

HCS-4100/50 Series Fully Digital Congress System

Excellent conferencing solutions



Remarks:

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- Contents may change without prior announcement
- All technical specifications are guideline data and not guaranteed features
- TAIDEN Co., Ltd. is not responsible for any damage caused by improper use of this manual
- The equipment must be connected to earth!
- This product conforms to the rules of the European directive 2004/108/EC.
- To protect your hearing, avoid high pressure level on earphones. Adjust to a lower and convenient level.
- If any detailed information is needed, please contact your local agent or **TAIDEN** service center in your region.
Any feedback, advice and suggestion about the products is appreciated
- **TAIDEN** is the registered trademark of TAIDEN Co. Industrial, Ltd.
- In order to extend the life time of the whole system, we strongly recommend that the congress system be scheduled to shut down every day in the evening when not in use.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
6. The MAINS plug serving as a disconnection device, should be easy to operate.
7. The apparatus should be connected to the MAINS socket-outlet with protective earth.
8. Clean only with dry cloth.
9. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
10. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
11. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade and the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
12. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
13. Only use attachments/accessories specified by the manufacturer.
14. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
15. Unplug this apparatus during lightning storms or when unused for long periods of time.
16. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
17. Do not place the equipment on any uneven or unstable stand; original product package or appropriate package should be used to avoid damage caused by strong impacts during transportation.
18. Power supply cords:
AC 100 V - 120 V 60 Hz or AC 220 V - 240 V 50 Hz
19. For service, please contact the nearest TAIDEN Service Center.
20. All TAIDEN products are guaranteed for definite time (see the WARRANTY CARD for details) excluding the following cases:
 - A. All damage or malfunction caused by human negligence;
 - B. Damage or malfunction caused by improper operating by operator;
 - C. Parts damage or loss caused by disassembling the product by non-authorized personnel.
21. Use ONLY specified connection cable to connect the system equipment.
22. Upon receipt of the product, please fill out the Warranty Card enclosed and post it to TAIDEN Service Center.



TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION: To reduce the risk of electric shock, DO NOT open covers, no user serviceable parts inside. Refer servicing to qualified service personnel only.

CAUTION: DO NOT use alcohol, ammonia or petroleum solvents or abrasive cleaners to clean the devices.



The lightning flash with an arrowhead symbol, with an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

Important Safety Instructions



The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: To reduce the risk of fire or electric shock, DO NOT expose units to rain or moisture.



Attention: Installation should be performed by qualified service personnel only in accordance with the National Electrical or applicable local codes.



Power Disconnect: Units with or without ON – OFF switch have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON – OFF switch is in the ON position. The power cord is the main power disconnect for all units

WARNING: The apparatus should be connected to a mains socket outlet with a protective earthing connection.

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Installation & User Guide

About this manual

This manual is a comprehensive guide to the installation and operation of the **TAIDEN** HCS-4100/50 Fully Digital Congress System. It includes the detailed description of the functions and interfaces of the HCS-4100/50 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 HCS-4100/50 system composition, technology, functions and features.

Chapter 2: Congress main unit

Detailed descriptions of the functions and indications, installation and connection, configuration and operation of the HCS-4100/50 congress main unit (CMU) and extension main unit (EMU).

Chapter 3: Congress unit

Detailed descriptions of the functions and indications, installation and connection, configuration and operation of the HCS-4100/50 series discussion units and the voting units.

Chapter 4: Interpreter unit

Detailed descriptions of the functions and indications, installation and connection, configuration and operation of the HCS-8385N interpreter unit.

Chapter 5 : System connection and basic configuration

Detailed descriptions of the connection between system devices. An example is taken to introduce the basic configuration of the congress system.

Chapter 6: Peripheral equipment and accessories

An introduction to the HCS-4100/50 peripheral equipment and the accessories, e.g. stem microphones, earphones, etc.

Chapter 7: Environment and maintenance

An introduction to the work environment and the maintenance of HCS-4100/50 system.

Chapter 8: Specifications

Main technical parameters of HCS-4100/50 system.

Installation & User Guide

This manual is applicable to:

■ Congress main units

HCS-4100MA/FS/52

Fully Digital Congress System Main Unit (discussion, voting, 64 CHs, single-mode optical fiber interface)

HCS-4100MC/52

Fully Digital Congress System Main Unit (discussion, voting)

HCS-8300ME/FS

Fully Digital Congress System Extension Main Unit (with 2 single-mode optical fiber interfaces)

HCS-8300ME

Fully Digital Congress System Extension Main Unit

■ Congress units

HCS-48U6 series congress units:

HCS-48U6CMICM

Fully Digital Congress System Chairman Unit (flush-mounting, HCS-48U6DVOT and HCS-48U6SPK can be connected, black)

HCS-48U6DMICM

Fully Digital Congress System Delegate Unit (flush-mounting, HCS-48U6DVOT and HCS-48U6SPK can be connected, black)

HCS-48U6CMICS

Fully Digital Congress System Chairman Unit (flush-mounting, HCS-48U6SELM needed, black)

HCS-48U6DMICS

Fully Digital Congress System Delegate Unit (flush-mounting, HCS-48U6SELM needed, black)

HCS-48U6SELM

Flush-mounting 64-Channel Selector (HCS-48U6MICS, HCS-48U6DVOT and HCS-48U6SPK can be connected, black)

HCS-48U6DVOTTW

Fully Digital Voting Unit (flush-mounting, 3 voting keys, contactless IC-Card reader, HCS-48U6SELM or HCS-48U6MICM needed, black)

HCS-48U6SPK

Flush-mounting Loudspeaker Panel (HCS-48U6SELM or HCS-48U6MICM needed, black)

HCS-48U7 series congress units:

HCS-48U7CMIC

Fully Digital Congress System Chairman Unit (flush-mounting, black)

HCS-48U7DMIC

Fully Digital Congress System Delegate Unit (flush-mounting, black)

HCS-48U7CVOTF

Fully Digital Voting System Chairman Unit (flush-mounting, 5 voting keys, 256x32 LCD, contactless IC-Card reader, black)

HCS-48U7DVOTF

Fully Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32 LCD, contactless IC-Card reader, black)

HCS-48U7SPK

Flush-mounting Loudspeaker Panel (black)

HCS-4340CU/50

Multi-function Connector (for HCS-48U7 series, for connection to 1 chairman unit + 1 loudspeaker, black)

HCS-4340DU/50

Multi-function Connector (for HCS-48U7 series, for connection to 1 delegate unit + 1 loudspeaker, black)

HCS-48U8 series congress units:

HCS-48U8CFF

Fully Digital Congress System Chairman Unit (flush-mounting, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD, black)

HCS-48U8DFF

Fully Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD, black)

HCS-48U9 series congress units:

HCS-48U9CFF

Fully Digital Congress System Chairman Unit (flush-mounting, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD, black)

HCS-48U9DFF

Fully Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD, black)

HCS-48U9DVP

Fully Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, contactless IC-Card reader, 256x32 LCD, black)

HCS-48U10/50 series congress units:

HCS-48U10CVSE/50

Fully Digital Congress System Chairman Unit (flush-mounting, 3 voting keys, contactless IC-Card reader, 64 CHs, OLED, black)

HCS-48U10DVSE/50

Fully Digital Congress System Delegate Unit (flush-mounting, 3 voting keys, contactless IC-Card reader, 64 CHs, OLED, black)

HCS-48U10DV/50

Fully Digital Congress System Delegate Unit (flush-mounting, 3 voting keys, contactless IC-Card reader, black)

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HCS-48U10DDS/50

Fully Digital Congress System Delegate Unit (flush-mounting, 64 CHs, 2 channel selectors, OLED, dual IDs, black)

HCS-48U10DS/50

Fully Digital Congress System Delegate Unit (flush-mounting, 64 CHs, OLED, black)

HCS-4886 series congress units:

HCS-4886CW/54

Fully Digital Congress System Chairman Unit (tabletop, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD)

HCS-4886DW/54

Fully Digital Congress System Delegate Unit (tabletop, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD)

HCS-4886NX_G/52

Fully Digital Congress System Operator Unit (tabletop, 256x32 LCD, for intercom/external communication)

HCS-4890/52 series congress units:

HCS-4890CVS_B/52

Fully Digital Congress System Chairman Unit (tabletop, 3 voting keys, contactless IC-Card reader, 64 CHsx2, 4.3" touch screen, printed nameplate, black)

HCS-4890DVS_B/52

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys, contactless IC-Card reader, 64 CHsx2, 4.3" touch screen, printed nameplate, black)

HCS-4890DS_B/52

Fully Digital Congress System Delegate Unit (tabletop, 64 CHsx2, 4.3" touch screen, printed nameplate, black)

HCS-4890C_B/52

Fully Digital Congress System Chairman Unit (tabletop, 4.3" touch screen, printed nameplate, black)

HCS-4890D_B/52

Fully Digital Congress System Delegate Unit (tabletop, 4.3" touch screen, printed nameplate, black)

HCS-4891/50 series congress units:

HCS-4891CVS_B/50

Fully Digital Congress System Chairman Unit (tabletop, 3 voting keys, 64 CHsx2, 4.3" touch screen, black)

HCS-4891DVS_B/50

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys, 64 CHsx2, 4.3" touch screen, black)

HCS-4891DS_B/50

Fully Digital Congress System Delegate Unit (tabletop, 64 CHsx2, 4.3" touch screen, black)

HCS-4891C_B/50

Fully Digital Congress System Chairman Unit (tabletop, 4.3" touch screen, black)

HCS-4891D_B/50

Fully Digital Congress System Delegate Unit (tabletop, 4.3" touch screen, black)

HCS-4891R/50 series congress units:

HCS-4891RCVS_B/50

Fully Digital Congress System Chairman Unit (tabletop, 3 voting keys, 64 CHsx2, 4.3" touch screen, rectangular columnar metal microphone, silver microphone + black base)

HCS-4891RDVS_B/50

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys, 64 CHsx2, 4.3" touch screen, rectangular columnar metal microphone, silver microphone + black base)

HCS-4891RDS_B/50

Fully Digital Congress System Delegate Unit (tabletop, 64 CHsx2, 4.3" touch screen, rectangular columnar metal microphone, silver microphone + black base)

HCS-4891RC_B/50

Fully Digital Congress System Chairman Unit (tabletop, 4.3" touch screen, rectangular columnar metal microphone, silver microphone + black base)

HCS-4891RD_B/50

Fully Digital Congress System Delegate Unit (tabletop, 4.3" touch screen, rectangular columnar metal microphone, silver microphone + black base)

HCS-4891R/50/2M series congress units:

HCS-4891RCVS_B/50/2M

Fully Digital Congress System Chairman Unit (tabletop, 3 voting keys, 64 CHsx2, 4.3" touch screen, rectangular columnar metal microphone, main microphone + backup microphone, silver microphone + black base)

HCS-4891RDVS_B/50/2M

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys, 64 CHsx2, 4.3" touch screen, rectangular columnar metal microphone, main microphone + backup microphone, silver microphone + black base)

HCS-4891RDS_B/50/2M

Fully Digital Congress System Delegate Unit (tabletop, 64 CHsx2, 4.3" touch screen, rectangular columnar metal microphone, main microphone + backup microphone, silver microphone + black base)

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HCS-4891RC_B/50/2M

Fully Digital Congress System Chairman Unit (tabletop, 4.3" touch screen, rectangular columnar metal microphone, main microphone + backup microphone, silver microphone + black base)

HCS-4891RD_B/50/2M

Fully Digital Congress System Delegate Unit (tabletop, 4.3" touch screen, rectangular columnar metal microphone, main microphone + backup microphone, silver microphone + black base)

HCS-4338N series congress units:

HCS-4338NCVS/50

Fully Digital Congress System Chairman Unit (tabletop, 3 voting keys, 64 CHs, OLED)

HCS-4338NDVS/50

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys, 64 CHs, OLED)

HCS-4338NDV/50

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys)

HCS-4338NCS/50

Fully Digital Congress System Chairman Unit (tabletop, 64 CHs, OLED)

HCS-4338NDS/50

Fully Digital Congress System Delegate Unit (tabletop, 64 CHs, OLED)

HCS-4338NC/50

Fully Digital Congress System Chairman Unit (tabletop)

HCS-4338ND/50

Fully Digital Congress System Delegate Unit (tabletop)

HCS-4338NDDS/50

Fully Digital Congress System Delegate Unit (tabletop, 64 CHs, 2 channel selectors, dual IDs)

Note: At choice for all discussion units of this series: charcoal gray panel or champagne panel.

HCS-4860 series congress units:

HCS-4860CS/54

Fully Digital Congress System Chairman Unit (tabletop, rectangular columnar metal microphone, 64 CHs, OLED, black)

HCS-4860DS/54

Fully Digital Congress System Delegate Unit (tabletop, rectangular columnar metal microphone, 64 CHs, OLED, black)

HCS-4860C/54

Fully Digital Congress System Chairman Unit (tabletop, rectangular columnar metal microphone, black)

HCS-4860D/54

Fully Digital Congress System Delegate Unit (tabletop, rectangular columnar metal microphone, black)

HCS-4860/2M series congress units:

HCS-4860CS/54/2M

Fully Digital Congress System Chairman Unit (tabletop, 64 CHs, OLED, rectangular columnar metal microphone, main microphone + backup microphone, black)

HCS-4860DS/54/2M

Fully Digital Congress System Delegate Unit (tabletop, 64 CHs, OLED, rectangular columnar metal microphone, main microphone + backup microphone, black)

HCS-4860C/54/2M

Fully Digital Congress System Chairman Unit (tabletop, rectangular columnar metal microphone, main microphone + backup microphone, black)

HCS-4860D/54/2M

Fully Digital Congress System Delegate Unit (tabletop, rectangular columnar metal microphone, main microphone + backup microphone, black)

HCS-4865 series congress units:

HCS-4865C/50

Fully Digital Congress System Chairman Unit (tabletop, black)

HCS-4865D/50

Fully Digital Congress System Delegate Unit (tabletop, black)

HCS-4866 series congress units:

HCS-4866C/50

Fully Digital Congress System Chairman Unit (tabletop, black)

HCS-4866D/50

Fully Digital Congress System Delegate Unit (tabletop, black)

HCS-4860X series congress units:

HCS-4860CX/54

Fully Digital Congress System Chairman Unit (tabletop, rectangular columnar metal microphone, black)

HCS-4860X/54

Fully Digital Congress System Delegate Unit (tabletop, rectangular columnar metal microphone, black)

HCS-4341/50 series congress units:

HCS-4341CB/50

Fully Digital Congress System Chairman Unit (boundary, HCS-4340/50 needed, black)

HCS-4341DB/50

Fully Digital Congress System Delegate Unit (boundary, HCS-4340/50 needed, black)

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HCS-4841/42/43 series congress units:

HCS-4841NC/50

Fully Digital Congress System Chairman Unit (flush-mounting, HCS-4340/50 needed)

HCS-4841ND/50

Fully Digital Congress System Delegate Unit (flush-mounting, HCS-4340/50 needed)

HCS-4841CU/50

Fully Digital Congress System Chairman Unit (flush-mounting, HCS-4340/50 needed)

HCS-4841DU/50

Fully Digital Congress System Delegate Unit (flush-mounting, HCS-4340/50 needed)

HCS-4841CUA/50

Fully Digital Congress System Chairman Unit (flush-mounting, HCS-4340/50 needed)

HCS-4841DUA/50

Fully Digital Congress System Delegate Unit (flush-mounting, HCS-4340/50 needed)

■ **HCS-4340/50 series multi-function connector**

HCS-4340CAT/50

Multi-function Connector (for connection to 1 chairman unit + 1 3-key voting unit + 1 channel selector, charcoal gray)

HCS-4340CAF/50

Multi-function Connector (for connection to 1 chairman unit + 1 5-key voting unit + 1 channel selector, charcoal gray)

HCS-4340DAT/50

Multi-function Connector (for connection to 1 delegate unit + 1 3-key voting unit + 1 channel selector, charcoal gray)

HCS-4340DAF/50

Multi-function Connector (for connection to 1 delegate unit + 1 5-key voting unit + 1 channel selector, charcoal gray)

HCS-4340HDAT/50

Multi-function Connector (for connection to 1 handheld delegate unit+ 1 3-key voting unit + 1 channel selector, charcoal gray)

HCS-4340HDAF/50

Multi-function Connector (for connection to 1 handheld delegate unit+ 1 5-key voting unit + 1 channel selector, charcoal gray)

HCS-4340HDAT/50P

Multi-function Connector (for connection to 1 condenser microphone + 1 3-key voting unit + 1 channel selector, +48 V phantom power, charcoal gray)

HCS-4340HDAF/50P

Multi-function Connector (for connection to 1 condenser microphone + 1 5-key voting unit + 1 channel selector, +48 V phantom power, charcoal gray)

HCS-4340B/50

Multi-function Connector (for connection to 4 pcs of channel selector, charcoal gray)

HCS-4340DT/50

Multi-function Connector (for connection to 2 delegate units+ 2 channel selectors, charcoal gray)

■ **Interpreter unit**

HCS-8385N

New Generation Fully Digital Congress System Interpreter Unit (64 CHs, 6.8" TFT LCD, microphone, loudspeaker, stem microphone to be ordered separately)

■ **Pluggable Microphone**

MS33/41/47EGF1S/B Pluggable Microphone

MS33EGFSB Pluggable Microphone

MS33/41/47EGG1B Pluggable Microphone

MS50/60/70EGF2B Pluggable Microphone

MS33/41/47EHA1B Pluggable Microphone

MS33/41/47EGA1S/B Pluggable Microphone

MS33/41/47EGB1S/B Pluggable Microphone

MS41EGE1S Pluggable Microphone

■ **Earphone**

EP-830 Single earphone

EP-820AS Single earphone

EP-822 Single earphone

EP-829SW Single earphone

(Built-in magnetic control switch)

EP-823L Single earphone (Left)

EP-823R Single earphone (Right)

EP-960AN Interpreter headset (for HCS-8385N)

EP-960BH Interpreter headphone

HCS-5100PA Headphone

Chapter 1: Introduction

1.1 Summary

By using TAIDEN originated MCA-STREAM (Multi_Channel_Audio STREAM) digital processing and transmitting technologies, HCS-4100/50 Fully Digital Congress System revolutionizes conference systems technology by incorporating the latest fully digital technologies, audio technologies and network techniques. Furthermore, with perfect integration of TAIDEN Conference Sign-in System and Central Control System, HCS-4100/50 system takes the leadership in providing comprehensive and efficient digital conference system solutions.

“Closed Loop - Daisy Chain” connection technology, to connect all congress units and simplifying installation, as well as dual connection backup have been opted for.

By supporting 48 kHz audio sampling rate, all 64 channels feature a 30 Hz to 20 kHz frequency response.

HCS-4100/50 Fully Digital Congress System consists of congress main unit, contribution units and application software. Congress main unit includes the congress control main unit (CMU) and the extension main unit (EMU). Contribution units include discussion units, voting units, simultaneous interpreter units, channel selectors, etc. The application software contains a number of software modules, performing different tasks.

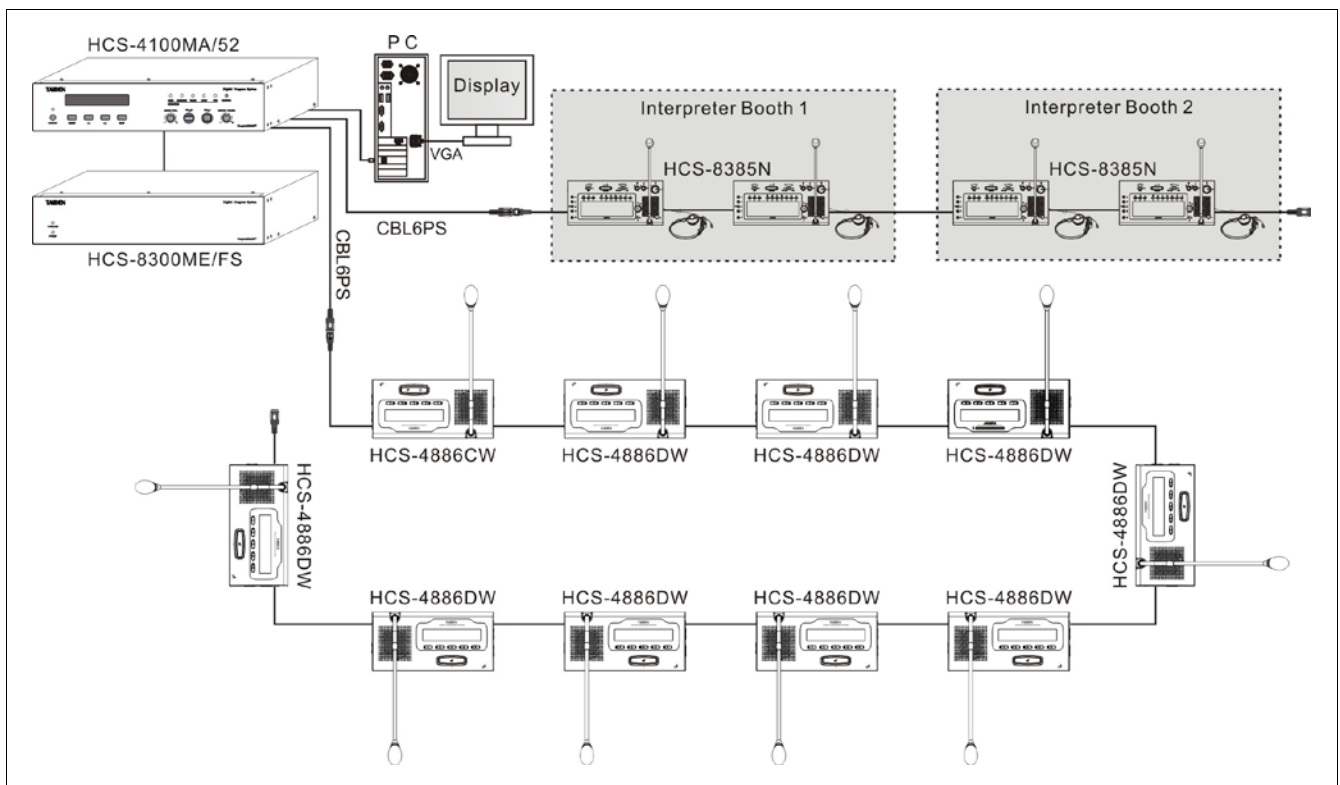


Figure 1.1.1 System overview

1.2 System technology

● MCA-STREAM digital audio processing and transmission technology

TAIDEN proprietary MCA-STREAM technology is the essential data transmission technology in the HCS-4100/50 system, e.g. transmitting up to 64 CHs high quality digital, control and other information data over a single dedicated 100 Mbps high speed 6-pin cable. Every unit - congress main unit, congress unit, language distribution unit, interpreter unit - is equipped with a high performance CPU as the kernel of the advanced technology infrastructure.

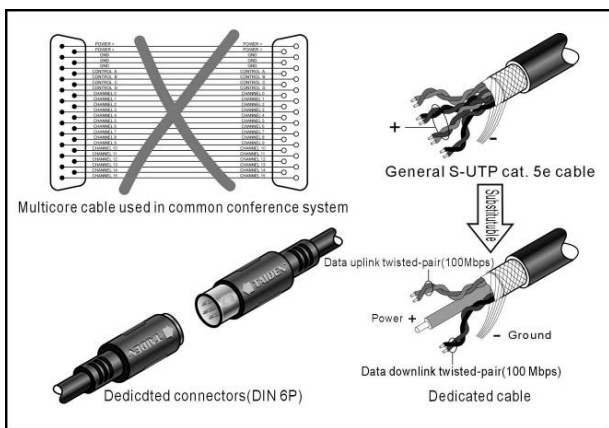


Figure 1.1.2 Simple and reliable system connection

By virtue of using the MCA-STREAM technology, HCS-4100/50 Fully Digital Congress System carries out:

- Ease of system cabling and enhancement of system reliability by utilizing a single dedicated 6-pin cable to transmit up to 64 CHs floor and interpretation language signals, avoiding the necessity to use complicated multi-core cables;
- Prevention of noise caused by the ground wire in stereo projects as well of interference brought by other equipment (such as stage lights, recording apparatus, etc.). SNR reaches 96 dB and isolation is better than 85 dB. The frequency response verges on 30 Hz - 20 kHz; making the system sound excelling CD quality;
- Provision of Hi-Fi sound quality, even in long range transmission, which makes the system widely suitable for various applications such as mini/medium type meeting rooms, large venues, stadiums, etc.

● HCS-4100/50 system hardware structure

HCS-4100/50 system hardware is an embedded structure based on dual high performance CPUs. Even in stand-alone mode, HCS-4100/50 system is competent for the management of various meetings via several basic congress management facilities, such as basic microphone management, electronic voting, multilingual simultaneous interpretation, etc.

In the figure below:

Audio CODEC: Dedicated audio coding and decoding chip of discussion unit and interpreter unit

TDN: Dedicated digital communication chip for TAIDEN digital congress system networking

DAC: Digital-to-analog conversion chip

RISC: Central processing chipset of congress main unit, controlling the DSP and AD/DA conversion IC to provide 2-channel audio line in/out and record in/out facilities

Based on advanced hardware, HCS-4100/50 system features high security software, easy to operate, convenient to maintain and to upgrade. The meeting is fully controlled and monitored by the operator.

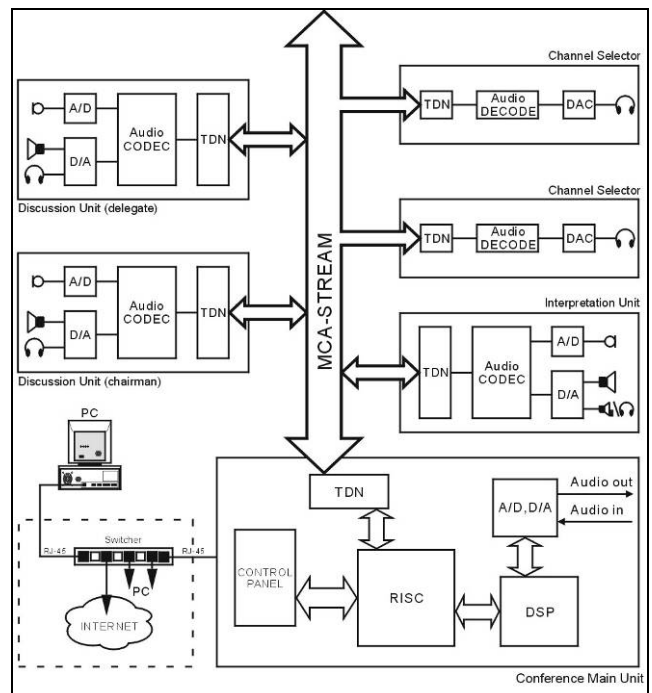


Figure 1.1.3 HCS-4100/50 system hardware structure

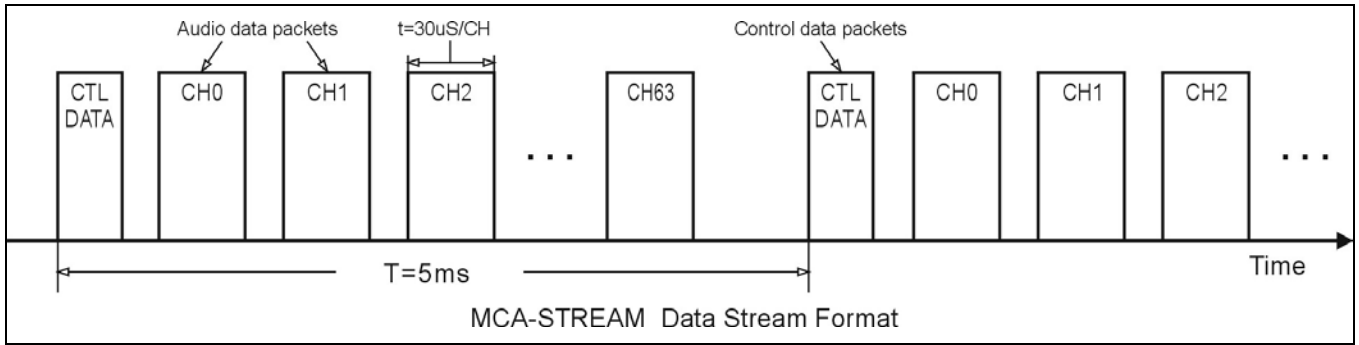


Figure 1.1.4 MCA-STREAM data stream format

● **Modular system structure**

Any kind of configuration can be set up just by daisy-chaining HCS-4100/50 fully digital congress units. The modular system structure of HCS-4100/50 is applicable to any kind of congress and provides an accurate and efficient solution. Additional congress units can be added when needed. More system functions are available in connection with a PC and control software.

● **Dual congress main unit hot spare**

HCS-4100/50 dual main unit hot spare is a disaster protective structure. Besides the main unit, the user can set another CMU as backup CMU and connect it to the system. If the main unit breaks down during the conference, the backup main unit substitutes the main unit and the system software will connect to backup CMU automatically, ensuring the consistency of the conference.

● **HCS-4100/50 system software infrastructure**

HCS-4100/50 system software is designed for the prevalent Client/Server structure. Client and server communicate with each other by using TCP/IP network protocol, ensuring both data security and transmission efficiency. Client and server software can run on the same computer as well as on different computers in the same LAN, enabling the operator to manage the congress more flexibly.

HCS-4100/50 system software imports the hot-spare dual server structure by using a main server and a back-up server. While the main server is processing, data are stored real time on the back-up server to prevent congress related information from loss in case of a crash of the main server. As a result, security and reliability of the congress system are improved vitally.

● **Duplicate and backup connection via “Closed Loop - Daisy Chain” connection**

For important meetings, especially those which consider connection reliability as their leading point, HCS-4100/50 Series Fully Digital Congress System adopts advanced “Closed Loop - Daisy Chain” connection topology, connecting the last unit in the loop back to the congress main unit through HCS-8300MCLS. Therefore, any congress unit in the loop has two connection paths to the congress main unit. As a result, breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units. As such the system features the advantages of a daisy-chain connection system with its simpleness of cabling as well as the improvement of the system reliability through duplicate and backup connection functions.

● **Advanced TCP/IP communication protocol in PC control**

In a PC controlled system, the congress main unit and the PC use the advanced TCP/IP protocol. Theoretically, the communication distance between the PC and the CMU can be infinite. This is decisively different to traditional RS-232 connection modes where the distance between the PC and the CMU cannot exceed 15 meters. TCP/IP enables remote control, remote diagnosis and remote update.

By using network techniques, congress systems are tightly linked to the rapidly developing internet technology, computer science and communication technology. Users enjoy the convenience of the contemporary leading techniques, e.g. by using the compatible wireless LAN techniques (802.11) - such as PDAs - which can be used to control a conference system wirelessly. The import of network topology also

makes the conference system merge with intelligent building networks.

● CMU and EMU

The congress main unit forms the core of the entire congress system. It provides power supply to all contribution units and serves as key component to link system hardware to application software.

One CMU has two (6P-DIN) trunk-line cable outlets. If more congress units are needed, additional extension main units HCS-8300ME or HCS-8300ME/FS are required, each EMU has four (6P-DIN) trunk-line cable outlets. HCS-4100/50 system maximum capacity: 378 interpreter units (63 interpreter booths, 6 interpreter units in each), 4096 discussion/voting units and any number of channel selectors.

In stand-alone mode without a PC, the CMU carries out basic management facilities, simultaneous interpretation, electric voting and 64 CHs digital audio transmission. By operating HCS-4100/50 application software in PC-controlled mode, more comprehensive management facilities can be implemented.

● Contribution units

Contribution units are units used by participants to contribute to a conference and include: discussion unit (chairman/delegate), voting unit, interpreter unit, channel selector, etc. The basic contribution unit has discussion, voting or channel select facility. The upgraded units combine discussion, voting and channel select, furthermore built-in loudspeaker, IC-Card reader and graphic 256x32/256x64 LCD with back-lighting, forming a wide variety of product series. The chairman unit has microphone priority facility with a priority button to switch off or to mute speaking units. If required, different functions can be allocated to delegate stations, including listening, discussion, request to speak, voting, IC-Card sign-in, short message, information display, etc.

Depending on the option, congress units can be divided into tabletop, flush-mounted and component. Each style consists of various products, which significantly enriches users' choices.

Low power consumption design is adopted in HCS-8300 and HCS-4100/50 series congress units, convenient for wiring and installation.

All congress units of HCS-8300 and HCS-4100/50 series (except multimedia terminals) are supplied by the main unit's 6P-DIN interface. Since the power capacity of the 6P-DIN interface is limited, it must be ensured during installation that the added up values of a) the total power consumption of all congress units connected in each path and b) the power loss in extension cables do in no case exceed the maximum possible value delivered by each 6P-DIN interface. Otherwise the system will not work properly or automatic protection will be triggered. (see section [5.1.1](#) for details).

● Application software

HCS-4100/50 application software is comprehensive, reliable and user-friendly. It is also an easy-care software system which helps the operator to manage the conference efficiently from the very beginning of a meeting until the post-meeting work. Once the PC installed and the HCS-4100/50 application software integrated into the HCS-4100/50 system, the operator manages all aspects of the conference centrally. The operation turns out to be easy and efficient.

HCS-4100/50 application software is modular software with various functional modules: System Setup Management Module, Microphone Management Module, Voting Management Module, Simultaneous Interpretation Module, Intercom Software Module, Synchronous Audio Recording Management Module, Multi-User Conference Control Management Module, Dual PC Server Hot Spare Module, Agenda Control Module, Dual System Main Unit Hot Spare Module, etc.



● **Installation and transportation**

Easy installation is another vital feature of HCS-4100/50 Series Fully Digital Congress System. All HCS-4100/50 series digital congress units are equipped with a 1.5-meter - 6P-DIN cable (with a male connector) and a 0.6-meter - 6P-DIN cable (with a female connector) except HCS-4340 series which has a 2.1-meter - 6P-DIN cable (with a male connector) and a socket on the housing. All congress units are connected together in a daisy chain configuration and connected to the main unit by the dedicated extension cable.

1.3 Functions

● Discussion

- “Active microphones” (1/2/3/4), sets the number of delegates permitted to speak at the same time, and sets speaking time limit function
- Five discussion modes:
 - ◆ “Open” mode, microphone On/Off button with request-to-speak registration (AUTO)
 - ◆ “Override” mode, microphone On/Off button control with override of the active delegate microphones (FIFO)
 - ◆ “Voice” mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in “flash-on” technology, immediate microphone activation on speaking
 - ◆ “Apply” mode, delegate applies to speak by pressing microphone On/Off button, delegate only speaks when operator or chairman approved his application
 - ◆ “PTT” mode, press microphone On/Off button to talk
- VIP unit configurable:
 - ◆ By using TAIDEN conference management system software, a maximum of 32 delegate units can be set as VIP units
 - ◆ VIP unit can be activated in any mode freely, as long as the active microphone capacity is not full
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator’s voice to achieve perfect speech pickup any time
- Integrated high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed

● 64 CHs simultaneous interpretation

- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz - 20 kHz
- HCS-4100/50 system can accommodate 378 interpreter units (63 interpreter booths, 6 interpreter units in each), and provide 64 CHs (including floor language) simultaneous interpretation

- The interpreter unit is equipped with a uni-directional electret condenser microphone. The gain of each microphone is adjustable, and with auto gain control. It features also 7 pre-defined input channels and 3 output interpretation channels with their corresponding short keys, a high-contrast 6.8" LCD as well as an audio record & playback function
- Delegates use channel select to listen to different languages. In cooperation with channel selectors and/or infrared language distribution system, a larger listening audience is enabled to join the meeting

● Voting

- If the system is equipped with a chairman unit with a graphic LCD, parliamentary voting (YES/NO/ABSTAIN) can be implemented even without a PC. The result is displayed on the LCD of every contribution unit.
- Cooperating with corresponding software modules, multiform voting can be implemented:
 - ◆ For/Against
 - ◆ Parliamentary: YES/NO/ABSTAIN
 - ◆ Multiple choice/Opinion poll: 1/2/3/4/5
 - ◆ Audience response/Rating: --/0/+/++
 - ◆ Parliamentary (NPPV):
YES/NO/ABSTAIN/NPPV
 - ◆ Appraisal:
Satisfied (Four options: perfectly satisfied, satisfied, basically satisfied, unsatisfied)
(Three options: satisfied, basically satisfied, unsatisfied)
(Two options: satisfied, unsatisfied)
Qualified (2/3/4 options)
Competent (2/3/4 options)

● Information display

- By using the information display module of the TAIDEN conference management system software, congress title, content, congress related information as well as meeting related notice can be displayed on a large screen display (or projector)

- Contribution units equipped with LCD show:
 - ◆ Active microphone amount, request amount, delegates' signed-in and voting results, etc.
 - ◆ Messages
 - ◆ Multilingual (simplified/traditional Chinese and English, etc.) menu

● **Automatic video tracking system**

Automatic video tracking can be carried out if video switch unit and camera are installed.

● **Remote control and remote diagnosis**

Using advanced TCP/IP network protocol in the communication between the PC and the CMU - to implement remote control, remote diagnosis and remote update for the congress system - for easy central control of a multi-room configuration.

● **Intercom**

If an operator unit is in the system, the built-in intercom facility allows bidirectional vocal communication between congress participants, interpreters and operators. Extra equipment is not required.

● **Multi-room configuration function**

Several main units can be operated as several independent congress systems or be combined together easily as a large multi-room congress system configuration.

● **Integrated optical fiber interface**

Optical fiber interface is integrated into the HCS-4100MA/FS/52 congress main unit, in cooperation with HCS-8300 series extension main unit, audio input interface or audio output device. Thus several mutually distant congress rooms can be combined and be operated as one venue.

Dual connection backup is implemented between the HCS-4100MA/FS/52 congress main unit and the HCS-8300ME/FS extension main unit via optical fiber and Cat.5 cable.

● **Seamlessly Integrated with Conference Sign-in System and the Central Control System**

The seamless integration of HCS-4100/50 Series Fully Digital Congress System with the TAIDEN Conference Sign-in System and the Central Control System provides comprehensive congress system solutions. Besides the basic congress management (discussion, voting, simultaneous interpretation, video tracking, etc.), it also provides congress sign-in and access control for the congress participants. Furthermore, it gives complete facilities to manage the congress system's power supply and the peripheral multimedia equipment, surrounding lights, projector display and sound equipment. The easy incorporation of peripheral components upgrades the system into an advanced intelligent congress system with integrated solutions for conferencing, audio, lighting control etc.

● **Fully compatible with TAIDEN HCS-8300 Series New Generation Paperless Multi-media Congress System**

Full compatibility also with TAIDEN HCS-8300 Series New Generation Paperless Multi-media Congress System: HCS-8300 series congress units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-8300 system (exclusive functions are only available with HCS-8300 contribution units).

● **Other facilities**

- With the 8 channel digital/analog audio output device (several units cascable), multi-channel digital/analog audio signals are available as output signals for the infrared language distribution system or for recording
- Built-in self-detecting functions in each contribution unit for automatic detection of microphone and keys

1.4 Features

● System reliability

System reliability, as described below, has always been the guiding principle while designing HCS-4100/50 Fully Digital Congress System:

- Dual congress main unit hot spare
- System software imports the hot-spare dual server structure by operating the main server and the back-up server at the same time
- Dual connection backup is implemented between the HCS-4100MA/FS/52 congress main unit and the HCS-8300ME/FS extension main unit via optical fiber and Cat.5 cable
- “Closed Loop - Daisy Chain” connection topology: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units
- Built-in communication auto termination function to prevent system collapse if the TCP/IP cable is pulled out
- Auto recovery function, supports PnP
- If PC malfunction happens, the CMU will return to control status automatically and take over control of the meeting, ensuring continuation of the meeting process

● System technological progress

HCS-4100/50 Fully Digital Congress System - based on TAIDEN originated independent intellectual property rights digital processing and transmitting technologies MCA-STREAM - adopts embedded hardware structure based on high performance dual CPU. TAIDEN conference management system software is based on Client/Server and hot-spare dual server structure. CMU and PC use advanced TCP/IP protocol for communication, perfectly integrated to benefit from modern technologies.

Furthermore, Conference Sign-in System and Central Control System can be integrated into TAIDEN HCS-4100/50 Fully Digital Congress System to provide the first complete and efficient solution in the world.

● System operability

CMU controls efficiently: basic microphone control, simultaneous interpretation, video tracking, voting - without the intervention of an operator.

With a PC and TAIDEN conference management system software, more functions can be achieved, including enhanced microphone control, simultaneous interpretation, delegate information management, sign-in control, meeting data management and distribution, voting control and output audio processing. TAIDEN conference management system software can also be set up according to user requirements.

TAIDEN conference management system software adopts Client/Server structure - the process of the meeting is controlled by the operator from any PC within the same LAN. If PC malfunction occurs, CMU will return to control status automatically and take over control of the meeting, ensuring continuation of the meeting.

● Fine extensibility

The interpreter unit of HCS-4100/50 has a maximum of 64 channels (including floor channel) and satisfies the requirements of large-scale international meetings: allocating a language for each channel, selecting a channel, interlock facility. To avoid reciprocal interference and crosstalk the language of each channel can be released separately. The system supports a maximum of 4096 congress units and an infinite number of channel selectors.

HCS-4100/50 system is modular: just daisy-chain HCS-4100/50 units to set-up a configuration. If extra system capacity is needed, units can be connected easily, starting from any access point.

● Economical and convenient installation

In virtue of the fully digital techniques of HCS-4100/50 system, system installation becomes simple and economical, especially in conjunction with the economical and durable HCS-4100/50 system dedicated 6-PIN cable (substitutable by shielded Cat.5 cable). The cable, suitable for the requirements of any kind of meeting, transmits up to 64 high quality audio signals, control data and information simultaneously. Every delegate unit is assigned an individual ID for convenient setup and perpetual prevention of double ID.

System connection reliability is improved by the professional 6P-DIN standard plug and clasp which facilitates system installation as well as disassembly. As a result of the daisy-chain design of the contribution units, insertion into the system can be done at any desired point, simplifying equipment extension and maintenance significantly.

- **System maintenance**

TAIDEN application software provides testing functions for online testing the operating conditions such as validity of the keys, LCD and microphones.

A detailed test report is issued for quick and simple maintenance of the system device.

Chapter 2: Congress main unit (CMU)

The Congress Main Unit (CMU) forms the core of the HCS-4100/50 Fully Digital Congress System, and provides power supply to all contribution units, meanwhile, serving as the key component to link up hardware with application software. In stand-alone mode without a PC, the CMU only carries out basic management facilities; while more comprehensive management facilities can be implemented in PC-controlled mode.

The devices that can be controlled by CMU includes: discussion units (chairman unit/delegate unit), voting units, interpreter units, channel selectors and video switcher for automatic video tracking, etc. By cascade connecting EMUs, the HCS-4100/50 system can reach its maximum capacity: 378 interpreter units, 4096 discussion/voting units and an infinite number of channel selectors.

Product types:

HCS-4100MA/FS/52

Fully Digital Congress System Main Unit (discussion, voting, 64 CHs, single-mode optical fiber interface)

HCS-4100MC/52

Fully Digital Congress System Main Unit (discussion, voting)

HCS-8300ME/FS

Fully Digital Congress System Extension Main Unit (with 2 single-mode optical fiber interfaces)

HCS-8300ME

Fully Digital Congress System Extension Main Unit

2.1 Fully Digital Congress System Main Unit

2.1.1 Functions and instructions

2.1.1.1 Front panel

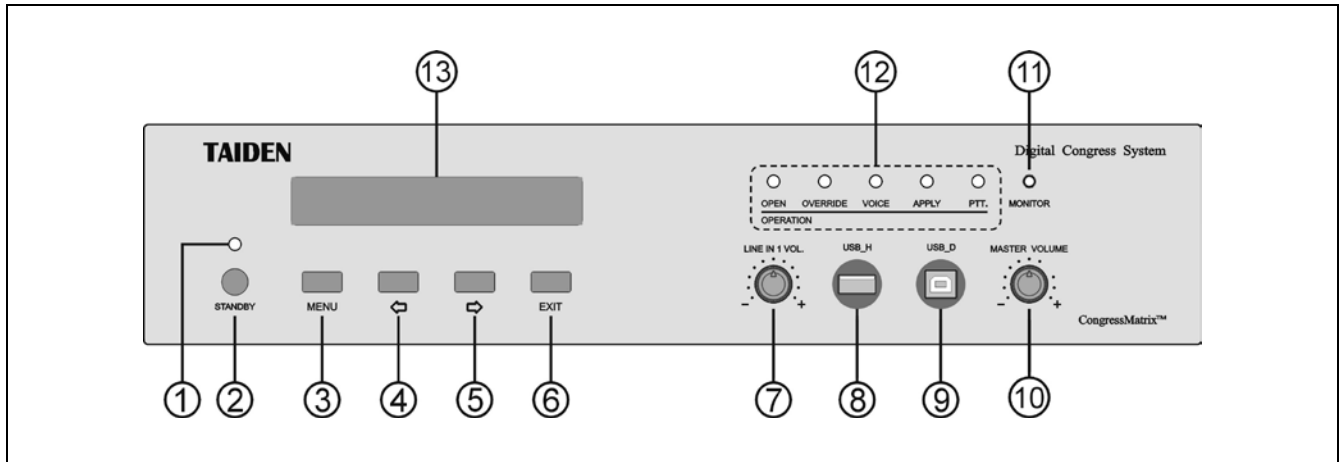


Figure 2.1.1 Front panel of HCS-4100M/52 CMU

Figure 2.1.1

1. Power light

- Switches to red in standby mode;
- Switches to blue when operating.

2. “STANDBY” button

3. “MENU” button

- The LCD displays the initial user interface: press this button to enter the LCD set-up menu;
- The LCD displays the set-up user interface: press this button to select the highlighted item or enter the submenu;
- The LCD displays the network configuration: press this button to select/deselect the numeric value.

4. “←” (Left) button

- In standby state, press this button to display current input audio spectrum;
- In the set-up interface of the LCD menu, press this button to cursor to the left.

5. “→” (Right) button

- In standby state, press this button to select the number of maximum active microphones;
- In the set-up interface of the LCD menu, press this button to cursor to the right.

6. “EXIT” button

- In standby state, press this button to select the operation mode of the microphones;
- In the set-up interface of the LCD menu, press this button to exit current menu.

7. LINE IN 1 Vol.

- Electric level adjustment knob

8. A type USB interface

- To plug-in a USB stick.

9. Mini USB interface

- For connecting to PC.

10. “MASTER VOLUME”

- Knob to adjust the master volume of the floor audio channel for the congress units.

11. Monitoring earphone interface

- Earphone jack (Ø 3.5 mm).

12. Microphone operation mode indicator (“OPEN” / “OVERRIDE” / “VOICE” / “APPLY” / “PTT.”)

- Corresponding indicator lights up according to selected mode.

13. Menu display

- 256x32 LCD displays main unit status and configuration menu.

2.1.1.2 Backside

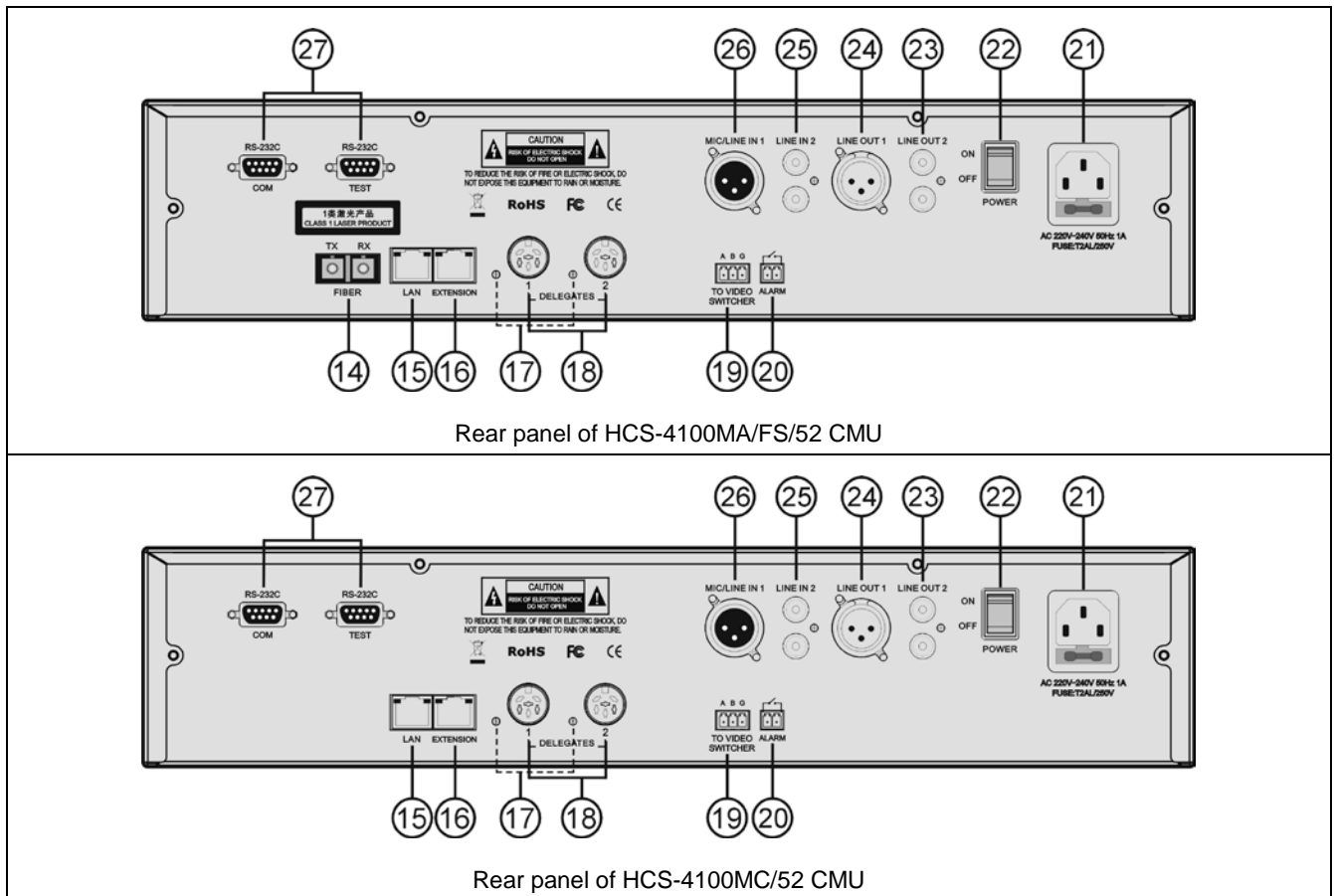


Figure 2.1.2 Rear panel of HCS-4100M/52 CMU

Figure 2.1.2

14. Fiber interface

- Single-mode optical fiber, SC connector;
- Connecting the conference main units of several distant conference rooms to combine as one conference room (bridging distance can reach tens of kilometers).

15. Ethernet interface (LAN)

- For communication between the conference main unit and the PC under TCP/IP protocol to realize remote controlling; furthermore, it enables remote controlling by wireless touch panel through central control system.

16. Extension interface

- To connect CMU to EMU and interconnect with audio input interface and audio output device; devices cascable.

17. Contribution units ring connection LED

- When output works properly (≥ 1 contribution unit connected), LED will flash;
- When no contribution unit is connected, LED is off.

18. Contribution units output interface (1-2, two routes)

19. Video switcher interface

- When cooperating with video switcher and dome camera, auto video tracking can be realized.

20. Fire alarm linked trigger interface

- **Shorting Ports:** all congress units will be switched off and display "ALARM";
- **Disconnecting ports:** congress units will return to the status preceding "ALARM".

21. Power supply

22. Mains switch

23. "LINE OUT 2" (RCAx2 unbalanced output)

24. "LINE OUT 1" (3-cord XLR balanced output)

25. "LINE IN 2" (RCAx2 unbalanced input)

26. "LINE IN 1" (3-cord XLR balanced input)

27. RS-232C port x 2

- "COM" port is used for connecting to a central control system for central controlling, as well as for system diagnosis;
- "TEST" port is used for updating and monitoring.

2.1.2 Installation

The CMU can be fixed in a standard 19-inch cabinet. The CMU is equipped with a pair of fixing brackets ①. First unscrew the lateral screws ② from the housing. Then fasten the brackets with these screws and put the CMU in the cabinet. Finally fix the four holes ③ up with screws.

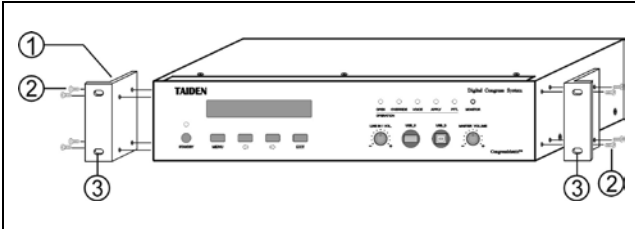


Figure 2.1.3 Installation of the CMU

In addition, 1U metal stripes are included as decoration to be installed between the CMUs in the cabinet. It is also good for the ventilation and cooling off. Fix up the four holes ③ with screws.

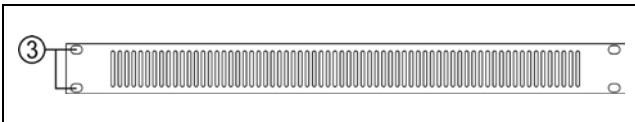


Figure 2.1.4 Decoration of cabinet

2.1.3 Connection

2.1.3.1 To congress units

HCS-4100/50 series CMU has 2 outlet (6P-DIN) trunk-line cable sockets for connecting to congress units. HCS-4100/50 series congress units are equipped with a cable with a standard 6P-DIN male connector.

When connecting the CMU to the congress units, just connect the male connector of the first unit to the socket of the CMU.

For a longer distance between the congress unit and the CMU(EMU), CPL6PS extension cable can be used. One end of this cable is equipped with a 6P-DIN male connector, and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

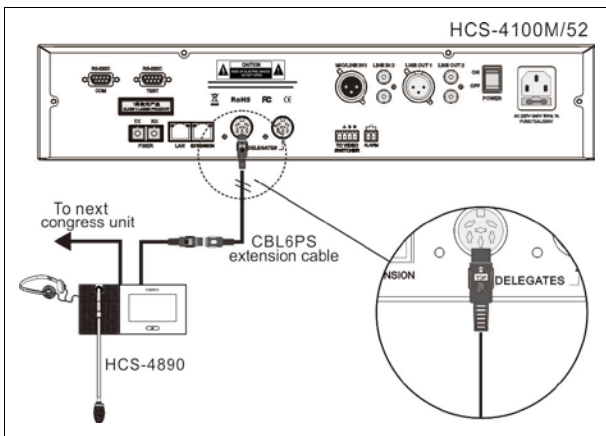


Figure 2.1.5 Congress unit connected to the CMU/EMU

For “Closed Loop - Daisy Chain” connection, just connect the last congress unit back to the CMU via a CBL6PP extension cable (both ends of this cable are equipped with a 6P-DIN male connector).

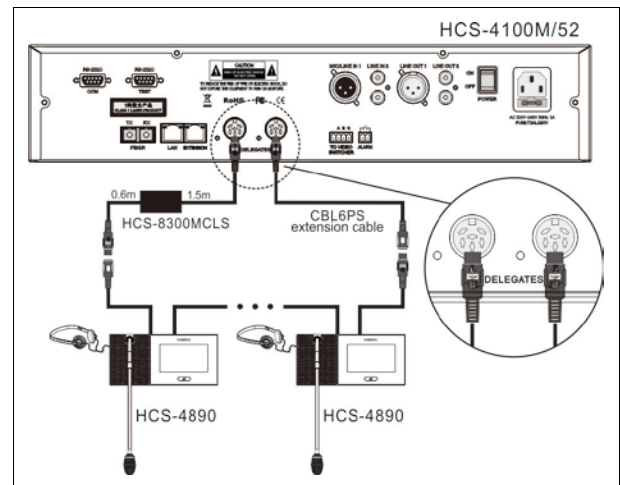


Figure 2.1.6 “Closed Loop - Daisy Chain” connection topology

Each outlet connector of the HCS-4100/50 CMU can output 60W. Since the power capacity of a 6P-DIN interface is limited, it must be ensured that, during the installation, the sum of the total power consumption of all the congress units connected to every single 6P-DIN interface plus the power loss in the extension cables does not surpass the power limit of each 6P-DIN interface. Otherwise the system will not work properly or automatic protection will occur (see section [5.1.1](#) for details).

2.1.3.2 To PA

The CMU of the HCS-4100/50 system has a pair of RCA symmetrical audio outputs “LINE OUT 2” and a 3-cord XLR balanced output “LINE OUT 1”, to be connected to a PA. Connecting the RCA symmetrical audio outputs or the 3-cord XLR balanced output of the CMU to the input port of the PA via an audio wire.

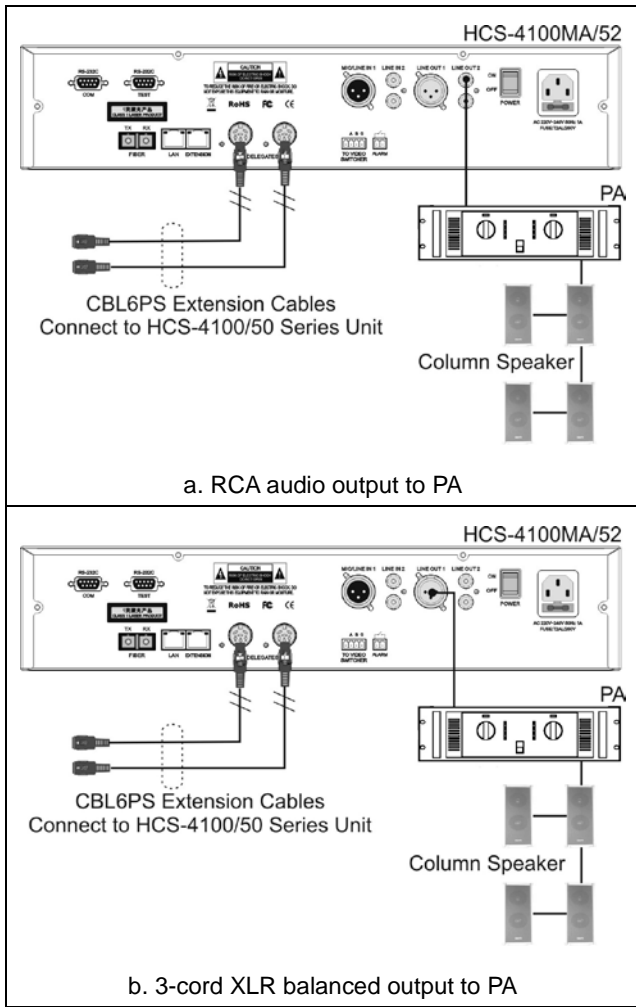


Figure 2.1.7 CMU connecting to PA

2.1.3.3 To fiber device

HCS-4100MA/52 has a pair of fiber interfaces, and can be connected to the HCS-4100MA/52, HCS-8300 series CMU/EMU, to the Audio Input Interface and to the Audio Output Device. Two distant meeting rooms (distance can reach tens of kilometers) can be combined as one meeting room.

The connection between the fiber interfaces is shown in the following figure:

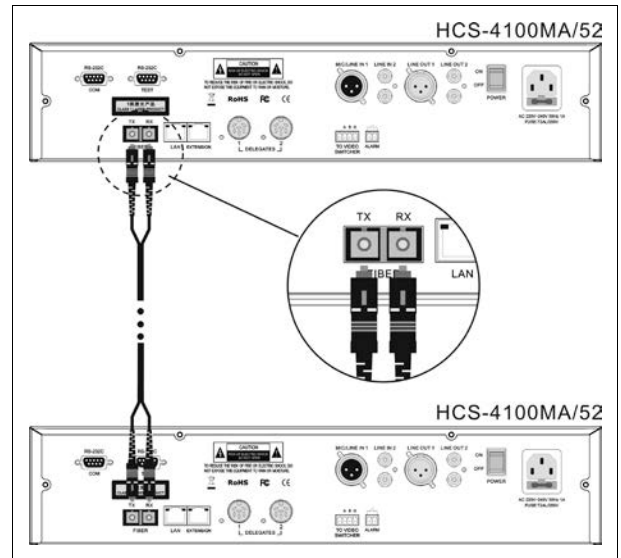


Figure 2.1.8 Connecting between CMUs via fiber cable

2.1.4 Configuration and operation

After installation and connection and prior to the meeting, the CMU should be configured through the dialog menu and button. The term “interface” used hereinafter means the information displayed on the LCD as the “user” interface.

The menu structure is shown in the following figure:

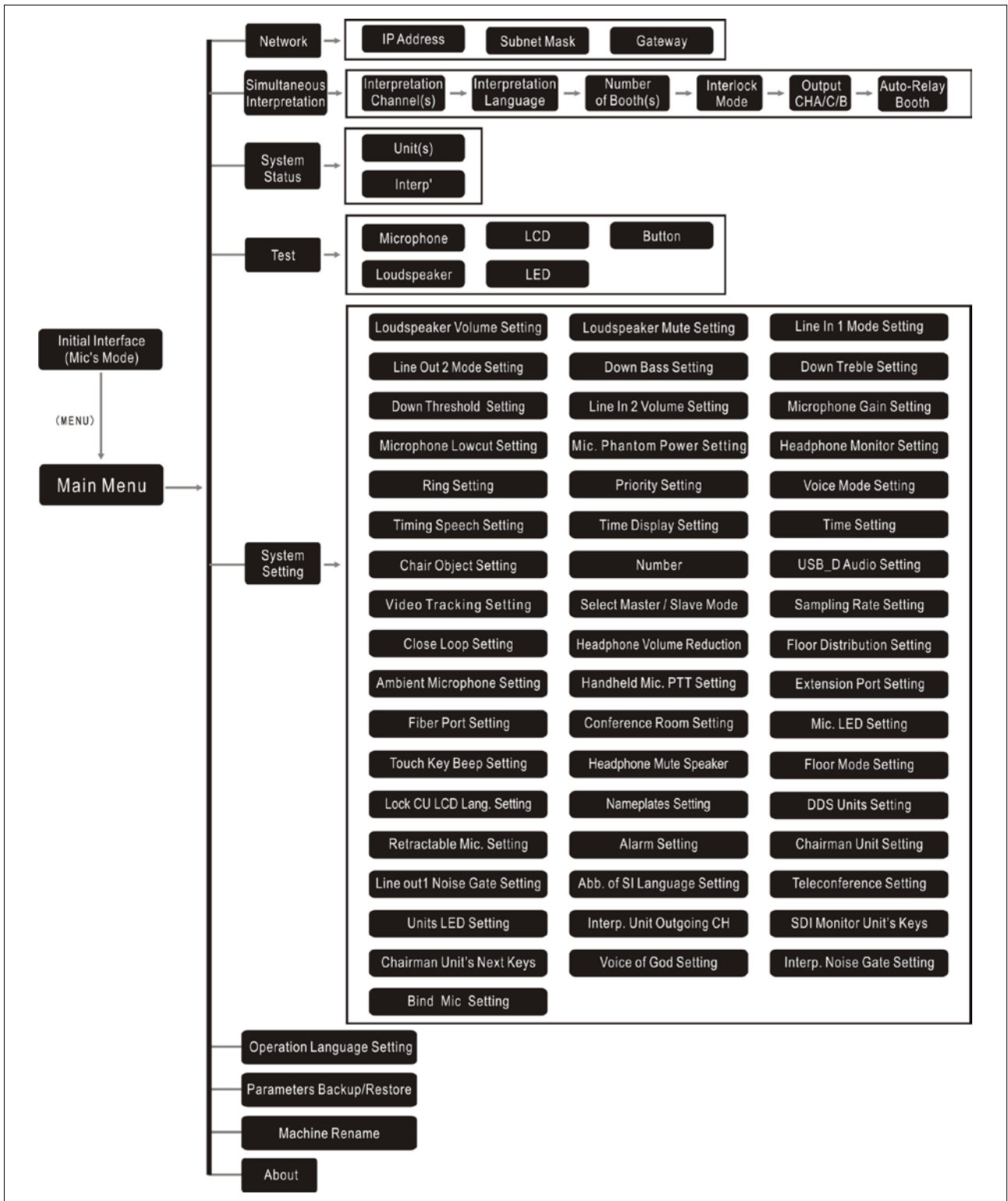
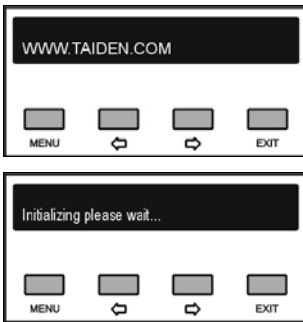


Figure 2.1.9 LCD menu structure of the congress main unit

A) Starting initialization

Switch on and press the "STANDBY" button, HCS-4100M/52 CMU will start initialization:



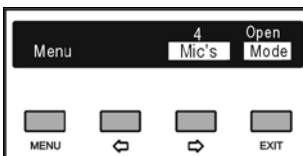
B) Initial interface on LCD

When the initialization is finished, the initial interface will be displayed on the LCD:

"Menu"

"Mic's"

"Mode"



Select and press the corresponding button below the item and go to the next operation:

- ◆ Press the "MENU" button to enter the main menu;
- ◆ Press the "⇒" button to select the maximal number of microphones that can be turned on at the same time: 1, 2, 3 or 4;
- ◆ Press the "EXIT" button to select the microphone mode "Open", "Override", "Voice", "Apply" or "PTT".

"Open":

If the maximal number of active microphones, previously fixed, has been reached, delegates requesting to speak join a request-to-speak list. The first unit joining the list will become active when the active unit gets off.

"Override":

If the maximal number (1/2/3/4) of active delegate microphones has been reached and if another delegate unit is activated, the delegate unit switched on first will be switched off first automatically (first in / first out). The microphone limit set remains unchanged. If the number of

active microphone (including chairman and VIP unit) reaches 6, turning on another microphone will switch off the delegate microphone which turned on first.

"Voice":

The delegate's microphone is activated when spoken into. After 300 ms /600 ms /1 s - 15 s (adjustable) without speaking, the microphone switches off automatically.

"Apply":

When the delegate presses his/her microphone ON/OFF button to request to speak, the chairman unit can approve or reject his/her request.

"PTT" (push-to-talk):

When the delegate presses and holds the microphone ON/OFF button, the microphone will be activated; when the button is released, the microphone will be deactivated.

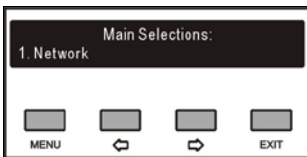
Note:

- ☞ **"Voice" speaking mode:** the chairman unit and the VIP unit count in the active microphone number limitation (1/2/3/4), if the active microphone number limitation reached, the microphones of the chairman unit and the VIP unit cannot be turned on;
- ☞ **Other speaking modes:** the chairman unit and the VIP unit do not count in the active microphone number limitation (1/2/3/4); at most 6 microphones can be activated at the same time in a system.

C) Access main menu

Pressing the “MENU” button under initial user interface will go to the main menu, which includes nine menu items:

- “Network”
- “Simultaneous Interpretation”
- “System Status”
- “Test”
- “System Setting”
- “Operation Language Setting”
- “Parameters Backup/Restore”
- “Machine Rename”
- “About”

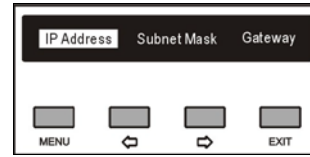


- ◆ Press the “MENU” button to go to the corresponding submenu;
- ◆ Use the “←/→” button to switch from term to term;
- ◆ Use the “EXIT” button to exit current menu and return to the upper level menu.

2.1.4.1 Network

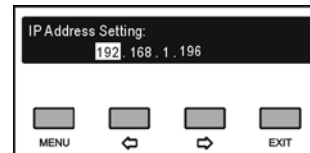
“Network” includes three submenus:

- “IP Address”
- “Subnet Mask”
- “Gateway”



a). Setting up unique “IP Address” for the main unit:

- 1). Select the “IP address” and press the “MENU” button to go to setup IP address interface:



- 2). Use the “←/→” button to switch between the four numbers;
- 3). Use the “MENU” button to edit selected number;
- 4). Use the “←/→” button to decrease/increase the number. To change the number quickly (= auto repeat) press and hold the “←/→” button for a longer time;
- 5). Use the “EXIT” button to return to high level menu.

b). Setup “Subnet Mask” and “Gateway”

Same chronological order as for “IP address” set up.

Note:

- ☞ When controlled by PC software, “Subnet Mask” and “Gateway” should be setup according to the PC configuration; otherwise it may cause a connection problem.
- ☞ In menu operation, except for “Network”, “Timing speech” and volume setting, all other menu changes should be saved via pressing the “MENU” button, pressing the “EXIT” button will ignore the changes.

