DCN Next Generation
Data Brochure

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Digital Congress Network Next Generation

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Using this catalogue

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It is possible to locate any section quickly by thumbing to the corresponding tab number on the outer margin of each page. The index section at the back of this catalogue includes an alphanumeric listing according to part number.

Digital Congress Network Next Generation

World's first fully digital congress system, upgraded for even higher performance

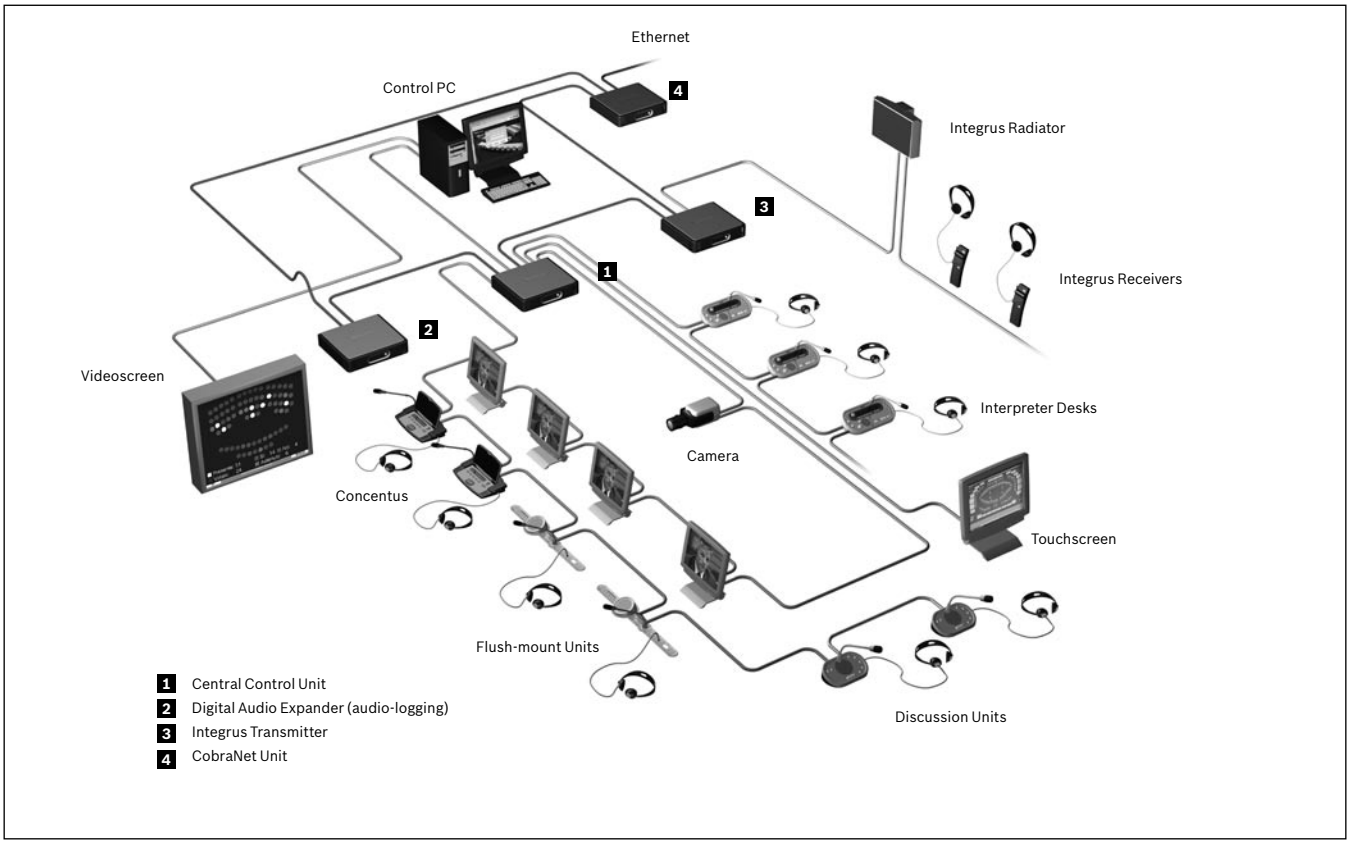
The Bosch Digital Congress Network Next Generation brings the benefits of innovative digital technology to discussion, conference and congress systems. It is the first entirely digital system of its kind, and offers versatility, high audio quality and data transmission while providing complete control over conference proceedings. DCN Next Generation has low susceptibility to interference from mobile phones. Operation and installation is highly simplified. With modern, user-friendly control software and flexible management facilities for all types of conferences, it is suitable for events from small, informal gatherings up to international, multi-lingual conferences.

Digital performance with user-friendly software control

The system meets every requirement of modern conference management. Facilities include basic microphone management, delegate identification and registration, electronic voting, information distribution and display, and extensive simultaneous interpretation. The DCN Next Generation is above all user-friendly. With the appropriate software modules, a single operator can control and monitor even the largest of conferences.

Modular system approach

By simply daisy-chaining DCN Next Generation units, any configuration can be put together. This modular structure means a system can be tailored for conferences at all levels. Systems are easily extended by adding more equipment or software modules.



System Network

Range of equipment

The range of DCN Next Generation products includes conference units, central control units, simultaneous interpretation and language distribution equipment, application-specific software modules, information provision and installation equipment. This is complemented by external equipment such as PCs, monitors, booster amplifiers, loudspeakers and printers, all of which are easily integrated into the DCN Next Generation system.

Advanced audio coupling

Via the optical network, a variety of audio couplings are possible, including coupling small systems with a few languages into a large system with as many as 31 languages. It is also possible to extract and insert both digital (AES/EBU or SPDIF) and analog audio.
Other advanced audio coupling techniques include Cobranet. CobraNet is a combination of software, hardware and network protocol, which allows distribution of many real-time, high-quality digital audio channels over an Ethernet network using CAT5 cables.
Cobranet makes it easy to distribute audio in buildings and connect DCN Next Generation to other audio Cobranet-compatible devices such as Audio Recorders and Audio Mixers.

Excellent audio quality

The advanced digital technology delivers excellent audio performance with no loss in signal quality or level during transmission. Subsequently, each unit receives an audio signal of consistently high quality, which makes a significant contribution to speech intelligibility. DCN Next Generation virtually eliminates problems associated with conventional systems, such as background noise, interference, distortion and cross talk.

Reduced installation costs

Fast, cost-saving installation is an important benefit of DCN Next Generation digital technology. Thin, flexible, twin coaxial cables and twin optical fibers carry all the system's digital signals, eliminating the need for costly and vulnerable multi-core cables used in conventional analog installations. The cables and fibers are easily run through existing ducting and cable conduits. They can simultaneously carry up to 32 high-quality contribution channels and 32 high-quality distribution channels.

Simplified wiring

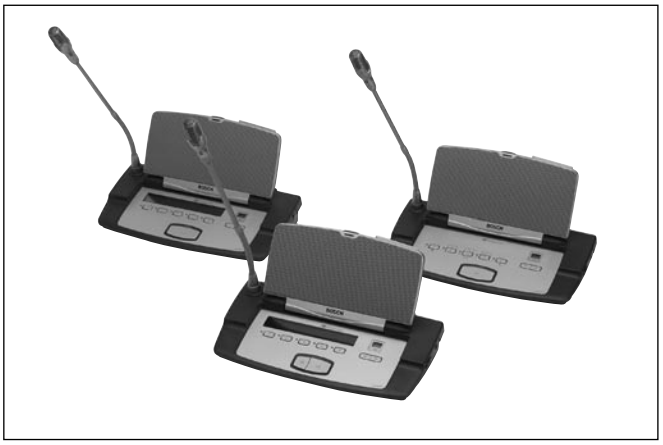
Complex wiring through bulky ducting is a thing of the past. The DCN Next Generation twin-coax cable is a molded with a six-pole connector, while the twin optical fiber is terminated with easy mountable connectors. Both cables transport signals to units throughout the system, and can be tapped into at point to connect extra equipment (a branched-tree topology). In this way, future extensions to the system capacity, such as adding extra units or increasing the number of language channels, do not require alterations to the existing system cabling. The power is also supplied to all units via two wires in the same cable. Installation is further simplified and speeded up by the use of splitters and ready-made cables with sturdy connectors, thus allowing easy insertion of equipment at any point in the system cabling. These easy-to-connect accessories are used for both fixed and portable installations that can be installed quickly and efficiently in any situation.

Contribution equipment

Contribution equipment covers the units that participants use to take part in a conference. Depending on the type of contribution unit, participants can listen, speak, register a request-to-speak, receive screen messages, hold private conversations with other participants via an intercom, take part in electronic voting and receive simultaneous interpretation of the floor language.

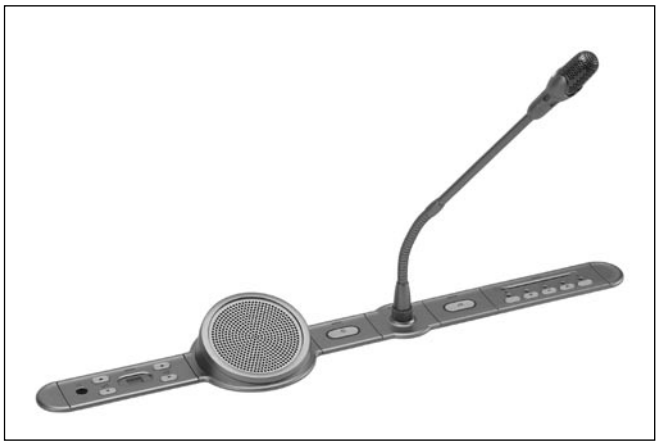
Discussion units for portable and flexible installations

Discussion units are designed for smaller gatherings and meetings, and offer a high level of functionality and digital convenience, as well as distinctive styling.
The basic discussion unit has a microphone with an on/off button and status indicators. More advanced units incorporate channel selectors and voting functionality. All discussion units can be configured as a chairman unit.



Tabletop Concentus units for portable and flexible installations

The basic Concentus Contribution unit has a microphone with an on/off button, loudspeaker, voting keys and LED status indicators. More advanced units feature things like graphic LCD screens, language channel selectors, software programmable buttons and chip card readers. Chairman units have a microphone priority system that temporarily mutes all active delegate microphones.



Flush mounted units for permanent conference facilities

Tabletop or flush mounting

Contribution units can be used on a tabletop, or flush mounted into desks, seat backs or armrests. Other microphone types such as gooseneck, lavaliere and hand-held are also available, allowing contribution from non-seated participants such as guest speakers. While tabletop units are suitable for portable installations or systems where requirements regularly change, the flush mounted units are used for permanent installation into furnishings. Additional equipment such as microphone stands, mounting facilities, suitcases for portable systems and interface boards is also available.

Simultaneous interpretation and language distribution equipment

The DCN Next Generation system has comprehensive simultaneous interpretation and language distribution facilities that enable it to meet the demands of multi-lingual conferences.

Concentus with headphones for languages

All interpretation facilities are integrated into the basic system concept, with interpretations using the same digital trunk line cabling as all other system functions. It is relatively simple to integrate language facilities into existing DCN Next Generation systems.
The simultaneous interpretation system enables both direct and auto relay interpretation modes to cater for less familiar languages. Each interpreter desk has an output for the normal (primary) language and another for alternative languages.

Up to 31 different languages

The DCN Next Generation interpreter desk accommodates up to 31 language channels, plus the original floor language, all with an audio-bandwidth of 20 kHz.
A maximum of six desks can be installed per interpreter booth. The interpreter desk can be used stand-alone or as part of a system. When used stand-alone, its built-in microprocessor is manually programmed to allocate language channels, channel routing and interlocks.
In operator-controlled systems, the desk is used with dedicated software (the Simultaneous Interpretation module LBB 4172/00) to fully integrate the interpretation network.

Interpreter Desk to provide interpretations

Wired or wireless language distribution

DCN Next Generation offers a choice for language distribution. Language distribution can be carried out using the DCN Next Generation system cabling, and languages are accessed and selected using channel selector units or delegate units with built-in channel selection facilities.

Channel Selector for wired language distribution

There is also the Integrus infrared (IR) wireless system that distributes languages throughout the conference venue using IR transmitters and radiators. Access is by means of personal infrared receivers with headphones.

Integrus System for wireless language distribution

Integrus is connected via the optical network to the DCN Next Generation system to distribute all 32 languages with IR-digital technology that conforms to IEC 60603 part 7. IR digital technology ensures maximum sound quality with a signal-to-noise ratio of 80 dB. Integrus also incorporates a special operation mode to couple rooms. This means that multiple systems, located in separate rooms, can provide exactly the same language. For more information about Integrus, see the Integrus Data Brochure.

Central control equipment

The Central Control Unit (CCU) forms the heart of the congress management system. The CCU can operate stand-alone to provide automatic conference control, or be accessed by an operator via a PC when more extensive management is required.
All CCUs can control up to 245 contribution units (such as delegate and chairman units, interpreter desks). If more capacity is required, systems can be coupled or interpreter booths at different halls can be linked. CCUs can also provide power for a number of contribution units. The maximum number depends on the type of contribution units used in the application.

Central Control Unit

Fully automatic conference Proceedings

The basic CCU does not require operator control and automatically manages conference proceedings. It offers basic microphone management, simultaneous interpretation and voting facilities, as well as 2x32 high-quality audio channels. This effectively allows unsupervised control of even large, international conferences.

Operator control via a PC

The CCU also offers all basic but with operator control via a PC. The user can use a combination of dedicated software modules, each with a specific controlling or monitoring function. These include advanced simultaneous interpretation and microphone management, message generation and display, six kinds of voting, intercom, creating a delegate database, attendance registration. In the event of PC failure, the CCU will revert to a default operation enabling conference proceedings to continue.

Application software

A comprehensive range of software modules is available for PC-controlled DCN Next Generation systems. These modules run under Microsoft Windows, and integrate conference preparation, management and control into this operating system. Any combination of modules can be installed to satisfy specific system requirements. The software is generally used in larger scale systems where operator control is required.

Controlling the Conference System

The PC running the software is connected to the DCN Next Generation system and therefore has direct links with contribution, interpretation and control equipment via the network cabling. Thus all aspects of conference management can be brought to a single point of control, which leads to ease of use, efficiency and data distribution.

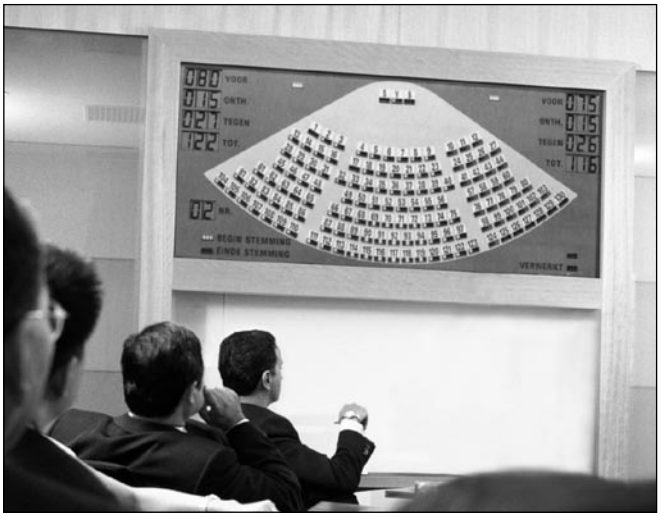
Information distribution equipment

A major strength of the DCN Next Generation system is its ability to distribute information to conference participants quickly and efficiently for all requirements. A wide range of displays is supported, from personal LCD screens to video equipment for venue broadcasting. The Concentus chairman unit and one of the Concentus delegate units are equipped with a graphic LCD screen which displays delegate information, voting time, public and personal messages, microphone status and multi-lingual user instructions.
These screens can display languages such as Chinese that use non-Euro-pean characters. Interpreter desks are equipped with backlit LCD screens.

Concentus display with chinese characters

Information and hall displays

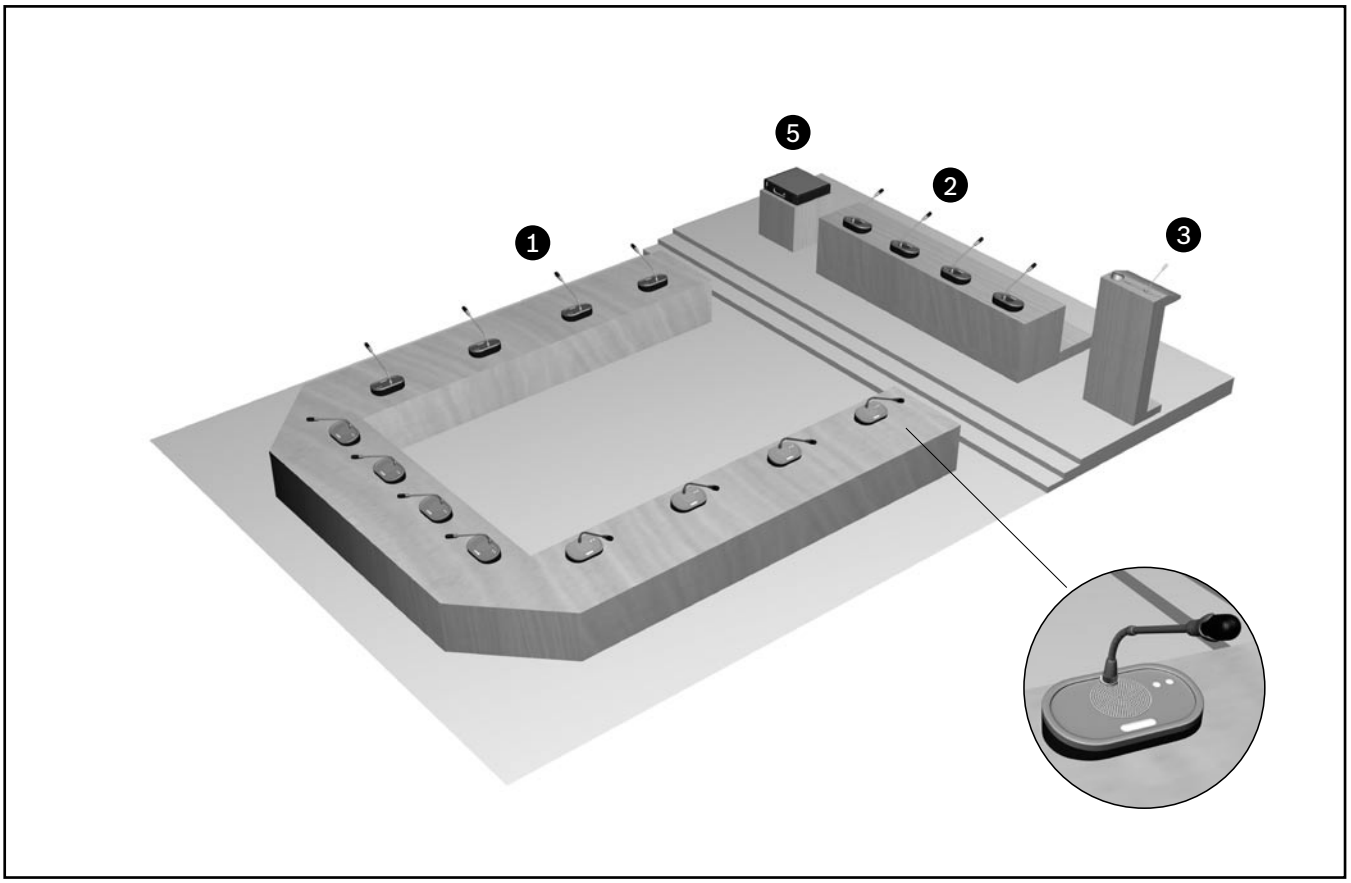
Information and hall displays are ideal for quick and effective information distribution to a large number of conference participants. Numeric, alphanumeric or geographic displays are available, mainly for showing voting results.



Hall display with realtime voting results

TV receivers can also be used. LCD and video projectors display high-resolution graphic information. All systems allow high quality display of live or recorded video material, computer-generated graphics and text, and information generated by DCN Next Generation software.

