LYINTL

Fully Digital Conference system
H-9500 Series

Installation and Operating Manual

2024-V1

1. IMPORTANT SAFETY INSTRUCTIONS

CE

CAUTION: To reduce the risk of electric shock do not remove cover (or back panel). No user serviceable parts inside. Refer servicing to qualified personnel only.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user of the presence of important operating and maintenance (servicing) instruction in the literature accompanying the appliance. Please carefully read the owner's manual.

INSTRUCTIONS:

All safety and operating instructions should be read before the product is operated.

Retain these instructions:

All safety and operating instructions should be retained for future reference.
This owner's manual should be considered as a part of the product, it must accompany it at all times, and it needs to be delivered to the new user when this product is sold. In this way the new owner will be aware of all the installation, operating and safety instructions.

Heed all warnings:

All warnings on the product and in owner's manual should be adhered to.
Heed all warnings.

Follow all instructions:

All operating and user's instructions must be followed.

Sentences preceded by ⚠ symbol contain important safety instruction. Please read it carefully.

DETAILED SAFETY INSTRUCTIONS.

Water and moisture:

This apparatus should not be used near water (i.e. bathtub, kitchen sink, swimming pools, etc.)

Ventilation:

This apparatus should be placed in a position that doesn't interfere with its correct ventilation. This unit, for example, should not be placed on a bed, sofa cover or similar surfaces that could cover ventilation openings, or placed in a built-in installation, such a bookcase or a cabinet that could block air flow trough ventilation openings.

Heat:

This apparatus should be placed away from sources of heat, like radiators, heat registers, stoves or other products (including amplifiers) that produce heat.

Power sources:

- This apparatus should only be connected to a power source of type specified in this owner's manual or on the unit.
- If the supplied AC power cable plug is different from wall socket, please contact an electrician to change the AC power plug.

Grounding or Polarization:

- All precautions must be observed in order to avoid defeating grounding or polarization.
- Unit metal parts are grounded through the AC power cord.
- If the AC power outlet doesn't have grounding, consult an electrician for outlet grounding.

Power cable protection:

The power cable should be routed in such a way that it will not be walked on or pinched by items placed upon or against it, paying particular attention to cables at their connections, receptacles and wall outlet.

Cleaning:

- You can clean the exterior of the unit with compressed air or a damp cloth.
- Don't clean the unit using solvents like hydroelectricity, thinners, alcohol, or other volatile or flammable fluids.

Non use periods:

The unit AC power cable should be unplugged from the outlet if it's unused for long periods.

Objects or liquid entry into the unit:

Be careful that no objects fall into the unit or that no liquid is spilled inside the unit through ventilation openings.

Safe power line use:

- Hold the plug and the wall outlet firmly while disconnecting the unit from AC power.
- When the unit will not be used for a long period of time, please unplug the power cord from AC power outlet.
- To avoid power cable damage, don't strain the AC power cable and don't bundle it.
- In order to avoid damage to the unit's power cable, be sure that the power cable is not walked on or pinched by heavy objects.

Unit relocation:

Before relocating the unit, please control the unit is turned off. The power cord must be unplugged from the wall outlet, and all the connecting cables should be disconnected as well.

Do not open this unit:

Do not attempt to open or repair this unit yourself. For any problem not described in this owner's manual, please refer to qualified personnel only or consult us or your National Distributor. Any improper operation could result in fire or electric shock.

Damages requiring services:

- Do not attempt to perform operations not described in this user's manual.
- In the following cases please refer to an authorized service center or skilled personnel:
  - When the unit works improperly or it doesn't work at all.
  - If power cord or plug is damaged.
  - If liquid has spilled, or objects have fallen into the unit.
  - The unit has been exposed to rain.
  - The unit doesn't operate normally or exhibits a marked change in performance.
  - If the product has been dropped or has been damaged in any way.

Maintenance:

The user shouldn't attempt maintenance not described in this user's manual. All maintenance should be performed by qualified personnel only.

IMPORTANT SAFETY INSTRUCTIONS:

- Install this unit following owner's manual instructions.
- Do not install, connect or disconnect power supply when the unit is powered, otherwise there is a high risk of electric shock.
- Do not open the unit, there are no user serviceable parts inside.
- If you detect a particular smell from the unit, please immediately turn it off and disconnect the AC power cord.
- Don't block the unit's ventilation openings.
- Avoid using this unit in overload for a long period.
- Don't force commands (switches, controls, etc.)
- To obtain good speaker wire contact, please tighten the screw terminals firmly.
- ⚠ For safety reasons, do not defeat the grounding connection. Grounding is for user safety.
- Use only connectors and accessories suggested by the manufacturer. .
- This unit should be fitted in an equipment rack (see INSTALLATION) and kept far from:
  - Wet places
  - Direct exposure to heat sources (like sun light)
  - Improperly ventilated places
- Disconnect the power cord during storms or when the unit is not in use.
- ⚠ In order to prevent fire and reduce risk of electric shock, it is necessary to keep the unit far from dripping water. Please don't put cups, vases or other object containing liquids over the unit. In case of interference from source signal, THD value will raise over 10%. Don't place this unit in a bookshelf or in other enclosed spaces.
- We are not responsible for any damage that occurs due to a incorrect installation of the unit.

Remark:

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- Content may change without prior announcement
- All technical specifications are guideline data and not guaranteed featured
- .

About this manual

This manual is a comprehensive guide to the installation and operation of LYINTL H-9500 series fully digital conference system. It includes the detailed description of the functions and interfaces of the H-9500 series system components, system connection and installation, system set up and operation.

The manual is divided into the following chapters:

Chapter 1: Introduction

An introduction to the system composition, technology, functions and features of H-9500 series fully digital conference system.

Chapter 2: Conference main unit

Descriptions in detail of the functions and indications, installation and connection, configuration and operation of conference main unit and extension unit of H-9500 series fully digital conference system.

Chapter 3: Conference unit

Descriptions in detail of the functions and indications, installation and connection, configuration and operation of conference units of H-9500 series fully digital conference system.

Chapter 4: Conference connection

Descriptions in detail of the connection between system devices

Chapter 5: Accessories

In introduction to the accessories of H-9500 series fully digital conference system, e.g. system microphone

Chapter 6: Software control

Descriptions in detail of the function and operation of software control of H-9500 series fully digital conference system.

Chapter 7: Environment and maintenance

In introduction to the work environment and maintenance of H-9500 series fully digital conference system.

Chapter 8: Specification

In introduction to the work environment and maintenance of H-9500 series fully digital conference system.

This manual is applicable to:

Conference Main Units:

H-9500M

Fully Digital Conference System Main Unit (Discuss, recording, video tracking, voting, monitoring, 4.3 inch TFT touch display, Ethernet interface)

H-9500E

Fully Digital Conference System Extension Unit.

H-9500T

Fully Digital Conference System Interpretation Main Unit.

Conference Microphone Units:

H-9200c/d

Fully Digital Conference System microphone units. Discuss+video-tracking function. (Microphone without monitor speaker).

H-9210c/d

Fully Digital Conference System microphone units. Discuss+Video-tracking function. (Microphone without monitor speaker, Flush mounted design).

H-9210Fc/Fd

Fully Digital Conference System microphone units. Discuss+Video-tracking+interpretation function (Microphone without monitor speaker, Flush mounted design).

H-9211c/d

Fully Digital Conference System microphone units.Discuss+video-tracking function. (Microphone without monitor speaker, Flush mounted design).

H-9220c/d

Fully Digital Conference System microphone units. Discuss+video-tracking+voting function. (Microphone without monitor speaker, Flush mounted design).

H-9230c/d

Fully Digital Conference System microphone units. Discuss+video-tracking function. (Microphone without monitor speaker)

H-9231c/d

Fully Digital Conference System microphone units. Discuss+video-tracking function. (Microphone without monitor speaker)

H-9250c/d

Fully Digital Conference System microphone units. Discuss+Video-tracking+Voting+interpretation function.. (Microphone without monitor speaker)

H-9255c/d

Fully Digital Conference System microphone units. Discuss+Video-tracking+Voting+interpretation function. (Microphone without monitor speaker)

H-9500c/d

Fully Digital Conference System microphone units. Discuss+Video-tracking+Voting function. (Microphone with monitor speaker)

H-9510c/d

Fully Digital Conference System microphone Unit. Discuss+Video-tracking function. (Microphone with monitor speaker)

H-9500Fc/Fd

Fully Digital Conference System microphone units. Discuss+Video-tracking+Voting+interpretation function. (Microphone with monitor speaker)

H-X1/03c/d

Fully Digital Conference System microphone units. Discuss+Video-tracking function. (Microphone without monitor speaker, Flush mounted design)

H-9500Y

Fully Digital Conference System Interpreter Unit

Accessories

H-9500L: Extension unit

H-CAT6： STP CAT6

H-ZD01: Terminal unit

H-EP110 : Single Earphone

H-EP110H: Headphone

Chapter 1 Introduction

1.1 Summary

Based on digital control technologies, H-9500 series fully Digital Conference System is flexible and reliable for any conference of mini/medium/large meeting. The system features include: microphone management, automatic video tracking, conference audio recording, voting, interpretation, etc.

H-9500 series fully Digital Conference System is also provided with function that to access and control main unit through software, thus the operator can easily manage and control the conference proceedings.

Other peripheral devices like computers, touch panels, projectors and loudspeakers can also be integrated with H-9500 series fully Digital Conference System .

This system consists of one or more of the following items:

Conference Main Units:

H-9500M

Fully Digital Conference System Main Unit (Discuss, recording, video tracking, voting, monitoring, 4.3 inch TFT touch display, Ethernet interface)

H-9500E

Fully Digital Conference System Extension Unit.

H-9500T

Fully Digital Conference System Interpretation Main Unit.

Conference Microphone Units:

H-9200c/d

Fully Digital Conference System Microphone Unit (2.4 inch IPS Display, Ethernet interface)

H-9210c/d

Fully Digital Conference System microphone units. (LCD Display, Flush mounted design, Ethernet interface)

H-9210Fc/Fd

Fully Digital Conference System microphone units. (LCD Display, Flush mounted design, Ethernet interface)

H-9211c/d

Fully Digital Conference System microphone units. (2.4 inch IPS Display, Flush mounted design, Ethernet interface)

H-9220c/d

Fully Digital Conference System microphone units. (LCD Display, Flush mounted design, Ethernet interface)

H-9230c/d

Fully Digital Conference System microphone units.(2.4 inch IPS Display, Ethernet interface)

H-9231c/d

Fully Digital Conference System microphone units. (Ethernet interface)

H-9250c/d

Fully Digital Conference System microphone units. (4.1 inch IPS HD touch Display, Ethernet interface)

H-9255c/d

Fully Digital Conference System microphone units. (4.1 inch IPS HD touch Display, Ethernet interface)

H-9500c/d

Fully Digital Conference System microphone units. (2.4 inch IPS Display, Monitoring Speaker, 5 function Key, Ethernet interface)

H-9510c/d

Fully Digital Conference System microphone units. (2.4-inch IPS Display, Monitoring Speaker, Ethernet interface)

H-9500Fc/Fd

Fully Digital Conference System microphone units. (2.4 inch IPS Display, Monitoring Speaker, 5 function Key, Ethernet interface)

H-X1/03c/d

Fully Digital Conference System microphone units. (Flush mounted design, Ethernet interface)

H-9500Y

Fully Digital Conference System Interpreter Unit

Accessories

H-9500L: Portable extension unit

H-CAT6： STP CAT6

H-ZD01: Terminal unit

H-EP110 : Single Earphone

H-EP110H: Headphone

1.2 System Equipment

1.2.1 Conference Main Unit (CMU)

The Conference Main Unit forms the core of the entire conference system. It provides power supply to all contribution unit and serves as key component to link system hardware to software control. In Stand-alone mode, the CMU only carries out basic management facilities; while more comprehensive management facilities can be implemented through the software control.
By use fully digital audio transmission technologies, conference systems are linked tightly to the rapidly developing internet technology, communication technology and computer science. Users enjoy the convenience of the contemporary leading techniques. The STP Cat6 cable is used to transmit high quality digital audio, control and other information data, avoiding cables cluttering up the conference venues and adaptable to any system cabling requirements. The “hand-in-hand” design of contribution unit s enables the units to be added into the system at any desired point and simplifies equipment extension and maintenance significantly.

1.2.2 Conference Microphone Unit

All conference units of H-9500 series are supplied by the main unit’s Ethernet interfaces is limited, it must be ensured during installation that the added-up values of the total power consumption of all conference units connected in each path and the power loss in extension cables do in no case exceed the maximum possible value delivered by each Ethernet interface. Otherwise the system will not work properly, or automatic protection will be triggered. The last mic of each Ethernet outputs must connect one terminal unit.

1.2.3 Accessories

Relevant accessories connected or used in H-9500 series include: connection cables, terminal units, extension unit, software, etc.

1.3 Conference Management Software

H-9500 series conference system can be controlled by software that is comprehensive, reliable and eco-friendly. The user can access the software to manage centrally all aspects of the conference. The operation turns out to be easy and efficient.

By software control, function of H-9500 series conference system include CMU setting, Speaking and Request list, Video Tracking, Edit Data of Participants, etc...

1.4 Functions and Features

1.4.1 Set up numbers of active microphones and operation modes

a) Active microphone limit (1/2/3/4) and speaking time limit.

b) Three operation modes can be set via the main unit

- ✧ “Limit” mode: When this mode is selected, this display will show LIMIT MODE, plus the number of delegates that can speak simultaneously. Once this number of delegates is reached, no further delegates will be allowed to intervene until the number of active delegate microphones again falls below this limit
- ✧ “FIFO” mode: When this mode is selected (First In-First Out), the display will display FIFO MODE, plus the number of delegates who can speak simultaneously. In this mode, the keeps track of the order in which the delegate microphones are activated. Once the preset limit of simultaneous delegates has been reached, and a new delegate presses the MIC ON/OFF key on his microphone, the FIRST microphone that was active when this limit was reached will be made inactive, and the new delegate microphone will be activated.
- ✧ “Request” mode: When this mode is selected, only controlled by the software operator to decide the request microphone on/off

1.4.2 Set up of chairman microphone

a) Chairman microphone is unlimited by conference mode, only controlled by itself or software.
b) Chairman Priority: Chairman priority key has two functions (Mute All/Close All) when “Chairman Only” function is active, all delegate microphones will be off or mute when priority key pressed (Delegate microphone IPS display will show “Chairman Only”), and the delegate microphones will not reactivate when their MIC ON/OFF key is pressed. These will remain excluded until the chairman again presses the MIC ON/OFF key to release this mode.
c) We suggest 3 chairman microphone maximum installed in one system, as maximum active microphones in one system is 4, if active chairman microphones more than 3, then delegate microphones can not active.

1.4.3 Software Control

a) Active microphone limit and microphones mode selection.
b) Microphone ID list, speaking and request list can be displayed on the software and through which the operation can turn/on/off the microphones
c) Set up microphone functions (such as speaking, sign in, ballot rights)
d) Speaking time and warning time limit.
e) Predefined position setting, video tracking (support Pelco-D and Visca), maximum 8 cameras can be controlled
f) Edit conference data (such as conference heading, proposal, sub-secreen display, delegates data, ballot information
g) System line detect to check microphone status.
h) Set up interpretation function when connect with interpretation main unit

1.4.4 Conference recording

a) USB interface for conference recording
b) The TFT display will show the recording information and USB flash disk remaining recording time

1.4.5 Video Camera Auto-tracking

a) Built-in video camera auto-tracking function to support camera track the last active microphone and display video-Home image (the image when all microphones off) to sub-screens
b) Support up to 8 cameras with video matrix

1.4.6 Conference Monitoring

Built-in 3.5mm phone jack for monitoring the conference.

1.4.7 Seamlessly integrated with central control system

The seamless integration of CMU(Via RS232C interface of H-9500M) and central control system provides comprehensive conference system solution. Besides the basic conference management (discussion, video tracking, ballot, etc.), it also manages peripheral multimedia equipment, surrounding lights, projector display and sound equipment.

1.4.8 Excellent immunity to RF interference from mobile phones

Chapter 2 Conference Main Unit

2.1 Conference Main Units

The Conference Main Unit forms the core of the entire conference system. It provides power supply to all contribution unit and serves as key component to link system hardware to software control. The CMU adopt DSP techniques such as feedback suppression, noise cancellation, automatic gain, and digital equalization. It's flexible and reliable for any conference of mini/medium/large meeting.

Product Include:

H-9500M

Fully Digital Conference System Main Unit (Discuss, recording, video tracking, voting, monitoring, 4.3 inch TFT touch display, Ethernet interface)

H-9500E

Fully Digital Conference System Extension Unit.

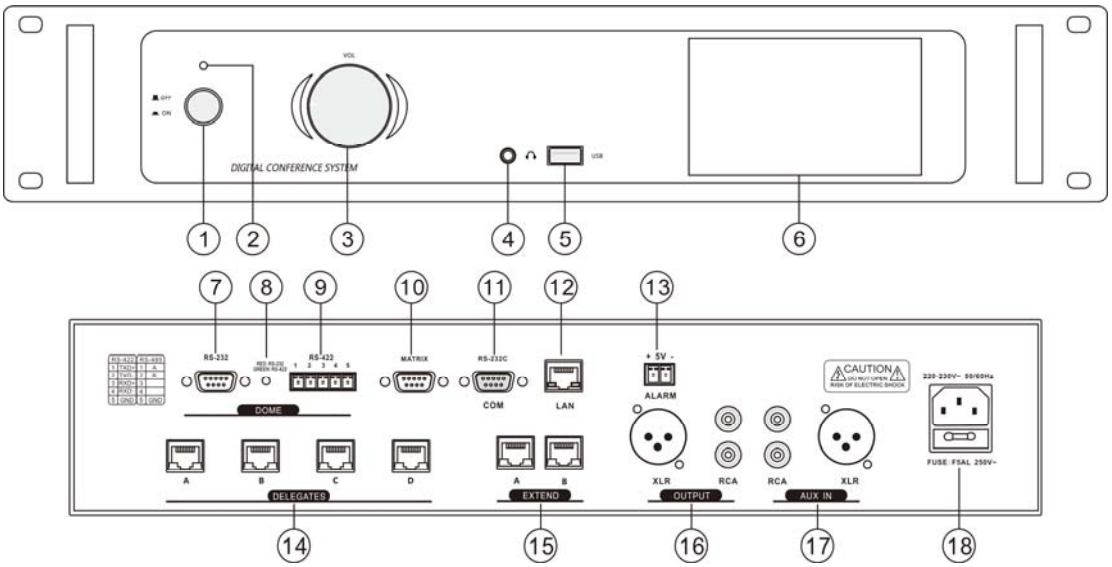
H-9500T

Fully Digital Conference System Interpretation Main Unit.

2.1.1 Main Features and Specifications of CMU

a) STP Cat6 cables are introduced for data transmission and power supply, supporting message transmission with a fast internet service 100M. Thus, audio signals could be delivered perfectly in a long distance.
b) A sampling frequency of 48kHZ is supported by the system.
c) In order to ensure a clear, highly sensitive, and perfect sound quality, CMU built-in high-performance dual-core CPU, 32 bit high-speed DSP technologies, feedback suppression, noise cancellation, automatic gain, and digital equalization are all available.
d) TCP (transmission control protocol) and IP (internet protocol) are all available, enabling a reliable and safe management.
e) Built-in video tracking control and ballot processor, high definition switching matrix are available for auto video tracking with HD video matrix.
f) The CMU owns a built-in USB, allowing the realizing of recording and monitoring.
g) Audio could be outputted in balanced or unbalanced way.
h) Different kinds of interfaces, like, Ethernet, RS422 and RS232, could meet requirements towards different devices.
i) Three modes are available, including REQUEST(1-4),LIMIT (1-4), and FIFO (1-4). They all support speech timing function.
j) Multiple conference functions could be realized when CMU is connected to computer.
k) Power Input: 230VAC 50/60Hz
l) Static Power: 12W
m) Maximum Output Power: 300W
n) Frequency Response: 20Hz-20KHz
o) S/N: > 80dB
p) T.H.D: <0.05%
q) Dimensions: 484x 88 x 360 mm, 2 U rack 19”

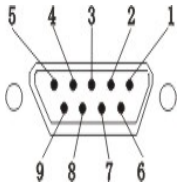
2.1.2 Functions and Instructions of CMU



1) Power Switch: Use this button to switch on or to switch off the main unit
2) Power Indicator light
3) Volume: Master volume control the level on output (figure 1 – ref. 16)
4) Monitoring earphone interface (Φ3.5 mm)
5) UBS interface: Be connected to USB drive for MP3 recording
6) Display: 4.3 inch TFT touch control display for basic system setting and recording control
7) RS-232 camera control interface
8) Camera data control indicator
9) RS422/485 camera control interface
10) Matrix control interface: When cooperating with seamless video matrix and dome camera, auto video tracking can be realized.
11) RS232C interface to support central control system
12) LAN: Ethernet interface for communication between the CMU and the PC
13) ALARM: Emergency signal interface, for connection to public emergency system
14) Delegates: 4 path microphones output interface (Ethernet) to connect system microphones.
15) Extend: Dual connection Ethernet interface to the extension main unit or interpretation main unit
16) Output: Balanced signal output (XLR) . Connect mixer or amplifier to this output. Recording output (RCA). To record a conference, connect a recorder to this output
17) AUX IN: XLR input, connection this input with dynamic microphone. Line level input (RCA). Connect this input to an audio source such as a CD player, etc.
18) AC POWER SOCKET: Power 230VAC 50/60Hz

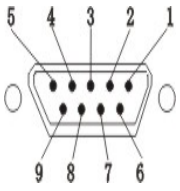
2.1.3 Description of Control Interface of CMU

① Central control connector RS232C



RS-232C Male

1-	NC	6-	NC
2-	TXD	7-	NC
3-	RXD	8-	NC
4-	NC	9-	NC
5-	GND		



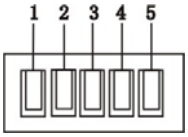
RS-232C Female

1-	NC	6-	NC
2-	RXD	7-	NC
3-	TXD	8-	NC
4-	NC	9-	NC
5-	GND		

② Camera control connector RS232 and RS-422

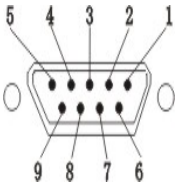
If you use dome camera in place of camera you can control pan and tilt move directly from software.Connect this socket to the control connector of domes.

Note : To know connections, read the user manual of the dome.



RS-422

1- TXD + (RS485 +)
2- TXD - (RS485 -)
3- RXD +
4- RXD –
5- GND



RS-232 Male

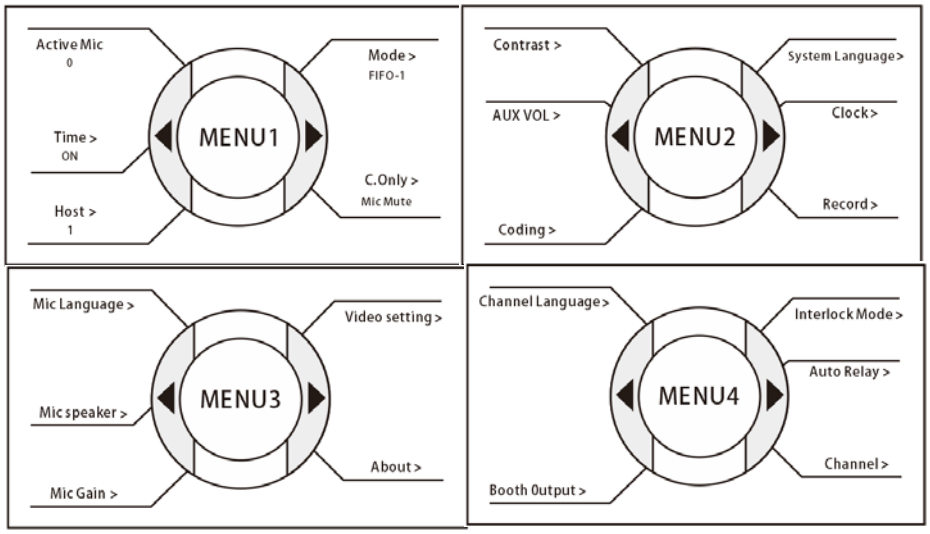
1.NC	6.NC
2.TXD	7.NC
3.RXD	8.NC
4.NC	9.NC
5.GND	

2.1.4 Instruction of TFT Touch Display of CMU

The display will light after turn on the main unit with power switch and enter main interface as below:

Instruction of TFT touch display menu

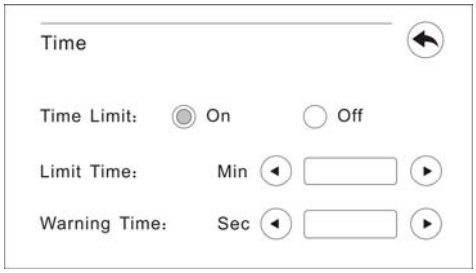
The display include 4 menu interface, user can select it with ◀ and ▶ to switch the menu



MENU 1

a) Active microphone number : To display real time active microphone number in the system

b) Time Limit



- ✧ User can set speak limit time in this interface, when this function is on, system will start counting the time if microphone is on and will close this microphone when the limit time is over.
- ✧ Limit time range: 1-60 minutes
- ✧ Warning time range: 1-60 seconds: the microphone led will start to flash when the remaining time reach to the warning time range

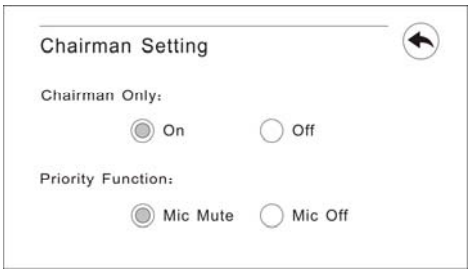
c) Moderator setting

If system has more than 1 chairman microphone, user can set one of them as moderator, this chairman microphone can control sign-in/ballot function after set it as moderator/host

d) Conference Mode

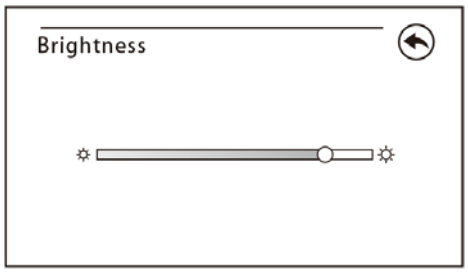
- ✧ "Limit" mode (1-4): When this mode is selected, this display will show LIMIT MODE, plus the number of delegates that can speak simultaneously. Once this number of delegates is reached, no further delegates will be allowed to intervene until the number of active delegate microphones again falls below this limit
- ✧ "FIFO" mode (1-4): When this mode is selected(First In-First Out), the display will display FIFO MODE, plus the number of delegates who can speak simultaneously. In this mode, the keeps track of the order in which the delegate microphones are activated. Once the preset limit of simultaneous delegates has been reached, and a new delegate presses the MIC ON/OFF key on his microphone, the FIRST microphone that was active when this limit was reached will be made inactive, and the new delegate microphone will be activated.
- ✧ "Request" mode (1-4): When this mode is selected, only controlled by the software operator to decide the request microphone on/off, there is no limitation of the request microphone number, but only 4 delegate microphone can be on maximum at the same time.
- ✧ Chairman microphone is unlimited by conference mode,only controlled by itself or software.

e) Chairman only Mode



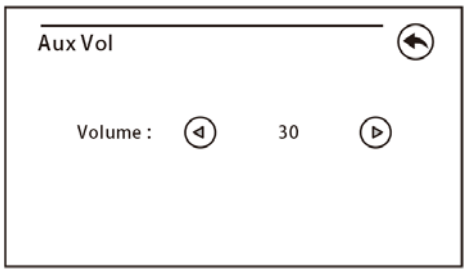
- ✧ Chairman Priority: Chairman priority key has two functions (Mute All/Close All) when "Chairman Only" function is active, all delegate microphones will be off or mute when priority key pressed (Delegate microphone IPS display will show "Chairman Only"), and the delegate microphones will not reactivate when their MIC ON/OFF key is pressed. These will remain excluded until the chairman again presses the MIC ON/OFF key to release this mode.

