

G3 Paperless Multimedia Congress System



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 - 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 2014/30/EU.
 - 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.
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 - CobraNet is the registered trademark of Cirrus Logic, Inc.
 - Dante is the registered trademark of Audinate Pty 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. The quantity of connected transceivers in one system should not exceed prescribed quantity. 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 nearby in your region.



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 useable 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-8300 Series Paperless Multimedia Congress System (PMCS). It includes the detailed description of the functions and interfaces as well as of the components, connection, installation, set-up and operation of the HCS-8300 system.

The manual is divided into the following chapters:

Chapter 1: Introduction

An introduction to the HCS-8300 Series Paperless Multimedia Congress 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-8300 PMCS congress main unit (CMU), extension main unit (EMU) and the extension unit (HCS-8300MES).

Chapter 3: Congress unit

Detailed descriptions of the functions and indications, installation and connection, configuration and operation of the HCS-8300 PMCS discussion units.

Chapter 4: Interpreter unit

Detailed descriptions of the functions and indications, installation and connection, configuration and operation of the HCS-8300 PMCS 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-8300 peripheral equipment and accessories, e.g. stem microphone and earphones.

Chapter 7: Environment and maintenance

An introduction to the work environment and maintenance of HCS-8300 PMCS.

Chapter 8: Specifications

Main technical parameters of HCS-8300 PMCS.

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This manual is applicable to:

■ Congress main units

HCS-8300MAD/FS/50

Fully Digital Congress System Main Unit (discussion, voting, 64 CHs, 256x32 LCD, MIC. group outputs, AES/EBU digital input/output, To Mixer interface, single-mode optical fiber interface, Dante interface)

HCS-8300MB/50

Fully Digital Congress System Main Unit (discussion, voting, 64 CHs, 256x32 LCD, MIC. group outputs)

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

HCS-8300MES

Fully Digital Congress System Extension Unit

■ Congress Unit

HCS-8368/50 Series:

HCS-8368NBD(-NP)/50 delegate unit

HCS-8368BD(-NP)/50 delegate unit

The G3 Paperless Multimedia Congress Terminal (14" 1920×1080 LCD, capacitive touch panel, camera with 8 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, internet access (for NBD types only), built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types, support PoE)

HCS-8368NAD(-NP)/50 delegate unit

HCS-8368AD(-NP)/50 delegate unit

The G3 Paperless Multimedia Congress Terminal (microphone array, 14" 1920×1080 LCD, capacitive touch panel, camera with 8 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, internet access (for NAD types only), built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types, support PoE)

HCS-8368NAD/FM/50 delegate unit, flush-mounting

HCS-8368AD/FM/50 delegate unit, flush-mounting

The G3 Paperless Multimedia Congress Terminal (microphone array, 14" 1920×1080 LCD, capacitive touch panel, camera with 8 megapixel, speech, voting, 64 CHs, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, internet access (for NAD types only), electric lifting)

HCS-8368SD/50 delegate unit

The G3 Paperless Multimedia Congress Terminal (14" 1920×1080 LCD, capacitive touch panel, camera with 8 megapixel, speech, voting, 64 CHs×2, video display, printed nameplate, support PoE)

HCS-8368CSW Chairman Control Function Software Module

HCS-8338 Series:

HCS-8338AC(-NP) chairman unit, Chinese panel

HCS-8338ACE(-NP) chairman unit, English panel

HCS-8338AD(-NP) delegate unit, Chinese panel

HCS-8338ADE(-NP) delegate unit, English panel

Paperless Multimedia Congress Terminal (10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, fingerprint identification, internet access, built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types)

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HCS-8338NBC(-NP)	chairman unit, Chinese panel
HCS-8338NBCE(-NP)	chairman unit, English panel
HCS-8338NBD(-NP)	delegate unit, Chinese panel
HCS-8338NBDE(-NP)	delegate unit, English panel

Paperless Multimedia Congress Terminal (10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, internet access, built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types)

HCS-8338BC(-NP)	chairman unit, Chinese panel
HCS-8338BCE(-NP)	chairman unit, English panel
HCS-8338BD(-NP)	delegate unit, Chinese panel
HCS-8338BDE(-NP)	delegate unit, English panel

Paperless Multimedia Congress Terminal (10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types)

HCS-8348 Series:

HCS-8348AC(-NP)	chairman unit, Chinese panel
HCS-8348ACE(-NP)	chairman unit, English panel
HCS-8348AD(-NP)	delegate unit, Chinese panel
HCS-8348ADE(-NP)	delegate unit, English panel

Paperless Multimedia Congress Terminal (microphone array, 10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, fingerprint identification, internet access, built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types)

HCS-8348NBC(-NP)	chairman unit, Chinese panel
HCS-8348NBCE(-NP)	chairman unit, English panel
HCS-8348NBD(-NP)	delegate unit, Chinese panel
HCS-8348NBDE(-NP)	delegate unit, English panel

Paperless Multimedia Congress Terminal (microphone array, 10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, internet access, built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types)

HCS-8348BC(-NP)	chairman unit, Chinese panel
HCS-8348BCE(-NP)	chairman unit, English panel
HCS-8348BD(-NP)	delegate unit, Chinese panel
HCS-8348BDE(-NP)	delegate unit, English panel

Paperless Multimedia Congress Terminal (microphone array, 10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types)

HCS-8338/FM Series:

HCS-8338NBC/FM	chairman unit, Chinese panel
HCS-8338NBCE/FM	chairman unit, English panel
HCS-8338NBD/FM	delegate unit, Chinese panel
HCS-8338NBDE/FM	delegate unit, English panel

Paperless Multimedia Congress Terminal (10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, internet access)

HCS-8338BC/FM	chairman unit, Chinese panel
HCS-8338BCE/FM	chairman unit, English panel
HCS-8338BD/FM	delegate unit, Chinese panel
HCS-8338BDE/FM	delegate unit, English panel

Paperless Multimedia Congress Terminal (10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader)

HCS-8335 Series:

HCS-8335C(-NP)	chairman unit
HCS-8335D(-NP)	delegate unit

Economical Multimedia Congress Terminal (10" 1280×800 LCD, speech, voting, 64 CHs×2, HD video display, built-in contactless IC-Card reader, built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types)

HCS-8335AC(-NP)	chairman unit
HCS-8335AD(-NP)	delegate unit

Economical Multimedia Congress Terminal (microphone array, 10" 1280×800 LCD, speech, voting, 64 CHs×2, HD video display, built-in contactless IC-Card reader, built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types)

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HCS-8336 Series:

HCS-8336 SDI Monitor

SDI Monitor (10" 1280×800 LCD, HD video display, printed nameplate)

HCS-8315 Series: tabletop Fully Digital Congress System Discussion Unit

HCS-8313C chairman unit

Invisible microphone, 5 voting keys, 64 CHs

HCS-8313D delegate unit

Invisible microphone, 5 voting keys, 64 CHs

HCS-8314D delegate unit

Invisible microphone, 5 voting keys

HCS-8315C chairman unit

Invisible microphone

HCS-8315D delegate unit

Invisible microphone

■ Interpreter Unit

HCS-4385U/50

Fully Digital Congress System Interpreter Unit (64 CHs, IC-Card, 256x64 LCD, microphone, loudspeaker)

HCS-8385/80

Fully Digital Congress System Interpreter Unit (64 CHs, 7.2" TFT LCD, microphone, loudspeaker)

HCS-8385HDMI/02 Video Converter, 2 HDMI outputs

HCS-8385HDMI/04 Video Converter, 4 HDMI outputs

■ 8 Channels Audio Output Devices

HCS-8300MOD/FS

8 Channels Audio Output Device (AES/EBU digital outputs, analog outputs, single-mode optical fiber interface, CobraNet interface)

HCS-8300MOD/FSD

8 Channels Audio Output Device (AES/EBU digital outputs, analog outputs, single-mode optical fiber interface, Dante interface)

HCS-8300MOD

8 Channels Audio Output Device (AES/EBU digital outputs, analog outputs)

HCS-8300MOA/FS

8 Channels Audio Output Device (analog outputs, single-mode optical fiber interface, CobraNet interface)

HCS-8300MOA/FSD

8 Channels Audio Output Device (analog outputs, single-mode optical fiber interface, Dante interface)

HCS-8300MOA

8 Channels Audio Output Device (analog outputs)

■ 8 Channels Audio Input Interfaces

HCS-8300MID/FS

8 Channels Audio Input Interface (AES/EBU digital inputs, analog inputs, single-mode optical fiber interface, CobraNet interface)

HCS-8300MID/FSD

8 Channels Audio Input Interface (AES/EBU digital inputs, analog inputs, single-mode optical fiber interface, Dante interface)

HCS-8300MID

8 Channels Audio Input Interface (AES/EBU digital inputs, analog inputs)

HCS-8300MIA/FS

8 Channels Audio Input Interface (analog inputs, single-mode optical fiber interface, CobraNet interface)

HCS-8300MIA/FSD

8 Channels Audio Input Interface (analog inputs, single-mode optical fiber interface, Dante interface)

HCS-8300MIA

8 Channels Audio Input Interface (analog inputs)

■ Congress Room Combiner

HCS-8300MX Congress Room Combiner

■ Booth Combiner

HCS-8300MX/FS

Booth Combiner (single-mode optical fiber interface)

■ General Controller for Booth Combiners

HCS-8302MX/FS/06

General Controller for Booth Combiners (6 CHs, single-mode optical fiber interface)

HCS-8302MX/FS/12

General Controller for Booth Combiners (12 CHs, single-mode optical fiber interface)

HCS-8302MX/FS/24

General Controller for Booth Combiners (24 CHs, single-mode optical fiber interface)

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■ Congress Gigabit Network Switcher

HCS-8300KMX2 Congress Gigabit Network Switcher
(for G3 paperless multimedia congress terminal)

■ Distributor

HCS-8368T Distributor
(for G3 tabletop paperless multimedia congress terminal)

■ Congress Gigabit Network Switcher

HCS-8300KMX Congress Gigabit Network Switcher

■ Power Supply Unit

HCS-8300PM Power Supply Unit

HCS-8300PM2 Dual Backup Power Supply Unit

■ Service Request Control Unit

HCS-8319 Service Request Control Unit

■ Digital Audio Mixer for Conference

HCS-8301M

Digital Audio Mixer for Conference

HCS-8301MD

Digital Audio Mixer for Conference (Dante parameter adjustable)

■ Pluggable microphone

MS24EMF1G/S 240 mm pluggable (gray/silver)

MS33EMF1G/S/B 330 mm pluggable (gray/silver/black)

MS41EMF1G/S/B 410 mm pluggable (gray/silver/black)

MS47EMF1G/S/B 470 mm pluggable (gray/silver/black)

■ Clip microphone

HCS-1020 Clip Microphone

■ Earphone

EP-820AS Single earphone

EP-829 Single earphone

EP-829SW Single earphone
(Built-in magnetic control switch)

EP-960AN Interpreter headset
(for HCS-8385/80)

EP-960AH Interpreter headset (for
HCS-4385U/50)

EP-960BH Interpreter headphone

HCS-5100PA Headphone

Chapter 1. Introduction

1.1 Summary

The world's first paperless multimedia congress system, developed by TAIDEN as early as in 2010, has ushered in a new era for the conferencing industry and has been used at many high-profile international conferences and meeting venues, testifying in return to its excellence and superiority.

Not stopping there, TAIDEN later launched its third generation paperless multimedia congress system in

2016. The new system boasts of superb HD paperless experience, greater system reliability, budget-conscious integration of functions and convenient management with its ultra-thin design, larger capacitive touch screen and higher megapixel camera. Either tabletop or flush-mounted model provides its users with faster, more convenient and efficient operation experience.

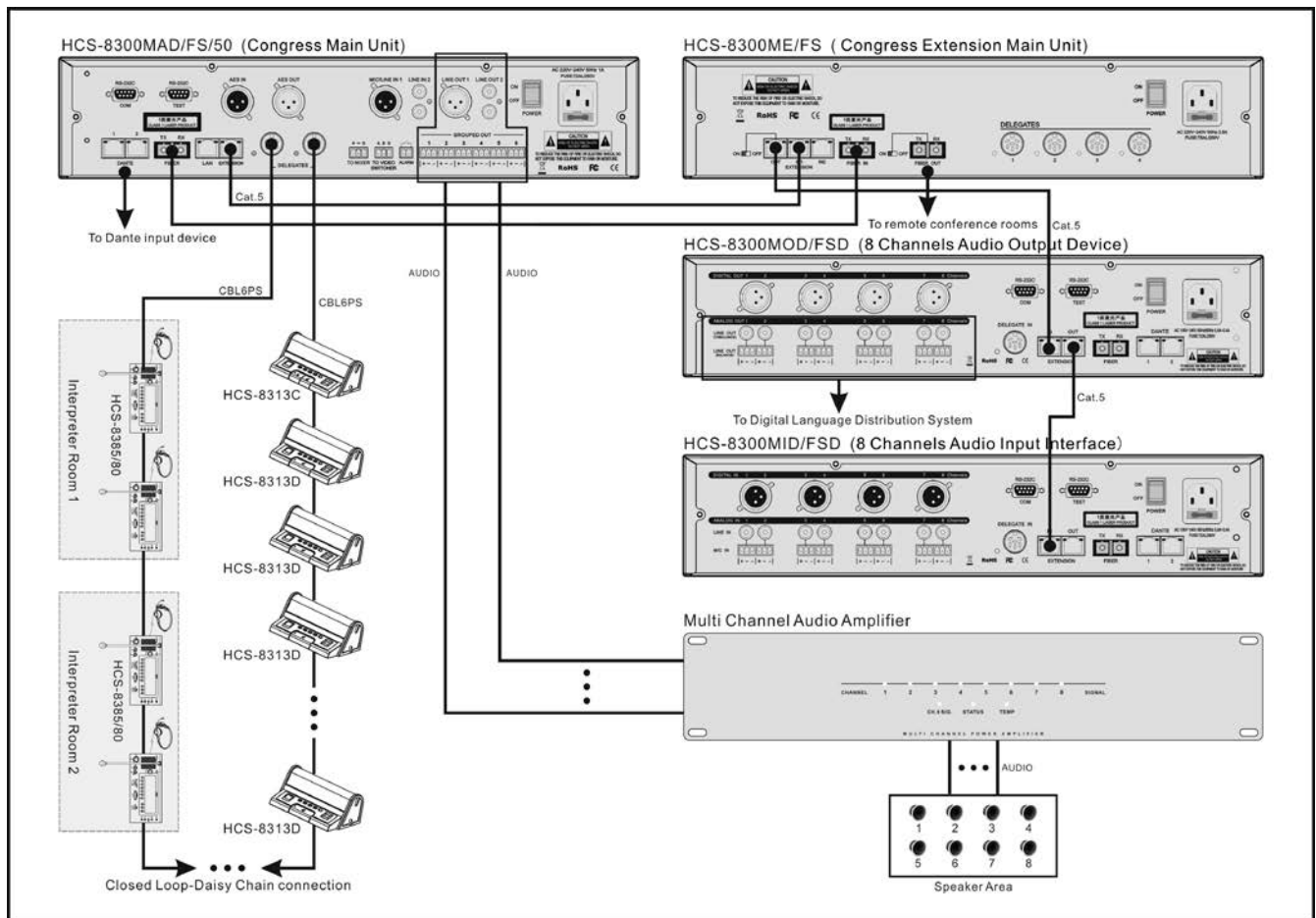


Figure 1.1.1 System overview

1. Paperless Multimedia Digital Congress System

Problems in modern high-level meetings:

- Many functional requirements but multiple systems
 - independent from each other (digital conference system, sign-in system, video display system, file system, data service, etc.) and systems cannot be integrated effectively
- Preparation/issuance of verbose meeting papers is time-consuming with both low efficiency and low feedback quota
- Waste of resources through large amounts of paper needed in the meeting
- Risk of leaks due to issuance of printed materials
- Manifold interactive multimedia information required (conference materials, computer files, videos, web browsing, voice communication, etc.)
- Perfect readability of information displayed on large screen must be available for every attendee usually more than one screen is installed, but impossibility to focus on the meeting topics if viewing distance is too high and if view is obstructed
- Deficient communication between participants among each other and between participants and their attendants and assistants
- Operating the variety of desktop devices is very complicated

TAIDEN integrated abundant high-end conference system applications and design experience to develop the world's first multimedia conference which was based on the paperless multimedia conference (mMediaCongress™) operation platform with independent intellectual property rights. It realizes the "paperless meeting" – namely the total electronic mode of conference operation - and management. It reduces the paper consumption and improves the conferencing efficiency. It also realizes a variety of HD video services, video intercom, conference services, E-ink nameplate, interactive conference control and management (discussion, vote, SI), etc., and provides a perfect solution for modern high level meetings.

HCS-8368/50 series G3 Paperless Multimedia Congress Terminal

HCS-8368/50 series G3 Paperless Multimedia Congress Terminal based on TAIDEN originated GMC-STREAM Gigabit Multimedia Congress Stream technology, all audio and video signals are transmitted via a Cat.5e/Cat.6 cable. From the 1000M bandwidth, a priority of 100M is used to transmit important data, such as audio, voting information and control information. The remaining 900M bandwidth is used for videos, files, Internet data and other multimedia data stream. By this splitting real-time performance and stability of the important audio, voting information, and control information data stream of the meeting is guaranteed.

The Terminal is equipped with a 14" (1920X1080) HD TFT LCD, capacitive touch panel and an integrated 8 megapixel camera. HCS-8368/50 series Congress Terminal realize the functions of a two-way communication Multimedia Congress Terminal, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, conference documents management, speech text guidance,

conference documents reader and editor, memorandum editing, desktop sharing, delegate information and conference agenda display, take photo, internet access, delegate photo for attendance check and record facility on important conferences, video conversation, video display, multiple channel VOD (up to 10 channels) and broadcasting, short message, call service, etc.



Figure 1.1.2 HCS-8368/50 Series G3 Paperless Multimedia Congress Terminal



Figure 1.1.3a Design sketch of HCS-8368/50 Series G3 Paperless Multimedia Congress System (flush-mounting, panorama)



Figure 1.1.3b Design sketch of HCS-8368/50 Series G3 Paperless Multimedia Congress System
(flush-mounting, close-up)



Figure 1.1.3c Design sketch of HCS-8368/50 Series G3 Paperless Multimedia Congress System
(tabletop, panorama)



Figure 1.1.3d Design sketch of HCS-8368/50 Series G3 Paperless Multimedia Congress System (tabletop, close-up)

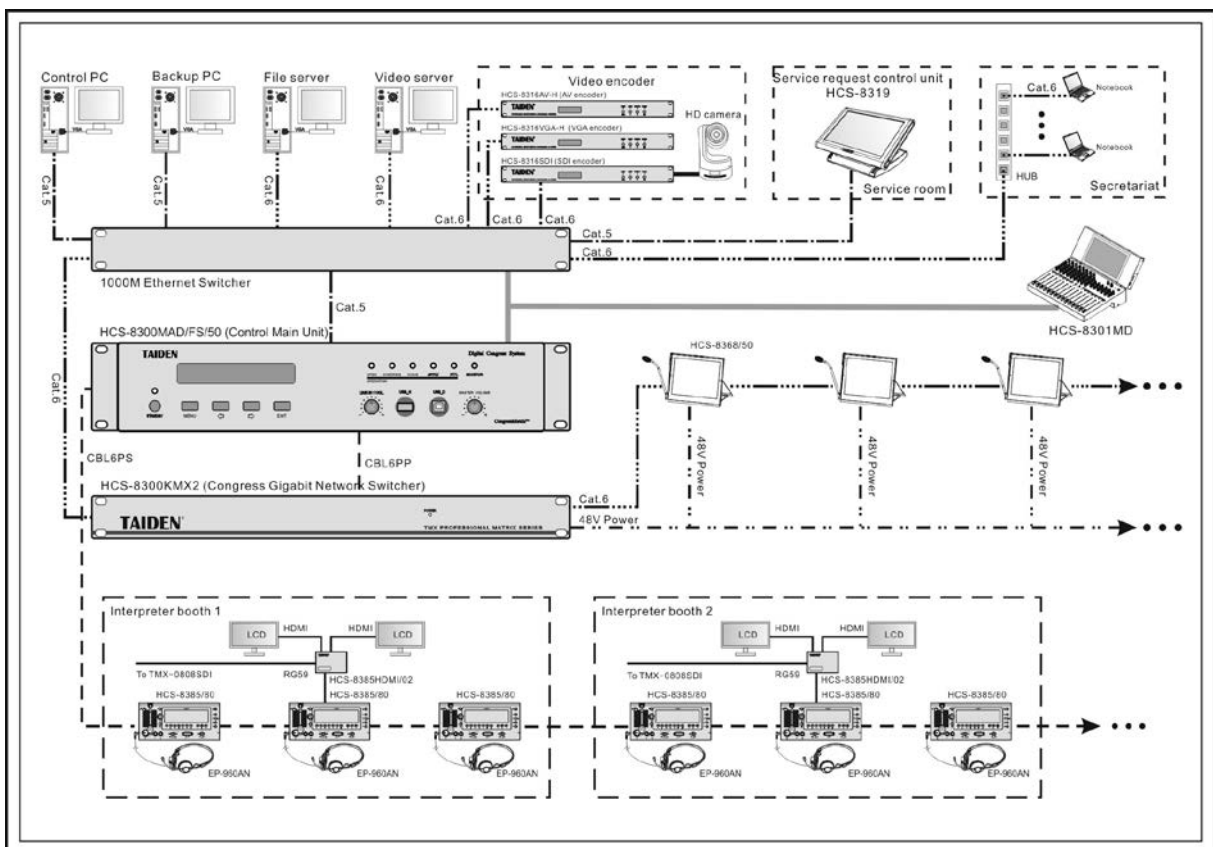


Figure 1.1.4a HCS-8368/50 Series G3 Paperless Multimedia Congress System connection diagram

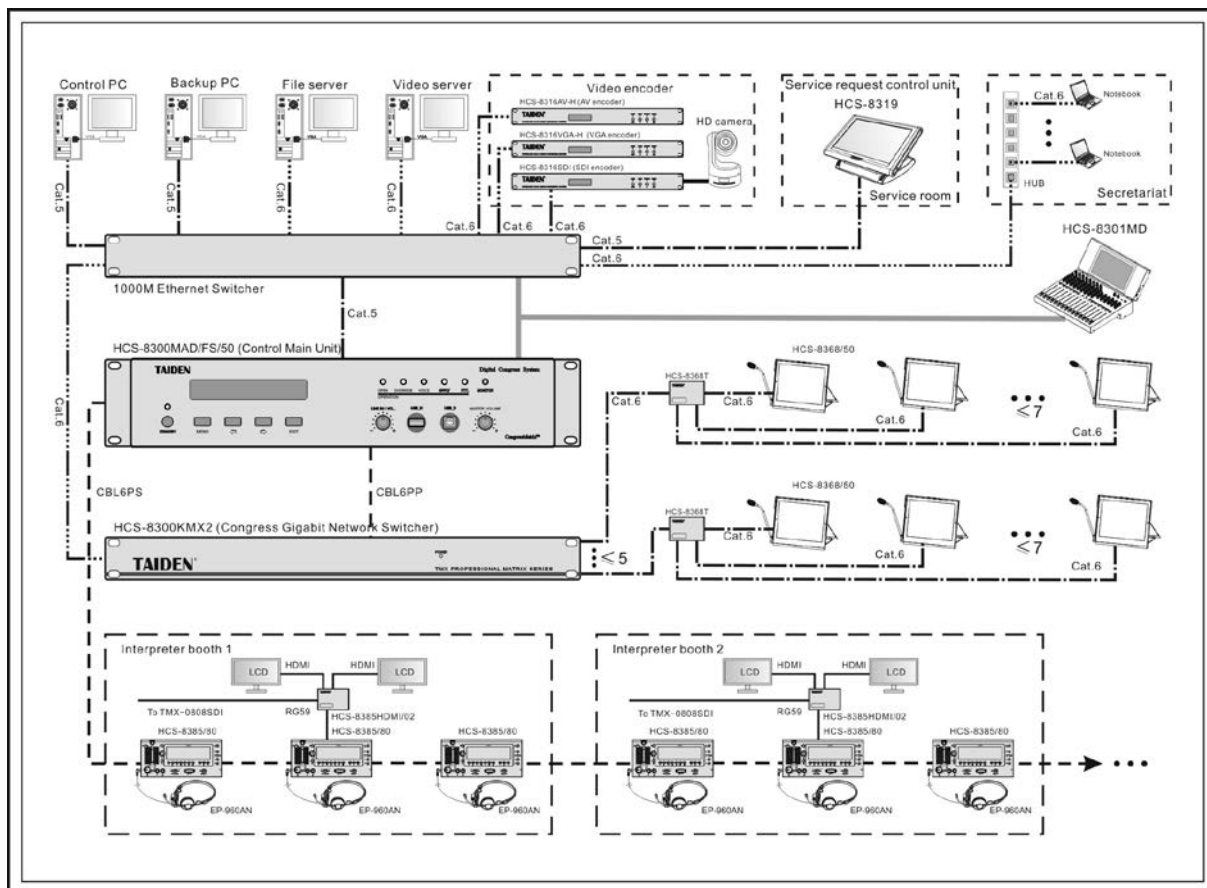
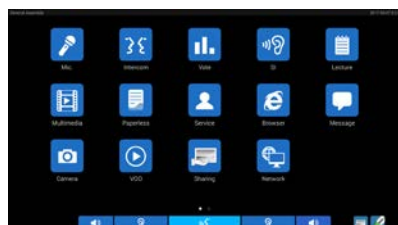


Figure 1.1.4b HCS-8368/50 Series G3 Paperless Multimedia Congress System connection diagram (PoE, only for tabletop terminals)



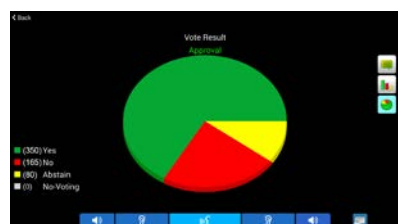
Primary interface



Microphone Management



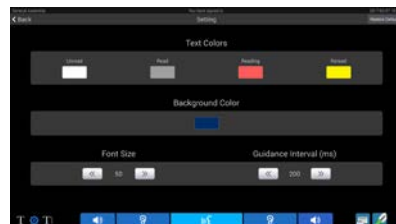
Short Message



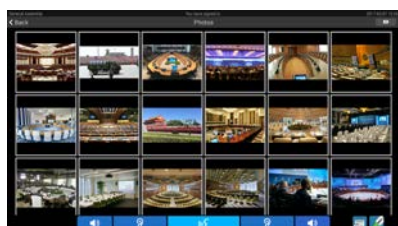
Vote result display



Simultaneous interpretation



Speech text guidance - setting



Media



Documents reader



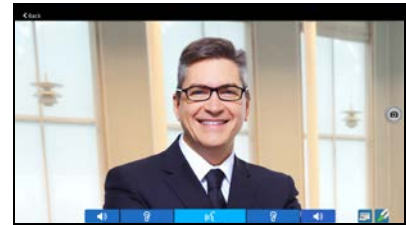
Call service



Internet access



Video conversation



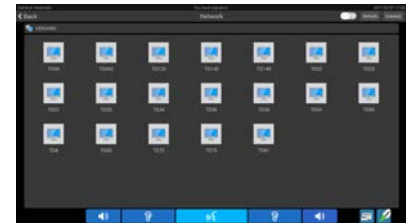
Take photo



Video display



Desktop sharing



Network

Figure 1.1.5 User Interfaces of G3 Paperless Multimedia Congress System

Features of HCS-8300 series Paperless Multimedia Congress Terminal:

■ Full functionality and high integration

Various types of systems that may be involved in various types of meetings (discussion system, simultaneous interpretation system, voting system, sign-in system, video display system, files and data services system, etc.) are integrated into a single desktop device. Any kind of information display, interactive operations, audio/video and network access requirements are centralized on and controlled via a high-resolution LCD touch panel. Interactive conference control & management (speech, voting, simultaneous interpretation), paperless meetings, video conversation, various video services and conference services, etc. can be realized.

■ Safe and reliable

- ◆ Based on the TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, hacker-proof
- ◆ Based on embedded system, the power consumption per unit is less than 15 W; its power is 5% ~ 10% of an x86 system – in the spirit of environmental protection. Significantly protected against the impact of heat
- ◆ Based on TAIDEN originated GMC-STREAM Gigabit Multimedia Congress Stream technology, all audio and video signals are transmitted via a

Cat.5e/Cat.6 cable. GMC-STREAM fully guarantees the real-time performance and stability of the important data stream of the meeting, such as audio, voting information, and control information

- ◆ Using daisy-chain connection topology, transmitting signals through single-cable technology. Reliable system components, easy cabling and installation. “Closed Loop - Daisy Chain” topology for enhanced system connection stability
- ◆ No need to install software, simply reset after a system halt
- ◆ System easy to manage, file and data will not be lost

■ Operation experience

- ◆ Combining the versatile facilities of high-level conference system applications and design experiences, TAIDEN now provides even more convenient, efficient and professional conference equipment to the participants
- ◆ Capacitive touch panel supporting multi-touch, convenient and efficient for operation
- ◆ Power supply via Congress Main Unit or power supply unit - convenient to switch on/off

2. CongressMatrix technology

In an ordinary conference system, the audio signals of the microphones converge into one audio (floor) channel which is transmitted to a PA system with only one channel. For this reason, all system loudspeakers get the same floor channel sound level. Differing voice levels of orators cannot be leveled out by simply adjusting the microphone volume. Due to feedback from a loudspeaker influencing delegates' nearby microphone, a positive feedback loop is formed and produces howl.

But due to the amassment and their close spacing arrangement, long stem microphones greatly affect the visual overall picture within the venue.

Therefore, in many high-level meeting rooms (e.g. Parliament Hall), media matrices and boundary condenser microphones are implemented to solve this problem.

In a media matrix, the audio signal from any microphone can be transmitted at any ratio to any loudspeaker, thus system transmission gain can be increased by an appropriate configuration. All microphones are star connected. But installation, debugging and operation are highly complex. Such a solution should usefully only be applicable if the microphones are within a fixed installation, controlled by professional technical staff. Furthermore, only discussion function is available. A media matrix solution does not feature conference sign-in, voting, simultaneous interpretation, video tracking and intercom function.

To solve above-mentioned shortcomings, TAIDEN successfully developed the proprietary CongressMatrix™ technology (utility patent: 200620054419.6). HCS-8300 Series Paperless Multimedia Congress System is the first Paperless Multimedia Congress System in the world to integrate an nx8 audio matrix processor (n is the number of microphones connected in the system) in the Congress Main Unit.

■ 8 discrete audio outputs, including:

- ◆ Line Output 1 / AESOut 1: 15 band graphical EQ + 8 band parameterized EQ + DRC (dynamic

range compressor)

- ◆ Line Output 2 / AESOut 2: 5 band graphical EQ + DRC (dynamic range compressor)
- ◆ Group output 1~6: 5 band graphical EQ + DRC (dynamic range compressor) + time delay (maximum delay time for 32 kHz sampling rate is 1.5 s, maximum delay time for 48 kHz sampling rate is 1 s)
- Connectable to a multi channel independent PA system (up to 8 channels). Each channel is supplied with its proper audio signal. The audio signal of each microphone can be routed to any speaker at any ratio, thus "N-1" function can be realized easily: (when the microphone in one area is turned on, its audio signal is only routed to all areas except to its own) avoiding acoustic feedback (howl) when audio transmission gain is increased
- 8 channels group output function
- Recording by group function
- 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
- Displays audio signal spectrum to determine howling frequency which can be suppressed by adjusting EQ parameters
- 2 audio line in (analog, digital, CobraNet/Dante) or 1 audio line in (analog, CobraNet/Dante) + 1 microphone input, gain and EQ for each input adjustable separately. +24 V phantom power supply at microphone input, condenser microphone can be connected directly
- Connectable to multi channel audio input or output devices for versatile expansion of the system

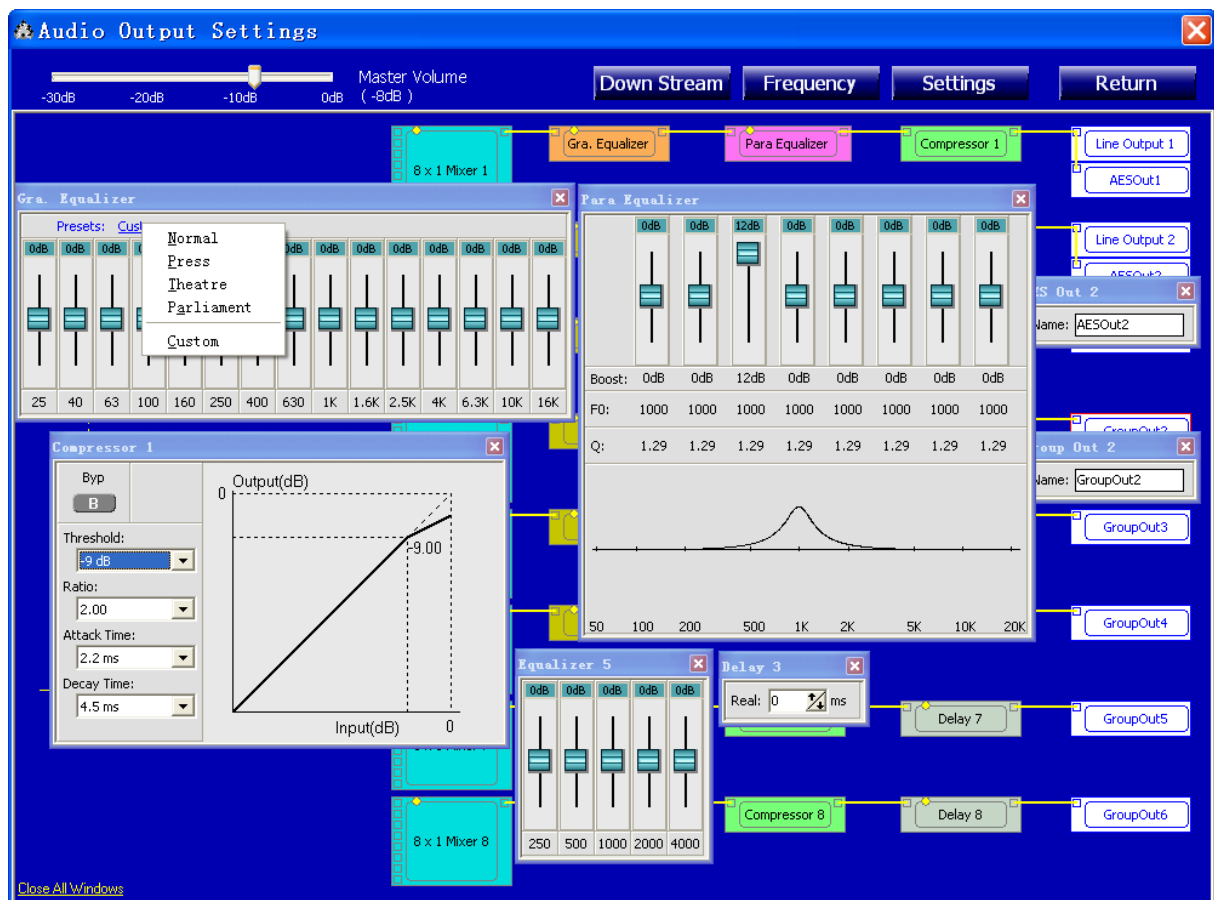
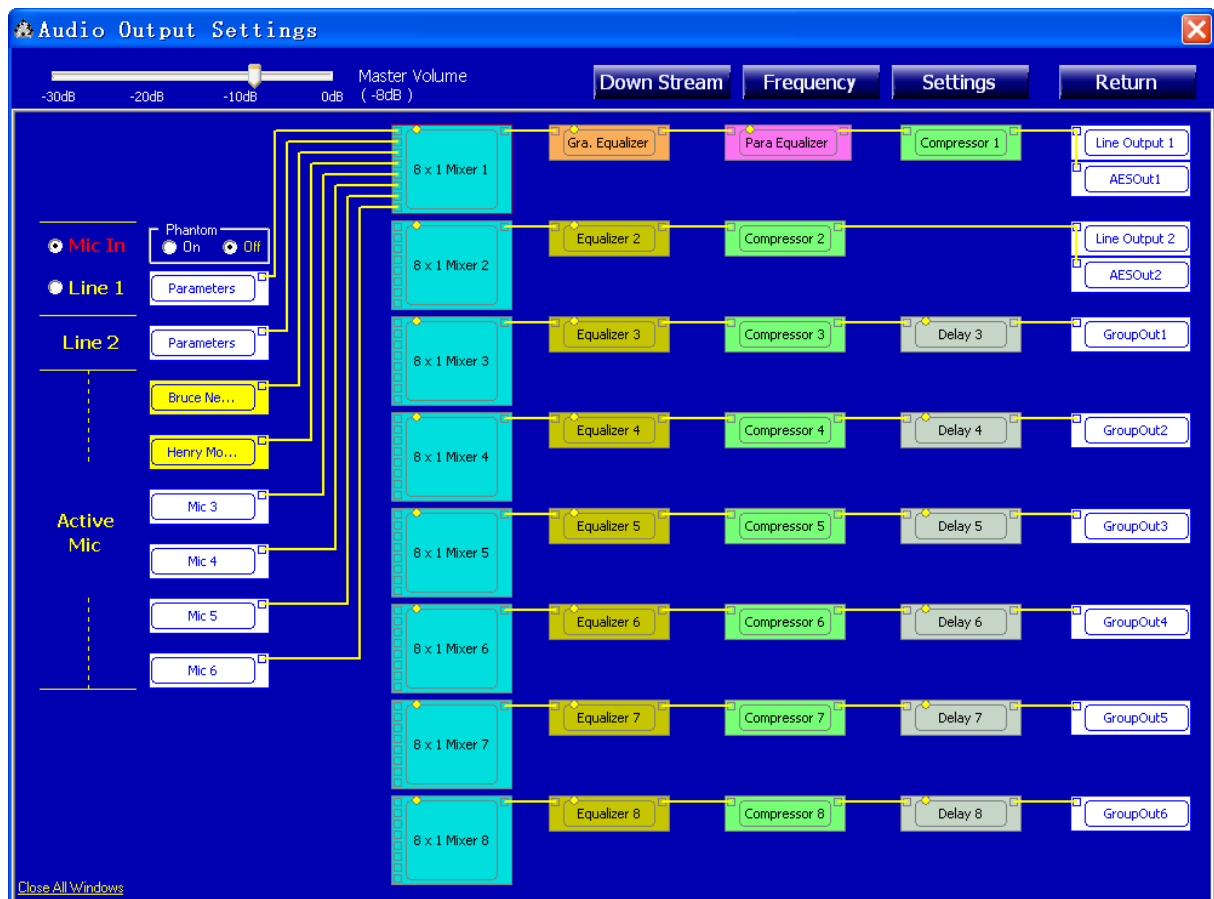


Figure 1.1.6 CongressMatrix™ Software Interface

HCS-8300 Series Paperless Multimedia Congress System can be connected to a multi channel audio amplifier and several groups of loudspeakers. There will be no acoustic feedback (howl) when audio transmission gain is increased. As shown in figure 7: the venue is divided into several areas according to the actual seating arrangement (maximum 8 areas), each area corresponds to a group of loudspeakers. The microphones in area n are arranged in group n and correspond to group n audio output.

The loudspeakers in area n correspond to group n audio output (as shown in figure 8). As an example: the microphones in area 1 are close to the loudspeakers belonging to group 1. This condition generates feedback easily. To avoid howling, audio gain of group 1 microphones for group 1 loudspeakers should be decreased. Audio gain of group 1 microphones for group 2 to 8 loudspeakers can be kept higher than for group 1 loudspeakers.

A better performance is achieved in above example when group 1 of loudspeakers is switched off.

Generally spoken: when the microphone in one area is turned on, its audio signal is routed only to the group of loudspeakers of the other areas but not to the group of loudspeakers of its own area. This “N-1” function avoids howling caused by audio feedback.

For HCS-8300 Series Paperless Multimedia Congress System, integrating CongressMatrix technology, the audio signal of each microphone can be routed to any loudspeaker at any ratio to increase audio transmission gain. The orator speaks at a greater distance from the microphone using a shorter microphone or even a microphone without a stem (for example HCS-8368A/50 series) - bringing the era of long gooseneck microphones to an end.

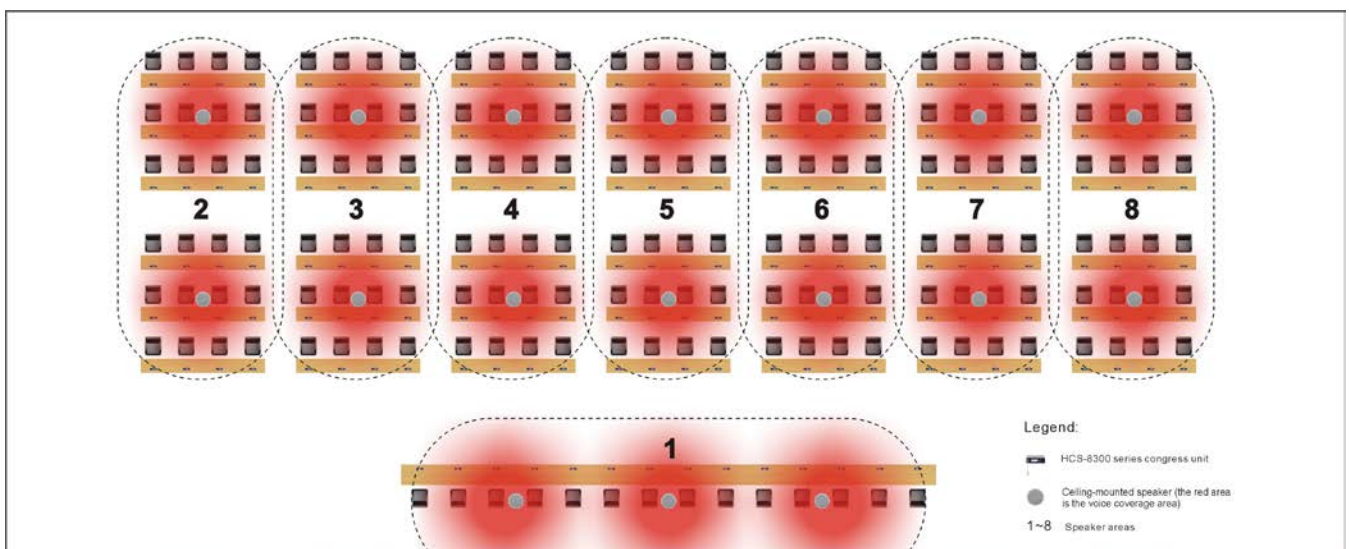


Figure 1.1.7 Area groups of the venue

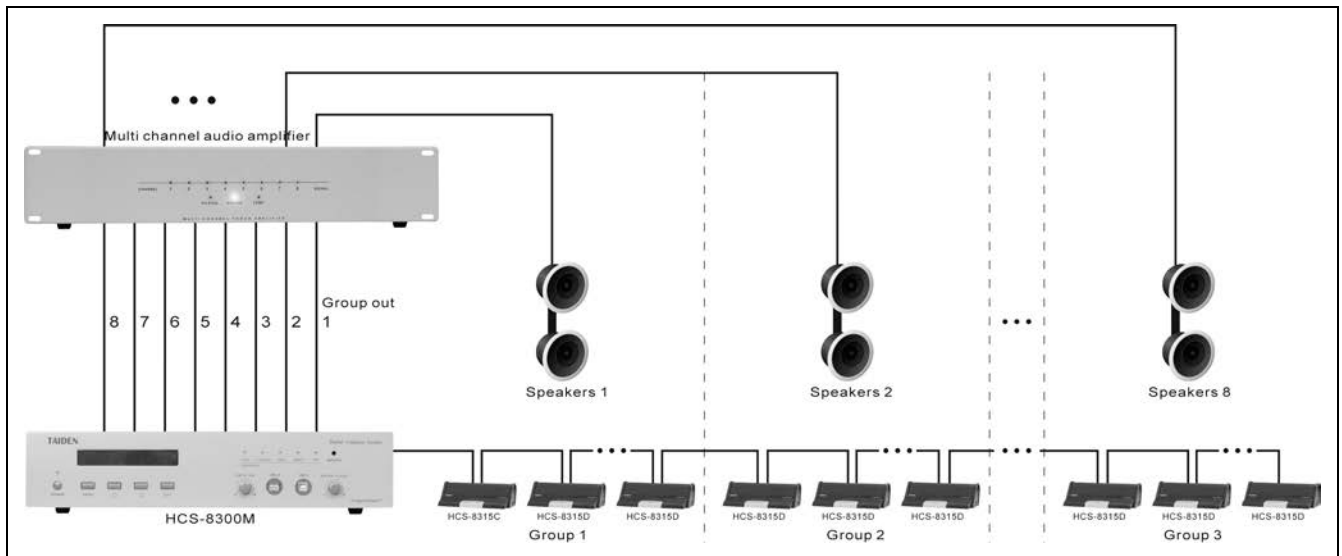


Figure 1.1.8 HCS-8300 Series Paperless Multimedia Congress System connected to a multi-channel audio amplifier with “N-1” function to cancel howl

3. Invisible microphone by microphone-array technology

By adopting microphone-array technology, the sound pick-up performance of the HCS-8368A/50 series Paperless Multimedia Congress Terminal is improved considerably. In interaction with the CongressMatrix technology, the acoustic transmission gain is increased: the orator is now in a position to speak at a greater distance from the microphone. By using

microphone-array, the conference room looks tidy. There is no discomfort for the orator as his view is no longer blocked by a microphone stem. The orator has a large operating range with a clear and stable pick-up performance (a suitable architectural room acoustics is needed when using microphone-array).



Figure 1.1.9 Polar pattern of HCS-8368A/50 Series G3 Paperless Multimedia Congress Terminal



Figure 1.1.10 By using microphone-array terminals, the conference room looks tidy

4. Duplicate and backup connection via “Closed Loop - Daisy Chain” connection topology

For important meetings, especially those which consider connection reliability as their leading point, HCS-8300 Series Paperless Multimedia Congress System adopts advanced “Closed Loop - Daisy Chain” connection topology, connecting the last unit in the loop back to the Congress Main Unit. 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 simplicity of cabling as well as the improvement of the system reliability by means of duplicate and backup connection functions.

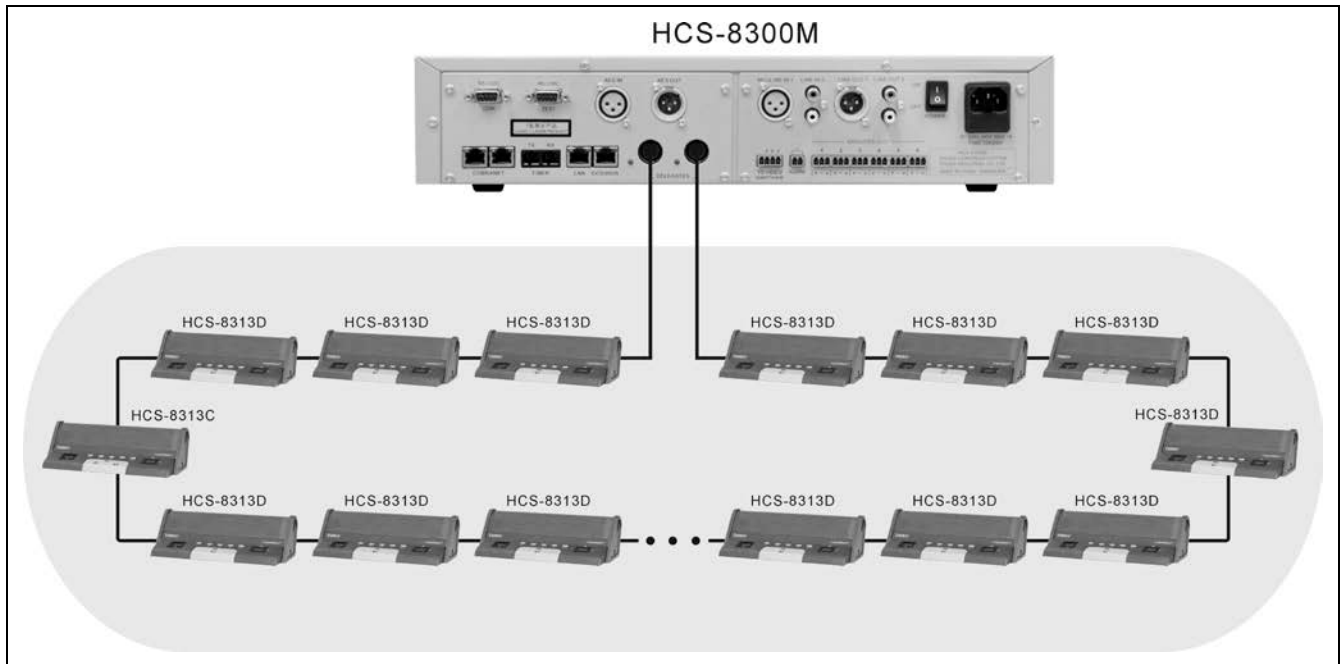


Figure 1.1.11 “Closed Loop - Daisy Chain” connection topology

5. Perfect sound quality on all 64 simultaneous interpretation channels

All channels (1 floor channel and 63 interpretation channels) support 48 kHz and 32 kHz audio sampling rate featuring perfect CD sound quality with a frequency of 30 Hz to 20 kHz at 48 kHz sampling rate.

6. Low power consumption design for congress units

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 paperless multimedia terminal) are supplied by the Congress 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 connection 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. (refer to section [5.1.1](#) connection principle).

7. Supports Dante protocol

Supports Dante protocol, an uncompressed, multi-channel digital media networking technology. “Line out 1” audio signal is available for transmission from HCS-8300MAD/FS/50 to other Dante compatible devices (such as PA, audio recorder, etc.). The audio signals of two venues are available for networking purposes via Dante with near-zero latency and synchronization, and without losing any sound quality.

8. Supports AES/EBU standard digital audio transmission protocol

HCS-8300MAU/FS and HCS-8300MAD/FS/50 have one set of AES IN and AES OUT interface, and can connect to AES/EBU compatible digital audio devices via XLR 3-cord shielded cable.

9. Full system backup

In HCS-8300 series, dual connection backup is implemented between the Congress Main Unit and the Congress Extension Main Unit via optical fiber and Cat.5 cable. Combining a) dual Congress Main Unit hot spare function, b) dual PC server hot spare function and c) "Closed Loop - Daisy Chain" connection topology between Congress Units, full system backup is realized to improve system reliability.

10. System power management by central control system

The power management protocol of HCS-8300 series Congress Main Unit is open, enabling remote switch on/off of power supply via RS-232 by a Central Control System.

11. Connection facility for additional condenser or dynamic microphones

In combination with HCS-8300MI series audio input interface, additional condenser microphones or dynamic microphones can be connected to the system (phantom power supply provided), expanding user's application spectrum.

12. Remote interpretation

In conjunction with a HCS-8300MI/MO and a telephone coupler, cost-saving remote interpretation function can be realized (Figure 1.1.12).

13. USB interfaces integrated in the congress main unit

USB interfaces are integrated in the Congress Main Unit for upgrading the system and saving system parameters. Convenient for system maintenance.

14. Fully compatible with TAIDEN HCS-4100 Fully Digital Congress System

HCS-8300 Series Paperless Multimedia Congress System is completely downward compatible to the TAIDEN HCS-4100/50 Fully Digital Congress System and features all its functions, e.g. conference sign-in, voting, simultaneous interpretation, video tracking, intercom, etc. Congress Units of the HCS-4100/50 series Congress System can be looped into a HCS-8300 Congress System. But some exclusive functions are only available on HCS-8300 contribution units. Likewise, Congress Units of the HCS-8300 Series Congress System can also be inserted into a HCS-4100/50 Fully Digital Congress System.

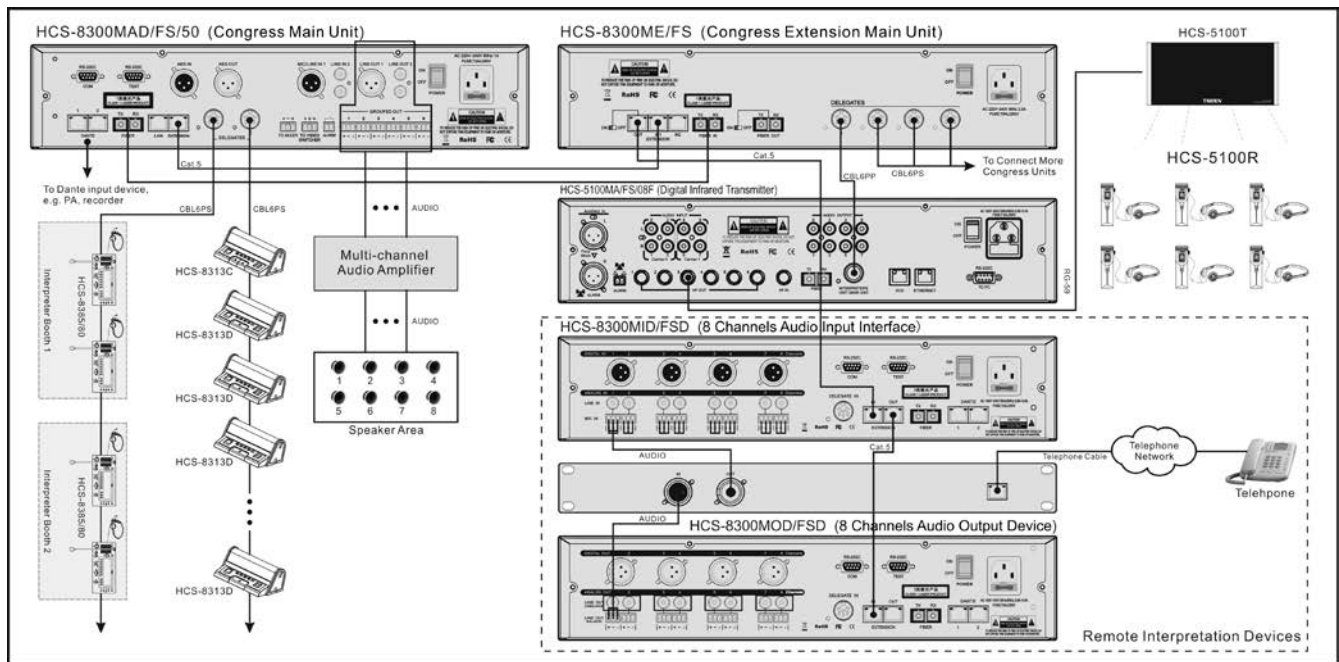


Figure 1.1.12 Remote interpretation

1.2 System equipment

1.2.1 Congress main unit (CMU)

The congress main unit forms the core of the entire congress system. It provides power supply to contribution units and serves as key component to link system hardware to application software. In stand-alone mode without a PC, the CMU carries out basic management facilities. By operating TAIDEN conference management software in PC-controlled mode, more comprehensive management facilities can be implemented.

1.2.2 Contribution units

Contribution units are units used by participants to contribute to a congress and include: discussion unit (chairman/delegate), voting unit, channel selector, etc. A discussion unit - chairman or delegate unit with discussion facility - is the important component of the HCS-8300 system. The basic contribution unit offers basic facilities (discussion/voting/channel select, etc). The upgraded units consist of a combination of discussion, voting and channel select facility, furthermore: built-in loudspeaker, IC-card reader, fingerprint identification and graphic 256x32 LCD with back-lighting - forming a wide variety of product series. The unit with the graphic LCD is able to receive short messages and to display conference related information. Chairman unit has microphone priority and some unique facilities concerning conference management. In addition, **TAIDEN** developed the multimedia congress terminal, which offers a variety of video, file and data service features.

1.2.3 Interpreter unit

The Interpreter unit is equipped with a bright graphic LCD with backlighting, an IC-card reader, a channel selector, a built-in loudspeaker, a pluggable microphone, headphone sockets, etc. It supports direct and relay interpretation (with auto-relay facility) operation mode and optional voice input/output modes, simplifying interpreter's work remarkably.

1.3 Application software

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

TAIDEN conference management software is a modular software with various functional modules:

- Basic System Setup Management Software Module
Including venue designer, conference management, conference main unit configuration, contribution unit configuration, information display, system detection, system report, and user management, etc
- Professional Venue Design Software Module
- Microphone Management Software Module
- Voting Management Software Module
- Video Control Software Module
- Simultaneous Interpretation Software Module
- Intercom Software Module
- Synchronous Audio Recording Management Software Module
- Multi-User Conference Control Software Module
- Dual PC Server Hot Spare Software Module
- Agenda Control Software Module
- Dual System Main Unit Hot Spare Software Module
- Touched/Contactless IC-Card Sign-in Management Software Module
- Fingerprint Identification Management Software Module
- CongressMatrix Software Module
- Congress Service Management Software Module
- Video Service Software Module
- File Management Software Module
- Nameplate Design Software Module
- Digital HD Video Recording Management Software Module
- Rooms & Booths Combine Control Software Module
- Electronic Nameplate Management Software Module

1.4 Functions and features

- Especially designed for high-level meetings, such as Summits, congresses, conventions, parliaments and city councils
- The first Paperless Multimedia Congress System in the world
- Based on TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, hacker-proof, safe and reliable
- Paperless Multimedia Congress Terminal - equipped with a 14" (1920X1080) HD TFT LCD touch panel, realizes paperless meetings, various HD video services, interactive conference control functions (speech, voting, 64 CHsX2) and conference services, etc.
- Stylish and ergonomic design with an ultra-thin 6.5 mm screen
- Capacitive touch panel supporting multi-touch, convenient and efficient for operation
- Built-in 8-megapixel camera with flashlight, ingenious video conversation function
- Based on TAIDEN originated GMC-STREAM Gigabit Multimedia Congress Stream technology, all audio and video signals are transmitted via a Cat.5e/Cat.6 cable. GMC-STREAM fully guarantees the real-time performance and stability of the important data stream of the meeting, such as audio, voting information, and control information
- Based on ingenious CongressMatrix™ technology, integrated n×8 audio matrix processor to realize 8 channels group output function
- E-ink nameplate can be connected (available on models with "-NP" as suffix)
- Flush-mounted model comes with electric flip-up and angle adjustment (HCS-8368A/FM/50)
- Tabletop (HCS-8368/50)
- Array microphone (HCS-8368A/50)
- Increased reliability with "Closed Loop - Daisy Chain" connection topology
- 48 kHz audio sampling, 64 audio channels, each with a 30 Hz to 20 kHz frequency response for perfect sound quality
- Low power consumption design
- Supports Dante protocol to connect to peripheral digital devices with near-zero latency and synchronization, and without losing any sound quality
- Equipped with optical fiber interface to combine two widely separated conference rooms to form one unique coherent system
- Dual connection backup via optical fiber and Cat.5 cable between Congress Main Unit and Congress Extension Main Unit
- System power controllable by central control system
- Supports combining and separating conference rooms
- Booth combination & share system
- Connectable to multi channel audio input or output devices for versatile expansion of the system
- Connection facility for additional condenser or dynamic microphones, expanding user's application spectrum
- Integrated USB interfaces in the Congress Main Unit for system upgrading and saving system parameters. Convenient for system maintenance
- Downward compatible with TAIDEN HCS-4100/50 Fully Digital Congress System

Chapter 2 Congress main unit (CMU)

The congress main unit (CMU) forms the core of the HCS-8300 Series Paperless Multimedia Congress System. It provides power supply to contribution units and serves as the key component to link up hardware with application software. In stand-alone mode without a PC, the CMU carries out basic management facilities; Comprehensive management facilities can be implemented in PC-controlled mode.

The following devices can be controlled by the CMU: discussion unit(chairman unit/delegate unit), voting unit, Interpreter unit, video switch for automatic video tracking, etc. By cascade connecting EMUs, HCS-8300 system can reach its maximum capacity: 378 simultaneous Interpreter units, 4096 discussion/voting units and an infinite number of channel selectors.

The maximum system capacity is 378 Interpreter units, 4096 discussion/voting units and any number of channel selectors.

Product types:

HCS-8300MAD/FS/50

Fully Digital Congress System Main Unit (discussion, voting, 64 CHs, 256x32 LCD, MIC. group outputs, AES/EBU digital input/output, To Mixer interface, single-mode optical fiber interface, Dante interface)

HCS-8300MB/50

Fully Digital Congress System Main Unit (discussion, voting, 64 CHs, 256x32 LCD, MIC. group outputs)

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

HCS-8300MES

Fully Digital Congress System Extension Unit

2.1 Fully Digital Congress System Main Unit

2.1.1 Functions and instructions

2.1.1.1 Front panel

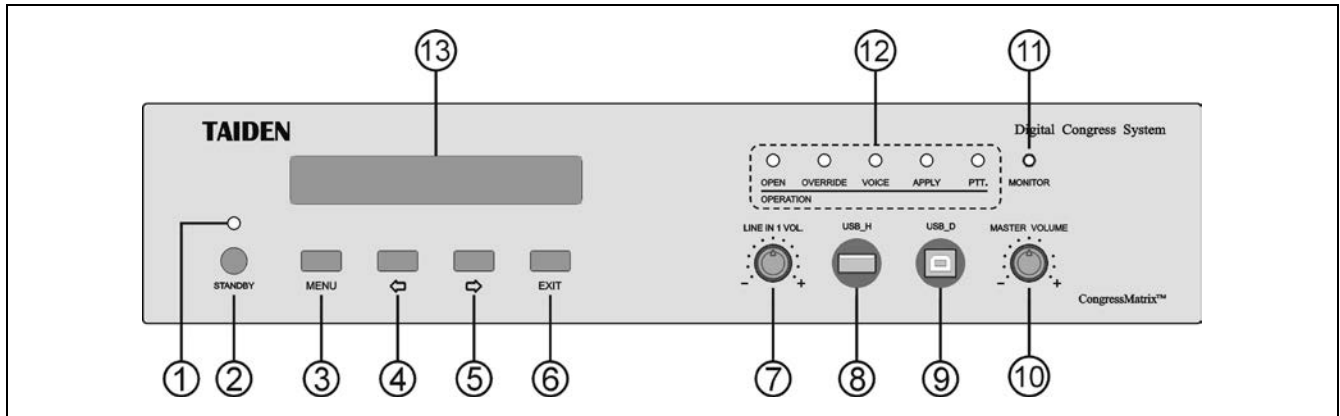


Figure 2.1.1 Front panel of HCS-8300M CMU

Figure 2.1.1

1. Power light

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

2. “STANDBY” button

3. “MENU” button

- a. The LCD displays the initial user interface: press this button to enter the LCD set-up menu;
- b. The LCD displays the set-up user interface: press this button to select the highlighted item or enter the submenu;
- c. 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 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 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 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

- 256×32 LCD displays main unit status and configuration menu.

2.1.1.2 Backside

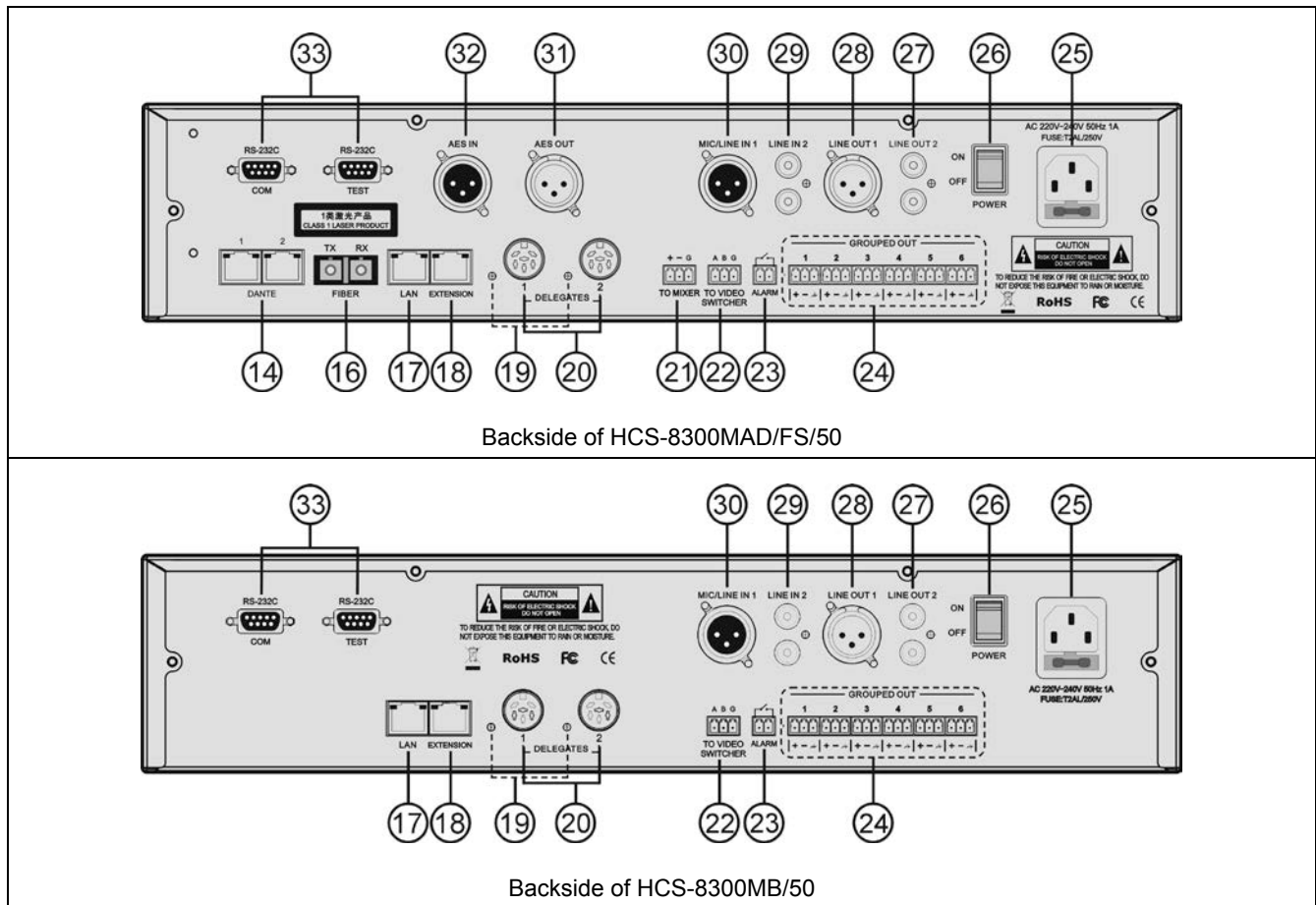


Figure 2.1.2 Backside of HCS-8300M CMU

Figure 2.1.2

14. Dante interface

- Connecting the conference main unit to the Dante network to transmit input and output audio signals;
- Primary port: Dante2.

16. 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).

17. 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.

18. Extension interface

- To interconnect CMU, EMUs, audio input interfaces and audio output devices – units already prepared for cascade connecting.

19. Contribution units (CU) connection LED

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

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

21. TO MIXER

- Connect to HCS-8301MD Digital Audio Mixer for Conference.

22. Video switch interface

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

23. Fire alarm linked trigger interface

- +5 V voltage application** : all congress units will be switched off and display “ALARM”;
- No voltage input or too low voltage**: congress units will return to the status preceding “ALARM”.

24. Group output interface (1-6, six groups)

25. Power supply

26. Mains switch

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

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

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

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

31. AES OUT

32. AES IN

33. 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.

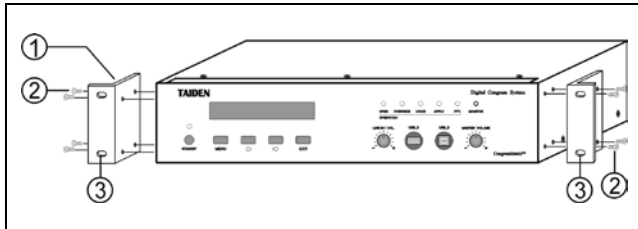


Figure 2.1.3 Installation of the CMU

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.

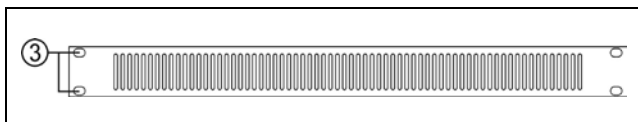


Figure 2.1.4 Decoration of cabinet

2.1.3 Connection

2.1.3.1 To contribution units

HCS-8300 series CMU has 2 outlet (6P-DIN) trunk-line cable sockets for connecting to contribution units. HCS-8300 series contribution units (except paperless multimedia congress terminals) are equipped with a cable with a standard 6P-DIN male connector. When connecting the CMU to the contribution 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, a CBL6PS extension cable can be used. One end of this cable is equipped with a 6P-DIN male connector, the opposite end is equipped with a female connector. Just connect the female connector of the cable to the congress unit, and connect the male connector to the output of the main unit.

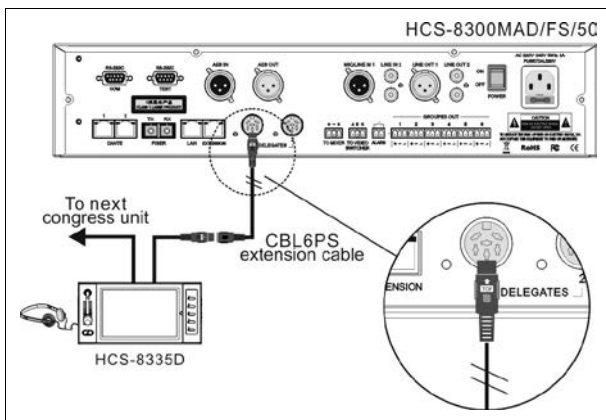


Figure 2.1.5 CMU connecting to contribution units

For “Closed Loop - Daisy Chain” ring connection, just connect the last contribution unit back to the CMU via a CBL6PP extension cable (both ends of this cable are equipped with a 6P-DIN male connector). In HCS-8300 Paperless Multimedia Congress System, only the congress main unit can realize a “Closed Loop - Daisy Chain” connection, the extension main unit does not have this feature.

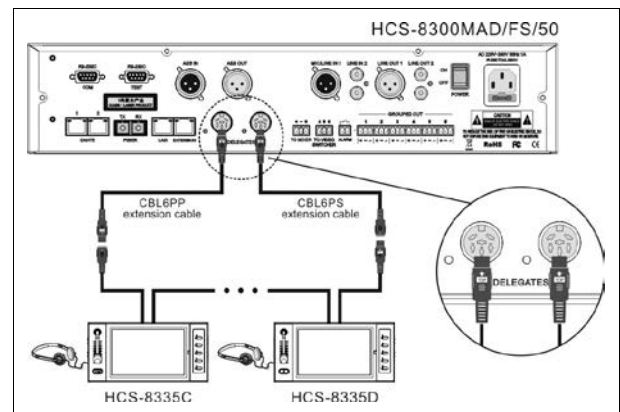


Figure 2.1.6 “Closed Loop - Daisy Chain” connection topology

In HCS-8300 PMCS, power is provided by HCS-8300M CMU (or EMU) for all congress units (except paperless multimedia congress terminals). 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. (refer to section 5.1.1 connection principles).

2.1.3.2 To PA

The CMU of HCS-8300 PMCS has an 8 audio groups output and can be directly connected to Multi Channel Audio Amplifier to amplify the speaker's voice. With “N-1” function, it is unlikely to produce howling.

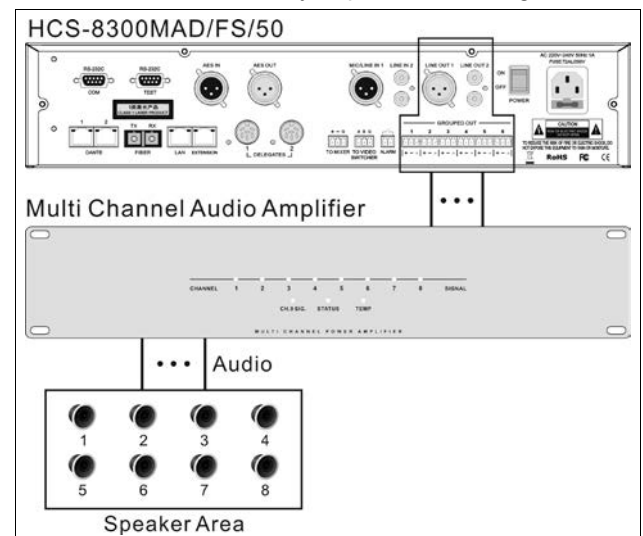


Figure 2.1.7 CMU connecting to PA

2.1.3.3 To fiber device

HCS-8300MAU/FS and HCS-8300MAD/FS/50 have a pair of fiber interfaces, and can be connected to HCS-4100MA/FS/50, HCS-8300 series CMU/EMU, audio input unit, audio output unit, and 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:

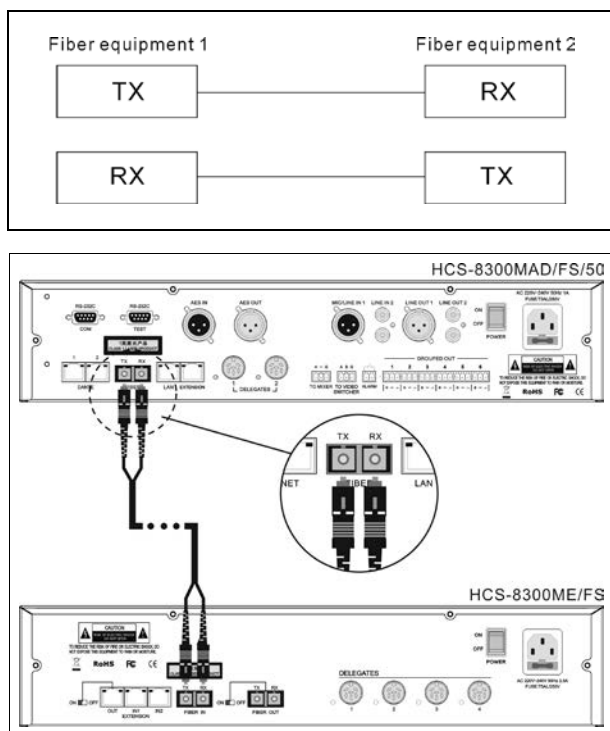


Figure 2.1.8 Connecting between CMU and EMU via optical fiber cable

2.1.3.4 To CobraNet/Dante device

CobraNet and Dante are both real-time transmission standard for transmitting digital audio and control data. HCS-8300MAU/FS has a pair of CobraNet interfaces, HCS-8300MAD/FS/50 has a pair of Dante interfaces, and can be connected to CobraNet/Dante devices through Cat.5 cable.

2.1.3.5 Connecting to AES/EBU standard digital audio devices

The full name of AES/EBU is Audio Engineering Society/European Broadcast Union, and has now become a popular standard of professional digital audio. AES/EBU is a serial bit transmission protocol to transmit digital audio data based on single twist pair. HCS-8300MAU/FS and HCS-8300MAD/FS/50 both have one set of AES IN and AES OUT interface, and

can connect to AES/EBU compatible digital audio devices via XLR 3-cord shielded 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:

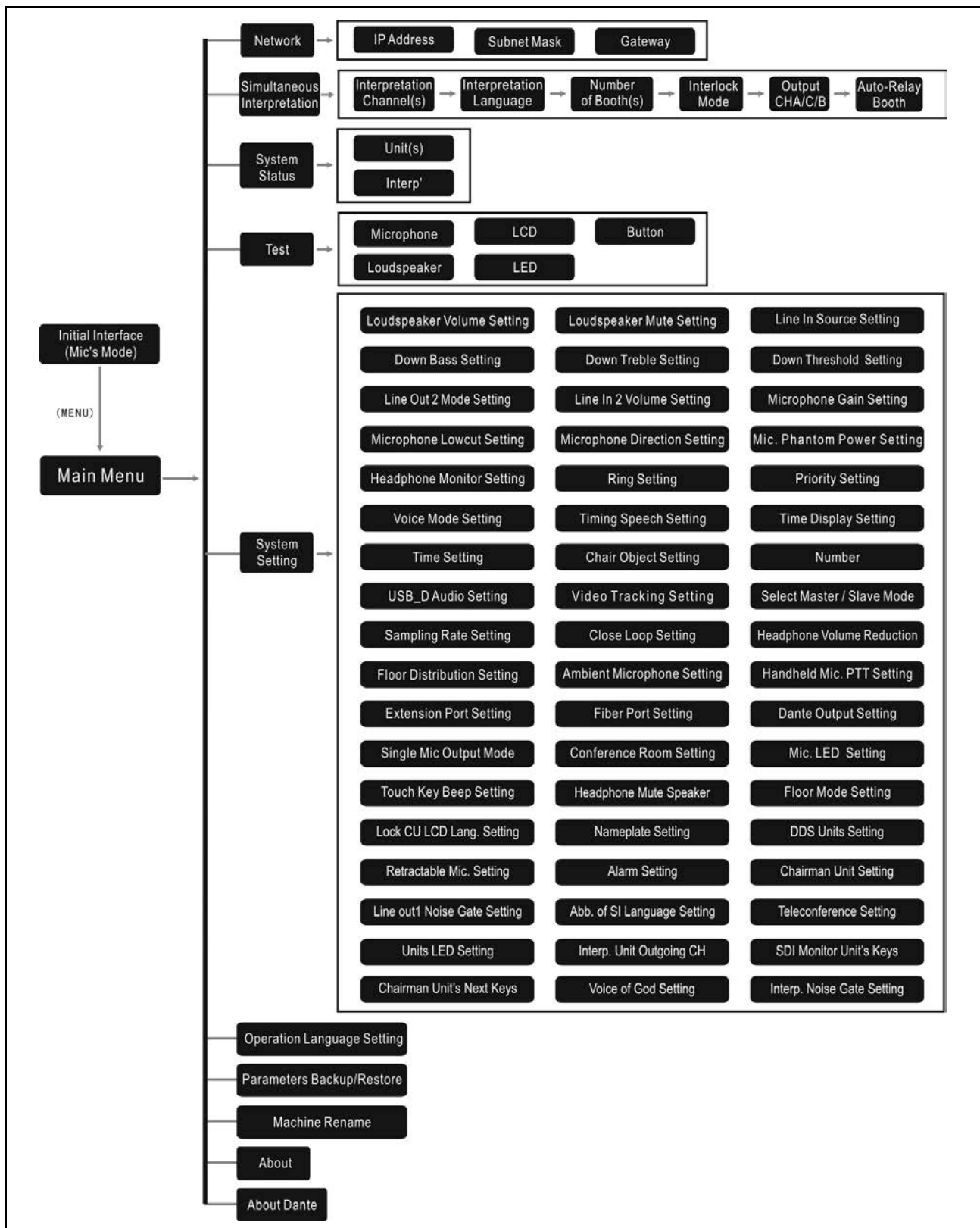
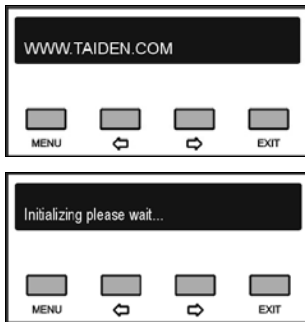


Figure 2.1.9 LCD menu structure of the CMU

A) Starting initialization

Switch on and press the “STANDBY” button, HCS-8300 CMU will start initialization:



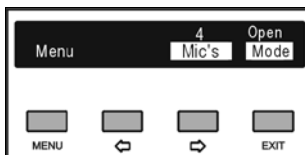
B) Initial interface on LCD

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 return to 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 first 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 ON/OFF button is released, the microphone will be deactivated.

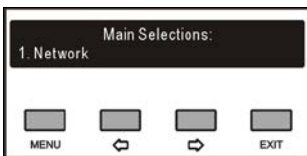
Note:

- ☞ **“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 the following menu items:

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



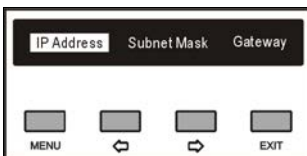
The current chosen term (e.g. “Network”) is highlighted.

- ◆ 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

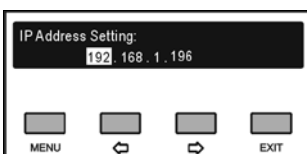
“Network” includes three submenus:

“IP Address”
“Subnet Mask”
“Gateway”



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

- 1). Select “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” to return to high level menu.

b). Setup “Subnet Mask” and “Gateway”

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

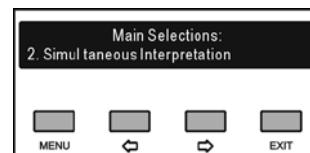
Note:

- ☞ 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 Setting” and “Cobranet Bundle Setting”, all other menu changes should be saved via pressing “MENU” button, pressing “EXIT” button will ignore the changes.

2.1.4.2 Simultaneous interpretation

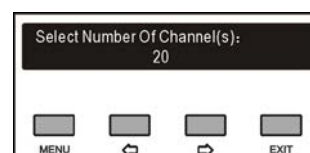
In “Simultaneous Interpretation” submenu, the following parameters need to be setup:

- ◆ “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:

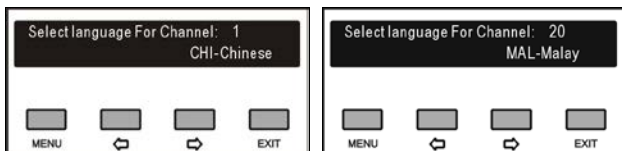
a). Setup the number of interpretation channels



Use the “←/→” button to switch between 0-63;

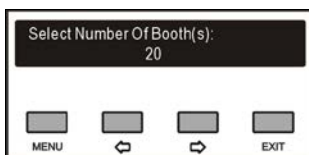
- If “0” is selected, it stands for no SI function, use the “MENU” button to save and return to main menu;
- If other values are selected, it stands for the number of interpretation channels, use the “MENU” button to go to step b).

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 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 between 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 main menu;
- If other values are selected, it stands for the number of interpretation booths, use the “MENU” button to go to step d).

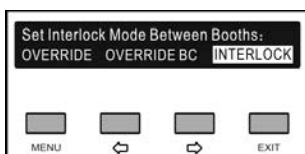
d). Select interlock mode between booths

Select interlock mode between booths, includes:

“OVERRIDE”

“OVERRIDE BC”

“INTERLOCK”



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

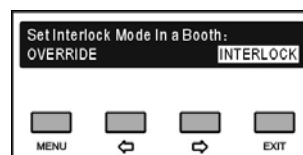
- “OVERRIDE” mode enables an interpreter in another booth to override an occupied channel in another booth, but supplying the same channel.
 - “OVERRIDE BC” mode enables A channel of an interpreter in another booth to override an occupied B/C channel in another booth, but supplying the same channel; 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 f).

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.

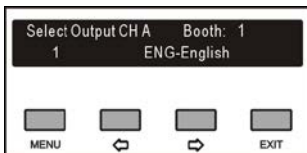
If NONE is selected for C then

4th step: select B: NONE or ALL

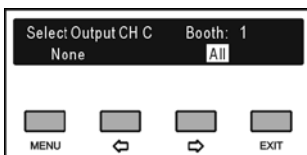
If NONE is selected for B only A outputs the selected language of step 1. B and C do not output languages

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

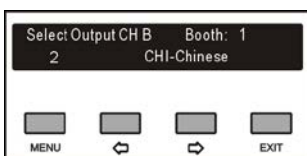
- 1). Setup channel A language for booth 1: press the “↔” button to select language from those languages that have been selected in step b) and press the “MENU” button to confirm;



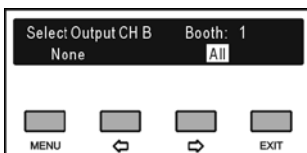
- 2). Select channel C language for booth 1: “NONE” or “ALL”;



- 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”;



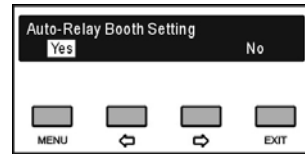
- “NONE” stands for no language output from channel B;
- “ALL” stands for the language of channel B which can be any of the selected languages.

Press the “MENU” button to confirm and go to configuration for next booth;

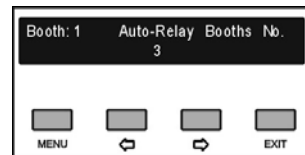
- 5). Repeat 1) - 2) to setup output channel A/B/C language for all booths and go to step g).

g). Auto-Relay booth Setting

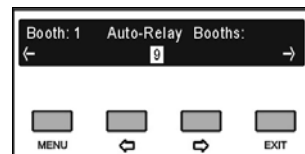
Setup Auto-Relay booth.



- 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:

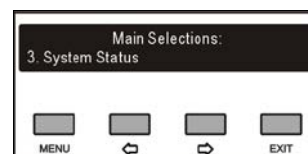
- ☞ If channel B and C of a booth have no output, this booth can not be set as auto-relay booth.

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

MENU

↔

↔

EXIT

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

MENU

↔

↔

EXIT

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

Channel	Not Engaged
CH1	

MENU

↔

↔

EXIT

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:

Channel	Gain	LF	MF	HF	Lowcut
CH1	+10dB	0dB	0dB	0dB	Off

MENU

↔

↔

EXIT

Under channel state interface, press the "MENU" button to select the channel number or parameter and press the "↔/↔" button to change the channel number or parameter.

2.1.4.4 Test

"Test" cannot work under "VOICE" and "PTT" mode, its submenu includes:

"Microphone"

"Button"

"LED"

"LCD"

"Loudspeaker"

Main Selections:			
4 Test			

MENU

↔

↔

EXIT

Microphone	LCD	Button
Loudspeaker	LED	

MENU

↔

↔

EXIT

1. Microphone

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

Microphone	8	Prev	Next
On			

MENU

↔

↔

EXIT

- The "↔/↔" button is used to run through all connected contribution units;
- The "MENU" button is used to switch the unit ON/OFF to check if it can be turned ON/OFF normally or not;
- After finishing the run, quit the interface by pressing the "↔" or the "EXIT" button.

2. LCD

- 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:

--	--	--	--

MENU

↔

↔

EXIT

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

--	--	--	--

MENU

↔

↔

EXIT

- 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.

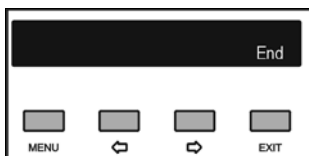
3. Key

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 contribution units will go to button test status;
- b). The button LEDs of all contribution units will blink and all the contribution units with LCD will prompt a hint, press all buttons in turn and test them;

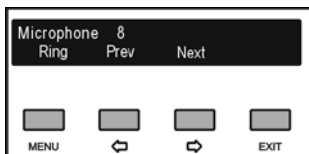


- c). When all keys are tested, press the “EXIT” button to return to upper menu.



4. Loudspeaker

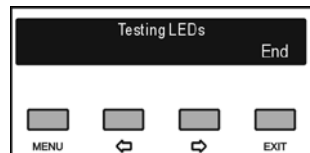
Press the “↔” button to select “Loudspeaker” and press the “MENU” button to enter loudspeaker test interface. If no discussion unit is connected, this interface is inaccessible.



- a). Press the “↔” button to run through all connected contribution 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 contribution 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 (indicating light) test interface, shown as the following figure. The LEDs (indicating light) on all connected contribution units will blink immediately.

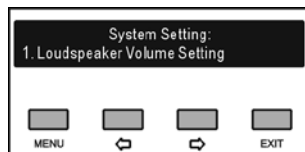


Press the “EXIT” button to exit LED test interface.

2.1.4.5 Setting

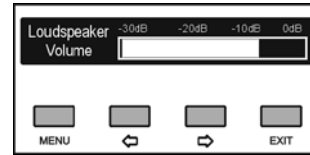
“Setting” submenu includes:

1. Loudspeaker Volume	2. Loudspeaker Mute
3. Line in Source Setting	4. Down Bass Setting
5. Down Treble Setting	6. Down Threshold Setting
7. Line Out 2 Mode Setting	8. Line in 2 Volume
9. Microphone Gain Setting	10. Microphone Lowcut
11. Microphone Direction	12. Mic. Phantom Power
13. Headphone Monitor Setting	14. Ring Setting
15. Priority Setting	16. Voice Mode Setting
17. Timing Speech	18. Time Display
19. Time Setting	20. Chair Object Setting
21. Number	22. USB_D Audio Setting
23. Video Tracking	24. Select Master/Slave Mode
25. Sampling Rate	26. Close Loop Setting
27. Headphone Volume Reduction	28. Floor Distribution
29. Ambient Microphone Setting	30. Handheld Mic. PTT Setting
31. Extension Port Setting	32. Fiber Port Setting
33. Dante Output Setting	34. Single Mic Output Mode
35. Conference Room Setting	36. Mic LED Setting
37. Touch Key Beep Setting	38. Headphone Mute Speaker
39. Floor Mode Setting	40. Lock CU LCD Lang. Setting
41. Nameplate Setting	42. DDS Units Setting
43. Retractable Mic. Setting	44. Alarm Setting
45. Chairman Unit Setting	46. Line out1 Noise Gate
47. Abb. of SI Language Setting	48. Teleconference Setting
49. Units LED Setting	50. Interp. Unit Outgoing CH
51. SDI Monitor Unit's Keys	52. Chairman Unit's Next Keys
53. Voice of God Setting	54. Interp. Noise Gate Setting



1. Loudspeaker Volume Setting

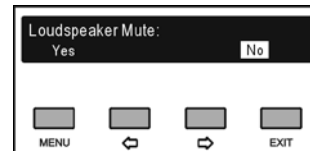
Adjust built-in loudspeaker volume of contribution units (except Interpreter units), range: -30 dB - 0 dB.



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

2. Loudspeaker Mute Setting

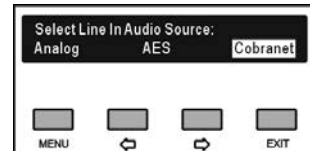
Mute/Not mute loudspeaker of contribution units (except Interpreter units).



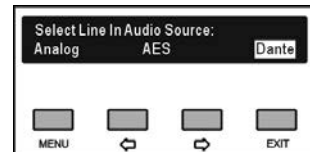
- Press the “←/→” button to select mute or not;
- Press the “MENU” button to save and return to upper level menu.

3. LINE IN Source Setting

Select line in source: Analog, AES, Cobranet/Dante.

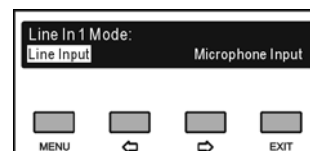


(HCS-8300MAU/FS)

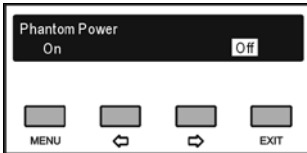


(HCS-8300MAD/FS/50)

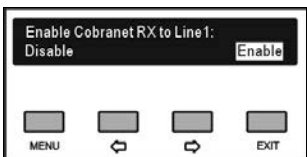
- Press the “←/→” button to select “Analog”, “AES” or “Cobranet/Dante”;
 - Select “Analog” and press the “MENU” button will go to step b);
 - Select “AES” and press the “MENU” button to save and return to upper level menu;
 - Select “Cobranet/Dante” and press the “MENU” button will go to step d);



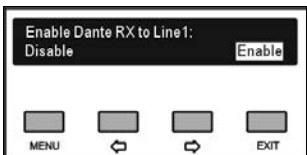
- b). Select LINE IN 1 mode from “Line Input” or “Microphone Input”. Press the “ $\leftrightarrow$ ” button to select “Line Input” or “Microphone Input”;
- Select “Line Input” and press the “MENU” button to save and return to upper level menu;
 - Select “Microphone Input” and press the “MENU” button will go to step c);



- c). Press the “ $\leftrightarrow$ ” button to select phantom power on/off, phantom power is used for connecting condenser microphone, and press the “MENU” button to save and return to upper level menu;



(HCS-8300MAU/FS)



(HCS-8300MAD/FS/50)

- d). Press the “ $\leftrightarrow$ ” button to select Enable/Disable Cobranet/Dante RX to line1;
- e). Press the “MENU” button to save and return to upper level menu.

Note:

☞ “down” and “downlink” used in 4./5. and 6. indicate the signal transmission direction from the congress main unit to the contribution units.

4. Down Bass Setting

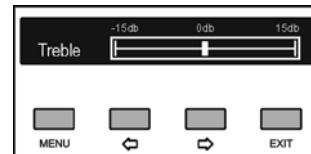
Adjust downlink bass of contribution units (except Interpreter units), range: -15 dB - 15 dB.



- a). Press the “ $\leftrightarrow$ ” button to adjust;
- b). Press the “MENU” button to save and return to upper level menu.

5. Down Treble Setting

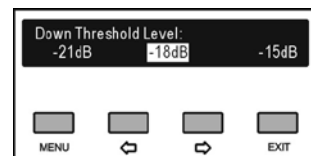
Adjust downlink treble of contribution units (except Interpreter units), range: -15 dB - 15 dB.



- a). Press the “ $\leftrightarrow$ ” button to adjust;
- b). Press the “MENU” button to save and return to upper level menu.

6. Down Threshold Setting

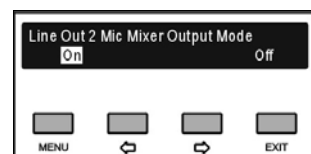
Setup downlink audio threshold level to make sure that the sound issuing from the built-in loudspeaker and the headphone of each congress unit has no distortion.



- a). Press the “ $\leftrightarrow$ ” button to select threshold level between -21 dB, -18 dB and -15 dB;
- b). Press the “MENU” button to save and return to upper level menu.

7. Line Out 2 Mode Setting

Set up line out 2 microphone output mode, mixer or not.



- a). Press the “ $\leftrightarrow$ ” button to select “On” or “Off”;
- b). 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.



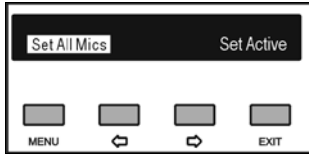
- a). Press the “ $\leftrightarrow$ ” button to adjust volume;
- b). Press the “MENU” button to save and return to upper level menu.

