HCS-8600MBU/20
Congress Main Unit

The Congress Main Unit includes features for controlling delegate microphones, distributing simultaneous interpretation and conducting voting sessions, without an operator.
In combination with a PC, the Congress Main Unit brings greater sophistication to conference control. Users are able to access an extensive range of software, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the Congress Main Unit will revert to its stand-alone operation mode, enabling the conference to proceed.
The Congress Main Unit also provides power supply to the Congress units (except paperless multimedia congress terminals).

Features

- **Based on ingenious CongressMatrix™ technology, integrated (n+8)×10 audio matrix processor**
- **Integrated 8 channels group output function, easy to combine/split conference rooms**
- **Connectable to multi channel audio input or output devices for versatile expansion of the system**
- **High system reliability guaranteed by "Closed Loop - Daisy Chain" connection topology**
- **Adopted fully digital audio transmitting technology between the main units and congress units**
- **Perfect sound quality on all 64 simultaneous interpretation channels: frequency response 20 Hz to 20 kHz**
- **Equipped with optical fiber interface to combine two widely separated conference rooms to form one unique coherent system**
- **Connection facility for an additional condenser or dynamic microphone, expanding user's application spectrum**
- **TCP/IP communication protocol in PC control**
- **Remote control, remote diagnosis and remote update**
- **Voting facilities without PC intervention**
- **Built-in multi-channel intercom facility**
- **Plug and play for all units**
- **Excellent immunity to RF interferences from mobile phones and comparable devices**
- **System power controllable by central control system**
- **2.8" LCD display for status information and configuration**
- **Rotary control to navigate through the LCD menus**
- **With web page control function, main unit's parameters can be set through web browser**

Functions

- Compliant to ISO 22259
- Based on ingenious CongressMatrix™ technology, integrated (n+8)×10 audio matrix processor (n is the number of microphones connected in the system)
  - 10 discrete audio outputs, including:
    - Line 1~2 output: 31 band graphical EQ (preset three bandwidth for fast selection: narrow band, normal and wide band) + DRC (dynamic range compressor) + time delay (maximum delay time is 1 s)
    - Group output 1~6: 15 band graphical EQ (preset three bandwidth for fast selection: narrow band, normal and wide band) + DRC (dynamic range compressor) + time delay (maximum delay time for 32kHz sampling rate is 1.5s, maximum delay time for 48kHz sampling rate is 1 s)
    - USB 1~2 output: 8 band parameterized EQ + DRC (dynamic range compressor)
  - Connectable to a multi channel independent PA system. 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
  - 10 channels audio 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
  - Integrated voice enhance and howling suppression function for each microphone to improve sound effects
  - 2 audio line in+ 2 USB in, or 1 audio line in + 1 microphone input + 2 USB in, gain and EQ for each input adjustable separately. +48 V phantom power supply at microphone input, condenser microphone can be connected directly
  - Real –time display of input and output level
  - Three audio modes for selection: normal mode, teleconferencing mode and external processor mode

- Supports for configuration scene saving, calling and switching
- Connectable to multi-channel audio input or output devices for versatile expansion of the system

- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a Congress Unit and connection failure of a cable will not influence other Congress Units
- Embedded high performance DSP for audio signal processing, supporting 48 kHz audio sampling rate. All 64 channels feature perfect sound quality with a frequency response of 20 Hz to 20 kHz
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Adopted fully digital audio transmitting technology between the main units and congress units
- An ID can be assigned by default or manually to each conference unit bearing a unique serial number for convenient maintenance
- Set any delegate unit to be VIP unit, VIP unit can be activated as long as the total of active microphones is not beyond 8
- Built-in multi-channel intercom facility
- Connection facility for additional condenser or dynamic microphones, expanding user's application spectrum (HCS-8600MIO series)
- If additional contribution units are connected for system expansion, additional Congress Extension Main Units are required:
  - 4096 discussion or voting units
  - 378 interpreter units (with maximum 63 booths, each booth with maximum 6 interpreter units)
  - Any quantity of channel selectors
- With the Audio Input & Output Device (several units cascadable), multi-channel digital/analog audio signals are available as output signals for infrared language distribution system or recording
- Automatic video tracking implementation when cooperating with cameras and video switcher unit; preset positions on PC
- Implemented features in stand-alone mode:
  - Set the number (1~8) of delegates permitted to speak at the same time
  - Set-up of speaking time limitation (1~240 minutes)
  - Speak mode: Open/Override/Voice/Request/PTT
    - "Open" mode, microphone On/Off button with request-to-speak registration (AUTO)
    - "Override" mode, microphone On/Off button control with override of the active microphones (FIFO)
    - "Voice" mode, acoustic active sensitivity and automatic switch-off time can be adjusted continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "Request" mode, delegate applies to speak by pressing microphone On/Off button, delegate can speak only when operator or chairman approved his application
    - "PTT" mode, press microphone On/Off button to talk
  - Parliamentary voting (YES/NO/ABSTAIN)
  - 64 (1+63) channels simultaneous interpretation function. Cooperates with channel selector or infrared language distribution system enabling a larger audience to follow the conference