MENU 2
a) Contrast

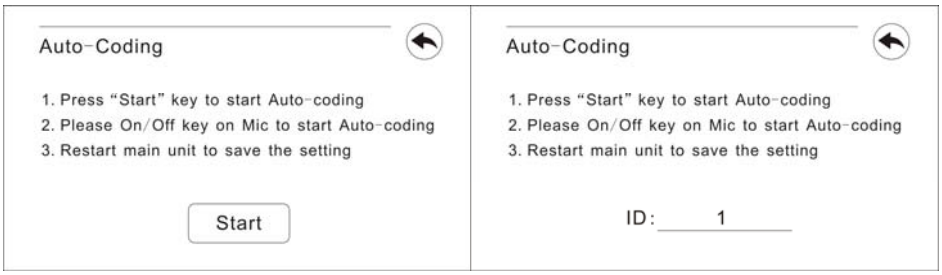


✧ User can set the display brightness with touch control

b) AUX IN: To set system AUX input level (0-30)



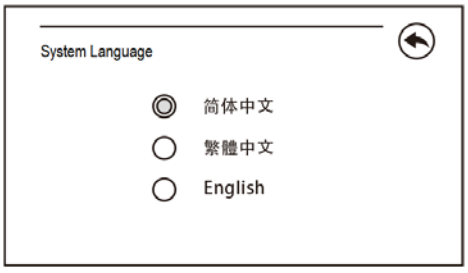
c) Coding



Each mic has a number ID which is affected (very important to setup the discuss, auto-track and voting function), user can set the microphone id after setup the system.

✧ This coding information is displayed on all the microphone LCD, press the on/off button of the corresponding mic to the affected the number.
✧ The other mics are always show the coding information but with an incremented number of a unit.
✧ Please make sure the microphone id number should be different in one system
✧ Please make sure the terminal unit connect to the last microphone of each line before auto-coding.

d) System Language

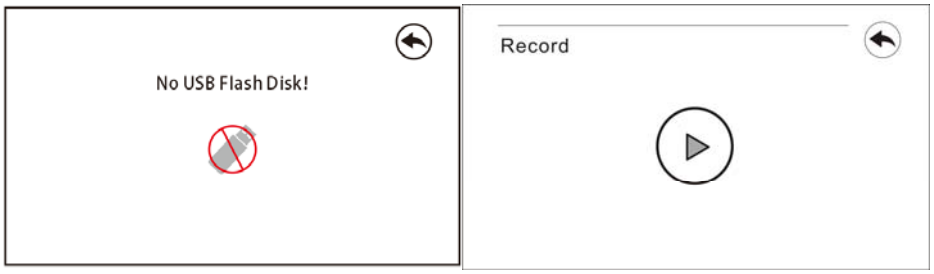


User can set the system language: Traditional Chinese/Simple Chinese/English

e) Time

Set system time and synchronize to microphones.

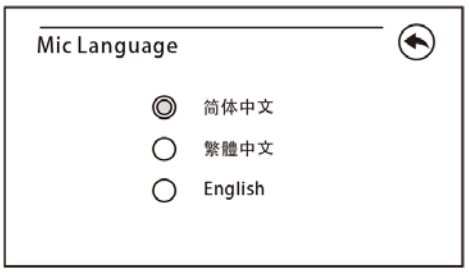
f) Recording



After connect USB flash disk (We suggest USB drive capacity under 16G) to USB recording interface of the CMU, user can start audio recording, the record file will save in the folder named “Record”, the file format is *.mp3. Please connect USB flash disk to CMU at Menu 2 interface, then enter recording interface, or CMU can not find the disk. The audio file size for recording 1 minute is approximately 900KB

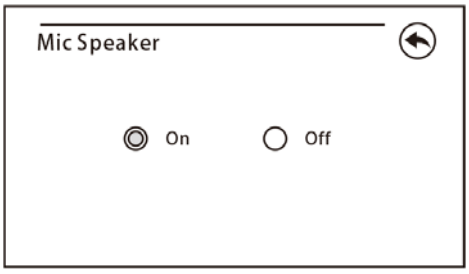
MENU 3

a) Mic Language



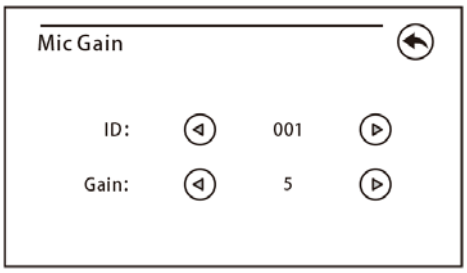
User can set the system Mic language: Traditional Chinese/Simple Chinese/English

b) Mic Speaker



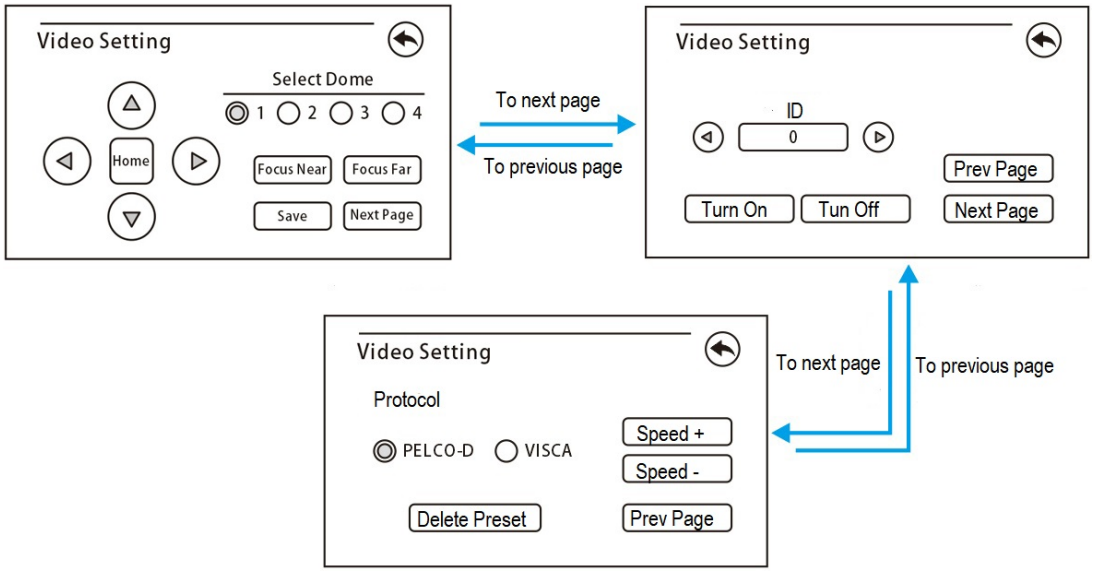
User can enable or disable the microphone monitor speaker (only available for the microphone built-in monitor speaker.

c) Mic Gain



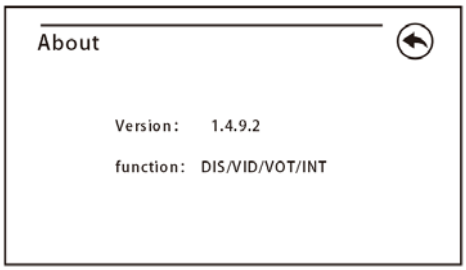
You can set the gain of the microphone unit separately, select the microphone ID , and adjust the gain of that microphone. (Adjustment range 0-10)

d) Video Setting



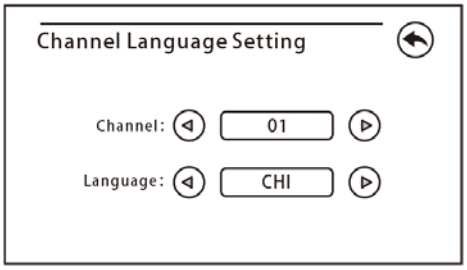
On Menu 3 page, click on Video Setting to enter the control interface. Click on the previous or next page to switch the control interface as shown in the above figure.
Steps for camera setup: (It is recommended to set the meeting mode FIFO-1 before setting)
Step 1: Switch to camera control protocol selection interface and select the correct protocol. This system supports PELCO-D and VISCA protocol.
Step 2: Switch to microphone control interface, select microphone id 1, click to turn on the microphone, and the microphone with ID 001 will automatically on; After turning on the microphone, switch to camera control interface and select the camera as needed to capture the image of the microphone. Use buttons such as up, down, left, right, focus far and focus near to control the rotation of the camera. Adjust to the optimal angle and click save.
Step 3: Repeat step 2 and sequentially set the preset positions for all microphone units.
Step 4: Panoramic (Video-Home) position setting. With all microphones turned off, select "1" at "Camera selection 1-4" and use buttons such as up, down, left, right, focus far and focus near to control the rotation of the camera. Adjust the camera to a position where it can capture the entire venue or most of the venue. Click the "Home" button (Panoramic position means that when all microphone units are turned off, the No.1 camera will automatically adjust to an angle to capture the entire venue).
Note: Click the "Delegate Preset" button to clear all preset positions.
*Please note that after clearing all preset positions, you must reset the preset positions of all microphones units in order to achieve video tracking function.

e) About



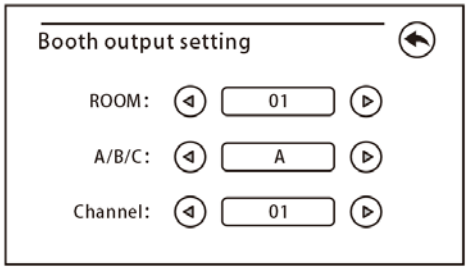
This will display the version/function of CMU.

MENU 4
a) Channel Language Setting



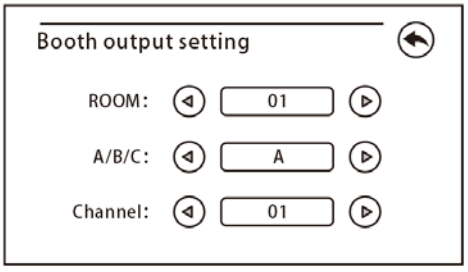
Set the language of each channel of simultaneous interpretation. The system support 12 channels. Please set the displayed language in the software first, and then set the language of each channel by CMU as required.

b) Booth output setting
.



Set output language for each interpreter booth.
In order to distribute translation audio, the interpreter unit provides three language output ports: A, B, and C. Within the same interpreter room, all interpreter units have the same language output channel. After selecting the interpreter booth number, enter the interface for setting the required language for each interpreter booth output channel. Where A is a fixed output language; B channel and C channel can be set as any one channel or no output

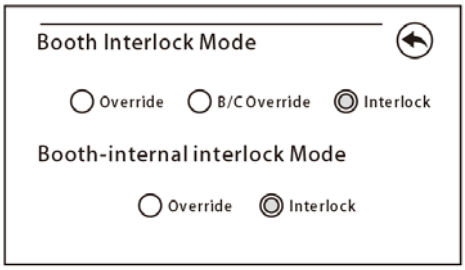
c) Booth output setting



To distribute interpretation languages separately, A/B/C channels are provided in each interpreter unit. The language setting of A/B/C channels for all interpreter units in one booth is uniform. After setup of booth numbers, the user interface to setup output channel A/B/C language will show for each booth.

✧ A is fixed language, B/C can be set NA (no language output from channel B/C) or any of the selected languages.

d) Booth Interlock Mode



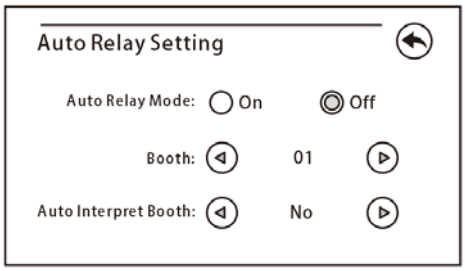
Select Booth Interlock mode between booths:
"OVERRIDE" mode enables an interpreter in a booth to override an occupied channel in another booth, but supplying the same channel.
"B/C OVERRIDE " mode enables A channel of an interpreter in another booth to override an occupied B/C channel in another booth, but supplying the same channel; when an interpreter in another booth to override an occupied A channel in another booth, the "Microphone ON" indicators the occupied A channel will flash on the control panel, user can press the on/off button to stop the warning.

✧ This function ensures that the automatic relay function is not occupied

"INTERLOCK" mode prevents that two booths engage the same channel

Select Booth Interlock mode in a booth:
"OVERRIDE" mode enables an interpreter in a booth to override an occupied channel in the same booth, but supplying the same channel.
"INTERLOCK" mode prevents that two interpreters engage the same channel in the same booth.

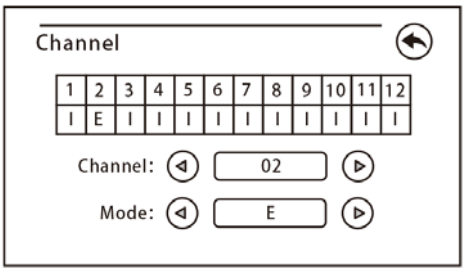
e) Auto-Relay



In case the interpreter does not understand the floor language he/she uses relay interpretation mode (with auto-relay facility) listening to another interpreter's language as source language to execute interpretation into his/her target language

✧ In case the interpreter does not understand the floor language he/she uses relay interpretation mode (with auto-relay facility) listening to another interpreter's language as source language to execute interpretation into his/her target language

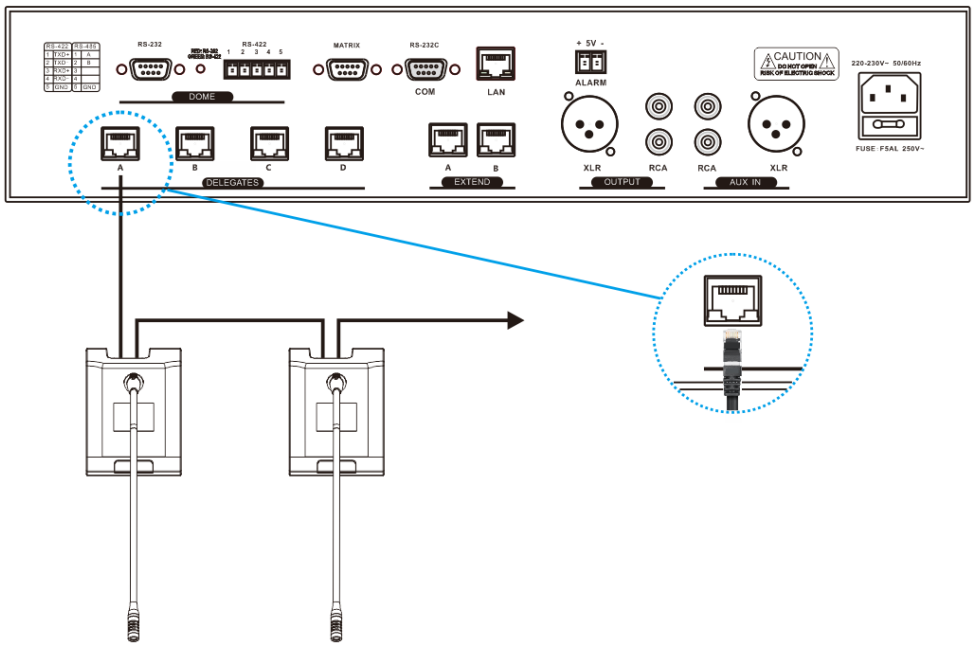
f) Channel



Channel setting of simultaneous interpretation main unit: users can set the audio signal source of each output channel, internal or external is optional
I (Internal): The internal audio signal is output by the internal interpretation main unit
E (External): the simultaneous interpretation main unit is equipped with CH1~12 audio input interface (RCA), and the external audio signal is the audio signal connected to the corresponding interface

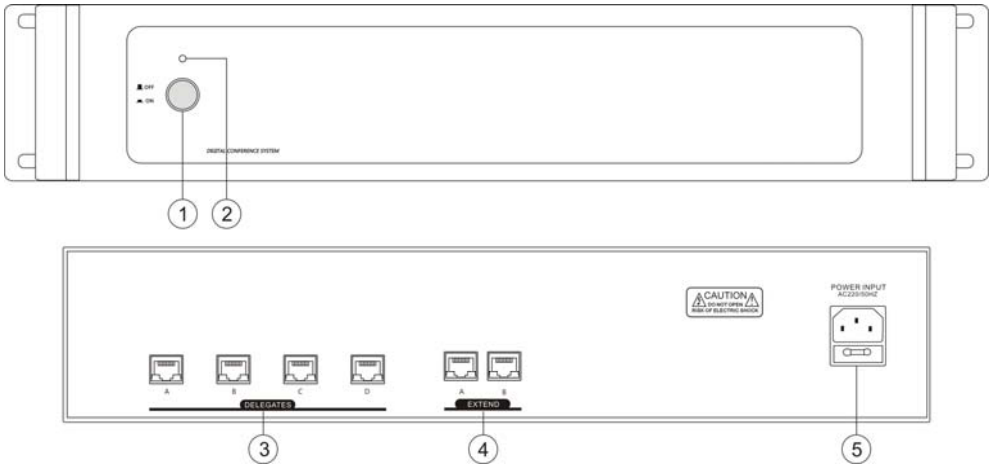
2.1.5 Installation and connection of CMU

H-9500 series conference main unit is stylish and cabinet design that can be install on table or standard cabinet.
H-9500 series CMU has 4 outlet (Ethernet interface) cable connectors for microphones (figure 1 – ref. 14). When connecting the main unit to the microphone units, just connect the RJ45 connector of the first unit to the output of the main unit. For longer distance between the microphone unit and CMU/Extension Unit, a STP cat6 cable (both end of this cable equipped with RJ45 connector) is used. Just connect the RJ45 connector of the cable to the microphone unit and connect the other side to the output of the main unit.



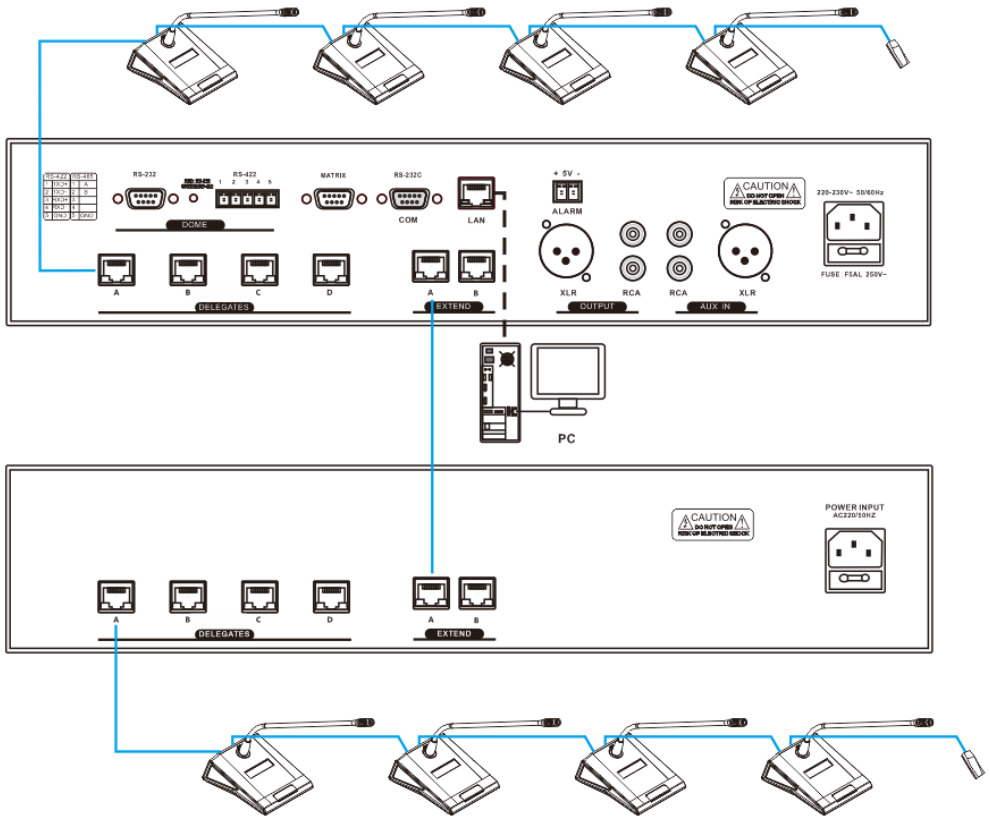
2.2 Fully Digital Conference System Extension Unit.

2.2.1 Functions and Instructions



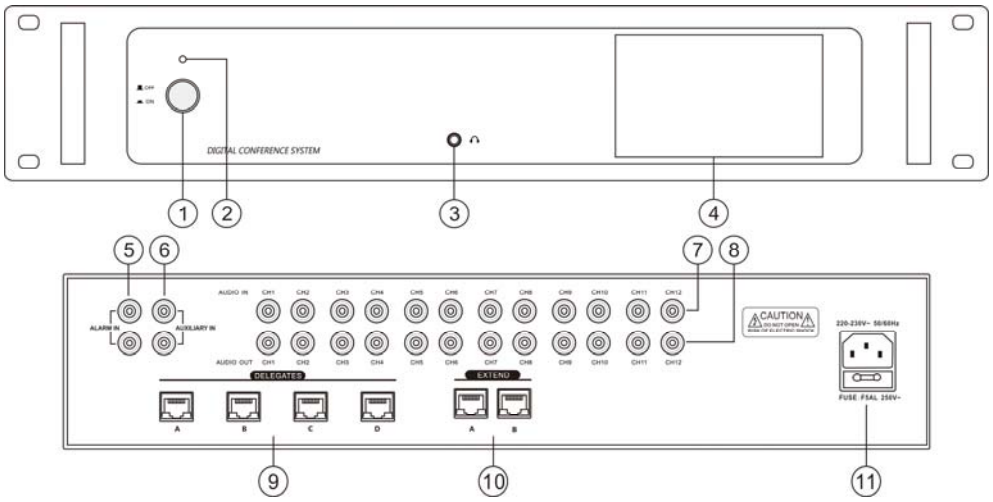
① POWER: Main power on/off switch
② Power light
③ System outlet (Ethernet interface) to connect microphones (A B C D)
④ Extension input/output A/B: Connecting to CMU or next H-9500E extension unit
⑤ AC POWER SOCKET: Power 230VAC 50Hz

2.2.2 Connection to the CMU and microphones



2.3 Fully Digital Conference System Interpretation Main Unit.

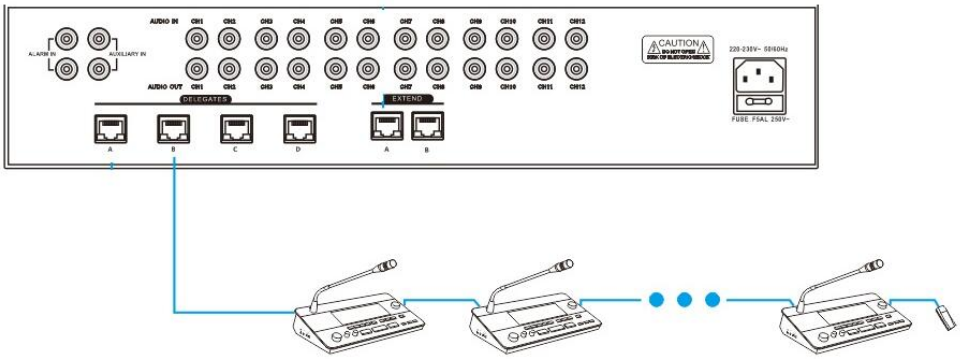
2.3.1 Functions and Instructions



1) Power Switch: Use this button to switch on or to switch off the main unit
2) Power Indicator light
3) Monitoring earphone interface (Φ3.5 mm)
4) Display: 4.3 inch TFT touch control display
5) ALARM IN: Female RCA connector for emergency audio signal, when this function available, system will distribute the emergency audio signal to all output channels and overriding all other audio inputs.