2.1.4.2 Simultaneous interpretation

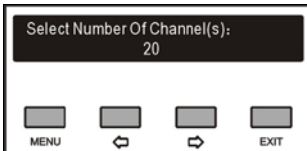
In “Simultaneous Interpretation” submenu, the following parameters need to be setup:

- ◆ “Select Number of Channel(s):”
- ◆ “Select Language for Channel:”
- ◆ “Select Number of Booth(s):”
- ◆ “Select Interlock between Booths”
- ◆ “Select Interlock Mode In a Booth:”
- ◆ “Select Language for Booth:”
- ◆ “Auto-Relay Booth Setting”



Operation steps:

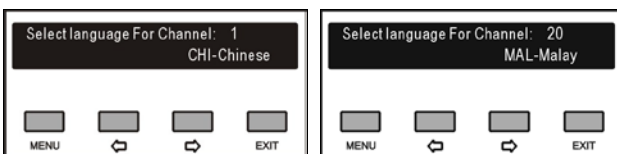
a). Setup the number of interpretation channels



Use the “↔” button to switch between 0 - 63;

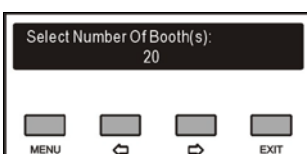
- If “0” is selected, it stands for no SI function, use the “MENU” button to save and return to the main menu;
- If other values are selected, it stands for the number of interpretation channels, use the “MENU” button to go to step b).

b). Setup interpretation language



- 1). Setup channel 1 first, use the “↔” button to switch between languages;
- 2). Use the “MENU” button to confirm selected language and go to the next channel;
- 3). Repeat 1) - 2) to setup language for all channels, and go to step c);

c). Select number of booths



Use the “↔” button to switch among 0 - 63. Usually, one language will take one booth.

- If “0” is selected, it stands for no SI function, use the “MENU” button to save and return to the main menu;
- If other values are selected, it stands for the number of interpreter booths, use the “MENU” button to go to step d).

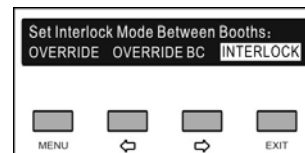
d). Select interlock mode between booths

Select interlock mode between booths, includes:

“OVERRIDE”

“OVERRIDE BC”

“INTERLOCK”



- 1). Use the “↔” button to switch among interlock modes;

- “OVERRIDE” mode enables an interpreter in a booth to override an occupied channel in another booth, but supplying the same channel.
- “OVERRIDE BC” 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 for about 5 seconds.
- “INTERLOCK” mode prevents that two booths engage the same channel.

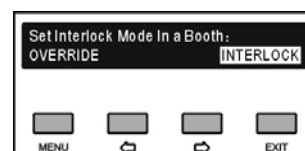
- 2). Use the “MENU” button to confirm selected interlock mode and go to step e).

e). Select interlock mode in a booth

Select interlock mode in a booth, includes:

“OVERRIDE”

“INTERLOCK”



- 1). Use the “↔” button to switch between the interlock modes;
 - “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.
- 2). Use the “MENU” button to confirm selected interlock mode and go to step f).

f). Select language for booth

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.

General procedure:

1st step: select a language for channel A

2nd step: select ALL or NONE for channel C

If ALL is selected for C then

3rd step: select a language for B. Three channels are now available: A and B output a selected language and C outputs any available language.

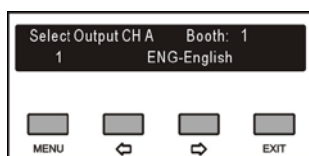
If NONE is selected for C then

4th step: select B: NONE or ALL

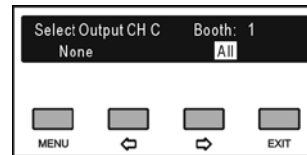
If NONE is selected for B, only A outputs the selected language of the 1st step. B and C do not output languages;

If ALL is selected for B, then 2 output channels are available: A outputs the selected language of the 1st step and B outputs any available language. No language output at C.

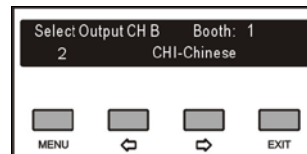
- 1). Setup channel A language for booth 1: press the “↔” button to select language from those languages that have been selected in step b) and press the “MENU” button to confirm;



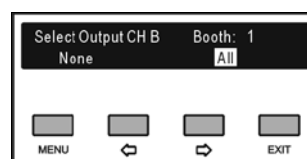
- 2). Select channel C language for booth 1: “NONE” or “ALL”;



- 3). If ALL is selected for C then press the “↔” button to select language for B from those languages that have been selected in step b) and press the “MENU” button to confirm;



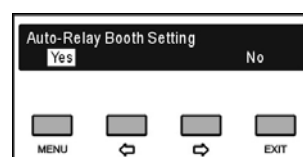
- 4). If NONE is selected for C then select channel B language from “NONE” or “ALL”;



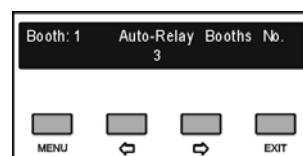
- “NONE” stands for no language output from channel B;
 - “ALL” stands for the language of channel B which can be any of the selected languages. Press the “MENU” button to confirm and go to configuration for next booth;
- 5). Repeat 1) - 2) to setup output channel A/B/C language for all booths and go to step g).

g). Auto-Relay booth Setting

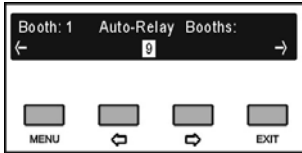
Setup Auto-Relay booth.



- 1). Press the “↔” button to select yes or no
 - If select “No”, press the menu button to confirm;
 - If select “Yes”, press the “MENU” button to confirm and go to next step;



- 2). Press the “↔” button to select auto-relay booth quantity and press the “MENU” button to go to the next step;



- 3). Press the “↔” button to select auto-relay booth and press the “MENU” button to confirm, then the corresponding booth number will be highlighted and set as auto-relay booth. Press the “↔” button to select next auto-relay booth until all auto-relay booths have been set;
- 4). Repeat step 2) and 3) to setup auto-relay for all other booths.

Note:

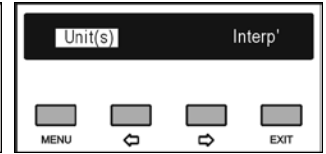
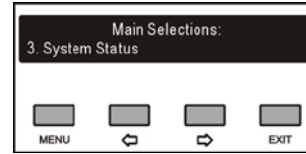
- If channel B and C of a booth have no output, this booth cannot be set as auto-relay booth.

2.1.4.3 System status

“System status” submenu includes:

“Unit status”

“Interpretation status”



■ Unit status

When entering this submenu, a table consisting of the total number, active number, and request-to-speak number of microphones is shown as in the following figure.

Unit Status	Total	Active	Apply
	88	3	3

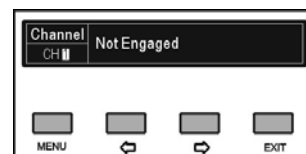
■ Interpretation status

Monitors the language channels and their states. Only 8 language channels' status can be displayed in one full screen. All channels can be run through by the “↔” button.

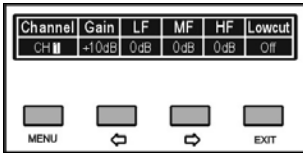
The “F” stands for the original floor language. If the microphone of the interpreter unit in the booth is active, the “+” will replace the “F” at the associated language channel, however, if all microphones in the booth are switched off, the “+” will return to the “F” again.

1	2	3	4	5	6	7	8
F	F	F	F	F	F	F	F
CHI	FIN	GER	FRE	ENG	KOR		

Press the “MENU” button to view the channel state. If a channel hasn't been allocated to an interpreter booth or if it has not been fed with language output temporarily, the LCD displays as in the following figure:



If the microphone of the interpreter unit in the booth is active, the audio parameters of the interpreter unit will be displayed as in the following figure and can be adjusted:

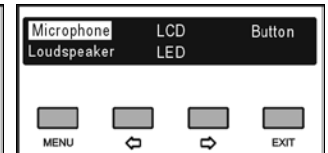


Under channel state interface, press the “MENU” button to select the channel number or parameter and press the “←/→” button to change the number or parameter.

2.1.4.4 Test (cannot work under “Voice” and “PTT” mode)

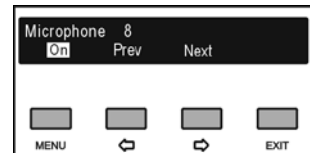
“Test” submenu includes:

- “Microphone”
- “LCD”
- “Button”
- “Loudspeaker”
- “LED”



1. Microphone

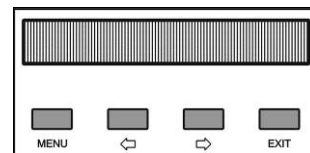
Testing microphones before the meeting. This interface is inaccessible if no unit is connected.



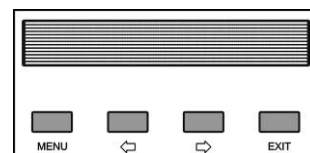
- a). The “←/→” button is used to run through all connected contribution units;
- b). The “MENU” button is used to switch the unit ON/OFF to check if it can be turned ON/OFF normally or not;
- c). After finishing the run, quit the interface by pressing the “→” or the “EXIT” button.

2. LCD

- a). Press the “←/→” button to select “LCD” and press the “MENU” button to enter LCD test interface. Column scan will be executed immediately to scan the first column, shown as in the following figure:



- b). When the first time column scan is finished, press any button to start the second time column scan;
- c). When the second time column scan is finished, press any button to start the first time line scan, shown as in the following figure;

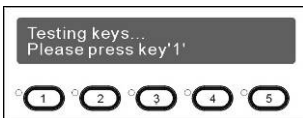


- d). When the first time line scan is finished, press any button to start the second time line scan;
- e). When the second time line scan is finished, press any button to start the full screen scan;
- f). When the full screen scan is finished, press any button to return to the upper menu.

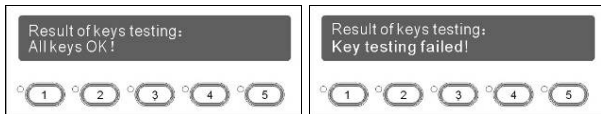
3. Key

Testing buttons before meeting, especially when voting function is present.

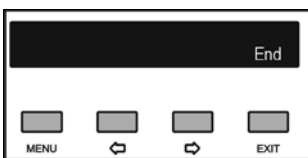
- a). Press the “↔” button to select “Button” and press the “MENU” button to enter button test interface. All connected congress units will go to button test status;
- b). The button LEDs of all congress units will blink and all the congress units with LCD will prompt a hint, press all buttons in turn and test them;



- c). When all keys are tested, the LCD on congress unit will display keys test result, as the following figure:

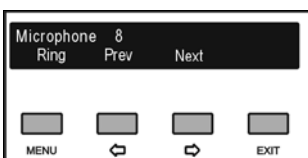


- d). When all keys test is finished, press the “EXIT” button to return to the upper menu.



4. Loudspeaker

Press the “↔” button to select “Loudspeaker” and press the “MENU” button to enter loudspeaker test interface. If no discussion unit is connected, this interface is inaccessible.

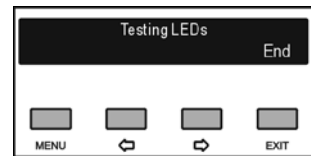


- a). Press the “↔” button to run through all connected congress units;
- b). Press the “MENU” button to turn on the loudspeaker of the current unit and check if it works normally or not;

- c). When the loudspeaker of every congress unit has been tested, press the “↔” or the “EXIT” button to exit loudspeaker test interface.

5. LED

Press the “↔” button to select “LED” and press the “MENU” button to enter LED test interface, shown as the following figure. The LEDs on all connected congress units will blink immediately.

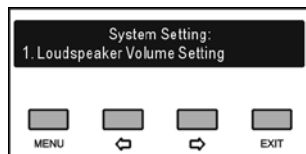


Press the “EXIT” button to exit LED test interface.

2.1.4.5 System setting

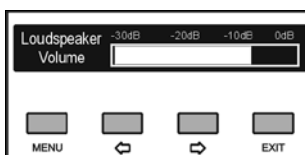
“Setting” submenu includes:

1. Loudspeaker Volume	2. Loudspeaker Mute
3. Line in 1 Mode Setting	4. Line Out 2 Mode Setting
5. Down Bass Setting	6. Down Treble Setting
7. Down Threshold Setting	8. Line in 2 Volume
9. Microphone Gain Setting	10. Microphone Lowcut
11. Mic. Phantom Power	12. Headphone Monitor Setting
13. Ring Setting	14. Priority Setting
15. Voice Mode Setting	16. Timing Speech
17. Time Display	18. Time Setting
19. Chair Object Setting	20. Number
21. USB_D Audio Setting	22. Video Tracking
23. Select Master/Slave Mode	24. Sampling Rate
25. Close Loop Setting	26. Headphone Volume Reduction
27. Floor Distribution	28. Ambient Microphone Setting
29. Handheld Mic. PTT Setting	30. Extension Port Setting
31. Fiber Port Setting	32. Conference Room Setting
33. Mic LED Setting	34. Touch Key Beep Setting
35. Headphone Mute Speaker	36. Floor Mode Setting
37. Lock CU LCD Lang. Setting	38. Nameplates Setting
39. DDS Units Setting	40. Retractable Mic. Setting
41. Alarm Setting	42. Chairman Unit Setting
43. Line out1 Noise Gate	44. Abb. of SI Language Setting
45. Teleconference Setting	46. Units LED Setting
47. Interp. Unit Outgoing CH	48. SDI Monitor Unit's Keys
49. Chairman Unit's Next Keys	50. Voice of God Setting
51. Interp. Noise Gate Setting	52. Bind Mic Setting



1. Loudspeaker Volume Setting

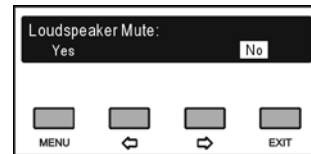
Adjust built-in loudspeaker volume of contribution units (except interpreter units), range: -30 dB - 0 dB.



- Press the “←/→” button to adjust volume;
- Press the “MENU” button to save and return to the upper level menu.

2. Loudspeaker Mute Setting

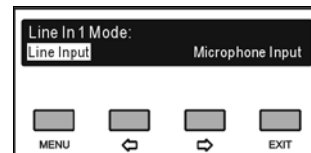
Mute/Not mute loudspeaker of congress units (except interpreter units).



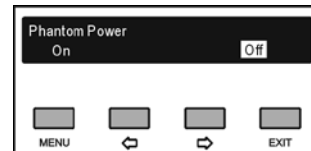
- Press the “←/→” button to select mute or not;
- Press the “MENU” button to save and return to the upper level menu.

3. LINE IN 1 Mode Setting

Select LINE IN 1 mode from “Line input” or “Microphone Input”.



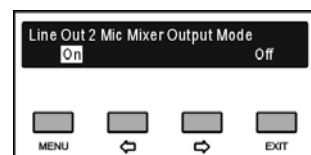
- Press the “←/→” button to select “Line Input” or “Microphone Input”;
 - Select “Line Input” and press the “MENU” button to save and return to the upper level menu;
 - Select “Microphone Input” and press the “MENU” button will go to step b);



- Press the “←/→” button to select phantom power on/off, phantom power is used for connecting condenser microphone;
- Press the “MENU” button to save and return to the upper level menu.

4. Line Out 2 Mode Setting

Set up Line Out 2 microphone output mode.



- Press the “←/→” button to select “On” or “Off”;
 - Select “Off” stands Line Out 2 will output mixed microphone signals only;

- Select “On” stands Line Out 2 will output mixed audio of microphone signals, Line In 1 signal and Line In 2 signal;

b). Press the “MENU” button to save and return to the upper level menu.

Note:

☞ “Down” and “downlink” used in 5./6. and 7. indicate the signal transmission direction from the main unit to the congress units.

5. Down Bass Setting

Adjust downlink bass of congress units (except interpreter units), range: -15dB - 15 dB.



- Press the “↔” button to adjust;
- Press the “MENU” button to save and return to the upper level menu.

6. Down Treble Setting

Adjust downlink treble of congress units (except interpreter units), range: -15dB - 15 dB.



- Press the “↔” button to adjust;
- Press the “MENU” button to save and return to the upper level menu.

7. Down Threshold Setting

Setup downlink audio threshold level to make sure that the sound issuing from the built-in loudspeaker and the headphone of each congress unit has no distortion.



- Press the “↔” button to select threshold level between -21dB, -18dB and -15dB;
- Press the “MENU” button to save and return to the upper level menu.

8. LINE IN 2 Volume Setting

Adjust LINE IN 2 input volume, range: mute, -30 dB - 0 dB.

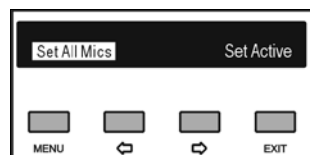


- Press the “↔” button to adjust volume;
- Press the “MENU” button to save and return to the upper level menu.

9. Microphone Gain Setting

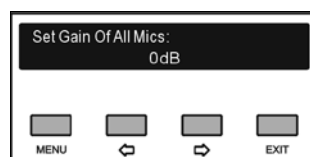
“Microphone gain setting” includes two submenus:

“Set All Mics” “Set Active”



- 1st step:** power on all units
- 2nd step:** switch on any microphone (only one at a time) as the first one and make a voice test. Keep the acoustic impression in mind. Switch off the microphone and switch on the next microphone and make the voice test again. Continue until the last microphone has been tested. If your final impression is that the sound level is not appropriate, increase or decrease the gain in “Set All Mics” in the CMU. Otherwise keep it unchanged.

■ **Set All Mics**

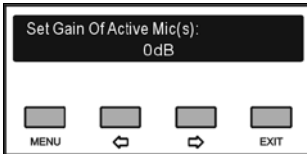


- Press the “↔” button to adjust the gain of all microphones (press and hold the “↔” button will adjust numeric value quickly), range: -15 dB - +15 dB;
- Press the “MENU” button to save and return to the upper level menu.

- 3rd step:**
Now redo the test again as “Set All Mics” setting from the 2nd step does. Switch on any microphone as the first and check the sound result again. If it is ok, then switch off the microphone and switch on the next microphone.

If it is not ok then keep the microphone switched on and got to “Set Active” setting in the CMU and increase or decrease the microphone gain. Continue with the next microphone.

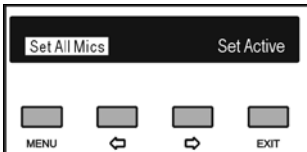
■ **Set Active**



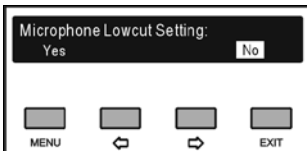
- a). Press the “←/→” button to adjust the gain of the active microphones (press and hold the “←/→” button will adjust numeric value quickly), range: -15 dB - +15 dB;
- b). Press the “MENU” button to save and return to the upper level menu.

10. Microphone Lowcut Setting

Select activating high-pass filter (low-cut switch) to cut low frequency elements from the microphone audio or not.



- a). Press the “←/→” button to select “Set All Mics” or “Set Active”;
- b). Press the “MENU” button to go to the next step;



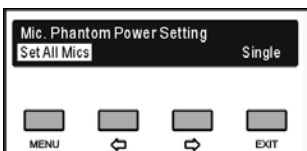
- c). Press the “←/→” button to select “Yes” or “No”;
- d). Press the “MENU” button to save and return to the upper level menu.

11. Mic. Phantom Power Setting

There are two menu items for phantom power setting of handheld microphone interface on Multi-function Connector HCS-4340HDA/50P. This submenu is inaccessible if no phantom unit is connected.

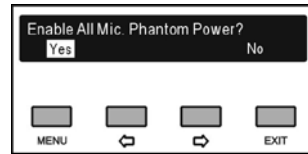
“Set All Mics”

“Single”



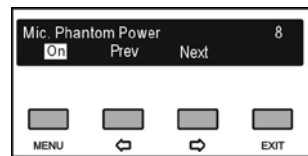
- a). Press the “←/→” button to select “Set All Mics” or “Single”;
- b). Press the “MENU” button to go to the next step:

■ **Set All Mics**



- a). Press the “←/→” button to select phantom power on/off for condenser microphone;
- b). Press the “MENU” button to save and return to the upper level menu.

■ **Single**



- a). Press the “←/→” button to traverse all connected HCS-4340HDA/50P;
- b). Press the “MENU” button to select phantom power on/off;
- c). Press the “EXIT” button to exit after setting.

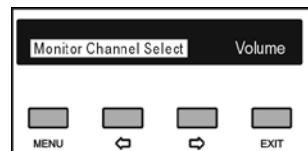
12. Headphone Monitor Setting

The audio output can be monitored with a headphone at the monitor jack on the front panel of the CMU.

“Headphone Monitor Setting” includes two submenus:

“Monitor Channel Select”

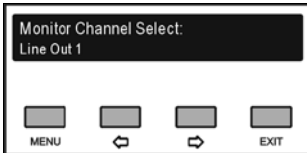
“Volume”



- a). Press the “←/→” button to select “Monitor Channel Select” or “Volume”;
- b). Press the “MENU” button to go to the next step:

■ **Monitor Channel Select**

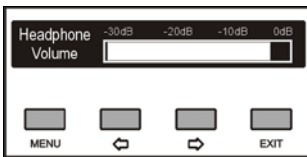
“Monitor Channel Select” includes: Line Out 1, Line Out 2.



- a). Press the “←/→” button to select monitor channel;
- b). Press the “MENU” button to save and return to the upper level menu.

■ Volume

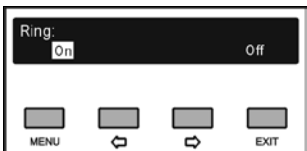
Adjust monitoring headphone volume, range: -30 dB - 0 dB.



- a). Press the “←/→” button to adjust the volume (press and hold the “←/→” button will adjust numeric value quickly);
- b). Press the “MENU” button to save and return to the upper level menu.

13. Ring Setting

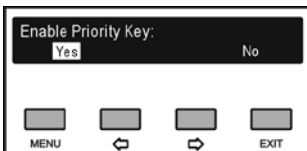
Select ring tone on/off when request to speak, chairman priority button pressed, speech timing or request to intercom.



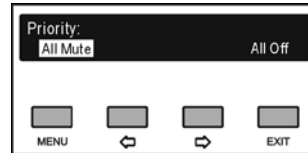
- a). Press the “←/→” button to select ring on/off;
- b). Press the “MENU” button to save and return to the upper level menu.

14. Priority Setting

Select enable/disable chairman priority button.



- a). Press the “←/→” button to select enable/disable chairman priority button;
 - If “No” is selected, press the “MENU” button to confirm and return to the upper level menu;
 - If “Yes” is selected, press the “MENU” button to confirm and go to step b);



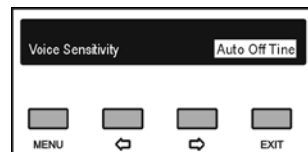
- b). Press the “←/→” button to select priority mode between “All Mute” and “All Off”;
 - “All Mute”: when chairman presses and holds the priority button, all active delegate microphones (except VIP units) will mute temporarily; when chairman releases the priority button, all temporarily muted microphones will resume;
 - “All Off”: when chairman presses the priority button, all active delegate microphones (except VIP units) will be deactivated.
- c). Press the “MENU” button to save and return to the upper level menu.

15. Voice Mode Setting

“Voice Mode Setting” includes two submenus:

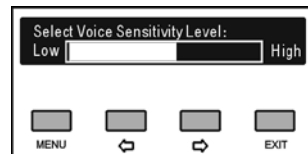
“Voice Sensitivity”

“Auto Off Time”



■ Voice Sensitivity

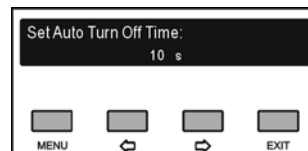
Set microphone sensitivity under voice mode. Higher sensitivity means a lower voice can activate the microphone.



- a). Press the “←/→” button to set microphone sensitivity;
- b). Press the “MENU” button to save and return to the upper level menu.

■ Auto Off Time

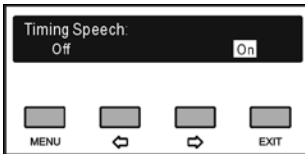
If the speaker does not speak for a certain time under “Voice” mode, the microphone will be deactivated automatically.



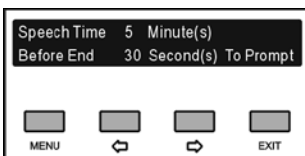
- a). Press the “↔” button to set auto turn off time (press and hold the “↔” button will adjust numeric value quickly); range: 300 ms /600 ms /1 s - 15 s.
- b). Press the “MENU” button to save and return to the upper level menu.

16. Timing Speech

Set timing speech, range: 1 - 240 minutes.



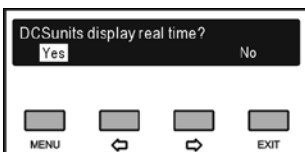
- a). Press the “↔” button to set timing speech on/off:
 - If “Off” is selected, press the “MENU” button to confirm and return to the upper level menu;
 - If “On” is selected, press the “MENU” button to confirm and go to step b);
- b). Press the “↔” button to switch between “Speech time” and “Prompt time”;



- c). Press the “MENU” button to select “Speech Time ... Minute(s)” or “Before ... (s) To Prompt”;
- d). Press the “↔” button to set time (press and hold the “↔” button will adjust numeric value quickly);
- e). Press the “EXIT” button to save and return to the upper level menu.

17. Time Display Setting

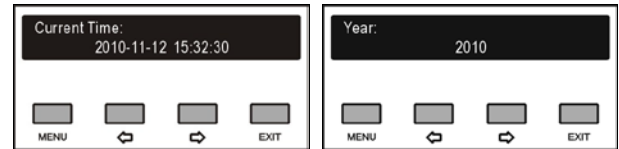
Display or do not display time on the LCDs of the congress units.



- a). Press the “↔” button to select “Yes” or “No”;
- b). Press the “MENU” button to save and return to the upper level menu.

18. Time Setting

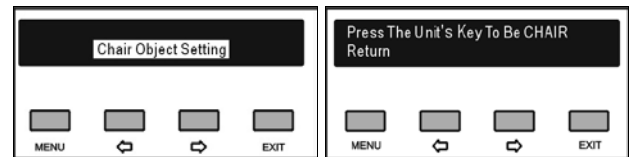
Set system clock.



- a). Press the “MENU” button to go to “Year”, “Month”, “Day”, “Hour”, “Minute” in turn;
- b). Press the “↔” button to set time (press and hold the “↔” button will adjust numeric value quickly);
- c). Press the “MENU” button to save and return to the upper level menu.

19. Chair Object Setting

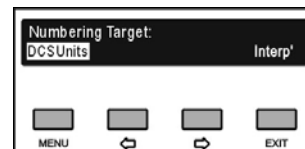
Assigning the chairman/delegate unit (except Paperless Multi-media Congress Terminal) with an LCD as the congress host. When an interpreter presses the “CALL” button on his/her interpreter unit, he/she sets up intercom with the assigned congress host.



- a). Press the “MENU” button to enter chair object setting and to assign any chairman/delegate unit with LCD as the congress host;
- b). According to the hint on the LCD of the chairman/delegate unit, press the “1” button on this unit, to assign it as the congress host;
- c). Press the “MENU” button to save and return to the upper level menu.

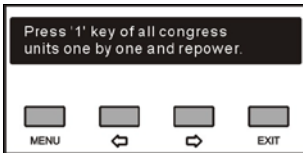
20. Number

Numbering for DCS units and HCS-4385U/50 Interpreter units.

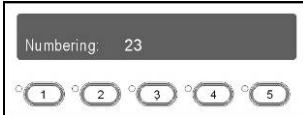


◆ DCSUnits

- a). Enter “DCSUnits”, the LCD on the CMU will display “Press ‘1’ key of all congress units one by one and repower”.



At this instant, all contribution units with an LCD will prompt the number on their LCD; contribution units without LCD will activate the corresponding LED.



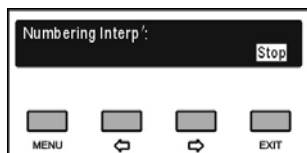
- b). Press “1” button on all contribution units one by one to number them;
- c). When all contribution units are numbered, restart the CMU to update the number.

Note:

- ☞ To update the number the CMU must be restarted after the numbering;
- ☞ HCS-4100/50 system has an auto-numbering function. “Number” function is used to allocate an ID to each contribution unit manually. This is used for some applications which need to know the exact ID of each contribution unit, for example controlling the contribution units by the WiFi touch panel of the central control system.

◆ **Interpreter Units**

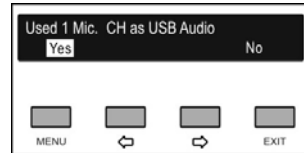
- a). Enter “Interp”, all the HCS-4385U/50 interpreter units enter numbering status, and the ‘B’ indicator light was turned on, the LCD of the main unit is shown as following:



- b). Turn the primary knob to select a number (1-6), and press the ‘B’ button to confirm;
- c). Press the “EXIT” button to stop numbering and return to up level menu.

21. USD_D Audio Setting

Enable/disable one microphone channel (the sixth microphone channel) as USB audio, if enabled, audio signal transmitted between main unit and PC via USB_D interface.



- a). Press the “←/→” button to select “Yes” or “No”;
- b). Press the “MENU” button to save and return to upper level menu.

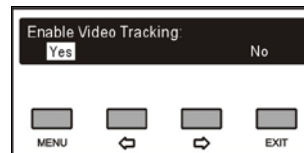
Explanation:

- The audio signal from main unit to PC is the mixing of all input signals except USB audio from PC; if teleconference enabled, the mixing signal does not yet contain the audio signal of Line in1;

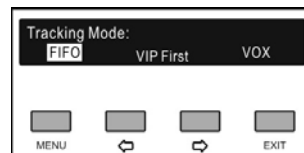
The audio signal from PC to main unit cannot be transmitted to the far end via HCS-8300MO.

22. Video Tracking Setting

Enable/disable video tracking function.



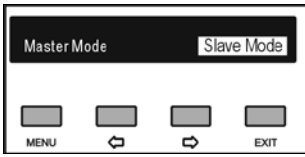
- a). Press the “←/→” button to select “Yes” or “No”;
 - If “No” is selected, press the “MENU” button to confirm and return to the upper level menu.
 - If “Yes” is selected, press the “MENU” button to go to step b);



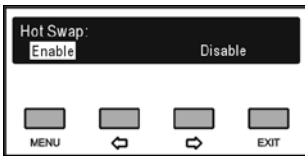
- b). Press the “←/→” button to select “FIFO” or “VIP First”;
 - “FIFO” is selected: when current video tracking microphone is deactivated, video camera will turn to last active microphone automatically;
 - “VIP First” is selected: when current video tracking microphone is deactivated, video camera will turn to the first activated chairman unit or VIP unit;
 - “VOX” is selected: when working under OPEN / OVERRIDE / VOICE mode, video camera will turn to the speaking microphone automatically;
- c). Press the “MENU” button to save and return to the upper level menu.

23. Select Master/Slave Mode

If two CMUs are installed in one system, they are set as “Master Mode” and “Slave Mode” separately.



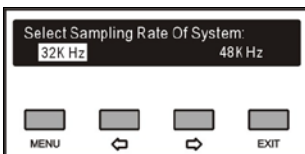
- a). Press the “←/→” button to select “Master Mode” or “Slave Mode”:
 - If “**Master Mode**” is selected, press the “MENU” button to confirm and return to the upper level menu;
 - If “**Slave Mode**” is selected, press the “MENU” button to confirm and go to step b);



- b). Press the “←/→” button to select “Enable” or “Disable”;
 - If “**Enable**” is selected, slave CMU will backup master CMU automatically during the meeting process. If master CMU stops, slave CMU will switch automatically to master mode and act as master CMU;
 - If “**Disable**” is selected, slave CMU will backup master CMU automatically in the meeting process. If master CMU stops, slave CMU will NOT switch to master mode;
- c). Press the “MENU” button to save and return to the upper level menu.

24. Sampling Rate Setting

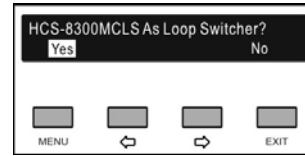
Select sample rate between 32 kHz and 48 kHz. If “48 kHz” sampling frequency is selected, the system response frequency is 30 Hz - 20 kHz; if “32 kHz” sampling frequency is selected, the system response frequency is 30 Hz - 16 kHz.



- a). Press the “←/→” button to select “32 kHz” or “48 kHz”;
- b). Press the “MENU” to save and return to the upper level menu.

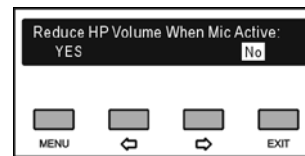
25. Close Loop Setting

Enable/disable HCS-8300MCLS.



- a). Press the “←/→” button to select “Yes” or “No”;
 - If “Yes” is selected, HCS-8300MCLS is used to realize “Closed Loop - Daisy Chain” connection;
 - If “No” is selected, indicates that the conference system does not use the HCS-8300MCLS;
- b). Press the “MENU” to save and return to upper level menu.

26. Headphone Volume Reduction

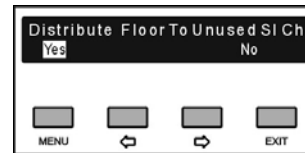


If a headphone is plugged howling may happen when the microphone is activated. “Headphone Volume Reduction” function is used to suppress howling. If enabled, the headphone audio signal will decrease automatically by 18 dB.

- a). Press the “←/→” button to select “Yes” or “No”;
- b). Press the “MENU” to save and return to the upper level menu.

27. Floor Distribution Setting

Enable/disable switch to floor channel automatically when no interpretation channel is available.

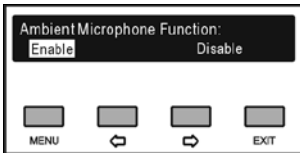


- a). Press the “←/→” button to select “Yes” or “No”;
- b). Press the “MENU” to save and return to the upper level menu.

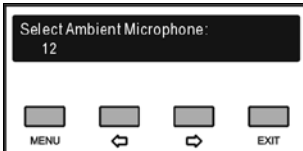
28. Ambient Microphone Setting

(HCS-4100MC/52 does not have this function)

Enable/disable ambient microphone.



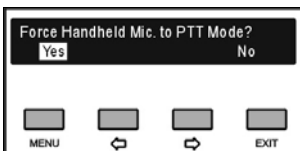
- a). Press the “←/→” button to select enable/disable.
 - If “Disable” is selected, press the “MENU” button to disable ambient microphone;
 - If “Enable” is selected, press the “MENU” button to confirm and go to step b);



- b). Press the “←/→” button to select a microphone ID;
- c). Press the “MENU” button to save and return to the upper level menu.

29. Handheld Mic. PTT Setting

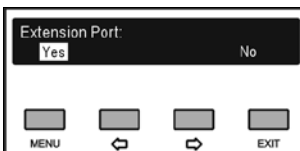
Setup PTT mode for handheld microphone.



- a). Press the “←/→” button to select “Yes” or “No”;
 - If “Yes” is selected, force handheld microphone to PTT mode;
 - If “No” is selected, handheld microphone works the same as the stem microphone;
- b). Press the “MENU” button to save and return to the upper level menu.

30. Extension Port Setting

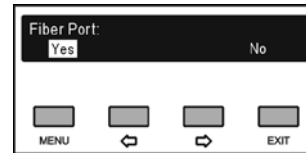
Enable/disable extension port on the real panel of the CMU.



- a). Press the “←/→” button to select “Yes” or “No”;
- b). Press the “MENU” button to save and return to the upper level menu.

31. Fiber Port Setting

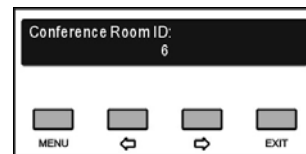
Enable/disable fiber port on the real panel of the CMU.



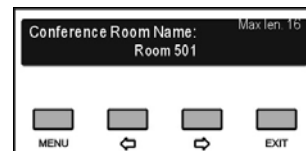
- a). Press the “←/→” button to select “Yes” or “No”;
- b). Press the “MENU” button to save and return to the upper level menu.

32. Conference Room Setting

This function is used for conference room combination and interpreter booth sharing.



- a). Press the “←/→” button to set conference room ID, the maximum number is 1000;
- b). Press the “MENU” button to set conference room name, the maximum length is 16 characters;



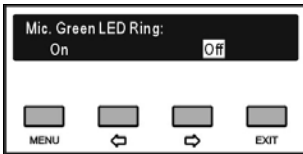
- Press the “MENU” button to enter the name setting interface, the cursor blinks under the first character;
 - Press the “←/→” button to move the cursor;
 - Press the “MENU” button to modify the character;
 - Press the “←” button to clear all the characters after the cursor;
 - Press the “→” button to select the new character, the available characters are A~Z, a~z, 0~9, space, !, ", ^, *, _, +, =, -, (,), {, }, [,], <, >, :, ;, /, and ?;
 - Press the “MENU” button to save at each character;
- c). After finished name setting, press the “EXIT” button to return, the LCD of the main unit will display “Need Restart To Be Effective”;



- d). Press any button to return to the main menu.

33. Mic. LED Setting

Control the illuminated ring (green) of the stem microphone On/Off.



- a). Press the “←/→” button to select “On” or “Off”;
 - If “On” is selected, the green illuminated ring will indicate the applying status;
 - If “Off” is selected, the green illuminated ring gives no indication;

Note:

☞ For congress units which connected to HCS-4340A/50 multi function connector, the above operation is available for the red illuminated ring in apply mode.

- b). Press the “MENU” button to save and go to step c).



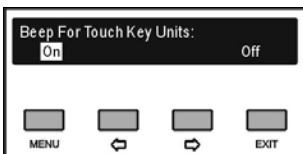
- c). Press the “←/→” button to select “On” or “Off”;
 - If “On” is selected, the green illuminated ring will blink when the unit is the first in the request list;
 - If “Off” is selected, the green illuminated ring will keep on;
- d). Press the “MENU” button to save and return to the upper level menu.

Note:

☞ The step c) is available when the step a) selects “On”.

34. Touch Key Beep Setting

Enable/disable touch key beep for HCS-4338/50 series congress unit. Please hear the beep through earphone.



- a). Press the “←/→” button to select “On” or “Off”;
- b). Press the “MENU” button to save and return to the upper level menu.

35. Headphone Mute Speaker

Set the work mode between loudspeaker and headphone.



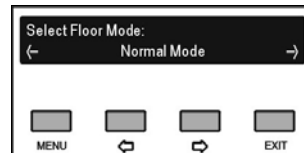
- a). Press the “←/→” button to select “Yes” or “No”;
 - If select “Yes”, the loudspeaker was muted when plugged headphone;
 - If select “No”, the loudspeaker and the headphone can work at the same time, the loudspeaker sends out the floor channel only and the headphone sends out the floor channel and SI channels;

Note:

☞ For congress unit with two channel selectors, the loudspeaker was muted automatically when plugged two headphones even if select “No”.

- b). Press the “MENU” button to save and return to the upper level menu.

36. Floor Mode Setting



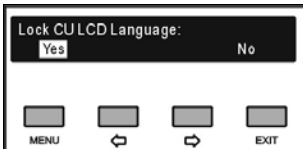
- a). Press the “←/→” button to select floor mode;
 - **Normal Mode:** the signal on LineIn1 and LineIn2 of the CMU are added to the floor signal, see figure 2.1.10;
 - **Insert Mode:** the signal on LineIn2 of the CMU is used as floor signal, see figure 2.1.11. LineIn2 of the CMU is used to add signal from external audio device; and you can connect an external audio mixer between LineIn2 and LineOut;
 - **Sync. Line Out1 Mixer:** Adjust the audio parameters (Conference Management System - Setup - Audio Output Setup) of LineOut1 and the floor signal via Mixer 1 synchronously, see figure 2.1.12. This mode is used in the conference room without PA.

In the three modes above, if ambient microphone (used to pick up ambient sound in the congress

room) is enabled via software (Conference Management System - Setup - Ambient Mic. Setup) and this microphone is active, its signal is added to the floor signal only. When any one microphone is activated, the ambient microphone will be turned off automatically.

- b). Press the "MENU" button to save and return to the upper level menu.

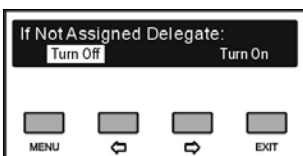
37. Lock CU LCD Lang. Setting



- a). Press the "←/→" button to select "Yes" or "No";
 - If select "**Yes**", operation language of congress unit, interpreter unit and operator unit cannot be changed;
 - If select "**No**", operation language of congress unit, interpreter unit and operator unit can be changed;
- b). Press the "MENU" button to save and return to the upper level menu.

38. Nameplates Setting

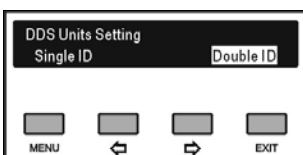
Select turn on the HCS-1030 nameplate which is not assigned delegate unit or not.



- a). Press the "←/→" button to select "Turn Off" or "Turn On";
- b). Press the "MENU" button to save and return to the upper level menu.

39. DDS Units Setting

Set work mode for HCS-xxxxDDS:



- a). Press the "←/→" button to select "Turn Off" or "Turn On";
 - **Single ID**: one HCS-xxxxDDS owns one ID and dual predefined positions; two delegates may

share one unit;

- **Double ID**: one HCS-xxxxDDS owns double IDs and each predefined position for each ID; two delegates may share one unit;

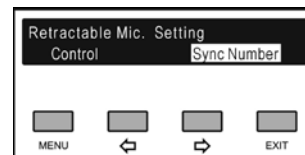
- b). Press the "MENU" button to save and return to the upper level menu.

Note:

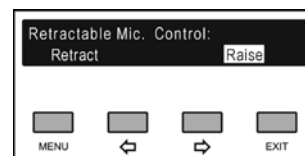
☞ Please restart the CMU to enable the DDS units setting.

40. Retractable Mic. Setting

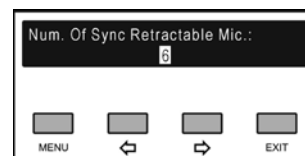
Control (retract/raise) the array microphone of HCS-4851/50 series; control (retract/raise) the congress multimedia of HCS-8368A/FM series.



- a). Press the "←/→" button to select "Control" or "Sync Number";
 - If select "**Control**", use the "MENU" button to go to step b);
 - If select "**Sync Number**", use the "MENU" button to go to step c);



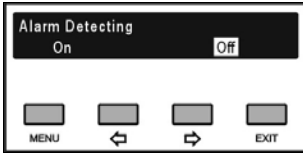
- b). Press the "←/→" button to select "Retract" or "Raise";



- c). Press the "←/→" button to set sync number from 1 to 6;
- d). Press the "MENU" button to confirm the operation and return to the upper level menu.

41. Alarm Setting

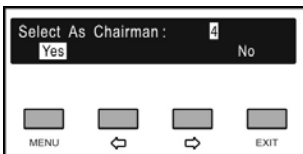
Enable the "ALARM" interface in the backside of HCS-8300M series congress unit.



- a). Press the “←/→” button to select “On” or “Off”;
 - If select “On”, when detect alarm signal, all congress units will be switched off and congress units with LCD screen will display “ALARM”;
 - If select “Off”, there will be no response for alarm signal from the “ALARM” interface in the backside of HCS-8300M series congress unit;
- b). Press the “MENU” button to confirm the operation and return to the upper level menu.

42. Chairman Unit Setting

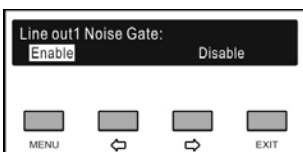
System supports up to 100 chairman units, while all or part chairman units have the chairman control facilities, so we can set the chairman unit (according to the order of unit’s ID) with control facilities or not through the submenu.



- a). Press the “←/→” button to select “Yes” or “No”;
 - If select “Yes”, the chairman unit has control facilities;
 - If select “No”, the chairman unit only has facilities the same as delegate unit;
- b). Press the “MENU” button to confirm and set the next chairman unit continuously; when all units finished, press the menu button to return to the upper level menu.

43. Line out1 Noise Gate Setting

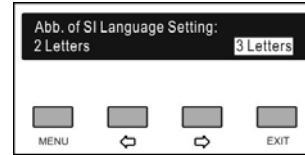
Enable Line out1 noise gate to reduce background noise.



- a). Press the “←/→” button to select “Enable” or “Disable”;
- b). Press the “MENU” button to confirm the operation and return to the upper level menu.

44. Abb. of SI Language Setting

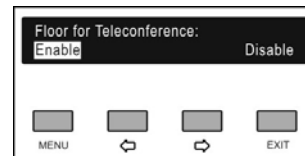
Set the abbreviation of SI Language which displayed on the HCS-8385N interpreter unit.



- a). Press the “←/→” button to select “2 Letters” or “3 Letters”;
- b). Press the “MENU” button to confirm the operation and return to the upper level menu.

45. Teleconference Setting

Enable or Disable floor for teleconference.



- a). Press the “←/→” button to select “Enable” or “Disable”;

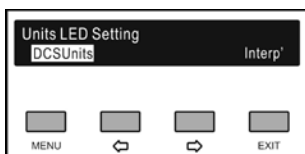
If enable, the main unit transmits a floor audio signal without LINE IN1 to the HCS-8300MO, when no interpretation channels available, HCS-8300MO plays the floor audio signal without LINE IN1.
- b). Press the “MENU” button to confirm the operation and return to the upper level menu.

Work conditions:

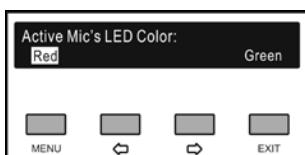
- “Floor mode setting” menu of main unit should be set as “Normal mode”;
- “Work mode” menu of HCS-8300MO should be set as “SI_mode”;
- “Audio output setting” menu of HCS-8300MO should enable “Floor for teleconference” on needed output channel;
- Menu of HCS-8300MO should enable “Play floor on unused SI Chs”.

46. Unit LED Setting

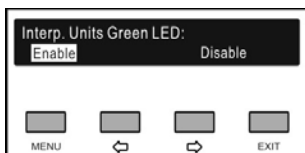
Set congress units’ LED color when microphone is active; enable/disable green LED of the HCS-8385N interpreter unit.



- a). Press the “↔” button to select “DCSUnits” or “Interp”;
 - If select “DCSUnits”, use the “MENU” button to go to step b);
 - If select “Interp”, use the “MENU” button to go to step c);



- b). Press the “↔” button to select congress units' LED color (Red/Green) when microphone is active;



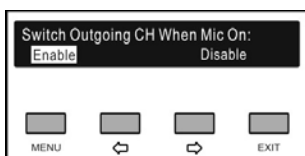
- c). Press the “↔” button to select “Enable” or “Disable” green LED of HCS-8385N;
- d). Press the “MENU” button to confirm the operation and return to the upper level menu.

Note:

☞ “Active Mic’s LED Color” setting is for HCS-48U7 series congress units temporarily.

47. Interp. Unit Outgoing CH

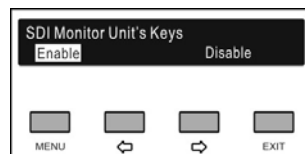
Switch outgoing channel when interpreter unit microphone is active.



- a). Press the “↔” button to select “Enable” or “Disable”;
- b). Press the “MENU” button to confirm the operation and return to the upper level menu.

48. SDI Monitor Unit's Keys

Enable/Disable touch keys of HCS-8335 series and HCS-8336.



- a). Press the “↔” button to select “Enable” or “Disable”;
- b). Press the “MENU” button to confirm the operation and return to the upper level menu.

49. Chairman Unit's Next Keys

Enable/Disable reject and approve applying keys of HCS-4860/4865/4866 series chairman unit.

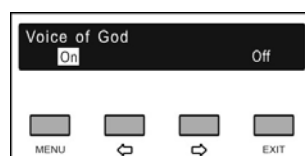
Reject applying	⬠ key
Approve applying	↻ key



- a). Press the “↔” button to select “Enable” or “Disable”;
- b). Press the “MENU” button to confirm the operation and return to the upper level menu.

50. Voice of God Setting

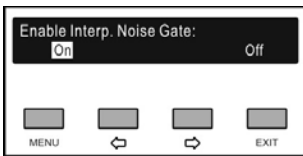
Output interpreter voice to floor channel or not when interpreter speaks by pressing button “C”. If enable “Voice of God” function, Call function is unavailable.



- a). Press the “↔” button to select “On” or “Off”;
 - Settings for “On”:
 - No output for channel C (set by main unit or DCS software)
 - Check “Allow Call” (set by DCS software: Control -> Booth Management -> Parameters Setup)
- b). Press the “MENU” button to confirm the operation and return to the upper level menu.

51. Interp. Noise Gate Setting

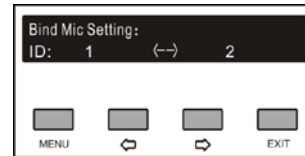
Enable noise gate for HCS-8385N interpreter unit to reduce noise input.



- Press the “←/→” button to select “On” or “Off”;
- Press the “MENU” button to confirm the operation and return to the upper level menu.

52. Bind Mic Setting

Bind conference units so that the two units are operated and controlled by the same delegate.



- Press the “←/→” button to traverse the groups of units bound in the conference system;
- When the numbers are highlighted in white, use the “←/→” button to scroll through the microphone IDs, and press the "MENU" key to confirm the selection;
- Press the “MENU” button to confirm the operation and return to the upper level menu.

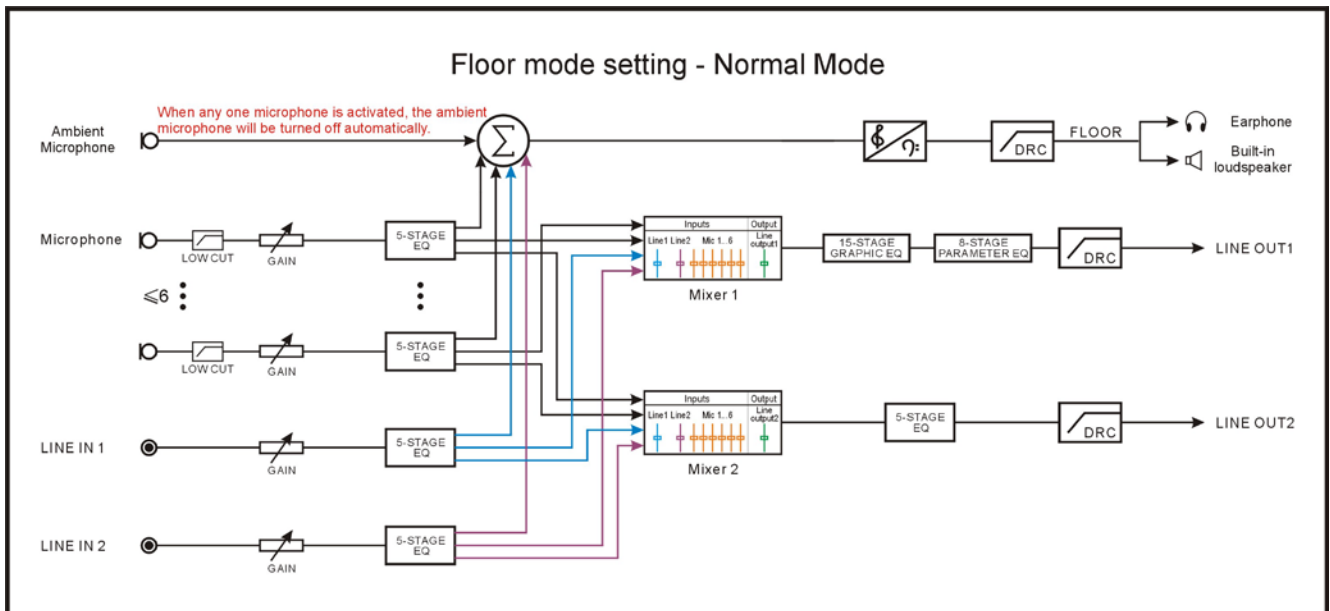


Figure 2.1.10 Floor mode setting - Normal Mode

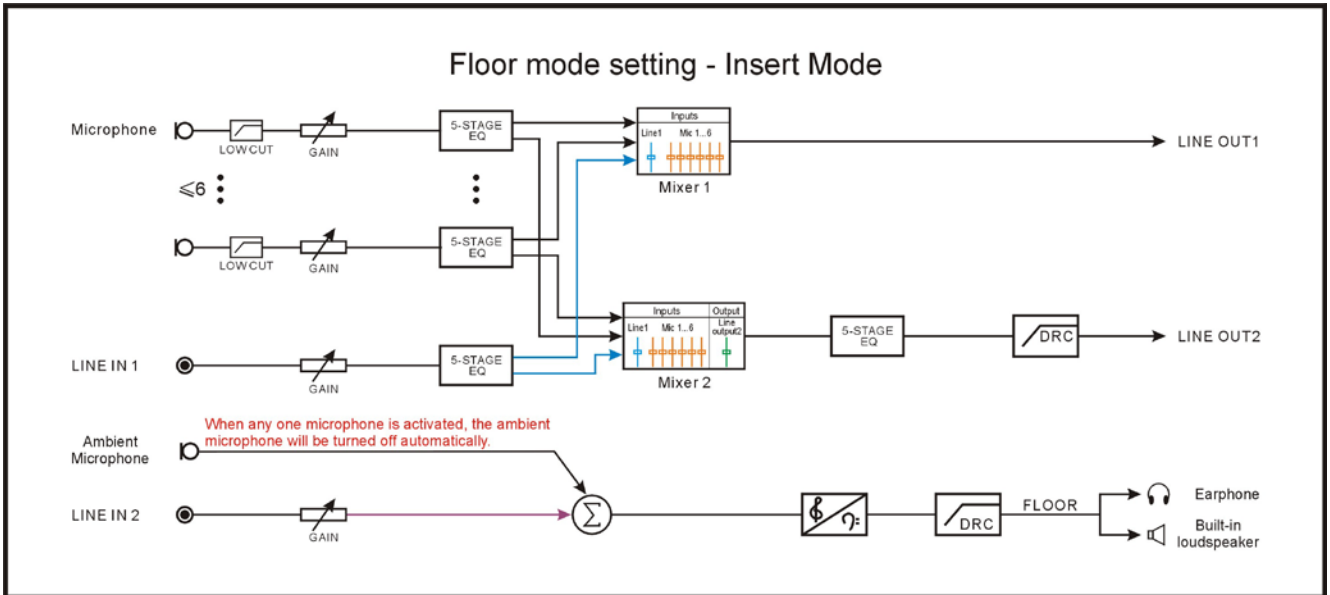


Figure 2.1.11 Floor mode setting - Insert Mode

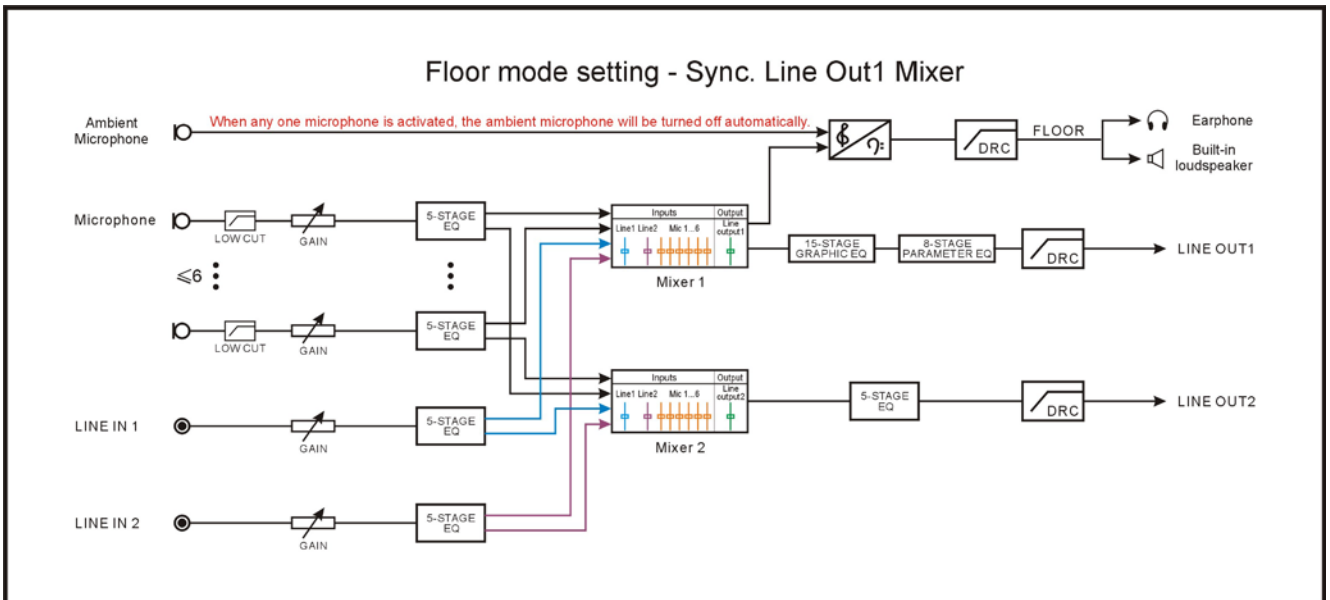
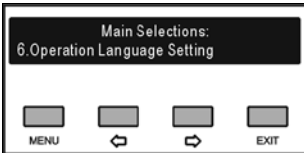


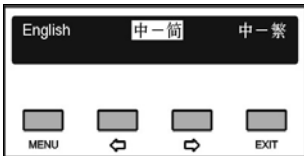
Figure 2.1.12 Floor mode setting - Sync. Line Out1 Mixer

2.1.4.6 Operation language setting



Select LCD display language from simplified Chinese, Traditional Chinese and English. Other languages can be added by the user through LCD_Designer tool.

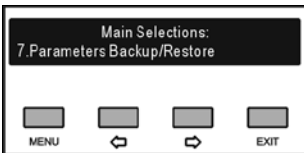
Select language:



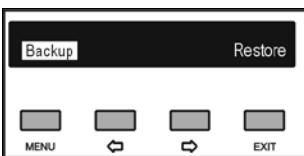
- Press the “←/→” button to select LCD display language;
- Press the “MENU” button to save and return to the upper level menu.

2.1.4.7 System parameter backup/restore

If USB feature is enabled, system parameters can be backed up or restored through the front panel USB port. Make sure that the USB disk is properly connected; otherwise it will prompt “Please insert the USB disk.”.



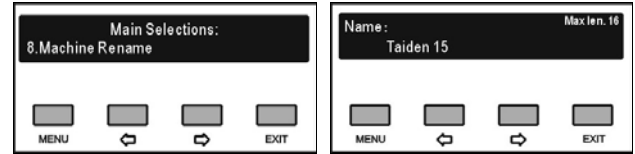
- Press the “←/→” button to select “Backup” or “Restore”;
 - If “**Backup**” is selected, system parameters can be backed up;
 - If “**Restore**” is selected, system parameters can be restored;



- Press the “MENU” button to confirm and to go to the selected menu item;
- Return to the upper level menu after backup or recovery.

2.1.4.8 Machine rename

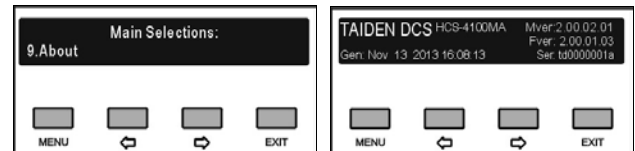
Set alias for the HCS-4100M/52 with a maximum length of 16 characters or less. It is convenient to identify them on the operation of room combiner.



- Press the “MENU” button to enter the name setting interface, the cursor blinks under the first character;
- Press the “←/→” button to move the cursor;
- Press the “MENU” button to modify the character;
 - Press the “←” button to clear all the characters after the cursor;
 - press the “→” button to select the new character;
- Press the “MENU” button to save at each character;
- Press the “EXIT” button to return to the upper level menu after setting finished.

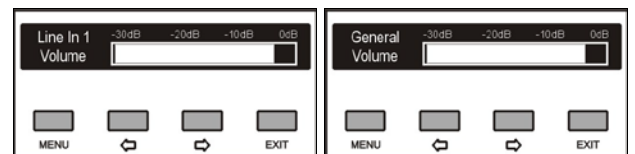
2.1.4.9 About

CMU information includes: firmware version, corporation information and series number, shown as in the following figure - press any button to return to the upper level menu.



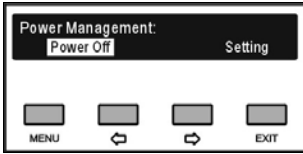
2.1.4.10 Volume control

Volume can be adjusted by volume knob on the CMU front panel - LINE IN 1 VOL. adjust knob and MASTER VOLUME adjust knob. Meanwhile, the corresponding volume indicator will be displayed on the LCD, as shown in the following figure:

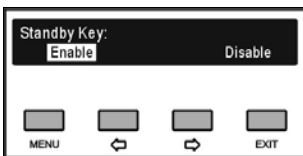


2.1.4.11 Power Management

Press and hold the “STANDBY” button to enter power management interface, as shown as the following figure:



- a). Press the “←/→” button to select “Power Off” or “Setting”;
- If “**Power Off**” is selected, the main unit switches to standby mode;
 - If “**Setting**” is selected, then select enable the “STANDBY” button or not;



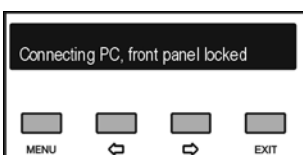
- b). Press the “←/→” button to select “Disable” or “Enable”;
- If “**Enable**” is selected, power on through the “POWER” switch and the “STANDBY” button;
 - If “**Disable**” is selected, power on directly through the “POWER” switch;
- c). Press the “MENU” button to save and return to the upper level menu.

Note:

☞ When power down the main unit, please press and hold the “STANDBY” button to enter power management interface, then select “**Power Off**” and press the “MENU” button to confirm. Please do not use the switch button on the back of the main unit to shutdown directly; otherwise, it may lead to startup error.

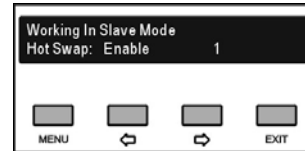
2.1.4.12 Connecting to PC

When connecting the CMU to the PC, its front panel will be locked and setup operation cannot be accessed, as shown as the following figure:



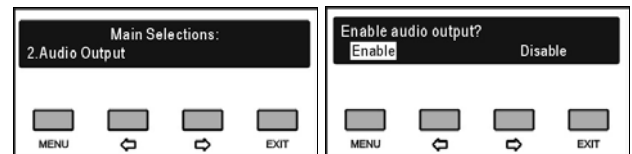
2.1.4.13 Configuration and operation - slave mode

When dual main unit hot spare or conference room combination occurs, the spare main unit or the main unit in the slave conference room works in slave mode. The LCD display shows as in the following figure in slave mode, press the “MENU” button to enter the menu settings.



The menu includes:

1. **Select Master/Slave Mode:** the operation is the same as in master mode (section [2.1.4.5](#));
2. **Audio Output:** enable/disable audio output on the rear panel of the CMU. In the conference room combination, must enable the audio output, if not, the delegates in the slave conference rooms cannot hear the voice in the master conference room;



3. **Operation Language Setting:** the operation is the same as in master mode (section [2.1.4.6](#));
4. **Parameters Backup/Restore:** the operation is the same as in master mode (section [2.1.4.7](#));
5. **Machine Rename:** the operation is the same as in master mode (section [2.1.4.8](#));
6. **Conference Room Setting:** the operation is the same as in master mode (section [2.1.4.5](#));
7. **About:** the operation is the same as in master mode (section [2.1.4.9](#)).

2.2 Extension Main Unit

2.2.1 Functions and instructions

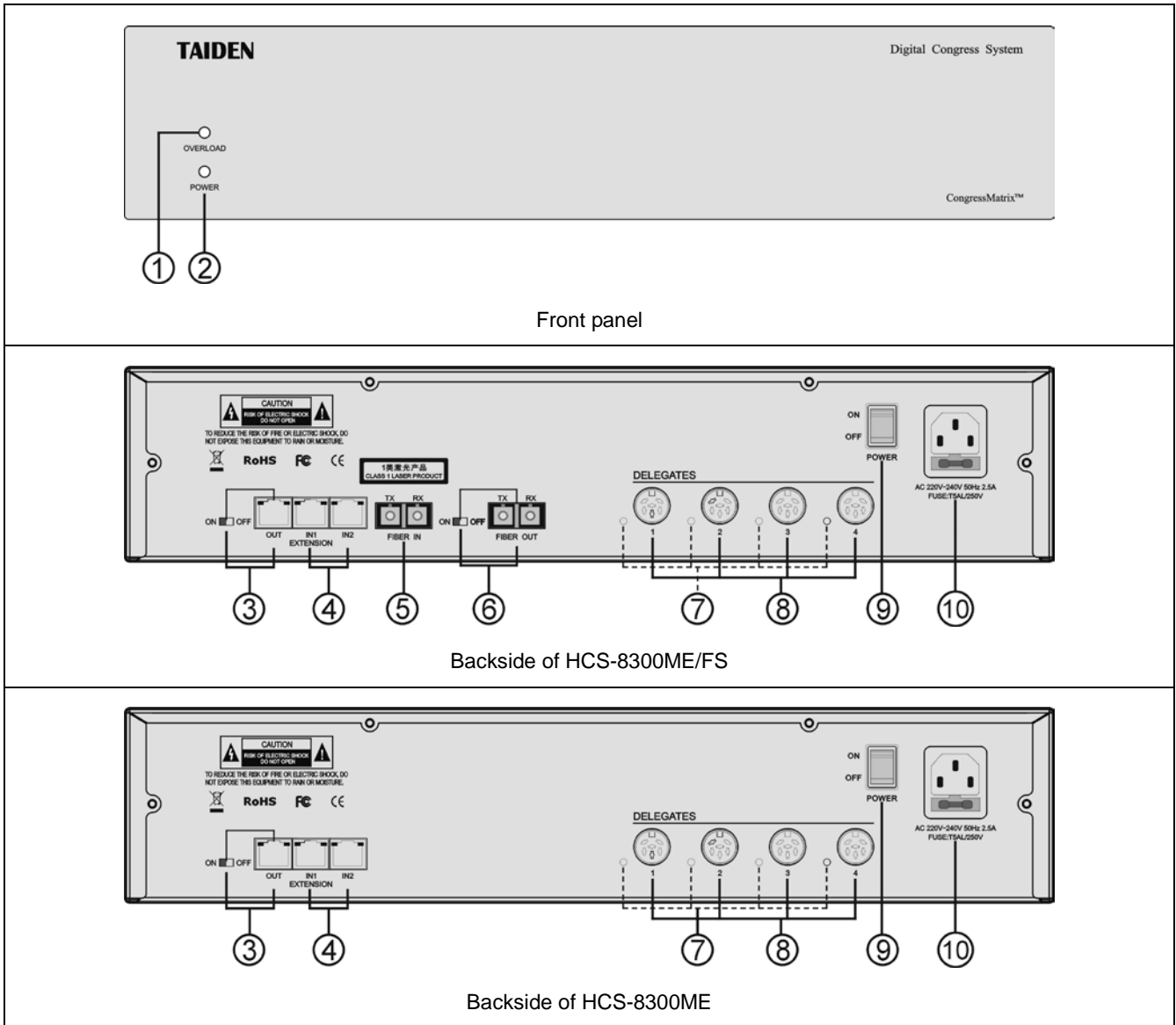


Figure 2.2.1 HCS-8300 series extension main unit

Figure 2.2.1:

1. Overload indicator

- Normal: turn off;
- Overload:red.

2. Power light (Red)

3. Extension outlet (with switch)

- Connecting to next extension main unit, audio input unit or audio output unit.

4. Extension input

- Connecting to CMU, audio input unit, audio output unit or last extension main unit.

5. Fiber input

- Single-mode optical fiber, SC connector.

6. Fiber output (with switch)

- Single-mode optical fiber, SC connector.

7. Contribution unit (CU) connection LED

- When output works properly (≥ 1 CU connected), LED will flash; when no CU is connected, LED is off.

8. Contribution unit outlet 6P-DIN (1-4)

9. Power switch

10. Power input

2.2.2 Installation

The extension main unit (EMU) can be fixed in a standard 19-inch cabinet. The EMU is equipped with a pair of fixing brackets ①. First unscrew the lateral screws ② from the housing. Then fasten the brackets with these screws and put the EMU in the cabinet. Finally fix the four holes ③ up with screws.

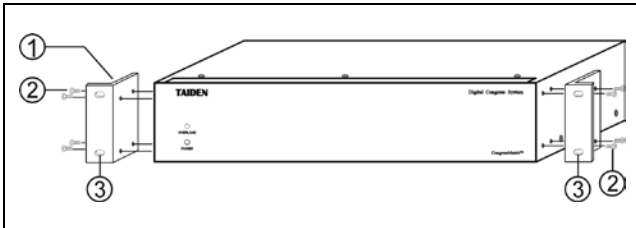


Figure 2.2.2 Installation of the EMU

In addition, 1U metal stripes are included as decoration to be installed between the EMUs/CMUs in the cabinet. It is also good for the ventilation and cooling off. Fix up the four holes ③ with screws.

