CCS 900 Ultro Discussion System
Efficient meeting technology
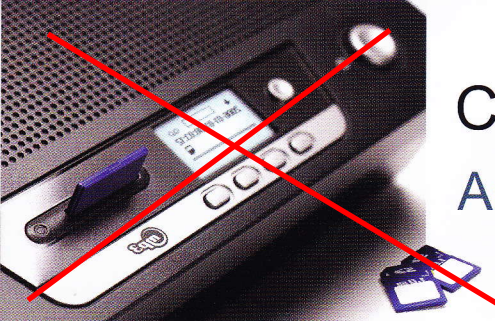
เฉพาะรุ่น   **CCS-CURD ยกเลิกการผลิตแล้ว**

BOSCH
Invented for life

CCS 900 Ultro Discussion System

An all-in-one-discussion solution

CCS-CURD ยกเลิกการผลิตแล้ว

- Innovative and authentic European design
- Unique, "Possible-To-Speak" indicator
- Excellent speech intelligibility with digital acoustic feedback-suppression(CCS-CUD & CCS-CURD)
- Built-in digital (MP3) recording and playback stored on removable-SD cards (CCS-CURD ONLY)
- Recording still continue while replace the SD card (CCS-CURD only)
- Recording is only active when microphone is active or Continuous recording (selectable on CCS-CURD only)
- Mobile or permanent installation
- Up to 150 contribution units
- Can be interfaced a wide range of external

Simple to install

The system is quick and easy to install, and requires no special training. Each unit is fitted with a 2 m (78.7 in) cable terminated with a plug, and a socket. The units are simply plugged into each other in a 'daisy chain' configuration, with the first unit connected to one of the two Control and Power Supply Unit (CPSU) trunk outputs (25 units per trunk output). Extension cables are available to connect units together which are located more than 2 m (78.7 in) from each other. A test mode on the CPSU checks that all connections have been correctly made.

Operating and controlling the system
Four microphone modes are available.

- Open mode with auto switch off selects how many microphones-from one to four-can be simultaneously active. Microphones are automatically switched off if a delegate does not speak for 30 seconds.
- Open mode without auto switch-off is functionally identical to open mode with auto switch-off, except that microphones are not automatically switched off after 30 seconds.
- Override mode allows participants to override each other simply by pressing the 'microphone on' button. There is only ever one active delegate microphone in this mode.
- Chairman only mode allows only chairman units to be activated.

In the first three modes, delegates and chairmen simply press the large 'microphone on' button on their units to activate or deactivate their microphones. Chairmen can override delegates' microphones by pressing the 'chairman priority' button on chairman units. Delegates and chairmen can easily alter the volume of their headphones using the built-in volume control, with the maximum volume being determined by a setting on the CPSU.

Digital Automatic Feedback Suppression (DAFS)

The CCS 900 Ultro with Digital Acoustic Feedback Suppression provides better speech intelligibility than ever, due to an in-built digital facility (based on pre-active algorithms) which automatically eliminates any acoustic feedback which may occur because of the proximity of other contribution units or the acoustics of the hall. This allows the volume to be turned up as loud as required without any danger of 'howling'. The Digital Acoustic Feedback Suppression facility is activated by the flick of a switch on the rear of the CPSU. (CCS-CUD & CCS-CURD)

MP3 recorder Specification

Sample frequency

• Recording	32 kHz
• Playback	32, 44.1, 48 kHz

Bit rate

• Recording	64, 96, 128, 192, 256 kBit/sec.
• Playback	any bitrate

Internal memory 225 MB.