6) AUXILIARY IN:Female RCA connector for external audio inputs to connect auxiliary audio signals such as music, floor language or emergency audio signal
7) Audio In : External audio signal input interface (CH1~12)
8) Audio Out: Audio signal output interface (CH1~12)
9) Delegates: 4 path microphones output interface (Ethernet) to connect system Interpreter Microphones
10) Extend: Dual connection Ethernet interface to the extension main unit or CMU
11) AC POWER SOCKET: Power 230VAC 50/60Hz

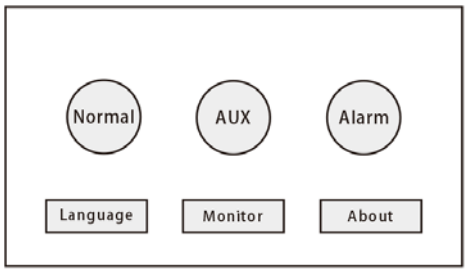
2.3.2 Connection to the Interpretation Main Unit and Interpreter Units



2.3.3 Instruction of TFT Touch Display of Interpretation Main Unit

The display will light after turn on the main unit with power switch and enter main interface as below:

Instruction of TFT touch display menu



Mode Instruction

Normal Mode: in this mode, 12 channels of simultaneous interpreting are used, and the representative microphone unit can choose to listen to the voice of each channel

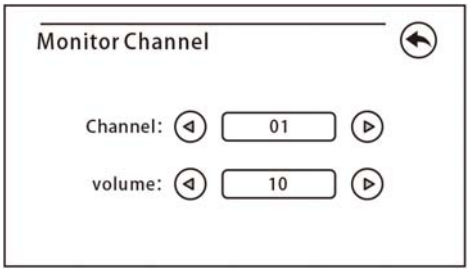
AUX Mode: in this mode, each channel of the representative microphone unit and interpreter unit listens to the audio signal accessed by the aux channel of the simultaneous interpretation main unit

Alarm Mode: in this mode, each channel of the representative microphone unit and the interpreter unit listens to the audio signal accessed by the alarm channel of the simultaneous interpretation main unit

Language Setting

User can set the display language of interpretation main unit: Traditional Chinese/Simple Chinese/English

Monitoring Setting



Set the channel and volume monitored by the headphone interface of the simultaneous interpretation main unit for easy debugging

About

View the current version number of the simultaneous interpretation main unit

Chapter 3 Conference Microphone Units

3.1 Conference Microphone Units

The conference microphone units is the common name to describe the unit used by the attendees to contribute to a conference. The term includes chairman unit, delegate unit and Interpreter unit

Product Type:

H-9200c/d

Fully Digital Conference System Microphone Unit (2.4 inch IPS Display, Ethernet interface)

H-9210c/d

Fully Digital Conference System microphone units. (LCD Display, Flush mounted design, Ethernet interface)

H-9210Fc/Fd

Fully Digital Conference System microphone units. (LCD Display, Flush mounted design, Ethernet interface)

H-9211c/d

Fully Digital Conference System microphone units. (2.4 inch IPS Display, Flush mounted design, Ethernet interface)

H-9220c/d

Fully Digital Conference System microphone units. (LCD Display, Flush mounted design, Ethernet interface)

H-9230c/d

Fully Digital Conference System microphone units.(2.4 inch IPS Display, Ethernet interface)

H-9231c/d

Fully Digital Conference System microphone units. (Ethernet interface)

H-9250c/d

Fully Digital Conference System microphone units. (4.1 inch IPS HD touch Display, Ethernet interface)

H-9255c/d

Fully Digital Conference System microphone units. (4.1 inch IPS HD touch Display, Ethernet interface)

H-9500c/d

Fully Digital Conference System microphone units. (2.4 inch IPS Display, Monitoring Speaker, 5 function Key, Ethernet interface)

H-9510c/d

Fully Digital Conference System microphone units. (2.4-inch IPS Display, Monitoring Speaker, Ethernet interface)

H-9500Fc/Fd

Fully Digital Conference System microphone units. (2.4 inch IPS Display, Monitoring Speaker, 5 function Key, Ethernet interface)

H-X1/03c/d

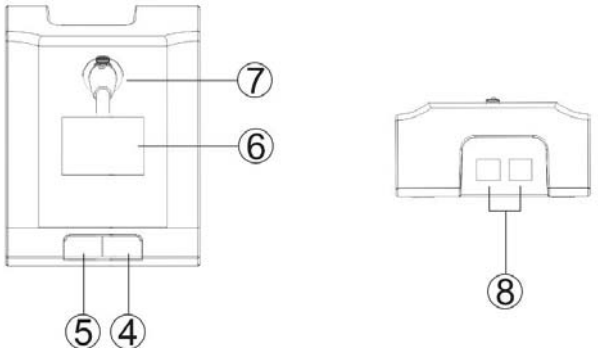
Fully Digital Conference System microphone units. (Flush mounted design, Ethernet interface)

H-9500Y

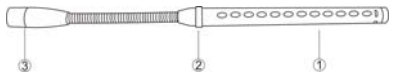
Fully Digital Conference System Interpreter Unit

3.2 Functions and instructions for microphone units

3.2.1 Functions and instructions for microphone units with gooseneck microphone

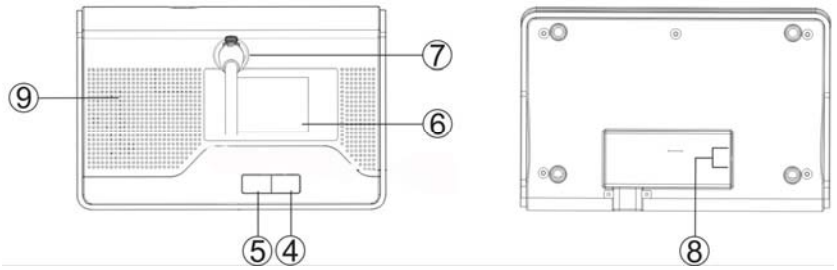


H-9200c/d

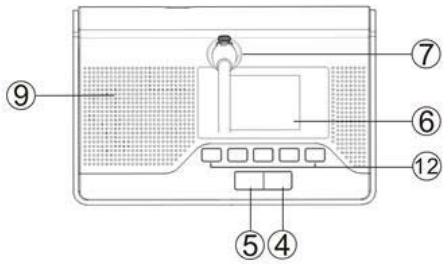


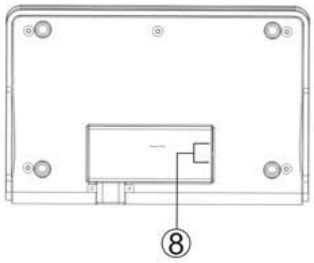
Option 1: Short Gooseneck Mic

Option 2: Long Gooseneck Mic

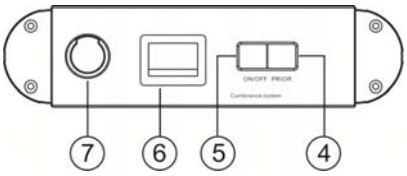


H-9510c/d

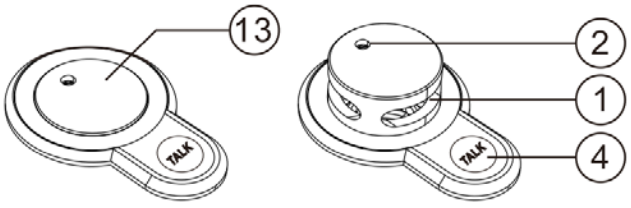




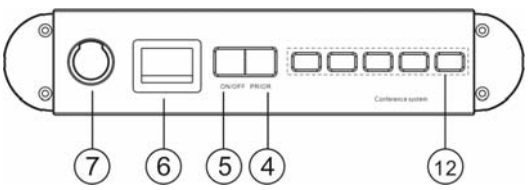
H-9500c/d, H-9500Fc/Fd



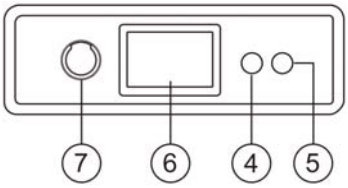
H-9210c/d



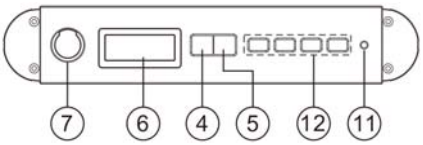
H-X1/03 c/d



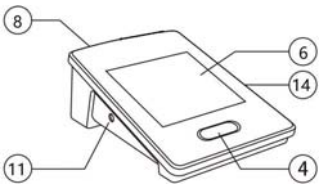
H-9220c/d



H-9211c/d



H-9210Fc/Fd



H-9250c/d

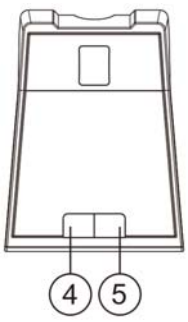
① Electret condenser cardioid microphone
② Indicator light on active microphone: When microphone is active, indicator light switches on
③ Gooseneck microphone connector (Male)
④ Microphone On/Off key for the chairman microphone, Microphone On/Off/Request key for the delegate microphone
✧ Chairman microphone: Press this key to activate the microphone and the indicating light
✧ Delegate microphone: Press this key to activate/deactivate the microphone or request/cancel request to speak.

Work State	Indicating light
Microphone On	Red (On)
Speaking time limit warning	Red (Flash)
Limited Mic	Green (Flash)
Request On	Green (Flash)
Autocoding	Red (Flash)

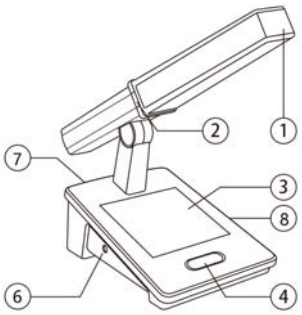
➢ Noted: There has two gooseneck microphone options for the microphone unit, long one and short one.

⑤ Priority key (for chairman unit only). According to the priority mode configuration on the main unit. When press and hold this key 1 second on chairman
✧ If configured as “Mic Mute”, all active delegate microphones will be muted when this key pressed and they will resume when pressed the on/off key to release this mode.
✧ If configured as “Mic Off”, all active delegate microphones will be switched off when this key pressed and they will resume when pressed the on/off key to release this mode.
✧ Under “Request” mode, pressing this key will clear the request list
✧ If chairman microphone is not active, pressing this key will activate it.
⑥ Display: To display the microphone status and other information
⑦ Microphone socket to fix the gooseneck microphone
⑧ Ethernet interface: both Ethernet interface has same function, user can connect RJ45 connector to any Ethernet interface if necessary
⑨ Microphone speaker monitor
⑩ Microphone monitor speaker/earphone volume control
11 Earphone jack 3.5mm, if microphone support interpretation function, after insert earphone, channel select is available
12 5 function key for voting/Election/setting/Channel selecting
13 Press the top panel to raise or hide the microphone, when the microphone is on, press to hide the microphone and the microphone will off automatically
14 Micro SD card interface, this is used to update the standby image for HD touch screen

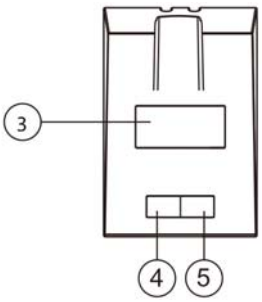
3.2.2 Functions and instructions for microphone units with rectangular columnar metal microphone



H-9321c/d



H-9255c/d



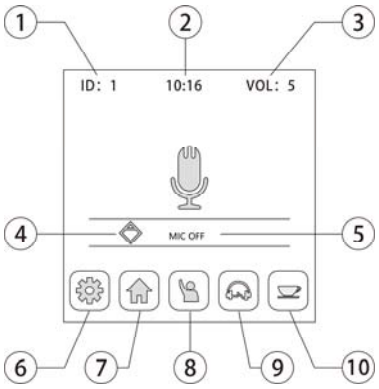
H-9230c/d

① Electret condenser cardioid microphone
② Indicator light on active microphone: When microphone is active, indicator light switches on
③ Display
④ Microphone On/Off key for the microphone (also priority key for H-9250c/d)
✧ Delegate microphone: Press this key to activate/deactivate the microphone or request/cancel request to speak.
⑤ Chairman microphone priority key
✧ Chairman microphone: Press this key to activate the microphone and the indicating light, hold the press this key 2 seconds to active priority function

Work State	Indicating light on mic	Indicating light on mic base on/off button (if possible)
Microphone On	Green (On)	Green (On), Red (Sandby)
Speaking time limit warning	Green (Flash)	Green (Flash), Red (Sandby)
Limited Mic	Off	Green (Flash), Red (Sandby)
Request On	Off	Green (Flash), Red (Sandby)
Autocoding	Green (Flash)	Green (Flash), Red (Sandby)

Chairman Priority function (for chairman unit only).
According to the priority mode configuration on the main unit. When press and hold this key 2 second on chairman
✧ If configured as “Mic Mute”, all active delegate microphones will be muted when this key pressed and they will resume when pressed the on/off key to release this mode.
✧ If configured as “Mic Off”, all active delegate microphones will be switched off when this key pressed and they will resume when pressed the on/off key to release this mode.
✧ Under “Request” mode, pressing this key will clear the request list
✧ If chairman microphone is not active, pressing this key will activate it.
⑥ Earphone jack 3.5mm, if microphone support interpretation function, after insert earphone, channel select is available
⑦ Ethernet interface: both Ethernet interface has same function, user can connect RJ45 connector to any Ethernet interface if necessary
⑧ Micro SD card interface, this is used to update the standby image for HD touch screen

3.2.2.1 Instruction of Microphone IPS HD touch Display

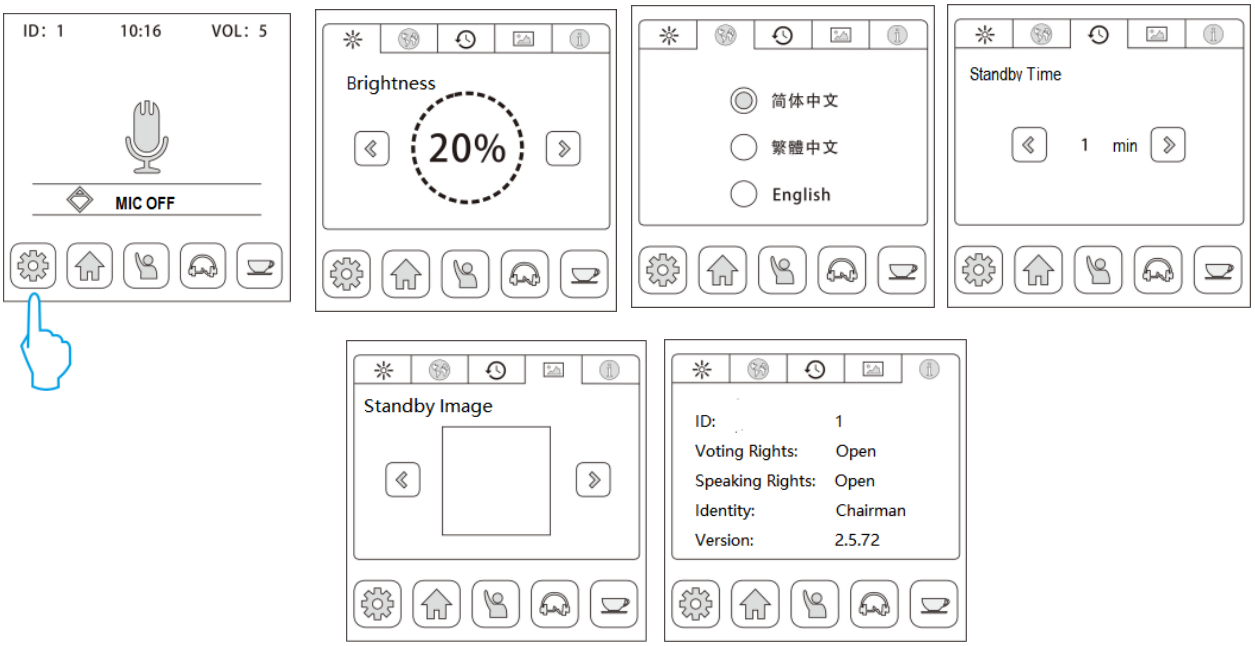


① Microphone ID
② Real time display
③ Microphone output volume level
④ Symbol for chairman microphone
⑤ Microphone on/off status, user also can press the mic symbol to on/off the microphone
⑥ Microphone setting
⑦ Home
⑧ Start Ballot (only available for the moderator set by CMU)
⑨ Interpretation setting
⑩ Service call

❖ There are five function icons on the Display: Setting/Home/Ballot/SI (Simultaneous interpenetration)/ Service

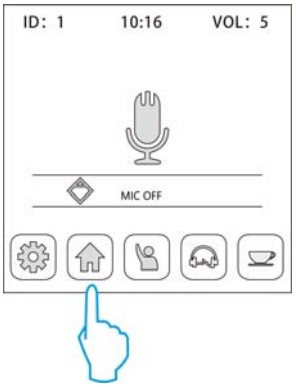
➢ Setting

Press the settings icon to enter the settings menu to set the brightness, language, standby time, and standby image of the conference unit screen, and view the basic information of the current unit



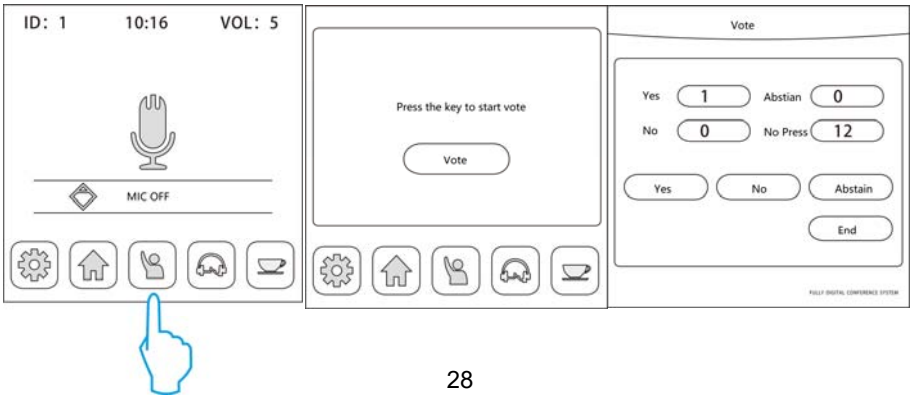
Brightness: User can set the display brightness by left and right button: 20%, 40%, 60%, 80% and 100%
Language: Microphone support Traditional Chinese/Simple Chinese/English
Standby time: 1/2/5 minutes for option
Standby image: If there is no operation within the standby time, the screen will automatically display the selected standby image
Information: To check the microphone basic information, such as ID, rights, version, etc

➢ Home: Press this icon back to the main interface



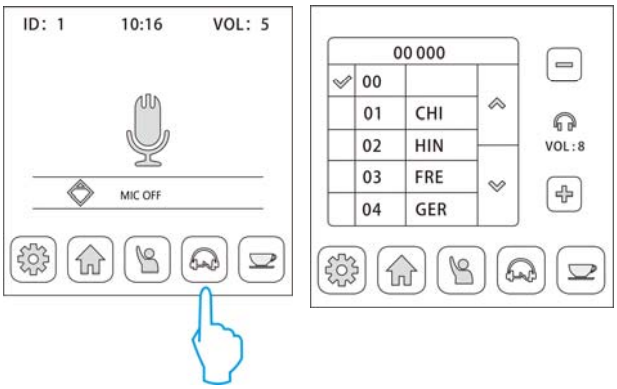
➢ Start Ballot

The chairman's microphone, who serves as the moderator/host, can initiate a vote. Press the icon to enter the menu, and you can initiate a vote of Yes/No/Abstain. All microphones will display the voting result after chairman end the ballot



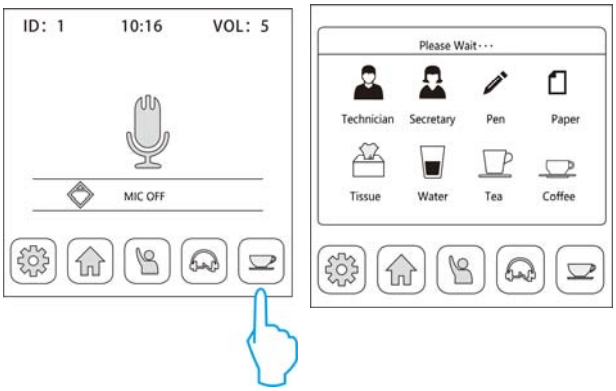
➢ SI (Simultaneous interpenetration)

Press the SI icon to enter Simultaneous interpenetration channel selecting and volume control interface, earphone/headphone must connect to the microphone to listen the channel audio



➢ Service

Press the service icon to enter the menu and send service request as needed. System administrators provide services based on service requests received by the software



➢ Chairman On

Chairman Priority function (for chairman unit only).

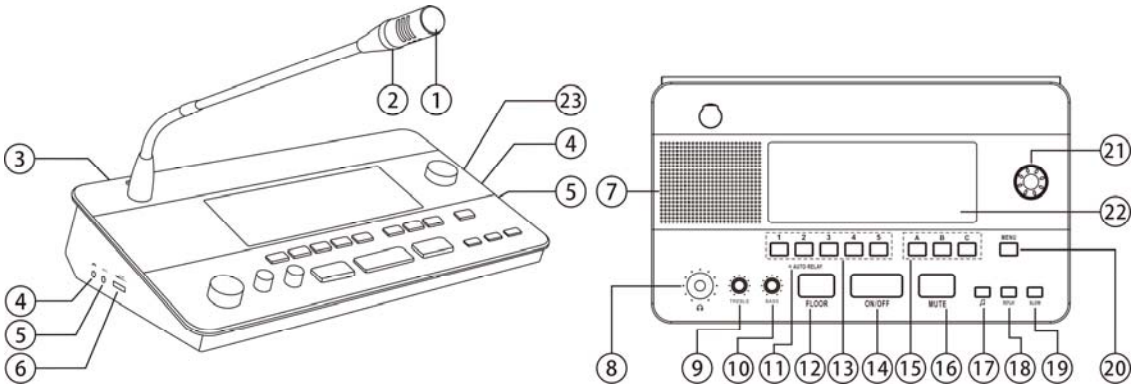
According to the priority mode configuration on the main unit. When press and hold this key 2 second on chairman

- ✧ If configured as “Mic Mute”, all active delegate microphones will be muted when this key pressed and they will resume when pressed the on/off key to release this mode.
- ✧ If configured as “Mic Off”, all active delegate microphones will be switched off when this key pressed and they will resume when pressed the on/off key to release this mode.
- ✧ Under “Request” mode, pressing this key will clear the request list
- ✧ If chairman microphone is not active, pressing this key will activate it.

3.2.3 Main Features and Specifications of Interpreter Unit

Simultaneous interpretation function of H-9500 series congress system is designed for the requirements of large scale multilingual international congresses: it can provide up to 12 language channels (12 CHs). H-9500Y interpreter unit is equipped with a 6.8" TFT LCD, a 12-channel selector, a built-in loudspeaker, a pluggable microphone, headset sockets, etc. In addition, the signal level of the input channel can be displayed in real time. Multi input/output language channels, which can be preset with corresponding short cut key, make it convenient for the interpreter to operate.The Interpreter unit supports direct and relay interpretation function. In direct interpretation mode,the interpreter translates from the floor language to a preset language directly. In case the interpreter does not understand the floor language he/she uses relay interpretation mode (with auto-relay facility) listening to another interpreter's language as source language to execute interpretation into his/her target language.

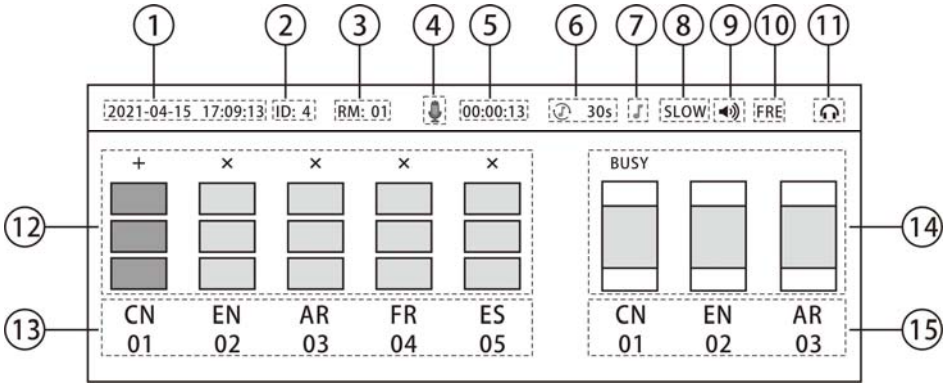
3.2.3.1 Functions and instructions for Interpreter Unit



① Electret condenser cardioid microphone
② Indicator light on active microphone: When microphone is active, indicator light switches on
③ Ethernet interface: both Ethernet interface has same function, user can connect RJ45 connector to any Ethernet interface if necessary
④ Headphone jack (ø 3.5mm)
⑤ Headset microphone jack
⑥ Loudspeaker volume control
⑦ Built-in Hi-Fi loudspeaker
⑧ Headphone volume control knob
⑨ Headphone bass control knob
⑩ Headphone treble control knob
11 Auto-relay indicator
12 Floor channel on/off switch: press this button to access the floor language and the floor indicating light will be activated
13 Monitor channel switch button (1/2/3/4/5): switch to preset the input channel
14 Microphone on/off switch: Press this button to turn on the microphone and the red indicating light will be activated, press this button again to turn off the microphone.
15 Output channel A/B/C switch: Switch to preset the output channel; Indicating light will be on when the channel is engaged; Indicating light of its own will be on when the microphone is active
16 Microphone mute key (MUTE): Push and hold the Mute button to temporarily disable the microphone and the Mute indicating light will be activated. The speech timer does not stop. Release this button on voice recovery.
17 Beep button: You can disable and enable the beeps of the interpreter unit with the Beep button. When beeps are enabled, the display shows a musical note.The interpreter unit can generate beeps for notification of special events to support to let the interpreter know the microphone is on
18 Headphone bass control knob
19 Replay: Press this button to playback the input channel audio, the repeat time can be set by interpreter unit.
20 Menu: Press this button enter interpreter unit function set interface

21 Function operation knob: You can select the corresponding function by pressing or rotating this knob
22 6.8" TFT LCD: Displays the unit configuration information, incoming/outgoing channel number and language name, etc.
23 External power input jack: 12V DC power supply

3.2.3.2 Instruction of interpreter unit 6.8" TFT LCD



① System real date and time
② Interpreter ID
③ Interpreter booth number
④ Microphone status
⑤ Speech time
⑥ Repeat function and repeat time
⑦ Audio feedback on/off
⑧ Slow request
⑨ Monitor speaker
⑩ Channel or Language name of Input channel audio
11 Headset status
12 Input audio signal level
13 Input channel and language name
14 Output channel status
15 Output channel and language name

✧ Instruction of Input channel display

X: The icon is grey, no audio input of this channel

+: The channel contains a direct interpretation of the floor language. This channel has audio input with two options
- a: The audio is directly from floor
- b: The audio is from External

If select this channel, the icon (3 grids) will be change to green color, if this channel not selected, the icon (3 grids) will be white color.