9. Microphone Gain Setting

“Microphone Gain Setting” includes two submenus:

“Set All Mics”

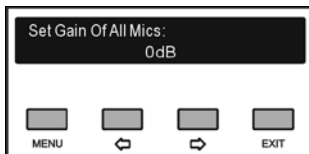
“Set Active”



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 mic. and switch on the next mic. and make the voice test again. Continue until the last mic. 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 upper level menu.

3rd step:

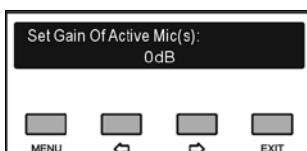
Now redo the test again as “Set All Mics” setting from step 2 does. Switch on any mic. as the first and check the sound result again.

If it is ok, then switch off the mic. and switch on the next mic.

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

Continue with the next mic.

♦ Set Active



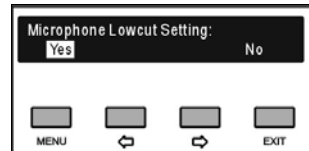
- Press the “←/→” button to adjust the gain of all microphones (press and hold the “←/→” button will adjust numeric value quickly), range: -15 dB - 15 dB;
- Press the “MENU” button to save and return to upper level menu.

10. Microphone Lowcut Setting

Activate 80 Hz (18 dB/octave) high-pass filter to cut low frequency elements from the microphone audio.

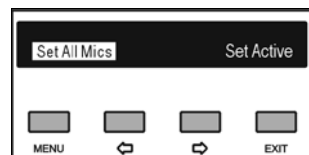


- Press the “←/→” button to select “Set All Mics” or “Set Active”;
- Press the “MENU” to confirm and go to step c);

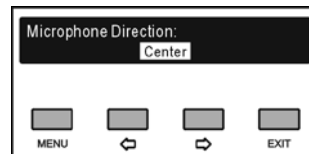


- Press the “←/→” button to select “Yes” or “No”;
- Press the “MENU” button to save and return to the upper level menu.

11. Microphone Direction Setting



- Press the “←/→” button to select “Set All Mics” or “Set Active” (for HCS-8315 series);
- Press the “MENU” to confirm and go to step c);

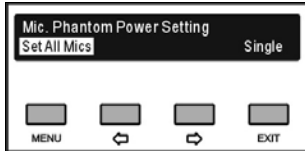


- Press the “←/→” button to select microphone direction, selectable value: Left, Center, Right;
- Press the “MENU” button to save and return to upper level menu.

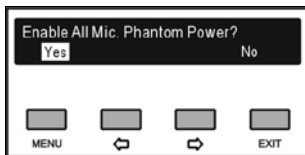
12. Mic. Phantom Power Setting

There are two menu items for phantom power setting of hand-hold microphone interface on multi-functional unit HCS-4340HDA/50P. This submenu is inaccessible if no phantom unit is connected.

“Set All Mics” “Single”

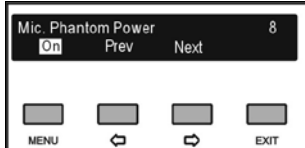


♦ Set All Mics



- Press the “←/→” button to select phantom power On/Off for condenser microphone;
- Press the “MENU” button to save and return to upper level menu;

♦ Single



- Press the “←/→” button to traverse all connected HCS-4340A/50P;
- Press the “MENU” button to select phantom power On/Off;
- Press the “EXIT” button to exit after setting.

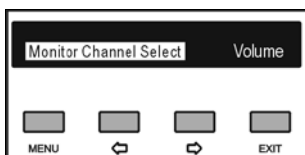
13. Headphone Monitor Setting

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”

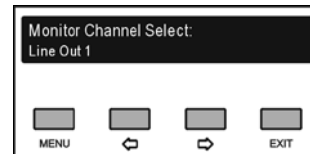
“Volume”



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

♦ Monitor Channel Select

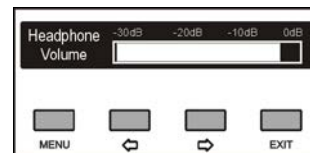
Monitor Channel Select includes: group output 1-6, line output 1-2.



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

♦ Volume

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



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

14. Ring Setting

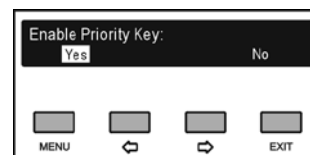
Select ring tone on/off when request to speak, chairman priority button pressed, timing speak or request to intercom.



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

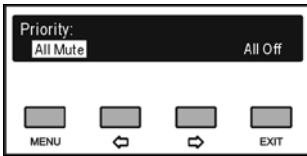
15. Priority Setting

Select enable/disable chairman priority button.



- Press the “←/→” button to select enable/disable chairman priority button;

- If “No” is selected, press the “MENU” button to confirm and return to upper level menu;
- If “Yes” is selected, press the “MENU” button to confirm and go to step b);



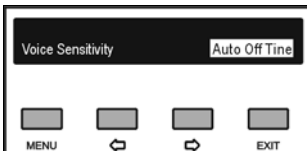
- b). Press the “↔” button to select priority mode between “All Mute” and “All Off”;
- **“All Mute”**: when chairman presses and holds the “Priority” button, all active delegate microphones (except VIP units) will mute temporarily; when chairman releases the “Priority” button, all temporarily muted microphones 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 upper level menu.

16. Voice Mode Setting

“Voice Mode Setting” includes two submenus:

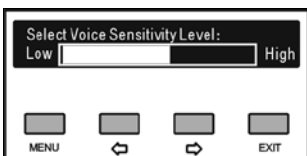
“Voice Sensitivity”

“Auto Off Time”



♦ Sensitivity

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

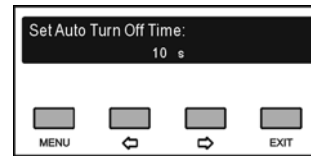


- a). Press the “↔” button to set microphone sensitivity;
- b). Press the “MENU” button to save and return to upper level menu.

♦ Auto Off Time

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

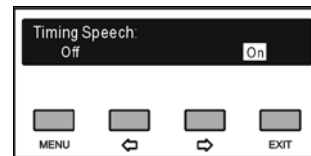
automatically.



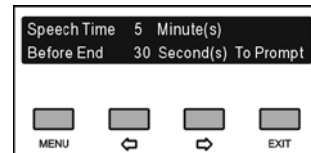
- a). Press the “↔” button to set auto off time (press and hold the “↔” button will adjust numeric value quickly), range: 300 ms /600 ms /1 s - 15 s;
- b). Press the “MENU” button to save and return to upper level menu.

17. Timing speech setting

Set timing speech, range: 1-240 minutes.



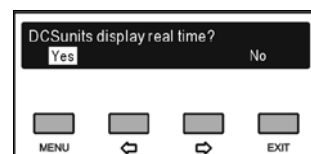
- a). Press the “↔” button to set timing speech on/off:
- If “Off” is selected, press the “MENU” button to confirm and return to upper level menu;
 - If “On” is selected, press the “MENU” button to confirm and go to step b);
- b). Press the “↔” button to switch between “Speech time” and “Prompt time”;



- c). Press “MENU” to select “Speech time ...(minutes)” or “Before End ... Second(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 upper level menu.

18. Time Display Setting

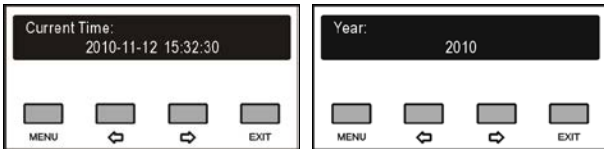
Display or do not display time on the LCDs of the contribution units.



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

19. Time Setting

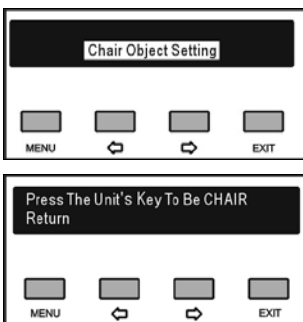
Set system clock.



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

20. Chair Object Setting

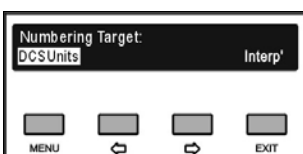
Assigning the chairman/delegate unit (except multimedia terminal) with an LCD as the congress host. When an interpreter presses the “CALL” button on his/her interpreter unit, he/she sets up intercom with the assigned congress host.



- Press the “MENU” button to enter chair object setting and to assign any chairman/delegate unit with LCD as the congress host;
- 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;
- Press the “MENU” button to save and return to the upper level menu.

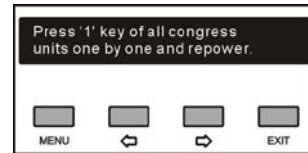
21. Number

Numbering for DCSUnits and Interpreter units.

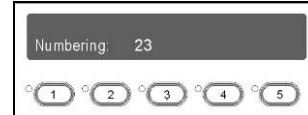


◆ DCSUnits

- 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.



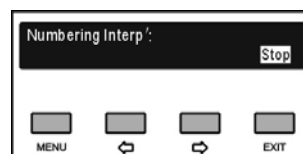
- Press the “1” button on all contribution units one by one to number them;
- When all contribution units are numbered, restart the CMU to update the number.

Note:

- To update the number the CMU must be restarted after the numbering;
- HCS-8300 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 (only for HCS-4385U/50)

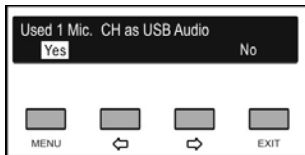
- Enter “Interp”, all the interpreter units enter numbering status, and the ‘B’ indicator light was turned on, the LCD of the main unit is shown as following:



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

22. 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.



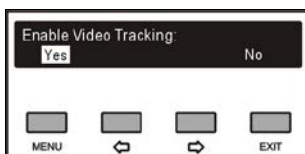
- Press the “←/→” button to select “Yes” or “No”;
- Press the “MENU” button to save and return to upper level menu.

Explanation:

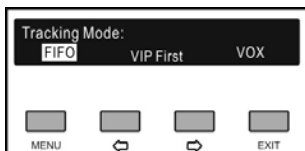
- The audio signal from main unit to PC is the mixing of all input signals except USB audio from PC; if teleconference enabled, the mixing signal does not yet contain the audio signal of Line in1;
- The audio signal from PC to main unit cannot be transmitted to the far end via HCS-8300MO.

23. Video Tracking Setting

Enable/disable video tracking function.



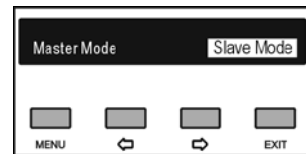
- Press the “←/→” button to select “Yes” or “No”;
 - If “No” is selected, press the “MENU” button to confirm and return to upper level menu;
 - If “Yes” is selected, press the “MENU” button to go to step b);



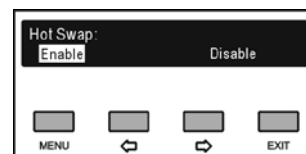
- Press the “←/→” button to select “FIFO” or “VIP first”;
 - “FIFO” is selected: when current video tracking microphone is deactivated, video camera will turn to last active microphone automatically;
 - “VIP First” is selected: when current video tracking microphone is deactivated, video camera will 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;
- Press the “MENU” button to save and return to upper level menu.

24. Select Master/Slave Mode

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



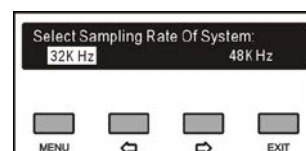
- Press the “←/→” button to select “Master” or “Slave”.
 - If “Master Mode” is selected, press the “MENU” button to confirm and return to upper level menu;
 - If “Slave Mode” is selected, press the “MENU” button to confirm and go to step b);



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

25. Sampling Rate Setting

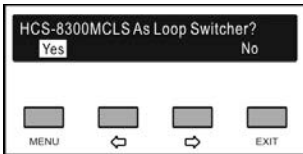
Select sample rate between 32 kHz and 48 kHz. If “48 kHz” sampling frequency is selected, the system response frequency is 30 Hz - 20k Hz; if “32 kHz” sampling frequency is selected, the system response frequency is 30 Hz - 16 kHz.



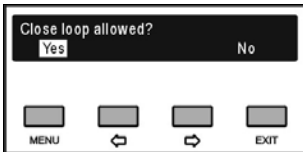
- Press the “←/→” button to select “32 kHz” or “48 kHz”;
- Press the “MENU” to save and return to upper level menu.

26. Close Loop Setting

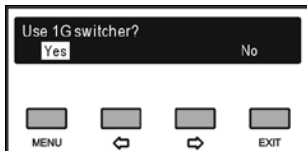
Enable/disable ring connection.



- 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, press “MENU” button to confirm and go to step b);

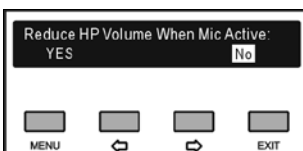


- b). Press the “←/→” button to select “Yes” or “No”;
- If “No” is selected, only “daisy chain” connection can be used;
 - If “Yes” is selected, “Closed Loop” connection or “daisy chain” connection can be used, press “MENU” button to confirm and go to step c), to select “Use Gigabit Network Switcher or not”, this option is accessible only for Paperless Multimedia Congress Terminal;



- c). Press the “←/→” button to select “Yes” or “No”;
- If “No” is selected, only “daisy chain” connection can be used;
 - If “Yes” is selected, “Closed Loop” connection or “daisy chain” connection can be used;
- d). Press the “MENU” to save and return to upper level menu.

27. Headphone Volume Reduction

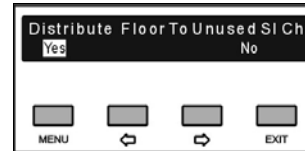


If a headphone is plugged howling may happen when the microphone is activated. “Headphone volume reduction” function is used to suppress howling. If enabled, the headphone audio signal will decrease automatically by 18 dB.

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

28. Floor Distribution Setting

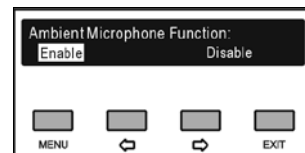
Enable/disable switch to floor channel automatically when no interpretation channel is available.



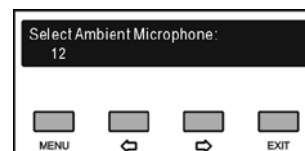
- a). Press the “←/→” button to select “Yes” or “No”;
- b). Press the “MENU” to save and return to upper level menu.

29. Ambient Microphone Setting

Enable/disable ambient microphone.



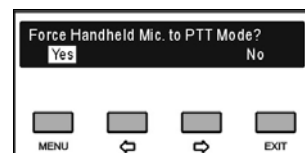
- a). Press the “←/→” (left/right) button to select enable/disable;
- If “Disable” is selected, press the “MENU” button to disable ambient microphone;
 - If “Enable” is selected, press the “MENU” button to confirm and go to step b);



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

30. Handheld Mic. PTT Setting

Setup PTT mode for handheld microphone.

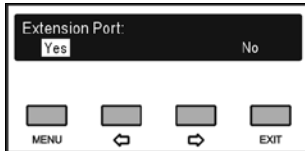


- a). Press the “←/→” button to select “Yes” or “No”;
- If “Yes” is selected, force handheld microphone to PTT mode;

- If “No” is selected, handheld microphone works the same as the stem microphone;
- b). Press the “MENU” button to save and return to upper level menu.

31. Extension Port Setting

Enable/disable extension port on the backside of the CMU.



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

32. Fiber Port Setting

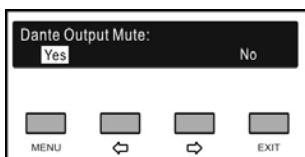
Enable/disable fiber port on the backside of the CMU.



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

33. Dante Output Setting

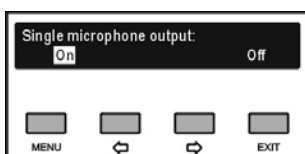
Mute dante output or not.



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

34. Single Mic Output Mode

Set up single microphone output mode.



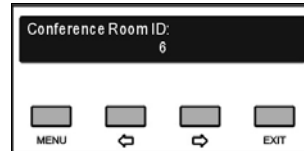
- a). Press the “←/→” button to select “On” or “Off”, When selected “On”, microphone 1~6 was transmitted to group out 1~6 respectively. It is used

for microphone recording, and under this mode, the mixer and group out volume adjusting are unavailable;

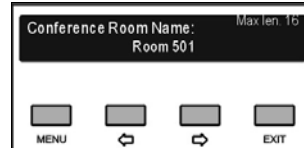
- b). Press the “MENU” button to save and return to the upper level menu.

35. 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;



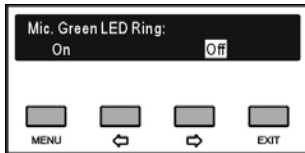
- Press the “MENU” button to enter the name setting interface, the cursor blinks under the first character;
 - Press the “←/→” button to move the cursor;
 - Press the “MENU” button to modify the character;
 - Press the “←” button to clear all the characters after the cursor;
 - press the “→” button to 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.

36. Mic. LED Setting

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

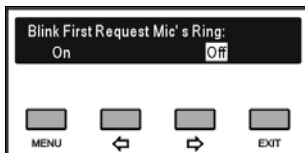


- a). Press the “←/→” button to select “On” or “Off”;
- If “On” is selected, the green illuminated ring will indicate the applying status;
 - If “Off” is selected, the green illuminated ring gives no indication;

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).



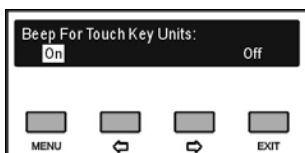
- c). Press the “←/→” button to select “On” or “Off”;
- If “On” is selected, the green illuminated ring will blink when the unit is the first in the request list;
 - If “Off” is selected, the green illuminated ring will keep on;
- d). Press the “MENU” button to save and return to the upper level menu.

Note:

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

37. Touch Key Beep Setting

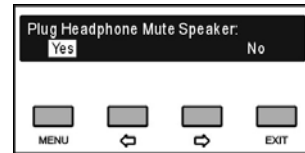
Enable/disable touch key beep for HCS-4338/50 series congress unit.



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

38. Headphone Mute Speaker

Set the work mode between loudspeaker and headphone.



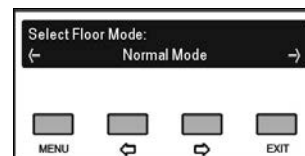
- a). Press the “←/→” button to select “Yes” or “No”;
- If select “Yes”, the loudspeaker was muted when plugged headphone;
 - If select “No”, the loudspeaker and the headphone can work at the same time, the loudspeaker sends out the floor channel only and the headphone sends out the floor channel and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

39. Floor Mode Setting



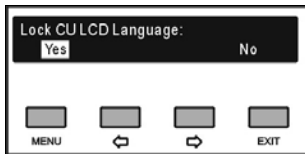
- a). Press the “←/→” button to select floor mode;
- **Normal Mode:** the signal on LineIn1 and LineIn2 of the CMU are added to the floor signal, see figure 2.1.10;
 - **Insert Mode:** the signal on LineIn2 of the CMU is used as floor signal, see figure 2.1.11. LineIn2 of the CMU is used to add signal 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.

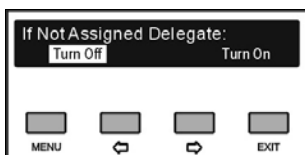
40. Lock CU LCD Lang. Setting



- a). Press the "↔" button to select "Yes" or "No";
 - If select **"Yes"**, operation language of congress unit (excl. Paperless Multimedia Congress Terminal) and interpreter unit cannot be changed;
 - If select **"No"**, operation language of congress unit (excl. Paperless Multimedia Congress Terminal) and interpreter unit can be changed;
- b). Press the "MENU" button to save and return to the upper level menu.

41. Nameplates setting

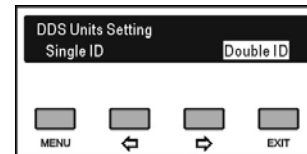
Select turn on the HCS-1030 electronic nameplate or not which is not assigned delegate unit.



- 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.

42. DDS Units Setting

Set work mode for HCS-XXXXDDS:



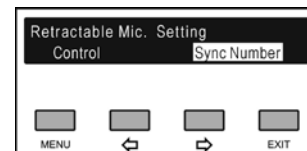
- a). Press the "↔" button to select "Turn Off" or "Turn On";
 - **Single ID**: one HCS-XXXXDDS owns one ID and dual predefined positions; two delegates may share one unit;
 - **Double ID**: one HCS-XXXXDDS owns double IDs and each predefined position for each ID; two delegates may share one unit;
- b). Press the "MENU" button to save and return to the upper level menu.

Note:

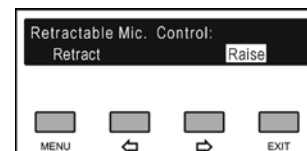
☞ Please restart the CMU to enable the DDS units setting.

43. Retractable Mic. Setting

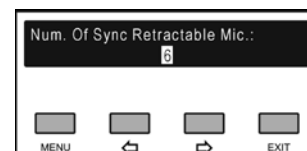
Control (retract/raise) the array microphone of HCS-4851/50 series; control (retract/raise) the congress multimedia of HCS-8368A/FM/50 series.



- 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";

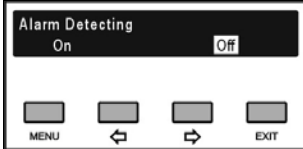


- c). Press the "↔" button to set sync number from 1 to 6;

- d). Press the “MENU” button to confirm the operation and return to the upper level menu.

44. Alarm Setting

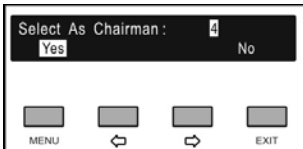
Enable the “ALARM” interface in the backside of HCS-8300M series congress unit.



- a). Press the “ $\leftrightarrow$ ” 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.

45. Chairman Unit Setting

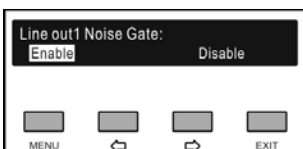
System supports up to 100 chairman units, while all or part chairman units have the chairman control facilities, so we can set the chairman unit (according to the order of unit’s ID) with control facilities or not through the submenu.



- a). Press the “ $\leftrightarrow$ ” 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.

46. Line out1 Noise Gate Setting

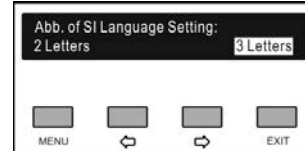
Enable Line out1 noise gate to reduce background noise.



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

47. Abb. of SI Language Setting

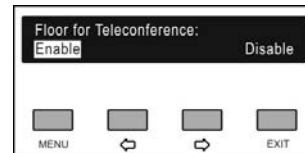
Set the abbreviation of SI Language which displayed on the HCS-8385/80 interpreter unit.



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

48. Teleconference Setting

Enable or Disable floor for teleconference.



- a). Press the “ $\leftrightarrow$ ” button to select “Enable” or “Disable”;

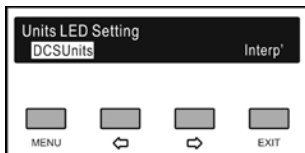
If enable, the main unit transmits a floor audio signal without LINE IN1 to the HCS-8300MO, when no interpretation channels available, HCS-8300MO plays the the floor audio signal without LINE IN1.
- b). Press the “MENU” button to confirm the operation and return to the upper level menu.

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”.

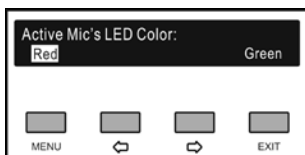
49. Unit LED Setting

Set congress units’ LED color when microphone is active; enable/disable green LED of the HCS-8385/80 interpreter unit.

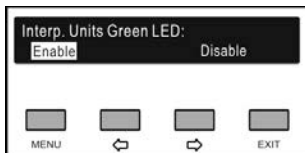


- a). Press the “←/→” button to select “DCSUnits” or “Interp”;

 - 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-8385/80;
- 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.

50. Interp. Unit Outgoing CH

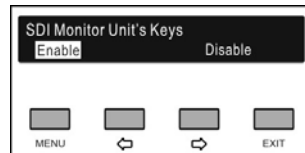
Switch outgoing channel when interpreter unit microphone is active.



- 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.

51. SDI Monitor Unit's Keys

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

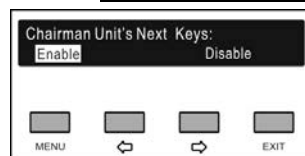


- a). Press the “←/→” button to select “Enable” or “Disable”;
- b). Press the “MENU” button to confirm the operation and return to the upper level menu.

52. Chairman Unit's Next Keys

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

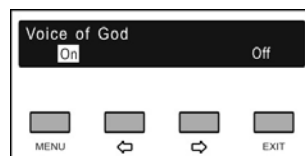
Reject applying	⬠ key
Approve applying	↻ key



- 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.

53. Voice of God Setting

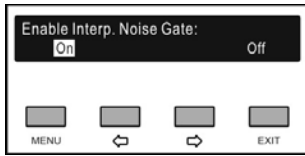
Output interpreter voice to floor channel or not when interpreter speaks by pressing button “C”. If enable “Voice of God” function, Call function is unavailable.



- 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.

54. Interp. Noise Gate Setting

Enable noise gate for HCS-8385/80 interpreter unit to reduce noise input.



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

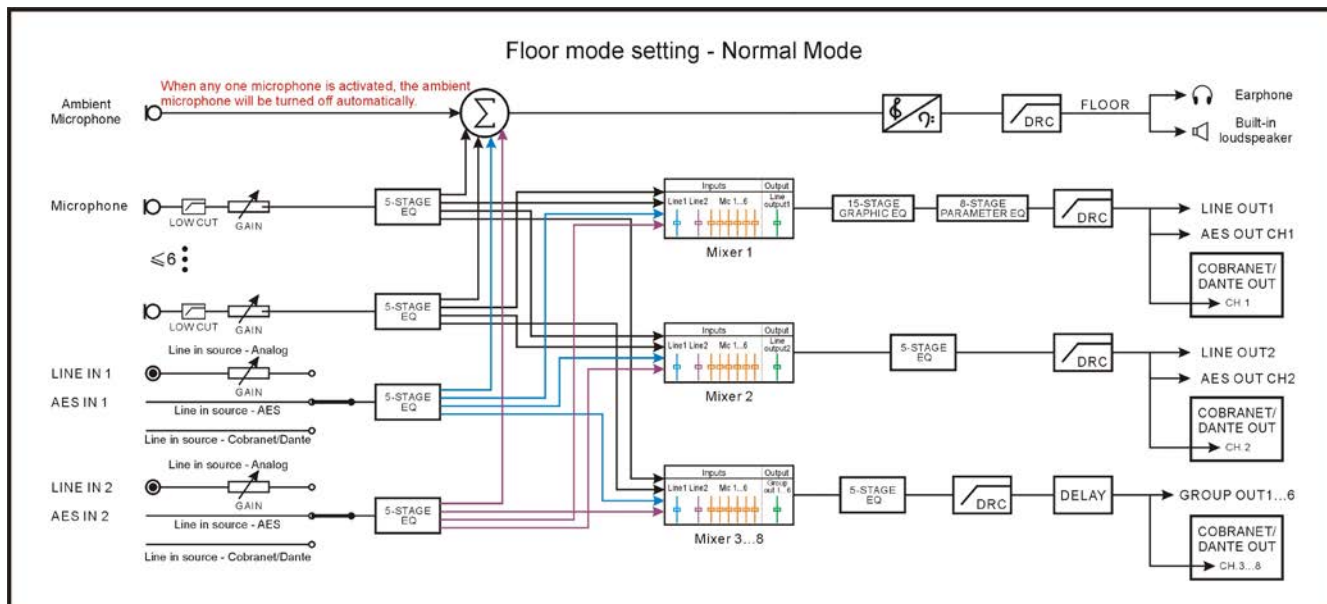


Figure 2.1.10 Floor mode setting – Normal Mode

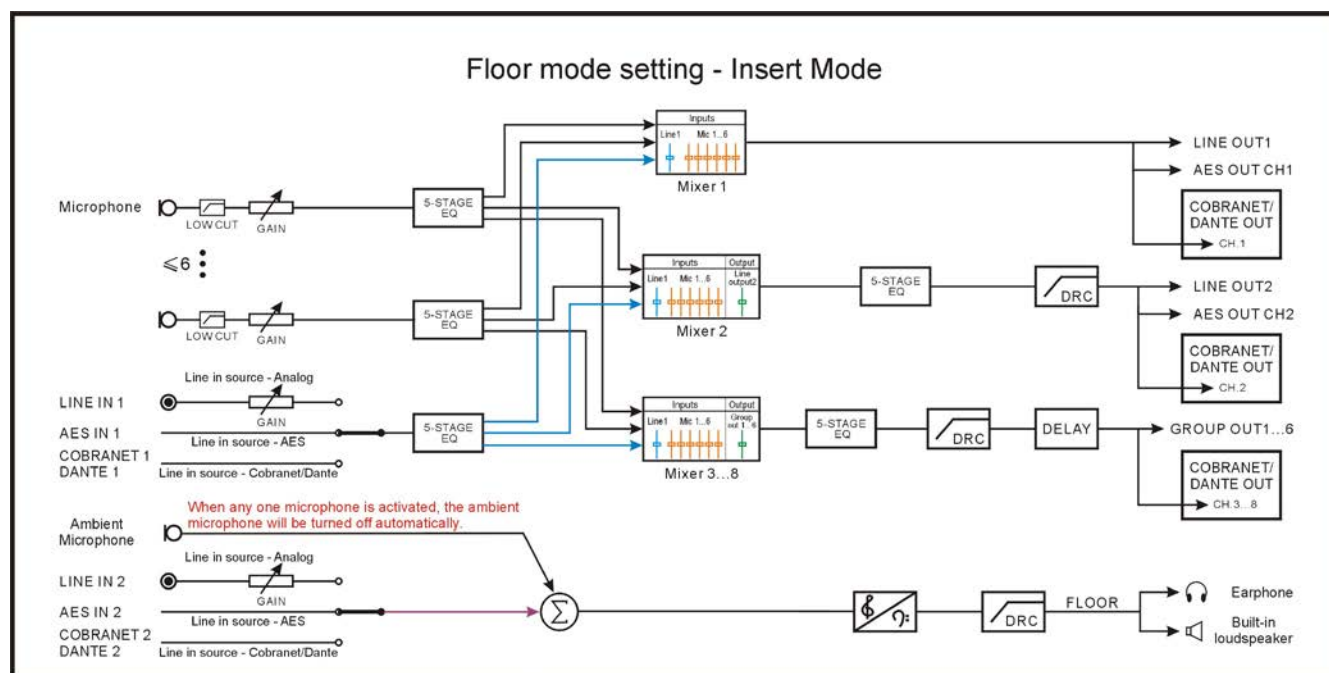


Figure 2.1.11 Floor mode setting – Insert Mode

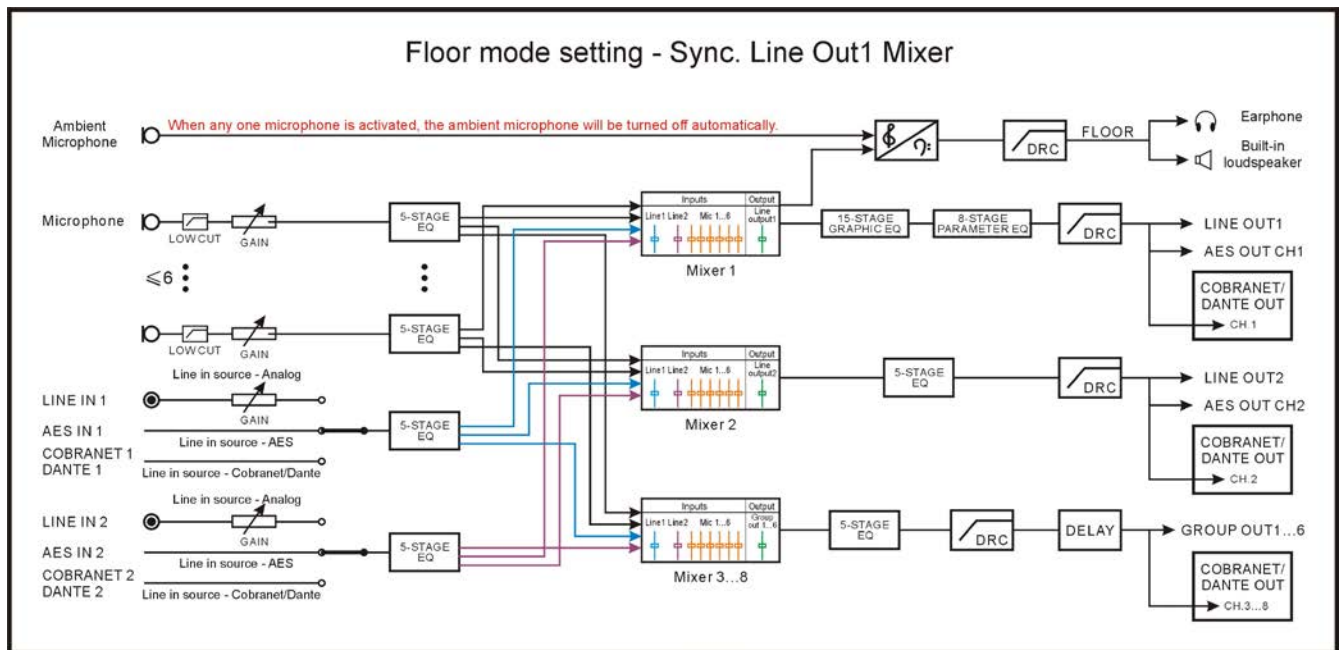


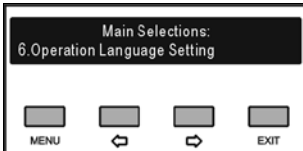
Figure 2.1.12 Floor mode setting – Sync. Line Out1 Mixer

Note:

HCS-8300MAU/FS: supports cobranet protocol;

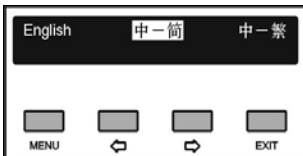
HCS-8300MAD/FS/50: supports dante protocol.

2.1.4.6 Operation Language Setting



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

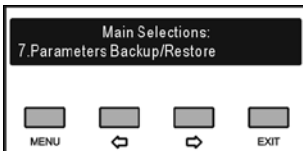
Select language:



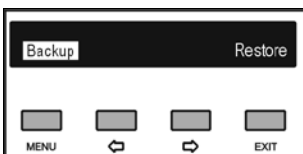
- Press the “←/→” button to select LCD display language;
- Press the “MENU” button to save and return to upper level menu.

2.1.4.7 Parameters 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.”



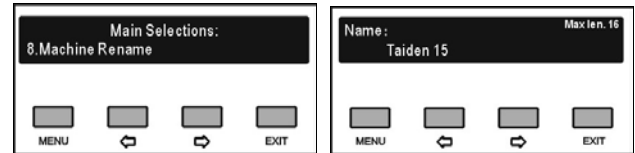
- Press the “←/→” button to select “Backup” or “Restore”;
 - If “Backup” is selected, system parameters can be backed up;
 - If “Restore” is selected, system parameters can be restored;



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

2.1.4.8 Machine Rename

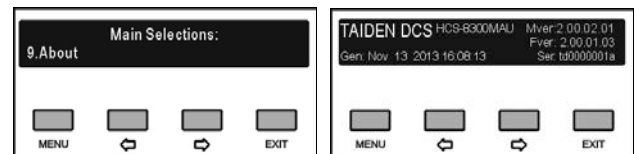
Set alias for the HCS-8300CMU with a maximum length of 16 characters or less. It is convenient to identify them on the operation of room combiner.



- Press the “MENU” button to enter the rename interface;
- Press the “←/→” button to select character;
- Press the “MENU” button to modify the character, the selected character was moved up and highlighted;
 - Press the “←” button to clear all the characters after the cursor;
 - press the “→” button to select the new characters: A~Z, a~z, 0~9 and ! “ ^ * _ + = - () { } [] < > : ; / ? ;
- Press the “MENU” button to save at each character;
- Press the “EXIT” button to return to the upper level menu after setting finished.

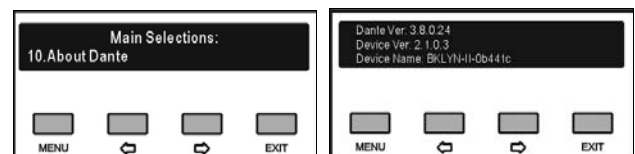
2.1.4.9 About

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



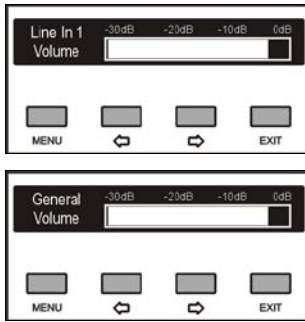
2.1.4.10 About Dante

The display of Dante module information, includes: dante version, device version and device name. Press any button to return to the upper level menu.



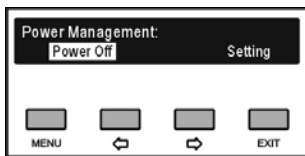
2.1.4.11 Volume control

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:

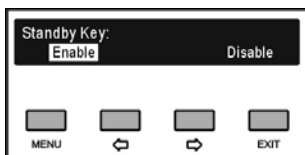


2.1.4.12 Power Management

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;



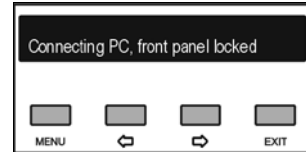
- b). Press the “↔” button to select “Disable” or “Enable”;
 - If “**Enable**” is selected, power on through the “POWER” switch and the “STANDBY” button;
 - If “**Disable**” is selected, power on directly through the “POWER” switch;
- c). Press the “MENU” button to save and return to the upper level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

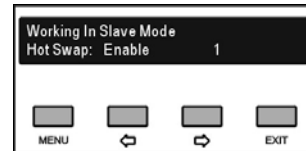
2.1.4.13 Connecting to PC

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:

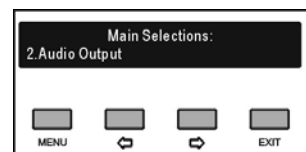
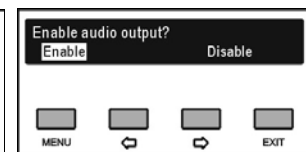


2.1.5 Configuration and operation - slave mode

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](#));
 8. **About Dante:** the operation is the same as in master mode (section [2.1.4.10](#)).

2.2 Extension Main Unit

2.2.1 Functions and instructions

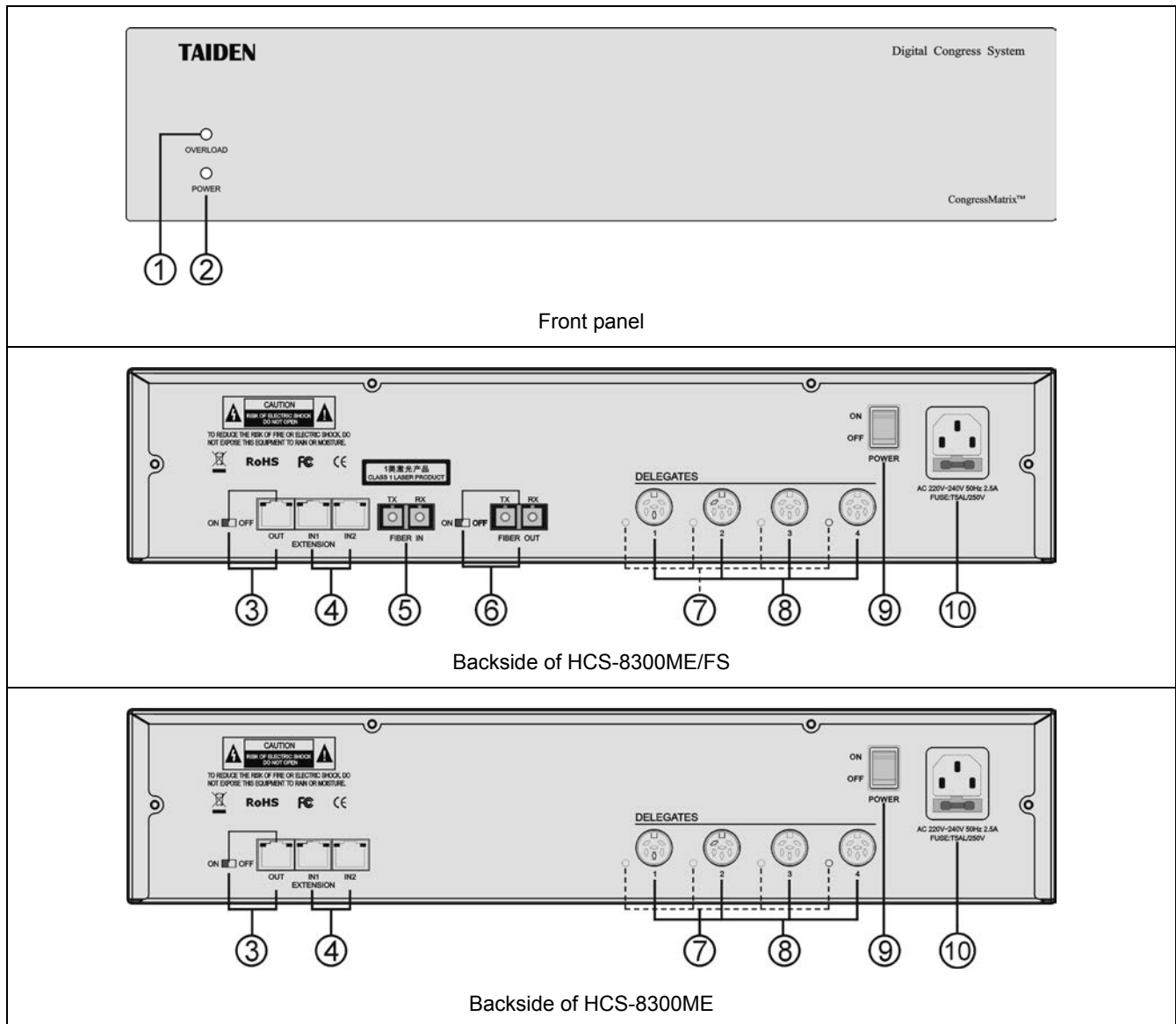


Figure 2.2.1 HCS-8300 series extension main unit

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.

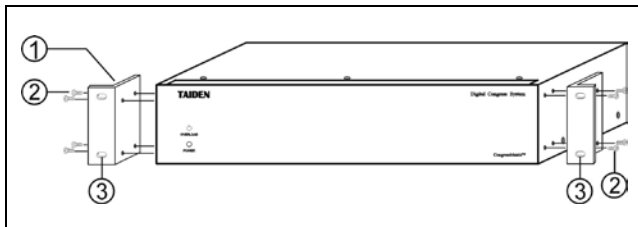


Figure 2.2.2 Installation of the EMU

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.

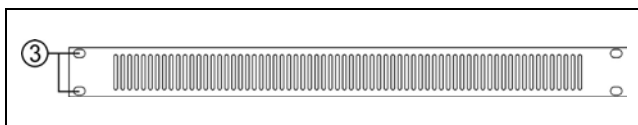


Figure 2.2.3 Decoration of cabinet

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.

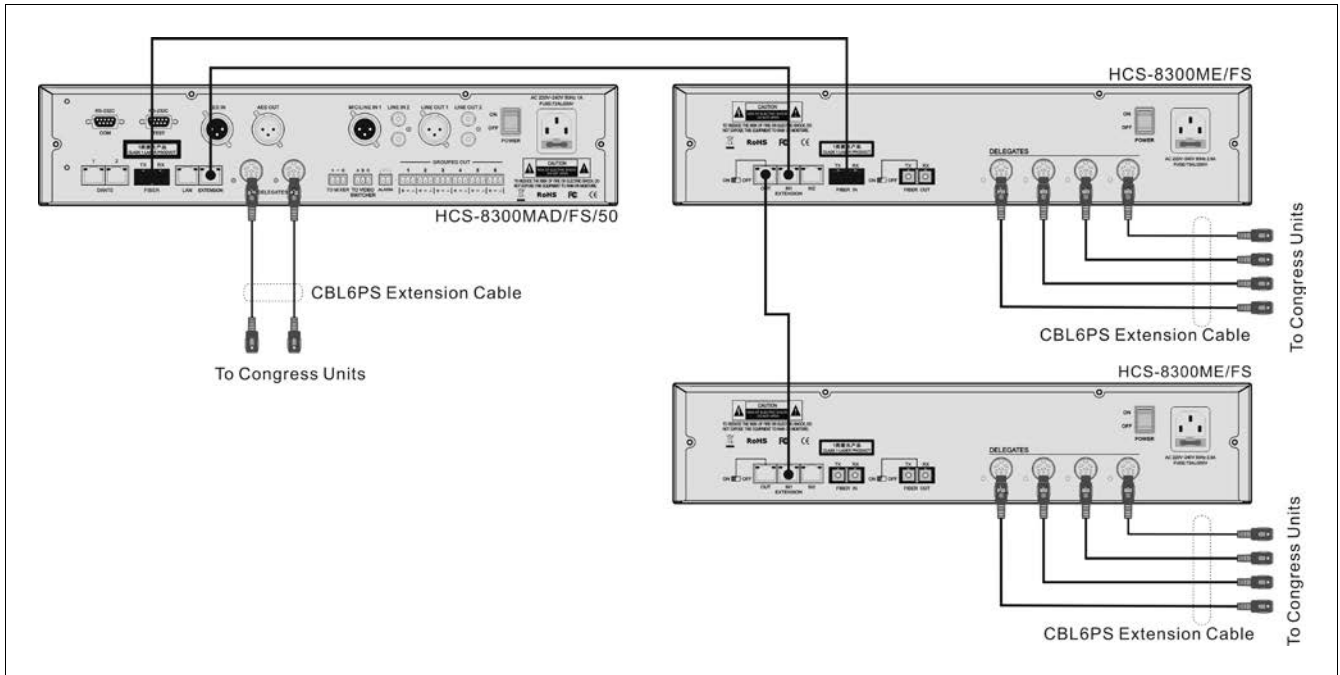


Figure 2.2.4 Connection between the CMU and EMU

2.3 Extension Unit

2.3.1 Functions and instructions

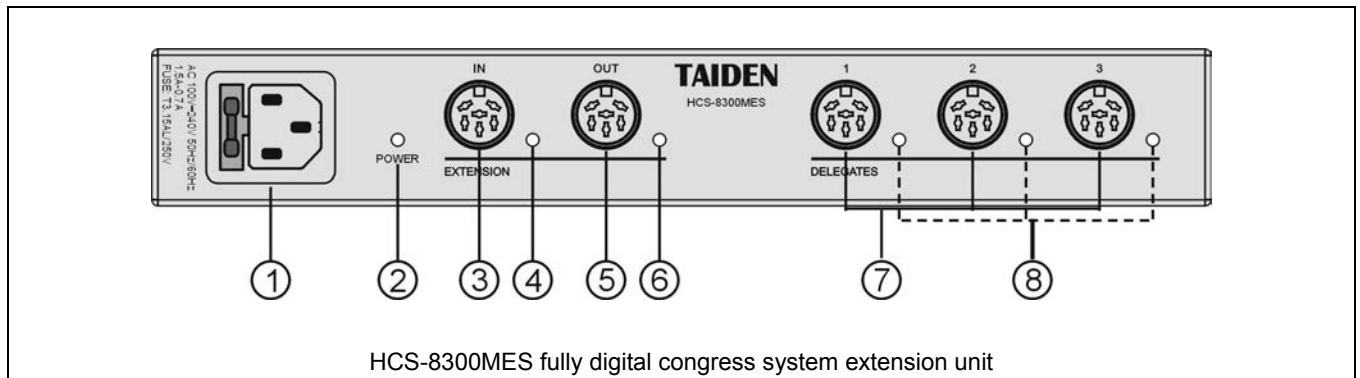


Figure 2.3.1 HCS-8300 series extension unit

Figure 2.3.1:

- 1. Power input**
- 2. Power light (Red)**
- 3. Extension input**
 - Connecting to CMU or last HCS-8300MES.
- 4. Extension input indicator**
- 5. Extension output**
 - Connecting to next HCS-8300MES.
- 6. Extension output indicator**
- 7. Contribution unit outlet 6P-DIN (1-3)**
- 8. Contribution unit (CU) connection LED**
 - When output works properly (≥ 1 CU connected), LED will flash; when no CU is connected, LED is off.

2.3.2 Installation

The extension unit can be fixed on flat surface (table, wall, ground, etc). Make holes on flat surface according to the following figure, then fixed HCS-8300MES with M3 screws.

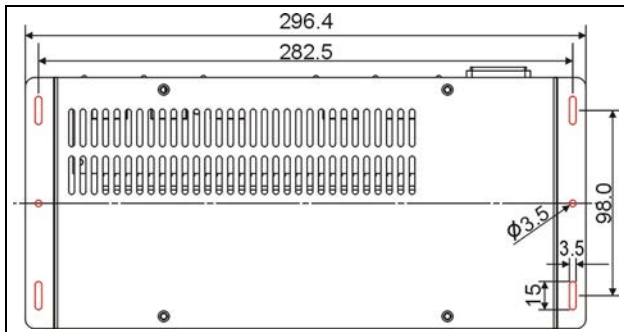


Figure 2.3.2 Installation of the HCS-8300MES

Chapter 3 Congress unit

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, Pincode sign-in, Fingerprint sign-in, voting, simultaneous interpretation etc.

A discussion unit includes chairman unit, delegate unit and VIP unit from the authority.

Product type:

HCS-8368/50 Series:

HCS-8368NBD(-NP)/50 delegate unit

HCS-8368BD(-NP)/50 delegate unit

The G3 Paperless Multimedia Congress Terminal (14" 1920×1080 LCD, capacitive touch panel, camera with 8 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, internet access (for NBD types only), built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types, support PoE)

HCS-8368NAD(-NP)/50 delegate unit

HCS-8368AD(-NP)/50 delegate unit

The G3 Paperless Multimedia Congress Terminal (microphone array, 14" 1920×1080 LCD, capacitive touch panel, camera with 8 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, internet access (for NAD types only), built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types, support PoE)

HCS-8368NAD/FM/50 delegate unit, flush-mounting

HCS-8368AD/FM/50 delegate unit, flush-mounting

The G3 Paperless Multimedia Congress Terminal (microphone array, 14" 1920×1080 LCD, capacitive touch panel, camera with 8 megapixel, speech, voting, 64 CHs, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, internet access (for NAD types only), electric lifting)

HCS-8368SD/50 delegate unit

The G3 Paperless Multimedia Congress Terminal (14" 1920×1080 LCD, capacitive touch panel, camera with 8 megapixel, speech, voting, 64 CHs×2, video display, printed nameplate, support PoE)

HCS-8368CSW Chairman Control Function Software Module

HCS-8338 Series:

HCS-8338AC(-NP) chairman unit, Chinese panel

HCS-8338ACE(-NP) chairman unit, English panel

HCS-8338AD(-NP) delegate unit, Chinese panel

HCS-8338ADE(-NP) delegate unit, English panel

Paperless Multimedia Congress Terminal (10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, fingerprint identification, internet access, built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types)

HCS-8338NBC(-NP) chairman unit, Chinese panel

HCS-8338NBCE(-NP) chairman unit, English panel

HCS-8338NBD(-NP) delegate unit, Chinese panel

HCS-8338NBDE(-NP) delegate unit, English panel

Paperless Multimedia Congress Terminal (10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, internet access, built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types)

HCS-8338BC(-NP) chairman unit, Chinese panel

HCS-8338BCE(-NP) chairman unit, English panel

HCS-8338BD(-NP) delegate unit, Chinese panel

HCS-8338BDE(-NP) delegate unit, English panel

Paperless Multimedia Congress Terminal (10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, built-in E-ink nameplate ("NP" as suffix only), printed nameplate for other types)

HCS-8348 Series:

HCS-8348AC(-NP)	chairman unit, Chinese panel
HCS-8348ACE(-NP)	chairman unit, English panel
HCS-8348AD(-NP)	delegate unit, Chinese panel
HCS-8348ADE(-NP)	delegate unit, English panel

Paperless Multimedia Congress Terminal (microphone array, 10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, fingerprint identification, internet access, built-in E-ink nameplate ("-NP" as suffix only), printed nameplate for other types)

HCS-8348NBC(-NP)	chairman unit, Chinese panel
HCS-8348NBCE(-NP)	chairman unit, English panel
HCS-8348NBD(-NP)	delegate unit, Chinese panel
HCS-8348NBDE(-NP)	delegate unit, English panel

Paperless Multimedia Congress Terminal (microphone array, 10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, internet access, built-in E-ink nameplate ("-NP" as suffix only), printed nameplate for other types)

HCS-8348BC(-NP)	chairman unit, Chinese panel
HCS-8348BCE(-NP)	chairman unit, English panel
HCS-8348BD(-NP)	delegate unit, Chinese panel
HCS-8348BDE(-NP)	delegate unit, English panel

Paperless Multimedia Congress Terminal (microphone array, 10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs×2, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, built-in E-ink nameplate ("-NP" as suffix only), printed nameplate for other types)

HCS-8338/FM Series:

HCS-8338NBC/FM	chairman unit, Chinese panel
HCS-8338NBCE/FM	chairman unit, English panel
HCS-8338NBD/FM	delegate unit, Chinese panel
HCS-8338NBDE/FM	delegate unit, English panel

Paperless Multimedia Congress Terminal (10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader, internet access)

HCS-8338BC/FM	chairman unit, Chinese panel
HCS-8338BCE/FM	chairman unit, English panel
HCS-8338BD/FM	delegate unit, Chinese panel
HCS-8338BDE/FM	delegate unit, English panel

Paperless Multimedia Congress Terminal (10" 1280×800 LCD, capacitive touch panel, camera with 5 megapixel, speech, voting, 64 CHs, paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, built-in contactless IC-Card reader)

HCS-8335/8336 Series:

HCS-8335C(-NP)	chairman unit
HCS-8335D(-NP)	delegate unit

Economical Multimedia Congress Terminal (10" 1280×800 LCD, speech, voting, 64 CHs×2, HD video display, built-in contactless IC-Card reader, built-in E-ink nameplate ("-NP" as suffix only), printed nameplate for other types)

HCS-8335AC(-NP)	chairman unit
HCS-8335AD(-NP)	delegate unit

Economical Multimedia Congress Terminal (microphone array, 10" 1280×800 LCD, speech, voting, 64 CHs×2, HD video display, built-in contactless IC-Card reader, built-in E-ink nameplate ("-NP" as suffix only), printed nameplate for other types)

HCS-8336	SDI Monitor
-----------------	-------------

SDI Monitor (10" 1280×800 LCD, HD video display, printed nameplate)

HCS-8315 Series: tabletop Fully Digital Congress System Discussion Unit

HCS-8313C	chairman unit
Invisible microphone, 5 voting keys, 64 CHs	

HCS-8313D	delegate unit
Invisible microphone, 5 voting keys, 64 CHs	

HCS-8314D	delegate unit
Invisible microphone, 5 voting keys	

HCS-8315C	chairman unit
Invisible microphone	

HCS-8315D	delegate unit
Invisible microphone	

3.2 HCS-8368/50 series G3 paperless multimedia congress terminal

3.2.1 Functions and instructions

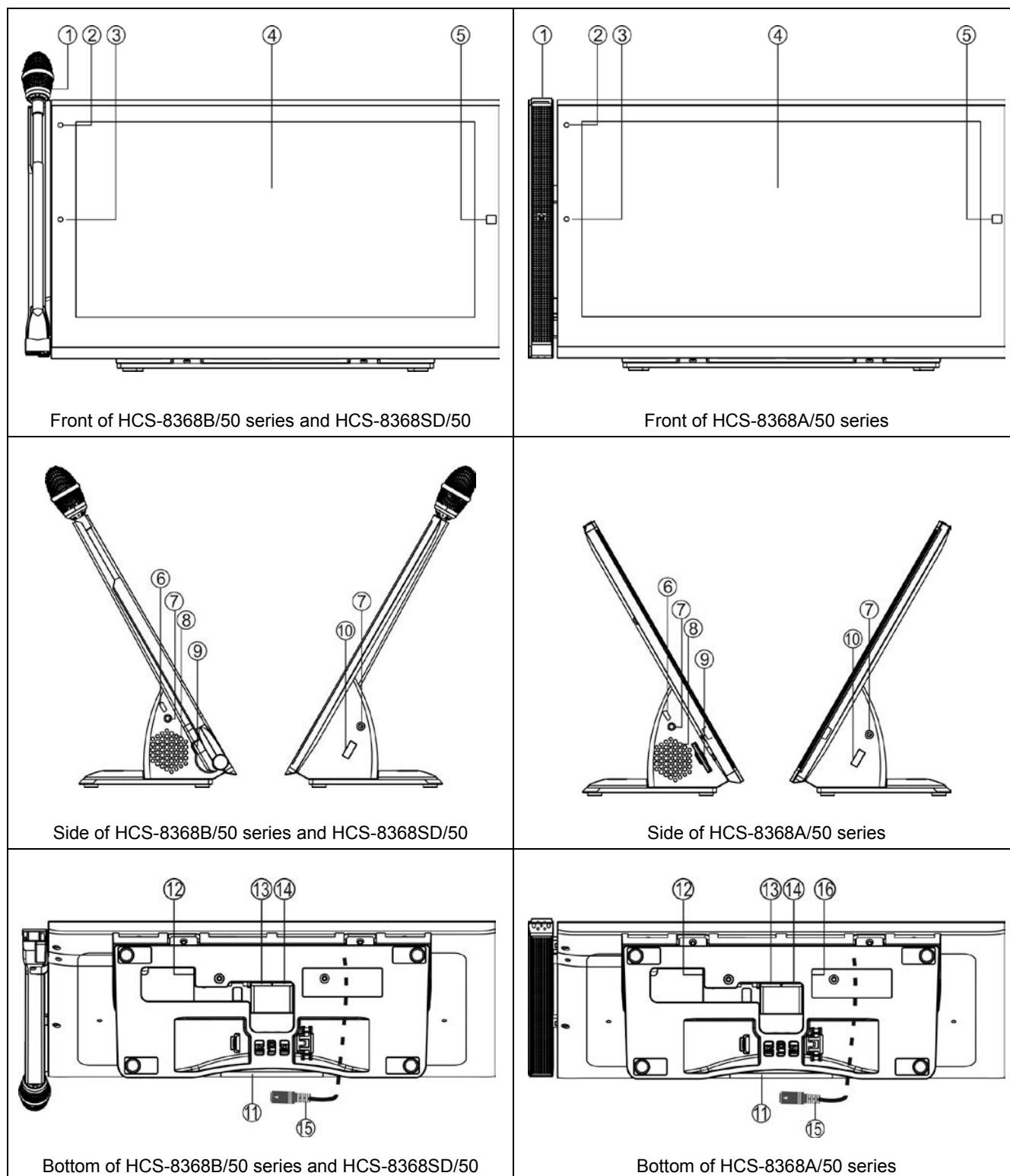


Figure 3.2.1 HCS-8368/50 series G3 Paperless Multimedia Congress Terminal

Figure 3.2.1:

1. Microphone with indicating light

- ◆ Stem microphone (for HCS-8368B/50 series and HCS-8368SD/50);
- ◆ Microphone array (for HCS-8368A/50 series).

Indicating light status:

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

2. Flashlight

3. Camera

4. High resolution LCD touch screen

- ◆ 16:9, 1920 × 1080

5. Home key

6. Micro USB

- ◆ Reserved

7. Earphone jack (Ø 3.5 mm)

- ◆ For tabletop terminals.

8. Built-in Hi-Fi loudspeaker

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

9. SD card socket

- ◆ For plugging- in SD card, supports up to 64 G SD card;
- ◆ For file upload and file backup.

10. USB port

- ◆ For external mouse and keyboard or other USB devices;
- ◆ For connection HCS-8360FK to sign in with IC card and fingerprint.

11. Microphone ON state indicator

Work state	Indicating light
Microphone On	Red (on)
Speaking time limit	Red (flash)

12. Power input

- ◆ 48 V DC power supply.

13. Ethernet interface (support PoE)

- ◆ PoE mode (only for tabletop terminal): connecting to HCS-8300KMX2 or HCS-8368T via Cat.5e/Cat.6 cable, for power supply and transmission of conference data and multimedia data;
- ◆ NOT PoE mode: connecting to HCS-8300KMX2 via Cat.5/Cat.6 cable, supporting “Daisy-chain” connection.

Note:

☞ HCS-8368A/FM/50 series congress terminal cannot support PoE.

14. Ethernet interface

- ◆ Connecting to HCS-8300KMX2 via Cat.5e/Cat.6 cable to transmit conference data and multimedia data, supporting “Daisy-chain” connection.

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

- ◆ Available on models with “-NP” as suffix;
- ◆ Connecting to electronic nameplate.

16. Earphone jack (Ø 3.5 mm)

- ◆ For flush-mounting terminals.

3.2.2 Installation

3.2.2.1 Fixed installation of HCS-8368/50 series

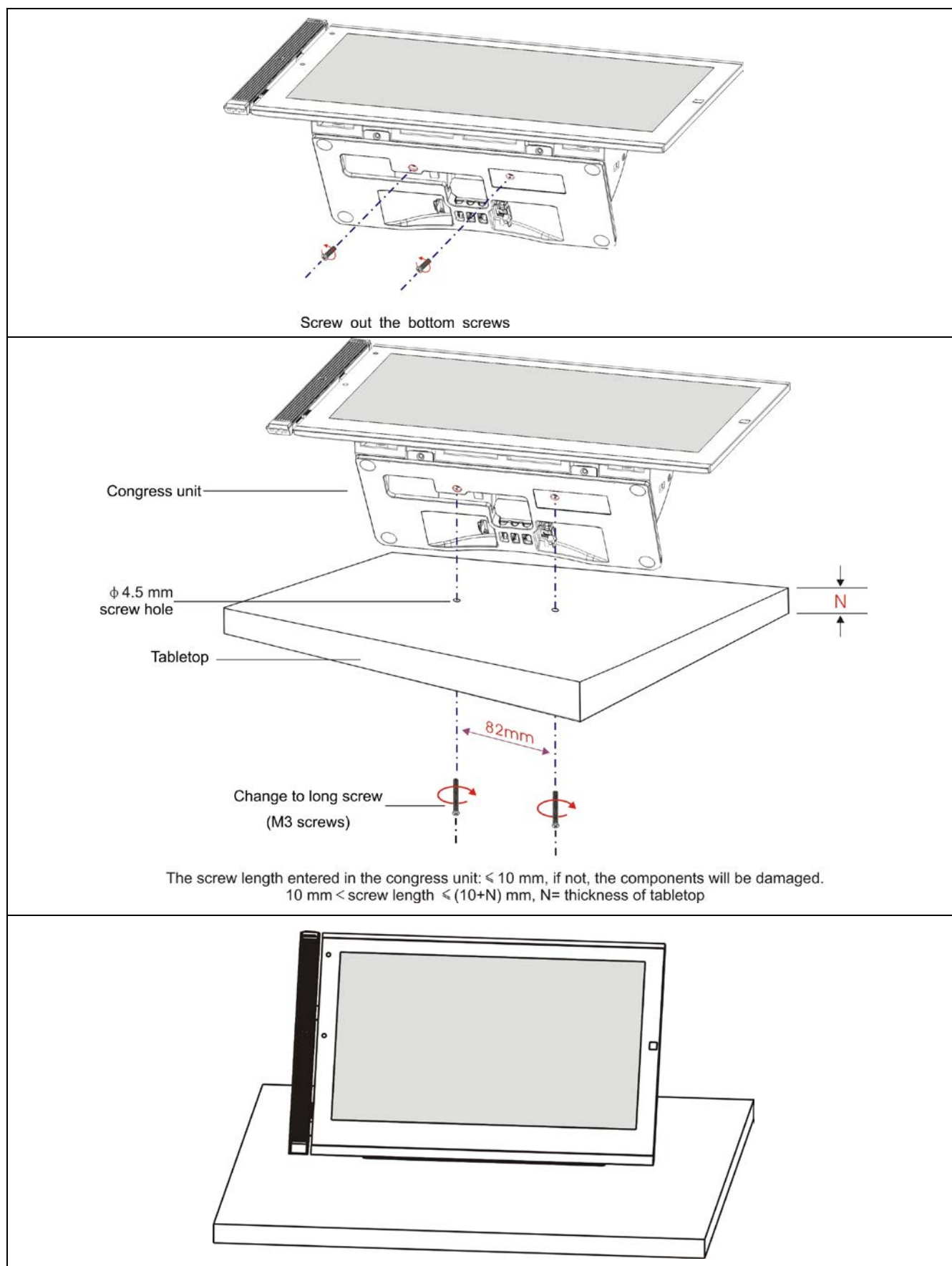


Figure 3.2.2 Fixed installation of HCS-8368/50 series congress unit

3.2.2.2 Fixed installation of HCS-8368A/FM/50 series

Dimension of the required opening (unit: mm)

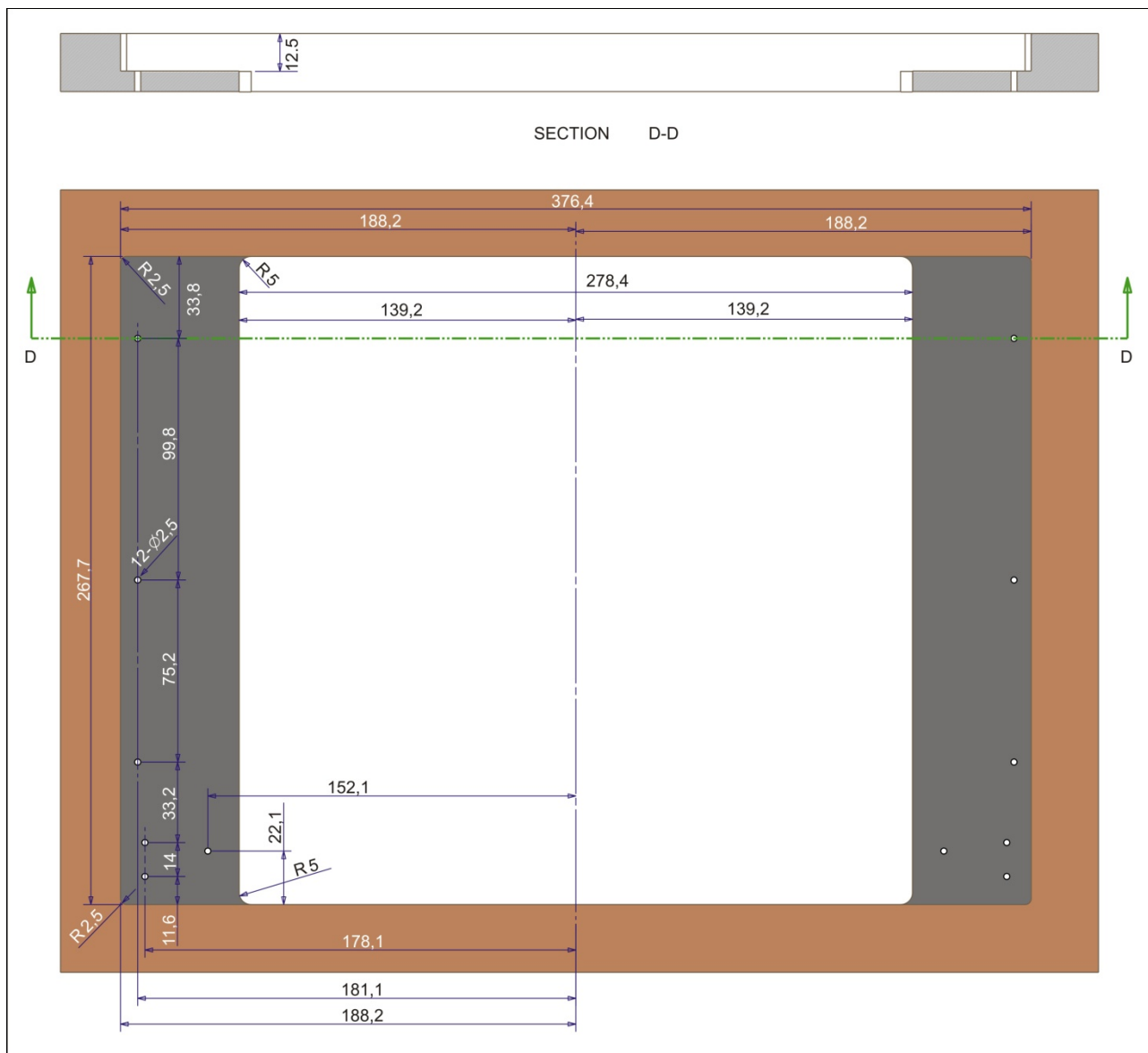
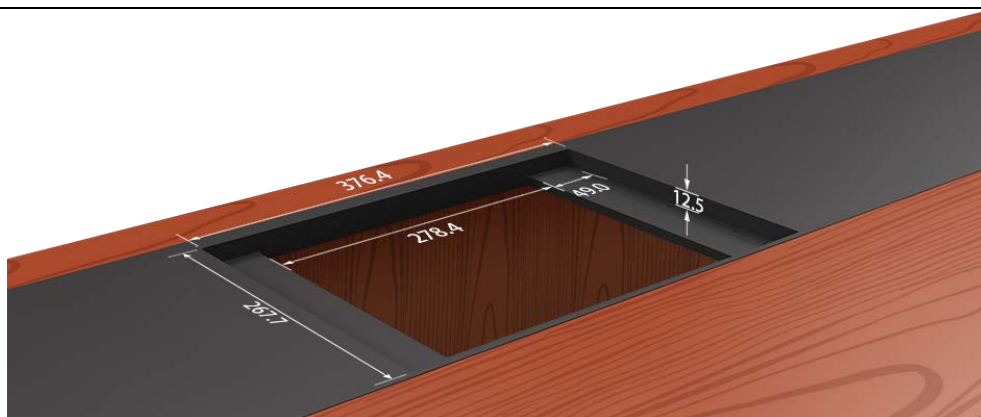


Figure 3.2.3 Fixing hole positioning diagram of HCS-8368A/FM/50 series congress terminal (unit: mm)

How to mount a HCS-8368A/FM/50 terminal



HCS-8368A/FM/50



Cut an opening in the table (can be done by the furniture provider)

Note: please reserve the installation depth of previous 120 mm under the table;
and the recommended distance between terminal and desktop edge is 300 mm.



Position a wired unit in the opening



Fix the unit with round-headed screws



Power on the system after fixing all the units and flip them up
via DCS control or menu operation on the main unit



Fix the baseplate with flat-headed screws



Installation completed



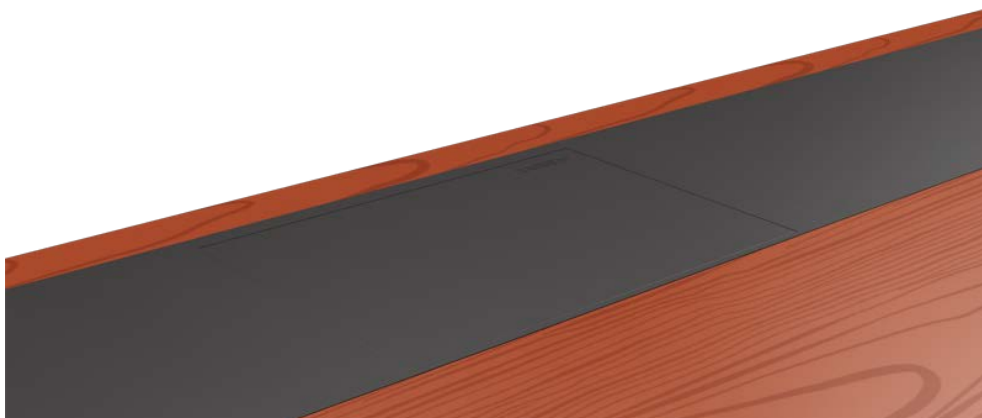
Descend all the units and power off the system

Note: Please do not force the screen up/down with your hands, otherwise it may cause damage to the motor.

If protective covers are ordered for the units, please deepen each opening by 4.5 mm.



Installation of protective cover



Installation of protective cover completed

Figure 3.2.4 Flush-mounted installation diagram of the HCS-8368A/FM/50 series congress terminal

3.2.3 Connection

3.2.3.1 Connecting to HCS-8300KMX2

HCS-8368/50 series Paperless Multimedia Congress Terminal is based on the **TAIDEN** originated GMC-STREAM Gigabit Multimedia Congress Stream technology. All audio and video signals are transmitted via a Cat.5e/Cat.6 cable. GMC-STREAM fully guarantees the real-time performance and stability of the important data stream of the meeting, such as audio, voting information, and control information.

When connecting to 1000M Ethernet switcher, just connect the “Delegate” port of the HCS-8300KMX2 to “1000M Ethernet” port of the multimedia congress terminal with a Cat.5e/Cat.6 cable.

Under PoE mode (only for tabletop terminal): connecting PoE RJ45 port to HCS-8300KMX2 or HCS-8368T via Cat.5e/Cat.6 cable (one port for one terminal), for power supply and transmission of conference data and multimedia data.

NOT PoE mode: connecting to HCS-8300KMX2 via Cat.5e/Cat.6 cable, supporting “Daisy-chain” connection and “Closed Loop” connection. Power supplies from 3 2P aviation of HCS-8300KMX2.

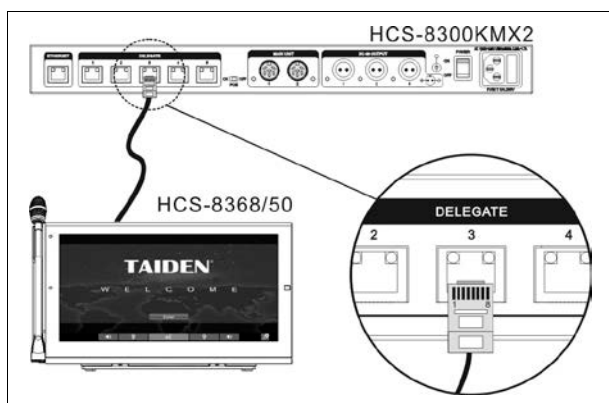


Figure 3.2.5 HCS-8368/50 series paperless multimedia congress terminal connecting to HCS-8300KMX2 Ethernet switcher (PoE)

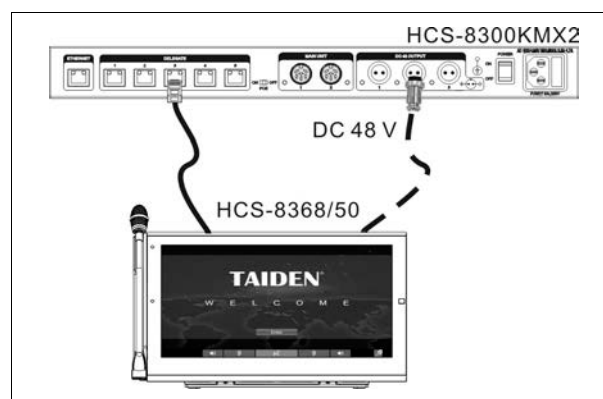


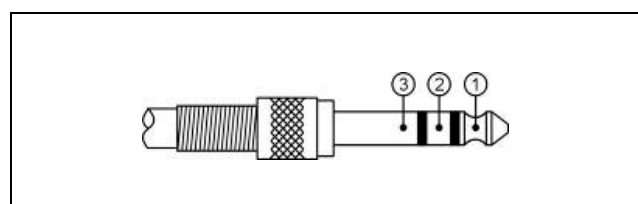
Figure 3.2.6 HCS-8368/50 series paperless multimedia congress terminal connecting to HCS-8300KMX2 Ethernet switcher (not PoE)

3.2.3.2 Connection between G3 Paperless Multimedia Congress Terminals (not PoE)

HCS-8368/50 series paperless multimedia congress terminals are “daisy-chained” with Cat.5e/Cat.6 cable. When connecting to the next terminal, just connect the port (1000M Ethernet) of the terminal to the port (1000M Ethernet IN) of the next terminal by means of a Cat.5e/Cat.6 cable.

3.2.3.3 To external earphone

An external earphone can be connected to the external earphone jack at the lateral sides of the multimedia terminal. Its volume is adjustable by the earphone volume control key. 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

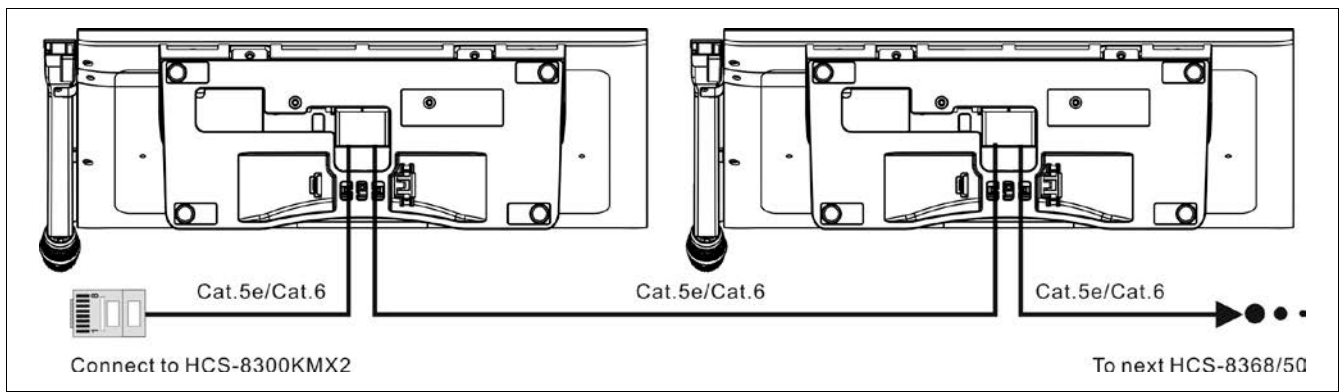


Figure 3.2.7 Daisy-chain connection between HCS-8368/50 series Paperless Multimedia Congress Terminals

3.2.4 Operation

Before a meeting starts, the multimedia terminals need to be configured by the operator, including: numbering and testing. During the meeting, the participants use the multimedia terminals to: sign-in, activate microphone, request to speak, vote, read message, for: paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, internet access, etc.

3.2.4.1 Delegate unit

We introduce all the operation of HCS-8368/50 series paperless multimedia congress terminal. The multimedia congress terminals of this series feature one or more of these functions.

First of all, make sure that the paperless multimedia congress terminals are connected properly to the CMU. After powering on, initialization (user) interface appears.

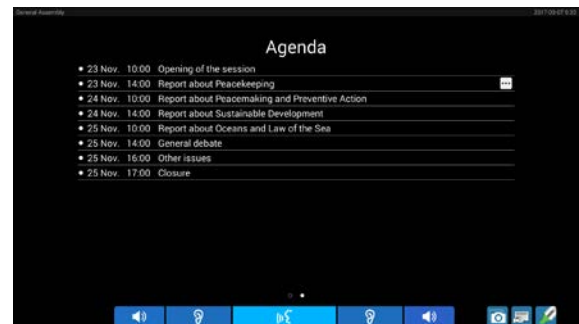


After initialization, click “Enter” to go to primary (user) interface.



Icons and fonts on primary interface can be defined by user through “Taiden Update Manager” tool, details refer to the user manual of “Taiden Update Manager” tool.

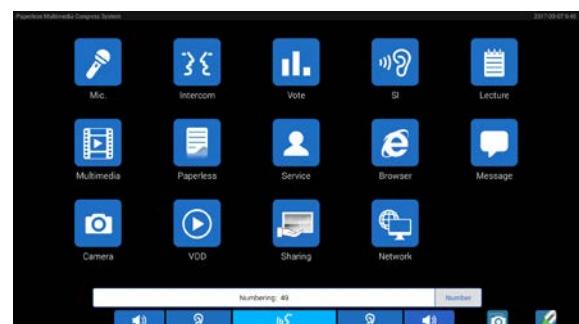
Sliding left on the primary interface to enter “Agenda” interface. The agenda information comes from File Server. Agenda parameters are setup by the File Server too. The following figure was displayed as default agenda parameters setting. Click the “...” icon after agenda item to open linked file, in order to open file correctly, you must download the linked file to terminal first.



A) Number

All multimedia terminals must be numbered when the system is used for the first time or when adding or replacing multimedia terminals. Number function can be activated by menu operation on the CMU front panel or by application software.

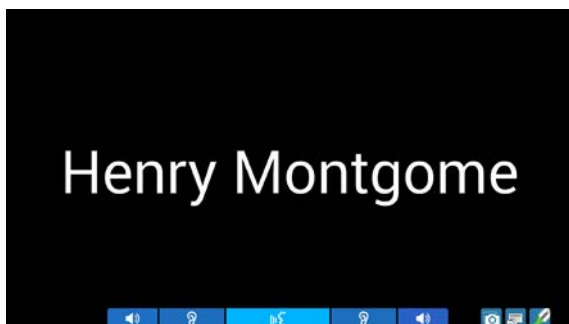
Select “Number - DCSUnits” by menu operation on the CMU, “Press ‘1’ key of all congress units one by one and repower” will be displayed on the CMU LCD. The system will now go to numbering status. All multimedia terminals in the system will display “Numbering: xx” on LCD. Press “Number” button of every terminal one by one, the loudspeaker will produce a sound (if ring tone mode is “On”). Once all terminals numbered, restart the CMU to update the number information.



Note:

- ☞ When numbering, please number the multimedia terminals one by one and do NOT press “number” key of several terminals at the same time.

After numbering and seat arrangement, file server can send commands to Multimedia Congress Terminals to show delegate's name on the LCD, so delegates can find their seats conveniently. The interface of the following figure is shown.

**B) 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:
 - When the microphone On/Off icon is pressed, the speaker can give his/her speech;
 - The microphone will be deactivated when the microphone On/Off icon is pressed again.
- **Active microphone number limitation (1/2/3/4)**
Reached:
 - When the microphone On/Off icon is pressed, the speaker can request to speak;
 - Press this icon again to cancel 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:
 - When the microphone On/Off icon is pressed, the speaker can give his/her speech;
 - The microphone will be deactivated when the microphone On/Off icon is pressed again.
- **Active microphone number limitation (1/2/3/4)**
Reached:

If the delegate microphone On/Off icon 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:
 - When the delegate speaks into the microphone at a short distance, the microphone will be activated;
 - If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted from the main unit (refer to section [2.1.4](#));
- **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

- Request to speak when the microphone On/Off icon is pressed (default 6 microphones at most). The chairman unit can approve or reject his/her speak;
- 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:

- Pressed and hold the microphone On/Off icon to activate the microphone. The speaker can give his/her speech;
- Microphone will be deactivated when microphone On/Off icon is released.

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

Reached:

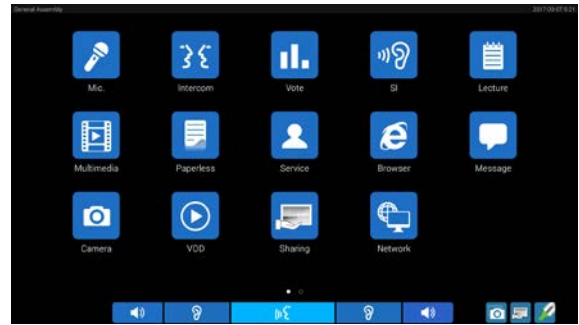
All other microphones cannot be activated unless one of the active microphones is turned off.

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.

When a microphone is activated, a camera can focus it automatically (the position can be preset by application software). Speaker's video can be exported to and displayed on large screen(s).

C) Main menu



Menu includes:

Microphone	Intercom
Vote	SI
Lecture	Multimedia
Paperless	Service
Browser	Message
Camera	VOD
Sharing	Network

- Click on the icon to go to the corresponding interface;
- Click **◀ Back** to return to the previous interface (except Browser interface);
- Click the “Home” button to return to the main interface;

Icon explanation:

	Headphone volume control
	SI channel selector
	Microphone button (normal)
	Microphone button (active)
	Microphone button Microphone ring (green): request Microphone ring (enable): Voice Mode
	VIP unit
	Priority button
	Priority button is pressed
	Screen shot
	Annotation tool
	Desktop sharing (normal)
	Desktop sharing (request)
	Desktop sharing (sharing by this unit)
	Desktop sharing (sharing by other unit)

Table 3.2.1 Functions and requirements

(H1: main unit, H2: power supply, H3: congress gigabit network switcher)

(S1: DCS, S2: file server, S3: video server)

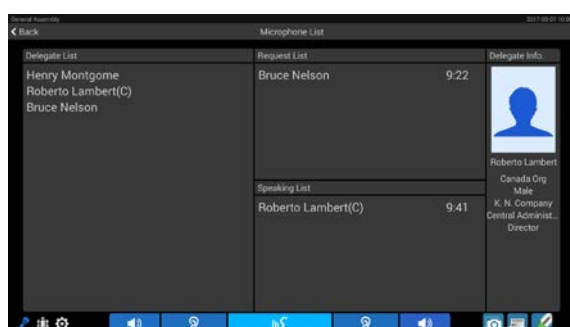
Functions	H1+H2+H3	H1+H2+H3+S1	H1+H2+H3+S1+S2	H1+H2+H3+S1+S2+S3
Mic.	✔(On/Off)	✔(On/Off)	✔(speaking list, microphone layout, microphone control, setup MU)	
Intercom	✘	✘	✔	
Vote	✔ (chairman unit starts voting procedure)	✔(sign in, vote)	✔(can sign in, vote, or display delegate and proposal information)	
SI	✔	✔	✔	
Lecture	✔(open local or external TXT file)	✔(open local or external TXT file)	✔(open local or external TXT file, or download TXT file from file server)	
Multimedia	✔(view local multimedia file)	✔(view local multimedia file)	✔(view local multimedia file, or download multimedia file from file server)	
Paperless	✔ (view local file)	✔(view local or external file)	✔(view, download file from file server; upload, delete, view or share local or external file)	
Service	✘	✔	✔	
Browser	✔	✔	✔	
Message	✘	✔(send short message from server; view short message from MMT)		
Camera	✔	✔	✔	
VOD	✘	✘	✘	✔
Sharing	✘	✘	✔	
Network	✘	✘	✔	

1. Microphone

Including “Microphone List”, “Layout” and “Setting”.

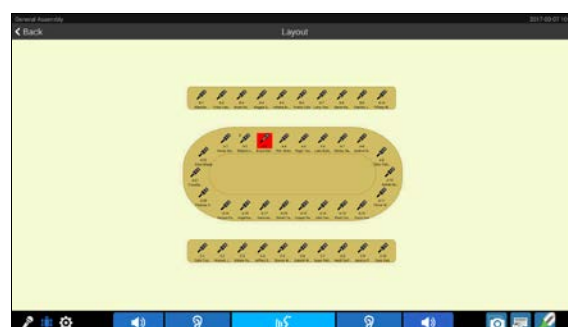
A. Microphone List

Delegates (including chairman unit, delegate unit, VIP unit and ambient microphone) are listed as in the following figure. Click the icons on the lower-left corner to switch sub-interface.



B. Venue

Congress units are shown as they are laid out in the venue, according to the following figure:

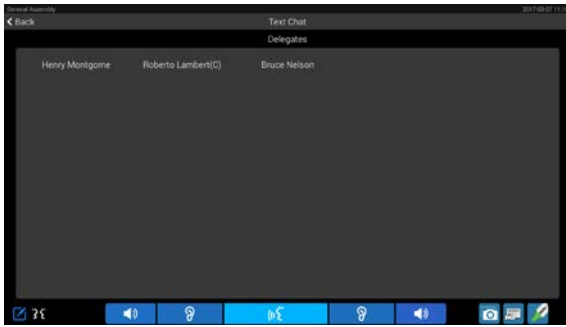


C. Setting

Congress terminals without microphone control option have no permission to check setting interface.

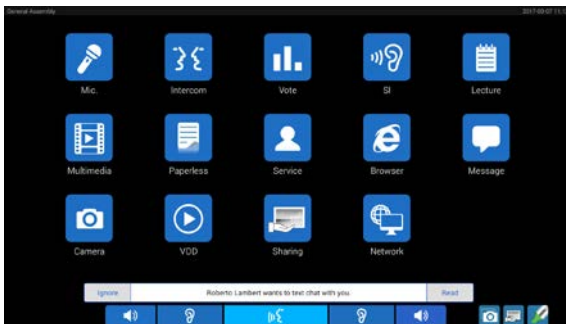
2. Intercom

Click the “Intercom” icon to go to the intercom interface, including “Text Chat” and “Video Chat”. Click the icons on the lower-left corner to switch sub-interface.



A. Text Chat

Double click on the delegate to exchange text information. When the text information has been received, prompting information will be displayed on the LCD. Click the "Read" button to read the text or click the "Ignore" button to ignore it.



If read, the text will be displayed as in the following figure. The delegate can reply to the sender's text message. The left side is the sent message and the right is the received message. Click "Clear All" to delete all text chat content.



B. Video Chat

Double click on the delegate whom you want to contact and request for a video dialog (The earphone must have been inserted; otherwise it will prompt "Please insert headphone first").

When someone asks you for a video conversation, video request information will be displayed on your LCD. Click "Accept" button to start video conversation or click "Refuse" to refuse his/her request.



When the request for video conversation has been accepted, the video user interface of the following figure is displayed. The microphone will be activated; the microphone indicator and the microphone On/Off icon will turn red. The videos of both speakers will be displayed on the LCDs.

The earphone is needed to listen to the video dialog. When the intercom is finished, click the "End Session" button and confirm to end the video dialog and to exit the video interface.



3. Vote

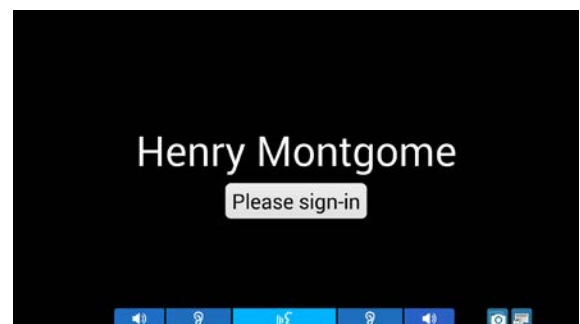
Including "Sign-in", "Vote" and "Proposal".

A. Sign-in

Delegates must sign-in before voting.

■ 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.



■ Automatic Sign-in

In automatic sign-in mode, when operator click the "Start Sign-in" button or select "Start sign-in automatically after start conference" on DCS software, the multimedia signed in automatically.

After sign-in, the main interface of the multimedia terminal displayed "You have signed-in". Sign-in result will be displayed as in the following figure:



B. Voting

Terminals can initiate voting (Yes/No/Abstain) via chairman unit without PC and dedicate software module for more forms of voting (2/3/4/5 key and multi-proposal).

■ Voting

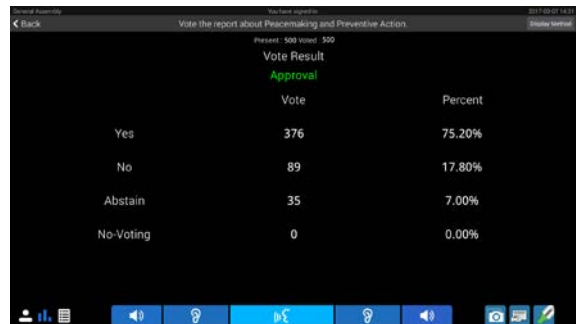
- Connect to PC, proposal and voting option will be displayed on LCD, click on the option button to voting.



- For "First key-press mode" proposal, delegate can click voting buttons only once;
- For "Last key-press mode" proposal, delegate can change his/her voting, and the last clicked voting button will be counted;
- Without PC, the voting originated by the chairman unit only supports "Last key-press mode";

■ Voting result

After voting, voting result will be displayed in three modes (numeric, bar, pie) on the multimedia terminals with voting option.



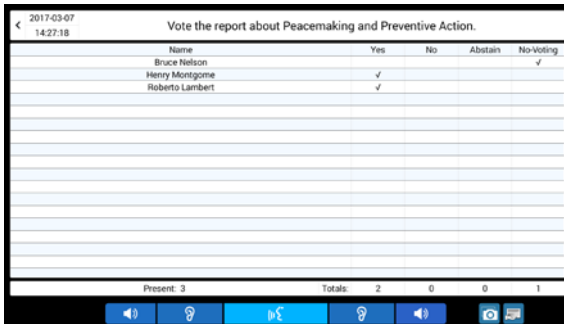
■ Display voting result

When click "Display Result" on application software or multimedia terminal with voting control option, voting result will be displayed on all multimedia terminals in three modes: numeric, bar, pie.



■ Display name list

For open mode proposal, when click "Name List" on multimedia terminal with voting control option or click "Name List" – "Display" on application software, name list will be displayed on LCD.



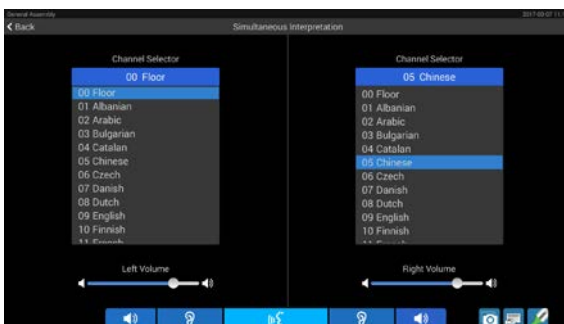
C. Proposal

Congress terminals without voting control option have no permission to browse proposal list.

4. Simultaneous interpretation

Click the “SI” icon and go to the simultaneous interpretation interface. The needed language is selected by clicking on the corresponding language item.

HCS-8368/50 Series Paperless Multimedia Congress Terminal supports dual 64 CHs interpretation with volume control. Two delegates may share one unit thus cutting the cost by half. HCS-8368/FM/50 Series Congress Terminal only supports one 64 CHs interpretation with volume control.