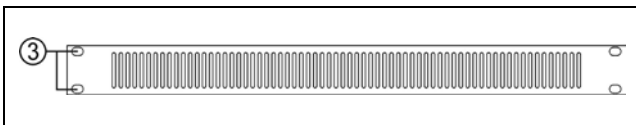


Figure 2.2.3 Decoration of cabinet

2.2.3 Connection

HCS-8300 series CMU has two 6P-DIN output interfaces; the power capacity of each 6P-DIN interface is limited. If the actually needed power of the system (that is, considering the actual total needed power consumption of the connected congress units and extension cables) is larger than the output capacity, HCS-8300ME(/FS) extension main units are needed.

Each extension main unit has an extension input port for connecting to extension interface of the congress main unit, another extension output interface connecting to the next extension main unit. Each extension main unit has four 6P-DIN output interfaces for connecting congress units, and dedicated 6 cord cables are used for connection.

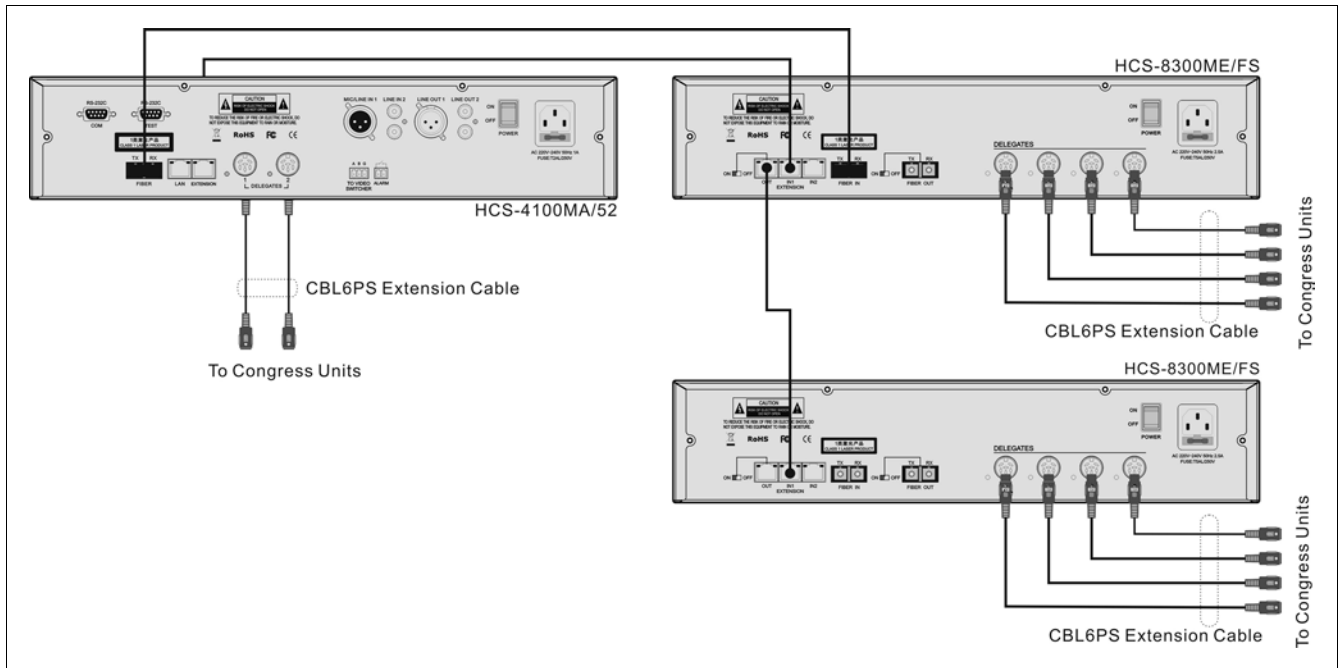


Figure 2.2.4 Connection between the CMU and EMU

Chapter 3: Congress units

3.1 Overview

Congress unit is the common name to describe the units used by the attendees to contribute to a congress. The term includes discussion unit (chairman/delegate), voting unit, channel selector etc. Various features are available for the attendee, depending on the type of congress unit operated: listen, speak, request to speak, information display, IC-Card sign-in, key-press sign-in, voting, simultaneous interpretation etc.

A discussion unit provides speaking function. Microphone and loudspeaker are the basic components.

A discussion unit includes chairman unit, delegate unit, VIP unit and operator unit for the technical operator of the venue.

Discussion units are available as tabletop, flush-mounted, depending on the method of installation and the appearance wanted by the user. This choice greatly enriches the diversification requirements by all kinds of users.

HCS-4100/50 system provides powerful voting management functions. A large choice of wired voting units considerably satisfies the requirements both for various types of voting and different scales.

Product type:

HCS-48U6 series congress units:

HCS-48U6CMICM

Fully Digital Congress System Chairman Unit (flush-mounting, HCS-48U6DVOT and HCS-48U6SPK can be connected, black)

HCS-48U6DMICM

Fully Digital Congress System Delegate Unit (flush-mounting, HCS-48U6DVOT and HCS-48U6SPK can be connected, black)

HCS-48U6CMICS

Fully Digital Congress System Chairman Unit (flush-mounting, HCS-48U6SELM needed, black)

HCS-48U6DMICS

Fully Digital Congress System Delegate Unit (flush-mounting, HCS-48U6SELM needed, black)

HCS-48U6SELM

Flush-mounting 64-Channel Selector (HCS-48U6MICS, HCS-48U6DVOT and HCS-48U6SPK can be connected, black)

HCS-48U6DVOTTW

Fully Digital Voting Unit (flush-mounting, 3 voting keys, contactless IC-Card reader, HCS-48U6SELM or HCS-48U6MICM needed, black)

HCS-48U6SPK

Flush-mounting Loudspeaker Panel (HCS-48U6SELM or HCS-48U6MICM needed, black)

HCS-48U7 series congress units:

HCS-48U7CMIC

Fully Digital Congress System Chairman Unit (flush-mounting, black)

HCS-48U7DMIC

Fully Digital Congress System Delegate Unit (flush-mounting, black)

HCS-48U7CVOTF

Fully Digital Voting System Chairman Unit (flush-mounting, 5 voting keys, 256x32 LCD, contactless IC-Card reader, black)

HCS-48U7DVOTF

Fully Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32 LCD, contactless IC-Card reader, black)

HCS-48U7SPK

Flush-mounting Loudspeaker Panel (black)

HCS-4340CU/50

Multi-function Connector (for HCS-48U7 series, for connection to 1 chairman unit + 1 loudspeaker, black)

HCS-4340DU/50

Multi-function Connector (for HCS-48U7 series, for connection to 1 delegate unit + 1 loudspeaker, black)

HCS-48U8 series congress units:

HCS-48U8CFF

Fully Digital Congress System Chairman Unit (flush-mounting, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD, black)

HCS-48U8DFF

Fully Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD, black)

HCS-48U9 series congress units:

HCS-48U9CFF

Fully Digital Congress System Chairman Unit (flush-mounting, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD, black)

HCS-48U9DFF

Fully Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD, black)

HCS-48U9DVP

Fully Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, contactless IC-Card reader, 256x32 LCD, black)

HCS-48U10/50 series congress units:

HCS-48U10CVSE/50

Fully Digital Congress System Chairman Unit (flush-mounting, 3 voting keys, contactless IC-Card reader, 64 CHs, OLED, black)

HCS-48U10DVSE/50

Fully Digital Congress System Delegate Unit (flush-mounting, 3 voting keys, contactless IC-Card reader, 64 CHs, OLED, black)

HCS-48U10DVE/50

Fully Digital Congress System Delegate Unit (flush-mounting, 3 voting keys, contactless IC-Card reader, black)

HCS-48U10DDS/50

Fully Digital Congress System Delegate Unit (flush-mounting, 64 CHs, 2 channel selectors, OLED, dual IDs, black)

HCS-48U10DS/50

Fully Digital Congress System Delegate Unit (flush-mounting, 64 CHs, OLED, black)

HCS-4886 series congress units:

HCS-4886CW/54

Fully Digital Congress System Chairman Unit (tabletop, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD)

HCS-4886DW/54

Fully Digital Congress System Delegate Unit (tabletop, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD)

HCS-4886NX_G/52

Fully Digital Congress System Operator Unit (tabletop, 256x32 LCD, for intercom/external communication)

HCS-4890/52 series congress units:

HCS-4890CVS_B/52

Fully Digital Congress System Chairman Unit (tabletop, 3 voting keys, contactless IC-Card reader, 64 CHs×2, 4.3" touch screen, printed nameplate, black)

HCS-4890DVS_B/52

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys, contactless IC-Card reader, 64 CHs×2, 4.3" touch screen, printed nameplate, black)

HCS-4890DS_B/52

Fully Digital Congress System Delegate Unit (tabletop, 64 CHs×2, 4.3" touch screen, printed nameplate, black)

HCS-4890C_B/52

Fully Digital Congress System Chairman Unit (tabletop, 4.3" touch screen, printed nameplate, black)

HCS-4890D_B/52

Fully Digital Congress System Delegate Unit (tabletop, 4.3" touch screen, printed nameplate, black)

HCS-4891/50 series congress units:

HCS-4891CVS_B/50

Fully Digital Congress System Chairman Unit (tabletop, 3 voting keys, 64 CHs×2, 4.3" touch screen, black)

HCS-4891DVS_B/50

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys, 64 CHs×2, 4.3" touch screen, black)

HCS-4891DS_B/50

Fully Digital Congress System Delegate Unit (tabletop, 64 CHs×2, 4.3" touch screen, black)

HCS-4891C_B/50

Fully Digital Congress System Chairman Unit (tabletop, 4.3" touch screen, black)

HCS-4891D_B/50

Fully Digital Congress System Delegate Unit (tabletop, 4.3" touch screen, black)

HCS-4891R/50 series congress units:

HCS-4891RCVS_B/50

Fully Digital Congress System Chairman Unit (tabletop, 3 voting keys, 64 CHs×2, 4.3" touch screen, rectangular columnar metal microphone, silver microphone + black base)

HCS-4891RDVS_B/50

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys, 64 CHs×2, 4.3" touch screen, rectangular columnar metal microphone, silver microphone + black base)

HCS-4891RDS_B/50

Fully Digital Congress System Delegate Unit (tabletop, 64 CHs×2, 4.3" touch screen, rectangular columnar metal microphone, silver microphone + black base)

HCS-4891RC_B/50

Fully Digital Congress System Chairman Unit (tabletop, 4.3" touch screen, rectangular columnar metal microphone, silver microphone + black base)

HCS-4891RD_B/50

Fully Digital Congress System Delegate Unit (tabletop, 4.3" touch screen, rectangular columnar metal microphone, silver microphone + black base)

HCS-4891R/50/2M series congress units:**HCS-4891RCVS_B/50/2M**

Fully Digital Congress System Chairman Unit (tabletop, 3 voting keys, 64 CHsx2, 4.3" touch screen, rectangular columnar metal microphone, main microphone + backup microphone, silver microphone + black base)

HCS-4891RDVS_B/50/2M

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys, 64 CHsx2, 4.3" touch screen, rectangular columnar metal microphone, main microphone + backup microphone, silver microphone + black base)

HCS-4891RDS_B/50/2M

Fully Digital Congress System Delegate Unit (tabletop, 64 CHsx2, 4.3" touch screen, rectangular columnar metal microphone, main microphone + backup microphone, silver microphone + black base)

HCS-4891RC_B/50/2M

Fully Digital Congress System Chairman Unit (tabletop, 4.3" touch screen, rectangular columnar metal microphone, main microphone + backup microphone, silver microphone + black base)

HCS-4891RD_B/50/2M

Fully Digital Congress System Delegate Unit (tabletop, 4.3" touch screen, rectangular columnar metal microphone, main microphone + backup microphone, silver microphone + black base)

HCS-4338N series congress units:**HCS-4338NCVS/50**

Fully Digital Congress System Chairman Unit (tabletop, 3 voting keys, 64 CHs, OLED)

HCS-4338NDVS/50

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys, 64 CHs, OLED)

HCS-4338NDV/50

Fully Digital Congress System Delegate Unit (tabletop, 3 voting keys)

HCS-4338NCS/50

Fully Digital Congress System Chairman Unit (tabletop, 64 CHs, OLED)

HCS-4338NDS/50

Fully Digital Congress System Delegate Unit (tabletop, 64 CHs, OLED)

HCS-4338NC/50

Fully Digital Congress System Chairman Unit (tabletop)

HCS-4338ND/50

Fully Digital Congress System Delegate Unit (tabletop)

HCS-4338NDDS/50

Fully Digital Congress System Delegate Unit (tabletop, 64 CHs, 2 channel selectors, dual predefined position)

HCS-4860 series congress units:**HCS-4860CS/54**

Fully Digital Congress System Chairman Unit (tabletop, rectangular columnar metal microphone, 64 CHs, OLED, black)

HCS-4860DS/54

Fully Digital Congress System Delegate Unit (tabletop, rectangular columnar metal microphone, 64 CHs, OLED, black)

HCS-4860C/54

Fully Digital Congress System Chairman Unit (tabletop, rectangular columnar metal microphone, black)

HCS-4860D/54

Fully Digital Congress System Delegate Unit (tabletop, rectangular columnar metal microphone, black)

HCS-4860/2M series congress units:**HCS-4860C/54/2M**

Fully Digital Congress System Chairman Unit (tabletop, rectangular columnar metal microphone, main microphone + backup microphone, black)

HCS-4860D/54/2M

Fully Digital Congress System Delegate Unit (tabletop, rectangular columnar metal microphone, main microphone + backup microphone, black)

HCS-4865 series congress units:**HCS-4865C/50**

Fully Digital Congress System Chairman Unit (tabletop, black)

HCS-4865D/50

Fully Digital Congress System Delegate Unit (tabletop, black)

HCS-4866 series congress units:**HCS-4866C/50**

Fully Digital Congress System Chairman Unit (tabletop, black)

HCS-4866D/50

Fully Digital Congress System Delegate Unit (tabletop, black)

HCS-4860X series congress units:**HCS-4860CX/54**

Fully Digital Congress System Chairman Unit (tabletop, rectangular columnar metal microphone, black)

HCS-4860DX/54

Fully Digital Congress System Delegate Unit (tabletop, rectangular columnar metal microphone, black)

HCS-4341/50 series congress units:**HCS-4341CB/50**

Fully Digital Congress System Chairman Unit (boundary, HCS-4340/50 needed, black)

HCS-4341DB/50

Fully Digital Congress System Delegate Unit (boundary, HCS-4340/50 needed, black)

HCS-4841/42/43 series congress units:**HCS-4841NC/50**

Fully Digital Congress System Chairman Unit (flush-mounting, HCS-4340/50 needed)

HCS-4841ND/50

Fully Digital Congress System Delegate Unit (flush-mounting, HCS-4340/50 needed)

HCS-4841CU/50

Fully Digital Congress System Chairman Unit (flush-mounting, HCS-4340/50 needed)

HCS-4841DU/50

Fully Digital Congress System Delegate Unit (flush-mounting, HCS-4340/50 needed)

HCS-4841CUA/50

Fully Digital Congress System Chairman Unit (flush-mounting, HCS-4340/50 needed)

HCS-4841DUA/50

Fully Digital Congress System Delegate Unit (flush-mounting, HCS-4340/50 needed)

■ HCS-4340/50 series multi-function connector**HCS-4340CAT/50**

Multi-function Connector (for connection to 1 chairman unit + 1 3-key voting unit + 1 channel selector, charcoal gray)

HCS-4340CAF/50

Multi-function Connector (for connection to 1 chairman unit + 1 5-key voting unit + 1 channel selector, charcoal gray)

HCS-4340DAT/50

Multi-function Connector (for connection to 1 delegate unit + 1 3-key voting unit + 1 channel selector, charcoal gray)

HCS-4340DAF/50

Multi-function Connector (for connection to 1 delegate unit + 1 5-key voting unit + 1 channel selector, charcoal gray)

HCS-4340HDAT/50

Multi-function Connector (for connection to 1 handheld delegate unit+ 1 3-key voting unit + 1 channel selector, charcoal gray)

HCS-4340HDAF/50

Multi-function Connector (for connection to 1 handheld delegate unit+ 1 5-key voting unit + 1 channel selector, charcoal gray)

HCS-4340HDAT/50P

Multi-function Connector (for connection to 1 condenser microphone + 1 3-key voting unit + 1 channel selector, +48 V phantom power, charcoal gray)

HCS-4340HDAF/50P

Multi-function Connector (for connection to 1 condenser microphone + 1 5-key voting unit + 1 channel selector, +48 V phantom power, charcoal gray)

HCS-4340B/50

Multi-function Connector (for connection to 4 pcs of channel selector, charcoal gray)

HCS-4340DT/50

Multi-function Connector (for connection to 2 delegate units+ 2 channel selectors, charcoal gray)

3.2 HCS-48U6 series congress unit

3.2.1 Functions and indications

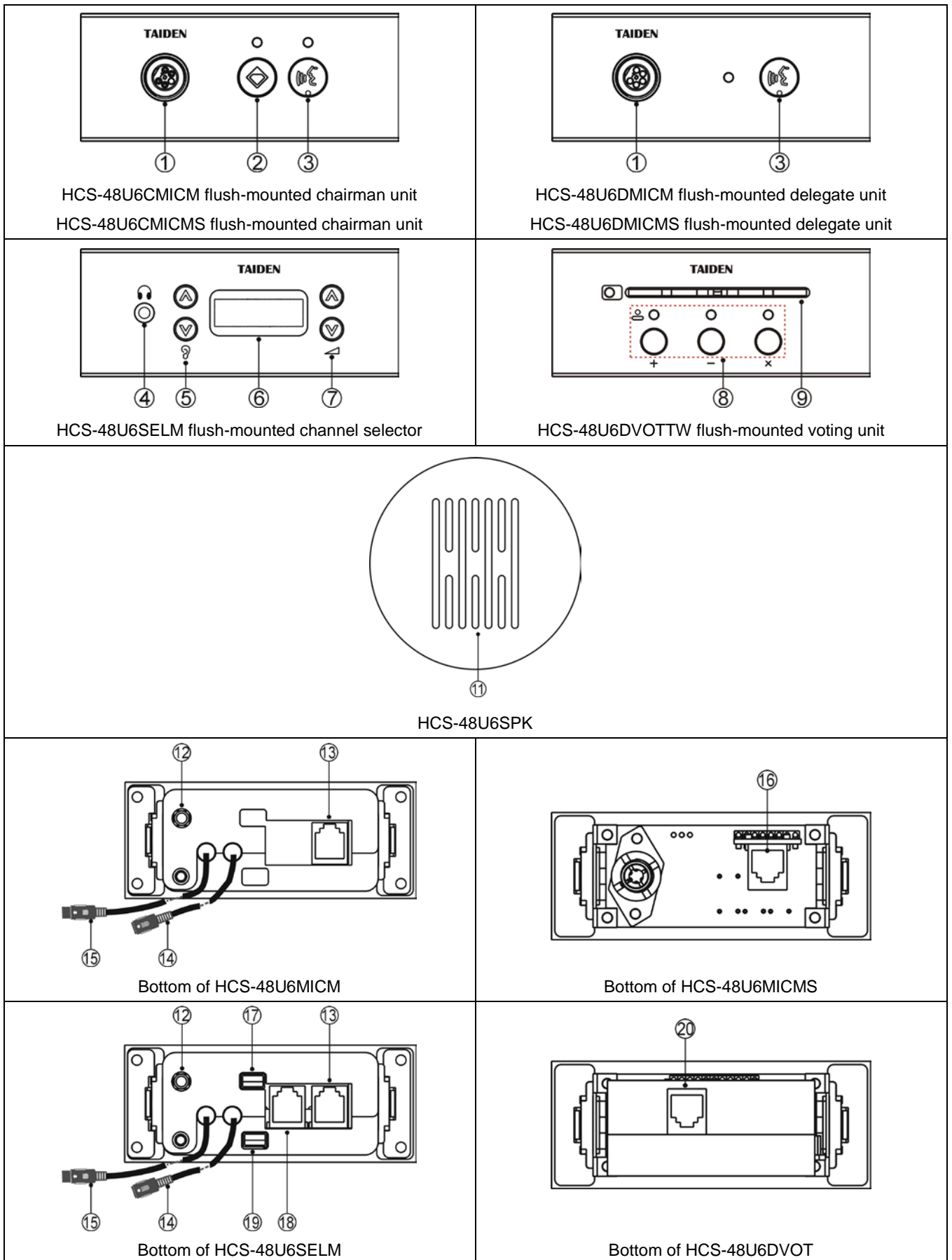


Figure 3.2.1 HCS-48U6 series congress units

Figure 3.2.1:

1. Stem microphone socket

2. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as “All off”, all active delegate microphones (except VIP units) will be switched off when this key is pressed. Under “Open” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it.

3. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate/deactivate the microphone;
- ◆ Delegate unit: 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	Red (flash)
First in request list	Green (flash)
Not first in request list	Green (on)
VIP indication	Yellow (on)

4. Earphone jack (Ø 3.5 mm)

5. Simultaneous interpretation channel selector

- ◆ Available when earphone is plugged.

6. OLED screen

- ◆ Display SI channel language and earphone volume.

7. Earphone volume control

8. Multi-function keys with indicating light (3 keys):

- ◆ In different modes, the corresponding indicating lights blink; press the corresponding key to execute operation (refer to table 3.2.1 for details).

9. Contactless IC Card slot

- ◆ Built-in contactless IC-Card slot to place the IC card, while automatically logout once the card is taken out from the slot.

11. Loudspeaker

12. Loudspeaker jack (Ø 3.5 mm)

13. Standard RJ11 socket

- ◆ Connecting to HCS-48U6DVOT.

14. 0.6-meter 6P-DIN cable with standard plug (female x 1)

15. 1.5-meter 6P-DIN cable with standard plug (male x 1)

16. Standard RJ11 socket

- ◆ Connecting to HCS-48U6SELM.

17. 2P socket

- ◆ Connecting to the microphone signal of HCS-48U6MICS.

18. Standard RJ11 socket

- ◆ Connecting to HCS-48U6MICS.

19. 3P socket

- ◆ Connecting to the microphone LED ring signal of HCS-48U6MICS.

20. Standard RJ11 socket

- ◆ Connecting to HCS-48U6MICM or HCS-48U6SELM.

Table 3.2.1 List of multi-functional keys - 3 keys

Function		Keys	+	-	×
Numbering			Number		
Sign-in			Sign-in		
Voting	Parliamentary		YES	NO	ABSTAIN
	For/Against		For	Against	
	Appraisal	3 keys voting	Satisfied/ Qualified/ Competent	Basically satisfied/ Basically qualified/ Basically competent	Unsatisfied/ Unqualified/ Incompetent
		2 keys voting	Satisfied/ Qualified/ Competent	Unsatisfied/ Unqualified/ Incompetent	

3.2.2 Installation

3.2.2.1 Stand-alone installation

■ Installation

- Make holes on the table according to the dimensional diagram;
- Fix the fixed iron plates with self tapping screws (KA3 × 12) according to the holes;
- Hook up the unit onto the fixed iron plates.

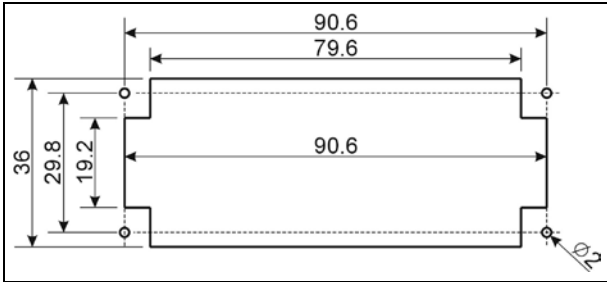


Figure 3.2.2 Positioning diagram of HCS-48U6 series congress unit (unit: mm)

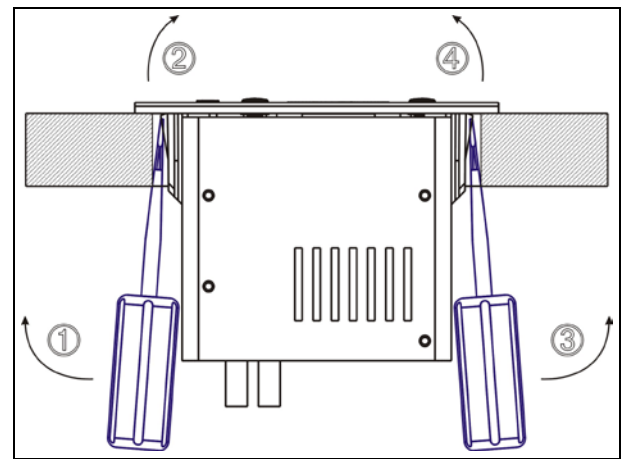


Figure 3.2.4 Disassembly caution of HCS-48U6 series flush-mounted congress unit

■ Installation of loudspeaker

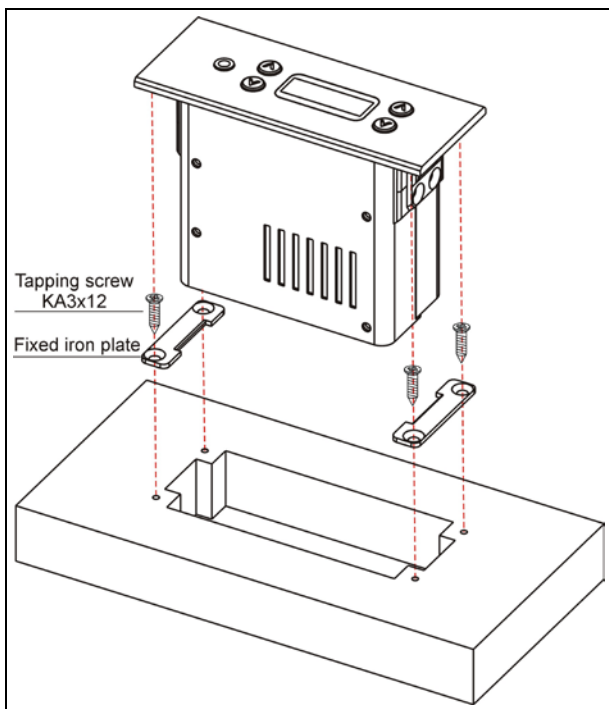


Figure 3.2.3 Installation diagram of HCS-48U6 series congress unit

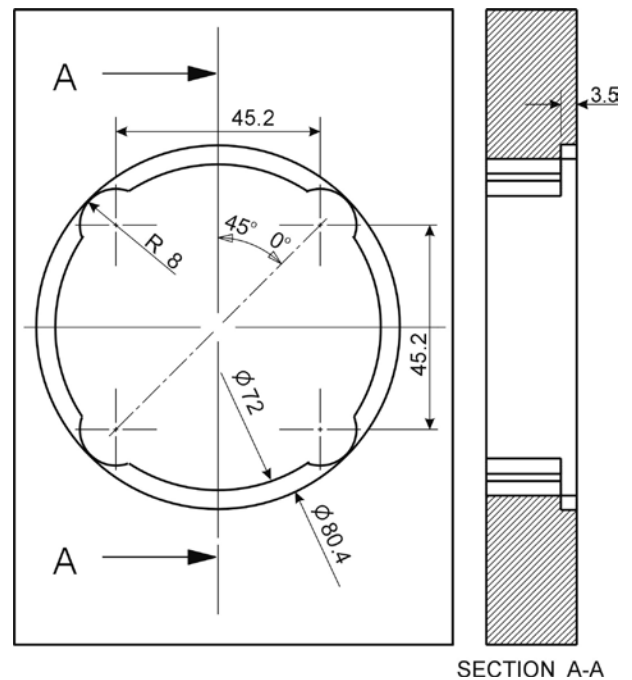


Figure 3.2.5 Positioning diagram of HCS-48U6SPK (unit: mm)

■ Disassembly

When disassembling, insert a screwdriver from the bottom, release the buckle, raise it from one side, then raise the other side, and lift the unit.

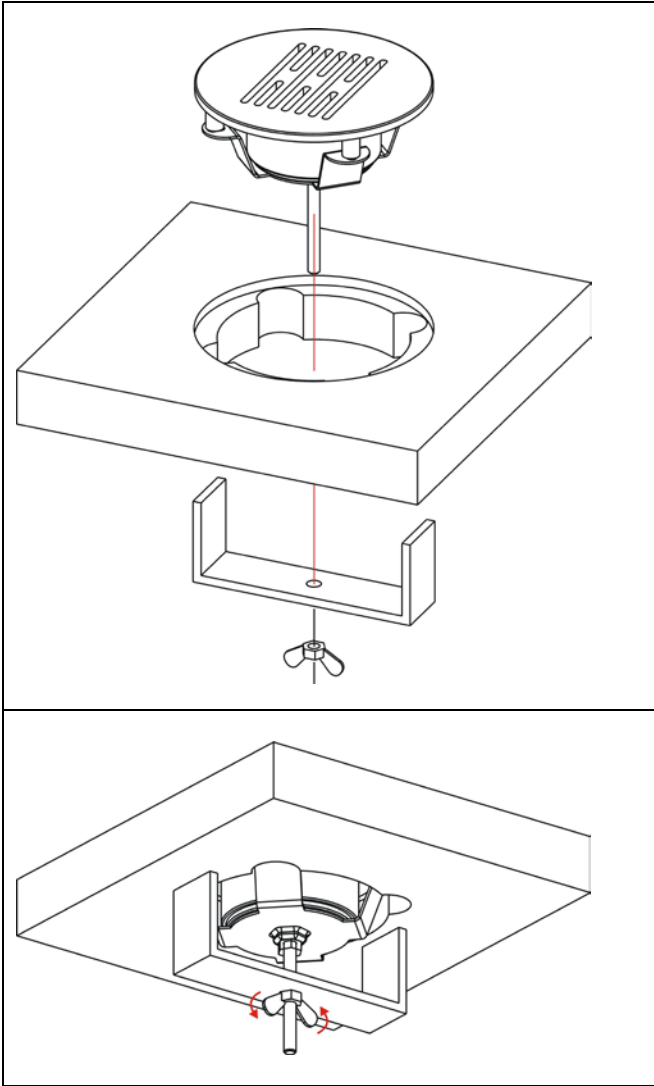


Figure 3.2.6 Installation diagram of HCS-48U6SPK

3.2.2.2 Assembly installation

- Cut holes in the table for the first unit according to the positioning diagram (figure 3.2.7);
- Make sure that the distance between the center of the two adjacent holes is more than 100 mm; and the distance of the center between the loudspeaker and the adjacent unit is more than 95 mm; (Figure 3.2.7). Repeat step a to cut holes for the adjacent unit(s);
- Put the congress units into the holes; install each unit according to stand-alone installation method.

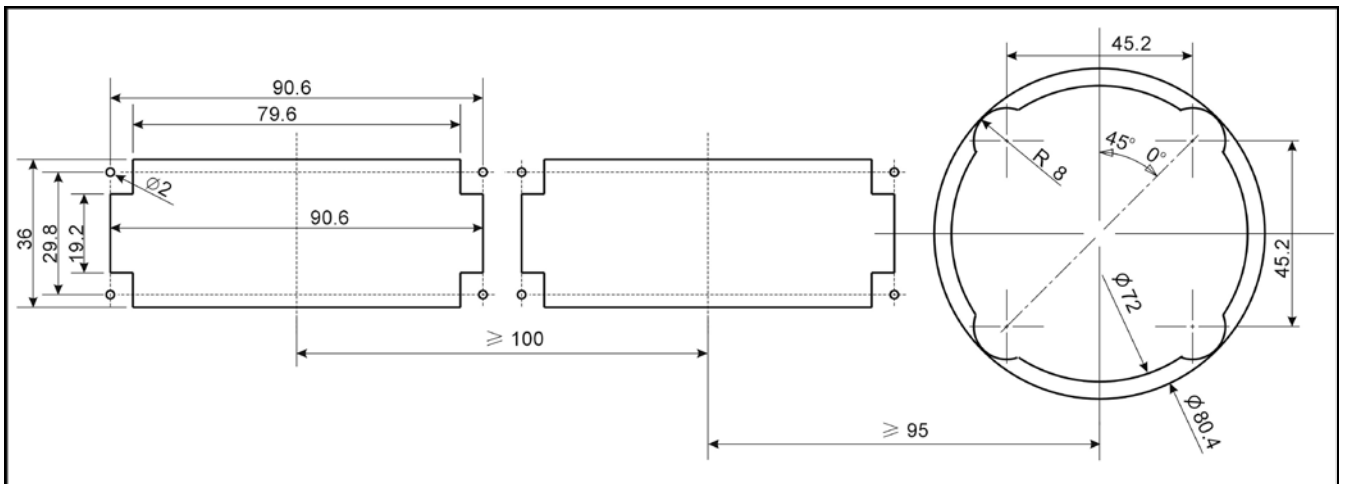


Figure 3.2.7 Positioning and assembly installation diagram of several HCS-48U6 series congress units (unit: mm)

3.2.3 Connection

3.2.3.1 Connecting to the CMU or the EMU

The HCS-48U6 series (HCS-48U6MICM and HCS-48U6SELM) congress unit is equipped with a 1.5-meter 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

- One HCS-48U6MICM discussion unit can be connected to one HCS-48U6DVOT voting unit and one HCS-48U6SPK loudspeaker;
- One HCS-48U6SELM channel selector can be connected to one HCS-48U6MICS discussion unit, one HCS-48U6DVOT voting unit and one HCS-48U6SPK loudspeaker.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

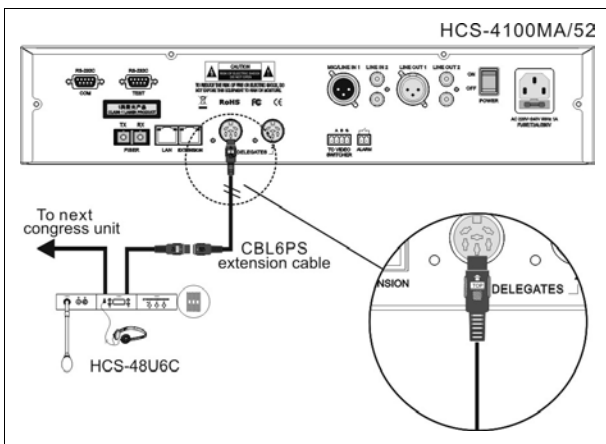


Figure 3.2.8 Multi-function connector connected to the CMU/EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “Closed Loop - Daisy Chain” connection topology is selected. “Closed Loop - Daisy Chain” connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “Closed Loop - Daisy Chain” connection, just connect the last congress unit back to the CMU or the EMU with HCS-8300MCLS. The 1.5 meter 6P-DIN standard plug cable of HCS-8300MCLS is connected to the output connector of the main unit and the 0.6 meter 6P-DIN

standard plug cable is connected to the tail end of the conference unit. Details for [section 2.1.3](#) “Closed Loop - Daisy Chain” connection topology

3.2.3.2 Connections between congress units

HCS-48U6MICM and HCS-48U6SELM congress units are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

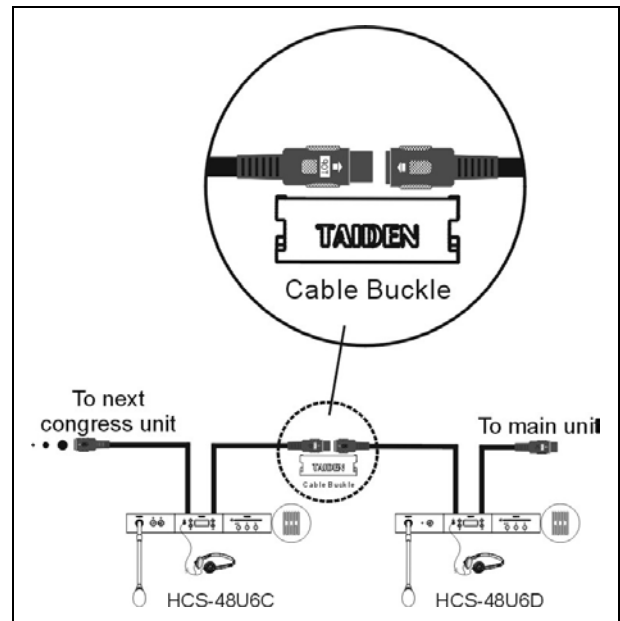
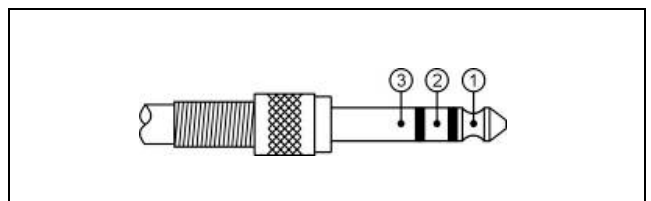


Figure 3.2.9 “Daisy-chain” connection between HCS-48U6 series congress unit

3.2.3.3 External earphone

An external earphone can be connected to the earphone jack of HCS-48U6SELM channel selector. Its volume can be adjusted by the earphone volume control button. The external earphone shall have Ø 3.5 mm plug, as the following figure:



Functions and indications:

- 1..... Left stereo channel signal
- 2..... Right stereo channel signal
- 3..... Power ground/Shield

3.2.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

3.2.4.1 Delegate unit

1. Number

First of all, make sure that the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm, following the system goes to numbering status. "Press '1' key of all congress units one by one and re-power" will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. Press the microphone On/Off key ("☺" Sign-in/Number key for voting units) of all congress units one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the congress units one by one and do NOT press the "NUMBER" key of several congress units at the same time.

2. Sign-in (application software needed, for HCS-48U6DVOT series only)

To carry out voting, congress units with voting and IC-Card reader should be registered via key press or IC-Card. With application software, registration is available by choosing "Seat Sign-in".

■ Key-press sign-in

In key-press sign-in status, the indicating light on key "☺" will blink, press key "☺" to sign-in and the indicating light will be turned off.

■ IC-Card sign-in

In IC-Card sign-in status, please put the contactless IC-card into the slot on the voting unit. If read the IC-Card correctly, the indicating light will off after blink. If the indicating light keeps on, stands that the IC-Card is invalid; please read the IC-Card again or contact the technical support.

3. Speaking (without software, only for discussion unit of this series)

Speaking mode is configured on the CMU. (refer to section [2.1.4](#))

A. "Open" mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- The microphone will be activated when the microphone On/Off key is pressed, the speaker can give his/her speech;
- The microphone will be deactivated when the microphone On/Off key is pressed again.

■ Active microphone number limitation (1/2/3/4) **reached:**

- Press the microphone On/Off key to request to speak;
- Press the microphone On/Off key again to cancel the request to speak;
- When an active microphone is turned off, the first request microphone will be activated.

B. "Override" mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- The microphone will be activated when the microphone On/Off key is pressed, the speaker can give his/her speech;
- 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 delegate microphone On/Off key is pressed, its microphone will be activated and the first

activated delegate microphone will be deactivated at the same time to maintain the active microphone number limitation. If the number of active microphone (including chairman and VIP unit) reaches 6, turning on another microphone will switch off the delegate microphone which turned on first.

C. “Voice” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated;
- b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted at the main unit (refer to section [2.1.4](#));
- c. When the microphone is activated, it can be turned off by pressing the microphone On/Off key.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak when the microphone On/Off key is pressed (default 6 microphones at most). The chairman unit can approve or reject his/her speak;
- b. When his/her request is approved, he/she can speak and the last activated microphone will be turn off at the same time.

E. “PTT” 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 and held, the speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is released.

■ Active microphone number limitation (1/2/3/4) **reached:**

Pressing the microphone On/Off key cannot activate the microphone until one of the activated microphones is switched off.

Note:

- ☞ **“Voice” speaking mode:** the chairman unit and the VIP unit count in the active microphone number limitation (1/2/3/4), if the active microphone number limitation reached, the microphones of the chairman unit and the VIP unit cannot be turned on;
- ☞ **Other speaking modes:** the chairman unit and the VIP unit do not count in the active microphone number limitation (1/2/3/4); at most 6 microphones can be activated at the same time in a system.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker’s video can be exported to and displayed on large screen(s).

4. Voting (for HCS-48U6DVOT series only)

Voting can be originated by TAIDEN conference management system software.

- The voting button indicating lights of the congress unit start to blink, the delegate can press the voting button to vote;
- For “First key-press valid” voting, the delegate can vote only once;
- For “Last key-press valid” voting, the delegate can change his/her vote, and the last voted key will be valid.

5. Channel selection (for HCS-48U6SELM only)

- When the CMU is connected to interpreter unit(s), simultaneous interpretation function will work and the channel selector will be activated. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the delegate can select a suitable language to listen to by means of the channel selector.

6. Volume control (for HCS-48U6SELM only)

- When the earphone is plugged, its volume can be adjusted by the earphone volume control of the unit.

7. VIP unit (for delegate discussion unit of this series only)

- Any delegate unit can be assigned as a VIP unit by the TAIDEN conference management system software. At most 32 VIP units can be assigned;
- As long as the active microphone capacity is not full, the microphone of the VIP unit can be activated freely;
- If the active microphone capacity is full, the microphone of the VIP unit cannot be turned on unless one of the active microphones is deactivated.

3.2.4.2 Chairman unit

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

1. **Priority** (for chairman discussion unit of this series only)

- If the priority mode on the main unit is configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will restore when this key is released;
- If the priority mode on the main unit is configured as “All off”, all active delegate microphones (except VIP units) will be turned off and the request-to-speak list will be purged (under “Open” and “Apply” mode) when this key is pressed.

2. **Speaking** (for chairman discussion unit of this series only)

- If the active microphone capacity is not full, the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit.
- If the active microphone capacity is full, the chairman cannot activate his/her microphone. But he/she can use the priority key to “All mute” or “All off” other delegate microphones and give his/her speech.

3. **Controlling delegate unit** (for chairman discussion unit of this series only)

A. Approve delegate unit’s request to speak

Without PC and under “Apply” mode, when a delegate requests to speak, the chairman can now approve the delegate’s request and activate the delegate’s microphone by pressing the microphone On/Off key or reject the delegate’s request by pressing the priority key.

At most 6 microphones (default) can request at the same time. When a request is approved, the last activated microphone will be turn off at the same time.

B. Turn off or mute delegate microphone

The chairman can use the priority key to execute “All mute” or “All off” operation.

3.3 HCS-48U7/U8/U9 series congress unit

3.3.1 Functions and indications

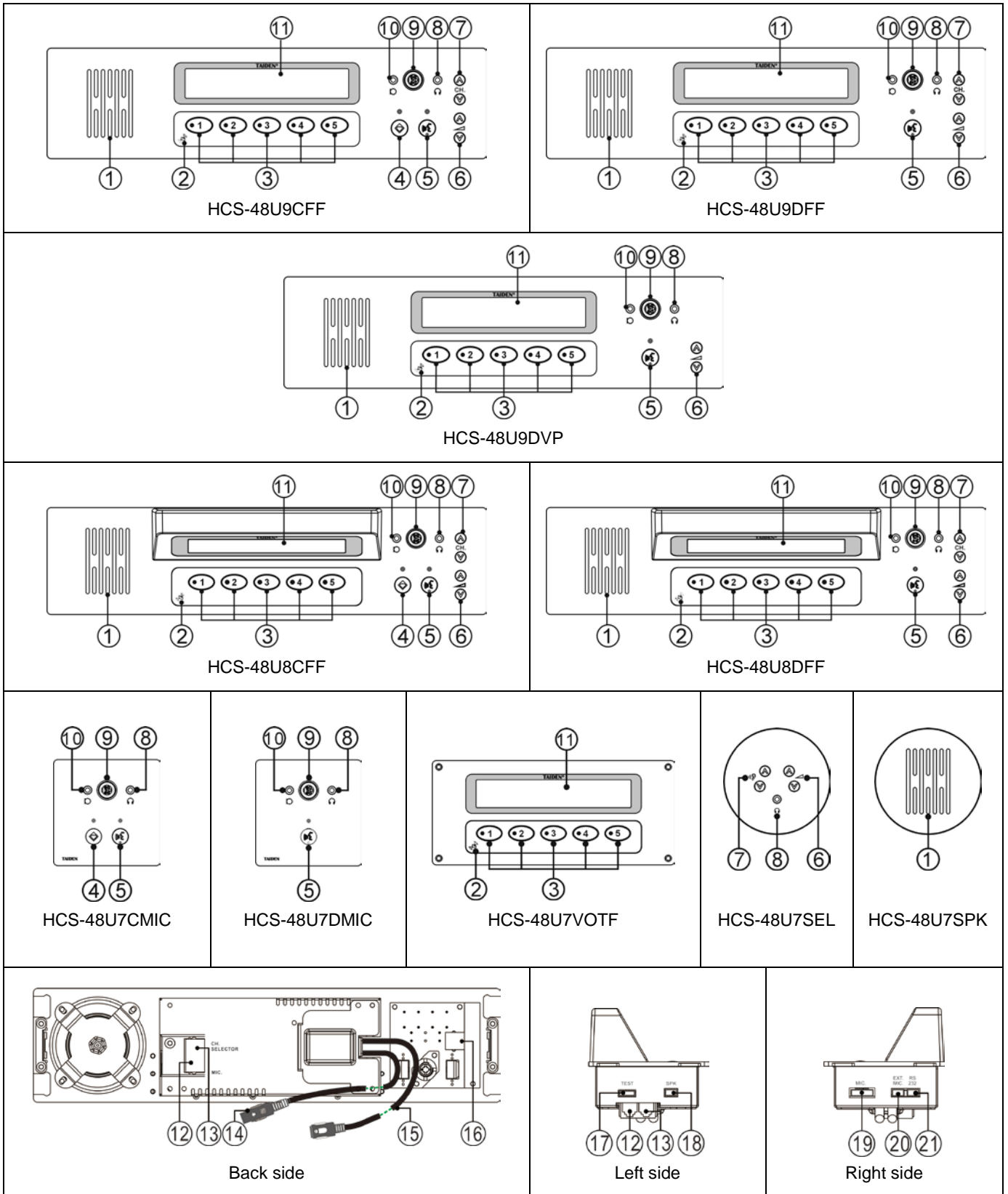


Figure 3.3.1 HCS-48U7/U8/U9 series congress units

Figure 3.3.1:

1. Built-in Hi-Fi loudspeaker

- ◆ Mutes automatically to suppress howling when the microphone of the unit is active;
- ◆ Loudspeaker sends out floor channel audio only. The volume is controlled via the CMU or the application software.

2. Contactless IC-Card reader

3. Multi-function keys with indicating light (5 keys):

- ◆ In different modes, the corresponding indicating lights blink; press the corresponding key to execute operation (refer to table 3.3.1 for details);
- ◆ For this series congress units with LCD, these five keys act as functional keys for menu operation.

4. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as “All off”, all active delegate microphones (except VIP units) will be switched off when this key is pressed. Under “Open” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;
- ◆ If the ring mode is configured as “ON”, a ring tone will be produced when this key is pressed.

5. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate/deactivate the microphone;
- ◆ Delegate unit: press this key to activate/deactivate the microphone or request/cancel request to speak.

Active Mic’s LED Color: Red

Work state	Indicating light
Microphone On	Red (on)
Speaking time limit	Red (flash)
First in request list	Green (flash)

Not first in request list	Green (on)
VIP indication	Yellow (on)

Active Mic’s LED Color: Green

Work state	Indicating light
Microphone On	Green (on)
Speaking time limit	Green (flash)
First in request list	Red (flash)
Not first in request list	Red (on)
VIP indication	Yellow (on)

6. Earphone volume control

7. Simultaneous interpretation channel selector

- ◆ Available when earphone is plugged.

8. Earphone jack (Ø 3.5 mm)

- ◆ For HCS-48U7MIC, the earphone volume can be adjusted when work together with HCS-48U7SEL;

9. Stem microphone socket

10. External microphone jack (Ø 3.5 mm)

11. High light 256x32 graphic LCD

- ◆ Can display menu and information in several languages (Simplified Chinese, Traditional Chinese, English, etc.);
- ◆ If the earphone is plugged, the simultaneous interpretation channel number and the language name will be displayed.

12. Mic. (RJ11 socket)

(refer to figure 3.3.13 and figure 3.3.14 for details)

- ◆ HCS-48U7 series: connecting to RJ11 socket of HCS-48U7MIC module;
- ◆ HCS-48U8 and HCS-48U9 series: connecting to RJ11 socket ⑱ of the microphone component.

13. CH SELECTOR (RJ11 socket)

(refer to figure 3.3.13 and figure 3.3.14 for details)

- ◆ HCS-48U7 series: connecting to RJ11 socket of HCS-48U7SEL module.

14. 1.5-meter 6P-DIN cable with standard plug (male x 1)

15. 6P-DIN cable with mini 6P-DIN plug (female x 1)

- ◆ For the version equipped with electronic nameplate only;
- ◆ Connecting to electronic nameplate.

16. RJ11 socket of the microphone component

(refer to figure 3.3.10 and figure 3.3.11 for details)

17. TEST

18. SPK (refer to figure 3.3.10 and figure 3.3.11 for details)

- ◆ Connecting to HCS-48U7SPK module.

19. MIC. (refer to figure 3.3.10 and figure 3.3.11 for details)

- ◆ 6-pin socket, connecting to stem microphone of HCS-48U7MIC module.

20. EXT. MIC. (refer to figure 3.3.10 and figure 3.3.11 for details)

- ◆ 3-pin socket, connecting to external microphone of HCS-48U7MIC module.

21. RS-232

Table 3.3.1 List of multi-function keys

Function \ Keys		1/- -	2/-	3/0	4/+	5/++	
Numbering		Number					
Key-press sign-in		Sign-in					
Start/End (with application software)		Start/End					
Pause/End (without application software)		Pause				End	
Voting	Parliamentary		YES	NO	ABSTAIN		
	Questionnaire	1	2	3	4	5	
	Audience response	--/0	-/25	0/50	+/75	++/100	
	For/Against		For	Against			
	Parliamentary		YES	NO	ABSTAIN	NPPV	
	Appraisal	Satisfied	Perfectly satisfied (four keys voting)	Satisfied (four/three/two keys voting)	Basically satisfied (four/three keys voting)	Unsatisfied (four/three/two keys voting)	
		Qualified	Perfectly qualified (four keys voting)	Qualified (four/three/two keys voting)	Basically qualified (four/three keys voting)	Unqualified (four/three/two keys voting)	
		Competent	Perfectly competent (four keys voting)	Competent (four/three/two keys voting)	Basically competent (four/three keys voting)	Incompetent (four/three/two keys voting)	

3.3.2 Installation

3.3.2.1 Cutout

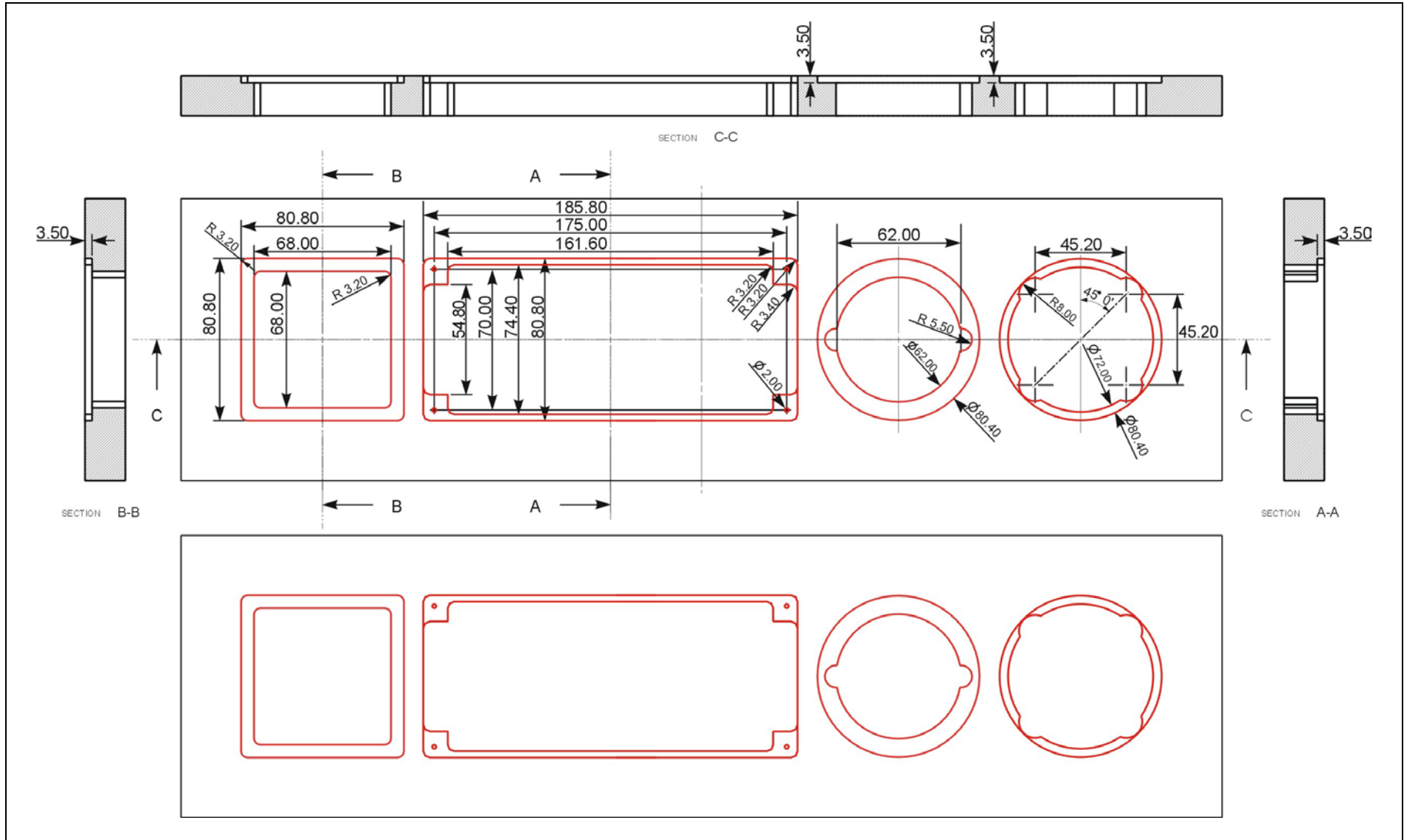


Figure 3.3.2 Cutout of HCS-48U7 series flush-mounted congress unit (unit: mm)

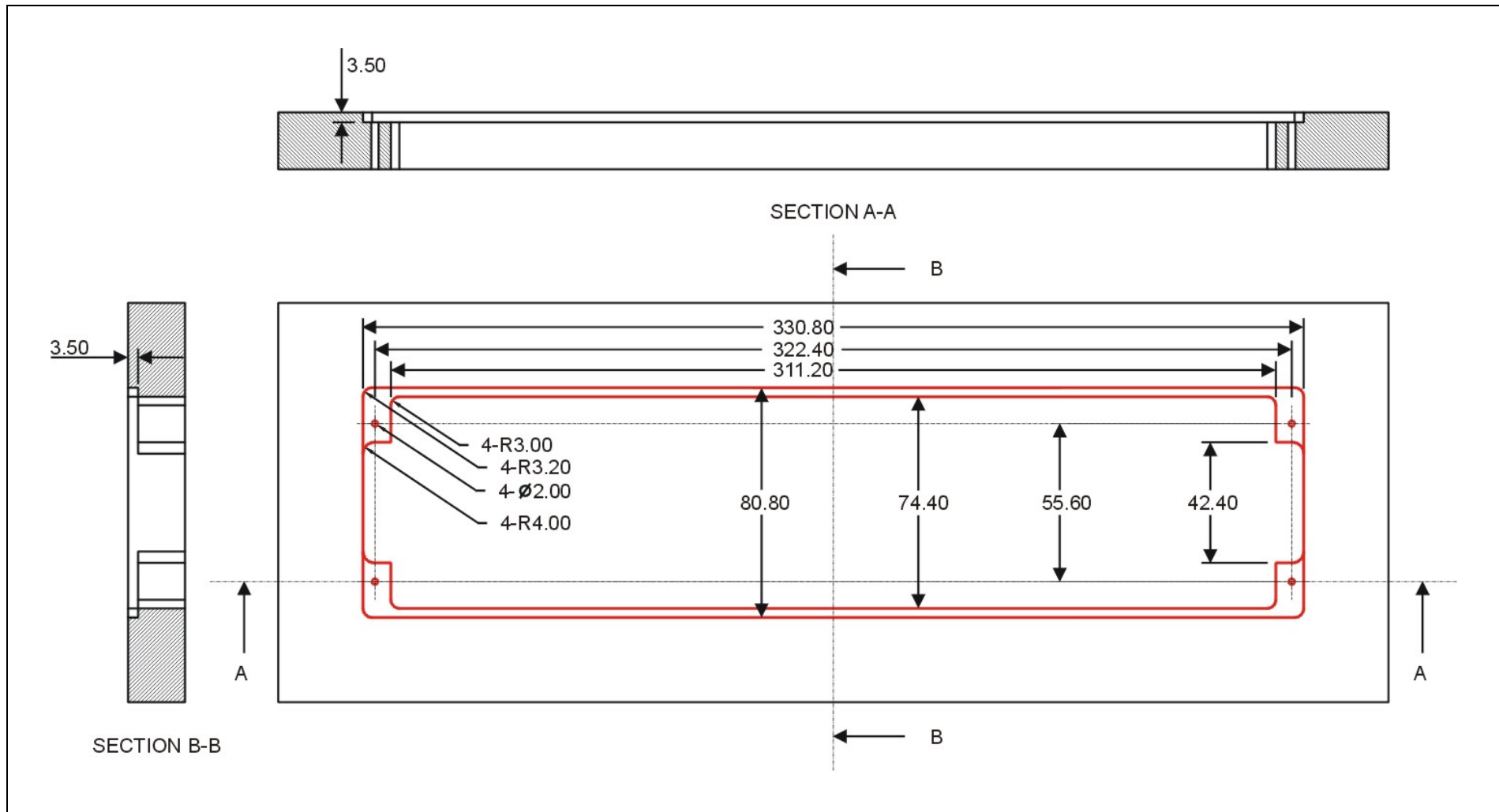


Figure 3.3.3 Cutout of HCS-48U8 series flush-mounted congress unit (unit: mm)

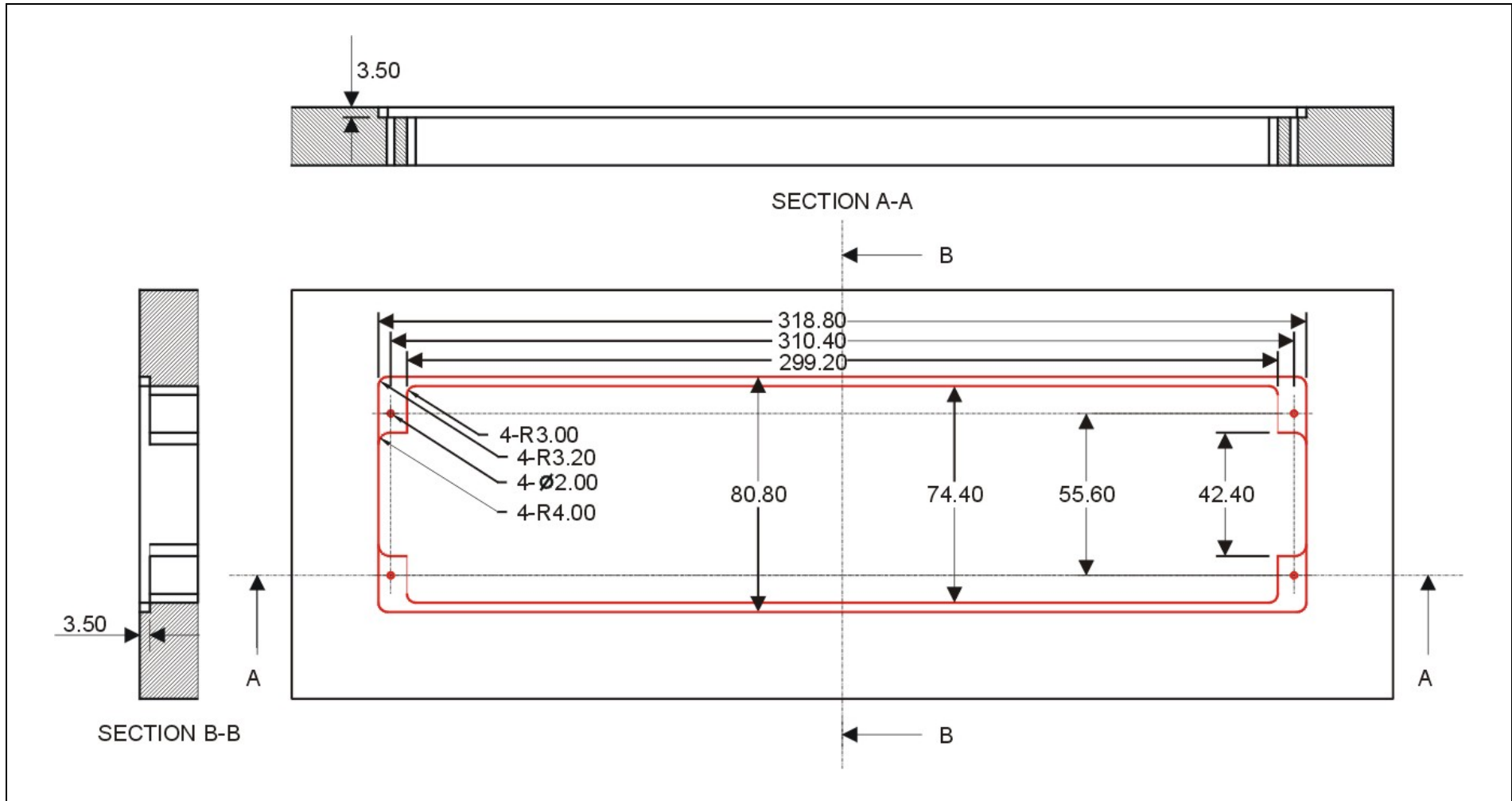


Figure 3.3.4 Cutout of HCS-48U9 series flush-mounted congress unit (unit: mm)

3.3.2.2 Installation

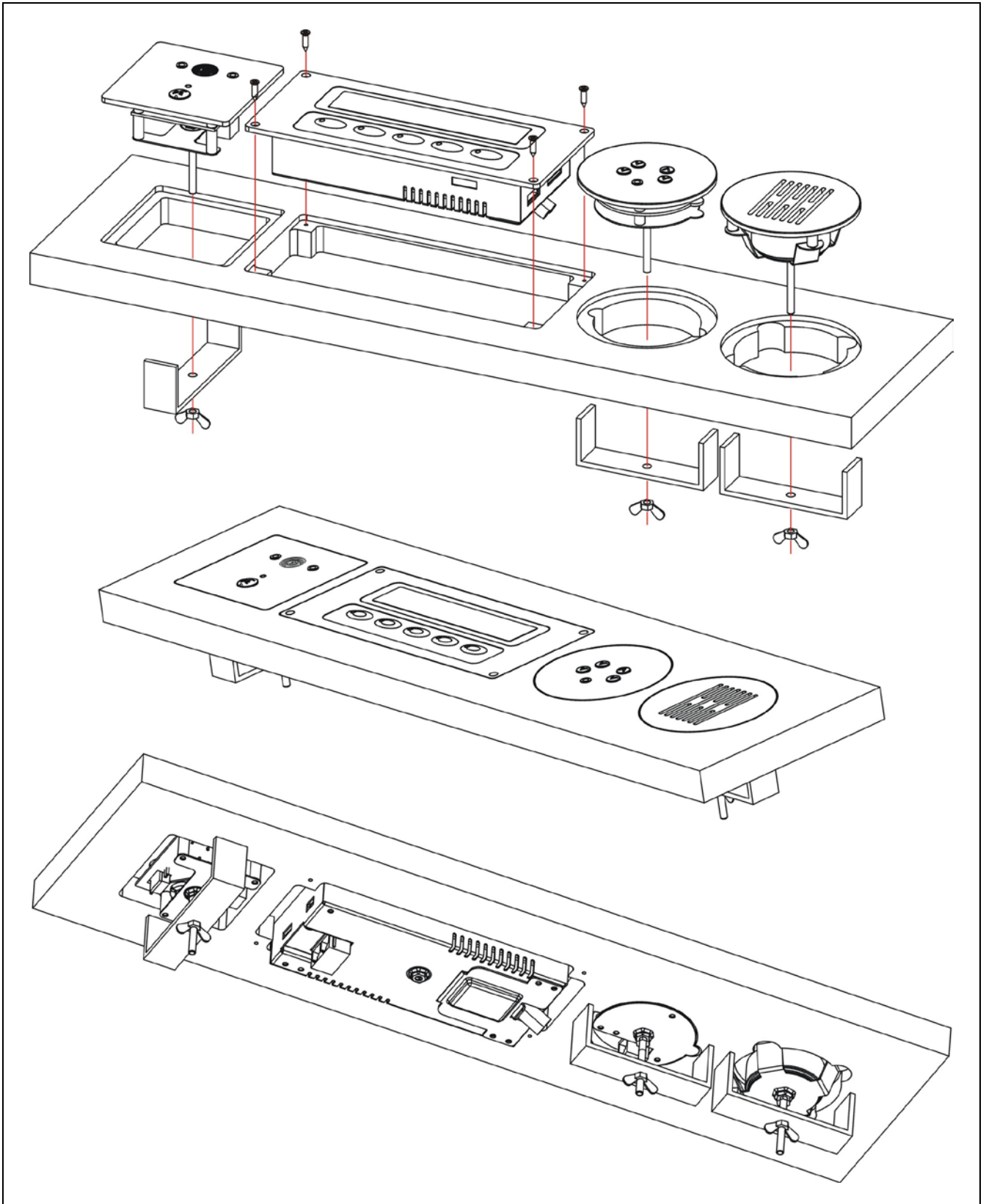
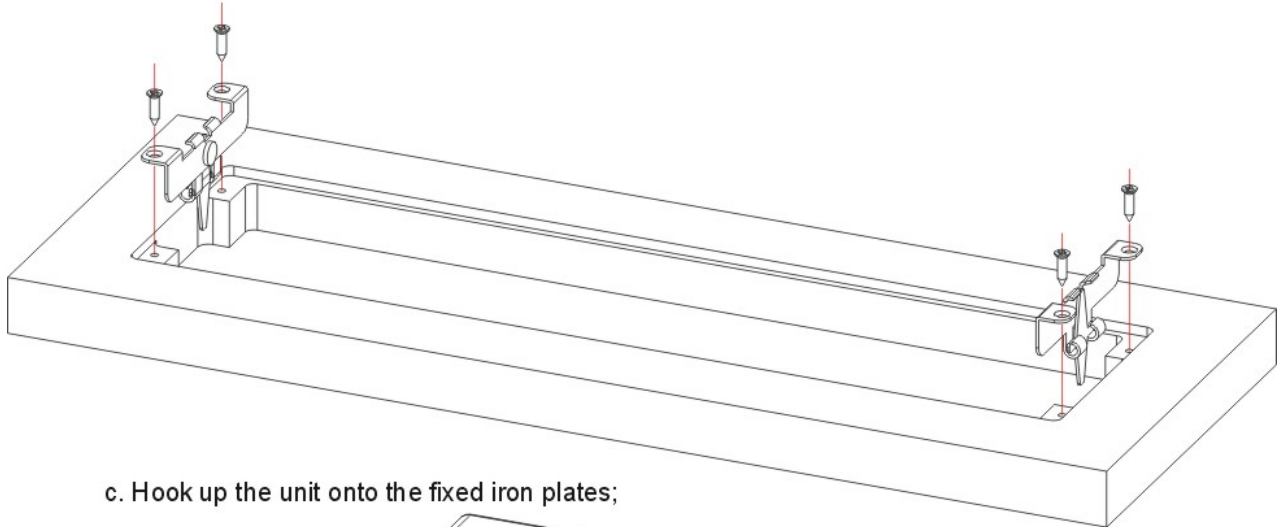


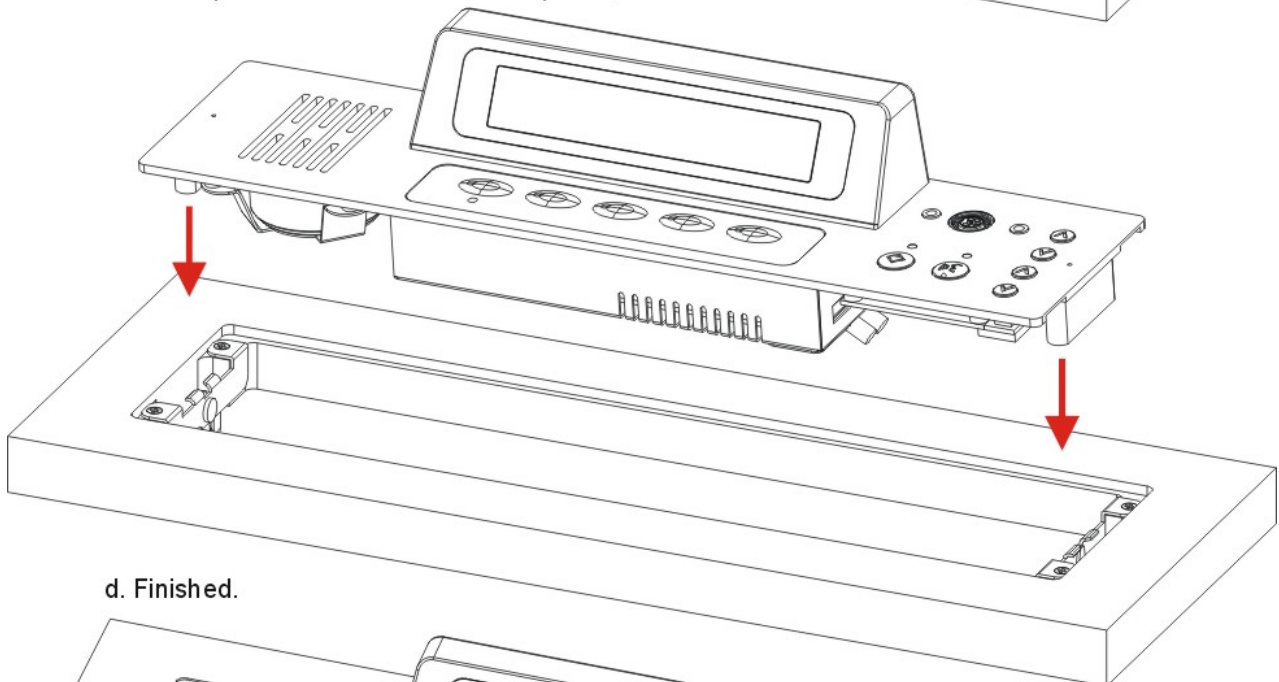
Figure 3.3.5 Installation of HCS-48U7 series flush-mounted congress unit

Steps:

- a. Make holes on the table according to the dimensional diagram;
- b. Fix the fixed iron plates with screws according to the holes;



- c. Hook up the unit onto the fixed iron plates;



d. Finished.