—: The channel contains a indirect interpretation of the floor language, if this channel not selected, the icon (2 grids) will be white color, if this channel selected, the icon (2 girds) will be change to green color.

——: The channel contains an indirect interpretation of an interpretation language, if this channel not selected, the icon (1 grid) will be white color, if this channel selected, the icon (1 gird) will be change to green color.

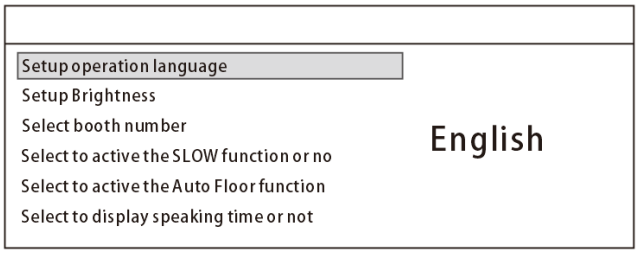
3.2.3.3 Settings of interpreter unit

To realize the simultaneous interpretation function, the interpreter unit should be incorporated in the congress system and they should be setup before the meeting.Any operating status of the interpreter unit will be displayed on the LCD. Setup can be done via dialog menu and the buttons on its panel

When the "Interpretation setup" has been configured in the CMU, and then the interpreter unit must be configured (Set ID by CMU Audo-coding): If the interpreter unit has not been configured (ID), the LCD will not display standby interface and can not working.

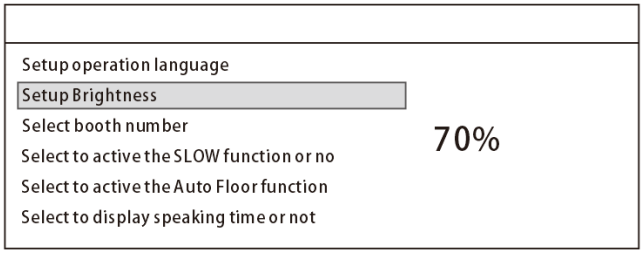
Press the MENU key to enter the menu of the interpreter unit settings, use the function operation knob on the right side of the LCD to operate (rotate to select up or down, press to select or return), rotate the knob until the cursor is in the desired setting column, press the knob to enter the next setting option, rotate the knob to select, press the knob to confirm and return. After all settings are set, press the MENU key or after 20 seconds without any operation to exit the settings menu.

- Language



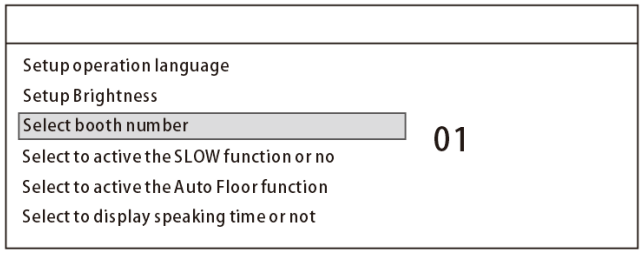
The interpreter unit support Traditional Chinese/Simple Chinese/English

- Brightness



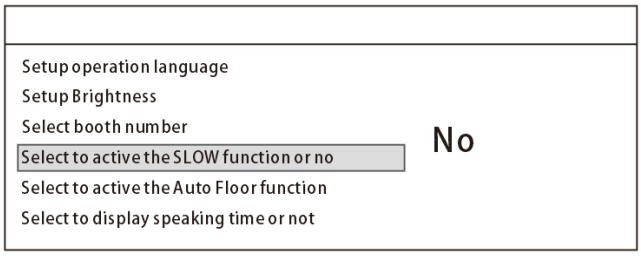
Set the display brightness: 20%, 40%, 60%, 80% and 100% for option

- Booth Number



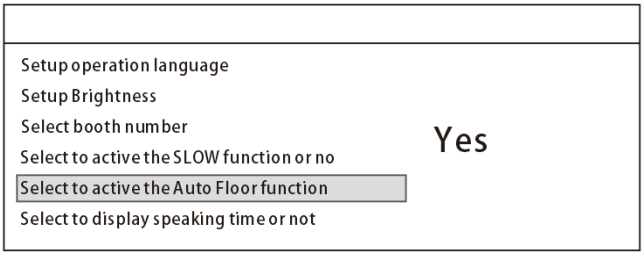
Select the booth number by rotating the function knob, the range is limited by the configuration in the CMU (1~12)

- **Slow**



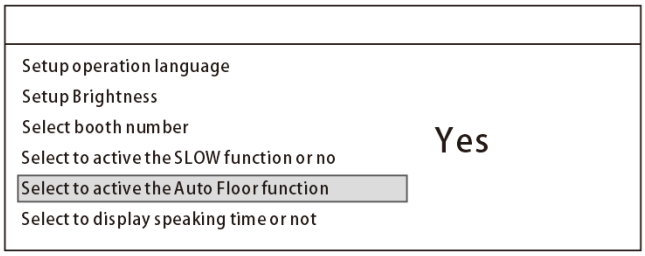
If selected enable the slow function, when the delegate is speaking too fast, interpreter on speaking press the “SLOW” button to remind him/her to slow down. If the discussion unit is equipped with a LCD, the message “ Please speak slower!” will be displayed.

- Auto-Floor



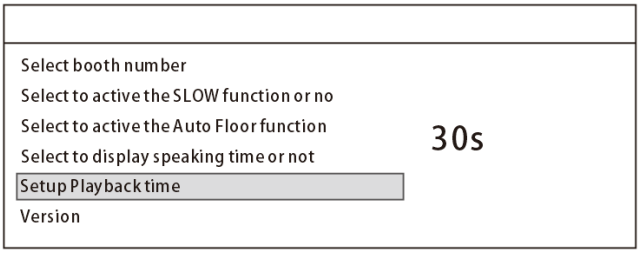
If enable AUTO-FLOOR function, the interpreter unit will automatically switch the floor audio to the selected output channel.

- Speaking time



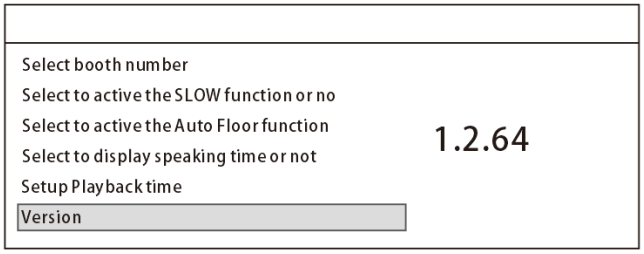
The LCD will show the interpreter speaking time when the microphone tuned on.

- Playback time



If the interpreter missed the speaker's speech. He/she can press the REPLAY key to playback missed words, the play back time ranges between 10s-30s.

- Version



To show the interpreter unit version.

3.2.3.4 Channel setting

1) Input channel configuration

The interpreter unit equipped with 5 pre-select buttons (1/2/3/4/5) for relay languages with activation indication on the LCD. When the monitor channel switch button (1/2/3/4/5) was pressed, push the function knob and rotate it to select the channel at the same time.

1) Output channel configuration

In order to distribute translation audio, the interpreter unit provides three language output ports: A, B, and C. Within the same interpreter room, all interpreter units have the same language output channel. After selecting the interpreter booth number, enter the interface for setting the required language for each interpreter booth output channel. Where A is a fixed output language; B channel and C channel can be set as any one channel or no output

3.2.3.5 Direct interpretation, relay interpretation and auto relay interpretation

Before the setup of the interpreter unit, you should arrange booths according to the actual requirements of the meeting. Assure yourself on the correct allocation of all the interpretation channels.

1) Direct interpretation

Usually, if all interpreters can understand the speaker's language, they just listen to the floor language and are doing simultaneous interpretation. The interpretation languages are distributed to different channels. This is called direct interpretation.

2) Relay interpretation

In the second case, if an interpreter is not familiar with the floor language, he/she cannot proceed to direct interpretation. He/she needs to listen to the translation of another interpreter and has to do "secondhand" translation. This is called relay interpretation.

3) Auto relay interpretation

When relay interpretation is needed, the interpreter can select a language by the monitor channel shortcut switch button (1/2/3/4/5). Due to the fact that the output language of each booth is arranged beforehand, the relay booth must be setup before the meeting. If the interpreter cannot understand the speaker's language, he/she does not need to select the input language manually. His/her interpreter unit can switch to his/her familiar language automatically. This is called auto relay interpretation

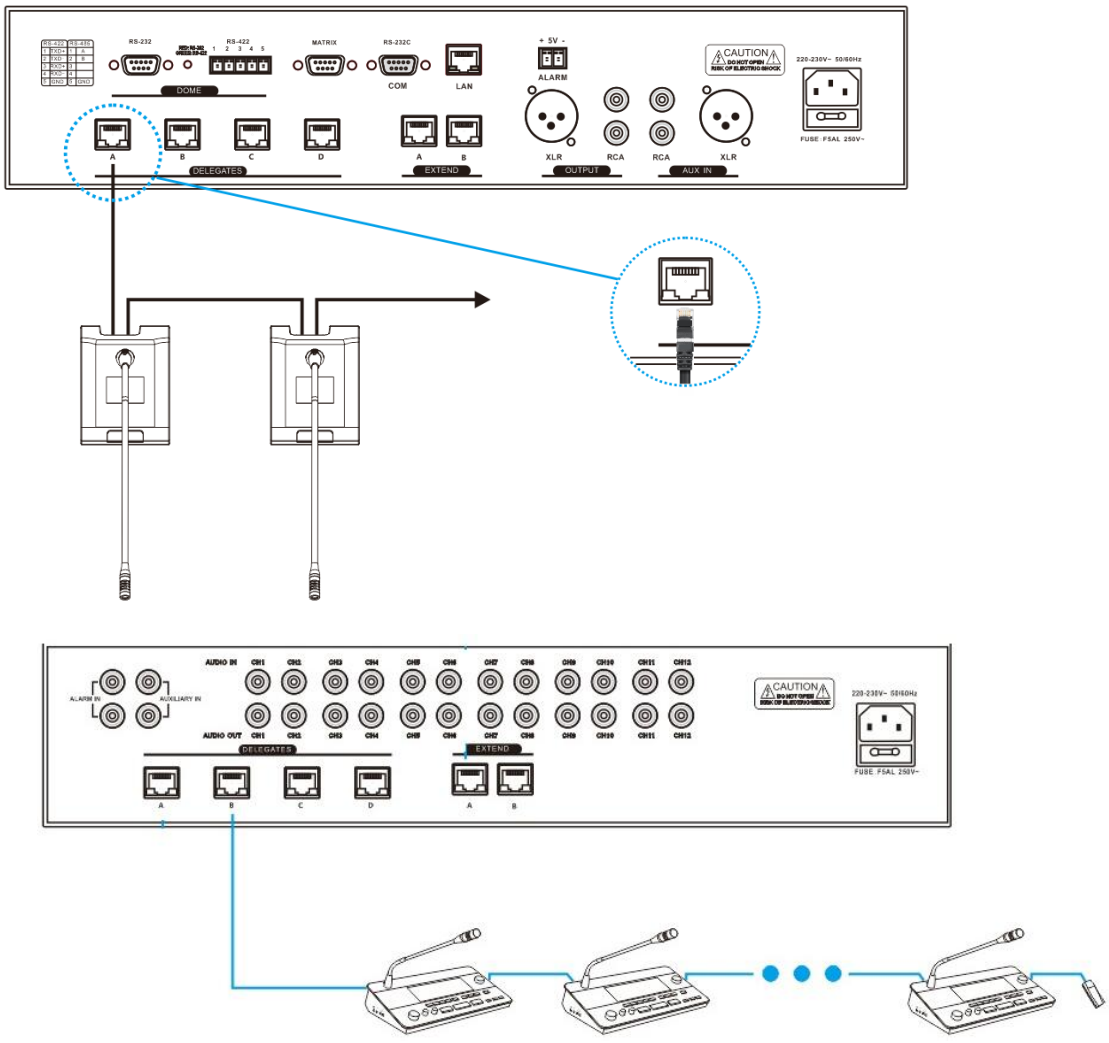
Example:

Booth 1 is for translation between English/Chinese. Output channel A is English, output channel B is Chinese, and output channel C is "None". Booth 2 is for translation between French/Chinese. Output channel A is French, output channel B is Chinese, and output channel C is "None". We configure now booth 1 as relay booth for booth 2.When the speaker is speaking Chinese and if all the interpreters of booth 1 and booth 2 are familiar with Chinese, they can do direct interpretation. When the speaker is speaking English, the interpreters in booth 1 setup output channel B (Chinese) as interpretation language. The interpreter units in booth 2 will take Chinese as their input channel. When the microphone ON/OFF switch in booth 1 is pressed, the floor channel indicating light in booth 2 will be turned off and its Auto-relay indicating light will be activated. It indicates that auto relay interpretation function is working. The interpreters in booth 2 can do relay interpretation.

3.3 Connection

3.3.1 Connection to the main unit (Include CMU and interpretation main unit)

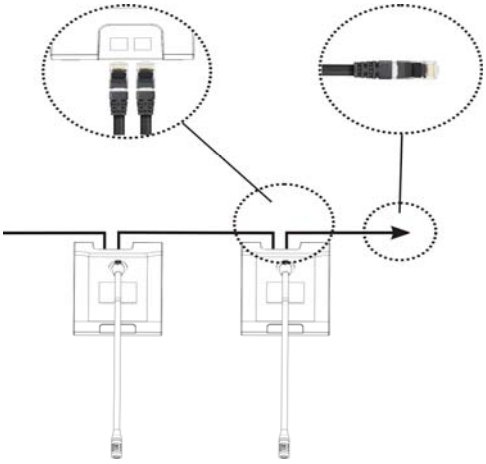
The H-9500 series microphone unit is equipped with a 2 meter long STP cat6 cable with a standard RJ45 connector (cable for interpreter unit is 3 meter). To connect to main unit, just connect the RJ45 connector of the first unit to the output of the main unit.
In case of a long distance between the conference unit and the main unit, use STP Cat6 extension cable. Just connect the RJ45 connector of the cable to the microphone unit and connect the other side to the output of the main unit.



3.3.2 Connection between the microphone units

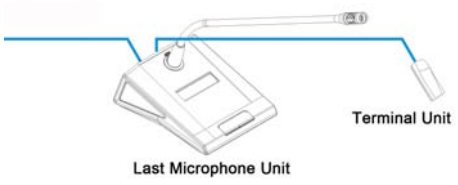
The conference microphones of the fully digital conference system are daisy chained easily.

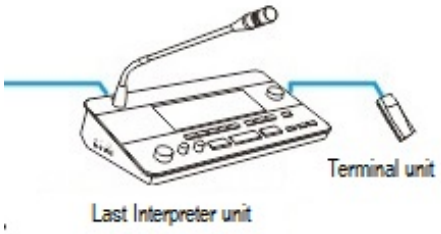
When connecting to another unit, just connect the RJ45 connector on the STP cat6 cable to any Ethernet interface of the microphone unit.



3.3.3 Connection of the terminal unit

For H-9500 series digital conference system, The last microphone/interpreter unit of each Ethernet outputs must connect one terminal unit.





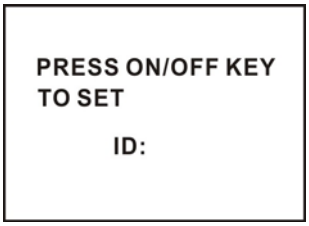
3.4 Operation

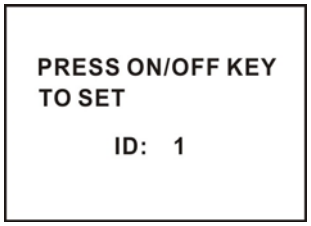
Before a meeting stars, the conference units need to be configured by the operator, include: coding and testing. During the meeting, the participators use the conference unit to activate microphone, request to speak, etc.

3.4.1 Microphone/interpreter unit coding

First of all, make sure that conference microphones are connected properly to the main unit. All conference microphones/interpreter unit must be coding when the system is used for the first time or when adding or replacing conference microphones. The coding number can be activated by the menu operation on the CMU TFT touch panel.
After selecting “Auto-coding” from the CMU TFT touch panel “Auto-coding” and the coding number will be displayed on the display and all the LED indicators on the microphone/interpreter units connected will blink, Microphone display will show “Press on/off key to set ID”. Now press the “Mic On/Off” key on the microphone units one by one to the coding each unit, the button indicating light will be deactivated, microphone display also will show the microphone ID. Once all conference microphone units finish coding, restart the main unit to update the coding information.

- When system under coding, please coding the conference microphones one by one and do not press the “Mic On/Off” key of several conference microphones at the same time.





3.4.2 Delegate Microphone

1. Speaking: Speaking mode is configured on the CMU

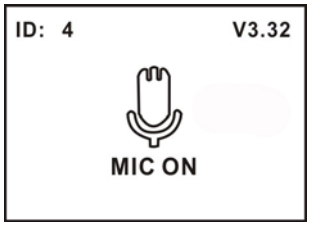
- Limit Mode:

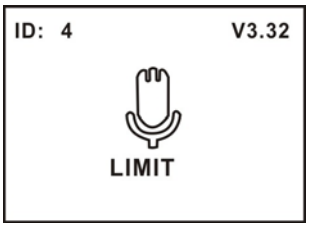
➢ Active microphone number limitation (1/2/3/4) not reached

a. The microphone will be activated when the microphone on/off key is pressed.
b. The microphone will be deactivated when the microphone on/off key is pressed again.

➢ Active microphone number limitation (1/2/3/4) reached

a. Press the microphone on/off key to request to speak.
b. Press this key again to cancel the request to speak
c. When an active microphone is turned off, the first request microphone will be activated





- FIFO mode

➢ Active microphone number limitation (1/2/3/4) not reached

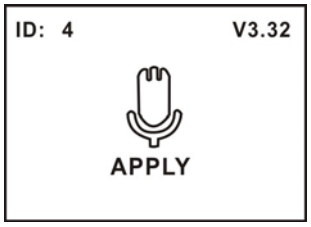
a. The microphone will be activated when the microphone on/off key is pressed.
b. The microphone will be deactivated when the microphone on/off key is pressed again.

➢ Active microphone number limitation (1/2/3/4) reached

If the microphone on/off key is pressed, its microphone will be activated, and the first activated microphone will be deactivated at the same time to maintain the active microphone number limitation. If the number of activated microphone (include chairman microphone) reaches 5, turning on another microphone will switch off the delegate microphone turned on first

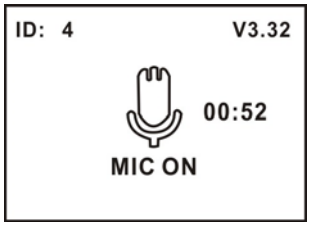
- Request mode

Request to speak when the microphone on/off key is pressed (4 microphones at most)



➢ The chairman microphone does not count in the active microphone number limitation (1/2/3/4), at most 5 microphones can be activated at the same time in a system.
➢ A camera can focus an activated microphone automatically (camera position preset by software/CMU). Speaker's video can be exported to and displayed on large screen(s).

2. Speaking: Speaking mode is configured on the CMU, when speaking time limit set, system will count the microphone speaking time, and microphone LED will flash when reach to warning time, the microphone will be off automatically when time is up.



3. Volume control
The volume of the built-in loudspeaker and earphone (when the earphone is plugged) can be adjusted by the volume control on the lateral side of the microphone unit.

3.4.3 Chairman Microphone

The chairman microphone features all the functions of a delegate microphone, and the following additional functions

1. Priority

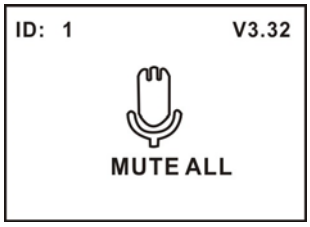
- If the priority mode on the main unit is configured as “Mic Mute”, all active delegate microphones will be muted temporarily when this key is pressed and they will restore when pressed the on/off key to release this mode.
- If t configured as “Mic Off”, all active delegate microphones will be turned off and the request-to-speak list will be purged when this key is pressed.

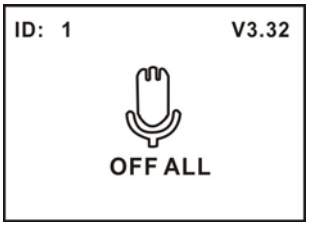
2. Speaking

The chairman microphone is unlimited by the system mode, it can turn on/off its microphone at any time.

3. Turn off or mute delegate microphone

The chairman can use the “Priority” key to execute “Mic Mute” or “Mic Off” operation





Chapter 4 System Connection

4.1 Summary

H-9500 series Fully Digital Conference System has a simple but efficient structure. It's installation is simple, quick and does not need special training. Daisy-chain connection is adopted between conference unit as well as to main unit via Ethernet cable.
In this chapter, the connections of H-9500 series Fully Digital Conference System are introduced by diagrams.

4.1.1 Connection principles

The Conference Main Unit forms the core of the entire conference system. It provides power supply to all microphone units and serves as key component to link system hardware to software control.
Since microphone units are powered by the CMU, thus, the total number of microphone units in any installation is limited by the maximum power handling capacity and control capacity of the H-9500M CMU. In one system, up to 320 units can be connected by adding extension unit.
The CMU can work alone to achieve basic control functions, when through software control, more powerful and versatile management and control functions are accessible.

4.1.2 Connection cables

All microphone units equipped with a 2 m STP Cat6 cable, when the microphones are connected one by one, connect first unit to the outlet socket (Ethernet interface) of the CMU, and then connect this microphone to the next one via any Ethernet interface on the microphone- thus microphone units are daisy-chain connected. STP Cat6 cable can be used between microphone units and the CMU.

- The last microphone unit of each Ethernet outputs must connect one terminal unit.

STP Cat6 cable connection

EIA/TIA568B							
1	2	3	4	5	6	7	8
White Orange	Orange	White Green	Blue	White Blue	Green	White Brown	Brown

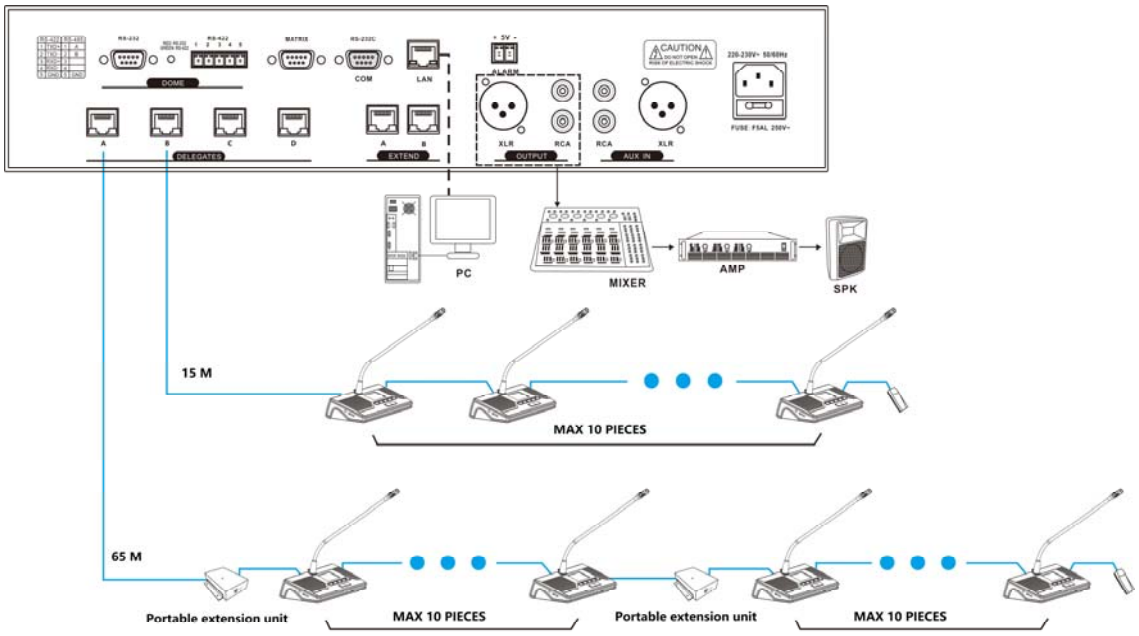
4.1.3 Extension cable

If the distance between the main unit and the microphone unit or one microphone unit to another one exceeds 2 meter, an extension cable is needed. Due to the voltage drop in the extension cable caused by the ohmic resistance, the number of microphone units available for each outlet connector will be reduced according to the length of the cable connected. The relationship is described as below.

The extension cable connected between the main unit and the first microphone unit carries the current of all subsequent units and influences at the same time the maximum possible load of the main unit.