Examples



Shopping list

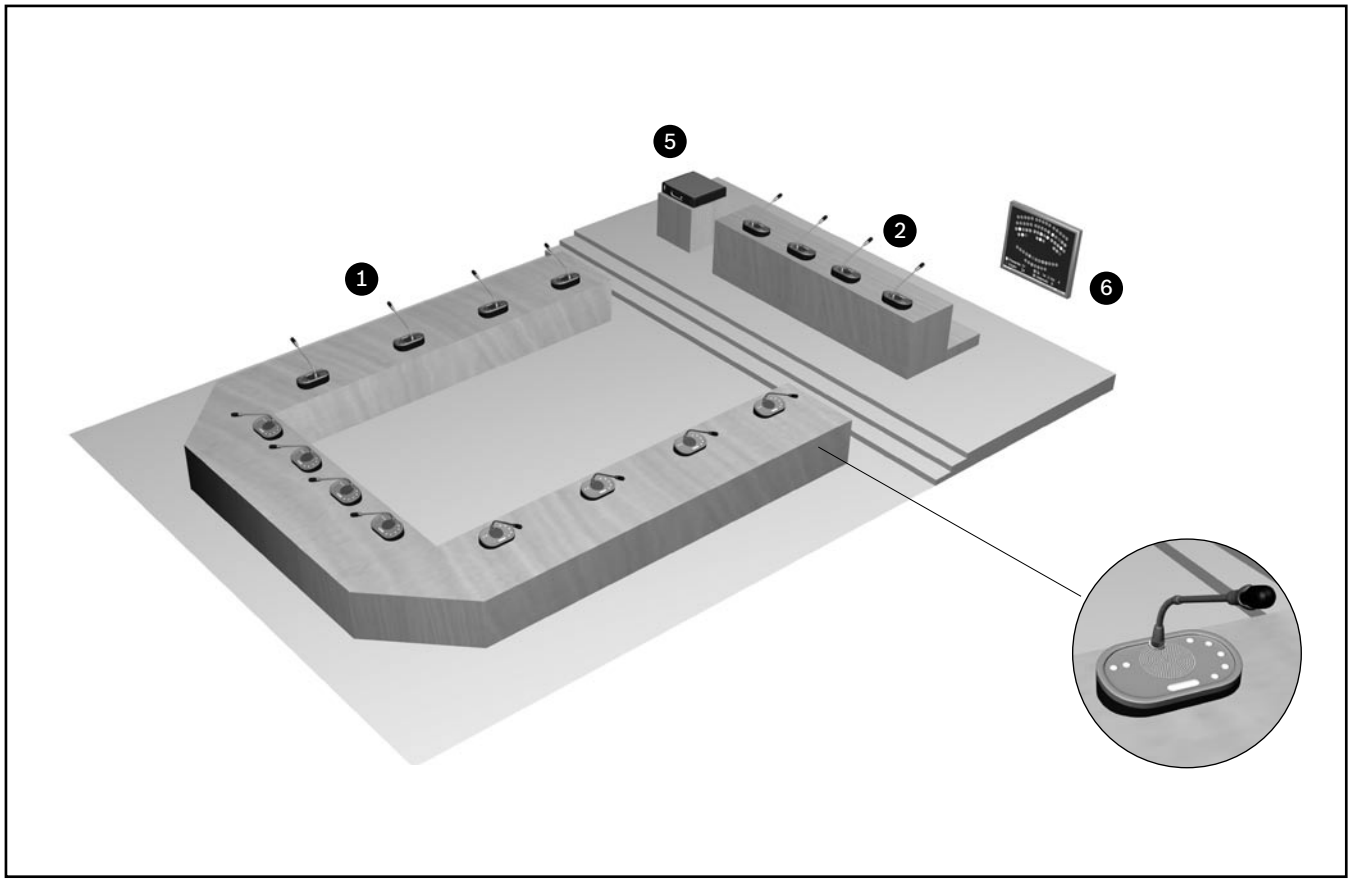
1. **Delegate unit**
2. **Chairman unit**
3. **Flush mount panel**
5. **Central control equipment**

Example 1 - Discussion

- Good speech intelligibility for everyone
- Chairman is in control
- Speeds up the meeting
- Keeps attention centrally focused
- No operator required

The situation: all delegates have a microphone unit with a built-in loudspeaker for high speech intelligibility.

Delegates request the floor by pressing the microphone button. It is easier to keep attention centrally focused as a limited number of microphones can be open at the same time. This helps keep order and speeds up the meeting process. Delegates who request the floor after the maximum has been reached are placed on a waiting list. The chairman can listen, register requests to speak, and override other delegates by using a priority key. In this case, all delegate microphones will be muted and an attention tone will be heard. In this way, the chairman can easily guide and control the meeting. A rostrum for guest speakers is equipped with a flush-mounted DCN microphone and loudspeaker. Hand-held microphones for audience members can be used with or without floor stands. These microphones are connected by means of a Dual Delegate Interface. All DCN equipment is connected directly to the central control unit. This CCU supplies power to all units, provides audio equalization for all delegate loudspeakers, and is used to determine the microphone operating mode. No operator is required.



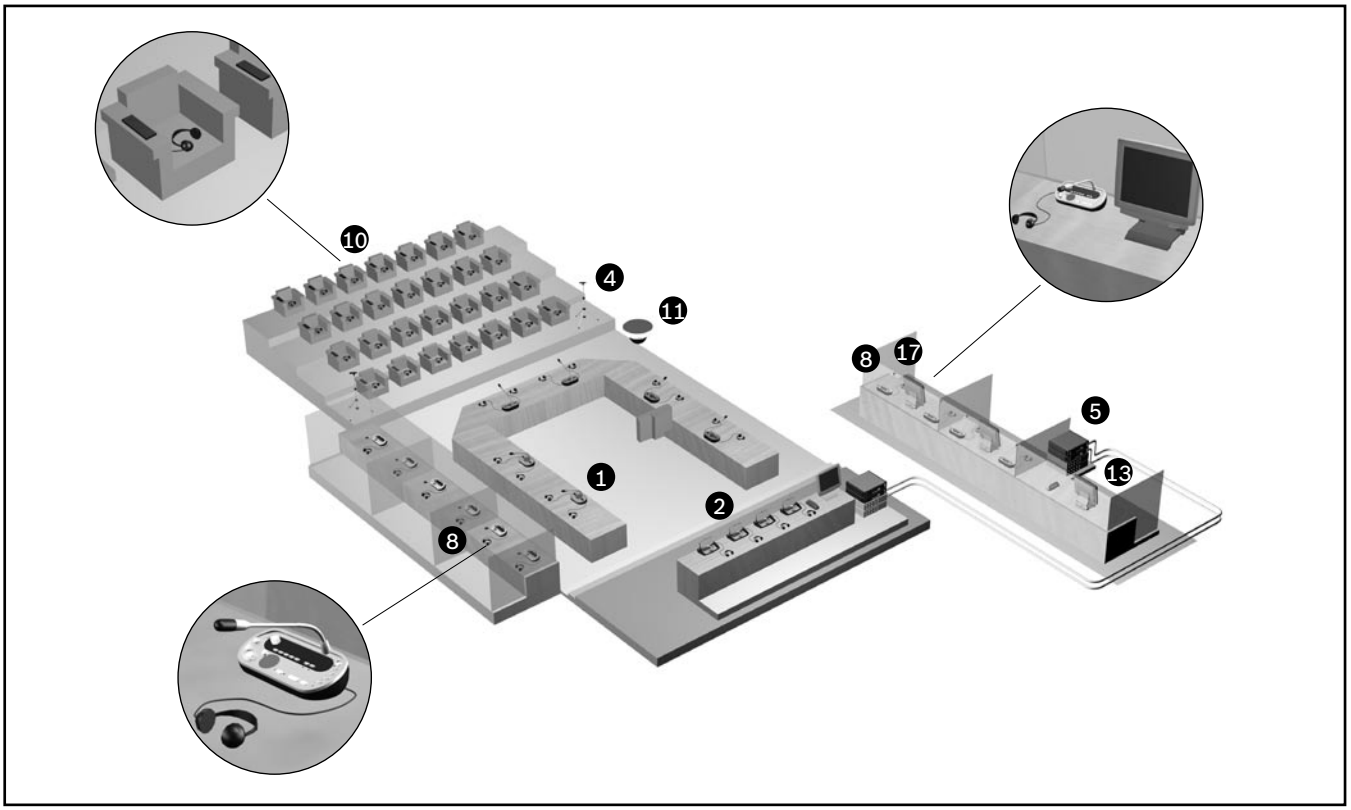
Shopping list

1. Delegate unit
2. Chairman unit
5. Central control equipment
6. Hall display

Example 2 - Electronic Voting

- Fast tally and display of delegates' votes
- Electronic voting can be combined with a discussion system
- Voting results on large-scale audience screens or individual screens
- Basic voting or extended voting control software

The situation: get the opinion of your audience or take decisions quickly by means of electronic voting.
The chairman presides over the meeting and controls the voting proceedings using a Chairman Unit. The unit's graphic LCD provides the chairman with speaker information, a voting script and voting results. The unit can be used to start, stop and suspend voting. Each delegate has a Voting Unit. The five voting buttons allow parliamentary, for & against, multiple choice, opinion polling or audience response voting. The voting results are sent via the DCN central control unit to a numeric hall display or via a control PC to audience screens. The DCN Central Control Unit is used to power all DCN units



Shopping list	
1.	Delegate unit
2.	Chairman unit
4.	Hand microphone
5.	Central control equipment
8.	Interpreter desk
10.	Pocket receiver
11.	Auto dome camera
13.	Personal computer with DCN Control Software
17.	Individual screen

Example 3 - Interpretation

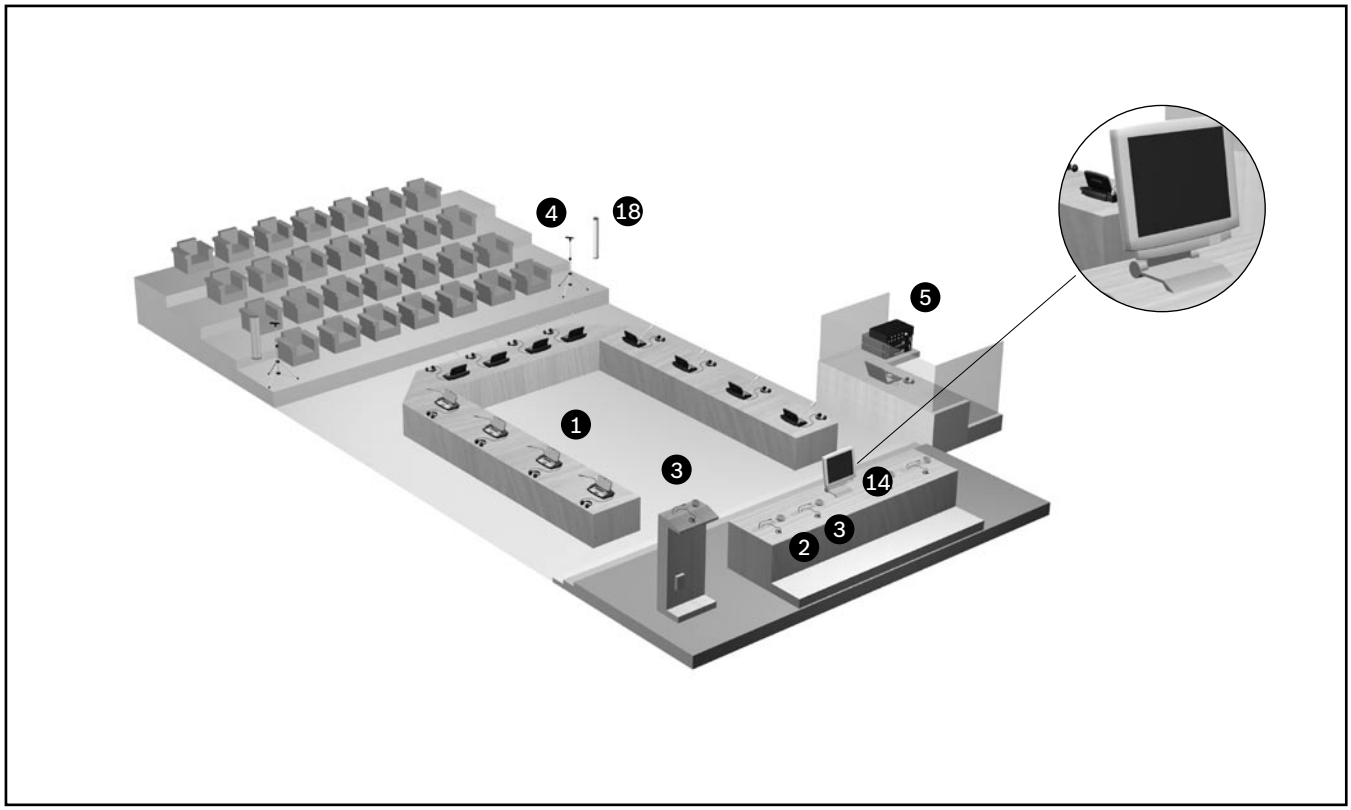
- Delegates follow the meeting in their own languages
- Up to 32 channels for interpretation
- Interpreting at a distance

The situation: a multilingual international conference with delegates from different countries and no common language.

The interpreters are located in soundproof booths and equipped with DCN Interpreter Units with graphic, back-lit LCD displays and Interpreter Headphones. Delegates can select the channel they wish to hear through their headphones by means of a channel selector on their delegate units. Other people present at the conference in a non-contributing role can also listen to any of the interpretations through headphones and via the Channel Selector Panel built into the chair armrests. This unit is purely for listening purposes, and has no microphone or voting facilities. Another possibility is for non-contributing delegates to be equipped with an infra-red receiver and headphone, giving them the ability to select the language of their choice by means of a channel selection facility on the receiver. The Infrared Transmitter and infrared radiators are used to distribute the available languages throughout the conference venue.

Remote interpretation

Real-time language interpretation at a remote location can be provided to save time and reduce costs, since interpreters no longer have to be accommodated at the meeting site itself. The floor or chosen language is sent to the interpreter via a telephone coupler. The translation is returned via the coupler and distributed throughout the DCN system. Conventional telephone lines providing basic telephone speech can be used, or ISDN for higher speech intelligibility (recommended). The system also interfaces with a Video Conference System to make simultaneous interpretation as lifelike as possible. The Audio Expander provides the interface between DCN Next Generation systems and external analog or digital audio signals.



Shopping list	
1.	Delegate unit
2.	Chairman unit
3.	Flush mount panel
4.	Hand microphone
5.	Central control equipment
14.	Touch screen control
18.	Loudspeakers

Example 4 - Conference with operator control

- Conference control via PC
- Touch screen control
- Synoptic panel control

The addition of a PC with DCN software modules extends operators' ability to control a conference beyond the core functions.

If one or more operators are required to control and manage the meeting, the required software modules can be installed on a PC. One database runs on the master PC. The client PC makes use of this database. The available software modules are:

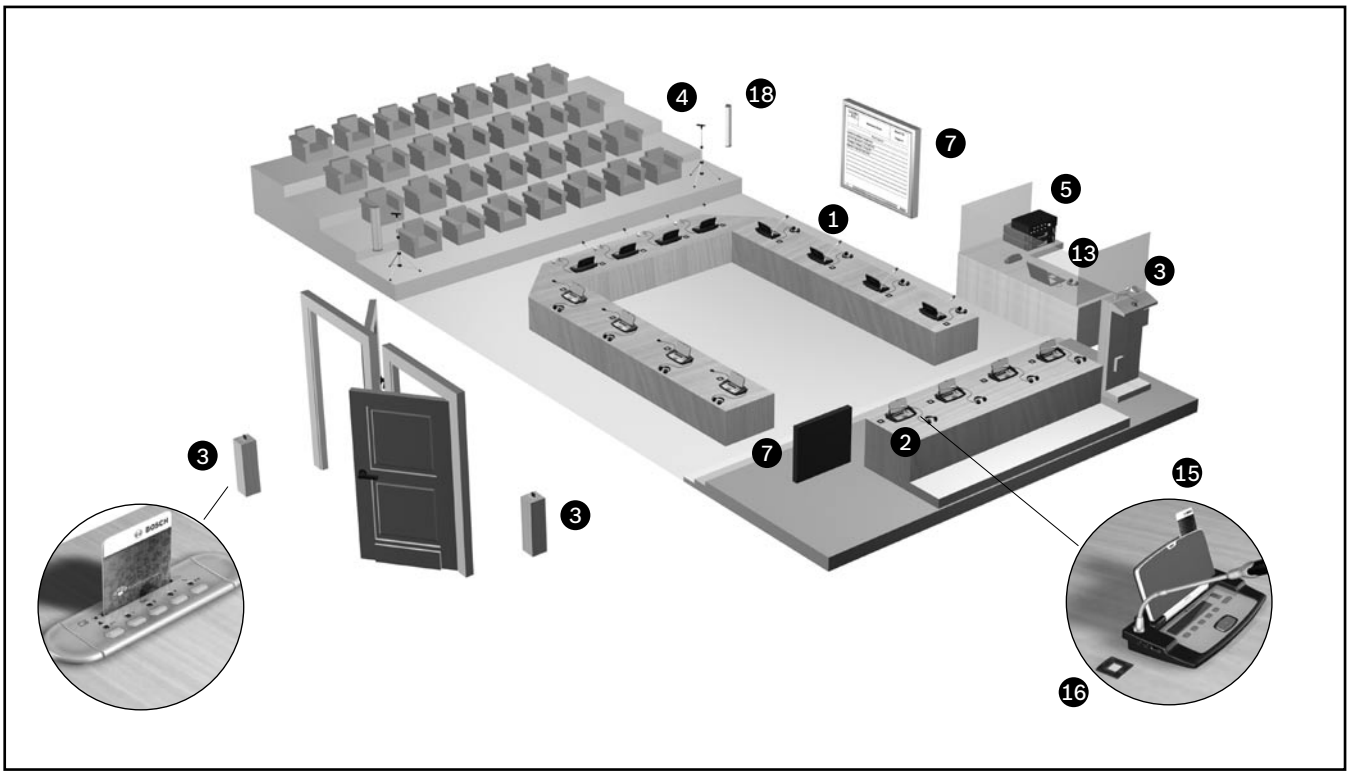
- Microphone Management or Synoptic Microphone Control - To configure and control delegate microphone status and determine microphone operating mode. Both show on-screen status.
- Delegate Database - To compile a database of conference participants and specify conference-related parameters like access requirements, language of individual screen, vote weight, groups, etc.
- Multi-Voting - To allow different kinds of voting, including parliamentary voting.
- Simultaneous Interpretation - Provides up to 31 simultaneous interpretations and the floor language.
- Attendance Registration - To provide electronic access control and a means of delegate registration.
- Message Distribution - To allow the generation of messages to individuals or audience screens.

Touch screen

It is also possible to control the meeting via a touch screen (using software developed by AMX or Crestron). The touch screen can be used to control the individual microphones or to control a voting session. The touchscreen is connected to the DCN central control unit and communicates via an open interface.

Synoptic panel

The meeting can also be controlled via a synoptic panel equipped with buttons. This panel is connected to the central control unit and communicates via an open interface. This synoptic panel is custom made.



Shopping list

1. Delegate unit
2. Chairman unit
3. Flush mount panel
4. Hand microphone
5. Central control equipment
7. Large screen
13. Personal computer with DCN Control Software
15. ID cards
16. Fingerprint reader
18. Loudspeakers

Example 5 - Attendance registration & access control

- Register delegates by means of a chip card and/or PIN code
- Use fingerprint readers for verification
- Automatic retrieval of present and/or absent list
- Access control for each delegate

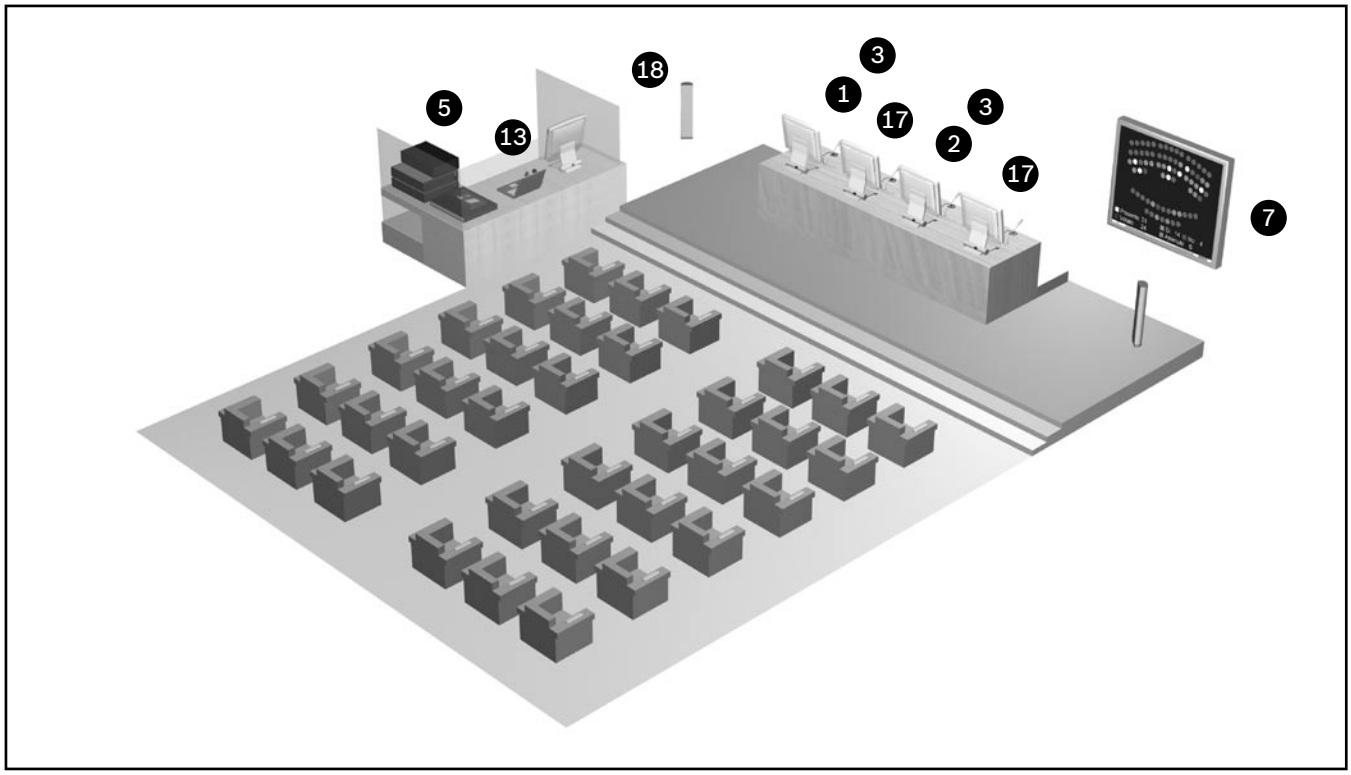
The situation: registration of conference participants and addition of security by means of access control.

Conference participants can register their presence by inserting an ID card into a card reader that is flush-mounted, integrated into the Concentus unit, or located at the conference venue entrance. A push button on delegate units allows simple registration (without identification). It is also possible to specify that delegates may only make use of certain microphone or control functions if they possess an appropriate ID card or have entered an authorized PIN code.