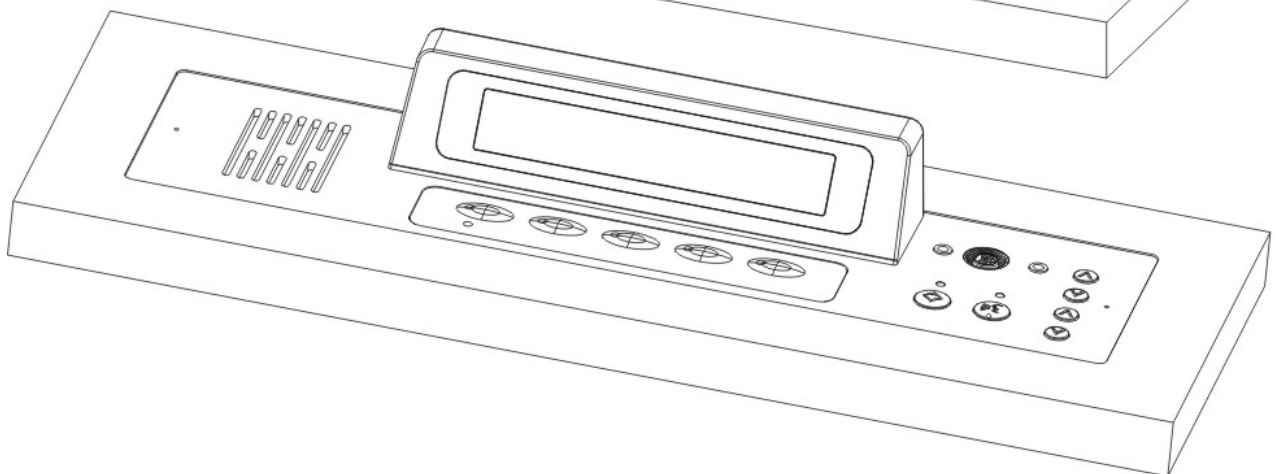


Figure 3.3.6 Installation of HCS-48U8 series and HCS-48U9 series flush-mounted congress unit

3.3.2.3 Disassembly

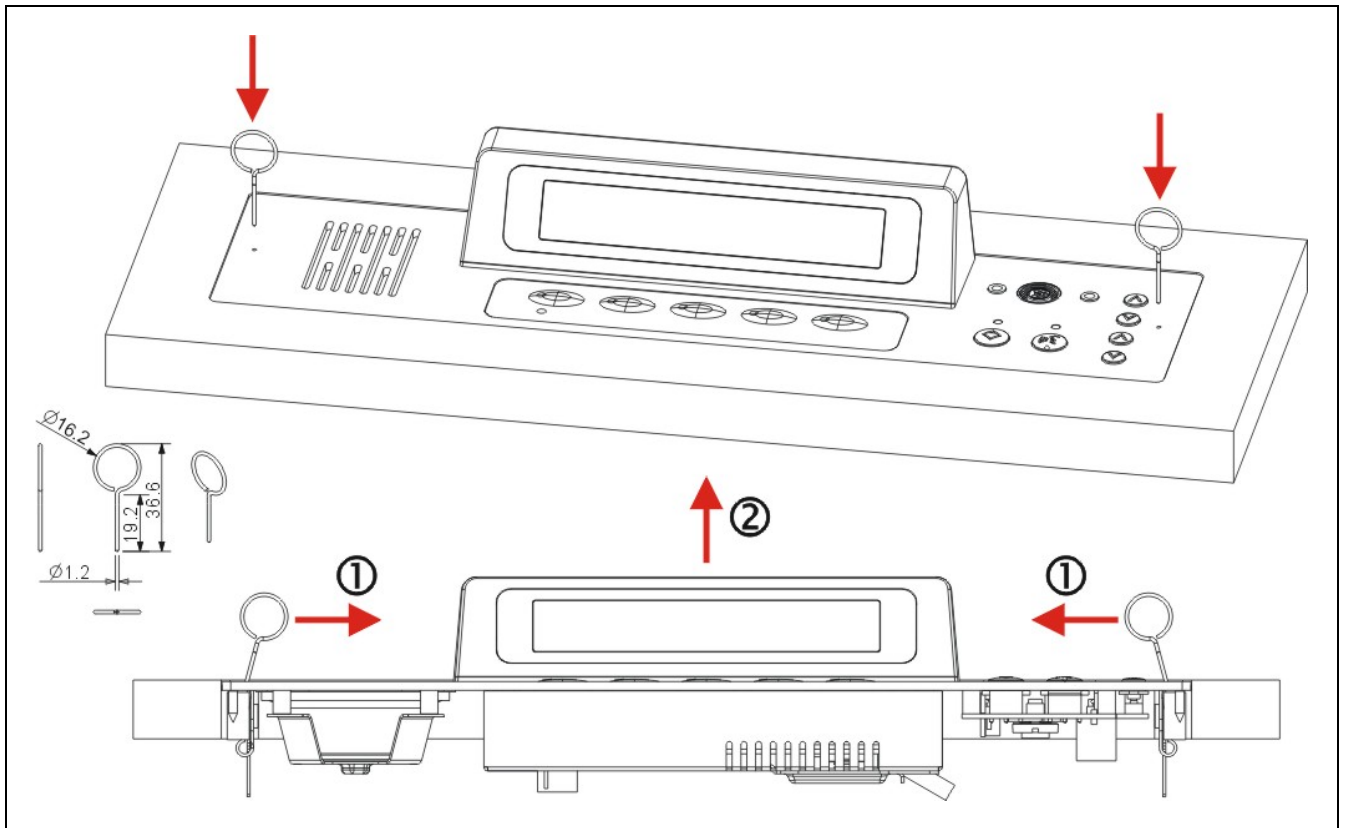


Figure 3.3.7 Disassembly of HCS-48U8 and HCS-48U9 series flush-mounted congress unit (method a)

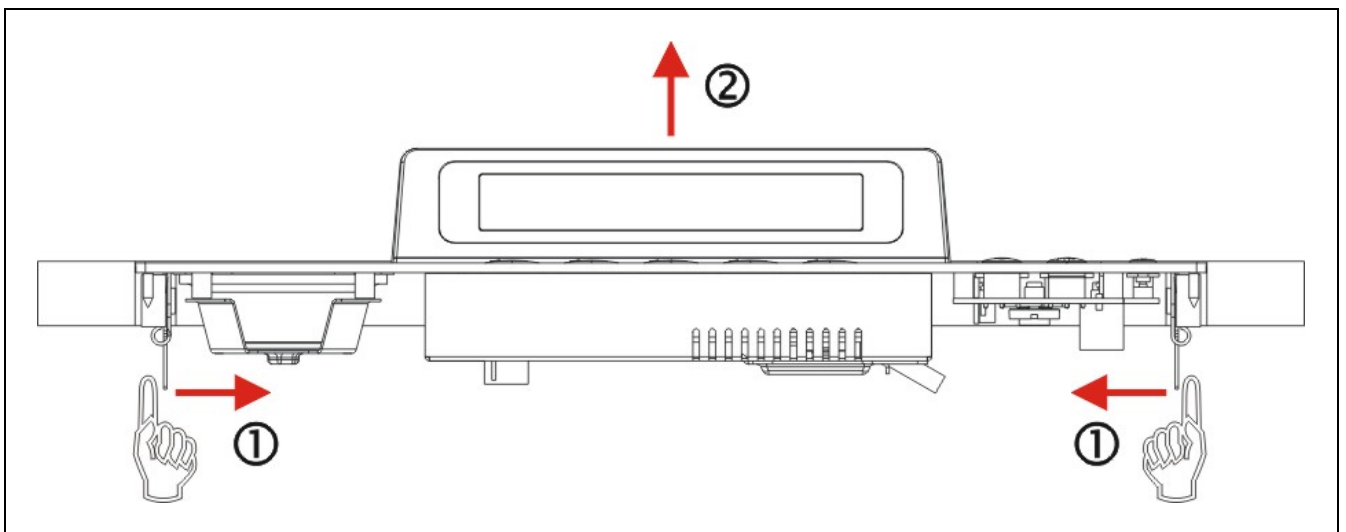
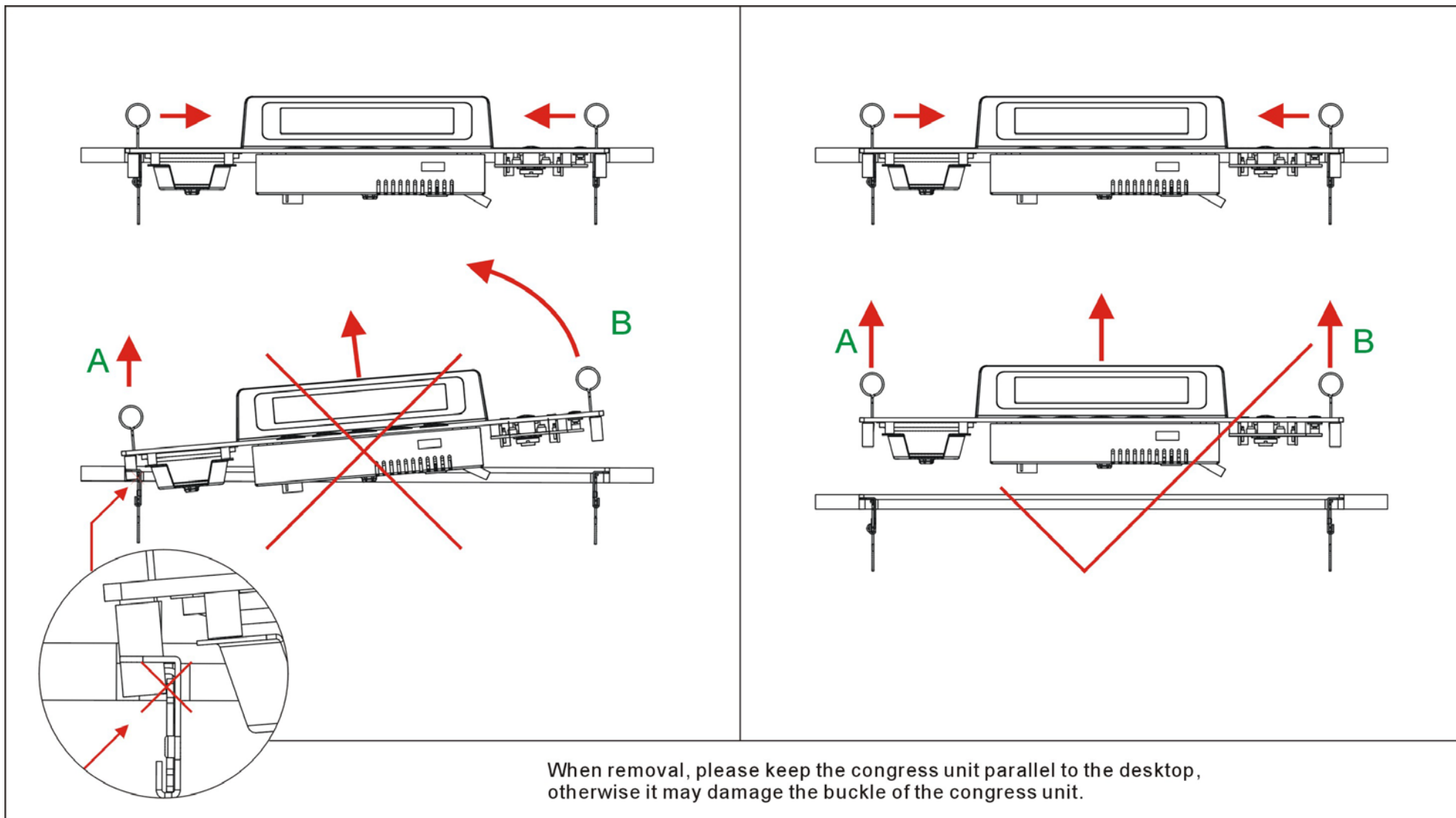


Figure 3.3.8 Disassembly of HCS-48U8 and HCS-48U9 series flush-mounted congress unit (method b)



When removal, please keep the congress unit parallel to the desktop, otherwise it may damage the buckle of the congress unit.

Figure 3.3.9 Disassembly caution of HCS-48U8 and HCS-48U9 series flush-mounted congress unit

3.3.3 Connection

3.3.3.1. Connection among the modules of HCS-48U7 congress unit

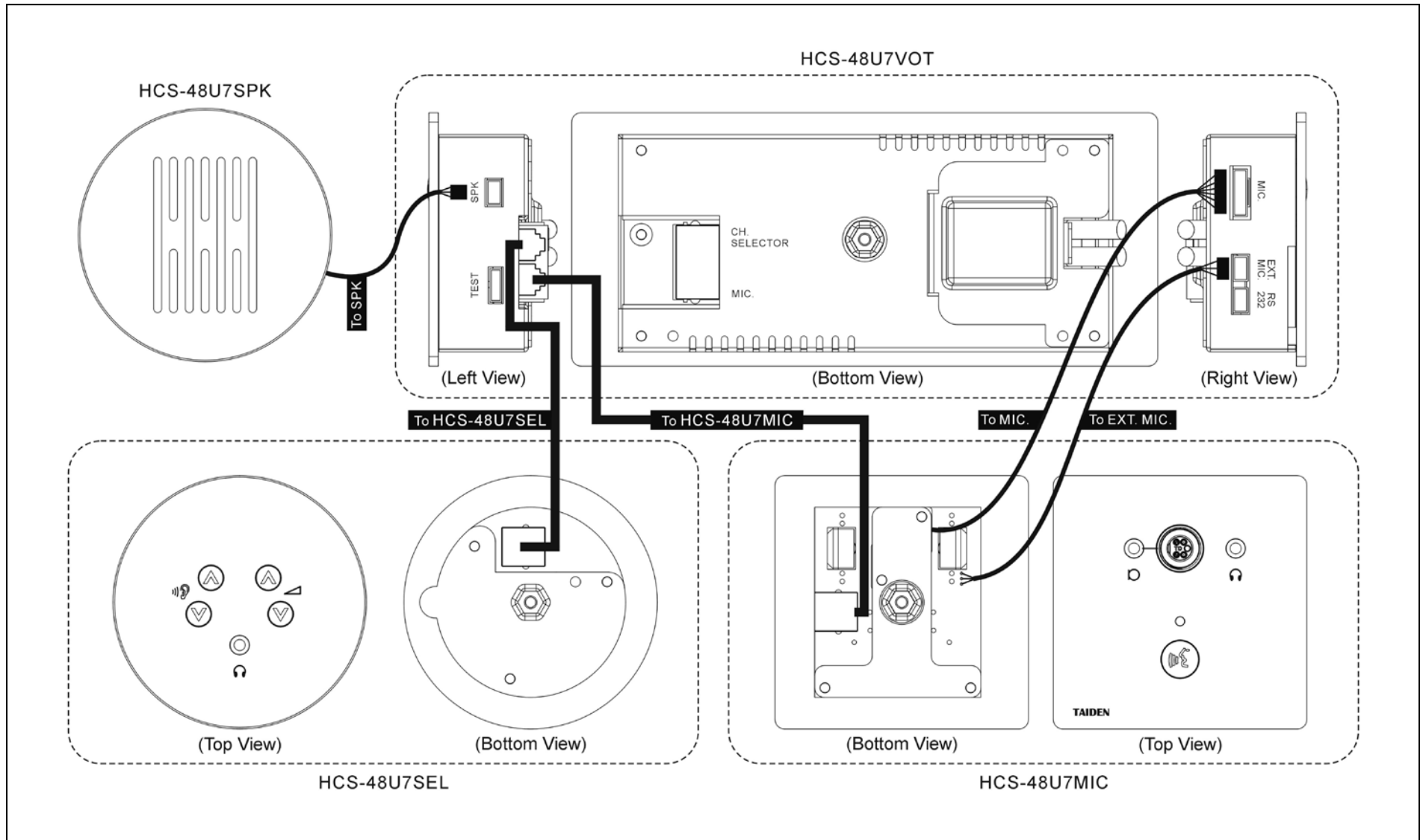


Figure 3.3.10 Connection among the modules of HCS-48U7 congress unit

3.3.3.2. Connection between HCS-48U7MICSPK congress unit and HCS-4340U/52 multi-function connector

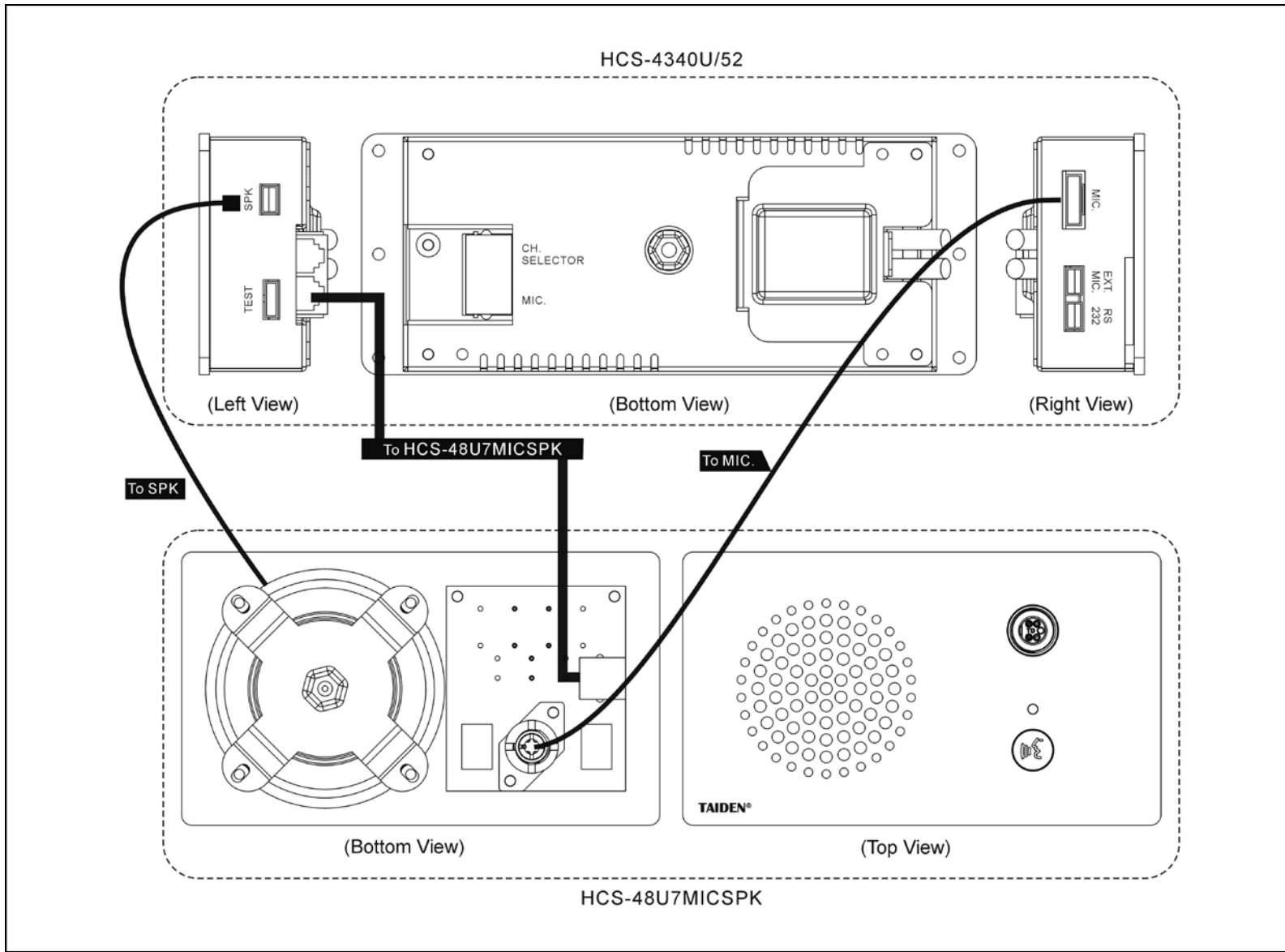


Figure 3.3.11 Connection between HCS-48U7MICSPK congress unit and HCS-4340U/52 multi-function connector

3.3.3.3 Connecting to the CMU or the EMU

The HCS-48U7/U8/U9 series congress unit is equipped with a 1.5-meter 6P-DIN cable with a standard male connector (HCS-48U7MICSPK series congress unit shall be connected to the multi-function connector). To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

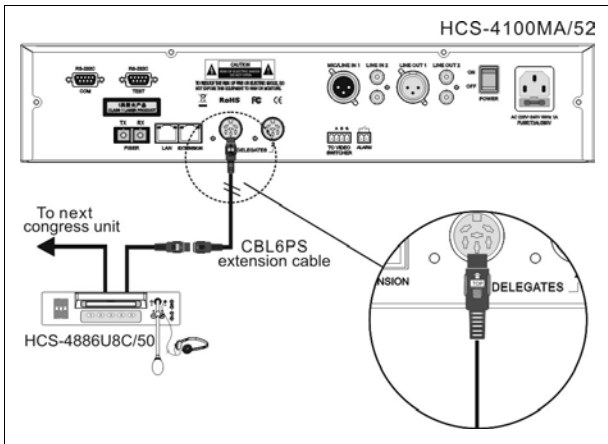


Figure 3.3.12 HCS-48U7/U8/U9 series congress unit connected to the CMU/EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “Closed Loop - Daisy Chain” connection topology is selected. “Closed Loop - Daisy Chain” connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “Closed Loop - Daisy Chain” connection, just connect the last congress unit back to the CMU or the EMU with HCS-8300MCLS. The 1.5 meter 6P-DIN standard plug cable of HCS-8300MCLS is connected to the output connector of the main unit and the 0.6 meter 6P-DIN standard plug cable is connected to the tail end of the conference unit. Details for section 2.1.3 “Closed Loop - Daisy Chain” connection topology

3.3.3.4 Connection between congress units

All congress units of HCS-4100/50 system are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit (HCS-48U7MICSPK series congress unit shall be connected to the multi-function connector).

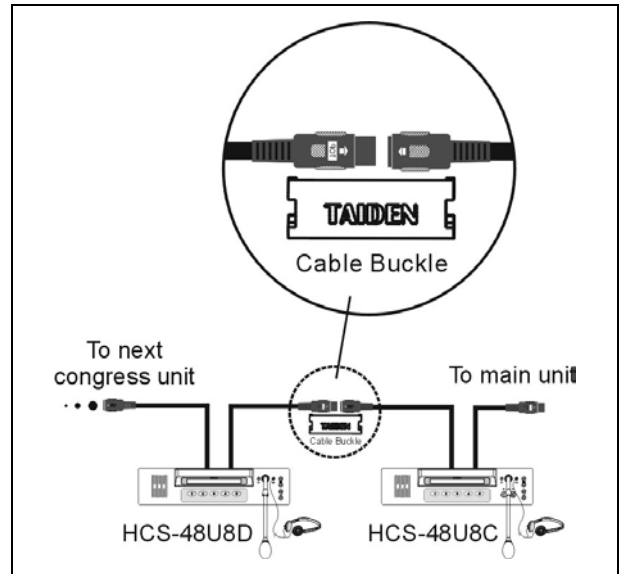
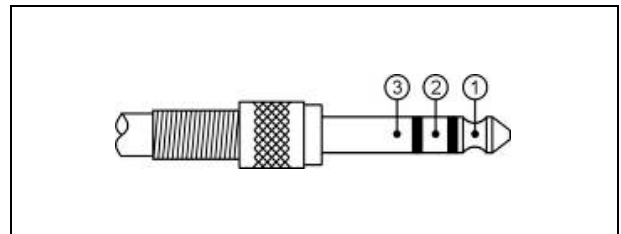


Figure 3.3.13 “Daisy-chain” connection between HCS-48U7/U8/U9 series congress units

3.3.3.5 External microphone

An external microphone can be connected to the external microphone jack of the congress unit. The external microphone shall have a Ø 3.5 mm plug, as in the following figure:

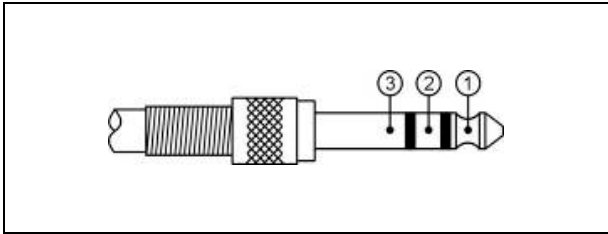


Functions and indications:

- 1Signal+
- 2Suspend/Ground
- 3Ground

3.3.3.6 External earphone

An external earphone can be connected to the external earphone jack of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a Ø 3.5 mm plug, as in the following figure:



Functions and indications:

- 1 Left stereo channel signal
- 2 Right stereo channel signal
- 3 Power ground/Shield

3.3.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants use the congress unit to sign-in, activate microphone, request to speak, vote, read message, etc.

3.3.4.1 Delegate unit

We introduce all the operation of HCS-48U7/U8/U9 series congress units. The congress units of this series feature one or more of these functions.

1. Number

First of all, make sure that the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm. The system now goes to numbering status. "Press '1' key of all congress units one by one and repower" will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. All congress units with an LCD will display "Numbering". Press key "1" (microphone On/Off key for HCS-48U7MIC and HCS-48U7MICSPK) of every congress unit one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the congress units one by one and do NOT press the "NUMBER" key of several congress units at the same time.

2. Sign-in (application software needed)

To carry out voting, congress units with voting and IC-Card reader should be registered via key press, IC-Card or input PIN code. With application software, registration is available by choosing "Seat Sign-in".

■ Key-press sign-in

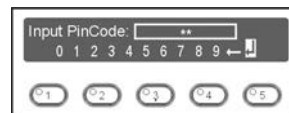
In key-press sign-in status, the indicating light on key "1" will blink, press key "1" to sign-in and the indicating light will be turned off.

■ IC-Card sign-in

In IC-Card sign-in status, "Please Use IC Card" will be displayed on the LCD. Read the IC-Card correctly, a welcome interface will be displayed. Press any key to go to the initial interface. If the IC-Card is invalid, "Invalid IC card" will be displayed on the LCD. Please read the IC-Card again or contact the technical support.

■ PIN code sign-in

In PIN code sign-in status, "Input PinCode" will be displayed on the LCD. Input PIN code and select the "←" button to confirm. If the PIN code is correct, the LCD will display the delegate's name; if the PIN code is wrong, the PIN code sign-in interface displayed on the LCD again.



Icon:

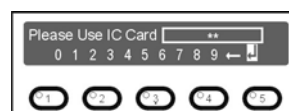
- ◆ 0,1,2,3,4,5,6,7,8,9: PIN code number;
- ◆ ←: backspace;
- ◆ ↵: enter;

Key:

- ◆ "1" key: move left;
- ◆ "3" key: move right;
- ◆ "5" key: confirm button.

■ Seat IC-Card and PIN code sign-in

In seat IC-Card and PIN code sign-in status, "Please Use IC Card" and PIN code input interface will be displayed on the LCD. Either IC-Card sign-in or PIN code sign-in will work.



In the above sign-in mode (except key press sign-in mode), logout is available. It is used for locking the units in case the delegates leave for a short time. Delegate units will work on after delegates sign-in again (The DCS server cannot stop sign-in).

3. Speaking (without software)

Speaking mode is configured on the CMU (refer to section [2.1.4](#)).

A. "Open" 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, the speaker can give his/her speech;
- 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 the microphone On/Off key again to cancel the request to speak;
- c. When an active microphone is turned off, the first request microphone will be activated.

B. "Override" 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, the speaker can give his/her speech;
- 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 delegate microphone On/Off key is pressed, its microphone will be activated and the first activated delegate microphone will be deactivated at the same time to maintain the active microphone number limitation. If the number of active microphone (including chairman and VIP unit) reaches 6, turning on another microphone will

switch off the delegate microphone which turned on first.

C. "Voice" mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated;
- b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted at the main unit (refer to section [2.1.4](#));
- c. When the microphone is activated, it can be turned off by pressing the microphone On/Off key.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. "Apply" mode

- a. Request to speak when the microphone On/Off key is pressed (default 6 microphones at most). The chairman unit can approve or reject his/her speak;
- b. When his/her request is approved, he/she can speak and the last activated microphone will be turn off at the same time.

E. "PTT" 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 and held, the speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is released.

■ Active microphone number limitation (1/2/3/4) **reached:**

Pressing the microphone On/Off key cannot activate the microphone until one of the activated microphones is switched off.

Note:

- ☞ **“Voice” speaking mode:** the chairman unit and the VIP unit count in the active microphone number limitation (1/2/3/4), if the active microphone number limitation reached, the microphones of the chairman unit and the VIP unit cannot be turned on;
- ☞ **Other speaking modes:** the chairman unit and the VIP unit do not count in the active microphone number limitation (1/2/3/4); at most 6 microphones can be activated at the same time in a system.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

4. Voting

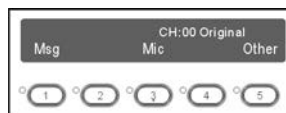
Voting can be originated by the chairman unit (only for 3 keys voting), or by TAIDEN conference management system software.

- The voting button indicating lights of the congress unit start to blink, the delegate can press the voting button to vote;
- For “First key-press valid” voting, the delegate can vote only once;
- For “Last key-press valid” voting, the delegate can change his/her vote, and the last voted key will be valid;
- The voting originated by the chairman unit only supports “Last key-press valid”;
- Supports proxy voting, delegates not attending the meeting may vote by proxy, one proxy can vote for no more than 50 delegates (setting on conference software).

5. Channel selection

- When the CMU is connected to interpreter unit(s), simultaneous interpretation function will work. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the LCD will display the simultaneous interpretation channel number and language name. The delegate can select a suitable language to listen to

by means of the channel selector.



- When the earphone is pulled out, the LCD will not display the simultaneous interpretation information anymore.

6. Volume control

- The volume of the built-in loudspeaker can be adjusted by the master volume control knob on the main unit;
- When the earphone is plugged, its volume can be adjusted by the earphone volume control of the unit.

7. LCD display

After sign-in, the following interface will be displayed on the LCD:

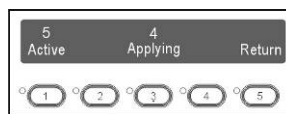


A. “Message” (key “1”)

- Use this key to read a message. When a PC is connected, the operator can edit and send a message to congress unit(s);
- On receipt of a message, a ring tone will be emitted by the built-in loudspeaker and “*You have got a new message*” will be displayed on its LCD and the indicating light of key “5” will blink. Press key “5” to read the corresponding message;
- At most 4 messages can be stored in the congress unit. In case of more incoming messages, the first received message will be overlapped.

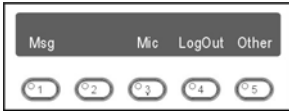
B. “Microphone” (key “3”)

Use this key to display microphone information, including: active microphone number (including chairman, delegate and VIP), request amount:



C. “LogOut” (key “4”)

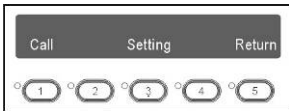
It is used under IC-Card sign-in mode or/and PIN code sign-in mode.



It is used for locking the units in case the delegates leave for a short time. Delegate units will work on after delegates sign-in again (The DCS server cannot stop sign-in).

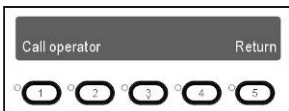
D. “Other” (key “5”)

Use this key to request intercom, setup LCD display language and system information:



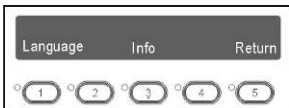
■ “Call” (key “1”)

The earphone shall be plugged to use the intercom function. If not, it will remind you to plug the earphone. If the current unit is using the intercom function, it will remind you that the line is busy. Press “Call” (key “1”) to use the intercom function, and the following interface at the left side is displayed. When the operator approved your request, then the following interface at the right side is shown:

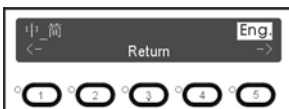


■ “Setting” (key “3”)

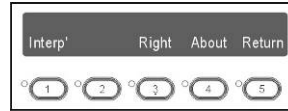
Press “Setting” (key “3”), and the following interface is shown:



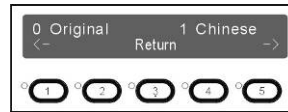
- Press “**Language**” (key “1”) to select the LCD display language between several languages. The range is limited by the configuration in the CMU (refer to section [2.1.4](#));



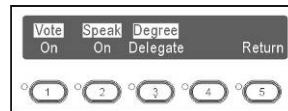
- Press “**Info**” (key “3”), and the following interface is shown:



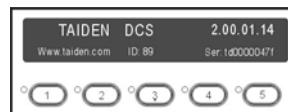
- Press “**Interpretation**” (key “1”) to run through information about all interpretation languages:



- Press “**Right**” (key “3”) to check the rights of this unit:



- Press “**About**” (key “4”) to display the product information:



8. VIP unit

- Any delegate unit can be assigned as a VIP unit by the TAIDEN conference management system software. At most 32 VIP units can be assigned;
- As long as the active microphone capacity is not full, the microphone of the VIP unit can be activated freely;
- If the active microphone capacity is full, the microphone of the VIP unit cannot be turned on unless one of the active microphones is deactivated.

3.3.4.2 Chairman unit

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

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will restore when this key is released;
- If the priority mode on the main unit is configured as “All off”, all active delegate microphones (except VIP units) will be turned off and the request-to-speak list will be purged (under “Open” and “Apply” mode) when this key is pressed.

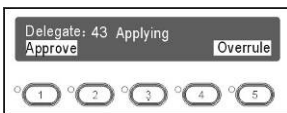
2. Speaking

- If the active microphone capacity is not full, the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit;
- If the active microphone capacity is full, the chairman cannot activate his/her microphone. But he/she can use the priority key to “All mute” or “All off” other delegate microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit’s request to speak

Without PC and under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the built-in loudspeaker in the chairman’s unit.



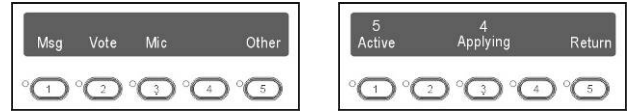
The chairman can now approve delegate’s request and activate delegate’s microphone by pressing key “1” or reject delegate’s request by pressing key “5”.

At most 6 microphones (default) can request at the same time. When a request is approved, the last activated microphone will be turn off at the same time.

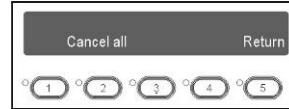
B. Turn off delegate microphone or reject delegate unit’s request to speak

The initial interface of the chairman unit is shown in the following figure at the left side. Press “Microphone”

(key “3”) to go to the microphone status interface as in the following figure at the right side:

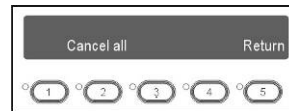


- Press “Active” (key “1”) to go to the active microphone control interface:



If any delegate’s microphone is active, “Cancel all” (key “2”) will be available and the chairman can press this key to deactivate all active delegate’s microphone.

- Press “Applying” (key “3”) to control the “request to speak” interface:



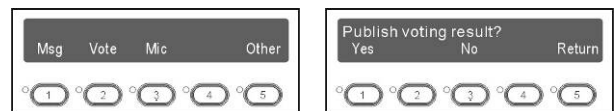
If connected to the PC, “Cancel all” (key “2”) will be available and the chairman can press this key to reject all requests (refer to application software user’s manual).

4. Voting

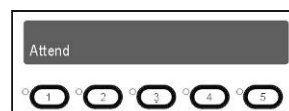
A. Without PC

HCS-48U7/U8/U9 series chairman unit can originate voting without a PC:

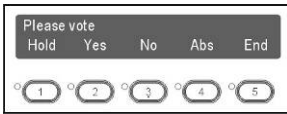
- In the initial interface of the chairman unit, press “Vote” (key “2”) to go to the voting control interface as shown in the following figure at the right side:



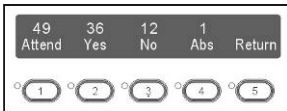
- If “Yes” (key “1”) is selected, the voting results will be displayed on the LCDs of all congress units; if “No” (key “3”) is selected, the voting results will be displayed only on the LCD of the chairman unit. After selection, the sign-in indicating light of all congress units will blink. The delegates can press key “1” to sign-in. After sign-in, the voting indicating lights will blink, the delegate is now enabled to vote:



c. Only 3 keys voting can be executed in case of a chairman unit originated voting (“Yes/No/Abstain”) and only “Last key-press valid” is available. The chairman can pause/end voting:



d. The chairman presses “End” (key “5”) to finish voting. The voting indicating light of all congress units will be deactivated. The voting results and sign-in statistics will be displayed on the chairman unit:



B. Connected to PC

- When controlled by the application software, nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- Voting can be controlled by application software. The voting operation of the chairman unit and the delegate unit are identical. In this mode, voting can also be controlled by the chairman unit. “Start voting” indicating light on the chairman unit will blink. Voting starts once the chairman pressed the “Start” key.

3.4 HCS-48U10/50 series congress unit

3.4.1 Functions and indications

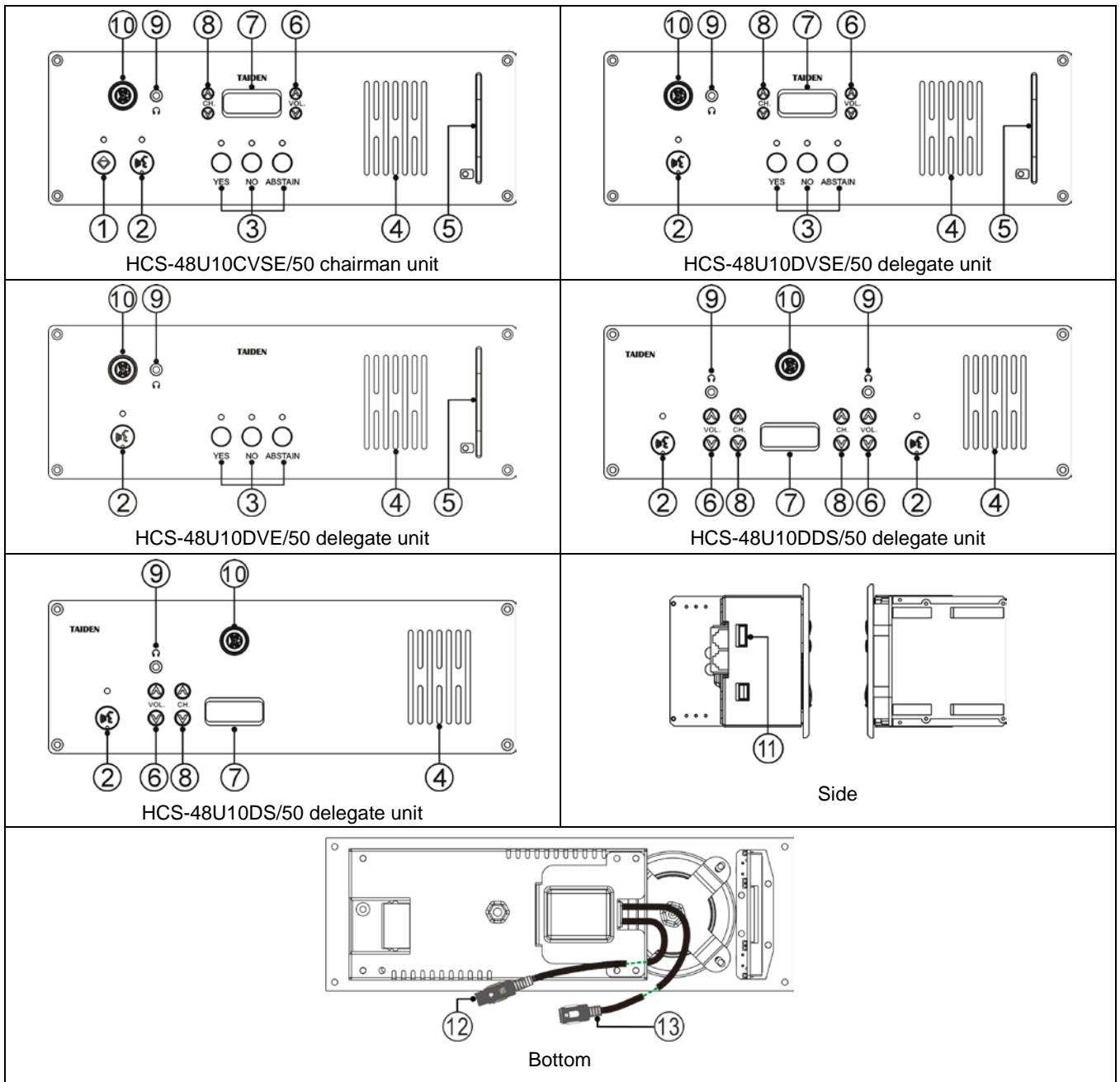


Figure 3.4.1 HCS-48U10/50 series congress units

Figure 3.4.1:

1. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will resume when the key is released;

- ◇ If configured as “All off”, all active delegate microphones (except VIP units) will be switched off when this key is pressed. Under “Open” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;

- ◆ If the ring mode is configured as “ON”, a ring tone will be produced when this key is pressed.

2. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate/deactivate the microphone;
- ◆ Delegate unit: 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	Red (flash)
First in request list	Green (flash)
Not first in request list	Green (on)
VIP indication	Yellow (on)

3. Multi-function keys with indicating light (3 keys):

- ◆ In different modes, the corresponding indicating lights blink; press the corresponding key to execute operation (refer to table 3.4.1 for details).

4. Built-in Hi-Fi loudspeaker

- ◆ Mutes automatically to suppress howling when the microphone of the unit is active;
- ◆ Loudspeaker sends out floor channel audio only. The volume is controlled via the CMU or the application software.

5. Contactless IC Card slot

- ◆ Built-in contactless IC-Card slot to place the IC card, while automatically logout once the card is taken out from the slot.

6. Earphone volume control

7. OLED display

8. Simultaneous interpretation channel selector

- ◆ Available when earphone is plugged.

9. Earphone jack (Ø 3.5 mm)

10. Stem microphone socket

11. TEST

12. 1.5-meter 6P-DIN cable with standard plug (male x 1)

13. 6P-DIN cable with mini 6P-DIN plug (female x 1)

- ◆ For the version equipped with electronic nameplate only;
- ◆ Connecting to electronic nameplate.

Table 3.4.1 List of multi-functional keys

Function \ Keys		YES	NO	ABSTAIN
Numbering		Number		
Sign-in		Sign-in		
Voting	Parliamentary	YES	NO	ABSTAIN
	For/Against	For	Against	

3.4.2 Installation

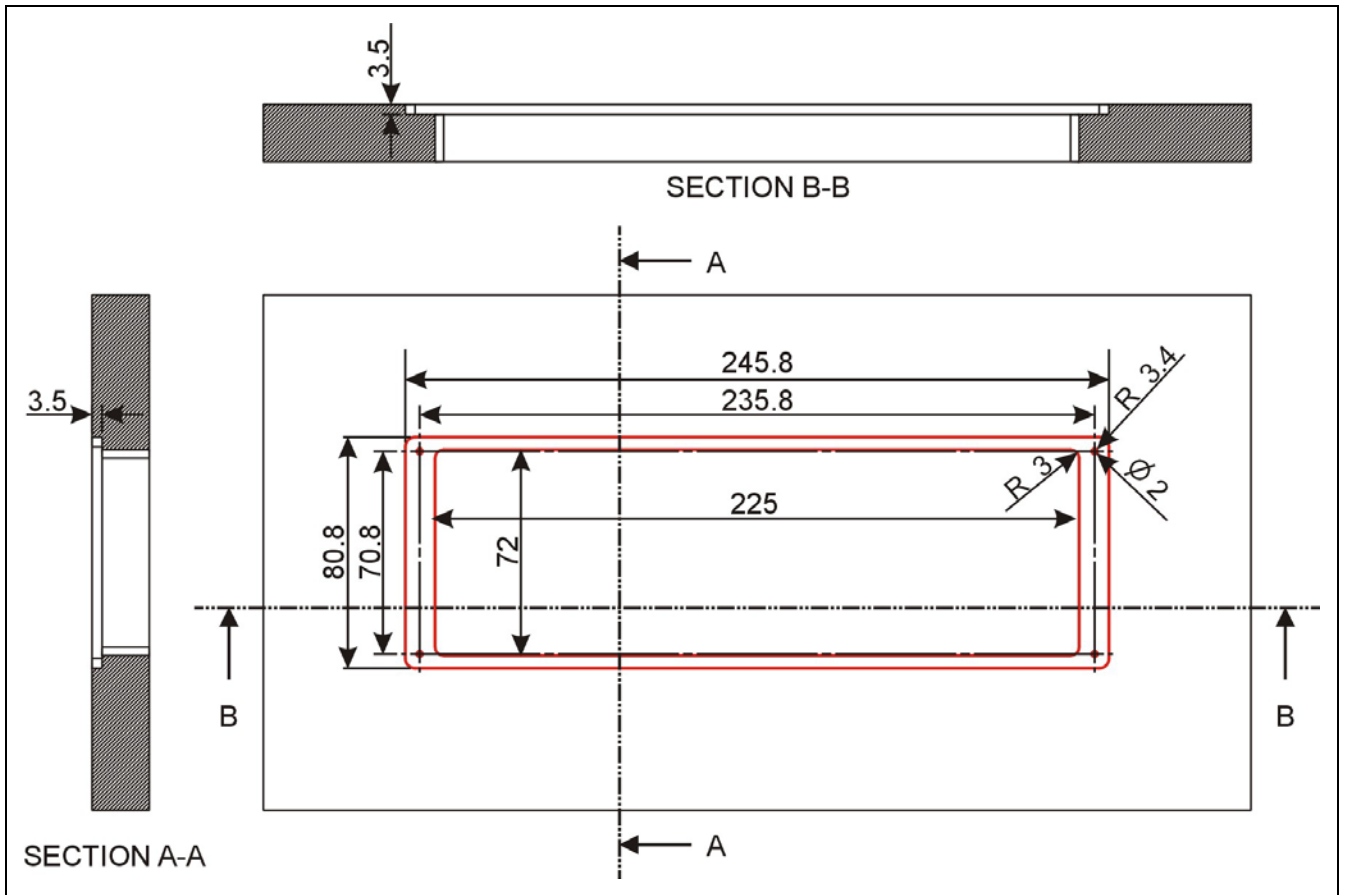


Figure 3.4.2 Cutout of HCS-48U10/50 series congress unit (unit: mm)

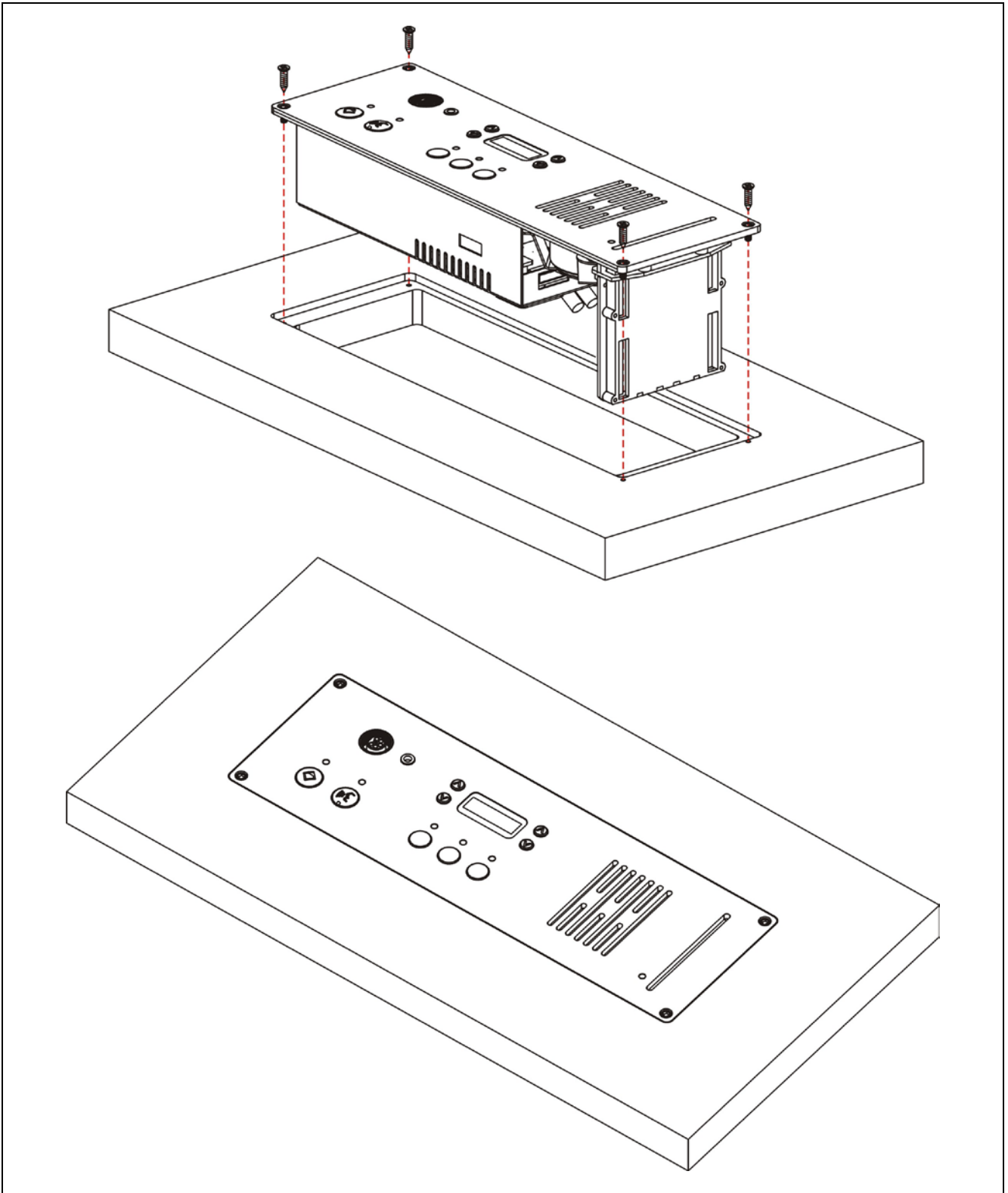


Figure 3.4.3 Installation of HCS-48U10/50 series congress unit

3.4.3 Connection

3.4.3.1 Connecting to the CMU or the EMU

The HCS-48U10/50 series congress unit is equipped with a 1.5-meter 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

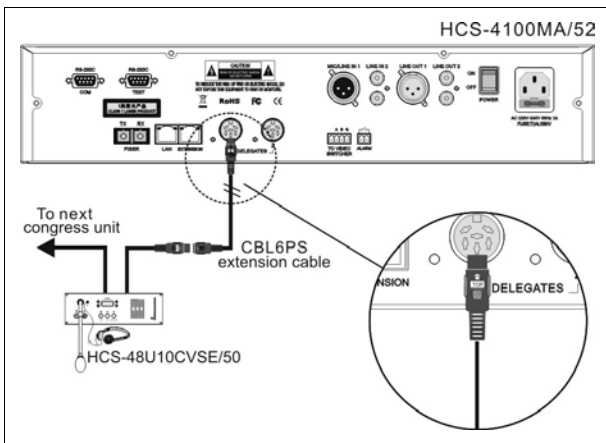


Figure 3.4.4 HCS-48U10/50 series congress unit connected to the CMU/EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “Closed Loop - Daisy Chain” connection topology is selected. “Closed Loop - Daisy Chain” connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “Closed Loop - Daisy Chain” connection, just connect the last congress unit back to the CMU or the EMU with HCS-8300MCLS. The 1.5 meter 6P-DIN standard plug cable of HCS-8300MCLS is connected to the output connector of the main unit and the 0.6 meter 6P-DIN standard plug cable is connected to the tail end of the conference unit. Details for section 2.1.3 “Closed Loop - Daisy Chain” connection topology

3.4.3.2 Connection between congress units

All congress units of HCS-4100/50 system are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

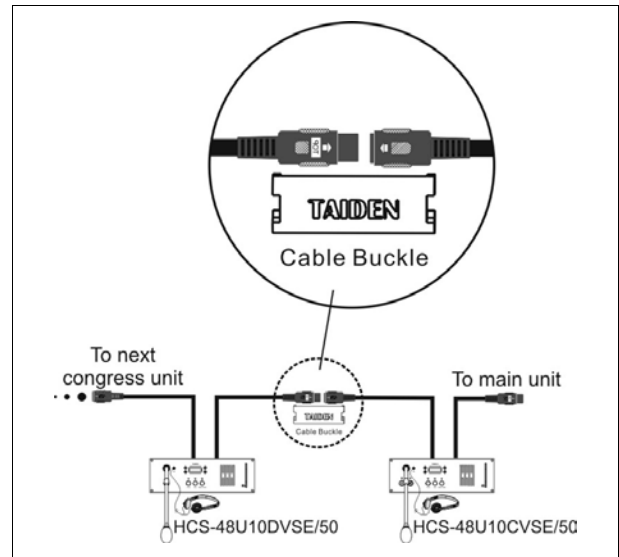
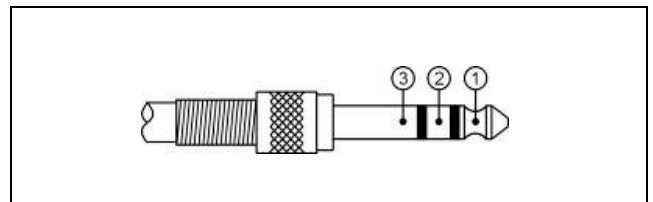


Figure 3.4.5 “Daisy-chain” connection between HCS-48U10/50 series congress units

3.4.3.3 External earphone

An external earphone can be connected to the external earphone jack of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a Ø 3.5 mm plug, as the following figure:



Functions and indications:

- 1..... Left stereo channel signal
- 2..... Right stereo channel signal
- 3..... Power ground/Shield

3.4.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants can use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

3.4.4.1 Delegate unit

We introduce all the operation of HCS-48U10/50 series congress units. The congress units of this series feature one or more of these functions.

1. Number

First of all, make sure that all the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm. The system now goes to numbering status. "Press '1' key of all congress units one by one and repower" will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink and the OLED screen will display "Numbering: × ×" (× × stands for ID). Press the "YES" key (microphone On/Off key for HCS-48U10DDS/50 and HCS-48U10DS/50) of every congress unit one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

- ☞ When numbering, please number the congress units one by one and do NOT press the "YES" key or the microphone On/Off key of several congress units at the same time;
- ☞ When working at Double ID mode, the two IDs of HCS-48U10DDS/50 congress unit must be set as sequential number, such as 1 and 2 (or 23 and 24). And please assign adjacent seats for these two IDs in seat arrangement procedure.

2. Sign-in (application software needed)

To carry out voting, congress units with voting and IC-Card reader should be registered via key press or IC-Card. With application software, registration is available by choosing "Seat Sign-in".

■ Key-press sign-in

In key-press sign-in status, the indicating light on key "YES" will blink, press key "YES" to sign-in and the indicating light will be turned off.

■ IC-Card sign-in (for units with voting function)

▪ Congress unit with OLED screen

In IC-Card sign-in status, "Insert IC Card" will be displayed on the OLED screen. Put the contactless IC-Card into the slot on the right side of the panel. If read the IC-Card correctly, the indicating light will off after blink. Channel selection interface will be displayed. If the IC-Card is invalid, the indicating light keeps on. "Invalid IC card!" will be displayed on the OLED screen. Please read the IC-Card again or contact the technical support.

▪ Congress unit without OLED

In IC-Card sign-in status, please put the contactless IC-card into the slot on the right side of the panel. If read the IC-Card correctly, the indicating light will off after blink. If the indicating light keeps on, stands that the IC-Card is invalid; please read the IC-Card again or contact the technical support.

3. Speaking (without software)

Speaking mode is configured on the CMU (refer to section [2.1.4](#)).

A. "Open" 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, the speaker can give his/her speech;
- 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 the microphone On/Off key again to cancel the request to speak;
- c. When an active microphone is turned off, the first request microphone will be activated.

B. “Override” 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, the speaker can give his/her speech;
- 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 delegate microphone On/Off key is pressed, its microphone will be activated and the first activated delegate microphone will be deactivated at the same time to maintain the active microphone number limitation. If the number of active microphone (including chairman and VIP unit) reaches 6, turning on another microphone will switch off the delegate microphone turned on first.

C. “Voice” mode

- Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated;
- b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted at the main unit (refer to section [2.1.4](#));
- c. When the microphone is activated, it can be turned off by pressing the microphone On/Off key.

- Active microphone number limitation (1/2/3/4)

reached:

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak when the microphone On/Off key is pressed (default 6 microphones at most). The chairman unit can approve or reject his/her speak;
- b. When his/her request is approved, he/she can speak and the last activated microphone will be turn off at the same time.

E. “PTT” 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 and held, the speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is released.

- Active microphone number limitation (1/2/3/4) **reached:**

Pressing the microphone On/Off key cannot activate the microphone until one of the activated microphones is switched off.

Note:

- ☞ **“Voice” speaking mode:** the chairman unit and the VIP unit count in the active microphone number limitation (1/2/3/4), if the active microphone number limitation reached, the microphones of the chairman unit and the VIP unit cannot be turned on;
- ☞ **Other speaking modes:** the chairman unit and the VIP unit do not count in the active microphone number limitation (1/2/3/4); at most 6 microphones can be activated at the same time in a system.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker’s video can be exported to and displayed on large screen(s).

4. Voting (for units with voting function)

Voting can be originated by TAIDEN conference management system software. Only supports parliamentary voting: Yes/No/Abstain, and For/Against voting.

- The voting button indicating lights of the congress unit start to blink; the delegate can press the voting button to vote;
- For “First key-press valid” voting, the delegate can vote only once;
- For “Last key-press valid” voting, the delegate can change his/her vote, and the last voted key will be valid.

5. Channel selection (for units with SI function)

- When the CMU is connected to interpreter unit(s), simultaneous interpretation function will work and the channel selector will be activated. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the delegate can select a suitable language to listen to by means of the channel selector.

6. Volume control

- The volume of the built-in loudspeaker can be adjusted by the master volume control knob on the main unit;
- When the earphone is plugged, its volume can be adjusted by the earphone volume control of the unit.

7. OLED display

After initialization, the following interface will be displayed on the OLED:



For HCS-48U10CVS(N)E/50 and HCS-48U10DVS(N)E/50 congress units, press the “YES” or the “NO” key to active the operation menu, it includes two sub menus: Call and About.



- “YES” key: page up ↑
- “NO” key: page down ↓
- “ABSTAIN” key: enter ↵

A. “Call”



The earphone shall be plugged to use the intercom function. If not, it will remind you to plug the earphone. If the current unit is using the intercom function, it will remind you that the line is busy. Press the “ABSTAIN” key to use the intercom function, and the following interface at the left side is displayed. When the operator approved your request, then the following interface at the right side is shown:



B. About



Display the product information.



8. VIP unit

- Any delegate unit can be assigned as a VIP unit by the TAIDEN conference management system software. At most 32 VIP units can be assigned;
- As long as the active microphone capacity is not full, the microphone of the VIP unit can be activated freely;
- If the active microphone capacity is full, the microphone of the VIP unit cannot be turned on unless one of the active microphones is deactivated.

3.4.4.2 Chairman unit

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

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will restore when this key is released;
- If the priority mode on the main unit is configured as “All off”, all active delegate microphones (except VIP units) will be turned off and the request-to-speak list will be purged (under “Open” and “Apply” mode) when this key is pressed.

2. Speaking

- If the active microphone capacity is not full, the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit;
- If the active microphone capacity is full, the chairman cannot activate his/her microphone. But he/she can use the priority key to “All mute” or “All off” other delegate microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Without PC and under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the built-in loudspeaker in the chairman's unit.



ID: 10 Applying
Appr. Over.

The chairman can now approve delegate's request and activate delegate's microphone by pressing key “YES” or reject delegate's request by pressing key “ABSTAIN”.

At most 6 microphones (default) can request at the same time. When a request is approved, the last activated microphone will be turn off at the same time.

B. Turn off or mute delegate microphone

The chairman can use the priority key to execute “All mute” or “All off” operation.

4. Voting

HCS-48U10CVSE/50 chairman unit cannot originate voting without a PC:

- Nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- Voting can be controlled by application software only. Voting operation of the chairman unit and the delegate unit are identical.

3.5 HCS-4886 series congress unit

3.5.1 Functions and indications

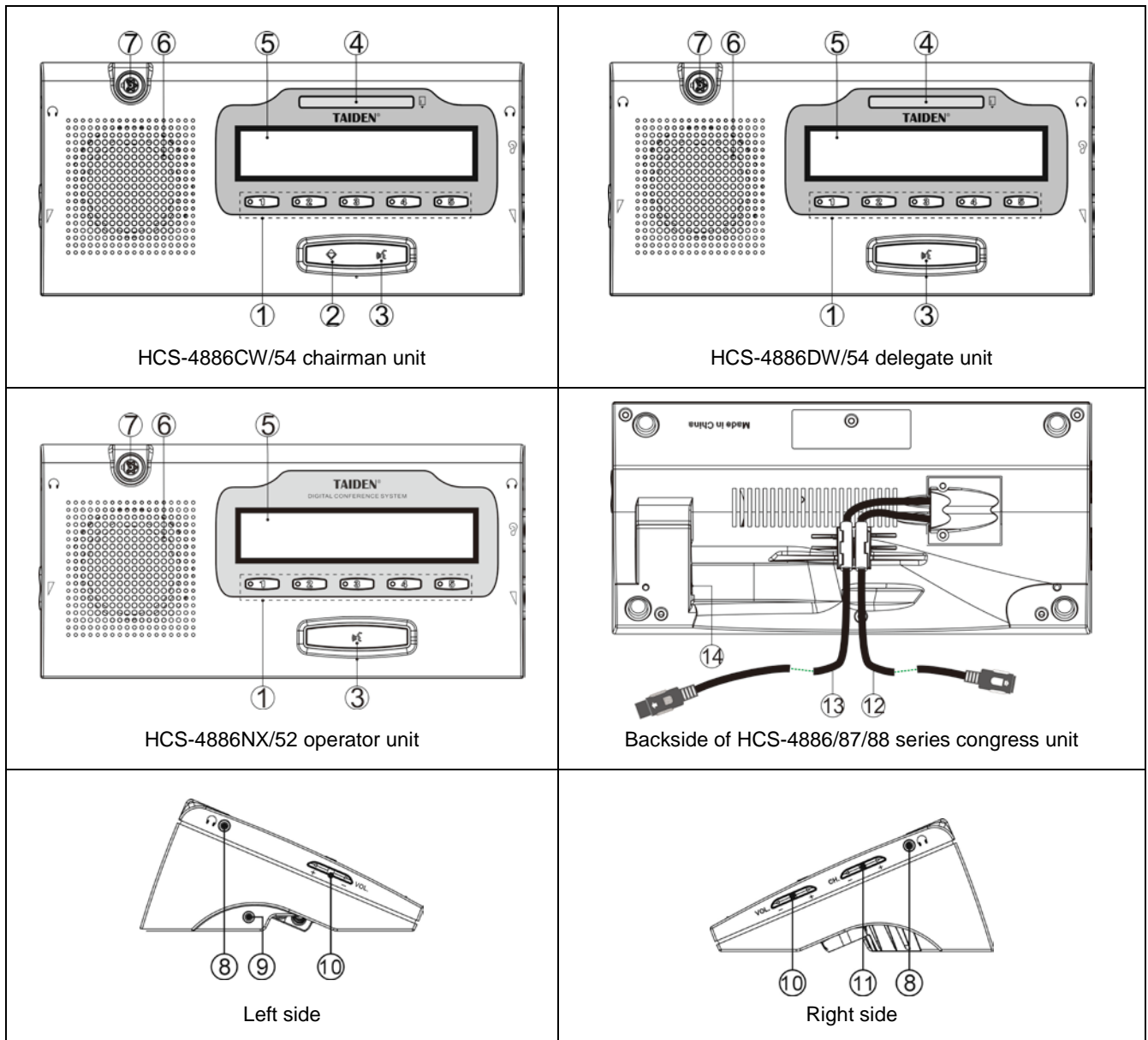


Figure 3.5.1 HCS-4886 series congress units

Figure 3.5.1:

1. Multi-function keys with indicating light (5 keys):

- ◆ In different modes, the corresponding indicating lights blink; press the corresponding key to execute operation (refer to table 3.5.1 for details);
- ◆ For this series congress units with LCD, these five keys act as functional keys for menu operation.

2. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate microphones (except VIP units) will be muted

temporarily when this key is pressed and they will resume when the key is released;

- ◇ If configured as “All off”, all active delegate microphones (except VIP units) will be switched off when this key is pressed. Under “Open” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;
- ◆ If the ring mode is configured as “ON”, a ring tone will be produced when this key is pressed.

3. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate/deactivate the microphone;
- ◆ Delegate unit: 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	Red (flash)
First in request list	Green (flash)
Not first in request list	Green (on)
VIP indication	Yellow (on)

4. Contactless IC Card slot

- ◆ Built-in contactless IC-Card slot to place the IC card, while automatically logout once the card is taken out from the slot.

5. High light 256x32 graphic LCD

- ◆ Can display menu and information in several languages (Simplified Chinese, Traditional Chinese, English, etc.);
- ◆ If the earphone is plugged, the simultaneous interpretation channel number and the language name will be displayed.

6. Built-in Hi-Fi loudspeaker

- ◆ Mutes automatically to suppress howling when the microphone of the unit is active;
- ◆ Loudspeaker sends out floor channel audio only. The volume is controlled via the CMU or the application software.

7. Stem microphone socket

8. Earphone jack (Ø 3.5 mm)

9. External microphone jack (Ø 3.5 mm)

10. Earphone volume control

11. Simultaneous interpretation channel selector

(HCS-4888DE does not have this key)

- ◆ Available when earphone is plugged.

12. 0.6-meter 6P-DIN cable with standard plug

(female x 1)

13. 1.5-meter 6P-DIN cable with standard plug

(male x 1)

15. External communication interface

- ◆ RJ45 socket, only for HCS-4886NX/52 operator unit.