- If interpreter units are connected to the CMU, simultaneous interpretation function is available and the channel selector is activated. The earphone should be inserted before selecting the language;
- If the earphone is unplugged, the unit will return to floor language automatically;
- Earphone volumes are adjustable by the “Volume” scroll bar.

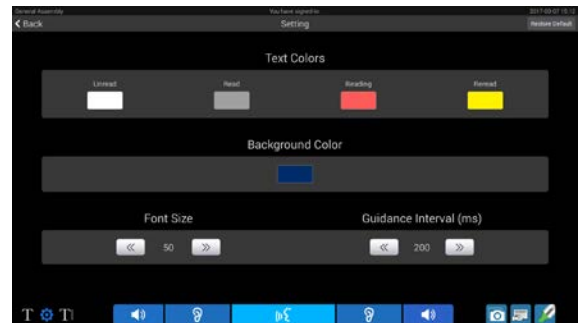
If the earphone is plugged, you can press icons to adjust volume and select language at any interface. Left icons for left earphone and right icons for right earphone.

5. Lecture

Including “Content”, “Setting” and “List”:

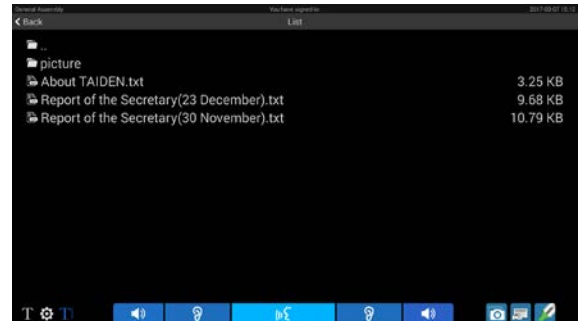
A. Setting

Set up display for colors, font size, and guidance interval. Font size can be adjusted between 20 - 80, and guidance interval can be adjusted between 50 ms - 500 ms with steps of 50 ms. Hold press the “<<”, “>>” button to adjust quickly. Click “Restore Default” to reset settings.



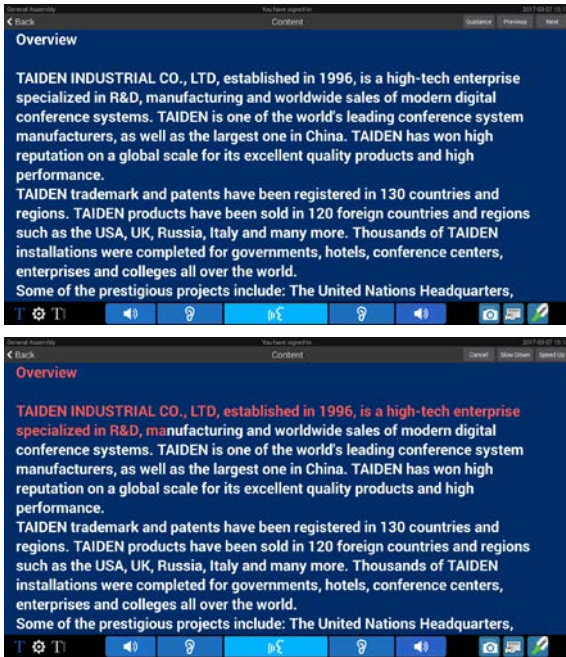
B. List

In the lecture list, double click on the lecture to open and read the lecture. Supports Internal Storage and Storage Card.



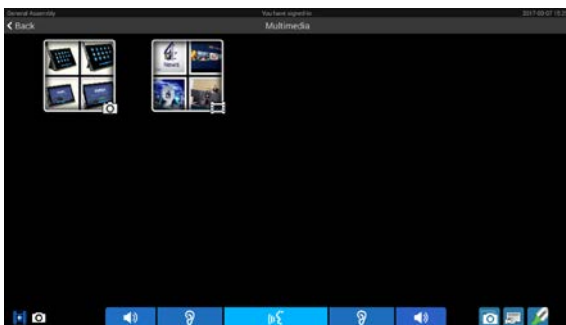
C. Content

Display the content of the lecture. Click “Guidance” or “Cancel” button on the LCD to switch guidance or not. In guidance mode, click “Slow Down” or “Speed Up” button to adjust guidance interval, and click the content anywhere to exit guidance mode. Click “Preview” or “Next” button to browse the content. Press and slide on the screen can browse the lecture quickly.



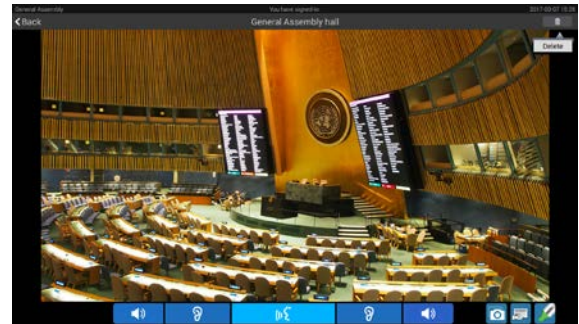
6. Multimedia

Including "Multimedia" (Photos/Videos) and "Camera":



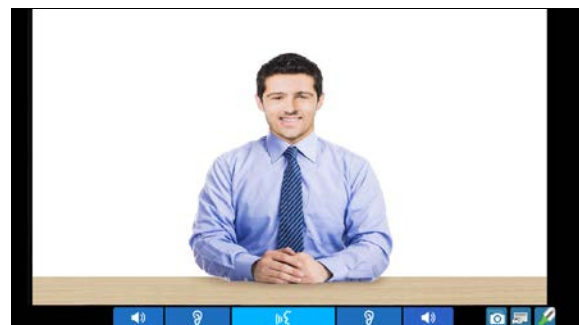
A. Multimedia - Photos

You can click "Photos" folder icon to browse pictures, supports jpg, bmp and png formats now. Click "▶" button to play pictures as a slideshow. When browsing picture manually, you can swipe your finger across the screen to switch pictures; and you can scale the picture by two fingers. Click the "🗑️" icon to delete current picture.



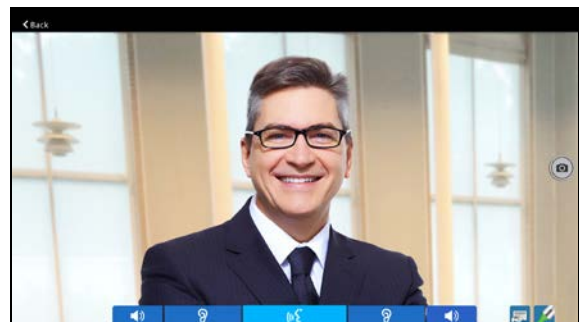
B. Multimedia - Videos

Click the "Videos" file to browse all the videos in multimedia terminal, only supports MP4 format now. When playing videos, you need to insert earphone to listen to the audio. At the same time, playing process, full screen and earphone volume can be controlled. After the video has been played for more than 2 minutes, if "Home" button is pressed to exit, and when you go to "Multimedia - Video" to play this video once again, you can select "Resume playing" or "Start over".



C. Multimedia - Camera

Click the "📷" icon to go to the camera control interface. The delegate can take photo via the built-in camera (auto flash).



Click the "📷" icon to take a photo. The photo will be saved on the congress terminal and can be browsed from "Multimedia"; click "◀ Back" to return to the upper level interface.

7. Paperless

Click the “Paperless” icon to go to the paperless interface.

REMOTE



Different access authorizations can be set in the file server. Delegate, chairman and VIP have differing rights to browse files. For example: a delegate can browse public files and the files in the delegate document, cannot browse the files in chairman and VIP documents.

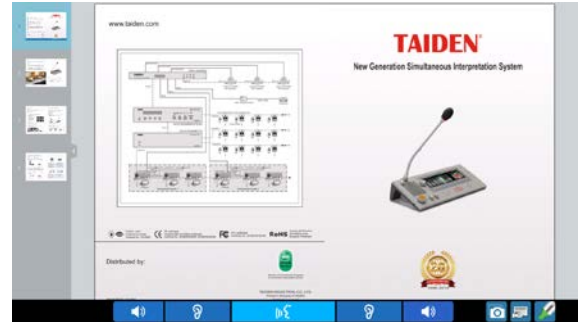
LOCAL



Supports Internal Storage and Storage Card.

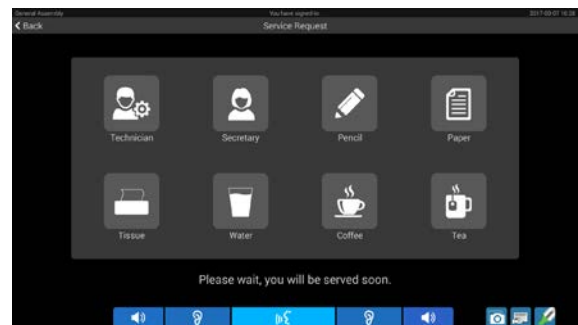
Operation:

- Click icon  on the top-right corner to switch file display method: list or icons;
- Press and hold the file in remote list can select Download/View in pop-up menu;
- Press and hold the file in local list can select Upload/Delete/View/Share in pop-up menu;
- Click file in the list to open the file directly;
- File reader: Mp4, image file (jpg, bmp, png) and pdf file;
- File reader and editor: text file and office documents.



8. Service

Click “Service” icon to go to the service calling interface:



Click on a service icon to request for the corresponding service. If the icon turns blue, the service information will be sent to the server and the information will be displayed on the application software. Click the selected service icon again to cancel the requested service. If the requested service is acknowledged, the blue icon will fade and “Please wait, you will be served soon.” will be displayed on the LCD.

9. Browser

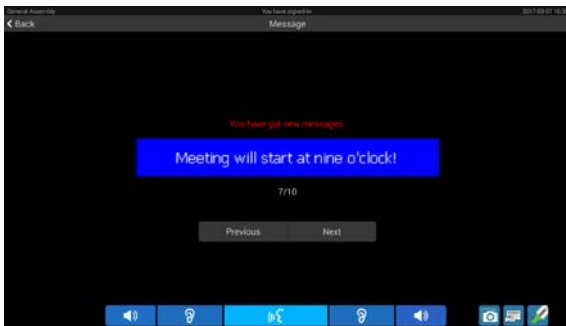


HCS-8368N series paperless multimedia congress terminals have internet access; related information is available through the Internet or the LAN during the meeting.

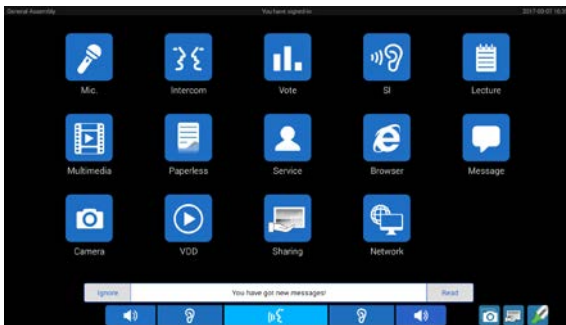
- ★: add bookmark for current page;
- 🔍: search or type URL;
- ★: manage bookmarks, press one bookmark for 2 seconds to activate the pop-up menu.

10. Messages

Click the “Message” icon to go to the message interface:



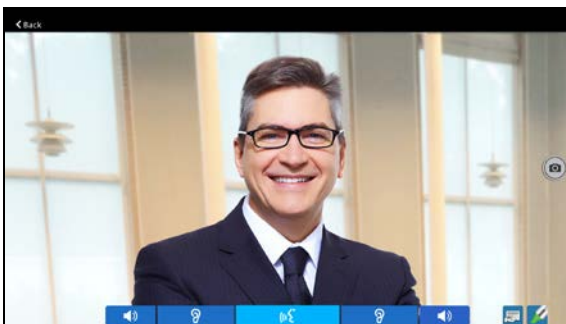
- When controlled by PC, the operator can send a message to any congress unit;
- Click “Preview” and “Next” to read all messages;
- When receiving a message, “You have a got a new message!” will be displayed on the LCD. Click “Read” to read the message or click “Ignore” to ignore it;



- At most 10 messages can be saved. If more messages are received, the previous message will lost.

11. Camera

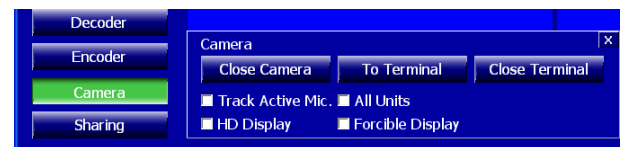
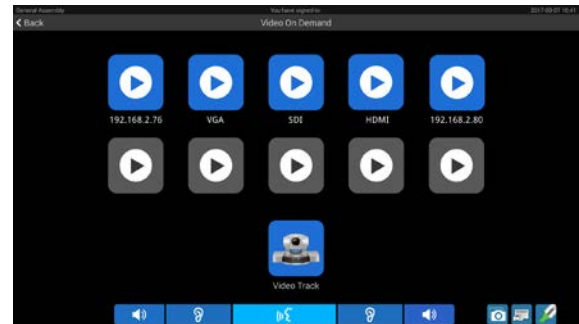
Click the “Camera” icon to go to the camera control interface. The delegate can take photo via the built-in camera (auto flash).



Click the “” icon to take a photo. The photo will be saved on the congress terminal and can be browsed from “Multimedia”; click the “ Back” button to return to the upper level interface.

12. VOD

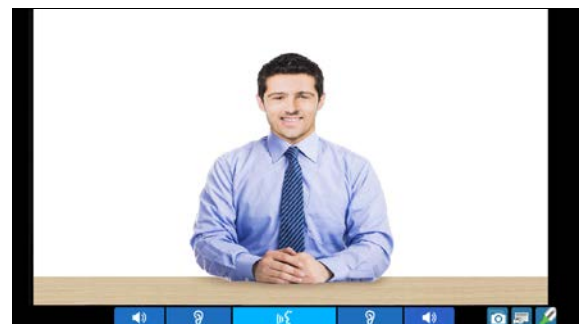
Click “VOD” icon to go to VOD service interface. Support up to 10 channels. Click one channel to play video.



When Video Server performed the “**Display Camera**” operation or selected “**Track Active Mic.**” item, the “Video Track” function on the multimedia was activated.

- Performed the “**Display Camera**” operation: click the “Video Track” on terminal, and then the terminal screen and video server will display the same camera video.
- Selected “**Track Active Mic.**” item: click the “Video Track” on terminal, current tracking microphone camera video displayed on terminal screen automatically. If no microphone is activated or the activated microphone without camera, terminal screen will display “Waiting...”, until the microphone with camera is activated.

When playing, click the screen fist, and then click the icon on the top-right corner of the LCD screen to switch video display on full screen or equal proportion; click “back” to return to VOD list interface.



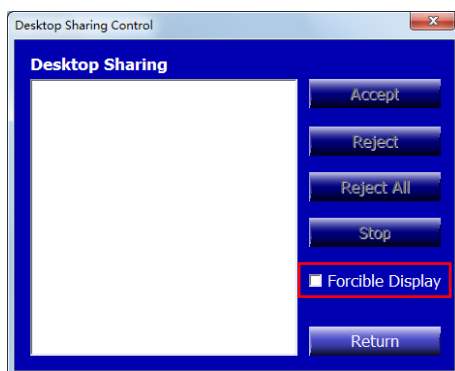
There is no audio default for VOD channel. If operator set encoder as “Video and Audio” through video server software, you can change the “” state to “” to monitor audio through earphone.



13. Sharing

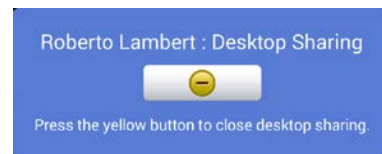
Click the “Sharing” button on main interface to enter sharing interface or click the  icon on the lower-right corner of any interface to request desktop sharing. If the request is approved, the desktop of the delegate will be shared with all other delegates and with the large display screen.

	Desktop sharing (normal)
	Desktop sharing (request)
	Desktop sharing (sharing by this unit)
	Desktop sharing (sharing by other unit)



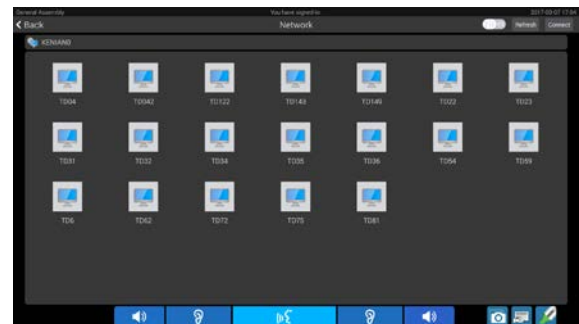
- If select “**Forcible Display**”, other delegates cannot exit desktop status freely, unless initiator or delegate with control option or the operator stops desktop sharing.
- If **not** select “**Forcible Display**”, delegates can exit desktop sharing temporarily by pressing the yellow

button on the pop-up dialog; and can enter desktop sharing again by press **Sharing --> Enter desktop sharing**.



14. Network

Click the “Network” icon to go to the network interface; all the resources which can be accessed were listed.



Click icon  on the top-right corner to switch file display method: list or icons.

Click the “Connect” button to pop up “Enter computer IP” dialog box, input computer’s IP address, user name and password to access the appointed computer.

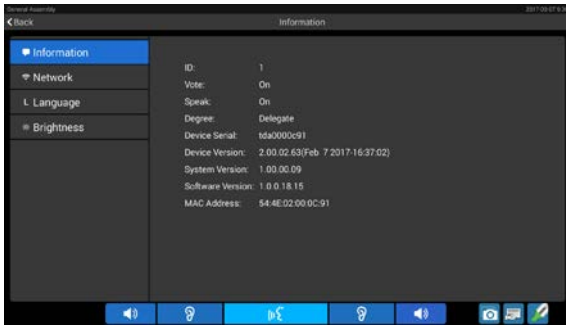


15. Setup

To prompt the setup interface, please connect the multimedia terminals to TAIDEN conference management software, and then select “Setup” – “Multimedia Terminal” – “Switch Interface”.

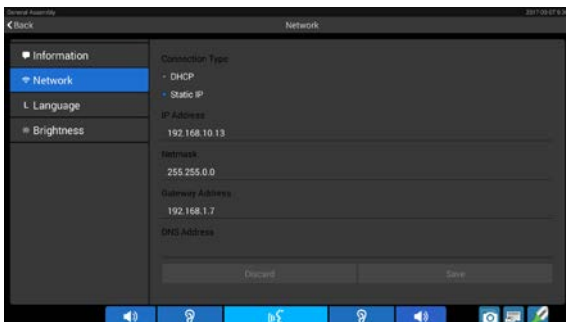
A. Information

Display the information of the congress terminal, including: ID, permission, degree, device series, version, MAC address, etc.



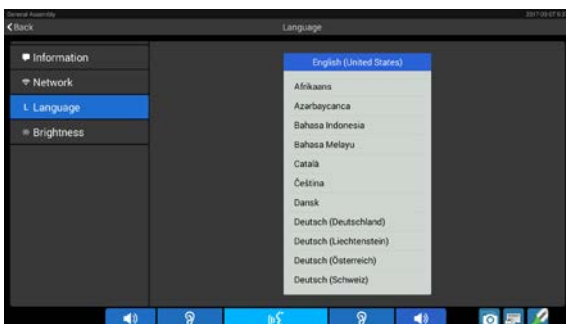
B. Network

Set up network configuration. Please set up the same network segment for multimedia terminals in the same congress system.



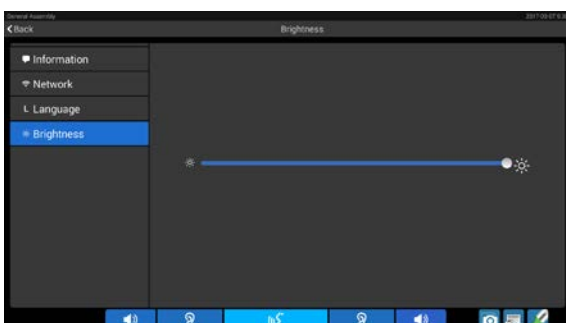
C. Language

Select the operation language. Supports Chinese, English, French, Russian, Spanish and Arabic. If you selected a language, please return to the main interface, terminal will refresh operation language automatically.



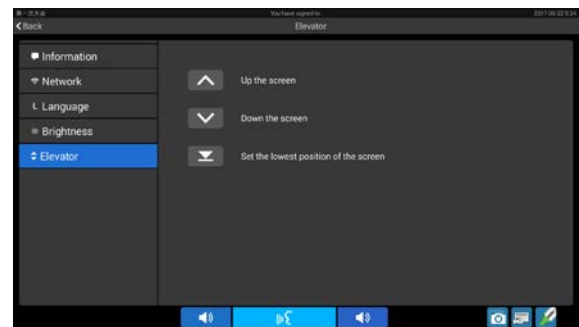
D. Brightness

Setup the brightness of the LCD screen.



E. Elevator (for /FM type)

Up/Down the screen and set the lowest position of the screen.



16. Other functions

1) Annotation

At any interface, you can click the annotation pen icon  to enable annotation function, and the annotation tool will appear at the left side of the interface, as below:

	Pen		Undo
	Marker		Share
	Eraser		Cancel all



You can share the annotation to delegate, but only share one delegate at a time. When getting sharing file from other delegate, a message will be prompted at the bottom of the interface. You can read or ignore the sharing file. Under video playing state, the generated annotation file is invalid.

2) Screenshot

Press “” key at the lower right corner of the screen to shot the current screen, the picture (*.png file) was saved in the path: “Multimedia>>Photo”; and the file name began with “Screenshot”, for example “Screenshot_2018-03-02-14-27-09.png”.

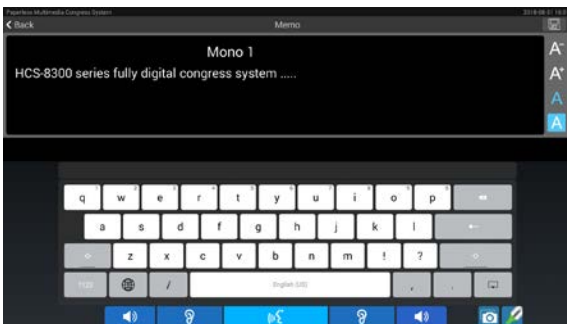
3) Read

Click “Read” icon to access files when connected to TAIDEN Document Management System.

4) Memo



- : creat a new memo;
- : delete memo;
- : export memo to USB device;
- : edit memo.



- : save memo;
- : decrease font size;
- : increase font size;
- : select font color;
- : select background.

5) Calculator

Build-in calculator.



6) Whiteboard



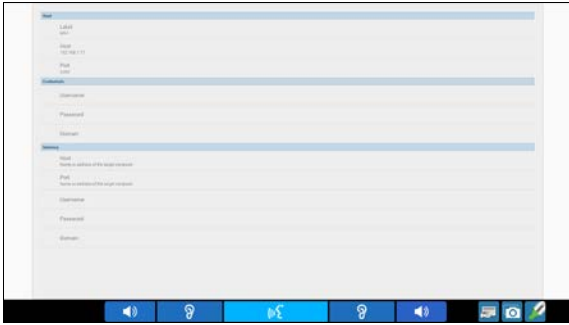
- : select and move;
- : pen setting, including pen type, pen size and pen color;
- : delete;
- : cacle;
- : redo;
- : select image;
- : background setting;
- : save, the file was saved in the path: “Multimedia>>Photo”; for example “2018-08-31_092453.png”.

7) RemoteDeskTop

Access remote computer.



Click “+” to add new connection. Press an existed connection for 3s to pop-up connection menu (Connect/Edit/Delete).



- Host: information of remote computer
 - Label: input a label to distinguish multiple remote computers;
 - Host: IP address of remote computer;
 - Port: port of remote computer;
- Credentials: remote computer login information
 - Username: username of remote computer;
 - Password: password of remote computer;
 - Domain: domain address;
- Gateway: if terminal and remote computer in different net segment, please set gateway information
 - Host: IP address of the server computer;
 - Port: port of the server computer;
 - Username: username of server computer;
 - Password: password of server computer;
 - Domain: domain address of server computer.

D) VIP unit

- Any delegate unit can be assigned as a VIP unit by application 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 (HCS-8368CSW needed)

The chairman features all functions a delegate has, additionally:

1. Priority

- If priority mode is configured as “All mute”, all active microphones (except VIP units and other chairman units) will be muted temporarily when this key is pressed and they will resume when the key is released;
- If priority mode is configured as “All off”, all active microphones (except VIP units and other chairman units) will be turned off when this key is pressed;
- Under “OPEN” and “Apply” mode, pressing this key will clear request list.

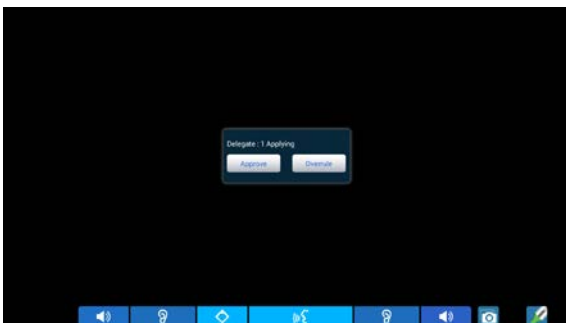
2. Speaking

- 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 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” icon or reject delegate's request by pressing “Overrule” icon.

When his/her request is approved, he/she can speak and the last activated microphone will be turn off at the same time.

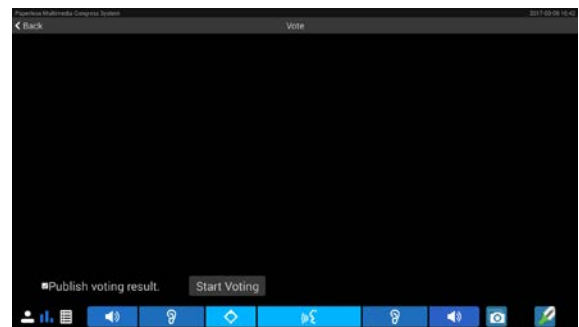
B. Turn off or mute delegate microphone

Chairman can use the “Priority” key to execute “All mute” or “All off” operation.

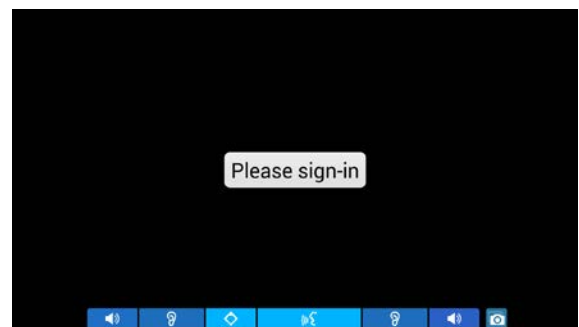
4. Voting without PC

The chairman unit can start voting procedure (no PC connection).

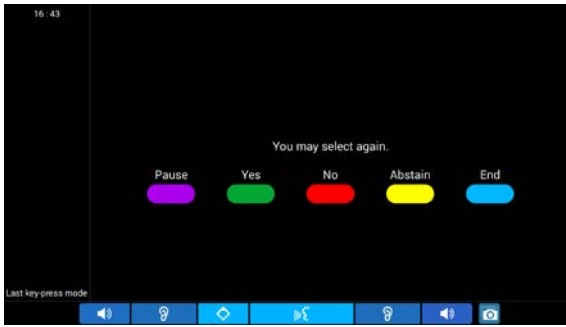
- a. Click the “Vote” icon from primary user interface, the following interface appears. “Publish voting result” is optional (if checked, voting result will be displayed on LCD of all congress terminals after voting; if not checked, voting result will not be displayed);



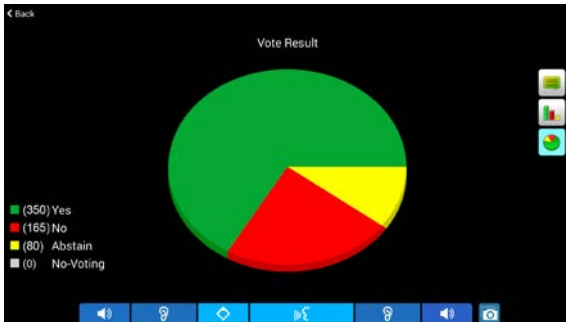
- b. Click the “Start Vote” button to start voting, all congress terminals will go to sign-in mode;



- c. Click the “Please sign-in” button to sign-in and then go to the voting interface; only parliamentary voting can be initialized by the chairman unit. Three options (“Yes”/ “No”/ “Abstain”) and only “Last key-press mode” mode are available. The pause and the end of voting are controlled by the chairman unit as shown in the following figure:



- d. Click the "End" button to finish voting. Voting result will be displayed on LCD (for open voting only) in list, bar, or pie.



3.2.4.3 Second Chairman Unit

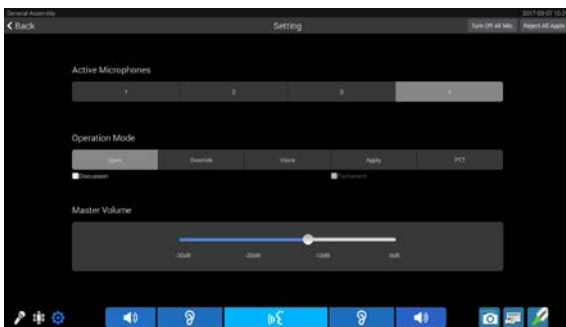
The second chairman options (microphone control, voting control, and desktop sharing control) can be assigned by file server software, it can be a chairman unit or a delegate unit or different units to carry out different functions.

1. Microphone control

Click “Mic.” icon to go to microphone control interface.

A. Setting

Configuration of maximum active microphone number, microphone operation mode and master volume.



- **Master Volume:** adjust built-in loudspeaker volume of all congress units, line output volume and group output volume, range: -30 dB - 0 dB;
- **Active Microphones:** active microphone number 1/2/3/4;
- **Operation Mode:** Open/Override/Voice/Apply/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 first active unit gets off (*DCS: Setup - System Parameters Setting - Microphone - Automatically activate the first request microphone (Open Mode)*).

Note:

- Discussion mode has two request levels: Request and Two Hands. Press “Request” to add delegate’s name to request list; and press “Two Hands” to add delegate’s name to the first in request list.

“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 turned on first.

“Voice”:

When the delegate speaks into the microphone at a short distance, the microphone will be activated. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted: 300 ms /600 ms /1 s - 15 s.

“Apply”:

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

Note:

- The TAIDEN “Conference Management System” application software offers the possibility to select a PARLIAMENT mode within the APPLY Operation Mode. If PARLIAMENT is marked, the units display “REQUEST” and “RESPONSE”. Two discrete time limits are set: one for REQUEST and one for RESPOND. After selected time lapse, the microphones are switched off. If PARLIAMENT is not marked, the standard REQUEST mode is operated.

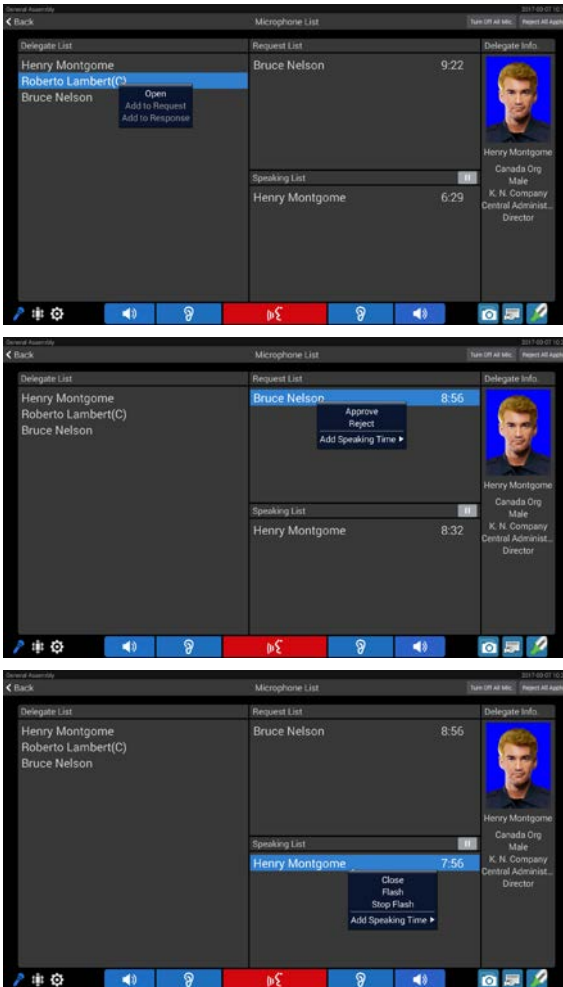
“PTT”:

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

Under Discussion and Parliament modes, a dialog window was popped up, shown as in the following figure. Press and hold to drag it to any position, press the “” icon to embed it in the interface (only display the “” icon on the top-middle of the interface), press the “” icon again to resume the dialog window.



B. Microphone control



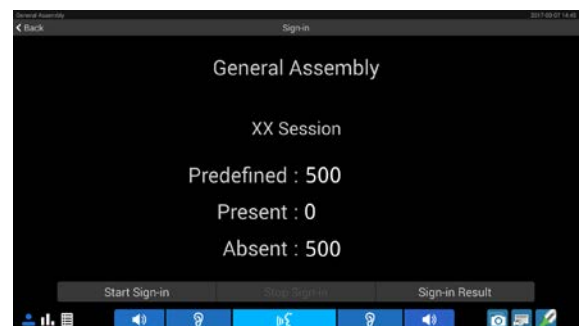
Click on a delegate name in the list, a menu will prompt, including:

- **Open:** turn on the selected microphone;
- **Add to request:** add selected microphone into request list;
- **Add to response:** add selected microphone into response list;
- **Approve:** approve the request/response of a selected microphone and turn on the microphone;
- **Reject:** reject the request/response of a selected microphone and turn off the microphone;
- **Close:** turn off a selected microphone;

- **Flash/Stop Flash:** start/stop blink of a selected microphone;
- **Add Speaking Time:** add speaking time for delegates (± 1, ± 2, ± 3, ± 5, ± 10 Min for selection);
- **Turn Off All Mic.:** turn off all active delegate microphones (not effective for chairman and VIP unit);
- **Reject All Apply:** rejecting all requests.

2. Voting (controlled by PC)

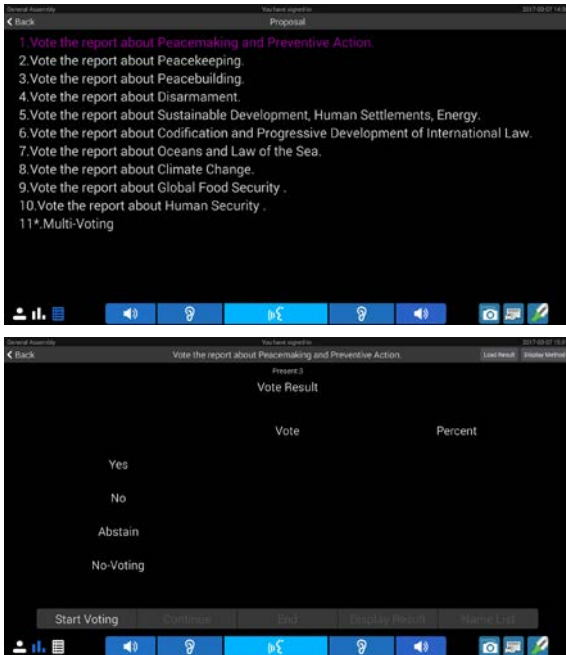
- Click the “Vote” icon to go to voting interface on voting control unit, including “Sign-in”, “Vote” and “Proposal”:



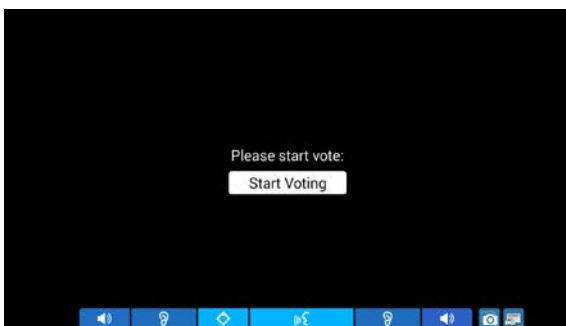
- Click “Start Sign-in” to start sign-in and all congress units will go to sign-in status;
- Please sign-in according to the prompting information and the sign-in result will be displayed in real time on the LCD of every congress terminal. The sign-in agenda can be controlled by the voting control unit. When sign-in finished the following figure is shown:



- Click “Restart Sign-in” to clear current sign-in result and restart sign-in;
 - Click “Stop Sign-in” to stop sign-in;
 - Click “Sign-in Result” to display sign-in result;
- Select proposal:
 - Click “Proposal” to browse all proposals in the current meeting (red color stands that the proposal has signed in), and click to select a proposal from a proposal list;



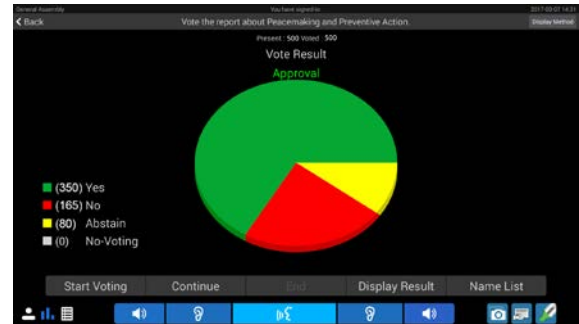
- Proposal controlled by the chairman: click the “Start Voting” button, the chairman unit LCD shows the following figure; proposal controlled by the operator, click the “Start Voting” button to go to step e.



- e. When voting started, voting control unit displays the following figure;



- f. Click the “End” button to end voting, and voting result will be displayed on LCD of all congress terminals in three different ways (numeric, bar, pie).

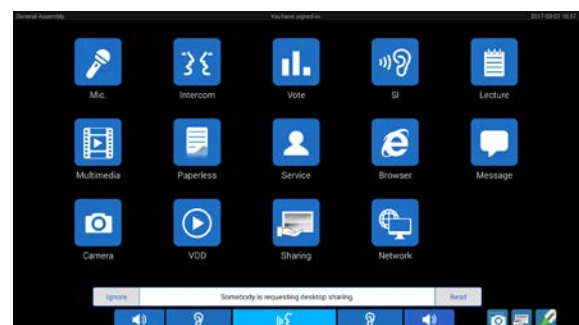


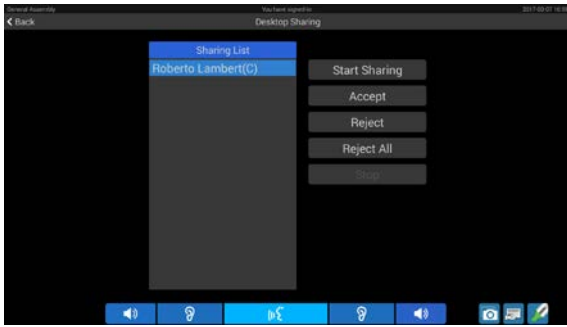
- **Start Vote:** start voting, when DCS server is modifying meeting data, cannot start voting;
- **Continue:** if some delegates did not vote when voting finished, click the “Continue” button to resume voting. “You have voted.” will be displayed to those delegates who have already voted. In case of “Last key-press mode” voting, delegates who did already vote can vote again. If the voting is set as “Chairman control”, the “Continue” function is unavailable;
- **Display Result:** display voting result on the LCD of every congress terminal and on large screen(s) in the meeting room (with dual-head VGA adaptor equipped);
- **Name List:** display name list on the LCD of every congress terminal and on large screen(s) in the meeting room for open mode proposal (with dual-head VGA adaptor equipped).

3. Sharing

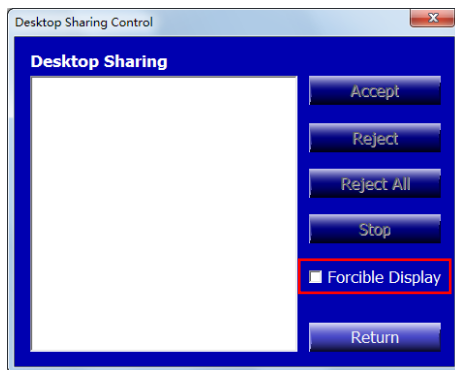
Click the “Sharing” icon to go to desktop sharing interface on control unit.

When a multimedia terminal is requesting desktop sharing, prompting information will be displayed at the bottom of the control unit LCD. Click the "Read" button to check or click the "Ignore" button to ignore it.





- **Start Sharing:** if the sharing control unit clicks this button, the content on the unit will be displayed on all multimedia units immediately;
- **Accept:** accept the selected request of desktop sharing;
- **Reject:** reject the selected request of desktop sharing;
- **Reject All:** reject all requests of desktop sharing;
- **Stop:** stop desktop sharing. In the course of a desktop sharing process, click the LCD screen of the control unit to pop up the red button, press the red button to stop desktop sharing.
- If not select "**Forcible Display**", delegates can exit desktop sharing temporarily by pressing the yellow button on the pop-up dialog; and can enter desktop sharing again by press **Sharing --> Enter desktop sharing**.



3.3 HCS-8338/8348 series paperless multimedia congress terminal

3.3.1 Functions and instructions

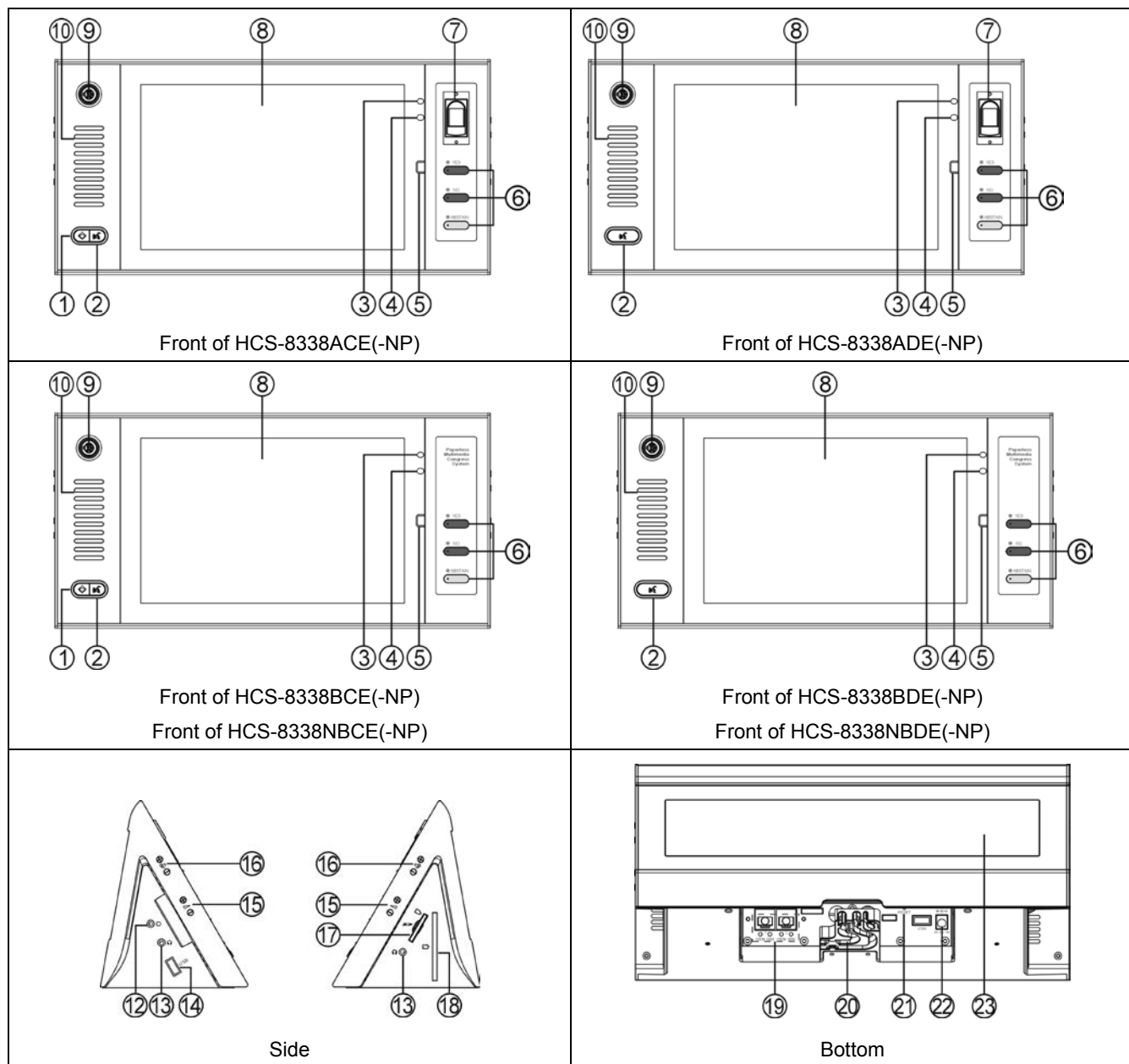
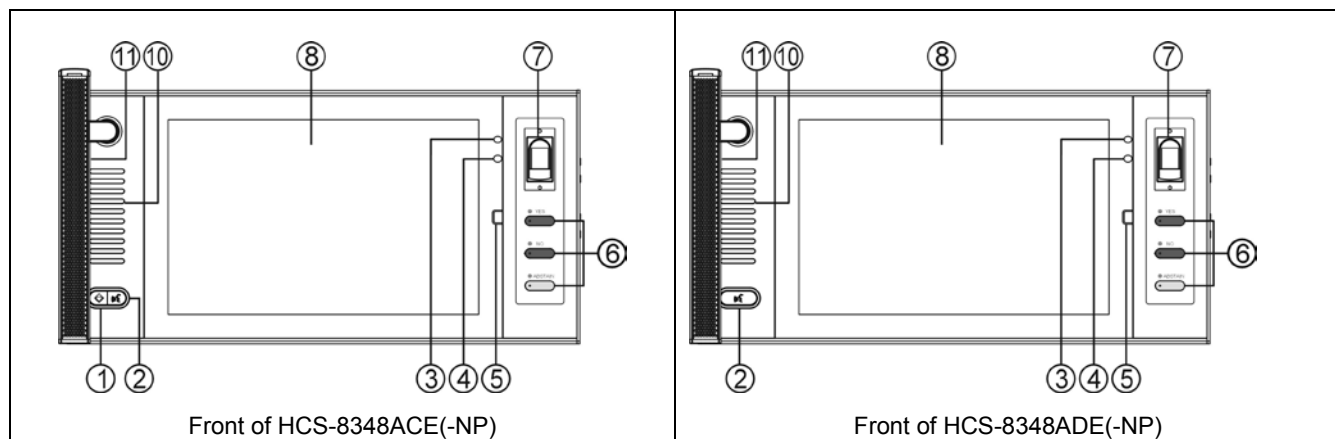


Figure 3.3.1a HCS-8338 series Paperless Multimedia Congress Terminal



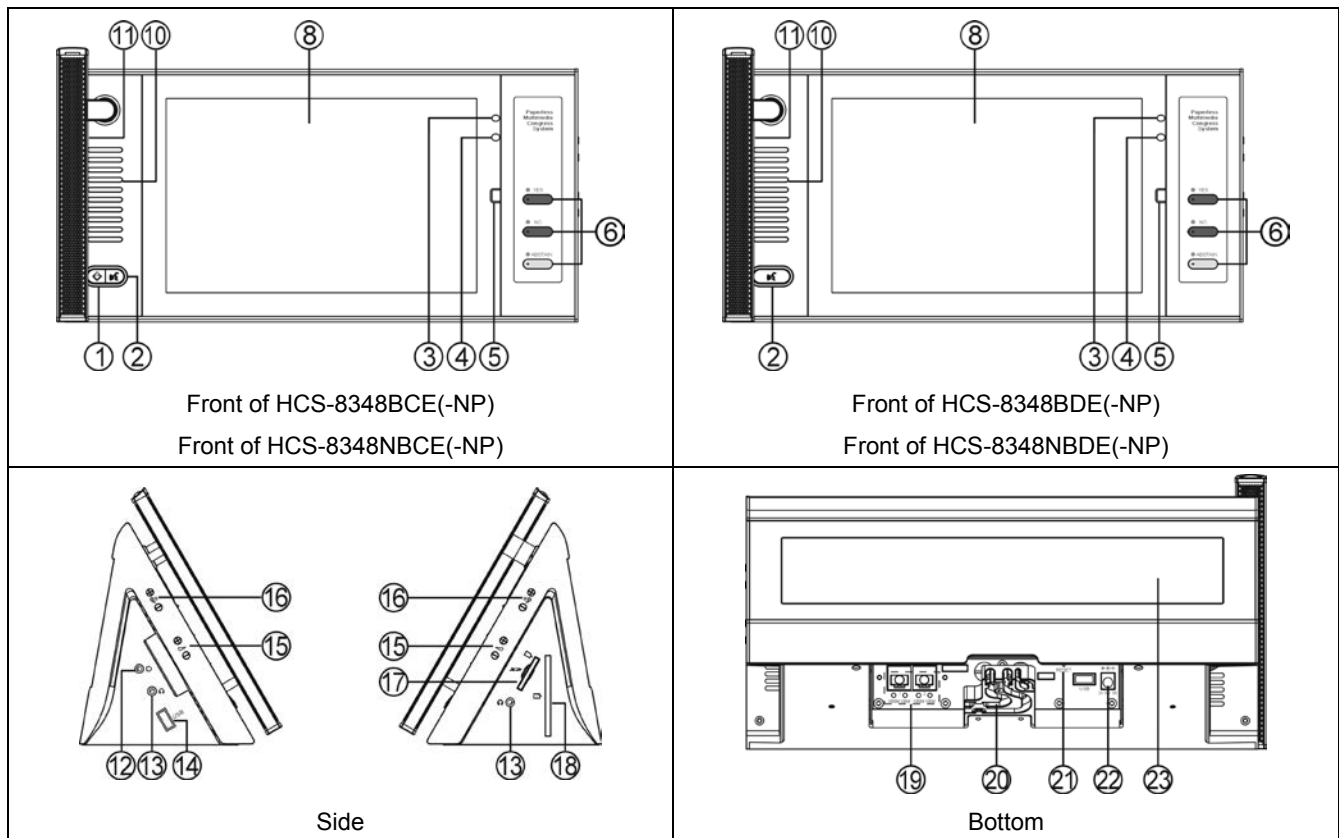


Figure 3.3.1b HCS-8348 series Paperless Multimedia Congress Terminal

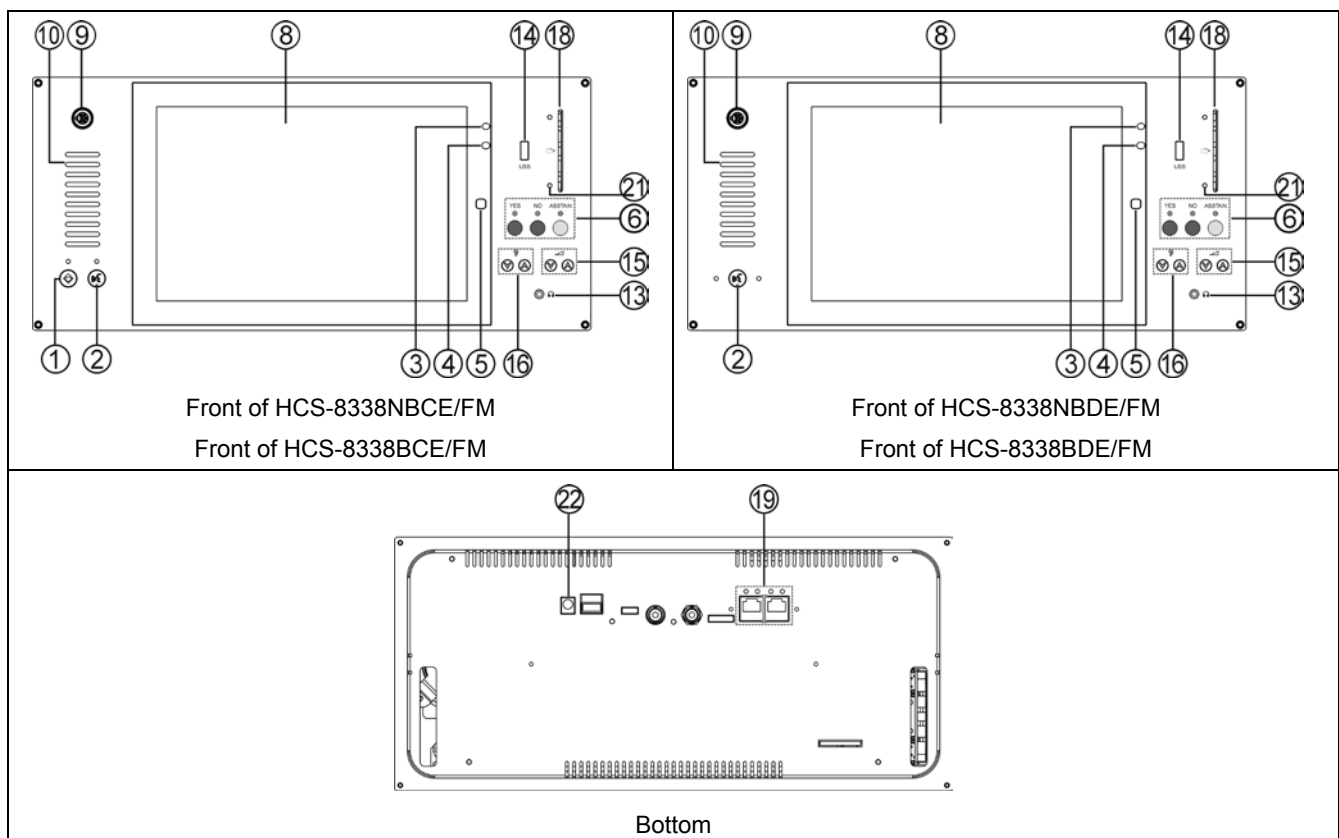


Figure 3.3.1c HCS-8338/FM series Paperless Multimedia Congress Terminal

Figure 3.3.1

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

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

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

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

- ◆ Chairman unit: press this key to activate microphone and indicating light;
- ◆ Delegate unit:

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

3. Flashlight

4. Camera

5. Home key

6. Voting keys with indicating light (3 keys):

◆ YES

In voting mode, the voting indicating light will blink, press this key to vote for “Yes”;

◆ NO

In voting mode, the voting indicating light will blink, press this key to vote for “No”;

◆ ABSTAIN

In voting mode, the voting indicating light will blink, press this key to vote for “Abstain”;

Note: keys are available when DCS software enables hard voting keys (Setup – System Parameters - -Topic and Voting -- Voting key)

7. Fingerprint identification module

8. 16:10 high resolution color wide-screen (touch screen)

9. Removable microphone stem spiral active interface

10. Built-in Hi-Fi loudspeaker

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

11. Microphone array

12. External microphone jack

13. Earphone jack (Ø 3.5 mm)

14. type A USB interface

- ◆ For conference files backing up;
- ◆ For external mouse and keyboard.

15. Earphone volume control

16. Simultaneous interpretation channel selector

17. SD card socket

- ◆ For plugging- in SD card, supports up to 32 G SD card.

18. 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.

19. Ethernet interface

- ◆ HCS-8338/8348 series Paperless Multimedia Congress Terminals are connected to the Gigabit network switch either in a “daisy chain” or in a “Closed Loop” configuration. All audio and video signals are transmitted via a Cat. 6 cable.

20. Cable locating slot

21. Reset function

22. Power input

- ◆ 24V - 33 V DC power supply.

23. Integrated E-ink nameplate

- ◆ Only for with “-NP” in model type suffix.

3.3.2 Installation

3.3.2.1 Fixed installation of HCS-8338/8348 series

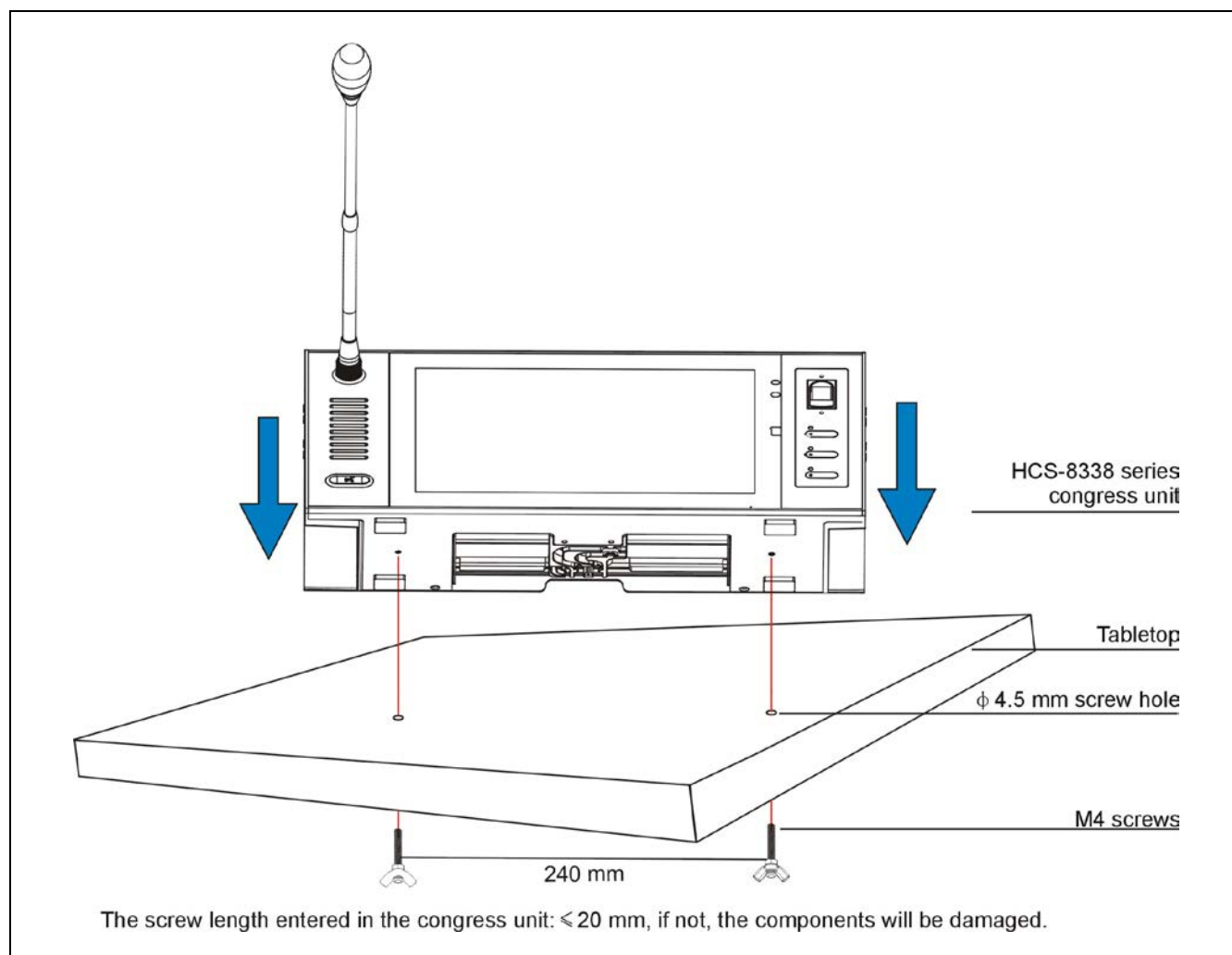


Figure 3.3.2 Fixing of HCS-8338 series paperless multimedia congress terminal

Note:

The fixed installation of HCS-8348 series is the same as the installation of HCS-8338 series.

3.3.2.2 Flush-mounted installation of HCS-8338/FM series

- Cut a hole in the table according to the dimensions in figure 3.3.3;
- Put the terminal into the hole and drill four $\varnothing 2$ mm holes with 10 mm depth at the positions the fixing screws;
- Run the cables according to the mounting feasibilities existing on site;
- Put the discussion unit into the hole and fix it with M3 screws.

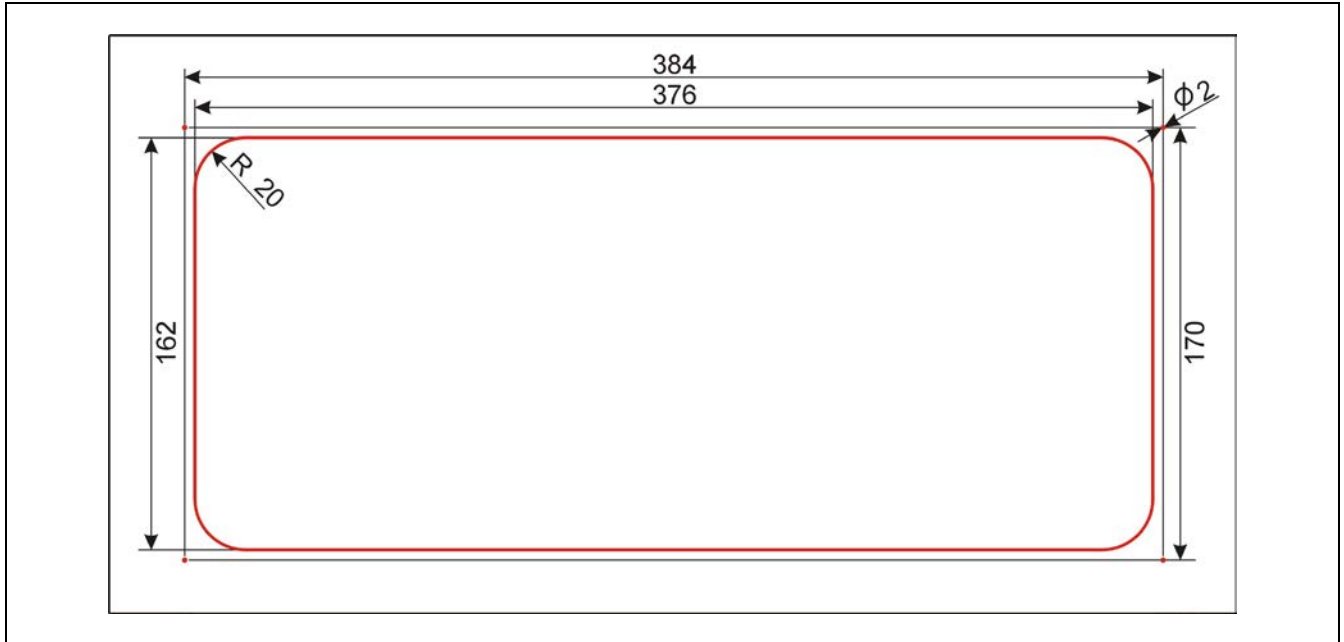


Figure 3.3.3 Fixing hole positioning diagram of HCS-8338/FM series congress terminal (unit: mm)

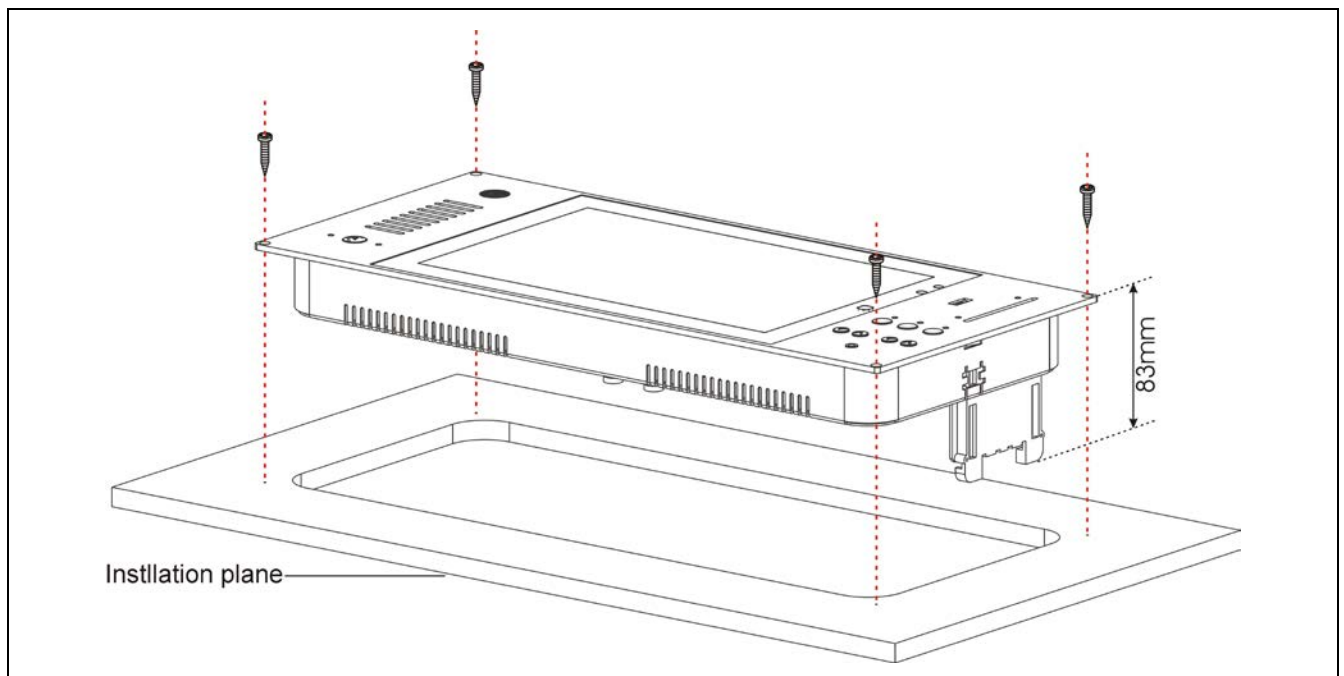


Figure 3.3.4 Flush-mounted installation diagram of the HCS-8338/FM series congress terminal

Note:

- ☞ In order to get well operation experience, please mount the congress multimedia on an inclined plane, suggesting angle: 60° with the horizontal tabletop.

3.3.3 Connection

3.3.3.1 Connecting to 1000M Ethernet switcher

HCS-8338/8348 series Paperless Multimedia Congress Terminal is based on the **TAIDEN** originated GMC-STREAM Gigabit Multimedia Congress Stream technology. All audio and video signals are transmitted via a Cat.5e/Cat.6 cable. GMC-STREAM fully guarantees the real-time performance and stability of the important data stream of the meeting, such as audio, voting information, and control information. When connecting to 1000M Ethernet switcher, just connect the “Delegate” port of the HCS-8300KMX to “1000M Ethernet” port of the multimedia congress terminal with a Cat.5e/Cat.6 cable.

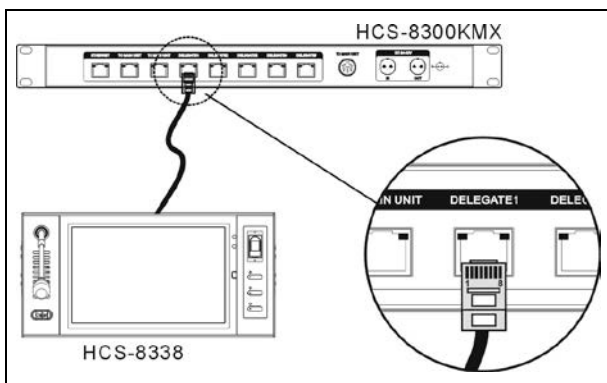


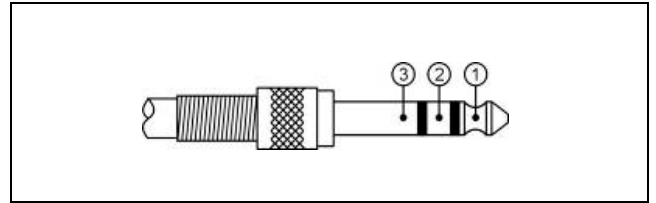
Figure 3.3.3 HCS-8338 series paperless multimedia congress terminal connecting to 1000M Ethernet switcher

3.3.3.2 Connection between Paperless Multimedia Congress Terminals

HCS-8338/8348 series paperless multimedia congress terminals are “daisy-chained” with Cat.5e/Cat.6 cable. When connecting to the next terminal, just connect the port (1000M Ethernet) of the terminal to the port (1000M Ethernet IN) of the next terminal by means of a Cat.5e/Cat.6 cable.

3.3.3.3 To external microphone

An external microphone is connected to the external microphone jack at the lateral side of the multimedia terminal. The external microphone shall have a Ø 3.5 mm plug, as in the following figure:

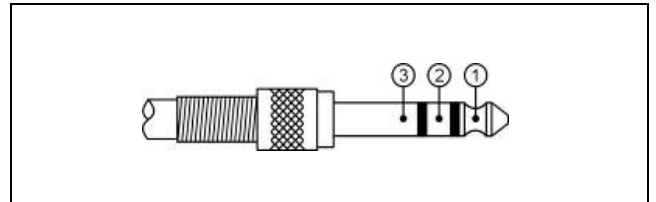


Functions and indications:

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

3.3.3.4 To external earphone

An external earphone can be connected to the external earphone jack at the lateral sides of the multimedia terminal. Its volume is adjustable by the earphone volume control key. 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

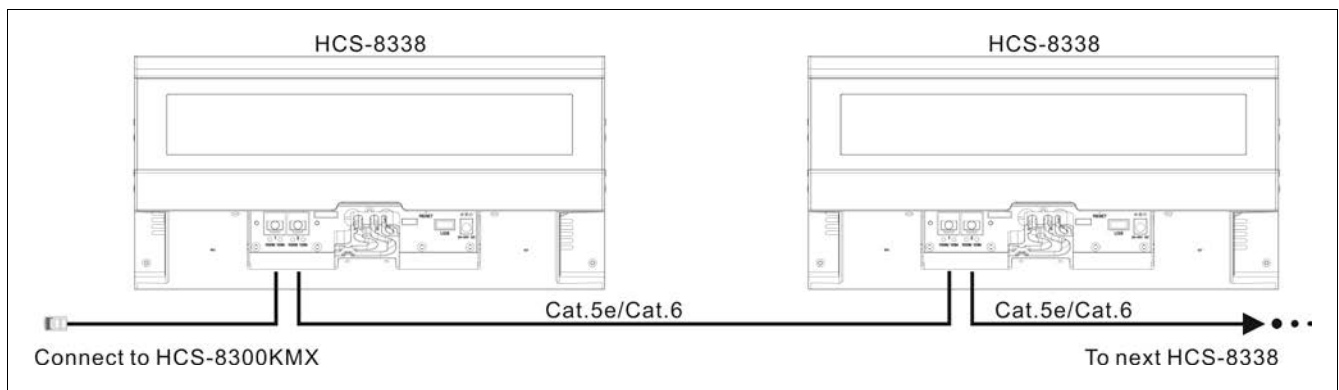


Figure 3.3.4 Daisy-chain connection between HCS-8338 series Paperless Multimedia Congress Terminals

3.3.4 Operation

Before a meeting starts, the multimedia terminals need to be configured by the operator, including: numbering and testing. During the meeting, the participants use the multimedia terminals to: sign-in, activate microphone, request to speak, vote, read message, for: paperless conference functions, video conversation, video display, multiple channel VOD and broadcasting, conference service, internet access, etc.

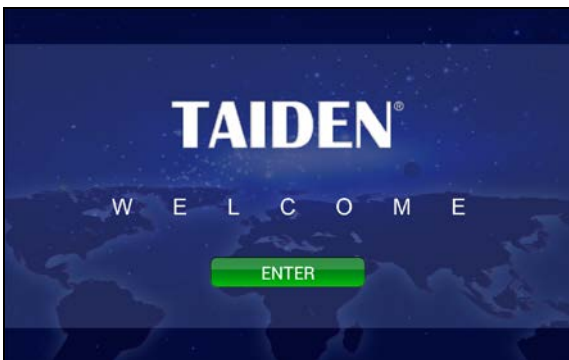
3.3.4.1 Delegate unit

We introduce all the operation of HCS-8338/8348 series paperless multimedia congress terminal. The multimedia congress terminals of this series feature one or more of these functions.

First of all, make sure that the paperless multimedia congress terminals are connected properly to the CMU. After powering on, initialization (user) interface appears.



After initialization, click “Enter” to go to primary (user) interface.



Icons and fonts on primary interface can be defined by user through “Taiden Update Manager” tool, details refer to the user manual of “Taiden Update Manager” tool.

Sliding left on the primary interface to enter “Agenda” interface. The agenda information comes from File Server. Agenda parameters are setup by the File Server too. The following figure was displayed as default agenda parameters setting. Click the “...” icon after agenda item to open linked file, in order to open file correctly, you must download the linked file to terminal first.



A) Number

All multimedia terminals must be numbered when the system is used for the first time or when adding or replacing multimedia terminals. Number function can be activated by menu operation on the CMU front panel or by application software.

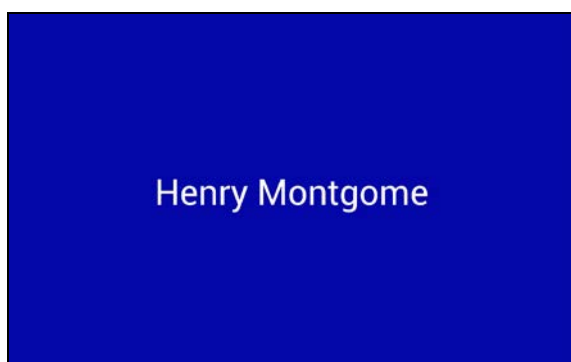
Select “Number - DCSUnits” by menu operation on the CMU, “Press ‘1’ key of all congress units one by one and repower” will be displayed on the CMU LCD. The system will now go to numbering status. All multimedia terminals in the system will display “Numbering: xx” on LCD. Press “Number” button of every terminal one by one, the loudspeaker will produce a sound (if ring tone mode is “On”). Once all terminals numbered, restart the CMU to update the number information.



Note:

- ☞ When numbering, please number the multimedia terminals one by one and do NOT press “number” key of several terminals at the same time.

After numbering and seat arrangement, file server can send commands to Multimedia Congress Terminals to show delegate's name on the LCD, so delegates can find their seats conveniently. The interface of the following figure is shown.

**B) 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. When the microphone On/Off button on the front panel is pressed, the speaker can give his/her speech;
 - b. The microphone will be deactivated when the microphone On/Off button is pressed again.
- **Active microphone number limitation (1/2/3/4)**
Reached:
 - a. When the microphone On/Off key is pressed, the speaker can request to speak;
 - b. Press this key again to cancel 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. When the microphone On/Off button on the front panel is pressed, the speaker can give his/her speech;
 - b. The microphone will be deactivated when the microphone On/Off button 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. 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 from the main unit (refer to section [2.1.4](#));
- **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:

- Pressed and hold the microphone On/Off button to activate the microphone. The speaker can give his/her speech;
- Microphone will be deactivated when microphone On/Off button is released.

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

Reached:

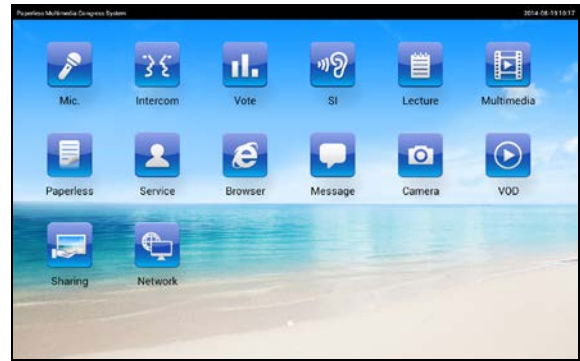
All other microphones cannot be activated unless one of the active microphones is turned off.

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.

When a microphone is activated, a camera can focus it automatically (the position can be preset by application software). Speaker's video can be exported to and displayed on large screen(s).

C) Main menu



Menu includes:

Microphone	Intercom
Vote	SI
Lecture	Multimedia
Paperless	Service
Browser	Message
Camera	VOD
Sharing	Network

- Click on the icon to go to the corresponding interface;
- Click  Back to return to the previous interface (except Browser interface);
- Click the "Home" button to return to the main interface;
- Click  /  in the left side of the interface to display/hide the collapsible navigation menu.

Note:

- ☞ SI/Lecture/Multimedia/Browser/Message/Camera can be operated independently;
- ☞ Service can be operated under the supporting of TAIDEN Conference Management System;
- ☞ Mic./Intercom/Voting/Paperless/VOD/Sharing/Network can be operated under the supporting of TAIDEN Conference Management System and File Server.

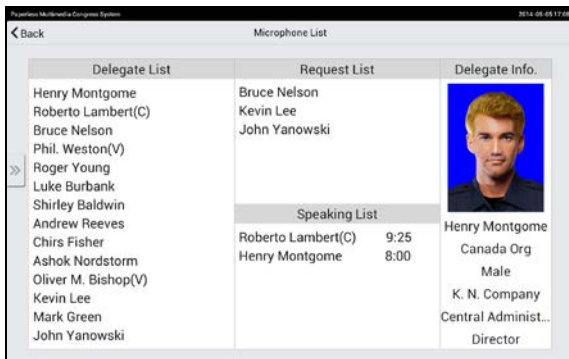
1. Microphone



Including “Mic. List”, “Layout” and “Setting”.

A. “Mic. List”

Delegates (including chairman unit, delegate unit, VIP unit and ambient microphone) are listed as in the following figure:



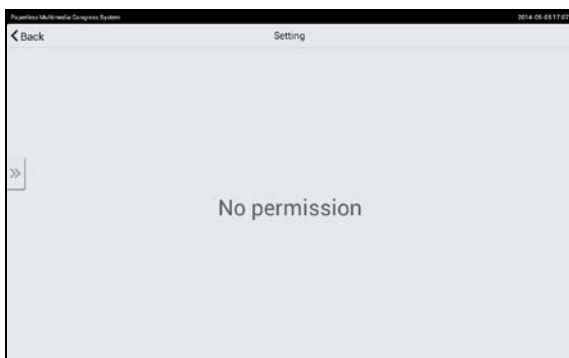
B. Venue

Congress terminals are shown as they are laid out in the venue, according to the following figure:

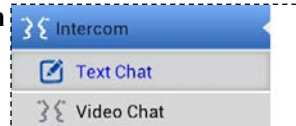


C. Setting

Congress terminals without microphone control option cannot enter setting interface.



2. Intercom



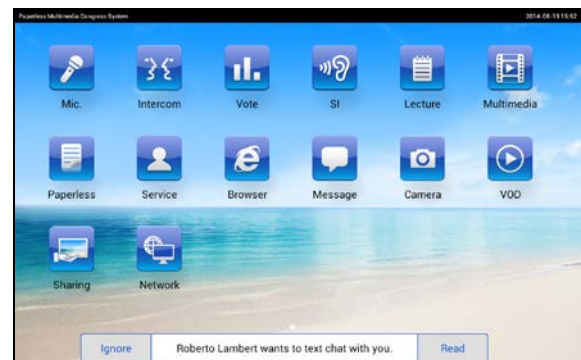
Click the “Intercom” icon to go to the intercom interface, including “Text Chat” and “Video Chat”:

A. Text Chat

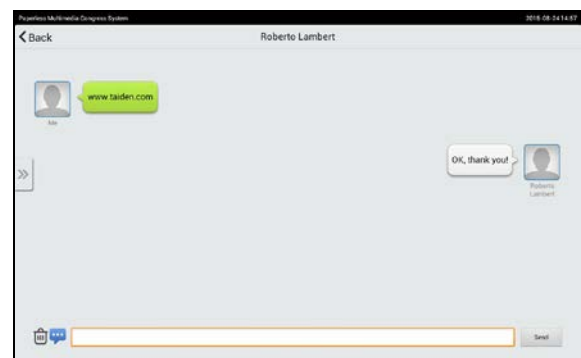
The text exchange interface is shown in the following figure; all delegates can be shown in the list or in the venue layout:



Double click on the delegate to exchange a text file. When the text file has been received, prompting information will be displayed on the LCD. Click the "Read" button to read the text or click the "Ignore" button to ignore it.

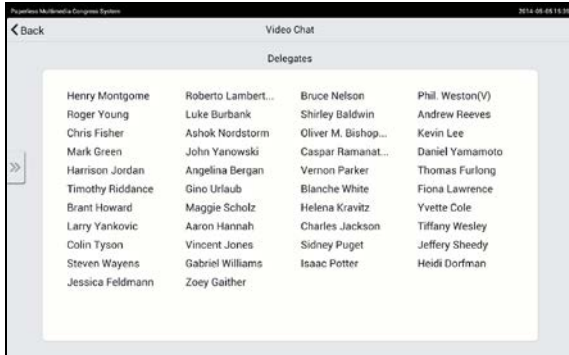


If read, the text will be displayed as in the following figure. The delegate can reply to the sender's text message. The left side is the sent message and the right is the received message. Click “🗑️” to delete all text chat content.

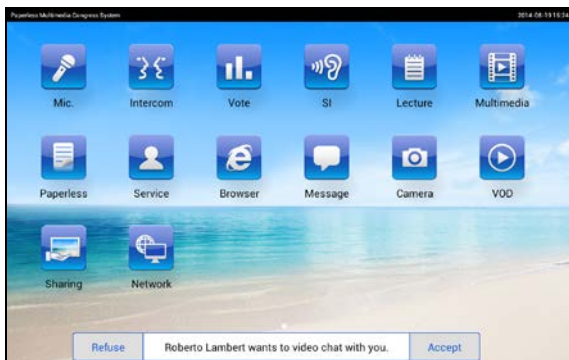


B. Video Chat

Click the “Intercom” icon and the following interface appears. Double click on the delegate whom you want to contact and request for a video dialog (The earphone must have been inserted; otherwise it will prompt “Please insert headphone first”).

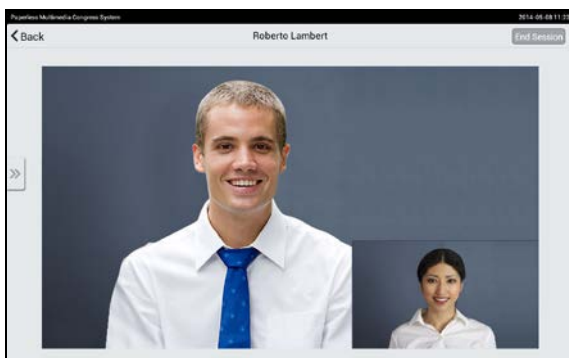


When someone asks you for a video conversation, video request information will be displayed on your LCD. Click “Accept” button to start video conversation or click “Refuse” to refuse his/her request.



When the request for video conversation has been accepted, the video user interface of the following figure is displayed. The microphone will be activated; the microphone indicator and the microphone On/Off button lamp will turn red. The videos of both speakers will be displayed on the LCDs.

The earphone is needed to listen to the video dialog. When the intercom is finished, click the “End Session” button and confirm to end the video dialog and to exit the video interface.



3. Vote



Including “Sign-in”, “Vote” and “Proposal”.

A. Sign-in

Delegates must sign-in before voting.

■ 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:

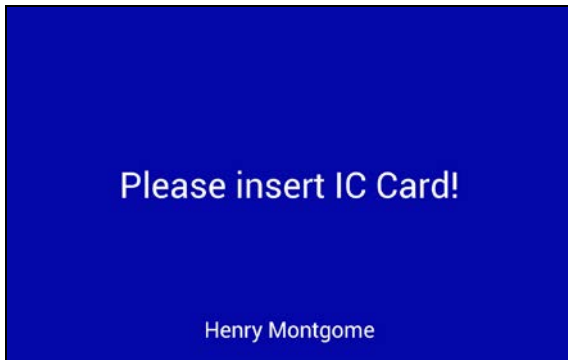


If "Allow belated sign-in after stop" is enabled, After stop of sign-in, “Belated sign-in” will be displayed on the LCD. The "Belated sign-in" button can now be clicked for belated sign-in. Or else, after stop of sign-in, “Not present.” will be displayed on the LCD.



■ IC-card sign-in

The paperless multimedia congress terminals are equipped with a built-in contactless IC-card reader. In IC-card sign-in mode, “Please read 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 terminal, if sign-in was successful; the figure is shown as below. If not, "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.



■ Automatic Sign-in

In automatic sign-in mode, when operator click the "Start Sign-in" button or select "Start sign-in automatically after start conference" on DCS software, the multimedia signed in automatically.

In above sign-in mode, after sign-in, the main interface of the multimedia terminal displayed "You have signed-in". Shown as the following figure:



■ PIN code sign-in

In PIN code sign-in status, the LCD will display as the following figure:



Input PIN code through virtual keyboard to sign in. If the PIN code is wrong, "Invalid PIN code" will be displayed on the LCD.

■ Seat IC-card and PIN code sign-in

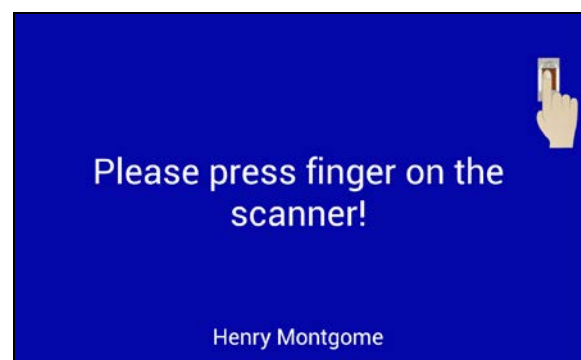
In seat IC card and PIN code sign-in status, the LCD will display as in the following figure:



Either IC card sign-in or PIN code sign-in will work.

■ Finger Print Sign-in

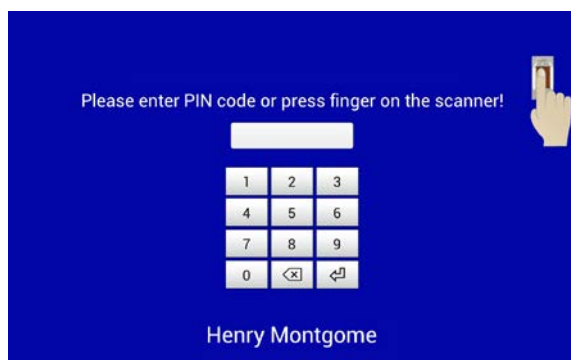
HCS-8338A and HCS-8348A series multimedia congress terminal built in fingerprint identification module, in finger print sign-in status, the LCD will display as the following figure:



Please press finger on the scanner according the prompting information. Collecting finger print for every delegate should be finished before meeting started. Delegate without finger print data in the database will not sign in successfully.

■ Finger Print and PIN Code Sign-in

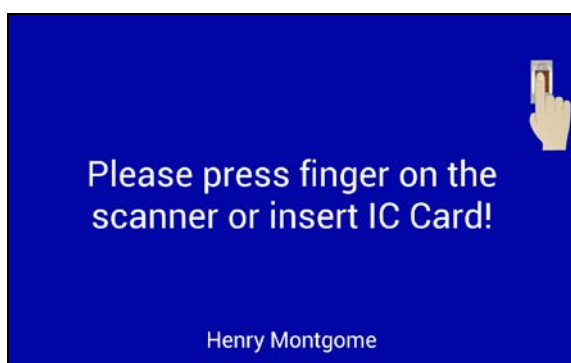
In finger print and PIN code sign-in status, the LCD will display as in the following figure:



Either finger print sign-in or PIN code sign-in will work.

■ Finger Print and Seat IC Card Sign-in

In finger print and seat IC card sign-in status, the LCD will display as in the following figure:

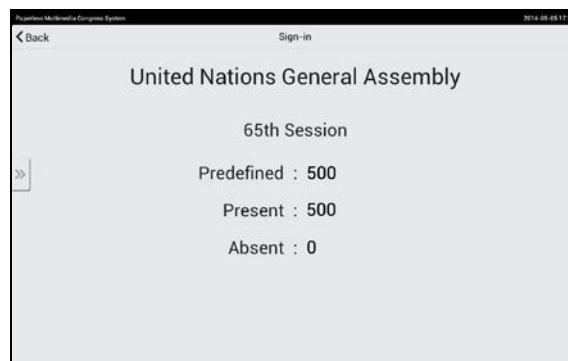


Either finger print sign-in or IC card sign-in will work.

In above sign-in mode, after sign-in, the main interface displayed as the following figure. The icon “” is used for locking LCD screen to protect the meeting information in case the delegates leave for a short time. Paperless multimedia terminals will work on after delegates sign in again (The DCS server cannot stop sign-in).



After sign-in, sign-in result will be displayed as in the following figure:

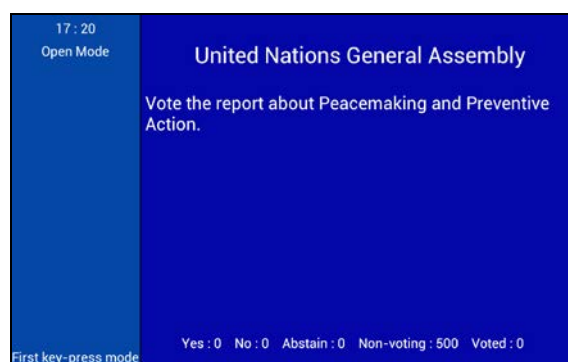


B. Voting

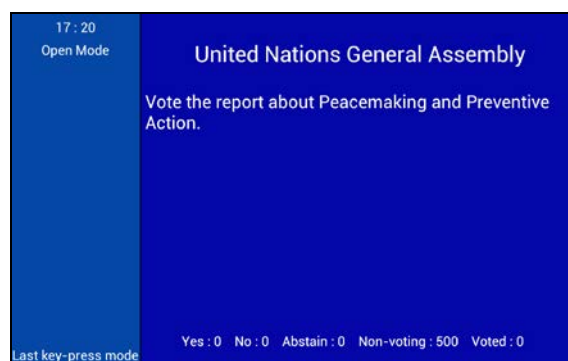
Chairman unit can start 3 keys voting, application software can start 2 keys, 3 keys, 4 keys or 5 keys voting. Supports multi-proposal voting.

■ Voting

- Connect to PC, proposal and voting option will be displayed on LCD, click on voting buttons and voting. For three keys voting, you can vote by pressing virtual keys on the screen or pressing keys on the front-right panel (set by DCS software: Setup – System Parameters - -Topic and Voting -- Voting key);

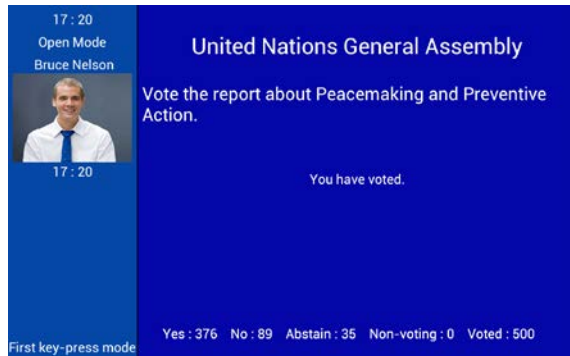


- For “First key-press mode” proposal, delegate can click voting buttons only once;
- For “Last key-press mode” proposal, delegate can change his/her voting, and the last clicked voting button will be counted;



- Without PC, the voting originated by the chairman unit only supports “Last key-press mode”;

- HCS-8338/8348 series Paperless Multimedia Congress Terminals support voting with photo. When the delegate votes, it will take a picture and upload the delegate's picture as well as the voting result. This can be used as an important evidence to confirm that the voting is executed by the delegate himself/herself.



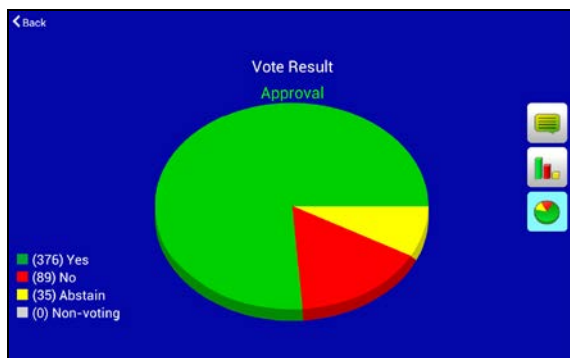
■ Voting result

After voting, voting result will be displayed in three modes (numeric, bar, pie) on the multimedia terminals with voting option.



■ Display voting result

When click “Display Result” on application software or multimedia terminal with voting control option, voting result will be displayed on all multimedia terminals in three modes: numeric, bar, pie.



■ Display name list

For open mode proposal, when click “Name List” on multimedia terminal with voting control option or click “Name List” – “Display” on application software, name list will be displayed on LCD.

2015-08-13 16:49:07 Vote the report about Peacemaking and Preventive Action.				
Name	Yes	No	Abstain	No-Voting
Bruce Nelson			✓	
Henry Montgome	✓			
Roberto Lambert	✓			
Present: 3 Totals: 2 0 1 0				

C. Proposal

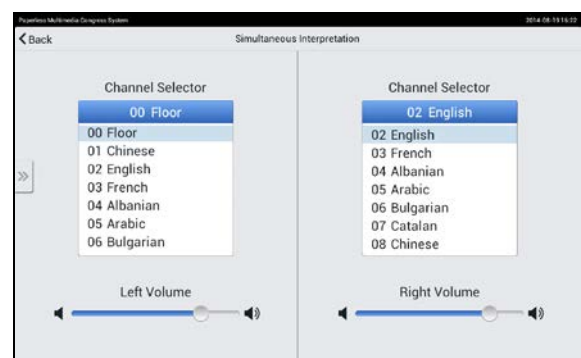
Congress terminals without voting control option cannot browse proposal list; and “No permission” will be displayed on the LCD.

4. Simultaneous interpretation



Click the “SI” icon and go to the simultaneous interpretation interface. The needed language is selected by clicking on the corresponding language item.

HCS-8338/8348 Series Paperless Multimedia Congress Terminal supports dual 64 CHs interpretation with volume control. Two delegates may share one unit thus cutting the cost by half. HCS-8338/FM Series Congress Terminal only supports one 64 CHs interpretation with volume control.



- If interpreter units are connected to the CMU, simultaneous interpretation function is available and the channel selector is activated. The earphone should be inserted before selecting the

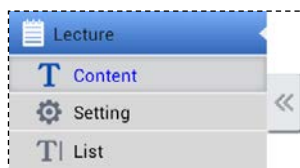
language;

- If the earphone is unplugged, the unit will return to floor language automatically;
- Earphone volumes are adjustable by the “Volume” scroll bar.