Compatible conform ID3V2 mp3-tags

• Memory card	Any SD Card up to 2 Gb (high speed cards advised)

Control and Indicator
Top

- Mains on/off switch
- Graphical display for status information
- 5 soft buttons for configuration and control of the built-in MP3 recorder
- Loudspeaker volume control, for setting output level of loudspeakers of contribution units. This control also determines the maximum level for the headphone outputs of the contribution units and the CPSU.
- Microphone mode rotary switch, for setting the number of simultaneously active microphone and selecting one of the four operation modes (plus test mode)
- On/off switch for digital acoustic feedback suppression facility.
- Power on LED

Back

- Microphone input gain adjustment (at rear of unit)
- Recorder input gain adjustment (at rear of unit)
- Insertion connector bypass switch (at rear of unit)

Interconnections
Top

- 1 x 3.5 mm (0.14 inch) stereo headphone socket

Back

- 1 x AC input
- 2 x 7-pole circular female connectors, trunk in/out loop through interconnection
- 1 x 3-pole female XLR connector, microphone input (can be used as line input by included 50 dB attenuator)
- 2 x Cinch connector pairs (R/L channel), recorder input/output
- 1 x Cinch connector pair, line input/output
- 1 x Cinch connector pair, telephone input/output
- 1 x Cinch insertion input/output
- USB 2.0 interface

CCS-CU Control and Power Supply Unit (CPSU)	CCS-DS Delegate Unit	CCS-CMS Chairman Unit
CCS-CUD Control and Power Supply Unit with DAFS	CCS-DL Delegate Unit with Long Microphone	CCS-CML Chairman Unit with Long Microphone

Technical Data
Conforming to international standard IEC 914. Conference Systems-electrical and audio requirements.
- Supplies power for all system elements. • Four selectable microphone operating modes. • Loud speaker/ headphones allow monitoring and note taking. • Table-top,19" rack (with special brackets LBB3311/00) for flush-mounted use.
- System volume control. • Interfaces with external equipment.
- Number of active microphones selection (1 - 4).
- Weight : 1.5 kg (3.3 lb).   • Dimensions (H x W x D) : 84 x 361 x 143 mm (3.4 x 14.2 x 5.6 in).

System electrical and electro-acoustical characteristics CPSU
- Mains voltage : 100 to 240 Va.c. ± 10 %. • Current consumption : max 0.9 A (100 Va.c.) to 0.3 A (240 Va.c.).
- D.C. supply to contribution units: 24 V ± 1 V(current limited).
- Frequency response: 125Hz to 12.5kHz. • Loudspeaker volume control: mute (50 dB att.) + 10 steps of 1.9 dB.
- Limiter threshold level to unit: 10 dB above nominal level loudspeaker/headphone. • Gain reduction due to Number of open microphones(NOM) : $\sqrt{NOM} \pm 1$ dB.
- Signal to Noise Ratio 82 dB.

CPSU Inputs and outputs – unbalanced
- Line, telephone and insertion. • Input sensitivity: -14 dBV (nominal) / +11 dBV(maximum). • Input impedance: 33 kΩ
- Output level: -14 dBV (nominal) / +11 dBV (maximum).
- Output impedance: 500Ω.

Record in/out (unbalanced)
- Input/Output level: -20 dBV (nominal)/+5 dBV (maximum).
- Input sensitivity adjustment : 0 dBV (nominal) / -20 dBV (maximum). • Input impedance: 47 kΩ (for left and right channel). • Output impedance: 500Ω

External microphone input (balanced)
- Input sensitivity: -56 dBV.   • Input sensitivity adjustment : +6 dBV (nominal) / -6 dBV (maximum). • Phantom supply: 12 V ± 1 V, 2 x 680Ω(± 2%) acc. to DIN 45596.

Monitor Loudspeaker
- Output level at 0.5m: 72 dBV SPL (nominal) / 82 dB SPL (maximum). • Frequency response: 320 Hz to 10 kHz (-10 dB, reference 1 kHz). • Impedance: 25Ω.
- Volume control: 50 dB attenuation. • Rate Power: 1 W.

Monitor headphone–stereo jack socket
- Output level : -8 dBV (nominal) /+2 dBV (maximum)
- Output impedance: 22Ω. • Allowed impedance: any impedance. • Volume control: 50 dB attenuation range.

System Limited
- Number of control units connected to CPSU.
- Maximum in total : 150 (extension PSU required).
- Maximum per trunk output : 25.   • Maximum trunk length using CCS900 standard cabling : 100 m.

Auto microphone switch-off function (selectable on the CPSU)
- Contribution unit : after 30 seconds without speed (sound level below 64dB SPL) the microphone is automatically switch off.