	Pins	Signals	Level
IN	Pin 1	BAL+ or UNBAL HI	0 dBV - 12 dBV
	Pin 2	NC	
	Pin 3	BAL- or UNBAL LO	0 dBV - 12 dBV
OUT	Pin 4	GND	
	Pin 5	GND	
	Pin 6	BAL+ or UNBAL HI	0 dBV
	Pin 7	NC	
	Pin 8	BAL- or UNBAL LO	0 dBV

Table 3.5.1 List of multi-functional keys

Function \ Keys		1/-	2/-	3/0	4/+	5/++	
Numbering		Number					
Key-press sign-in		Sign-in					
Start/End (with application software)		Start/End					
Pause/End (without application software)		Pause				End	
Voting	Parliamentary		YES	NO	ABSTAIN		
	Questionnaire	1	2	3	4	5	
	Audience response	--/0	-/25	0/50	+/75	++/100	
	For/Against		For	Against			
	Parliamentary (NPPV)		YES	NO	ABSTAIN	NPPV	
	Appraisal	Satisfied	Perfectly satisfied (four keys voting)	Satisfied (four/three/two keys voting)	Basically satisfied (four/three keys voting)	Unsatisfied (four/three/two keys voting)	
		Qualified	Perfectly qualified (four keys voting)	Qualified (four/three/two keys voting)	Basically qualified (four/three keys voting)	Unqualified (four/three/two keys voting)	
		Competent	Perfectly competent (four keys voting)	Competent (four/three/two keys voting)	Basically competent (four/three keys voting)	Incompetent (four/three/two keys voting)	

3.5.2 Connection

3.5.2.1 Connecting to the CMU or the EMU

The HCS-4886 series congress unit is equipped with a 1.5-meter 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

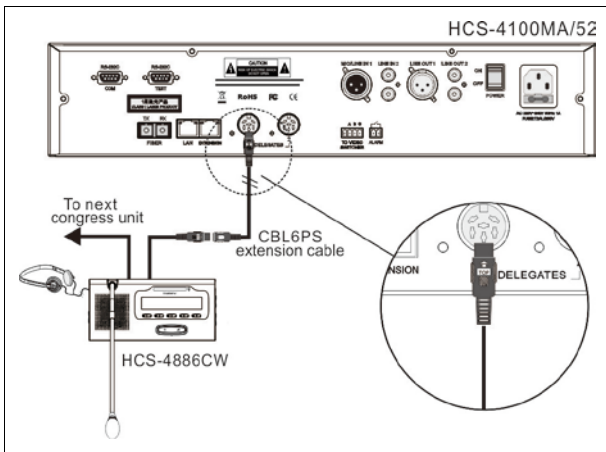


Figure 3.5.2 HCS-4886 series congress unit connected to the CMU/EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “Closed Loop - Daisy Chain” connection topology is selected. “Closed Loop - Daisy Chain” connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “Closed Loop - Daisy Chain” connection, just connect the last congress unit back to the CMU or the EMU with HCS-8300MCLS. The 1.5 meter 6P-DIN standard plug cable of HCS-8300MCLS is connected to the output connector of the main unit and the 0.6 meter 6P-DIN standard plug cable is connected to the tail end of the conference unit. Details for [section 2.1.3](#) “Closed Loop - Daisy Chain” connection topology

3.5.2.2 Connection between congress units

All congress units of HCS-4100/50 system are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

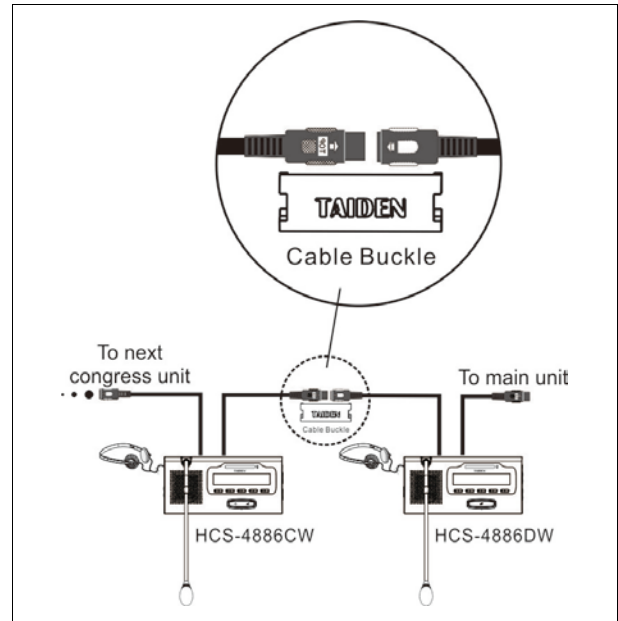
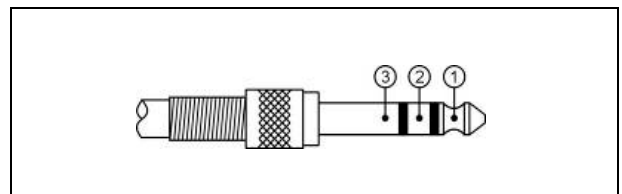


Figure 3.5.4 “Daisy-chain” connection between HCS-4886 series congress units

3.5.2.3 External microphone

An external microphone can be connected to the external microphone jack of the congress unit. The external microphone shall have a Ø 3.5 mm plug, as in the following figure:

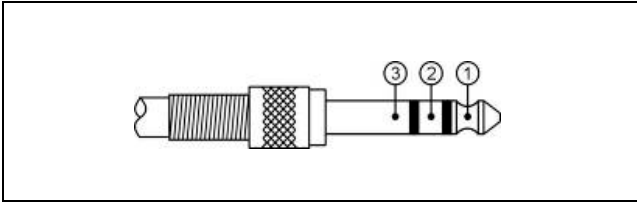


Functions and indications:

- 1Signal+
- 2Suspend/Ground
- 3Ground

3.5.2.4 External earphone

An external earphone can be connected to the external earphone jack of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a Ø 3.5 mm plug, as in the following figure:



Functions and indications:

- 1.....Left stereo channel signal
- 2.....Right stereo channel signal
- 3.....Power ground/Shield

3.5.3 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants use the congress unit to sign-in, activate microphone, request to speak, vote, read message, etc.

3.5.3.1 Delegate unit

We introduce all the operation of HCS-4886 series congress units. The congress units of this series feature one or more of these functions.

1. Number

First of all, make sure that the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm. The system now goes to numbering status. "Press '1' key of all congress units one by one and repower" will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. All congress units with an LCD will display "Numbering". Press key "1" of every congress unit one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the congress units one by one and do NOT press the "NUMBER" key of several congress units at the same time.

2. Sign-in (application software needed)

To carry out voting, congress units with voting and IC-Card reader should be registered via key press, IC-Card or input PIN code. With application software, registration is available by choosing "Seat Sign-in".

■ Key-press sign-in

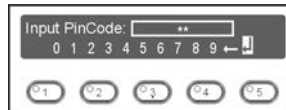
In key-press sign-in status, the indicating light on key "1" will blink, press key "1" to sign-in and the indicating light will be turned off.

■ IC-Card sign-in

In IC-Card sign-in status, "Please Use IC Card" will be displayed on the LCD. Read the IC-Card correctly, a welcome interface will be displayed. Press any key to go to the initial interface. If the IC-Card is invalid, "Invalid IC card" will be displayed on the LCD. Please read the IC-Card again or contact the technical support.

■ PIN code sign-in

In PIN code sign-in status, "Input PinCode" will be displayed on the LCD. Input PIN code and select the "←" button to confirm. If the PIN code is correct, the LCD will display the delegate's name; if the PIN code is wrong, the PIN code sign-in interface displayed on the LCD again.



Icon:

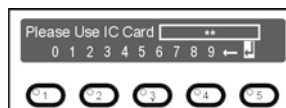
- ◆ 0,1,2,3,4,5,6,7,8,9: PIN code number;
- ◆ ←: backspace;
- ◆ ↵: enter;

Key:

- ◆ "1" key: move left;
- ◆ "3" key: move right;
- ◆ "5" key: confirm button.

■ Seat IC-Card and PIN code sign-in

In seat IC-Card and PIN code sign-in status, "Please Use IC Card" and PIN code input interface will be displayed on the LCD. Either IC-Card sign-in or PIN code sign-in will work.



In the above sign-in mode (except key press sign-in mode), logout is available. It is used for locking the units in case the delegates leave for a short time. Delegate units will work on after delegates sign-in again (The DCS server cannot stop sign-in).

3. Speaking (without software)

Speaking mode is configured on the CMU (refer to section [2.1.4](#)).

A. “Open” 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, the speaker can give his/her speech;
- 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 the microphone On/Off key again to cancel the request to speak;
- c. When an active microphone is turned off, the first request microphone will be activated.

B. “Override” 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, the speaker can give his/her speech;
- 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 delegate microphone On/Off key is pressed, its microphone will be activated and the first activated delegate microphone will be deactivated at the same time to maintain the active microphone number limitation. If the number of active microphone (including chairman and VIP unit) reaches 6, turning on another microphone will

switch off the delegate microphone which turned on first.

C. “Voice” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated;
- b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted at the main unit (refer to section [2.1.4](#));
- c. When the microphone is activated, it can be turned off by pressing the microphone On/Off key.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak when the microphone On/Off key is pressed (default 6 microphones at most). The chairman unit can approve or reject his/her speak;
- b. When his/her request is approved, he/she can speak and the last activated microphone will be turn off at the same time.

E. “PTT” 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 and held, the speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is released.

■ Active microphone number limitation (1/2/3/4) **reached:**

Pressing the microphone On/Off key cannot activate the microphone until one of the activated microphones is switched off.

Note:

- ☞ **“Voice” speaking mode:** the chairman unit and the VIP unit count in the active microphone number limitation (1/2/3/4), if the active microphone number limitation reached, the microphones of the chairman unit and the VIP unit cannot be turned on;
- ☞ **Other speaking modes:** the chairman unit and the VIP unit do not count in the active microphone number limitation (1/2/3/4); at most 6 microphones can be activated at the same time in a system.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker’s video can be exported to and displayed on large screen(s).

4. Voting

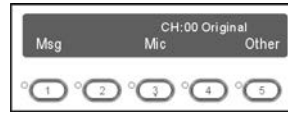
Voting can be originated by the chairman unit (only for 3 keys voting), or by TAIDEN conference management system software.

- The voting button indicating lights of the congress unit start to blink, the delegate can press the voting button to vote;
- For “First key-press valid” voting, the delegate can vote only once;
- For “Last key-press valid” voting, the delegate can change his/her vote, and the last voted key will be valid;
- The voting originated by the chairman unit only supports “Last key-press valid”;
- Supports proxy voting, delegates not attending the meeting may vote by proxy, one proxy can vote for no more than 50 delegates (setting on conference software).

5. Channel selection

- When the CMU is connected to interpreter unit(s), simultaneous interpretation function will work. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the LCD will display the simultaneous interpretation channel number and language name. The delegate can select a suitable language to listen to

by means of the channel selector.



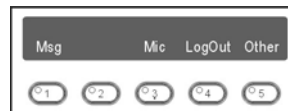
- When the earphone is pulled out, the LCD will not display the simultaneous interpretation information anymore.

6. Volume control

- The volume of the built-in loudspeaker can be adjusted by the master volume control knob on the main unit;
- When the earphone is plugged, its volume can be adjusted by the earphone volume control of the unit.

7. LCD display

After sign-in, the following interface will be displayed on the LCD:

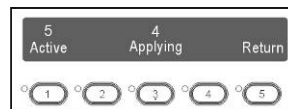


A. “Message” (key “1”)

- Use this key to read a message. When a PC is connected, the operator can edit and send a message to congress unit(s).
- On receipt of a message, a ring tone will be emitted by the built-in loudspeaker and “You have got a new message” will be displayed on its LCD and the indicating light of key “5” will blink. Press key “5” to read the corresponding message.
- At most 4 messages can be stored in the congress unit. In case of more incoming messages, the first received message will be overlapped.

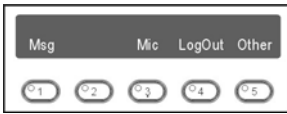
B. “Microphone” (key “3”)

Use this key to display microphone information, including: active microphone number (including chairman, delegate and VIP), request amount:



C. “LogOut” (key “4”)

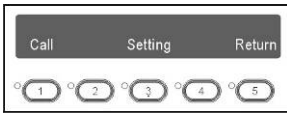
It is used under IC-Card sign-in mode or/and PIN code sign-in mode.



It is used for locking the units in case the delegates leave for a short time. Delegate units will work on after delegates sign-in again (The DCS server cannot stop sign-in).

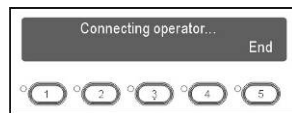
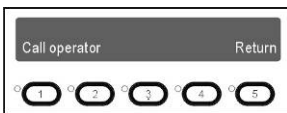
D. “Other” (key “5”)

Use this key to request intercom, setup LCD display language and system information:



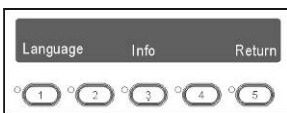
■ “Call” (key “1”)

The earphone shall be plugged to use the intercom function. If not, it will remind you to plug the earphone. If the current unit is using the intercom function, it will remind you that the line is busy. Press “Call” (key “1”) to use the intercom function, and the following interface at the left side is displayed. When the operator approved your request, then the following interface at the right side is shown:

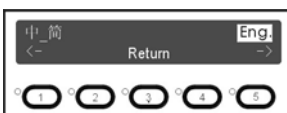


■ “Setting” (key “3”)

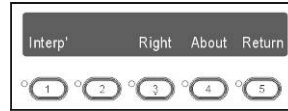
Press “Setting” (key “3”), and the following interface is shown:



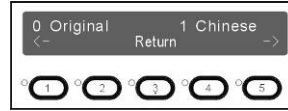
- Press “**Language**” (key “1”) to select the LCD display language between several languages. The range is limited by the configuration in the CMU (refer to section [2.1.4](#));



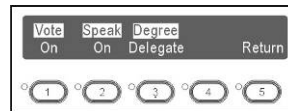
- Press “**Info**” (key “3”), and the following interface is shown:



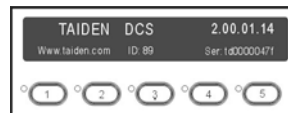
- Press “**Interpretation**” (key “1”) to run through information about all interpretation languages:



- Press “**Right**” (key “3”) to check the rights of this unit:



- Press “**About**” (key “4”) to display the product information:



8. VIP unit

- Any delegate unit can be assigned as a VIP unit by the TAIDEN conference management system software. At most 32 VIP units can be assigned;
- As long as the active microphone capacity is not full, the microphone of the VIP unit can be activated freely;
- If the active microphone capacity is full, the microphone of the VIP unit cannot be turned on unless one of the active microphones is deactivated.

3.5.3.2 Chairman unit

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

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will restore when this key is released;
- If the priority mode on the main unit is configured as “All off”, all active delegate microphones (except VIP units) will be turned off and the request-to-speak list will be purged (under “Open” and “Apply” mode) when this key is pressed.

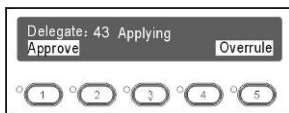
2. Speaking

- If the active microphone capacity is not full, the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit.
- If the active microphone capacity is full, the chairman cannot activate his/her microphone. But he/she can use the priority key to “All mute” or “All off” other delegate microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit’s request to speak

Without PC and under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the built-in loudspeaker in the chairman’s unit.



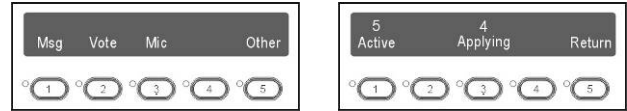
The chairman can now approve delegate’s request and activate delegate’s microphone by pressing key “1” or reject delegate’s request by pressing key “5”.

At most 6 microphones (default) can request at the same time. When a request is approved, the last activated microphone will be turn off at the same time.

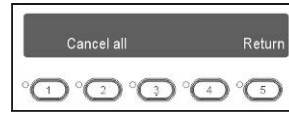
B. Turn off delegate microphone or reject delegate unit’s request to speak

The initial interface of the chairman unit is shown in the following figure at the left side. Press “Microphone”

(key “3”) to go to the microphone status interface as in the following figure at the right side:

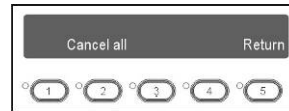


- Press “Active” (key “1”) to go to the active microphone control interface:



If any delegate’s microphone is active, “Cancel all” (key “2”) will be available and the chairman can press this key to deactivate all active delegate’s microphone.

- Press “Applying” (key “3”) to control the “request to speak” interface:



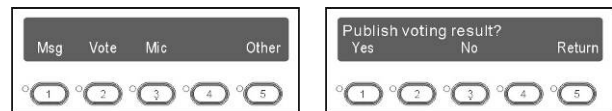
If connected to the PC, “Cancel all” (key “2”) will be available and the chairman can press this key to reject all requests (refer to application software user’s manual).

4. Voting

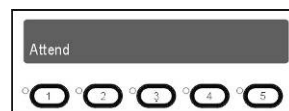
A. Without PC

HCS-4886CW chairman unit can originate voting without a PC:

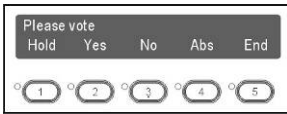
- a. In the initial interface of the chairman unit, press “Vote” (key “2”) to go to the voting control interface as shown in the following figure at the right side:



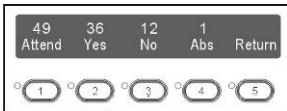
- b. If “Yes” (key “1”) is selected, the voting results will be displayed on the LCDs of all congress units; if “No” (key “3”) is selected, the voting results will be displayed only on the LCD of the chairman unit. After selection, the sign-in indicating light of all congress units will blink. The delegates can press key “1” to sign-in. After sign-in, the voting indicating lights will blink, the delegate is now enabled to vote:



c. Only 3 keys voting can be executed in case of a chairman unit originated voting (“Yes/No/Abstain”) and only “Last key-press valid” is available. The chairman can pause/end voting:



d. The chairman presses “End” (key “5”) to finish voting. The voting indicating light of all congress units will be deactivated. The voting results and sign-in statistics will be displayed on the chairman unit:

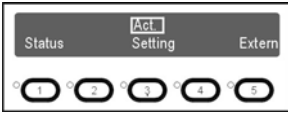


B. Connected to PC

- When controlled by the application software, nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- Voting can be controlled by application software. The voting operation of the chairman unit and the delegate unit are identical. In this mode, voting can also be controlled by the chairman unit. “Start voting” indicating light on the chairman unit will blink. Voting starts once the chairman pressed the “Start” key.

3.5.3.3 Operator unit

The operator unit is a dedicated unit used by an operator to control the intercom function. Its initial interface is shown in the following figure:

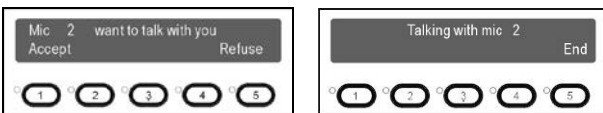


Press the "5" key to switch between Intern mode and Extern mode:

- **Intern:** communication with chairman, delegates and interpreter;
- **Extern:** generally, it is used before the meeting starting. When an external call happened, operator listen to the content from the built-in loudspeaker or the earphone, and press the microphone On/Off button to talk with the caller (PTT mode), the built-in loudspeaker is muted.
- **Remote:** when the operator click the "Remote Operator" button on the PC, the operator unit will switch to remote mode automatically, the other operator can take over the intercom control. Operator presses the "5" key on the operator unit to end remote mode.

■ Intercom function

When a congress unit requests for intercom, the following interface at the left side will prompt. The operator can accept his/her request and the following interface at the right side is shown:

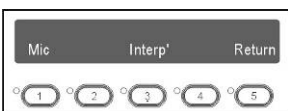


The request is accepted by pressing key "1". The corresponding interface is displayed at the right. The request is refused by pressing key "5".

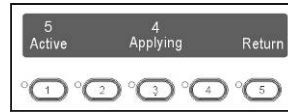
■ Other operation

A. "Status" (key "1")

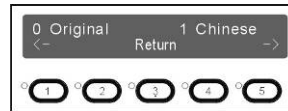
Press "Status" (key "1") to display microphone and Interpretation information, the following interface will be shown:



- Press "**Mic**" (key "1") to display the microphone information, including: active microphone number (including chairman, delegate and VIP), request amount:



- Press "**Interpretation**" (key "3") to run through the information on all interpretation languages:

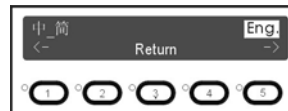


B. "Setting" (key "3")

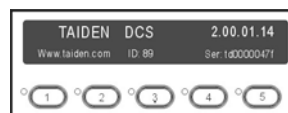
Press "Setting" (key "3"), and the following interface appears:



- Press "**Language**" (key "1") to select the LCD display language between several languages. The range is limited by the configuration at the CMU (refer to section [2.1.4](#));



- Press "**About**" (key "3") to display the product information:



3.6 HCS-4890/4891 series congress unit

3.6.1 Functions and indications

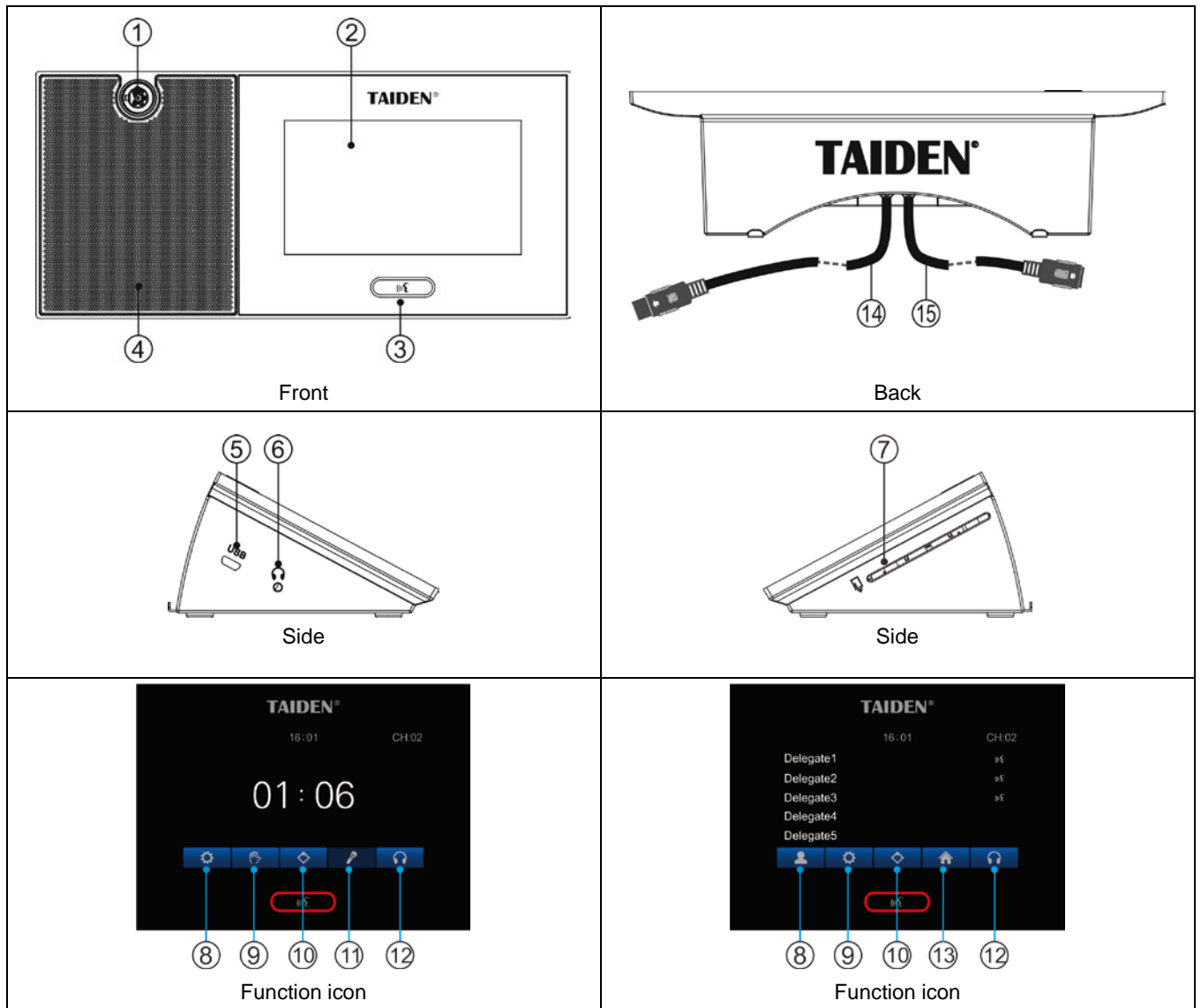
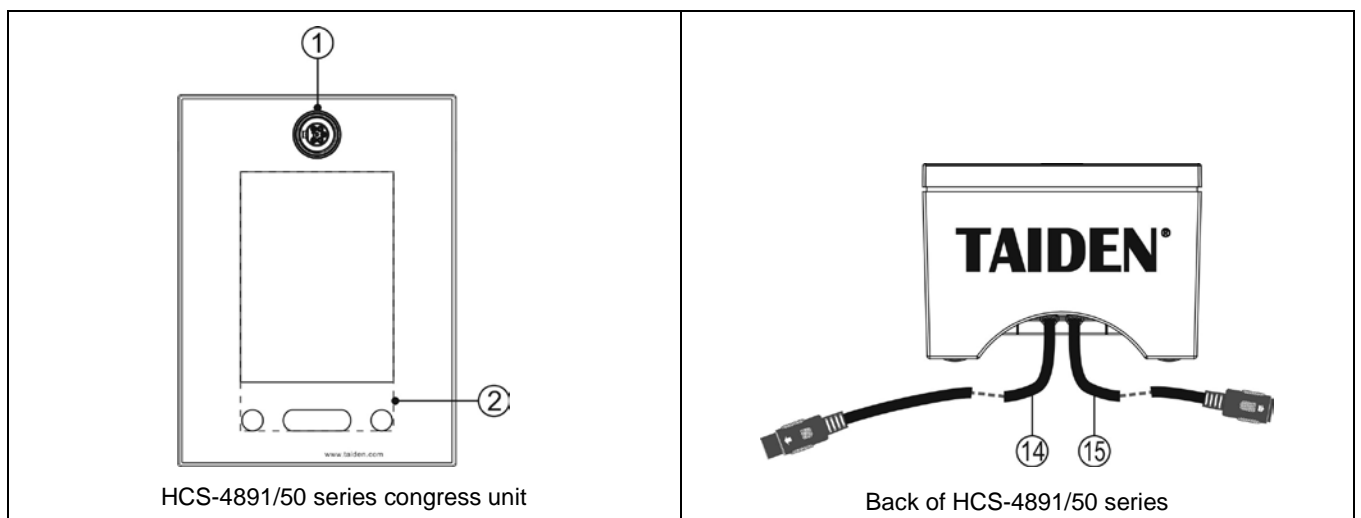


Figure 3.6.1a HCS-4890/52 series congress units



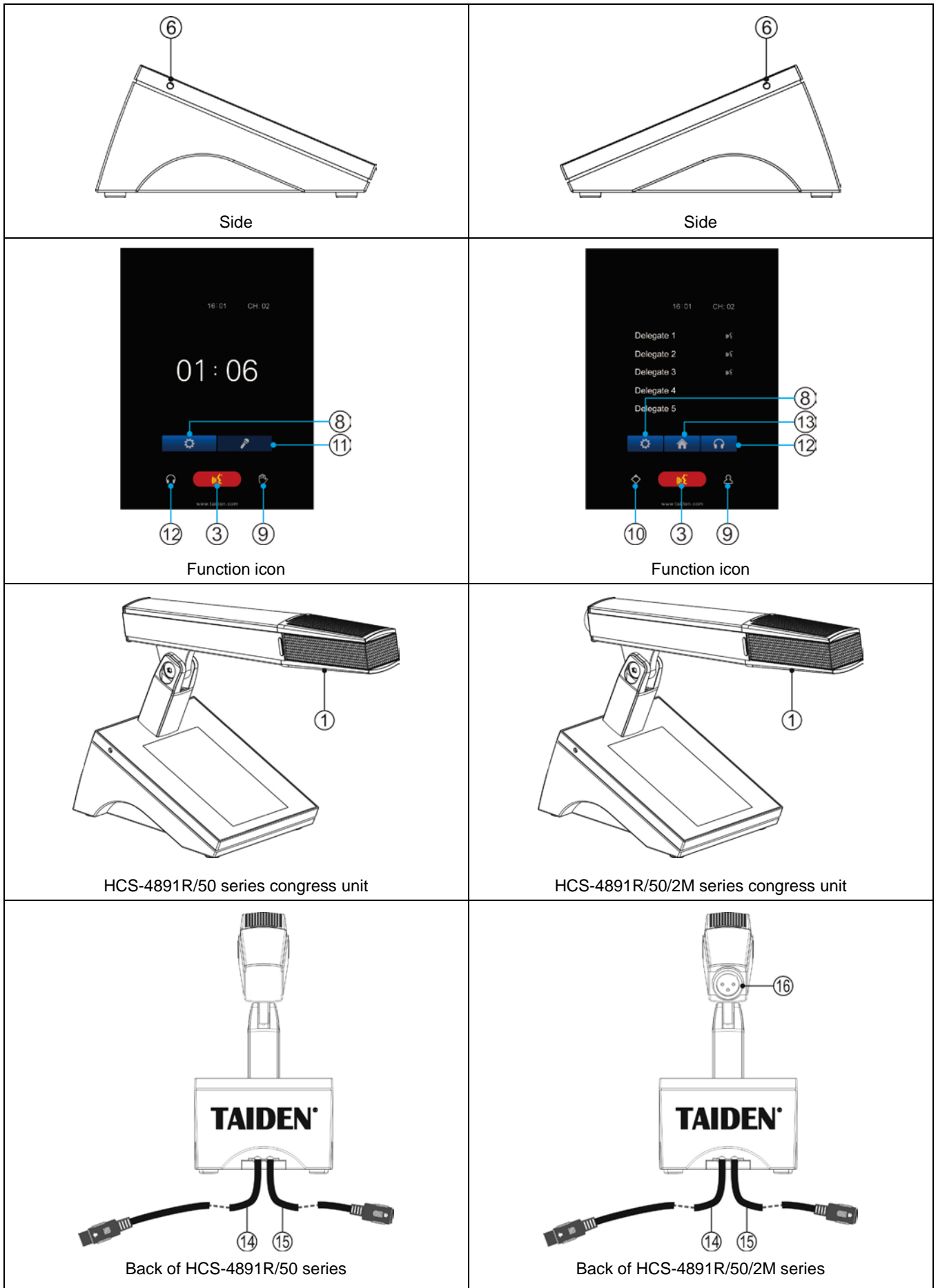


Figure 3.6.1b HCS-4891/50 series congress units

Figure 3.6.1:

1. Microphone

- ◆ HCS-4890/52: stem microphone;
- ◆ HCS-4890/4891: stem microphone;
- ◆ HCS-4891R/50: rectangular columnar microphone
- ◆ HCS-4891R/50/2M: rectangular columnar microphone, build-in isolated main microphone and backup microphone, backup microphone needs phantom power supply.

2. 4.3" touch screen for information display

- ◆ Speaking list, timing speaking information, delegate information
- ◆ Sign-in and voting information
- ◆ Language channel and earphone volume adjustment
- ◆ Conference service
- ◆ Screen brightness, system language and unit information

3. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate/deactivate the microphone;
- ◆ Delegate unit: 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	Red (flash)
First in request list	Green (flash)
Not first in request list	Green (on)
VIP indication	Yellow (on)

4. Built-in Hi-Fi loudspeaker

- ◆ Mutes automatically to suppress howling when the microphone of the unit is active;
- ◆ Loudspeaker sends out floor channel audio only. The volume is controlled via the CMU or the application software.

5. Micro USB interface

- ◆ Reserved.

6. Earphone jack (Ø 3.5 mm)

- ◆ One Ø 3.5 mm headphone jack on each side with independent volume control.

7. Contactless IC Card slot

- ◆ Built-in contactless IC-Card slot to place the IC card, while automatically logout once the card is taken out from the slot.

8. Setting

9. Request key

- ◆ Under discussion mode (DCS Server V5.7.2 or higher needed), when delegate pressed the request key, the key was activated and he/she was added to the request list.

10. Priority key (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as “All off”, all active delegate microphones (except VIP units) will be switched off when this key is pressed. Under “Open” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;
- ◆ If the ring mode is configured as “ON”, a ring tone will be produced when this key is pressed.

11. Speaking list

12. Simultaneous interpretation channel selector and earphone volume control

- ◆ Activated SI channel selection function and volume control;
- ◆ Available when earphone is plugged.

13. Home

14. 1.5-meter 6P-DIN cable with standard plug (male x 1)

15. 0.6-meter 6P-DIN cable with standard plug (female x 1)

16. XLRM connector

- ◆ Connect backup microphone to sound mixer through dedicated audio cable.

3.6.2 Connection

3.6.2.1 Connecting to the CMU or the EMU

The HCS-4890/4891 series congress unit is equipped with a 1.5-meter 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

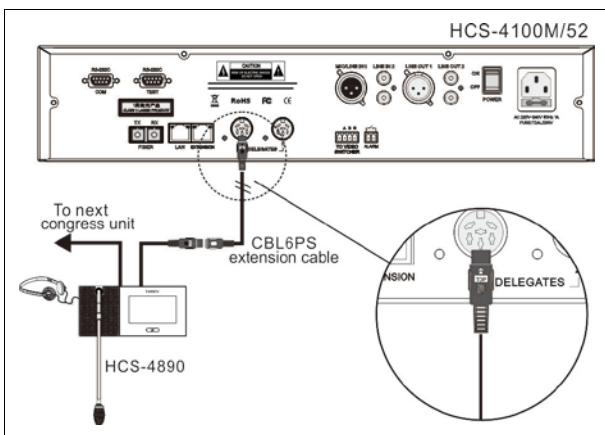


Figure 3.6.2 HCS-4890/52 series congress unit connected to the CMU/EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “Closed Loop - Daisy Chain” connection topology is selected. “Closed Loop - Daisy Chain” connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “Closed Loop - Daisy Chain” connection, just connect the last congress unit back to the CMU or the EMU with HCS-8300MCLS. The 1.5 meter 6P-DIN standard plug cable of HCS-8300MCLS is connected to the output connector of the main unit and the 0.6 meter 6P-DIN standard plug cable is connected to the tail end of the conference unit. Details for [section 2.1.3](#) “Closed Loop - Daisy Chain” connection topology.

3.6.2.2 Connection between congress units

All congress units of HCS-4100/50 system are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

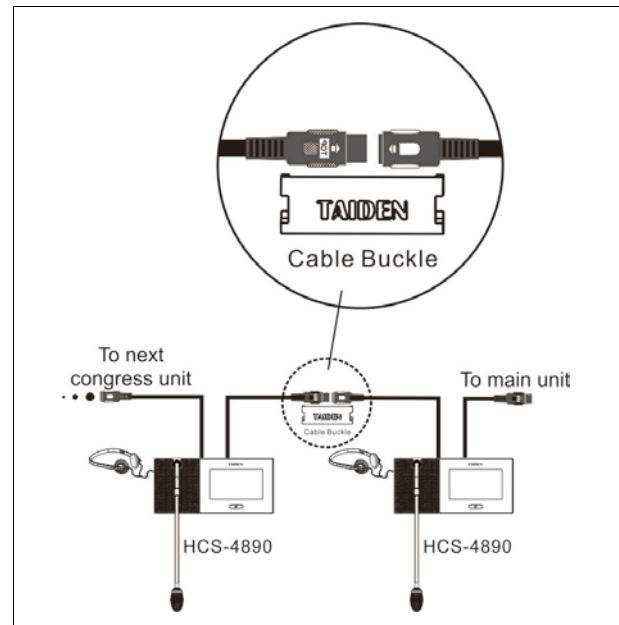


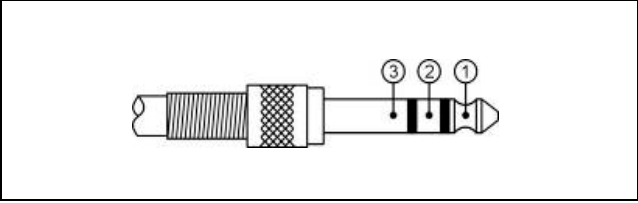
Figure 3.6.3 “Daisy-chain” connection between HCS-4890/52 series congress units

3.6.2.3 Dual backup microphone high-end congress system solution

Innovative dual-microphone congress unit, with build-in isolated main microphone and backup microphone. Two audio signals are output simultaneously. When the main microphone fails, backup microphone output is not affected, so that the meeting can carry on smoothly. See figure 3.6.4.

3.6.2.4 External earphone

An external earphone can be connected to the external earphone jack of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a Ø 3.5 mm plug, as the following figure:



Functions and indications:

- 1..... Left stereo channel signal
- 2..... Right stereo channel signal
- 3..... Power ground/Shield

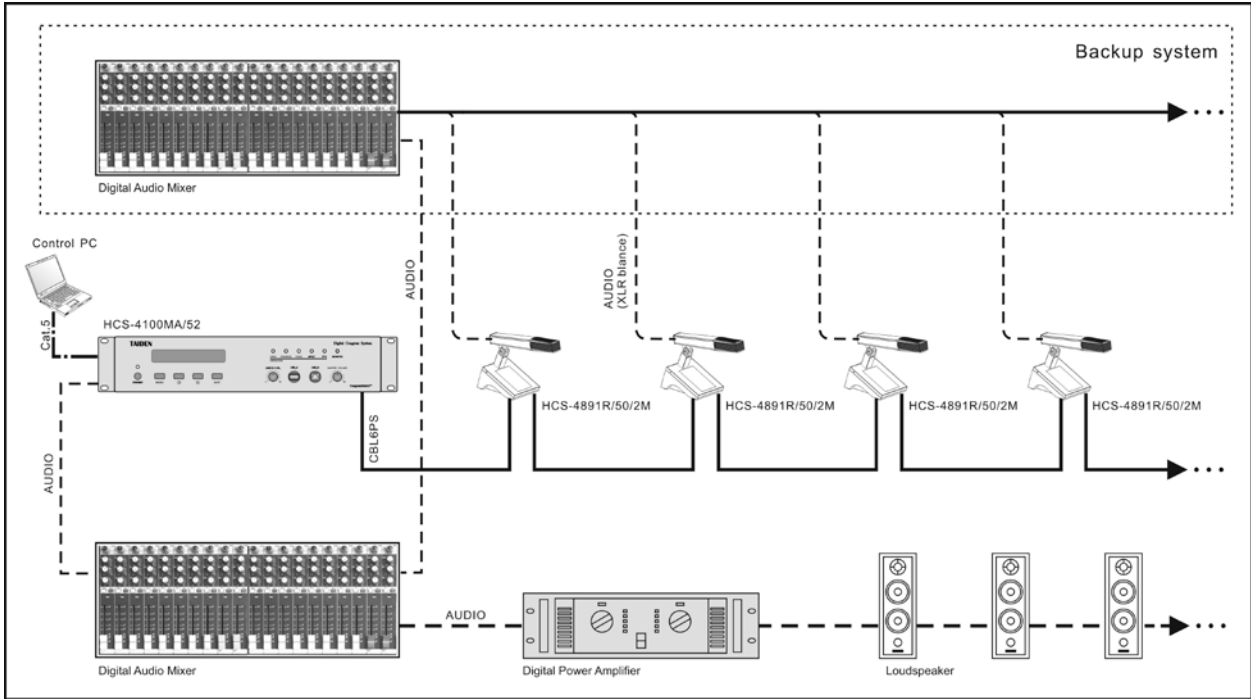






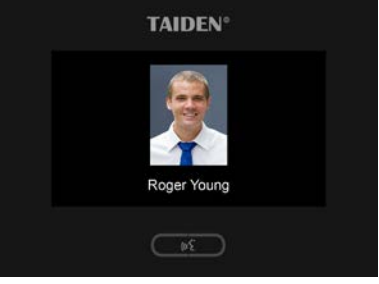
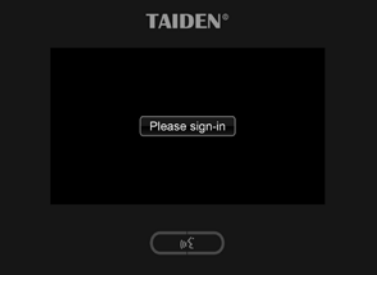
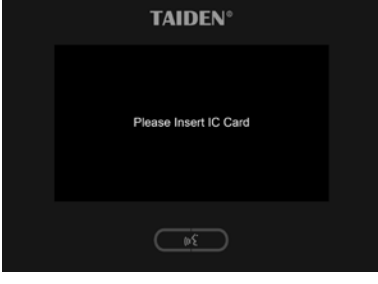





Figure 3.6.4 Dual backup microphone high-end congress system solution

3.6.3 Operation

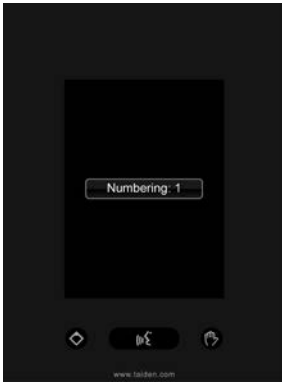
Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. Congress unit exquisite and sleek 4.3" touch

screen for information display, during the meeting, the participators can use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

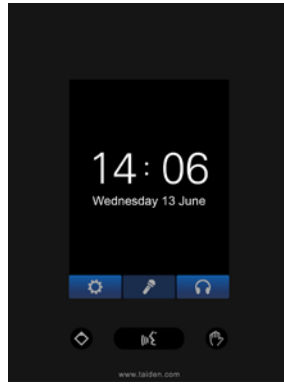
3.6.3.1 User interface

 <p>Number</p>	 <p>Home</p>	 <p>Time speaking</p>
 <p>Speaking list</p>	 <p>Delegate information</p>	 <p>Key-press sign-in</p>
 <p>IC card sign-in</p>	 <p>Voting</p>	 <p>Simultaneous interpretation</p>
 <p>Setting – brightness</p>	 <p>Setting – language</p>	 <p>Setting – unit information</p>

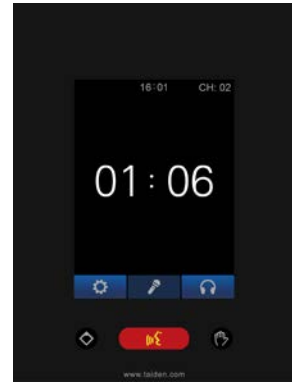
User interface of HCS-4890/52 series congress units



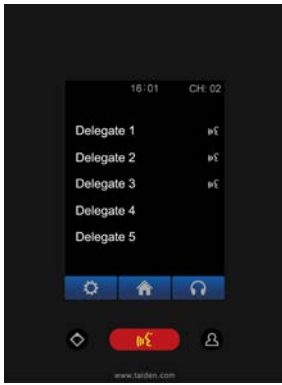
Number



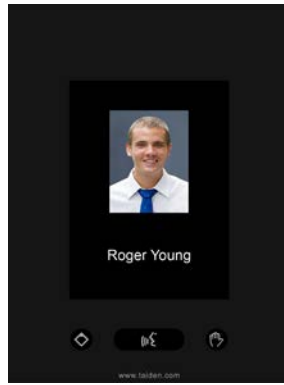
Home



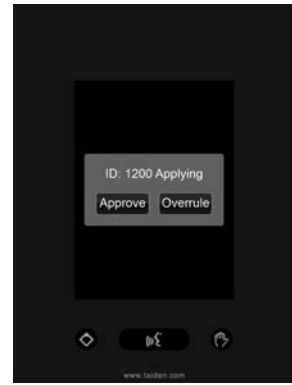
Time speaking



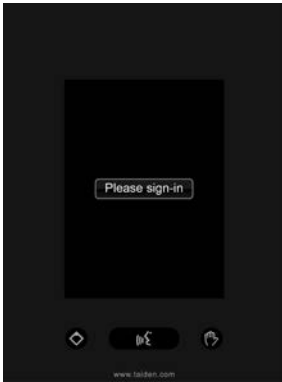
Speaking list



Delegate information



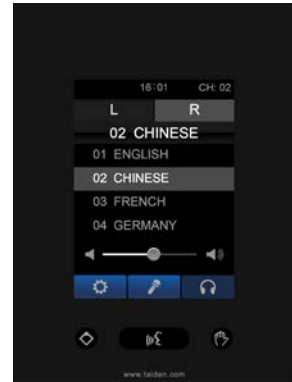
Approve delegate's request



Key-press sign-in



Voting



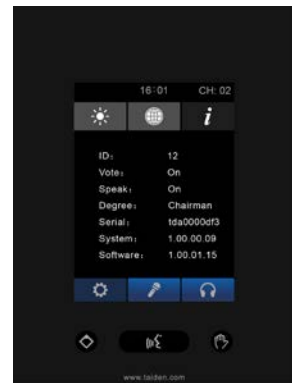
Simultaneous interpretation



Setting - brightness



Setting - language



Setting - unit information

User interface of HCS-4891/50 series congress units

3.6.3.1 Delegate unit

We introduce all the operation of HCS-4890/4891 series congress units. The congress units of this series feature one or more of these functions.

1. Number

First of all, make sure that all the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

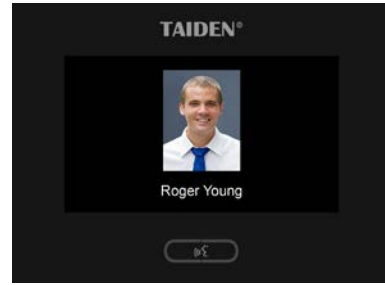
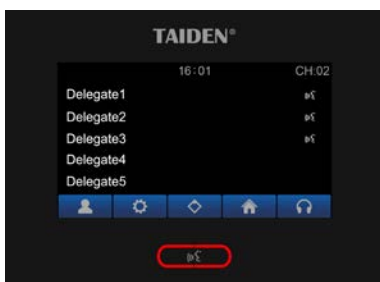
Select “Number” by menu operation from the CMU, press the “MENU” key to confirm. The system now goes to numbering status. “Press ‘1’ key of all congress units one by one and repower” will be displayed on the CMU LCD. All congress units in the system will display “Numbering: xx” on LCD. Press “Number” button (microphone On/Off button for HCS-489xDDS/50) of every unit one by one, the loudspeaker will produce a sound (if ring tone mode is “On”). Once all congress units numbered, restart the CMU to update the number information.

Note:

When numbering, please number the congress units one by one and do NOT press the “Number” button or the microphone On/Off button of several congress units at the same time.

2. Speaking (without software)

Speaking mode is configured on the CMU (refer to section 2.1.4). Click delegate on speaking list interface to view delegate information, click anywhere on delegate information screen to return to speaking list interface.



A. “Open” 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, the speaker can give his/her speech;
 - 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 the microphone On/Off key again to cancel the request to speak;
 - c. When an active microphone is turned off, the first request microphone will be activated.

B. “Override” 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, the speaker can give his/her speech;
 - 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 delegate microphone On/Off key is pressed, its microphone will be activated and the first activated delegate microphone will be deactivated at the same time to maintain the active microphone number limitation. If the number of active microphone (including chairman and VIP unit) reaches 6, turning on another microphone will switch off the delegate microphone which turned on first.

C. “Voice” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated;
- b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted at the main unit (refer to section [2.1.4](#));
- c. When the microphone is activated, it can be turned off by pressing the microphone On/Off key.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak when the microphone On/Off key is pressed (default 6 microphones at most). The chairman unit can approve or reject his/her speak;
- b. When his/her request is approved, he/she can speak and the last activated microphone will be turn off at the same time.

E. “PTT” 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 and held, the speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is released.

■ Active microphone number limitation (1/2/3/4) **reached:**

Pressing the microphone On/Off key cannot activate the microphone until one of the activated microphones is switched off.

Note:

- ☞ **“Voice” speaking mode:** the chairman unit and the VIP unit count in the active microphone number limitation (1/2/3/4), if the active microphone number limitation reached, the microphones of the chairman unit and the VIP unit cannot be turned on;
- ☞ **Other speaking modes:** the chairman unit and the VIP unit do not count in the active microphone number limitation (1/2/3/4); at most 6 microphones can be activated at the same time in a system.

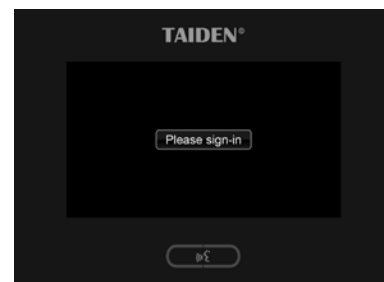
A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

3. Sign-in (application software needed)

To carry out voting, congress units with voting function should be registered. With application software, registration is available by choosing “Seat Sign-in”.

■ **Key press sign-in**

In sign-in status, “Please sign-in” will be displayed on the LCD, click “Please sign-in” button to sign-in, as in the following figure:



If "Allow belated sign-in after stop" is enabled, After stop of sign-in, “Belated sign-in” will be displayed on the LCD. The "Belated sign-in" button can now be clicked for belated sign-in. Or else, after stop of sign-in, “Not present.” will be displayed on the LCD.

■ **IC-card sign-in**

The HCS-4890/52 series congress units are equipped with a built-in contactless IC-card reader. In IC-card sign-in mode, “Please insert IC Card!” will be displayed on the LCD. For “Only One Seat” mode, the delegate's name displayed on the bottom of the LCD screen.



Push the IC-card into the slot on the right side of the congress unit. If failed, "Invalid IC-card" will be displayed on the LCD. Please push IC-card again or contact technical support. While automatically logout once the card is taken out from the slot.

4. Voting (for units with function)

Voting can be originated by TAIDEN conference management system software. Only supports parliamentary voting: Yes/No/Abstain, and For/Against voting.

- The voting option will be displayed on LCD, click on the option button to vote;
- For "First key-press valid" voting, the delegate can vote only once;
- For "Last key-press valid" voting, the delegate can change his/her vote, and the last voted key will be valid;



- Supports proxy voting, delegates not attending the meeting may vote by proxy, one proxy can vote for no more than 50 delegates (setting on conference software).

5. Channel selection (for units with SI function)

- When the CMU is connected to interpreter unit(s), simultaneous interpretation function will work and the channel selector will be activated. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the delegate can select a suitable language to listen to via clicking the "🎧" icon.



6. Volume control

- The volume of the built-in loudspeaker (HCS-4890/52 series) can be adjusted by the master volume control knob on the main unit;
- When the earphone is plugged, its volume can be adjusted via clicking the "🎧" icon.

7. VIP unit

- Any delegate unit can be assigned as a VIP unit by the TAIDEN conference management system software. At most 32 VIP units can be assigned;
- As long as the active microphone capacity is not full, the microphone of the VIP unit can be activated freely;
- If the active microphone capacity is full, the microphone of the VIP unit cannot be turned on unless one of the active microphones is deactivated.

3.6.3.2 Chairman unit

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

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will restore when this key is released;
- If the priority mode on the main unit is configured as “All off”, all active delegate microphones (except VIP units) will be turned off and the request-to-speak list will be purged (under “Open” and “Apply” mode) when this key is pressed.

2. Speaking

- If the active microphone capacity is not full, the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit;
- If the active microphone capacity is full, the chairman cannot activate his/her microphone. But he/she can use the priority key to “All mute” or “All off” other delegate microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Without PC and under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the built-in loudspeaker (HCS-4890/52 series) in the chairman's unit and the interface of the following figure is shown:



The chairman can now approve delegate's request and activate delegate's microphone by pressing “Approve” button or reject delegate's request by pressing “Overrule” button.

At most 6 microphones (default) can request at the same time. When a request is approved, the last activated microphone will be turn off at the same time.

B. Turn off or mute delegate microphone

The chairman can use the priority key to execute “All mute” or “All off” operation.

4. Voting (for units with voting function)

HCS-4890/4891 series chairman unit cannot originate voting without a PC.

When connecting with PC software:

- Nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- Voting can be controlled by application software only. Voting operation of the chairman unit and the delegate unit are identical.

3.7 HCS-4338N series congress unit

3.7.1 Functions and indications

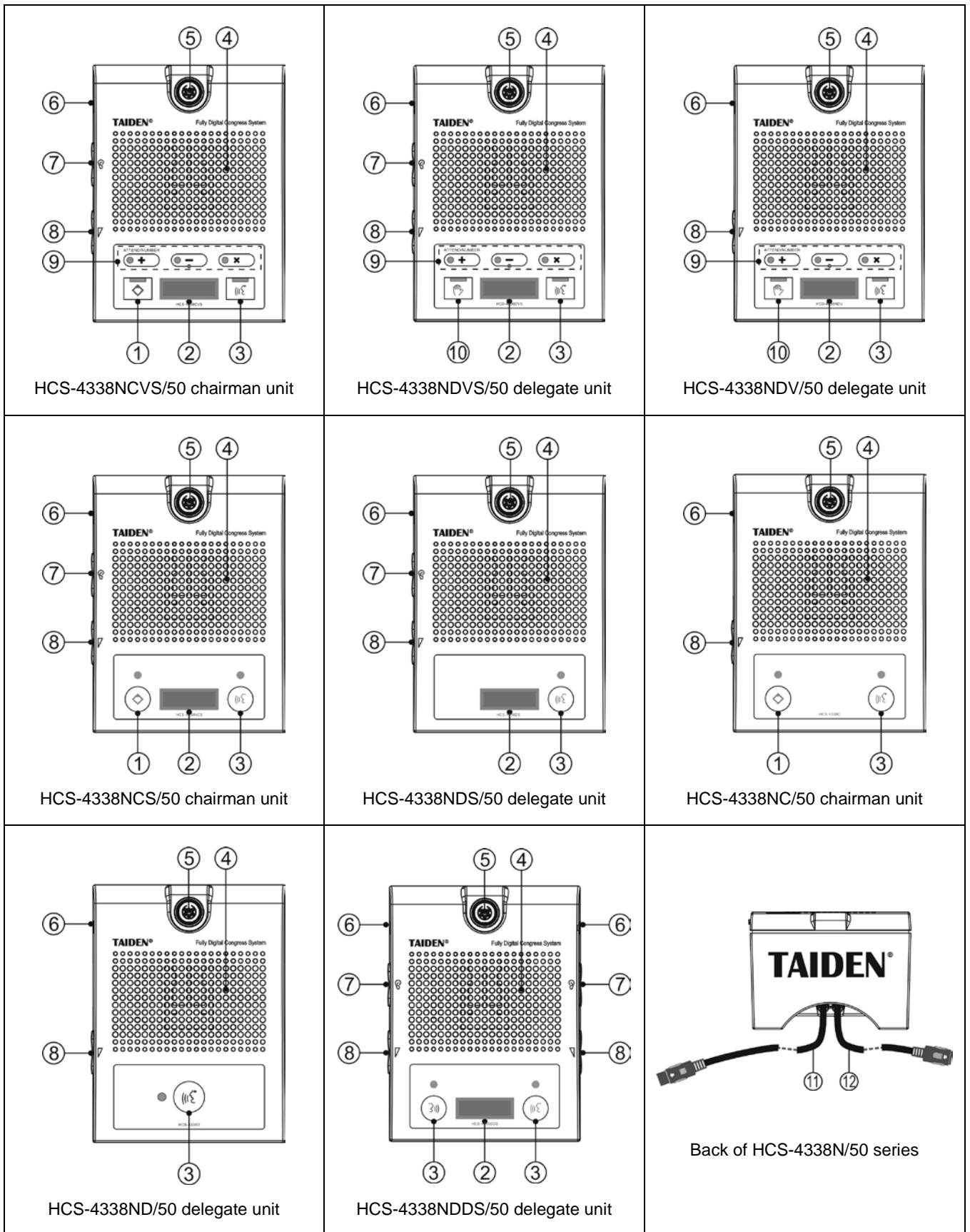


Figure 3.7.1 HCS-4338N/50 series congress units

Figure 3.7.1:

1. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as “All off”, all active delegate microphones (except VIP units) will be switched off when this key is pressed. Under “Open” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;
- ◆ If the ring mode is configured as “ON”, a ring tone will be produced when this key is pressed.

2. OLED display

3. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate/deactivate the microphone;
- ◆ Delegate unit: 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	Red (flash)
First in request list	Green (flash)
Not first in request list	Green (on)
VIP indication	Yellow (on)

4. Built-in Hi-Fi loudspeaker

- ◆ Mutes automatically to suppress howling when the microphone of the unit is active;
- ◆ Loudspeaker sends out floor channel audio only. The volume is controlled via the CMU or the application software.

5. Stem microphone socket

6. Earphone jack (Ø 3.5 mm)

7. Simultaneous interpretation channel selector

- ◆ Available when earphone is plugged.

8. Earphone volume control

9. Multi-function keys with indicating light (3 keys):

- ◆ In different modes, the corresponding indicating lights blink; press the corresponding key to execute operation (refer to table 3.7.1 for details).

10. Request key with indicating light

- ◆ Under discussion mode (DCS Server V5.7.2 or higher needed), when delegate pressed the request key, the indicating light (red) was activated and he/she was added to the request list; when the chairman get the applying information from request list and say: “xx, please give your speech”, the delegate begins to speak by pressing the microphone On/Off key.

11. 1.5-meter 6P-DIN cable with standard plug (male x 1)

12. 0.6-meter 6P-DIN cable with standard plug (female x 1)

13. XLRM connector

- ◆ Connect backup microphone to sound mixer through dedicated audio cable

Table 3.7.1 List of multi-functional keys

Function \ Keys		+	-	×
Numbering		Number		
Sign-in		Sign-in		
Voting	Parliamentary	YES	NO	ABSTAIN
	For/Against	For	Against	

3.7.2 Connection

3.7.2.1 Connecting to the CMU or the EMU

The HCS-4338N/50 series congress unit is equipped with a 1.5-meter 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

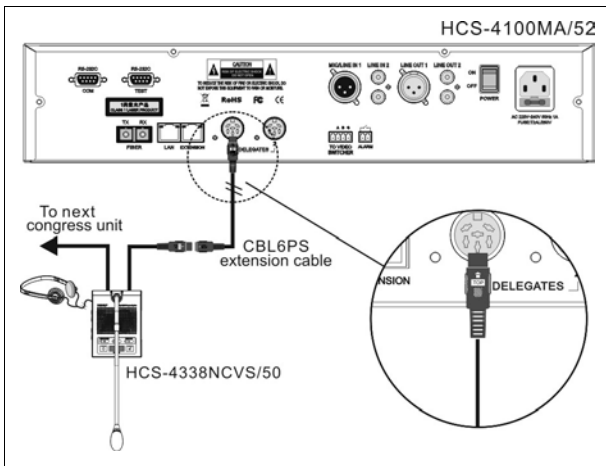


Figure 3.7.2 HCS-4338N/50 series congress unit connected to the CMU/EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “Closed Loop - Daisy Chain” connection topology is selected. “Closed Loop - Daisy Chain” connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “Closed Loop - Daisy Chain” connection, just connect the last congress unit back to the CMU or the EMU with HCS-8300MCLS. The 1.5 meter 6P-DIN standard plug cable of HCS-8300MCLS is connected to the output connector of the main unit and the 0.6 meter 6P-DIN standard plug cable is connected to the tail end of the conference unit. Details for [section 2.1.3](#) “Closed Loop - Daisy Chain” connection topology.

3.7.2.2 Connection between congress units

All congress units of HCS-4100/50 system are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

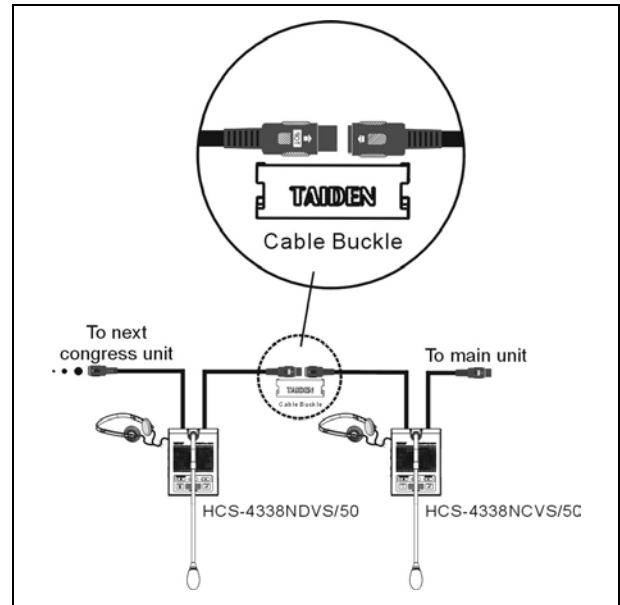
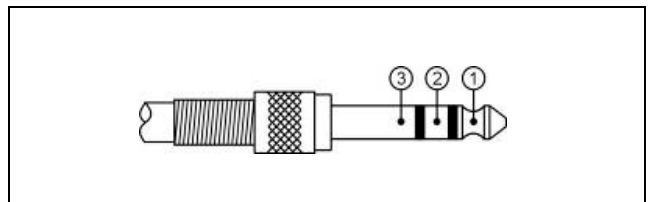


Figure 3.7.3 “Daisy-chain” connection between HCS-4338N/50 series congress units

3.7.2.4 External earphone

An external earphone can be connected to the external earphone jack of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a Ø 3.5 mm plug, as the following figure:



Functions and indications:

- 1..... Left stereo channel signal
- 2..... Right stereo channel signal
- 3..... Power ground/Shield

3.7.3 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants can use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

3.7.3.1 Delegate unit

We introduce all the operation of HCS-4338N/50 series congress units. The congress units of this series feature one or more of these functions.

1. Number

First of all, make sure that all the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm. The system now goes to numbering status. "Press '1' key of all congress units one by one and repower" will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink and the LED screen will display "Numbering: × ×" (× × stands for ID). Press the microphone On/Off key (the "+" key for units with voting function) of every congress unit one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

- ☞ When numbering, please number the congress units one by one and do NOT press the "+" key or the microphone On/Off key of several congress units at the same time;
- ☞ When working at Double ID mode, the two IDs of HCS-4338NDDS/50 congress unit must be set as sequential number, such as 1 and 2 (or 23 and 24). And please assign adjacent seats for these two IDs in seat arrangement procedure.

2. Sign-in (application software needed)

To carry out voting, congress units with voting function should be registered via key press. With application software, registration is available by choosing "Seat Sign-in".

In key-press sign-in status, the indicating light on the "+" key will blink and the LED screen will display "Attending...", press the "+" key to sign-in and the indicating light will be turned off.

3. Speaking (without software)

Speaking mode is configured on the CMU (refer to section [2.1.4](#)).

A. "Open" mode

- Active microphone number limitation (1/2/3/4) **NOT reached:**
 - c. The microphone will be activated when the microphone On/Off key is pressed, the speaker can give his/her speech;
 - d. The microphone will be deactivated when the microphone On/Off key is pressed again.
- Active microphone number limitation (1/2/3/4) **reached:**
 - d. Press the microphone On/Off key to request to speak;
 - e. Press the microphone On/Off key again to cancel the request to speak;
 - f. When an active microphone is turned off, the first request microphone will be activated.

B. "Override" mode

- Active microphone number limitation (1/2/3/4) **NOT reached:**
 - c. The microphone will be activated when the microphone On/Off key is pressed, the speaker can give his/her speech;
 - d. 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 delegate microphone On/Off key is pressed, its microphone will be activated and the first activated delegate microphone will be deactivated at the same time to maintain the active microphone number limitation. If the number of active microphone (including chairman and VIP unit) reaches 6, turning on another microphone will switch off the delegate microphone which turned on first.

C. “Voice” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

d. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated;

e. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted at the main unit (refer to section [2.1.4](#));

f. When the microphone is activated, it can be turned off by pressing the microphone On/Off key.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

c. Request to speak when the microphone On/Off key is pressed (default 6 microphones at most). The chairman unit can approve or reject his/her speak;

d. When his/her request is approved, he/she can speak and the last activated microphone will be turn off at the same time.

E. “PTT” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

c. The microphone will be activated when the microphone On/Off key is pressed and held, the speaker can give his/her speech;

d. The microphone will be deactivated when the microphone On/Off key is released.

■ Active microphone number limitation (1/2/3/4) **reached:**

Pressing the microphone On/Off key cannot activate the microphone until one of the activated microphones is switched off.

Note:

☞ **“Voice” speaking mode:** the chairman unit and the VIP unit count in the active microphone number limitation (1/2/3/4), if the active microphone number limitation reached, the microphones of the chairman unit and the VIP unit cannot be turned on;

☞ **Other speaking modes:** the chairman unit and the VIP unit do not count in the active microphone number limitation (1/2/3/4); at most 6 microphones can be activated at the same time in a system.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker’s video can be exported to and displayed on large screen(s).

4. Voting (for units with function)

Voting can be originated by TAIDEN conference management system software. Only supports parliamentary voting: Yes/No/Abstain, and For/Against voting.

- The voting button indicating lights of the congress unit start to blink, the delegate can press the voting button to vote;
- For “First key-press valid” voting, the delegate can vote only once;
- For “Last key-press valid” voting, the delegate can change his/her vote, and the last voted key will be valid.

5. Channel selection (for units with SI function)

- When the CMU is connected to interpreter unit(s), simultaneous interpretation function will work and the channel selector will be activated. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the delegate can select a suitable language to listen to by means of the channel selector.

6. Volume control

- The volume of the built-in loudspeaker can be adjusted by the master volume control knob on the main unit;
- When the earphone is plugged, its volume can be adjusted by the earphone volume control of the unit.

7. OLED display

After initialization, the following interface will be displayed on the OLED:



For units with voting function, press the “+” or the “-” key to activate the operation menu, it includes two sub menus: Call and About.



- “+” key: page up ↑
- “-” key: page down ↓
- “x” key: enter ↵

A. “Call”



The earphone shall be plugged to use the intercom function. If not, it will remind you to plug the earphone. If the current unit is using the intercom function, it will remind you that the line is busy. Press the key “x” to use the intercom function, and the following interface at the left side is displayed. When the operator approved your request, then the following interface at the right side is shown:



B. About



Display the product information.



8. VIP unit

- Any delegate unit can be assigned as a VIP unit by the TAIDEN conference management system software. At most 32 VIP units can be assigned;
- As long as the active microphone capacity is not full, the microphone of the VIP unit can be activated freely;
- If the active microphone capacity is full, the microphone of the VIP unit cannot be turned on unless one of the active microphones is deactivated.

3.7.3.2 Chairman unit

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

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will restore when this key is released;
- If the priority mode on the main unit is configured as “All off”, all active delegate microphones (except VIP units) will be turned off and the request-to-speak list will be purged (under “Open” and “Apply” mode) when this key is pressed.

2. Speaking

- If the active microphone capacity is not full, the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit;
- If the active microphone capacity is full, the chairman cannot activate his/her microphone. But he/she can use the priority key to “All mute” or “All off” other delegate microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Without PC and under “Apply” mode, when a delegate requests to speak, a ring tone will be emitted by the built-in loudspeaker in the chairman's unit.

- **HCS-4338NC and HCS-4338NCS:** the chairman can now approve delegate's request and activate delegate's microphone by pressing the microphone on/off key or reject delegate's request by pressing the priority key;
- **HCS-4338NCVS:** the chairman can now approve delegate's request and activate delegate's microphone by pressing key “ + ” or reject delegate's request by pressing key “x”;

ID: 10 Applying
Appr. Over.

- At most 6 microphones (default) can request at the same time. When a request is approved, the last activated microphone will be turn off at the same time.

B. Turn off or mute delegate microphone

The chairman can use the priority key to execute “All mute” or “All off” operation.

4. Voting

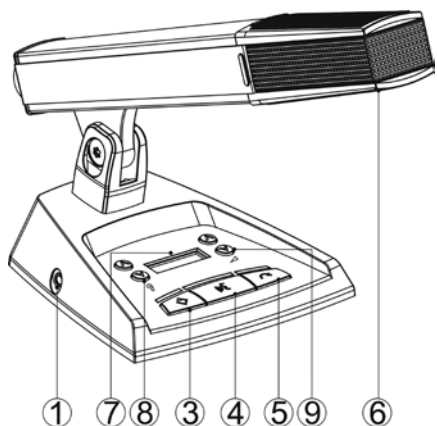
HCS-4338NCVS chairman unit cannot originate voting without a PC.

When connecting with PC software:

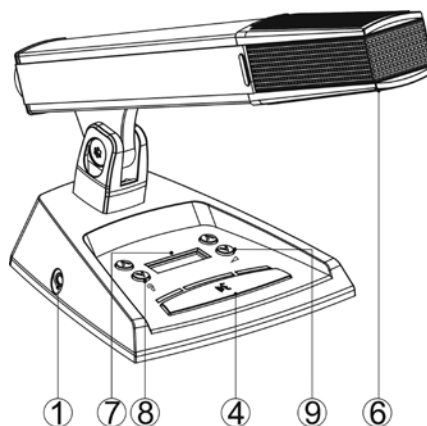
- Nominative or ballot voting are available;
- “First key-press valid” or “Last key-press valid” are available;
- Voting can be controlled by application software only. Voting operation of the chairman unit and the delegate unit are identical.