The addition of a PC and the DCN software modules allows electronic identification and access control for contributing delegates, via a card reader with or without PIN code. All contributing delegates will use the Delegate Unit, which incorporates a chip card reader facility. The chip cards are encoded using the Chip Card Encoder software module and the Chip Card Encoder.

Fingerprint readers for verification

The DCN Concentus unit can be extended with a fingerprint reader to recognize persons. Fingerprint reading is a biometrical verification technique and is efficient in high security meetings where a fast response from the system is required. This allows you to substantially increase the security of the meeting, for example, by being sure the right delegates are present during a voting session. Delegates whose identity has been established by fingerprint reading will get access to certain functions within the DCN system (for example, to attend a voting session or to use the microphone). This information can also be used to find out and show who is present on an audience screen or an individual screen for the chairman.



Shopping list

1. Delegate unit
2. Chairman unit
3. Flush mount panel
5. Central control equipment
7. Large screen
13. Personal computer with DCN Control Software
17. Individual screen
18. Loudspeakers

Example 6 - Video Display

- Show conference data to your audience via projectors or plasma screen
- Show individual information on screens for delegates or chairman
- Personalize your own screen easily
- The logo or emblem of your business or a city council can be added as an image

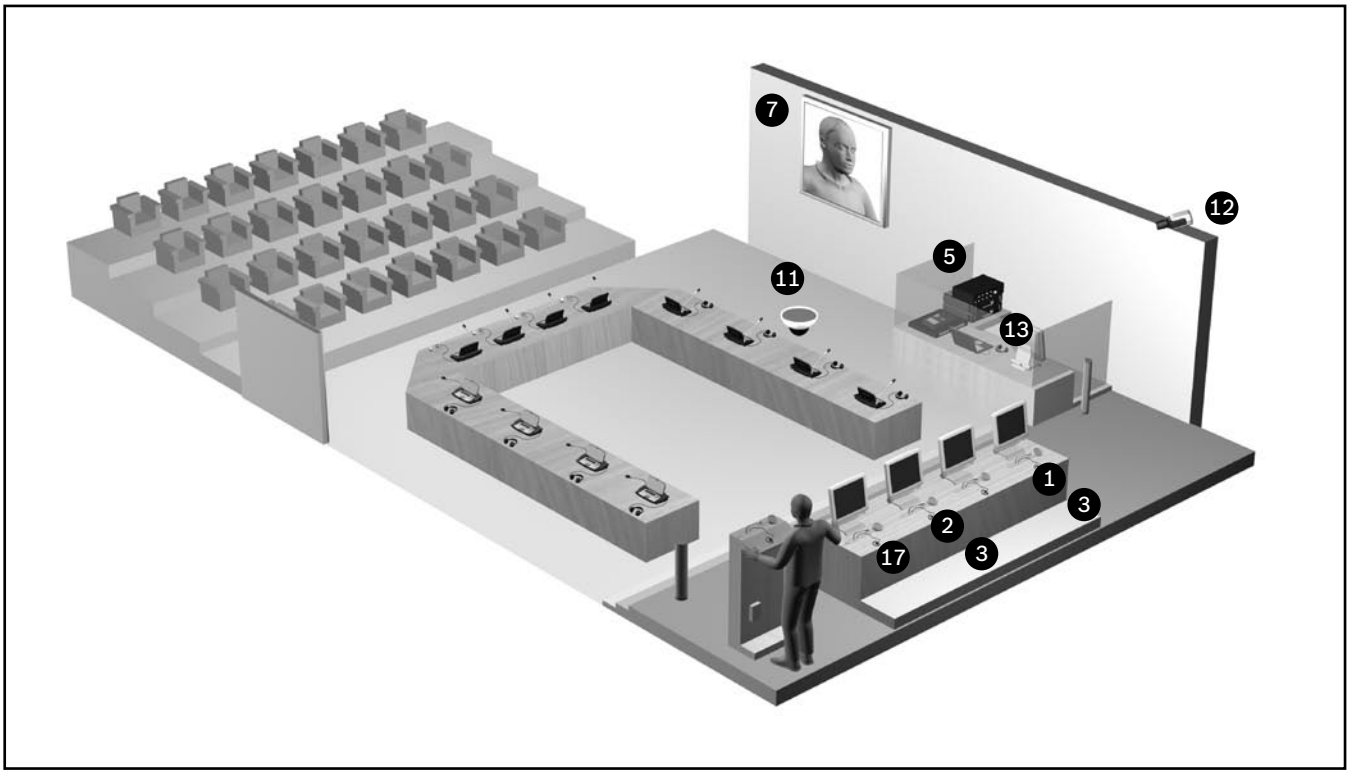
Show conference data on screens by means of Video Display.

The following information can be shown:

- The names of delegates who are currently speaking, together with the remaining speech time
- The listed delegates who are waiting to speak
- The output of a voting session in listed individual results, in a synoptic view in absolute figures or as a chart
- The agenda of the day and messages

It is possible to equip each participant on the podium with a personal color liquid crystal screen. The same information can be shown to the audience by means of large-scale plasma screens or projectors. Each delegate can retrieve information on the 2-line graphical LCD display of the DCN Concentus unit. This display shows all Windows-based characters.

The operator has the facility to adjust color and settings of fonts, lines, texts and images and to switch between screens (including automatic switching to next relevant screen).



Shopping list

1. Delegate unit
2. Chairman unit
3. Flush mount panel
5. Central control equipment
7. Large screen
11. Auto dome camera
12. Fixed camera
13. Personal computer with DCN Control Software
17. Individual screen

Example 7 - Look who's talking

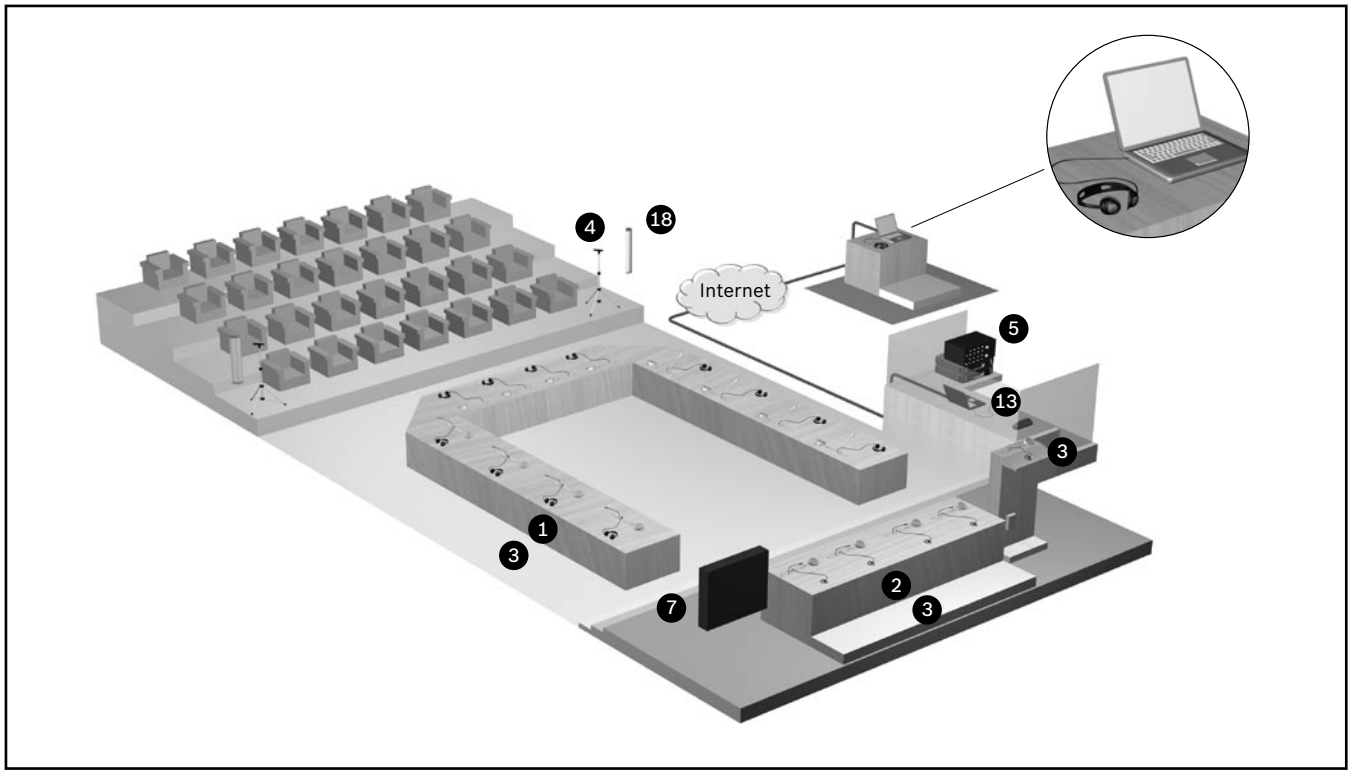
- Camera facility automatically shows speakers on screen
- Fast-moving dome camera to show individual delegates
- Fixed camera to show an overview image of the venue
- No camera operator required
- Name and country (or political party) is shown on screen with image of current speaker

Camera control automatically shows an image of the current speaker on a screen.

A visual dimension not only generates interest and focuses attention, but also tells participants and observers (such as the press) who is speaking. DCN can automatically show an image of the current speaker on monitors or projection screens in the main hall, lobby, interpreters' booths, breakout rooms or anywhere else required. The speaker's name and additional information can also appear on the screen. Camera control is automatic, so no attention is required from operators. Bosch AutoDome cameras are ideal for this application.

To enable visual monitoring of the proceedings, the DCN central control unit sends information to the Allegiant Video Switcher to activate the dome camera, which then finds and films the speaking delegate. The image can be displayed on large audience displays such as a Vidiwall, as well as TVs, other monitors and projection screens. The color camera gives a fixed-position overview of the conference venue. There are enough camera inputs on the Allegiant Video Switcher to easily cover every delegate position in the hall.

In combination with ID cards, free seating can be established, allowing the delegates to sit where they like. The operator does not have to adjust the configuration, as the system does it automatically. When setting up a video conference between 2 or more sites, the system is especially useful, as delegates from the various locations will always have the sound, image and name of the current speaker.



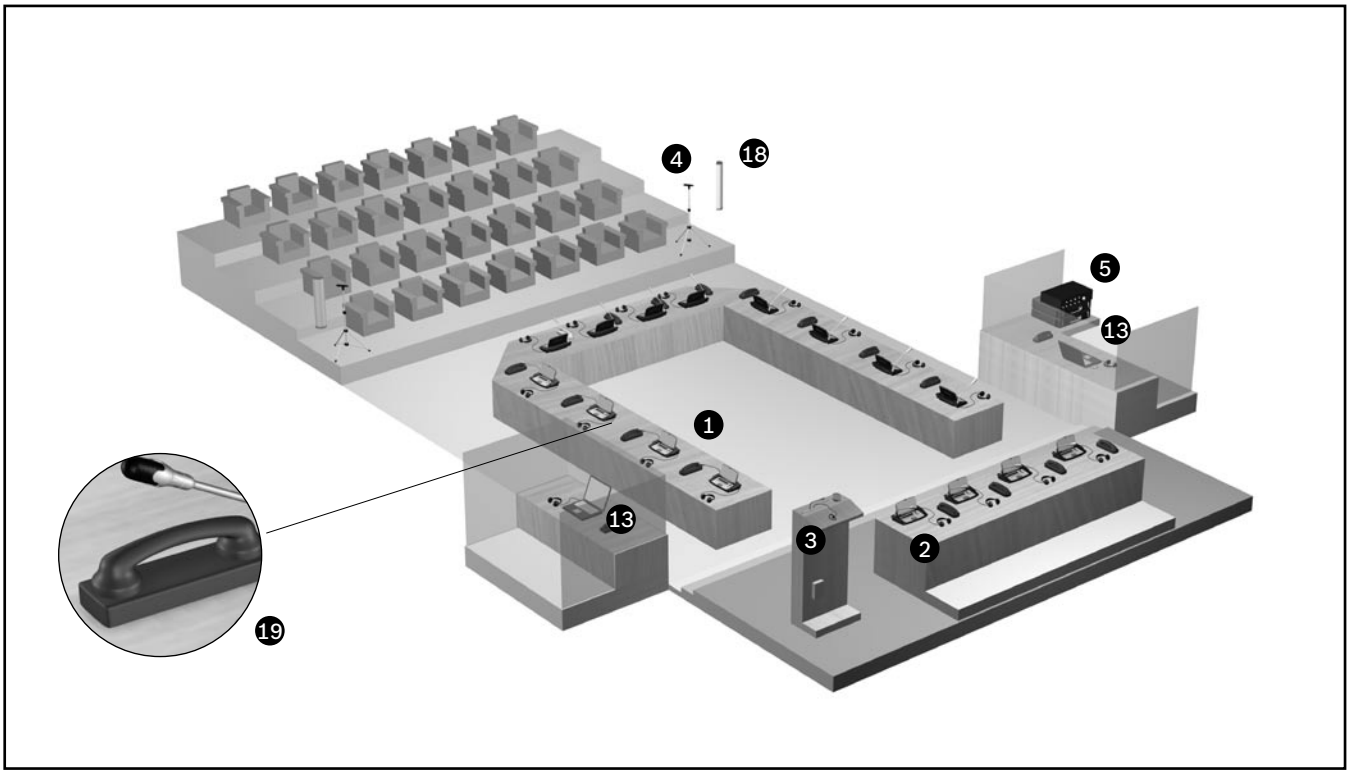
Shopping list	
1.	Delegate unit
2.	Chairman unit
3.	Flush mount panel
4.	Hand microphone
5.	Central control equipment
7.	Large screen
13.	Personal computer with DCN Control Software
18.	Loudspeakers

Example 8 - Follow proceedings via internet

- Delegates unable to attend a meeting can follow proceedings via internet
- Audience can join a live city council meeting from home via internet

Hold live polls among online audiences.

It is possible to host a meeting via an internet provider, with full access to audio, video and data. Without being physically present, delegates or others are able to follow speeches, see presentation slides, see live video or non-moving images of the speakers, get voting results, send in a question, send in their opinion regarding a poll, retrieve messages, and get personalized information per delegate. The conference data runs between DCN and the internet provider on DDE (Dynamic Data Exchange), a standard Windows protocol.



Shopping list	
1.	Delegate unit
2.	Chairman unit
3.	Flush mount panel
4.	Hand microphone
5.	Central control equipment
13.	Personal computer with DCN Control Software
18.	Loudspeakers
19.	Intercom handset

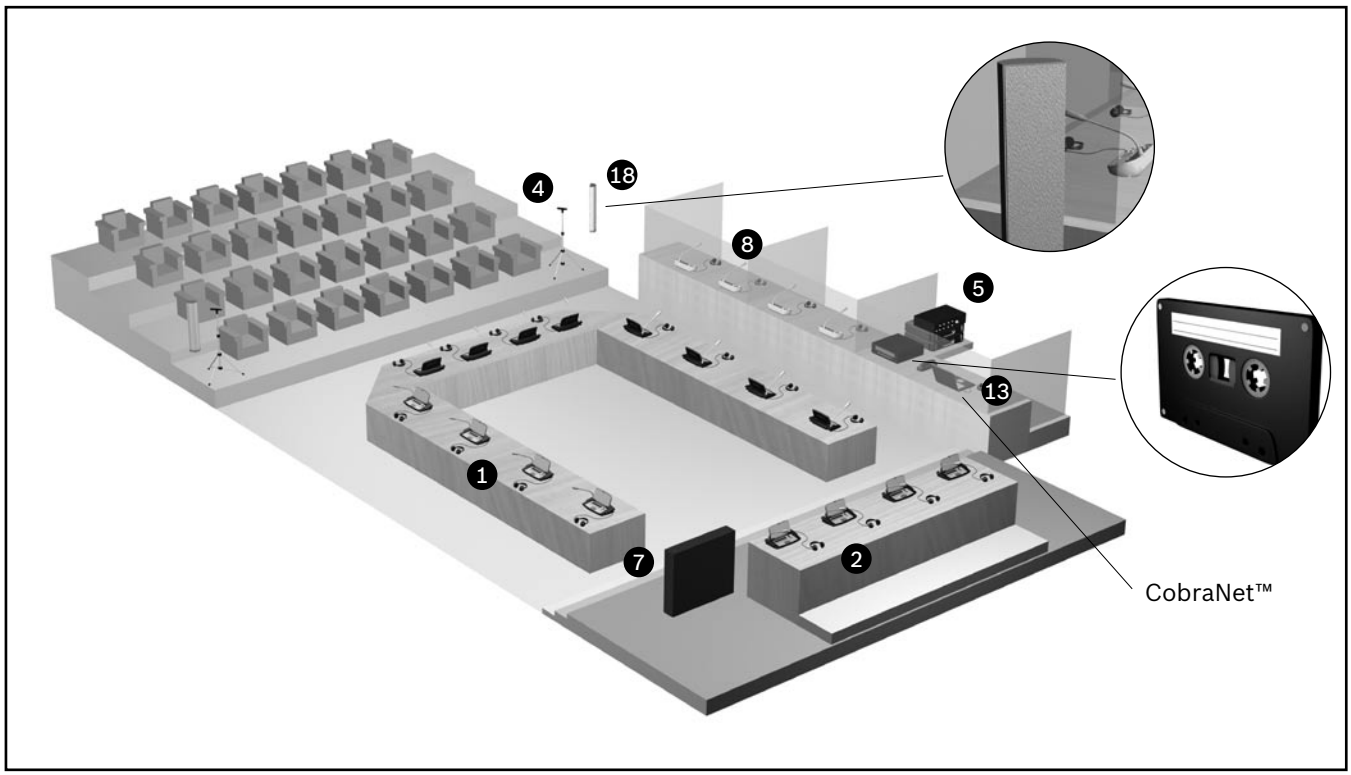
Example 9 - Private conversation

- Enables private, two-way conversations between delegates, chairpersons, interpreters and other PC users without disturbing the meeting
- Search facility to locate delegates
- Allows up to 5 simultaneous conversations

Via the intercom operator, delegates with an intercom handset can request a private connection with others attending the meeting.

The DCN Intercom facility forms the basis of a congress communication system that allows conference participants to hold two-way private conversations using an Intercom Handset and Cradle. It provides a means of setting up and controlling intercom calls between delegates, chairpersons, interpreters and operators during a conference.

Once the conference is underway, the operator can establish and re-route intercom calls via simple on-screen windows. Each intercom link uses a system channel. The maximum number of intercom links is 5, which means that 10 people can use this facility simultaneously. The system clearly indicates when all channels are occupied.



Shopping list

1. Delegate unit
2. Chairman unit
4. Hand microphone
5. Central control equipment
7. Large screen
8. Interpreter desk
13. Personal computer with DCN Control Software
18. Loudspeakers

Example 10 - Audio expansion and audio logging

- Logging of audio, data and video on hard disk, CD or DVD
- Individual logging per participant in a courtroom
- Audience can follow speech through separate loudspeakers and amplifiers
- Powerful automatic feedback suppression

Have all audio recorded or have it distributed to the audience.

Non-participating listeners can follow proceedings by using a sound reinforcement system consisting of amplifiers and speakers. This amplifier can be connected directly to the DCN central control unit.

If logging is required to record the floor and simultaneous interpretation, the logging device can be connected to the DCN central control unit or the DCN audio expander. This can be accomplished over relatively long distances and without loss of quality via fiber optic cabling.

The DCN audio expander provides analog or digital audio outputs and inputs. This enables you to keep audio in the digital domain, guaranteeing high audio quality. In courtrooms, it is possible to record the speech of every individual participant for clear playback. When it is impractical for them to be physically present, defendants can be connected to the courtroom via video conferencing with a DCN automatic camera connection. If required, the audio signal can be scrambled by a scrambling device.

If the audio is to be broadcasted, it can be taken from the DCN central control unit in conjunction with an Audio Expander, which enables external analog or digital equipment to be connected to the DCN system.

Contribution equipment

Introduction

Contribution units are available in Discussion units, Concentus units and flush-mounted configurations.

Discussion units

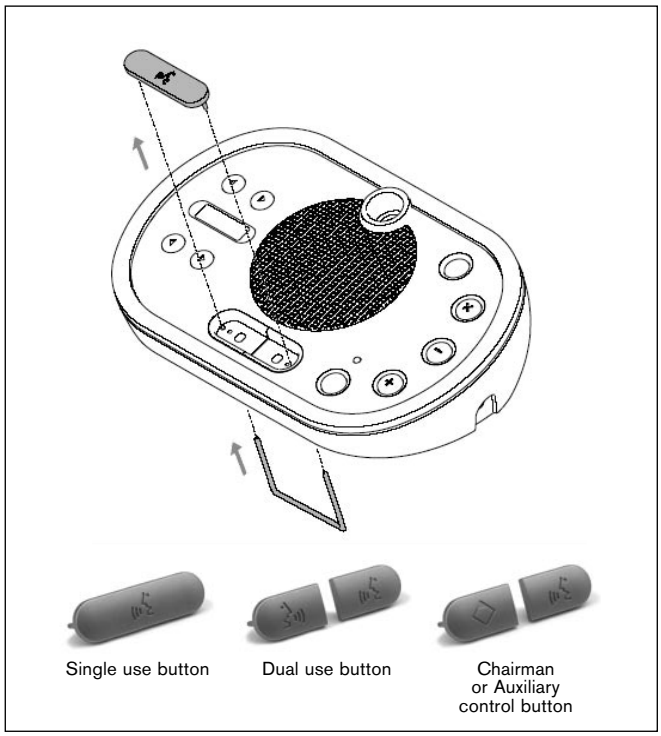
Discussion units are typically used for smaller and medium-sized conferences. The units are ideal when a flexible system configuration or portable conference facilities are required. All units are easily plugged into or removed from the system cabling, which enables the configuration to be set up quickly and efficiently. The Discussion unit is available with light- or dark colored bases.
Most units have a pluggable microphone (supplied separately) available in short and long stem length versions.