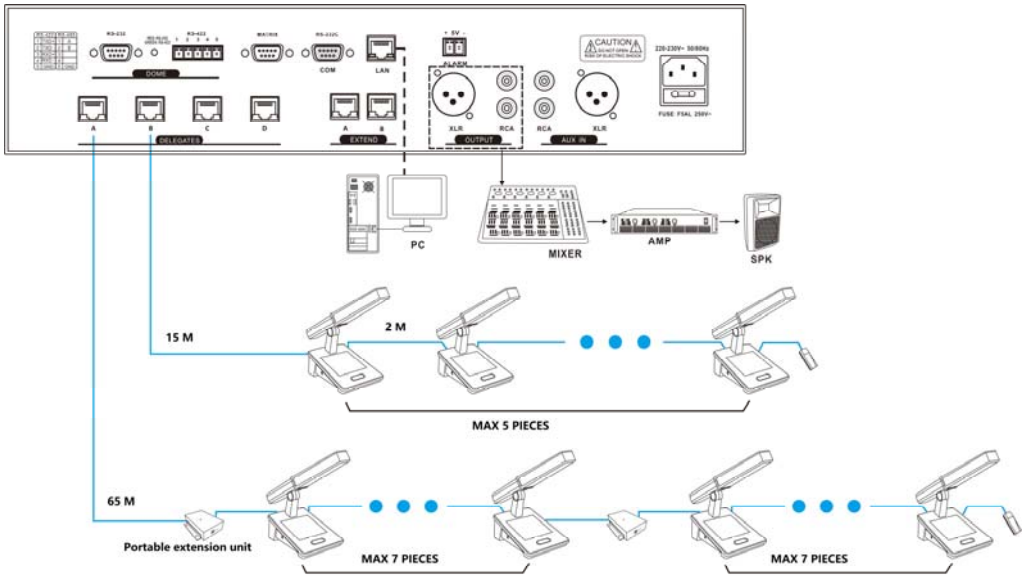
- Connect the microphone without touch LCD

The cable length between the CMU/Extension unit and the first microphone	Max microphone quantity of each Ethernet outlets		Max support quantity/outlet
	Direct connection	By adding portable extension unit	
15 Meters	10	10	20
20 Meters	9	10	20
25 Meters	8	10	20
30 Meters	6	10	20
65 Meters	Add portable extension unit	10	20



- Connect the microphone with touch LCD

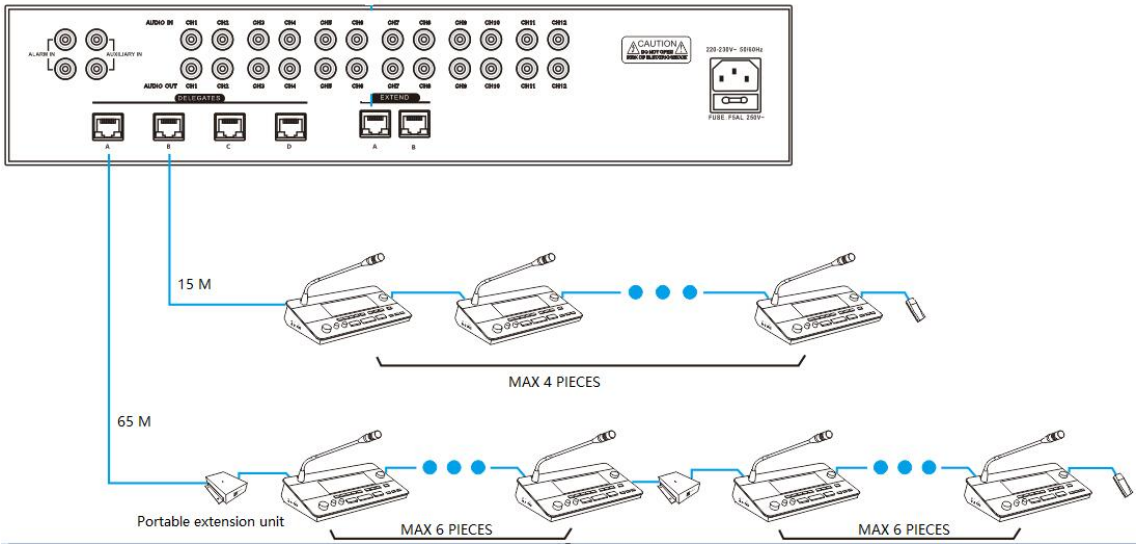
The cable length between the CMU/Extension unit and the first microphone	Max microphone quantity of each Ethernet outlets		Max support quantity/outlet
	Direct connection	By adding portable extension unit	
15 Meters	5	7	20
20 Meters	4	7	20
25 Meters	3	7	20
30 Meters	2	7	20
65 Meters	Add portable extension unit	7	20



- Connect the Interpreter unit

The cable length between the Interpretation main unit and the first interpreter unit	Max interpreter unit quantity of each Ethernet outlets		Max support quantity/outlet
	Direct connection	By adding portable extension unit	
15 Meters	4	6	20
20 Meters	3	6	20
25 Meters	2	6	20
30 Meters	1	6	20
35-65 Meters	Add portable extension unit	6	20

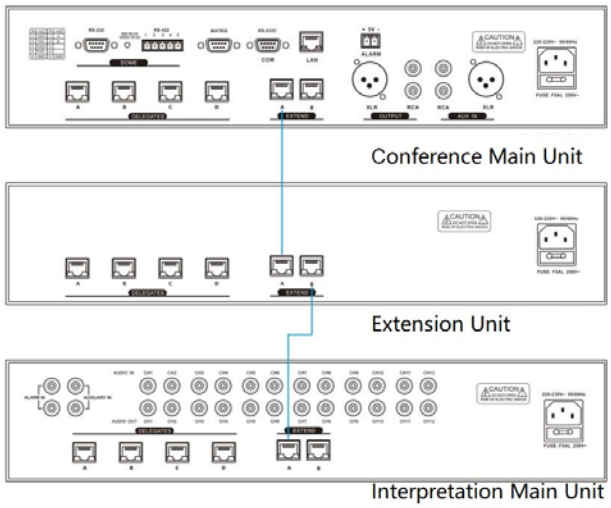
Note: The interpreter unit includes a DC12V power input interface, when it is connected to an external power adapter, there is no need to use portable extension unit, but it is necessary to ensure that there are no more than 20 units for each outlet and the length of each outlet does not exceed 100 meters



4.2 Connection between the CMU, extension unit and interpretation main unit

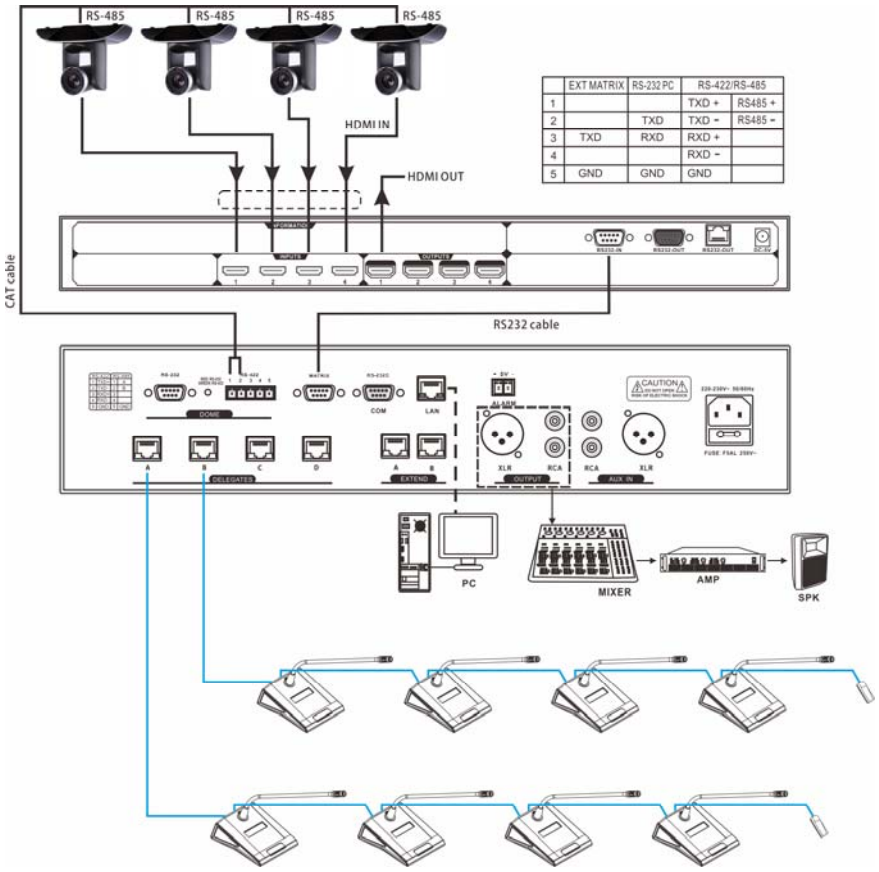
As shown in the figure, when the system needs to access the extension unit and the simultaneous interpretation main unit, the connection sequence must be from the CMU to the extension unit, and then to the simultaneous interpretation main unit. The connection will be via Ethernet interface marked “EXTEND”

If there is no system without an extension unit, the CMU is directly connected to the simultaneous interpretation main unit



4.3 Connection between the CMU and automatic video tracking system

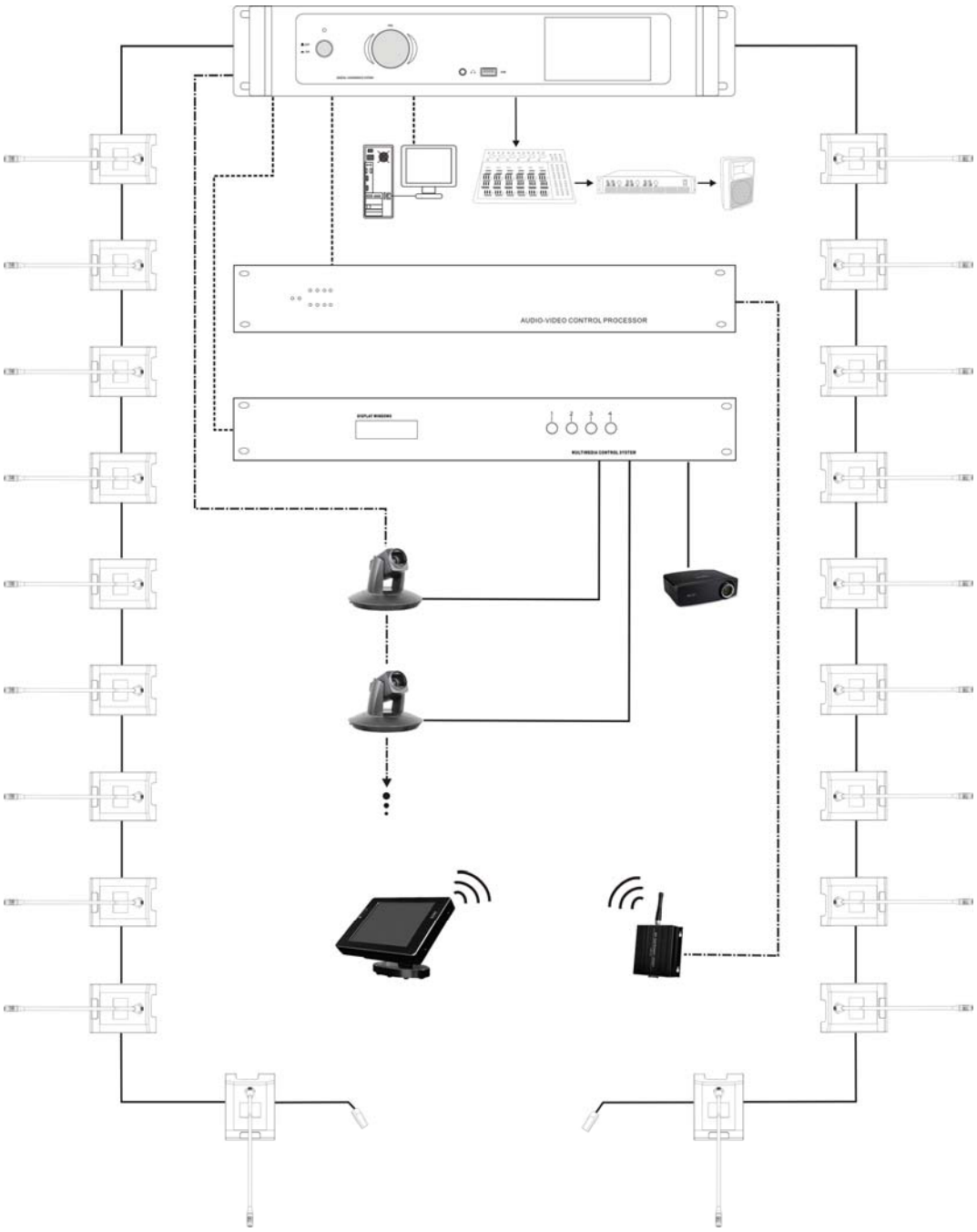
H-9500 Series Fully Digital Conference System can be connected to an automatic video tracking system. For video tracking purposes, the software control can set camera presets for every conference microphone. If the conference microphone is switched on, video tracking system will automatically find the appropriate preset and focus on the speaker. The view of the speaker will be display on large screen or other display devices. The automatic video tracking system is compatible with several kinds of video signals and operates automatic video switching. The video tracking system is composed of video switcher, button board and high-speed dome camera.
Use RS485 cable and connect H-9500M main unit (port RS422) to corresponding port at the rear panel of the video switcher as show in the following figure.



4.4 Connection between the CMU and network central control system

LYINTL intelligent central control system is an advanced comprehensive control system. It can link together various devices, hardware and environment equipment from different manufacturers. The central control system can operate the conferencing devices through wired Ethernet or wireless bidirectional communication by wired/wireless touch panel. Features include power controlling, environment light adjustment and on-off, electric curtain or projector screen and controlling various electric devices, such as DVD, DVR, TV, projector, etc. RS232C or RS485 interfaces are available. Remote controlling, even from distant places, can be achieved through LAN or internet.

LYINTL central control system and LYINTL H-9500 series conference system can be joined together seamlessly. In addition to standard functions of a normal central touch panel control system, it can also control: Switch on/off microphone of conference unit and control video camera.
If using LYINTL intelligent central control system touch panel to control conference units, ID of each conference unit should be known.
The connection of H-9500 series conference system and the central control system is shown in the following figure.



Chapter 5 Accessories

5.1 Pluggable stem microphone

- Pluggable stem microphone

Option 1

Option 2

Functions and instructions
1. Electret condenser cardioid microphone
2. Two-color microphone on/off LED ring

Work State	Indicating light
Microphone On	Red (On)
Speaking time limit warning	Red (Flash)
Limited Mic	Green (Flash)
Request On	Green (Flash)
Autocoding	Red (Flash)

3. Metal stem with gooseneck to adjust angle and direction freely

- Foam windshield

For gooseneck option 1

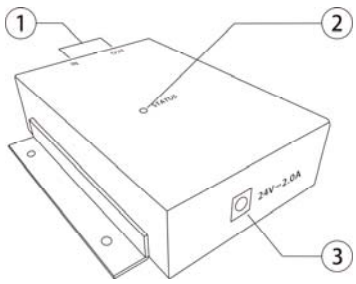
For gooseneck option 2

5.2 Terminal unit H-ZD01

The terminal unit must connect to the last microphone of each output path

5.3 Portable extension unit H-9500L

When the main cable needs to extend (within the system parameter range) or the number of one output path of CUM needs to increase the microphones (within the system parameter range), add the portable extension unit to achieve it.



1. Signal input and output terminals.
IN is the signal input terminal; OUT is the signal output terminal

2. Status indicator light.
1) Connect the input terminal to IN and the output terminal to OUT. Plug in the power adapter and the green light will be on. It means connection is correct and this unit in working
2) When the input and output network cables are connected incorrectly, the green light will flash, and the buzzer will sound an alarm to indicating that the cable connection is wrong
3) When only the power adapter is connected and no input/output terminals are connected, the red light will be on.

3. Power input interface.
Power adapter: Input 100-240V~50/60Hz; Output 24V ⎓ 2.0A

5.4 Accessories

STP Cat6 Ethernet cable is involved in the connection of conference system devices
Eleven types are available: 2 meter, 5 meter, 10 meter, 15 meter, 20 meter, 25 meter, 30 meter, 35 meter, 40 meter, 45 meter and 50 meter.

5.5 Earphones

The jack plug of the stereo headphone can be inserted into a Φ 3.5mm stereo headphone jack socket. Applicable types include:

H-EP110 Single earphone

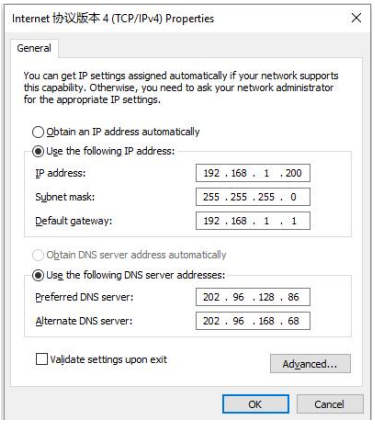
H-EP110H headphone

Chapter 6 Software Control

Operation environment: Win/7/8/10/11

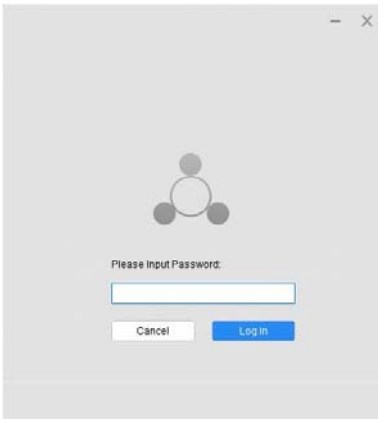
6.1 Settings before login

Before login the software, please change your network settings first, choose “change adapter options” set the PC Ethernet Properties first, set IP address: 192.168.1.200, then then connect from main unit Ethernet interface (LAN) to the operation computer. Before login, please connect software dongle (the white USB disk packed with CMU) to the PC.

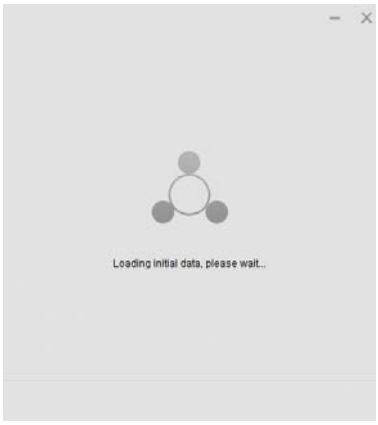


6.2 Login

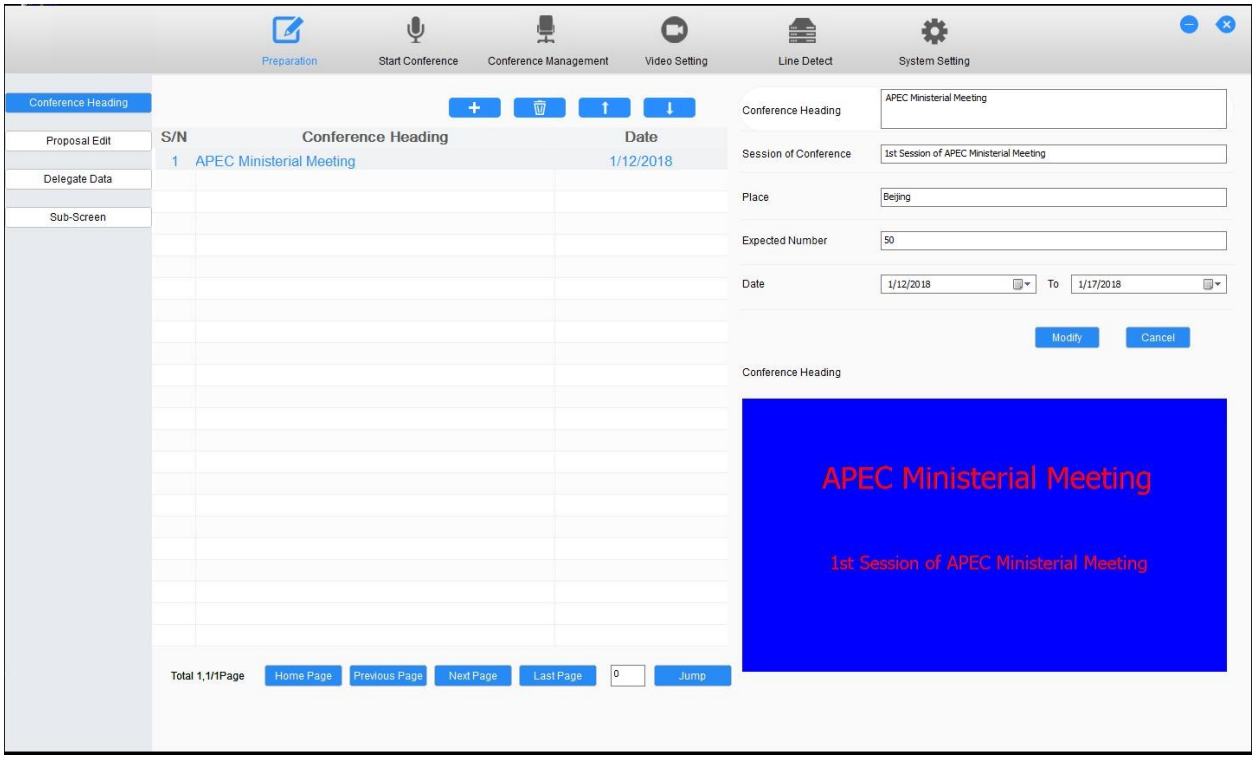
Copy the software to computer, the default password is “1234 ”, the password can be changed after login. (Password: 6666, you can login the software without setting, but only for demo). The login interface is shown in the following figure:



Input the password, then click the “Login”, the software will start searching the CMU with the preset IP address and loading initial data. If system can not searching the CMU or there has some connection problem between CMU and computer, software will always stay at this loading interface.



If the setting and connect is correct, it will enter the conference management system interface automatically. There are six main menu of the software main interface - “Preparation”, “Start Conference”, “Conference Management”, “Video Setting”, “Line Detect” and “System Setting”

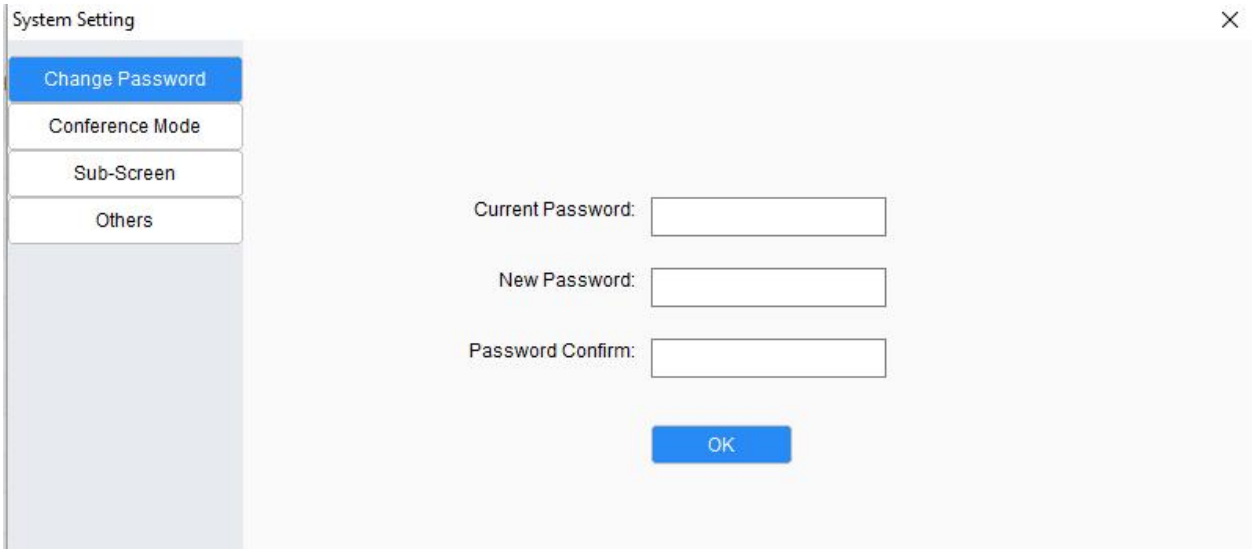


6.3 Operation

6.3.1 System Setting

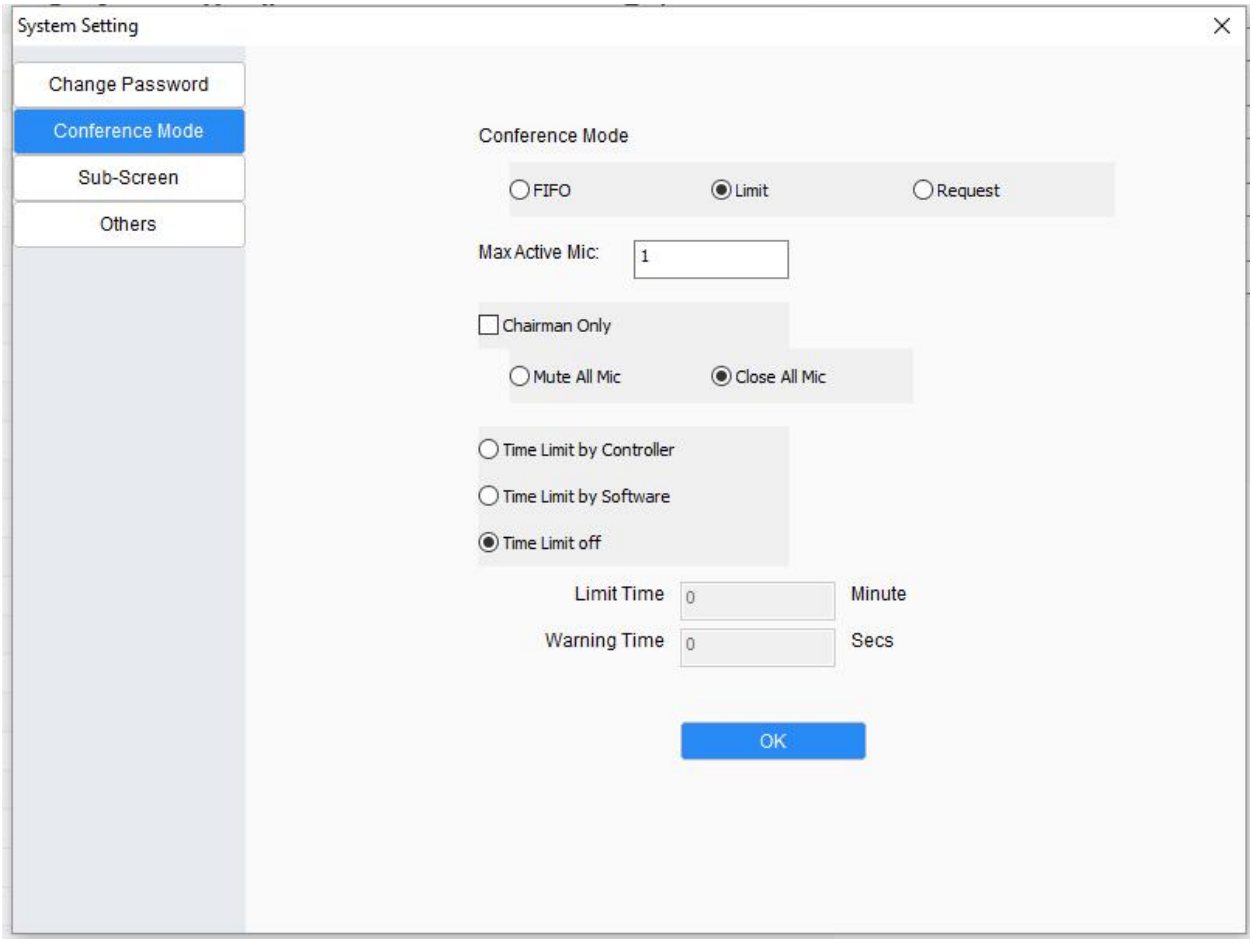
Clicking “System Setting” to enter system setting interface, there are 7 sub-menu in this part: “Change Password - Conference Mode - Sub-Screen - Others - SI Language - SI Channel - SI Booth”

- Change Password



Input the Current Password, New Password and Password Confirm, then click the "OK" button to change the password.