If the earphone is plugged, press the simultaneous interpretation channel selector button and earphone volume control button on the lateral sides of the congress terminal to activate the channel selector and volume control interface, as shown in the following figure:



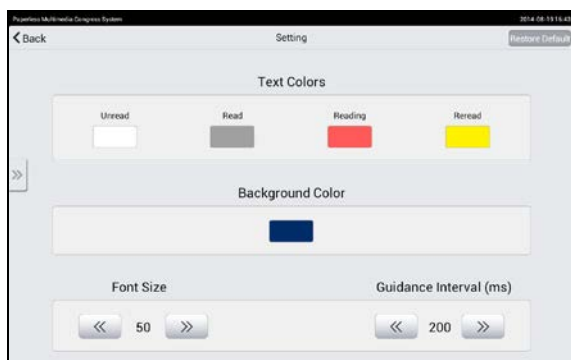
5. Lecture



Including “Content”, “Setting” and “List”:

A. Setting

Set up display for colors, font size, and guidance interval. Font size can be adjusted between 20 - 80, and guidance interval can be adjusted between 50 ms - 500 ms with steps of 50 ms. Hold press the “<<”, “>>” button to adjust quickly. Click “Restore Default” to reset settings.



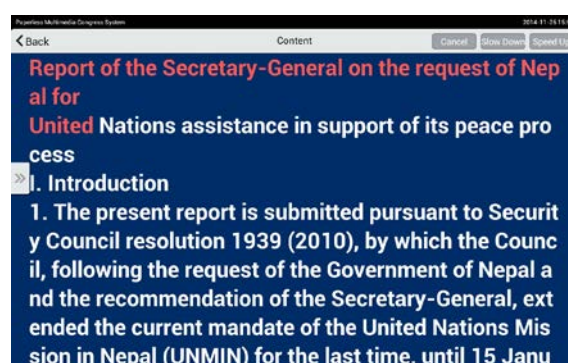
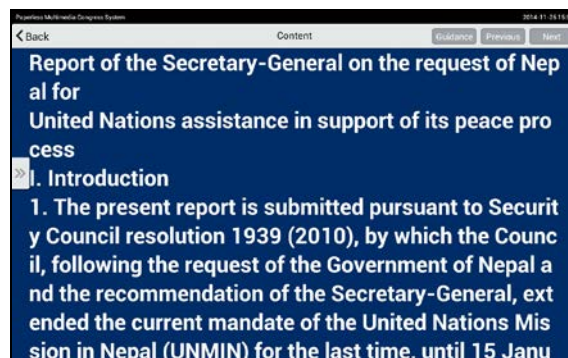
B. List

In the lecture list, double click on the lecture to open and read the lecture. Supports Internal Storage, Storage Card and Flash Disk.



C. Content

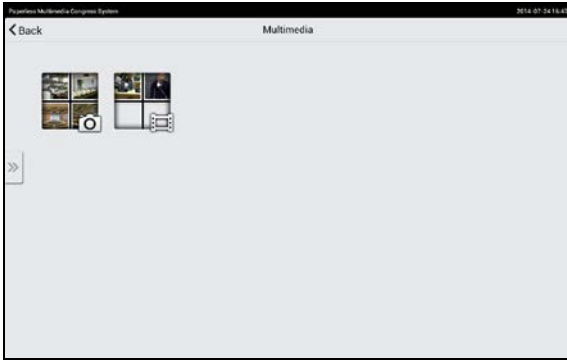
Display the content of the lecture. Click “Guidance” or “Cancel” button on the LCD to switch guidance or not. Click “Preview” or “Next” button to browse the content. In guidance mode, click “Slow Down” or “Speed Up” button to adjust guidance interval. Press and slide on the screen can browse the lecture quickly.



6. Multimedia

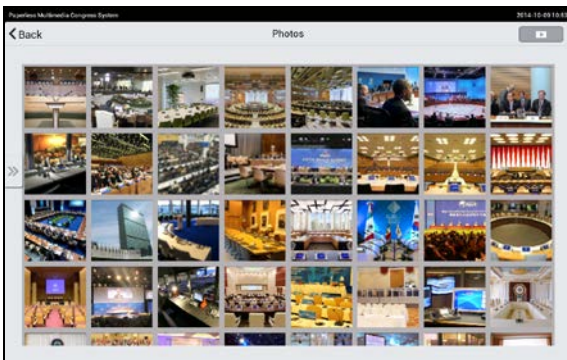


Including “Multimedia” (Photos/Videos) and “Camera”:



A. Multimedia - Photos

You can click "Photos" folder icon to browse pictures, supports jpg, bmp and png formats now. When viewing picture, you can swipe your finger across the screen to switch pictures; and you can scale the picture by two fingers. Click the "🗑️" icon to delete current picture. Click "▶️" button to play pictures as a slideshow.



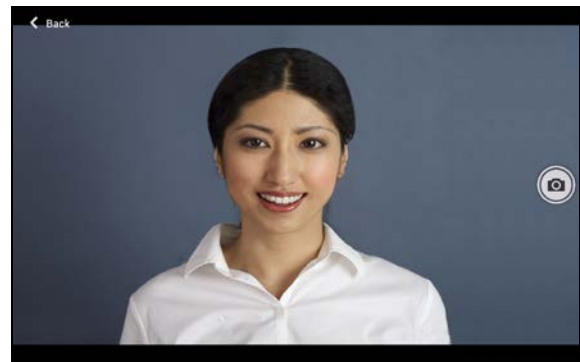
B. Multimedia - Videos

Click the "Videos" file to browse all the videos in multimedia terminal, only supports MP4 format now. When playing videos, you need to insert earphone to listen to the audio. At the same time, playing process, full screen and earphone volume can be controlled.



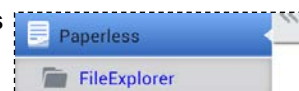
C. Multimedia - Camera

Click the "Camera" icon or the "Camera" item in the navigation menu to go to the camera control interface. The delegate can take photo via the built-in camera (auto flash).



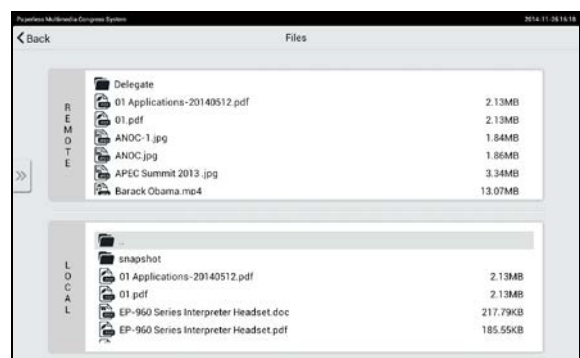
Click the "📷" icon to take a photo. The photo will be saved on the congress terminal and can be browsed from "Multimedia"; click "⬅️ Back" to return to the upper level interface.

7. Paperless



Click the "Paperless" icon to go to the paperless interface.

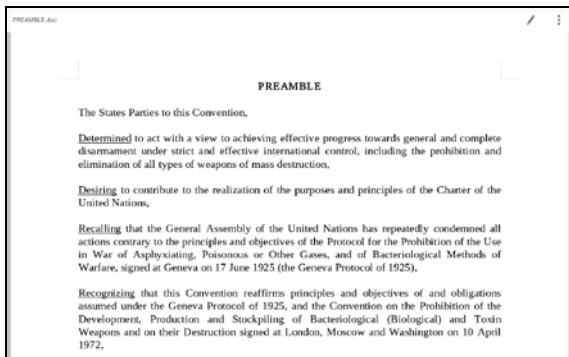
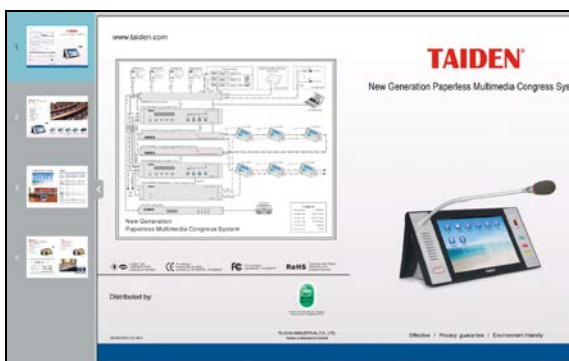
File Explorer



Different access authorizations can be set in the file server. Delegate, chairman and VIP have differing rights to browse different files. For example: a delegate can browse public files and the files in the delegate document, cannot browse the files in chairman and VIP documents.

Press and hold the file in remote list can select View/Download in pop-up menu; Press and hold in local list can select View/Upload/Delete in pop-up menu. Press and hold file in Storage Card or Flash Disk can select View/Upload/Delete in pop-up menu.

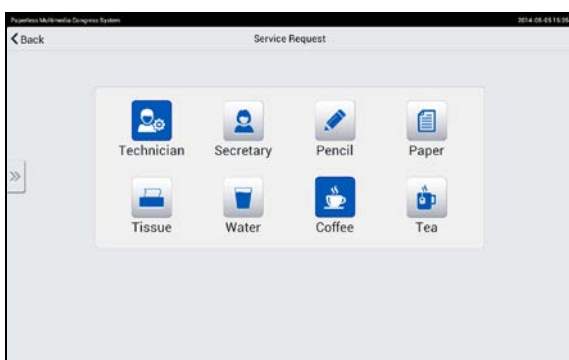
Click file name in remote or local list can open the file directly. Mp4, jpg, bmp, png, txt, doc, xls, ppt, docx, xlsx, pptx, and pdf format files are supported; and txt, doc, xls, ppt, docx, xlsx, pptx files can be edited.



8. Service

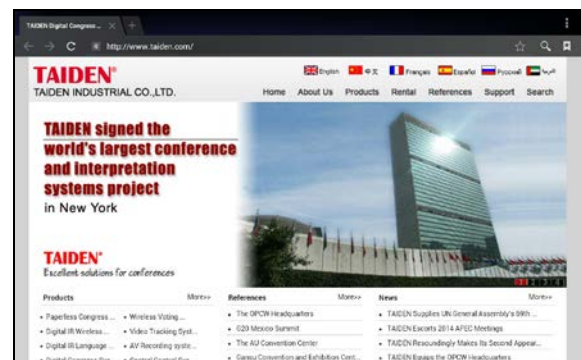
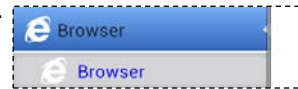


Click "Service" icon to go to the service calling interface:



Click on a service icon to request for the corresponding service. If the icon turns blue, the service information will be send to the server and the information will be displayed on the application software. Click the selected service icon again to cancel the requested service. If the requested service is acknowledged, the blue icon will fade and "Please wait, you will be served soon." will be displayed on the LCD.

9. Browser



HCS-8338A/8348A, HCS-8338NB/8348NB and HCS-8338NB/FM series paperless multimedia congress terminals have internet access; related information is available through the Internet or the LAN during the meeting.



add bookmark for current page;



search or type URL;



manage bookmarks, press one bookmark for 2 seconds to activate the pop-up menu.

10. Messages



Click the "Message" icon to go to the message interface:

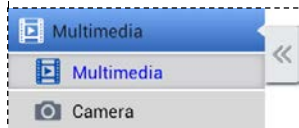


- When controlled by PC, the operator can send a message to any congress unit;
- Click “Preview” and “Next” to read all messages;
- When receiving a message, “You have a got a new message!” will be displayed on the LCD. Click “Read” to read the message or click “Ignore” to ignore it;

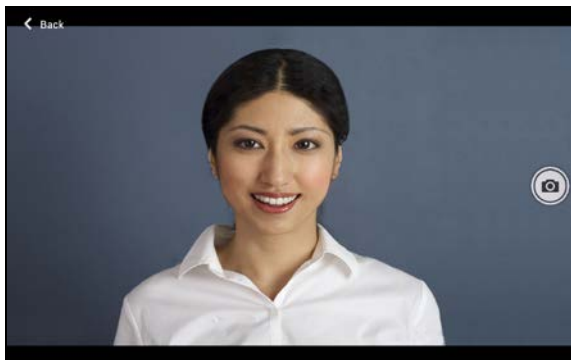


- At most 10 messages can be saved. If more messages are received, the oldest message is lost.

11. Camera

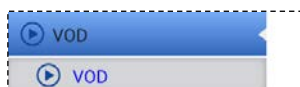


Click the “Camera” icon to go to the camera control interface. The delegate can take photo via the built-in camera (auto flash).

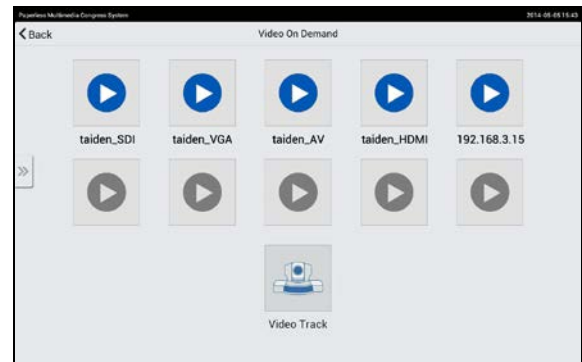


Click the “” icon to take a photo. The photo will be saved on the congress terminal and can be browsed from “Multimedia”; click the “ Back” button to return to the upper level interface.

12. VOD



Click “VOD” icon to go to VOD service interface. Supports up to 10 channels. Click one channel to play video.



When Video Server performed the “**Display Camera**” operation or selected “**Track Active Mic.**” item, the “Video Track” function on the multimedia was activated.

- Performed the “**Display Camera**” operation: click the “Video Track” on terminal, and then the terminal screen and video server will display the same camera video.
- Selected “**Track Active Mic.**” item: click the “Video Track” on terminal, current tracking microphone camera video displayed on terminal screen automatically. If no microphone is activated or the activated microphone without camera, terminal screen will display “Waiting...”, until the microphone with camera is activated.

When playing, click the screen fist, and then click the



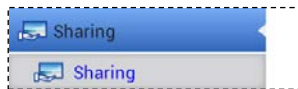
icon on the top right corner of the LCD screen to switch video display on full screen or equal proportion; click “back” to return to VOD list interface.



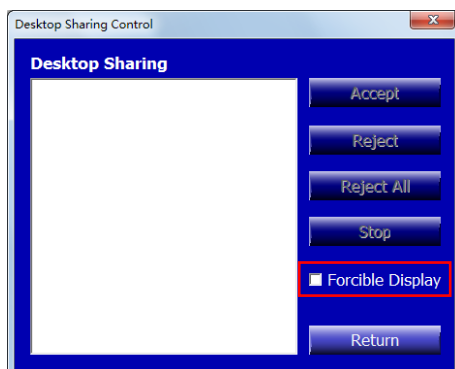
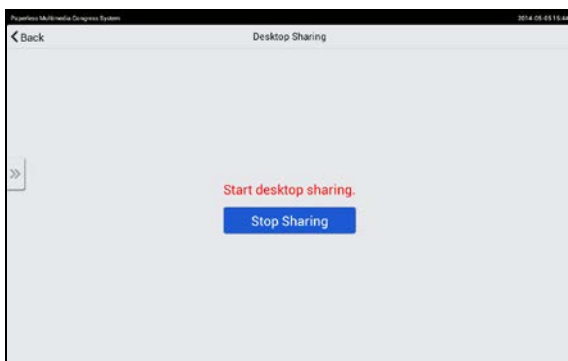
There is no audio default for VOD channel. If operator set encoder as “Video and Audio” through video server software, you can change the “” state to “” to monitor audio through earphone.



13. Sharing



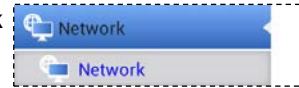
Click the “Start Sharing” button to request desktop sharing. If the request is approved, the desktop of the delegate will be shared with all other delegates and with the large display screen.



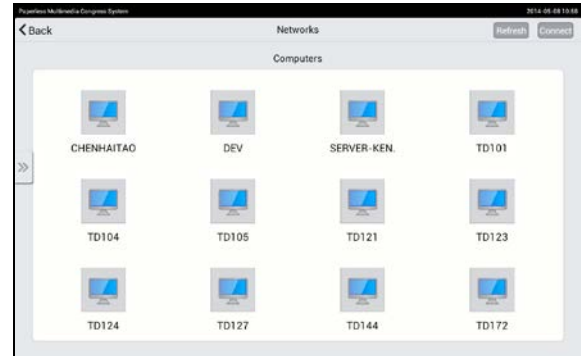
- If select “**Forcible Display**”, other delegates cannot exit desktop status freely, unless initiator or delegate with control option or the operator stops desktop sharing.
- If **not** select “**Forcible Display**”, delegates can exit desktop sharing temporarily by pressing the yellow button on the pop-up dialog; and can enter desktop sharing again by press **Sharing --> Enter desktop sharing**.



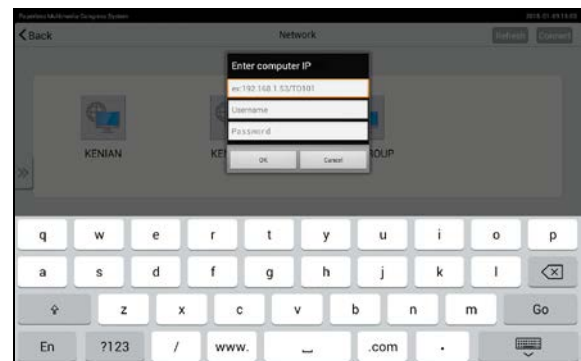
14. Network



Click the “Network” icon to go to the network interface; all the resources which can be accessed were listed.



Click the “Connect” button to pop up “Enter computer IP” dialog box, input computer’s IP address, user name and password to access the appointed computer.

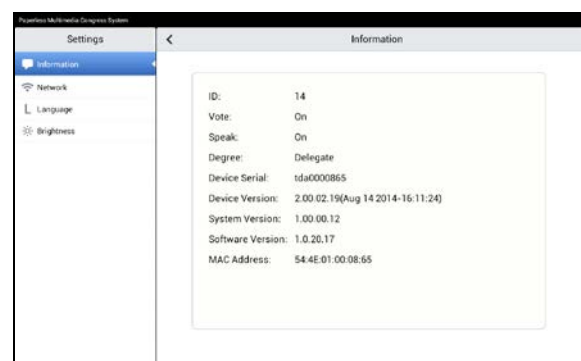


15. Setup

To prompt the setup interface, please connect the multimedia terminals to TAIDEN conference management software, and then select “Setup” – “Multimedia Terminal” – “Switch Interface”.

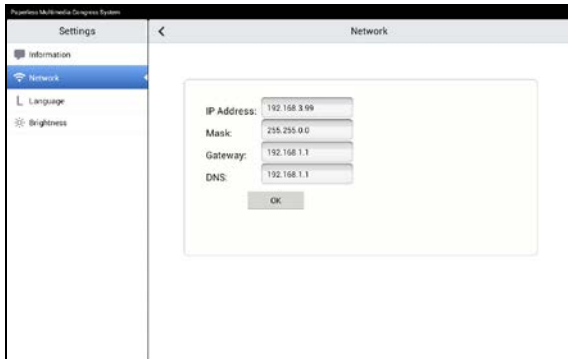
A. Information

Display the information of the congress terminal, including: ID, permission, version, MAC address, etc.



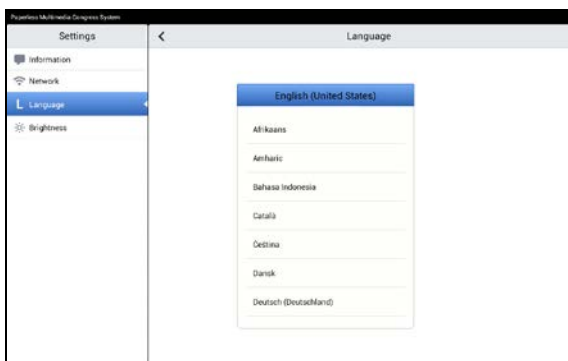
B. Network

Set up network configuration. Please set up the same network segment for multimedia terminals in the same congress system.



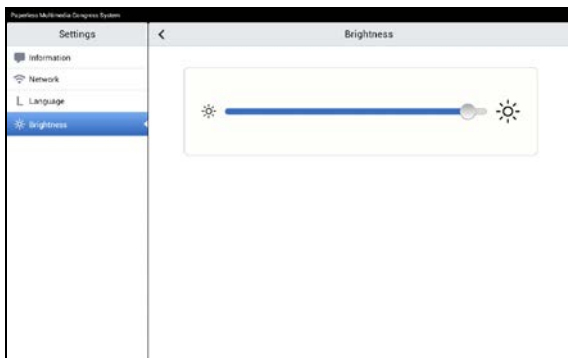
C. Language

Select the operation language.



D. Brightness

Setup the brightness of the LCD screen.



16. Snapshot

Press “Home” and “YES” key at the same time to shot screen at any time. The picture (*.jpg file) was saved in the “snapshot” file and can be viewed through multimedia function.

If delegate arrangement finished, the picture name is delegate name_increment, for example: John_0001.

If without delegate arrangement, the picture name is unit ID_increment, for example: 4019_0002.

D) VIP unit

- Any delegate unit can be assigned as a VIP unit by application 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 features all functions a delegate has, additionally:

1. Priority

- If priority mode is configured as “All mute”, all active microphones (except VIP units and other chairman units) will be muted temporarily when this key is pressed and they will resume when the key is released;
- If priority mode is configured as “All off”, all active microphones (except VIP units and other chairman units) will be turned off when this key is pressed;
- Under “OPEN” and “Apply” mode, pressing this key will clear request list.

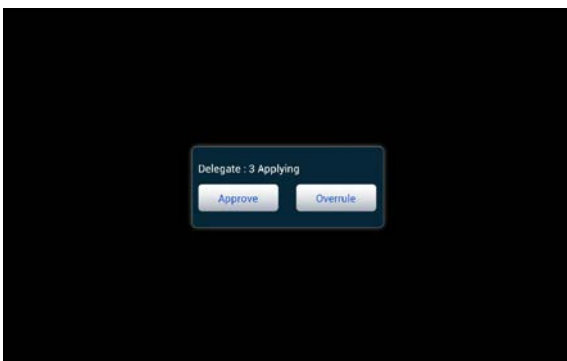
2. Speaking

- 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 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” icon or reject delegate's request by pressing “Overrule” icon.

When his/her request is approved, he/she can speak and the last activated microphone will be turn off at the same time.

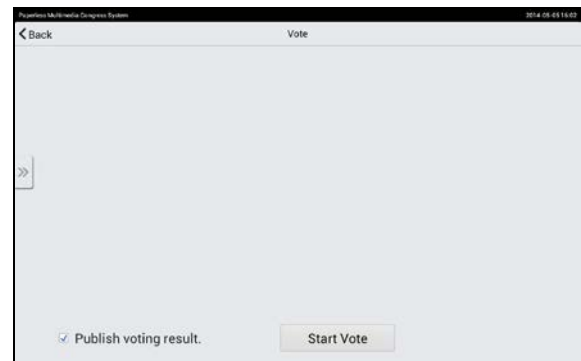
B. Turn off or mute delegate microphone

Chairman can use the “Priority” key to execute “All mute” or “All off” operation.

4. Voting without PC

The chairman unit can start voting procedure (no PC connection).

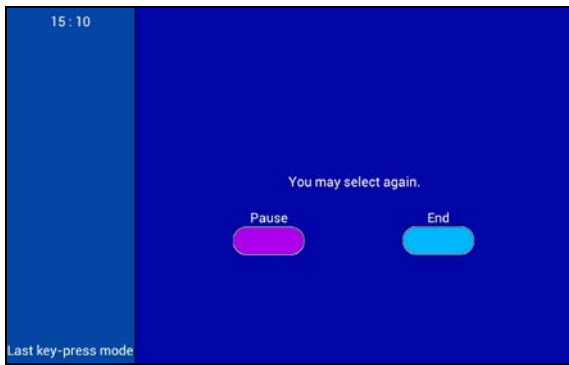
- a. Click the “Vote” icon from primary user interface, the following interface appears. “Publish voting result” is optional (if checked, voting result will be displayed on LCD of all congress terminals after voting; if not checked, voting result will not be displayed);



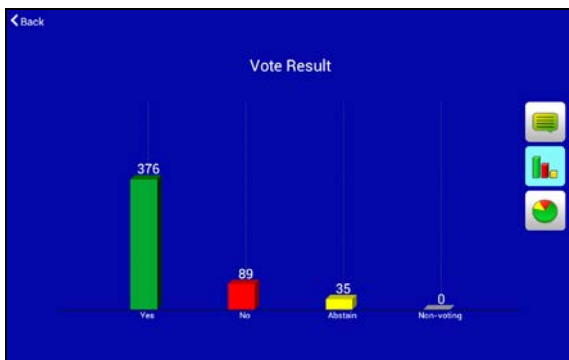
- b. Click the “Start Vote” button to start voting, all congress terminals will go to sign-in mode;



- c. Click the “Sign-in” button to sign-in and then go to the voting interface; only parliamentary voting can be initialized by the chairman unit. Three options (“Yes”/ “No”/ “Abstain”) and only “Last key-press mode” mode are available. The pause and the end of voting are controlled by the chairman unit as per the following figure:



- d. Click the “End” button to finish voting. Voting result will be displayed on LCD (for open voting only) in list, bar, or pie.



3.3.4.3 Second Chairman Unit

The second chairman options (microphone control, voting control, and desktop sharing control) can be assigned by file server software, it can be a chairman unit or a delegate unit or different units to carry out different functions.

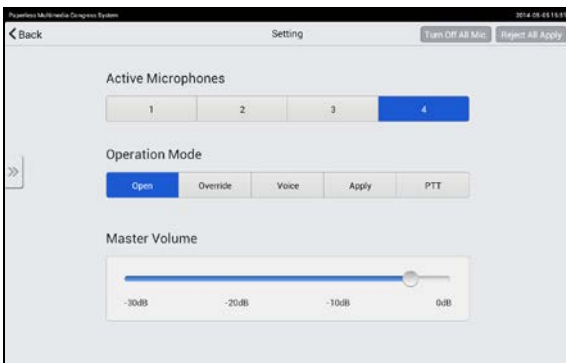
1. Microphone control



Click "Mic." icon to go to microphone control interface.

A. Setting

Configuration of maximum active microphone number, microphone operation mode and master volume.



- **Master Volume:** adjust built-in loudspeaker volume of all congress units, line output volume and group output volume, range: -30 dB - 0 dB;
- **Active Microphones:** active microphone number 1/2/3/4;
- **Operation Mode:** Open/Override/Voice/Apply/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 first active unit gets off (*DCS: Setup - System Parameters Setting - Microphone - Automatically activate the first request microphone (Open Mode)*).

Note:

- ☞ Discussion mode has two request levels: Request and Two Hands. Press “Request” to add delegate’s name to request list; and press “Two Hands” to add delegate’s name to the first in request list.

“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 turned on first.

“Voice”:

When the delegate speaks into the microphone at a short distance, the microphone will be activated. If the delegate does not speak for several seconds, the microphone will be deactivated automatically. The interval time can be adjusted: 300 ms /600 ms /1 s - 15 s.

“Apply”:

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

Note:

- ☞ The TAIDEN “Conference Management System” application software offers the possibility to select a PARLIAMENT mode within the APPLY Operation Mode. If PARLIAMENT is marked, the units display “REQUEST” and “RESPONSE”. Two discrete time limits are set: one for REQUEST and one for RESPOND. After selected time lapse, the microphones are switched off. If PARLIAMENT is not marked, the standard REQUEST mode is operated.

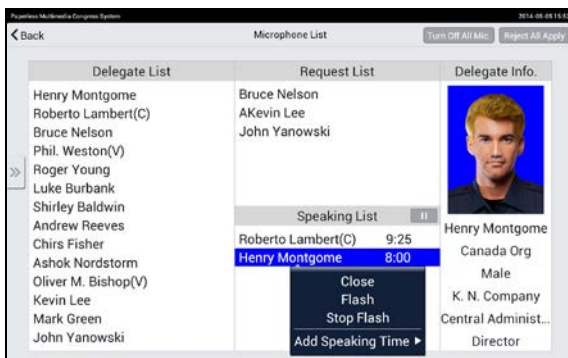
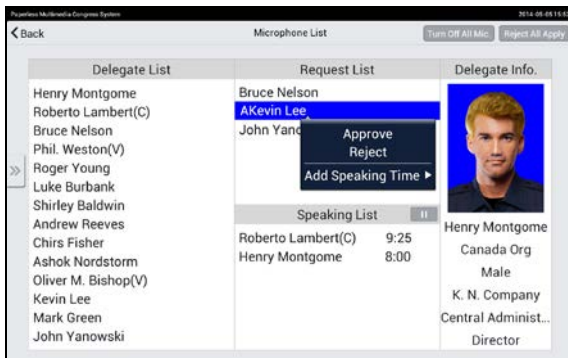
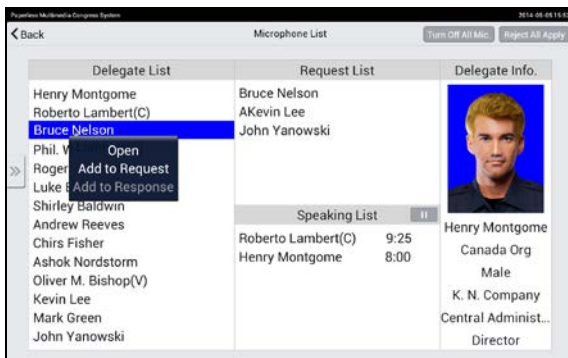
“PTT”:

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

Under Discussion and Parliament modes, a dialog window was popped up, shown as in the following figure. Press and hold to drag it to any position, press the “” icon to embed it in the interface (only display the “” icon on the top-middle of the interface), press the “” icon again to resume the dialog window.



B. Microphone control

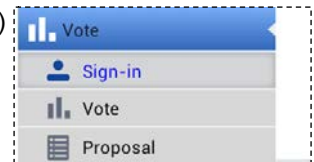


Click on a delegate name in the list, a menu will prompt, including:

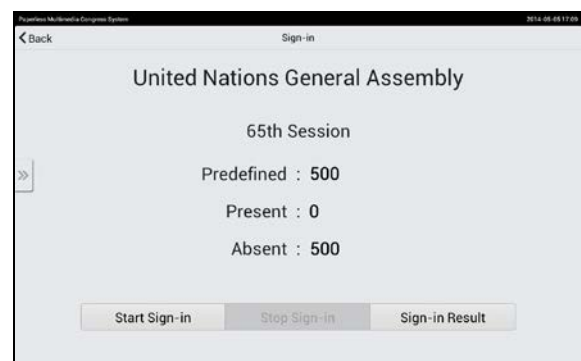
- **Open:** turn on the selected microphone;
- **Add to Request:** add selected microphone into request list;
- **Add to Response:** add selected microphone into response list;

- **Approve:** approve the request/response of a selected microphone and turn on the microphone;
- **Reject:** reject the request/response of a selected microphone and turn off the microphone;
- **Close:** turn off a selected microphone;
- **Flash/Stop Flash:** start/stop blink of a selected microphone;
- **Add Speaking Time:** add speaking time for delegates (± 1, ± 2, ± 3, ± 5, ± 10 Min for selection);
- **Turn Off All Mic.:** turn off all active delegate microphones (not effective for chairman and VIP unit);
- **Reject All Apply:** rejecting all requests.

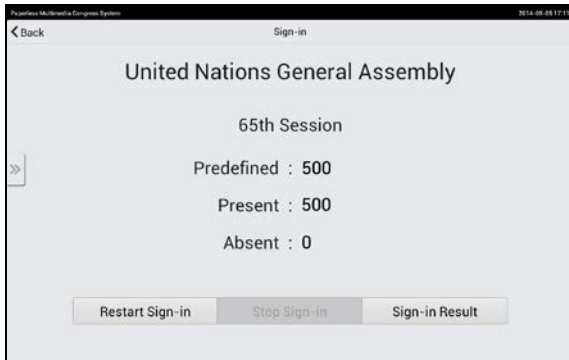
2. Voting (controlled by PC)



- Click the “Vote” icon to go to voting interface on voting control unit, including “Sign-in”, “Vote” and “Proposal”:



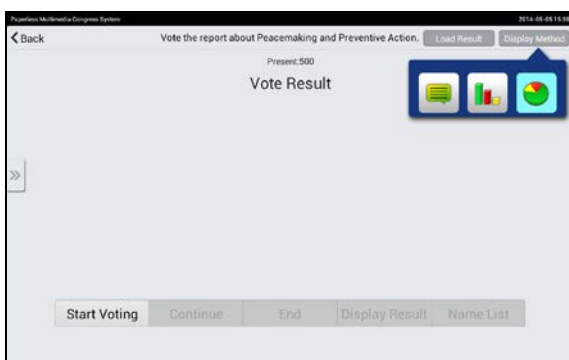
- Click “Start Sign-in” to start sign-in and all congress units will go to sign-in status;
- Please sign-in according to the prompting information and the sign-in result will be displayed in real time on the LCD of every congress terminal. The sign-in agenda can be controlled by the voting control unit. When sign-in finished the following figure is shown:



- **Restart Sign-in:** clear current sign-in result and restart sign-in;
- **Stop Sign-in:** stop sign-in;
- **Sign-in Result:** display sign-in result;

d. Select proposal:

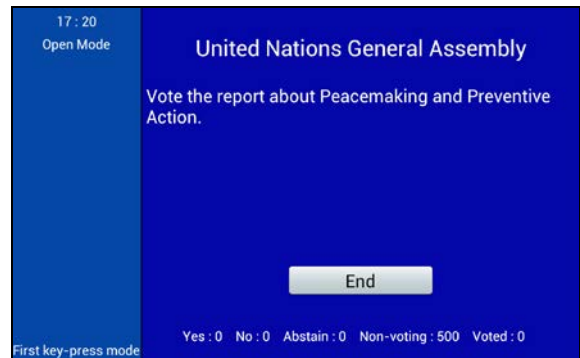
- Click “Proposal” to browse all proposals in the current meeting (red color stands that the proposal has signed in), and click to select a proposal from a proposal list;



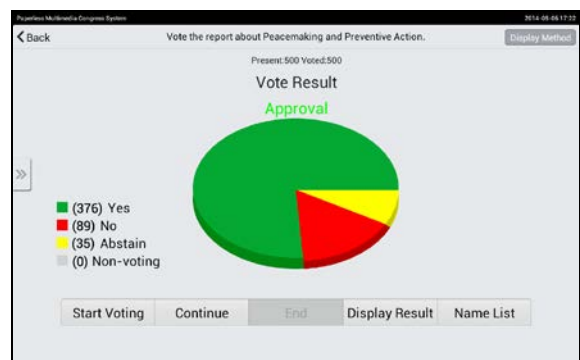
- Proposal controlled by the chairman: click the “Start Voting” button, the chairman unit LCD shows the following figure; proposal controlled by the operator, click the “Start Voting” button to go to step e.



e. When voting started, voting control unit displays the following figure;



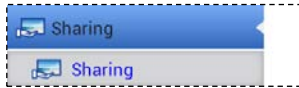
f. Click the “End” button to end voting, and voting result will be displayed on LCD of all congress terminals in three different ways (numeric, bar, pie).



- **Start Vote:** start voting, when DCS server is modifying meeting data, cannot start voting;
- **Continue:** if some delegates did not vote when voting finished, click the “Continue” button to resume voting. “You have voted.” will be displayed to those delegates who have already voted. In case of “Last key-press mode” voting, delegates who did already vote can vote again. Under IC card sign-in mode, PIN code sign-in mode and Finger print sign-in mode, the “Continue” function is unavailable. If the voting is set as “Chairman control”, the “Continue” function is unavailable too;
- **Display Result:** display voting result on the LCD of every congress terminal and on large screen(s) in the meeting room (with dual-head VGA adaptor equipped);

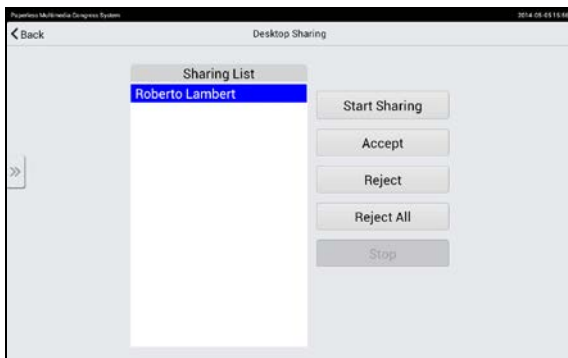
- **Name List:** display name list on the LCD of every congress terminal and on large screen(s) in the meeting room for open mode proposal (with dual-head VGA adaptor equipped).

3. Sharing



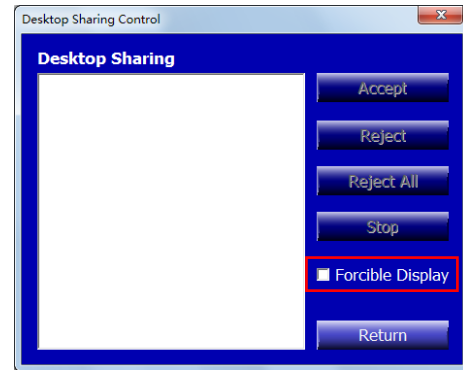
Click the "Sharing" icon to go to desktop sharing interface on control unit.

When a multimedia terminal is requesting desktop sharing, prompting information will be displayed at the bottom of the control unit LCD. Click the "Read" button to check or click the "Ignore" button to ignore it.



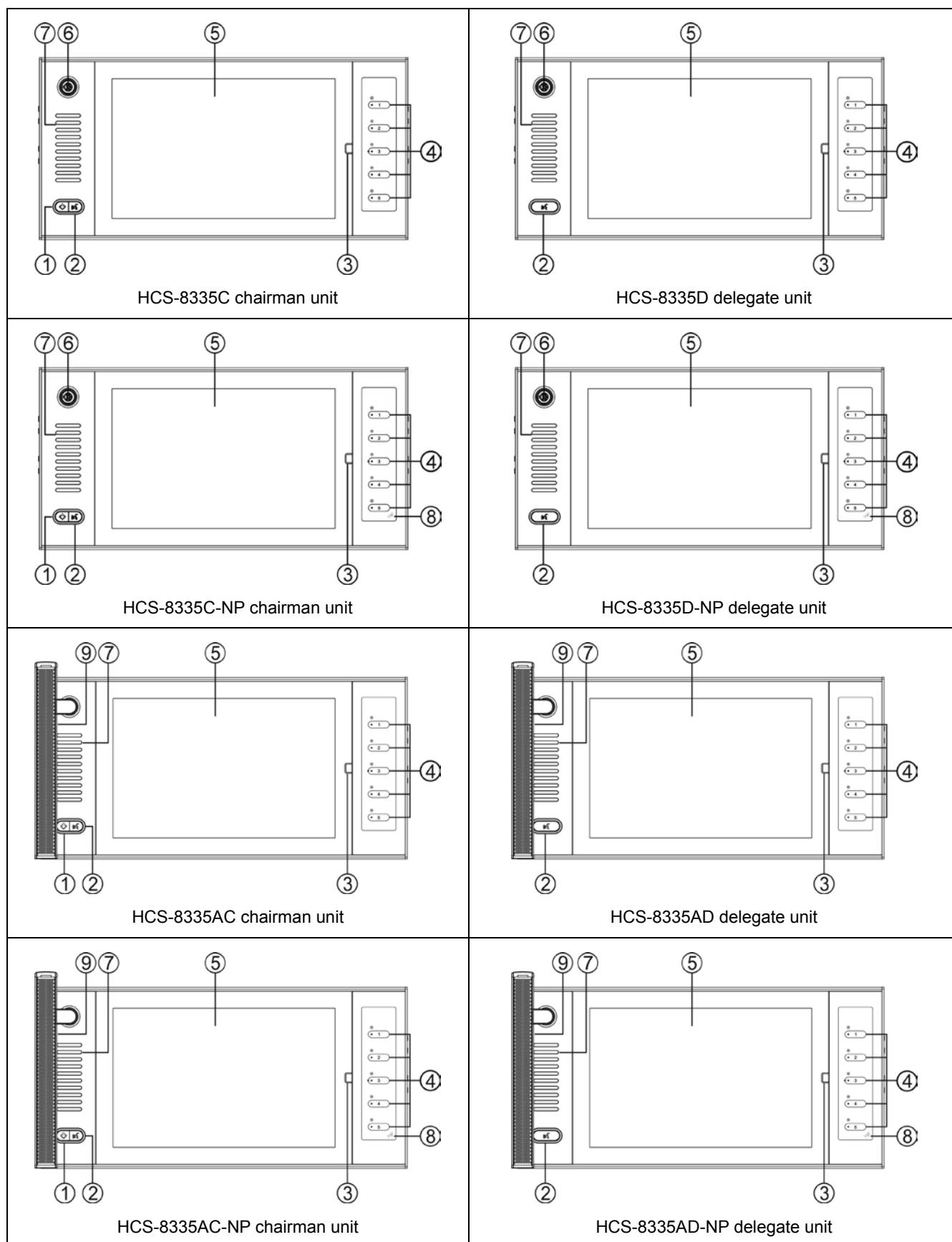
- **Start Sharing:** if the sharing control unit clicks this button, the content on the unit will be displayed on all multimedia units immediately;
- **Accept:** accept the selected request of desktop sharing;
- **Reject:** reject the selected request of desktop sharing;
- **Reject All:** reject all requests of desktop sharing;
- **Stop:** stop desktop sharing. In the course of a desktop sharing process, click the LCD screen of the control unit to pop up the red button, press the red button to stop desktop sharing.
- If not select "**Forcible Display**", delegates can exit desktop sharing temporarily by pressing the yellow button on the pop-up dialog; and can enter desktop

sharing again by press **Sharing --> Enter desktop sharing.**



3.4 HCS-8335 series economical multimedia terminal

3.4.1 Functions and indications



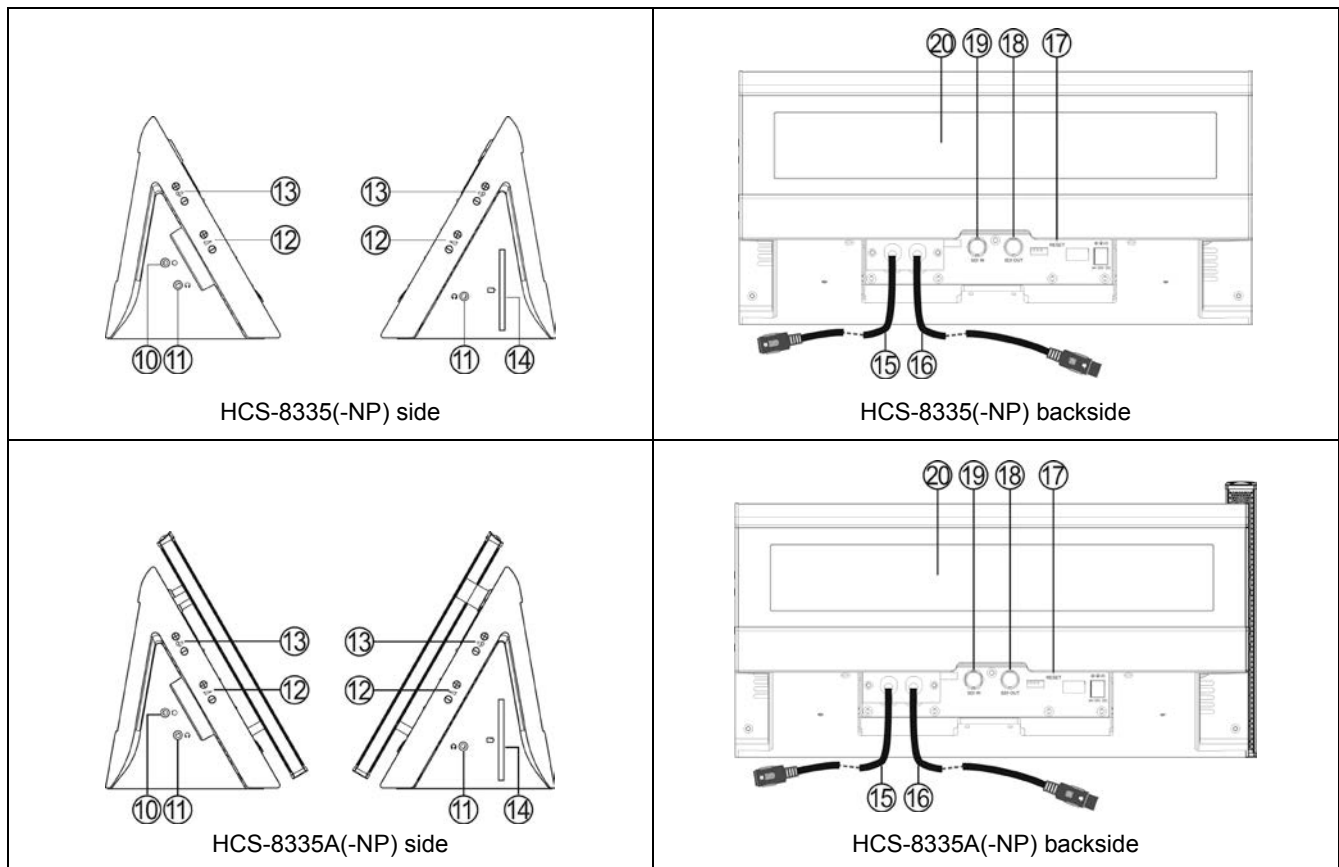


Figure 3.4.1 HCS-8335 series economical multimedia terminal

Figure 3.4.1:

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

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

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

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

- ◆ Chairman unit: press this key to activate microphone and indicating light;
- ◆ Delegate unit:

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

3. Home key

4. 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 3.4.1 for details);
- ◆ For this series multimedia terminal, these five keys act as functional keys for menu operation.

5. 16:10 high resolution color wide-screen

6. Removable microphone stem spiral active interface

7. Built-in Hi-Fi loudspeaker

- ◆ Mutes automatically to suppress howling when the microphone of this unit is active.

- ♦ Loudspeaker sends out floor channel audio only.
The volume is controlled via CMU or application software.

8. Contactless IC-card induction area

9. Microphone array

10. External microphone jack (Ø 3.5 mm)

11. Earphone jack (Ø 3.5 mm)

12. Earphone volume control

13. Simultaneous interpretation channel selector

- ♦ Available when earphone is plugged.

14. Contactless IC Card slot

15. 0.6-meter 6P-DIN cable with standard plug (female x 1)

16. 1.5-meter 6P-DIN cable with standard plug (male x 1)

17. Reset function

18. SDI output

19. SDI input

20. Integrated E-ink nameplate

- ♦ Only for with “-NP” in model type suffix.

Table 3.4.1 List of multi-functional keys

Function \ Keys		1	2	3	4	5
Menu				Confirm	Move up	Move
Numbering						Number
Start/End*						Start/End
Key-press sign-in						Sign-in
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)

* The system is connected to the application software and the voting control mode is “Chairman control”.

Note: touch any key on the right of the front panel to active the OSD menu.

3.4.2 Installation

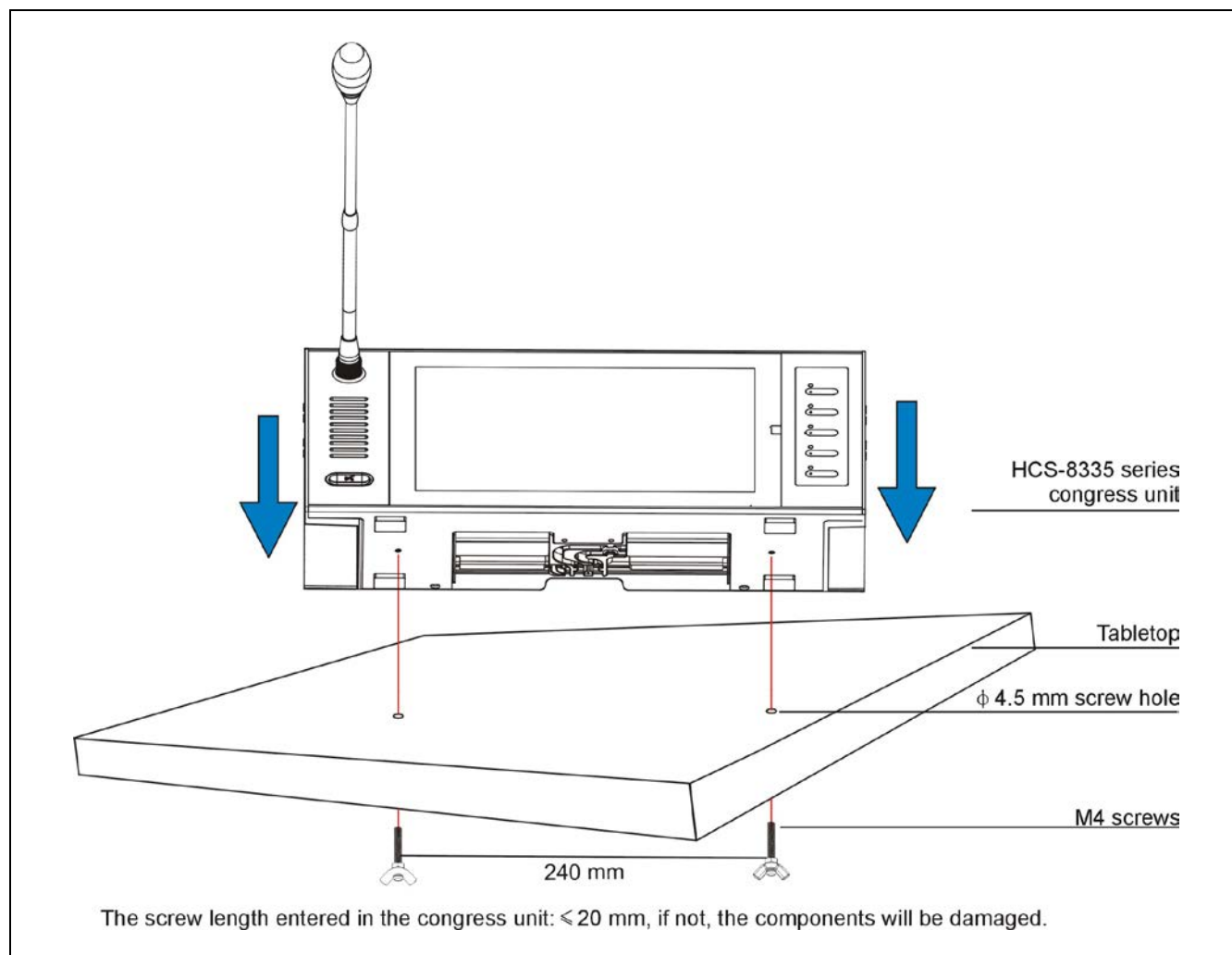


Figure 3.4.2 Fixing of HCS-8335 series economical multimedia congress terminal

Note:

The fixed installation of HCS-8335A series is the same as the installation of HCS-8335 series.

3.4.3 Connection

3.4.3.1 Connecting to the CMU or the EMU

The HCS-8335 series economical multimedia terminal is equipped with a 1.5-meter 6P-DIN cable with a standard male connector. To connect to the HCS-8300 CMU or the HCS-8300 EMU, just connect the male connector of the first terminal to the output of the main unit.

If there is a long distance between the multimedia terminal 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 multimedia terminal, and connect the male connector to the output of the main unit.

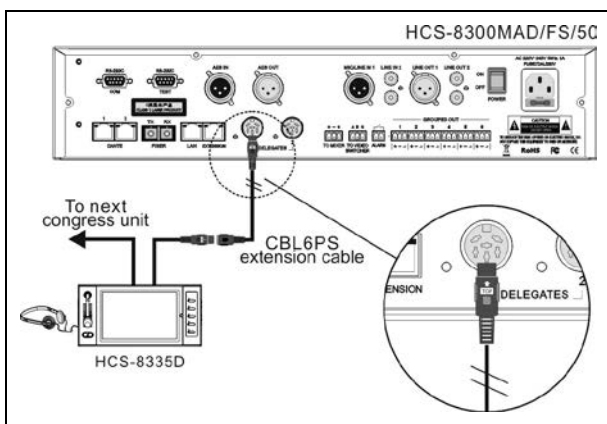


Figure 3.4.3 HCS-8335 series economical multimedia terminal connected to the CMU/EMU

Neither the replacement of multimedia terminals nor cable faults between multimedia terminals will affect the other terminals 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 multimedia terminal back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end). In HCS-8300 series system, the congress main unit can realize a “Closed Loop - Daisy Chain” connection, but only one – extension units do not offer this feature.

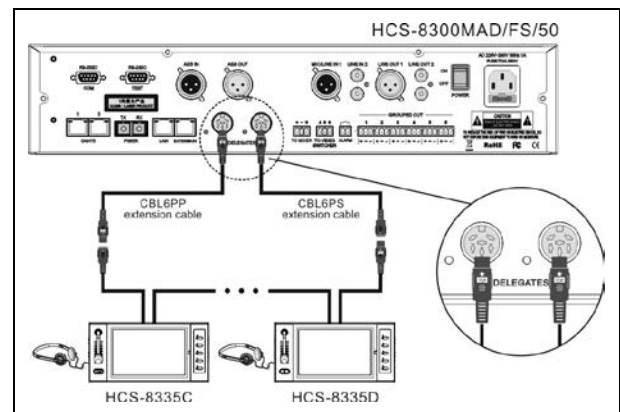


Figure 3.4.4 “Closed Loop - Daisy Chain” connection between the CMU and HCS-8335 series economical multimedia terminals

3.4.3.2 Connection between congress units

The HCS-8335 series economical multimedia terminals are daisy-chained easily and conveniently by dedicated 6P-DIN cables.

When connecting to another multimedia terminal, 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.

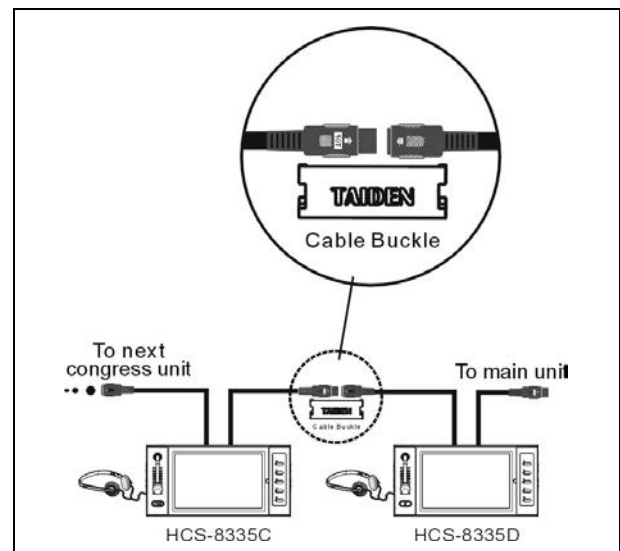


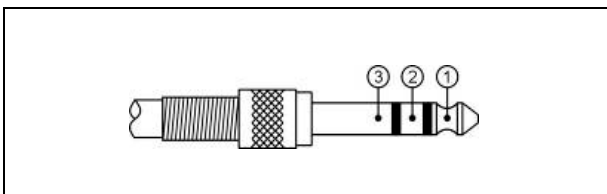
Figure 3.4.5 “Daisy-chain” connection between HCS-8335 series economical multimedia terminals

3.4.3.3 Video display

The HCS-8335 series economical multimedia terminal is equipped with a 10" TFT LCD with 1280 × 800 high-resolution. It supports high definition digital video (SDI) display corresponding with the standard CEA-861. Video signal transmitted on a high quality coaxial-cable, such as RG-6 or SYV-75 and the length of each cable is no more than 50 m.

3.4.3.4 External microphone

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

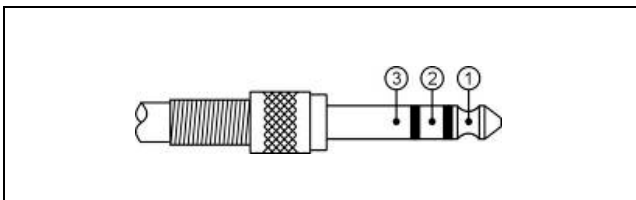


Functions and indications:

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

3.4.3.5 External earphone

An external earphone can be connected to the external earphone jack of the congress terminal. 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

3.4.4 Operation

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

3.4.4.1 Delegate unit

1. Number

First of all, make sure that the multimedia terminals are connected properly to the CMU. All multimedia terminals must be numbered when the system is used for the first time or when adding or replacing multimedia terminals. 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 re-power"* will be displayed on the CMU LCD. The number indicating light of all connected multimedia terminals will blink. All multimedia terminals will display "Numbering". Press the "5" key of every multimedia terminal one by one. The number indicating light will be deactivated. Once all multimedia terminals numbered, restart the CMU to update the number information.

Note:

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

2. Sign-in (application software needed)

To carry out voting, multimedia terminals 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 "5" will blink, press the "5" key 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. Push the contactless IC card into the IC card slot or put the IC-card near the IC-card reading area (only for with "-NP" in model type suffix), 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. If pull the IC card, logout automatically.

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:**

- 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).

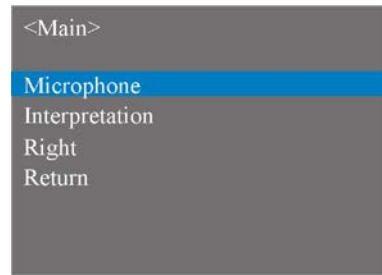
4. Voting

Voting can be originated by TAIDEN conference management system software.

- The voting button indicating lights of the multimedia terminal 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.

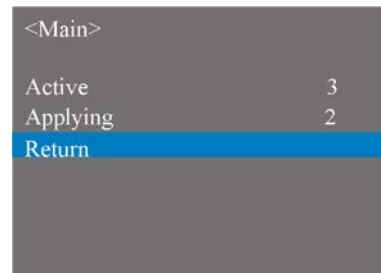
5. Channel selection

- 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.



■ Microphone

Check microphone information, including: active microphone number (including chairman, delegate and VIP), request amount.



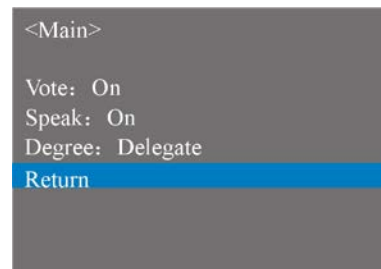
■ Interpretation

Check information about all interpretation languages.



■ Right

Check the rights of this multimedia terminal.



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 terminal.

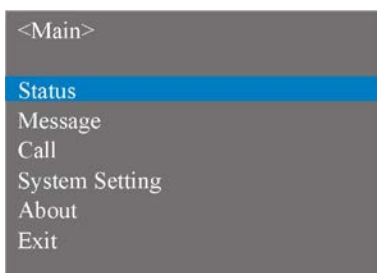
7. OSD menu

After initialization, touch any key on the right of the front panel to active the OSD menu. The OSD menu will be hidden automatically if no operation for 5 seconds. If start sign-in, voting or intercom, the HCS-8335 will exit the OSD menu automatically and enter corresponding status.

3 key: confirm (↵)

4 key: move up (↑)

5 key: move down (↓)



A. “Status”

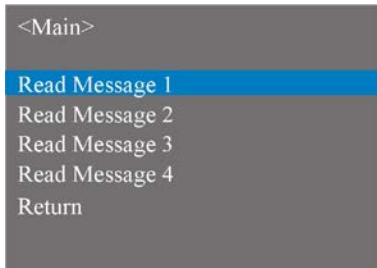
Status includes 3 sub-menus: Microphone, Interpretation and Right.

B. “Message”

- Used to read messages. 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 “4”and “5” will blink. Press key “4” to read the corresponding message or press key “5” to ignore the 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.



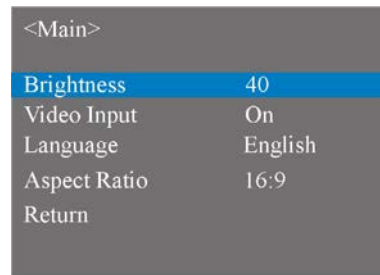
C. “Call”

The earphone shall be plugged to use the intercom function. If not, it will remind you to plug the earphone. Select “Call” and press the “3” key to enter the sub-menu, then the following interface is shown. Select “Call Operator” and press the “3” key to use the intercom function. When the operator approved your request, “Talking with operator..., please use headphone.” will be displayed on the bottom of the LCD. If the current unit is using the intercom function, it will remind you that the line is busy.



D. “System Setting”

System setting includes Brightness, Video Input, Language and Aspect Ratio. Select a sub-menu, the item will be highlight with blue; when pressing the “3” key, the item will be highlight with red. It means that the content of this item can be modified by pressing the “4” key or the “5” key and then press the “3” key again to confirm.



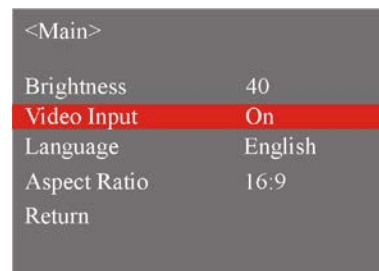
■ Brightness

Set brightness of LCD screen.



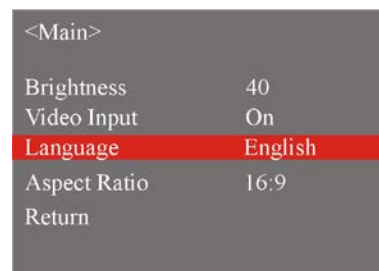
■ Video Input

Enable/disable video input.



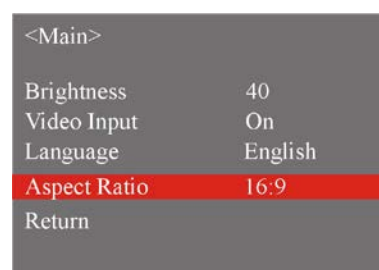
■ Language

Set the OSD menu language.



■ Aspect Ratio

Set aspect ratio for HCS-8335 series multimedia terminal. Three items for choice: Full, 16:9, and 4:3.



E. "About"

Display the product information including unit ID, serial and version.



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 HCS-8335C 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 microphones (except VIP units and other chairman units) will be muted temporarily when this key is pressed and they will restore when this key is released;
- If configured as “All off”, all active microphones (except VIP units and other chairman 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. “Delegate: × × (unit ID) Applying” will be displayed on the LCD. The chairman can now approve delegate's request and activate delegate's microphone by pressing key “4” or reject delegate's request by pressing key “5”.

When his/her request is approved, he/she can speak and the last activated microphone will be turn off at the same time.

B. Turn off or mute delegate microphone

Chairman can use the “Priority” key to execute “All mute” or “All off” operation.

4. Voting

HCS-8335C chairman unit cannot originate voting without a PC:

- When controlled by 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. Voting operation of the chairman unit and the delegate unit are identical. In this mode, voting can also be controlled by the chairman unit. The “Start voting” indicating light on the chairman unit will blink. Voting starts once the chairman pressed the “START” key.

3.5 HCS-8336 SDI monitor

3.5.1 Functions and indications

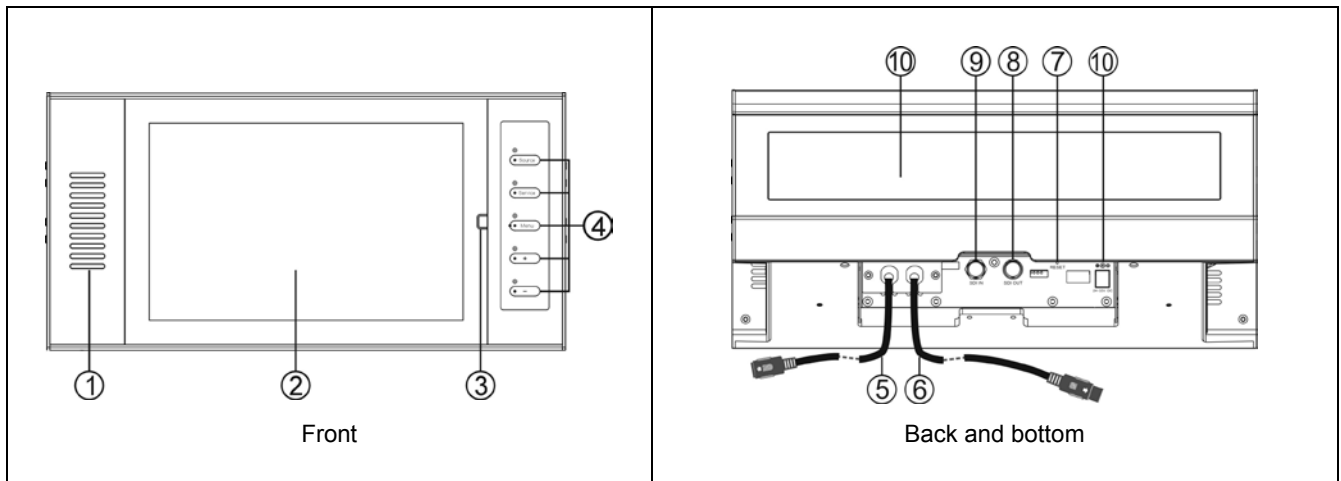


Figure 3.5.1 HCS-8336 SDI monitor

Figure 3.5.1:

- 1. Built-in Hi-Fi loudspeaker**
- 2. 16:10 high resolution color wide-screen**
- 3. Home key**
- 4. Function keys with indicating light**
 - ◆ Source: select video input
 - ◆ Service: call service
 - ◆ Menu: menu key and confirm key (↵)
 - ◆ +: menu key and move-up key (↑)
 - ◆ -: menu key and move-down key (↓)
- 5. 0.6-meter 6P-DIN cable with standard plug (female x 1)**

- 6. 1.5-meter 6P-DIN cable with standard plug (male x 1)**
- 7. Reset function**
- 8. SDI output**
- 9. SDI input**
- 10. Power input**
 - ◆ 24V - 33 V DC power supply.

Note:

✎ If DC power supply adopted, the HCS-8336 is an common video display equipment only.

3.5.2 Installation

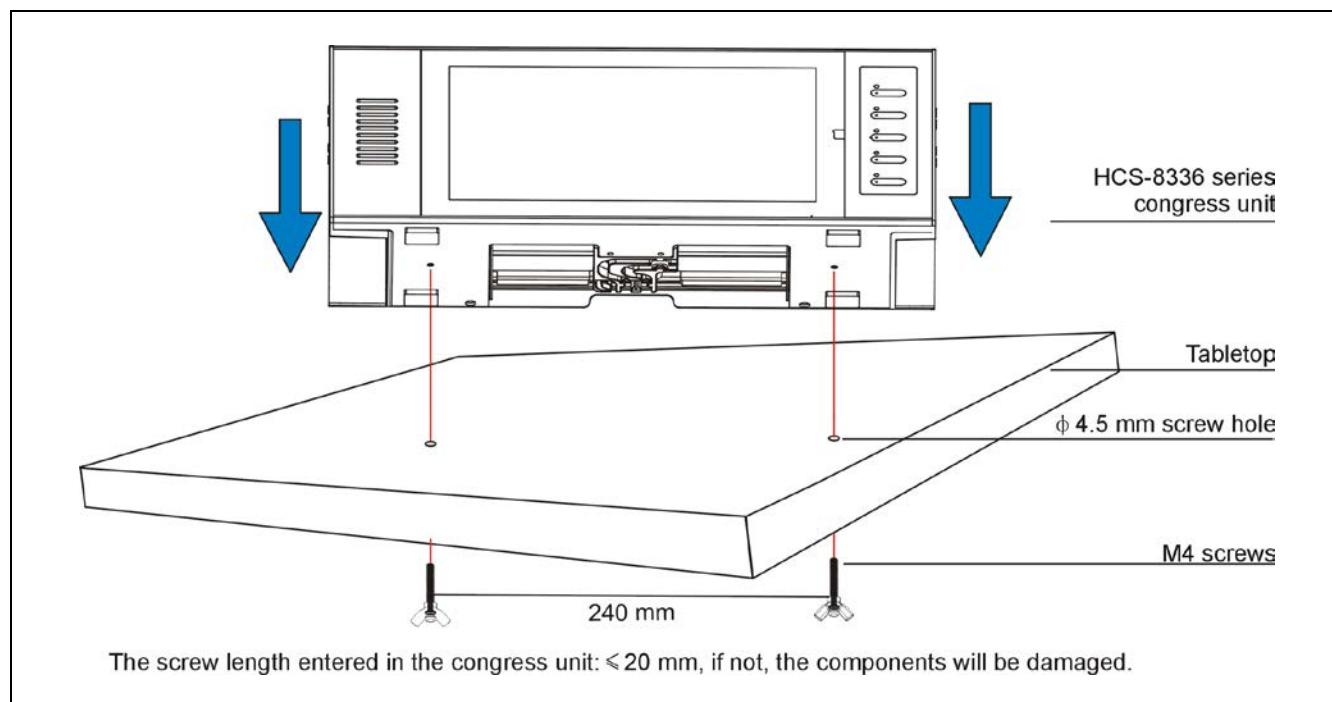


Figure 3.5.2 Fixing of HCS-8336 SDI monitor

3.5.3 Connection

3.5.3.1 Connecting to the CMU or the EMU

The HCS-8336 SDI monitor is equipped with a 1.5-meter 6P-DIN cable with a standard male connector. To connect to the HCS-8300 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 HCS-8336 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.

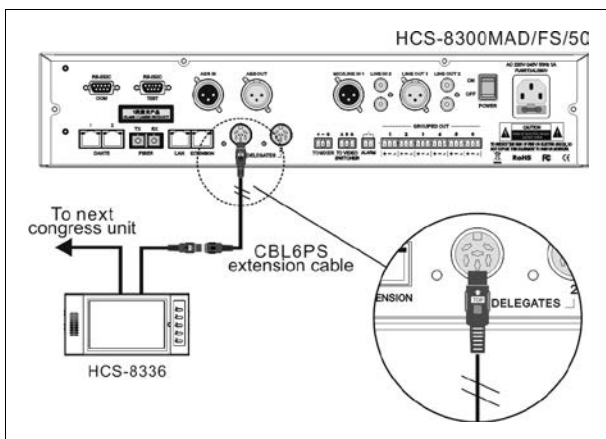


Figure 3.5.3 HCS-8336 SDI monitor connected to the CMU/EMU

Neither the replacement of HCS-8336 nor cable faults between HCS-8336 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 HCS-8336 back to the CMU or the EMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end). In HCS-8300 series system, the congress main unit can realize a “Closed Loop - Daisy Chain” connection, but only one – extension units do not offer this feature.

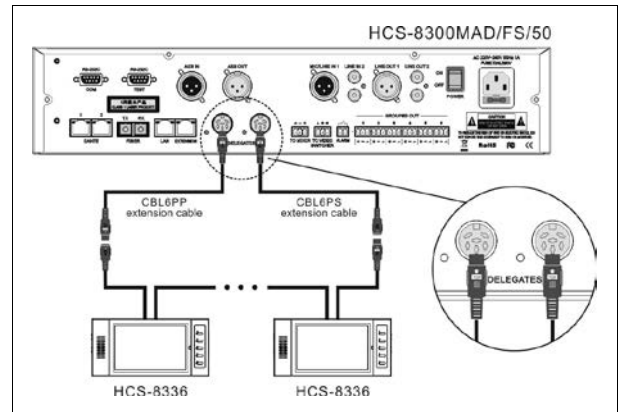


Figure 3.5.4 “Closed Loop - Daisy Chain” connection between the CMU and HCS-8336 SDI monitor

3.5.3.2 Connection between congress units

The HCS-8336 SDI monitor are daisy-chained easily and conveniently by dedicated 6P-DIN cables. When connecting to another HCS-8336, 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.

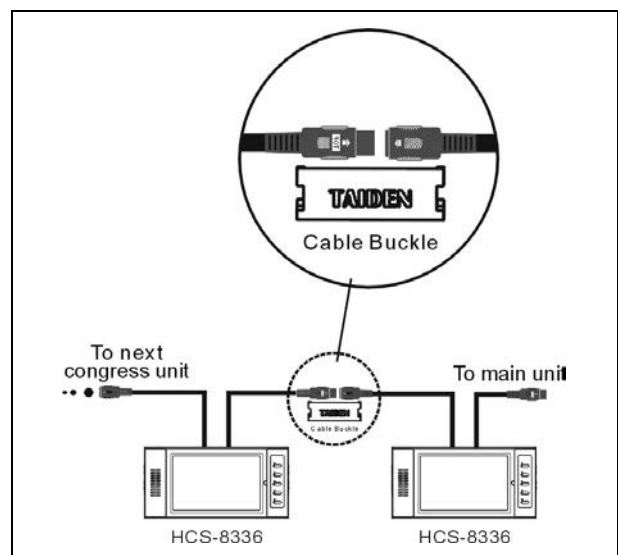


Figure 3.5.5 “Daisy-chain” connection between HCS-8336 SDI monitor

3.5.3.3 Video display

HCS-8336 SDI monitor is equipped with a 10” TFT LCD with 1280 × 800 high-resolution. It supports high definition digital video (SDI) display corresponding with the standard CEA-861. Video signal transmitted on a high quality coaxial-cable, such as RG-6 or SYV-75 and the length of each cable is no more than 50 m.

3.5.4 Operation

Before a meeting starts, the HCS-8336 SDI monitor need to be configured by the operator, including: numbering and testing. During the meeting, the interpreters use the SDI monitor to switch videos, call service, etc.

1. Number

First of all, make sure that the HCS-8336 SDI monitors are connected properly to the CMU. All SDI monitors must be numbered when the system is used for the first time or when adding or replacing SDI monitors. The numbering function can be activated by menu operation on the CMU front panel or by application software.

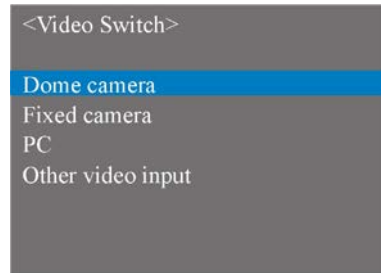
Select “Number” by menu operation from the CMU, press the “MENU” key to confirm. The system now goes to numbering status. *“Press ‘1’ key of all congress units one by one and repower”* will be displayed on the CMU LCD. The number indicating light of all connected SDI monitors will blink. All SDI monitors will display “Numbering”. Press key “-” of every SDI monitor one by one. The number indicating light will be deactivated. Once all SDI monitors numbered, restart the CMU to update the number information.

Note:

- ☞ The SDI monitor was numbered together with congress units in the venue, the IDs of SDI monitors cannot be the same with congress units;
- ☞ When numbering, please number the SDI monitors one by one and do NOT press the “NUMBER” key of several SDI monitors at the same time.

2. Video Switch

Select video input signal, and the signal name can be edited by TAIDEN conference management software. Press the “Source” button to select input signal circularly.



3. Service

Supports service function, and the service type name can be edited by TAIDEN conference management software. Press the “+” key or the “-” key to select service and then press the “Menu” key to confirm.



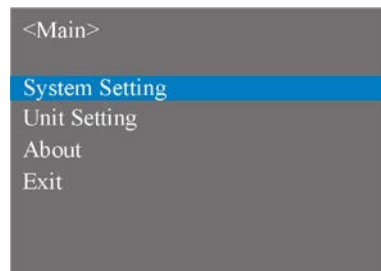
7. OSD menu

After initialization, touch the key “Menu” / “+” / “-” on the right of the front panel to active the OSD menu. The OSD menu will be hidden automatically if no operation for 5 seconds.

Menu key: confirm (↵)

+ key: move up (↑)

- key: move down (↓)



A. “System Setting”

System setting includes Brightness, Standby, Language and Aspect video. Select a sub-menu, the item will be highlight with blue; when pressing the “Menu” key, the item will be highlight with red. It means that the content of this item can be modified by pressing “+” key or “-” key and then press the “Menu” key again to confirm.

<Main>	
Brightness	40
Standby	OFF
Language	English
Aspect Ratio	16:9
Return	

■ Brightness

Set brightness of LCD screen.

<Main>	
Brightness	40
Standby	OFF
Language	English
Aspect Ratio	16:9
Return	

■ Standby

Stand by HCS-8336 or not.

<Main>	
Brightness	40
Standby	OFF
Language	English
Aspect Ratio	16:9
Return	

■ Language

Set the OSD menu language.

<Main>	
Brightness	40
Standby	OFF
Language	English
Aspect Ratio	16:9
Return	

■ Aspect Ratio

Set aspect ratio for HCS-8336 SDI monitor. Three items for choice: Full, 16:9, and 4:3.

<Main>	
Brightness	40
Standby	OFF
Language	English
Aspect Ratio	16:9
Return	

B. “Unit Setting”

Unit setting includes Select booth number and Loudspeaker Volume. Select a sub-menu, the item will be highlight with blue; when pressing the “Menu” key, the item will be highlight with red. It means that the content of this item can be modified by pressing “+” key or “-” key and then press the “Menu” key again to confirm.

<Main>	
System Setting	
Unit Setting	
About	
Exit	

■ Select booth number

Set booth number for the HCS-8336 SDI monitor.

- 0: used in the venue;
- Others: used in booths.

<Main>	
Select booth number	1
Loudspeaker Volume	-15
Return	

■ Loudspeaker Volume

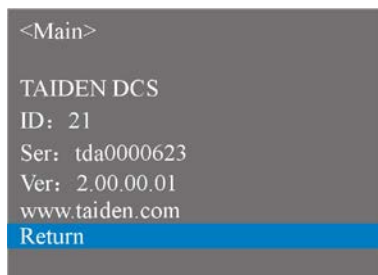
Adjust the built-in loudspeaker volume for the HCS-8336 SDI monitor, range: -30 dB – 0 dB.

<Main>	
Select booth number	1
Loudspeaker Volume	-15
Return	

- Mutes automatically to suppress howling when the microphone of the interpreter unit in the same booth is active;
- When the booth number is 0, loudspeaker volume can be adjusted by the master volume control knob on the main unit or by TAIDEN conference management software

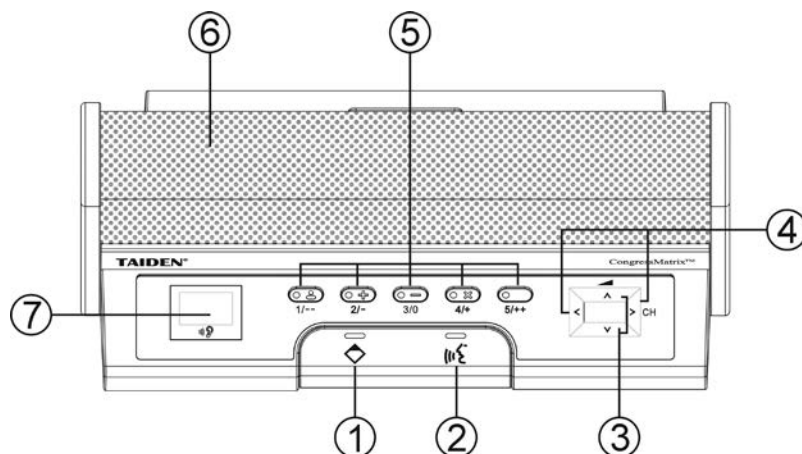
B. "About"

Display the product information including unit ID, serial and version.

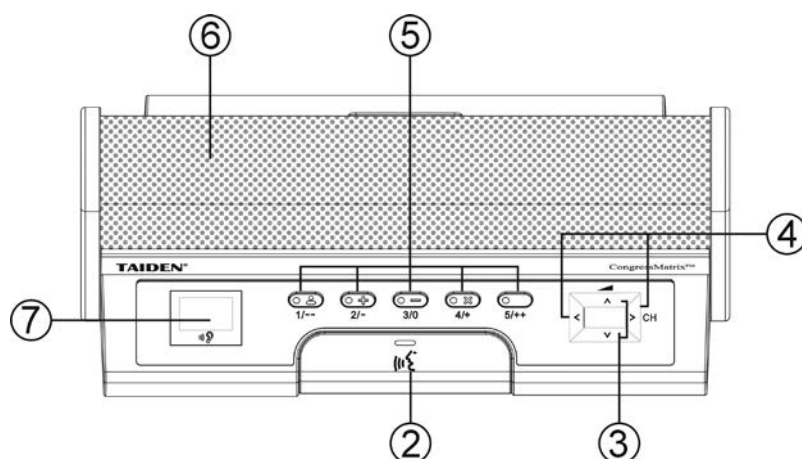


3.6 HCS-8315 series congress unit

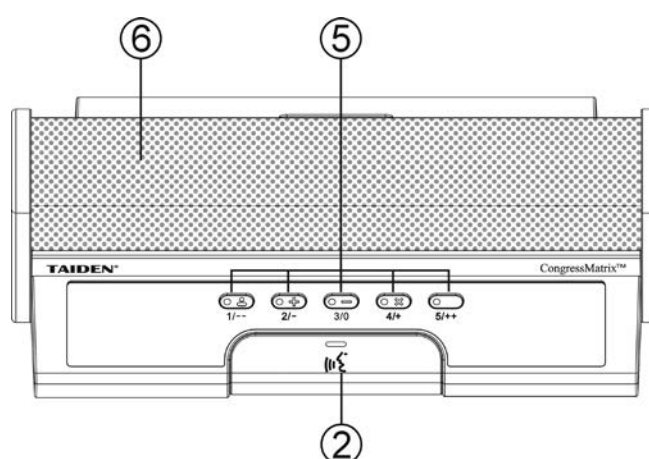
3.6.1 Functions and instructions



Front panel of HCS-8313C chairman unit



Front panel of HCS-8313D delegate unit



Front panel of HCS-8314D delegate unit

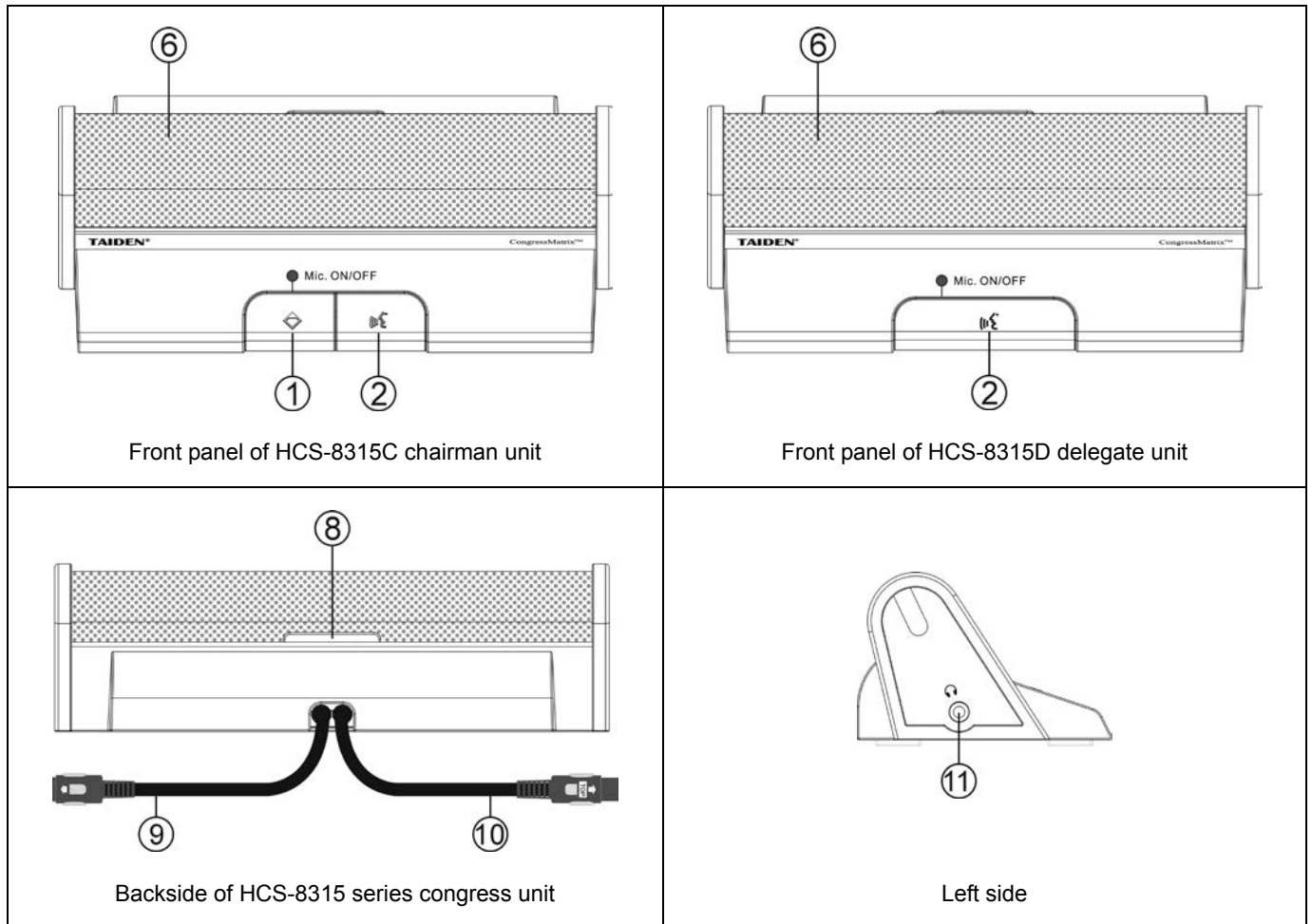


Figure 3.6.1 HCS-8315 series congress unit

Figure 3.6.1:

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

- ◆ According to priority mode configuration on 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 request list (deny all delegates’ requests to speak);
- ◆ If chairman microphone is not active, pressing this key will activate it;
- ◆ When this key is pressed, the indicating light of the priority key will be turned on.

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

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

- ◆ Chairman unit: press this key to activate/deactivate the microphone and the indicating light;
- ◆ Delegate unit:

Work state	Indicating light	Microphone Indicating light
Microphone On	Red (on)	Red (on)
Request	Red (flash)	Blue (on)
Speaking time limit	Red (flash)	Red (on)

3. Earphone volume control

4. Simultaneous interpretation channel selector

- ◆ Available when earphone is plugged

5. Multi functional keys with indicating light (5 keys):

- ◆ In different modes, the corresponding indicating light blink, and press the corresponding key to execute operation (refer to table 3.6.1 for details).
- ◆ Chairman unit: if system is connected to a PC and if application software is setup for voting control mode by chairman control, key “5” will blink when clicking “Start voting” button in voting interface of application software. Chairman can press this key to enter voting status. Once the chairman voted, the indicating light will blink again. After confirmation that all delegates voted, chairman pushes key “5” to close voting. Application software will calculate voting results.

(Refer to table 3.6.1 for details)

6. Concealed microphone

7. Simultaneous interpretation channel number display

8. Microphone active indicator

- ◆ When the microphone is activated, the indicator is turned on with red light;
- ◆ In apply status, the indicator is turned on with blue light;
- ◆ When the microphone is deactivated, the indicator goes out.

9. 0.6-meter 6P-DIN cable with standard plug (female x 1)

10. 1.5-meter 6P-DIN cable with standard plug (male x 1)

11. Earphone jack (Ø 3.5 mm)

Table 3.6.1 List of multi functional keys

Functions \ Keys		1/-	2/-	3/0	4/+	5/++
Numbering		Number				
Key-press sign-in		Sign-in				
Start/End*						Start/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)

* The system is connected to the application software and the voting control mode is “Chairman control”.

3.6.2 Connection

3.6.2.1 Connecting to the CMU or the EMU

HCS-8315 series congress unit is equipped with a 1.5-meter long 6P-DIN cable with a standard male connector. To connect to the HCS-8300 CMU or the EMU, just connect the male connector of the first unit to the output of the main unit.

If there is a great 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 at 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.

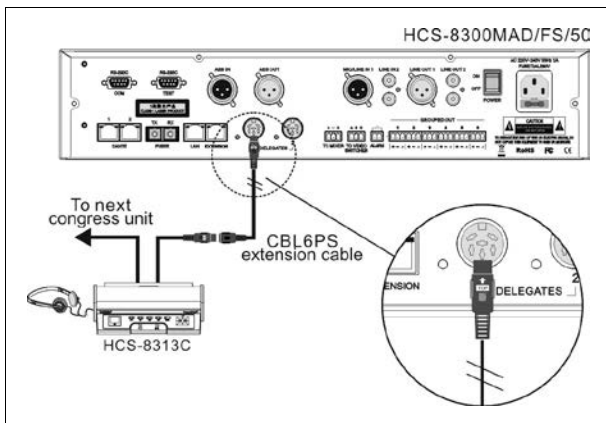


Figure 3.6.2 HCS-8315 series congress unit connected to the CMU or the EMU

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. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection, just connect the last congress unit back to the CMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end). In HCS-8300 Paperless Multimedia Congress System, only the congress main unit can realize a “Closed Loop - Daisy Chain” connection, the extension main unit does not have this feature.

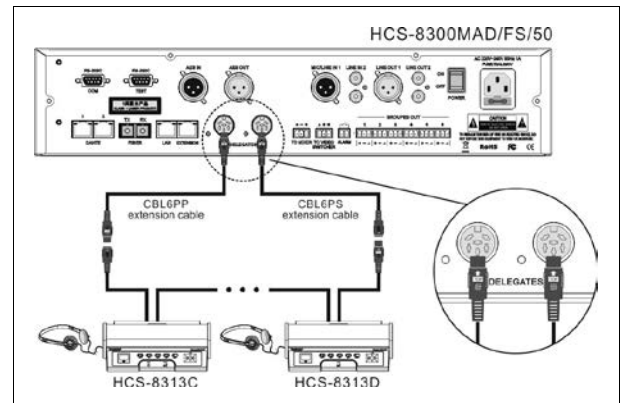


Figure 3.6.3 Ring connection between the CMU and HCS-8315 series congress units

3.6.2.2 Connection between congress units

All congress units of HCS-8300 PMCS 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.

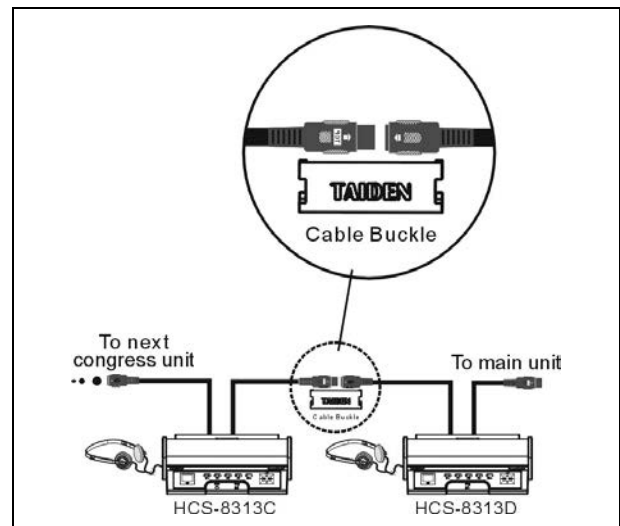
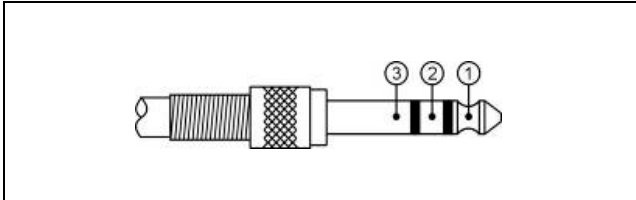


Figure 3.6.4 “Daisy-chain” connection between HCS-8315 series congress units

3.6.2.3 External earphone

An external earphone can be connected to the external earphone jack at the lateral side 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

3.6.3 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.

3.6.3.1 Delegate unit

We introduce all the operation of HCS-8315 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. Number function can be activated by menu operation on the CMU front panel or by application software. Select "Number - DCSUnits" by menu operation from the CMU and press "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 discussion only units) 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 "number" key of several congress units at the same time.

2. Sign-in (HCS-8315D does not have this function)

To carry out voting, congress units with voting 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 key "1/--" will blink, press key "1/--" 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:**

- Microphone On/Off key indicating light and microphone illuminated light (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech;
- Microphone will be deactivated when microphone On/Off key is pressed again. Microphone On/Off key indicating light and microphone illuminated light will be deactivated.

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

- Microphone On/Off key indicating light will blink and microphone illuminated light will be activated when the key is pressed to request to speak;
- Press this key again to cancel 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:**

- Microphone On/Off key indicating light and microphone illuminated light (red) will be activated at the same time as the microphone On/Off key is pressed. The speaker can give his/her speech;
- Microphone will be deactivated when microphone On/Off key is pressed again. Microphone On/Off key indicating light and microphone illuminated light will be deactivated.

■ 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. Microphone On/Off key indicating light remains on. When the delegate speaks into the microphone at a short distance, the microphone will be activated. Microphone illuminated light 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. Press and hold microphone On/Off button to activate the microphone, microphone active indicating light and microphone On/Off button indicating light will be turned on in red;
- b. Microphone will be deactivated when this button is released. Microphone active indicating light and microphone On/Off button indicating light will be deactivated.

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

reached:

Pressing this 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 (HCS-8315D does not have this function)

Voting can be originated by TAIDEN Conference Management System (2 keys, 3 keys, 4 keys or 5 keys)

- Voting button indicating lights of the congress unit start to blink, the delegate can press 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 (HCS-8314D and HCS-8315D do not have this function)

- 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. 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 (HCS-8314D and HCS-8315D do not have this function)

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

7. VIP unit

- Any delegate unit can be assigned as a VIP unit by TAIDEN Conference Management System - at most 32 VIP units;
- 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 delegate unit functions, additionally:

1. Priority

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

- ✧ For HCS-8313C, press button “1” to approve delegate's request to speak, press button “5” to reject delegate's request to speak;
- ✧ For HCS-8315C, the microphone indicating light of HCS-8315C blinks, press microphone on/off button to approve delegate's request to speak, press “priority” button to reject delegate's request to speak;
- ✧ 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

Chairman can use the “Priority” key to execute “All mute” or “All off” operation.

4. Voting (HCS-8315C does not have this function)

HCS-8313C chairman unit cannot originate voting without a PC:

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

Chapter 4 Interpreter unit

Simultaneous interpretation function of HCS-8300 PMCS is designed for the requirements of large scale multilingual international congresses: it can provide up to 64 language channels (64 CHs).