3.8 HCS-4860/4865/4866 series congress unit

3.8.1 Functions and indications



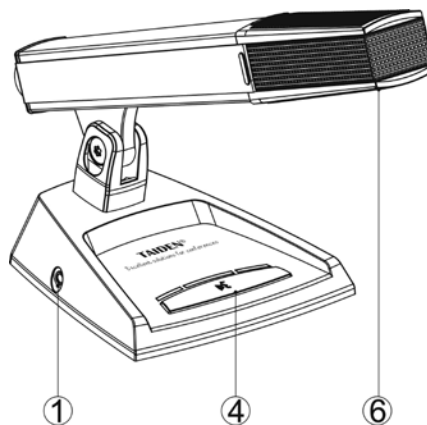
HCS-4860CS/54 chairman unit
HCS-4860CS/54/2M chairman unit



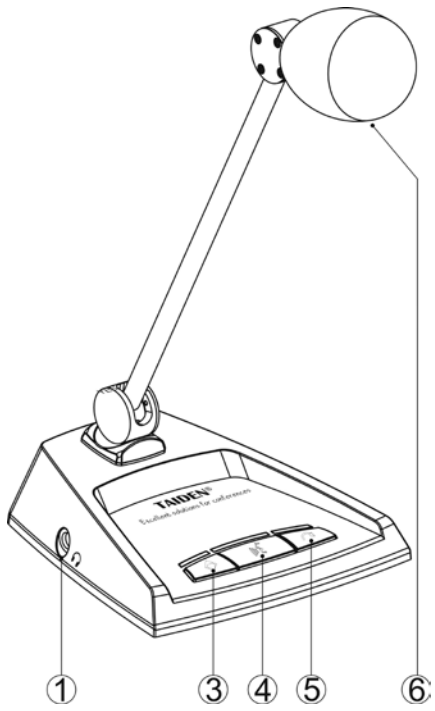
HCS-4860DS/54 delegate unit
HCS-4860DS/54/2M delegate unit



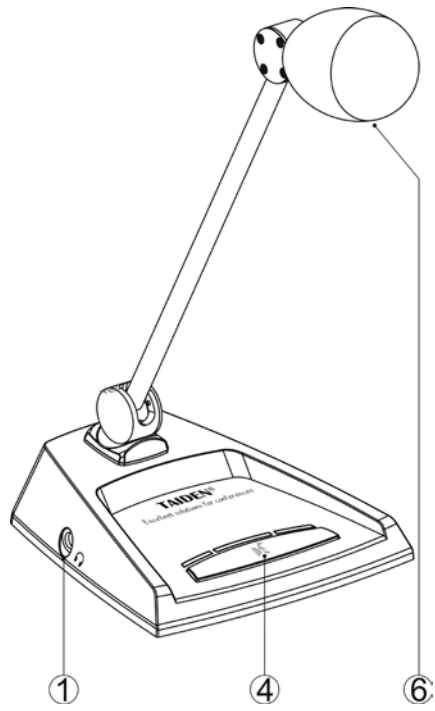
HCS-4860C/54 chairman unit
HCS-4860C/54/2M chairman unit



HCS-4860D/54 delegate unit
HCS-4860D/54/2M delegate unit

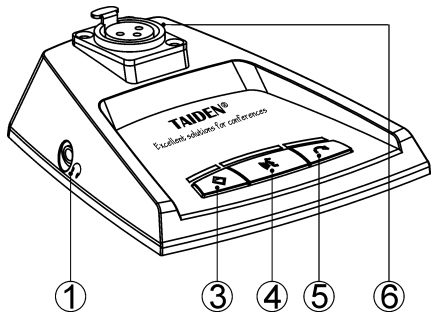


HCS-4865C/50 chairman unit
HCS-4866C/50 chairman unit

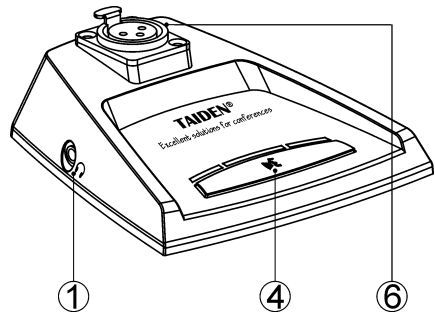


HCS-4865D/50 delegate unit
HCS-4866D/50 delegate unit

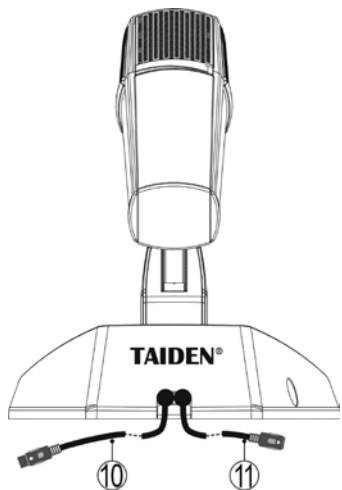
Note: the HCS-4866/50 series equipped with fixed gooseneck microphone.



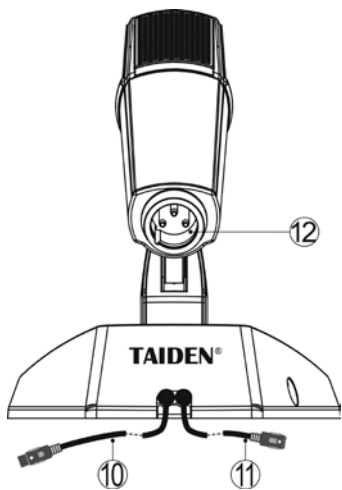
HCS-4860CX/54 chairman unit



HCS-4860DX/54 delegate unit



Back of HCS-4860/54



Back of HCS-4860/54/2M

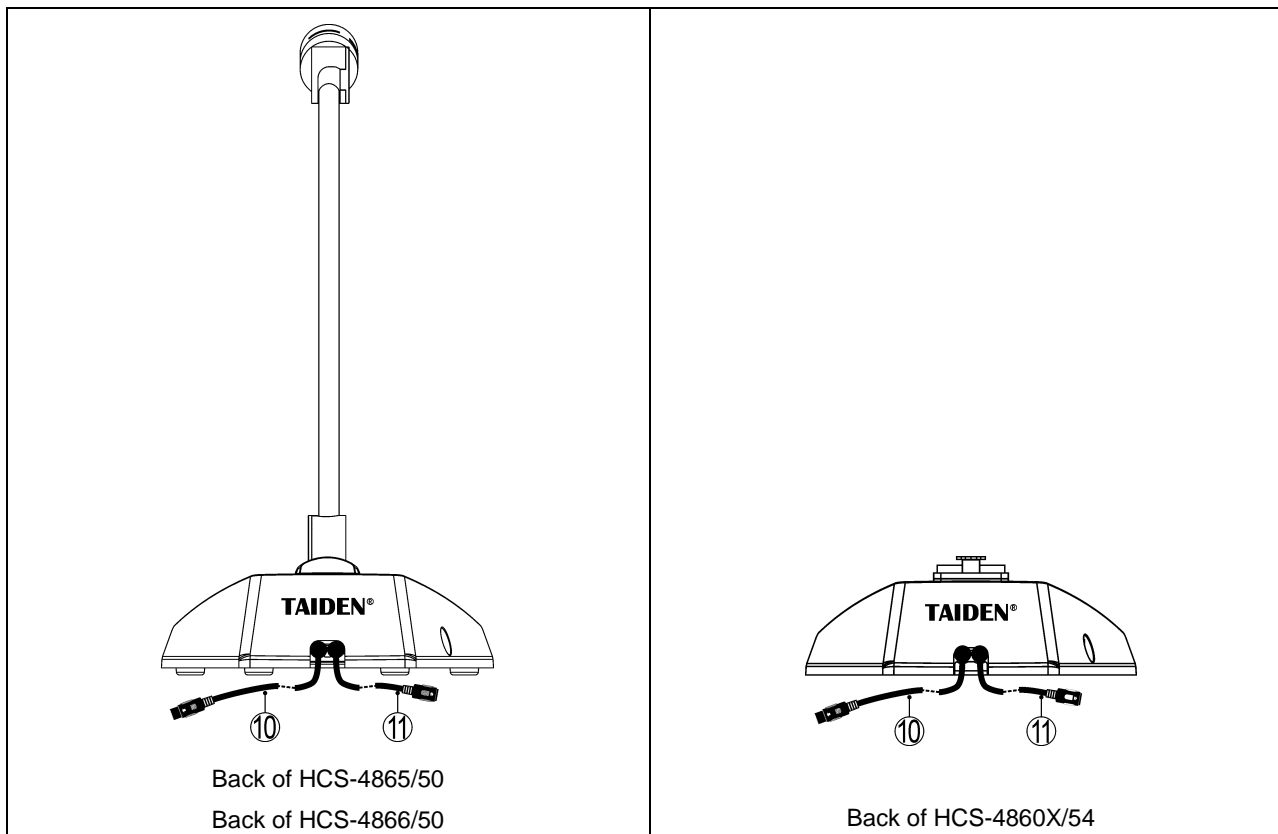


Figure 3.8.1 HCS-4860/4865/4866 series congress units

Figure 3.8.1:

1. Earphone jack (Ø 3.5 mm)

3. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as “All off”, all active delegate microphones (except VIP units) will be switched off when this key is pressed. Under “Open” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it;
- ◆ If the ring mode is configured as “ON”, a ring tone will be produced when this key is pressed.

4. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate/deactivate the microphone;
- ◆ Delegate unit: 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	Red (flash)
First in request list	Green (flash)
Not first in request list	Green (on)
VIP indication	Yellow (on)

5. Approve key (for the chairman unit only)

- ◆ According to the order of requests, press this key once to approve one delegate unit’s request and turn off the active delegate microphone at the same time.

6. Microphone

- ◆ HCS-4860/54: rectangular columnar microphone
- ◆ HCS-4865/50: metal straight stem microphone
- ◆ HCS-4866/50: Fixed stem microphone
- ◆ HCS-4860/54/2M: rectangular columnar microphone, build-in isolated main microphone and backup microphone, backup microphone needs phantom power supply
- ◆ HCS-4860X/54: XLR connector for condenser microphone with +36 V phantom power

7. OLED display

8. Simultaneous interpretation channel selector

- ◆ Available when earphone is plugged.

9. Earphone volume control

10. 1.5-meter 6P-DIN cable with standard plug (male x 1)

11. 0.6-meter 6P-DIN cable with standard plug (female x 1)

12. XLRM connector

- ◆ Connect backup microphone to sound mixer through dedicated audio cable

3.8.2 Connection

3.8.2.1 Connecting to the CMU or the EMU

The HCS-4860/4865/4866 series congress unit is equipped with a 1.5-meter 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

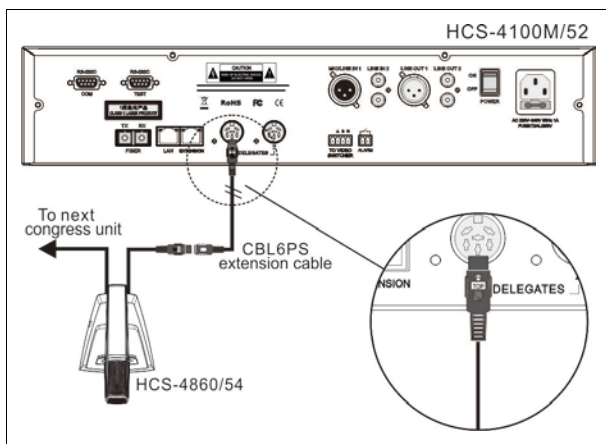


Figure 3.8.2 HCS-4860/54 series congress unit connected to the CMU/EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “Closed Loop - Daisy Chain” connection topology is selected. “Closed Loop - Daisy Chain” connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “Closed Loop - Daisy Chain” connection, just connect the last congress unit back to the CMU or the EMU with HCS-8300MCLS. The 1.5 meter 6P-DIN standard plug cable of HCS-8300MCLS is connected to the output connector of the main unit and the 0.6 meter 6P-DIN standard plug cable is connected to the tail end of the conference unit. Details for section 2.1.3 “Closed Loop - Daisy Chain” connection topology

3.8.2.2 Connection between congress units

All congress units of HCS-4100/50 system are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard female connector on the 0.6-meter cable of the unit to the 6P-DIN standard male connector on the 1.5-meter cable of the next unit.

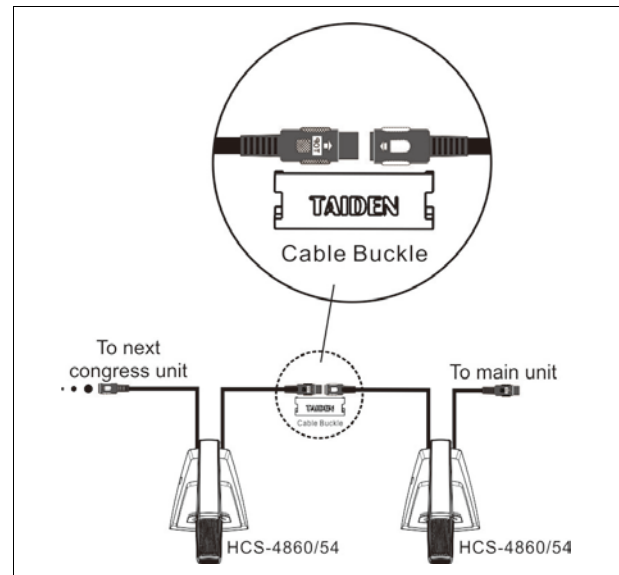


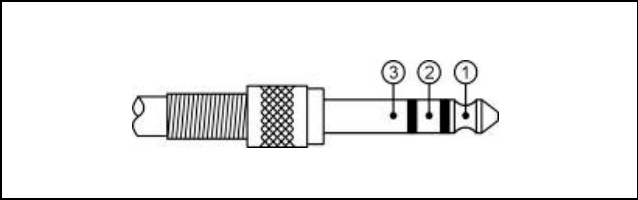
Figure 3.8.3 “Daisy-chain” connection between HCS-4860/54 series congress units

3.8.2.3 Dual backup microphone high-end congress system solution

Innovative dual-microphone congress unit, with build-in isolated main microphone and backup microphone. Two audio signals are output simultaneously. When the main microphone fails, backup microphone output is not affected, so that the meeting can carry on smoothly. See figure 3.8.4.

3.8.2.4 External earphone

An external earphone can be connected to the external earphone jack of the congress unit. Its volume can be adjusted by the earphone volume control button. The external earphone shall have a \varnothing 3.5 mm plug, as the following figure:



Functions and indications:

- 1..... Left stereo channel signal
- 2..... Right stereo channel signal
- 3..... Power ground/Shield

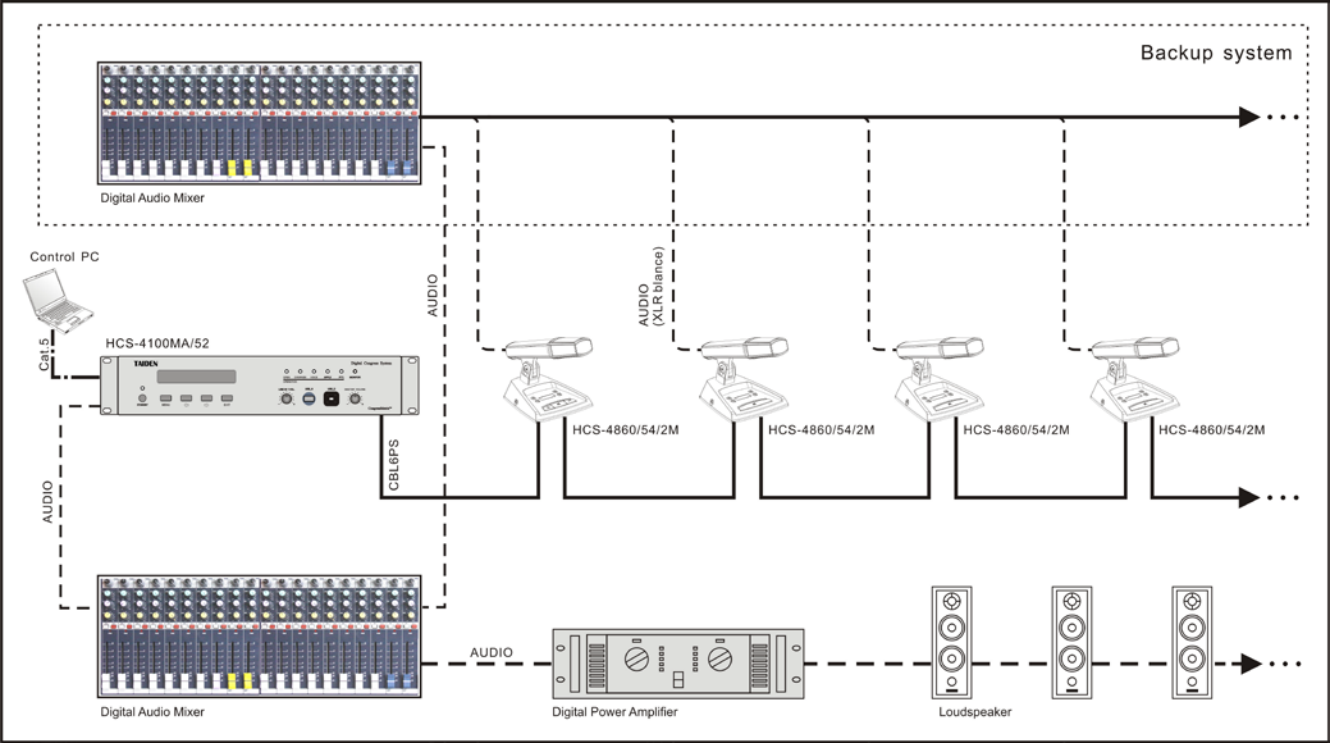


Figure 3.8.4 Dual backup microphone high-end congress system solution

3.8.3 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants can use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

3.8.3.1 Delegate unit

We introduce all the operation of HCS-4860/4865/4866 series congress units. The congress units of this series feature one or more of these functions.

1. Number

First of all, make sure that all the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm. The system now goes to numbering status. "Press '1' key of all congress units one by one and repower" will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink and the LED screen will display "Numbering: × ×" (× × stands for ID). Press the microphone On/Off key of every congress unit one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the congress units one by one and do NOT press the microphone On/Off key of several congress units at the same time.

2. Speaking (without software)

Speaking mode is configured on the CMU (refer to section [2.1.4](#)).

A. "Open" mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- The microphone will be activated when the microphone On/Off key is pressed; the speaker can give his/her speech;
- The microphone will be deactivated when the microphone On/Off key is pressed again.

■ Active microphone number limitation (1/2/3/4) **reached:**

- Press the microphone On/Off key to request to speak;
- Press the microphone On/Off key again to cancel the request to speak;
- When an active microphone is turned off, the first request microphone will be activated..

B. "Override" mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- The microphone will be activated when the microphone On/Off key is pressed, the speaker can give his/her speech;
- 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 delegate microphone On/Off key is pressed, its microphone will be activated and the first activated delegate microphone will be deactivated at the same time to maintain the active microphone number limitation. If the number of active microphone (including chairman and VIP unit) reaches 6, turning on another microphone will switch off the delegate microphone which turned on first.

C. “Voice” mode

■ Active microphone number limitation (1/2/3/4) **NOT reached:**

- a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated;
- b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted at the main unit (refer to section [2.1.4](#));
- c. When the microphone is activated, it can be turned off by pressing the microphone On/Off key.

■ Active microphone number limitation (1/2/3/4) **reached:**

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak when the microphone On/Off key is pressed (default 6 microphones at most). The chairman unit can approve or reject his/her speak;
- b. When his/her request is approved, he/she can speak and the last activated microphone will be turn off at the same time.

E. “PTT” 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 and held, the speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is released.

■ Active microphone number limitation (1/2/3/4) **reached:**

Pressing the microphone On/Off key cannot activate the microphone until one of the activated microphones is switched off.

Note:

- ☞ **“Voice” speaking mode:** the chairman unit and the VIP unit count in the active microphone number limitation (1/2/3/4), if the active microphone number limitation reached, the microphones of the chairman unit and the VIP unit cannot be turned on;
- ☞ **Other speaking modes:** the chairman unit and the VIP unit do not count in the active microphone number limitation (1/2/3/4); at most 6 microphones can be activated at the same time in a system.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

3. Channel selection (only for units with simultaneous interpretation)

- When the CMU is connected to interpreter unit(s), simultaneous interpretation function will work and the channel selector will be activated. To use the channel selector, an earphone must be plugged in. When the earphone is plugged, the delegate can select a suitable language to listen to by means of the channel selector.

4. Volume control (only for units with simultaneous interpretation)

- When the earphone is plugged, its volume can be adjusted by the earphone volume control of the unit.

5. VIP unit

- Any delegate unit can be assigned as a VIP unit by the TAIDEN conference management system software. At most 32 VIP units can be assigned;
- As long as the active microphone capacity is not full, the microphone of the VIP unit can be activated freely;
- If the active microphone capacity is full, the microphone of the VIP unit cannot be turned on unless one of the active microphones is deactivated.

3.8.3.2 Chairman unit

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

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will restore when this key is released;
- If the priority mode on the main unit is configured as “All off”, all active delegate microphones (except VIP units) will be turned off and the request-to-speak list will be purged (under “Open” and “Apply” mode) when this key is pressed.



2. Speaking

- If the active microphone capacity is not full, the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit;
- If the active microphone capacity is full, the chairman cannot activate his/her microphone. But he/she can use the priority key to “All mute” or “All off” other delegate microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Without PC and under “Apply” mode, when a delegate requests to speak, the Mic indicating light of the chairman unit will blink.

The chairman can approve delegate's request and activate delegate's microphone by pressing the approve key () or reject delegate's request by pressing the priority key (.

At most 6 microphones (default) can request at the same time. When a request is approved, the last activated microphone will be turn off at the same time.

B. Turn off or mute delegate microphone

The chairman can use the priority key to execute “All mute” or “All off” operation.

3.9 HCS-4341/50 series congress unit

3.9.1 Functions and indications

3.9.1.1 HCS-4341/50 series congress unit

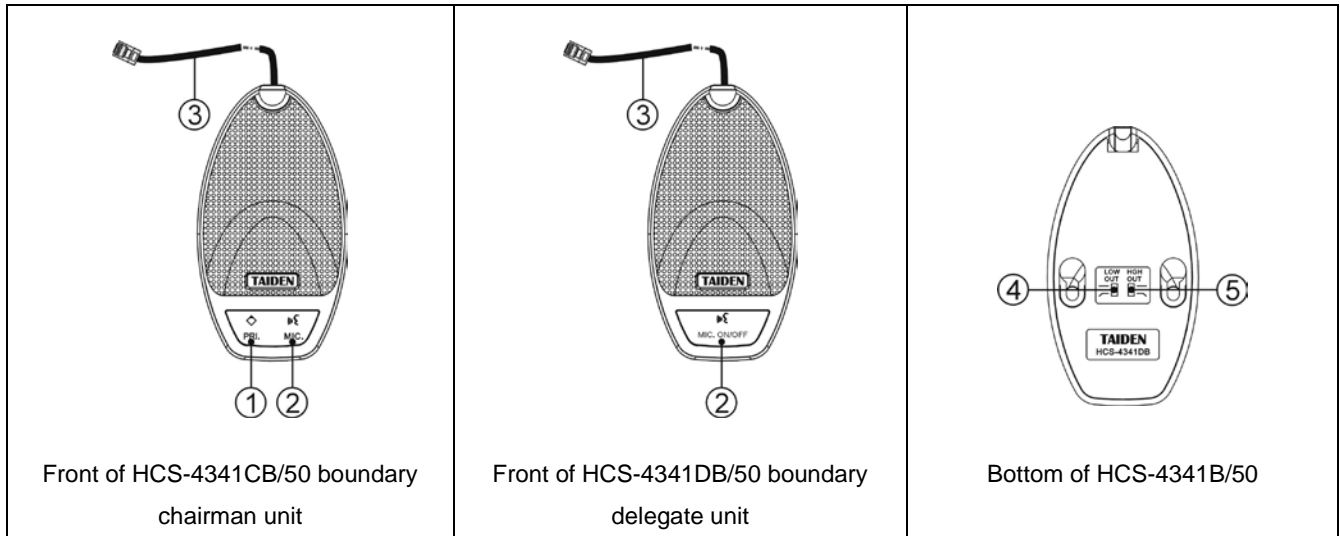


Figure 3.9.1 HCS-4341/50 series congress units

Figure 3.9.1:

1. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as “All off”, all active delegate microphones (except VIP units) will be switched off when this key is pressed. Under “Open” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it.

2. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate/deactivate the microphone;
- ◆ Delegate unit: 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	Red (flash)

3. Cat.5 cable with standard RJ45 plug, connecting to “Mic.” socket of multi-function connector

4. Bass cut switch (switch down is on)

- ◆ 200 Hz, -3 dB

5. Treble cut switch (switch down is on)

- ◆ 8 kHz, -3 dB

3.9.1.2 HCS-4340/50 Series multi-function connector

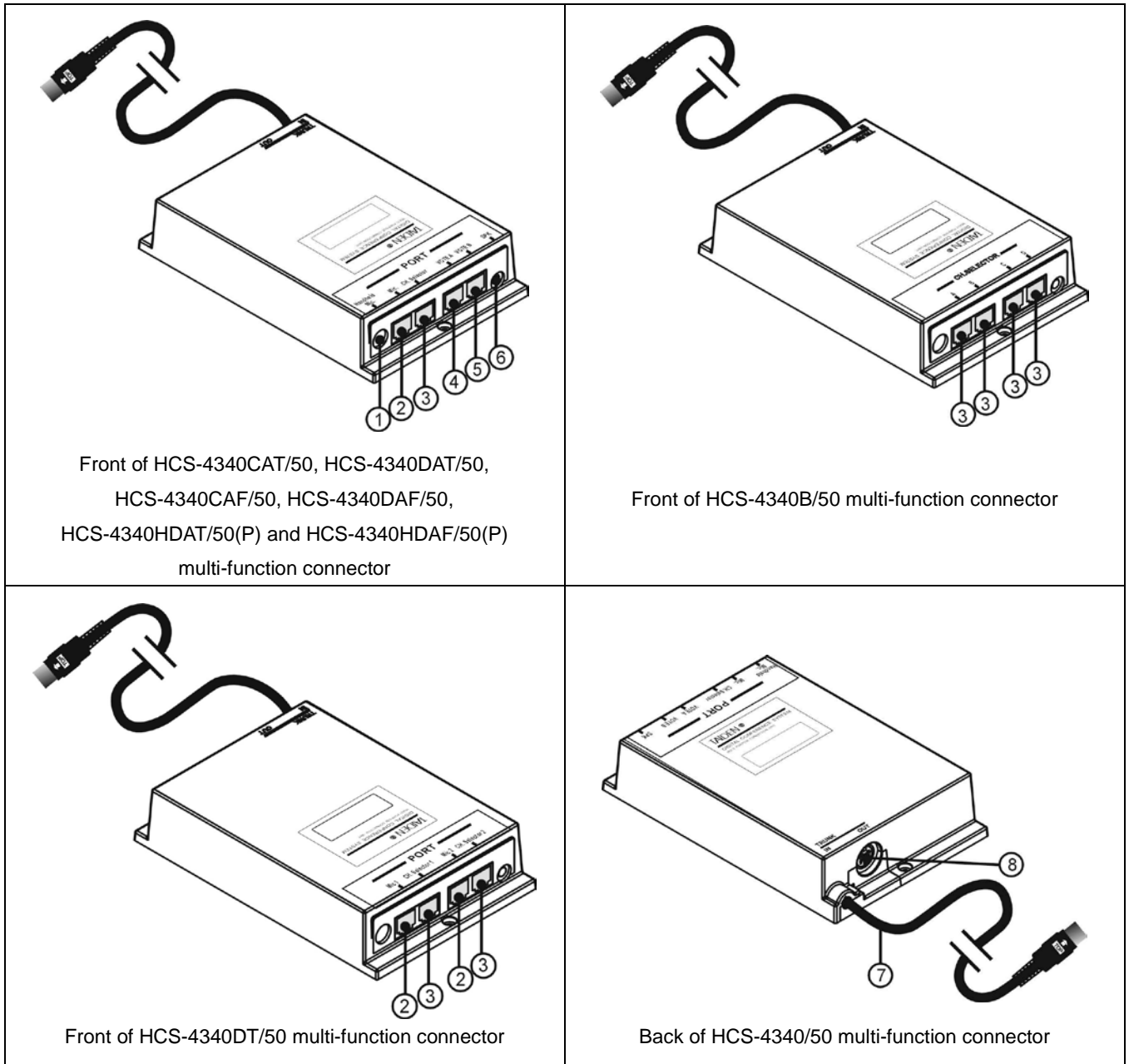


Figure 3.9.2 HCS-4340/50 series multi-function connectors

Figure 3.9.2:

1. **Handheld Mic.** (for HCS-4340HDAT/50(P) and HCS-4340HDAF/50(P) only)
 - ◆ Connecting to HCS-4341HD/50 (for HCS-4340HDAT/50 and HCS-4340HDAF/50 only);
 - ◆ +48 V phantom power available, connecting to condenser microphone directly (for HCS-4340HDAT/50P and HCS-4340HDAF/50P only).
2. **Mic.** (Not for HCS-4340HDAT/50(P) and HCS-4340HDAF/50(P))
 - ◆ Connecting to RJ45 socket of HCS-4341/50 or HCS-4841N/50.

3. CH. Selector

- ◆ Connecting to RJ45 socket of HCS-4842N/50.

4. VOTE A

- ◆ Connecting to RJ45 socket (VOTE A) of HCS-4843N/50 series voting unit.

5. VOTE B

- ◆ Connecting to RJ45 socket (VOTE B) of HCS-4843N/50 series voting unit.

6. Loudspeaker jack

7. 2.1-meter 6P-DIN cable with standard plug (male x 1)

8. 6P-DIN cable standard socket (female x 1)

3.9.3 Connection

3.9.3.1 Multi-function connector connecting to the CMU or the EMU

When connecting to the CMU or the EMU, the HCS-4341/50 series congress unit shall be connected to the multi-function connector, and the multi-function connectors connected to the CMU or the EMU with the 6-PIN cable in a daisy-chain arrangement.

- One CMU has 2 6P-DIN outputs, the output power of each 6P-DIN interface is 60 W. Since the power capacity of a 6P-DIN interface is limited, it must be ensured that, during the installation, the sum of the total power consumption of all the congress units connected to every single 6P-DIN interface plus the power loss in the extension cables does not surpass the power limit of each 6P-DIN interface. Otherwise the system will not work properly or automatic protection will occur (see section 5.1.1 for details);
- One HCS-4340CA/50 multi-function connector can be connected to one chairman discussion unit (**required**), one voting unit and one channel selector;
- One HCS-4340DA/50 multi-function connector can be connected to one delegate discussion unit (**required**), one voting unit and one channel selector;
- One HCS-4340HDA/50(P) multi-function connector can be connected to one handheld delegate unit (**required**), one voting unit and one channel selector. HCS-4340HDA/50P can supply phantom power for condenser microphone;
- One HCS-4340B/50 multi-function connector can be connected to four channel selectors;
- One HCS-4340DT/50 multi-function connector can be connected to two delegate discussion units (**required**) and two channel selectors;
- HCS-4341/50 series congress unit can be connected to the multi-function connector with a dedicated cable.

The HCS-4340/50 series multi-function connector is equipped with a 2.1-meter 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the 6P-DIN female connector of the extension cable to the 6P-DIN male connector of the 2.1-meter cable of the multi-function connector, and connect the 6P-DIN male connector of the extension cable to the output of the main unit.

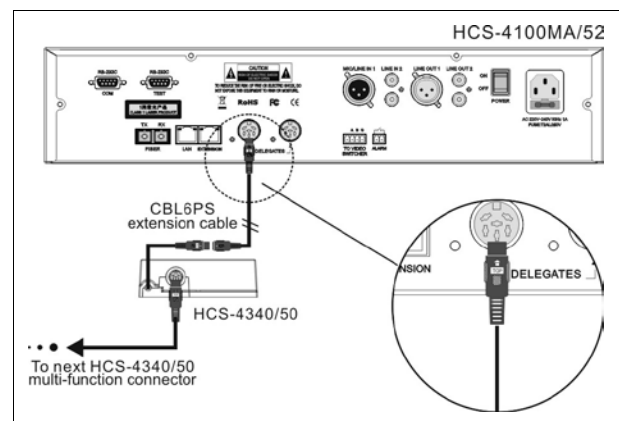


Figure 3.9.3 HCS-4340/50 series multi-function connector connected to the CMU/EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “Closed Loop - Daisy Chain” connection topology is selected. “Closed Loop - Daisy Chain” connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “Closed Loop - Daisy Chain” connection, just connect the last congress unit back to the CMU or the EMU with HCS-8300MCLS. The 1.5 meter 6P-DIN standard plug cable of HCS-8300MCLS is connected to the output connector of the main unit and the 0.6 meter 6P-DIN standard plug cable is connected to the tail end of the conference unit. Details for section 2.1.3 “Closed Loop - Daisy Chain” connection topology

3.9.3.2 Connection between multi-function connectors

All HCS-4340/50 multi-function connectors are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard male connector on the 2.1-meter cable of the next multi-function connector to the 6P-DIN standard female socket of this multi-function connector.

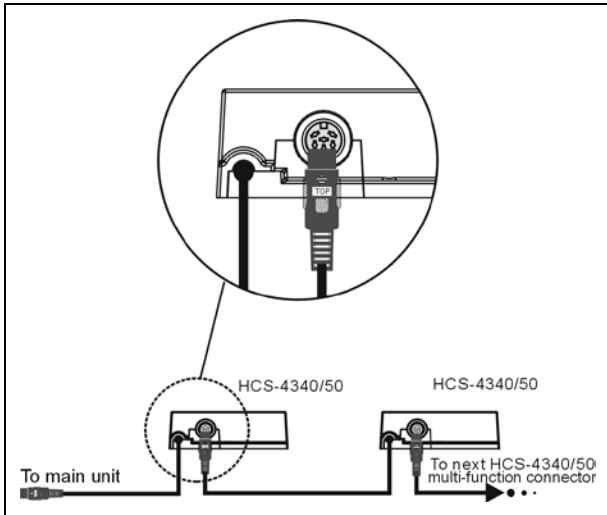


Figure 3.9.4 "Daisy-chain" connection between HCS-4340/50 series multi-function connectors

3.9.3.3 Multi-function connector connected to congress unit

The HCS-4341/50 series congress unit is equipped with Cat.5 cable with standard RJ45 plug. When connecting to the multi-function connector, just connect the RJ45 plug of the congress unit into the corresponding RJ45 socket of the multi-function connector.

+48 V phantom power available at microphone input of HCS-4340HDATA/50P and HCS-4340HDAF/50P, a condenser microphone can be connected directly. The connection details please refer to figure 3.9.5.

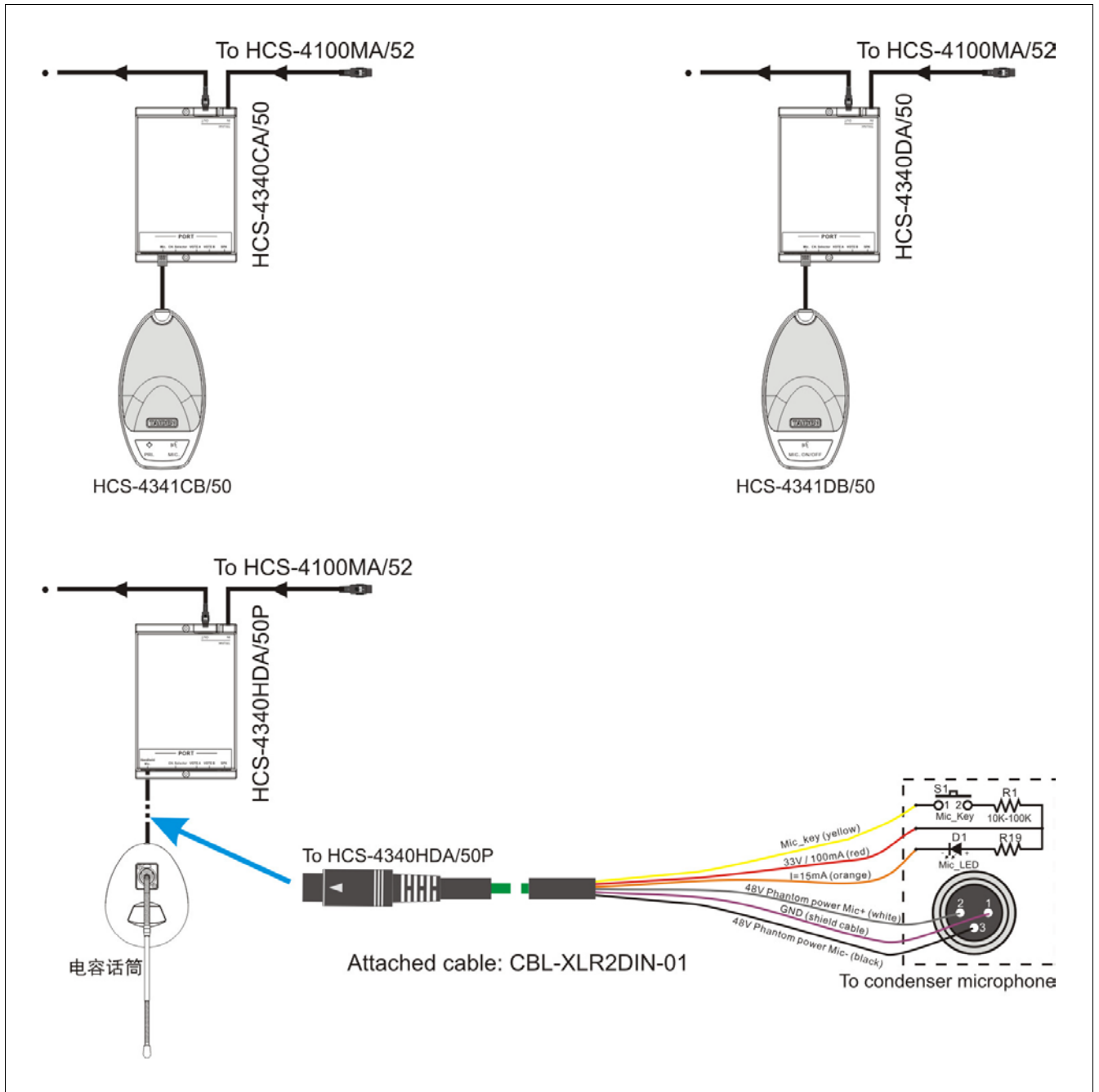


Figure 3.9.5 Multi-function connector connected to the HCS-4341/50 series congress unit

3.9.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants can use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

3.9.4.1 Delegate unit

1. Number

First of all, make sure that all congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm. The system now goes to numbering status. "Press '1' key of all congress units one by one and repower" will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. Press the microphone On/Off key of every congress unit one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the congress units one by one and do NOT press the microphone On/Off key of several congress units at the same time.

2. Speaking (without software)

Speaking mode is configured on the CMU (refer to section [2.1.4](#)).

A. "Open" 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, the speaker can give his/her speech;

- 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 the microphone On/Off key again to cancel the request to speak;
 - c. When an active microphone is turned off, the first request microphone will be activated.

B. "Override" 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, the speaker can give his/her speech;
 - 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 delegate microphone On/Off key is pressed, its microphone will be activated and the first activated delegate microphone will be deactivated at the same time to maintain the active microphone number limitation. If the number of active microphone (including chairman and VIP unit) reaches 6, turning on another microphone will switch off the delegate microphone which turned on first.

C. "Voice" mode

- Active microphone number limitation (1/2/3/4) **NOT reached:**
 - a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated;
 - b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted at the main unit (refer to section [2.1.4](#));

c. When the microphone is activated, it can be turned off by pressing the microphone On/Off key.

■ Active microphone number limitation (1/2/3/4)

reached:

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak when the microphone On/Off key is pressed (default 6 microphones at most). The chairman unit can approve or reject his/her speak;
- b. When his/her request is approved, he/she can speak and the last activated microphone will be turned off at the same time.

E. “PTT” 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 and held, the speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is released.

■ Active microphone number limitation (1/2/3/4)

reached:

Pressing the microphone On/Off key cannot activate the microphone until one of the activated microphones is switched off.

Note:

- ☞ **“Voice” speaking mode:** the chairman unit and the VIP unit count in the active microphone number limitation (1/2/3/4), if the active microphone number limitation reached, the microphones of the chairman unit and the VIP unit cannot be turned on;
- ☞ **Other speaking modes:** the chairman unit and the VIP unit do not count in the active microphone number limitation (1/2/3/4); at most 6 microphones can be activated at the same time in a system.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

3. VIP unit

- Any delegate unit can be assigned as a VIP unit by the TAIDEN conference management system software. At most 32 VIP units can be assigned;
- As long as the active microphone capacity is not full, the microphone of the VIP unit can be activated freely;
- If the active microphone capacity is full, the microphone of the VIP unit cannot be turned on unless one of the active microphones is deactivated.

3.9.4.2 Chairman unit

The chairman unit features all delegate functions, and the following additional functions:

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will restore when this key is released;
- If the priority mode on the main unit is configured as “All off”, all active delegate microphones (except VIP units) will be turned off and the request-to-speak list will be purged (under “Open” and “Apply” mode) when this key is pressed.

2. Speaking

- If the active microphone capacity is not full, the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit;
- If the active microphone capacity is full, the chairman cannot activate his/her microphone. But he/she can use the priority key to “All mute” or “All off” other delegate microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit’s request to speak

Without PC and under “Apply” mode, when a delegate requests to speak, the chairman can now approve the delegate’s request and activate the delegate’s microphone by pressing the microphone On/Off key or reject the delegate’s request by pressing the priority key.

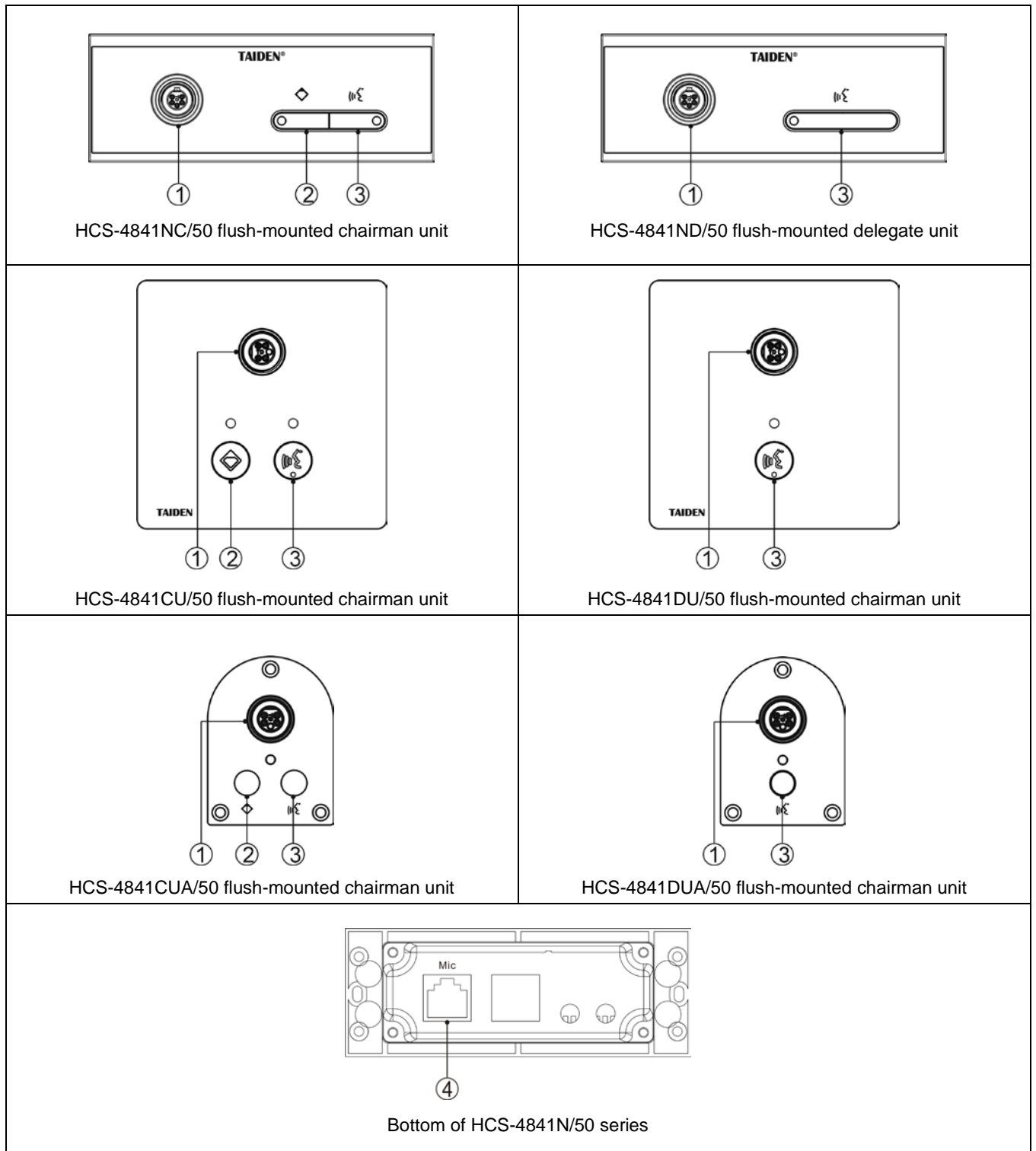
At most 6 microphones (default) can request at the same time. When a request is approved, the last activated microphone will be turn off at the same time.

B. Turn off or mute delegate microphone

The chairman can use the priority key to execute “All mute” or “All off” operation.

3.10 HCS-4841 series congress unit

3.10.1 Functions and indications



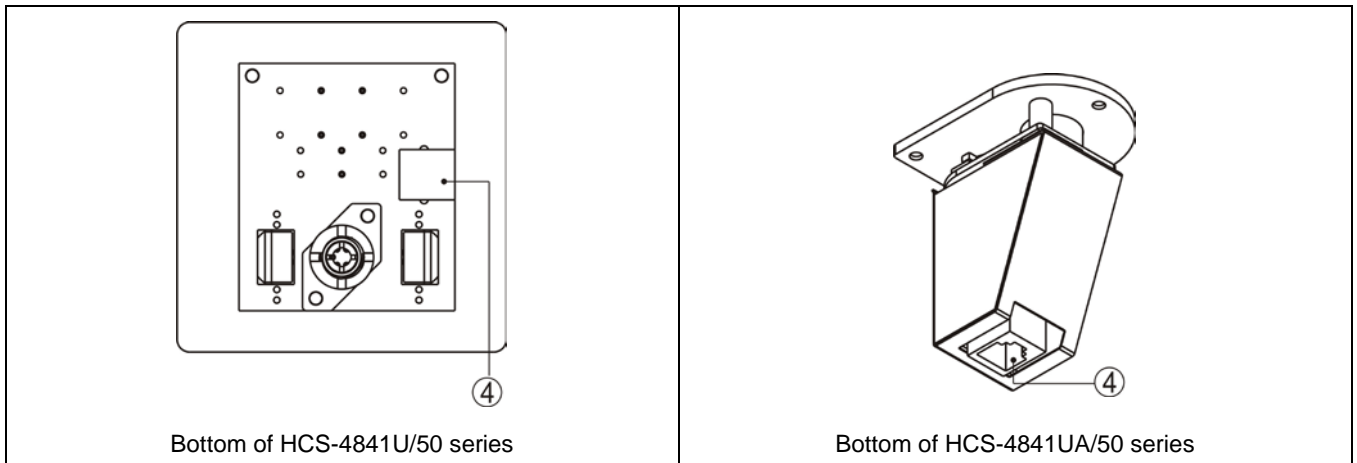


Figure 3.10.1 HCS-4841 series congress units

Figure 3.10.1:

1. Stem microphone socket

2. Priority key with indicating light (for the chairman unit only):

- ◆ According to the priority mode configuration on the main unit:
 - ◇ If configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will resume when the key is released;
 - ◇ If configured as “All off”, all active delegate microphones (except VIP units) will be switched off when this key is pressed. Under “Open” and “Apply” mode, pressing this key will clear the request list (deny all delegates’ requests to speak);
- ◆ If the chairman microphone is not active, pressing this key will activate it.

3. Microphone On/Off key with indicating light (for the chairman unit)

Microphone/request key with indicating light (for the delegate unit):

- ◆ Chairman unit: press this key to activate/deactivate the microphone;
- ◆ Delegate unit: 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	Red (flash)

4. Standard RJ45 socket, connecting to Mic. of multi-function connector

3.10.2 Installation

3.10.2.1 Installation of HCS-4841N series congress unit

■ Stand-alone installation

- Cut holes in the table according to the positioning diagram (figure 3.10.3);
- Put the congress unit with the cables into the hole. Fix the unit with the black M3 Phillips screws (figure 3.10.4);
- Stick PVC to it.

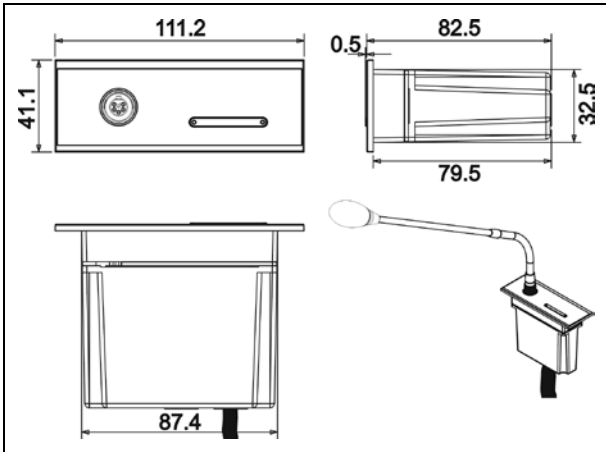


Figure 3.10.2 Dimension diagram of HCS-4841N series congress unit (unit: mm)

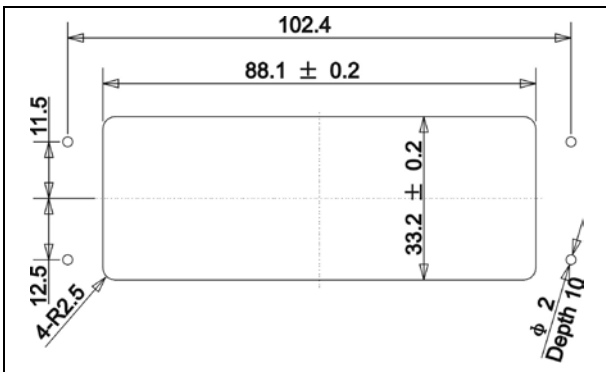


Figure 3.10.3 Positioning diagram of HCS-4841N series congress unit (unit: mm)

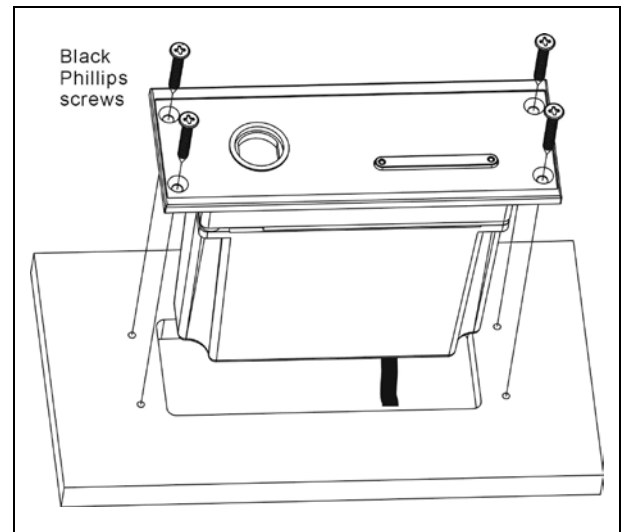


Figure 3.10.4 Installation diagram of HCS-4841N series congress unit (unit: mm)

3.10.2.2 Installation of the HCS-4841U/50 flush-mounted channel selector

- Cut holes in the table according to the positioning diagram (figure 3.10.5 - left);
- Put the congress unit with the cables into the hole and install according to figure 3.10.5 - right;

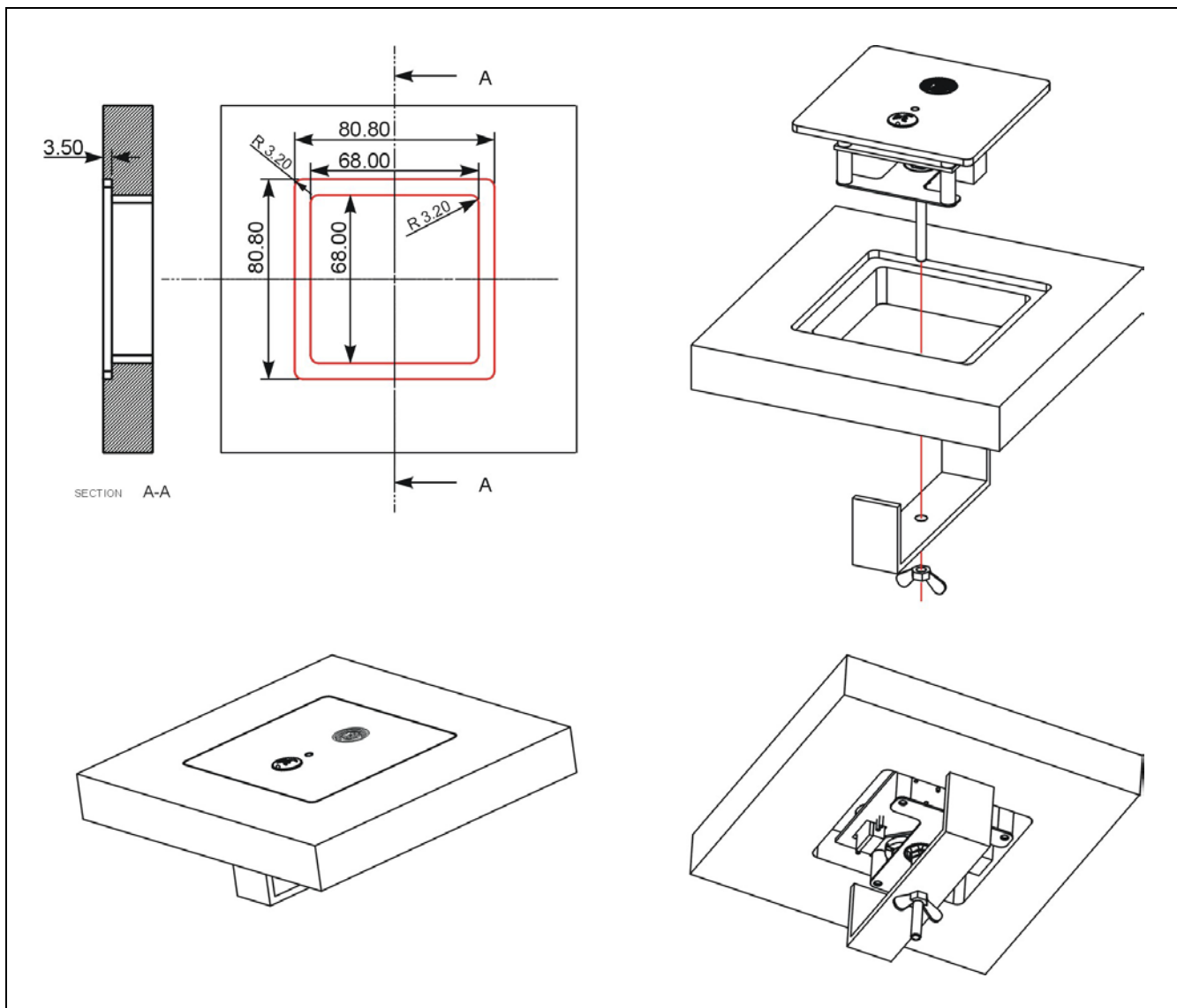


Figure 3.10.5 Installation of the HCS-4841U/50 flush-mounted channel selector

3.10.2.3 Installation of the HCS-4841UA/50 flush-mounted channel selector

- Cut holes in the table according to the positioning diagram (figure 3.10.6);
- Put the congress unit with the cables into the hole and install according to figure 3.10.6;

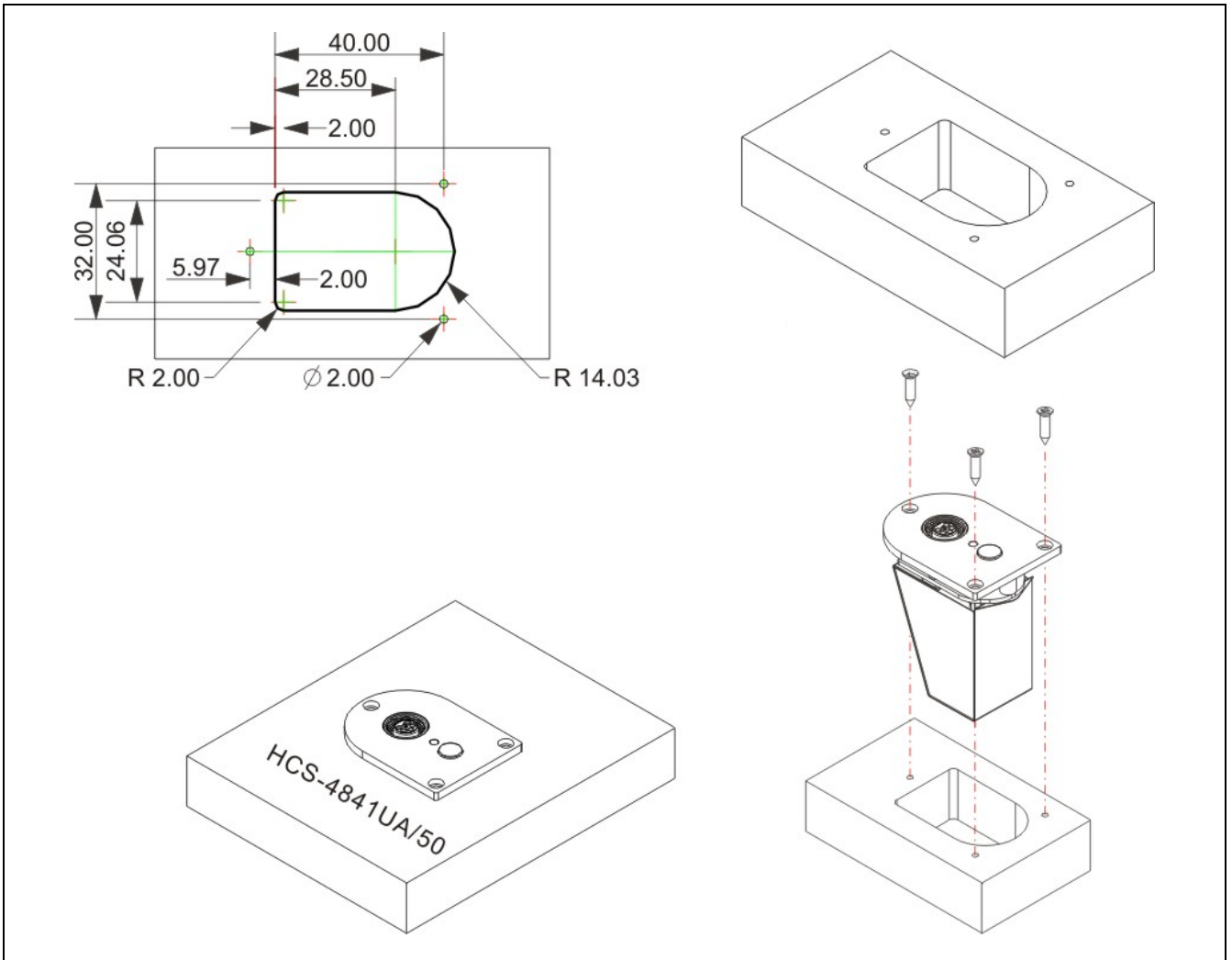


Figure 3.10.6 Installation of the HCS-4841UA/50 flush-mounted channel selector

3.10.3 Connection

3.10.3.1 Multi-function connector connected to the CMU or the EMU

When connecting to the CMU or the EMU, the HCS-4841N/42N/43N series, HCS-4841U/50 series and HCS-4841UA/50 series congress unit must be connected to the multi-function connector, and the multi-function connectors connected to the CMU or the EMU in a daisy-chain arrangement with the 6-PIN cable.

- One CMU has 2 6P-DIN outputs, and the power capacity of a 6P-DIN interface is limited, so it must be ensured that, during the installation, the sum of the total power consumption of all the congress units connected to every single 6P-DIN interface plus the power loss in the extension cables does not surpass the power limit of each 6P-DIN interface. Otherwise the system will not work properly or automatic protection will occur (see section 5.1.1 for details);
- One HCS-4340CA/50 multi-function connector can be connected to one chairman discussion unit (**required**), one voting unit and one channel selector;
- One HCS-4340DA/50 multi-function connector can be connected to one delegate discussion unit (**required**), one voting unit and one channel selector;
- One HCS-4340HDA/50(P) multi-function connector can be connected to one handheld delegate unit (**required**), one voting unit and one channel selector. HCS-4340HDA/50P can supply phantom power for condenser microphone;
- One HCS-4340B/50 multi-function connector can be connected to four channel selectors;
- One HCS-4340DT/50 multi-function connector can be connected to two delegate discussion units (**required**) and two channel selectors;
- HCS-4841N/42N/43N series, HCS-4841U/50 series and HCS-4841UA/50 series congress unit can be connected to the multi-function connector with a dedicated cable.

The HCS-4841/50 series discussion unit equipped with a 1.5-meter 6P-DIN cable with a standard male connector and a 0.6-meter 6P-DIN cable with a standard female connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit. All congress units are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

The HCS-4340/50 series multi-function connector is equipped with a 2.1-meter 6P-DIN cable with a standard male connector. To connect to the HCS-4100/50 CMU or the HCS-8300 EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the 6P-DIN female connector of the extension cable to the 6P-DIN male connector of the 2.1-meter cable of the multi-function connector and connect the 6P-DIN male connector of the extension cable to the output of the main unit.

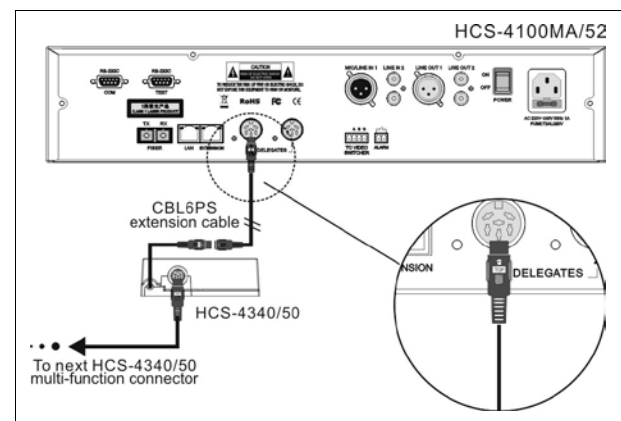


Figure 3.10.7 Multi-function connector connected to the CMU/EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “Closed Loop - Daisy Chain” connection topology is selected. “Closed Loop - Daisy Chain” connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “Closed Loop - Daisy Chain” connection, just connect the last congress unit back to the CMU or the EMU with HCS-8300MCLS. The 1.5 meter 6P-DIN standard plug cable of HCS-8300MCLS is connected to the output connector of the main unit and the 0.6 meter 6P-DIN standard plug cable is connected to the tail end of the conference unit. Details for [section 2.1.3](#) “Closed Loop - Daisy Chain” connection topology.

3.10.3.2 Connections between multi-function connectors

All HCS-4340/50 multi-function connectors are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another congress unit, just connect the 6P-DIN standard male connector on the 2.1-meter cable of the next multi-function connector to the 6P-DIN standard female socket of this multi-function connector.

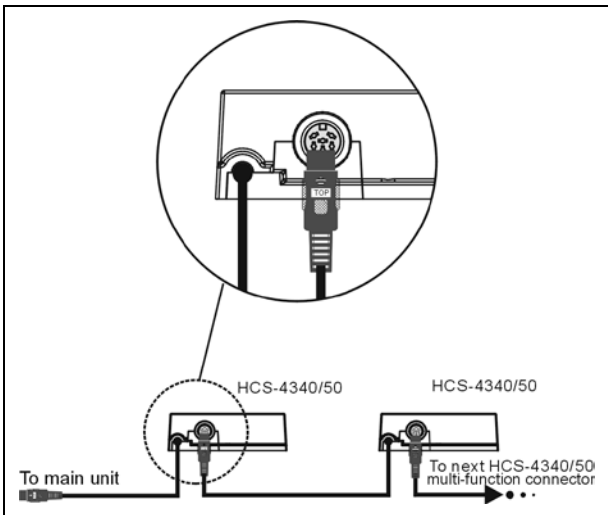


Figure 3.10.8 “Daisy-chain” connection between HCS-4340/50 series multi-function connectors

3.10.3.3 Multi-function connector connected to the HCS-4841N/50, HCS-4841U/50 and HCS-4841UA/50 series congress unit

The HCS-4841N/50 series, HCS-4841U/50 series and HCS-4841UA/50 series congress unit is equipped with a standard RJ45 socket. When connecting to the multi-function connector, just use Cat.5 cable with standard RJ45 plugs to connect the RJ45 socket of the congress unit into the corresponding RJ45 socket of the multi-function connector.

3.10.4 Operation

Before a meeting starts, the congress units need to be configured by the operator, including: numbering and testing. During the meeting, the participants use the congress unit to sign-in, activate microphone, request to speak, vote, etc.

3.10.4.1 Delegate unit

1. Number

First of all, make sure that the congress units are connected properly to the CMU. All congress units must be numbered when the system is used for the first time or when adding or replacing congress units. The numbering function can be activated by menu operation on the CMU front panel or by application software.

Select "Number" by menu operation from the CMU, press the "MENU" key to confirm, following the system goes to numbering status. "Press '1' key of all congress units one by one and repower" will be displayed on the CMU LCD. The number indicating light of all connected congress units will blink. Press the microphone On/Off key of all congress units one by one. The number indicating light will be deactivated. Once all congress units numbered, restart the CMU to update the number information.

Note:

☞ When numbering, please number the congress units one by one and do NOT press the "NUMBER" key of several congress units at the same time.

2. Speaking (without software, only for discussion unit of this series)

Speaking mode is configured on the CMU. (refer to section [2.1.4](#))

A. "Open" 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, the speaker can give his/her speech;

- 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 the microphone On/Off key again to cancel the request to speak;
 - c. When an active microphone is turned off, the first request microphone will be activated.

B. "Override" 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, the speaker can give his/her speech;
 - 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 delegate microphone On/Off key is pressed, its microphone will be activated and the first activated delegate microphone will be deactivated at the same time to maintain the active microphone number limitation. If the number of active microphone (including chairman and VIP unit) reaches 6, turning on another microphone will switch off the delegate microphone which turned on first.

C. "Voice" mode

- Active microphone number limitation (1/2/3/4) **NOT reached:**
 - a. The microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated;
 - b. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted at the main unit (refer to section [2.1.4](#));

c. When the microphone is activated, it can be turned off by pressing the microphone On/Off key.

■ Active microphone number limitation (1/2/3/4)

reached:

All other microphones cannot be activated unless one of the active microphones is turned off.

D. “Apply” mode

- a. Request to speak when the microphone On/Off key is pressed (default 6 microphones at most). The chairman unit can approve or reject his/her speak;
- b. When his/her request is approved, he/she can speak and the last activated microphone will be turn off at the same time.

E. “PTT” 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 and held, the speaker can give his/her speech;
- b. The microphone will be deactivated when the microphone On/Off key is released.

■ Active microphone number limitation (1/2/3/4)

reached:

Pressing the microphone On/Off key cannot activate the microphone until one of the activated microphones is switched off.

Note:

- ☞ **“Voice” speaking mode:** the chairman unit and the VIP unit count in the active microphone number limitation (1/2/3/4), if the active microphone number limitation reached, the microphones of the chairman unit and the VIP unit cannot be turned on;
- ☞ **Other speaking modes:** the chairman unit and the VIP unit do not count in the active microphone number limitation (1/2/3/4); at most 6 microphones can be activated at the same time in a system.

A camera can focus an activated microphone automatically (camera position preset by application software). Speaker's video can be exported to and displayed on large screen(s).

3. VIP unit (for delegate discussion unit of this series only)

- Any delegate unit can be assigned as a VIP unit by the TAIDEN conference management system software. At most 32 VIP units can be assigned;
- As long as the active microphone capacity is not full, the microphone of the VIP unit can be activated freely;
- If the active microphone capacity is full, the microphone of the VIP unit cannot be turned on unless one of the active microphones is deactivated.

3.10.4.2 Chairman unit

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

1. Priority

- If the priority mode on the main unit is configured as “All mute”, all active delegate microphones (except VIP units) will be muted temporarily when this key is pressed and they will restore when this key is released;
- If the priority mode on the main unit is configured as “All off”, all active delegate microphones (except VIP units) will be turned off and the request-to-speak list will be purged (under “Open” and “Apply” mode) when this key is pressed.

2. Speaking

- If the active microphone capacity is not full, the chairman can activate his/her microphone normally, the operation is the same as for the delegate unit.
- If the active microphone capacity is full, the chairman cannot activate his/her microphone. But he/she can use the priority key to “All mute” or “All off” other delegate microphones and give his/her speech.