The microphones have flexible stems for ease of use. The unit can be free-standing or fixed using mounting screws. The units can also be flush-mounted in more permanent installations. Special rugged suitcases that accommodate complete systems are available for storage and transport. The units are connected in a simple daisy-chain configuration. Alternatively, they can be connected using a single, thin cable and a trunk splitter to link the units to the system cabling, with connectors neatly hidden in the units themselves. This 'one cable' aspect of the DCN Next Generation system means there is no untidy mess of wires at the back of the units. It is especially advantageous for TV coverage, where the backs of the units are on show.
The Discussion units range from standard Discussion with a fixed microphone to Discussion units with pluggable microphone, a channel selector and voting that enable contributing delegates to take part in the decision making process, a vital aspect of modern conferencing.
The Discussion units have 4 different operation modes. All Discussion units can be used either for normal delegates or as a chairman unit. The third mode is dual use, in which two delegates each have their own microphone button for individual identification. The fourth mode is auxiliary control. In this mode, the delegate has an extra button next to the microphone button, which can be used as an usher call, for example.

Discussion units overview

	Single delegate	Chairman	Dual use	Auxiliary	Pluggable microphone	Channel Selector	Voting
DCN-DISS	•	•					
DCN-DISL	•	•					
DCN-DISD	•	•	•	•	•		
DCN-DISCS	•	•			•	1	
DCN-DISDCS	•	•	•	•	•	2	
DCN-DISV	•	•		•	•		•
DCN-DISVCS	•	•		•	•	1	•

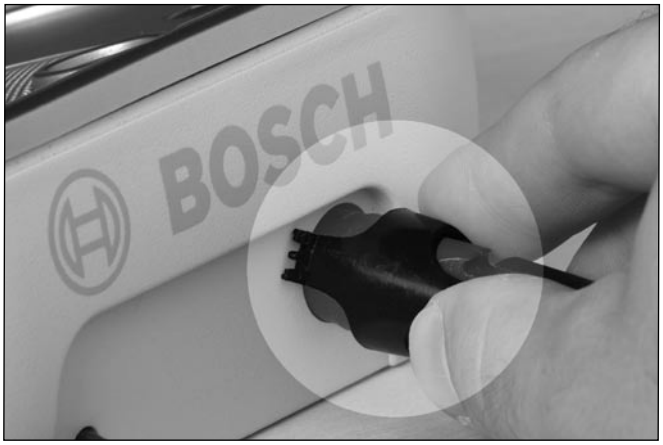
All units are delivered with a single delegate button. For the chairman, dual and auxiliary mode two different sets of buttons are available: Dual use buttons and chairman buttons. The chairman buttons can also be used for auxiliary control. The buttons are easily removed using a special tool (supplied). Sets of buttons must be ordered separately.



The Discussion units with pluggable microphone are delivered without microphones. These microphones have to be ordered separately. Two different lengths of pluggable microphones are available.

All Discussion units are supplied without rims. The rims must be ordered separately. Several rims are available in different finishes. The rims can be mounted without any tools.

To secure the loop trough cable of the Discussion unit, cable clamps must be used.



DCN-DISS / DCN-DISL Discussion Unit with fixed Microphone

The Discussion Unit with fixed Microphone enables participants to speak, register a request-to-speak and listen to the speaker. The microphone stem is flexible. The unit also accommodates two headphone connections, so the speaker can be heard clearly even in situations with excessive background noise. The built-in loudspeaker is muted when the microphone is on to prevent acoustic feedback. Rims are available in a range of colors to match the interior (DCN-DISR, to be ordered separately).
The unit can be used a delegate unit or as a chairman unit (DCN-DISBCM chairman buttons to be ordered separately).
To lock the loop-through cable, a cable clamp is available (DCN-DISCLM, to be ordered separately). The unit is available with two different microphone lengths and in light- and dark-colored bases.

Features and Benefits

- Low susceptibility to mobile phone interference
- Compact, attractive and ergonomic design
- Fixed microphone
- Built-in loudspeaker
- Headphone output level reduction to prevent acoustic feedback (active when listening to the floor and when the microphone is on)
- Usable as delegate unit or chairman unit

Controls and Indicators

- Microphone with red or green indicator
- Microphone button with a red, green or yellow illuminated ring. Red indicates microphone is active, green indicates request-to-speak accepted, and yellow indicates 'VIP'.
- VIP indicator is lit when the delegate is part of the notebook (only available if PC Software is used)
- Headphone volume control buttons
- Recessed 'De-init' switch

Interconnections

- Two 3.5 mm headphone sockets (0.14 in) stereo jack type
- 2 m (78.7 in) cable terminated within a molded six-pole circular connector.
- Six-pole circular connector for loop-through connections

Technical Specifications

Electrical	
Frequency response	30 Hz – 20 kHz
Headphone load impedance	> 32 ohm < 1k ohm
Output power	2 x 15 mW/32 ohm
Mechanical	
Mounting	Tabletop (portable or fixed mounting) and flush mounting
Dimensions (H x W x D) (without microphone)	
Tabletop	61 x 190 x 116 mm (2.4 x 7.5 x 4.6 in)
Flush mounted	6 x 190 x 120 mm (0.2 x 7.5 x 4.7 in)
Microphone lengths	
DCN-DISS	300 mm
DCN-DISL	470 mm
Weight	
DCN-DISS	880 g (1.94 lb)
DCN-DISL	895 g (1.97 lb)
Color top	Silver (RAL 9022)
Color base	
DCN-DISS-L	Light Grey (RAL 000 7500)
DCN-DISL-L	Light Grey (RAL 000 7500)
DCN-DISS-D	Charcoal (PH 10736)
DCN-DISL-D	Charcoal (PH 10736)

Ordering information

DCN-DISS-L Discussion Unit with Microphone
short microphone, light base

DCN-DISS-D Discussion Unit with Microphone
short microphone, dark base

DCN-DISL-L Discussion Unit with Microphone
long microphone, light base

DCN-DISL-D Discussion Unit with Microphone
long microphone, dark base

RIM

DCN-DISRH-SR Set of 10 rims for Discussion unit
Silver, High gloss

DCN-DISR-SR Set of 10 rims for Discussion unit
Silver

DCN-DISRMH Set of 10 rims for Discussion unit
Metal, High gloss

DCN-DISRMS Set of 10 rims for Discussion unit
Metal, Semi gloss

Buttons

DCN-DISBCM 10 sets of buttons for chairman discussion unit

DCN-DISBDD 10 sets of buttons for dual use discussion unit

DCN-DISD Basic Discussion Unit

The Basic Discussion Unit enables participants to speak, register a request-to-speak and listen to the speaker. A socket is provided to connect the pluggable microphones (DCN-MICS and DCN-MICL, to be ordered separately). The unit also accommodates two separate headphone connections with individual volume control on either side of the unit, allowing one unit to serve two delegates. It can be converted to a full dual-use unit by replacing the microphone button with two separated microphone buttons for individual microphone control and individual delegate identification (DCN-DISBDD dual-use buttons, to be ordered separately).
The built-in loudspeaker speaker is muted when the microphone is on to prevent acoustic feedback.
Different rims are available to allow matching with the interior (DCN-DISR, to be ordered separately).
The unit can be used as a single delegate unit, as a dual delegate unit, as a chairman unit (DCN-DISBCM chairman buttons, to be ordered separately) or as a single delegate unit with auxiliary button. The versatile auxiliary button can be used as an usher call, for example.
To lock the loop-through cable, a cable clamp is available (DCN-DISCLM, to be ordered separately).
The unit is available in light- and dark-colored bases.

Features and Benefits

- Low susceptibility to mobile phone interference
- Compact, attractive and ergonomic design
- Pluggable microphone
- Built-in loudspeaker
- Headphone output level reduction to prevent acoustic feedback (active when listening to the floor and when the microphone is on) *
- Usable as delegate unit, dual delegate unit, chairman unit or single delegate unit with auxiliary button

Controls and Indicators

- Microphone button with a red, green or yellow illuminated ring. Red indicates microphone is active, green indicates request-to-speak accepted, and yellow indicates 'VIP'. *
- VIP indicator is lit when the delegate is part of the notebook (only available if PC Software is used)
- Two individual headphone volume control buttons
- Recessed 'De-init' switch

Interconnections

- Socket for pluggable microphone
- Two 3.5 mm headphone sockets (0.14 in) stereo jack type
- 2 m (78.7 in) cable terminated within a molded six-pole circular connector.
- Six-pole circular connector for loop-through connections

* When unit is used in Dual Delegate mode, this function is available individually.

Technical Specifications

Electrical	
Frequency response	30 Hz – 20 kHz
Headphone load impedance	> 32 ohm < 1k ohm
Output power	2 x 15 mW/32 ohm
Mechanical	
Mounting	Tabletop (portable or fixed mounting) and flush mounting
Dimensions (H x W x D) (without microphone)	
Tabletop	61 x 190 x 116 mm (2.4 x 7.5 x 4.6 in)
Flush mounted	6 x 190 x 120 mm (0.2 x 7.5 x 4.7 in)
Weight	800 g (1.76 lb)
Color top	Silver (RAL 9022)
Color base	
DCN-DISD-L	Light Grey (RAL 000 7500)
DCN-DISD-D	Charcoal (PH 10736)

Ordering information

DCN-DISD-L Basic Discussion Unit
pluggable microphone, light base

DCN-DISD-D Basic Discussion Unit
pluggable microphone, dark base

RIM

DCN-DISRH-SR Set of 10 rims for Discussion unit
Silver, High gloss

DCN-DISR-SR Set of 10 rims for Discussion unit
Silver

DCN-DISR-D Set of 10 rims for Discussion unit
Dark

DCN-DISRMH Set of 10 rims for Discussion unit
Metal, High gloss

DCN-DISRMS Set of 10 rims for Discussion unit
Metal, Semi gloss

Microphone

DCN-MICS Pluggable microphone
short stem

DCN-MICL Pluggable microphone
long stem

Buttons

DCN-DISBCM 10 sets of buttons for chairman discussion unit

DCN-DISBDD 10 sets of buttons for dual use discussion unit

DCN-DISCS Discussion Unit with Channel Selector

The Discussion Unit with Channel Selector enables participants to speak, register a request-to-speak and listen to the speaker. A socket is provided to connect the pluggable microphones (DCN-MICS and DCN-MICL, to be ordered separately). The unit has a built-in channel selector that makes it suitable for discussions in which more than one language is used and simultaneous interpretations are available. The channel selector includes two up and down channel select keys and a display showing the number and the abbreviation of the languages, enabling rapid selection of the required language channel. The unit also accommodates two headphone connections. The built-in loudspeaker speaker is muted when the microphone is on to prevent acoustic feedback.
A variety of rims are available, so the unit can be matched to the interior. (DCN-DISR, to be ordered separately).
The unit can be used a delegate unit or as a chairman unit (DCN-DISBCM chairman buttons, to be ordered separately).
To lock the loop-through cable, a cable clamp is available (DCN-DISCLM, to be ordered separately).
The unit is available in light- and dark-colored bases.

Features and Benefits

- Low susceptibility to mobile phone interference
- Compact, attractive and ergonomic design
- Pluggable microphone
- Channel selector with number and abbreviated channel name
- Built-in loudspeaker
- Headphone output level reduction to prevent acoustic feedback (active when listening to the floor and when microphone is on)
- Usable as delegate or chairman unit

Controls and Indicators

- Alphanumeric display for language channel selection with number and abbreviated channel name
- Socket for pluggable microphones (DCN-MICS or DCN-MICL)
- Microphone button with a red, green or yellow illuminated ring. Red indicates microphone is active, green indicates request-to-speak accepted, and yellow indicates 'VIP'.
- VIP indicator is lit when the delegate is part of the notebook (only available if PC Software is used)
- Headphones have volume control buttons
- Recessed 'De-init' switch

Interconnections

- Socket for pluggable microphone
- Two 3.5 mm headphones sockets (0.14 in) stereo jack type
- 2 m (78.7 in) cable terminated with in a molded six-pole circular connector.
- Six-pole circular connector for loop-through connections

Technical Specifications

Electrical	
Frequency response	30 Hz – 20 kHz
Headphone load impedance	> 32 ohm < 1k ohm
Output power	2 x 15 mW/32 ohm
Mechanical	
Mounting	Tabletop (portable or fixed mounting) and flush mounting
Dimensions (H x W x D) (without microphone)	
Tabletop	61 x 190 x 116 mm (2.4 x 7.5 x 4.6 in)
Flush mounted	6 x 190 x 120 mm (0.2 x 7.5 x 4.7 in)
Weight	800 g (1.76 lb)
Color top	Silver (RAL 9022)
Color base	
DCN-DISCS-L	Light Grey (RAL 000 7500)
DCN-DISCS-D	Charcoal (PH 10736)

Ordering information

DCN-DISCS-L Discussion Unit with Channel Selector
pluggable microphone, light base

DCN-DISCS-D Discussion Unit with Channel Selector
pluggable microphone, dark base

RIM

DCN-DISRH-SR Set of 10 rims for Discussion unit
Silver, High gloss

DCN-DISR-SR Set of 10 rims for Discussion unit
Silver

DCN-DISR-D Set of 10 rims for Discussion unit
Dark

DCN-DISRMH Set of 10 rims for Discussion unit
Metal, High gloss

DCN-DISRMS Set of 10 rims for Discussion unit
Metal, Semi gloss

Microphone

DCN-MICS Pluggable microphone
short stem

DCN-MICL Pluggable microphone
long stem

Buttons

DCN-DISBCM 10 sets of buttons for chairman discussion unit

DCN-DISBDD 10 sets of buttons for dual use discussion unit

DCN-DISDCS Discussion Unit with Dual Channel Selector

The Discussion Unit with Dual Channel Selectors enables participants to speak, register a request-to-speak and listen to the speaker. A socket is provided to connect a pluggable microphone. The unit has two built-in channel selectors with headphone connections with individual volume controls on either side of the unit, allowing one unit to serve two delegates. The channel selectors make it suitable for discussions in which more than one language is used and simultaneous interpretations are available. Each of the channel selectors includes up and down channel select keys and a display showing the number and the abbreviation of the channel name, enabling rapid selection of the required language channel.
The unit can be a full dual use unit by replacing the microphone button with two separated microphone buttons for individual microphone control and individual delegate identification (DCN-DISBDD dual use buttons, to be ordered separately). The built-in loudspeaker is muted when the microphone is on to prevent acoustic feedback.
Two lengths of microphones are available (DCN-MICS and DCN-MICL, to be ordered separately).
Different colored rims are available to allow matching with the interior, (DCN-DISR, to be ordered separately).
The unit can be used as a single delegate unit, as a dual delegate unit, as a chairman unit (DCN-DISBCM chairman buttons, to be ordered separately) or as a single delegate unit with an auxiliary button. The versatile auxiliary button can be used as an usher call, for example.
To lock the loop-through cable, a cable clamp is available (DCN-DISCLM, to be ordered separately).
The unit is available in light- and dark-colored bases.

Features and Benefits

- Low susceptibility to mobile phones
- Compact, attractive and ergonomic design
- Pluggable microphone
- Two channel selectors with number and abbreviated channel name
- Built-in loudspeaker
- Headphone output level reduction to prevent acoustic feedback (active when listening to the floor and when the microphone is on) *
- Usable as delegate unit, dual delegate unit, chairman unit or single delegate unit with auxiliary button

Controls and Indicators

- Two alphanumeric displays for language channel selection with number and abbreviated channel name
- Microphone button with a red, green or yellow illuminated ring. Red indicates microphone is active, green indicates request-to-speak accepted, and yellow indicates 'VIP'. *
- VIP indicator is lit when the delegate is part of the notebook (only available if PC Software is used)
- Two individual headphone volume control buttons
- Recessed 'De-init' switch

Interconnections

- Socket for pluggable microphone
- Two 3.5 mm headphones sockets (0.14 in) stereo jack type
- 2 m (78.7 in) cable terminated within a molded six-pole circular connector.
- Six-pole circular connector for loop-through connections

* When unit is used in Dual Delegate mode, this function is available individually.

Technical Specifications

Electrical	
Frequency response	30 Hz – 20 kHz
Headphone load impedance	> 32 ohm < 1 k ohm
Output power	2 x 15 mW/32 ohm
Mechanical	
Mounting	Tabletop (portable or fixed mounting) and flush mounting
Dimensions (H x W x D) (without microphone)	
Tabletop	61 x 190 x 116 mm (2.4 x 7.5 x 4.6 in)
Flush mounted	6 x 190 x 120 mm (0.2 x 7.5 x 4.7 in)
Weight	800 g (1.76 lb)
Color top	Silver (RAL 9022)
Color base	
DCN-DISDCS-L	Light Grey (RAL 000 7500)
DCN-DISDCS-D	Charcoal (PH 10736)

Ordering information

DCN-DISCS-L Discussion Unit with Dual Channel Selector pluggable microphone, light base

DCN-DISCS-D Discussion Unit with Dual Channel Selector pluggable microphone, dark base

RIM

DCN-DISRH-SR Set of 10 rims for Discussion unit Silver, High gloss

DCN-DISR-SR Set of 10 rims for Discussion unit Silver

DCN-DISR-D Set of 10 rims for Discussion unit Dark

DCN-DISRMH Set of 10 rims for Discussion unit Metal, High gloss

DCN-DISRMS Set of 10 rims for Discussion unit Metal, Semi gloss

Microphone

DCN-MICS Pluggable microphone short stem

DCN-MICL Pluggable microphone long stem

Buttons

DCN-DISBCM 10 sets of buttons for chairman discussion unit

DCN-DISBDD 10 sets of buttons for dual use discussion unit

DCN-DISV Discussion Unit with Voting

This Discussion Unit with Voting enables participants to speak, register a request-to-speak, listen to the speaker and vote. A socket is provided to connect the pluggable microphones (DCN-MICS and DCN-MICL, to be ordered separately). The unit has five voting buttons for all types of voting. The yellow indicator rings around the voting buttons are used to prompt users to register their presence, to start voting and to confirm their votes. When the unit's attendance LED is yellow, it indicates the delegate is present.
The unit also accommodates two headphone connections, so the speaker can be heard clearly even in situations with excessive background noise.
The built-in loudspeaker speaker is muted when the microphone is on to prevent acoustic feedback.
A variety of rims are available, so the unit can be matched to the interior. (DCN-DISR, to be ordered separately).
The unit can be used a delegate unit, as a chairman unit (DCN-DISBCM chairman buttons to be ordered separately) or as a delegate unit with auxiliary button. The auxiliary button is a versatile function, which can be used as an usher call for example.
To lock the loop-through cable, a cable clamp is available (DCN-DISCLM, to be ordered separately).
The unit is available in light- and dark-colored bases.

Features and Benefits

- Low susceptibility to mobile phone interference
- Compact, attractive and ergonomic design
- Pluggable microphone
- Five voting buttons
- Built-in loudspeaker
- Headphone output level reduction to prevent acoustic feedback (active when listening to the floor and when the microphone is on)
- Usable as a delegate unit or as a chairman unit

Controls and Indicators

- Five voting buttons with indicator rings around the buttons
- Unit activity / delegate presence indicator
- Microphone button with a red, green or yellow illuminated ring. Red indicates microphone is active, green indicates request-to-speak accepted, and yellow indicates 'VIP'.
- VIP indicator is lit when the delegate is part of the notebook (only available if PC Software is used)
- Headphone volume control buttons
- Recessed 'De-init' switch

Interconnections

- Socket for pluggable microphone
- Two 3.5 mm headphone sockets (0.14 in) stereo jack type
- 2 m (78.7 in) cable terminated within a molded six-pole circular connector.
- Six-pole circular connector for loop-through connections

Technical Specifications	
Electrical	
Frequency response	30 Hz – 20 kHz
Headphone load impedance	> 32 ohm < 1 k ohm
Output power	2 x 15 mW/32 ohm
Mechanical	
Mounting	Tabletop (portable or fixed mounting) and flush mounting
Dimensions (H x W x D) (without microphone)	
Tabletop	61 x 190 x 116 mm (2.4 x 7.5 x 4.6 in)
Flush mounted	6 x 190 x 120 mm (0.2 x 7.5 x 4.7 in)
Weight	800 g (1.76 lb)
Color top	Silver (RAL 9022)
Color base	
DCN-DISV-L	Light Grey (RAL 000 7500)
DCN-DISV-D	Charcoal (PH 10736)

Ordering information

DCN-DISV-L Discussion Unit with Voting
pluggable microphone, light base

DCN-DISV-D Discussion Unit with Voting
pluggable microphone, dark base

RIM

DCN-DISRH-SR Set of 10 rims for Discussion unit
Silver, High gloss

DCN-DISR-SR Set of 10 rims for Discussion unit
Silver

DCN-DISR-D Set of 10 rims for Discussion unit
Dark

DCN-DISRMH Set of 10 rims for Discussion unit
Metal, High gloss

DCN-DISRMS Set of 10 rims for Discussion unit
Metal, Semi gloss

Microphone

DCN-MICS Pluggable microphone
short stem

DCN-MICL Pluggable microphone
long stem

Buttons

DCN-DISBCM 10 sets of buttons for chairman discussion unit

DCN-DISBDD 10 sets of buttons for dual use discussion unit

DCN-DISVCS Discussion Unit with Voting and Channel Selector

The Discussion Unit with Voting and Channel Selector enables participants to speak, register a request-to-speak, listen to the speaker and vote. A socket is provided to connect the pluggable microphones (DCN-MICS and DCN-MICL, to be ordered separately). The unit has five voting buttons for all types of voting. The yellow indicator rings around the voting buttons are used to prompt users to register their presence, to start voting and to confirm their vote. When the unit's attendance LED is yellow, it indicates the delegate is present.
The unit has a built-in channel selector, which makes it suitable for discussions in which more than one language is used and simultaneous interpretations are available. The channel selector includes up and down channel select keys and a display showing the number and the abbreviation of the languages, enabling rapid selection of the required language channel. The unit also accommodates two headphones connections.
The built-in loudspeaker is muted when the microphone is on to prevent acoustic feedback.
A variety of rims are available to allow matching to the interior, (DCN-DISR, to be ordered separately).
The unit can be used as a delegate unit, as a chairman unit (DCN-DISBCM chairman buttons to be ordered separately) or as a delegate unit with auxiliary button. The versatile auxiliary button can be used as an usher call, for example.
To lock the loop-through cable, a cable clamp is available (DCN-DISCLM, to be ordered separately).
The unit is available in light- and dark-colored bases.