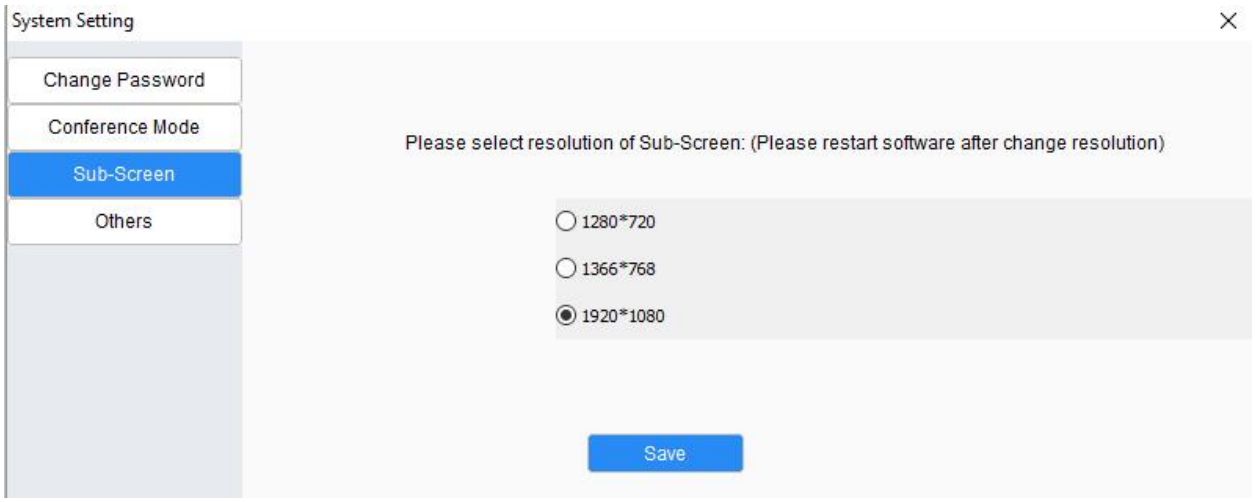
- Conference Mode



You can set conference mode in this interface, such as FIFO/Limit/Request, Max. Active Mic number (1-4), Chairman only function , Limit time (1-60 minutes) and warning time (1-60 seconds)

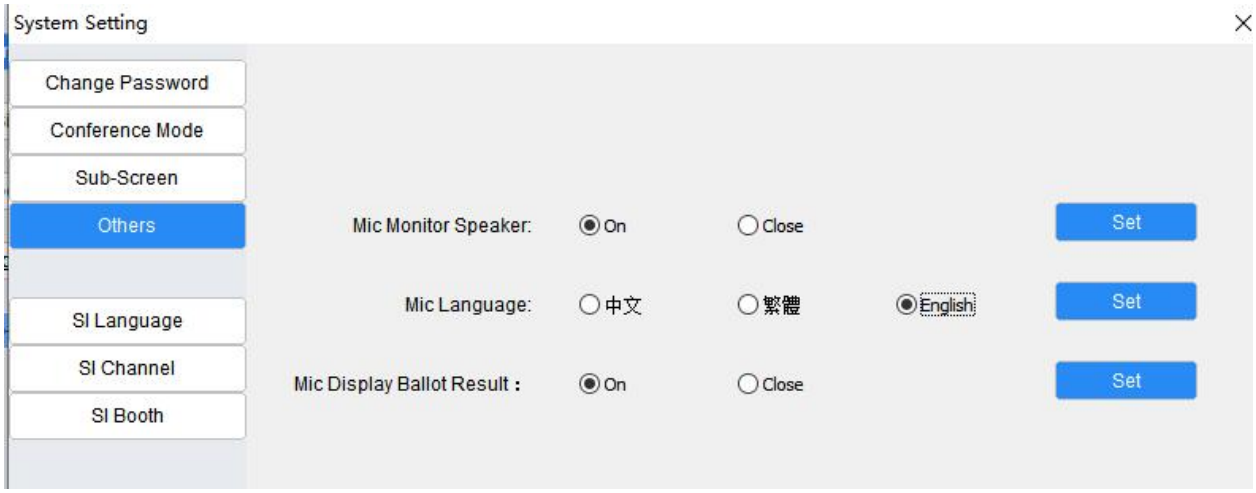
➢ When set time limit by software, the limit time will not show on microphone display when microphone is on, only Sub-screen display the limit time

- Sub-Screen



You can select the resolution of sub-screen (projector/TV/LCD display...), Please restart the software after change the resolution.

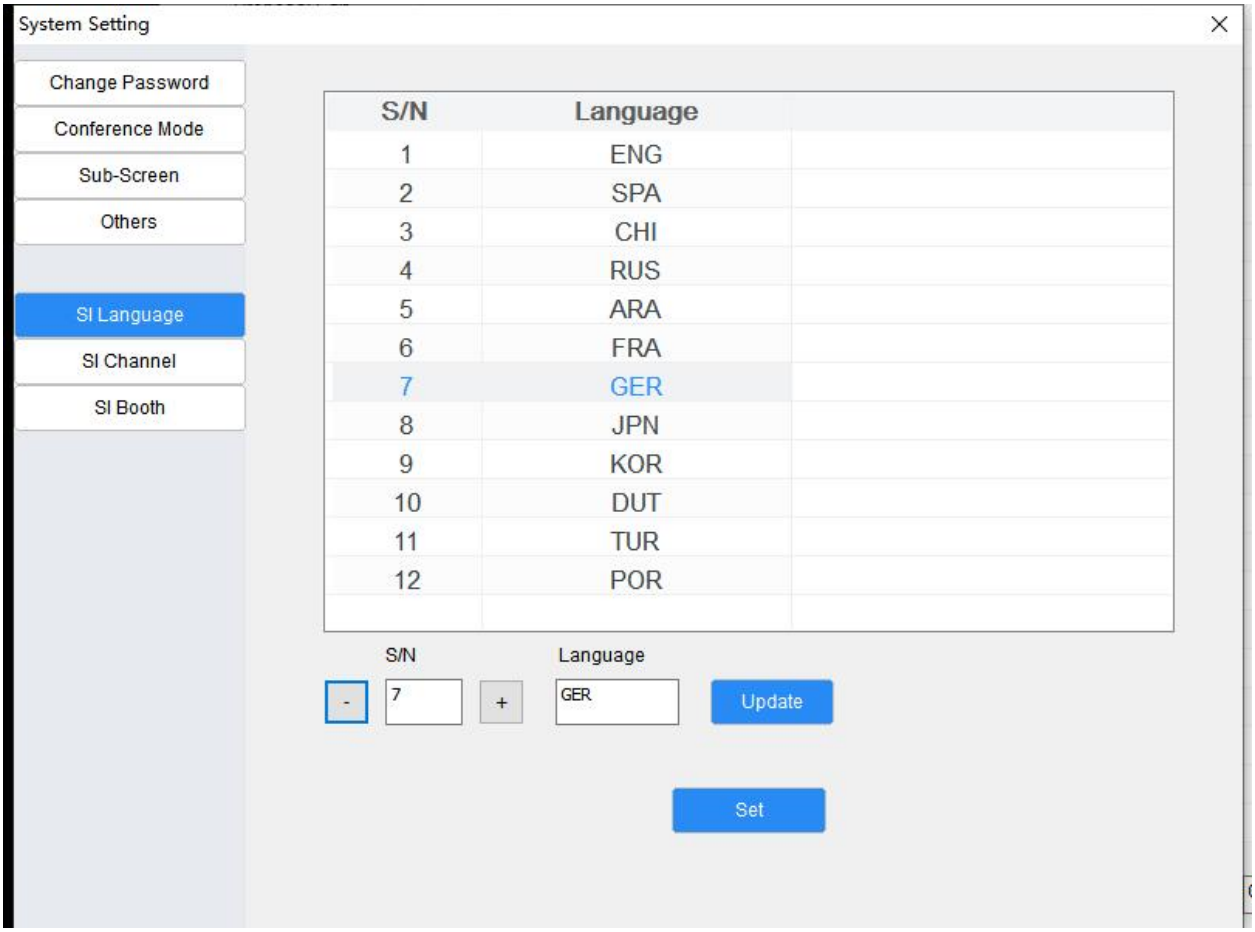
- Others



If the microphone built-in monitor speaker, you can set the speaker on/close in this interface, you also can set the microphone language if microphone with LCD display .

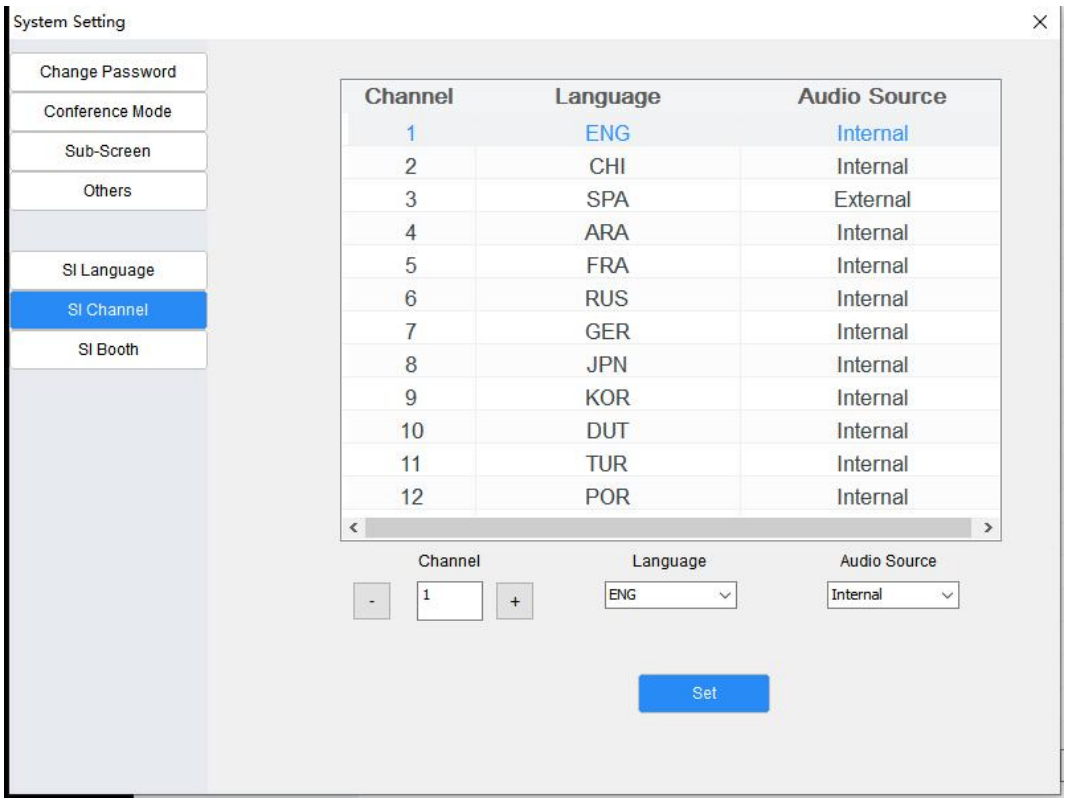
If Microphone with display and support ballot function, you can select display the ballot result on microphone or not.

- SI Language



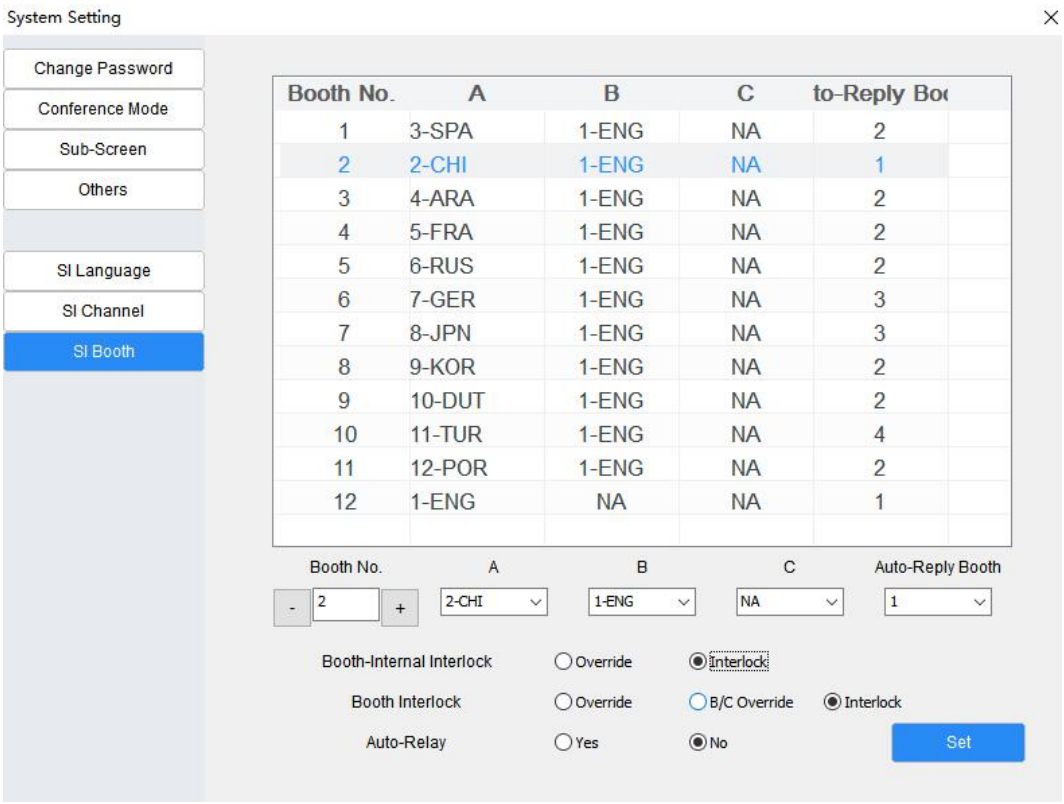
The system support 12 language for SI, the operator can preset the language by software, after preset the language, click set key to update the preset language to CMU.

- SI Channel



The operator can preset the translate language for each out channel, and set the audio source is from internal or external.

- SI Booth

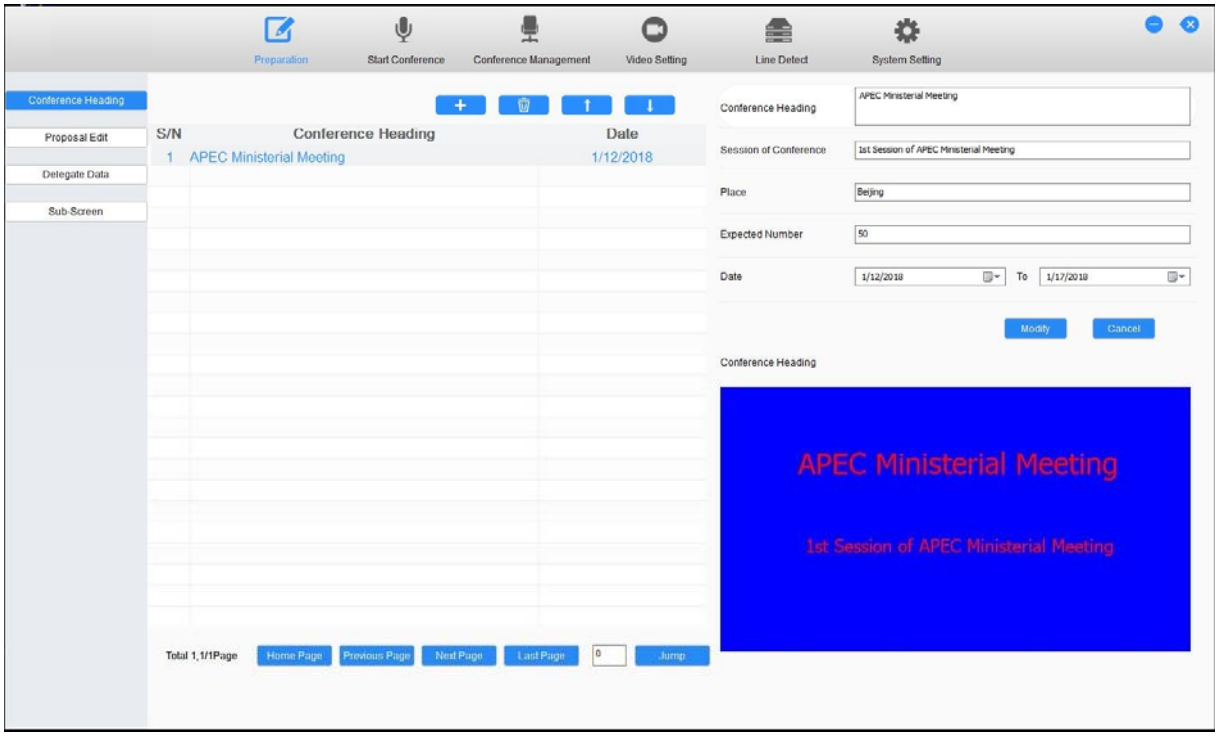


In this software interface, operator can preset function the SI booth, for example, interlock, override and auto-relay function.

6.3.2 Preparation

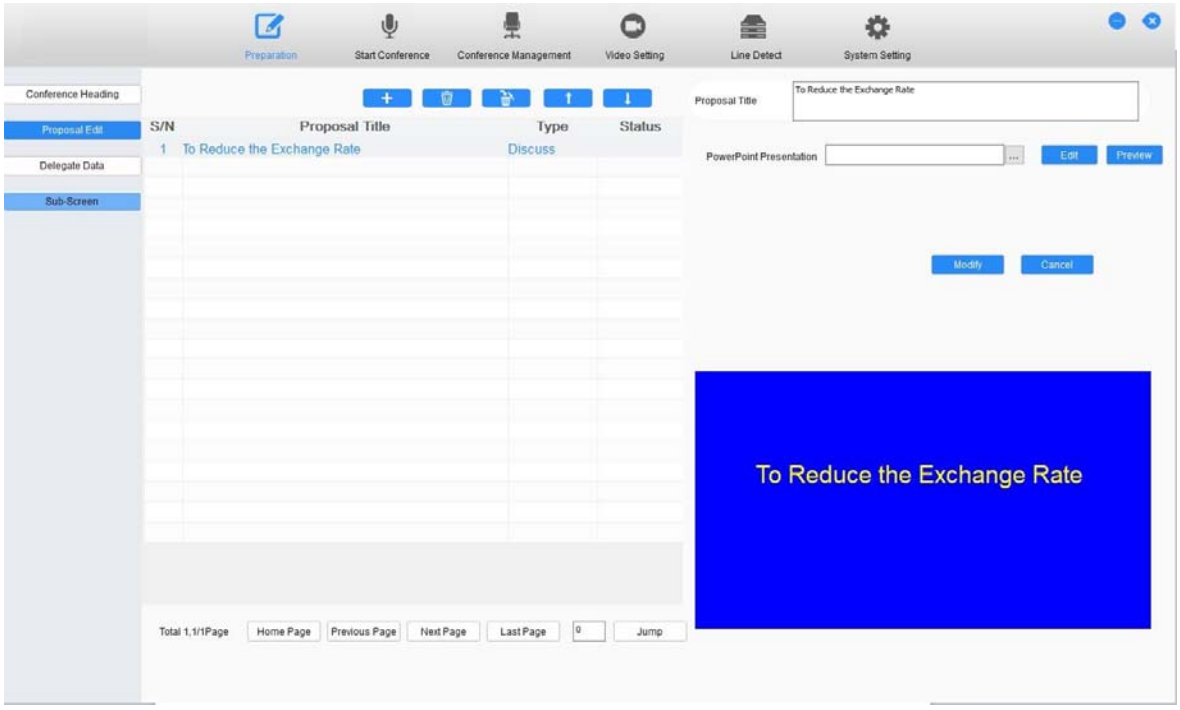
Clicking “Preparation” to enter system setting interface, there are four sub-menu in this part: “Conference Heading - Proposal Edit - Delegate Data - Sub-Screen”

- Conference Heading



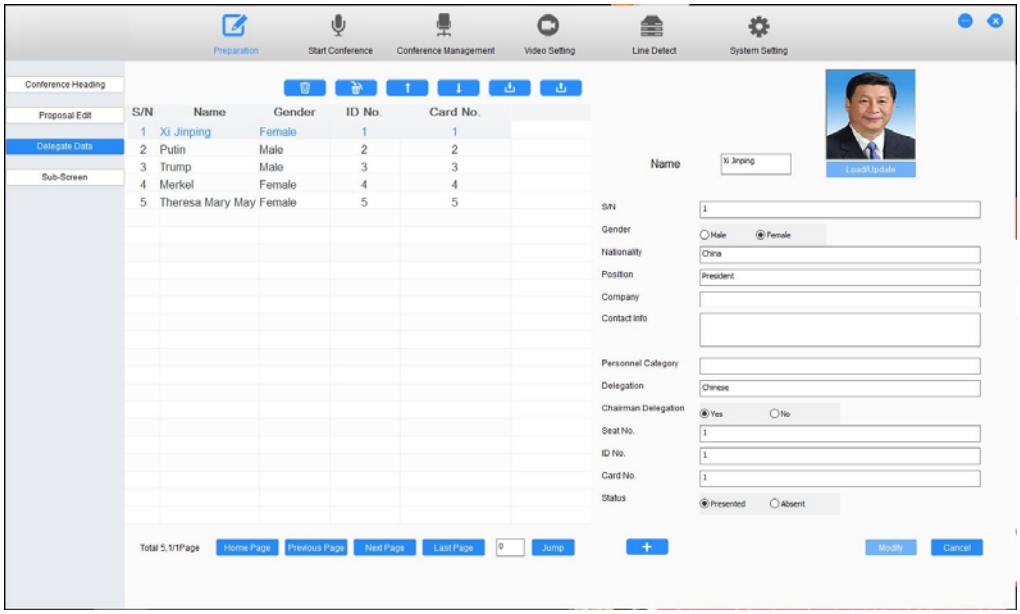
You can create/delete/modify a conference heading in this interface, the created conference heading will display in the bottom right corner according to the sub-screen setting.

- Proposal Edit



You can select one of the conference heading, and then create proposals for this conference heading, in this interface you can create/delete/delete all/modify the proposals, and the created conference proposal will display in the bottom right corner according to the sub-screen setting.

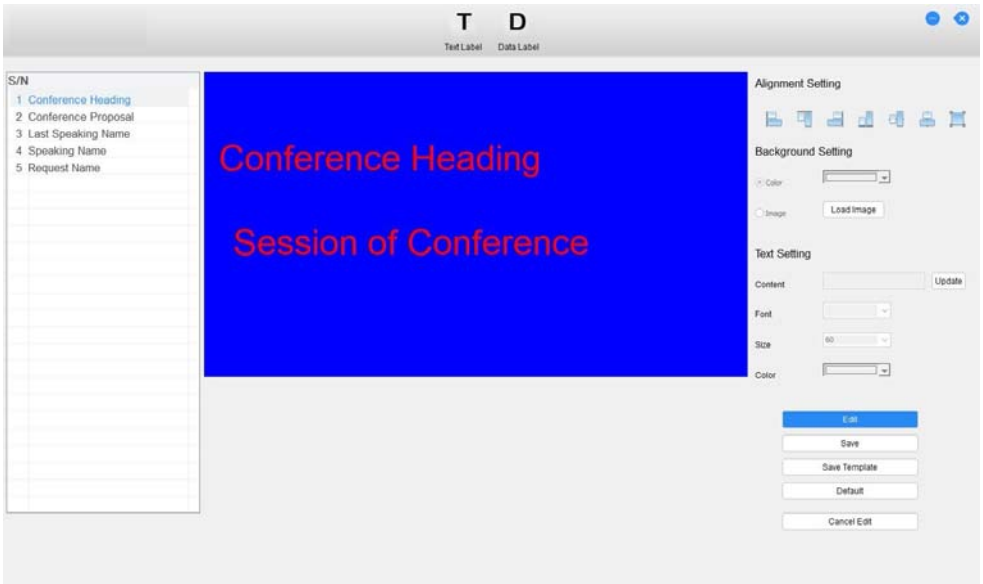
- Delegate Data



You can create and edit delegate data of the selected conference heading. The Delegate name can be displayed under microphone icon in conference control interface.