3. Controlling delegate unit

A. Approve delegate unit's request to speak

Without PC and under “Apply” mode, when a delegate requests to speak, the chairman can now approve the delegate's request and activate the delegate's microphone by pressing the microphone On/Off key or reject the delegate's request by pressing the priority key.

At most 6 microphones (default) can request at the same time. When a request is approved, the last activated microphone will be turn off at the same time.

B. Turn off or mute delegate microphone

The chairman can use the priority key to execute “All mute” or “All off” operation.

Chapter 4: Interpreter unit

Simultaneous interpretation function of HCS-8300 congress system is designed for the requirements of large scale multilingual international congresses: it can provide up to 64 language channels (64 CHs).

HCS-8385N interpreter unit is equipped with a 6.8" TFT LCD, a 64-channel selector, a built-in loudspeaker, a pluggable microphone, headset sockets, etc. LCD can display channel number, language name, input language, quality indication and short message, etc. It can display a) the audience status of the output channel, including how many people are listening to the output channel from wired language distribution system, b) if the output channel is monitored by the infrared language distribution system (HCS-5100 system), and c) if the output channel is recording. 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 shortcut key, make it convenient for the interpreter to operate. The Interpreter unit can be connected directly to the trunk-link and be added easily to an existing system.

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.

Product type:

HCS-8385N

New Generation Fully Digital Congress System Interpreter Unit (64 CHs, 6.8" TFT LCD, microphone, loudspeaker, stem microphone to be ordered separately)

4.1 Functions and indications

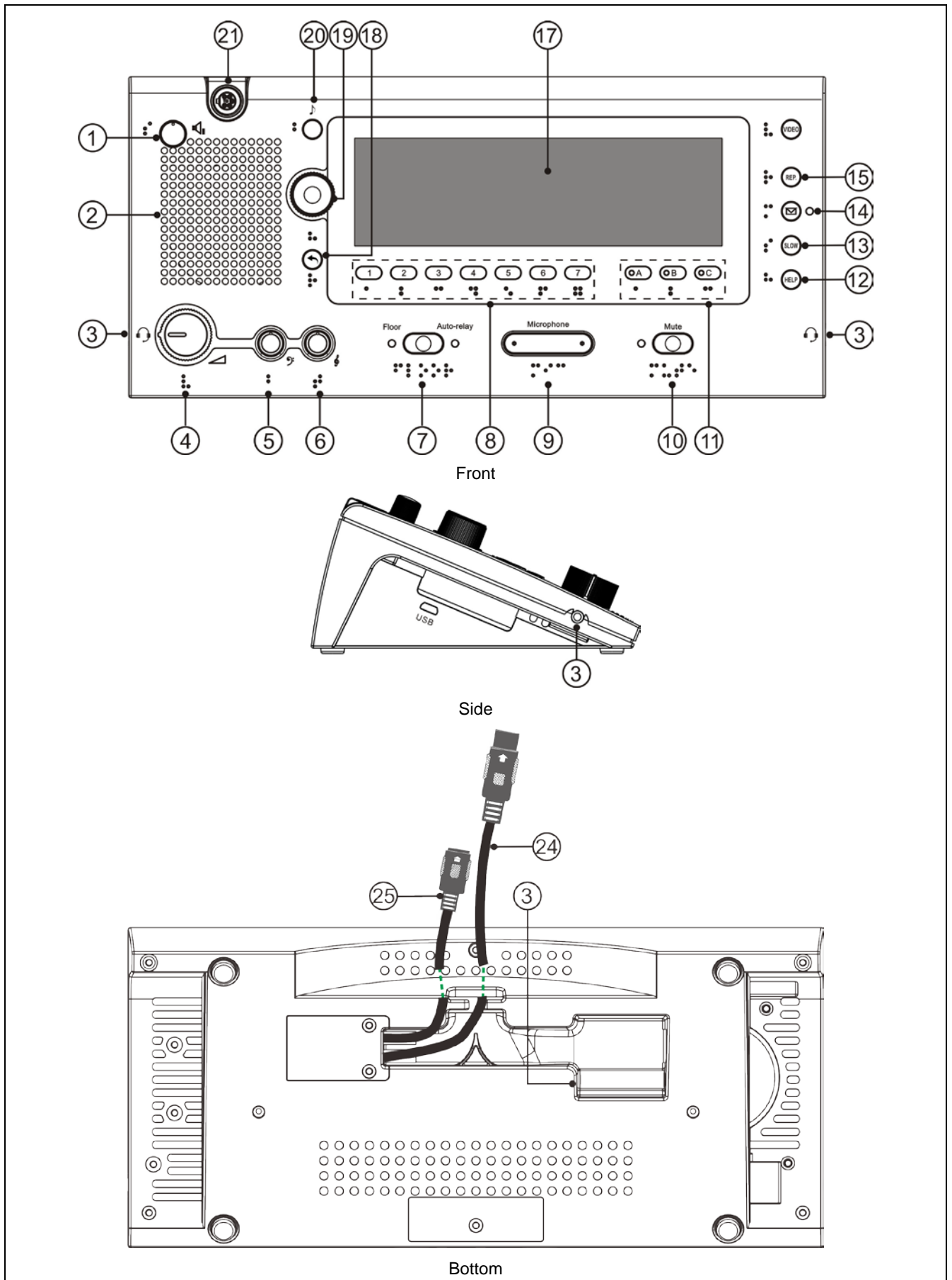


Figure 4.1.1 HCS-8385N Interpreter unit

◇ Listening area:

Loudspeaker/earphone control:

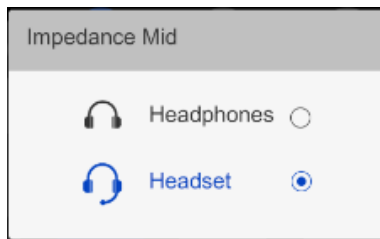
1. Loudspeaker volume control knob

2. Built-in Hi-Fi loudspeaker

- ◆ When the microphones of all interpreter units in the booth are disabled, you can listen to the loudspeaker of the interpreter unit. Push the function knob to go to the floor channel. Turn the function knob to select a different channel.

4. Earphone volume control knob

- ◆ When headphones are plugged in, impedance is automatically recognized and audio level is adjusted accordingly;
- ◆ When headset connected, you can select headset function or headphone function through pop-up dialog;



- ◆ When headphones level exceeds a preset value, a floating window will be triggered to alert.

5. Earphone bass control knob

6. Earphone treble control knob

Input channel control:

7. Floor channel ON/OFF switch

- ◆ Press this button to access the floor language and the Floor indicating light will be activated.
- ◆ Switch between floor channel and auto-relay channel.

8. Monitor channel switch button

(1/2/3/4/5/6/7)

- ◆ Switch to preset the input channel

18. Back (↶) button

- ◆ Press the button to activate LCD menu, if no operation in 5 s, menu exits; and if press any other buttons, menu exits too;
- ◆ Press the button again to return to the upper level menu.

19. Function knob

- ◆ Push the function knob to go to the floor channel for loudspeaker, turn the function knob to select a different channel;

- ◆ When the monitor channel shortcut switch button (1/2/3/4/5/6/7) was pressed, push the function knob to go to channel 1, turn the function knob to select the interpretation channel;
- ◆ When the Output channel B/C switch button (B C) was pressed, push the function knob to go to channel 1, turn the function knob to select the output channel;
- ◆ When operate the LCD menu, press the function knob to confirm.

◇ Speaking area:

9. 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.
- ◆ When microphone is active, booth number of the microphone will be displayed on LCD of all the interpreter units which set the language channel as output;
- ◆ If the interpreter booth is off, the green indicating light will be activated.

10. 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.

11. Output channel A/B/C switch with indicating lights

- ◆ 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;
- ◆ "Allow switching output channel when microphone is active" can be set by application software (Control – Booth Manage. – Param. Setup).

12. HELP

- ◆ If selected "Allow Help" by application software (Control – Booth Manage. – Param. Setup), press this key to ask the operator for help and help information will be displayed on the status bar of the application software; at the same time, "Booth: ** asks for help" will be displayed on the LCD of operator unit.

13. Slow key (SLOW)

- ◆ If selected “Allow Slow” and set the requisite number by application software (Control – Booth Manage. – Param. Setup), when the delegate is speaking too fast, interpreter on speaking press this button to remind him/her to slow down. If the discussion unit is equipped with an LCD, the message “Please speak slower!” will be displayed (activated when reached requisite number in given time).

14. Message key (✉)

- ◆ If selected “Allow Send Message” by application software (Control – Booth Manage. – Param. Setup), when unread message exist, this indicating light will be activated, press this button to check message;
- ◆ You can check the message again by pressing the same button within 1 minute;
- ◆ A new incoming message arriving within the 1 minute interval shall replace the previous one.

15. Input channel audio playback (REP.)

- ◆ If selected “Allow Repeat” and set the repeat time by application software (Control – Booth Manage. – Param. Setup), push the REP. button to playback input channel audio;
- ◆ Push the REP. button again to cancel playback.

20. 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 blind interpreters on the headphones.

◇ Display:

17. 6.8” TFT LCD

- ◆ Displays the unit configuration information, Incoming/outgoing channel number and language name, Channel number and language name of loudspeaker output, Incoming language quality indication, The audio stream status (IR receive, Record, Network Live) of the output channel, How many people are listening to the output channel, short message, etc.

Special configuration:

Braille

- ◆ Ergonomic design with features for visually impaired.

◇ Interface:

3. TRRS jack (Ø 3.5 mm)

21. Stem microphone socket

24. 1.5-meter 8P-DIN cable with standard plug (male x 1)

25. 0.6-meter 8P-DIN cable with standard plug (female x 1)

4.2 Connection

4.2.1 Connecting to the CMU or the EMU

HCS-8385N interpreter unit is equipped with a 6P-DIN cable with a standard male connector. When connecting to the CMU or the EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a long distance between the congress unit and the CMU (EMU), CBL6PS extension cable can be used. One end is equipped with a 6P-DIN male connector and the opposite end with a female connector. Just connect the female connector of the cable to the next congress unit, and connect the male connector to the output of the main unit.

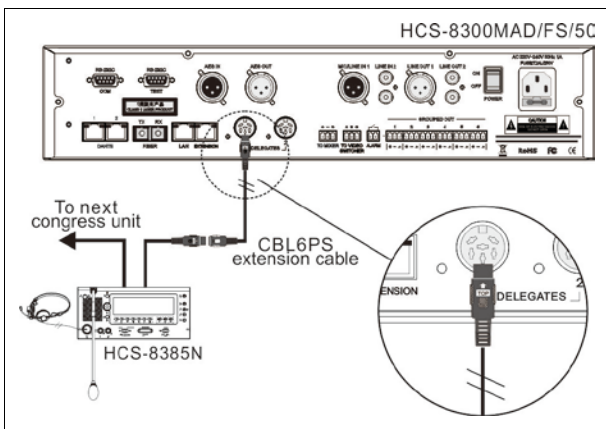


Figure 4.2.1 HCS-8385N Interpreter unit connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “Closed Loop - Daisy Chain” connection topology is selected. “Closed Loop - Daisy Chain” connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “Closed Loop - Daisy Chain” connection, just connect the last congress unit back to the CMU or the EMU with HCS-8300MCLS. The 1.5 meter 6P-DIN standard plug cable of HCS-8300MCLS is connected to the output connector of the main unit and the 0.6 meter 6P-DIN standard plug cable is connected to the tail end of the conference unit. Details for [section 2.1.3](#) “Closed Loop - Daisy Chain” connection topology

4.2.2 Connection between Interpreter units

All HCS-8385N units are daisy-chained easily and conveniently by dedicated 6-pin cables.

When connecting to another unit, just connect the 6P-DIN standard female connector on the cable of the unit to the 6P-DIN standard male connector on the cable of the next unit.

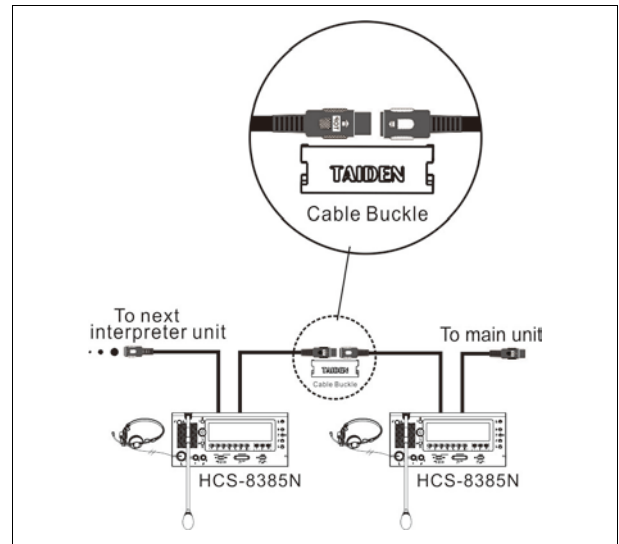
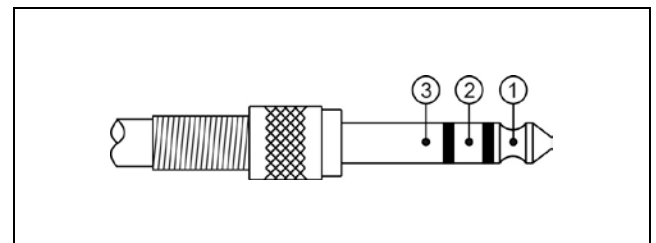


Figure 4.2.2 “Daisy-chain” connection between HCS-8385N Interpreter units

4.2.3 External earphone

An external headphone can be connected to the TRRS jack at the lateral side of the Interpreter unit. Its volume can be adjusted by the earphone volume control knob. The external headphone shall have a Ø 3.5 mm plug according to the following figure:

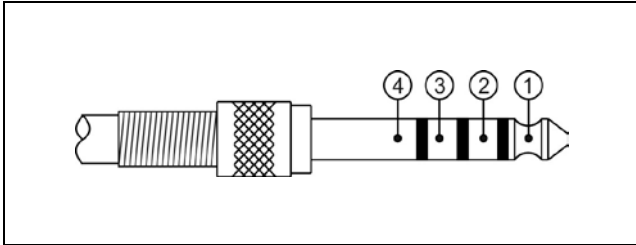


Functions and indications:

- 1..... Left stereo channel signal
- 2..... Right stereo channel signal
- 3..... Power ground/Shield

4.2.4 External microphone

An external headset can be connected to the TRRS jack at the lateral side of the Interpreter unit. The external headset shall have a Ø 3.5 mm plug, as in the following figure:



Functions and indications:

- 1.....Left stereo channel signal
- 2.....Right stereo channel signal
- 3.....Power ground/Shield
- 4.....External microphone signal

4.3 Setup

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. We will introduce the configuration and operation of the HCS-8385N interpreter unit in detail.

4.3.1 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.

■ 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, as shown in figure 4.3.1. This is called direct interpretation.

■ 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, as shown in figure 4.3.2. This is called relay interpretation.

■ Auto relay interpretation

When relay interpretation is needed, the interpreter can select a language by the monitor channel shortcut switch button (1/2/3/4/5/6/7) and the Primary knob. 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. As shown in figure 4.3.1.

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. As shown in figure 4.3.2.

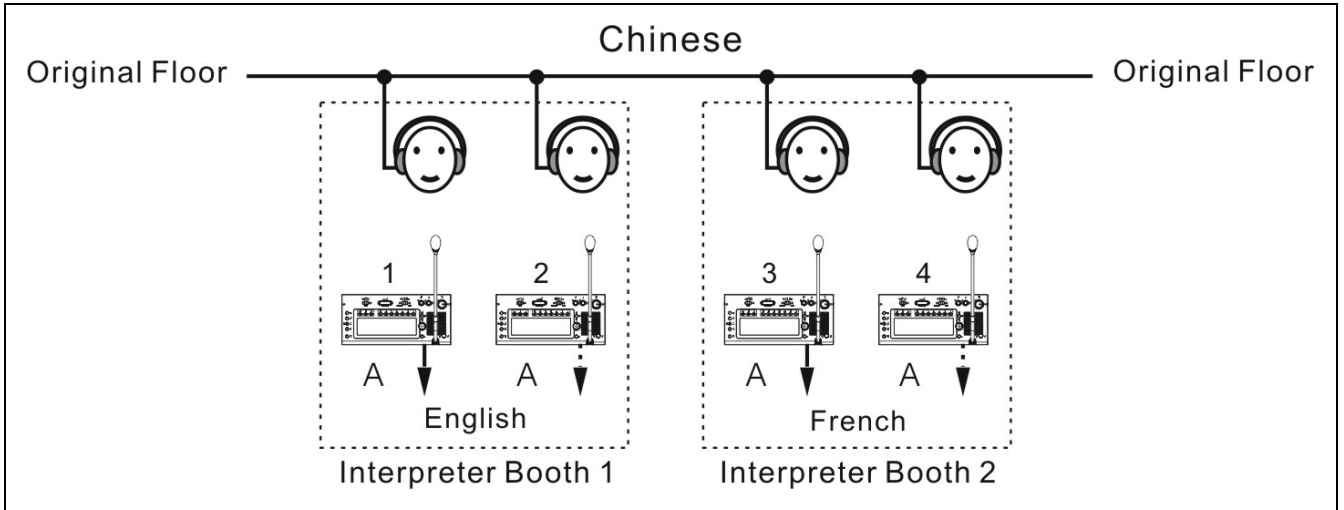


Figure 4.3.1 Direct interpretation

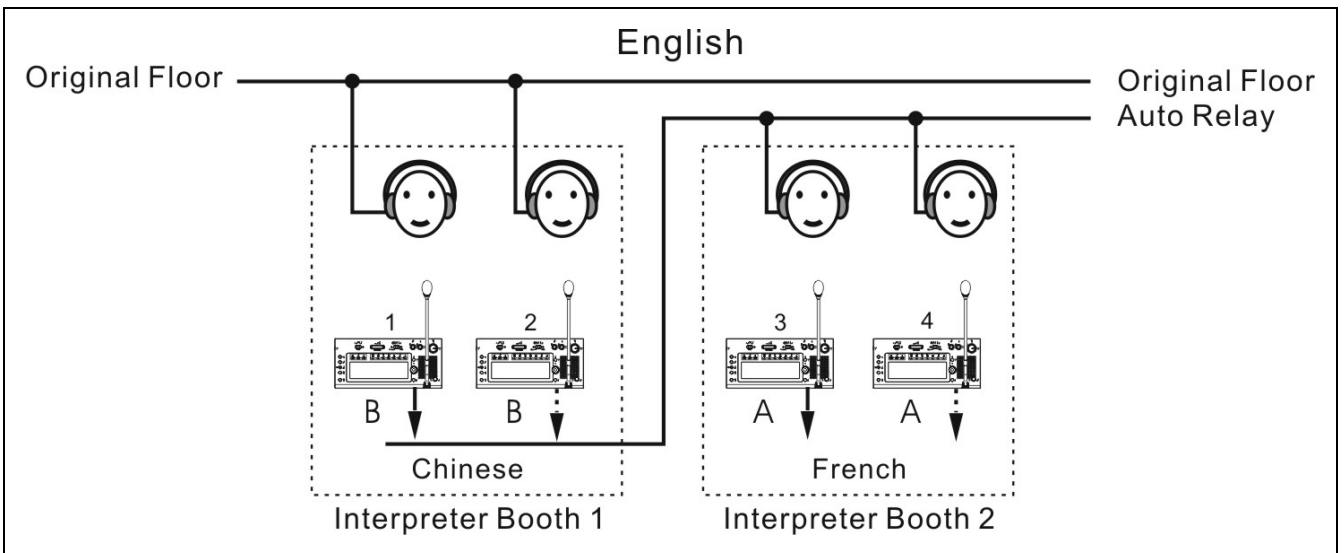


Figure 4.3.2 Relay interpretation

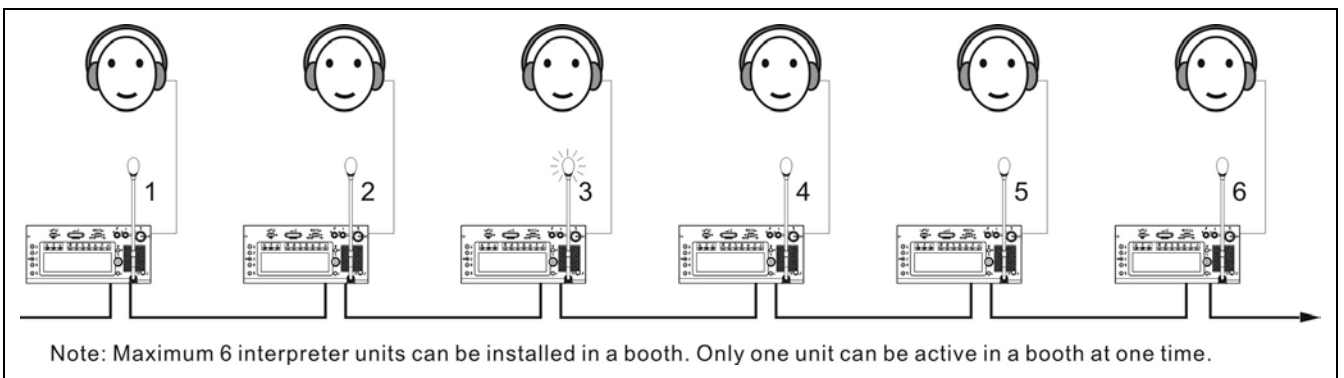
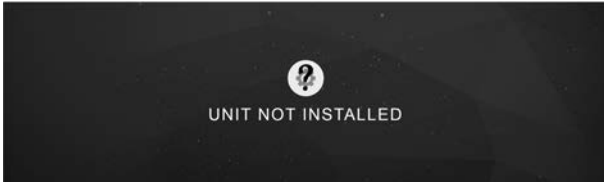


Figure 4.3.3 Schematic diagram of the connection of interpreter units

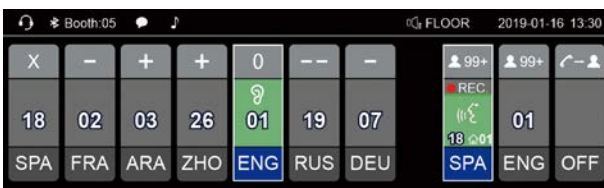
4.3.2 LCD configuration menu

When the “Interpretation setup” has been configured in the CMU, and then the interpreter unit must be configured:

- If the interpreter unit has not been configured, the LCD will display “UNIT NOT INSTALLED”;



- If the interpreter unit has been configured, the LCD will display the standby interface.



Icon on LCD:

Icon	Indicating
	Headset inserted
	Headphone inserted
Booth:05	Bluetooth: On
Booth:05	Bluetooth: Connected
	Message received
	Audio feedback: On
REP:8s	Repeat function and repeat time
00:00:05	Speech time
01:ENG	Loudspeaker channel
2016-01-21 09:00	System current time
06	Output channel is interpreting
	Call operator
99+	Quantity of listeners
	Audio stream is in use
	Monitor channel is muted
	Output channel is muted

A) Accessing menu

In the menu operation of the interpreter unit:

- If unit not installed, press the function knob to enter the setting menu;
- Under the standby interface, press the return (↩) button to activate the LCD menu, if no operation in 5 s, menu exits; and if press any other buttons, menu

exits too.



In the following operation:

- Turn the function knob to select LCD menu or adjust parameters value;
- Press the function knob to confirm/go to submenu;
- Press the “↩” button to return/exit.
- Press any other buttons, menu exits to standby interface

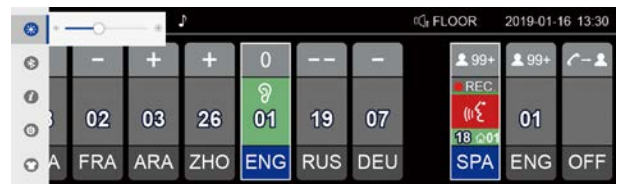
B) Menu configuration

The LCD menu includes:

- Brightness
- Setting
- Bluetooth
- About
- Skin

Brightness

Turn the Function knob to adjust screen brightness, then press the Function knob to confirm or press the “↩” button to return.



Bluetooth

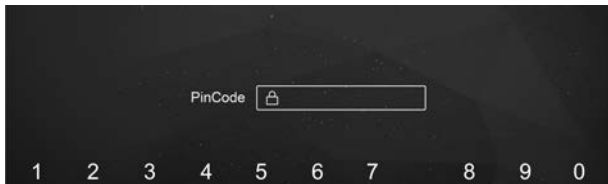
Turn the Function knob to select among On, Off or App, the selected item becomes highlighted, then press the Function knob to confirm or press the “↩” button to return. The default Bluetooth status is **Off**, If Bluetooth is **On** but cannot connect after 3 minutes, it will be off automatically.



If you select **App**, press the Function button to open QR code interface, scan the QR code according to you phone or pad to download Taiden SI tool App. After installation, you can send message to all or part booths via Bluetooth.

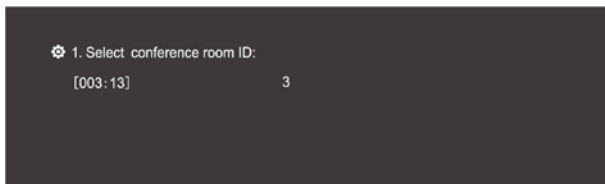
Setting

Input Pincode first before enter setting interface, system manager set the password for authorization of changing interpreter unit setting, so as to avoid random alteration. The password is **6666**, press the button under the number to input.



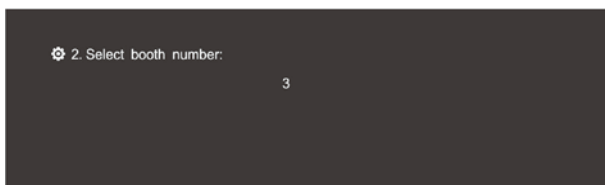
◆ Select conference room ID

- 1). Select the conference room ID by rotating the Function knob, the interpreter unit and the main unit must set the same ID;
- 2). Press the Function knob to confirm and go to the next step or press “←” button to return.



◆ Select booth number

Setup the interpreter unit with the number of the booth within which the interpreter unit is located, according to the configuration in the CMU.



- 1). Select the booth number by rotating the Function knob, the range is limited by the configuration in the CMU (refer to section [2.1.4.2](#));
- 2). Press the Function knob to confirm and go to the next step or press the “←” button to return.

◆ Compressor

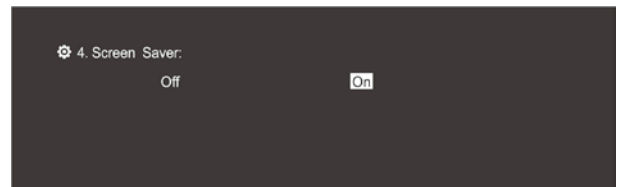
On or Off compressor.



- 1). Select On/Off by rotating the Function knob, default is On, when strong signal inputs, the distortion will be controlled well;
- 2). Press the Function knob to confirm or press the “←” button to return.

◆ Saver

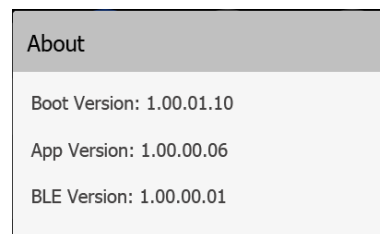
Turns LCD screen saver function On or Off.



- 1). Select On/Off by rotating the Function knob, default is On, when saver function is On, the LCD enter the screen saver state without operation for a certain period of time;
- 2). Press the Function knob to confirm or press the “←” button to return.

About

Press the Function knob to view HCS-8385N version, include Boot version, App version and Bluetooth version.



Skin

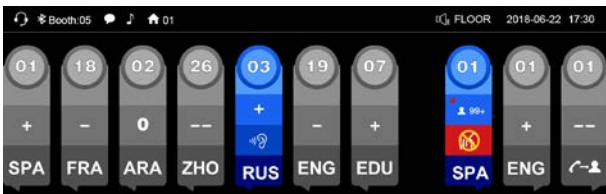
The HCS-8385N interpreter unit has two built-in skin styles for choice (Gray/Blue). After switching the skin style, restart the machine to take effect.



Gray:



Blue:



4.3.3 Other configuration

4.2.3.3.1 Input channel configuration

The HCS-8385N equipped with 7 pre-select buttons (1/2/3/4/5/6/7) for relay languages with activation indication on the LCD. When the monitor channel switch button (1/2/3/4/5/6/7) was pressed, push the Function knob to go to channel 1, turn the Function knob to select the interpretation channel.

4.2.3.3.2 Output channel configuration

To distribute the interpretation languages separately, A/B/C channels are provided in the interpreter unit. When the interpreter unit menu configuration is finished, the output channel of every interpreter unit must be setup before the meeting and according to the actual requirements.

- Output channel A is setup at the CMU, and its output language is a fixed language as the output of the booth;
- Output channel C is used to output a non-conventional language. Output channel C can be setup as "None" or "All" from the CMU menu configuration (refer to section [2.1.4.2](#)).
 - ◆ If output channel C is set as "All", the interpreter can select the output language by pressing the output channel C switch and by rotating the Function knob at the same time. If the output channel C is activated, the output of this interpreter unit will be distributed to all booths which set this booth as their auto relay booth, and other interpreters can do relay interpretation. Now, the output language of the output channel B is a fixed language as the output of the booth at the CMU menu configuration (refer to section [2.1.4.2](#));
 - ◆ If the output channel C is set as "None", the output channel B is used to output a non-conventional language. Output channel B can be setup as "None" or "All" from the CMU menu configuration. If the output channel B is set as "All", the interpreter can select the output language by pressing the output channel B switch and by rotating the Function knob at the same time. If the output channel B is activated, the output of this interpreter unit will be distributed to all booths which set this booth as their auto relay booth, and other interpreters can do relay interpretation.

4.2.3.3.3 Interlock mode

Interpretation mode can be setup by menu operation on the main unit (refer to section [2.1.4.2](#)):

Interlock mode between booths:

- ◆ Override: allows an interpreter to override another interpreter in another interpreter booth supplying the same interpretation channel.
- ◆ OVERRIDE-BC: enables A channel of an interpreter in another booth to override an occupied B/C channel in another booth, but supplying the same channel.
- ◆ Interlock: blocks another interpreter from using the same channel in another interpreter booth.

Interlock mode in a booth:

- ◆ OVERRIDE: enables an interpreter in a booth to override an occupied channel in the same booth, but supplying the same channel;
- ◆ INTERLOCK: prevents that two interpreters engage the same channel in the same booth.

4.4 Operation

4.4.1 Operation of listening area

The listening area, on the left side of the unit, is the area used to monitor the floor or the interpretation channels. It includes a built-in loudspeaker, a headset socket and the corresponding control buttons and knobs. This intuitive layout is helpful for the interpreters to familiarize with the interpreter unit quickly.

1. Channel language is the language arranged for a channel in the CMU configuration. For example, 10 languages are configured and we setup channel 1 as Chinese, channel 2 as English, etc. This setting is to simplify the work of the interpreters and to make labels for all selectable languages for all participators.
2. If the microphone of every interpreter unit in this booth is turned off, he/she can monitor any language from the built-in loudspeaker ② and adjust the volume with the "Loudspeaker volume control knob" ①. When a microphone in this booth is activated, the loudspeaker of every interpreter unit in this booth will mute automatically. Now the interpreter can listen with the earphone and adjust the volume, treble and bass with the "Earphone volume control knob" ④, "Earphone bass control knob" ⑤ and "Earphone treble control knob" ⑥ which are located on the left lower side.
3. If the interpreter wants to listen to another channel language, he/she can select the preset channel language with the "Monitor channel switch button (1/2/3/4/5/6/7)". If the channel language is not preset, he/she can select the channel language by pressing the button (1/2/3/4/5/6/7) and turning the Function knob ⑱.
4. If the speaker speaks too fast and if the interpreter cannot follow him/her, the interpreter can press the "SLOW" button to remind the speaker to slow down. If the discussion unit is equipped with an LCD, the message "Please speak slower!" will be displayed (activated when reached requisite number in given time).
5. If the interpreter missed the speaker's speech, he/she can press the input channel audio playback key (REP) to playback missed words and "REP:6S" will be displayed on the LCD. The playback time ranges between 2 s - 8 s.

6. Quality indication: The second line of the display shows the qualities of the interpretations on the channels that are assigned to the pre-select buttons of the interpreter unit. This logo is used to remind the interpreter to avoid using the relay translation if direct translation is available.

Quality	Description
0	The channel contains the floor language.
+	The channel contains a direct interpretation of the floor language.
-	The channel contains an indirect interpretation of the floor language.
--	The channel contains an indirect interpretation of an interpretation language.
X	The channel contains the output interpretation of current interpreter unit.

When beeps are enabled, the interpreter unit plays a beep when the channel that you selected contains an indirect interpretation of the floor language.

4.4.2 Operation of speaking area

The speaking area, on the right side of the unit, is the area which is used to distribute the interpretation languages to the corresponding channels. It includes functional buttons and channel selectors, etc.

1. Press the microphone ON/OFF button, and distribute the interpretation language to the output channel.

At most 6 interpreter units can be set in one booth for 6 interpreters. Only one microphone can be activated in one booth. When one microphone in the booth is activated, the loudspeaker of every interpreter unit in the booth will mute.

2. Output channel select:


- ◆ Use the “A”, “B” or “C” button to switch the output channel quickly. If the auto relay interpretation is activated and the output channel B/C activated, the output will be automatically distributed to all booths which set this booth as their auto relay booth and other interpreters can now do relay interpretation.

- ◆ If selected “Allow switching output channel when microphone is active” by application software (Control – Booth Manage. – Param. Setup), interpreter can switch output channel freely, or else, he/she can only switch output channel when microphone is turn off;

- ◆ Both the “A”, “B” and “C” buttons have an ENGAGED indicating light each. If the selected output channel is already engaged by another interpreter unit, this indicating light will be activated;

- ◆ ENGAGE indicating light of its own will be on when the microphone is active.

3. Press and hold the “MUTE” button to close the microphone temporarily and the Mute indicating light will be turned on. Releasing the button will activate the microphone automatically.

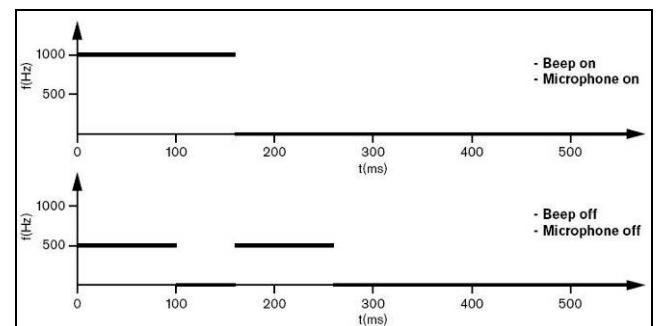
4. The “MESSAGE” () button is used to check short message.

5. Intercom button: if output channel C is “No Output”, and If selected “Allow Call” by application software (Control – Booth Manage. – Param. Setup), press and hold C button to call the operator (PTT mode).

6. “HELP” button: If selected “Allow Help” by application software (Control – Booth Manage. – Param. Setup), used by the interpreter requesting for help. Help information will be displayed on the status bar of the application software; at the same time, “Booth: xx asks for help” will be displayed on the LCD of operator unit.

7. Beeps

The audio beeps can be toggled on and off with the Beep button. If this function is enabled, the display shows a musical note, the audio beeps can also be toggled on and off with the Mic. ON/OFF button. When beeps are enabled, the interpreter unit plays a beep when the channel that you selected contains an indirect interpretation of the floor language.



Chapter 5 System connection and basic setup procedure

5.1 System connection

HCS-4100/50 FDCS has a simple and reasonable structure with high extendibility in hardware. The system installation is simple and quick and does not need special training. Daisy-chain connection is adopted between congress units as well as to CMU via dedicated 6PIN cable.

TCP/IP protocol is adopted for Ethernet connection between the CMU and the PC. As a result remote control, remote diagnosis and remote update can be achieved. Application software for client and server can run on one computer or on different computers in the same LAN. The operator is able to control the progress of the meeting flexibly.

In this chapter, the connections of HCS-4100/50 FDCS are introduced by diagrams and examples.

5.1.1 Connection principles

In HCS-4100/50 DCS the system power is provided by HCS-4100M/52 CMU (or HCS-8300ME(/FS) extension main unit or HCS-8300MES extension unit) for all congress units. Thus, the total number of system units in any installation is limited by the maximum power handling capacity and control capacity of the CMU (or EMU). It must be ensured that, during the installation, the sum of the total power consumption of all the congress units connected to every single 6P-DIN interface plus the power loss in the extension cables does not surpass the power limit of each 6P-DIN interface. Otherwise the system will not work properly or automatic protection will occur. Refer to table 5.1.1, table 5.1.2 for maximum load capability.

By cascade connecting extension main units (HCS-8300ME(/FS)) or extension units (HCS-8300MES), the HCS-4100/50 system can accommodate 4096 discussion/voting units (by using system application software up to 100 chairman units can be connected but only 1 chairman unit does have control facilities), 378 interpreter units (63 interpreter booths, 6 in each), an unlimited quantity of channel selectors, and provide 64 language channels (including floor language) simultaneous interpretation.

Note:

- ☞ The added up cable lengths between a main unit and the most remote congress unit must not exceed 250 m;
- ☞ The length of an individual extension cable must not exceed 80 meters. Otherwise it will affect the signal quality. In case the length exceeds 80 m, HCS-4352T/50 is needed; The length of an individual extension cable following HCS-4352T/50 must not exceed 70 meters;
- ☞ The extension cable between the main unit/extension unit and the first congress unit is carrying the maximum possible current. However, the cable length between the two last congress units is nearly insignificant because this cable only carries the current for one unit.

Table 5.1.1 Quick lookup table of HCS-4100M CMU and HCS-8300EMU load capability (each outlet)

Type	Type No.	The extension cable length between the CMU(EMU) and the first Congress Unit connected to the socket					
		20 m	40 m	60 m	80 m	80 m + HCS-4352T/50 +70 m	80 m + HCS-4352T/50 + 70 m + HCS-4352T/50 + 70 m
Equipped with 6.8" LCD, speaker and microphone	HCS-8385N	10	7	6	5	--	--
Equipped with 4.3" LCD, speaker and microphone	HCS-4890/52	15	13	11	9	6	5
Equipped with 4.3" LCD, microphone, without speaker	HCS-4891/50	24	20	16	14	9	5
Equipped with 256x32 LCD, speaker and microphone	HCS-4886 HCS-48U7/U8/U9	16	13	12	11	8	5
Equipped with OLED and microphone, speaker	HCS-48U10/U6						
	HCS-4338N/50	22	19	17	15	9	6
Equipped with OLED and microphone	HCS-4860/54 HCS-4865/50 HCS-4866/50	27	24	21	18	11	8
Multi-function connectors	HCS-4340A/50 HCS-4340DT/50	10	9	9	9	7	6
	HCS-4340B/50	9	8	8	8	6	5
	HCS-4340U/50	16	13	12	11	8	5

***Note:**

- ☞ Cable Splitter HCS-4352T/50 is needed when the length of an extension cable exceeds 80 m. (Cable splitter is used as repeater only and cannot improve load capability.);

Table 5.1.2 Quick lookup table of HCS-8300MES load capability (each outlet)

Type	Type No.	The extension cable length between the HCS-8300MES and the first Congress Unit connected to the socket			
		20 m	40 m	60 m	80 m
Equipped with 6.8" LCD, speaker and microphone	HCS-8385N	9	6	5	4
Equipped with 4.3" LCD, speaker and microphone	HCS-4890/52	11	10	9	8
Equipped with 4.3" LCD, microphone, without speaker	HCS-4891/50	18	17	16	15
Equipped with 256x32 LCD, speaker and microphone	HCS-4886 HCS-48U7/U8/U9	12	11	10	9
Equipped with OLED and microphone, speaker	HCS-48U6/U10 HCS-4338N/50				
Equipped with OLED and microphone	HCS-4860/54 HCS-4865/50 HCS-4866/50	20	19	18	17
	HCS-4340A/50 HCS-4340DT/50	9	8	8	8
	HCS-4340B/50 HCS-4340U/50	8 12	7 11	7 10	7 9

5.1.2 Connection between the CMU/EMU and the contribution units

All contribution units of HCS-4100/50 system adopt dedicated 6-pin cable and are daisy-chained, which makes the installation handy and effortless.

HCS-4340 series multi-function connector feature a 2.1 m 6P-DIN standard plug cable and a 6P-DIN socket, while the rest of the contribution units feature a 1.5 m 6P-DIN standard plug cable and a 0.6 m 6P-DIN socket cable instead.

Connect the 1st unit to the outlet connector of the CMU,

and following connect the plug of the cable of the 2nd unit to the socket of the 1st unit. Proceed one by one in a series configuration.

The backbone of HCS-4100/50 system is formed (as shown in figure 5.1.1).

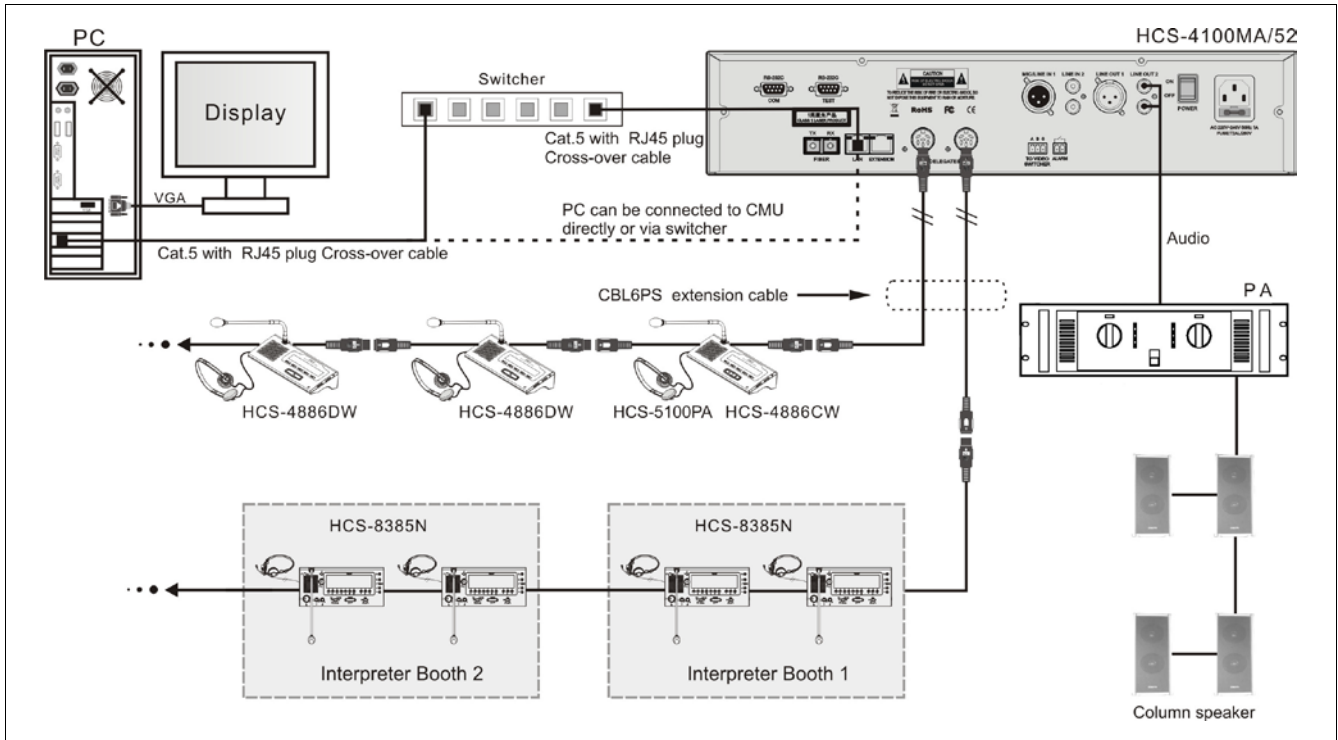


Figure 5.1.1 Congress main unit connecting to HCS-4886 series contribution units and HCS-8385N interpreter units

5.1.3 Connection between HCS-4100/50 system and automatic video tracking system

HCS-4100/50 system can be connected to an automatic video tracking system. For video tracking purposes, the application software is used to make camera presets for every congress unit. If the congress unit is switched on, the video tracking system will find the appropriate preset and focus automatically on the speaker. The view of the speaker will be displayed on large screen(s) 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 switch equipment, and high-speed dome camera.

Use a RS-485 cable and connect HCS-4100M/52 main unit (port "TO VIDEO SWITCHER") to the corresponding port at the rear panel of the video switch equipment as shown in the figure 5.1.2:

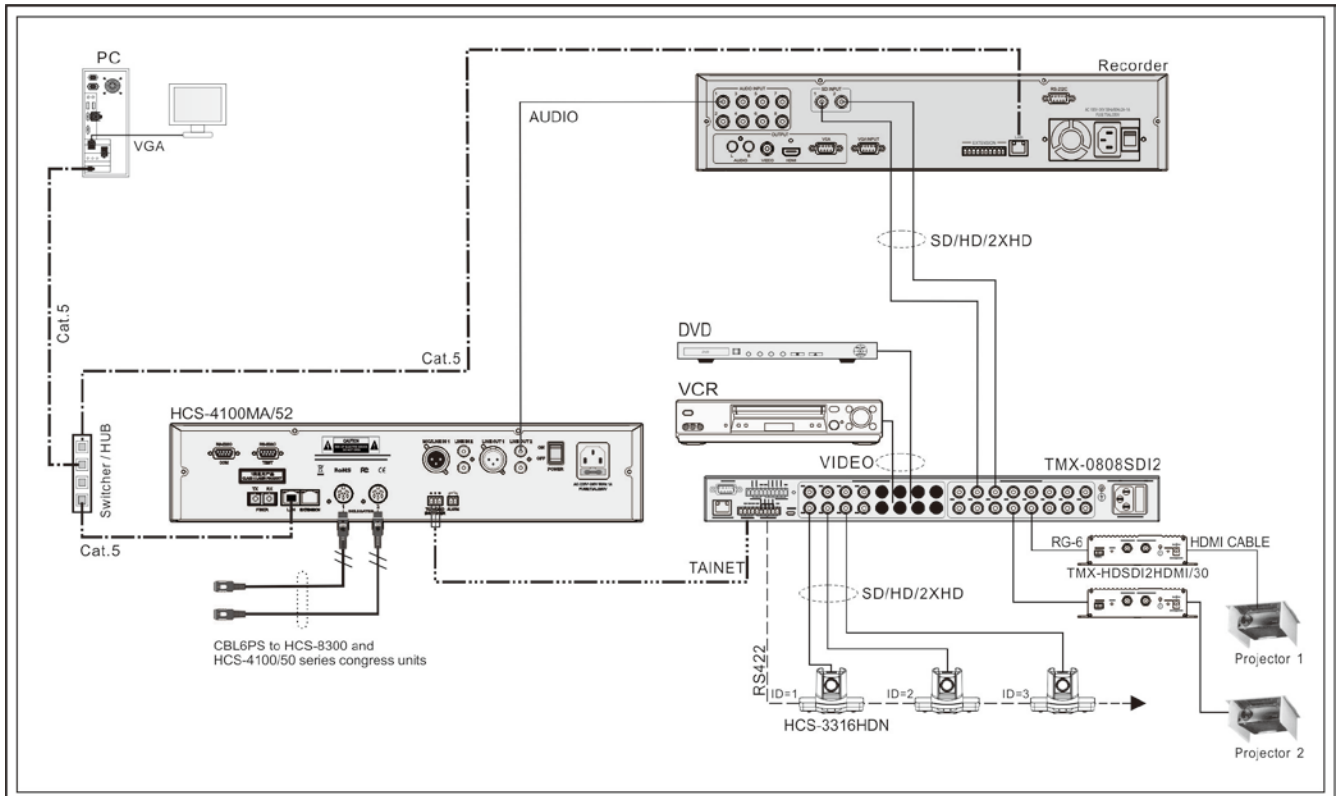


Figure 5.1.2 HCS-4100M/52 congress main unit connecting to the automatic video tracking system

5.1.4 Connection between HCS-4100/50 system and digital infrared language distribution system

By connecting to the HCS-5100 digital infrared language distribution system, the audio signal of the HCS-4100M/52 CMU can be converted into an infrared signal and be transmitted. The participants can listen to the clear voice from the infrared receiver. Digital infrared language distribution system includes: digital infrared transmitter HCS-5100M/B series, digital infrared radiator HCS-5100T/S series and digital infrared transceiver HCS-5100R/RA series. **TAIDEN** digital infrared language distribution system has 4 series: 4CHs, 8CHs, 16CHs and 32CHs.

Install digital infrared radiators according to the area of the venue. In principle, the quantity of the receivers is unlimited, provided that they are all within the coverage area of the infrared signal.

■ CMU connecting to digital infrared language distribution system via HCS-5100MA/B

HCS-5100MA(/FS)/B transmitter can be connected directly to HCS-4100M/52 CMU.

1. HCS-5100MA(/FS)/B transmitter can be connected directly to HCS-4100M/52 CMU in three ways (only one of them can be used at one time):

- ♦ Connect one outlet (6P-DIN) trunk-line cable connector of the CMU/EMU to "INTERPRETER'S UNIT / MAIN UNIT" interface of the HCS-5100MA(/FS)/B transmitter with a dedicated 6-pin cable;
- ♦ Connect the "EXTENSION" interface of the CMU/EMU to the "DCS" interface of the HCS-5100MA(/FS)/B transmitter with a Cat. 5 cable;
- ♦ Connect the fiber port of the HCS-4100MA/52 or HCS-8300ME/FS CMU to the fiber port of the HCS-5100MA/FS/B transmitter.

2. The digital infrared transmitter and radiator are linked up via a coaxial cable with 75 Ohm impedance. Connect one end (BNC) of the coaxial cable to the "HF OUT" port of the HCS-5100MA(/FS)/B, and another end to the "MODULATION IN" of the radiator. If extra radiators are needed, connect the "MODULATION OUT" of the previous one to the "MODULATION IN" of the current one via the coaxial cable. Each outlet can connect up to 30 radiators, while the digital infrared transmitter provides 6 such outlets.

■ CMU connecting to digital infrared language distribution system via HCS-5100MC/B

The HCS-5100MC/B transmitter does not have a digital audio input interface; therefore connection to the HCS-4100M/52 CMU is realized via the HCS-8300MO 8CHs analog/digital audio output unit.

1. First, connect the "EXTENSION" interface of the HCS-4100/50 CMU to the "EXTENSION" interface of the HCS-8300MO with a Cat. 5 cable (or connect the HCS-4100/50 CMU and the HCS-8300MO with a dedicated 6-pin cable or a fiber cable). The HCS-8300MO contains 8CHs symmetrical audio outputs (RCA) associated with 8CHs outputs of the interpreter units. The HCS-5100MC/B contains 4CHs, 8CHs and 16CHs analog audio inputs (RCA, "AUDIO IN CH0 - CH7"), which can be connected accordingly to the output interface of the HCS-8300MO with audio wire.

Note: If more than 8 channels languages are required, extra HCS-8300MO is needed.

2. The digital infrared transmitter and the radiator are linked up via a coaxial cable with 75 Ohm impedance. Connect one end (BNC) of the coaxial cable to the "HF OUT" port of the HCS-5100MC/B, and another end to the "MODULATION IN" of the radiator. If an extra radiator is needed, connect the "MODULATION OUT" of the previous one to the "MODULATION IN" of the current one via the coaxial cable. Each outlet can connect up to 30 radiators, while the digital infrared transmitter provides 6 such outlets.

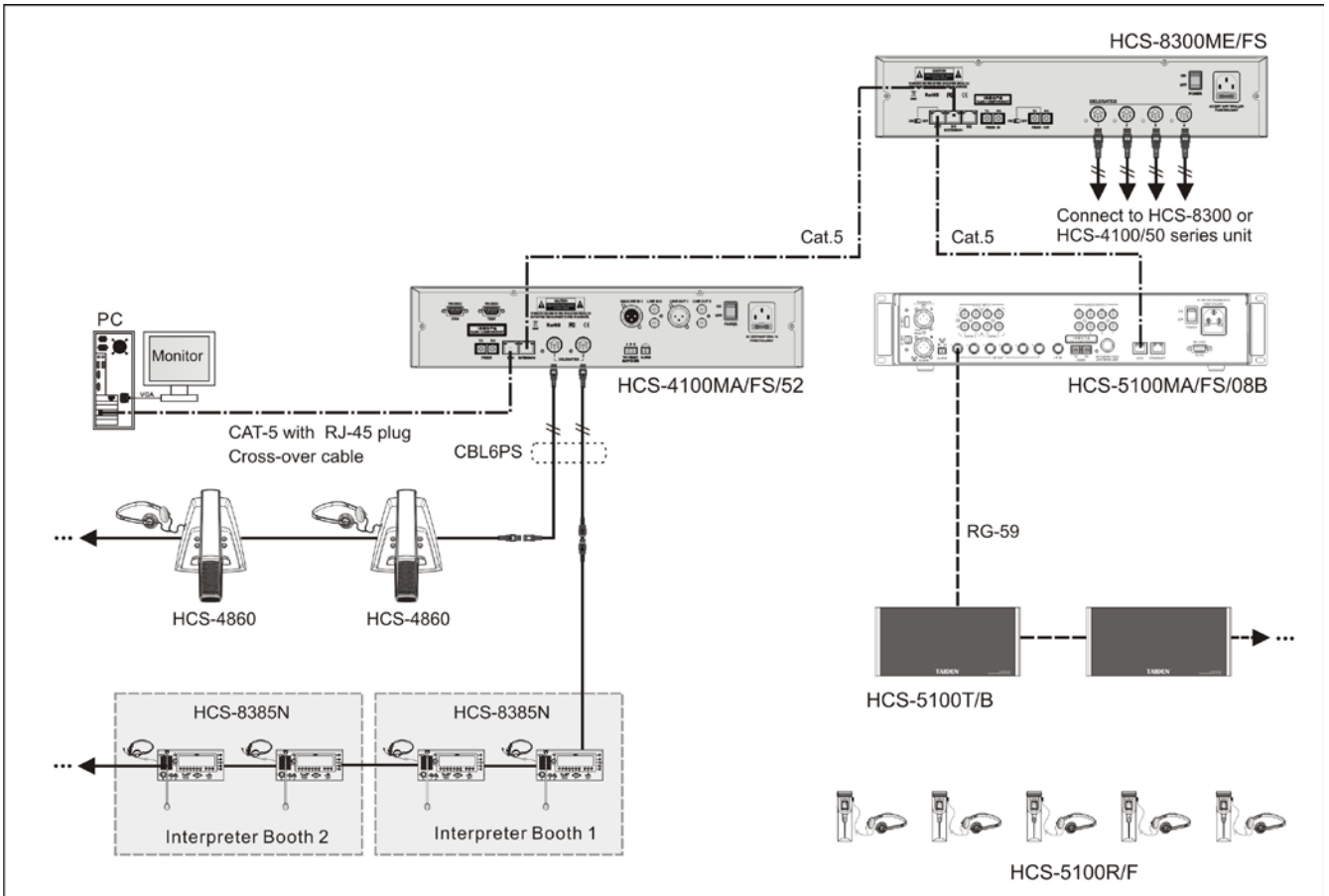


Figure 5.1.3 Congress main unit connecting to digital infrared language distribution system via HCS-5100MA/B

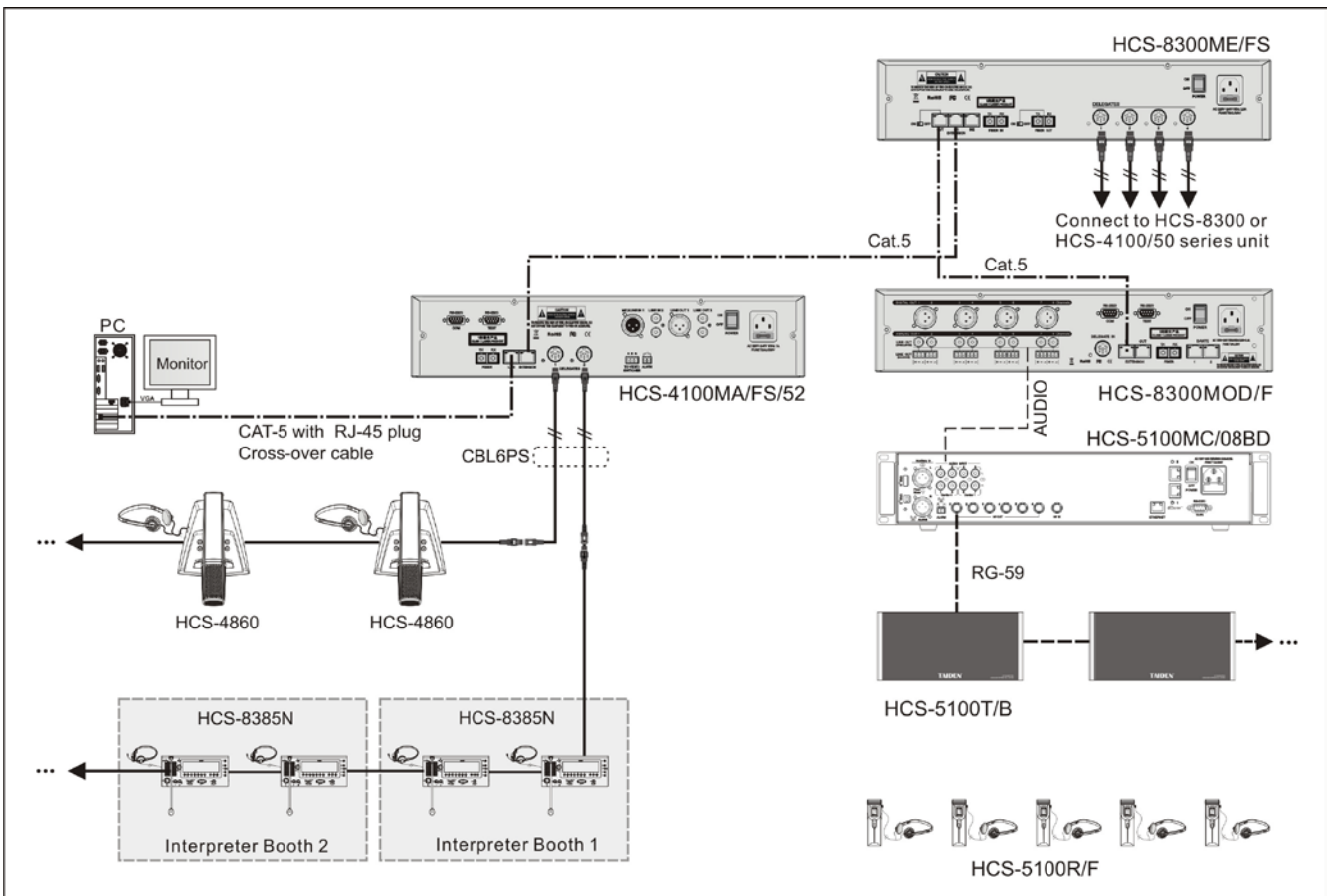


Figure 5.1.4 Congress main unit connecting to digital infrared language distribution system via HCS-5100MC/B

5.1.5 Connection between HCS-4100/50 system and network central control system

TAIDEN network central control system is an advanced comprehensive control system. It can link together various devices, hardware and room & media 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 open-close and on-off, system PA volume controlling and controlling various electric devices, such as DVD, VCR, TV, projector, etc. RS-232C or RS-485 interfaces are available. Remote controlling, even from distant places, can be achieved

through LAN or internet.

TAIDEN HCS-6100 network central control system and **TAIDEN** HCS-4100/50 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 the microphones of the congress units;
- ◆ Control video camera;
- ◆ If using the **TAIDEN** network central control system touch panel to control the congress units, the ID of each congress unit should be known.

The connection of the HCS-4100/50 system to the network central control system is shown in figure 5.1.5.

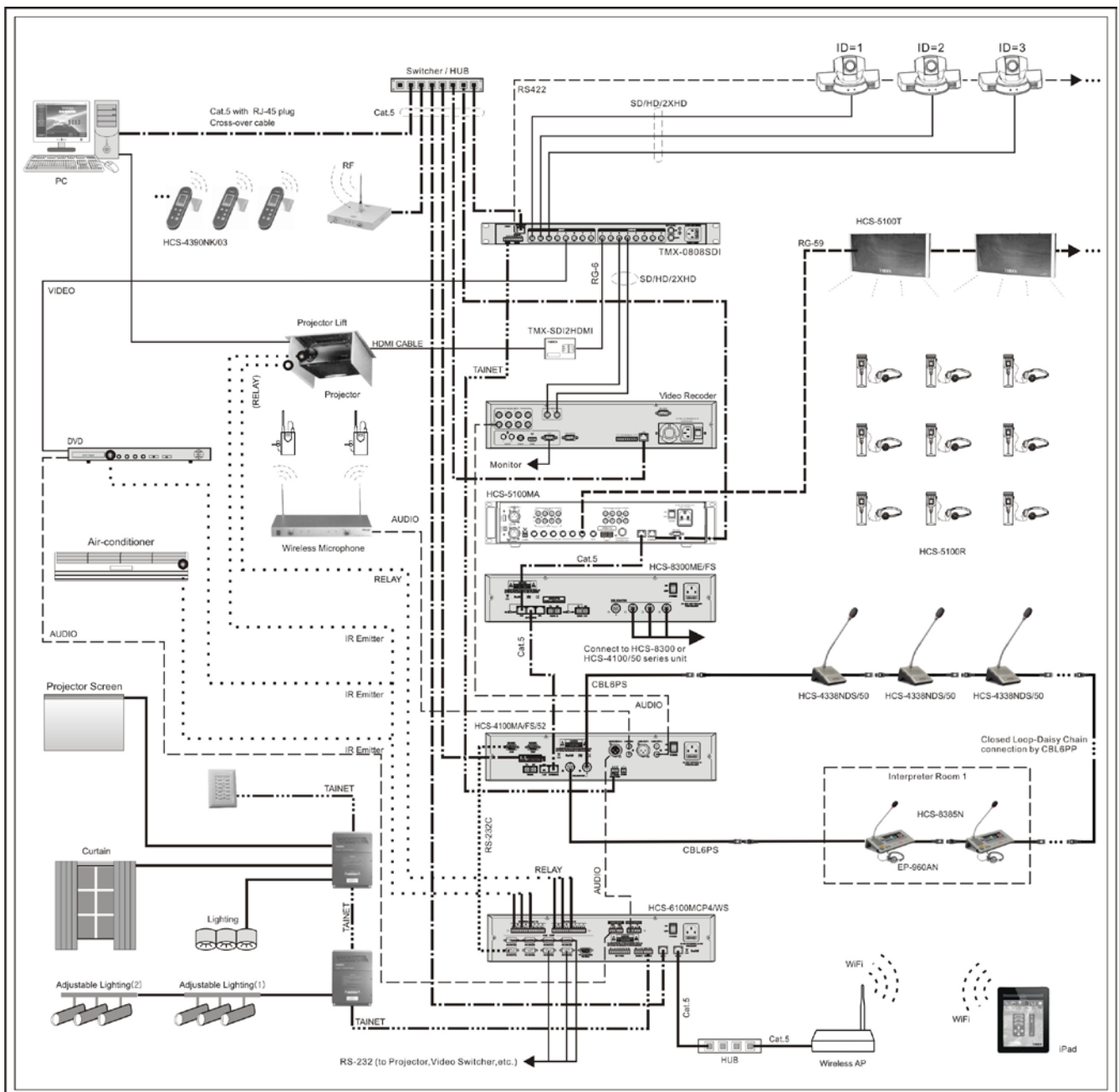


Figure 5.1.5 HCS-4100M/52 congress system main unit connecting to central control system

5.1.6 Connection between HCS-4100/50 system and Conference Sign-in System

The Conference Sign-in System (untouched) aims at providing a reliable, effective and convenient congress sign-in solution for various large congresses. The system makes the organizers get updated statistical data of the participants, including the expected number of participants, confirmed sign-in registrations, seat allocation etc; these data can be provided synchronously to all participants. Furthermore, the congress moderator is updated automatically as he benefits from a real-time report system. Congress topics, agenda, procedure and related information can all be displayed on the large screen.

Conference Sign-in System uses remote RF card sign-in

technologies. Portrait shots and customized surface design can be printed onto the RF card – combining delegate's accreditation and ID in a single card. The delegates carry out sign-in simply by walking through the access control containing the RF card reader: a significant simplification of the sign-in procedure and also a shortening of the sign-in time.

Client/server mode with anti-virus and security mechanism is also imported in the system, moreover, the system is easy to update, to extend and to choose the application software.

Figure 5.1.8 shows the connection between the Conference Sign-in System and HCS-4100/50 system:

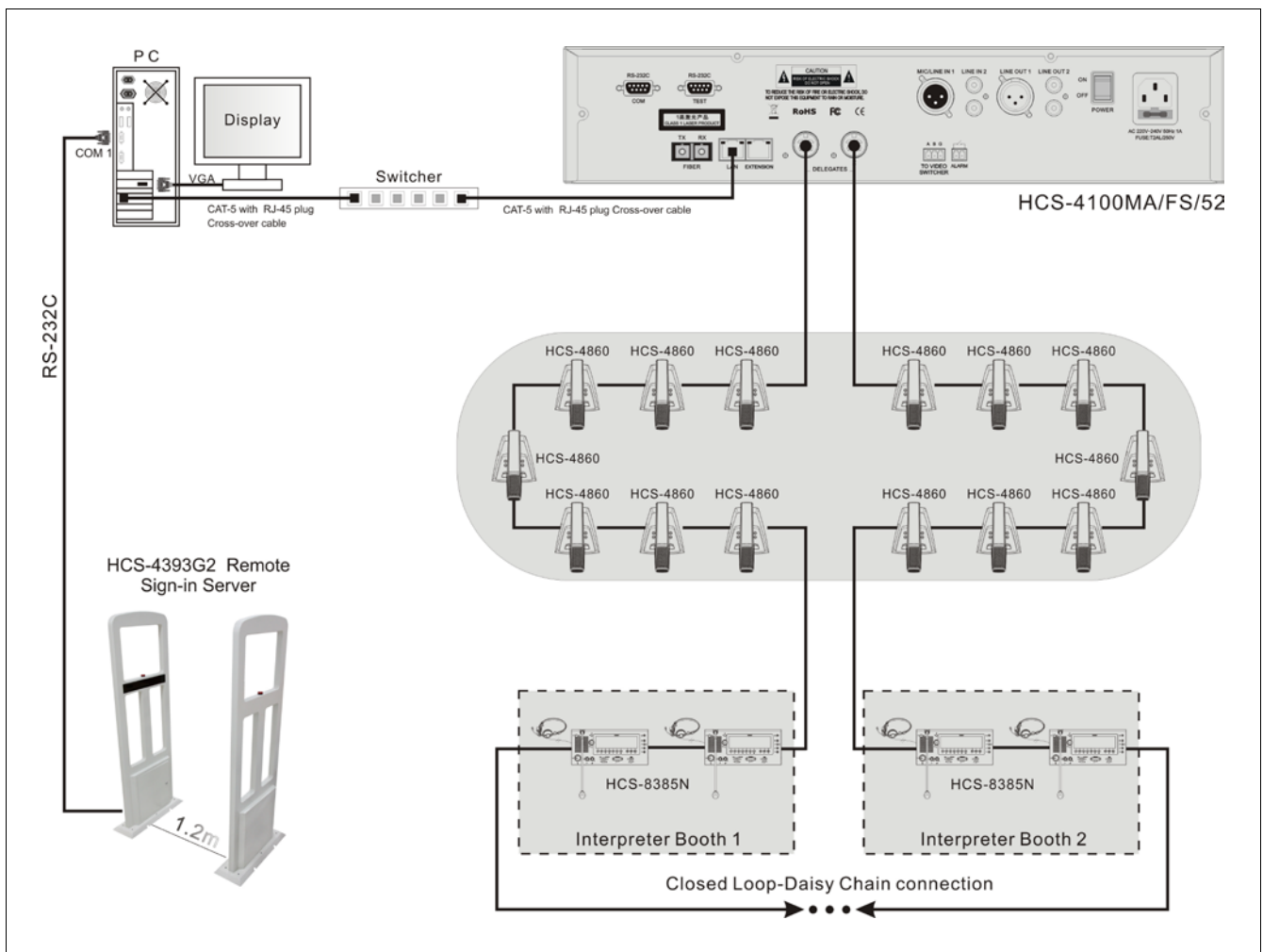


Figure 5.1.6 Connection between Conference Sign-in System and HCS-4100/50 system

5.1.7 Combine/split congress rooms easily

Using Cat.5 cable, several meeting rooms can be combined/separated at will through the HCS-8300MX Congress Room Combiner. One HCS-8300MX can combine up to 8 meeting rooms controlled by a Central Control System. (Several HCS-8300MX are cascadable to combine additional meeting rooms).