Features and Benefits

- Low susceptibility to mobile phone interference
- Compact, attractive and ergonomic design
- Channel selector with number and abbreviated channel name
- Built-in loudspeaker
- Headphone output level reduction to prevent acoustic feedback. (active when listening to the floor and when the microphone is on)
- Usable as a delegate unit or as a chairman unit

Controls and Indicators

- Five voting buttons with indicator rings around the buttons
- Unit activity / delegate presence indicator
- Alphanumeric display for language channel selection with number and abbreviated channel name
- Microphone button with a red, green or yellow illuminated ring. Red indicates microphone is active, green indicates request-to-speak accepted, and yellow indicates 'VIP'.
- VIP indicator is lit when the delegate is part of the notebook (only available if PC Software is used)
- Headphones volume control buttons
- Recessed 'De-init' switch

Interconnections

- Socket for pluggable microphone
- Two 3.5 mm headphone sockets (0.14 in) stereo jack type
- 2 m (78.7 in) cable terminated within a molded six-pole circular connector.
- Six-pole circular connector for loop-through connections

Technical Specifications

Electrical

Frequency response	30 Hz – 20 kHz
Headphone load impedance	> 32 ohm < 1 k ohm
Output power	2 x 15 mW/32 ohm

Mechanical

Mounting	Tabletop (portable or fixed mounting) and flush mounting
Dimensions (H x W x D) (without microphone)	
Tabletop	61 x 190 x 116 mm (2.4 x 7.5 x 4.6 in)
Flush mounted	6 x 190 x 120 mm (0.2 x 7.5 x 4.7 in)
Weight	800 g (1.76 lb)
Color top	Silver (RAL 9022)
Color base	
DCN-DISV-L	Light Grey (RAL 000 7500)
DCN-DISV-D	Charcoal (PH 10736)

Ordering information

DCN-DISVCS-L Discussion Unit with Voting and Channel Selector pluggable microphone, light base

DCN-DISVCS-D Discussion Unit with Voting and Channel Selector pluggable microphone, dark base

RIM

DCN-DISRH-SR Set of 10 rims for Discussion unit Silver, High gloss

DCN-DISR-SR Set of 10 rims for Discussion unit Silver

DCN-DISR-D Set of 10 rims for Discussion unit Dark

DCN-DISRMH Set of 10 rims for Discussion unit Metal, High gloss

DCN-DISRMS Set of 10 rims for Discussion unit Metal, Semi gloss

Microphone

DCN-MICS Pluggable microphone short stem

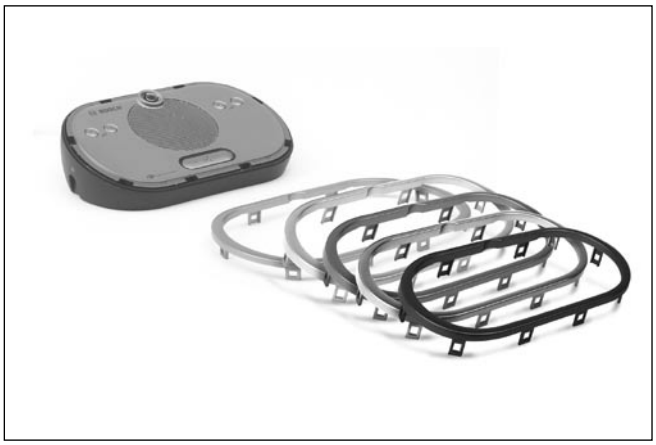
DCN-MICL Pluggable microphone long stem

Buttons

DCN-DISBCM 10 sets of buttons for chairman discussion unit

DCN-DISBDD 10 sets of buttons for dual use discussion unit

DCN-DISR Set of 10 Rims for Discussion Units



A Rim completes the discussion units. A variety of rims with different finishes are available to allow matching with any interior.

Technical Specifications	
Mechanical	
Mounting	Click and fit on any Discussion unit
Color	
DCN-DISRH-SR	Silver (RAL 9022) high gloss
DCN-DISR-SR	Silver (RAL 9022)
DCN-DISR-D	Charcoal (PH 10736)
DCN-DISRMH	High gloss metal
DCN-DISRMS	Semi gloss metal

Ordering information

DCN-DISRH-SR Set of 10 rims for Discussion unit
Silver, High gloss

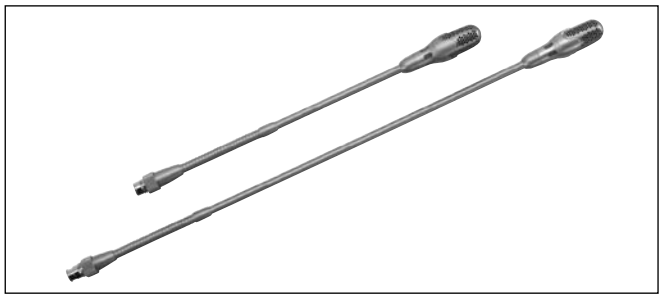
DCN-DISR-SR Set of 10 rims for Discussion unit
Silver

DCN-DISR-D Set of 10 rims for Discussion unit
Dark

DCN-DISRMH Set of 10 rims for Discussion unit
Metal, High gloss

DCN-DISRMS Set of 10 rims for Discussion unit
Metal, Semi gloss

DCN-MICS/L Pluggable microphone short/long stem



The innovative, stylish and ergonomically designed microphone with an adjustable stem simply plugs directly into a Discussion unit, Concentus, flush-mounted Microphone Connection panes or Interpreter desk. It has a uni-directional response for optimum performance even in noisy conditions, and includes an indicator which is red when the microphone is on and green when the delegate unit is in the request state. It has low susceptibility to interference from mobile phones.

Features and Benefits

- Uni-directional microphone on adjustable stem
- Built-in plop and windshield

Controls and Indicators

- Red or green illuminator. Red indicates microphone is active, green indicates request-to-speak accepted.

Interconnections

- Connector to plug and fasten the microphone

Technical Specifications

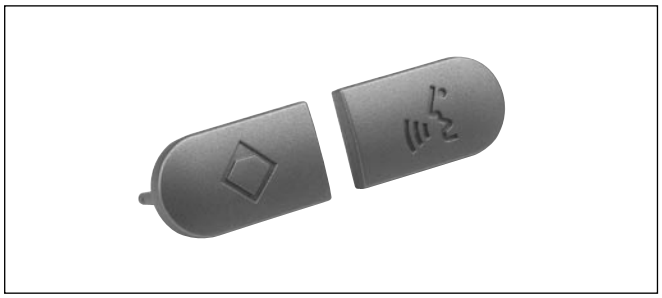
Mechanical	
Mounting	Plug and fasten into Discussion units, Concentus, flush mounted Microphone connection panels and Interpreter desks
Length	
DCN-MICS	310 mm (12.2 in)
DCN-MICL	480 mm (18.9 in)
Weight	
DCN-MICS	100 g (0.22 lb)
DCN-MICL	115 g (0.25 lb)
Color	Silver (RAL 9022)

Ordering information

DCN-MICS Pluggable Microphone Short stem

DCN-MICL Pluggable Microphone Long stem

DCN-DISBCM 10 sets of buttons for Chairman Discussion Unit



DCN-DISBCM 10 sets of buttons for Chairman Discussion Units replace the single microphone button on a Discussion unit when used in chairman mode. These buttons can also be used for the Discussion unit in Auxiliary control mode.

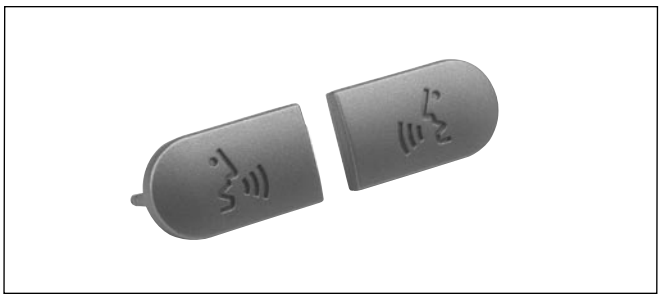
Technical Specifications

Mechanical	
Mounting	Click and fit on any Discussion unit
Color	Silver (RAL 9022)

Ordering information

DCN-DISBCM 10 sets of buttons for Chairman Discussion unit

DCN-DISBDD 10 sets of buttons for Dual Use Discussion Unit



DCN-DISBDD 10 sets of buttons for Dual Use Discussion Units replace the single microphone button on a discussion unit when used in dual delegate mode.

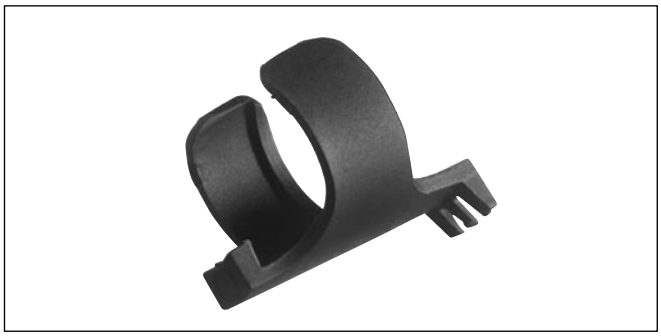
Technical Specifications

Mechanical	
Mounting	Click and fit on any Discussion unit
Color	Silver (RAL 9022)

Ordering information

DCN-DISBDD 10 sets of buttons for Dual use Discussion unit

DCN-DISCLM Set of 25 cable clamps for Discussion Unit



DCN-DISCLM Set of 25 cable clamps for Discussion Unit secures loop-through cable to next unit.

Technical Specifications	
Mechanical	
Mounting	Click and fit on any discussion unit
Color	Charcoal (PH 10736)

Ordering information

DCN-DISCLM Sets of 25 cable clamps for Discussion unit

DCN-FCDIS Flight Case for Discussion units

The DCN-FCDIS Flight Case for Discussion units accommodates 10 Discussion units. It can hold 10 discussion units with attached microphones.

Features and Benefits

- Rugged construction with reinforced corners
- Simplifies packing and unpacking
- Easy to carry and store

Technical Specifications	
Mechanical	
Dimensions (H x W x D)	430 x 665 x 255 mm (16.9 x 26.2 x 10 in)
Weight	9.3 kg (20.5 lb)
Color	grey

Ordering information

DCN-FCDIS Flight Case for Discussion units

Concentus units

Concentus units are typically used for larger conferences. The units are ideal when a flexible configuration or portable facilities are required. All units are easily plugged into or removed from the system cabling, which enables the conference system to be set up quickly and efficiently.
The unit has a pluggable microphone (supplied separately) available in either short or long stem versions. The microphones have flexible stems for ease of use. The unit can be free-standing or fixed using mounting screws. The Concentus units can also be flush-mounted in more permanent installations. Storage and transport is simplified by rugged suitcases that accommodate complete systems.

The units can be connected in a simple daisy chain configuration. Alternatively, they can be connected using one thin cable and a trunk splitter to connect the unit to the system cabling, with connectors neatly hidden in the units. This 'one cable' aspect of the DCN Next Generation system means there is no untidy mess of wires at the back of the units. This 'clean' configuration is especially advantageous for TV coverage, where the backs of the units are on show.
The Concentus units range from standard Concentus units to Concentus with chip card reader, graphic LCD screen and channel selector, up to chairman units with a priority key and advanced options. All Concentus units provide voting facilities that enable contributing delegates to take part in the decision making process, a vital aspect of modern conferencing.

Concentus units overview

	Pluggable microphone	Channel Selector	Voting	Graphical LCD	ID-card reader	Chairman
DCN-CON	•		•			
DCN-CONCS	•	•	•			
DCN-CONFF	•	•	•	•	•	
DCN-CONCM	•	•	•	•	•	•

DCN-CON Concentus Unit

The DCN-CON is the standard delegate conference unit that enables delegates to speak, register a request-to-speak, register a response request, listen to the speaker and vote. It has low susceptibility to interference from mobile phones. A socket is provided to connect the plug-gable microphones (DCN-MICS and DCN-MICL, to be ordered separately). The flat-panel loudspeaker offers superior acoustics with minimal feedback, thus increasing intelligibility. It is automatically muted when the micro-phone is activated. When the unit is not being used, the loudspeaker panel conveniently folds down. There are five voting buttons for all kind of voting. An external contact is available to connect external fingerprint readers.

Features and Benefits

- Low susceptibility to mobile phones
- Compact, attractive delegate unit
- Built-in fold-away flat-panel loudspeaker
- Five voting buttons
- Cable connections located underneath the unit
- External present and fraud contact

Controls and Indicators

- Built-in fold-away flat-panel loudspeaker, automatically muted if a microphone is on
- Microphone 'on/off ' or 'request-to-speak' button
- 'Microphone on' indicator at the top of the loudspeaker
- Tri-color indicator above the microphone button:
  - Red microphone-on indicator
  - Green 'Request-to-speak' confirmation indicator
  - Yellow 'VIP' indicator. 'VIP' is lit when the delegate unit is part of the notebook, which is only available when PC control software is used.
- Five voting buttons with yellow LED confirmation indicators. These can be used to register:
  – PRESENT, YES (+), NO (-), ABSTAIN (X), (parliamentary voting)
  – Numerals: 1 to 5 (multiple choice or opinion polls)
  – Rating scale: - -, -, 0, +, ++ (audience response)

Interconnections

- Socket for pluggable microphone
- 2 m (78.7 in) cable terminated in a molded six-pole circular connector
- Six-pole circular connector for loop-through connections
- Eight-pole modular jack connector for Intercom Handset LBB 3555/00 and external present and Fraud contact e.g., a fingerprint reader

Technical Specifications

Mechanical	
Mounting	Tabletop (portable or fixed mounting) and flush mounting
Dimensions (H x W x D) (without microphone)	
Tabletop	50 x 275 x 155 mm (2.0 x 10.8 x 6.1 in)
Flush mounted	30 x 275 x 155 mm (1.2 x 10.8 x 6.1 in)
Weight	1.4 kg (3.1 lb)
Color top	Charcoal (PH 10736) with silver (RAL 9022) panel
Color base	Charcoal (PH 10736)

Ordering information

DCN-CON Concentus Unit
pluggable microphone, voting

Microphone

DCN-MICS Pluggable microphone
short stem

DCN-MICL Pluggable microphone
long stem

DCN-CONCS Concentus Unit with Channel Selector

The DCN-CONCS is similar to the DCN-CON Standard Delegate Unit, but includes a built-in language channel selector. This makes it suitable for conferences where more than one language is used and simultaneous interpretations are available. The channel selector includes up and down select keys and a 2-digit display with backlighting, enabling rapid selection of the required language channel. Channel selection is automatically limited to the number of language channels available. The flat-panel loudspeaker offers superior acoustics with minimal feedback, thus increasing intelligibility. When the unit is not being used, the loudspeaker panel conveniently folds down.

Features and Benefits

- Low susceptibility to mobile phones
- Compact, attractive delegate unit
- Built-in fold-away flat-panel loudspeaker
- Five voting buttons
- Cable connections located underneath the unit
- External present and fraud contact

Controls and Indicators

- Channel selector with channel number display with back lighting and channel select keys (up/down)
- Headphone volume control on each side of the unit
- Built-in fold-away flat-panel loudspeaker, automatically muted if a microphone is on
- Microphone 'on/off ' or 'request-to-speak' button
- 'Microphone-on' indicator at the top of the loudspeaker
- Tri-color indicator above the microphone button:
  - Red microphone on indicator
  - Green 'Request-to-speak' confirmation indicator
  - Yellow 'VIP' indicator. 'VIP' is lit when the delegate unit is part of the notebook, which is only available when PC control software is used.
- Five voting buttons with yellow LED confirmation indicators These can be used to register:
  - PRESENT, YES (+), NO (-), ABSTAIN (X), (parliamentary voting)
  - Numerals: 1 to 5 (multiple choice or opinion polls)
  - Rating scale: - -, -, 0, +, ++ (audience response)

Interconnections

- Socket for pluggable microphone
- 2 m (74.74 in) cable terminated in a molded six-pole circular connector
- Socket for external microphone or headset microphone
- Six-pole circular connector for loop-through connections
- Eight-pole modular jack connector for Intercom Handset LBB 3555/00 and external present and fraud contact e.g., a fingerprint reader
- Left and right 3.5 mm headphones sockets (0.14 in) stereo jack type
- Connection for external 3.5 mm (0.14 in) microphone or headset microphone stereo jack type.

Technical Specifications	
Electrical	
Headphone connection	
Frequency response	30 Hz – 20 kHz
Load impedance	> 32 ohm
Output power	2 x 15 mW/32 ohm
Headset connection	
Frequency response	30 Hz – 20 kHz
Load impedance	> 32 ohm
Output power	2 x 15 mW/32 ohm
Nominal microphone input level	7 mVrms
Overload microphone input level	> 124 mVrms
Interface data	
Recommended external microphone type (or headset microphone)	
Element	Electret-condenser
Polar pattern	Omni directional
Operating voltage	5 Vdc
Sensitivity	62 dB at 1200 ohm (0 dB = 1 V/mbar at 1 kHz)
Frequency response	100 Hz to 14 kHz
Connector	3.5 mm (0.14 in) jack mono or stereo
Mechanical	
Mounting	Tabletop (portable or fixed mounting) and flush mounting
Dimensions (H x W x D) (without microphone)	
Tabletop	50 x 275 x 155 mm (2.0 x 10.8 x 6.1 in)
Flush mounted	30 x 275 x 155 mm (1 .2 x 10.8 x 6.1 in)
Weight	1 .4 kg (3.1 lb)
Color top	Charcoal (PH 10736) with silver (RAL 9022) panel
Color base	Charcoal (PH 10736)

Ordering information

DCN-CONCS Concentus Unit with Channel Selector
pluggable microphone, voting, channel selector, 2 headphone connections

Microphone

DCN-MICS Pluggable microphone
short stem

DCN-MICL Pluggable microphone
long stem

DCN-CONFF Concentus Unit Full Function

The top-of-the-range, multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, registering a request-to-speak, registering a request-to-respond, listening, voting, selecting language channels, chip card reading and displaying conference and user-related information. It has low susceptibility to interference from mobile phones, It is stylistically and functionally similar to the DCN-CONCS Delegate Unit with Channel Selector, but also includes a chip card reader and a graphic display with backlighting. When a chip card is inserted into the card reader, the graphic LCD screen automatically displays user-related information in the language assigned to the delegate chip card. The graphic LCD screen has permanent backlighting, and can display characters from complex European languages or icon-based-scripts such as Chinese. Channel selection is automatically limited to the number of language channels available. The flat-panel loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.
When the unit is not being used, the loudspeaker panel conveniently folds down.

Features and Benefits

- Low susceptibility to mobile phones
- Compact, attractive delegate unit
- Built-in fold-away flat-panel loudspeaker
- Five voting buttons
- Cable connections located underneath the unit
- External present and fraud contact

Controls and Indicators

- Channel selector with channel number display with back lighting and channel select keys (up/down)

- Headphone volume control on each side of the unit
- Graphic LCD screen. Typical displays include:
  – button description
  – multi-lingual user instructions
  – information on the number of current speakers
  – request-to-speak information and confirmation
  – voting results
  – remaining/elapsed speech time
  – public and personal messages
  – additional user information
- Five button with LED indicators (for use in combination with the graphic LCD screen). The soft buttons can provide users with display information such as messages, conference- and microphone user-related information. Depending on the application software the five soft buttons can be used as voting buttons with confirmation indicators (yellow LEDs), enabling the user to register:
  – PRESENT, YES(+), NO (-), ABSTAIN (X), (parliamentary voting)
  – Numerals: 1 to 5 (multiple choice or opinion poll voting)
  – Rating scale: - -, - 0, +, ++ (audience response)
- Identification and access control by card reader with or without PIN
- Identification and access control by card reader with or without PIN
- Built-in fold-away flat-panel loudspeaker, automatically muted if a microphone is on
- Microphone 'on/off ' or 'request-to-speak' button
- 'Microphone on' indicator at the top of the loudspeaker
- Tri-color indicator above the microphone button:
  - Red microphone on indicator
  - Green 'Request-to-speak' confirmation indicator
  - Yellow 'VIP' indicator. 'VIP' is lit when the delegate unit is part of the notebook, which is only available when PC control software is used.