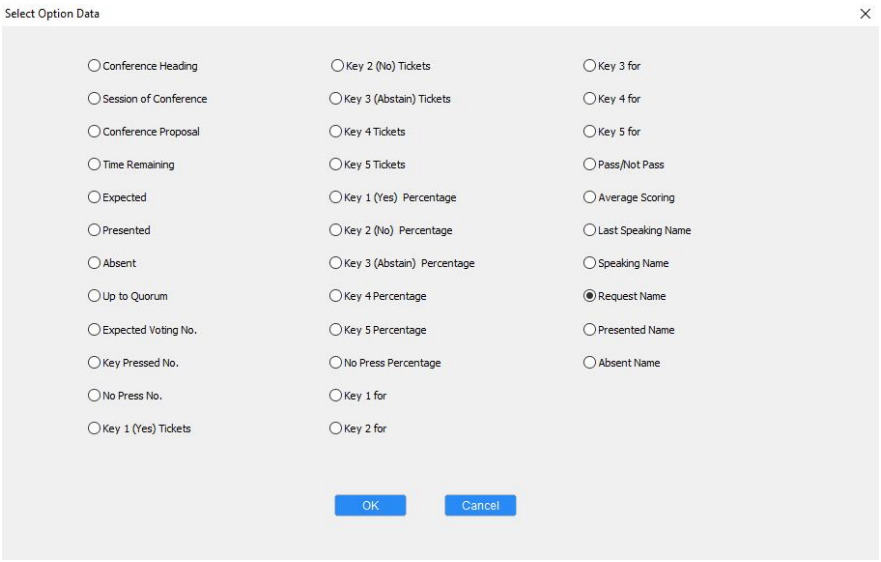
Items	Description and Function
+	To create a new delegate data, please click this icon, input all necessary information in the text box and then save it
	Delete the selected delegate data
	Delete all delegate data
	Move up the selected delegate data (change the S/N)
	Move down the selected delegate data (change the S/N)
	Load the delegate data from computer. Operator can create a file named " delegate data" in xls format and input all delegate data first, then load the data when prepare the meeting.
	Save all delegate data to computer in xls format
Load/Update	Load/update delegate's photo (photo must in bmp format)
Modify	To modify the selected delegate data

- Sub-Screen



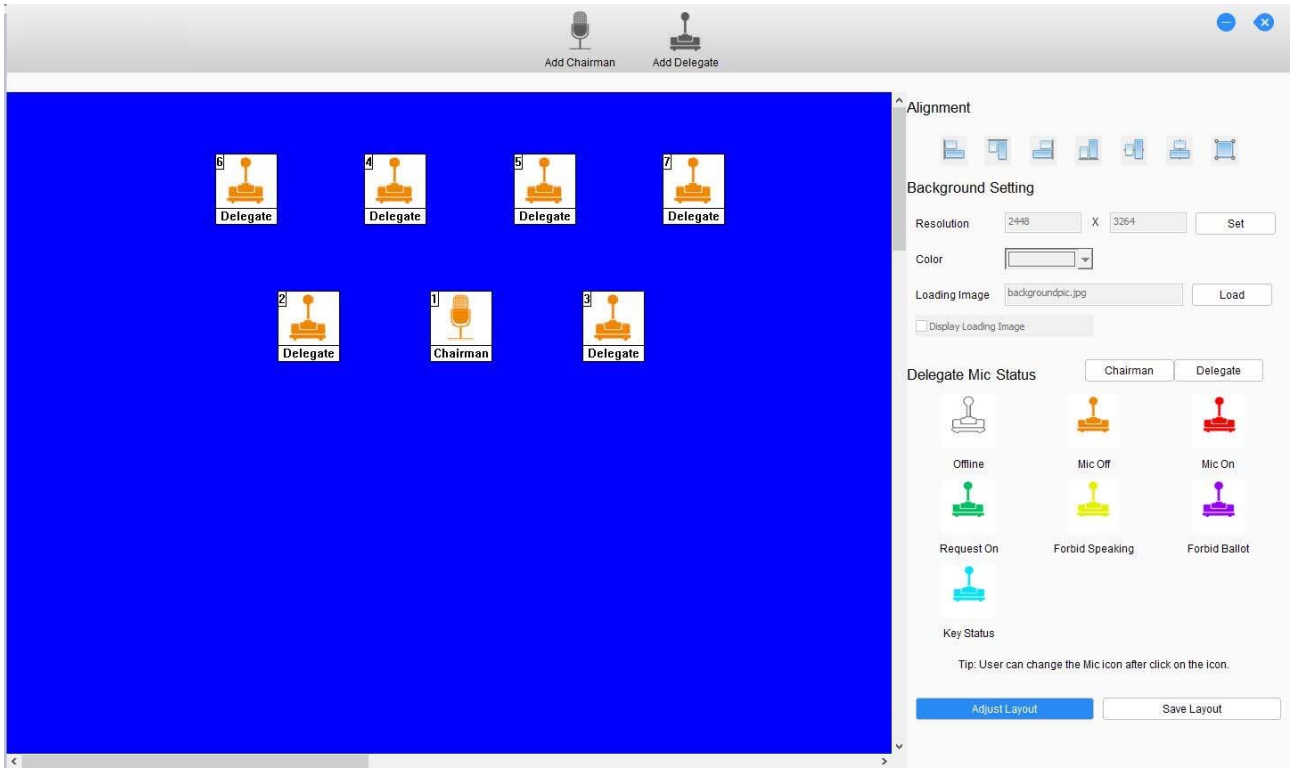
Operator can set/edit display template for "Conference Heading - Conference Proposal - Last speaking Name - Current Speaking Name - Request Name", the Sub-screen will display the Corresponding information according to the setting.

Text Label: Operator can create/edit text label for the display and input the necessary information in “Text Setting - Content” text box to update the display.
Data Label: Operate can create a data label and select the option data from the software to display on the sub-screen.

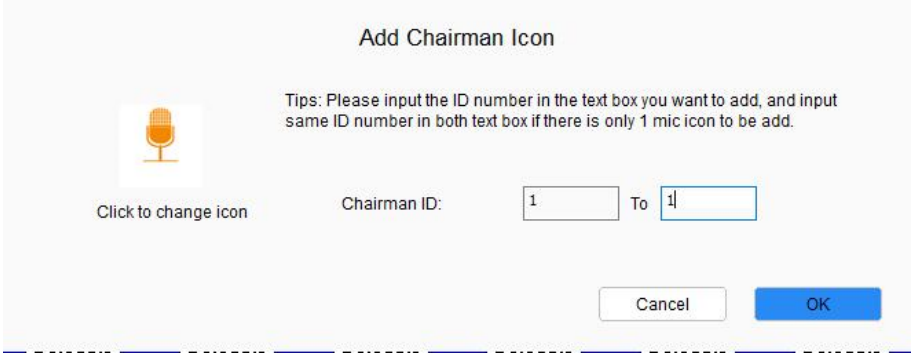


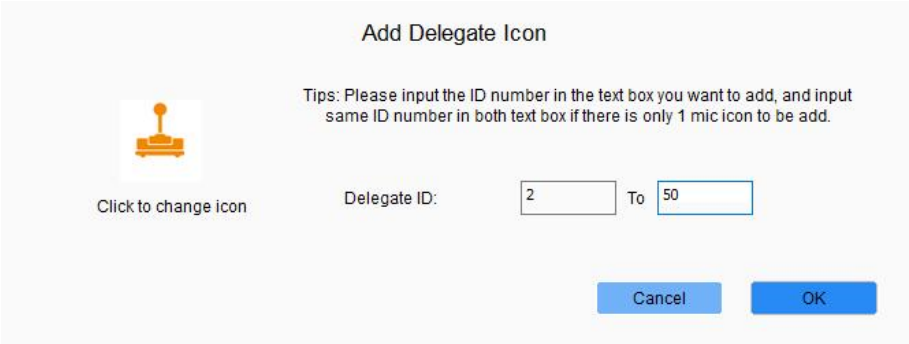
6.3.3 Conference Management

Clicking “Conference Management” to enter conference management interface, operator can add chairman/delegate mic icon for the conference and adjust the layout in the software, operator also can change the chairman/delegate status icon by himself. All setting/edit must after clicking “Adjust Layout”



Add Chairman/Delegate:Operator can add the chairman and delegate microphone icon for the conference.





Alignment: Set the microphone icon position in the control interface

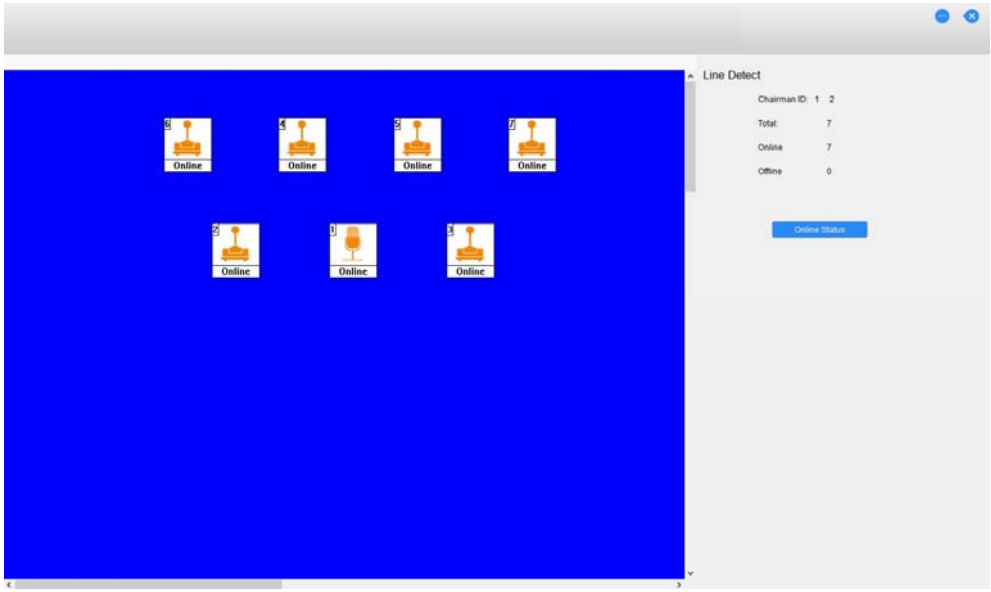
Background Setting

- Resolution: Set the background size
- Color: Set the background color
- Loading Image: Operator can add the background image for the conference layout, for example, the conference table/ emblem (the image resolution should same as background setting)
- Display loading image: to display or hide the background image

Delegate Mic Status: There are several default microphone icons with different color to show chairman and delegate microphone status, operator can edit them with user-defined icons

6.3.4 Line Detect

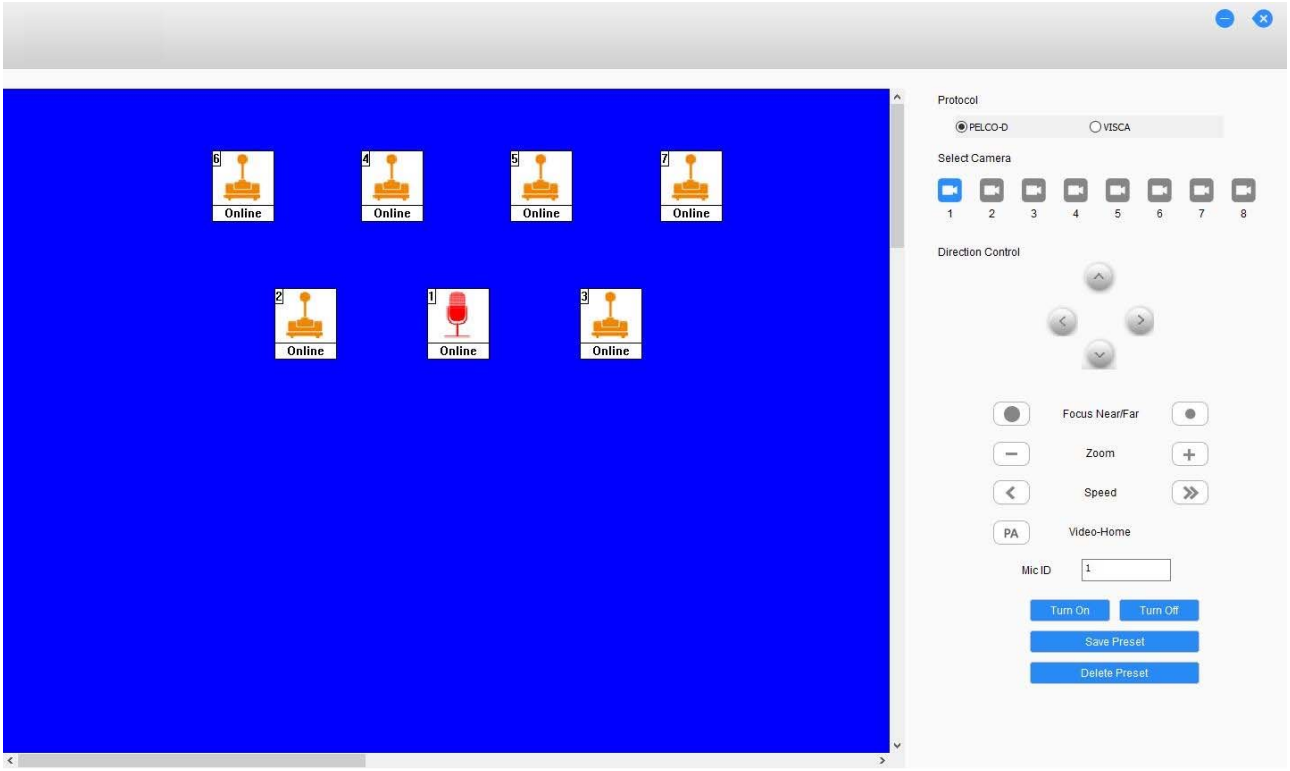
Before start conference, we suggest run line detect function to check the system microphone status first. Offline means that microphone has data communication problem. Microphone ID will display in the line detect results.



6.3.5 Video Setting

The software control can set camera presets for every conference microphone. If the conference microphone is switched on, video tracking system will automatically find the appropriate preset and focus on the speaker. The view of the speaker will be display on large screen or other display devices. The automatic video tracking system is compatible with several kinds of video signals and operates automatic video switching. The video tracking system is composed of video switcher, button board and high-speed dome camera.

If the conference system is equipped with cameras, the system can carry out automatic video tracking, i.e. display the image of the speaking participator to the display devices (large screen, TV and so on). Preset position is to set the preset position of each microphone



- Protocol: Select camera communication protocol (Pelco-D/Visca)

- Microphone preset position setup

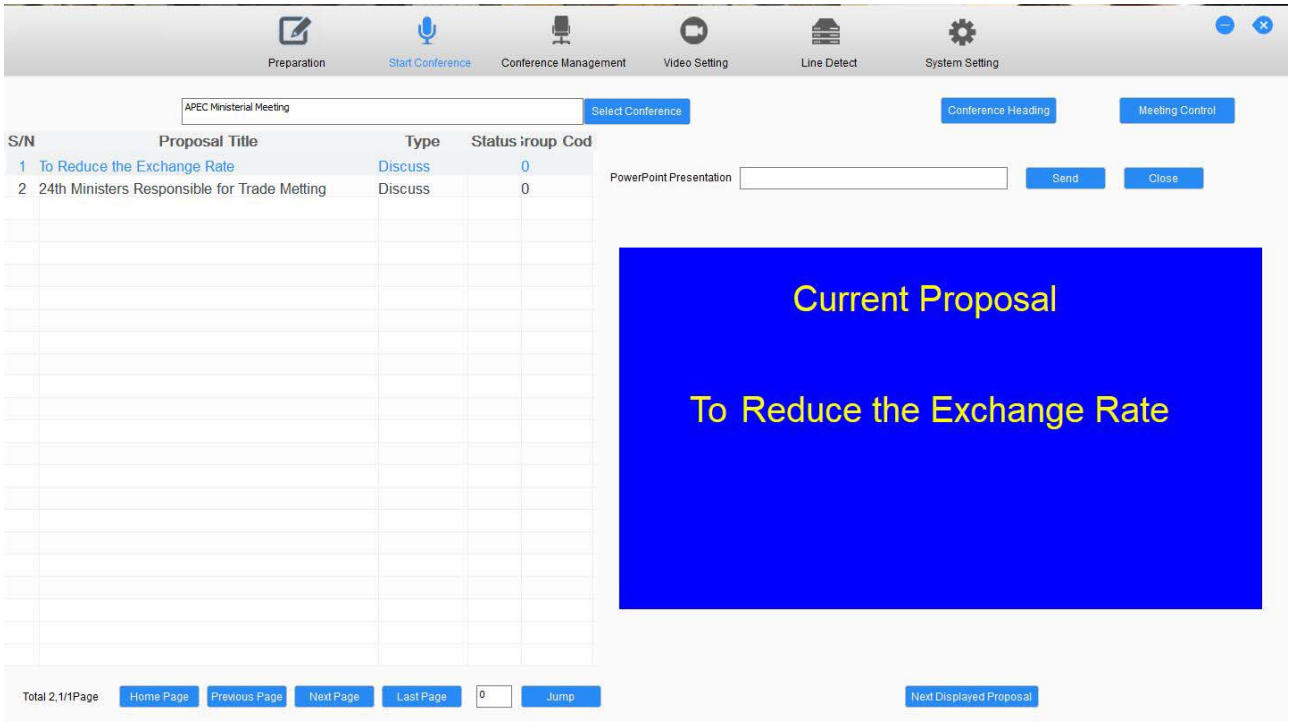
a. Turn on the microphone with microphone id by software or by microphone on/off key first
b. Select the proper camera in the software, system support 8 high speed dome camera maximum, please select the proper camera to give the best image of each participator.
c. Adjust the camera angle by the four direction buttons, and click zoom in/out button to adjust the size of the video image
d. Clive the " Save Preset" button to save the current preset position to CMU if the adjustment is done;
e. Repeat the above steps to set the preset position for other microphones

- Video-Home: If operator wants to setup video-Home function, please select the proper camera to get the best image , and them click "PA" button to save the data to CMU. (Video-Home is the image on the display screen when all microphone off)

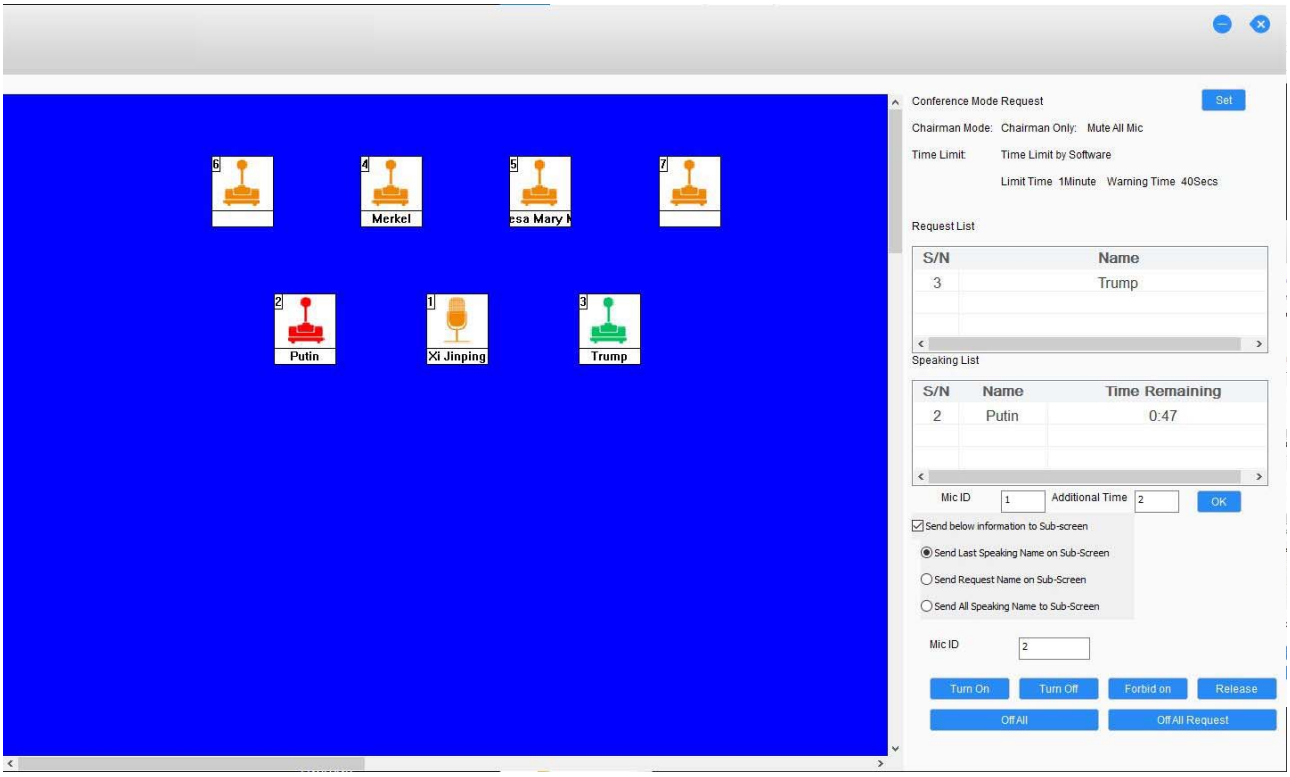
- The camera only tracking the last turned on microphone, if the last turned on microphone is off, camera will track the previous on microphones.

6.3.6 Start Conference

Clicking "Start Conference" to enter conference start interface, and then select the conference that operator want to start, all prepared proposal title will be display in this interface, operator can select one of them to displayed the title on the sub-screen. Operator also can load the presentation docs from the computer (such as PPT) and send it to sub-screen.



After select the proposal title, operator can enter the meeting control interface to control this meeting, such as microphone on/off, conference mode, request list.



Conference Mode: All details of the conference mode will be displayed on the top right corner of the software, operator can change and reset the mode by “Set” Button.

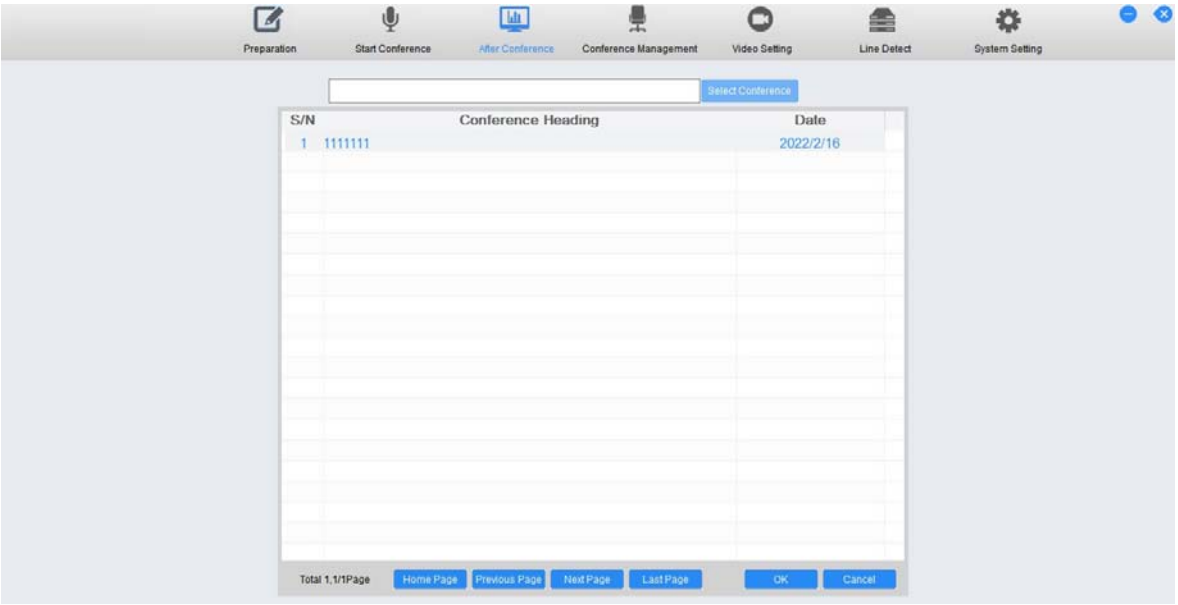
Request List: If set the conference with request mode, the request microphone id and request participators name will display in the request list, operator can permit or refuse the request.
Speaking List: This part can display speaking participators microphone id number and name, if system set the speaking limit time, the remaining time also will display in this part, operator can give additional speaking time for any participators if necessary.

Sub-screen Info: Operator can set and choose the speaking/request name displayed on the sub-screen.