CCS-CUD Control Unit with DAFS
- Same Product as CCS-CU but add digital acoustic feedback suppression.

Controls and Indicators
- Microphone with light-ring (red) indicator which illuminates when the microphone is on.
- Loudspeaker, automatically muted when microphone is on and/or headphones are connected.
- Microphone on / off button.
- "Microphone on" indicator (red LED).
- Possible To Speak indicator (white LED)
- Rotary volume control for adjusting headphone volume.

Interconnection
- 2 m (78.7 in) long cable terminated with a moulded 7-pole circular connector for loop-through connection to delegate unit or CPSU.
- 7-pole circular female socket for loop-through connection to delegate units.
- Two 3.5 mm (0.14 in) stereo headphone sockets.

Technical Data
- Mounting : table top (portable or fixed mounting) Dimensions(H x W x D) : **71 x 220 x 140** mm (**2.8 x 8.7 x 5.5**) (without microphone).
- Height is 127 mm (5.0 in) with microphone in horizontal position.
- Length of microphone from mounting surface : 313 mm (12.3 in).
- Weight: 0.9 kg.(2.0 lb).
- Colour : cover ; charcoal (PH10736) : base ; black (PH80007)
- Microphone type: Electric Condensor.
- Microphone Polar Pattern : Cardioid.
- Signal to Noise Ratio 85dB.
- Current Consumption
   - Stand By Mode 17 mA 24 VDC
   - Operation Mode 50mA 24VDC

CCS-DL
Delegate Unit with Long Microphone
- This Unit is identical to the CCS-DS Delegate Unit, except that the stem length of the microphone is 488 mm. (19.2in)

Controls and Indicators
- Same as CCS-DS and CCS-DL but add chairman priority button and do not have Possible To Speak indicator
- Internal chime selection switch.
- Internal switch for temporary or permanent muting of delegate microphones when chairman priority switch is pressed.

Interconnection
- Same as CCS-DS and CCS-DL

Technical Data
- Same as CCS-DS and CCS-DL

CCS-CML Chairman Unit with Long Microphone
- This Unit is identical to the CCS-CMS Chairman Unit, except that the stem length of the microphone is 488 mm. (19.2 in).

Delegate's and Chairman's electrical and electroacoustical characteristics
Delegate microphones with transmission links to delegate headphones and auxiliary outputs.

General
- Typical frequency control: 125Hz to 12.5 kHz tolerances acc. to IEC 914 standard.
- Total harmonic distortion at nominal input level (85 dB SPL) : < 0.5%, at max, input level (110 dB SPL) : < 3%.
- Speaker power at normal : 2W(Max : 4 W).

System environmental conditions
General
- Ambient temperature range operating : contribution units: +5 to +45°C (+41 to 113°F).
- CPSU: +5 to +55°C (+41 to 113°F).
- Storage and transport: -20 to +70°C (-4 to 158°F).
- Ambient humidity operating : 20 to 95% RH, storage up to 99% RH.
- Air pressure : 600 to 1100 mBar.
- Safety : according to EN 60065, according to UL 6500 (UL and cUL), according to CSA-E60065.
- Shock resistance, Vibration resistance, bump and transport : according to IEC 68, 5G acceleration.
- EMC emission : according to EN55103 - 1, FCC rules (part 15) class A.
- EMC immunity : according to EN55103 - 2.
- ESD : according to IEC 801 - 2 and 801 - 4.
- Mains harmonics prepared to EN 61000 - 3 - 2 and EN 61000 - 3 - 3.
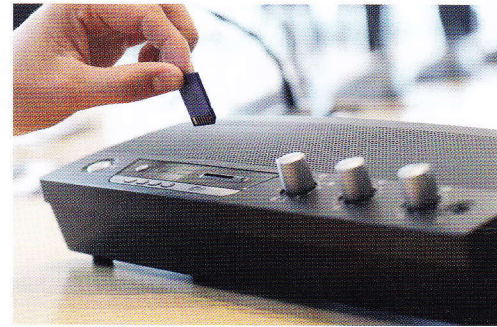- Transport : UN - D 1400.