Interconnections

- Socket for pluggable microphone
- 2 m (78.7 in) cable terminated in a molded six-pole circular connector
- Socket for external microphone or headset microphone
- Six-pole circular connector for loop-through connections
- Eight-pole modular jack connector for Intercom Handset LBB 3555/00 and external present and fraud contact e.g., a. fingerprint reader
- Left and right 3.5 mm headphones sockets (0.14 in) stereo jack type
- Connection for external 3.5 mm (0.14 in) microphone or headset microphone, stereo jack type

Technical Specifications

Electrical	
Headphone connection	
Frequency response	30 Hz – 20 kHz
Load impedance	> 32 ohm
Output power	2 x 15 mW/32 ohm
Headset connection	
Frequency response	30 Hz – 20 kHz
Load impedance	> 32 ohm
Output power	2 x 15 mW/32 ohm
Nominal microphone input level	7 mVrms
Overload microphone input level	> 124 mVrms
Interface data	
Recommended external microphone type (or headset microphone)	
Element	Electret-condenser
Polar pattern	Omni directional
Operating voltage	5 Vdc
Sensitivity	62 dB at 1200 ohm (0 dB = 1 V/mbar at 1 kHz)
Frequency response	100 Hz to 14 kHz
Connector	3.5 mm (0.14 in) jack mono or stereo
Mechanical	
Mounting	Tabletop (portable or fixed mounting) and flush mounting
Dimensions (H x W x D) (without microphone)	
Tabletop	50 x 275 x 155 mm (2.0 x 10.8 x 6.1 in)
Flush mounted	30 x 275 x 155 mm (1 .2 x 10.8 x 6.1 in)
Weight	1 .4 kg (3.1 lb)
Color top	Charcoal (PH 10736) with silver (RAL 9022) panel
Color base	Charcoal (PH 10736)

Ordering information

DCN-CONFF Concentus Unit Full Function
pluggable microphone, voting, channel selector, 2 headphone connections, graphical display

Microphone

DCN-MICS Pluggable microphone
short stem

DCN-MICL Pluggable microphone
long stem

DCN-CONCM Concentus Chairman Unit

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has low susceptibility to interference from mobile phones Similar in appearance to the DCN-CONFF Delegate Unit, the DCN-CONCM Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start, stop or suspend voting, cancel a request-to-speak, turn off all active microphones and recall messages for display. A graphic LCD screen with permanent backlighting can display characters from complex European languages or icon-based scripts such as Chinese. Channel selection is automatically limited to the number of language channels available. The flat-panel loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility. When the unit is not being used, the loudspeaker panel conveniently folds down.

Features and Benefits

- Low susceptibility to mobile phones
- Compact, attractive delegate unit
- Built-in fold-away flat-panel loudspeaker
- Five voting buttons
- Cable connections located underneath the unit
- External present and fraud contact

Controls and Indicators

- Priority key which causes an optional chime tone to sound while temporarily or permanently muting all active delegate units. The chairman microphone remains active as long as the priority button is pressed.
- Channel selector with channel number display with back lighting and channel select keys (up/down)
- Headphone volume control on each side of the unit
- Graphic LCD screen. Typical displays include:
  – button description
  – multi-lingual user instructions
  – information on the number of current speakers
  – request-to-speak information and confirmation
  – voting results
  – remaining/elapsed speech time
  – public and personal messages
  – additional user information
- Five button with LED indicators (for use in combination with the graphic LCD screen). The soft buttons can provide users with display information such as messages, conference- and microphone user-related information. Depending on the application software the five soft buttons can be used as voting buttons with confirmation indicators (yellow LEDs), enabling the user to register:
  – PRESENT, YES(+), NO (-), ABSTAIN (X), (parliamentary voting)
  – Numerals: 1 to 5 (multiple choice or opinion poll voting)
  – Rating scale: - -, - 0, +, ++ (audience response)
- Identification and access control by card reader with or without PIN
- Built-in fold-away flat-panel loudspeaker, automatically muted if a microphone is on
- Microphone ‘on/off ’ or ‘request-to-speak’ button
- ‘Microphone on’ indicator at the top of the loudspeaker
- Tri-color indicator above the microphone button:
  - Red microphone on indicator
  - Green ‘Request-to-speak’ confirmation indicator
  - Yellow ‘VIP’ indicator. ‘VIP’ is lit when the delegate unit is part of the notebook, which is only available when PC control software is used.

Interconnections

- Socket for pluggable microphone
- 2 m (78.7 in) cable terminated in a molded six-pole circular connector
- Socket for external microphone or headset microphone
- Six-pole circular connector for loop-through connections
- Eight-pole modular jack connector for Intercom Handset LBB 3555/00 and external present and fraud contact e.g., fingerprint reader
- Left and right 3.5 mm (0.14 in) headphones sockets, stereo jack type
- Connection for 3.5 mm (0.14 in) external microphone or headset microphone stereo jack type

Technical Specifications	
Electrical	
Headphone connection	
Frequency response	30 Hz – 20 kHz
Load impedance	> 32 ohm
Output power	2 x 15 mW/32 ohm
Headset connection	
Frequency response	30 Hz – 20 kHz
Load impedance	> 32 ohm
Output power	2 x 15 mW/32 ohm
Nominal microphone input level	7 mVrms
Overload microphone input level	> 124 mVrms
Interface data	
Recommended external microphone type (or headset microphone)	
Element	Electret-condenser
Polar pattern	Omni directional
Operating voltage	5 Vdc
Sensitivity	62 dB at 1200 ohm (0 dB = 1 V/mbar at 1 kHz)
Frequency response	100 Hz to 14 kHz
Connector	3.5 mm (0.14 in) jack mono or stereo
Mechanical	
Mounting	Tabletop (portable or fixed mounting) and flush mounting
Dimensions (H x W x D) (without microphone)	
Tabletop	50 x 275 x 155 mm (2.0 x 10.8 x 6.1 in)
Flush mounted	30 x 275 x 155 mm (1.2 x 10.8 x 6.1 in)
Weight	1.4 kg (3.1 lb)
Color top	Charcoal (PH 10736) with silver (RAL 9022) panel
Color base	Charcoal (PH 10736)

Ordering information

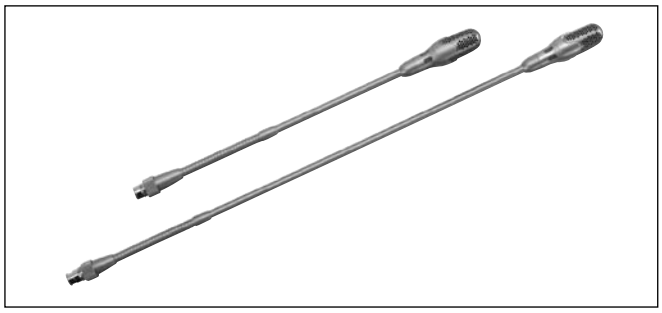
DCN-CONCM Concentus Chairman Unit
pluggable microphone, voting, channel selector, 2 headphone connections, graphical display, priority key

Microphone

DCN-MICS Pluggable microphone short stem

DCN-MICL Pluggable microphone long stem

DCN-MICS/L Pluggable microphone short/long stem



The innovative, stylish and ergonomically designed microphone has an adjustable stem, which simply plugs and fasten directly into Discussion unit, Concentus, flush-mounted Microphone Connection panel or Interpreter desk. The microphone has a uni-directional response for optimum performance even in noisy conditions, and includes an indicator which is red when the microphone is on and green when the delegate unit is in the request state.

Features and Benefits

- Uni-directional microphone on adjustable stem
- Built-in plop and windshield

Controls and Indicators

- Red or green illuminator. Red indicates microphone is active, green indicates request-to-speak accepted

Interconnections

- Connector to plug and fasten the microphone

Technical Specifications	
Mechanical	
Mounting	Plug and fasten into Discussion units, Concentus, flush mounted Microphone connection panels and Interpreter desks
Length	
DCN-MICS	310 mm (12.2 in)
DCN-MICL	480 mm (18.9 in)
Weight	
DCN-MICS	100 g (0.22 lb)
DCN-MICL	115 g (0.25 lb)
Color	Silver (RAL 9022)

Ordering information

DCN-MICS Pluggable Microphone Short stem

DCN-MICL Pluggable Microphone Long stem

DCN-FCCON Flight Case for Concentus units

The DCN-FCCON Flight Case accommodates 10 Concentus units. There is also a special cover compartment for housing 10 microphones (standard and long). It can hold 10 Concentus units and microphones.

Features and Benefits

- Rugged construction with reinforced corners
- Simplifies packing and unpacking
- Easy to carry and store

Technical Specifications

Mechanical	
Mounting	Mounting six-pole mini XLR connector
Dimensions (H x W x D)	430 x 665 x 255 mm (16.90 x 26.20 x 10.00 in)
Weight	9.3 kg (20.50 lb)
Color	Dark grey

Ordering information

DCN-FCCON Flight Case for Concentus units

LBB 3555/00 Intercom Handset and Cradle

Lightweight and compact, this robust and attractively styled handset and cradle enables private 2-way conversation between conference participants. The handset is hard-wired to the cradle by a coiled cable, 0.5 m (19.6 in) long when coiled, and 2 m (78.7 in) uncoiled. The cable is terminated with a six-pole RJ45 connector for connection to Concentus and Dual Delegate Interface. When used in permanent installations, the unit is easily mounted to a tabletop or wall using the two screws.

Features and Benefits

- Ideal for intercom applications
- For use with all Concentus and Dual Delegate Interface
- Can be permanently mounted to wall, chair or tabletop

Interconnections

- Six-pole RJ45 socket

Technical Specifications

Mechanical	
Mounting	Tabletop or wall-mounted using the 2 screw holes on the cradle
Dimensions (H x W)	53 x 210 mm (2.08 x 8.26 in)
Weight	250 g (0.55 lb)
Color	Charcoal (PH 10736)

Ordering information

LBB 3555/00 Intercom Handset and Cradle

Flush Mounted contribution units

The broad range of DCN Next Generation flush mounted equipment is used for creating individual system contribution units for custom solutions. Flush mounted equipment is ideal for use in permanent installations where portability is not required. It can be installed into either tabletops or seat arm rests.
All functions and facilities of tabletop contribution units are also available in flush mounted versions. As an example, a delegate unit can be created by combining a DCN-DDI Dual Delegate Interface. The main components in custom flush mounted solutions with a combination of the following elements are:

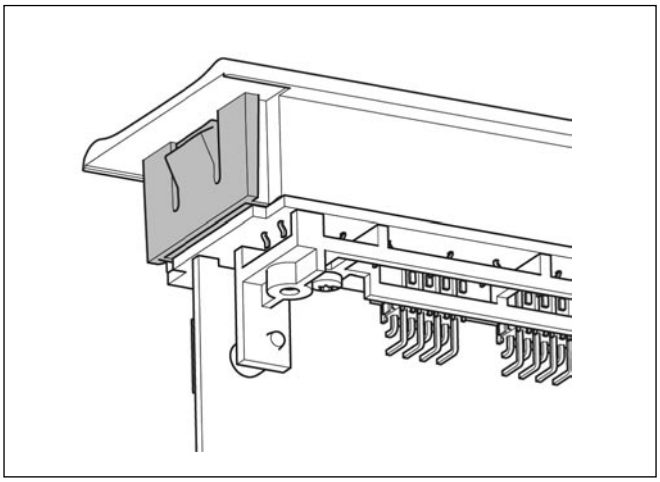
- DCN-DDI Dual Delegate Interface
- DCN-FCS Channel Selector unit for 32 channels
- DCN-FEC set of 50 end caps
- DCN-FLSP Loudspeaker Panel
- DCN-FMIC Microphone Connection Panel
- DCN-FMICB Microphone Control Panel
- DCN-FPRIOB Priority Panel
- DCN-FV Voting Panel
- DCN-FVCRD Voting + Card Panel
- DCN-TTH set of 10 Table Top Housing
- DCN-MICS Pluggable Microphone Short Stem
- DCN-MICL Pluggable Microphone Long Stem
- DCN-FHH Hand-Held Microphone
- DCN-FHH-C Hand-Held Microphone with coiled cable
- LBB 3555/00 Intercom Handset
- DCN-FVU Voting Unit*
- DCN-FVU-CN Voting Unit Chinese*
- DCN-FCOUP Set of 50 couplings
- DCN-FPT Flush Positioning Tool

* The voting units are not connected to the DCN-DDI but directly to the DCN network.

All flush mounted units are measure40 x 100 mm (1.62 x 39.37 in), except the DCN-FMIC Microphone Control Panel, DCN-FMICB Microphone Control Panel and DCN-FPRIOB Priority Panel, which are 40 x 50 mm (1.57 x 2.36 in).

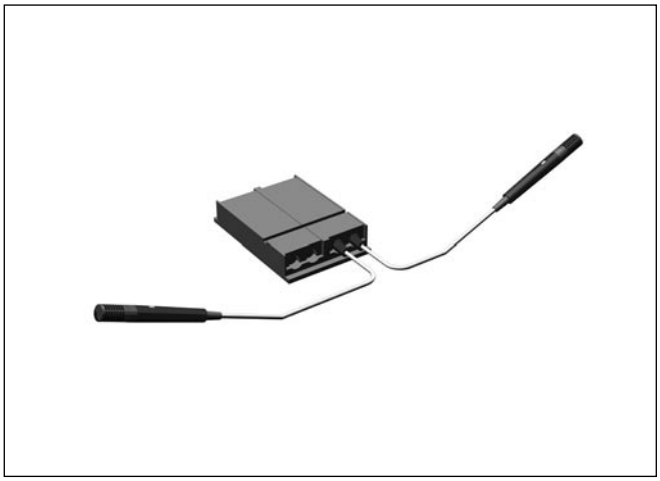
Mounting

The units can be mounted in wood or metal. When mounting into a metal surface, the click-to-fit mechanism available on all flush-mounting units is used to secure the units into cut-outs on tabletops or the arm rests of seats.

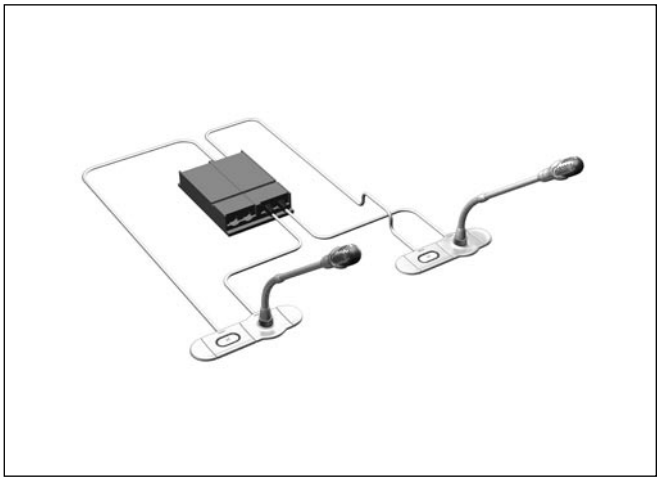


When mounting into a wooden surface the units are secured by using DCN-FCOUP Couplings. First the Couplings have to be placed into surface, then the units are clicked into the Couplings. To place the DCN-FCOUP Couplings at the correct position, the DCN-FPT Flush Positioning Tool can be used.

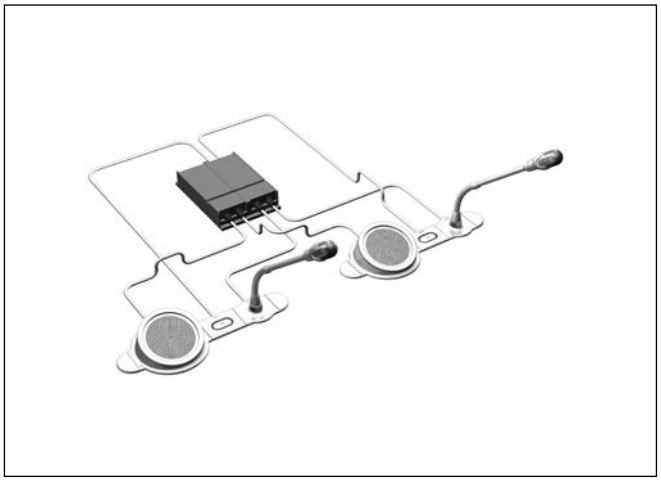
In the examples below, several flush mount configurations are shown. They range from a basic solution with only a hand microphone to a complete solution for chairman with voting and intercom.



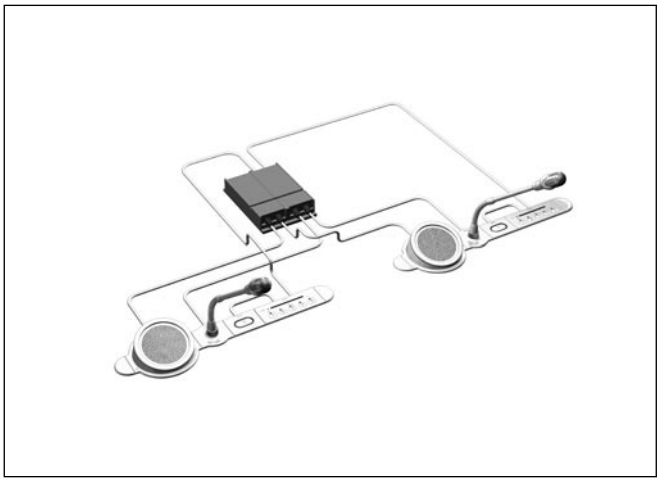
Configuration with basic microphone functionality



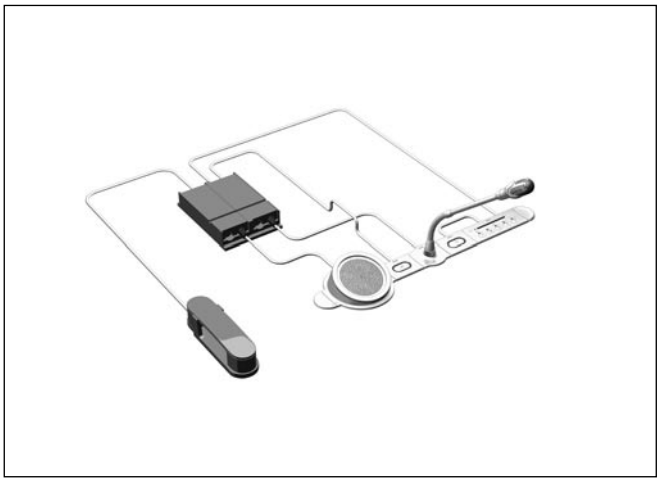
Flush mount configuration with dual microphones



Flush mount configuration with dual microphones and loudspeakers



Flushmount configuration with dual microphones, loudspeakers, voting and ID-cardreaders



Flushmount configuration with chairman priority control, microphones, loudspeaker, voting, ID-cardreader and Intercom

DCN-DDI Dual Delegate Interface

The Dual Delegate Interface is intended for use in flush mounted custom solutions. It enables a number of functions to be added, making it suitable for chairmen and delegates. Such functions include facilities for connecting a Voting Panel, with or without a Card reader (DCN-FVCRD or DCN-FV). In addition, two separate audio inputs are provided, each selectable for use with or without phantom supplied microphones such as condenser or dynamic types.
Both inputs can also be used as a line inputs. Each input can be assigned its own seat number, allowing the DCN-DDI to serve two delegate positions.
The unit is suitable for Hand-Held Microphones (DCN-FHH) or Pluggable Microphones (DCN-MIC) with Microphone Connection Panel (DCN-FMIC) and Microphone Control Panel (DCN-FMICB). In addition, the unit provides a single connection for an Intercom Handset (LBB 3555/00).
Settings are available to assign the Dual Delegate Interface for use as a delegate unit, a dual delegate, chairman unit, entrance/exit unit or ambient microphone. The ambient microphone is located in the conference venue, and automatically switched on when no other delegate unit or chairman unit microphones are active. In this way, interpreters always have audio contact with conference venue.
Two 3.5 mm (0.14 in) stereo jack sockets are provided for connection to headphones or to loudspeaker panel (DCN-FLSP). The loudspeaker output is switched off when the corresponding input is switched on. The unit can be mounted free-standing on a tabletop, mounted on a wall, or discreetly mounted into tabletops or into the arm rests of chairs etc.

Features and Benefits

- Dual Delegate mode for two microphones and two voting and card panels
- Two microphone/line inputs
- Outputs to headphones or loudspeakers
- Range of mounting options
- Use for entrance/exit registration
- Shared microphone with dual microphone control

Controls and Indicators

- Three Switches per input with the following possibilities:
  – Microphone or line selection
  – Asymmetrical microphone input, symmetrical microphone/ line input, or symmetrical microphone input with phantom power selection
  – Input attenuation selection of 0, 6, 12 or 18 dB +/- 3 dB input level fine adjustment potentiometer per input Interconnection
- Two balanced audio inputs for line (0 dB) or microphone (-60 dB) sources with or without a phantom power supply. (2 x eight-pole 262° DIN-type socket)
- Remote control inputs (switches) and outputs (LEDs) matching the DCN microphones and control panels
- Two 3.5 mm (0.14 in) loudspeaker or headphone output connectors stereo jack socket
- 2 m (78.7 in) cable terminated with a molded six-pole circular connector
- Six-pole circular connector for loop-through system
- Switch to select the different modes of the DCN-DDI: Dual delegate, Chairman, Dual delegate, one microphone, Dual delegate, muted loudspeakers, Single delegate, Entrance/Exit unit, Ambient microphone

Note: To use the entrance/exit mode software module Attendance Registration LBB 4178 is also required.