HCS-4385U/50 interpreter unit is equipped with a graphic LCD with back-lighting, a 64-channel selector, a built-in loudspeaker, a pluggable microphone, headset sockets, etc. Channel number, language name, input language, quality indication, and short messages can be displayed on the LCD. 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.

HCS-8385 interpreter unit is equipped with a 7.2" 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-4385U/50 Interpreter unit

Fully Digital Congress System Interpreter Unit (64 CHs, IC-Card, 256x64 LCD, microphone, loudspeaker)

HCS-8385/80

Fully Digital Congress System Interpreter Unit (64 CHs, 7.2" TFT LCD, microphone, loudspeaker)

HCS-8385HDMI/02 Video Converter, 2 HDMI outputs

HCS-8385HDMI/04 Video Converter, 4 HDMI outputs

4.1 HCS-4385U/50

4.1.1 Functions and indications

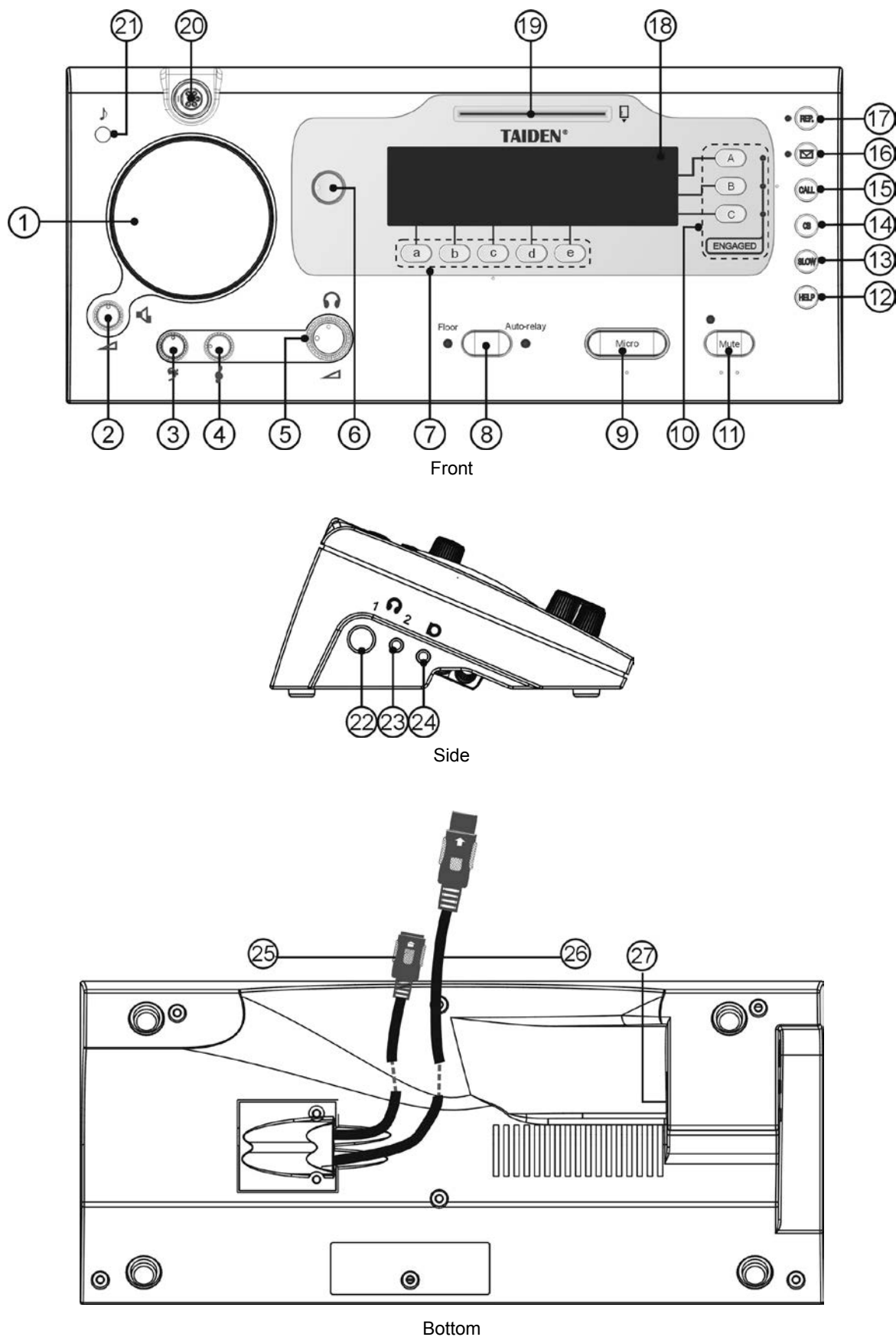


Figure 4.1.1 HCS-4385U/50 Interpreter unit

◇ Listening area:

Loudspeaker/earphone control:

1. 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 primary knob to go to the floor channel. Turn the primary knob to select a different channel.

2. Loudspeaker volume control knob

3. Earphone bass control knob

4. Earphone treble control knob

5. Earphone volume control knob

Input channel control:

6. Primary knob

- ◆ Push the primary knob to go to the floor channel for loudspeaker, turn the primary knob to select a different channel;
- ◆ When the monitor channel shortcut switch button (a/b/c/d/e) was pressed, push the primary knob to go to channel 1, turn the primary knob to select the interpretation channel;
- ◆ When the Output channel B/C switch button (B C) was pressed, push the primary knob to go to channel 1, turn the primary knob to select the output channel.

7. Monitor channel shortcut switch button (a/b/c/d/e)

- ◆ Switch to preset the input channel

8. 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.

◇ 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.
- ◆ If the interpreter booth is off, the green indicating light will be activated.
- ◆ If one interpreter unit is activated, the green indicating lights for others in the same booth will be off, when the interlock mode in a booth is set to Interlock.

10. Output channel A/B/C switch with indicating lights

- ◆ Switch to preset the output channel

11. 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.

12. HELP

- ◆ When connected to PC and controlled by application software, 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)

- ◆ 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.

14. Intercom button (CB)

- ◆ Push and hold the CB button to start a one-way intercom call to the operator.

15. Intercom call button (CALL)

- ◆ Push and hold the CALL button to start a two-way intercom call to the CHAIR (chairman or delegate) (For the correlative setup please refers to section [2.1.4.5](#))

16. Message key (✉)

- ◆ When unread messages exist, this indicating light will be activated, press this button to enter message interface;
- ◆ Push the a/b/c/d button to read the corresponding message, the display shows the message;
- ◆ Push the e button to cancel the message interface.

17. Input channel audio playback (REP.)

- ◆ Push the REP. button to playback input channel audio, the indicator adjacent to the button lights up, playback time is adjustable between 2 - 6 seconds (When the microphone is on, push and hold the Mute button and turn the primary knob to adjust the repeat time);
- ◆ Push the REP. button again to cancel playback.

21. 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:**

18. Bright 256×64 graphic LCD

- ◆ Displays the operation menu of the interpreter unit, short message, etc.

◇ **Interface:**

19. IC card socket

20. Stem microphone socket

22. Earphone jack (Ø 6.4 mm)

23. Earphone jack (Ø 3.5 mm)

24. Microphone jack (Ø 3.5 mm)

25. 6P-DIN cable with standard plug (female x 1)

26. 6P-DIN cable with standard plug (male x 1)

27. Extension interface

4.1.2 Installation

HCS-4385U/50 interpreter unit is available as tabletop or as flush-mounted version.

For flush-mounting:

- a. Make a recess in the table according to the dimensions in figure 4.1.2;
- b. Drill two $\varnothing 4$ mm screw holes in the counterpiece according to figure 4.1.2. The distance between the centers of the screw holes is 190 mm;
- c. Insert the underside of the interpreter unit carefully into the cut-out;
- d. Run the two cables at the bottom of the unit according to the options for cable routing on site;

- e. Put the interpreter unit into the recess until the circumferential supporting edge fits with the table-top surface. Fix it with screws from the bottom. The length of the screws depends on the thickness of the table.

Note:

For embedded installation, the supporting edge HCS-4385MP must be ordered separately and fixed onto the Interpreter unit before delivery.

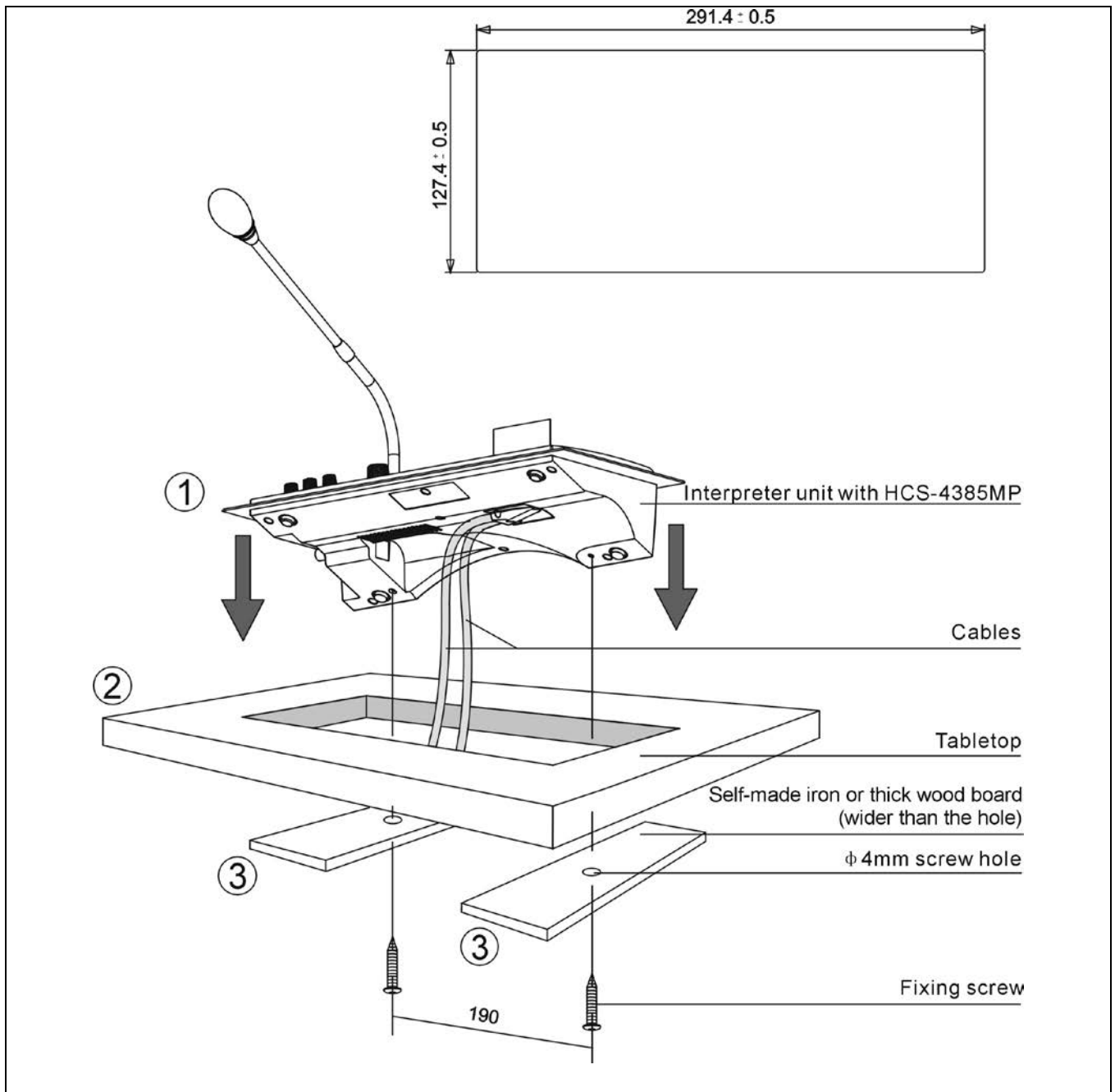


Figure 4.1.2 Installation diagram (unit: mm)

4.1.3 Connection

4.1.3.1 Connecting to the CMU or the EMU

HCS-4385U/50 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.

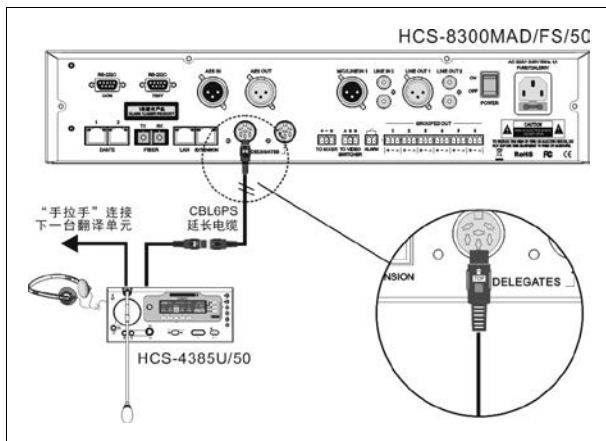


Figure 4.1.3 HCS-4385U/50 Interpreter unit connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection just connect the last congress unit back to the CMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end). In HCS-8300 Paperless Multimedia Congress System, only the congress main unit can realize a “Closed Loop - Daisy Chain” connection, the extension main unit does not have this feature.

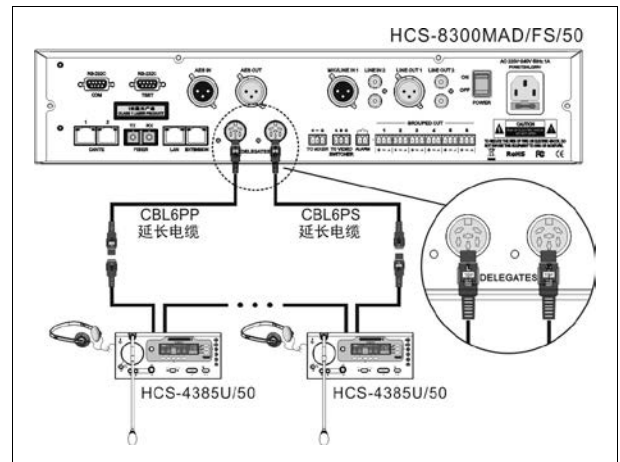


Figure 4.1.4 Ring connection between the CMU and HCS-4385U/50 Interpreter units

4.1.3.2 Connection between Interpreter units

All HCS-4385U/50 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.

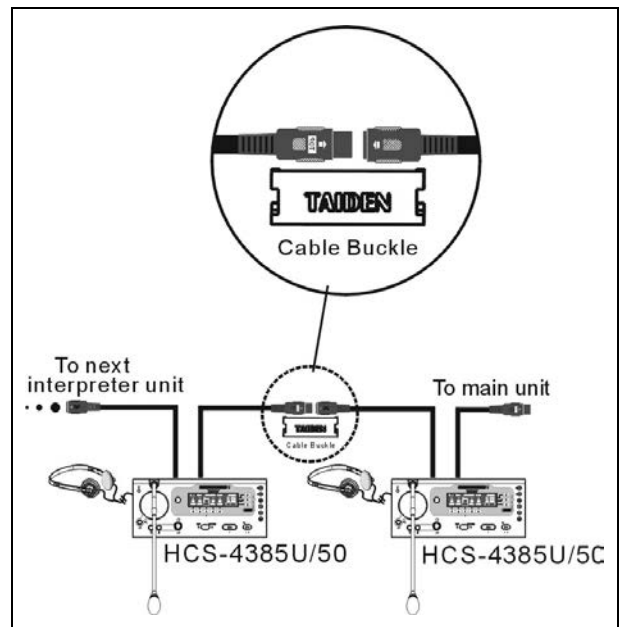
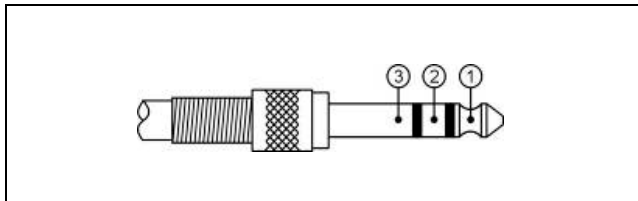


Figure 4.1.5 “Daisy-chain” connection between HCS-4385U/50 Interpreter units

4.1.3.3 External earphone

An external earphone can be connected to the external earphone jack at the lateral side of the Interpreter unit. Its volume can be adjusted by the earphone volume control knob. The external earphone shall have a Ø 3.5 mm plug or a Ø 6.4 mm plug, according to the following figure:

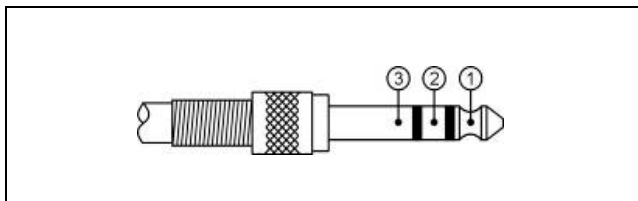


Functions and indications:

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

4.1.3.4 External microphone

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



Functions and indications:

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

4.1.4 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-4385U/50 interpreter unit in detail.

4.1.4.1 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 4.1.6. 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 4.1.7. 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 (a/b/c/d/e) 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 4.1.6.

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 4.1.7.

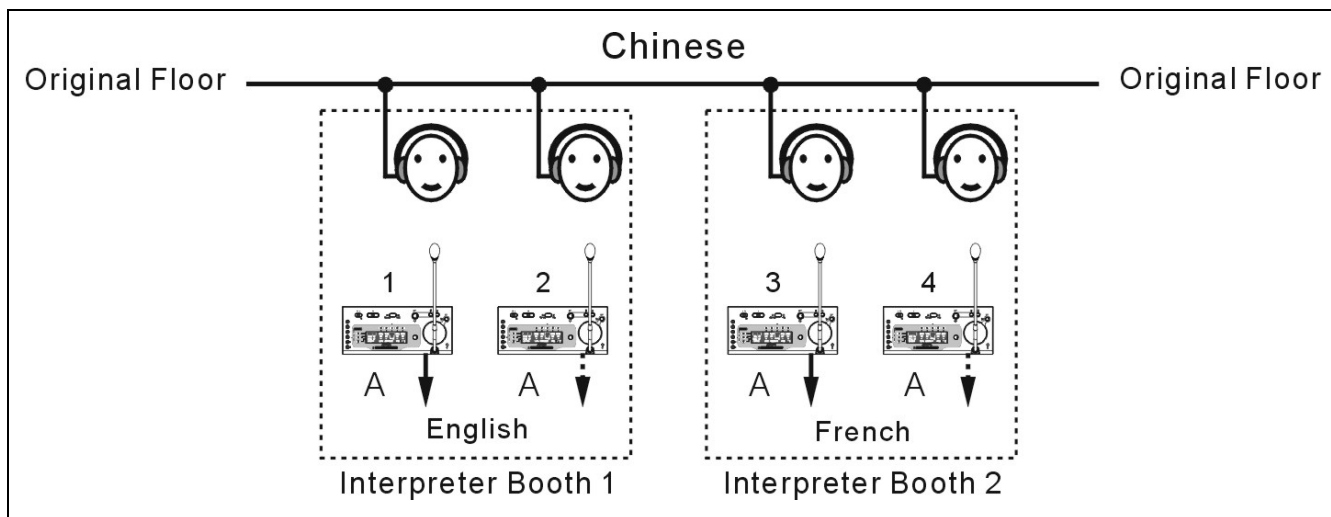


Figure 4.1.6 Direct interpretation

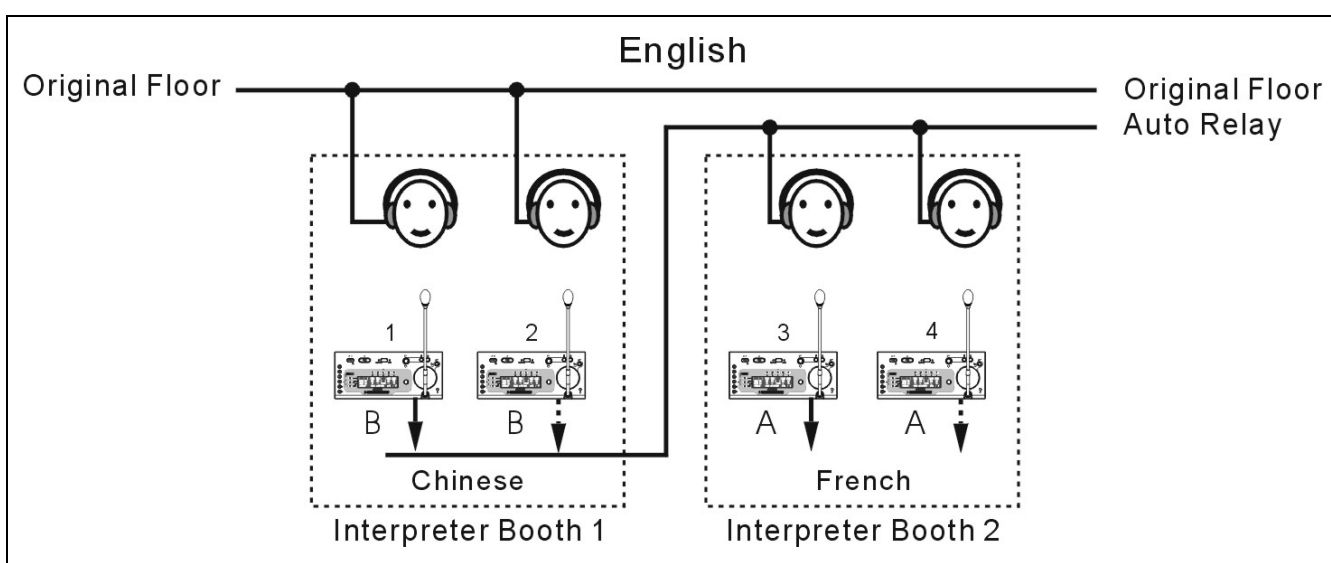


Figure 4.1.7 Relay interpretation

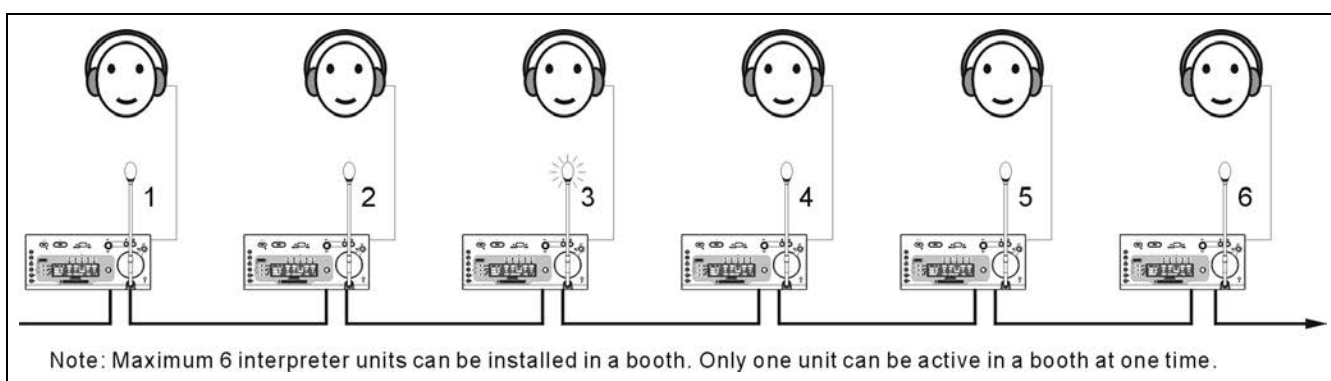
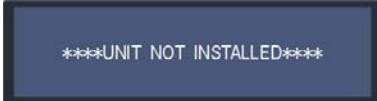


Figure 4.1.8 Schematic diagram of the connection of interpreter units

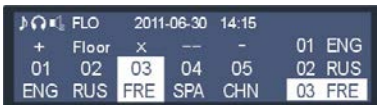
4.1.4.2 LCD configuration menu

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”;



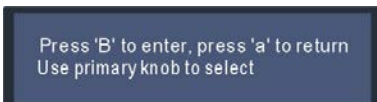
- If the interpreter unit has been configured, the LCD will display the standby interface.



A) Accessing configuration menu

- “Interpreter unit does not setup” interface: press any button to go to the menu configuration of the interpreter unit;
- **Display standby interface:** press and hold the message button (✉), at the same time, clockwise rotate the Primary knob, to go to the menu configuration of the interpreter unit.

The LCD will display the following figure:



In the menu operation of the interpreter unit:

- ♦ Use the Primary knob to run through all submenus;
- ♦ Use the “B” button to confirm/go to submenu;
- ♦ Use the “a” button to return/exit.

B) Menu configuration

The menu operation of the interpreter unit is as follows:

Step 1: Setup operation language;

Step 2: Select conference room ID;

Step 3: Select booth number;

Step 4 to 8: Select monitor channel a/b/c/d/e language;

Step 9: Select to activate the “SLOW” function or not;

Step 10: Select to activate the “HELP” function or not;

Step 11: Select to activate the “Auto Floor” function or not;

Step 12: Select to display speaking time or not;

Step 13: Finish.

Step 1: Setup operation language

Press the “B” button to setup the operation language, i.e. the display language on the LCD:



- 1). Select the language between several languages: Simplified Chinese, Traditional Chinese, English, Korean, etc., by rotating the Primary knob;
- 2). Press the “B” button to confirm and go to the next step.

Step 2: Select conference room ID



- 1). Select the conference room ID by rotating the Primary knob, the interpreter unit and the main unit must set the same ID;
- 2). Press the “B” button to confirm and go to the next step or press “a” to return.

Step 3: Select booth number

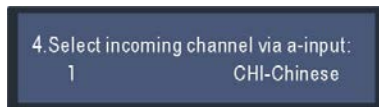
Setup the interpreter unit with the number of the booth within which the interpreter unit is located, according to the configuration in the CMU.



- 1). Select the booth number by rotating the Primary knob, the range is limited by the configuration in the CMU (refer to section [2.1.4.2](#));
- 2). Press the “B” button to confirm and go to the next step or press “a” to return.

Step 4 to 8: Select monitor channel language

Preset 5 most familiar languages as monitor channel.



- 1). Select a language for the monitor channel by rotating the Primary knob, the range is limited by the configuration in the CMU (refer to section [2.1.4.2](#));
- 2). Press the “B” button to confirm and go to select the next monitor channel language;
- 3). Repeat 1) - 2) to setup a language for every monitor channel, and go to step 9.

Step 9: Select to activate the “SLOW” function or not

If the speaker speaks too fast and if the “SLOW” function is activated, the interpreter can press the “SLOW” button to inform the speaker to slow down. The congress unit with an LCD will hint “Please speak slower!”



- 1). Use the Primary knob to select to activate the “SLOW” function or not;
- 2). Press the “B” button to confirm and go to step 10.

Step 10: Select to activate the “HELP” function or not

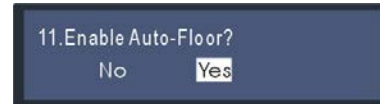
When PC software is operated and if the “HELP” function is activated, press the “HELP” button to request for operator’s help.



- 1). Use the Primary knob to select to activate the “HELP” function or not;
- 2). Press the “B” button to confirm and go to step 11.

Step 11: Select to activate the “Auto Floor” function or not

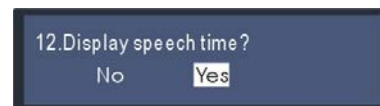
If the selected input language is the same as the output language and if the “Auto Floor” function is activated, the interpreter unit will switch the input channel to floor language automatically.



- 1). Use the Primary knob to select to activate the “Auto Floor” function or not.;
- 2). Press the “B” button to confirm and go to step 12.

Step 12: Select to display speaking time or not

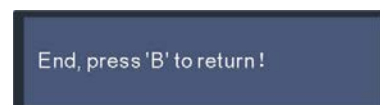
When the microphone is activated and if “display speaking time” was selected, speaking time will be displayed at the right upper corner on the LCD.



- 1). Use the Primary knob to select to display the speaking time or not;
- 2). Press the “B” button to confirm.

Step 13: Finish

After finishing the interpreter unit menu configuration, the following interface is shown. Press the “B” button to confirm and to return to the standby interface.



4.1.4.3 Other configuration

4.1.4.3.1 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 Primary 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 Primary 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.

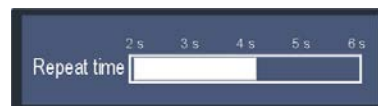
4.1.4.3.2 Interlock mode

Interpretation mode can be setup by menu operation on the main unit (refer to section [2.1.4.2](#)):

- ◆ Override: allows an interpreter to override another interpreter in another interpreter booth supplying the same interpretation channel.
- ◆ BC-OVERRIDE: enables B/C channel of an interpreter in another booth to override an occupied A channel in another booth, but supplying the same channel; when an interpreter in another booth to override an occupied B/C channel in another booth, the “Microphone ON” indicators the occupied B/C channel will flash on the control panel for about 5 seconds.
- ◆ Interlock: blocks another interpreter from using the same channel in another interpreter booth. As a warning that another microphone is active on a given channel, when a second one is activated on the same channel, the “Microphone ON” indicators will flash on the control panel for about 5 seconds.

4.1.4.3.3 Playback time configuration

In standby interface, press and hold the Mute key (Mute) and rotate the primary knob ⑥ clockwise to go to the playback time configuration. Rotate the primary knob ⑥ to set the playback time within a range between 2 s - 6 s.



4.1.5 Operation

4.1.5.1 Number

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

Select “Number” – “interpreter” by menu operation from the CMU, press the “MENU” key to confirm. The system now goes to numbering status. “Numbering Interp’: Stop” will be displayed on the CMU LCD. The indicating light “B” of all connected interpreter units will be on. Rotate the primary knob to select the number (range: 1-6), and press key “B” to confirm. The indicating light “B” will be deactivated. Press the “EXIT” button on the CMU to stop numbering.

Note:

☞ When numbering, please number the interpreter units one by one and do NOT set the same number in the same interpreter booth.

4.1.5.2 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 and adjust the volume with the “Loudspeaker volume control knob” ②. 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” ⑤, “Earphone bass control knob” ③ and “Earphone treble control knob” ④ 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 shortcut switch button (a/b/c/d/e)”. If the channel language is not preset, he/she can select the channel language by pressing the button (a/b/c/d/e) and turning the Primary knob ⑥.
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. When the “SLOW” button is pressed, a ring tone will be emitted by the corresponding discussion unit. If the discussion unit is equipped with an LCD, the message “Please speak slower!” will be displayed.
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 - 6 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
Floor	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.

4.1.5.3 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.
- ♦ 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.

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 messages.

This button is also used to access the configuration menu of the interpreter unit (refer to 4.4.2).

5. Intercom button (CALL): used to start a two-way intercom call to the CHAIR (PTT mode).

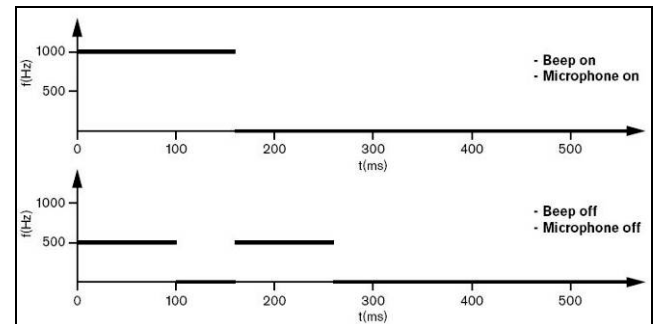
6. Intercom button (CB): used start a one-way intercom call to the operator (PTT mode).

7. “HELP” button: used by the interpreter calling 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.

8. 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.



4.2 HCS-8385/80

4.2.1 Functions and indications

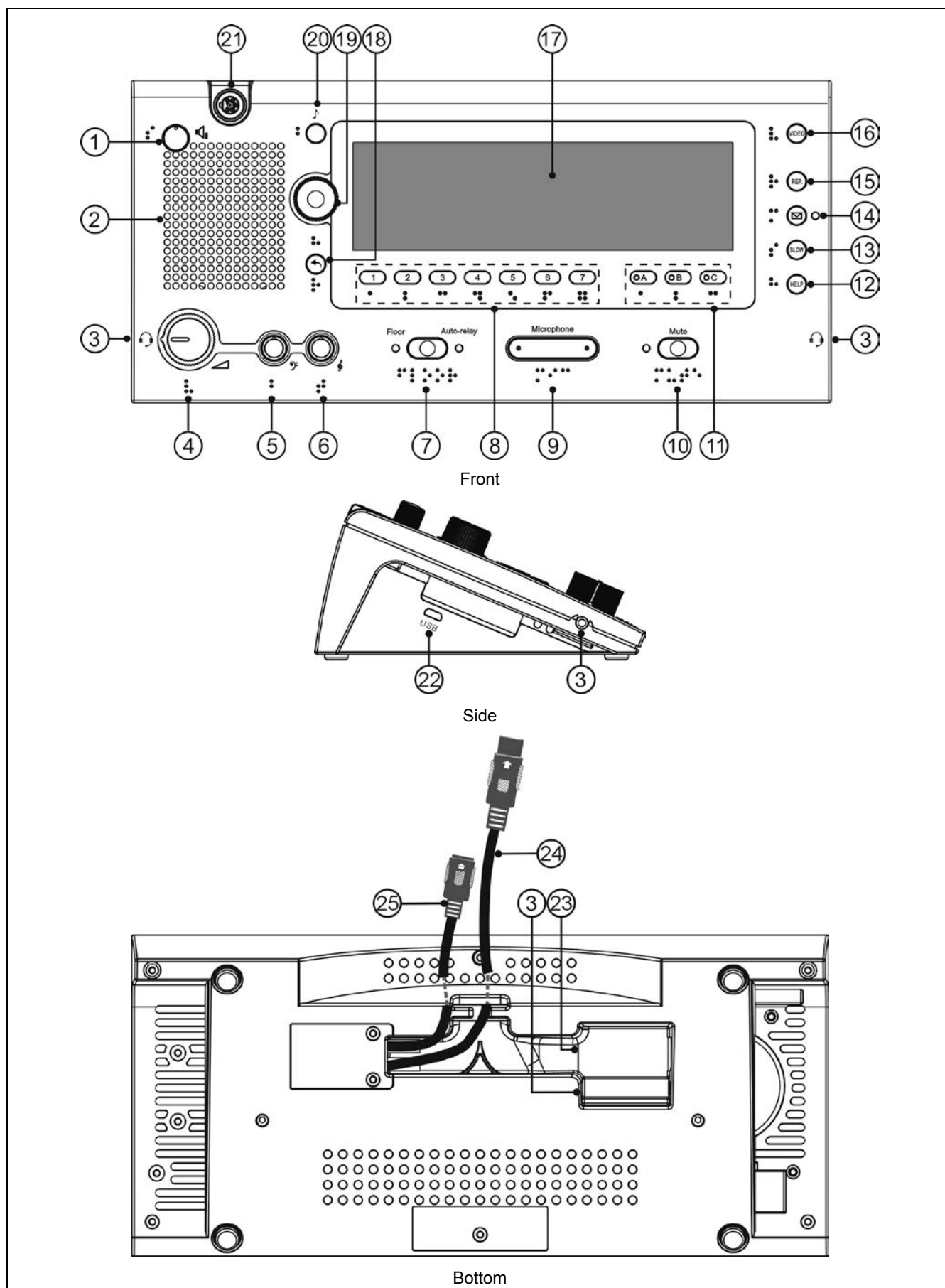


Figure 4.2.1 HCS-8385/80 Interpreter unit

◇ Listening area:

Loudspeaker/earphone control:

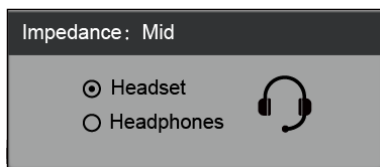
1. Loudspeaker volume control knob

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.
- ◆ If one interpreter unit is activated, the green indicating lights for others in the same booth will be off, when the interlock mode in a booth is set to Interlock.

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.

16. Video button

- ◆ Connection to third party HDMI monitors via HCS-8385HDMI, video source selection can be made from the Interpreter Unit

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. 7.2” 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

22. USB socket

23. Mini 6P-DIN socket

- Connect to HCS-8385HDMI to switch up to 8 video sources through VIDEO button.

24. 1.5-meter 6P-DIN cable with standard plug (male x 1)

25. 0.6-meter 6P-DIN cable with standard plug (female x 1)

4.2.2 Installation

HCS-8385/80 interpreter unit is available as tabletop or as flush-mounted version.

For flush-mounting:

- a. Make a recess in the table according to the dimensions in figure 4.2.2;
- b. Drill two $\varnothing 4$ mm screw holes in the counterpiece according to figure 4.2.2. The distance between the centers of the screw holes is 190 mm;
- c. Insert the underside of the interpreter unit carefully into the cut-out;
- d. Run the two cables at the bottom of the unit according to the options for cable routing on site;

- e. Put the interpreter unit into the recess until the circumferential supporting edge fits with the table-top surface. Fix it with screws from the bottom. The length of the screws depends on the thickness of the table.

Note:

For embedded installation, the supporting edge HCS-8385MP must be ordered separately and fixed onto the Interpreter unit before delivery.

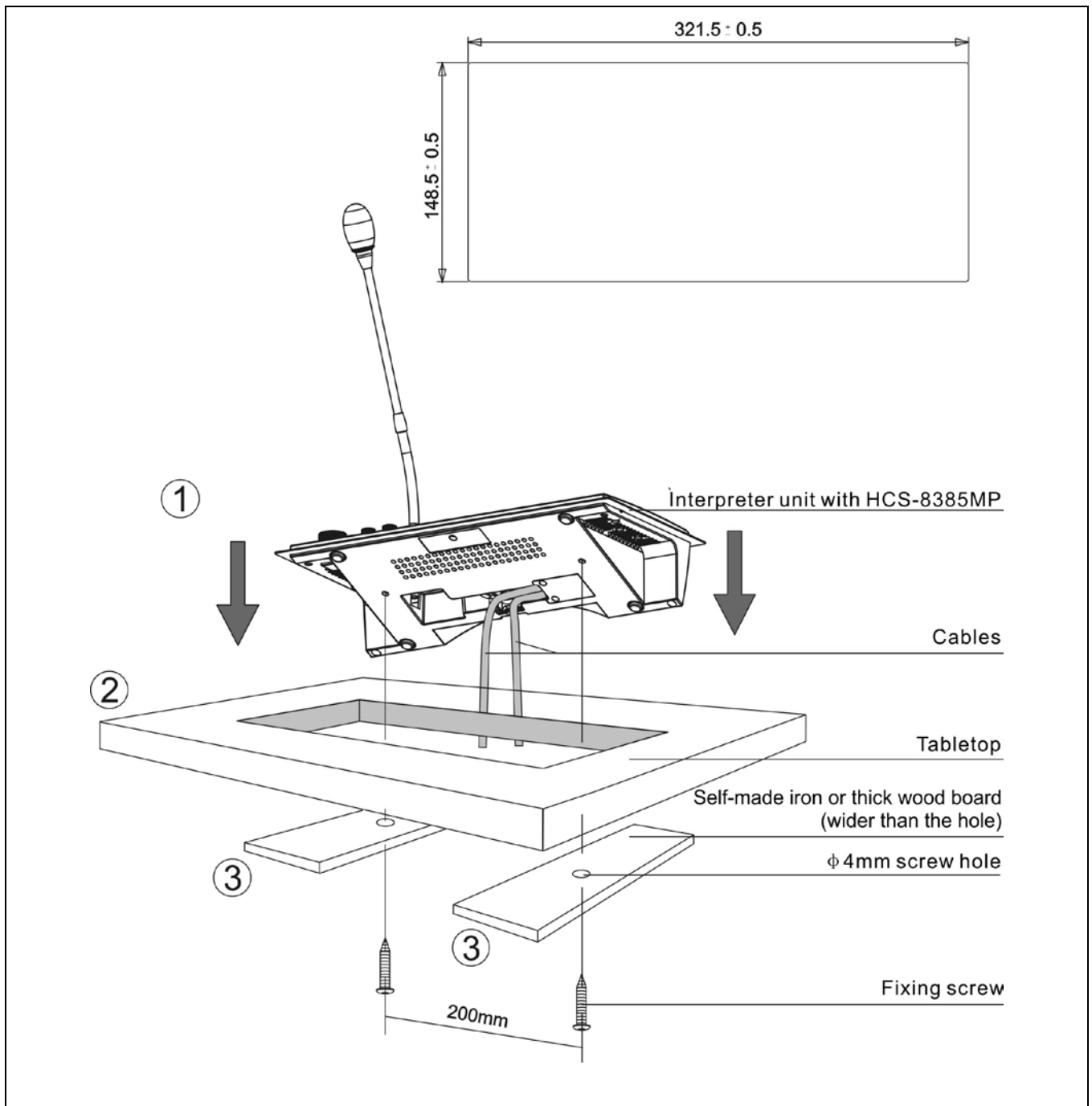


Figure 4.2.2 Installation diagram (unit: mm)

4.2.3 Connection

4.2.3.1 Connecting to the CMU or the EMU

HCS-8385/80 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.

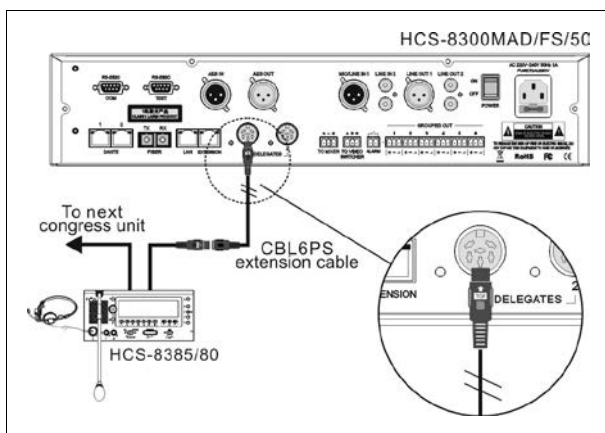


Figure 4.2.3 HCS-8385/80 Interpreter unit connected to the CMU or the EMU

Neither the replacement of congress units nor cable faults between congress units will affect the other units if “daisy-chain closed-loop” connection topology is selected. Ring connection, achieved by closing the loop of the daisy-chained units, increases system reliability. To obtain “daisy-chain” ring connection just connect the last congress unit back to the CMU with a CBL6PP extension cable (the cable features a 6P-DIN male connector at each end). In HCS-8300 Paperless Multimedia Congress System, only the congress main unit can realize a “Closed Loop - Daisy Chain” connection, the extension main unit does not have this feature.

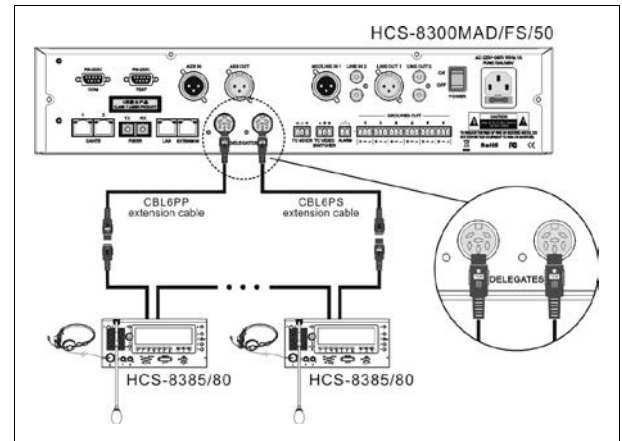


Figure 4.2.4 Ring connection between the CMU and HCS-8385/80 Interpreter units

4.2.3.2 Connection between Interpreter units

All HCS-8385/80 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.

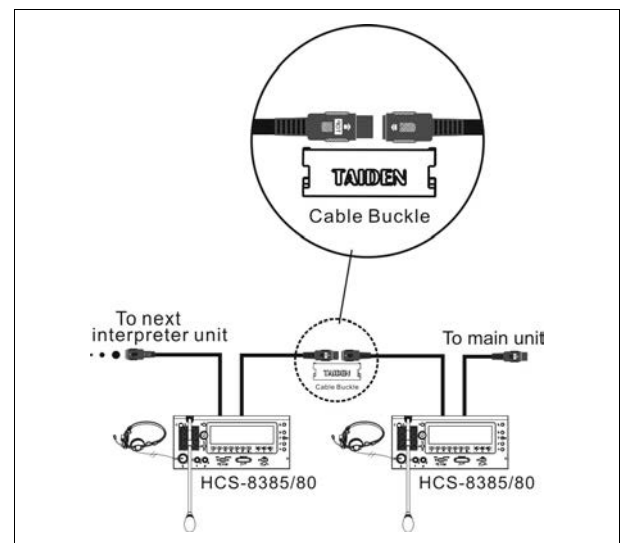
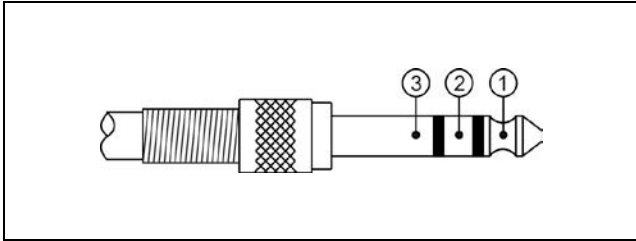


Figure 4.2.5 “Daisy-chain” connection between HCS-8385/80 Interpreter units

4.2.3.3 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:

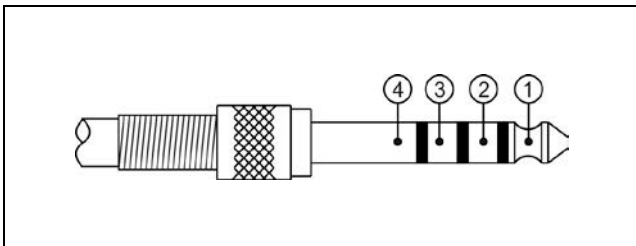


Functions and indications:

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

4.2.3.4 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

4.2.4 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-8385/80 interpreter unit in detail.

4.2.4.1 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 4.2.6. 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 4.2.7. 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 4.2.6.

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 4.2.7.

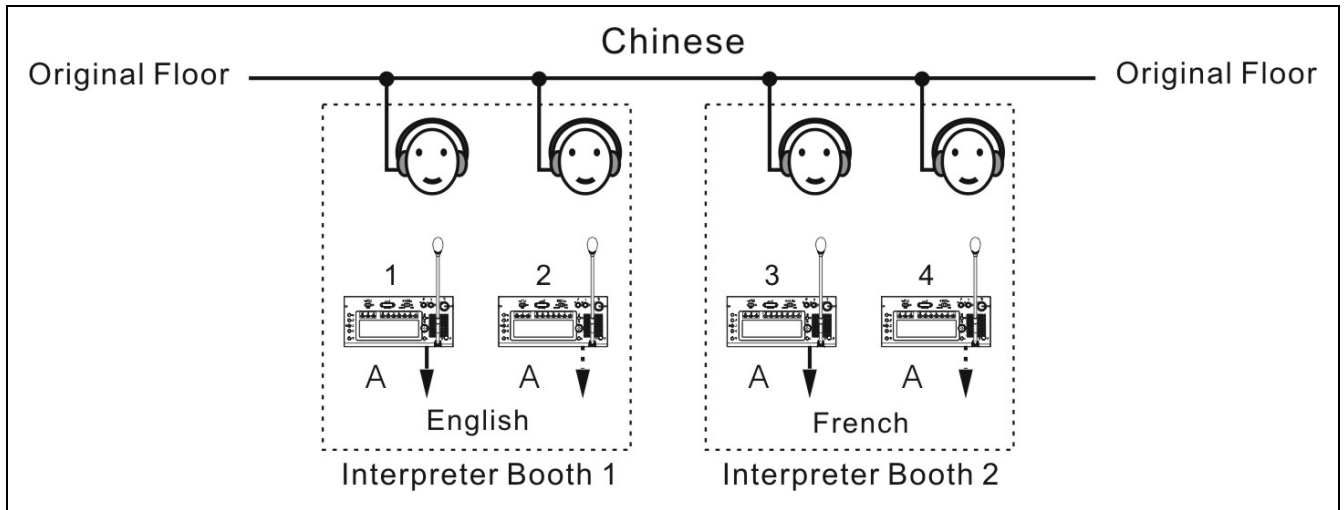


Figure 4.2.6 Direct interpretation

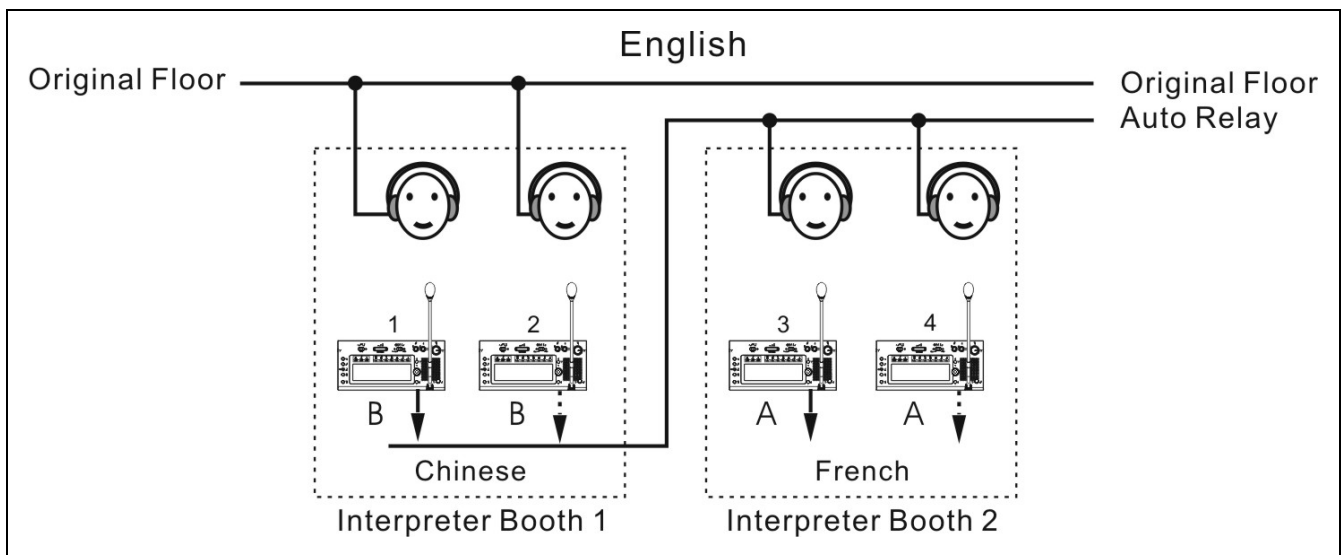


Figure 4.2.7 Relay interpretation

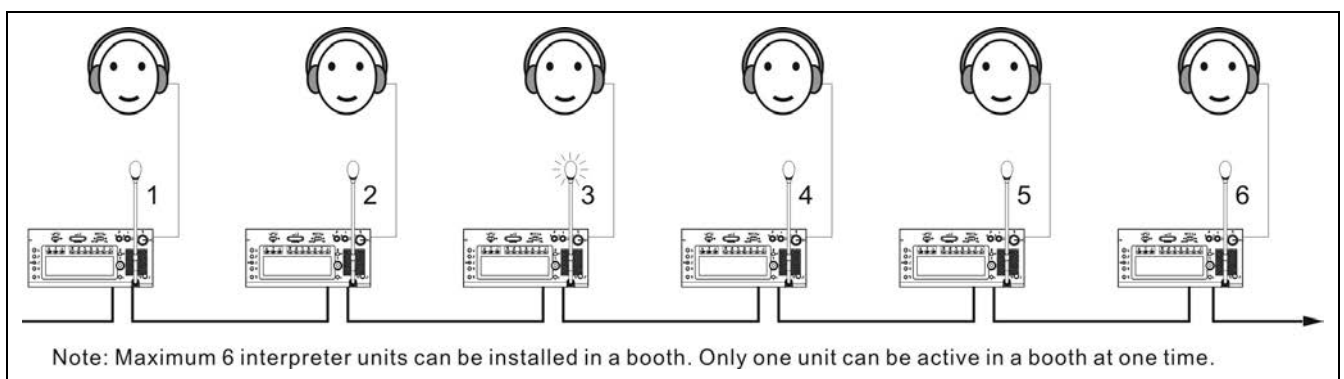


Figure 4.2.8 Schematic diagram of the connection of interpreter units

4.2.4.2 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
05:ENG	Loudspeaker channel
2016-01-21 09:00	System current time
06	Output channel is interpreting
	Call operator
	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



Bluetooth



Setting



Help



About



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.



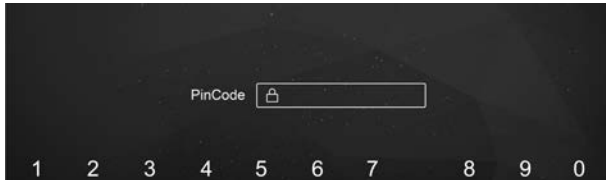
If you can not download the app by scanning the code, you can download it from TAIDEN official website:

http://www.taiden.com/products_detail/productId=575.html

Or from "Google Play Shore" or "Apple store", search "Taiden" and download "HCS-8385 tool".

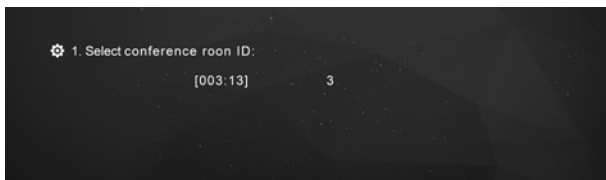
Setting

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 **838550** or **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.

Help

Press the Function knob to view help document, turn the Function knob to next/previous page, and press any other button to exit.



About

Press the Function knob to view HCS-8385/80 version, include System version, App version and Bluetooth version.



4.2.4.3 Other configuration

4.2.4.3.1 Input channel configuration

The HCS-8385/80 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.

4.2.4.3.2 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.

4.2.4.3.3 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; 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: blocks another interpreter from using the same channel in another interpreter booth. As a warning that another microphone is active on a given channel, when a second one is activated on the same channel, the “Microphone ON” indicators will flash on the control panel for about 5 seconds.

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.

4.2.5 Operation

4.2.5.1 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 participants.
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 ⑨.
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.

4.2.5.2 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.

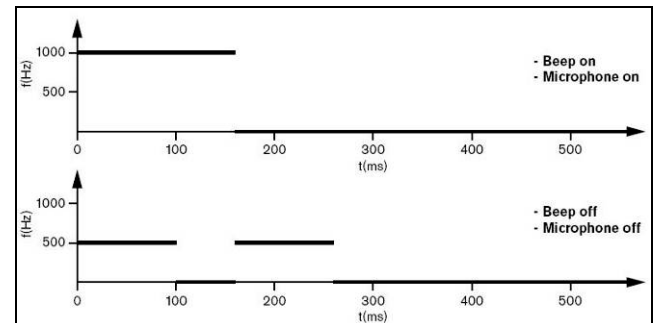
4. The “MESSAGE” () button is used to check short message.

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.



4.2.6 HCS-8385HDMI

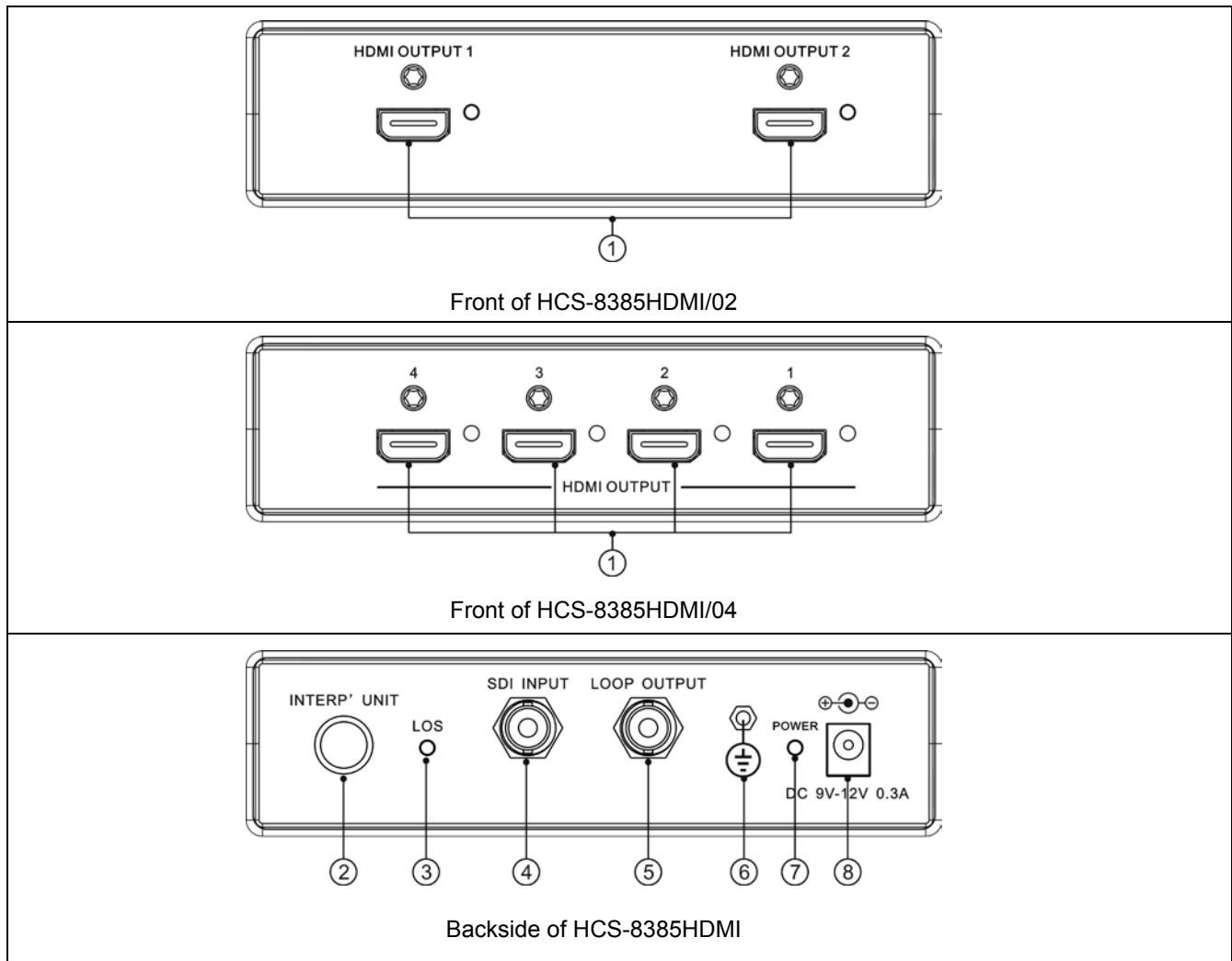


Figure 4.2.9 HCS-8385HDMI series video converter

Figure 4.2.9:

1. HDMI output

2. Mini 6P-DIN socket

- Connection to HCS-8385/80 TAIDEN new generation simultaneous interpreter unit through cable with mini 6pin DIN plug on each end;
- Receive control signal and get power from HCS-8385/80.

3. SDI signal loss indicator

4. SDI input

5. SDI loop output

6. Ground

7. Power indicator

8. Power socket

- DC 9-12 V;
- Connection with power adaptor when work without HCS-8385/80.

HCS-8385/80 can be connected to TAIDEN High Definition Video Matrix Switcher through HCS-8385HDMI series video converter, up to 8 channels HD video signals can be transmitted to the monitors in the booths, and can easily switch among video sources via “VIDEO” button on the interpreter unit.

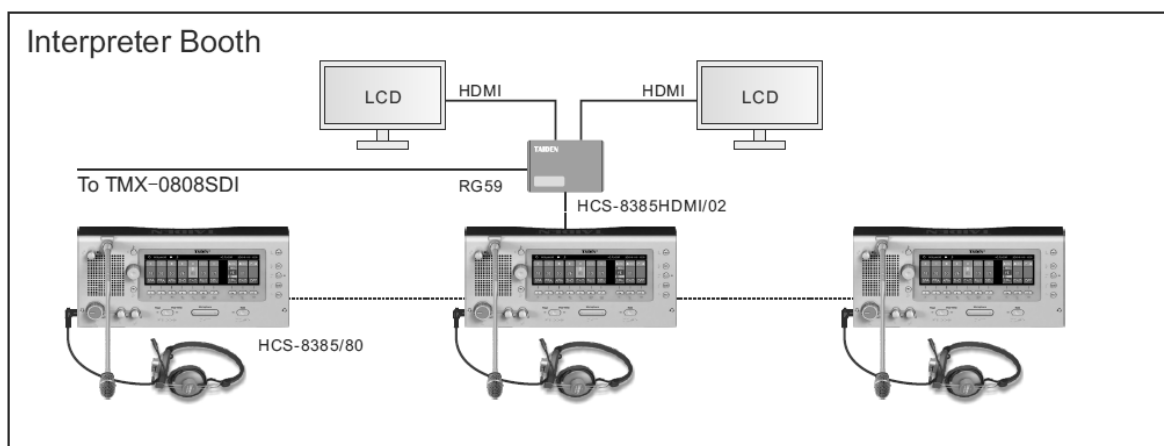


Figure 4.2.10 HD video solution for interpreter booth

Chapter 5 System connection and basic setup procedure

5.1 System connection

HCS-8300 PMCS 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 6-pin cable.

TCP/IP protocol is adopted for Ethernet connection between CMU and 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-8300 PMCS are introduced by diagrams and examples.

5.1.1 Connection principles

In HCS-8300 PMCS system power is provided by HCS-8300M CMU (EMU) or HCS-8300EMS for all congress units (except paperless multimedia congress terminals). Thus, the total number of system units in any installation is limited by the maximum power handling capacity and control capacity of the HCS-8300M CMU (EMU) or HCS-8300EMS. 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.

Paperless Multimedia Congress Terminals are provided power by the dedicated power supply unit. Refer to table 5.1.3, table 5.1.4 and table 5.1.5 for maximum load capability.

By cascade connecting extension main units (HCS-8300ME(/FS)) or extension units (HCS-8300MES), the HCS-8300 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 has 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-8300M CMU/EMU 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 Electronic Nameplate, speaker and microphone	HCS-48U7/U8/U9/U10/4886 +HCS-1080	11	10	9	8	5	-
Equipped with 7.2" LCD, speaker and microphone	HCS-8385/80	8	8	7	7	5	4
	2 HCS-8385/80 + 1 HCS-8385HDMI	3	3	2	2	1	-
	3 HCS-8385/80 + 1 HCS-8385HDMI	2	2	1	1	-	-
	4 HCS-8385/80 + 1 HCS-8385HDMI	2	2	1	1	-	-
Equipped with 4.3" LCD, speaker and microphone	HCS-4890/50	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 256×32 LCD, speaker and microphone	HCS-4886 HCS-4887 HCS-48U7 HCS-48U8 HCS-48U9	16	13	12	11	8	5
Equipped with OLED and microphone	HCS-48U10 HCS-48U6						
	HCS-4338N/50 HCS-4860/50 HCS-4865/50 HCS-4866/50						
	HCS-4888 HCS-4330/50 HCS-4332/50 HCS-4326/50						
Equipped with speaker and microphone, without 256×32 LCD		22	19	17	15	9	6
Equipped with 256×32 LCD, without speaker nor microphone	HCS-4368/50	30	26	24	22	15	10
Equipped with microphone, without 256×32 LCD nor speaker	HCS-8313 HCS-8314 HCS-8315 HCS-4325/50 HCS-4326/50	30	27	24	22	17	12
Only equipped with retractable microphone array	HCS-4851/50	14	13	13	12	7	4
		Number of sync retractable microphone array: 6					
Without 256×32 LCD, speaker nor microphone	HCS-4368SDT/50	30	29	26	24	19	14

Table 5.1.1 Quick lookup table of HCS-8300M CMU/EMU load capability (each outlet) - continue

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
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-4340UN/50	11	10	9	8	5	-
	HCS-4340U/50	16	13	12	11	8	5
Equipped with 10" LCD Screen	HCS-8335 HCS-8336	6	6	5	4	-	-
	HCS-8335-NP	5	5	4	3	-	-
E-ink Electronic Nameplate	HCS-1080	42	38	34	30	-	-
		Note: the connection number of HCS-1080T is no more than 15 for each 6P-DIN interface.					

***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.);
- ☞ For “Closed Loop - Daisy Chain” connection, load capability of each outlet is reduced by half.

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 Electronic Nameplate, speaker and microphone	HCS-48U7/U8/U9/U10/ 4886+HCS-1080	8	7	6	5
Equipped with 7.2" LCD, speaker and microphone	HCS-8385/80	7	7	6	6
	2 HCS-8385/80 + 1 HCS-8385HDMI	3	3	2	2
	3 HCS-8385/80 + 1 HCS-8385HDMI	2	2	1	1
	4 HCS-8385/80 + 1 HCS-8385HDMI	2	2	1	1
Equipped with 4.3" LCD, speaker and microphone	HCS-4890/50	11	10	9	8
Equipped with 4.3" LCD, microphone, without speaker	HCS-4891/50	18	17	16	15
Equipped with 256×32 LCD, speaker and microphone	HCS-4886 HCS-4887 HCS-48U7 HCS-48U8 HCS-48U9	12	11	10	9
Equipped with OLED and microphone	HCS-48U10 HCS-48U6				
	HCS-4338N/50 HCS-4860/50 HCS-4865/50 HCS-4866/50	18	16	14	12
Equipped with speaker and microphone, without 256×32 LCD	HCS-4888 HCS-4330/50 HCS-4332/50 HCS-4326/50				
Equipped with 256×32 LCD, without speaker nor microphone	HCS-4368/50	24	22	20	18
Equipped with microphone, without 256×32 LCD nor speaker	HCS-8313 HCS-8314 HCS-8315 HCS-4325/50 HCS-4326/50				
Without 256×32 LCD, speaker nor microphone	HCS-4368SDT/50				

Table 5.1.2 Quick lookup table of HCS-8300MES load capability (each outlet) - continue

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
Multi-function connector	HCS-4340A/50 HCS-4340DT/50	9	8	8	8
	HCS-4340B/50	8	7	7	7
	HCS-4340UN/52	8	7	6	5
	HCS-4340U/50	12	11	10	9
Equipped with 10" LCD Screen	HCS-8335 HCS-8336	5	5	4	3
	HCS-8335-NP	4	4	3	2
E-ink Electronic Nameplate	HCS-1080	29	27	27	25
	Note: the connection number of HCS-1080T is no more than 15 for each 6P-DIN interface.				

***Note:**

☞ For "Closed Loop - Daisy Chain" connection, load capability of each outlet is reduced by half.

Table 5.1.3 Quick lookup table of HCS-8300PM/PM2 load capability (each outlet)

Multimedia Terminal		The extension cable length between the HCS-8300PM/PM2 and the first Multimedia Terminal connected to the socket				
		20m	40m	60m	80m	100m
HCS-8338 HCS-8348 HCS-8338/FM		6	6	5	5	4
HCS-8338-NP HCS-8348-NP		5	5	4	4	3
HCS-8368/50 HCS-8368/FM/50	Dual 220 V power supply	5	5	4	4	-
	Dual 110 V power supply	4	4	4	3	-
	Single 220 V power supply	4	4	3	3	-
	Single 110 V power supply	3	3	3	2	-

Table 5.1.4 Quick lookup table of HCS-8300KMX2 load capability (each outlet)

Multimedia Terminal	The extension cable length between the HCS-8300KMX2 and the first Multimedia Terminal connected to the socket			
	20m	40m	60m	80m
HCS-8368/50 HCS-8368/FM/50	8	7	7	7

Table 5.1.5 Quick lookup table of HCS-8368T load capability

Multimedia Terminal	HCS-8368T	
	PoE without external DC 48 V power input	PoE with external DC 48 V power input
HCS-8368/50	5	7
HCS-8368/50+HCS-1080/50	4	6

Table 5.1.6 Quick lookup table of HCS-8300MX/FS load capability (each outlet)

Type	The extension cable length between the HCS-8300MX/FS and the first Interpreter 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
HCS-4385U/50	6	6	5	5	3	2
HCS-4385U/50+HCS-8336	1	1	1	1	1	-
HCS-8385/80	3	3	3	3	3	2
2 HCS-8385/80 + 1 HCS-8385HDMI	1	1	1	1	1	-
3 HCS-8385/80 + 1 HCS-8385HDMI	-	-	-	-	-	-
4 HCS-8385/80 + 1 HCS-8385HDMI	-	-	-	-	-	-

5.1.2 Connection between the CMU/EMU and the contribution units

HCS-8300 series congress units (except paperless multimedia congress terminals) feature a 1.5 m 6P-DIN standard plug cable and a 0.6 m 6P-DIN socket cable. Contribution units adopt dedicated 6-Pin cable and are daisy-chained, which makes the installation handy and effortless. 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-8300 system is formed (as shown in figure 5.1.1).

Paperless Multimedia Congress Terminal is designed

based on the Gigabit Multimedia Congress Stream technology, all audio and video signals are transmitted via a Cat.5e/Cat.6 cable. The CMU can be connected to the Gigabit network switcher via a Cat.5e/Cat.6 cable. For connecting the congress terminals to the Gigabit network switcher, just connect the “1000M Ethernet” interface of a congress terminal to the “Delegate” interface of the Gigabit network switcher with a Cat.5e/Cat.6 cable. For the connection between congress terminals, just connect the free “1000M Ethernet” interfaces of the adjoining congress terminals.

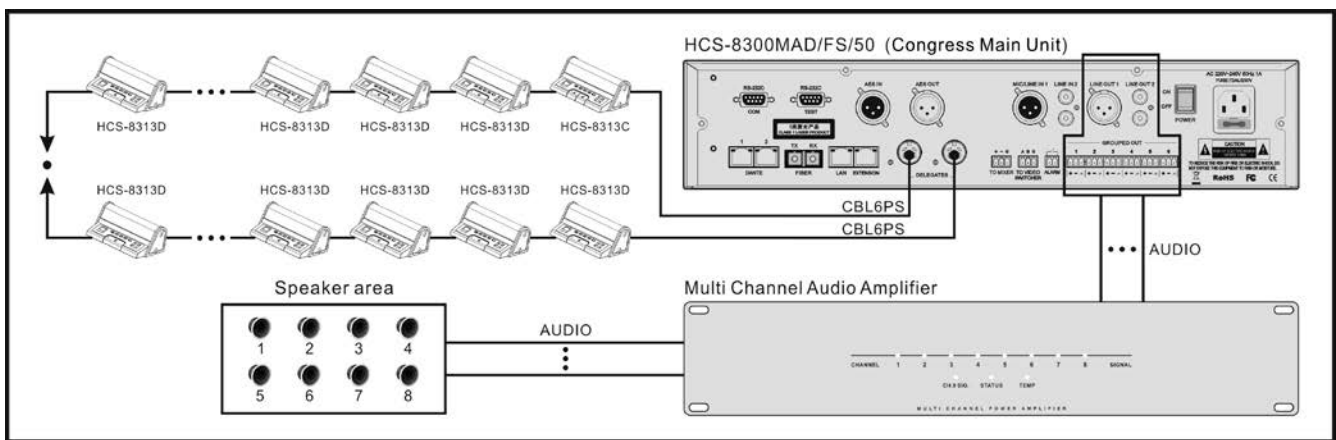


Figure 5.1.1 Congress main unit connecting to HCS-8315 contribution units

5.1.3 Connection between HCS-8300 PMCS and automatic video tracking system

HCS-8300 PMCS 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, video tracking system will automatically find the appropriate preset and focus on the speaker. The view of the speaker will be displayed on large screen or other display devices. The automatic video tracking system is

compatible with several kinds of video signals and operates automatic video switching. The video tracking system is composed of video switcher, button board and high-speed dome camera.

Use a RS-485 cable and connect HCS-8300 Main unit (port “TO VIDEO SWITCHER”) to the corresponding port at the rear panel of the video switcher as shown in the following figure:

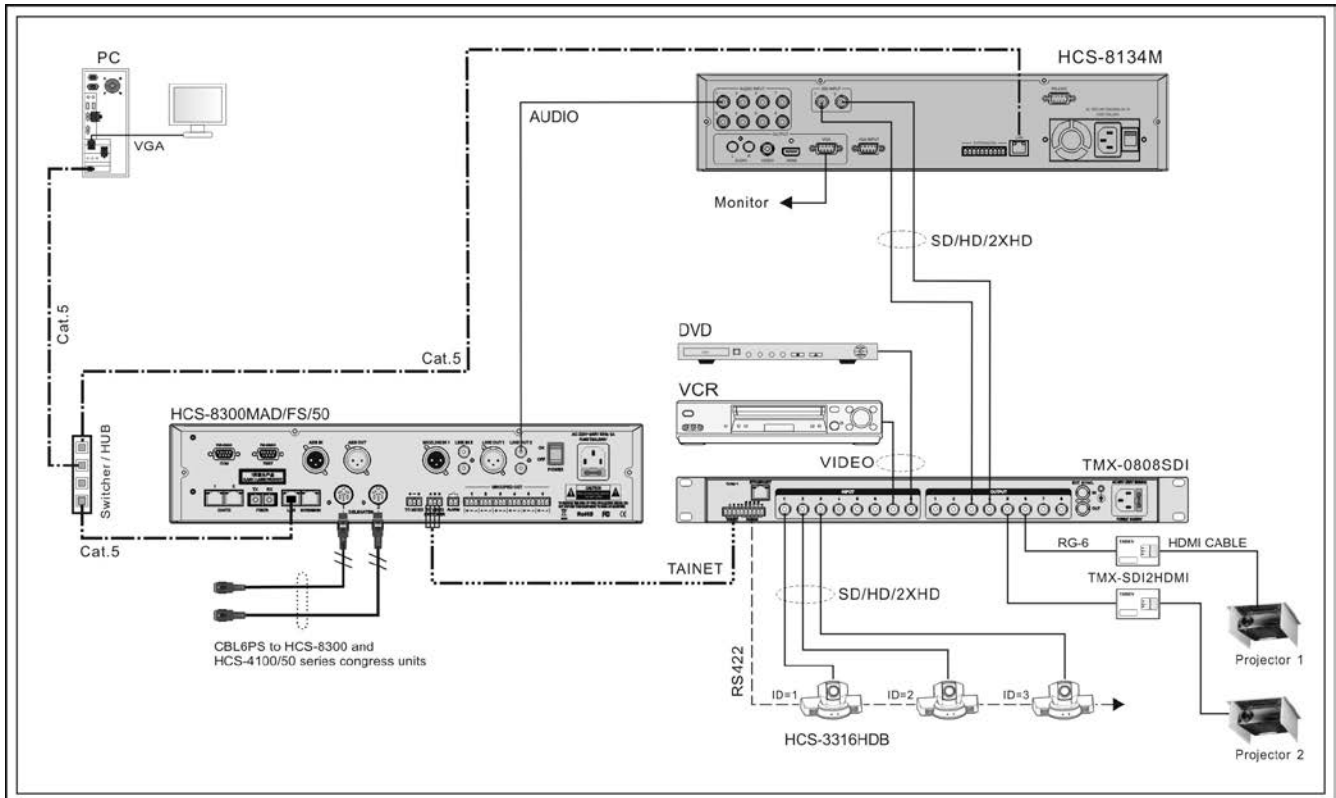


Figure 5.1.2 HCS-8300M congress main unit connecting to automatic video tracking system

5.1.4 Connection between HCS-8300 PMCS and digital infrared language distribution system

By connecting to HCS-5100 digital infrared language distribution system, the audio signal of the HCS-8300M CMU can be converted into an infrared signal and transmitted. The participants can listen to the clear voice from the infrared receiver. Digital infrared language distribution system includes: HCS-5100M/F series digital infrared transmitter, HCS-5100T series digital infrared radiator and HCS-5100R series digital infrared transceiver. **TAIDEN** digital infrared language distribution system has 5 series: 4 CHs, 8 CHs, 16 CHs, 32 CHs and 40 CHs.

Install digital infrared radiators according to the area of the venue. In principle, the quantity of the receivers is unlimited, provided that they are within the coverage area of the infrared signal.

■ CMU connecting to digital infrared language distribution system via HCS-5100MA/F

HCS-5100MA(/FS)/F transmitter can be connected directly to HCS-8300M CMU.

1. HCS-5100MA(/FS)/F transmitter can be connected directly to HCS-8300M 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 HCS-8300 CMU to "INTERPRETER'S UNIT / MAIN UNIT" interface of the HCS-5100MA(/FS)/F transmitter with a dedicated 6-pin cable.
- ♦ Connect the "EXTENSION" interface of the HCS-8300 CMU to the "DCS" interface of the HCS-5100MA(/FS)/F transmitter with a Cat.5 cable.
- ♦ Connect the fiber port of the HCS-8300MAD/FS/50 CMU to the fiber port of the HCS-5100MA/FS/F transmitter.

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 HCS-5100MA(/FS)/F, 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/F

The HCS-5100MC/F transmitter does not have a digital audio input interface, therefore connection to the HCS-8300M CMU is realized via the HCS-8300MO 8 CHs Analog/Digital Audio Output Device.

1. HCS-8300MO can be connected directly to HCS-8300M CMU in three ways (only one of them can be used at one time):

- ♦ Connect the "EXTENSION" interface of the HCS-8300 CMU to the "EXTENSION IN" interface of the HCS-8300MO with a Cat. 5 cable.
- ♦ Connect one outlet (6P-DIN) of the HCS-8300 CMU to the "DELEGATE IN" interface of the HCS-8300MO with a dedicated 6-pin cable.
- ♦ Connect the fiber port of the HCS-8300MAD/FS/50 to the fiber port of the HCS-8300MO/FS(D).

2. The HCS-8300MO contains 8 CHs symmetrical audio outputs (RCA) associated with 8 CHs outputs of the interpreter units. The HCS-5100MC/F contains 4 CHs, 8 CHs, 16 CHs, 32 CHs and 40 CHs 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.

3. 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/F, 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.

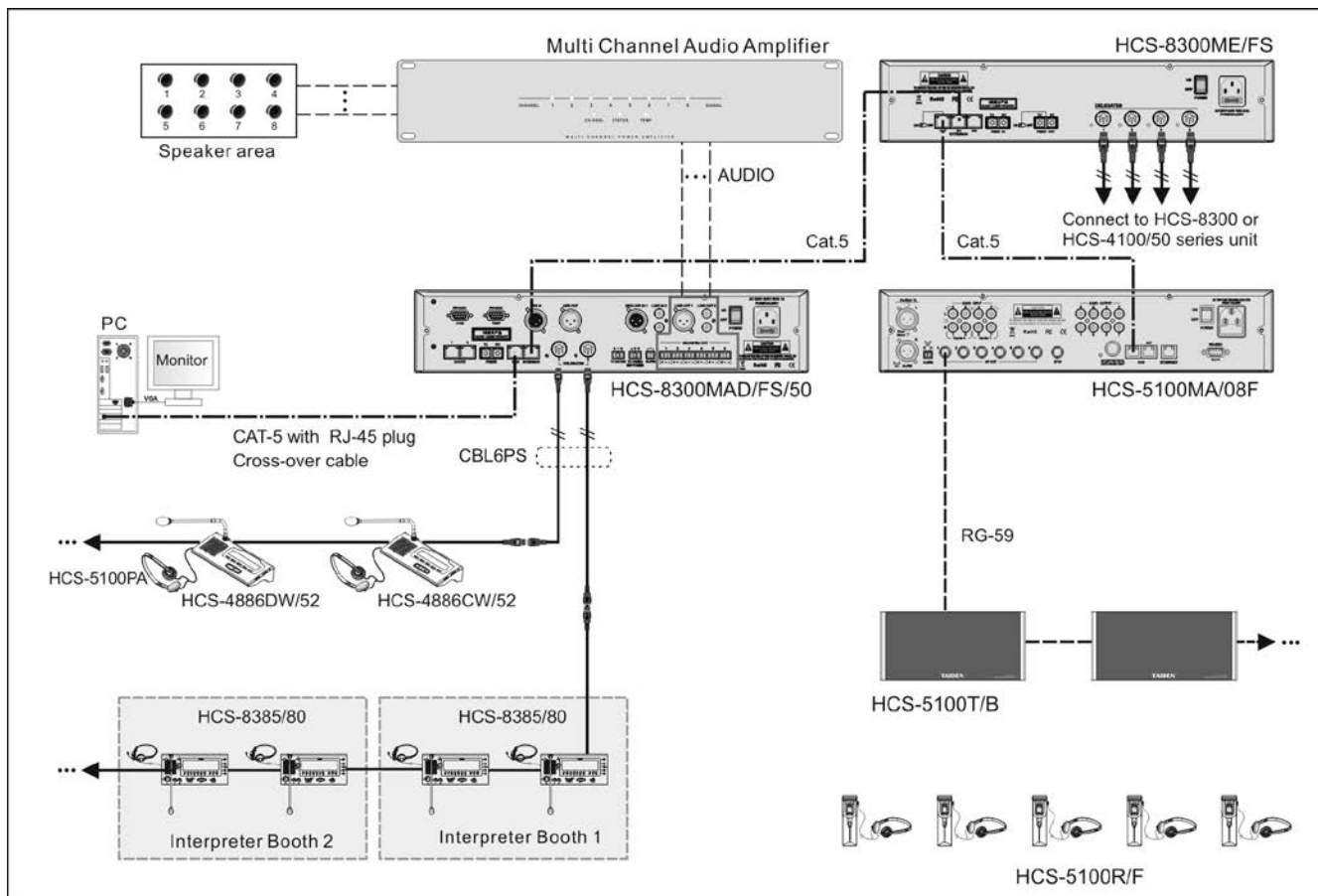


Figure 5.1.3 Congress main unit connecting to digital infrared language distribution system via HCS-5100MA/F

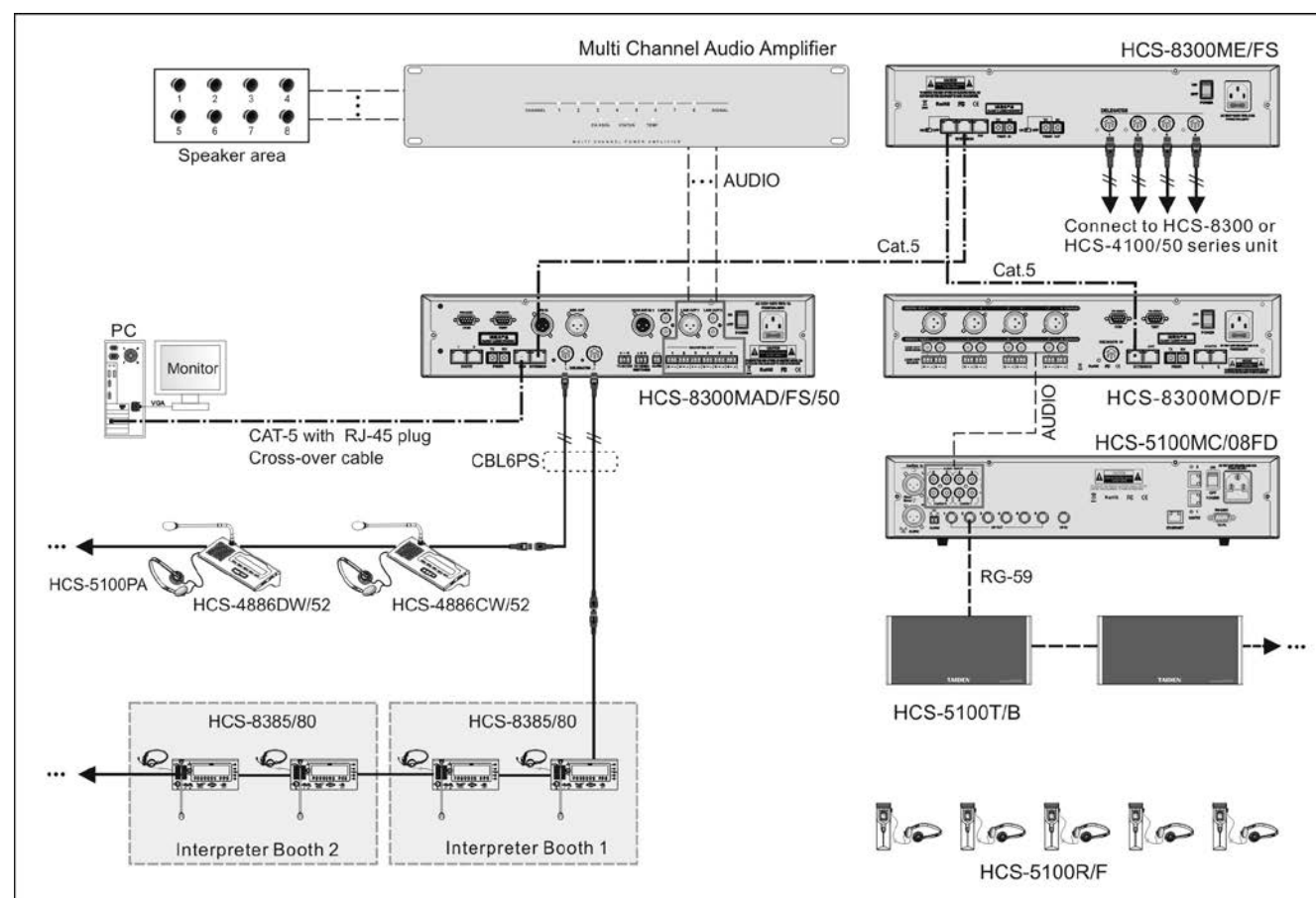


Figure 5.1.4 Congress main unit connecting to digital infrared language distribution system via HCS-5100MC/F

5.1.5 Connection between HCS-8300 PMCS and central control system

TAIDEN intelligent central control system is an advanced comprehensive control system. It can link together various devices, hardware and environment equipment from different manufacturers. The central control system can operate the conferencing devices through wired Ethernet or wireless bidirectional communication by wired/wireless touch panel. Features include power controlling, environment light adjustment and on-off, electric curtain or projector screen 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 intelligent central control system and **TAIDEN** HCS-8300 PMCS can be joined together seamlessly. In addition to standard functions of a normal central touch panel control system, it can also control:

- ◆ Switch on/off microphone of congress unit;
- ◆ Control video camera;

If using **TAIDEN** intelligent central control system touch panel to control congress units, ID of each congress unit should be known.

The connection of HCS-8300 PMCS and the intelligent central control system is shown in figure 5.1.5.

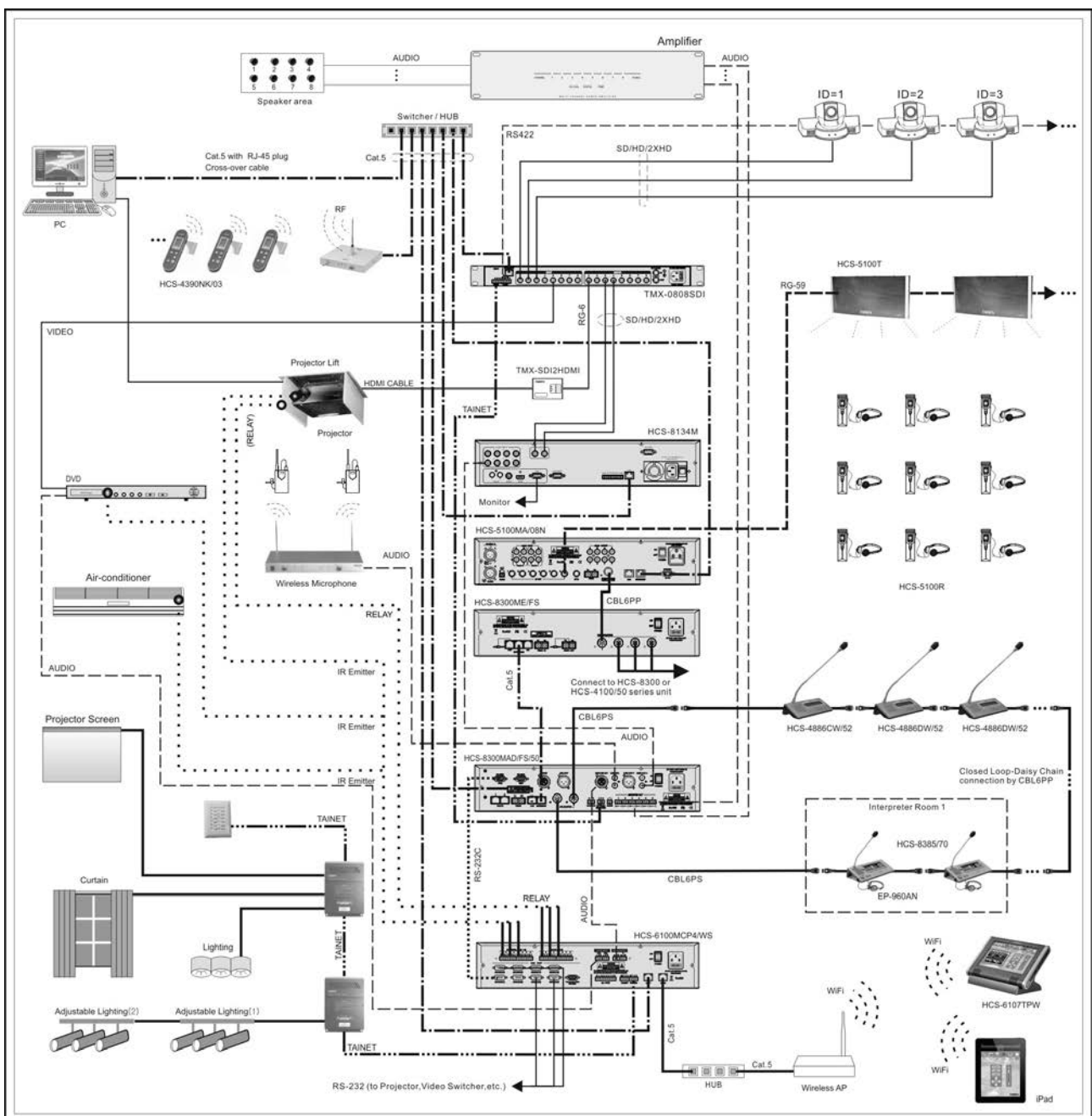


Figure 5.1.5 HCS-8300M congress system main unit connecting to central control system

5.1.6 Connection between HCS-8300 PMCS and Conference Sign-in System

Conference Sign-in System (CSS, untouched) aims at providing the reliable, effective and convenient congress sign-in solution for various large congress. CSS makes the organizers get the updated statistic data of the participants, including the number of participants due to attend, already signed in, and the seat for participant, etc; and publish these to all participants synchronously. Further, the moderator can also benefit from this timely report system by being easily aware of the processing of the congress. Congress topic, agenda, procedure and related information all can be displayed on the large screen.

Intelligent Conference Sign-in System (ICSS) uses both remote RF card and close RF card sign-in technologies

(user can choose as needed), meanwhile, personalized portrait and design can be printed onto the surface of the RF card, which integrates the delegate's certification with ID card. The delegates carry out sign-in simply by walking through the RF card reader: a significant simplification of sign-in procedure and shortening of sign-in time.

Client/server mode with anti-virus and security mechanism is also imported in the ICSS, moreover, the system is easy to update, to extend and to choose the application software.

Figure 5.1.6 shows the connection between CSS and HCS-8300 PMCS:

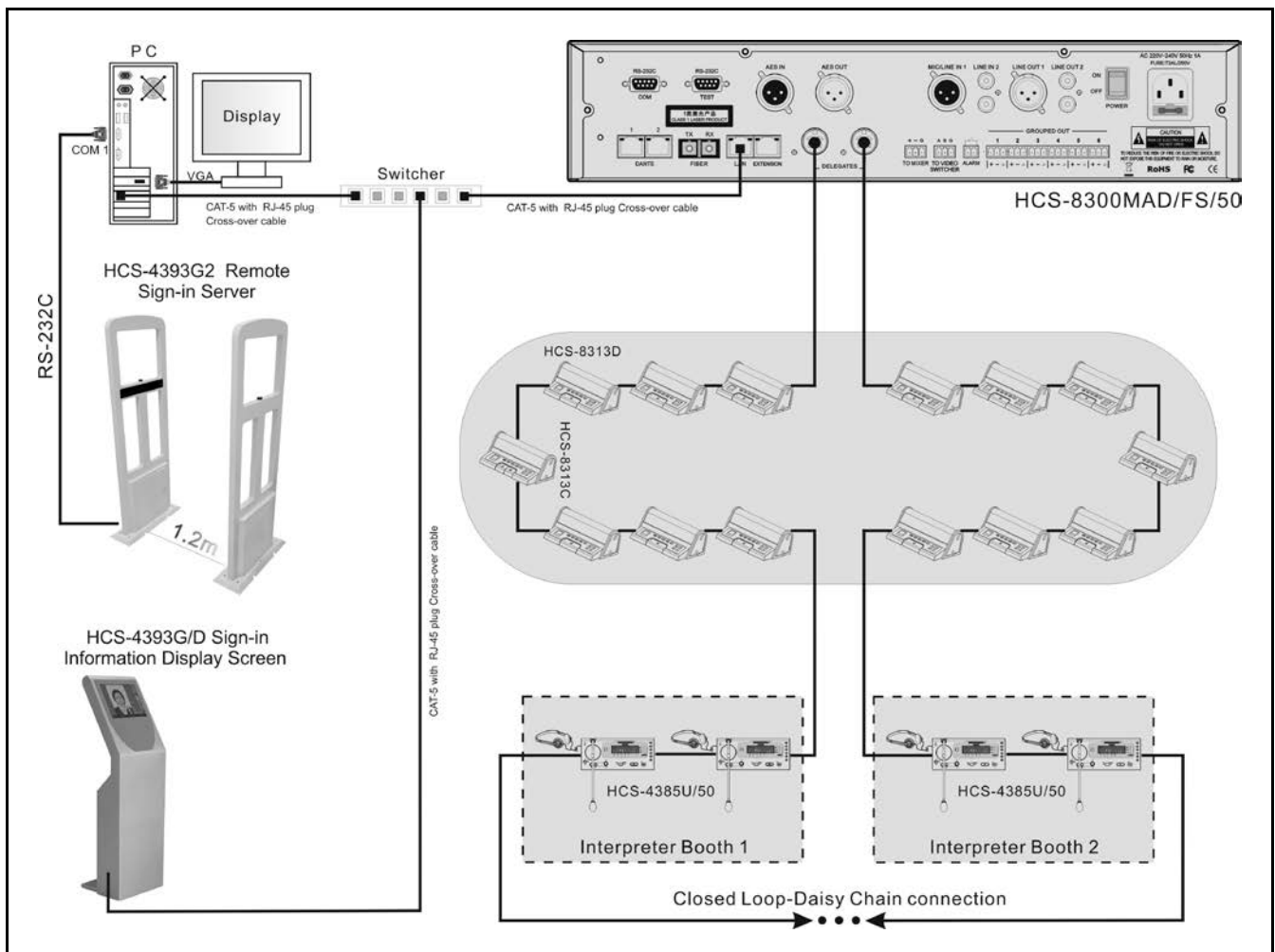


Figure 5.1.6 Connection between sign-in system and HCS-8300 system

5.1.7 Combine/split congress rooms easily

HCS-8300 series Paperless Multimedia Congress System supports a combining/separating function for multiple meeting rooms

A Using Cat.5 cable, several meeting rooms can be combined/separated at will through the HCS-8300MX Congress Room Combiner.

