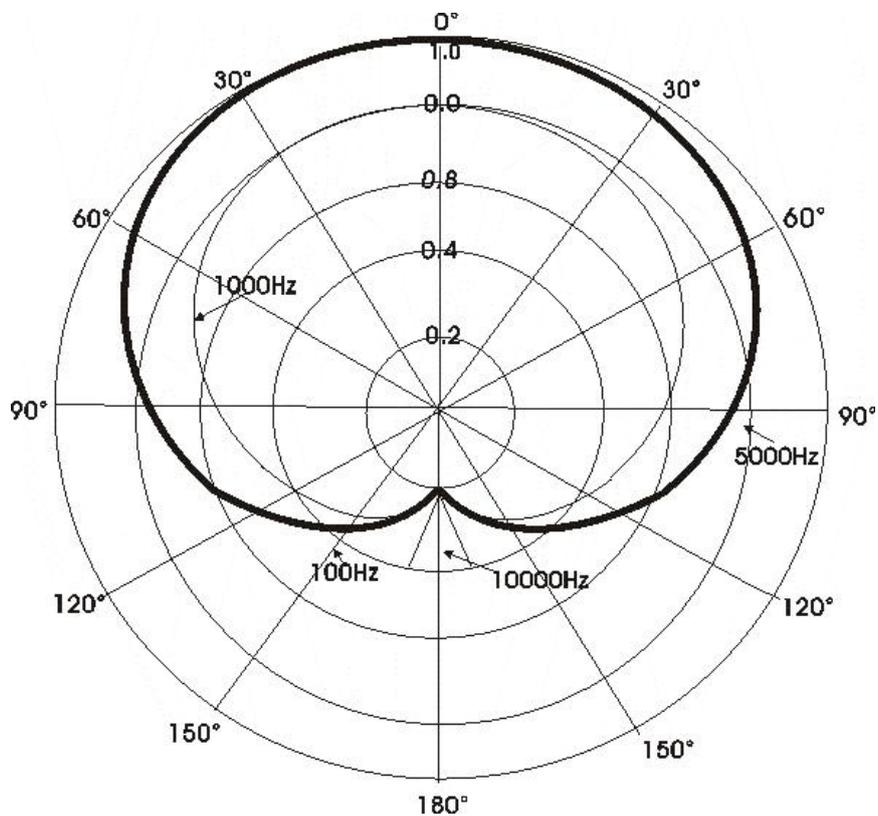


Appendix

1. Microphone frequency response curve



2. Microphone cardioid curve



Wifi Full Digital Conference System