Interconnections

- Two RJ11 connectors for Microphone Control Panel DCN-FMIC, Priority Panel DCN-FPRIOB, Voting Panel DCN-FV and Voting and Card Panel DCN-FVCRD
- RJ11 connector for Intercom Handset LBB 3555/00
- Two balanced audio inputs for microphones
- Phantom power supply (2 x eight-pole 262° DIN-type socket)
- Remote control inputs (switches) and outputs (LEDs) matching
- Six-pole circular connector for loop-through system cabling
- 2 m (78.7 in) cable terminated with a molded six-pole circular connector

Technical Specifications

Mechanical	
Mounting	On wall, under tabletop or seat, in arm rest or in cable duct
Dimensions (H x W x D)	35 x 100 x 170 mm (1.37 x 3.93 x 6.69 in) (excl. cables)
Weight	500 g (1.10 lb)
Color	Charcoal (PH 10736)

Ordering information

DCN-DDI Dual Delegate Interface

DCN-FHH Hand-held microphone

The DCN-FHH is a uni-directional, condenser microphone with built-in plop and windshield. It fits comfortably into the hand and is ideal for applications where the speaker is not stationary. A microphone on/off button and LED indicator lamps are built into the microphone housing. Two of these microphones can be connected to the Dual Delegate Interface DCN-DDI.

Features and Benefits

- Light, portable microphone
- Built-in plop and windshield
- On/off switch and LED status indicators
- 5 m (196.8 in) cable

Controls and Indicators

- Condenser microphone with built-in plop and windshield
- Microphone on/off or request-to-speak button
- 'Microphone on' indicator (red LED)
- 'Request-to-speak' confirmation indicator (green LED)

Technical Specifications

Mechanical	
Mounting	using clamp LBC 1215/01 the microphone may be mounted on a stand, wall or on a chair
Dimensions (H x W)	215 x 30 mm (8.46 x 1.18 in)
Cable length	
DCN-FHH	5 m
DCN-FHH-C	coiled 0.4 m, un-coiled 1.4 m
Weight	350 g
Color	Charcoal (PH 10736)

Ordering information

DCN-FHH Hand-held microphone	
DCN-FHH-C Hand-held microphone with coiled cable	

DCN-FMIC Microphone Connection Panel

The Microphone Connection Panel connects the pluggable microphone DCN-MIC to one of the audio inputs to the Dual Delegate Interface (DCN-DDI).
The Microphone Connection Panel has also an output, which controls the output level of the channel selector. This means that when the microphone is active the output level of the channel selector is reduced to prevent acoustic feedback.

Features and Benefits

- IF design award
- Channel selector output level control.

Interconnections

- 2 m cable (78.7 in) terminated with eight-pole 262° DIN-type plug.
- Connector to control output level reduction of the channel selector (AMP173977-2 socket).

Technical Specifications

Mechanical

Mounting	Click-to-fit in a metal panel with a thickness of 2 mm or in combination with DCN-FCOUP couplings and DCN-FEC end caps in any surrounding
Dimensions (H x W x D)	40 x 50 x 50 mm
Weight	10 g
Color	Silver (RAL 9022)

Ordering information

DCN-FMIC Microphone Connection Panel

DCN-FMICB Microphone Control Panel

The Microphone Control Panel is connected to the Dual Delegate Interface (DCN-DDI) via one of the RJ11 control inputs.

Features and Benefits

- IF design award
- Microphone on/off button
- Red Microphone on indicator
- Green request indicator
- Orange VIP indicator

Controls and Indicators

- One microphone control button
- Three color illuminated ring around the microphone button The illuminated ring around the button can operate in several states:

  Red
  Microphone is active
  Flashing red*
  Last minute of speech time is active.
  Green
  The delegate is listed in the request list.
  Flashing green
  The delegate is the first in the request list and the next one to get the floor.
  Yellow*
  The delegate is part of the Notebook and can control its microphone without interaction of the operator.

* Only available with software module Microphone Management (LBB 4170/00) or Synoptic Microphone Control (LBB 4171/00).

Interconnections

- 2 RJ11 connectors, one for connection to Dual Delegate Interface (DCN-DDI) and one for loop through.

Technical Specifications

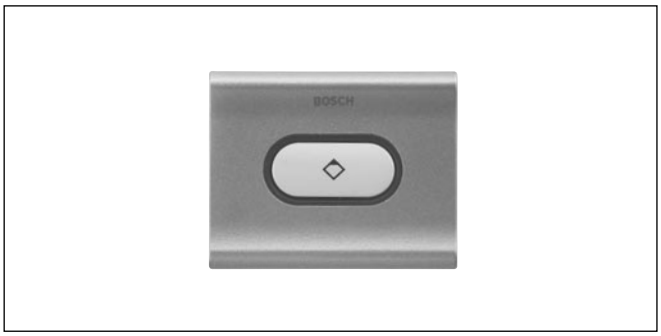
Mechanical

Mounting	Click-to-fit in a metal panel with a thickness of 2 mm or in combination with DCN-FCOUP couplings and DCN-FEC end caps in any surrounding
Dimensions (H x W x D)	40 x 50 x 50 mm
Weight	200 g
Color	Silver (RAL 9022)

Ordering information

DCN-FMICB Microphone Control Panel

DCN-FPRIOB Priority Panel



The Priority Panel is connected to the Dual Delegate Interface (DCN-DDI) to one of the RJ11 control inputs.

Features and Benefits

- IF design award
- Priority on/off button
- Red Microphone on indicator

The illuminated ring around the button illuminate red to indicate that priority is active.

Controls and Indicators

- One microphone control button
- Red color illuminated ring around the microphone button.

Interconnections

- 2 RJ11 connectors one for connection to DCN-DDI Dual Delegate Interface and one for loop through.

Technical Specifications

Mechanical

Mounting	Click-to-fit in a metal panel with a thickness of 2 mm or in combination with DCN-FCOUP couplings and DCN-FEC end caps in any surrounding
Dimensions (H x W x D)	40 x 50 x 50 mm
Weight	200 g
Color	Silver (RAL 9022)

Ordering information

DCN-FPRIOB Priority Panel

DCN-FLSP Loudspeaker Panel

This loudspeaker panel is intended for use in combination with the Dual Delegate Interface (DCN-DDI). It consists of a loudspeaker behind a round grille. Also included is a 2 m cable, terminated with a 3.5 mm stereo jack plug.

Features and Benefits

- IF design award
- Angled for better intelligibility

Interconnections

- 2 m (78.7in) cable terminated with 3.5mm (0.14 in) stereo jack.

Technical Specifications

Mechanical

Mounting	Click-to-fit in a metal panel with a thickness of 2 mm or in combination with DCN-FCOUP couplings and DCN-FEC end caps in any surrounding
Dimensions (H x W x D)	40 x 100 x 100 mm
Weight	203 g
Color	Silver (RAL 9022)

Ordering information

DCN-FLSP Loudspeaker Panel

DCN-FV Voting Panel

The unit allows attendance registration and six types of voting: parliamentary, audience response, multiple choice, opinion poll, rating and for/against.
The yellow LED confirmation indicators are used to prompt the user to indicate presence and to vote and to confirm registration of what is voted.
The unit has an external present contact, which can be used for an external present or fraud switch. Fingerprint readers are typical for the external present contact use.
The blue LED unit active indicator shows that the system is in normal operation.
The unit can be click-to-fit mounted in a metal panel with a thickness of 2 mm or can be mounted in combination with DCN-FCOUP coupling pieces and DCN-FEC end caps in any surface.
The combination of the voting unit with the end caps is very stylish, and fits in both modern and traditionally designed meeting rooms.
The unit is connected to the Dual Delegate Interface (DCN-DDI).

Features and Benefits

- IF design award
- External Present contact
- LED vote confirmation indicators
- LED unit active indicator

Controls and Indicators

- Five voting buttons with yellow confirmation indicators to register: Present, yes (+), no (-) and abstain (x) (attendance registration, parliamentary voting and for/against) Numerals: 1 to 5 (multiple choice or opinion polls, rating) Rating scale: - -, -, 0, +, ++ (audience response).
- One unit active indicator. The blue LED indicates that the system is in normal operation.
- One de-init/init button (rear side of the unit).

Interconnections

- 2 RJ11 connectors, one for connection to DCN-DDI Dual Delegate Interface and one for loop through.
- Connector for an external present contact (AMP173977-3 socket).

Technical Specifications

Mechanical

Mounting	Click-to-fit in a metal panel with a thickness of 2 mm or in combination with DCN-FCOUP couplings and DCN-FEC end caps in any surrounding
Dimensions (H x W x D)	40 x 100 x 82 mm
Weight	81 g
Color	Silver (RAL 9022)

Ordering information

DCN-FV Voting Panel

DCN-FVCRD Voting and Card Panel

The Voting and Card Panel has the same functionality as the voting panel DCN-FV and extended with an ID card reader. The ID card reader enables identification of delegates to the DCN Next Generation system as well as providing a convenient facility that ensures only authorized delegates can participate in voting sessions or general conference proceedings such as microphone use.
The Yellow unit active indicator indicates the validity of the ID card.
The unit is connected to the Dual Delegate Interface DCN-DDI.

Features and Benefits

- IF design award
- Identification with ID card
- External Present contact
- LED vote confirmation indicators
- LED unit active indicator

Controls and Indicators

- Five voting buttons with yellow confirmation indicators to register: Present, yes (+), no (-) and abstain (x) (attendance registration, parliamentary voting and for/against) Numerals: 1 to 5 (multiple choice or opinion polls, rating) Rating scale: - -, -, 0, +, ++ (audience response).
- One unit active indicator. The blue LED indicates that the system is in normal operation. The yellow LED indicates the validity of the ID card.
- One de-init/init button (rear side of the unit).

Interconnections

- 2 RJ11 connectors, one for connection to DCN-DDI Dual Delegate Interface and one for loop through.
- Connector for an external present contact (AMP173977-3 socket).

Technical Specifications	
Mechanical	
Mounting	Click-to-fit in a metal panel with a thickness of 2 mm or in combination with DCN-FCOUP couplings and DCN-FEC end caps in any surrounding
Dimensions (H x W x D)	40 x 100 x 82 mm
Weight	104 g
Color	Silver (RAL 9022)

Ordering information

DCN-FVCRD Voting and Card Panel

DCN-FBP Set of Blank Panels

The blank panel neatly closes off a slot in a flush mounted unit that is not in use. The panel can be removed if a future expansion requires the available slot.

Features and Benefits

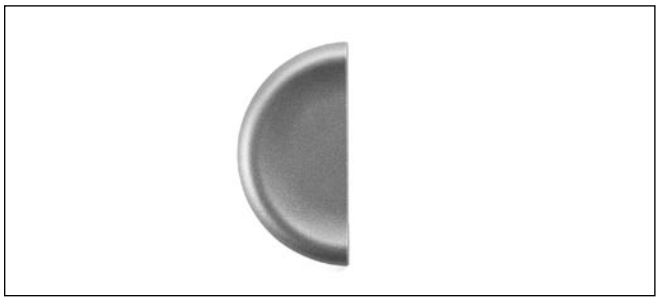
- IF design award

Technical Specifications	
Mechanical	
Mounting	Click-to-fit in a metal panel with a thickness of 2 mm or in combination with DCN-FCOUP couplings and DCN-FEC end caps in any surrounding
Dimensions (H x W)	40 x 100 mm
Weight	17 g
Color	Silver (RAL 9022)

Ordering information

DCN-FBP Set of 10 Blank Panels

DCN-FEC Set of 50 End Caps



Matching end caps give a finishing touch to the flush mounted devices. Two end caps are needed per flush mount position.

Features and Benefits

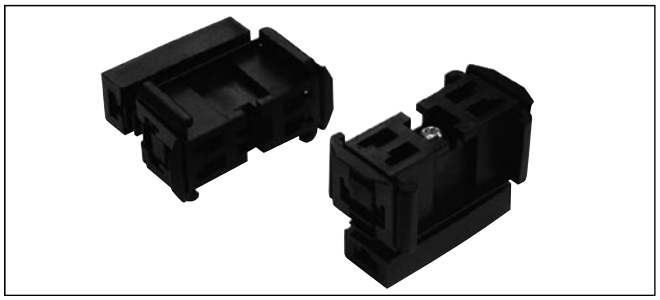
- IF design award

Technical Specifications	
Mechanical	
Mounting	Click-to-fit in DCN-FCOUP couplings
Dimensions (H x W x D)	40 x 20 mm
Weight	2 g
Color	Silver (RAL 9022)

Ordering information

DCN-FEC Set of 50 End Caps

DCN-FCOUP Set of 50 couplings



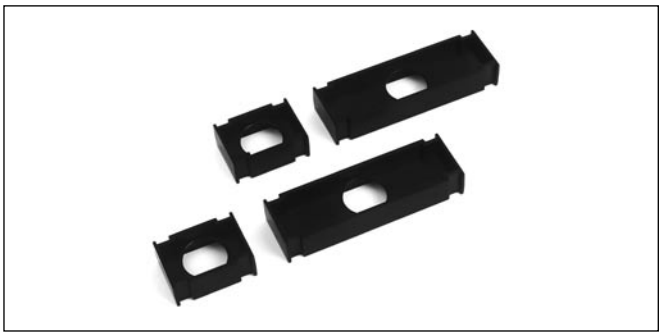
The couplings are used to flush mount and connect flush mount panels and ends caps.

Technical Specifications	
Mechanical	
Mounting	Screw in cut out in table top
Weight	12 g
Color	Black

Ordering information

DCN-FCOUP Set of 50 couplings

DCN-FPT Flush Positioning Tool



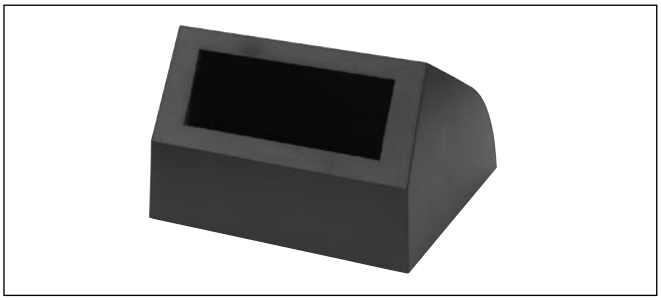
The flush mount elements can be positioned easily by using the DCN-FPT Flush Positioning Tool.

Technical Specifications	
Mechanical	
Weight	31 g
Color	Charcoal (PH 10736)

Ordering information

DCN-FPT Flush Positioning Tool

DCN-TTH Set of 10 Table Top Housings



This housing enables the flush mounted panels to be used in tabletop applications. The panel simply clicks into place in the housing. It is for use with the DCN-FVU voting unit, but it can also be used for other flush mounted unit such as the DCN-FCS Channel selector unit for 32 channels. For permanent applications, the housing can be fixed to the tabletop.

Technical Specifications	
Mechanical	
Mounting	Free-standing or fixed on the table top
Dimensions (H x W x D)	80 x 120 x 105 mm
Weight	243 g
Color	Charcoal (PH 10736)

Ordering information

DCN-TTH Set of 10 Table Top Housings

LBB 3555/00 Intercom Handset and Cradle

Lightweight and compact, this robust and attractively styled handset and cradle enables private 2-way conversation between conference participants. The handset is hard-wired to the cradle by a coiled cable, which is 0.5 m (19.7 in) log when coiled, and 2 m (78.7 in) uncoiled. The cradle output cable is terminated with a six-pole RJ45 connector for connection to Concentus and Dual Delegate Interface. When used in permanent installations, the unit is easily mounted to a tabletop or wall using the two screw holes in the cradle.

Features and Benefits

- Ideal for intercom applications
- For use with all Concentus and Dual Delegate Interface
- Can be permanently mounted to wall, chair or tabletop

Interconnections

- Six-pole RJ45 socket

Technical Specifications	
Mechanical	
Mounting	Tabletop or wall-mounted using the 2 screw holes on the cradle
Dimensions (H x W)	53 x 210 mm (2.08 x 8.26 in)
Weight	250 g (0.55 lb)
Color	Charcoal (PH 10736)

Ordering information

LBB 3555/00 Intercom Handset and Cradle

DCN-FVU Voting Unit

The unit allows attendance registration and six types of voting: parliamentary, audience response, multiple choice, opinion poll, rating and for/against.
The yellow LED confirmation indicators prompt the user to indicate presence and to vote and to confirm registration of what is voted.
The blue LED unit active indicator shows that the system is in normal operation. The blue LED flashes when the unit detects a communication fault.
The combination of the voting unit with the end caps forms a very stylish design, which fits in both modern and traditional meeting rooms.
The direct connection to the DCN network cable results into an economic solution for positions, which only require voting facilities.

Features and Benefits

- IF design award
- Allows parliamentary voting, numerals and rating scale
- LED vote confirmation indicators
- LED unit active indicator
- Easily mountable
- Stylish design, which fits both modern and traditional meeting rooms
- Direct loop through connection to the DCN network
- Economic solution for positions, which only require voting facilities.

Controls and Indicators

- Five voting buttons with yellow confirmation indicators to register: Present, yes (+), no (-) and abstain (x) (attendance registration, parliamentary voting and for/against) Numerals: 1 to 5 (multiple choice or opinion polls, rating) Rating scale: - -, -, 0, +, ++ (audience response)
- One unit active indicator. The blue LED indicates that the system is in normal operation. The blue LED flashes when the unit detects a communication fault.
- One de-init/init button (rear side of the unit)

Interconnections

- 1 m (39.4 in) DCN cable terminated with a molded six-pole male circular connector
- 1 m (39.4 in) DCN cable terminated with a molded six-pole female circular connector for loop-through connection to the DCN network

Note: An unused output cable must be terminated with a DCN-CBTRP Termination Plug.

Technical Specifications

Mechanical

Mounting	Click-to-fit in a metal panel with a thickness of 2 mm or in combination with DCN-FCOUP couplings and DCN-FEC end caps in any surrounding
Dimensions (H x W x D)	40 x 100 x 82 mm
Weight	250 g
Color	Silver (RAL 9022)

Ordering information

DCN-FVU Voting Unit

DCN-FVU-CN Voting Unit Chinese

The unit is used for attendance registration, parliamentary voting and for/against voting. It is provided with colored voting buttons and Chinese text. The texts are: present, yes, no and abstain and the colors are respectively: white, green, red and yellow. The yellow LED confirmation indicators are used to prompt the user to indicate presence and to vote and to confirm registration of what is voted. The blue LED unit active indicator hows that the system is in normal operation. The blue LED flashes when the unit detects a communication fault.
The combination of the voting unit with the end caps forms a very stylish design, which fits in both modern and traditional meeting rooms.
The direct connection to the DCN network cable is an economic solution for positions that only require voting facilities.

Features and Benefits

- IF design award
- Colored voting buttons
- Chinese text
- LED unit active indicator
- Stylish design, which fits both modern and traditional meeting rooms
- Direct loop through connection to the DCN network
- LED vote confirmation indicators
- Allows parliamentary voting
- Economic solution for positions that only require voting facilities.

Controls and Indicators

- Four voting buttons with yellow confirmation indicators to register: present, yes, no and abstain
- One unit active indicator. The blue LED indicates that the system is in normal operation. The blue LED flashes when the unit detects a communication fault.
- One de-init/init button (rear side of the unit)

Interconnections

- 1 m (39.4 in) DCN cable terminated with a molded six-pole male circular connector
- 1 m (39.4 in) DCN cable terminated with a molded six-pole female circular connector for loop-through connection to the DCN network

Note: An unused output cable must be terminated by a DCN-CBTRP Termination Plug.

Technical Specifications

Mechanical	
Mounting	Click-to-fit in a metal panel with a thickness of 2 mm or in combination with DCN-FCOUP couplings and DCN-FEC end caps in any surrounding
Dimensions (H x W x D)	40 x 100 x 82 mm
Weight	250 g
Color	Silver (RAL 9022)

Ordering information

DCN-FVU-CN Voting Unit Chinese

LBB 9600/20 Condenser Hand-held Microphone

The LBB 9600/20 is a hand-held microphone with uni-directional directivity. It is based on an electret transducer element in a sturdy housing with shielding against wind and windbursts ("plops"). Its low equivalent input noise level and insensitivity to stray electrostatic and electro-magnetic fields keep the audio signal free from spurious noise.
It is intended for public address and sound reinforcement applications such as in churches, theatres and congress centers.

Features and Benefits

- Condenser transducer
- Uni-directional
- High speech intelligibility
- Low sensitivity to case noise and vibrations
- Phantom powered
- Rugged construction
- Modern non-reflecting matt black finish

Functions

1. It uses a phantom power supply, which is available on every microphone input on Bosch public address amplifiers.
2. It is an excellent microphone with almost frequency independent uni-directional directivity.
3. It includes an on/off slide-switch and three-pole lockable XLR plug.