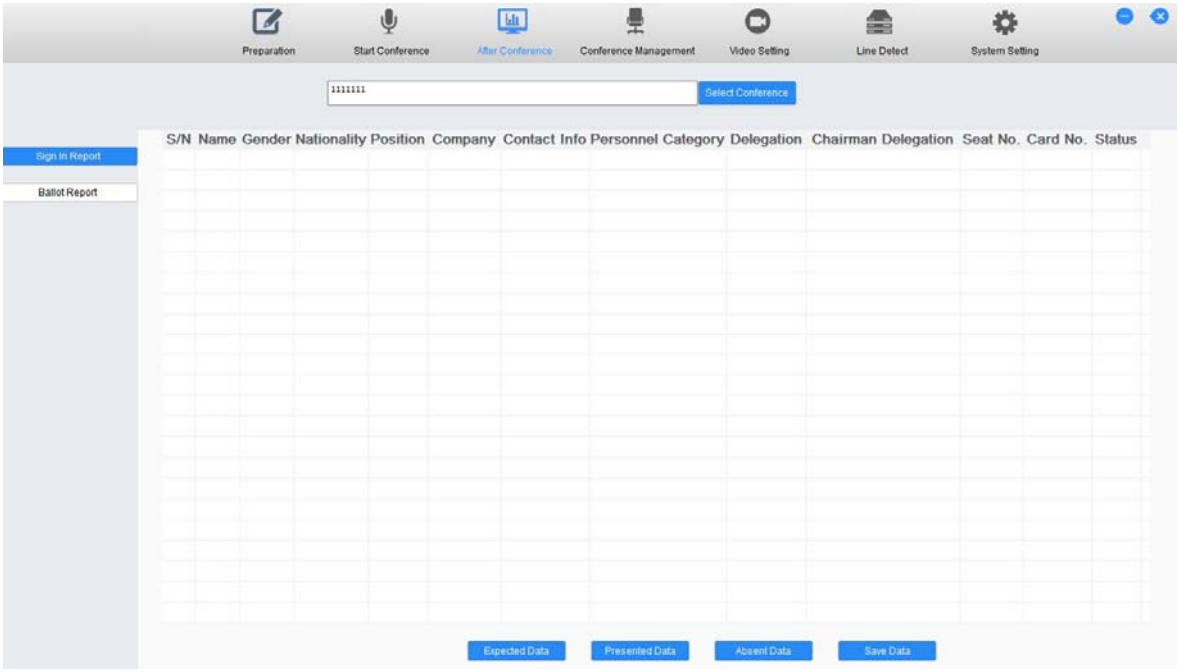
Microphone control: Please choose the microphone icons (the icon will display the microphone id and participators name) on the left part of the software or input the microphone id in the text box, operator can turn on/turn off/Forbid on/Release the microphone by the control button. The icons will display the microphone status with user-defined color

6.3.7 After Conference

Click “After Conference” to enter conference recording interface, operator can check the conference data that already finished.



After Conference-Sign In Report
After select conference heading, “Sign In Report” is available. “Sign In Report” interface can check the sign in details.

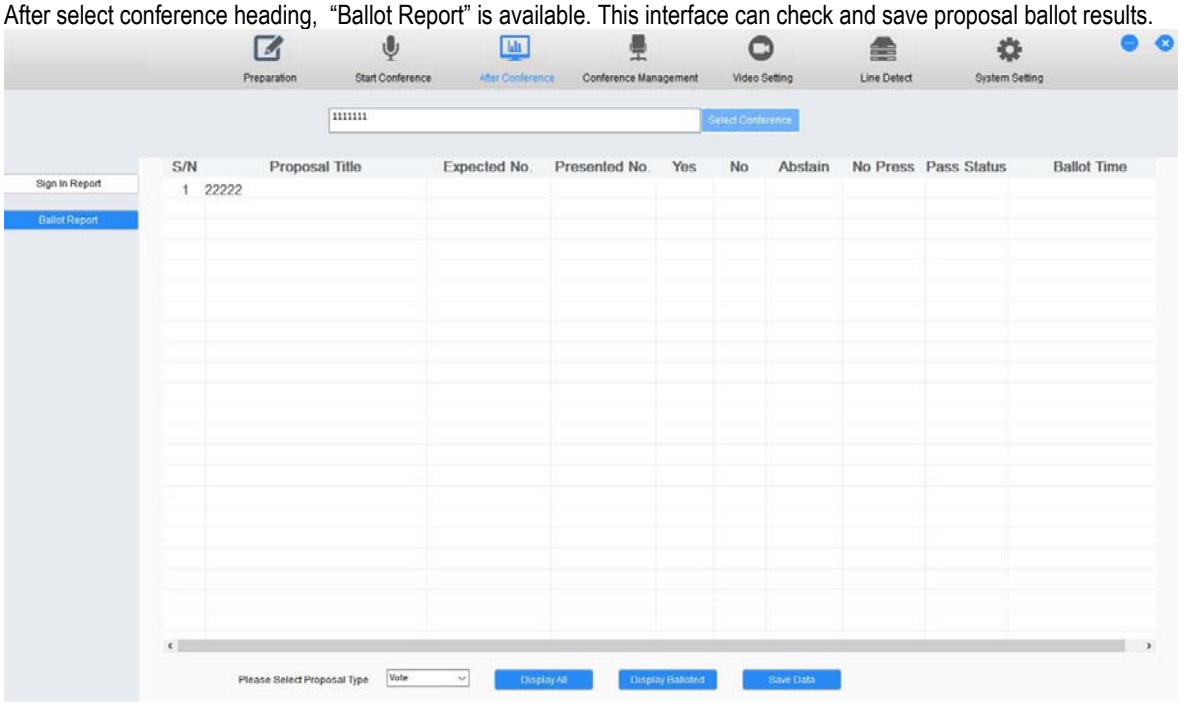


1. Expected: Software will display expected delegates' details
2. Presented: Software will display presented delegates' details
3. Absent: Software will display absent delegates' details
4. Save Data: If software include delegates' data in the list, please click "Save Data", system will pop-up one text box, operator can save the sign in results in excel format.

Note: Please make sure the software (Preparation-Delegate Data part) already include the delegate data, or the sign in report list can not display any delegate's information.

After Conference-Ballot Report

After select conference heading, "Ballot Report" is available. This interface can check and save proposal ballot results.



1. Display All: Software will display all proposals of the selected proposal type.
2. Display balloted: Software will display the proposal title that already balloted.
3. Save Data: Export the results and save as excel file.

Chapter 7 Working environment and maintenance

Suitable working environment and proper maintenance methods can effectively extend service life of the equipment. For maintenance please red the contents of this section carefully.

7.1 Public areas

In public areas ensure that the cables attached to the system units, including extension cables, are run and laid out in a neat and tidy manner where they do not interfere and hinder public walk ways.
It's recommended that the chairman unit and the interpreter units are connected at the beginning of the output line and not at the end.
In public areas where connectors and cables could be trampled on, it is strongly suggested to use protective covers according to the existing protection specifications.
Due to the directivity of the microphone used in the discussion units, every speaker should face the microphone at a convenient distance when speaking, to achieve both best audibility and intelligibility.

7.2 Technical rooms

It is recommended to meet the following conditions for technical rooms where H-9500M control equipment is housed:

- ✧ Ensure that the area is a dust-free environment
- ✧ Ensure adequate ventilation
- ✧ Ensure adequate lighting. But be sure that the lighting does not impede the operator in the control room and normal system operation
- ✧ Do not place objects on the top of units. They could fall into vents or could cover them and thus prevent proper cooling of electronic components inside the units. By falling into a unit, objects could cause trouble such as fired and electric shock
- ✧ To avoid the risk of shock or permanent damage to the system unit, do not expose units to rain or moisture.
- ✧ Do not attempt to remove the top cover of the system main units as you will be exposed to a shock hazard. The covers should only be removed by qualified service personnel. If any repair or Maintenance is required, contact the LYINTL service center in your region.
- ✧ Equipment is only for indoor use. Do not expose it to sunlight.

Warning: Damage to the power cable may cause fire or a shock hazard!

7.3 Ventilation

Maintain good ventilation: ventilation holes are provided on lateral of the main unit. This unit should be placed in a position that doesn't interfere with its correct ventilation. This unit, for example, should not be placed on a bed, sofa cover or similar surfaces that could cover ventilation openings, or placed in a built-in installation, such a bookcase or a cabinet that could block air flow through ventilation openings.

7.4 Cleaning

Do not use alcohol , ammonia or petroleum based liquids or abrasive cleaners to clean the equipment. Unplug first and clean with a soft cloth slightly dampened with mild soap and water solution. Assure yourself that the relevant unit is dry before operating it.

7.5 Storage

If the units are not to be used for a long period of time, disconnect the mains supply from all mains supplied units. Store them in a dust-free dry area with adequate ventilation.

Chapter 8 Technical specifications

8.1 System specifications

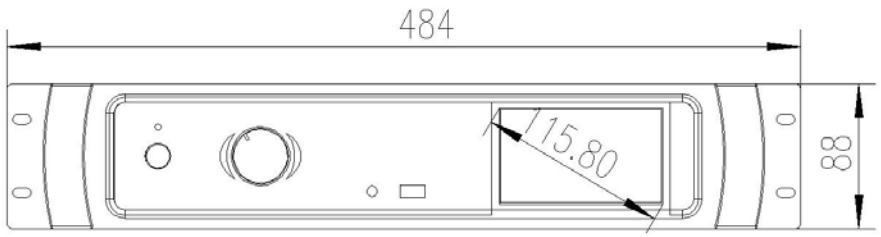
System performance
Conforms to IEC 60914, the international standard for conference systems.

System environment conditions
Working conditions fixed/stationary/transportable
Temperature range
- Transportation: -40 ℃ to +70 ℃
- Operation: 0 ℃ to + 45 ℃
Max.relative humidity: < 95% (not condensing)
Safety: Compliant with EN 60065
EMC emission: Compliant with EN 55032
EMC immunity: Compliant with EN 55035
EMC approvals: CE, FCC
Power harmonic： Compliant with EN 61000
Voltage fluctuations and flicker: Compliant with EN 61000-3-3

8.2 Conference System main unit

8.2.1 Main unit

8.2.1.1 Physical characteristics

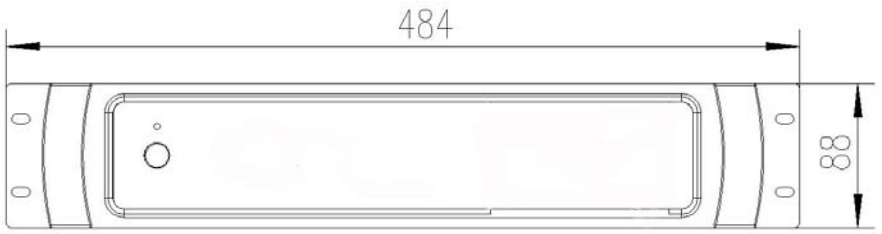
Conference system main unit	H-9500M
Installation	Standard 19" rack
Dimensions (mm)	
Color	Black
Weight	7.6 kg

8.2.1.2 Electrical characteristics

Conference system main unit	H-9500M
Microphone capacity	≤ 320
Frequency response	20Hz-20KHz
SNR	> 80dB
T.H.D	<0.05%
Mains power supply	230V AC 50/60Hz
Audio output	+ 18dBu balanced
Output Voltage	24VDC
Control Interface	9 PIN, D-type (female), connecting the central control system main unit (RS232C)
	RJ45 Ethernet, Connecting to PC
	RS422 connecting to high speed dome camera
Maximum power consumption	300W
Connection	STP Cat6 Ethernet cable
Connector	RJ45 Ethernet

8.2.2 Extension unit

8.2.2.1 Physical characteristics

Conference system main unit	H-9500E
Installation	Standard 19" rack
Dimensions (mm)	
Color	Black
Weight	7.2 kg

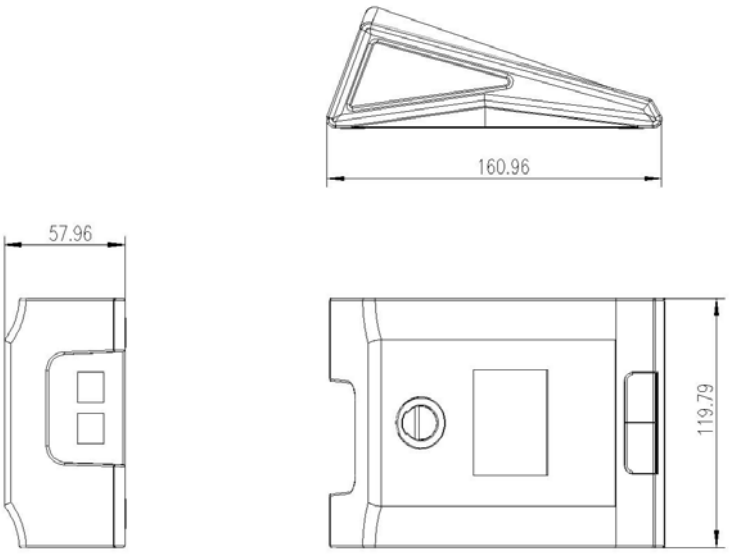
8.2.2.2 Electrical characteristics

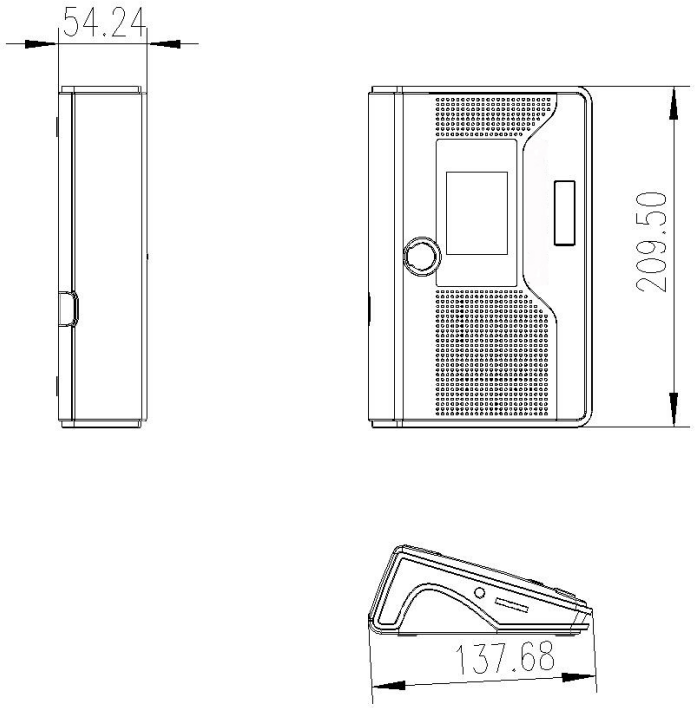
Conference system main unit	H-9500E
Mains power supply	230V AC 50/60Hz
Output Voltage	24VDC
Maximum power consumption	300W
Connection	STP Cat6 Ethernet cable
Connector	RJ45 Ethernet

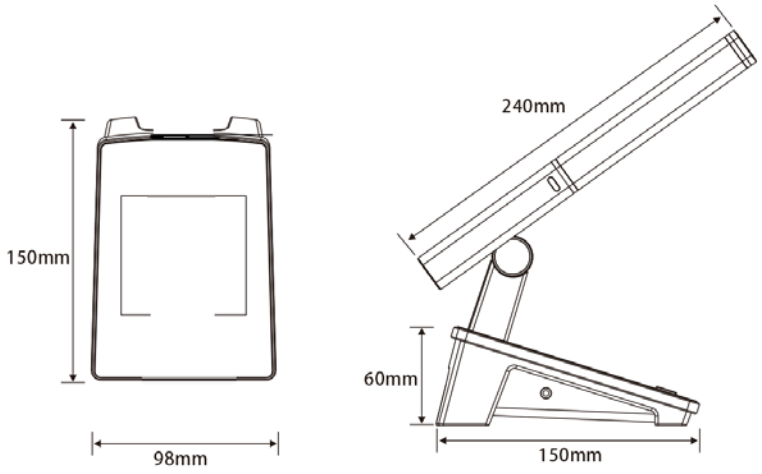
8.3 Conference System Microphone unit

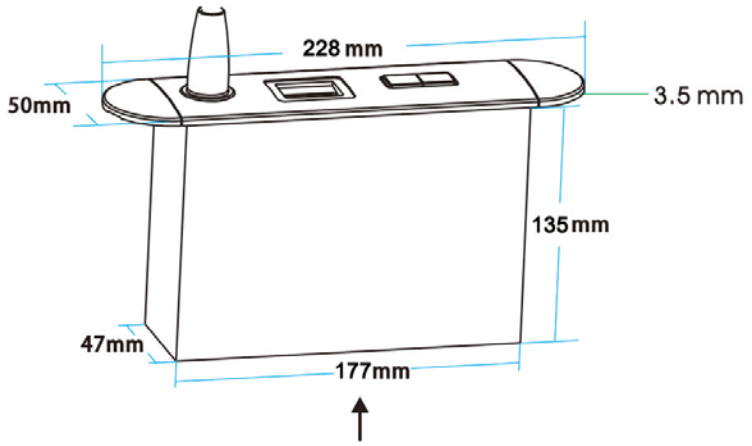
8.3.1 H-9200/9510 series conference unit

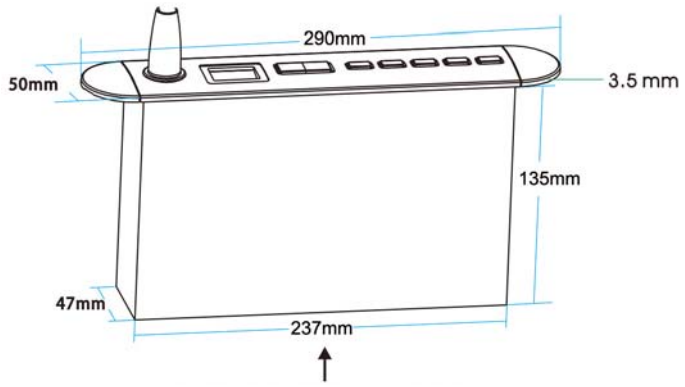
8.3.1.1 Physical characteristics

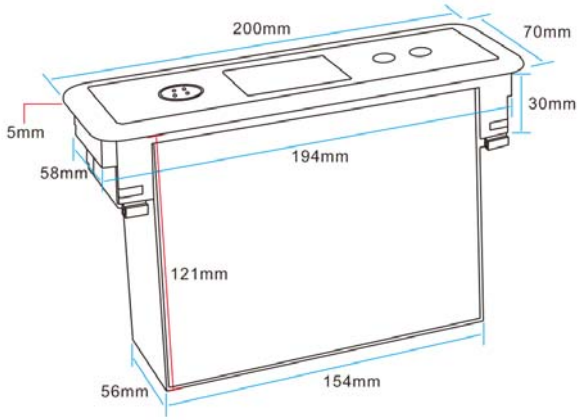
Conference system Microphone unit	H-9200 series
Installation	Tabletop
Dimensions (mm)	
Color	Black

Weight	0.65 kg
Installation	Tabletop
Dimensions (mm)	
Color	Black
Weight	0.78 kg

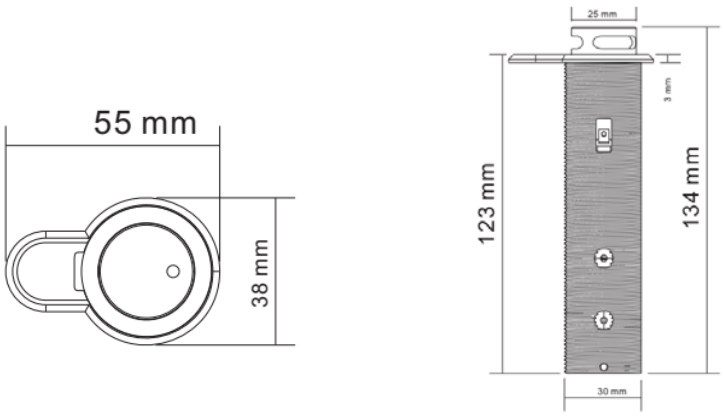
Conference system Microphone unit	H-9250/9255 Series
Installation	Tabletop
Dimensions (mm)	
Color	Black
Weight	1.3 kg

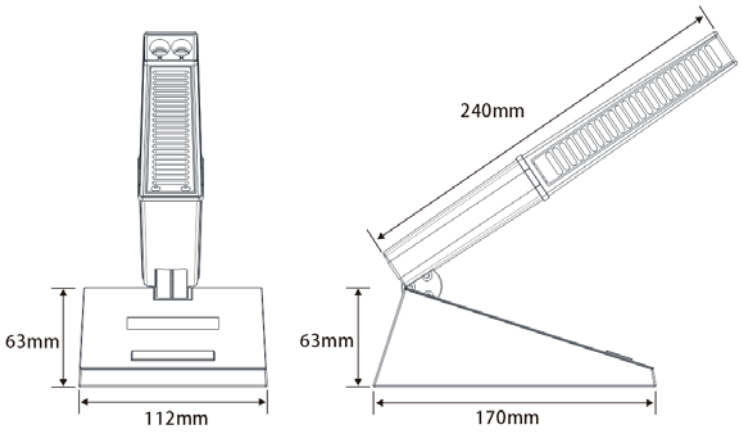
Conference system Microphone unit	H-9210 Series
Installation	Flash mount
Dimensions (mm)	
Color	Silvery
Weight	0.6 kg

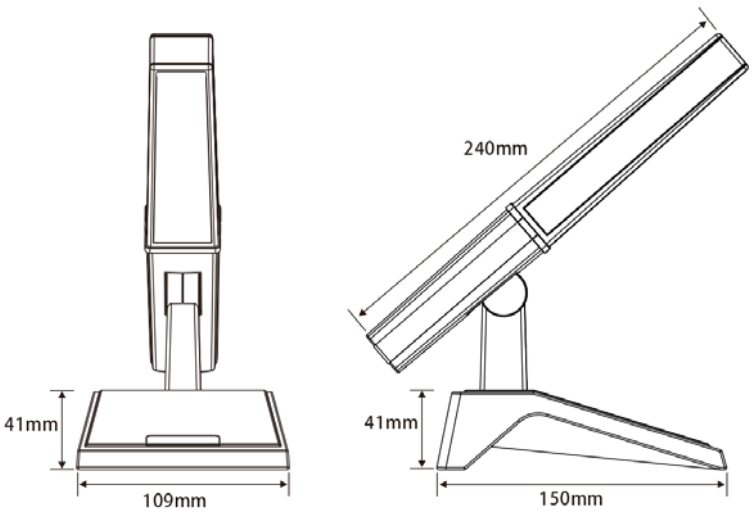
Conference system Microphone unit	H-9220/9210F Series
Installation	Flash mount
Dimensions (mm)	
Color	Silvery
Weight	0.85 kg

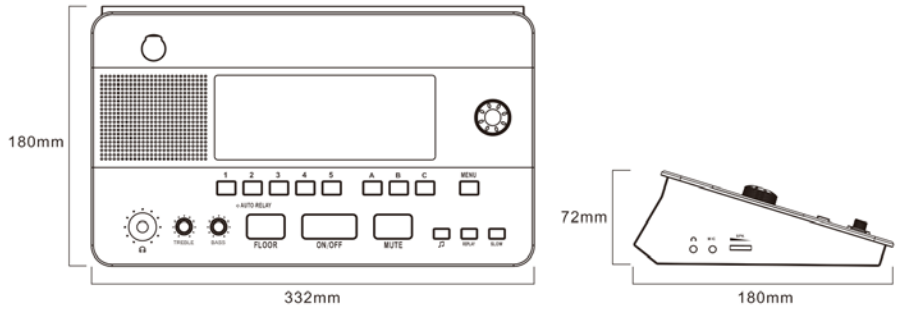
Conference system Microphone unit	H-9211 Series
Installation	Flash mount
Dimensions (mm)	
Color	Black

Weight	0.9 kg

Conference system Microphone unit	H-X1/03 Series
Installation	Flash mount
Dimensions (mm)	
Color	Silvery
Weight	0.15 kg

Conference system Microphone unit	H-9230 Series
Installation	Flash mount
Dimensions (mm)	
Color	Black
Weight	1.86 kg

Conference system Microphone unit	H-9231 Series
Installation	Flash mount
Dimensions (mm)	
Color	Black

Weight	1.4 kg
Conference system Interpreter unit	H-9500Y
Installation	Flash mount
Dimensions (mm)	
Color	Black
Weight	2 kg

8.3.1.2 Electrical characteristics

Conference system main unit	
Frequency response	40Hz -16Khz
Connection	STP Cat6 Ethernet cable
Type	Uni-directional electret condenser microphone
Sensitivity	-44dB ± 2dB
Directivity	> 20dB (1 kHz)
Equivalent noise	20 dBA (SPL)
Max. SPL	125dB (THD <1%)

8.4 Earphone

- H-EP110 single earphone
  - Cooperates with the IR receiver or the conference unit
  - Hi-Hi sound quality
  - 32 Ohm ± 10%, Φ 3.5mm stereo jack
  - Frequency response: 20Hz - 20KHz
  - Nominal Input Power: 20mW (1KHz at 0.8V)
  - Max. Input Power: 60mW
  - Distortion: Within 5% (5mW, 1KHz)
  - Sensitivity: 111dB ± 3dB/0.179V/ at 1KHz 5mW

- H-EP110H single earphone
  - Cooperates with the IR receiver or the conference unit
  - Hi-Hi sound quality
  - 8 Ohm ± 10%, Φ 3.5mm stereo jack
  - Frequency response: 20Hz - 20KHz
  - Nominal Input Power: 20mW (1KHz at 0.8V)
  - Max. Input Power: 60mW
  - Distortion: Within 5% (5mW, 1KHz)
  - Sensitivity: 111dB ± 3dB/0.179V/ at 1KHz 5mW

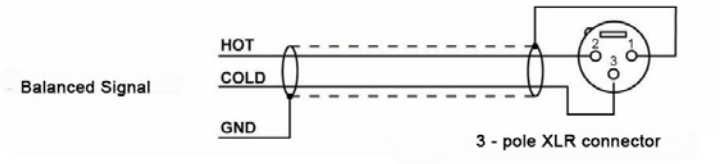
8.5 System connection

- Mains cables

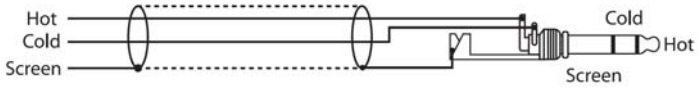
  Blue: Neutral
  Brown: Hot (Phase)
  Green/Yellow: Earth/Ground

- Type of connections

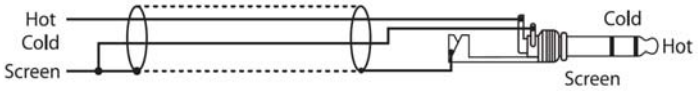
  Balanced connection:



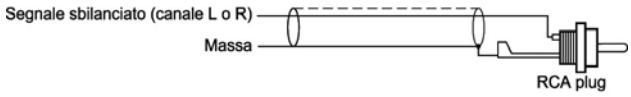
  Balanced connection with TRS jack



  Unbalanced connection with TRS jack



  RCA Connection



We maintain a policy of constant research and development, therefore we reserve the right to apply improvements to existing equipment without prior notice.

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