Advantage: 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)

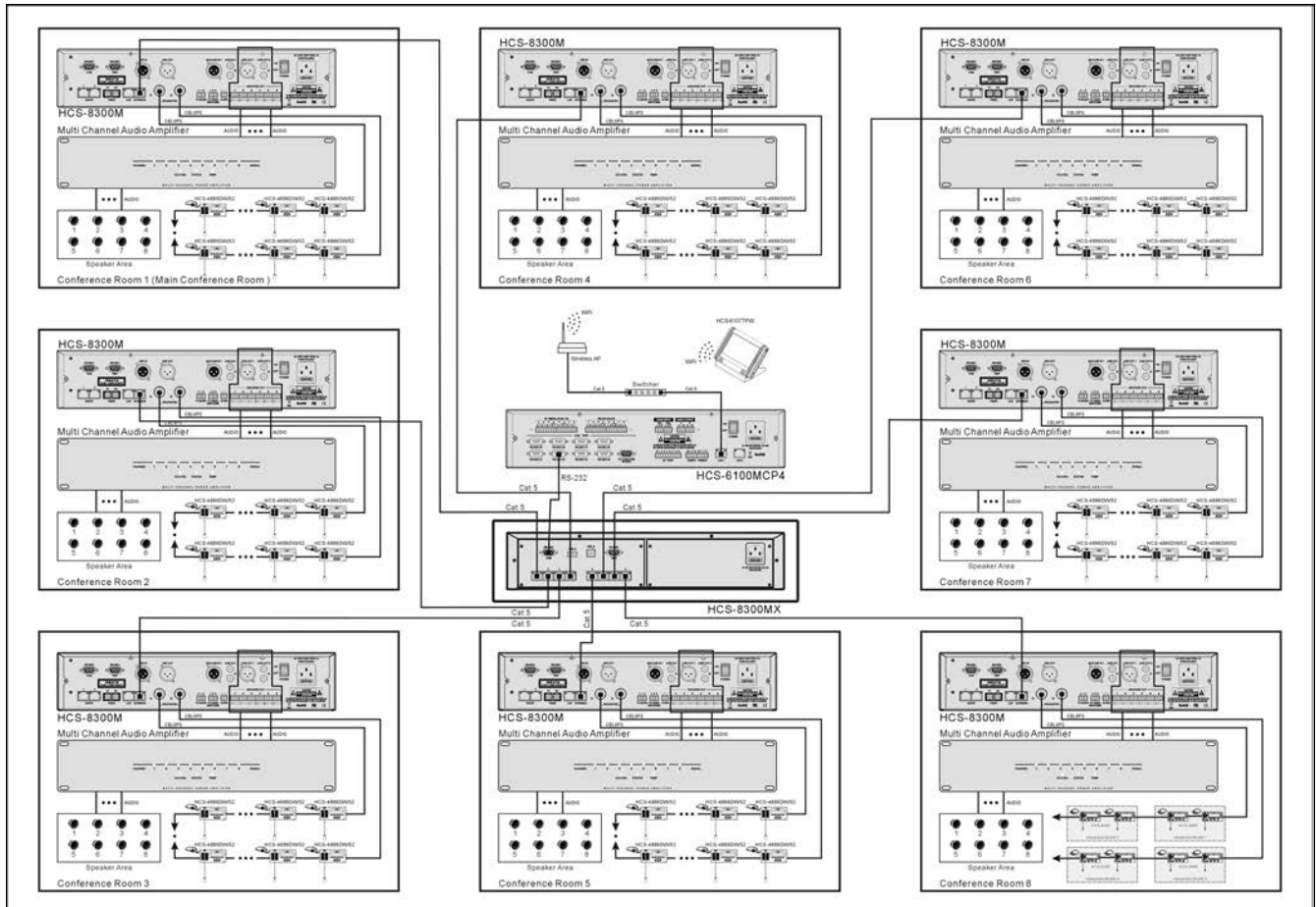


Figure 5.1.7 Combining/splitting meeting rooms with HCS-8300MX Room Combiner and Cat.5 cable

B The main units of two widely separated meeting rooms can be connected via optical fiber interface and combined as one.

Advantage: long distance, can reach several tens of kilometers.

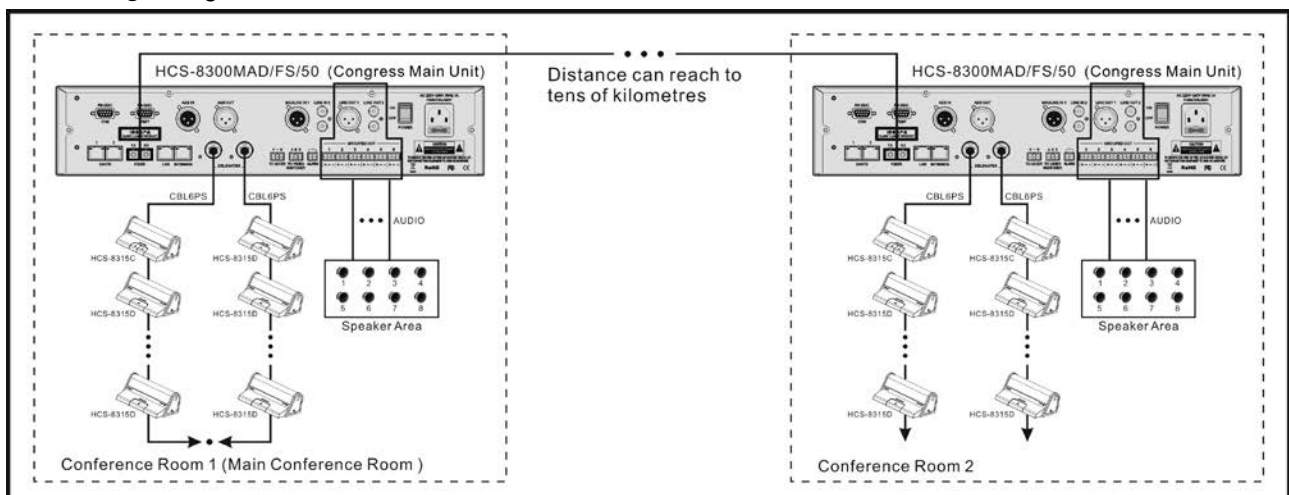


Figure 5.1.8 Connecting two widely separated meeting rooms via optical fiber interface

- C Several meeting rooms using capacitor microphones can be combined or separated through HCS-8300M Fully Digital Congress System Main Unit, HCS-8300MI Audio Input Interface and HCS-8300MO Audio Output Device.
- Advantage:** several meeting rooms can share one main unit to reduce costs.

Disadvantage: the microphones are star connected, the system is complex and difficult to manage, and only discussion feature can be realized - no conference sign-in, voting, simultaneous interpretation, video tracking, intercom, etc.

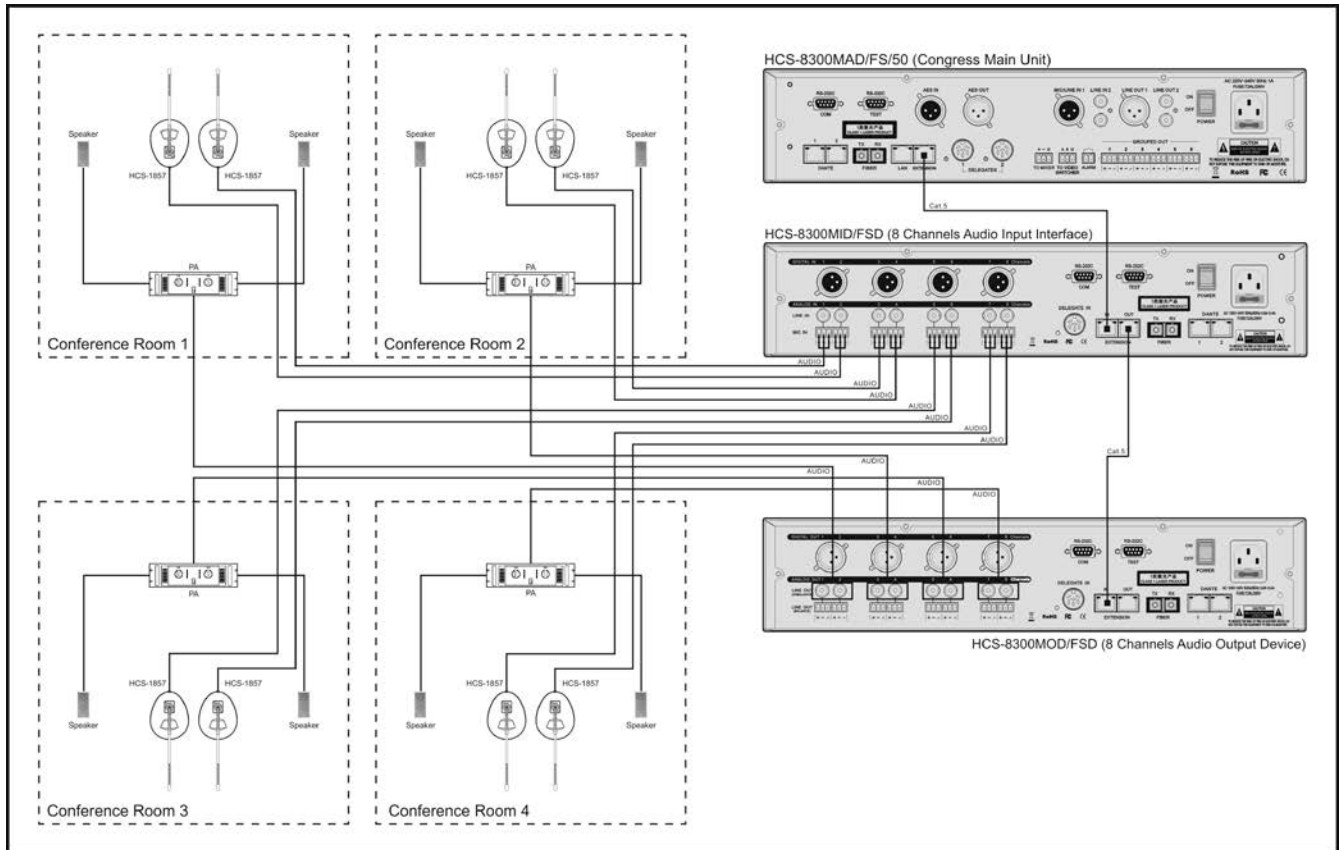


Figure 5.1.9 Combining/splitting meeting rooms with HCS-8300MI & HCS-8300MO

5.1.8 Interpreter booth combination & split

Cooperating with HCS-8300MX/FS, at most 24 rooms can be merged and their booths can be shared.

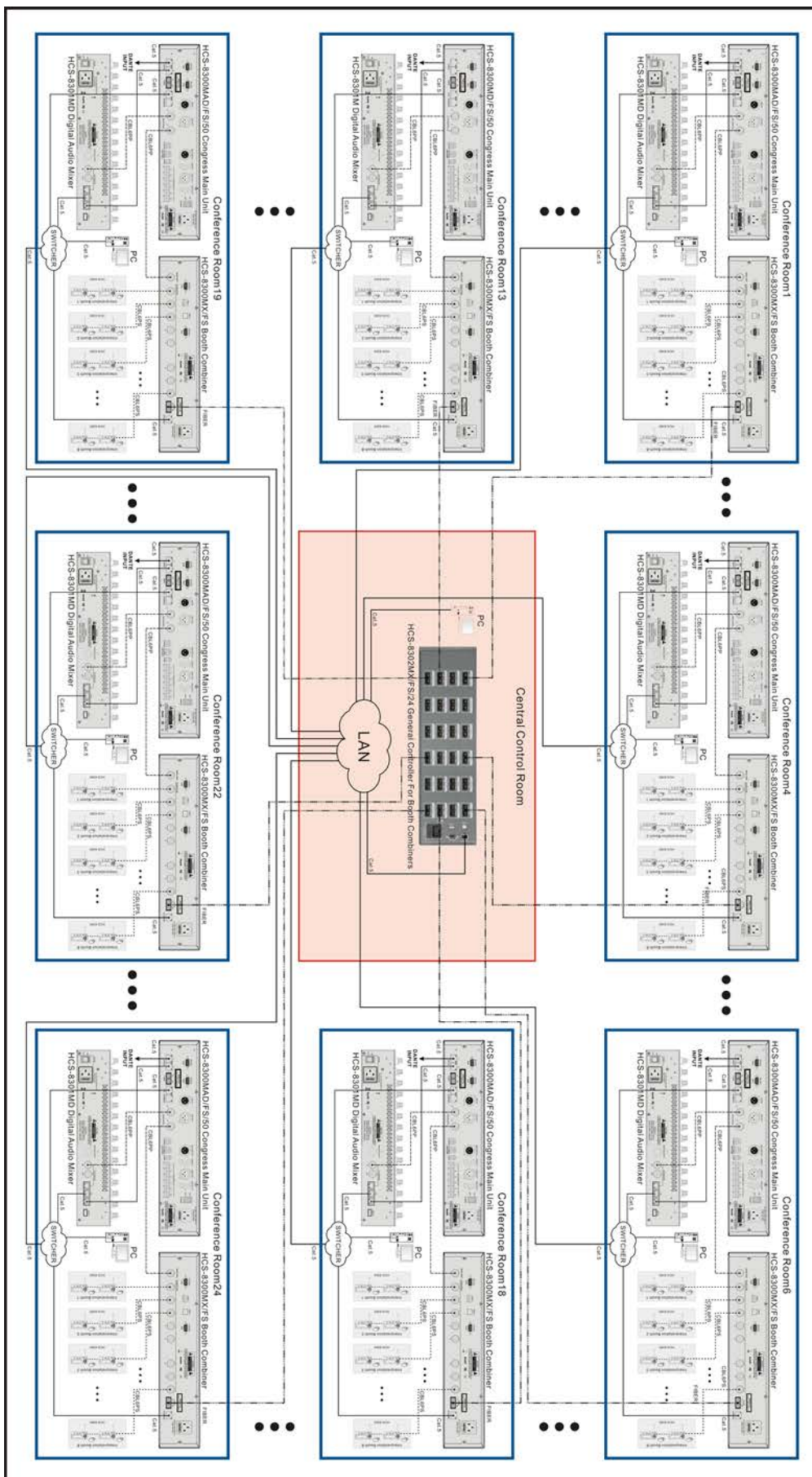


Figure 5.1.10 Diagram for interpreter booth combination & split

5.1.9 Connection to remote interpretation

In conjunction with a HCS-8300MI/MO and a telephone coupler, cost-saving remote interpretation function can be realized.

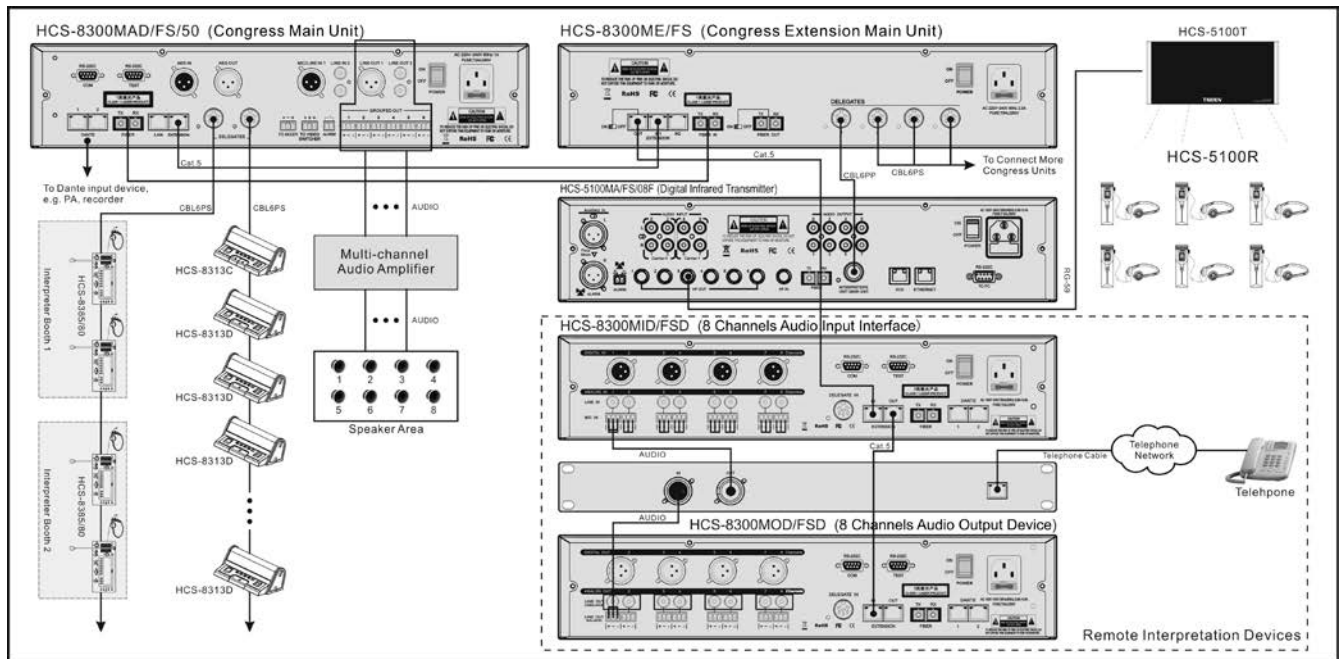


Figure 5.1.11 Remote interpretation

5.2 Basic configuration of congress system

The basic configuration is described below by a simple example.

This system is composed of one HCS-8300M CMU, one HCS-8300ME/FS, four HCS-4385U/50 Interpreter units, ten HCS-8313 discussion units (including chairman unit and delegate units) and several HCS-4342N/50 channel selectors (connected to the system via a HCS-4340B/50 multi-function connector). The connection diagram is shown in the following figure:

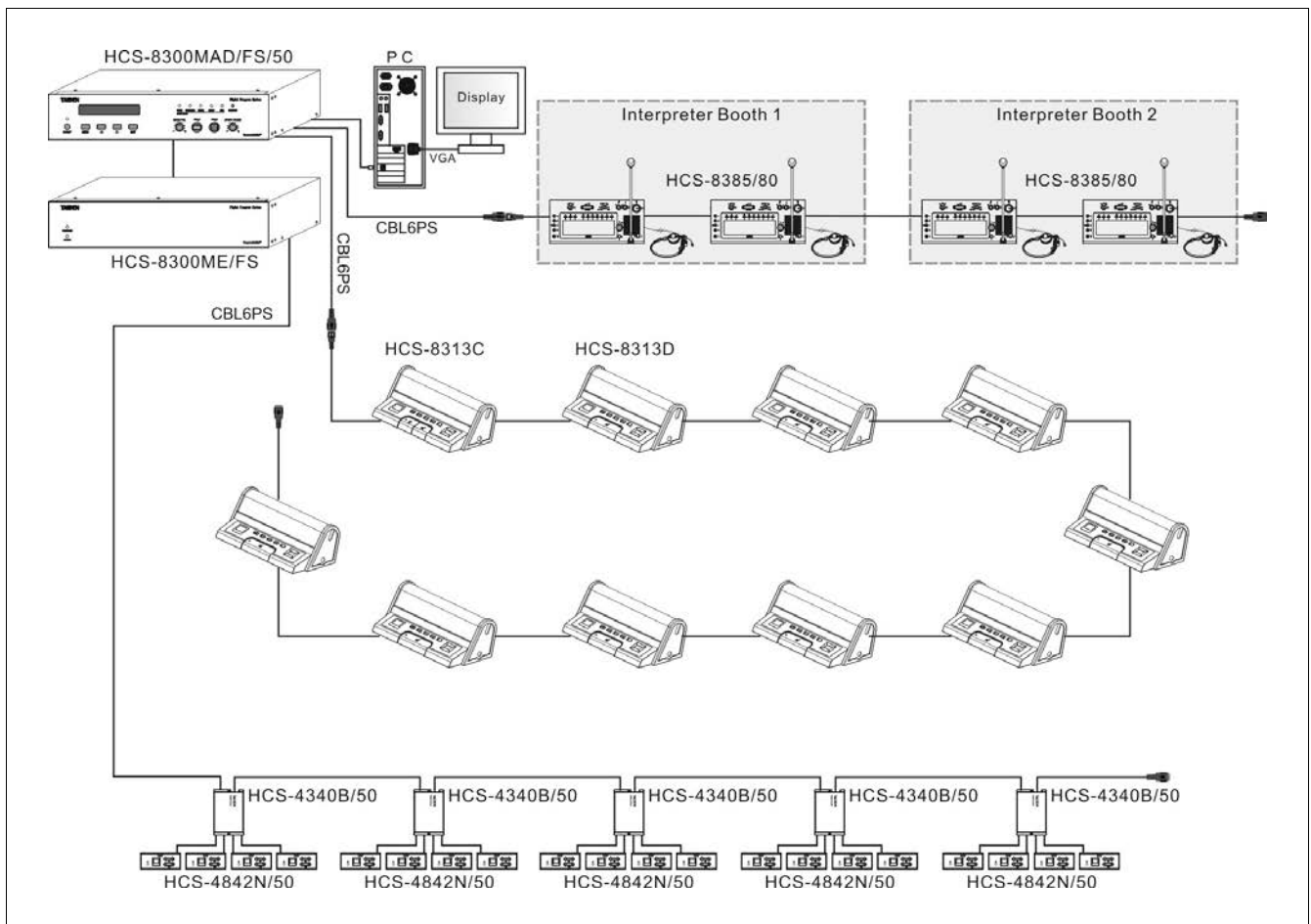


Figure 5.2.1 Connection example of HCS-8300 series congress system

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 at most two microphones can be turned on. Chairman unit and VIP 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:** The output channel A of booth 1 is English, output channel C is “No output” and output channel B is “All channels”, and two Interpreter units are equipped. The output channel A of booth 2 is French, output channel B and C is “No output”, and two Interpreter units are equipped.
- 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 delegate/chairman unit and adjust the volume of the built-in loudspeaker on the congress units to suitable volume.

5. Finish configuration, and the system can work now.

Chapter 6 Peripherals and accessories

6.1 HCS-8300MO Series

HCS-8300MO Series 8 Channels Audio Output Device

- a) Converts the digital audio signals of the congress system to multi channel digital(AES/EBU)/analog audio signals, for further processing in infrared simultaneous interpretation systems or recording devices;

- b) Output level of each channel adjustable;
- c) Configurable as Sync/Not sync power on/off with congress main unit.

6.1.1 Functions and instructions

6.1.1.1 Front panel

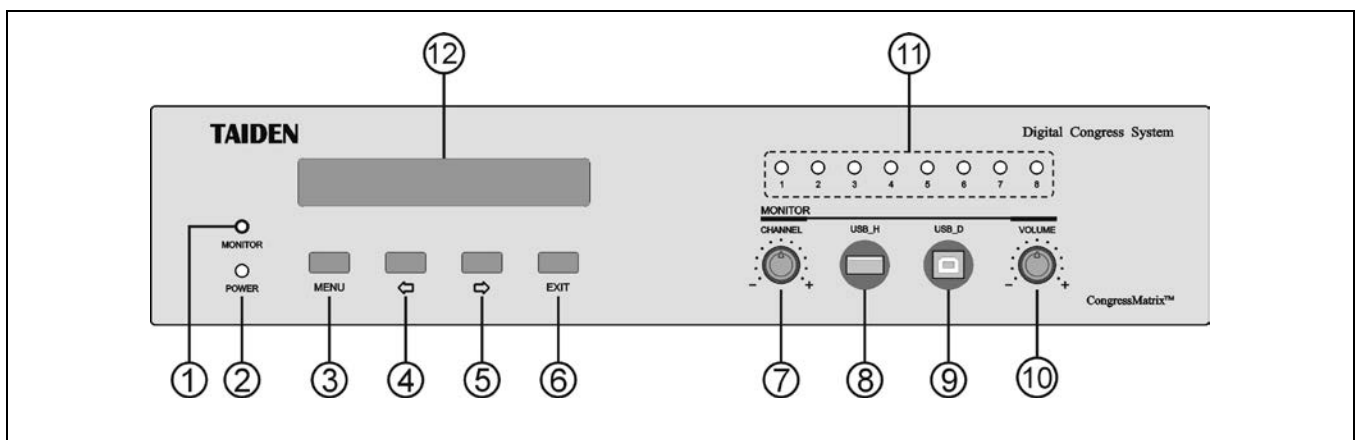


Figure 6.1.1 Front panel of HCS-8300MO Series 8 Channels Audio Output Device

Figure 6.1.1:

1. Headphone monitoring jack

- Earphone jack (Ø 3.5 mm).

2. Power indicator

- a. Turns red if not connected to the CMU;
- b. Turns blue in working status.

3. “MENU” button

- a. In initial user interface, press the “MENU” button to go to menu operation;
- b. In menu operation, press the “MENU” button to select the highlighted menu item and go to the next level menu.

4. “←” (left) button

5. “→” (right) button

6. “EXIT” button

7. Monitoring channel select knob

8. A-type USB port

- Connecting to USB disk.

9. Mini USB port

- Connecting to PC.

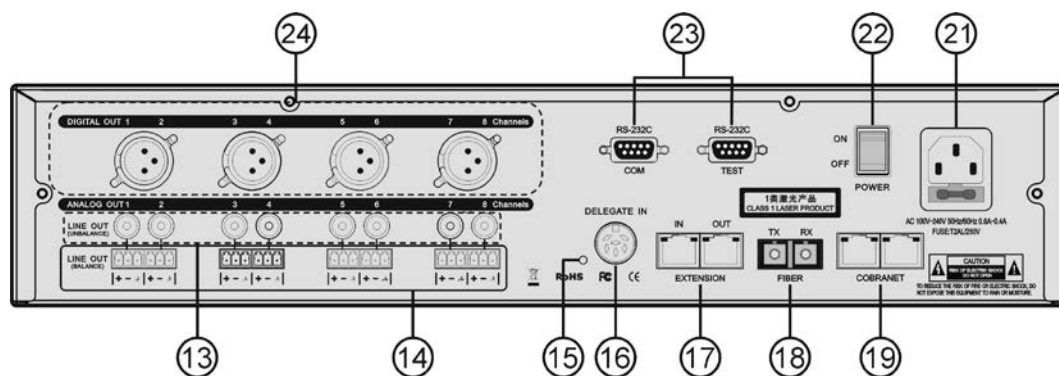
10. Monitoring output volume adjustment knob

11. Output channel working status LEDs (1-8)

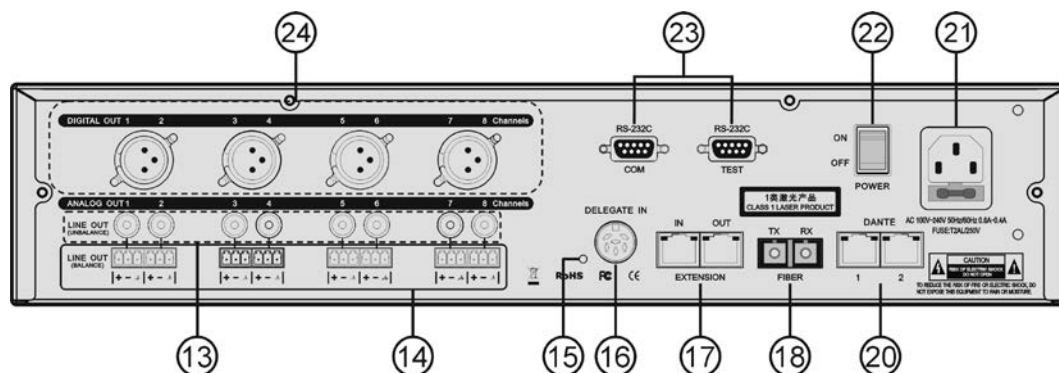
12. Menu display LCD

- 256x32 LCD, displaying audio output channel status or menu operation.

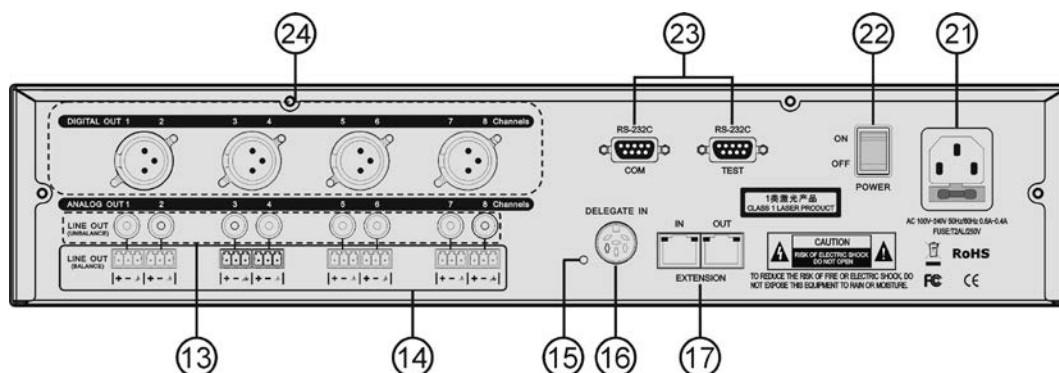
6.1.1.2 Rear panel



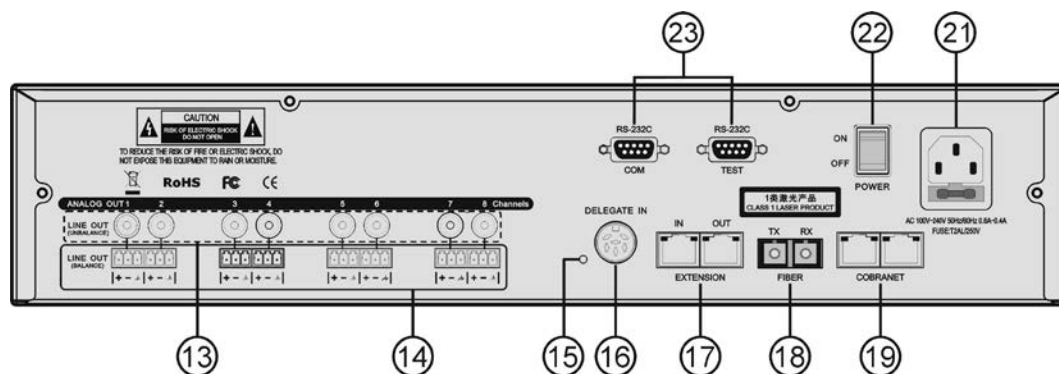
Rear panel of HCS-8300MOD/FS



Rear panel of HCS-8300MOD/FSD



Rear panel of HCS-8300MOD



Rear panel of HCS-8300MOA/FS

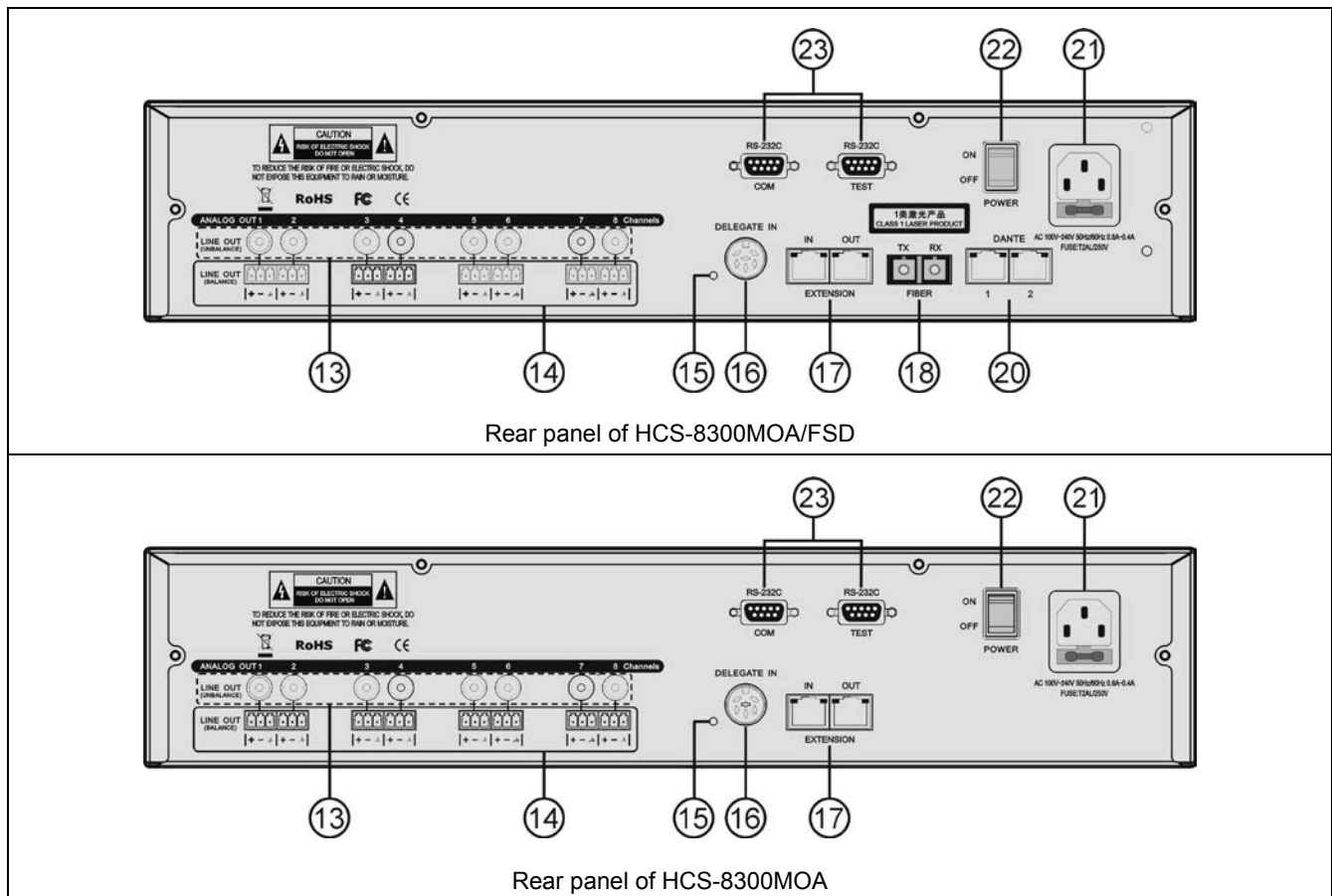


Figure 6.1.2 Rear panel of HCS-8300MO Series 8 Channels Audio Output Device

Figure 6.1.2:

13. 8x RCA outlet

- Unbalanced analog audio outputs.

14. 8x 3-cord phoenix connector

- Balanced analog audio outputs.

15. 6P-DIN extension interface indicating light

- When connected, LED will blink;
- When not connected, LED will turn off.

16. 6P-DIN extension interface (DELEGATE IN)

- Connecting to CMU, EMU or Audio Input Interface.

17. RJ45 extension interface (EXTENSION)

- Connecting to CMU, EMU or Audio Input Interface.

18. Fiber extension interface

- Single-mode optical fiber, SC connector;
- Connecting to CMU, EMU or Audio Input Interface for long distance (over tens of kilometers) transmission.

19. CobraNet port

- Connecting to other CobraNet compatible devices (such as PA, audio recorder, etc.).

20. Dante port

- Connecting to other Dante compatible devices;
- Primary port: Dante2.

21. Power input

22. Power switch

23. 2x RS-232 port

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

24. 4x XLR connector

- Connectors for 8 CHs digital (AES/EBU) audio outputs.

Note:

When the HCS-8300MO is connected to the CMU, only one of the three interfaces can be used: either the 6P-DIN extension interface or the RJ45 extension interface or the fiber extension interface.

6.1.2 Connection

HCS-8300MO converts the digital audio signals of the congress system to multi channel digital(AES/EBU)/analog audio signals, for further processing in infrared simultaneous interpretation systems or recording devices. The audio signal from the HCS-8300M CMU can be provided to the HCS-5100 digital infrared language distribution system, converted into an infrared signal and radiated. With digital infrared receivers, the participants can hear the voice clearly.

The digital audio signal from the HCS-8300M CMU can be connected directly to the DCS interface of the HCS-5100MA(F)/F transmitter. But the HCS-5100MC/F transmitter does not have the DCS interface and the digital audio signal issued by the HCS-8300M CMU has first to be converted into an analog signal via the HCS-8300MO 8 Channels Audio Output Device and secondly be provided to the HCS-5100MC/F transmitter.

1.HCS-8300MO can be connected directly to HCS-8300M CMU in three ways (only one of them can be used at one time):

- ◆ Connect the "EXTENSION" interface of the HCS-8300 CMU to the "EXTENSION IN" interface of the HCS-8300MO with a Cat. 5 cable.

- ◆ Connect one outlet (6P-DIN) of the HCS-8300 CMU to the "DELEGATE IN" interface of the HCS-8300MO with a dedicated 6-pin cable.
- ◆ Connect the fiber port of the HCS-8300MAD/FS/50 to the fiber port of the HCS-8300MO/FS(D) transmitter.

2. 8 channels unbalanced audio can be outputted from the 8x RCA outlets. HCS-5100MC/F has 4-channel /8-channel /16-channel /32-channel /40-channel audio input ports (RCA). Connect the audio outputs of the HCS-8300MO to the INPUT CH0-CH7 of the HCS-5100MC/F with audio cable. HCS-8300MO can be cascaded if more than 8 channels are needed.

3. The digital infrared transmitter is connected to the first radiator by a 75 Ohm coaxial cable. Connect one BNC plug of the coaxial cable to the "HF OUT" port of the HCS-5100MC/F and the other BNC plug to the "MODULATION IN" port of the 1st radiator. When connecting to the 2nd radiator, connect the "MODULATION OUT" port of the 1st radiator to the "MODULATION IN" port of the 2nd radiator with a coaxial cable. Up to 30 daisy-chained radiators can be operated from each socket (6 sockets per transmitter).

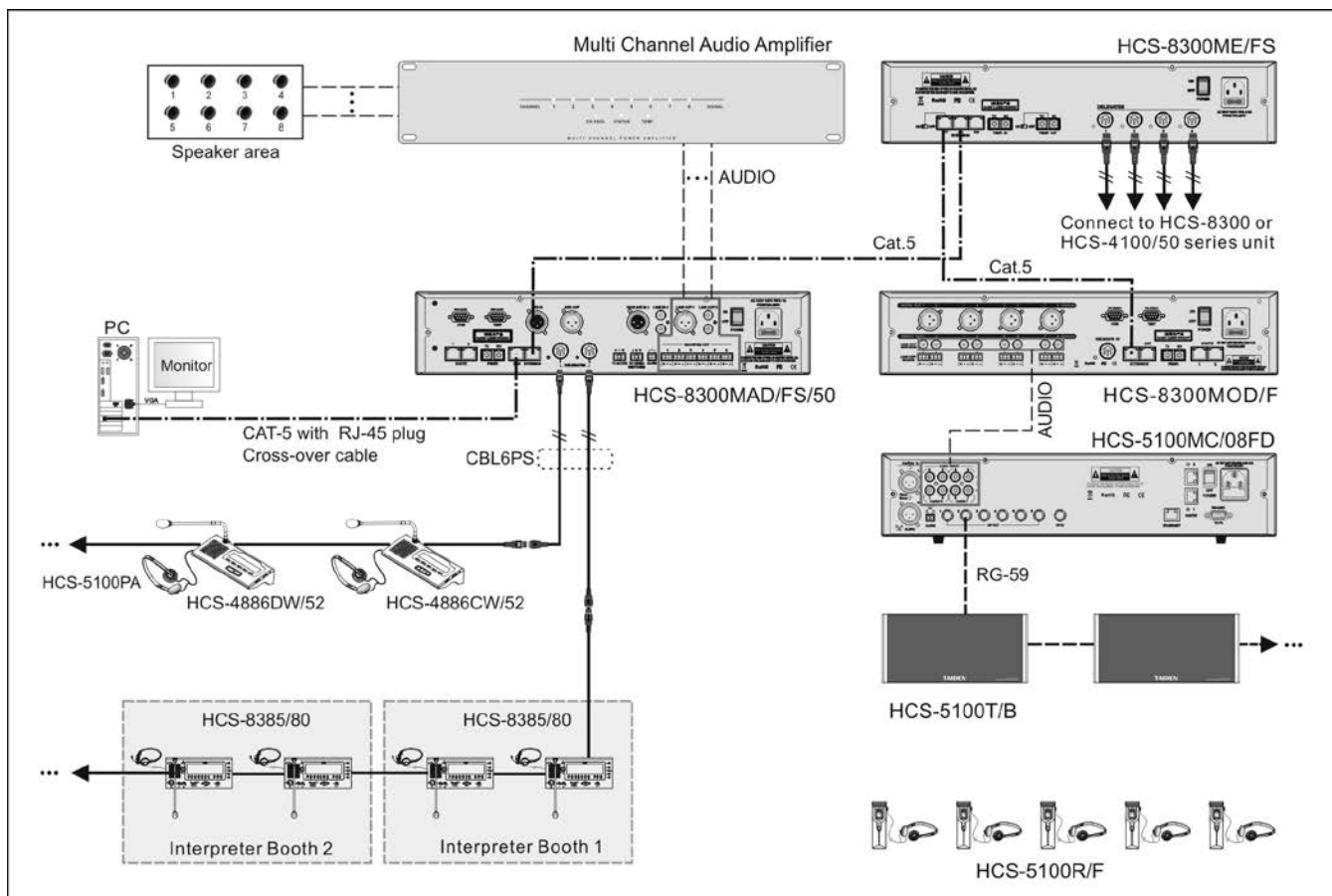


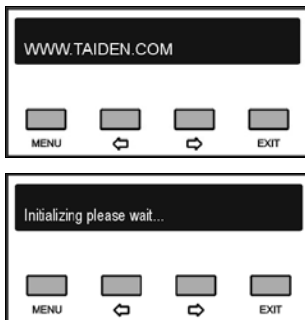
Figure 6.1.3 CMU connecting to infrared language distribution system via HCS-8300MO

6.1.3 Configuration and operation

When installation and connection are finished and prior to the meeting, HCS-8300MO 8 Channels Audio Output Device should be configured by front panel menu operation.

In this section, we take the HCS-8300MOD/FS(D) as an example to introduce its menu operation. The other types of Audio Output Device have the similar user interfaces and one or more functions are not available.

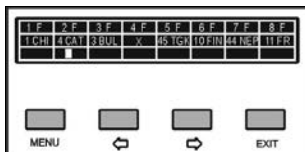
A) Initialization



B) LCD initial interface operation

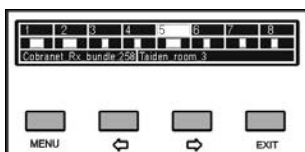
The initial user interface is determined by the working mode. For the configuration of the working mode please refer to section 6.1.3.1.

a. Simultaneous interpretation mode:



- ◆ The first row displays the output channel numbers;
- ◆ The second row displays the corresponding language names. If a channel has an output signal, its corresponding LED changes to red; if a channel does not have an output signal, an "x" will be displayed and its corresponding LED will go out;
- ◆ The third row displays the dynamic level of the output signals;

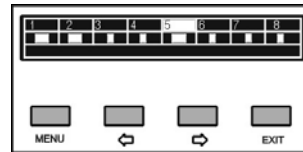
b1. CobraRecv mode:



- ◆ The first row displays the output channel numbers;
- ◆ The second row displays the dynamic level of output signals;

- ◆ The third row displays the CobraNet receiving port number and name of the corresponding equipment;

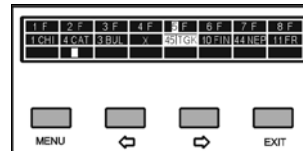
b2. DanteRecv mode:



- ◆ The first row displays the output channel numbers;
- ◆ The second row displays the dynamic level of output signals.

The monitoring channel and the volume can be adjusted at the front panel of the HCS-8300MO. The configuration interface will be displayed on the LCD, as shown in the following figure:

■ Select monitoring channel



- ◆ The monitoring channel can be selected between channel 1-8.

■ Adjust monitoring volume



- ◆ Monitoring channel volume can be adjusted, range: mute, -30 dB - 0 dB.

C) Main menu

Press the "MENU" button to go to the main menu, includes the following submenu items:

- "Work Mode Setting"
- "Output Range"
- "Audio Output Setting"
- "Power Mode Setting"
- "Operation Language Setting"
- "Play Floor On Unused SI Chs"
- "Machine Rename"
- "About"
- "Dante Channel Language Setting"
- "About Dante"



The current chosen term is highlighted.

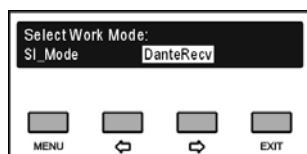
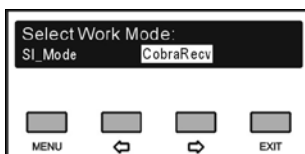
- ◆ Press the “↔” button to switch between menu items;
- ◆ Press the “MENU” button to go to selected menu item;
- ◆ Press the “EXIT” button to exit and return to the upper level menu;

6.1.3.1 Work mode setting

The working mode of the HCS-8300MO Series 8 Channels Audio Output Device includes:

“Simultaneous interpretation mode”

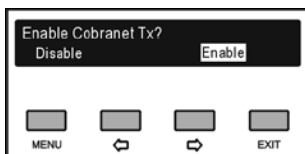
“CobraRecv” / “DanteRecv”



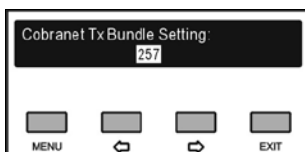
a). Press the “↔” button to switch between two working modes:

- ◆ In the above left figure, if “SI_Mode” is selected, then go to step **b1)** and **c1)**;
- ◆ In the above right figure, if “SI_Mode” is selected, then go to step **b2)**;
- ◆ If “CobraRecv” is selected, then go to step **d)**;
- ◆ If “DanteRecv” is selected, then go to step **e)**;

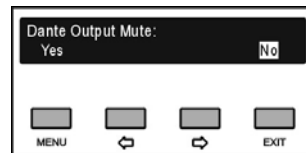
b1). Press the “↔” button to select “Enable”/“Disable” the CobraNet port on the real panel of the transmitter;



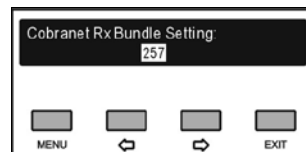
c1). If “Enable” is selected, press the “MENU” button to confirm and go to CobraNet output port to select interface. Press the “↔” button to select CobraNet output port from 256-511;



b2). Press the “↔” button to select dante output mute or not;



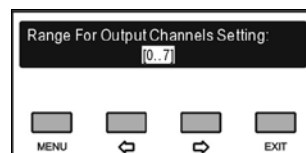
d). Press the “↔” button to adjust the CobraNet receiving port between 256-511;



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

6.1.3.2 Output range

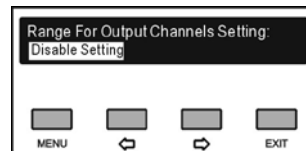
Setup the range of simultaneous interpretation output channels.



a). Press the “↔” button to switch between [0..7], [8..15]...[56..63];

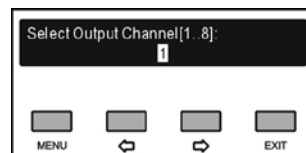
b). Press the “MENU” button to confirm and return to the upper level menu.

When working at CobraRecv/DanteRecv mode, “Output range” is not available.



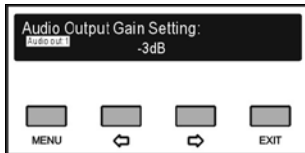
6.1.3.3 Audio output setting

Setup audio output parameters.



a). Press the “↔” button to switch between audio output interfaces to select an audio output interface to setup, press the “MENU” button to save and go to the next step;

b). Press the “↔” button to adjust output gain, range: mute, -30 dB - +20 dB;



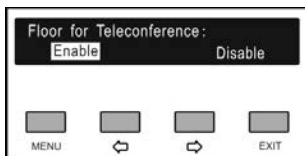
If satisfy the following conditions at the same time:

- Main unit enabled “Floor for Teleconference”;
- Floor mode setting of main unit set as common mode;
- HCS-8300MO worked in SI_mode;
- HCS-8300MO enabled “Play floor on unused SI channels”;

Press the “MENU” button to go to step c), or else, to go to step d);

c). Press the “↔” button to enable/disable floor for teleconference;

If enable, when no interpretation channels available, HCS-8300MO plays the the floor audio signal without LINE IN1 which cones from the main unit



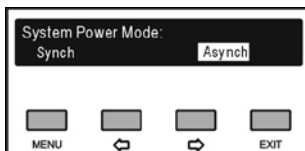
d). Press the “MENU” button to save and return to the upper level menu.

6.1.3.4 Power mode setting

The power mode of HCS-8300MO Series 8 Channels Audio Output Device includes:

“Synchronous”: Power on/off synchronously with the CMU or the HCS-8300MI 8 Channels Audio Input Interfaces;

“Asynchronous”: Power on/off independently;



- Press the “↔” button to switch between power modes;
- Press the “MENU” button to save and return to the upper level menu.

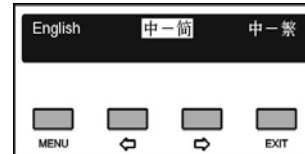
Note:

New setting will be effective after reboot.

6.1.3.5 Operation language setting

Setup operation language. Currently, simplified Chinese, traditional Chinese and English are supported. Other languages can be added by user through the LCD_Designer tools.

Operation step:



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

6.1.3.6 Play Floor On Unused SI Chs

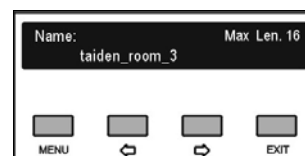
Enable/disable switch to floor channel automatically when no interpretation channel is available.



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

6.1.3.7 Machine Rename

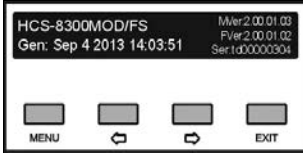
Set alias for HCS-8300MO Series 8 Channels Audio Output Device with a maximum length of 16 characters or less, for example: room combination. It is convenient to identify them when more than one HCS-8300MO are working together.



- Press the “MENU” button to enter the rename interface;
- Press the “↔” button to select character;
- Press the “MENU” button to modify the character, the selected character was moved up and highlighted;
 - Press the “←” button to clear all the characters after the cursor;
 - press the “→” button to select the new character from ‘a’ to ‘z’, ‘_’, and ‘0’ to ‘9’;
- Press the “MENU” button to save at each character;
- Press the “EXIT” button to return to the upper level menu after setting finished.

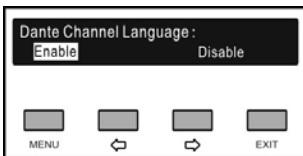
6.1.3.8 About

The display of system information of the HCS-8300MO Series 8 Channels Audio Output Device includes: software version, corporation information and series number. Press any button to return to the upper level menu.



6.1.3.9 Dante Channel Language Setting

Set dante channel name in Dante Controller software.



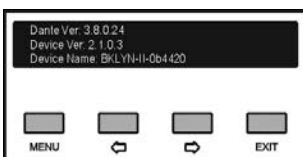
a). Press the “↔” button to select “Enable” or “Disable”;

- Enable: display corresponding SI channel name in Dante Controller software
- Disable: display the default channel name in Dante Controller software

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

6.1.3.10 About Dante

The display of Dante module information, includes: dante version, device version and device name. Press any button to return to the upper level menu.



6.2 HCS-8300MI Series

HCS-8300MI Series 8 Channels Audio Input Interface

a) Transmits 8 digital(AES/EBU)/analog audio channels to the interpretation channels of the Congress System, for example for remote interpretation purposes or for transmission to floor channel

b) All inputs can be mixed with arbitrary ratio, and outputted to any channel;
c) Configurable as Sync/Not sync power on/off with congress main unit.

6.2.1 Functions and instructions

6.2.1.1 Front panel

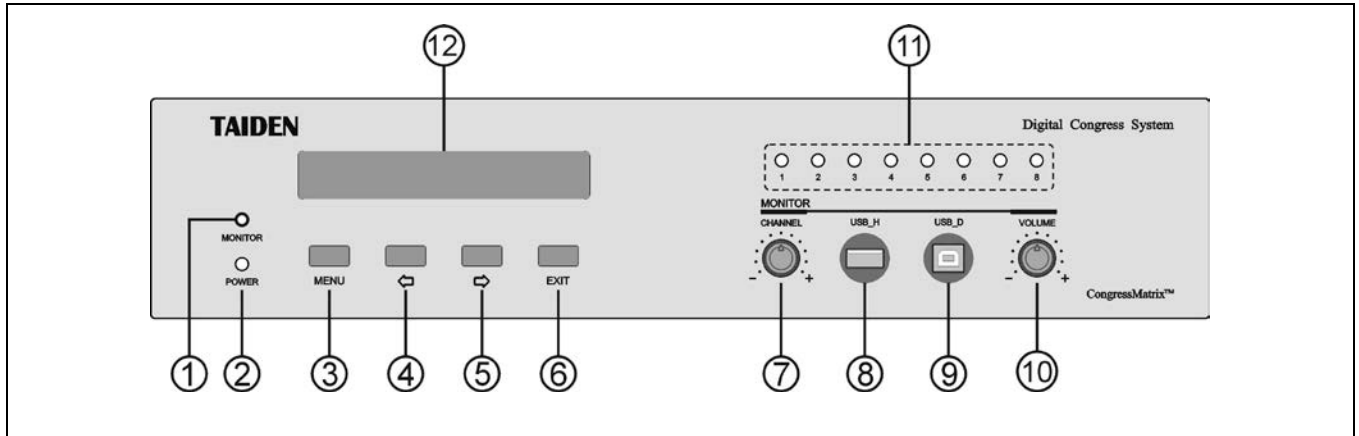


Figure 6.2.1 Front panel of HCS-8300MI Series 8 Channels Audio Input Interface

Figure 6.2.1:

1. Headphone monitoring jack

- Ø 3.5 mm mono headphone jack.

2. Power indicator

- a. Turns red if not connected to the CMU;
- b. Turns blue in working status.

3. “MENU” button

- a. In initial interface, press the “MENU” button to go to menu operation;
- b. In menu operation, press the “MENU” button to select the highlighted menu item and go to the next level menu.

4. “←” (left) button

5. “→” (right) button

6. “EXIT” button

7. Monitoring channel select knob

8. A-type USB port

- Connecting to USB disk.

9. Mini USB port

- Connecting to PC.

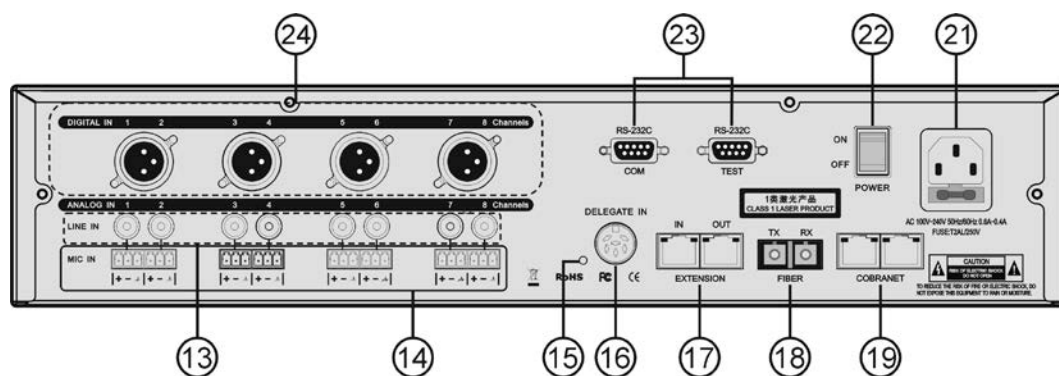
10. Monitoring output volume adjustment knob

11. Input channel working status LEDs (1-8)

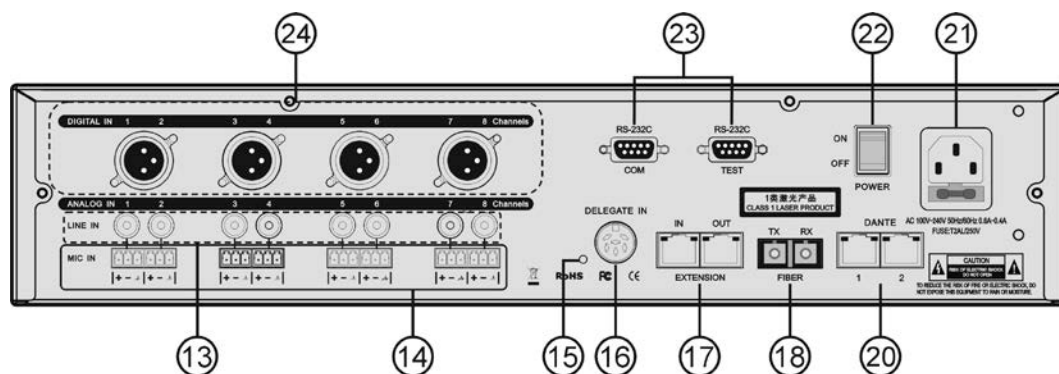
12. Menu display LCD

- 256x32 LCD, displaying audio input channel status or menu operation.

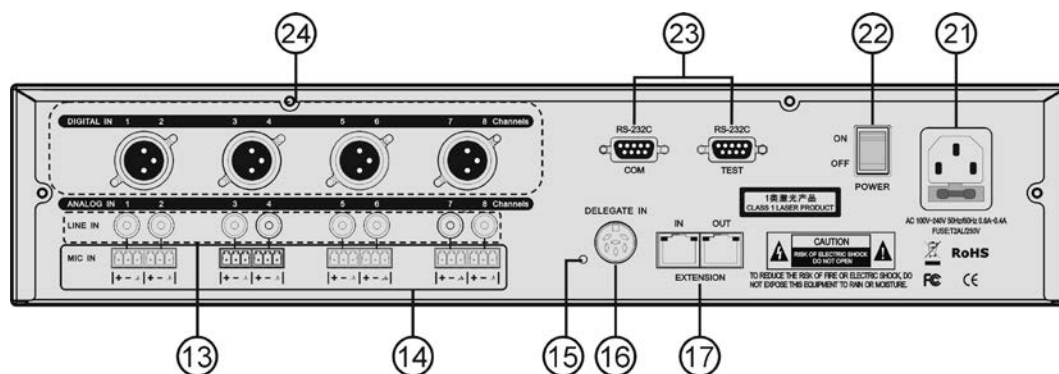
6.2.1.2 Real panel



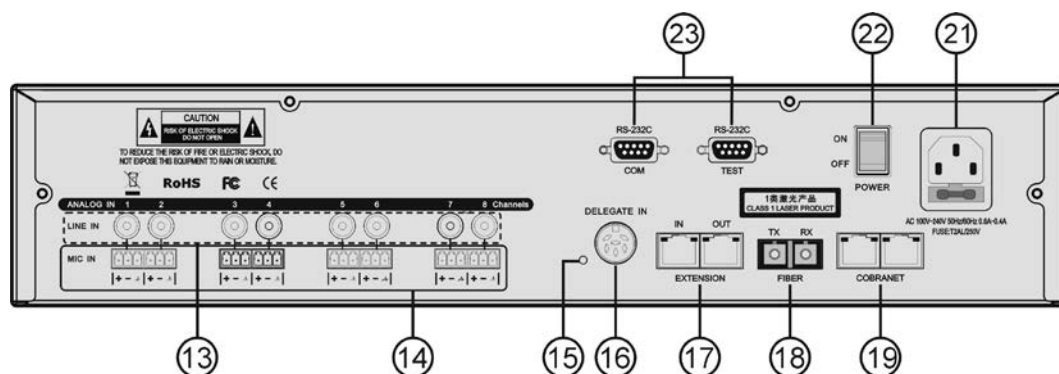
Real panel of HCS-8300MID/FS



Real panel of HCS-8300MID/FSD



Real panel of HCS-8300MID



Real panel of HCS-8300MIA/FS

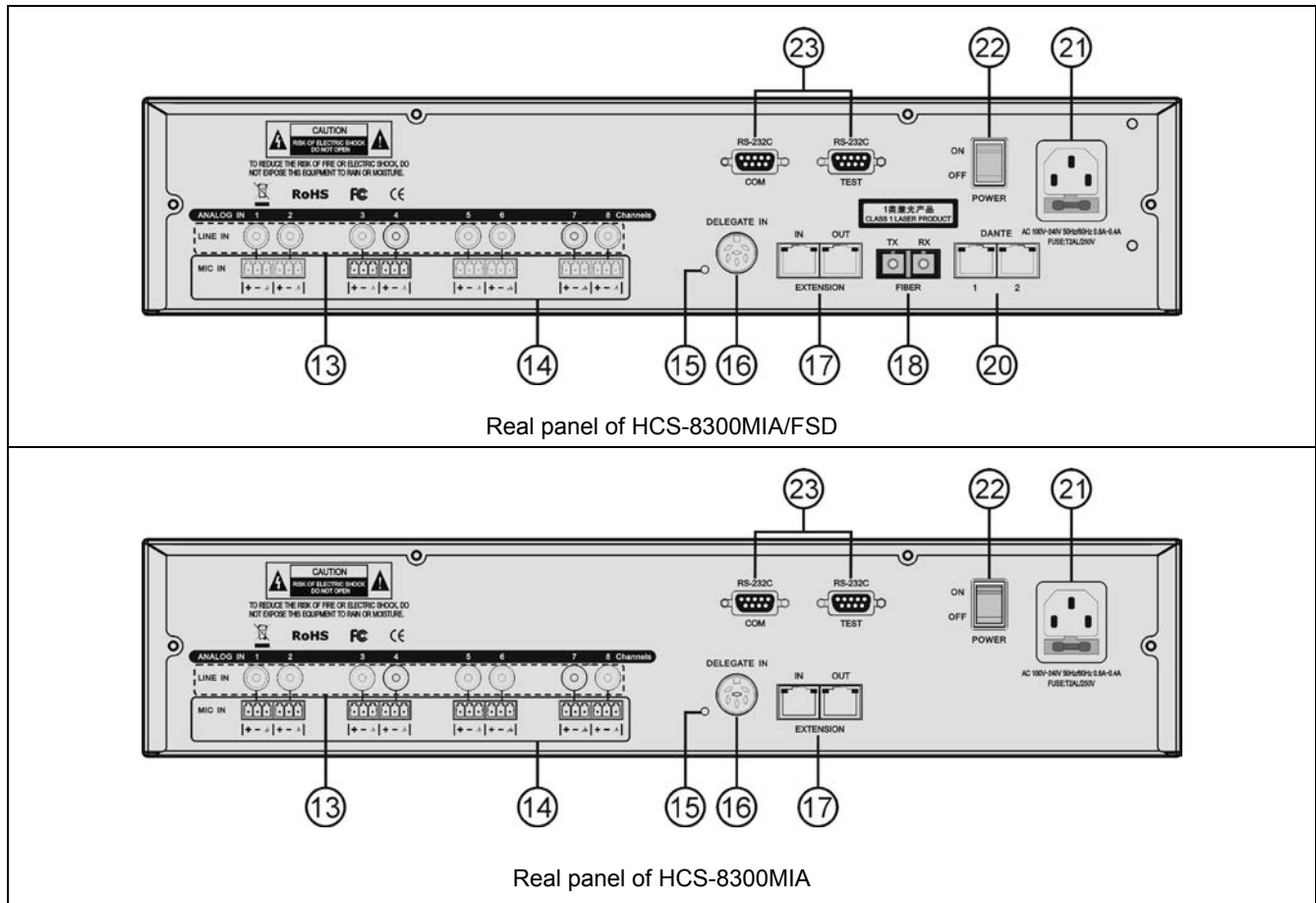


Figure 6.2.2 Real panel of HCS-8300MI Series 8 Channels Audio Input Interface

Figure 6.2.2:

13. 8x RCA input

- Unbalanced line-in inputs.

14. 8x 3-cord phoenix connector

- External microphone inputs or balanced line-in inputs.

15. 6P-DIN extension interface indicating light

- When connected, LED will blink;
- When not connected, LED will turn off.

16. 6P-DIN extension interface (DELEGATE IN)

- Connecting to CMU, EMU or Audio Output Device.

17. RJ45 extension interface (EXTENSION)

- Connecting to CMU, EMU or Audio Output Device.

18. Fiber extension interface

- Single-mode optical fiber, SC connector;
- Connecting to CMU, EMU or Audio Output Device for long distance (over tens of kilometers) transmission.

19. CobraNet port

- Connecting to other CobraNet compatible devices.

20. Dante port

- Connecting to other Dante compatible devices;
- Primary port: Dante2.

21. Power input

22. Power switch

23. 2x RS-232 port

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

24. 4x XLR connector

- Connectors for 8 CHs digital (AES/EBU) audio inputs.

Note:

When HCS-8300MI connecting to CMU, only one of the three interfaces can be used: either the 6P-DIN extension interface or the RJ45 extension interface or the fiber extension interface.

6.2.2 Connection

To realize a multi-channel digital audio transmission solution, HCS-8300MI and HCS-8300MO are combined according to Figure 6.2.3.

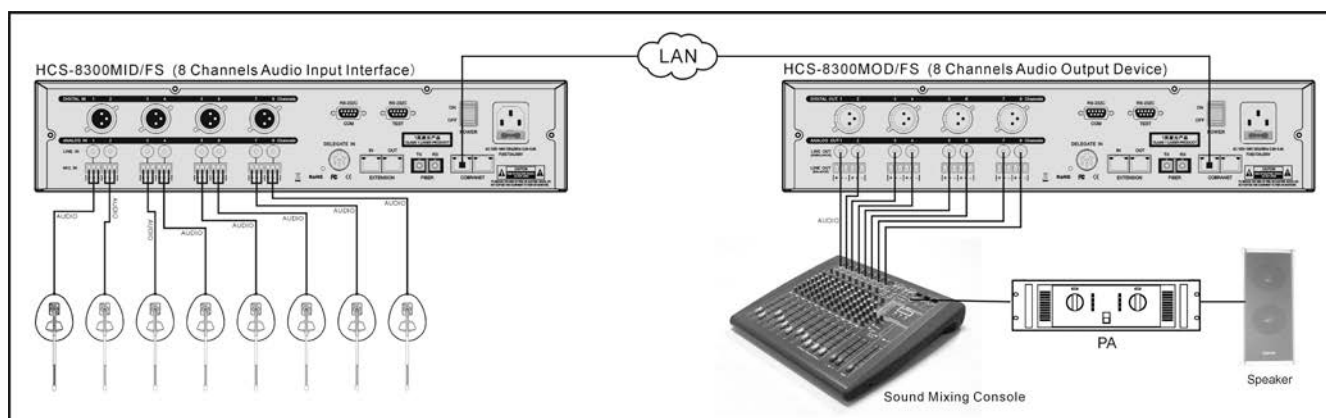


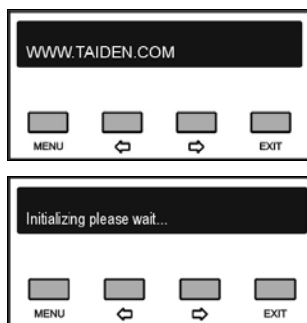
Figure 6.2.3 HCS-8300MI+HCS-8300MO multi-channel digital audio transmission solution

6.2.3 Configuration and operation

When installation and connection are finished, and prior to the meeting, HCS-8300MI Series 8 Channels Audio Input Interface should be configured by front panel menu operation.

In this section, we take HCS-8300MID/FS(D) as an example to introduce its menu operation. The other types of Audio Input Interface have the similar user interfaces and one or more functions are not available.

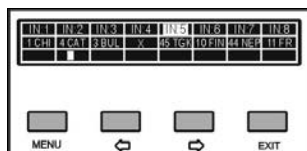
A) Initialization



B) LCD initial interface operation

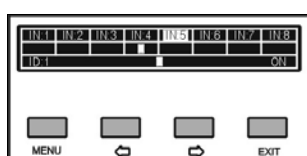
The initial user interface is determined by the working mode. For the configuration of the working mode please refer to section [6.2.3.1](#).

a. Simultaneous interpretation mode:



- ◆ The first row displays the input channel numbers;
- ◆ The second row displays the corresponding language names. If a channel has an input signal, its corresponding LED will change to red; if a channel does not have an input signal, a "x" will be displayed and its corresponding LED will go out;
- ◆ The third row displays the dynamic level of the input signals.

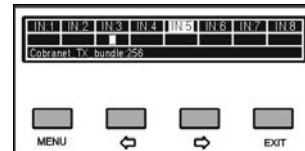
b. Mix audio mode:



- ◆ The first row displays the input channel numbers;
- ◆ The second row displays the dynamic level of the corresponding input channels;

- ◆ The third row displays the unit ID and the output dynamic level of mix audio. Press the "EXIT" button to "ON"/"OFF" the mix mode, when the mode on, all the LED change to red. The default status is "OFF" when power on each time.

c1. CobraTrans mode:



- ◆ The first row displays the input channel numbers;
- ◆ The second row displays the dynamic level of the corresponding input channels;
- ◆ The third row displays the CobraNet transmitting port number.

c2. DanteTrans mode:



- ◆ The first row displays the input channel numbers;
- ◆ The second row displays the dynamic level of the corresponding input channels.

The monitoring channel and the volume can be adjusted at the front panel of the HCS-8300MI. The configuration interface will be displayed on the LCD, as shown in the following figure:

■ Select monitoring channel



- ◆ The monitoring channel can be selected

Mode	Channel
SI Mode	channel 1-8
Mixer Mode	channel 1-8 mixer output
Cobratrans Mode Dantetrans Mode	channel 1-8

- ◆ Press the "MENU" button to setup audio input channel, please refer to section [6.2.3.3](#) for detailed operation.

■ Adjust monitoring volume



- ◆ The monitoring channel volume can be adjusted between -30 dB - 0 dB.

C) Main menu

Press the “MENU” button to go to the main menu. It includes the following submenu items:

- “Work Mode Setting”
- “Audio Interface Setting”
- “Audio Input Setting”
- “Power Mode Setting”
- “Operation Language Setting”
- “Machine Rename”
- “About”
- “About Dante”



The current chosen term is highlighted.

- ◆ Press the “↔” button to switch between menu items;
- ◆ Press the “MENU” button to go to the selected menu item;
- ◆ Press the “EXIT” button to exit and return to the upper level menu.

6.2.3.1 Work mode setting

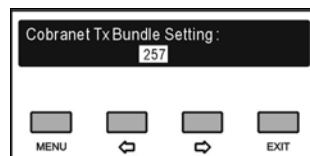
The working mode of the HCS-8300MI Series 8 Channels Audio Input Interface includes:

- “Simultaneous interpretation mode”
- “Mix audio mode”
- “CobraTrans mode” / “DanteTrans mode”



- a). Press the “↔” button to switch between three working modes:
- ◆ If “SI mode” or “Mix audio mode” or “DanteTrans” is selected, then go to step c);

- ◆ If “CobraTrans mode” is selected, then go to step b);

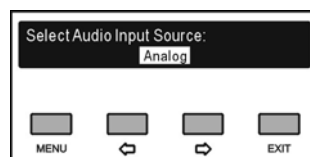


- b). Press the “↔” button to adjust the CobraNet Tx bundle between 256-511;
- c). Press the “MENU” button to save and return to the upper level menu.

6.2.3.2 Audio interface setting

Setup audio type, includes:

“Analog” “Digital” “CobraNet” / “Dante”



- a). Press the “↔” button to switch between three audio types;
- b). Press the “MENU” button to save and return to the upper level menu.

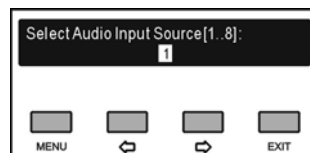
Note:

- ☞ When working at “CobraTrans” mode or “DanteTrans” mode, audio type can not be setup as “CobraNet” or “Dante”.

6.2.3.3 Audio input setting

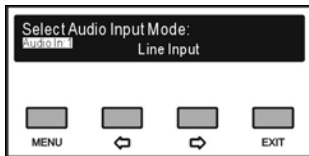
Setup audio input parameters. Parameters to be setup are related to the working mode and audio type of the HCS-8300MI Series 8 Channels Audio Input Interface.

A. Select audio input channel [1..8]



- a). Press the “↔” button to select audio input channel between 1-8;
- b). Press the “MENU” button to confirm and go to the next step;
- ◆ If audio type is “Analog”, then go to step B;
 - ◆ If audio type is “Digital” or “CobraNet” / “Dante”, then go to step E;

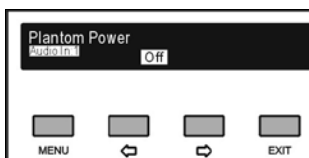
B. Select audio input mode



- Press the “↔” button to select audio input mode between “Line Input” and “External Microphone Input”;
- Press the “MENU” button to confirm and go to the next step:

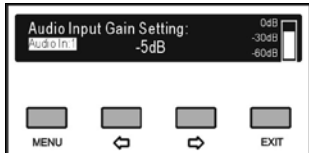
- ◆ If “External Microphone Input” is selected, then go to step C;
- ◆ If “Line Input” is selected, then go to step D;

C. Enable/disable phantom power



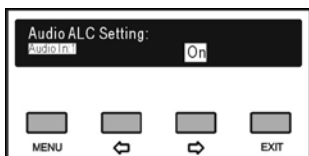
- Press the “↔” button to enable/disable phantom power;
- Press the “MENU” button to confirm and go to step D;

D. Setup input gain



- Press the “↔” button to adjust input gain between -20 dB - +10 dB and the dynamic level of input channel will be displayed at the right side;
- Press the “MENU” button to confirm and go to step E;

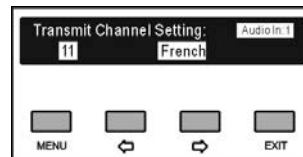
E. Setup audio dynamic compression



- Press the “↔” button to enable/disable audio dynamic compression;
 - Press the “MENU” button to confirm and go to the next step;
- ◆ If working mode is set as “Simultaneous interpretation mode”, then go to step F1;
 - ◆ If working mode is set as “Mix audio mode”, then go to step F2;

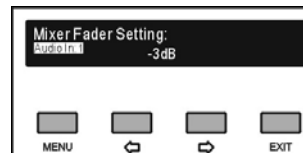
- ◆ If working mode is set as “CobraTrans” / “DanteTrans” mode and audio type is set as “Analog” / “Digital”, configuration is finished. Return to the upper level menu;

F1. Setup simultaneous interpretation channel



- Press the “↔” button to switch between simultaneous interpretation channels;
- Press the “MENU” button to save and to finish configuration. Return to the upper level menu;

F2. Setup mix audio fading



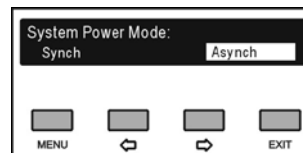
- Press the “↔” button to adjust mix audio fading, range: mute, -30 dB - 0 dB;
- Press the “MENU” button to save and finish configuration. Return to the upper level menu.

6.2.3.4 Power mode setting

The power mode of HCS-8300MI Series 8 Channels Audio Input Interface includes:

“Synchronous”: Power on/off synchronously with the CMU or the HCS-8300MO Series 8 Channels Audio Output Device;

“Asynchronous”: Power on/off independently;



- Press the “↔” button to switch between power modes;
- Press the “MENU” button to save and return to the upper level menu.

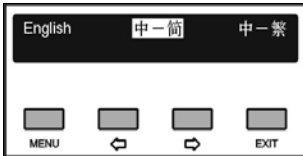
Note:

☞ New setting will be effective after reboot.

6.2.3.5 Operation language setting

Setup operation language. Currently, simplified Chinese, traditional Chinese and English are supported. Other languages can be added by user through the LCD_Designer tools.

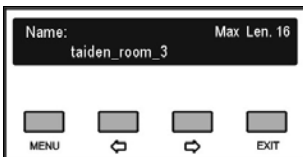
Operation step:



- a). Press the “←/→” button to switch between languages;
- b). Press the “MENU” button to save and return to the upper level menu.

6.2.3.6 Machine Rename

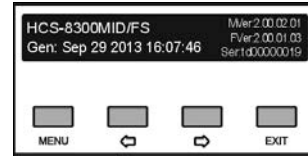
Set alias for the HCS-8300MI 8 Channels Audio Input Interfaces with a maximum length of 16 characters or less. It is convenient to identify them when more than one 8 Channels Audio Input Interfaces are working together.



- a). Press the “MENU” button to enter the rename interface;
- b). Press the “←/→” button to select character;
- c). Press the “MENU” button to modify the character, the selected character was moved up and highlighted;
 - Press the “←” button to clear all the characters after the cursor;
 - press the “→” button to select the new character from ‘a’ to ‘z’, ‘_’, and ‘0’ to ‘9’;
- d). Press the “MENU” button to save at each character;
- e). Press the “EXIT” button to return to the upper level menu after setting finished.

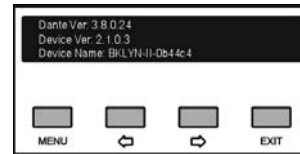
6.2.3.7 About

The display of system information of the HCS-8300MI Series 8 Channels Audio Input Interface includes: software version, corporation information and series number. Press any button to return to the upper level menu.



6.2.3.8 About Dante

The display of Dante module information, includes: dante version, device version and device name. Press any button to return to the upper level menu.



6.3 HCS-8300MX

To combine/split meeting rooms at leisure.

6.3.1 Functions and instructions

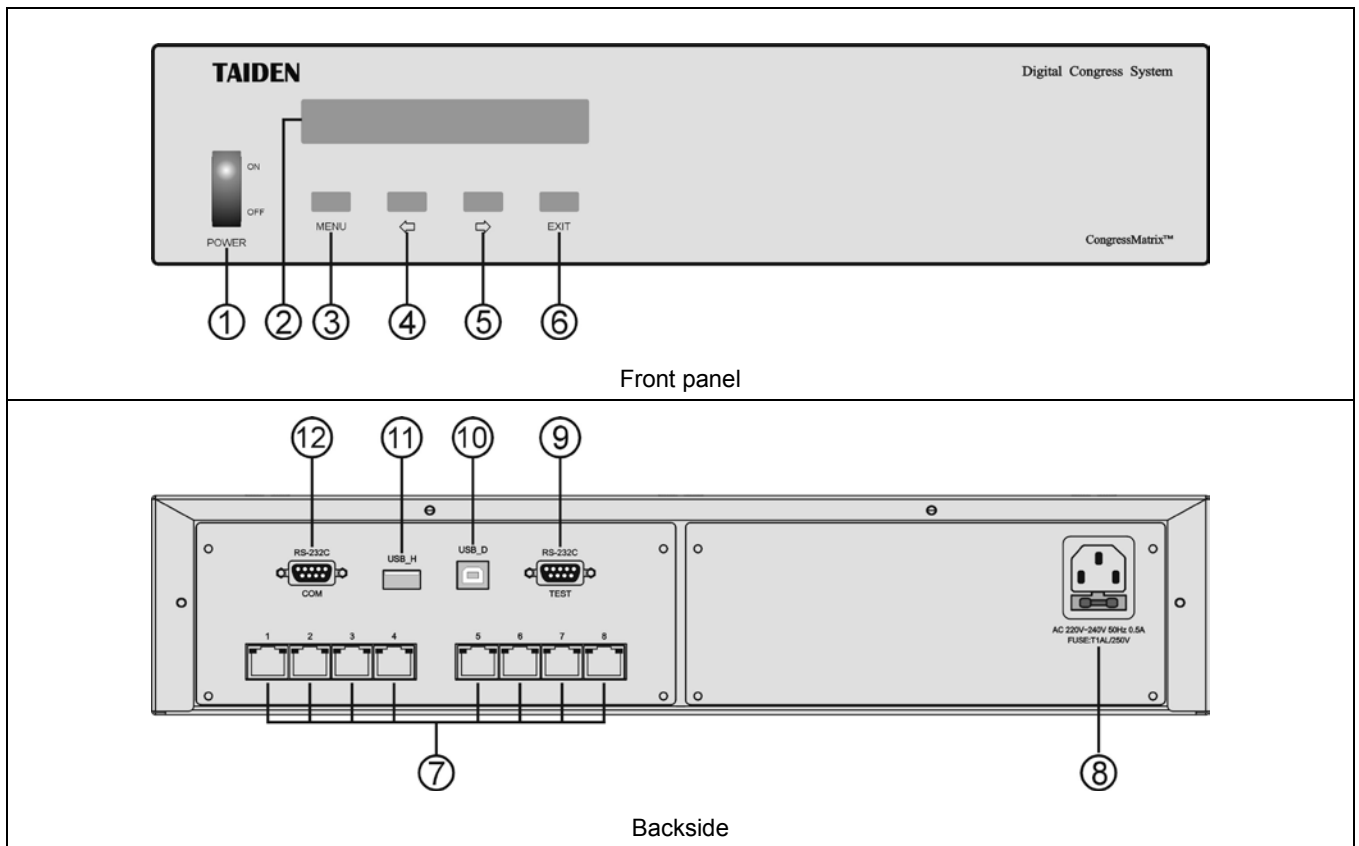


Figure 6.3.1 Congress Room Combiner HCS-8300MX

Figure 6.3.1:

1. Power switch

2. LCD

- 256×32 LCD, for displaying status and menu operation.

3. "MENU" button

- a. In initial interface, press "MENU" button to go to menu operation;
- b. In menu operation, press "MENU" button to select highlighted menu item and go to next level menu;
- c. In network configuration, press "MENU" button to select/deselect value.

4. "←" (left) button

5. "→" (right) button

6. "EXIT" button

7. 8x RJ45 port

- Connecting to the CMU to split/combine several meeting rooms.

8. Power input

9. RS-232C-TEST

- For upgrading and monitoring.

10. Mini USB port

- Connecting to PC.

11. A-type USB port

- Connecting to USB disk.

12. RS-232C-COM

- Connecting to intelligent central control system, for central control and diagnosis.

6.3.2 Connection

Several meeting rooms can be split/combined at leisure through the Congress Room Combiner HCS-8300MX with Cat.5 cable. One HCS-8300MX can combine up to eight meeting rooms. The system can be controlled easily by a central control system.

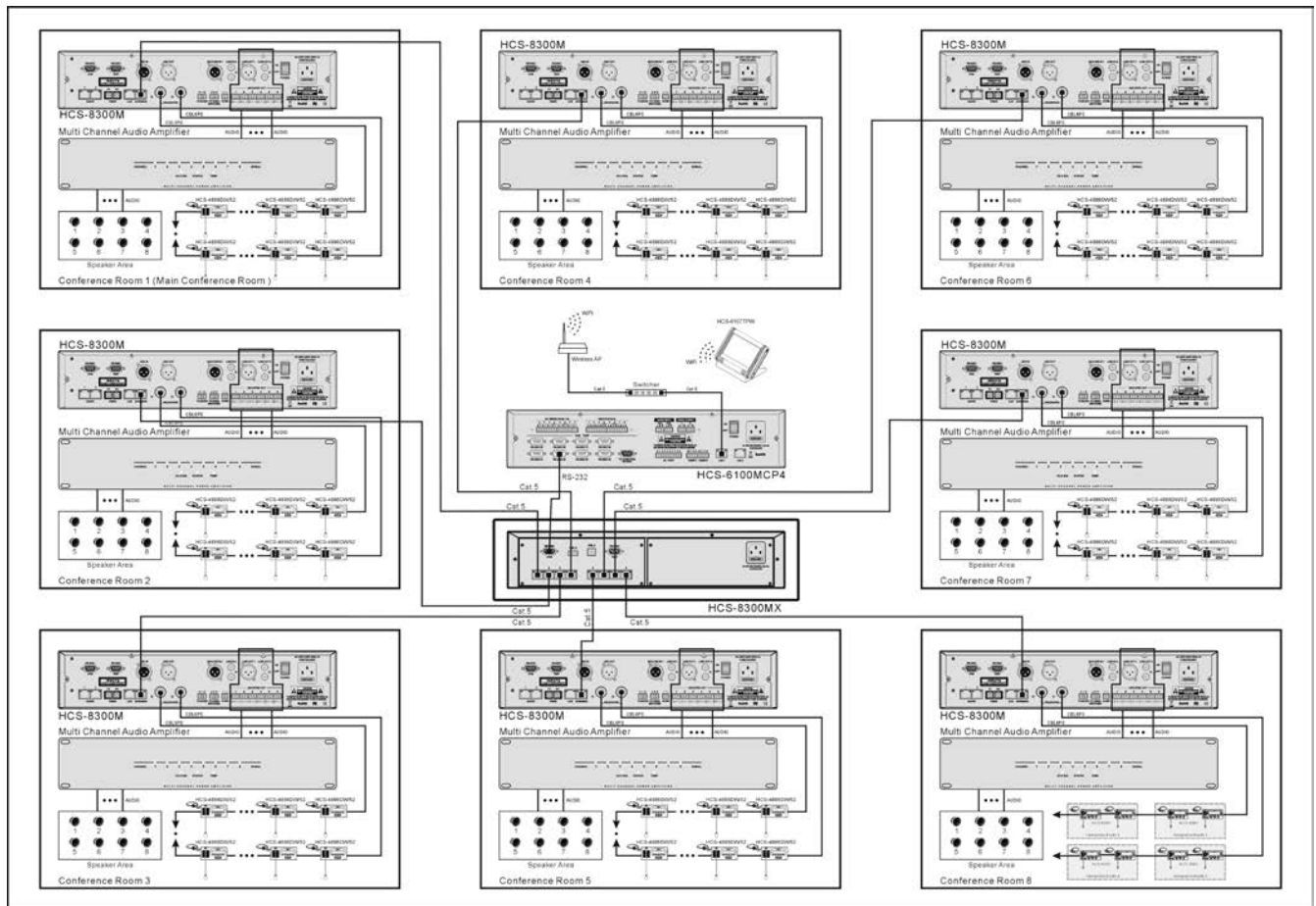
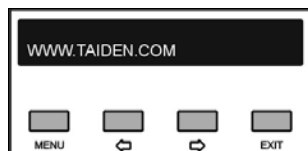


Figure 6.3.2 Splitting/Combining several meeting rooms with the Congress Room Combiner HCS-8300MX

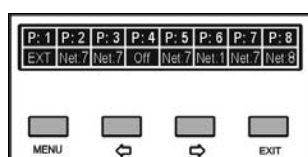
6.3.3 Configuration and operation

When installation and connection are finished and prior to the meeting the Congress Room Combiner HCS-8300MX should be configured by front panel menu operation.

A) Initialization



B) LCD initial interface operation



- ◆ The first row displays the Port numbers;
- ◆ The second row displays the Current status of the corresponding port;

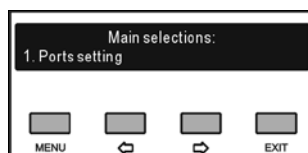
C) Main menu

Press the “MENU” button to go to main menu, which includes three menu items:

“Port”

“Setup operation language”

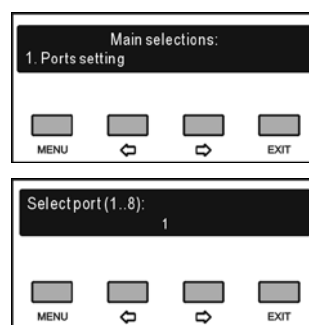
“About”



The current chosen term is highlighted.

- ◆ Press the “←/→” button to switch between menu items;
- ◆ Press the “MENU” button to go to selected menu item;
- ◆ Press the “EXIT” button to exit and return to upper level menu;

6.3.3.1 Port



- Press the “←/→” button to switch port number between 1-8;
- Press the “MENU” button to confirm and go to port configuration menu;



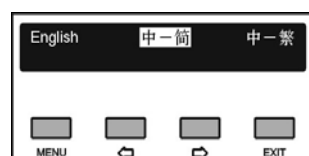
- Press the “←/→” button to select from “Close”, “Net ID=1”, “Net ID=2”, ..., “Net ID=8”; therein port 1 can be configured as “Extension port”;
- Press the “MENU” button to save and repeat step a) - d) to configure all ports.

6.3.3.2 Setup operation language



Setup operation language. Currently, simplified Chinese, traditional Chinese and English are supported. More languages can be added by the user (detailed operation please refer to the application software operation menu).

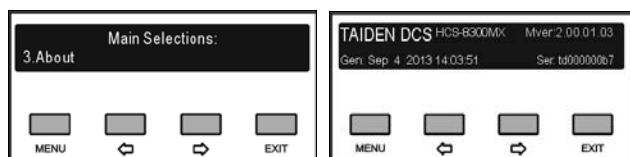
Operation step:



- Press the “←/→” button to switch between languages;
- Press the “MENU” button to save and return to upper level menu.

6.3.3.3 About

Displays the system information of the Congress Room Combiner HCS-8300MX. It includes: software version, corporation information and series number. Press any button to return to upper level menu.



6.4 HCS-8300MX/FS

HCS-8300MX/FS has one MAIN UNIT interface, eight SI BOOTH interfaces, one set of fiber (FIBER) interface and one ETHERNET interface. Simultaneous interpretation function is realized in only one room under idle mode; cooperating with HCS-8302MX/FS - the General Controller for Booth Combiners - booths can be shared and rooms can be merged and splitted.

6.4.1 Functions and instructions

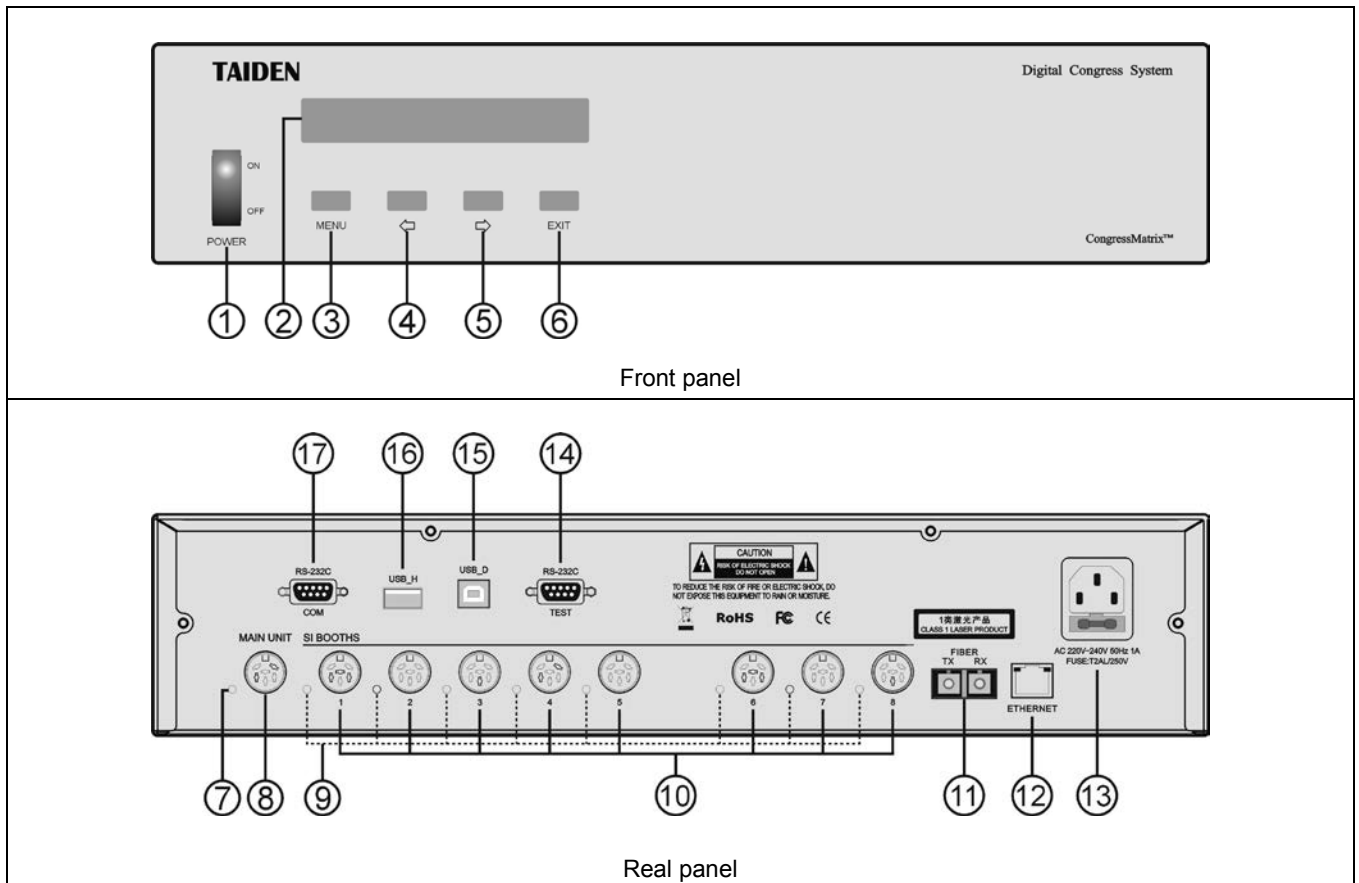


Figure 6.4.1 HCS-8300MX/FS Booth Combiner

Figure 6.4.1:

1. Power switch

2. LCD

- 256×32 LCD, for displaying status and menu operation.