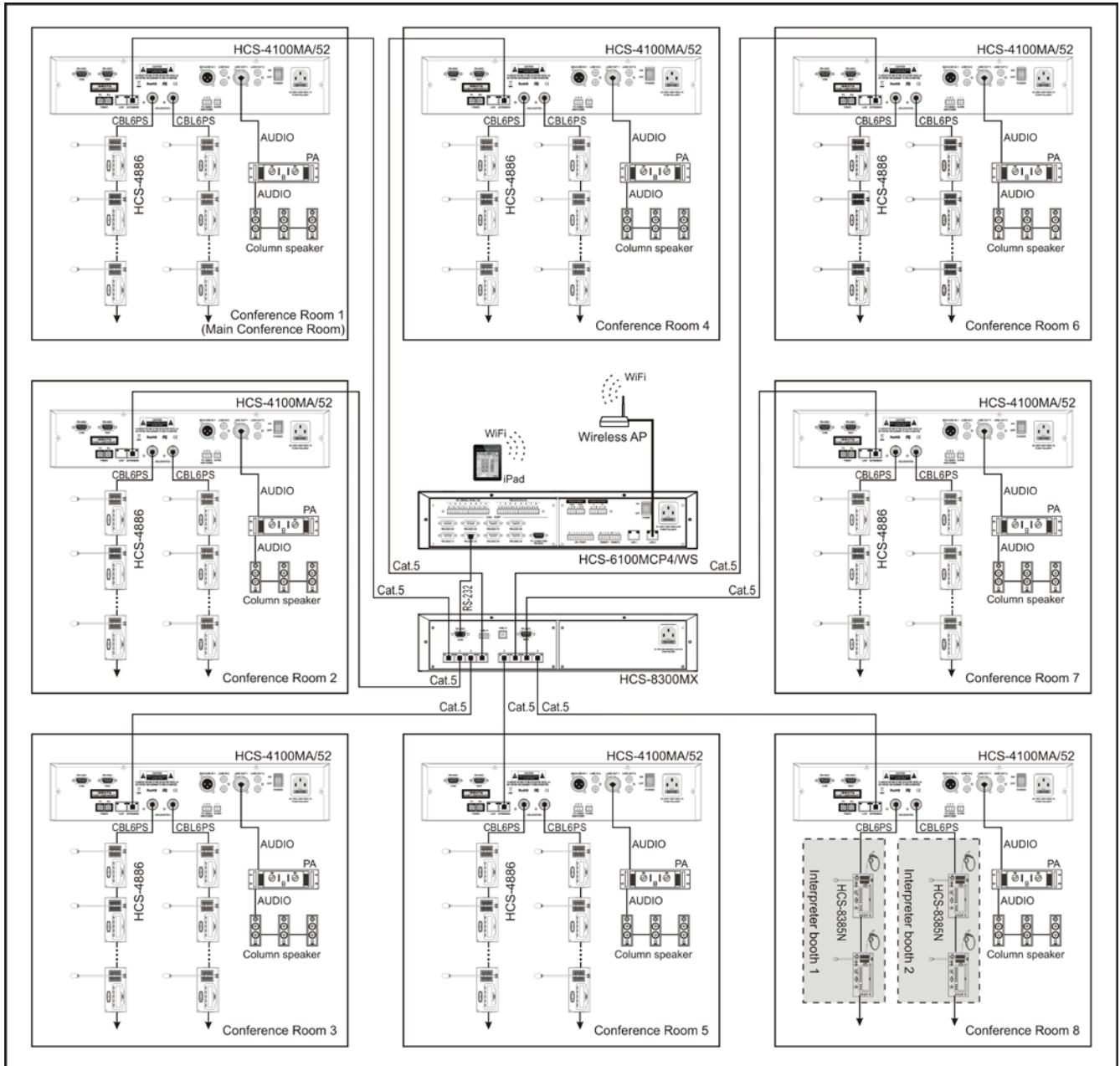


Figure 5.1.7 Combining/splitting meeting rooms with HCS-8300MX Congress Room Combiner and Cat. 5 cables

5.1.8 Total system hot spare

In the HCS-4100/50 system, the dual system main unit hot spare function cooperates with the dual PC server hot spare function, featuring multiple redundancies to realize total system hot spare function for highly enhanced system reliability.

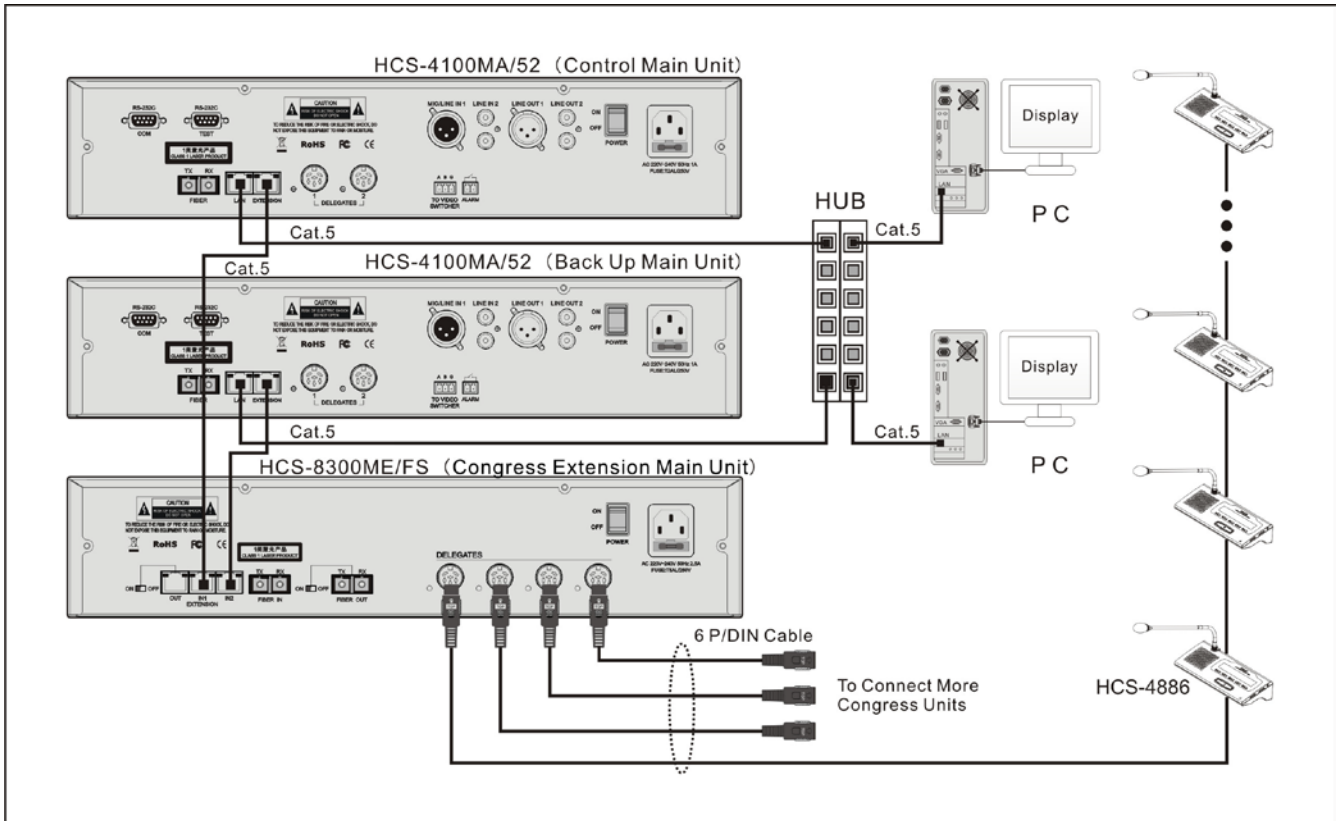


Figure 5.1.8 Dual System Main Unit Hot Spare

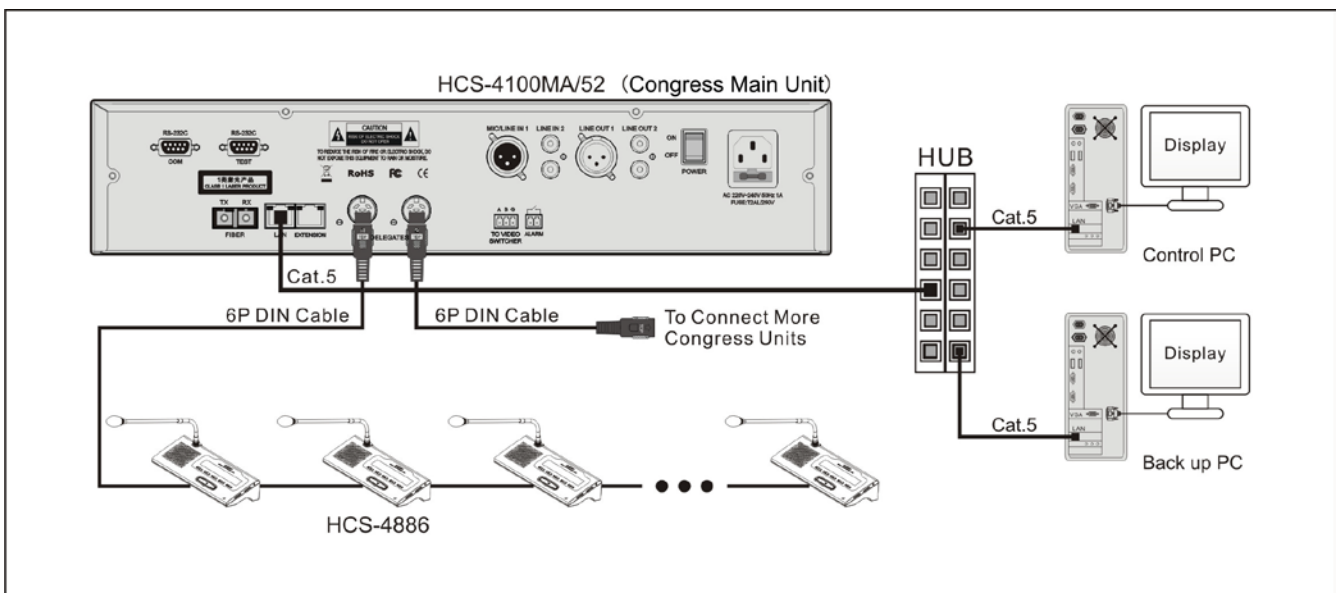


Figure 5.1.9 Dual PC server hot spare

5.2 Basic configuration of a congress system

The basic configuration is described below by a simple example.

This system is composed of one HCS-4100M/52 CMU, one HCS-8300ME/FS EMU, four HCS-4385U/50 interpreter units, ten HCS-4886 discussion units (including chairman unit and delegate units) and several HCS-4842N/50 channel selectors (connected to the system via the HCS-4340B/50 multi-function connector). The connection diagram is shown in the following figure:

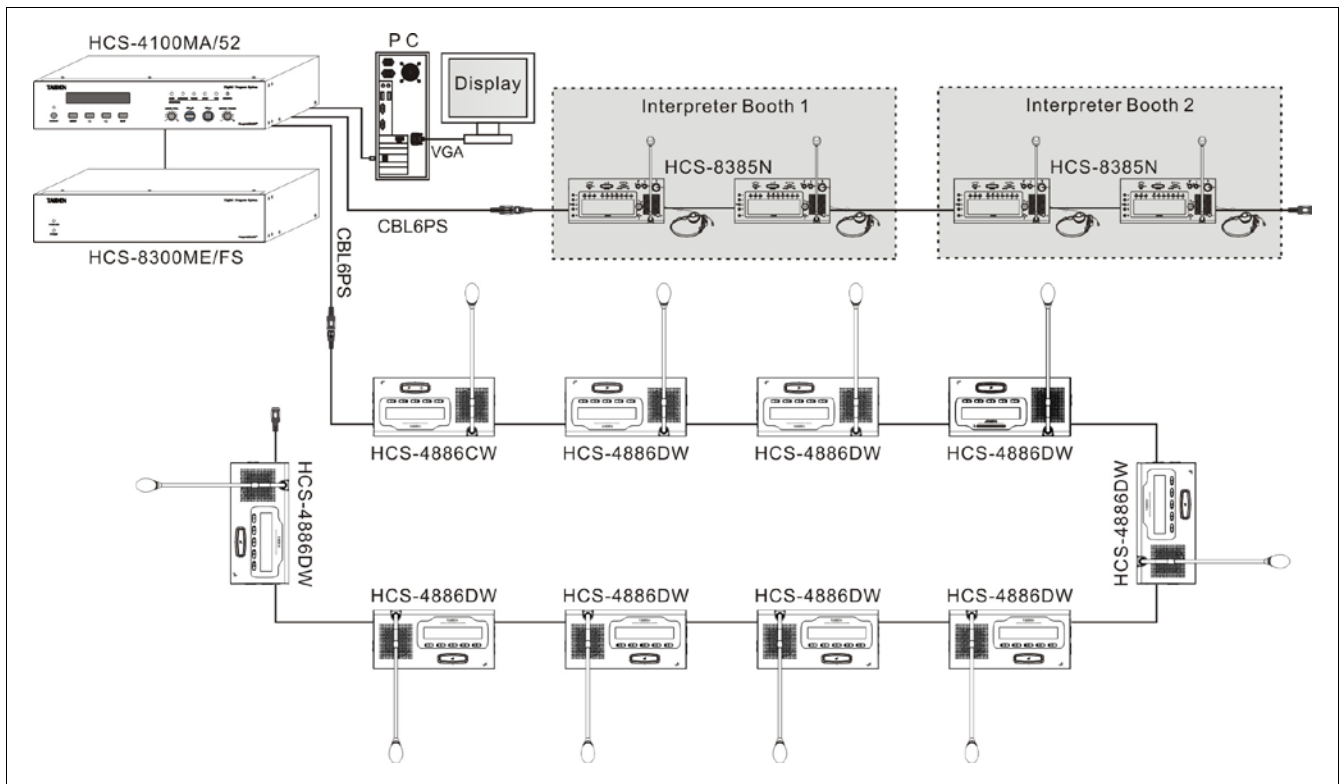


Figure 5.2.1 Connection example of HCS-4100/50 system

According to the requirements of the specific case in this section, the configuration is as the following:

1. Configuration CMU

- a) **Active microphone number limitation:** active microphone number limitation limited to 2 implies that two microphones can be turned on at most. The chairman unit and the VIP unit are not restricted and do not count in this limitation.
- b) **Speech mode:** speech mode is set to "Open", none other delegate can turn on his/her microphone if the current speaker does not turn off his/her microphone.
- c) **Simultaneous interpretation - language channel configuration:** Assuming that three languages are used by the delegates, including Chinese, English and French, meaning that three kinds of language channels are needed, respectively, set channel 1 – Chinese, channel 2 - English and channel 3 - French.
- d) **Simultaneous interpretation – booth number configuration:** The booth number is set as 2. Translation between English-Chinese and French-Chinese respectively.
- e) **Simultaneous interpretation - output channel configuration:** **Booth 1:** output channel A is English, output channel C is "No output" and output channel B is "All channels" - two interpreter units. **Booth 2:** output channel A is French, output channels B and C are "No output" - two interpreter units.
- f) **Simultaneous interpretation – auto-relay booth configuration:**
 - booth #1: no auto-relay booth
 - booth #2: set auto relay booth number as 1, meaning that booth #1 is the auto-relay booth for booth #2. When booth #1 uses output channel B, booth #2 will go to auto-relay status automatically and auto-relay interpretation will be achieved.
- g) Chairman priority mode is set as "All mute".

2. Configure interpreter units in booth 1 (the configuration of both interpreter units is the same)

- a) Channel B output: pressing output channel B switch and rotating Primary knob at the same time, and set Chinese as channel B output language.
- b) Booth number is set to 1.
- c) Preset monitoring channel. Channel a, b, c are set as 1-Chinese, 2-English and 3-French respectively.

3. Configure interpreter units in booth 2 (the configuration of both interpreter units is the same)

- a) Channel B output does not need to be setup (because output channel B of booth 2 is set as "No output" in CMU configuration).
- b) Booth number is set to 2.
- c) Preset monitoring channel. Channel a, b, c are set as 1-Chinese, 2-English and 3-French respectively.









4. Volume control

Turn on the delegate/chairman unit and adjust the volume of the built-in loudspeaker on the congress units to a suitable volume.

5. Finish configuration, and the system can work now.

Chapter 6 Peripheral equipment and accessories

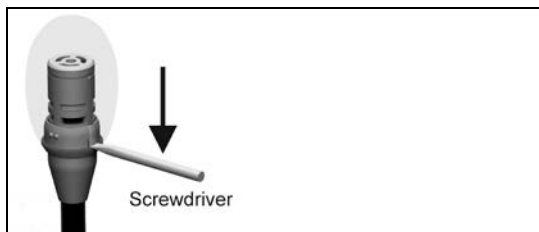
6.1 Microphone

Type	MSxxEGF1	MS33EGFS	MSxxEGA1	MSxxEGB1	MSxxEGE1	MSxxEGG1B	MSxxEGF2B	MSxxEHA1B
Picture								
Length (cm)	33/41/47	33	33/41/47	33/41/47	41	33/41/47	50/60/70	33/41/47
Color	Champagne /Black					Black		Black
Windshield	MIC-CAPM (Lockable)	MIC-CAPM (Lockable)	-	-	-	lockable windshield	MIC-CAPM (Lockable)	MIC-CAPH_B
Indicator	Bi-color illuminated ring							
Mic. Type	Uni-directional Electret-condenser							14 mm uni-directional Electret condenser
Sensitivity	-46 dB at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)							-37 dB at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)
Frequency response	50 Hz to 20 kHz							20 Hz to 20 kHz
Directivity 0°/180°	≥20 dB (1 kHz)							≥ 20 dB (1 kHz)
Equivalent noise	20 dBA (SPL)							20 dBA (SPL)
Max. SPL.	125 dB (THD<3%)							139 dB (THD<3%)

- M-style Foam Windshield (MSXXEGF series)



Detaching of the M-model windshield



- a. Prepare a straight screwdriver;
- b. Insert the straight screwdriver into the gap of the microphone and press the straight screwdriver. The M-model windshield will be separated from the stem microphone.

6.2 Earphones

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

- EP-830 Single earphone
 - Used with interpretation receiver or on a conference unit
 - Hi-Fi sound quality
 - Assembled with detachable shell, cable and earphone
 - The shell can be removed and cleaned separately
 - The cable can be replaced separately by customer if breaks
 - \varnothing 3.5 mm stereo plug (TRS)
 - 32 Ohm (Tip and Sleeve, Ring: NC)
 - Frequency response: 20 Hz to 20 kHz
 - Sensitivity: ≥ 108 dBA/1 mW
 - Weight: ≤ 25 g



- EP-820AS Single earphone
 - Cooperates with the infrared receiver or the congress unit
 - Hi-Fi sound quality
 - 32 Ω , \varnothing 3.5 mm stereo jack
 - Frequency response: 50 Hz - 20 kHz
 - Sensitivity: ≥ 102 dBA/1 mW
 - Weight: 22 g



- EP-822 Single earphone
 - Used with the receiver or a conference unit
 - Excellent sound quality
 - \varnothing 3.5 mm stereo plug (TRS)
 - 16 Ohm (Tip and Sleeve, Ring: NC)

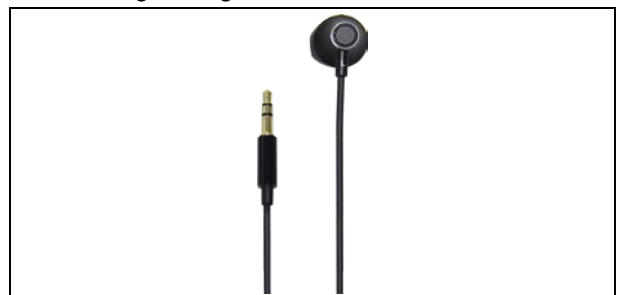
- Frequency response: 20 Hz to 20 kHz
- Sensitivity: ≥ 90 dBA/1 mW
- Weight: 7 g



- EP-829SW Single earphone
 - Used with the receiver or a conference unit
 - Excellent sound quality
 - Built-in magnetic control switch
 - Earshell is detachable and washable, convenient for cleaning
 - \varnothing 3.5 mm stereo plug (TRS)
 - 32 Ohm (Tip and Sleeve, Ring: NC)
 - Frequency response: 20 Hz to 20 kHz
 - Sensitivity: ≥ 108 dBA/1 mW
 - Weight: 36 g



- EP-823L Single Earphone
 - Used with the receiver or a conference unit
 - Excellent sound quality
 - For the left ear
 - \varnothing 3.5 mm stereo plug (TRS)
 - 32 Ohm (Tip and Sleeve, Ring: NC)
 - Frequency response: 20 Hz to 20 kHz
 - Sensitivity: ≥ 103 dBA/1 mW
 - Weight: 20 g



- EP-823R Single Earphone
 - Used with the receiver or a conference unit
 - Excellent sound quality
 - For the right ear
 - Ø 3.5 mm stereo plug (TRS)
 - 32 Ohm (Tip and Sleeve, Ring: NC)
 - Frequency response: 20 Hz to 20 kHz
 - Sensitivity: ≥ 103 dBA/1 mW
 - Weight: 20 g



- EP-960AN Interpreter headset
 - Incorporated with interpreter unit HCS-8385/80 for monitoring and speaking
 - Hi-Fi sound quality
 - Interpreters can wear the headset according to their habits
 - One sided wire, provide better user experience
 - Greater headband adjustability, suitable for all the users
 - 150 Ohm \times 2, Ø 3.5 mm TRRS plug
 - Frequency response of headphone: 20 Hz to 20 kHz
 - Sensitivity of headphone: ≥ 108 dBA/1 mW
 - Polar pattern of microphone: Omnidirectional
 - Frequency response of microphone: 50 Hz to 20 kHz
 - Sensitivity of microphone: -48 dB (0 dB = 1 V/Pa)
 - Impedance of microphone: < 680 Ohm
 - Weight: 95 g



- EP-960BH Interpreter headphone
 - Incorporated with interpreter unit for monitoring
 - Excellent sound quality
 - Interpreters can wear the headset according to their habits
 - One sided wire, provide better user experience
 - Greater headband adjustability, suitable for all the users
 - 150 Ohm \times 2, Ø 3.5 mm stereo plug (TRS) for headphone
 - Frequency response of headphone: 20 Hz to 20 kHz
 - Sensitivity of headphone: ≥ 108 dBA/1 mW
 - Weight: 89 g



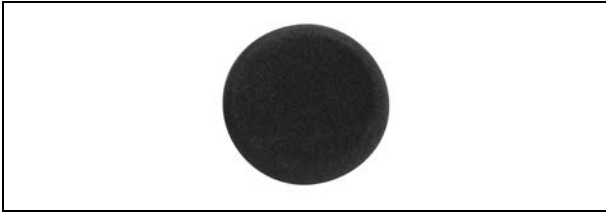
- EP-960HD Detachable Earshells
 - Used for EP-960AN, EP-960AH and EP-960BH
 - Earshell is detachable and washable, convenient for cleaning
 - Color: black



- HCS-5100PA Headphone
 - Cooperates with the infrared receiver or the congress unit
 - Hi-Fi sound quality
 - 32 Ω \times 2, Ø 3.5 mm stereo jack
 - Frequency response: 20 Hz - 20 kHz
 - Sensitivity: ≥ 108 dBA/1 mW
 - Weight: 69 g



- Sponge Ear Pads
 - Used for headphone
 - 50 pairs per package
 - Color: black



- Other compatible types please refer to chapter 8.

6.3 Accessories

Some dedicated accessories are involved in the connection of conference system devices. Herein, these accessories are introduced, including:

- CBL6PS dedicated 6-pin extension cable
- CBL6PS-CMP dedicated 6-pin extension cable
- CBL6PP-02 dedicated 6-pin extension cable
- CBL6PP-02CMP dedicated 6-pin extension cable
- DIN-6PM Detachable 6P-DIN Standard Plug
- DIN-6SF Solderable 6P-DIN Standard Socket (insulating)
- HCS-4352T/50 6-cord cable divider
- TMX-XLR2DIN Audio Converter & Isolator
- CBL-XLR2DIN-01 XLR to DIN Converting Cable
- HCS-4345NF/50 Fingerprint Scanner
- HCS-8300MCLS Loop Switcher
- HCS-8300MCLS/F Loop Switcher

1. CBL6PS 6-pin dedicated extension cable

CBL6PS-CMP 6-pin dedicated extension cable

- ①. Female
- ②. Male
- Length: 1 m (only for CBL6PS), 3 m, 5 m, 10 m, 20 m, 30 m, 40 m and 50 m



2. CBL6PP-02 dedicated 6-pin extension cable

CBL6PP-02CMP dedicated 6-pin extension cable

- Male connector at both ends
- 2-meter long



3. DIN-6PM Detachable 6P-DIN Standard Plug

- For soldering to 6P-DIN cable
- Removable DIN standard male connector (6PIN)



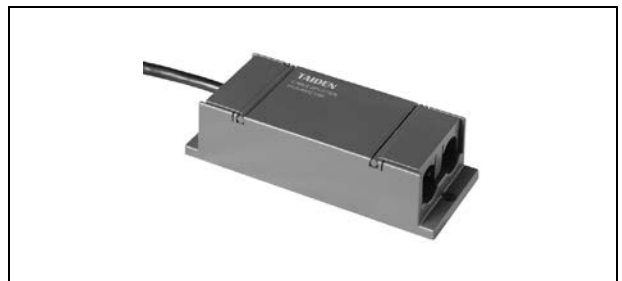
4. DIN-6SF Solderable 6P-DIN Standard Socket (insulating)

- For soldering to 6P-DIN cable
- Solderable 6P-DIN female socket with insulated isolation
- The circuit ground pin of the socket is isolated from the protective earth



5. HCS-4352T/50 6-pin Cable Splitter

- Relay facility, amplification of the communication signals
- 6P-DIN interfaces, "1 in / 3 out " structure for connection
- 2m-cable with a 6P-DIN connector at the input end
- Each 6PIN output interface can drive 70-meter long extension cable
- h x w x d: 35 x 149 x 90 mm



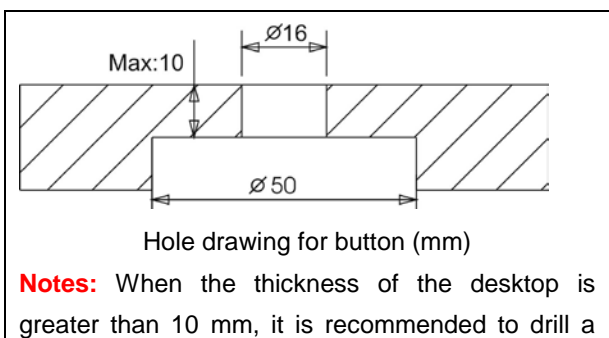
6. TMX-XLR2DIN Audio Converter & Isolator



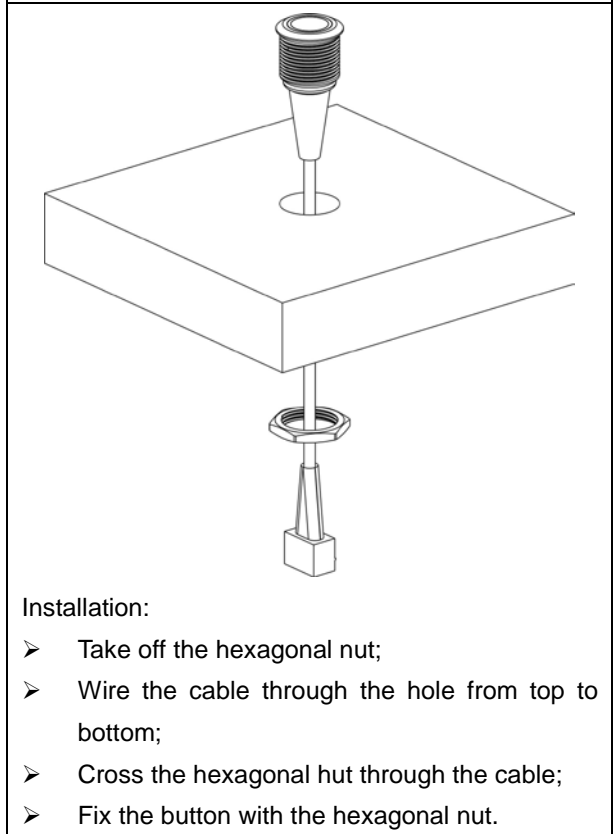
- Ø 6.4 mm jack: external audio source input (balance)
- XLR connector: external audio source input (balance)
- 3-pin 3.81 mm Phoenix connector: microphone On/Off and LED control interface
- Mic.: microphone switch
- 6P mini DIN connector: connect to the HCS-4340HDA/50 or HCS-4340HDA/50P (phantom power Off by PC software) multi-function connector
- h x w x d: 43 x 66 x 67 mm

7. CBL-XLR2DIN-01 XLR to DIN Converting Cable

- Used for external strong signal accessing to TAIDEN conference system
- XLR connector for external audio source input
- 6P mini DIN connector for connection to the HCS-4340HDA/50P (phantom power On by PC software) Multi-function Connector
- Microphone On/Off button with illuminated ring
- Length: 1 m



round hole with 50 mm diameter at the bottom of the table to facilitate the installation.



8. HCS-4345NF/50 Fingerprint Scanner

- Cooperates with PC to take the delegate's fingerprint to realize biometric authentication with high reliability
- PC connection via type A USB interface
- Smart design
- h x w x d: 22 x 48 x 75 mm



9. HCS-8300MCLS Loop Switcher HCS-8300MCLS/F Loop Switcher



- For “Closed Loop - Daisy Chain” connection
- Loop switcher open: open indicator on (Red)
- Loop switcher closed: close indicator on (Green)
- HCS-8300MCLS: connection between CMU/EMU and congress unit
 - ♦ 1.5 m cable with 6P-DIN plug to connect to CMU or EMU
 - ♦ 0.6 m cable with 6P-DIN plug to connect to the congress unit
- HCS-8300MCLS/F: connection between the primary CMU and the secondary CMU
 - ♦ 1.5 m cable with 6P-DIN plug to connect to the primary CMU
 - ♦ 0.6 m cable with 6P-DIN plug to connect to the secondary CMU
- When the loop switcher is used, the number of CMU/EMU loads is halved
- h × w × d: 40 × 100 × 68 mm
- HCS-8300MCLS Rack Cabinet Frame and HCS-8300MCLS Frame Cover for choice purchase

Chapter 7 Working environment and maintenance

Suitable working environment and proper maintenance methods can extend service life of the equipment effectively. For maintenance please read 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 is recommended that the chairman unit and the interpreter units are connected at the beginning of a trunk 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.

The texture of optical fiber cable is crisp, with low mechanical strength. A little carelessness may cause broken. Therefore, when cabling, please pay particular attention to:

- ◆ Terminating and maintenance of optical fiber should be carried out by strictly trained technical staff;
- ◆ There must be a complete design and construction drawings, for the convenient and reliability for future construction and inspection;
- ◆ During construction, always pay attention not to press the optical fiber cable by weight or prick by hard objects; In addition, traction force shall not exceed the maximal laying tension;
- ◆ When turning, the turning radius should be 20 times greater than the diameter of the cable itself;
- ◆ When pulling through the wall or the floor, protective plastic tube with protective seal should be used, and fill the tube with flame retardant filler; A certain amount of plastic pipelines can also be laid inside the building;

- ◆ The length of cabling shall not be too long in one time (normally 2 KM), and start from the middle to both sides in traction.

7.2 Technical rooms

It is recommended to meet the following conditions for technical rooms where HCS-4100/50 central 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 the 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 fire and electric shock.
- ◆ To avoid the risk of shock or permanent damage to the system units, 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 TAIDEN 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 Interpreter booths

Pressure and speed of work at most international congresses imply that interpreters have to take turns and to turn about to keep pace and to ensure a steady flow of smooth interpretation. Therefore every interpreter booth has to have an adequate size to accommodate at least two or three interpreters, depending on the present needs. Following a brief summary, according to the specifications for interpreter booths as drawn up in the ISO standards:

- ◆ In the hall, booths should be set up at the back or sideways.
- ◆ Booths should be elevated to provide an overall, unobstructed direct view of the chairman, the speakers and any other relevant visual aids.
- ◆ A window should be installed at the forefront of the booth across the overall length.
- ◆ An adequate size of the interpreter booth is recommended in order to accommodate the normal activities of the interpreter.
- ◆ Adequate air conditioning, temperature and lighting are required.
- ◆ ISO-4043 Mobile booths for simultaneous translation.
- ◆ ISO-2603 Fixed booths for simultaneous translation.

7.4 System operator room

In a PC based system, the operator needs a dedicated room to operate the PC and to manage the congress procedure. Generally, the demands on the operator room are the same as on the interpreter booth. By means of a microphone system, the operator should also be connected to a public - address system to remind the participants of operations, such as voting, signing-in, etc.

7.5 Ventilation

Maintain good ventilation: ventilation holes are provided on top of the main units. Place the units on a hard and level surface to ensure proper ventilation.

7.6 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.

7.7 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 ISO 22259, the international standard for congress systems

System environmental conditions

Working conditions fixed/stationary/transportable

Temperature range:

- Transport: -40 °C to +70 °C
- Operating: 0 °C to +45 °C

Max. relative humidity: < 95% (not condensing)

Safety: Compliant to EN 60065

EMC emission: Compliant with EN 55022

EMC immunity: Compliant with EN 55024

EMC approvals: CE, FCC

Power harmonic: Compliant with EN 61000-3-2

Voltage fluctuations and flicker: Compliant with EN 61000-3-3

8.2 Congress system main unit

8.2.1 Congress main unit

8.2.1.1 Physical characteristics

Types	HCS-4100M/52
Installation	Tabletop / standard 19-inch rack mount
Dimensions (mm)	<p>Technical drawing showing dimensions (mm): 478, 430, 324, 350, 99, 80.</p>
Color	White (PANTONE 420 C)
Weight	7.8 kg

8.2.1.2 Electrical characteristics

Types	HCS-4100MA/FS/52	HCS-4100MC/52
Microphone capacity	≤4096	
Channels	64CHs	-
Frequency response	30 - 20000 Hz	
SNR	≥90dBA	
Dynamic range	≥90 dB	
Crosstalk	≥85 dB	
Total harmonic distortion	≤0.05%	
Mains power supply	AC 100 V - 120 V 60 Hz or AC 220 V - 240 V 50 Hz	
Audio input	LINE IN 1: +10 dBu balanced Input impedance: >10 kΩ LINE IN 2: +10 dBu unbalanced Input impedance: >5 kΩ	
Audio output	LINE OUT 1: +20 dBu balanced LINE OUT 2: +20 dBu unbalanced Output impedance: <100 Ω	
Output load	>1 kΩ	
Control interface	9 PIN, D-type female head, connecting the central control system main unit RJ45 Ethernet, connecting to PC	
Maximum power consumption	200 W	
Connection	Dedicated cable (6 PIN)	
Connector	DIN6P with buckle	

8.2.2 Extension main unit

8.2.2.1 Physical characteristics

Types	HCS-8300ME(/FS)
Installation	Tabletop / standard 19-inch rack mount
Dimensions (mm)	
Color	White (PANTONE 420 C)
Weight	10.0 kg

8.2.2.2 Electrical characteristics

Types	HCS-8300ME(/FS)
Mains power supply	America, Japan: AC 100 V - 120 V 60 Hz Europe, Asia: AC 220 V - 240 V AC 50 Hz
Output load	>1 kΩ
Maximum power consumption	450 W
Connection	Dedicated cable (6-PIN)
Connector	DIN6P with buckle

8.3 Congress unit

8.3.1 HCS-48U6 series congress unit

8.3.1.1 Physical characteristics

Types		HCS-48U6
Installation		Flush-mounted
Dimensions (mm)	HCS-48U6MICM HCS-48U6SELM	
	HCS-48U6MICS	
	HCS-48U6DVOT	

	HCS-48U6SPK	
Color	Black (PANTONE 419 C)	
Weight	0.35 kg (HCS-48U6MICM HCS-48U6SELM) 0.08 (HCS-48U6MICS HCS-48U6DVOT) 0.18 kg (HCS-48U6SPK)	

8.3.1.2 Electrical characteristics

Types	HCS-48U6
Output frequency response	30 - 20000 Hz
Earphone load	>16 Ω
Earphone volume	10 mW
Earphone output	\varnothing 3.5 mm stereo jack
Max. power consumption	2.0 W (MIC+SEL+VOT+SPK)
Connection	6P-DIN dedicated cable with buckle

8.3.2 HCS-48U7/U8/U9 series congress unit

8.3.2.1 Physical characteristics

Types		HCS-48U7/U8/U9
Installation		Flush-mounted
Dimensions (mm)	HCS-48U7	<p>Technical drawings for HCS-48U7 showing front, top, and side views. Dimensions include 80mm width and height for the faceplate, 185mm total width, 80mm height, 156mm depth, and Ø80mm circular cutouts. A 3mm gap is shown between the faceplate and the unit body.</p>
	HCS-48U7MICSPK	<p>Technical drawings for HCS-48U7MICSPK showing front and side views. Dimensions include 140mm width, 80mm height, 28mm depth, and a 3mm gap between the faceplate and the unit body.</p>
	HCS-48U8	<p>Technical drawings for HCS-48U8 showing front and side views. Dimensions include 330mm width, 80mm height, 36mm depth, and a 3mm gap between the faceplate and the unit body.</p>

	HCS-48U9	
Color	Black (PANTONE 419 C)	
Weight	0.6 kg (HCS-48U7MICSPK) 1.0 kg (HCS-48U7/U8) 0.9kg (HCS-48U9)	

8.3.2.2 Electrical characteristics

Types	HCS-48U7/U8/U9
Output frequency response	30 - 20000 Hz
Earphone load	>16 Ω
Earphone volume	10 mW
Earphone output	Ø 3.5 mm stereo jack
Max. power consumption	2.3 W (with 256x32 LCD) 1.8 W (without 256x32 LCD)
Connection	6P-DIN dedicated cable with buckle

8.3.3 HCS-48U10/50 series congress unit

8.3.3.1 Physical Characteristics

Types	HCS-48U10/50
Installation	Flush-mounted
Dimensions (mm)	<p>Note: the height for HCS-48U10DDS/50 and HCS-48U10DS/50 is 51 mm.</p>
Color	Black (PANTONE 419 C)
Weight	0.82 kg

8.3.3.2 Electrical Characteristics

Types	HCS-48U10/50
Output frequency response	30 - 20000 Hz
Earphone load	>16 Ω
Earphone volume	10 mW
Earphone output	Ø 3.5 mm stereo jack
Max. power consumption	2.0 W
Connection	6P-DIN dedicated cable with buckle

8.3.4 HCS-4886 series congress unit

8.3.4.1 Physical characteristics

Types	HCS-4886
Installation	Tabletop
Dimensions (mm)	<p>Technical drawing of the HCS-4886 congress unit. The drawing includes three views: a front view, a side view, and a bottom view. The front view shows a rectangular unit with a speaker grille on the left, a central display area with the 'TAIDEN' logo and 'DIGITAL CONFERENCE SYSTEM' text, and a control panel with several buttons. Dimensions are indicated: a width of 251 mm, a height of 121 mm, and a depth of 66 mm. The side view shows the unit's profile, and the bottom view shows the base and mounting feet.</p>
Color	Champagne (PANTONE 401) panel + black (PANTONE 419 C) base
	Charcoal gray (PANTONE Cool Gray 11 C) panel + black (PANTONE 419 C) metal base Note: only Charcoal gray panel + black metal base for HCS-4886NX/52
Weight	1.5kg

8.3.4.2 Electrical characteristics

Types	HCS-4886
Output frequency response	30 - 20000 Hz
Earphone load	>16 Ω
Earphone volume	10 mW
Earphone output	\varnothing 3.5 mm stereo jack
Max. power consumption	2.3 W (with 256x32 LCD)
	1.8 W (without 256x32 LCD)
Connection	6P-DIN dedicated cable with buckle

8.3.5 HCS-4890/52 series congress unit

8.3.5.1 Physical characteristics

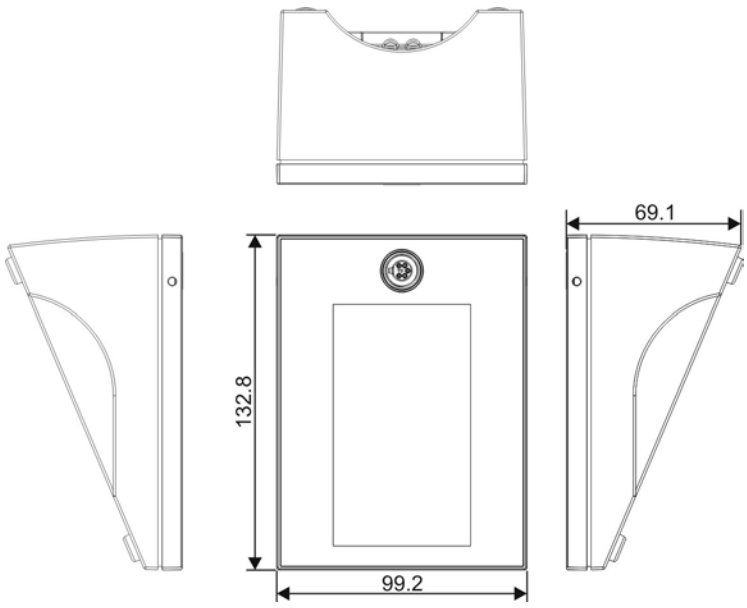
Types	HCS-4890/52
Installation	Tabletop
Dimensions (mm)	<p>The drawing shows three views of the congress unit. The top view shows a rectangular unit with a curved top edge. The front view shows a rectangular unit with a speaker grille on the left and a control panel on the right. The side view shows the depth of the unit. Dimensions are: width 216.2 mm, height 100.5 mm, and depth 58 mm.</p>
Color	Black (PANTONE 419 C)
Weight	1.0 kg

8.3.5.2 Electrical characteristics

Types	HCS-4890/52
Output frequency response	30 - 20000 Hz
Earphone load	>16 Ω
Earphone volume	10 mW
Earphone output	Ø 3.5 mm stereo jack
Max. power consumption	3.2 W
Connection	6P-DIN dedicated cable with buckle

8.3.6 HCS-4891/50 series congress unit

8.3.6.1 Physical characteristics

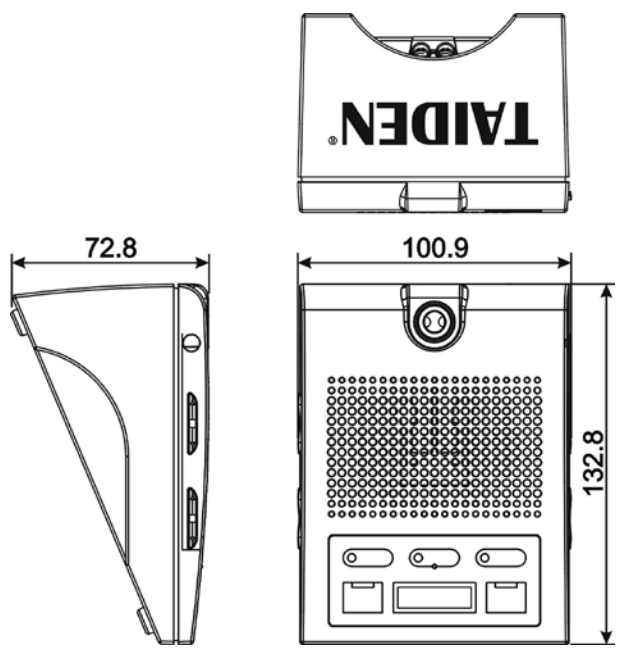
Types	HCS-4891/50
Installation	Tabletop
Dimensions (mm)	 <p>Stem length of HCS-4891/50 series: 410 mm Rectangular columnar metal microphone size of HCS-4891R/50 series: 241x37x37 mm Rectangular columnar metal microphone size of HCS-4891R/50/2M series: 249x37x37 mm</p>
Color	HCS-4891/50 series: Black (PANTONE 419 C) HCS-4891R/50(/2M) series: Silver (PANTONE 401 C) microphone + black (PANTONE 419 C) base
Weight	HCS-4891/50 series: 1.0 kg HCS-4891R/50 series: 1.4 kg HCS-4891R/50/2M series: 1.5 kg

8.3.6.2 Electrical characteristics

Types	HCS-4891/50
Output frequency response	30 - 20000 Hz
Earphone load	>16 Ω
Earphone volume	10 mW
Earphone output	\varnothing 3.5 mm stereo jack
Max. power consumption	2.4 W
Connection	6P-DIN dedicated cable with buckle
Microphone parameters of HCS-4891R/50(/2M)	
Type	Supercardioid uni-directional electret condenser microphone
Sensitivity	-37 dB (0dB=1V/Pa)
Frequency response	20 - 20000 Hz
Directivity 0°/135°	\geq 20 dB (1 kHz)
Directivity 0°/180°	\geq 15 dB (1 kHz)
Equivalent noise	20 dBA (SPL)
Maximum sound pressure level	139 dB (THD<3%)
Backup microphone parameters of HCS-4891R/50/2M	
Type	Supercardioid uni-directional electret condenser microphone
Sensitivity	-37 dB (0dB=1V/Pa)
Frequency response	20 - 20000 Hz
Output impedance	280 Ω
Directivity 0°/135°	\geq 20 dB (1 kHz)
Directivity 0°/180°	\geq 15 dB (1 kHz)
Equivalent noise	20 dBA (SPL)
Maximum sound pressure level	139 dB (THD<3%)
Phantom power	11~52 VDC, 2 mA
Connection	XLRM-type connector

8.3.7 HCS-4338N series congress unit

8.3.7.1 Physical Characteristics

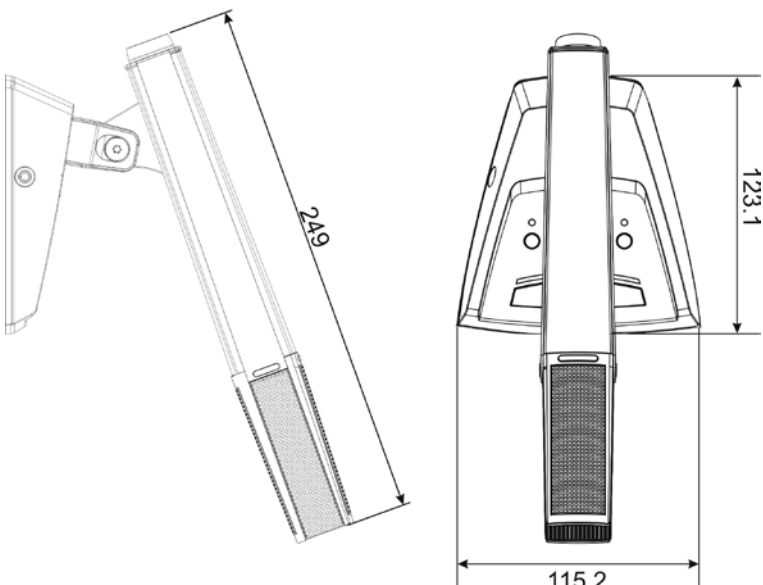
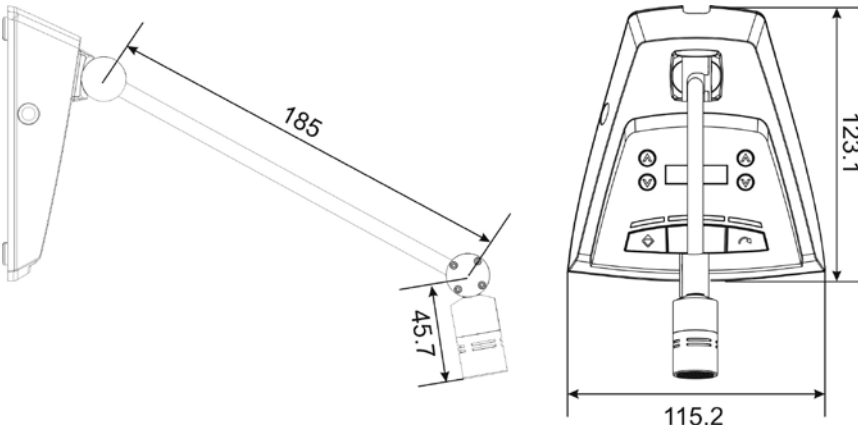
Types	HCS-4338N/50
Installation	Tabletop
Dimensions (mm)	
Color	Champagne (PANTONE 401 C) panel Charcoal gray (PANTONE Cool Gray 11 C) panel
Weight	HCS-4338N/50: 1.0 kg

8.3.7.2 Electrical Characteristics

Types	HCS-4338N/50
Output frequency response	30 - 20000 Hz
Earphone load	>16 Ω
Earphone volume	10 mW
Earphone output	Ø 3.5 mm stereo jack
Max. power consumption	1.8 W
Connection	6P-DIN dedicated cable with buckle

8.3.8 HCS-4860/4865/4866 series congress unit

8.3.8.1 Physical Characteristics

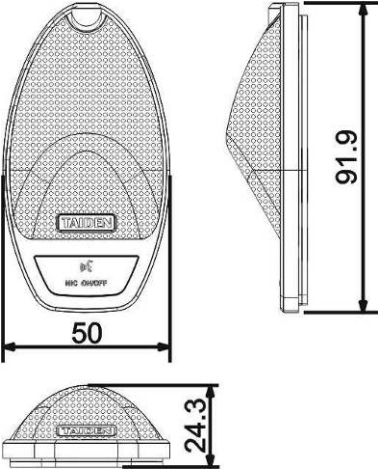
Types		HCS-4860/4865/4866	
Installation		Tabletop	
Dimensions (mm)	HCS_4860/52/2M	 <p>The length of microphone of HCS-4860/52 is 241 mm.</p>	
	HCS-4865/4866/50	 <p>Note: the HCS-4866/50 series equipped with fixed gooseneck microphone, length:41 cm, others are the same with the HCS-4865 series</p>	
Color		Black (PANTONE 419 C)	
Weight		HCS-4860/52: 1.1 kg HCS-4860/52/2M: 1.2 kg HCS-4865/50: 0.8 kg HCS-4866/50: 0.7 kg	

8.3.8.2 Electrical Characteristics

Types	HCS-4860/4865/4866
Output frequency response	30 - 20000 Hz
Earphone load	>16 Ω
Earphone volume	10 mW
Earphone output	Ø 3.5 mm stereo jack
Max. power consumption	1.8 W
Connection	6P-DIN dedicated cable with buckle
Microphone parameters of HCS-4860/4865	
Type	Supercardioid uni-directional electret condenser microphone
Sensitivity	-37 dB (0dB=1V/Pa)
Frequency response	20 - 20000 Hz
Directivity 0°/135°	≥ 20 dB (1 kHz)
Directivity 0°/180°	≥ 15 dB (1 kHz)
Equivalent noise	20 dBA (SPL)
Maximum sound pressure level	139 dB (THD<3%)
Backup microphone parameters of HCS-4860/50/2M	
Type	Supercardioid uni-directional electret condenser microphone
Sensitivity	-37 dB (0dB=1V/Pa)
Frequency response	20 - 20000 Hz
Directivity 0°/135°	≥ 20 dB (1 kHz)
Directivity 0°/180°	≥ 15 dB (1 kHz)
Equivalent noise	20 dBA (SPL)
Maximum sound pressure level	139 dB (THD<3%)
Phantom power	11~52 VDC, 2 mA
Connection	XLRM-type connector
Microphone parameters of HCS-4866/50	
Type	Uni-directional electret condenser microphone
Sensitivity	-46 dB (0dB=1V/Pa)
Frequency response	50 - 20000 Hz
Directivity 0°/180°	> 20 dB (1 kHz)
Equivalent noise	20 dBA (SPL)
Maximum sound pressure level	125 dB (THD<3%)

8.3.9 HCS-4341/50 series congress unit

8.3.9.1. Physical Characteristics

Types	HCS-4341B/50
Installation	Tabletop
Dimensions (mm)	
Color	Black (PANTONE 419 C)
Weight	80 g

8.3.9.2. Electrical Characteristics

Types	HCS-4341B/50	
Output frequency response	30 - 20000 Hz	
Connection	Cat.5 cable with standard RJ45 plug, connecting to multi-function connector	
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 - 20000 Hz
	Input impedance	2 k Ω
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.3.10 HCS-4340/50 series multi-function connector

8.3.10.1. Physical Characteristics

Types	HCS-4340/50
Installation	Fixed installation
Dimensions (mm)	
Color	Charcoal gray (PANTONE Cool Gray 11 C)
Weight	0.9 kg

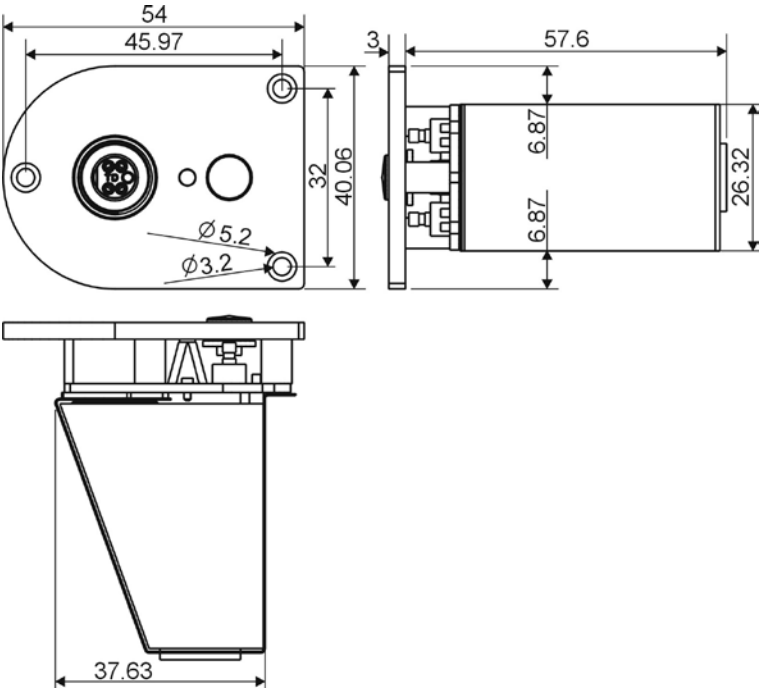
8.3.10.2. Electrical Characteristics

Types	HCS-4340CA/50	HCS-4340DA/50	HCS-4340HDA/50(P)	HCS-4340B/50	HCS-4340DT/50
Interface	1 chairman discussion unit + 1 voting unit + 1 channel selector	1 delegate discussion unit + 1 voting unit + 1 channel selector	1 handheld delegate discussion unit + 1 voting unit + 1 channel selector, HCS-4340HDA/50P with phantom power	4 channel selectors	2 delegate discussion units + 2 channel selectors
Max. power consumption	2.1 W				
Connection	6P-DIN dedicated cable with buckle				

8.3.11 HCS-4841/42/43 series congress unit

8.3.11.1 Physical Characteristics

Types		HCS-4841
Installation		Flush-mounted
Dimensions(mm)	HCS-4841N	<p>Technical drawings of the HCS-4841N unit. The top view shows a rectangular unit with a width of 111.2 mm and a height of 41.1 mm. The side view shows a depth of 82.5 mm and a mounting flange thickness of 0.5 mm. The bottom view shows a width of 87.4 mm. A perspective view shows the unit's depth of 79.5 mm and a height of 32.5 mm.</p>
	HCS-4841U/50	<p>Technical drawings of the HCS-4841U/50 unit. The front view shows a square unit with a width of 80 mm and a height of 80 mm. The side view shows a depth of 3 mm. The perspective view shows a depth of 29.6 mm and a total height of 68.7 mm.</p>

	HCS-4841UA/50	
Color	HCS-4841N/50	Charcoal gray (PANTONE Cool Gray 11 C) Silver (PANTONE 428 C)
	HCS-4841U/50 HCS-4841UA/50	Black (PANTONE 419 C)
Weight	HCS-4841N/50 0.2 kg (incl. stem microphone) HCS-4841U/50 0.2kg (incl. stem microphone) HCS-4841UA/50 0.2kg (incl. stem microphone)	

8.3.11.2 Electrical Characteristics

Types	HCS-4841N/50 HCS-4841U/50 HCS-4841UA/50
Output frequency response	30 - 20000 Hz
Connection	Cat.5 cable with standard RJ45 plug, connecting to multi-function connector

8.4 Interpreter unit

1 Physical characteristics

Type	HCS-8385N
Installation	Tabletop
Dimensions (mm)	<p>The drawing shows three views of the HCS-8385N interpreter unit. The top view shows a rectangular device with a central recessed area. The front view shows a control panel with a large speaker grille on the left, a central display screen, and various control buttons and knobs on the right. Dimensions are indicated: a height of 147.5 mm, a width of 320.1 mm, and a depth of 83.4 mm. The side view shows the profile of the device, highlighting its slim design.</p>
Color	Champagne (PANTONE 401 C)
Weight	1.1 kg

2 Electrical characteristics

Output frequency response	HCS-8385N
Earphone load	30 - 20000 Hz
Earphone volume	>16 Ω
Earphone output	Audio level is adjusted automatically according to impedance
Headset connection	Ø 3.5 mm TRRS jack
Max. power consumption	4.8 W
Connection	6P- DIN dedicated cable with buckle

8.5 System connection

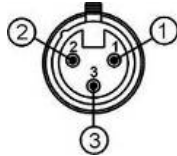
8.5.1 Mains cables

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

8.5.2 Audio cables

3-pole XLR connector (female)

- Pin 1 Earth
- Pin 2 Signal +
- Pin 3 Signal -



Chinch connector (male)

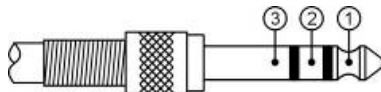
- Pin 1 Signal +
- Pin 2 GND



8.5.3 Earphone

3.5 mm Jack plug

- Tip (1) Signal left
- Ring (2) Signal Right
- Sleeve (3) Electrical earth/screen



8.7 Display language list

Chinese	English	639-3	639-2/5	639-1	Chinese	English	639-3	639-2/5	639-1
原声	Floor	FLO	FLO	-	爱尔兰语	Irish	GLE	GLE	GA
阿尔巴尼亚	Albanian	SQI	ALB	SQ	哈萨克语	Kazakh	KAZ	KAZ	KK
阿拉伯语	Arabic	ARA	ARA	AR	吉尔吉斯语	Kirghiz	KIR	KIR	KY
保加利亚语	Bulgarian	BUL	BUL	BG	老挝语	Lao	LAO	LAO	LO
加泰罗尼亚	Catalan	CAT	CAT	CA	蒙古语	Mongolian	MON	MON	MN
汉语	Chinese	ZHO	CHI	ZH	尼泊尔语	Nepali	NEP	NEP	NE
捷克语	Czech	CES	CZE	CS	塔吉克语	Tajik	TGK	TGK	TG
丹麦语	Danish	DAN	DAN	DA	泰语	Thai	THA	THA	TH
荷兰语	Dutch	NLD	DUT	NL	藏语	Tibetan	BOD	TIB	BO
英语	English	ENG	ENG	EN	土库曼斯坦	Turkmen	TUK	TUK	TK
芬兰语	Finnish	FIN	FIN	FI	乌克兰语	Ukrainian	UKR	UKR	UK
法语	French	FRA	FRE	FR	越南语	Vietnamese	VIE	VIE	VI
德语	German	DEU	GER	DE	粤语	Yue Chinese / Cantonese	YUE	YUE	-
希腊语	Greek	ELL	GRE	EL	克罗地亚语	Croatian	HRV	HRV	HR
希伯来语	Hebrew	HEB	HEB	HE	斯洛伐克语	Slovak	SLK	SLO	SK
匈牙利语	Hungarian	HUN	HUN	HU	斯洛文尼亚	Slovenian	SLV	SLV	SL
印度尼西亚	Indonesian	IND	IND	ID	爱沙尼亚语	Estonian	EST	EST	ET
意大利语	Italian	ITA	ITA	IT	拉脱维亚语	Latvian	LAV	LAV	LV
日语	Japanese	JPN	JPN	JA	立陶宛语	Lithuanian	LIT	LIT	LT
韩语	Korean	KOR	KOR	KO	乔治亚语	Georgian	KAT	GEO	KA
马来语	Malay	MSA	MAY	MS	冰岛语	Icelandic	ISL	ICE	IS
挪威语	Norwegian	NOR	NOR	NO	音乐	Music	MUSIC	MUS	-
波斯语	Persian	FAS	PER	FA	未知语种	Unknown	---	---	-
波兰语	Polish	POL	POL	PL	阿萨姆语	Assamese	ASM	ASM	AS
葡萄牙语	Portuguese	POR	POR	PT	巴斯克语	Basque	EUS	BAQ	EU
罗马尼亚语	Romanian	RON	RUM	RO	达里语	Dari	PRS	PRS	-
俄语	Russian	RUS	RUS	RU	宗卡语	Dzongkha	DZO	DZO	DZ
塞尔维亚语	Serbian	SRP	SRP	SR	菲律宾语	Filipino	FIL	FIL	-
西班牙语	Spanish	SPA	SPA	ES	加利西亚语	Galician	GLG	GLG	GL
瑞典语	Swedish	SWE	SWE	SV	古吉特语	Gujarati	GUJ	GUJ	GU
土耳其语	Turkish	TUR	TUR	TR	夏威夷语	Hawaiian	HAW	HAW	-
亚美利亚语	Armenian	HYE	ARM	HY	坎那达语	Kannada	KAN	KAN	KN
阿塞拜疆语	Azerbaijani	AZE	AZE	AZ	克什米尔语	Kashmiri	KAS	KAS	KS
巴厘语	Balinese	BAN	BAN	-	柬埔寨语	Central Khmer / Cambodian	KHM	KHM	-
孟加拉国语	Bengali	BEN	BEN	BN	库尔德语	Kurdish	KUR	KUR	KU
缅甸语	Burmese / Myanmar	MYA	MYA	MY	马拉雅拉姆	Malayalam	MAL	MAL	ML
白俄罗斯语	Belarusian	BEL	BEL	BE	马拉地语	Marathi	MAR	MAR	MR
科西嘉语	Corsican	COS	COS	CO	恩德贝勒语	North Ndebele / Ndebele	NDE	NDE	-

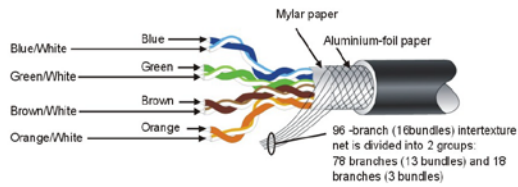
Chinese	English	639-3	639-2/5	639-1	Chinese	English	639-3	639-2/5	639-1
奥里亚语	Oriya	ORI	ORI	OR	茨瓦纳语	Tswana	TSN	TSN	TN
旁遮普语	Panjabi	PAN	PAN	PA	乌尔都语	Urdu	URD	URD	UR
罗曼什语	Romansh	ROH	ROH	-	威尔士语	Welsh	CYM	WEL	CY
梵文	Sanskrit	SAN	SAN	SA	祖鲁语	Zulu	ZUL	ZUL	ZU
信德语	Sindhi	SND	SND	SD	壮族语	Zhuang	ZHA	ZHA	ZA
僧加罗语	Sinhala / Sinhalese	SIN	SIN	SI	傣族语	Dai	DIJ	DIJ	-
梭托语	Southern Sotho / Sotho	SOT	SOT	ST	维吾尔语	Uighur	UIG	UIG	UG
斯瓦西里语	Swahili	SWA	SWA	SW	文莱语	Brunei	KXD	BRN	-
泰米尔语	Tamil	TAM	TAM	TA	北印度语	Hindi	HIN	HND (SIL14)	HI
泰卢固语	Telugu	TEL	TEL	TE	马耳他语	Maltese	MLT	MLT	MT
					乌兹别克语	Uzbek	UZB	UZB	UZ

Appendix: Custom-made cable

Appendix I : Dedicated 6 PIN Extension Cable

Case 1: Soldering of S-UTP Cable and 6PIN plug/socket

1.(S-UTP) Core $4 \times 2 \times (7 \times 0.203)$ with 96-branch intertexture net



2.6P DIN Male Plug



3. 6P DIN Female Socket (insulation ring)

Front view

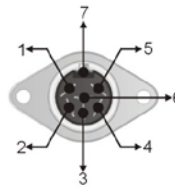


Rear view

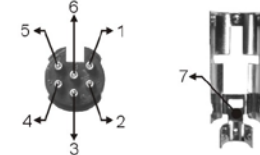


4.Soldering

Socket (rear view)



Plug (rear view)



5.Soldering between dedicated 6P DIN plug/socket and the core of (S-UTP) cable

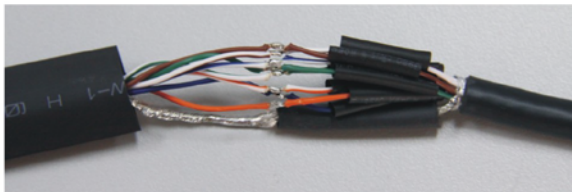
Mark (plug/socket)	Corresponding (S-UTP) core
1	Blue/White
2	Brown/White
3	Brown
4	78-branch (13-bundle) weave
5	Green, Green/White Orange, Orange/White
6	Blue
7	18-branch (3-bundle) weave

Case 2: S-UTP Extension cable jointing

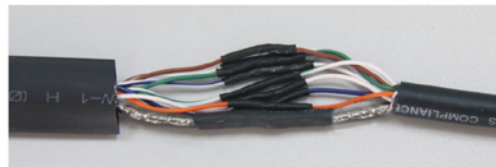
- Strip 30 mm insulation of both cable sheaths;
- Fan out the wires, twist the braided shield into a bundle, and cut off unnecessary foil paper and Mylar paper;



- Strip 2 mm insulation of the 8 wires; pre-tin the strands and the braided shields appropriately;
- Preassemble the heat-shrinkable tubes as in the following figure:
 - put the $\phi 2.0$ heat-shrinkable tubes over the 8 wires,
 - put the $\phi 4.0$ heat-shrinkable tube over the braided shield,
 - put the $\phi 11.0$ heat-shrinkable tube over the cable sheath;
- Solder together wires having the same color (8x); solder together the braided shields;



- Cover the solder joints of the 8 wires and of the braided shields with the heat-shrinkable tubes and shrink them with the electric hot-air blower;

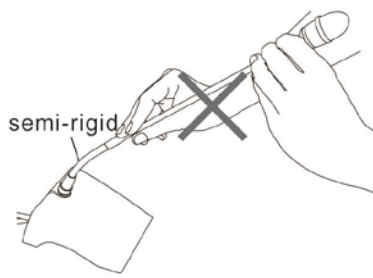


- Shrink the heat-shrinkable tube which covers the 8 wires, the braided shield and the cable sheath with the electric hot-air blower.

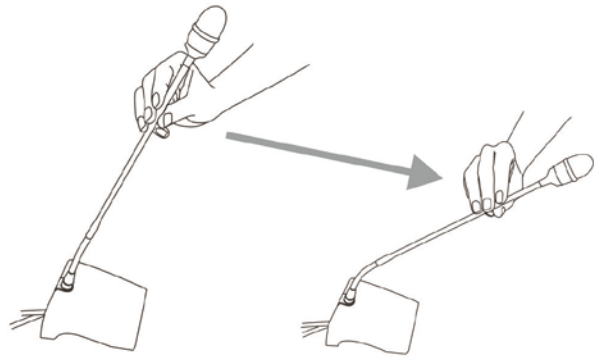


Appendix II: Microphone Stem Precautions

1. Adjusting stem microphone angle

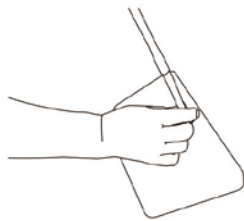


The stem microphone relies on a semi-rigid part to adjust the angle. The straight part should not be bent forcibly.

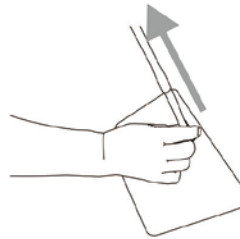


Squeeze the straight part with one hand and adjust the microphone pole to the right angle. In order to ensure the service life of the stem microphone, it is recommended that the bending angle does not exceed 90 degrees.

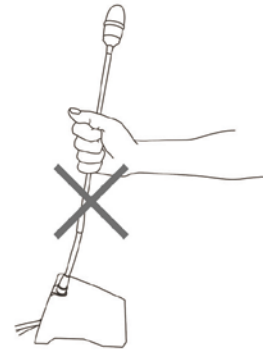
2. Removal of the stem microphone



Unscrew the spiral component at the root of the microphone stem

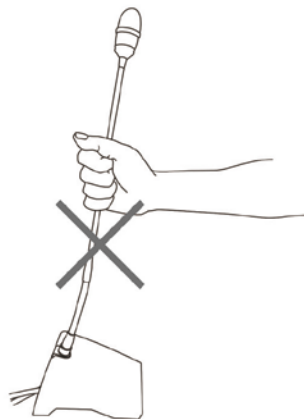


Squeeze the root of the microphone stick to pull out the microphone stick



Do not hold the microphone stem and pull it upward.

3. Mobile conference units



Do not hold the microphone stem to move the conference unit.



Please move the conference unit by holding the unit base

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