- In combination with the corresponding software, more functions can be implemented:
  - Centralized microphone management
  - Multiform voting:
    - For/Against
    - Parliamentary: YES/NO/ABSTAIN
    - Questionnaire: 1/2/3/4/5
    - Audience response: --/-/0/+/++
    - Parliamentary (NPPV): Yes/No/ABSTAIN/NPPV
    - Appraisal:
      - Satisfied (four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (three keys voting: satisfied/basically satisfied/unsatisfied) (two keys voting: satisfied/unsatisfied)
      - Qualified (four/three/two keys voting)
      - Competent (four/three/two keys voting)
  - Several sign-in modes: entrance sign-in/seat sign-in
  - Depending on the purchased HCS-8600 software, user gains access to additional conference control & management functions
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update
- With web page control function, main unit's parameters can be set through web browser
- USB interface is equipped on main unit for conference audio recording and playback
- HDMI interface are equipped on main unit for HD video input and loop output
- USB interface（Type-c）support digital audio transmission, mainstream conference software is adaptive
- Hot spare dual server structure: another Congress Main Unit is set up as backup Congress Main Unit and connected to the system and takes over automatically if the main Congress Main Unit fails
- Multi-room configuration: Congress Main Unit(s) can be used as Congress Extension Main Unit(s) to carry out multi-room configuration flexibly. Multiple Congress Main Unit configuration allows all connected multiple rooms to be operated either as one unique system or as independent systems
- Integrated real-time clock displays time on the LCD of the interpreter unit to inform interpreter to stay on schedule
- Built-in unit detection facilities: detect the unit's microphone, LEDs and keys prior to start of the meeting
- Automatic recovery facility, supporting "PnP" (plug and play)
- If the PC is broken down, Congress Main Unit enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of the conference
- System power controllable by central control system

Controls and Indicators

- 2.8" LCD displays status and menu of the system configuration, supporting multi-language menu
- Rotary control to navigate through the LCD menus
- Power switch
- Standby switch with indicator

Interconnections

- Multiple audio in/out interfaces:
  - One balanced XLR-F for microphone input or audio LINE IN
  - Two symmetrical RCA input interfaces for audio LINE IN
  - One balanced XLR-M for audio LINE OUT
  - Two symmetrical RCA output interfaces for audio LINE OUT
  - 6 channels group output on 3-pin 3.81 mm Phoenix connectors
- RS232 port for connection to central control system and system diagnosis each
- Duplex SC single-mode optical fiber interface to combine two widely separated conference rooms and to operate as one unique coherent system
- 1 × RJ45 standard socket for connection to Ethernet interface (LAN)
- 2 × RJ45 standard socket (output) for connection with a Congress Extension Main Unit (EXTENSION)
- 2 × outlet (8P-DIN) trunk-line cable outlet
- USB interface for conference audio recording and playback
- HDMI interface for HD video input and loop output
- One Ø 3.5 mm headphone jack for audio monitor

Technical Specifications

Electrical

Frequency response	20 Hz to 20 kHz
SNR	≥100 dBA
Dynamic range	≥94 dB
Isolation	≥90 dB
THD	≤0.05%
Power supply	100 V - 240 V AC, 50/60 Hz
Power consumption	20W
Load capacity	200W
RS232 connection	9-pole Sub-D female socket
Net connection	RJ45 socket

Max. audio inputs

LINE IN 1	+10 dBu, BAL.
LINE IN 2	+10 dBu, UNBAL.

Max. audio outputs

LINE OUT 1	+20 dBu, BAL.
LINE OUT 2	+20 dBu, UNBAL.
GROUP OUT (1…6)	+20 dBu, BAL.

Mechanical

Mounting	Tabletop or mounted in a 19" rack
Dimensions (h × w × d)	
For table use, with feet	95 × 480 × 418 mm
For 19" rack use	88 × 480 × 418 mm
Weight	7.8 kg
Color	Black (PANTONE 419 C)

Ordering Information

HCS-8600MBU/20	Fully Digital Congress System Main Unit (discussion, voting, 64 CHs, single-mode optical fiber interface, Mic. group output, HDMI input and loop output, USB recording)