3. “MENU” button

- In initial interface, press the “MENU” button to go to the menu operation;
- In the menu operation, press the “MENU” button to select the highlighted menu item and go to the next level menu;
- In the rename and network configuration, press the “MENU” button to select/deselect value.

4. “←” (left) button

5. “→” (right) button

6. “EXIT” button

7. 6P-DIN interface (MAIN UNIT) indicator

- When connected, LED will blink;
- When not connected, LED will turn off.

8. 6P-DIN interface (MAIN UNIT)

- Connecting to the CMU or the EMU.

9. Interpreter units connection indicators

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

10. Interpreter units interfaces (1-8, eight routes)

11. Fiber interface

- Single-mode optical fiber, SC connector;
- Connecting to the HCS-8302MX/FS.

12. RJ45 interface (ETHERNET)

13. Power input

14. RS-232C-TEST

- The “TEST” port is used for updating and monitoring.

15. Mini USB port

- Connecting to PC.

16. A-type USB port

- Connecting to USB disk.

17. RS-232C-COM

- The “COM” port is used for connecting to a central control system for central controlling, as well as for system diagnosis.

6.4.2 Connection

With the HCS-8300MX/FS Booth Combiner, simultaneous interpretation is realized in only one room under idle mode; in cooperation with HCS-8302MX/FS - the General Controller for Booth Combiners - booths can be shared and rooms can be merged and splitted via RoomBoothCombine software configuration without changing cable connections.

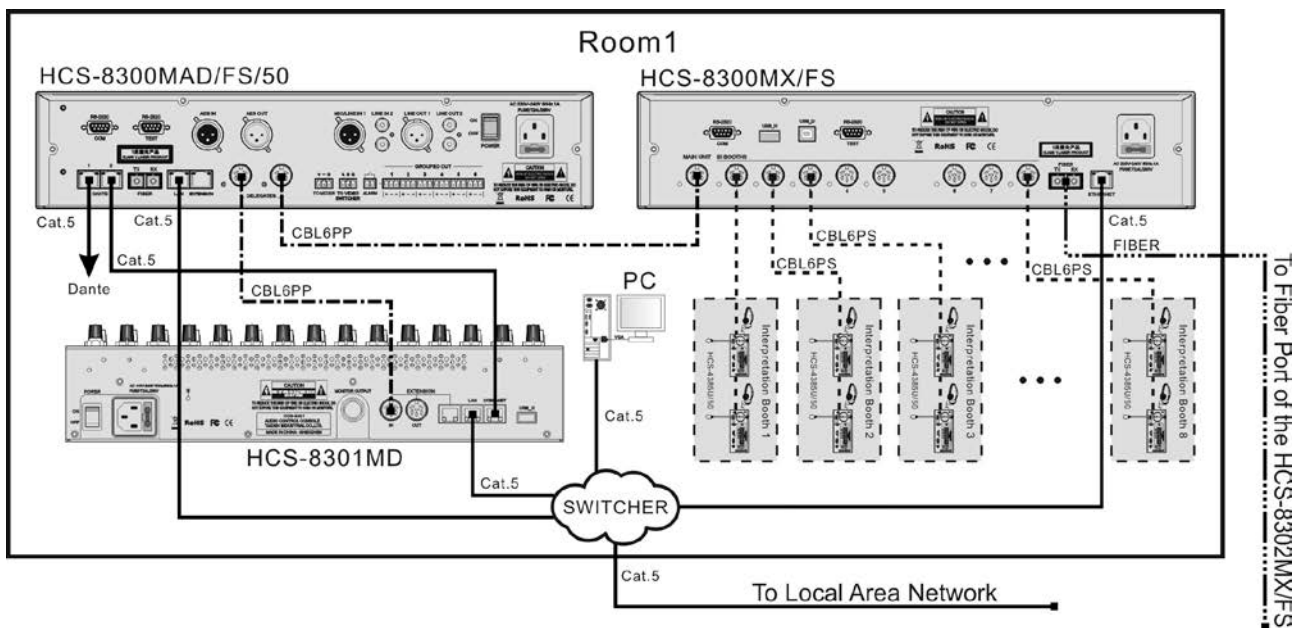
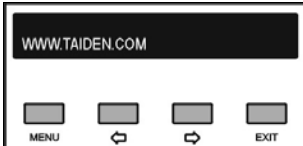


Figure 6.4.2 Connection of HCS-8300MX/FS Booth Combiner

6.4.3 Configuration and operation

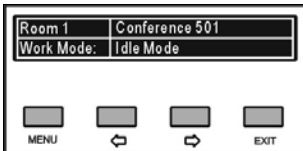
When installation and connection are finished, the Booth Combiner HCS-8300MX/FS should be configured by the front panel menu operation or the RoomBoothCombine software prior to the meeting. The room combination and booth combination functions are controlled by RoomBoothCombine software.

A) Starting initialization



B) Initial interface on LCD

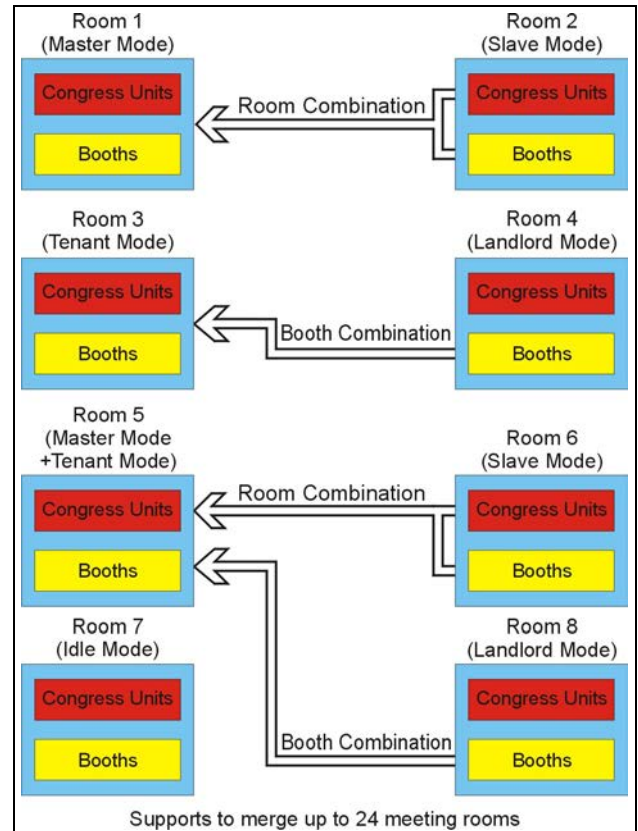
The LCD interface displays the room name and work mode of the current Booth Combiner.



- ♦ The first row shows the room number and the room name;
- ♦ The second row shows current work mode, the HCS-8300MX/FS Booth Combiner has six work modes:
 - **Idle Mode:** no booth combination and no room combination;
 - **Master Mode:** the mode of master conference room after room combination;
 - **Slave Mode:** the mode of slave conference room after room combination;
 - **Tenant Mode:** the mode of conference room which borrows booths in booth combination;
 - **Landlord Mode:** the mode of conference room which lends booths in booth combination;
 - **Master Mode + Tenant Mode:** the mode of master conference room which borrows booths in room combination and booth combination.

Note:

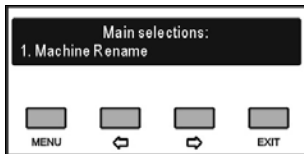
- ☞ One HCS-8300MX/FS can lend its booths to only one HCS-8300MX/FS, and not to several HCS-8300MX/FS at the same time;
- ☞ One HCS-8300MX/FS cannot borrow as well as lend booths at the same time.



C) Access main menu

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

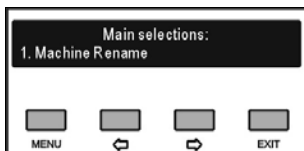
- “Machine Rename”
- “Link Setting”
- “Conference Room Setting”
- “Booth State”
- “Work Mode”
- “Set Operation Language”
- “Network Setting”
- “About”



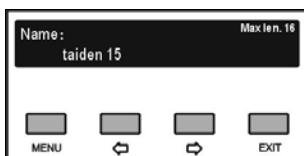
The current chosen term is highlighted.

- ◆ Press the “←/→” button to switch between the menu items;
- ◆ Press the “MENU” button to go to the selected menu item;
- ◆ Press the “EXIT” button to exit and return to the upper level menu.

6.4.3.1 Machine Rename



Set alias for the HCS-8300MX/FS Booth Combiner with a maximum length of 16 characters or less. It is convenient to identify them on the operation of booth combination and room combination.

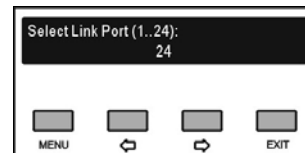


- a). Press the “MENU” button to enter the name setting interface, the cursor blinks under the first character;
- b). Press the “←/→” button to move the cursor;
- c). Press the “MENU” button to modify the character;
 - Press the “←” button to clear all the characters after the cursor;
 - press the “→” button to select the new characters: A~Z, a~z, 0~9 and ! “ ^ * _ + = - () { } [] < > : ; / ? ;

- d). Press the “MENU” button to save at each character;
- e). Press the “EXIT” button to return to the upper level menu after setting finished.

6.4.3.2 Link setting

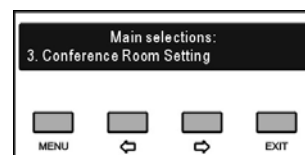
Set the fiber port number linked to the HCS-8302MX/FS General Controller for Booth Combiners.



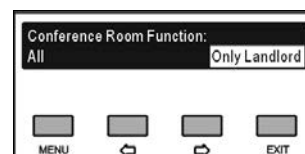
- a). Press the “←/→” button to select port number from port “1-24”, the link port number must be in accordance with the actual fiber port linked at the rear panel of the HCS-8302MX/FS.
- b). Press the “MENU” button to confirm and return to the upper level menu.

6.4.3.3 Conference Room Setting

Set conference room ID and function of the HCS-8300MX/FS



- a). Press the “←/→” button to set conference room ID, the maximum ID is 1000;
- b). Press the “MENU” button to go to the next step;

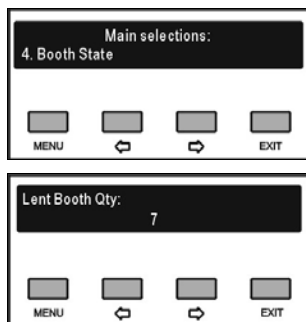


- c). Press the “←/→” button to set conference room function between “All” and “Only Landlord”;

- If connect **one** HCS-8300MX/FS: the conference room function should be set as “**All Function**”;
 - If connect **two** HCS-8300MX/FS: they must have the same conference Room ID, and one of the conference room function should be set as “**All Function**”, the other as “**Only Landlord**”;
- d). Press the “MENU” button to save and return to the upper level menu.

6.4.3.4 Booth state

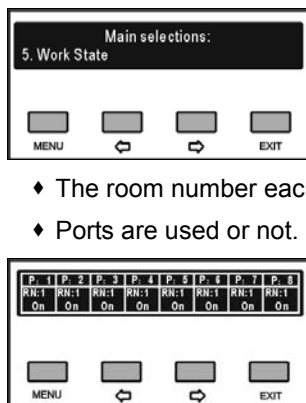
Displays the quantity of lent booths of the current room.



- ◆ In tenant mode, displays the quantity of lent booths;
- ◆ In slave mode, lend all booths;
- ◆ In other modes, no booth was lent.

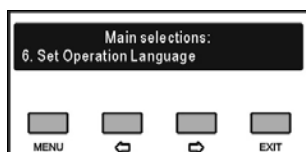
6.4.3.5 Work state

Displays the port status of the HCS-8300MX/FS



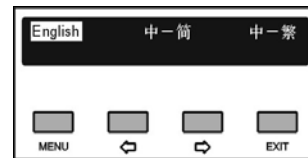
- ◆ The room number each port is linked to;
- ◆ Ports are used or not.

6.4.3.6 Set operation language



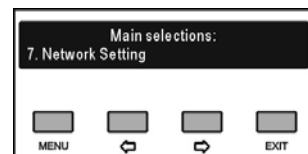
Setup operation language. Currently, simplified Chinese, traditional Chinese and English are supported. Other languages can be added by the user through the LCD_Designer tools.

Operation step:



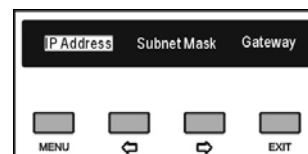
- a). Press the “↔” button to switch between the languages;
- b). Press the “MENU” button to save and return to the upper level menu.

6.4.3.7 Network setting



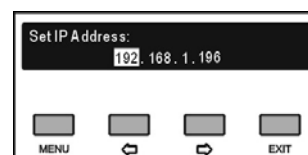
“Network” includes three submenus:

- “IP address”
- “Subnet mask”
- “Gateway”



a) Setup unique “IP Address” for the Booth Combiner

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



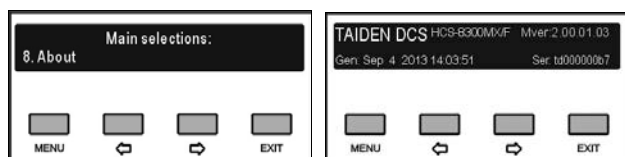
- 2). Use the “↔” button to switch between the four numbers;
- 3). Use the “MENU” button to edit the selected number;
- 4). Use the “↔” button to decrease/increase the number (press and hold the “↔” button will adjust numeric value quickly);
- 5). Use the “EXIT” to return to the upper level menu.

b) Setup “Subnet Mask” and “Gateway”

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

6.4.3.8 About

Displays the system information of the Booth Combiner HCS-8300MX/FS. It includes: software version, corporation information and series number. Press any button to return to the upper level menu.



6.5 HCS-8302MX/FS

HCS-8302MX/FS - the General Controller for Booth Combiners - has at most twenty-four fiber interfaces. Cable connections do not need to be changed. In cooperation with HCS-8300MX/FS, at most twenty-four rooms can be merged and their booths can be shared.

6.5.1 Functions and instructions

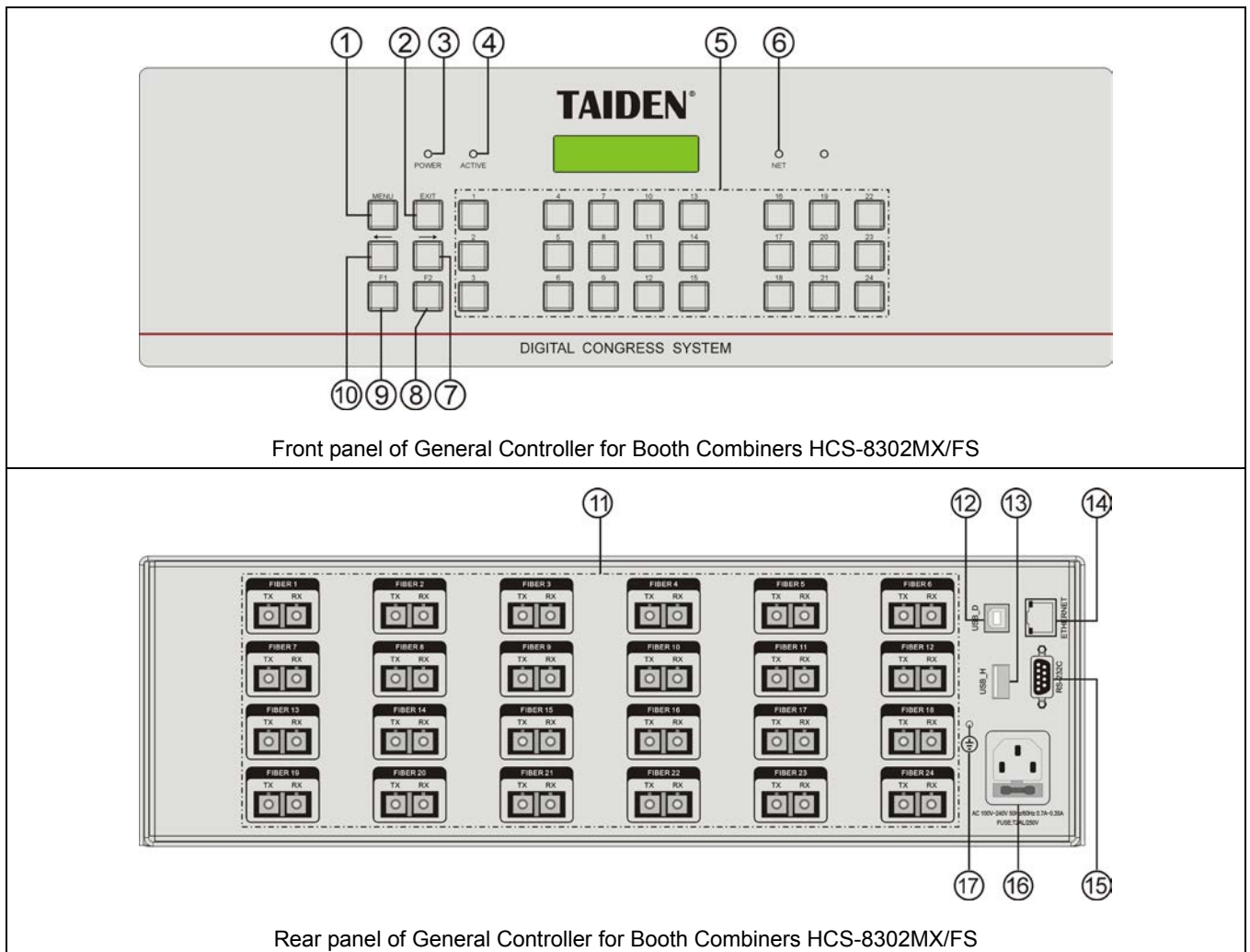


Figure 6.5.1 HCS-8302MX/FS General Controller for Booth Combiners

Figure 6.5.1:

1. "MENU" button
2. "EXIT" button
3. "POWER" indicator
4. "ACTIVE" indicator
 - Indicator flashes in normal working state.
5. Fiber interface status buttons
6. "NETWORK" indicator
 - Indicator flashes when the mainboard communicates with the front panel board.
7. "→" (right) button
8. F2
 - Reserve
9. F1
 - Reserve
10. "←" (left) button
11. Fiber interfaces (1-24, 24 routes)
 - Single-mode optical fiber, SC connector.
12. Mini USB interface
 - For connecting to PC.

13. A type USB interface

- Connecting to USB disk.

14. "ETHERNET" interface**15. RS-232 communication interface**

- The "COM" port is used for connecting to a central control system for central controlling, as well as for system diagnosis.

16. Power input**17. Grounding point**

6.5.2 Connection

Several conference rooms can be merged and splitted and their booths can be shared via the HCS-8302MX/FS General Controller for Booth Combiners with its fiber interfaces. One HCS-8302MX/FS can control at most twenty-four conference rooms and their booths. Controlling is very simple through “RoomBoothCombine” software operation.

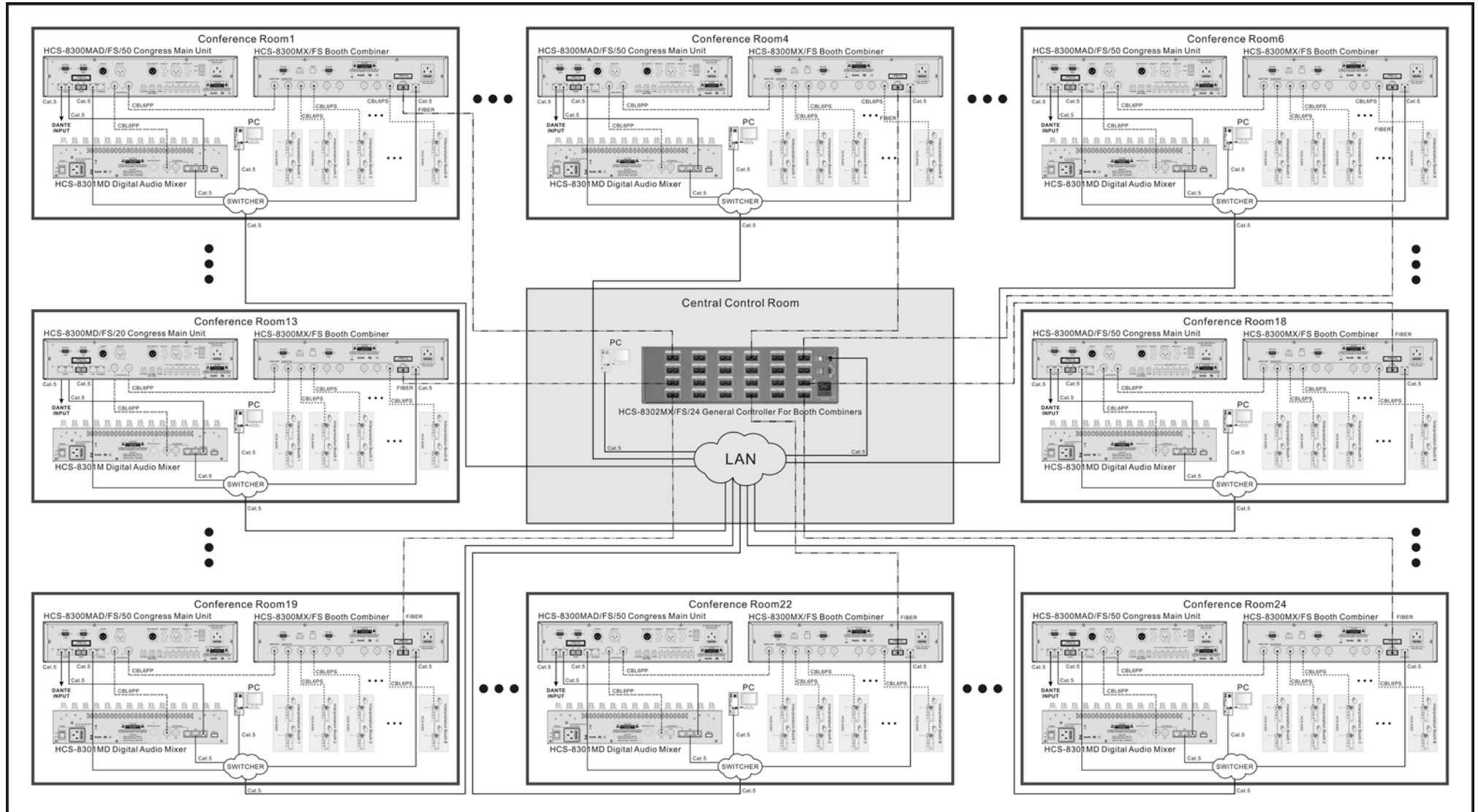


Figure 6.5.2a Merge and split several booths via the HCS-8302MX/FS General Controller for Booth Combiners and the HCS-8300MX/FS

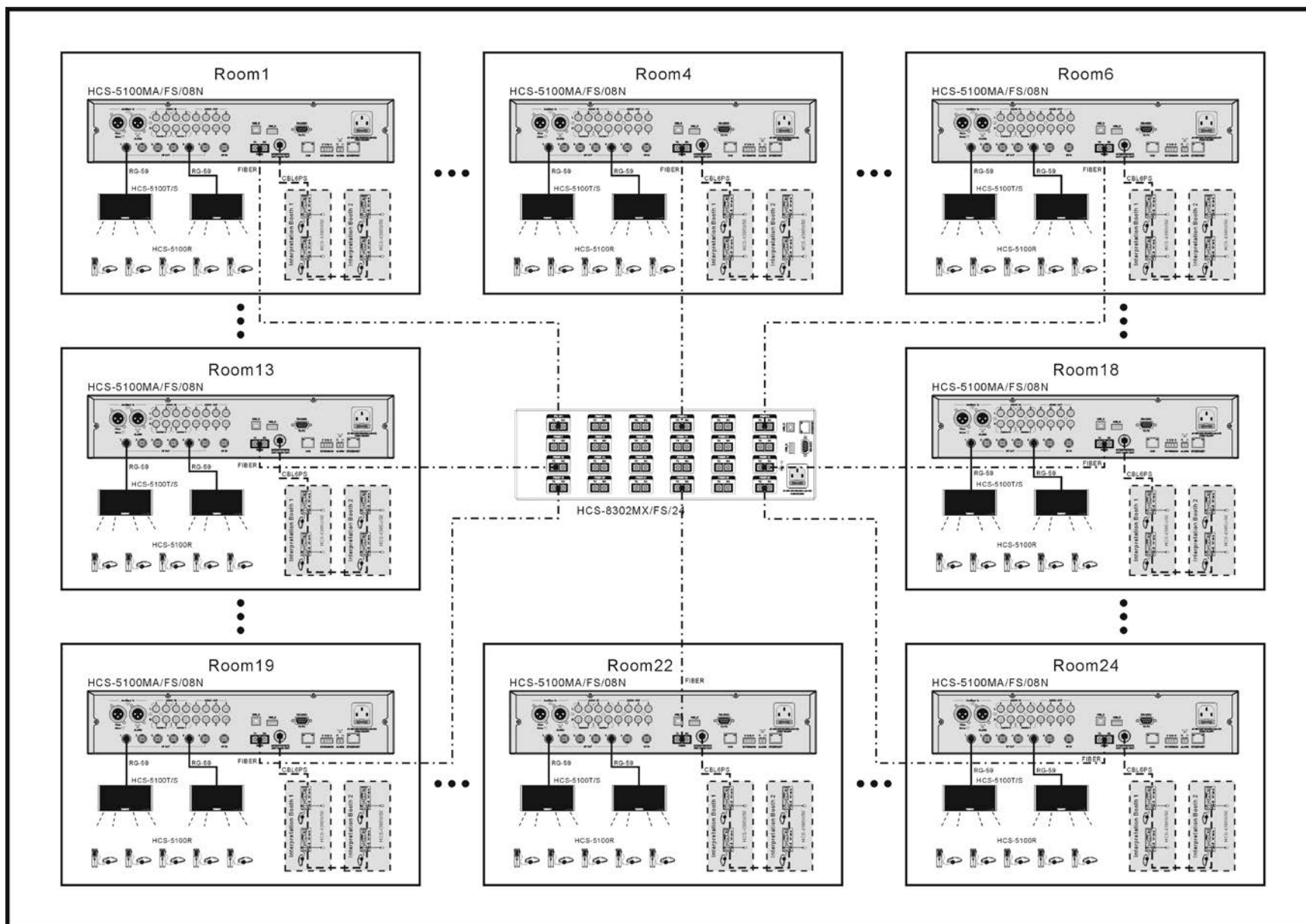


Figure 6.5.2b Merge and split several booths via the HCS-8302MX/FS General Controller for Booth Combiners and the HCS-5100MA/FS/N

6.5.3 Configuration and operation

When installation and connection are finished, the HCS-8302MX/FS General Controller for Booth Combiners should be configured by front panel menu operation or the "RoomBoothCombine" software before the meeting.

6.5.3.1. Configuration

Initial interface:

HCS-8302MX/24

Press the "MENU" button to go to the main menu, which includes:

1. Machine Rename
2. Net Setting
3. About

Press the number button to check the status of the corresponding fiber port (on/off, mode, connection type).

P16: Off Idle
Connect 8300MX/F

The fiber port range of HCS-8302MX/FS/06, HCS-8302MX/FS/12 and HCS-8302MX/FS/24 are respectively 1-6, 1-12, and 1-24.

1. Machine Rename

Set alias for the HCS-8302MX/FS General Controller for Booth Combiners with a maximum length of 16 characters or less. Press the "MENU" button to enter setup, and the "Machine Rename" prompts:

Main Menu:
1. Machine Rename

Press the "MENU" button to enter the name setting interface as in the figure below, the cursor blinks under the first character, press the "←/→" button to move the cursor.

Name: Max.16
taiden_h8302mx24

Press the "MENU" button to modify the character as in the figure below. Press the "←" button to clear all the characters after the cursor; press the "→" button to select the new characters: A~Z, a~z, 0~9 and ! " ^ * _ + = - () { } [] < > : ; / ?. Press the "MENU" button to save at each character.

Name: Max.16
taide_h8302mx24

Press the "EXIT" button to return to the upper level menu after setting finished.

2. Net setting

The IP address, Subnet mask and Gateway must be assigned to the HCS-8302MX/FS if connected to a TCP/IP Ethernet interface.

◆ IP address

Press the "MENU" button to enter the setup menu and press the "←/→" until "Net Setting" prompts;

Main Menu:
2. Net Setting

Press the "MENU" button to enter net setting and the "IP Address" prompts:

Net Setting
1. IP Address

Press the "MENU" button to enter the IP address setting interface as in the figure below, the cursor blinks under the first parameter, press the "←/→" button to move the cursor.

IP Address
192.168. 1.204

Press the "MENU" button to modify the number as in the figure below. Press the "←/→" button to adjust parameters. Press the "MENU" button to save at each parameter.

IP Address
19.168. 1.204

Press the "EXIT" button to return to the upper level menu after setting finished.

◆ Subnet mask

For the setup of "Subnet mask" proceed such as described in "IP address".

◆ Gate way

For the setup of "Gate way" proceed such as described in "IP address".

3. About

Displays the system information of the HCS-8302MX/FS General Controller for Booth Combiners. It includes: software version and series number. Press any button of "Menu"/ "Exit"/ "←"/ "→" to return to the upper level menu.

Main Menu: 3. About	Ver: 2.00.01.01 Ser: td90000363
------------------------	------------------------------------

6.5.3.2. Operation

1. Fiber Port State

Press the number keys (1-24) on the front panel to view and modify the corresponding port state.

P04: Off Idle Connect 8300MX/F

Press the "MENU" button, when the cursor is blinking, press the "←/→" button to change the connect type: 8300MX/F, 5100MAF or Nothing. For the fiber-optic ports which are not in use, their "Connect Type" should be set to "Nothing".

P04: Off Idle Connect 8300MX/F

P04: Off Idle Connect 5100MAF

P04: Off Idle Nothing Connect

Press the "MENU" button to save the change.

If connection type is set as "8300MX/F":

P04: Off Idle Connect 8300MX/F

Press the "→" button to go to room function setup interface, as in the following figure, press the "←/→" button to select the item to change: connect room number or room function;

Connect Room2 All Function

Connect Room2 All Function

Press the "MENU" button, then the cursor blinks on the selected item;

Connect Room2 All Function

Press the "←/→" button to select room number, 1-1000;

Connect Room2 All Function

Connect Room2 Only Landlord

Press the "←/→" button to select room function between All Function and Only Landlord;

Press the "MENU" button to save the change.

2. Merge/split HCS-5100MAF

◆ Merge HCS-5100MAF

Take combining HCS-5100MAF on port 2 and port 3 as an example.

Steps:

- Press the number keys 2 on the front panel to view the port 2 state;
- Press the "MENU" button, when the cursor is blinking, press the "←/→" button to change the connect type to 5100MAF, and press the "MENU" button to save;

P02: Off Idle Connect 5100MAF

- Press the "→" button to go to mode setup interface, press the "MENU" button to enter, press the "←/→" button to select the mode of port 2 as Master Mode, and press the "MENU" button to save;

Master Mode

- Press the number keys 3 on the front panel to view the port 3 state;
- Press the "MENU" button, when the cursor is blinking, press the "←/→" button to change the connect type to 5100MAF, and press the "MENU" button to save;

P02: Off Idle Connect 5100MAF

- Press the "→" button to go to mode setup interface, press the "MENU" button to enter, and press the "←/→" button to select the mode of port 3 as Slave Mode, and press the "MENU" button to save;

Slave Mode Nothing Connect

- Press the "→" button to go to port setup interface, press the "MENU" button to enter, and press the "←/→" button to select port 2 to merge, press the "MENU" button to confirm.

Slave Mode Connect Port2

◆ Split HCS-5100MAF

To split the merged HCS-5100MAF, just change the Master Mode to Idle Mode.

Steps:

- a. Press the number keys 2 on the front panel;
- b. Press the “→” button to go to mode setup interface, and press the “MENU” button to enter;
- c. Press the “←/→” button to select the mode of port 2 as Idle Mode, and press the “MENU” button to save.

Idle Mode

P02: Off Idle
Connect 5100MAF

6.6 HCS-8300KMx2

HCS-8300KMx2 is designed based on the Gigabit Multimedia Congress Stream technology, and is used to connect the congress main unit, the HCS-8368/50 series Paperless Multimedia Congress Terminals, the video server, external Ethernet switches, etc. The build-in PoE switch is used to select power supply method.

6.6.1 Functions and instructions

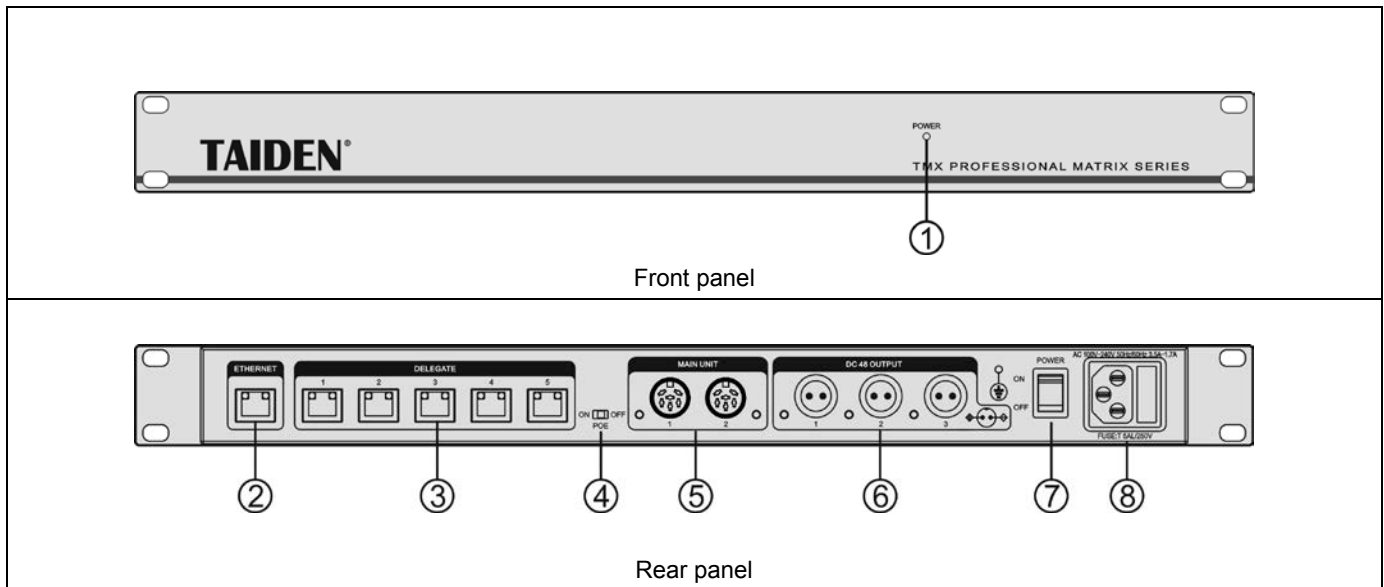


Figure 6.6.1 HCS-8300KMx2 Congress Gigabit Network Switcher

Figure 6.6.1:

1. Power indicating light

2. RJ45 interface (ETHERNET)

- Connecting to the server.

3. RJ45 interface (DELEGATE)

- PoE OFF: connecting to HCS-8368/50 series Paperless Multimedia Congress Terminals, supporting daisy-chain connection, the quantity of congress terminals connected to each port is unlimited;
- PoE ON: connecting to HCS-8368/50 series tabletop Paperless Multimedia Congress Terminals or the distributor HCS-8368T for power supply and transmission of conference data and multimedia data. One port for one terminal.

4. PoE switch (power on Ethernet)

- ON: power on Ethernet via Cat.5e/Cat.6 cable;
- OFF: power supply via 3 2P aviation plugs.

5. 6P-DIN interface (TO MAIN UNIT)

- Synchronous On/Off status with main unit after connecting to a main unit or cascading to another HCS-8300KMx2.

6. 2P aviation plug base (DC48V)

- Supplying power to HCS-8368/50 series Paperless Multimedia Congress Terminals (PoE: OFF).

7. Power switch

8. Power input

- 100 - 240 V, 50/60 Hz.

6.6.2 Connection

One RJ45 standard ports for connection with external Ethernet switches, communication with the file server, video server, etc. 5×RJ45 standard ports for connection with the HCS-8368/50 series Paperless Multimedia Congress Terminals. 2×6P-DIN for connection with a main unit or cascading to another HCS-8300KMx2. The build-in PoE switcher is used to select power supply

method, PoE or 3×2P aviation plugs. If power supply from 3×2P aviation plugs, 5×RJ45 standard ports support “Daisy-chain” connection and “Closed Loop” connection, and the quantity of congress terminals connected to each port is unlimited. If power on Ethernet, 5×RJ45 standard ports support connection to congress terminal or HCS-8368T, and one port for one terminal.

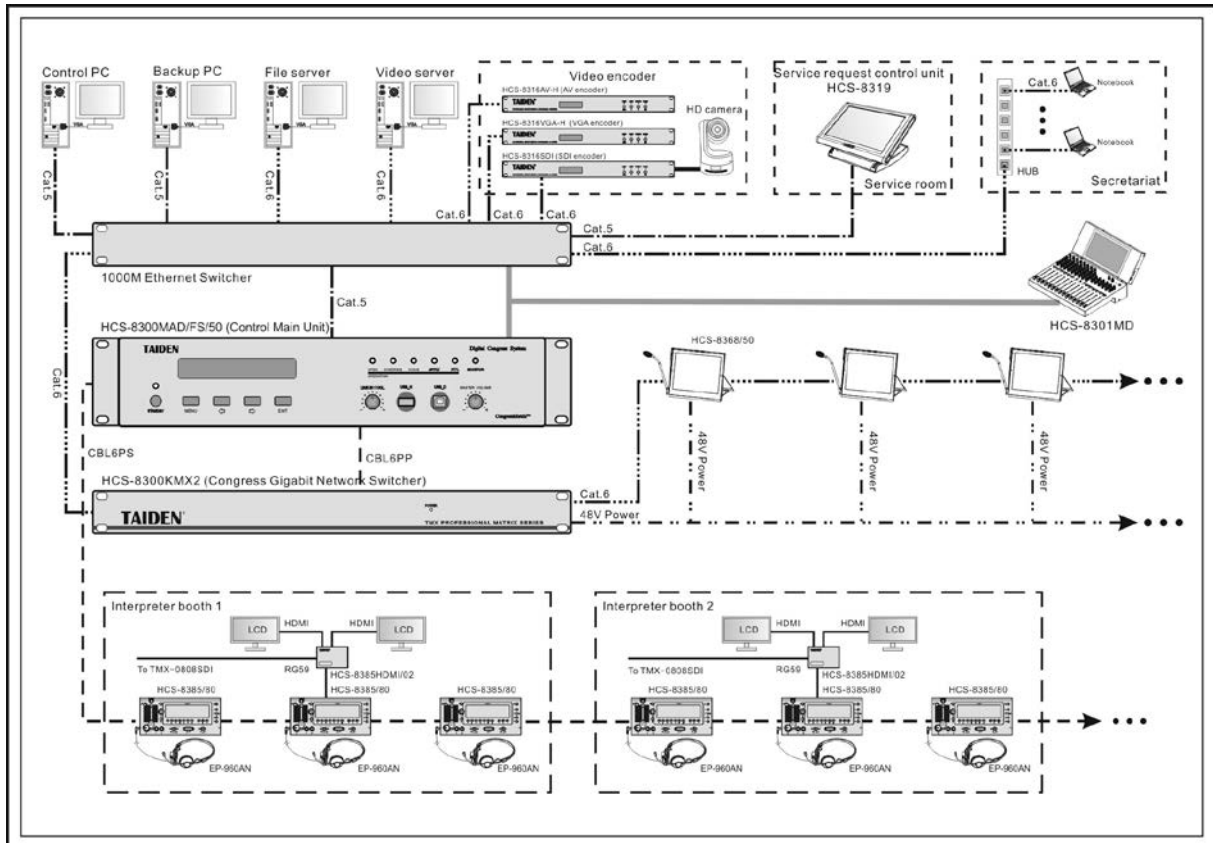


Figure 6.6.1 HCS-8368/50 Series G3 Paperless Multimedia Congress System connection diagram

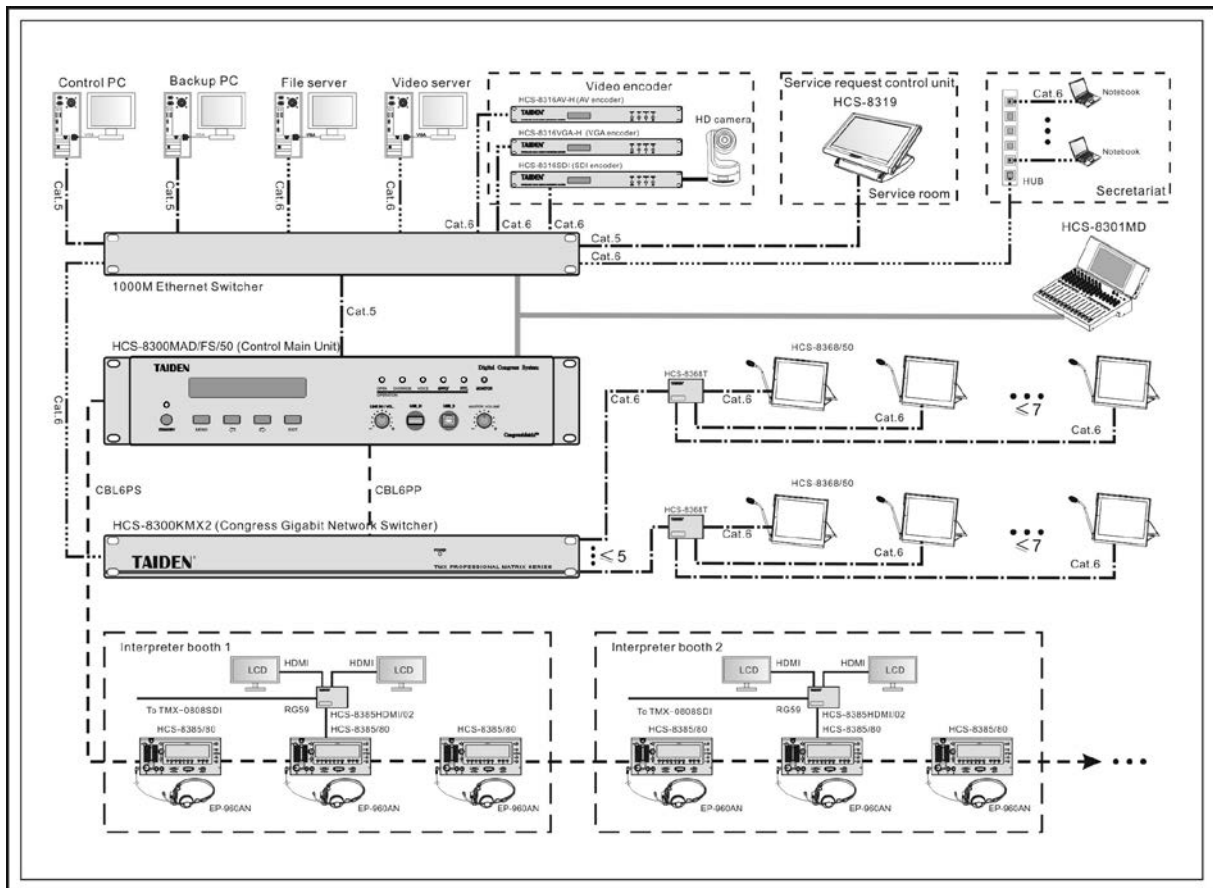


Figure 6.6.2 HCS-8368/50 Series G3 Paperless Multimedia Congress System connection diagram
(PoE, only for tabletop terminals)

6.7 HCS-8368T

Extension of HCS-8368/50 series tabletop Paperless Multimedia Congress Terminals in PoE mode.

6.7.1 Functions and instructions

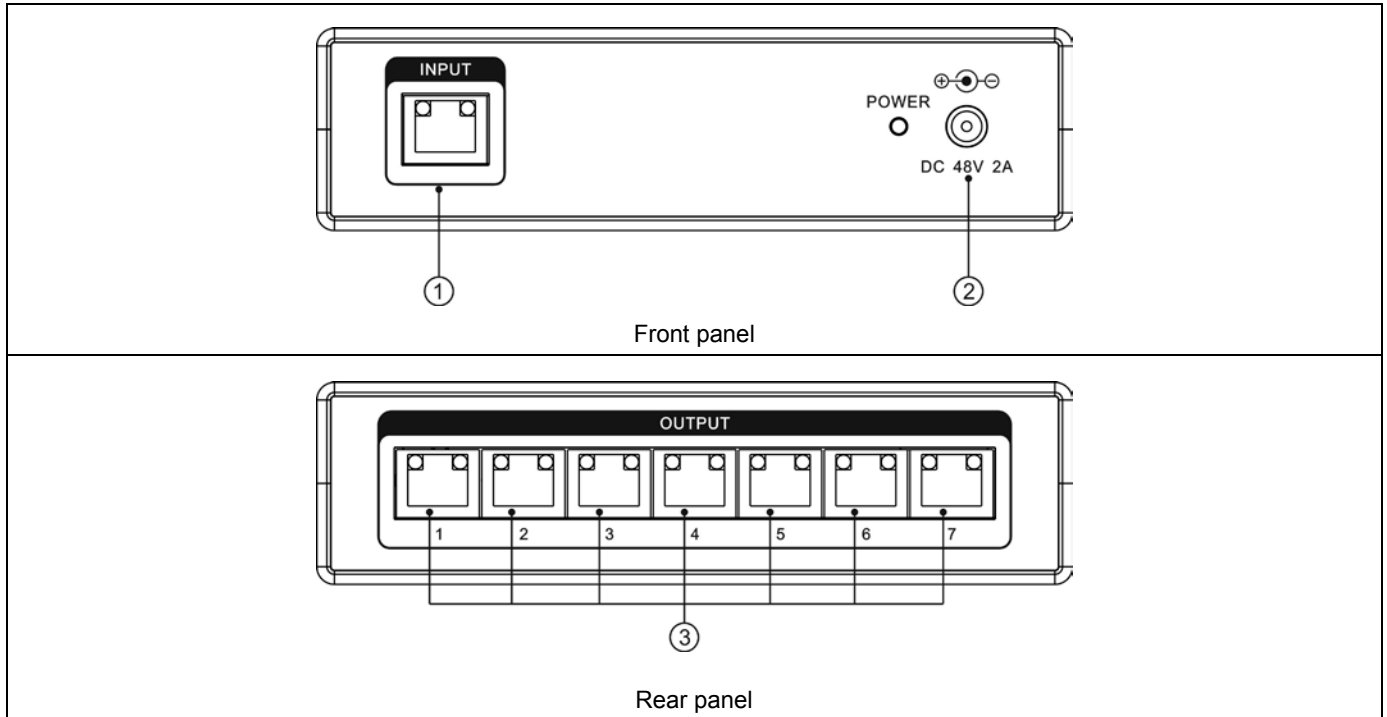


Figure 6.7.1 HCS-8368T Distributor

Figure 6.7.1:

1. INPUT

- Connecting to HCS-8300KMx2.

2. Power input and power indicator

- DC 48V;
- If five or more output ports are used, please connect to external power adapter, detailed load capability refer to section [5.1.1](#).

3. OUTPUT

- Connecting to HCS-8368/50 series tabletop Paperless Multimedia Congress Terminals, one port for one terminal only.

6.7.2 Connection

Connection refers to figure 6.6.2.

6.8 HCS-8300KMx

HCS-8300KMx is designed based on the Gigabit Multimedia Congress Stream technology, and is used to connect the congress main unit, the Paperless Multimedia Congress Terminals, the video server, external Ethernet switches, etc.

6.8.1 Functions and instructions

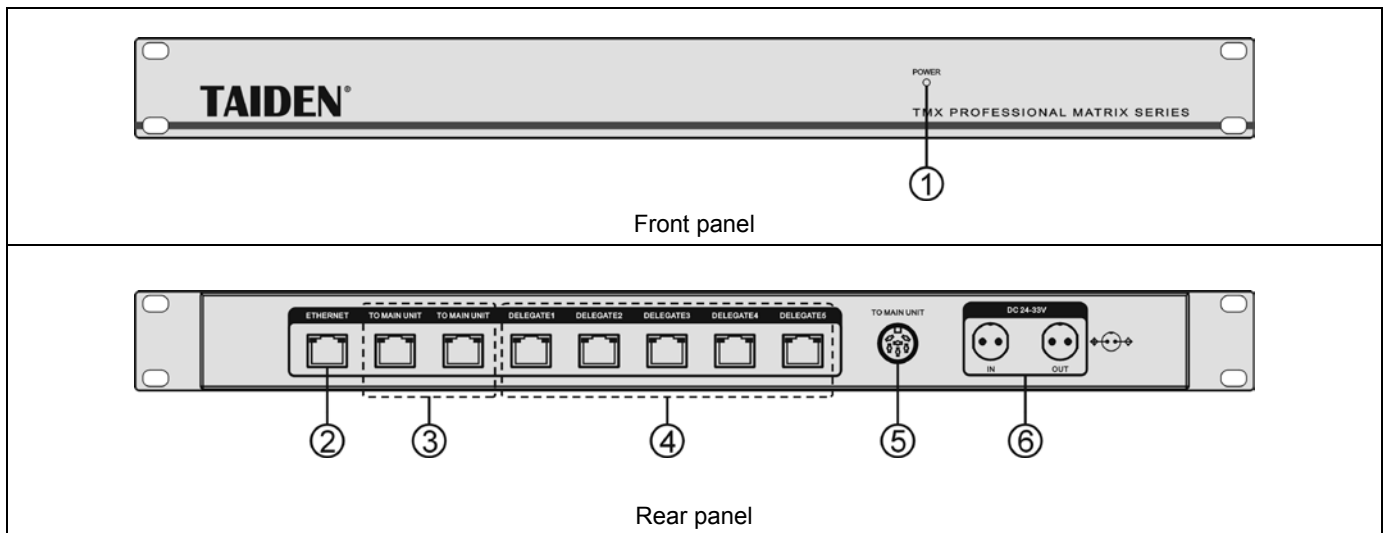


Figure 6.8.1 HCS-8300KMx Congress Gigabit Network Switcher

Figure 6.8.1:

1. Power indicating light

2. RJ45 interface (ETHERNET)

- Connecting to the server.

3. RJ45 interface (TO MAIN UNIT)

- Connecting to the CMU.

4. RJ45 interface (DELEGATE)

- Connecting to Paperless Multimedia Congress

Terminals, the quantity of congress terminals connected to each port is unlimited.

5. 6P-DIN interface (TO MAIN UNIT)

- For power supply from the CMU.

6. 2P aviation plug base (DC24V - 33V)

- For power supply from the Power Supply Unit.

6.8.2 Connection

8×RJ45 standard ports for connection with the congress main unit, the Paperless Multimedia Congress Terminals, the video server, external Ethernet switches, etc. The quantity of congress terminals connected to each port is unlimited if the Paperless Multimedia Congress Terminals are “daisy chained”. The power for the unit is provided by the CMU or the Power Supply Unit.

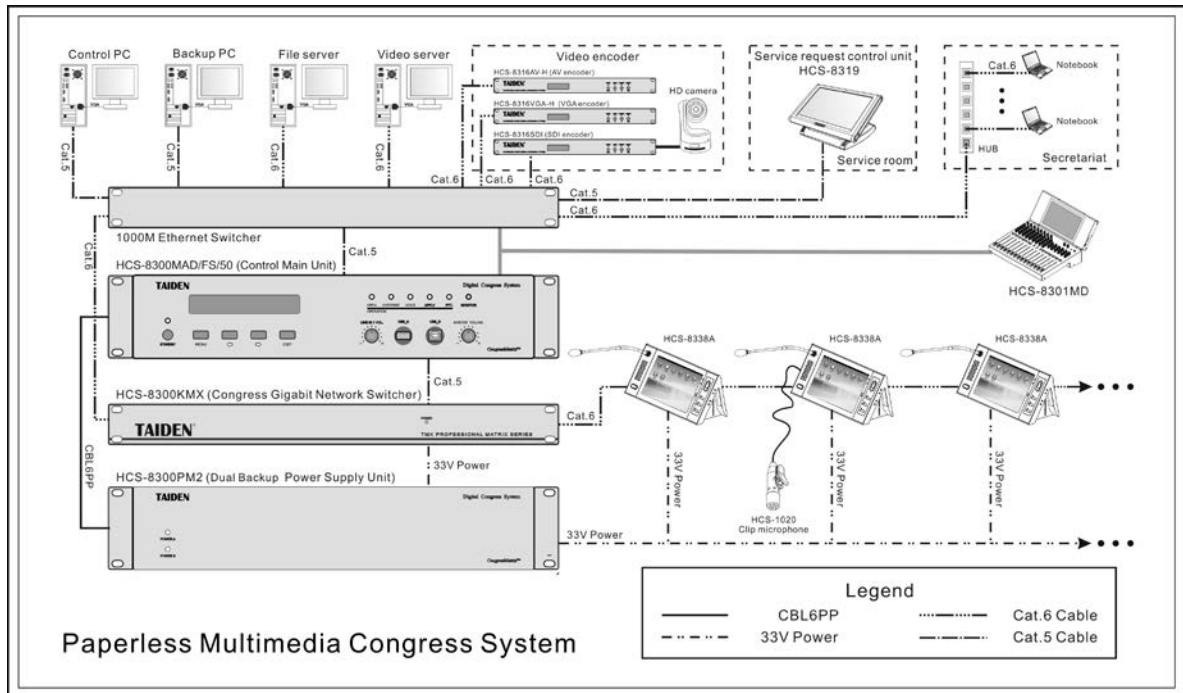


Figure 6.8.1 HCS-8338 Series Paperless Multimedia Congress System connection diagram

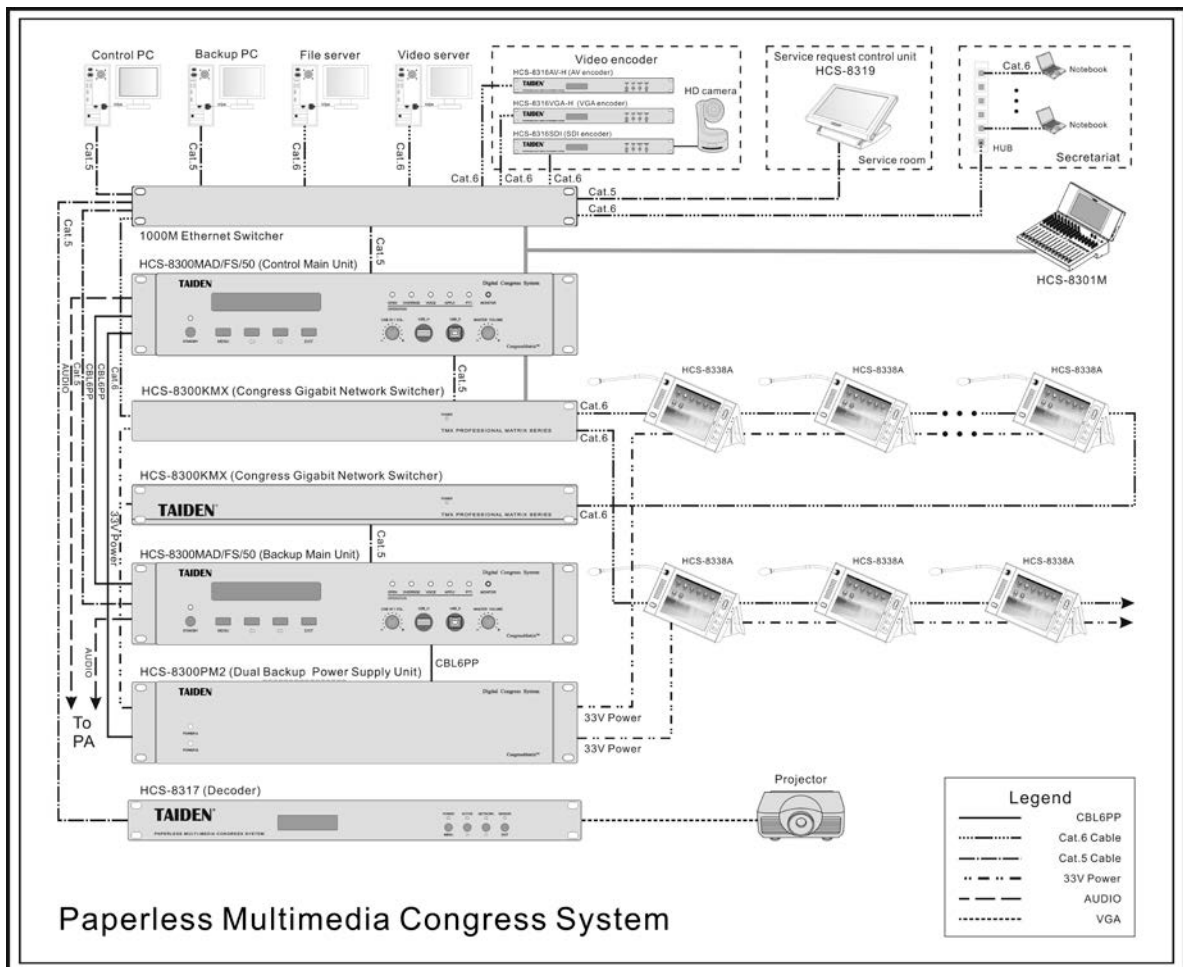


Figure 6.8.2 HCS-8338 Series Paperless Multimedia Congress System connection diagram
(dual main unit hot spare + "Closed Loop – Daisy Chain" connection)

6.9 HCS-8300PM/PM2

HCS-8300PM	Power Supply Unit
HCS-8300PM2	Dual Backup Power Supply Unit

The HCS-8300PM/PM2 supplies power to the Paperless Multimedia Congress Terminals or the HCS-8300KMX Congress Gigabit Network Switcher, and sync power

on/off with the congress main unit.

The HCS-8300PM2 has two completely independent power supply systems built-in to realize dual backup for system power supply. If the primary power supply fails, the standby power takes over supply immediately.

6.9.1 Functions and instructions

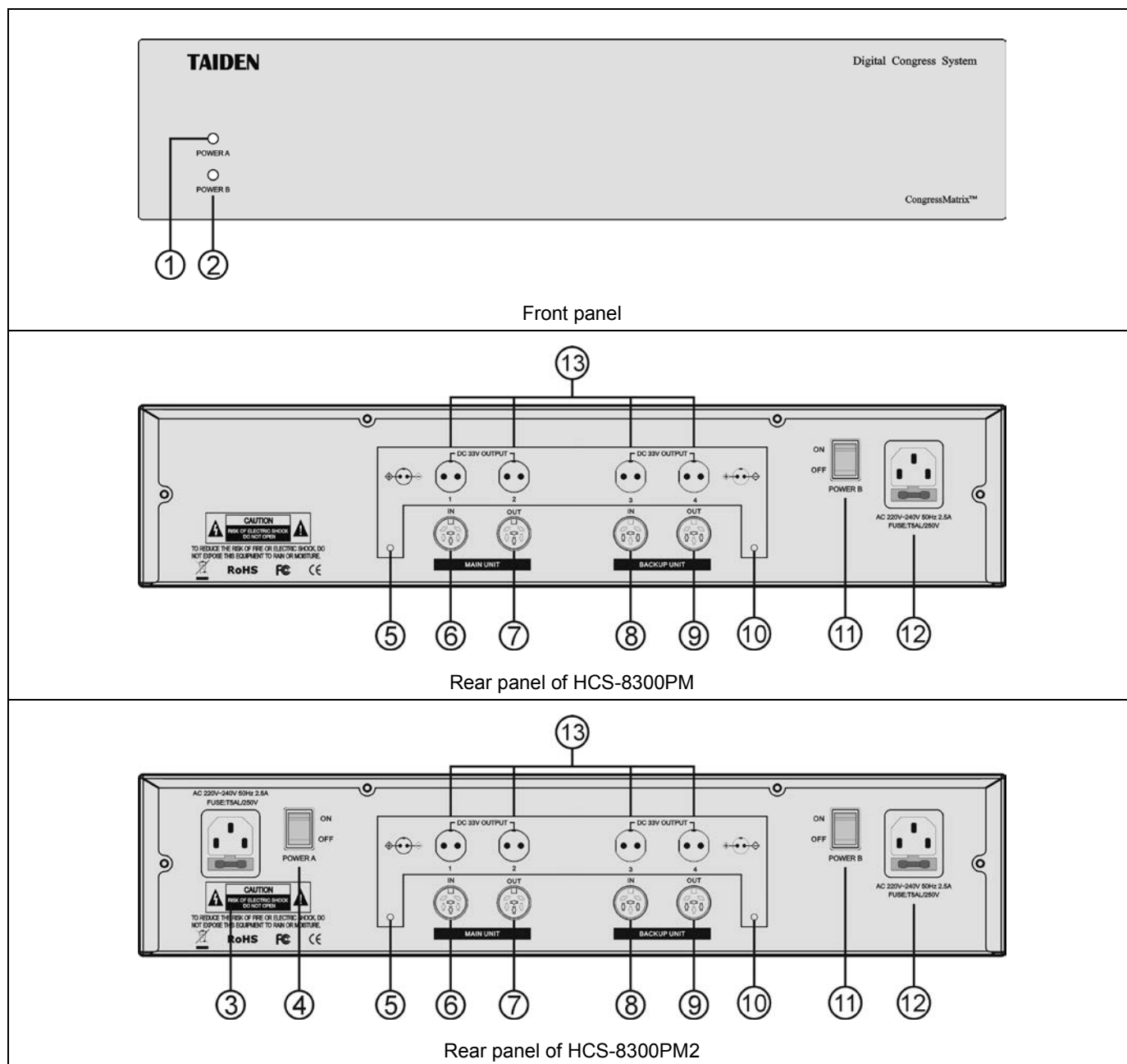


Figure 6.9.1 Power Supply Unit

Figure 6.9.1:

- 1. Power A indicating light**
- 2. Power B indicating light**
- 3. Power A input**
- 4. Power A switch**
- 5. Fault indicating light**
- 6. 6P-DIN interface (IN)**
 - Connecting to CMU or EMU.
- 7. 6P-DIN interface (OUT)**
 - For extension.
- 8. 6P-DIN interface (IN)**
 - Connecting to backup CMU or EMU.
- 9. 6P-DIN interface (OUT)**
 - For extension.
- 10. Fault indicating light**
- 11. Power B switch**
- 12. Power B input**
- 13. 2P aviation plug base (DC 33V OUT)**
 - Supplies power to Paperless Multimedia Congress Terminal or HCS-8300KMx Congress Gigabit Network Switcher.

6.9.2 Connection

Connection refers to figure 6.8.1 and figure 6.8.2.

6.10 HCS-8319

HCS-8319 Service Request Control Unit is equipped with a 10" LCD touch panel. In cooperation with the service request function of the Paperless Multimedia Congress Terminal, it displays seat information and service request on the LCD and enables response to the request.

6.10.1 Functions and instructions

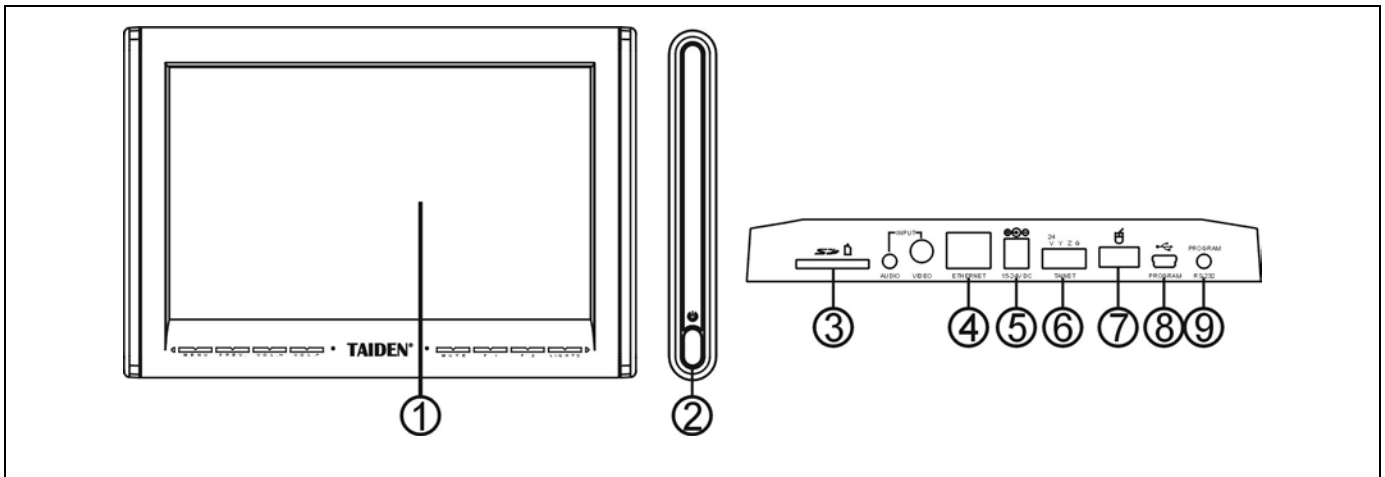


Figure 6.10.1. HCS-8319 Service Request Control Unit

Figure 6.10.1:

1. 16:9 high resolution touch screen colour video display (10.2")

2. Power/Function button

- Touch panel in "power-on" status: switches to "power-off" status when pressed.
- Touch panel in "operation status": switches to "set up interface" when pressed and hold for 6 seconds or switches to "exit/standby" state when pressed for a short time.
- "Calibration" status: exit without saving when pressed.

3. SD card slot

- ♦ For SD card, supporting maximum 4 G SD card.

4. Ethernet interface

- ♦ Touch panel connection to the central control system's main unit via Ethernet interface (direct-connected or via SWITCH, HUB), achieving wired control functions.

5 Power slot

- ♦ 15 V - 24 V DC input for power supply.

6. TAINET

- ♦ Reserved.

7. USB interface

- ♦ For type A USB devices, such as external mouse.

8. Mini USB interface

- ♦ For uploading program and upgrading user interface.

9. RS-232 interface (reserved)

6.10.2 Connection

Connection refers to figure 6.6.1 and figure 6.6.2.

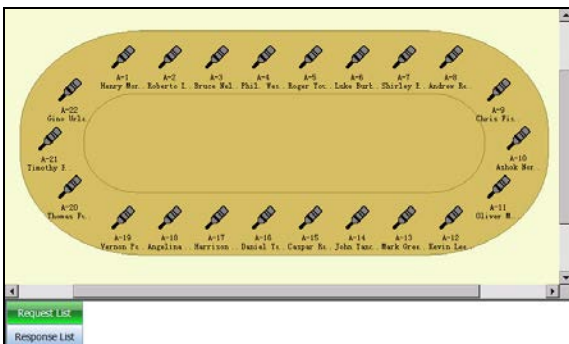
6.10.3 Operation

6.10.3.1 System startup

After connection of the power supply to the touch panel, press the power button at the right side of the touch panel to start the touch panel. The start-up logo will be displayed as shown in the following figure:



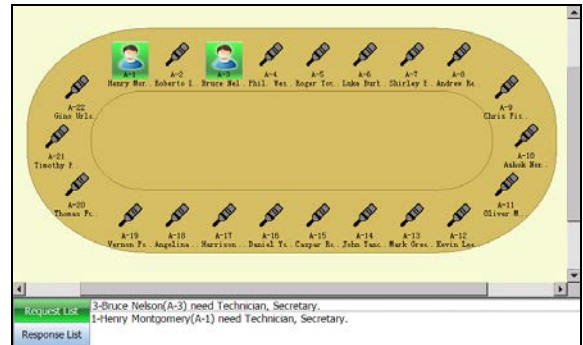
The HCS-8319 is connected to the server with a Cat.5 cable. If not connected to the server, the interface shows “Did not connect DCS Server”. If connected to the server, the venue layout will be displayed on the LCD.



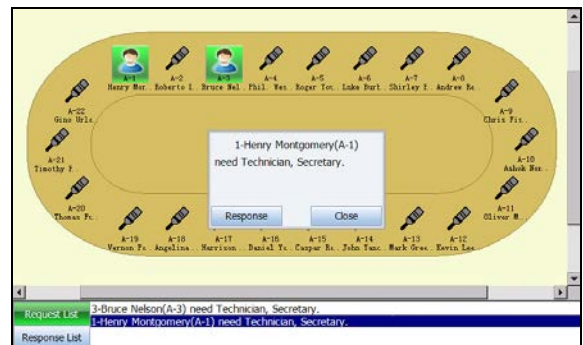
6.10.3.2 Function operation

1. Service request and response

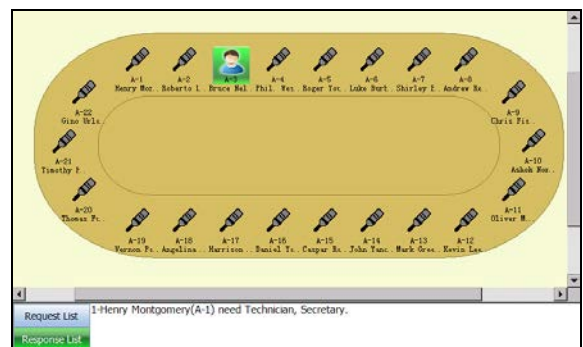
When a delegate requests a service, its seat will be highlighted and the detailed information of its service request will be displayed on the service request list.



The operator double clicks on the service request list and a response dialog will prompt. Click the “Response” button to reply to the request.

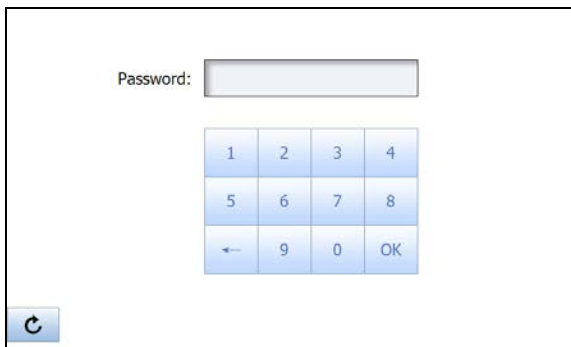


All service requests will be listed in the service response list in order.



2.Setup

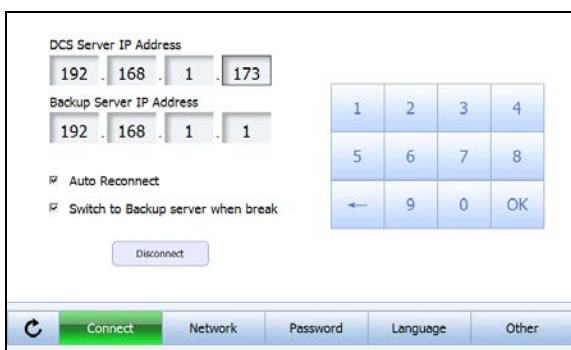
After connection of the power supply to the touch panel, press power button at the right side of the touch panel to start touch panel; press power button again to close touch panel. When touch panel on, hold pressing power button for 6 seconds, system setup interface will prompt. You should input password to enter system setup interface. The original password is "888888".



A. Connect

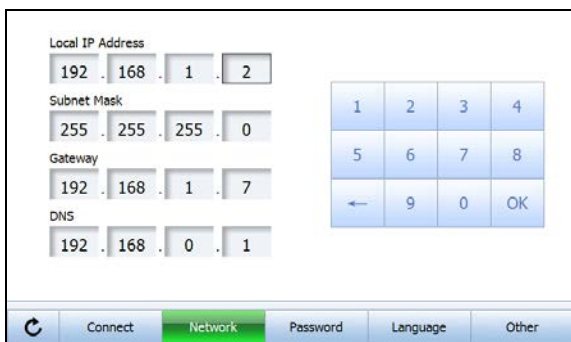
Setup DCS Server or Backup Server IP configuration. Also can select:

- ◆ Auto reconnect
- ◆ Switch to backup server when break



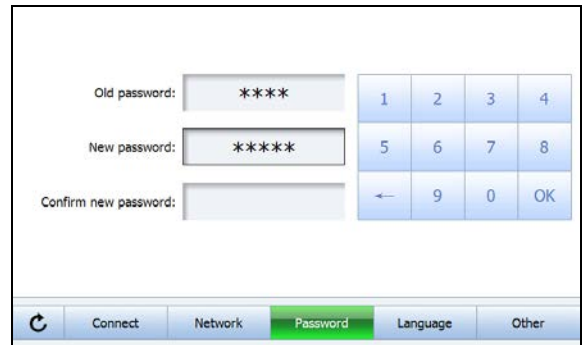
B. Network

Setup network configuration.



C. Password

Setup password.



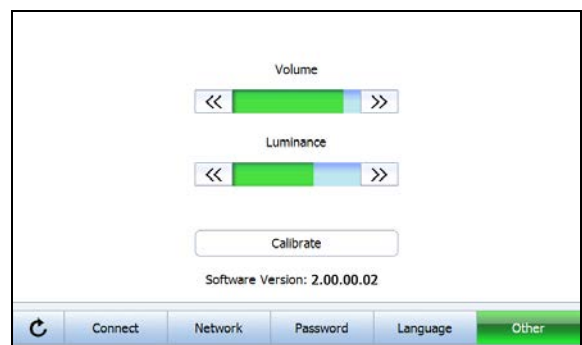
D. Language

Select the operation language.



E. Other

Setup loudspeaker volume, luminance and calibrate.



After a certain period of operation, the touch point on the touch screen may not be accurate, clicking on the "Calibration" will calibrate the touch screen.

After entering the calibration interface, please click the crossing cursor.



After calibration, click any position on the touch screen to save calibration and return; if no operation is executed, it will return automatically after 30 seconds.

6.11 HCS-8301 series digital audio mixer

The HCS-8301 Series Digital Audio Mixer for Conference cooperating with the HCS-8300MAU/FS or HCS-8300MAD/FS/50, the operator can adjust and monitor the audio of the microphones, the AES/line

inputs, the AES/line output and the simultaneous interpretation without a PC. The status of every channel can be displayed on the 10" LCD screen.

6.11.1 Functions and instructions

6.11.1.1 Front panel

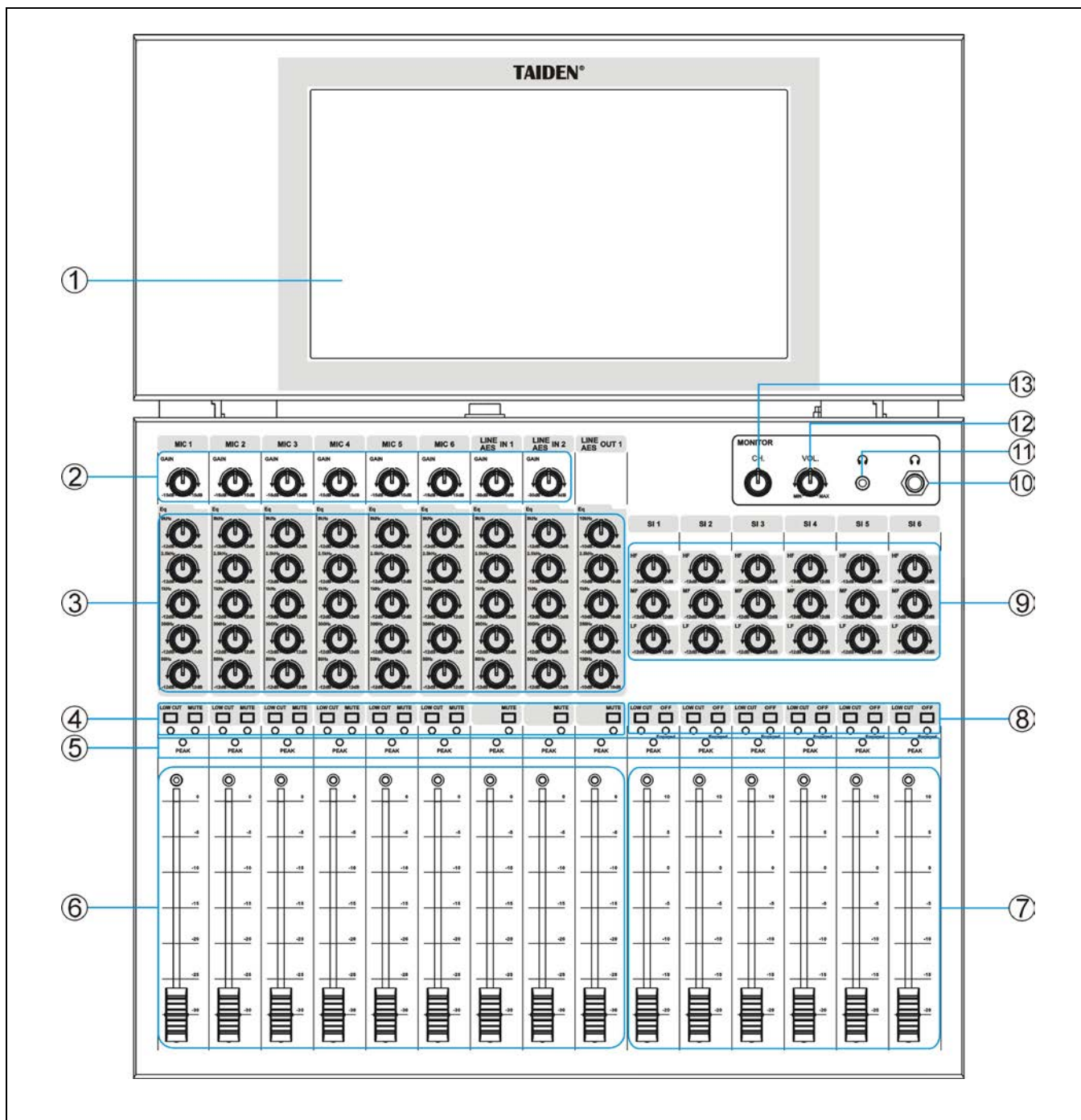


Figure 6.11.1 Front panel of the HCS-8301 Series Digital Audio Mixer for Conference

Figure 6.11.1:

1. LCD touch panel

- Displays current configuration, connection status of the HCS-8301 series digital audio mixer;
- Setup machine information (such as IP address) and display of SI channels.

2. Gain adjusting knob of active microphone 1...6, AES/LINE IN1 and AES/LINE IN2

- Gain range of active microphone: -15 dB ~ 15 dB;
- Gain range of LINE IN1 and LINE IN2: -30 dB ~ 0 dB;
- Gain adjustment for AES/Cobranet/Dante is unavailable.

3. 5-band equalizer adjusting knob of active microphone 1...6, AES/LINE IN1, AES/LINE IN2 and AES/LINE OUT1

4. LOW CUT button and MUTE button (with indicator)

- LOW CUT button of active microphone 1...6: cuts low frequency of corresponding channel;
- MUTE button of active microphone 1...6, AES/LINE IN1, AES/LINE IN2 and AES/LINE OUT1: mutes corresponding channel.

5. Peak LED

- When signal level approaches peak, LED lights up.

6. Fader of active microphone 1...6, AES/LINE IN1, AES/LINE IN2 and AES/LINE OUT1

- Fading range: -30 dB ~ 0 dB.

7. Fader of SI channel

- Fading range: -20 dB ~ 10 dB.

8. LOW CUT button and OFF button (with indicator) of SI channel

- LOW CUT: cuts low frequency of corresponding channel;
- OFF: if enabled (see 6.8.3), turns off corresponding channel.

9. Tri-band equalizer adjusting knob of SI channel

10. Monitor earphone jack (Ø 6.3 mm)

11. Monitor earphone jack (Ø 3.5 mm)

12. Monitor volume adjusting knob

13. Monitor channel adjusting knob

6.11.1.2 Rear panel

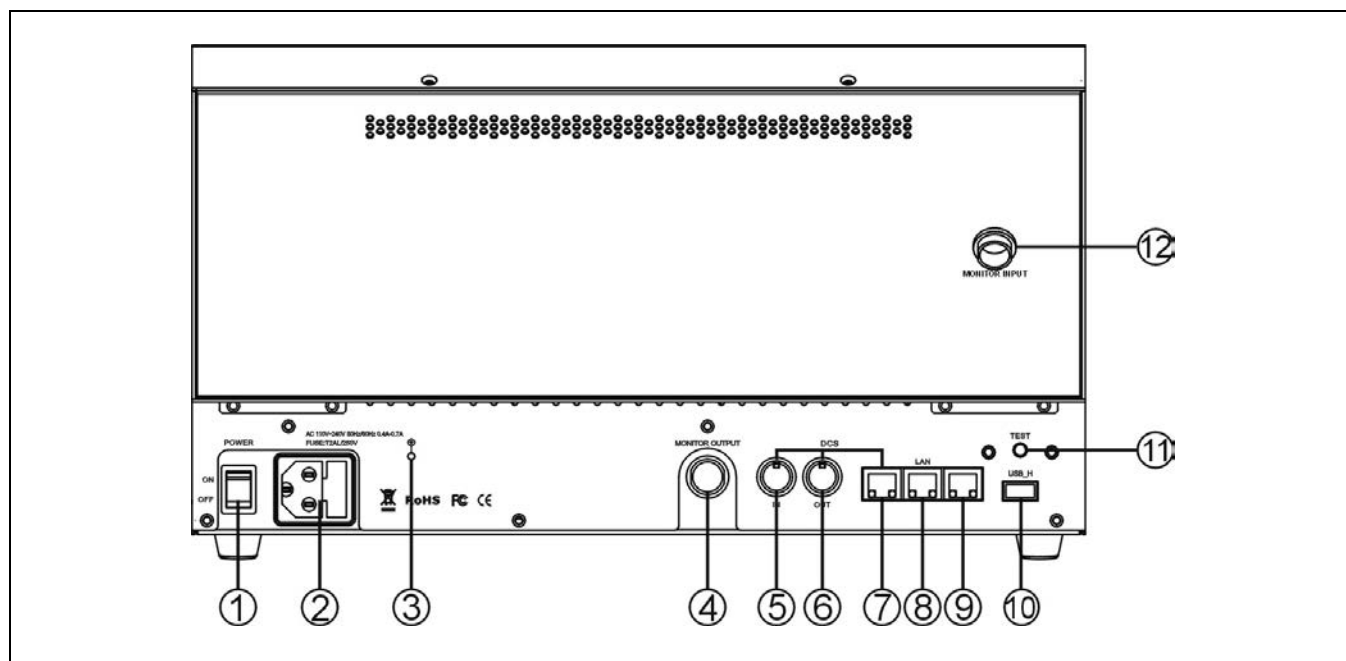


Figure 6.11.2 Rear panel of the HCS-8301 Series Digital Audio Mixer for Conference

Figure 6.11.2:

1. Power switch

2. Power input

3. Ground pole

4. MONITOR OUTPUT

- Connecting to MONITOR INPUT interface.

5. 6P-DIN EXTENSION IN

- Connecting to the HCS-8300M CMU.

6. 6P-DIN EXTENSION OUT

- Connecting congress unit, it has the same function as the “Contribution units output interface” at the rear panel of the HCS-8300M CMU.

7. RJ45 EXTENSION

- Connecting to the HCS-8300M CMU.

Note:

- When the HCS-8301 series digital audio mixer is connected to the HCS-8300M CMU, only one of the DCS interfaces can be used: either the ⑤6P-DIN EXTENSION IN interface or the ⑦RJ45 EXTENSION interface.

- The ⑤DIN EXTENSION OUT interface can be used only after the ⑤DIN EXTENSION IN interface connected to the HCS-8300M CMU.

8. Ethernet interface

9. CobraNet interface (HCS-8301M)

- Connecting to the “COBRANET” interface of the HCS-8300MAU/FS.

9. AES 1-8 interface (HCS-8301MD)

- Connecting to the “TO MIXER” interface of the HCS-8300MAD/FS/50.

1	AES IN1 (+)
2	AES IN1 (-)
3	AES IN2 (+)
4	GND
5	GND
6	AES IN2 (-)
7	NC
8	NC

10. A type USB interface

- Connecting to USB disk.

11. Test

12. MONITOR INPUT

- Connecting to MONITOR OUTPUT interface.

6.11.1.3 Side view

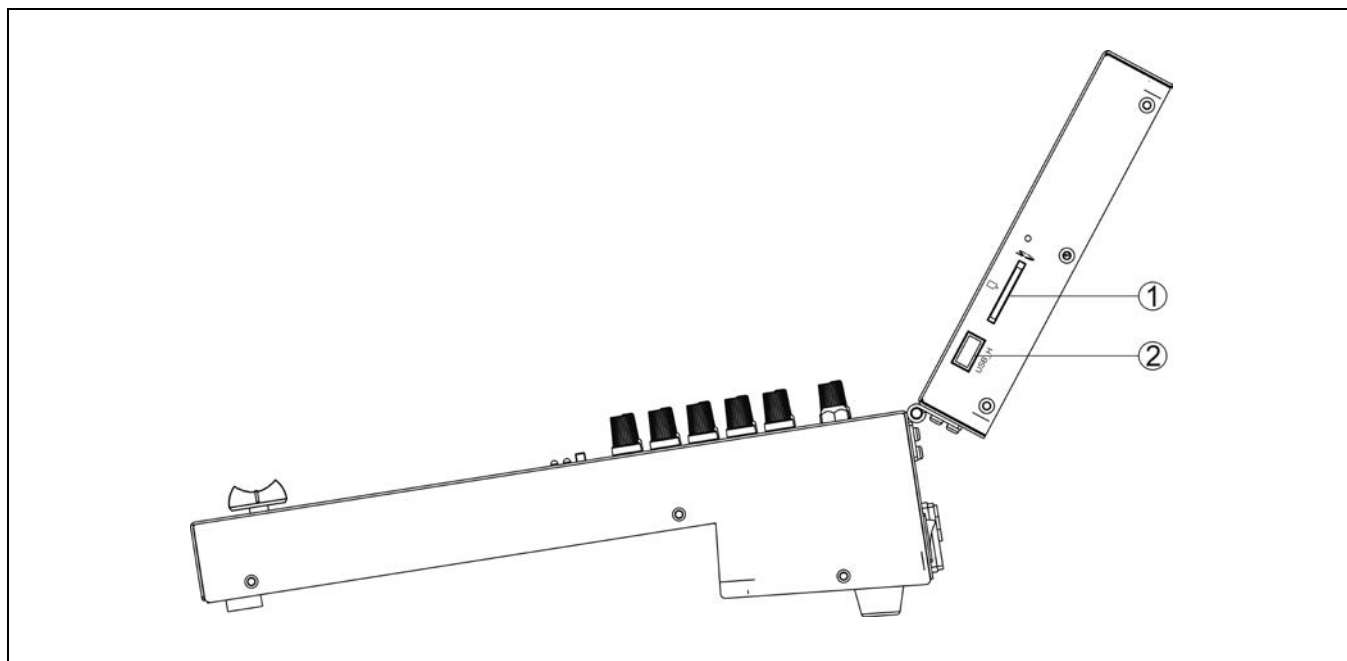


Figure 6.11.3 Side view of the HCS-8301 Series Digital Audio Mixer for Conference

Figure 6.11.3:

1. SD card socket

- For system upgrading

2. A type USB interface

- Reserved

6.11.2 Connection

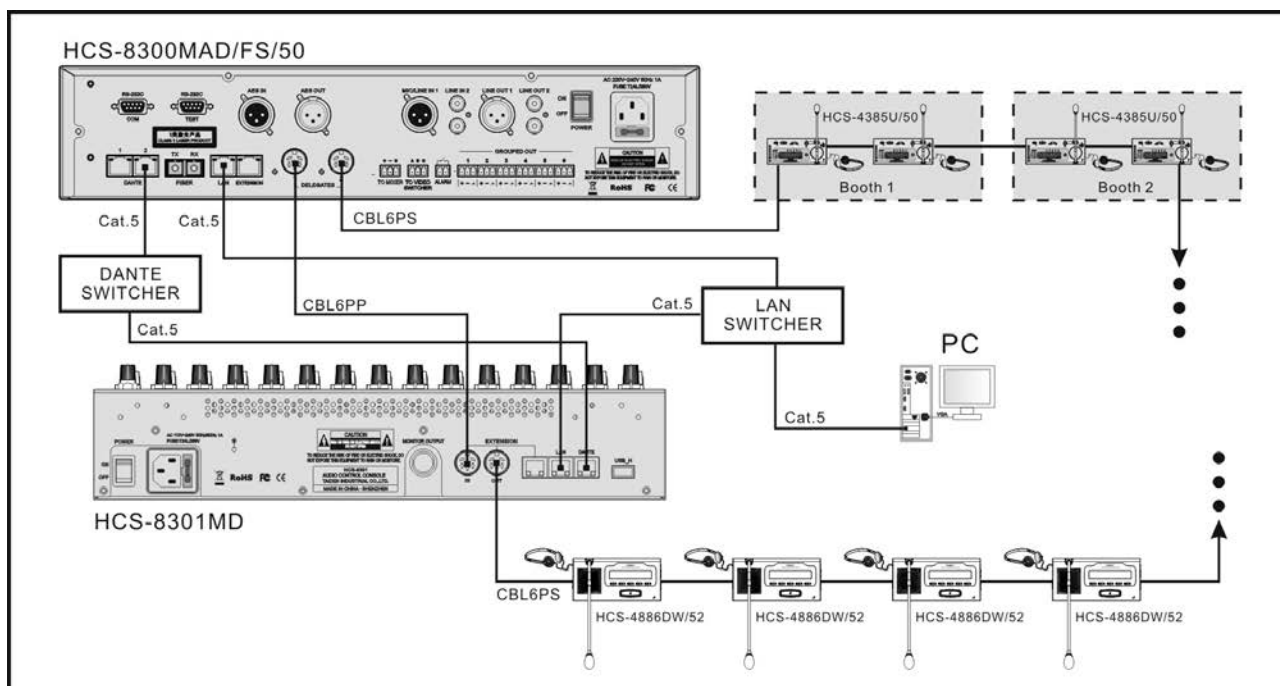


Figure 6.11.4 Connection between the HCS-8301MD and the HCS-8300MAD/FS/50

6.11.3 Configuration and operation

After installation, power on the HCS-8301 series digital audio mixer, initialization interface will show as in the following figure:



After initialization, it will display current status, as in the following figure:



The connection status of the mixer will be displayed at the lower right corner:

✗ stands for disconnected;

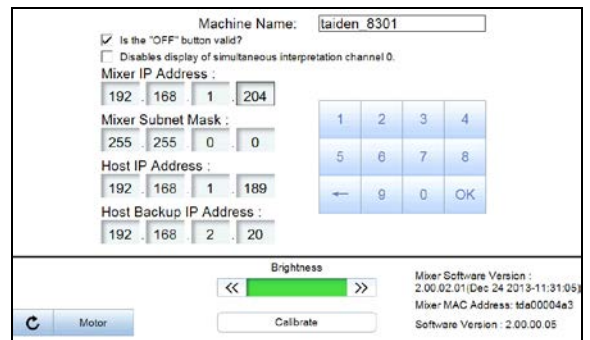
✓ stands for connected;

“M” stands for connected to main unit;

“S” stands for connected to backup main unit.

The current state of each channel corresponds to the configuration of the control panel; click the “Page Up” button or the “Page Down” button to browse the status of all SI channels.

Click the “Setting” button to enter configuration interface:



Machine Name

Input machine name through the virtual keyboard.

Enable/Disable “OFF” button

If enabled, pressing the “OFF” button will turn off corresponding channel.

Disables display of SI channel 0

If select this item, the information of simultaneous interpretation channel 0 (Floor channel) will not be displayed on the LCD screen.

Network

Mixer IP Address: IP address of the mixer;

Mixer Subnet Mask: subnet mask of the mixer;

Host IP Address: IP address of the main unit;

Host IP Backup Address: IP address of the backup main unit

- Click the parameter which you want to modify;
- Use numeric keypad buttons to setup;
- Use “←” to delete a digit;
- Use “OK” to save settings.

Brightness

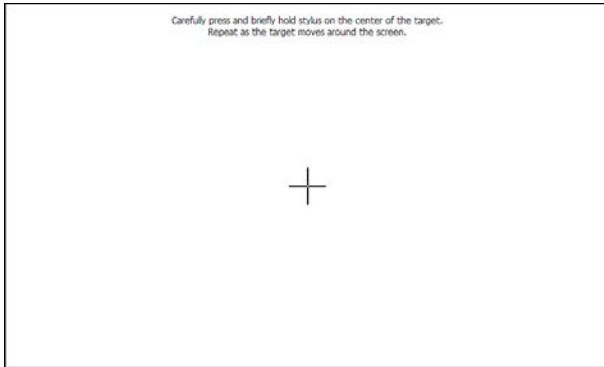
Adjust brightness by pressing the “>>” or the “<<” button.

Screen calibration

If the touch buttons do not react properly when pressed, the panel should be calibrated again.

Press the “Calibrate” button to enter the calibration window of the touch panel.

Please click the crosshairs to achieve calibration, repeat as the cursor moves around the screen.



After calibration, click any place of the touch screen to save current setting and return to configuration interface. If there is no operation within 30 seconds after calibration, it will return to configuration interface automatically.

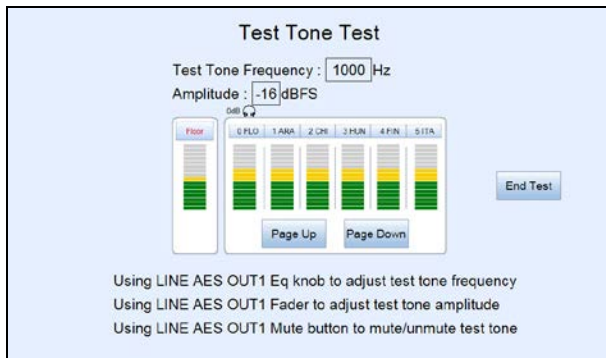
■ Motor speed

Adjust the motor speed by pressing the “<<” or the “>>” button. Press the “Auto Adjust” button to adjust the motor speed automatically.



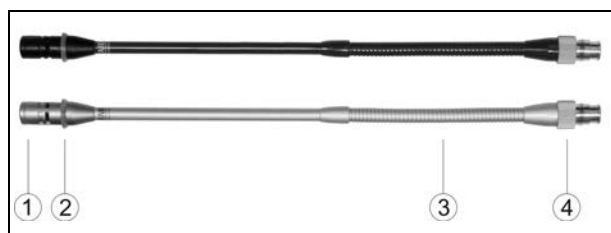
■ Test Tone Test

When test tone test is started by operator through DCS software, the following interface was activated. The test tone test can be controlled by HCS-8301 series digital audio mixer. Include test tone Frequency, Amplitude, Mute and End Test.



6.12 Microphone

● Removable stem microphone



Functions and instructions:

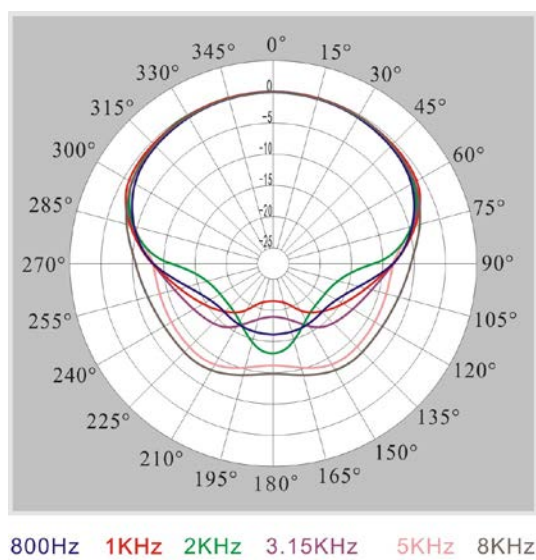
1. Electret condenser cardioid microphone
2. Two-color microphone on/off LED ring

Work state	Indicating light of LED ring
Microphone On	Red (on)
Speaking time limit	Red (on)
*First in request list	Green (flash)
*Not first in request list	Green (on)

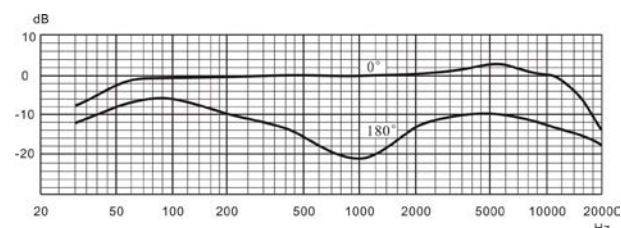
Note: *the status of microphone green LED ring is on, detailed for section [2.1.4.5](#)-item 38.

3. Metal stem with goose-neck to adjust angle and direction freely
4. Socket with screw thread. The stem microphone can be removed and collected during the adjournment

Direction:



Frequency:



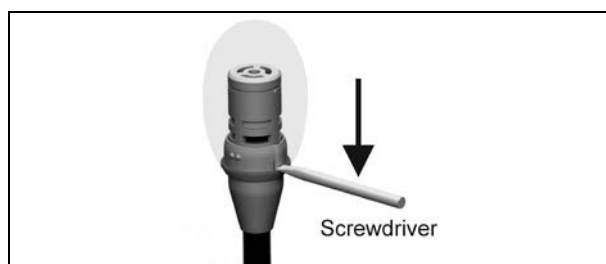
● M-style Foam Windshield (MSXXEMF series)



The pluggable stem microphone equipped with the M-style Foam Windshield is shown in the following figure:

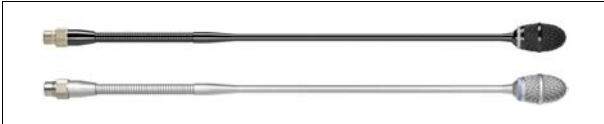


Detaching of the M-model windshield



- 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.

- **MSXXEGA series pluggable stem microphone**



- **HCS-1020 clip microphone**



6.13 Earphone

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

- EP-820AS Single earphone



- EP-829 Single earphone



- EP-829SW Single earphone



- EP-960AN Interpreter headset



- EP-960AH Interpreter headset



- EP-960BH Interpreter headphone (stereo)



- EP-960HD Detachable Earshells



- HCS-5100PA Headphone



- Sponge Ear Pads



- Other compatible types please refer to chapter eight.

6.14 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
- Detachable 6P-DIN Standard Plug
- Solderable 6P-DIN Standard Socket (insulating)
- CBL2SS-01 professional 2-pin cable
- CBL2SS-01CMP professional 2-pin cable
- CBL4PK-01 power adapter cable
- CBL4PK-01CMP power adapter cable
- CBL4PT-02 power branch cable
- CBL4PT-02CMP power branch cable
- CBL4PT-02ACMP power branch cable
- CBL4PS-CMP dedicated 4-pin extension cable
- Detachable 4P-DIN Standard Plug
- Solderable 4P-DIN Standard Socket (insulating)
- HVS-100P1 Graphic adaptor
- 9-cord RS-232 cable
- Cat.5 network cable
- Cat.5e/Cat.6 network cable
- HCS-4352T/50 6-cord cable divider
- MIC-SK-V stem microphone fixing base (tabletop)
- MIC-SK-H stem microphone fixing base (suspension)
- HCS-4345NF/50 Fingerprint Scanner
- HCS-8300MCLS Loop Switcher
- HCS-8300MCLS/F Loop Switcher
- HCS-8360FK/50 Contactless IC Card & Fingerprint Identification Module
- HCS-8360FK/FM/50 Contactless IC Card & Fingerprint Identification Module

1. CBL6PS dedicated 6-pin extension cable

CBL6PS-CMP dedicated 6-pin extension cable

- ①. Female connector
- ②. Male connector
- 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
- Length: 2 m



3. Detachable 6P-DIN Standard Plug

- For soldering to 6P-DIN cable
- Removable DIN standard male connector (6PIN)



4. Solderable 6P-DIN Standard Socket (insulating)

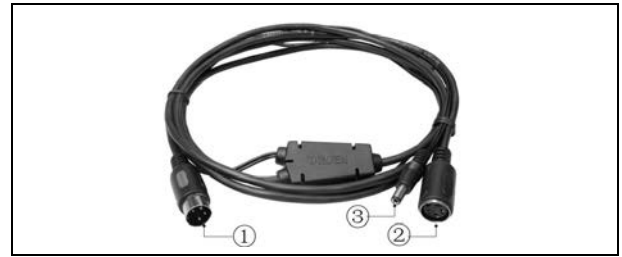
- For soldering to 6P-DIN cable
- Solderable 6P-DIN female socket with insulated isolation
- The circuit ground pin of the socket is isolated from the protective earth



5. CBL2SS-01 professional 2-pin cable

CBL2SS-01CMP professional 2-pin cable

- Connecting HCS-8300KMX with HCS-8300PM/ HCS-8300PM2
- Standard connectors (2P aviation socket at each end)
- Length: 1 m



6. CBL4PK-01 power adapter cable

CBL4PK-01CMP power adapter cable

- ①. 2P aviation socket (female)
- ②. 4P-DIN socket (female)
- Length: 1 m



9. CBL4PS dedicated 4-pin extension cable

CBL4PS-CMP dedicated 4-pin extension cable

- ①. Female connector
- ②. Male connector
- Length: 5 m, 10 m, 20 m, 30 m, 40 m and 50 m



10. Detachable 4P-DIN Standard Plug

- For soldering to 4P-DIN cable
- Removable DIN standard male connector (4PIN)



7. CBL4PT-02 power branch cable

CBL4PT-02CMP power branch cable

- ①. 4P-DIN plug (male)
- ②. 4P-DIN socket (female)
- ③. DC plug
- Length: 2 m



11. Solderable 4P-DIN Standard Socket

- For soldering to 4P-DIN cable
- Solderable 4P-DIN female socket with insulated isolation
- The circuit ground pin of the socket is isolated from the protective earth

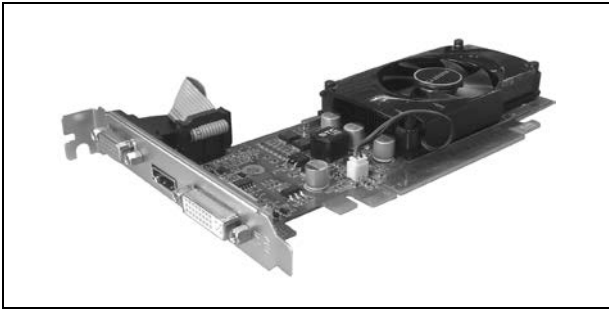


8. CBL4PT-02ACMP power branch cable

- ①. 4P-DIN plug (male)
- ②. 4P-DIN socket (female)
- ③. DC plug
- Length: 2 m

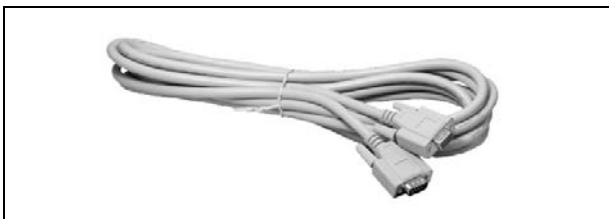
12. HVS-100P1 Graphic adaptor

- Supporting conference system display
- Installed inside the PC, 1G memory
- DVI connector and accompanied by a DVI-VGA adapter head



13. 9-pin RS-232 cable

- Connecting the CMU and the central control system main unit
- Male connector at one end and female connector at the other end
- Length: 3 m, 15 m



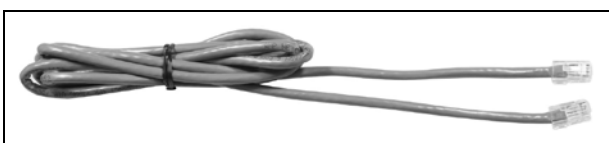
14. Cat.5 network cable

- Connecting the CMU and the PC
- Ethernet crossover cable with RJ45 connector at both ends
- Length: 3 m



15. Cat.5e/Cat.6 network cable

- Connecting the paperless multimedia congress terminal and the HCS-8300KMX or HCS-8300KMX2
- Ethernet crossover cable with RJ45 connector at both ends
- Length: 2 m



16. HCS-4352T/50 6-cord cable divider

- 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 80-meter long extension cable
- h × w × d: 35 × 149 × 90 mm



17. MIC-SK-V stem microphone fixing base (tabletop)

- Fix 5P E type stem microphone on the desk
- 6P mini DIN interface with a 1.0 meter cable

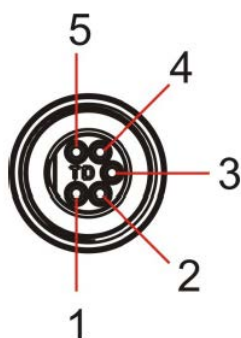


18. MIC-SK-H stem microphone fixing base (suspension)

- Suspension fix 5P E type stem microphone
- 6P mini DIN interface with a 1.0 meter cable



Connection of MIC-SK-V and MIC-SK-H



PIN	Signal
1	Microphone GND
2	Microphone signal +
3	Indicator ring common (anode)
4	Indicator ring, red (cathode)
5	Indicator ring, green (cathode)

19. 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 × w × d: 22 × 48 × 75 mm



20. 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

21. HCS-8360FK/50 Contactless IC Card & Fingerprint Identification Module



- Connecting to HCS-8368/50 series congress terminal via USB port to realize contactless IC Card sign-in and fingerprint sign-in
- Equipped with a 1-meter long USB cable to connect to the congress unit
- h × w × d: 66 × 84 × 121 mm

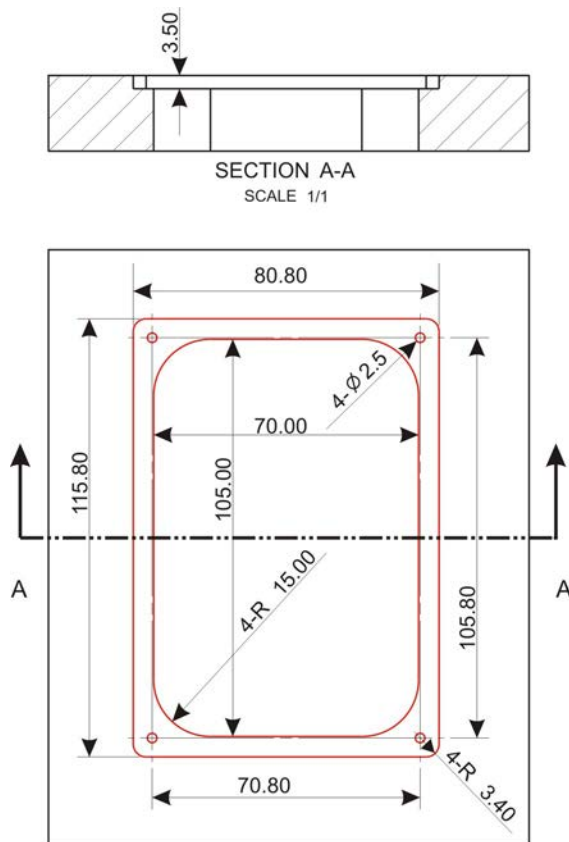
22. HCS-8360FK/FM/50 Contactless IC Card & Fingerprint Identification Module



- Connecting to HCS-8368/50 series congress terminal via USB port to realize contactless IC Card sign-in and fingerprint sign-in

- Equipped with a 1-meter long USB cable to connect to the congress unit
- $h \times w \times d$: 73 × 80 × 115 mm

Fixing hole positioning diagram:



Chapter 7 Working environment and maintenance

Suitable working environment and proper maintenance methods can effectively extend service life of the equipment. 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-8300 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 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 IEC 60914, 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 to EN 55022

EMC immunity: Compliant to EN 55024

EMC approvals: CE, FCC

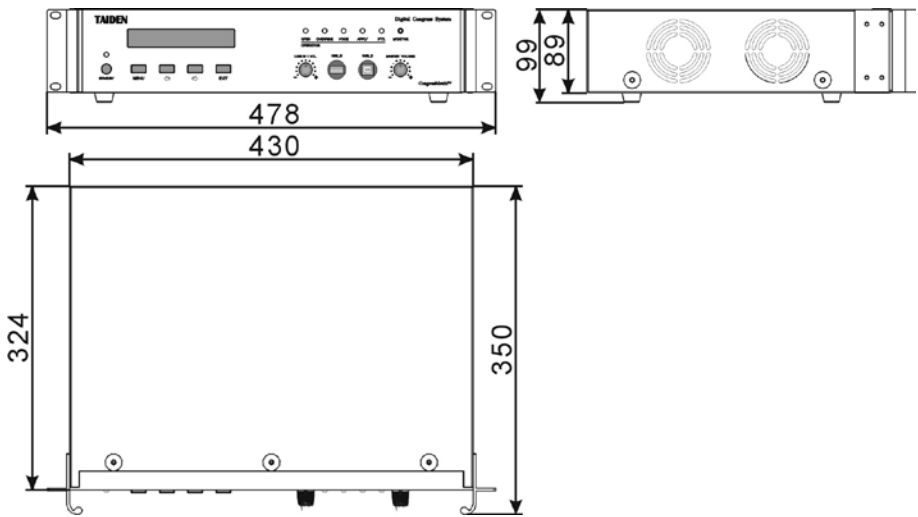
Power harmonic: Compliant to EN 61000-3-2

Voltage fluctuations and flicker: Compliant to EN 61000-3-3

8.2 Congress system main unit

8.2.1 Congress main unit

8.2.1.1 Physical characteristics

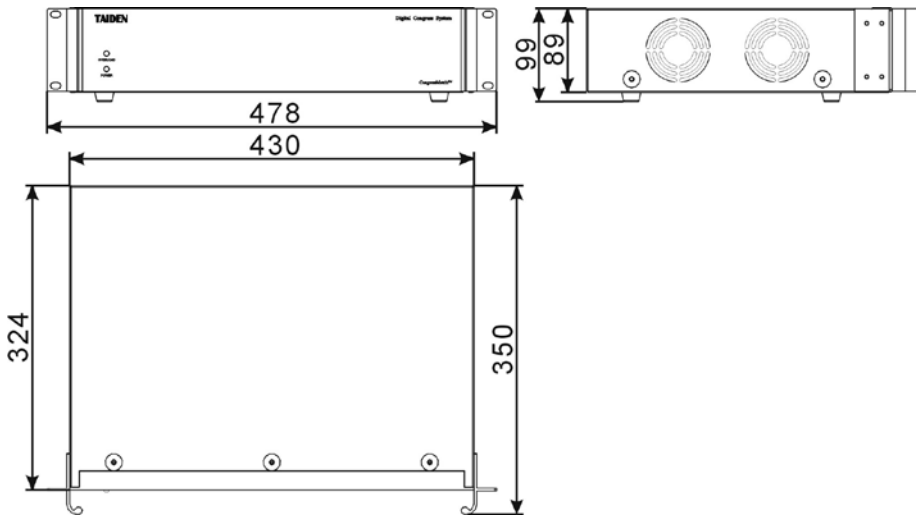
Types	HCS-8300MAU/FS	HCS-8300MAD/FS/50	HCS-8300MB(/50)
Installation	Tabletop / standard 19-inch rackmount		
Dimensions (mm)			
Color	White (PANTONE 420 C)		
Weight	7.8 kg		

8.2.1.2 Electrical characteristics

Types	HCS-8300MAU/FS	HCS-8300MAD/FS/50	HCS-8300MB(/50)
Microphone capacity	≤4096		
Channels	64 CHs		
Frequency response	30 - 20000 Hz		
SNR	>96 dBA		
Dynamic range	>94 dB		
Crosstalk	>85 dB		
Total harmonic distortion	<0.05%		
Mains power supply	America, Japan: AC 100 V - 120 V 60 Hz Europe, Asia: AC 220 V - 240 V AC 50 Hz		
Maximum Audio input	LINE IN 1: +10 dBu balanced Input impedance: >10 kΩ LINE IN 2: +10 dBu unbalanced Input impedance: >5 kΩ AES IN: XLR 1FFS		
Audio output	LINE OUT 1: +20 dBu balanced Output impedance: <100 Ω LINE OUT 2: +20 dBu unbalanced Output impedance: <100 Ω AES OUT: XLR 1FFS GROUP OUT 1-6: +20 dBu balanced		
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

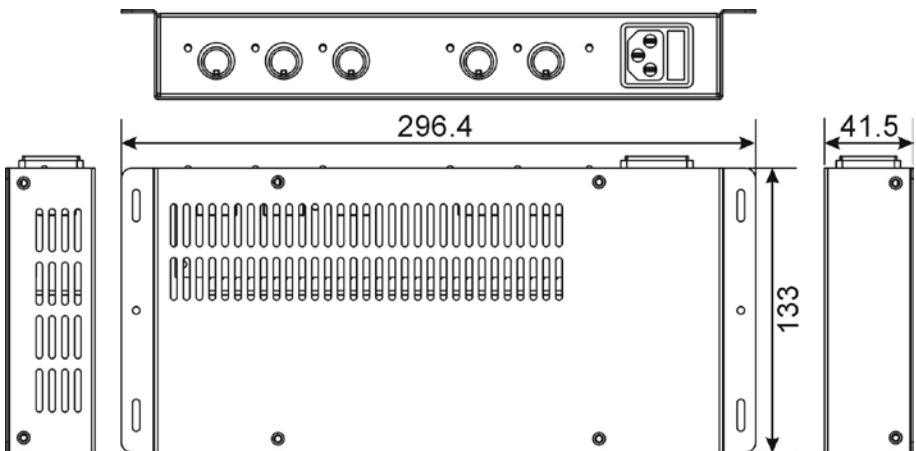
Types	HCS-8300ME(/FS)
Installation	Tabletop / standard 19-inch rackmount
Dimensions (mm)	
Color	White (PANTONE 420 C)
Weight	10.0 kg

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

8.2.3 Extension unit

8.2.3.1 Physical characteristics

Types	HCS-8300MES
Installation	Tabletop
Dimensions (mm)	
Color	Black (PANTONE 419 C)
Weight	1.5kg

8.2.3.2 Electrical characteristics

Types	HCS-8300MES
Mains power supply	AC 100 V - 240 V, 50 Hz / 60 Hz
Output load	>1 kΩ
Maximum power consumption	150 W
Connection	Dedicated cable (6-PIN)
Connector	DIN6P with buckle

8.3 Congress unit

8.3.1 HCS-8368/50 series congress terminal

8.3.1.1 Physical characteristics

Types	HCS-8368/50
Installation	Tabletop / Flush-mounted
HCS-8368B/50 Dimensions (mm)	Technical drawing of the HCS-8368B/50 unit. The front view shows a width of 371 mm and a height of 248 mm. The side view shows a depth of 210.7 mm. The angled view shows a base width of 124.3 mm.
HCS-8368A/50 Dimensions (mm)	Technical drawing of the HCS-8368A/50 unit. The front view shows a width of 371 mm and a height of 210.7 mm. The side view shows a depth of 124.3 mm.
HCS-8368A/FM/50 Dimensions (mm)	Technical drawing of the HCS-8368A/FM/50 unit. The front view shows a width of 375 mm and a height of 266 mm. The side view shows a depth of 112 mm. The bottom view shows a width of 19.5 mm and a height of 3 mm. The unit is shown mounted on a base with a height of 15 mm.

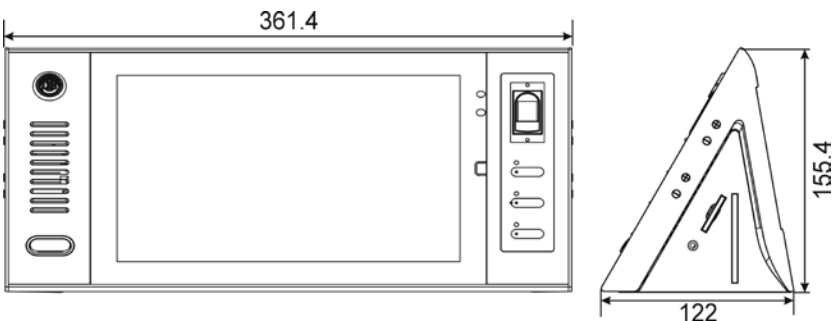
Types	HCS-8368/50
Color	Black (PANTONE 419 C) Gray (PANTONE 426 C)
Weight	Tabletop: 2.1 kg Flush-mounting: 2.6 kg

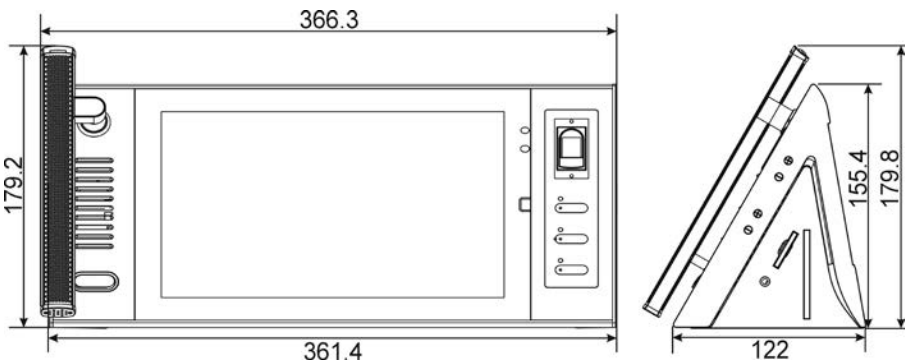
8.3.1.2 Electrical characteristics

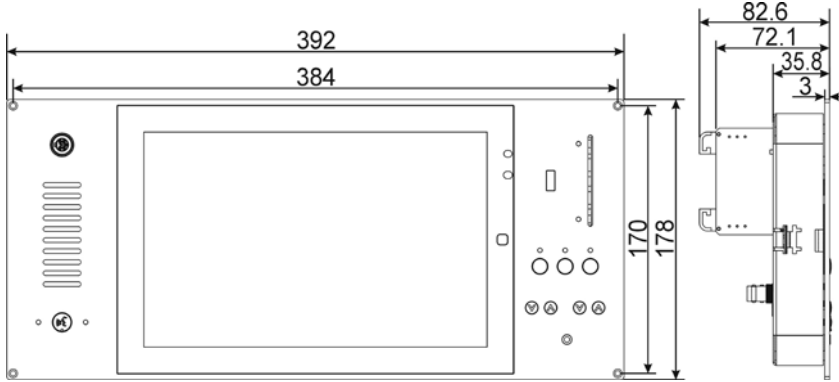
Types		HCS-8368/50
Output frequency response		30 - 20000 Hz
Earphone load		>16 Ω
Earphone volume		13 mW
Earphone output		Ø 3.5 mm stereo jack
Max. power consumption		14 W (tabletop) 17 W (flush-mounting)
Connection		Cat.5e/Cat.6 cable
LCD	Screen size	14" 16: 9
	Resolution	1920×1080
	Color	18 bit
	Contrast	700: 1
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 - 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.3.2 HCS-8338/8348 series congress terminal

8.3.2.1 Physical characteristics

Types	HCS-8338
Installation	Tabletop
Dimensions (mm)	 Front view dimensions: 361.4 mm (width), 122 mm (bottom width). Side view dimensions: 155.4 mm (height), 122 mm (depth).
Color	Silver-gray (PANTONE Cool Gray 7 C) panel + black (PANTONE 419 C) bottom case
Weight	2.8 kg (incl. stem microphone)

Types	HCS-8348
Installation	Tabletop
Dimensions (mm)	 Front view dimensions: 366.3 mm (width), 361.4 mm (bottom width), 179.2 mm (height). Side view dimensions: 155.4 mm (height), 179.8 mm (total height), 122 mm (depth).
Color	Silver-gray (PANTONE Cool Gray 7 C) panel + black (PANTONE 419 C) bottom case
Weight	2.8 kg

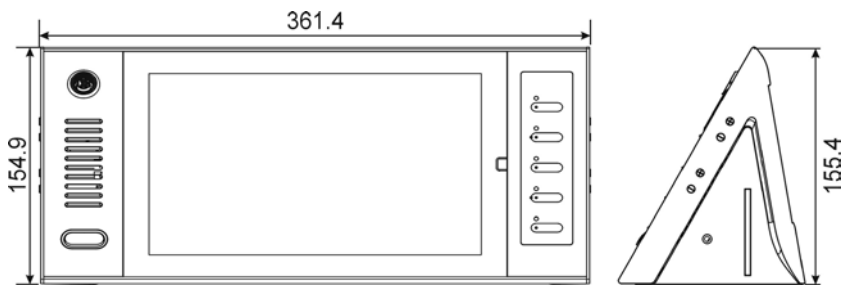
Types	HCS-8338/FM
Installation	Flush-mounted
Dimensions (mm)	 Front view dimensions: 392 mm (width), 384 mm (inner width), 170 mm (height), 178 mm (total height). Side view dimensions: 82.6 mm (depth), 72.1 mm (inner depth), 35.8 mm (height), 3 mm (gap).
Color	Black (PANTONE 419 C)
Weight	1.8 kg (incl. stem microphone)

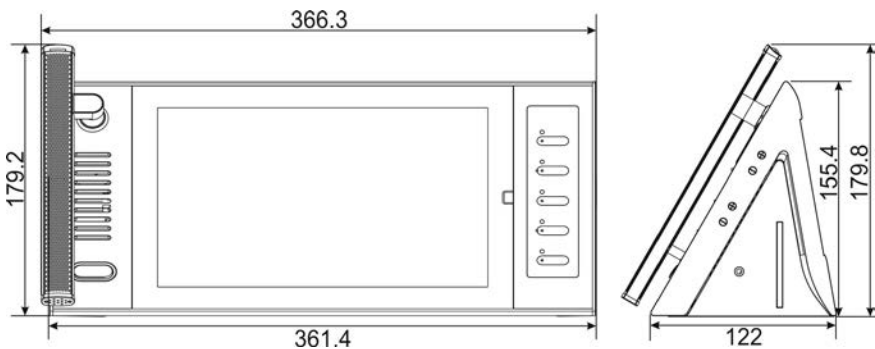
8.3.2.2 Electrical characteristics

Types		HCS-8338	HCS-8338/FM	HCS-8348
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		10 W		
Connection		Cat.5e/Cat.6 cable		
LCD	Screen size	10", 16:10		
	Resolution	1280×800		
	Color	2 ¹⁸ (18 bit)		
	Contrast	500:1		
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%)		
	Standard microphone stem	MS33EMF1S		Microphone array

8.3.3 HCS-8335 series congress unit

8.3.3.1 Physical characteristics

Types	HCS-8335(-NP)
Installation	Tabletop/Flush-mounted
Dimensions (mm)	
Color	silver (PANTONE 427 C) panel + black (PANTONE 419 C) base
Weight	2.8 kg

Types	HCS-8335A
Installation	Tabletop/Flush-mounted
Dimensions (mm)	
Color	silver (PANTONE 427 C) panel + black (PANTONE 419 C) base
Weight	2.8 kg

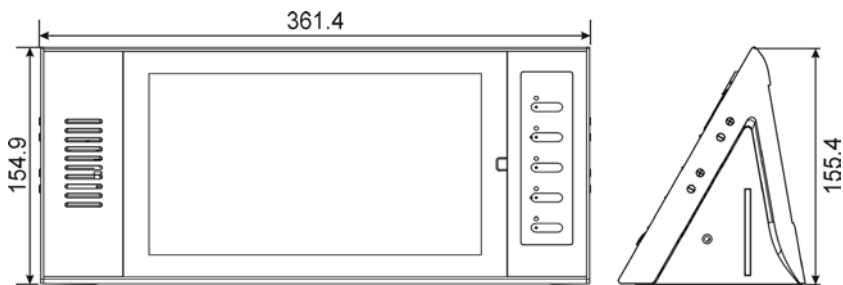
8.3.3.2 Electrical characteristics

Types	HCS-8335
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	8 W
Connection	6P-DIN dedicated cable with buckle
Video input	BNC×1 (75 Ω)
Video Output	BNC×1 (75 Ω)
Video Format	HD 720p: 25, 30, 50, 60; HD 1080i: 50, 60; HD 1080p: 24, 25, 30, 3G: 1080p 50, 60

LCD	Screen size	10", 16:10
	Resolution	1280×800
	Color	2 ¹⁸ (18 bit)
	Contrast	500:1
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 - 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)
	Standard microphone stem	MS33EMF1S

8.3.4 HCS-8336 SDI monitor

8.3.4.1 Physical characteristics

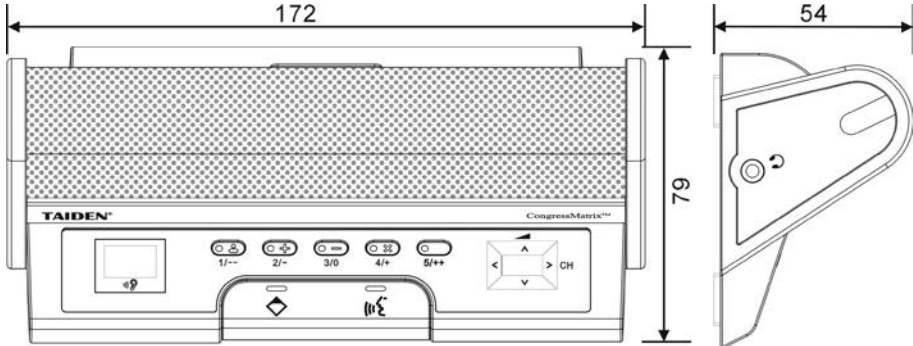
Types	HCS-8336
Installation	Tabletop/Flush-mounted
Dimensions (mm)	
Color	silver (PANTONE 427 C) panel + black (PANTONE 419 C) base
Weight	2.8 kg

8.3.4.2 Electrical characteristics

Types		HCS-8336
Max. power consumption		8 W
Connection		6P-DIN dedicated cable with buckle
Video input		BNC×1 (75 Ω)
Video Output		BNC×1 (75 Ω)
Video Format		HD 720p: 25, 30, 50, 60; HD 1080i: 50, 60; HD 1080p: 24, 25, 30, 3G: 1080p 50, 60
LCD	Screen size	10", 16:10
	Resolution	1280×800
	Color	2 ¹⁸ (18 bit)
	Contrast	500:1

8.3.5 HCS-8315 series congress unit

8.3.5.1 Physical characteristics

Types	HCS-8313/8314/8315
Installation	Tabletop
Dimensions (mm)	
Color	Dark gray (PANTONE 426 C)
Weight	0.45 kg

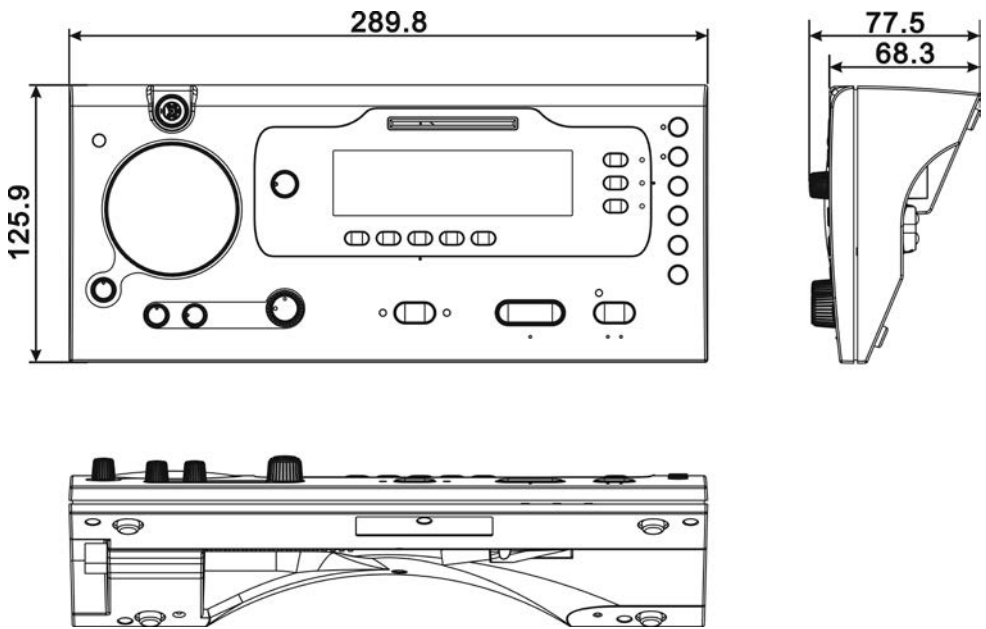
8.3.5.2 Electrical characteristics

Types		HCS-8313/8314/8315
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		1.3 W
Connection		6P- DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 - 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.4 Interpreter unit

8.4.1 HCS-4385U/50

8.4.1.1 Physical characteristics

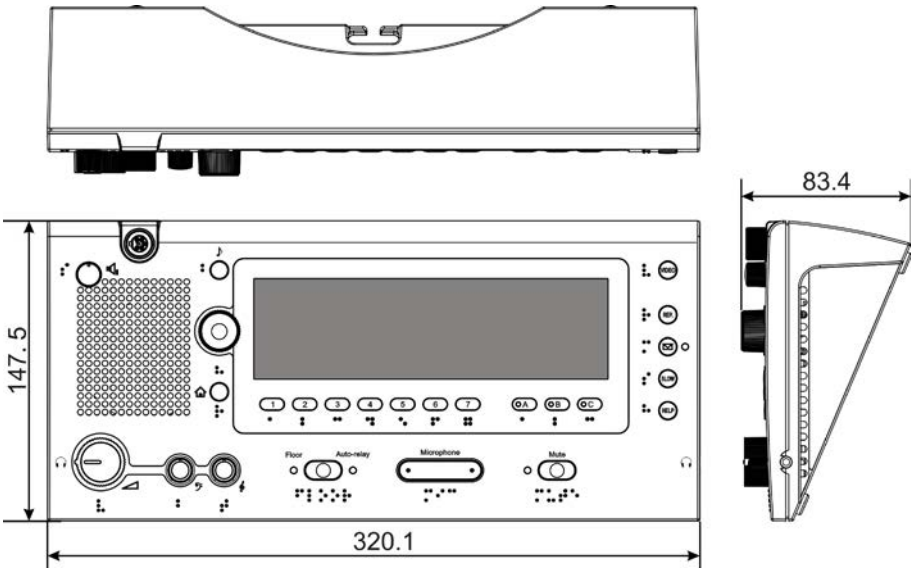
Type	HCS-4385U/50
Installation	Tabletop
Dimensions (mm)	 Technical drawing of the HCS-4385U/50 interpreter unit. The front view shows a width of 289.8 mm and a height of 125.9 mm. The side view shows a depth of 77.5 mm and a mounting bracket height of 68.3 mm. A perspective view shows the unit's profile.
Color	Champagne (PANTONE 401 C)
Weight	0.9 kg

8.4.1.2 Electrical characteristics

Type		HCS-4385U/50
Output frequency response		30 - 20000 Hz
Earphone load		>16 Ω
Earphone volume		10 mW
Earphone output		Ø 3.5 mm / Ø 6.4 mm stereo jack
Max. power consumption		2.8 W
Connection		6P-DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBV/Pa
	Frequency response	50 - 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.4.2 HCS-8385/80

8.4.2.1 Physical characteristics

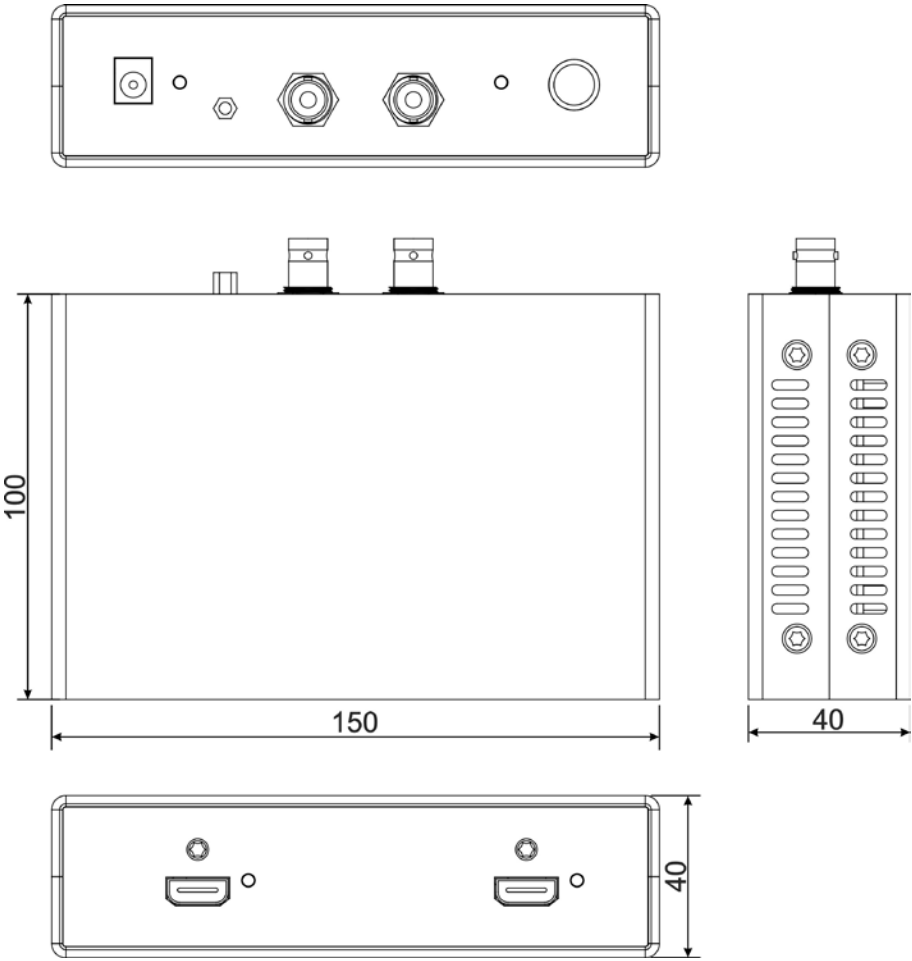
Type	HCS-8385/80
Installation	Tabletop
Dimensions (mm)	
Color	Champagne (PANTONE 401 C)
Weight	1.1 kg

8.4.2.2 Electrical characteristics

Output frequency response		HCS-8385/80
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		4.3 W
Connection		6P- DIN dedicated cable with buckle
Microphone	Type	Uni-directional electret condenser microphone
	Sensitivity	-46 dBA/Pa
	Frequency response	50 - 20000 Hz
	Input impedance	2 kΩ
	Directivity 0°/180°	> 20 dB (1 kHz)
	Equivalent noise	20 dBA (SPL)
	Maximum sound pressure level	125 dB (THD<3%)

8.4.3 HCS-8385HDMI

8.4.3.1 Physical characteristics

Type	HCS-8385HDMI
Installation	Tabletop
Dimensions (mm)	 The technical drawing illustrates the physical characteristics of the HCS-8385HDMI device. It includes three views: a front view showing the top panel with various connectors (SDI, BNC, and HDMI), a top view showing the device's footprint with dimensions 150 mm width and 100 mm height, and a side view showing the device's profile with a height of 40 mm and a width of 40 mm. The front view also shows the bottom panel with two HDMI ports.
Color	Gray (PANTONE 425 C)
Weight	0.4 kg

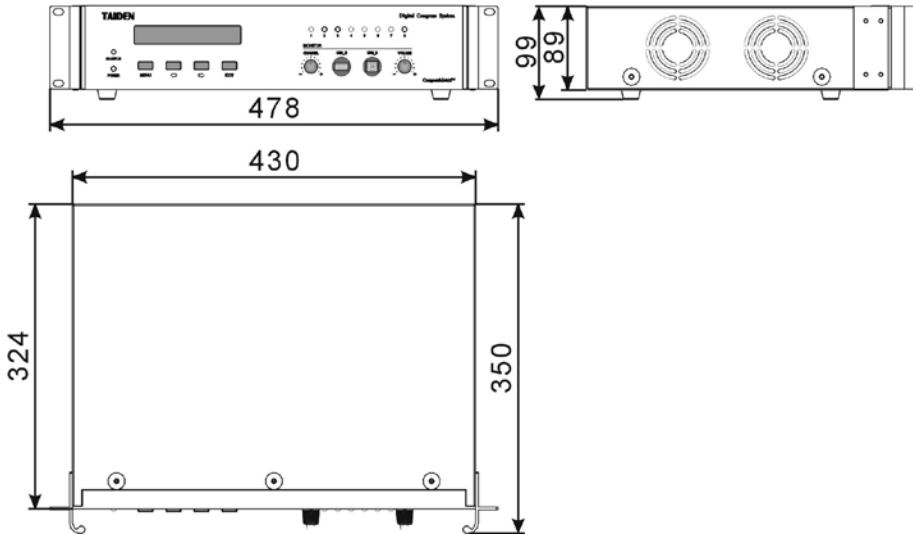
8.4.3.2 Electrical characteristics

Type		HCS-8385HDMI
Video input	Signal type	SDI
	Connector	BNC
	Resolutions	720p50, 720p60 1080i50, 1080i60 1080p25, 1080p30, 1080p50, 1080p60
Video output	Signal type	HDMI
	Connectors	2 × female HDMI type A connectorl
	Resolutions	Up to 1080p60
Power		DC 9 V-12 V or from HCS-8385/80

8.5 Peripheral equipment and accessories

8.5.1 HCS-8300MO series

8.5.1.1 Physical characteristics

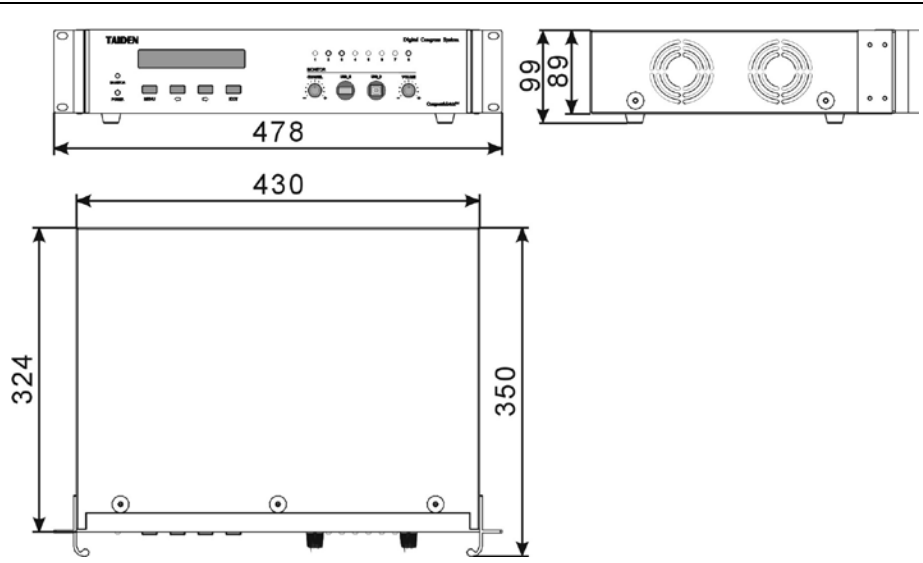
Type	HCS-8300MOD/FS(D)	HCS-8300MOD	HCS-8300MOA/FS(D)	HCS-8300MOA
Installation	Tabletop / standard 19-inch rackmount			
Dimensions (mm)				
Color	White (PANTONE 420 C)			
Weight	5.5 kg			

8.5.1.2 Electrical characteristics

Type		HCS-8300MOD/FS(D)	HCS-8300MOD	HCS-8300MOA/FS(D)	HCS-8300MOA
Channels		8 CHs			
Frequency response		30 - 20000 Hz			
SNR		>90 dBA			
Dynamic range		>85 dB			
Crosstalk		>90 dB			
Total harmonic distortion		<0.05%			
Power supply		100 V - 240 V AC, 50/60 Hz			
Audio output	Analog	RCA×8: +12 dBu 3-cord phoenix connector×8: +18 dBu			
	Digital	XLR×4: 1 FFS		-	
Output load		>1 kΩ			
Maximum power consumption		65 W			
Connection		Cat.5, Fiber, Dedicated cable (6-pin)	Cat.5, Dedicated cable (6-pin)	Cat.5, Fiber, Dedicated cable (6-pin)	Cat.5, Dedicated cable (6-pin)

8.5.2 HCS-8300MI series

8.5.2.1 Physical characteristics

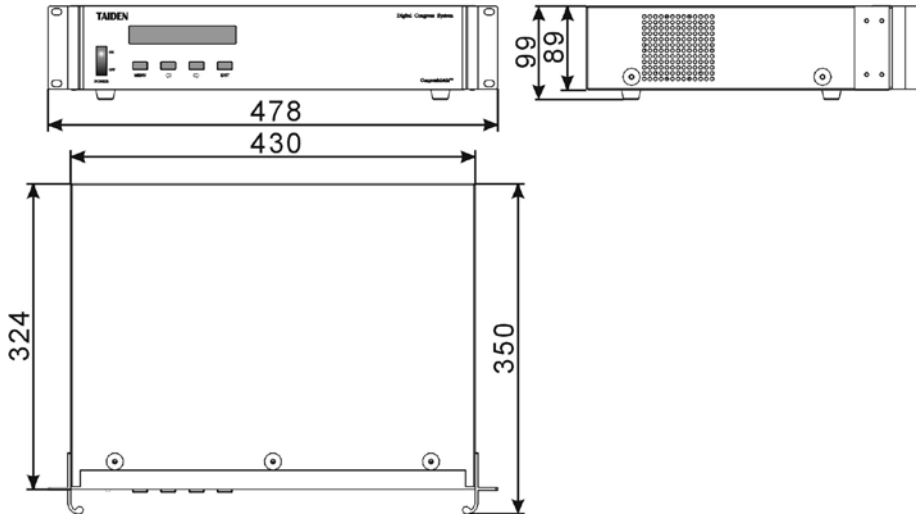
Type	HCS-8300MID/FS(D)	HCS-8300MID	HCS-8300MIA/FS(D)	HCS-8300MIA
Installation	Tabletop / standard 19-inch rackmount			
Dimensions (mm)				
Color	White (PANTONE 420 C)			
Weight	5.5 kg			

8.5.2.2 Electrical characteristics

Type		HCS-8300MID/FS(D)	HCS-8300MID	HCS-8300MIA/FS(D)	HCS-8300MIA
Channels		8 CHs			
Frequency response		30 - 20000 Hz			
SNR		>90 dBA			
Dynamic range		>85 dB			
Crosstalk		>90 dB			
Total harmonic distortion		<0.05%			
Power supply		100 V - 240 V AC, 50/60 Hz			
Audio input	Analog	RCA×8: +18 dBu 3-cord phoenix connector (line-in): +8 dBu 3-cord phoenix connector (microphone input): -12 dBu			
	Digital	XLR×4: 1 FFS		-	
Output load		>1 kΩ			
Maximum power consumption		65 W			
Connection		Cat.5, Fiber, Dedicated cable (6-pin)	Cat.5, Dedicated cable (6-pin)	Cat.5, Fiber, Dedicated cable (6-pin)	Cat.5, Dedicated cable (6-pin)

8.5.3 HCS-8300MX

8.5.3.1 Physical Characteristics

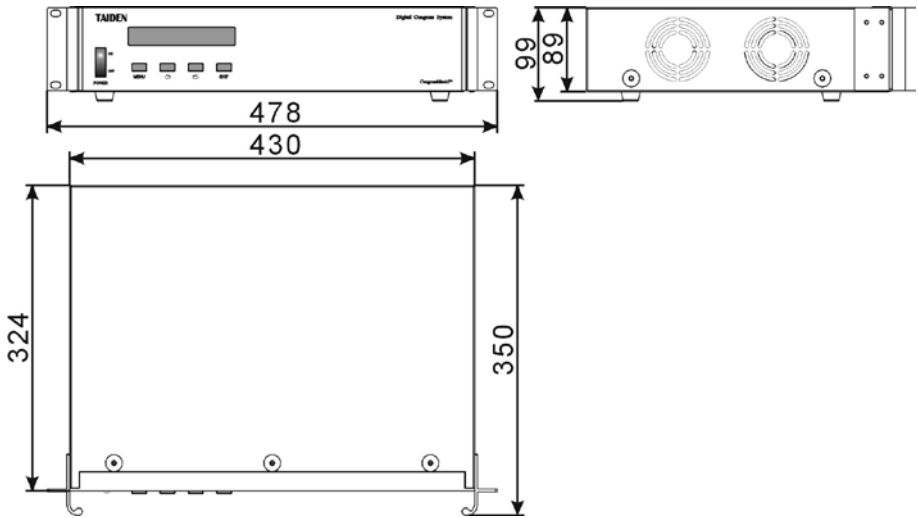
Type	HCS-8300MX
Installation	Tabletop / standard 19-inch rackmount
Dimensions (mm)	
Color	White (PANTONE 420 C)
Weight	5.2 kg

8.5.3.2 Electrical Characteristics

Type	HCS-8300MX
Mains power supply	100 V - 240 V AC, 50/60 Hz
Output load	>1 kΩ
Maximum power consumption	15 W
Connection	Cat.5
Connector	RJ45

8.5.4 HCS-8300MX/FS

8.5.4.1 Physical characteristics

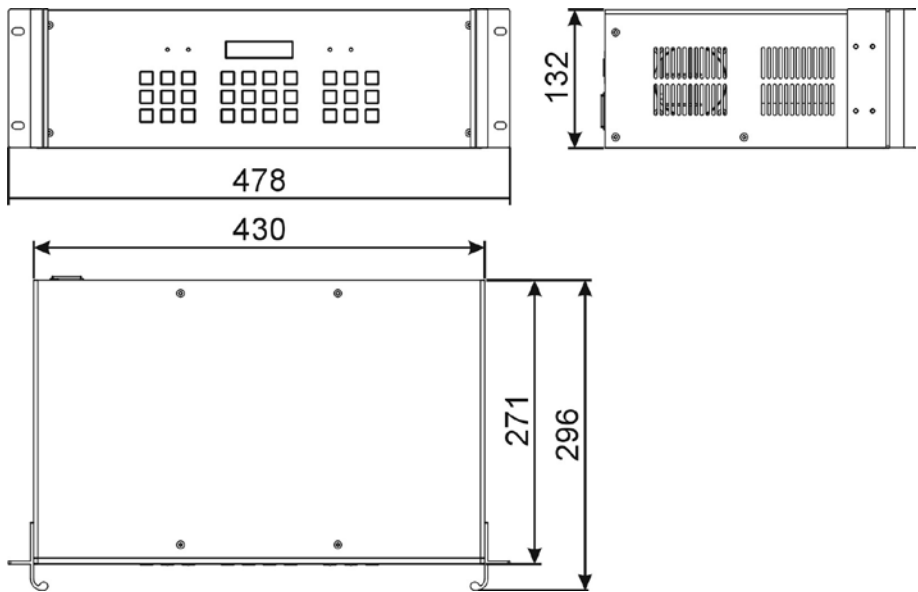
Type	HCS-8300MX/FS
Installation	Tabletop / standard 19-inch rackmount
Dimensions (mm)	
Color	White (PANTONE 420 C)
Weight	7.4 kg

8.5.4.2 Electrical characteristics

Type	HCS-8300MX/FS
Power supply	AC 100 V - 120 V 60 Hz or AC 220 V - 240 V AC 50 Hz
Maximum power consumption	200 W
Connection	Dedicated cable (6-pin) Fiber
Connector	DIN6P with buckle Fiber port

8.5.5 HCS-8302MX/FS

8.5.5.1 Physical characteristics

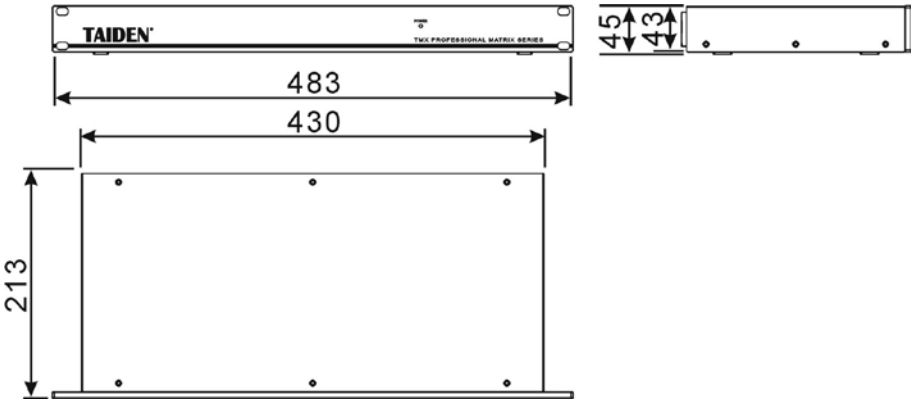
Type	HCS-8302MX/FS
Installation	Tabletop / standard 19-inch rackmount
Dimensions (mm)	
Color	Gray (PANTONE 425 C)
Weight	5.24 kg

8.5.5.2 Electrical characteristics

Type	HCS-8302MX/FS
Power supply	100 V - 240 V AC, 50/60 Hz
Maximum power consumption	125 W
Connection	Fiber
Connector	Fiber Port

8.5.6 HCS-8300KMx2

8.5.6.1 Physical Characteristics

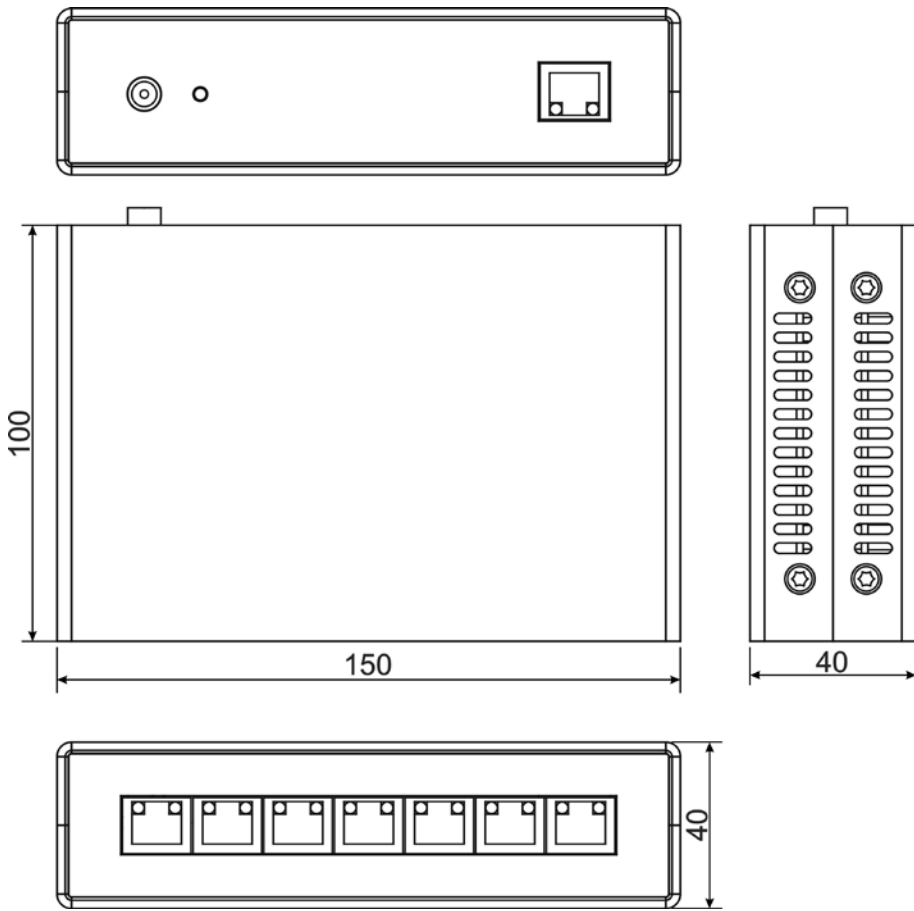
Type	HCS-8300KMx2
Installation	Tabletop / standard 19-inch rackmount
Dimensions (mm)	
Color	Gray (PANTONE 425 C)
Weight	3.6 kg

8.5.6.2 Electrical Characteristics

Type	HCS-8300KMx2
Mains power supply	100 - 240 V, 50/60 Hz
Power output	3 × 2P aviation plugs, supply power to HCS-8368/50 series Paperless Multimedia Congress Terminals
	RJ45 ports, support PoE
Maximum power consumption	350 W
Output connection	Cat.5e /Cat.6
Output connector	RJ45

8.5.6 HCS-8368T

8.5.6.1 Physical Characteristics

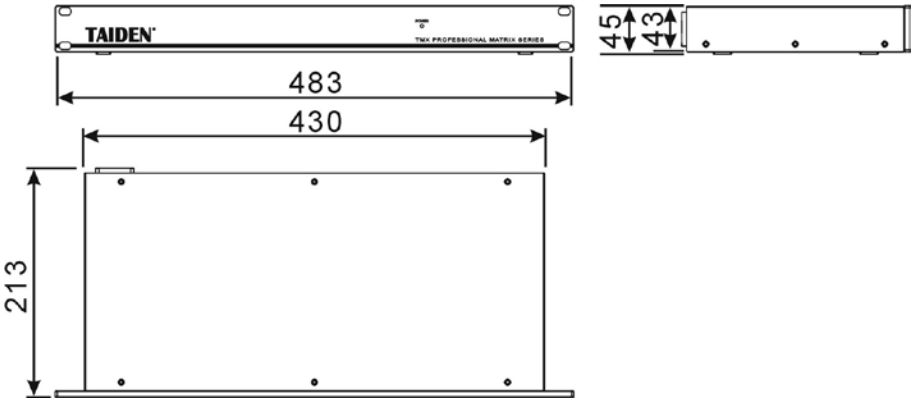
Type	HCS-8368T
Installation	Tabletop
Dimensions (mm)	 Technical drawing of the HCS-8368T device showing dimensions and views: - Top view: Shows power jack, power button, and power switch. - Front view: Shows a 150mm wide device with a 100mm high front panel. - Side view: Shows a 40mm wide device with two rows of RJ45 ports. - Bottom view: Shows a 40mm high device with seven RJ45 ports.
Color	Gray (PANTONE 425 C)
Weight	0.4 kg

8.5.6.2 Electrical Characteristics

Type	HCS-8368T
Mains power supply	48 V DC
Maximum power consumption	90 W
Output connection	Cat.5e /Cat.6
Output connector	RJ45

8.5.6 HCS-8300KMX

8.5.6.1 Physical Characteristics

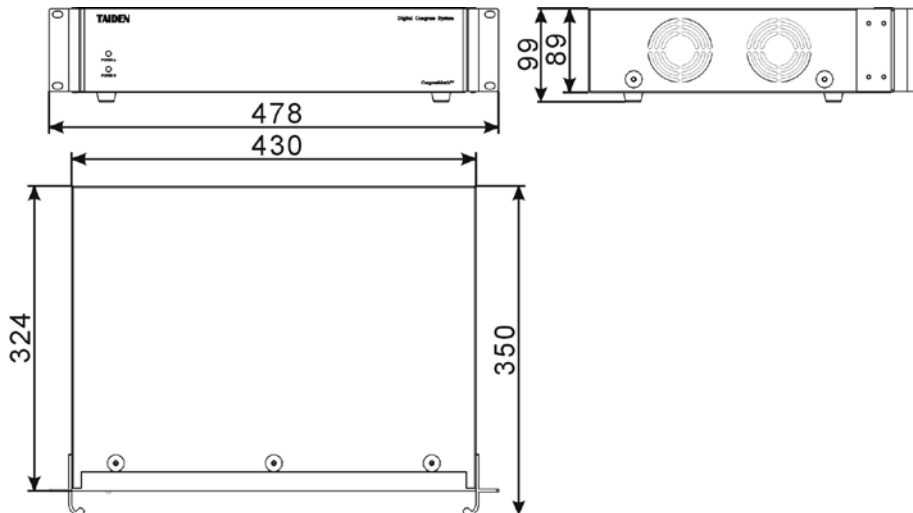
Type	HCS-8300KMX
Installation	Tabletop / standard 19-inch rackmount
Dimensions (mm)	 Technical drawing of the HCS-8300KMX device. The main unit is shown with dimensions: width 483 mm, height 213 mm, and a smaller width of 430 mm. A smaller component is shown to the right with dimensions: width 45 mm, height 3 mm, and a smaller width of 4 mm. The brand name 'TAIDEN' is visible on the top left of the main unit.
Color	Gray (PANTONE 425 C)
Weight	2.3 kg

8.5.6.2 Electrical Characteristics

Type	HCS-8300KMX
Mains power supply	24 V - 33 V DC
Power input interface	2 × 2P aviation plugs for power supply from the Power Supply Unit HCS-8300 PM / PM2
	1 × 6P-DIN interface for power supply from the congress main unit
Output load	>1 kΩ
Maximum power consumption	10 W
Output connection	Cat.5e /Cat.6
Output connector	RJ45

8.5.7 HCS-8300PM/PM2

8.5.7.1 Physical Characteristics

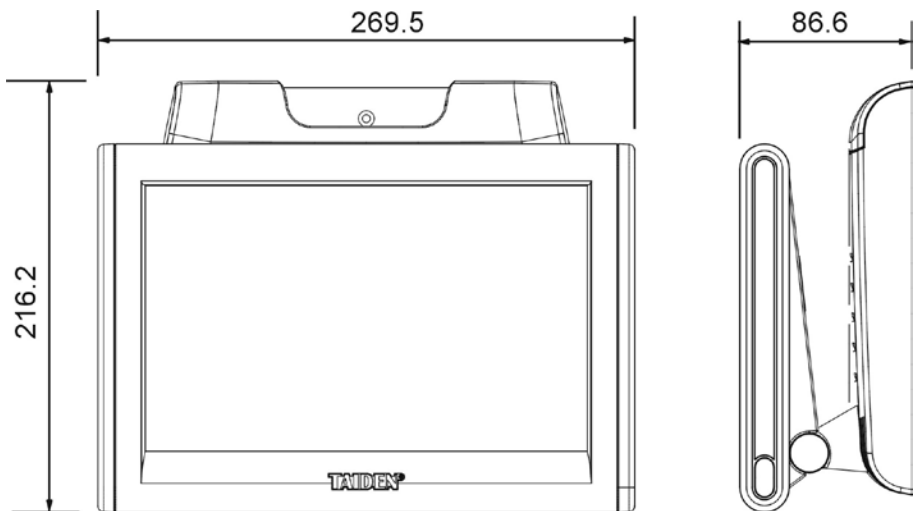
Type	HCS-8300PM	HCS-8300PM2 (dual backup)
Installation	Tabletop / standard 19-inch rackmount	
Dimensions (mm)		
Color	White (PANTONE 420 C)	
Weight	10.3 kg	14.2 kg

8.5.7.2 Electrical Characteristics

Type	HCS-8300PM	HCS-8300PM2
Mains power supply	America, Japan: AC 100 V - 120 V 60 Hz Europe, Asia: AC 220 V - 240 V AC 50 Hz	
Maximum power consumption	430 W	
Power output	4×2P aviation plug	
Power control interface	4×6P-DIN socket	

8.5.8 HCS-8319

8.5.8.1 Physical Characteristics

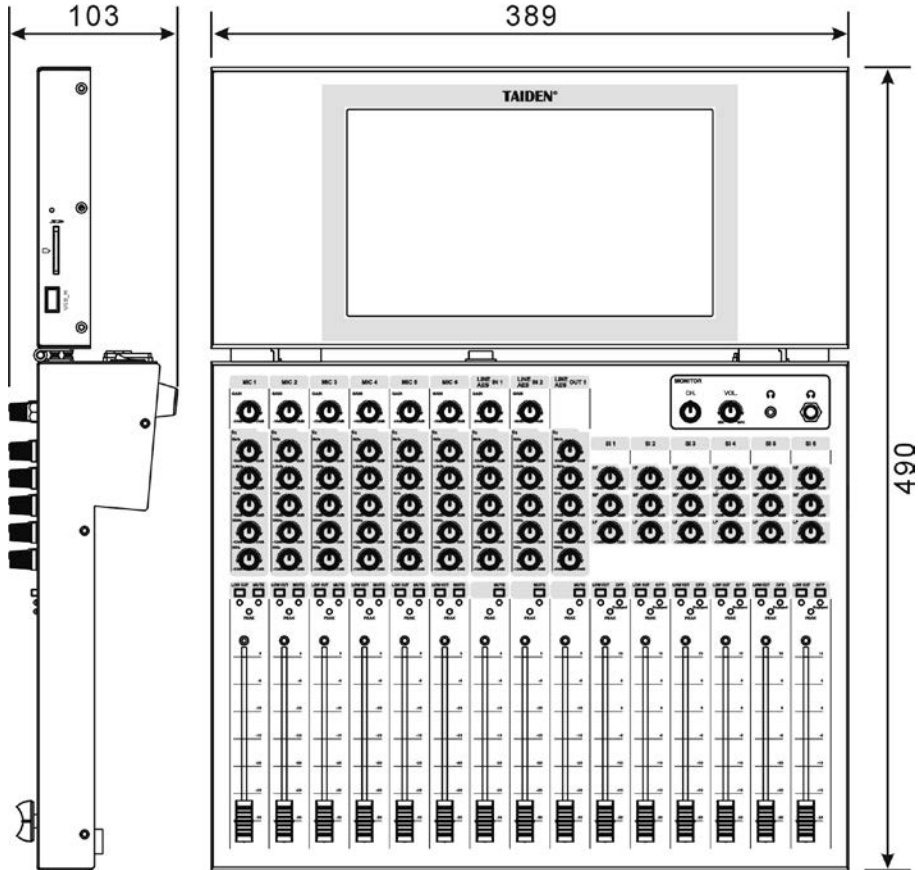
Type	HCS-8319
Installation	Tabletop
Dimensions (mm)	
Color	Gray (PANTONE Cool Gray 11 C)
Weight	2.3 Kg

8.5.8.2 Electrical Characteristics

Type		HCS-8319
LCD	Type	True color TFT LCD
	Dimension	10.2 inches
	Aspect Ratio	16:9
	Resolution	800×480
	Brightness	400 cd/m ²
	Contrast	400
	Dot pitch	0.2775×0.2775 mm
	Color	2 ¹⁸ (18 bit)
Power		15 V DC (HCS-ADP15V adapter)
Current		Normal working current: approx. 800 mA Standby current: 100 mA - 120 mA Power-off current: 1 mA - 1.5 mA
Memory		64 MB SDRAM, 64 MB Flash

8.5.9 HCS-8301

8.5.9.1 Physical characteristics

Type	HCS-8301M HCS-8301MD
Installation	Tabletop
Dimensions (mm)	
Color	Dark blue (PANTONE 533 C)
Weight	7.0 Kg

8.5.9.2 Electrical characteristics

Type		HCS-8301M HCS-8301MD
LCD	Type	True color TFT LCD
	Dimension	10.2 inches
	Aspect Ratio	16:9
	Resolution	800×480
	Brightness	400 cd/m ²
	Contrast	400
	Dot pitch	0.2775×0.2775 mm
	Color	2 ¹⁸ (18 bit)
Power supply		100 V - 240 V AC, 50/60 Hz
Maximum power consumption		65 W

8.5.10 Microphone

8.5.10.1.1 Physical Characteristics

Types	MS24EMF1G/S	MS33EMF1G/S/B	MS41EMF1G/S/B	MS47EMF1G/S/B
Installation	Insert microphone and tighten			
Length	240 mm	330 mm	410 mm	470 mm
Color	Silver (PANTONE 428 C) / Gray (PANTONE Cool Gray 11 C) / Black (PANTONE 419 C)			
Weight	75 g	85 g	95 g	105 g

Types	MS27EGA1S/B	MS33EGA1S/B	MS41EGA1S/B	MS47EGA1S/B
Installation	Insert microphone and tighten			
Length	270 mm	330 mm	410 mm	470 mm
Color	Silver (PANTONE 428 C) / Black (PANTONE 419 C)			
Weight	84 g	88 g	95 g	100 g

8.5.10.2 Electrical Characteristics

Types	MS24EMF1G/S, MS24/33/41/47EMF1G/S/B MS27/33/41/47EGA1S/B HCS-1020
Microphone type	Uni-directional electret condenser microphone
Sensitivity	-46 dBA/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%)

8.5.11 Earphone

■ 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: 20 g

■ EP-829 single earphone

- Used with the receiver or a conference unit
- Excellent sound quality
- 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: 35 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: 35 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, $\varnothing$ 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 dBV/Pa
- Impedance of microphone: <680 Ohm
- Weight: 95 g

■ EP-960AH interpreter headset

- Incorporated with interpreter unit HCS-4385U/50 for monitoring and speaking
- 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, $\varnothing$ 3.5 mm stereo plug (TRS) for headphone
- $\varnothing$ 3.5 mm stereo plug (TRS, Ring: NC) for microphone
- 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 dBV/Pa
- Impedance of microphone: <680 Ohm
- Weight: 109 g

■ EP-960BH interpreter headset

- 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, $\varnothing$ 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: 90 g

■ **EP-960HD Detachable Earshells**

- Used for 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 $\Omega \times 2$, $\varnothing$ 3.5 mm stereo jack
- Frequency response: 20 Hz - 20 kHz
- Sensitivity: ≥ 108 dBA/1 mW
- Weight: 70 g

■ **Sponge Ear Pads**

- Used for headphone
- 50 pairs per package
- Color: black

8.5.12 Accessories

- **CBL6PS 6-pin dedicated extension cable**
CBL6PS-CMP 6-pin dedicated extension cable
 - For extending the connection between congress system main unit and congress unit
 - One male plug at one end and one female socket at the opposite end
 - Length: 1 m (only for CBL6PS), 3 m, 5 m, 10 m, 20 m, 30 m, 40 m and 50 m
- **CBL6PP-02 dedicated 6-pin extension cable**
CBL6PP-02CMP dedicated 6-pin extension cable
 - Connecting conference main units
 - Male connector at both ends
 - Length: 2 m
- **Detachable 6P-DIN Standard Plug**
 - For soldering to 6P-DIN cable
 - Removable DIN standard male connector (6PIN)
- **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
- **CBL2SS-01 professional 2-pin cable**
CBL2SS-01CMP professional 2-pin cable
 - Connecting HCS-8300KMX with HCS-8300PM/ HCS-8300PM2
 - Standard connectors (2P aviation socket at each end)
 - Length: 1 m
- **CBL4PK-01 power adapter cable**
CBL4PK-01CMP power adapter cable
 - For HCS-8300PM/PM2 or HCS-8300KMX(2) - supplies power to Paperless Multimedia Congress Terminal
 - Standard connectors (a 2P aviation socket and a 4P-DIN socket at each end)
 - Length: 1 m
- **CBL4PT-02 power branch cable**
CBL4PT-02CMP power branch cable
 - Power branch cable for “daisy-chain” supplying power to HCS-8338 and HCS-8348 series Paperless Multimedia Congress Terminal
 - Input end: 4P-DIN plug
 - Output end: 4P-DIN socket and a DC plug
 - Length: 2 m
- **CBL4PT-02ACMP power branch cable**
 - Power branch cable for “daisy-chain” supplying power to HCS-8368/50 series Paperless Multimedia Congress Terminal
 - Input end: 4P-DIN plug
 - Output end: 4P-DIN socket and a DC plug
 - Length: 2 m
- **CBL4PS-CMP 4-pin extension cable**
 - Extension cable for connecting Paperless Multimedia Congress Terminal
 - Standard connectors (a plug and a socket at each end)
 - Length: 5 m, 10 m, 20 m, 30 m, 40 m and 50 m
- **Detachable 4P-DIN Standard Plug**
 - For soldering to 4P-DIN cable
 - Removable DIN standard male connector (4PIN)
- **Solderable 4P-DIN Standard Socket**
 - For soldering to 4P-DIN cable
 - Solderable 4P-DIN female socket with insulated isolation
 - The circuit ground pin of the socket is isolated from the protective earth
- **HVS-100P1 video display card**
 - Cooperates with voting display system
 - Embedded assembly, jack-type, 1G memory

■ 9-pin RS-232 cable

- For connecting the congress system main unit and the central control system main unit
- One male connector and one female connector
- Length: 3 m, 15 m

■ Cat.5 cable

- For connecting the PC and the congress system main unit
- RJ45 crossing-line cable
- Length: 3 m

■ Cat5e/Cat.6 cable

- Connecting the paperless multimedia congress terminal and the HCS-8300KMX or HCS-8300KMX2
- Ethernet crossover cable with RJ45 connector at both ends
- Length: 2 m

■ HCS-4352T/50 6PIN cable distribution unit

- With relay function, for signal regeneration
- 6P-DIN interface with 1 input and 3 outputs
- Input: 2-meter long 6P-DIN male plug
- Output: 6P-DIN output, can drive 70-meter extension cable
- $h \times w \times d$: 35 × 149 × 90 mm

■ MIC-SK-V stem microphone fixing base (tabletop)

- Fix 5P E type stem microphone on the desk
- 6P mini DIN interface with a 1.0 meter cable

■ MIC-SK-H stem microphone fixing base (suspension)

- Suspension fix 5P E type stem microphone
- 6P mini DIN interface with a 1.0 meter cable

■ 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
- $h \times w \times d$: 22 × 48 × 75 mm

■ HCS-8300MCLS 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
- $h \times w \times d$: 40 × 100 × 68 mm

■ HCS-8360FK/50 contactless IC card & fingerprint identification module

- Connecting to HCS-8368/50 series congress terminal via USB port to realize contactless IC Card sign-in and fingerprint sign-in
- Equipped with a 1-meter long USB cable to connect to the congress unit
- $h \times w \times d$: 66 × 84 × 121 mm

■ HCS-8360FK/FM/50 contactless IC card & fingerprint identification module

- Connecting to HCS-8368/50 series congress terminal via USB port to realize contactless IC Card sign-in and fingerprint sign-in
- Equipped with a 1-meter long USB cable to connect to the congress unit
- $h \times w \times d$: 73 × 80 × 115 mm

8.6 System connection

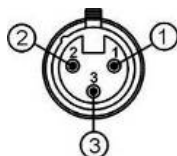
8.6.1 Mains cables

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

8.6.2 Audio cables

3-pole XLR connector (female)

- Pin 1 Earth
- Pin 2 Signal +
- Pin 3 Signal -



Chinch connector (male)

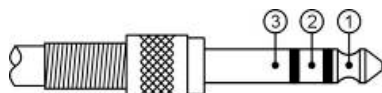
- Pin 1 Signal +
- Pin 2 GND



8.6.3 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	-

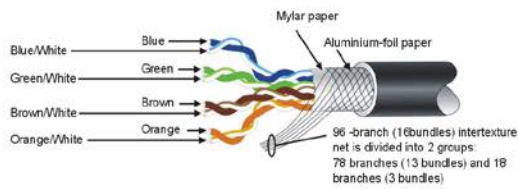
Chinese	English	639-3	639-2/5	639-1	Chinese	English	639-3	639-2/5	639-1
奥里亚语	Oriya	ORI	ORI	OR	茨瓦纳语	Tswana	TSN	TSN	TN
旁遮普语	Panjabi	PAN	PAN	PA	乌尔都语	Urdu	URD	URD	UR
罗曼什语	Romansh	ROH	ROH	-	威尔士语	Welsh	CYM	WEL	CY
梵文	Sanskrit	SAN	SAN	SA	祖鲁语	Zulu	ZUL	ZUL	ZU
信德语	Sindhi	SND	SND	SD	壮族语	Zhuang	ZHA	ZHA	ZA
僧加罗语	Sinhala / 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					

Appendices: Custom-made cables

Appendix I : Dedicated 6 PIN Extension Cable

Case 1: Soldering of S-UTP Cable and 6PIN plug/socket

1.(S-UTP) Core 4×2×(7×0.203) with 96-branch intertexture net



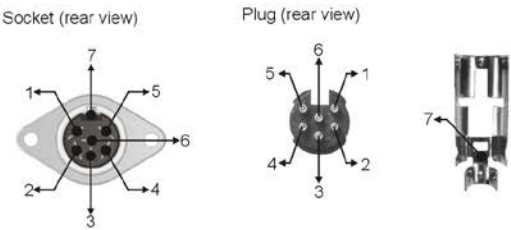
2.6P DIN Male Plug



3. 6P DIN Female Socket (insulation ring)



4.Soldering



5.Soldering between dedicated 6P DIN plug/socket and the core of (S-UTP) cable

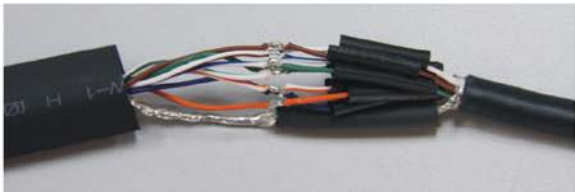
Mark (plug/socket)	Corresponding (S-UTP) core
1	Blue/White
2	Brown/White
3	Brown
4	78-branch (13-bundle) weave
5	Green, Green/White Orange, Orange/White
6	Blue
7	18-branch (3-bundle) weave

Case 2: S-UTP Extension cable jointing

- 1.Strip 30 mm insulation of both cable sheaths;
- 2.Fan out the wires, twist the braided shield into a bundle, and cut off unnecessary foil paper and Mylar paper;



- 3.Strip 2 mm insulation of the 8 wires; pre-tin the strands and the braided shields appropriately;
- 4.Preassemble the heat-shrinkable tubes as in the following figure:
put the ϕ 2.0 heat-shrinkable tubes over the 8 wires,
put the ϕ 4.0 heat-shrinkable tube over the braided shield,
put the ϕ 11.0 heat-shrinkable tube over the cable sheath;
- 5.Solder together wires having the same color (8x);
solder together the braided shields;



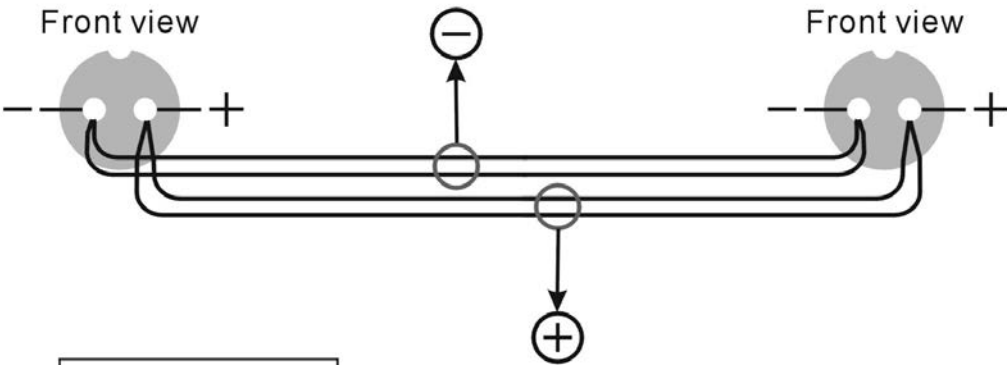
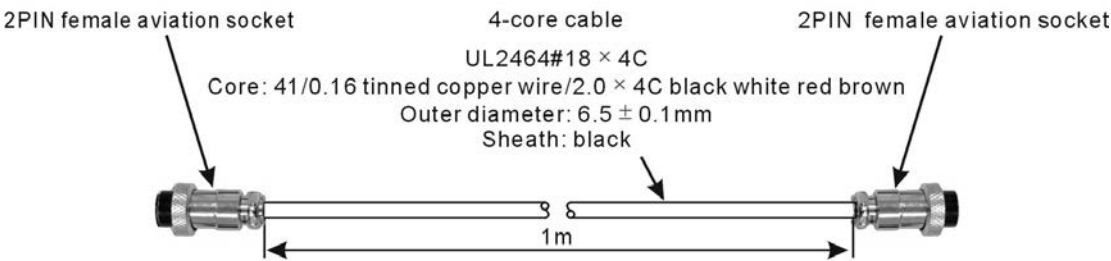
- 6.Cover the solder joints of the 8 wires and of the braided shields with the heat-shrinkable tubes and shrink them with the electric hot-air blower;



- 7.Shrink the heat-shrinkable tube which covers the 8 wires, the braided shield and the cable sheath with the electric hot-air blower.



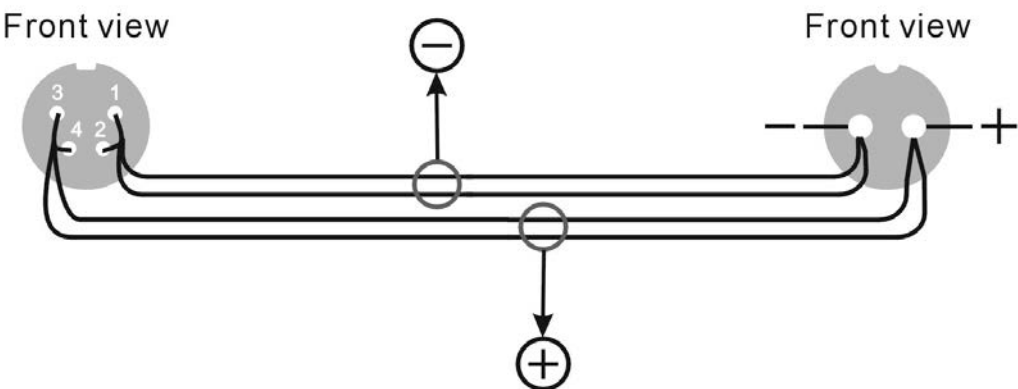
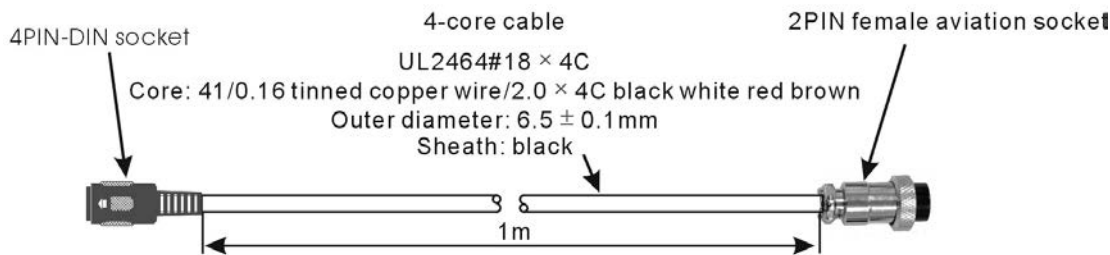
Manufacturing Instruction for CBL2SS-01
Professional 2-pin Cable for Conference System



Core connection	
Red	Twisted together as anode ⊕
Brown	
Black	Twisted together as cathode ⊖
White	

Number	Name	Quantity
1	2PIN female aviation socket	2
2	4-core cable	1

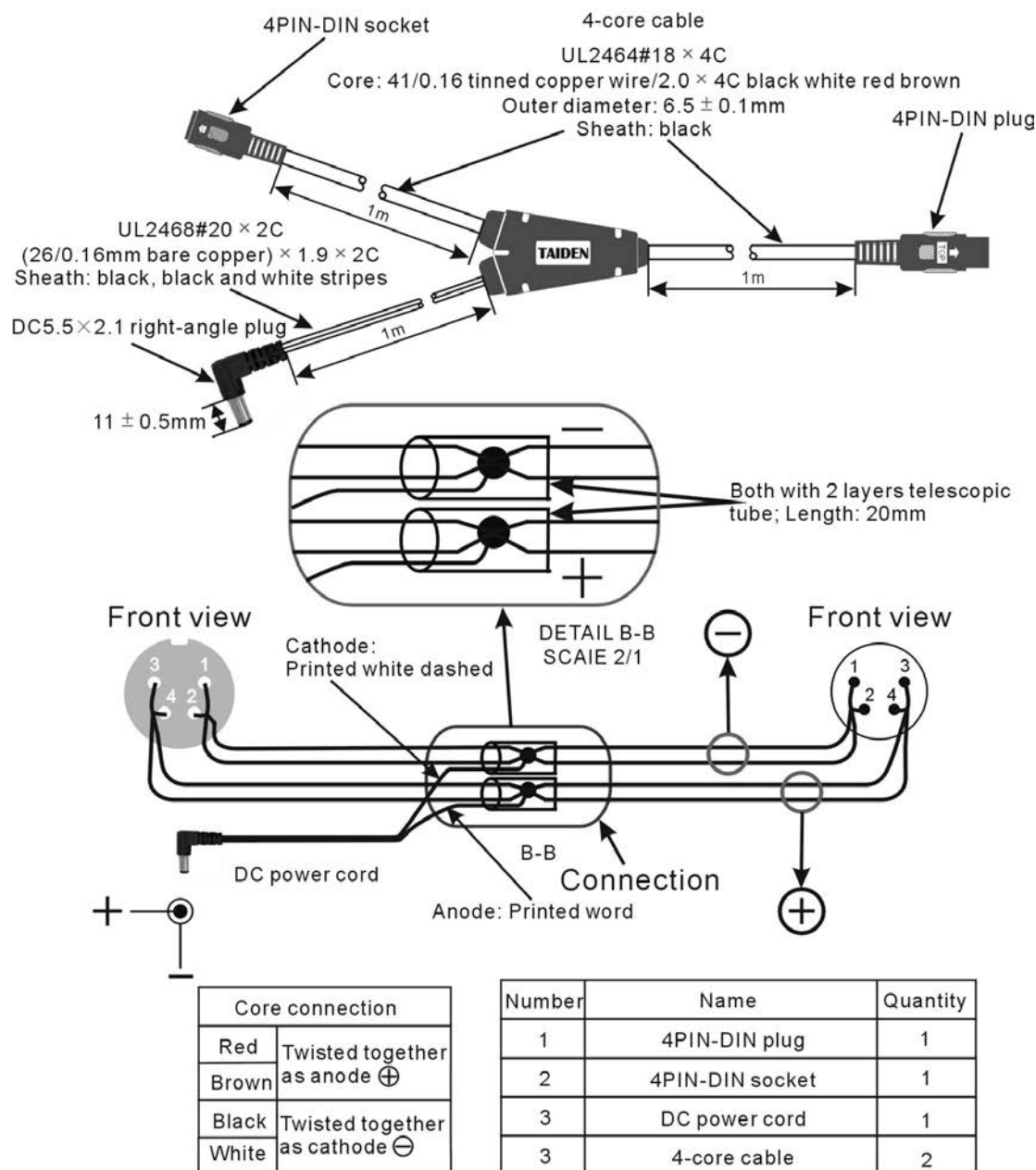
Manufacturing Instruction for CBL4PK-01 Power Adapter Cable



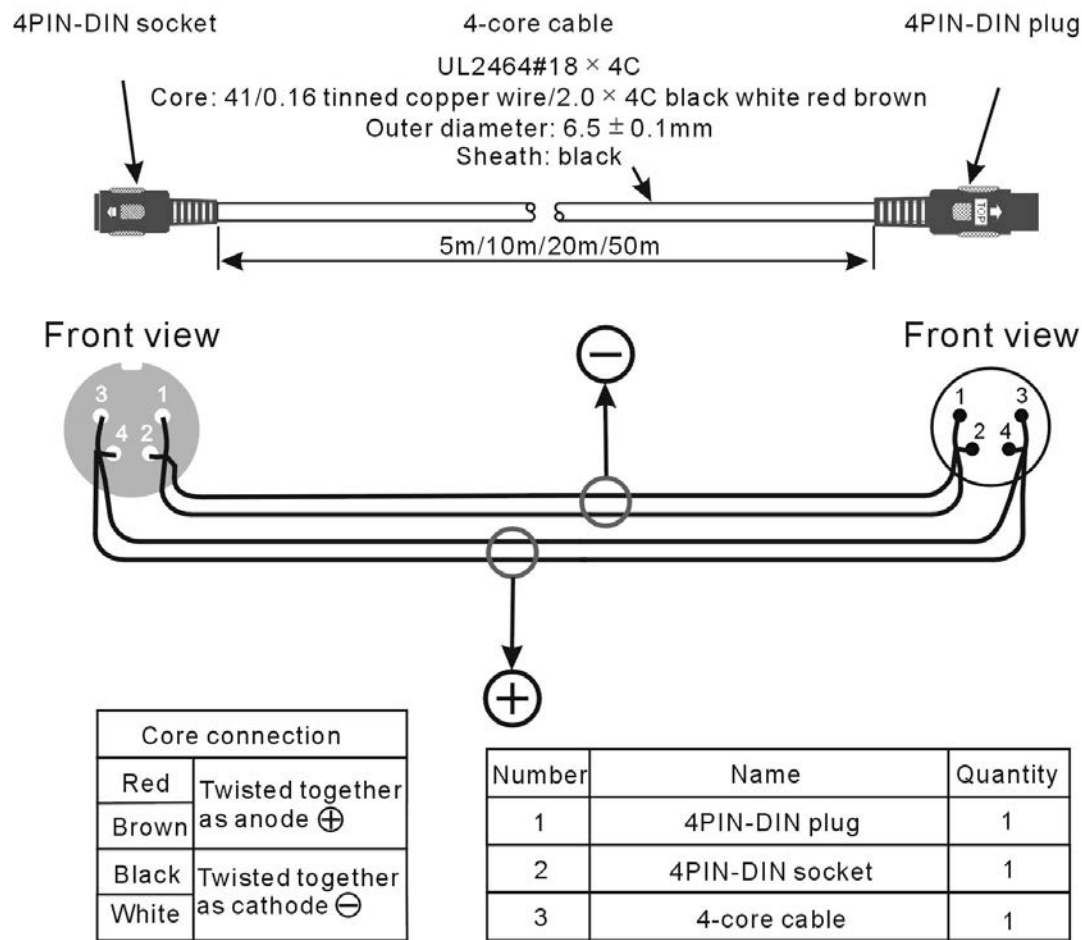
Core connection	
Red	Twisted together as anode ⊕
Brown	
Black	Twisted together as cathode ⊖
White	

Number	Name	Quantity
1	4PIN-DIN socket	1
2	2PIN female aviation socket	1
3	4-core cable	1

Manufacturing Instruction for CBL4PT-02 Power Branch Cable

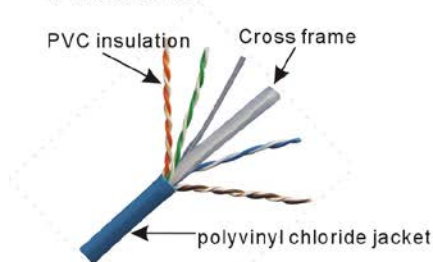


Manufacturing Instruction for CBL4PS 4-pin Extension Cable



Manufacturing Instruction for Gigabit Ethernet Cable

1. Select cable



Usually use wire size #23AWG to reduce attenuation.

Covered with polyvinyl chloride jacket, and 4 pairs of cable with cross frame inside
With PVC insulation between cables and bare copper wires as conductor.

Respectively, the color of the cables are :orange/white, orange, green/white, green,
blue/white, blue, brown/white, brown.

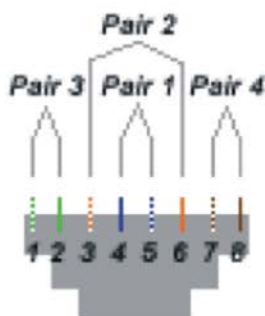
2. Connection

Traditional Megabit Ethernet cable is using only 4 wires to transmit, Gigabit Ethernet cable is using 8 wires to transmit.

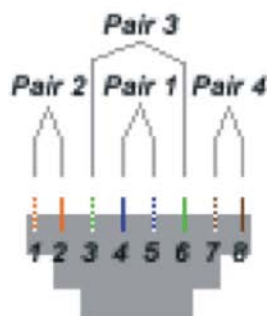
When producing Ethernet cable with twisted-pair, ANSI/TIA/EIA-568A(for short: T568A) and ANSI/TIA/EIA-568B(for short: T568B) are complied. The pin order of RJ45 plug: the side with splinter down and the side with metal spring up, from left to right, is shown as the following figure:



T568A Wiring Scheme



T568B Wiring Scheme



3. The order of twisted -pair

The Ethernet cable should have RJ45 plugs at both ends. There are two connection methods: parallel (or direct) network cable, and cross network cable. The parallel (or direct) network cables have the same RJ45 plug at both ends (both are T568A or both are T568B). While the cross network cables have different RJ45 plugs (T568A at one end and T568B at another)

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