Technical Specifications

Electrical*

Type	Hand-held
Polar Pattern	Uni-directional
Frequency Range	100 Hz to 16 kHz
Sensitivity	2 mV/Pa +/- 3 dB (-54 dB rel. to 1 V/Pa)
Rated output Impedance	200 Ohm
Equivalent Input Noise Level	26 dB (A)
Phantom Power Supply	11-52 V (acc. to DIN 45596 and IEC 268-15A)
Current Consumption	<= 1.5 mA
Ambient Temperature Range	-20°C to +55°C

Mechanical

Dimensions (Dia x L)	54 x 170 mm (2.13 x 6.69 in)
Connector	Three-pole XLR male connector
Color	Black
Weight	245 g

* Technical Performance data according to IEC 268-4

Ordering information

LBB 9600/20 Condenser Hand-held Microphone

LBC 1215/01 Microphone Clamp

Features and Benefits

- Quick-release universal microphone clamp
- Spring-loaded microphone holder
- Friction angular adjustment
- Screws onto a 3/8", 1/2" or 5/8" Whitworth thread
- Holds microphone stem from 19 to 32 mm diameter

Technical Specifications

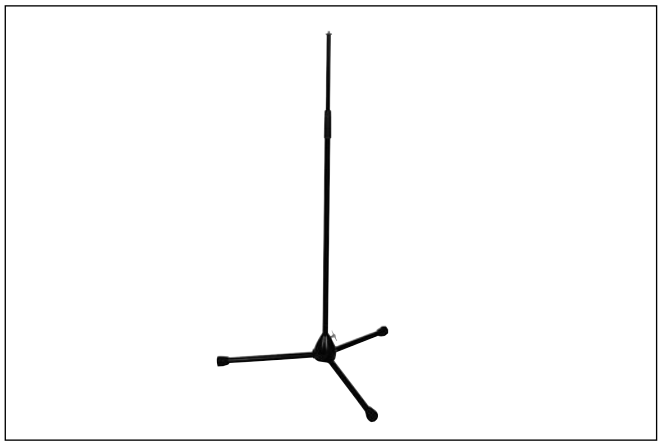
Mechanical

Weight	60 g
Color	Matt black

Ordering information

LBC 1215/01 Microphone Clamp

LBC 1221/01 Floor Stand



Features and Benefits

- Adjustable from 850 to 1600 mm (33.5 to 63.0 in) with twist clamp
- Three 360 mm (14.2 in) folding legs for stability
- Column terminates in male 3/8" Whitworth thread

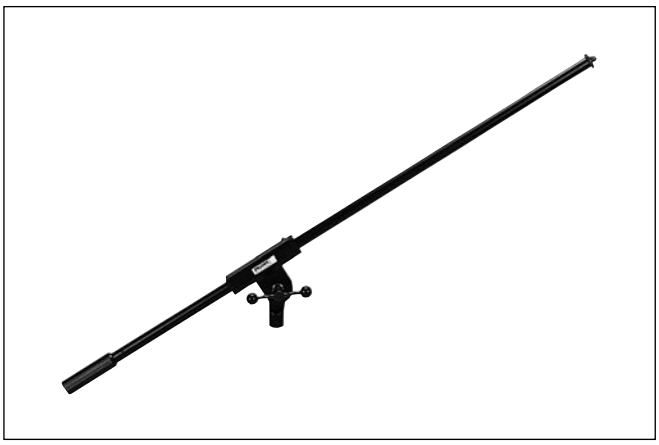
Technical Specifications

Mechanical	
Dimensions (folded)	850 x 110 mm
Weight	2.4 kg (5,3 lb)
Color	Matt black

Ordering information

LBC 1221/01 Floor Stand

LBC 1226/01 Adjustable Boom



Features and Benefits

- Adjustable in reach and angle (quick-release screw clamp)
- Maximum reach of 670 mm (26.4 in)
- Fits onto 3/8" Whitworth thread

Technical Specifications

Mechanical	
Length	840 mm
Weight	0.85 kg (1,9 lb)
Color	Matt black

Ordering information

LBC 1226/01 Adjustable Boom

Interpretation and Language Distribution Equipment

Introduction

Bosch simultaneous interpretation and language distribution equipment satisfies the demands of today's multilingual conferences, from informal bilingual group discussions up to full-scale international congresses where many simultaneous interpretations are required. The modular design of the interpretation and distribution products means a made-to-measure interpretation system can be constructed using a combination of system elements. Expanding or reducing the system for other conferences is quickly and easily achieved.
The product range covers virtually all interpretation requirements. The interpreter desks accommodates up to 31 different languages, and can be used stand-alone or as part of an integrated, operator-controlled system. When used stand-alone, the built-in microprocessor allocates language channels, channel routing and interlocks. In operator-controlled systems, the desk is used in combination with dedicated Simultaneous Interpretation software (LBB 4172) to form an integrated interpretation network. The Simultaneous Interpretation module facilitates presetting and monitoring interpretation status in such a system. It can accommodate direct and relay interpretations, and has facilities for the creation of 31 interpreter booths, each with up to six interpreters. Delegate contribution units and channel selection units are available with facilities to select the required interpretation.

Language distribution

Both wired and wireless language distribution is possible in DCN systems. Wired language distribution involves using the DCN system cabling to distribute interpretations to conference participants. The interpretation(s) can be listened to via headphones connected to a channel selector unit, or via a contribution unit with a built-in channel selector. Rapid channel selection is accomplished using up and down select keys. Channel selection is automatically limited to the number of language channels available. Up to 31 interpretations plus the floor language can be accessed.

An infrared wireless system is also available for conference venues. It offers excellent sound quality as well as freedom of movement for conference participants. Up to 32 channels can be distributed, and high security is ensured as infrared cannot pass through walls. The number of delegates able to receive signals from the infrared system is theoretically unlimited.
For further information on Bosch infrared language distribution equipment, please refer to Integrus Data brochure.

DCN-IDESK Interpreter Desk

The DCN-IDESK is a single-user interpreter desk with a stylish and modern design. It fully conforms to internationally agreed standards. Clear positioning per functional area of the desk controls allows intuitive operation without mistakes. The interpreter desk is available with a light- and a dark-colored base.

Features and Benefits

- Low susceptibility to mobile phones
- Ergonomic design and features for visually impaired
- Up to 31 interpretation channels and the original floor language with an audio bandwidth of 20 kHz
- A graphic LCD with backlighting for bright information display under low light level conditions
- 5 pre-select keys for relay languages with activation indication at the display
- Microphone push button with a red or green illuminated ring
- Light- or dark-colored base

Controls and Indicators

- A and B output channel with status and selection indication at the display
- All channels have channel number, language names and quality level indicated at the display
- Ergonomic design and features for visually impaired such as a pimple at the middle button and beeps to indicate microphone on / off and double relay selected
- Built-in loudspeaker with language channel selector
- Speech timer to indicate elapsed time of interpretation
- Speak slowly facility to alert the current speaker to slow down
- Help request to an operator or usher
- Booth telephone and intercom indicator
- A maximum of six desks can be installed in per booth
- Table top and flush mountable
- Pluggable microphone (DCN-MICS)
- Automatic headset selection when headset connected
- Easy programming via menus on the display after entering the programming mode
- Microphone key with surrounding red “on-air” indicator and green for “booth not in use”
- Mute key
- Help key
- Slow (speak slowly) key
- Operator and chairman intercom call keys
- Message key with yellow LED indicator
- Telephone and Intercom call yellow LED indicators
- A and B channel engaged yellow LED indicators
- Rotary step control for channel settings (and other functions)
  Pressing this button sets the selection to the first available channel
- LCD with backlighting showing selected and activated output channel with channel numbers and abbreviated language names
- Loudspeaker rotary volume control
- Headphone rotary volume control
- Headphone rotary bass and treble tone controls
- Beep on/off key
- Five Relay language pre-select keys
- Floor/auto-relay key with green LED indicators
- Rotary step control (same as for speaking section) to select the relay languages for the relay pre-select keys and the loudspeaker channel. Pressing this button sets the selection to the first available channel
- LCD with backlighting, showing selected relay language with channel numbers, abbreviated names and quality indicators. Also the selected loudspeaker channel with abbreviated name is shown

Interconnections

- Six-pole microphone socket
- Headphone or headset connector five-pole 180° Din type socket wired according to IEC 574-3)
- 6.3 mm (0.25 in) and 3.5 mm (0.14 in) stereo jack headphone connectors
- 2 m (78.8 in) DCN cable with molded six-pole circular connector
- Six-pole circular socket for loop-through connection to the DCN network
- Eight-pole modular jack connector for connection to booth telephone, intercom and booth on-air sign

Technical Specifications

Electrical	
Headphone connection	
Frequency response	30 Hz – 20 kHz
Load impedance	> 32 ohm
Output power	2 x 30 mW/32 ohm
Headset connection	
Frequency response	30 Hz – 20 kHz
Load impedance	> 32 ohm
Output power	60 mW / 32 ohm
Nominal microphone input level	7 mVrms
Overload microphone input level	> 124 mVrms
Mechanical	
Mounting	Free-standing or mounted on a table
Dimensions (H x W x D)	82 x 330 x 170 mm (3.2 x 13 x 6.7 in) (with microphone)
Slope	25 degrees
Weight	1.3 kg (2.87 lb)
Color top	Silver (RAL 9022)
Color base DCN-IDESK-L	Light grey (RAL 000 7500)
Color base DCN-IDESK-D	Charcoal (PH 10736)

Ordering information

DCN-IDESK-L Interpreter Desk with light base
DCN-IDESK-D Interpreter Desk with dark base

LBB 9095/30 Interpreter Headphones

Lightweight, dynamic headphones for direct connection to DCN-IDESK Interpreters Desk.

Features and Benefits

- Replaceable ear pads

Interconnections

- 1.5 m (59.0 in) cable terminated with a 6.3 mm (0.25 in) stereo jack plug

Technical Specifications

Electrical	
Impedance	2 x 720 Ohm
Frequency response	250 Hz to 13 kHz (-10 dB)
Power handling capacity	200 mW
Sensitivity (1 kHz)	97 dB SPL/earpiece at 0 dBV/system 96 dB SPL/earpiece at 1 mW/earpiece
Mechanical	
Weight	78 g (0.17 lb)
Color	Black/grey

Ordering information

LBB 9095/30 Interpreter Headphones
LBB 9095/50 Set of 25 pairs of replacement ear pads

DCN-FCIDSK Flight Case for DCN-IDESK with Accessories

The DCN-FCIDSK Flight Case for the DCN-IDESK Interpreter Desk accommodates 2 desks, 2 DCN-MICS microphones and accessories such as headsets, headphones and tabletop reading-lights.

Features and Benefits

- Rugged construction with reinforced corners
- Simplifies packing and unpacking
- Easy to carry and store

Technical Specifications

Mechanical	
Dimensions (H x W x D)	235 x 530 x 385 mm (9.3 x 20.9 x 15.2 in)
Weight (empty)	6 kg (13 lb)
Color	Dark grey

Ordering information

DCN-FCIDSK Flight Case for DCN-IDESK with Accessories

DCN-FCS Channel Selector unit for 32 channels

The DCN-FCS is a compact and stylish single-user audio channel selector for listening by headphone. It provides a choice of up to 32 high-quality audio channels used for distribution of interpretation and floor channels.

Features and Benefits

- No audio output until the headphone is connected.
- Automatically adapts to available channels
- Stylish and modern design
- Built-in “Silent” function; no audio output until one of the keys has been pressed to eliminate audible noise from the headphones when not in use.
- Upon insertion of a headphone the default “floor” channel (channel 0) is selected with a comfortable headphone volume and the dimmed backlighting is activated.
- Flush mountable in tabletops, on top or at the front, or in arm rests of seats.
- Two push-buttons (up/down) for channel selection
- Two push-buttons (up/down) for headphone volume control
- Backlit 2-digit LCD for channel number indication

Interconnections

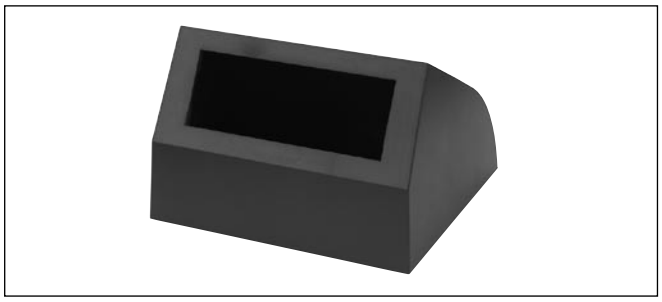
- 3.5 mm (0.14 in) mm stereo jack headphone connector
- Connector for external headphone
- 2 m (78.7 in) cable with a molded six-pole circular connector
- Six-pole circular connector for loop-through inter-connection

Technical Specifications	
Electrical	
Frequency response	30 Hz – 20 kHz
Headphone load impedance	> 32 ohm < 1 k Ohm
Output power	2 x 15 mW/32 ohm
Mechanical	
Mounting	Flush mounted
Dimensions (H x W x D)	40 x 100 x 100 mm (1.6 x 3.9 x 3.9 in)
Weight	0.3 kg (0.66 lb)
Color	Silver (RAL 9022)

Ordering information

DCN-FCS Channel Selector unit for 32 channels

DCN-TTH Set of 10 Table Top Housings



This housing enables the flush mounted panels to be used in tabletop applications. The panel simply clicks into place in the housing. It is for use with the DCN-FVU voting unit, but it can also be used for other flush mounted unit such as the DCN-FCS Channel selector unit for 32 channels. For permanent applications, the housing can be fixed to the tabletop.

Technical Specifications	
Mechanical	
Mounting	Free-standing or fixed on the table top
Dimensions (H x W x D)	40 x 100 x 82 mm
Weight	243 g
Color	Charcoal (PH 10736)

Ordering information

DCN-TTH Set of 10 Table Top Housings

LBB 3443/00 Lightweight Stereo Headphones

Lightweight stereo headphones offering high quality sound reproduction.

Features and Benefits

- Replaceable ear pads
- Separate available solid washable ear pads

Interconnections

- 1.3 m (51.2 in) cable terminated with 3.5 mm (0.14 in) angled stereo jack plug

Technical Specifications

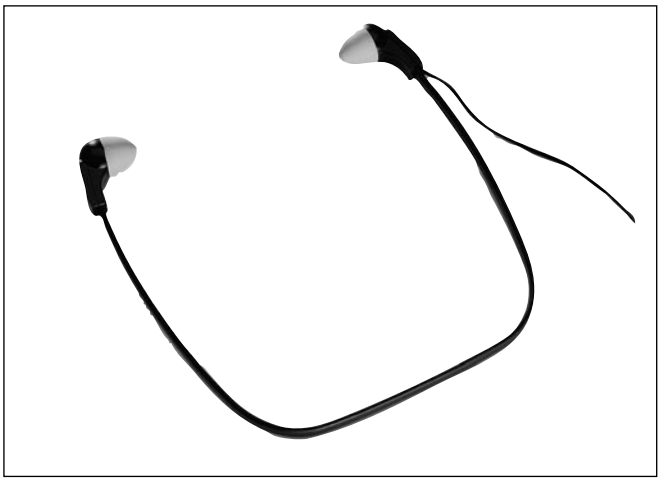
Electrical	
Impedance	32 ohm per earpiece
Audio frequency response	50 Hz to 20 kHz (-10 dB)
Power handling capacity	50 mW
Sensitivity (1 kHz)	98 dB SPL/earpiece at 1 mW/earpiece

Mechanical	
Weight	70 g (0.16 lb)
Finish	Charcoal (PH 10736) with silver

Ordering information

LBB 3443/00 Lightweight Stereo Headphones
LBB 3443/10 Lightweight Stereo Headphones durable cable
LBB 3443/50 Set of 50 pairs of replacement ear pads
HDP-LWSP Set of 50 pairs solid ear pads

LBB 3441/10 Under-the-Chin Stereo Headphones



Lightweight stereo headphones for under the chin use.

Features and Benefits

- Ergonomic design for use under the chin
- Replaceable ear tips

Interconnections

- 1.2 m (47.3 in) cable terminated with 3.5 mm (0.14 in) angled stereo jack plug

Technical Specifications

Electrical	
Impedance	150 ohm per earpiece
Audio frequency response	50 Hz to 5 kHz (-10 dB)
Power handling capacity	60 mW
Sensitivity (1 kHz)	107 dB SPL/earpiece at 1 mW/earpiece

Mechanical	
Weight	33 g (0.07 lb)
Finish	Black

Ordering information

LBB 3441/10 Under-the-Chin Stereo Headphones
LBB 3441/50 Set of 1000 replacement ear tips

LBB 3442/00 Single Earphone

Lightweight single earphone.

Features and Benefits

- Ergonomic design for use under the chin
- Replaceable ear tips

Interconnections

- 1.2 m (47.2 in) cable terminated with 3.5 mm (0.14 in) stereo jack plug

Technical Specifications

Electrical

Impedance	32 ohm
Audio frequency response	100 Hz to 5 kHz (-10 dB)
Power handling capacity	5 mW
Sensitivity (1 kHz)	114 dB SPL/earpiece at 1 mW/earpiece

Mechanical

Weight	25 g (0.06 lb)
Finish	Dark grey

Ordering information

LBB 3442/00 Single Earphone

LBB 3015/04 High Quality Dynamic Headphones

Durable dynamic headphones offering high-quality sound reproduction.

Features and Benefits

- Replaceable ear pads

Interconnections

- 1.2 m (47.2 in) cable terminated with 3.5 mm (0.14 in) stereo jack plug

Technical Specifications

Electrical

Impedance	720 ohm per earpiece
Audio frequency response	250 Hz to 13 kHz (-10 dB)
Power handling capacity	200 mW
Sensitivity (1 kHz)	96 dB SPL/earpiece at 1 mW/earpiece

Mechanical

Weight	25 g (0.16 lb)
Finish	Dark grey

Ordering information

LBB 3015/04 High Quality Dynamic Headphones
LBB 9095/50 Set of 25 pairs of replacement ear pads

Central Control Equipment

Introduction

The conference control is based around the Central Control Unit (CCU). This compact unit is the heart of every DCN Next Generation system, and can control up to 245 contribution units such as delegate- and chairman units, interpreter desks and dual delegate interfaces. Other devices controlled by the CCU include audio expanders, CobraNet interfaces, and Integrus Transmitters, which are connected via an optical network.
The CCU can function with or without a central operator using a PC.
In smaller systems where an operator is not required, the CCU is used as a standalone unit to provide basic microphone operational modes, basic parliamentary voting procedures and facilities for simultaneous interpretation.
In larger systems with an operator, a PC serves as the interface between the operator and the DCN Next Generation system. A wide range of Windows-based application software modules are available that run on the PC to provide comprehensive facilities for conference control and management. The PC can be connected to the CCU via an RS-232 port.

DCN-CCUB Basic Central Control Unit

The Central Control Unit (CCU) includes features for controlling delegate microphones, distributing simultaneous interpretation and conducting voting sessions, all without an operator.

Features and Benefits

- IF design award
- Control for up to 245 Contribution units
- Control facilities for an unlimited number of DCN-FCS 32 channel selectors
- 2 x 32 high-quality audio channels
- Basic microphone management facilities
- Three operational microphone modes:
  - Open: microphone button control with request-to-speak (Auto)
  - Override: microphone button with override of activated microphones (FIFO)
  - Voice: voice activated microphones
- Number of open microphones between 1 and 4
- Basic voting control for parliamentary voting procedure. Delegates can register 'Present', 'Yes', 'No' and 'Abstain'. The Concentus Chairman unit can start, stop and suspend the voting. The total results can be displayed on hall displays and on the LCD screens of the units. Also included is a page function, which activates a voting tone. The chairman can use this tone to indicate that a voting round is about to start.
- Basic simultaneous interpretation function with as many as 31 language channels plus one floor channel
- Basic intercom function with a function to assign intercom operator and intercom chairman (both can be called from the interpreter desk)
- Automatic camera control
- 2 audio line inputs and 2 audio line outputs
- Adjustable sensitivity for the audio inputs
- Adjustable level for the audio outputs
- Audio insertion facility to connect external audio processing devices or telephone couplers
- Configuration of CCU and system via a display and a single rotary push button
- Each CCU can be assigned a unique name by the installer for easy identification
- VU meter readings to monitor audio inputs and audio outputs. The audio can be monitored using headphones
- 19" (2U) housing for table top or rack mounting
- Handgrips for easy transportation
- 19" rack mounting brackets, detachable feet and mounting accessories included
- System installation and user instruction on CD ROM

Controls and Indicators

- Mains on/off switch at the front
- 2 x 16 Character LCD display at front for status information and CCU configuration
- Rotary control at front to navigate through the LCD menus
- Two red LED overload indicators for the DCN network outputs at the rear

Interconnections

- Euro mains socket with built-in fuse, matching mains cable (1.7 m [5.58 ft]) included
- Two DCN outlet sockets for connection of units, plus extension power supplies. Each socket is protected against short-circuit (2 x six-pole circular sockets)
- Two stereo Cinch unbalanced audio line inputs
- One three-pole XLR balanced audio line output
- Two stereo Cinch unbalanced audio line outputs
- 1 x headphone output 3.5 mm (0.14 in) stereo
- One RS-232 serial data connector for Camera control and diagnostic equipment

Technical Specifications

Electrical	
Supply voltage	115/230 V +/- 10 %
Power consumption	200 W
DCN system supply	40 VDC, max 65 W per DCN socket
Total supply power	130 W
RS-232 connection	nine-pole Sub-D female socket
Frequency response	30 Hz – 20 kHz (-3 dB at nominal level)
THD at nominal level	< 0.5 %
Cross talk attenuation	> 85 dB at 1 kHz
Dynamic range	> 90 dB
Signal-to-noise ratio	> 87 dBA

Audio inputs	
Cinch nominal input	24 dBV (+/- 6dB)
Cinch maximum input	+0 dBV

Audio outputs	
XLR nominal output	12 dBV (+6/- 24 dB)
XLR maximum output	+12 dBV
Cinch nominal output	24 dBV (+6/- 24 dB)
Cinch maximum output	+0 dBV

Mecanical	
Mounting	Free-standing or mounted in a 19"-rack
Dimensions (H x W x D)	88 x 483 x 350 mm (with brackets, without feet) 92 x 440 x 350 mm (without brackets, with feet)
Weight	7 kg (15,4 lb)
Color	Charcoal (PH 10736) with silver

Ordering information

DCN-CCUB Basic Central Control Unit

DCN-CCUB-UL Basic Central Control Unit UL/CSA
intended for North-America region

DCN-CCU Central control unit

In combination with a PC, the DCN Central Control Unit (CCU) brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference. These modules greatly expand the capacity to manage a conference. In the event of PC failure, this Central Control Unit will revert to its stand-alone operation mode, enabling the conference to proceed.

Features and Benefits

- IF design award
- Control for up to 245 Contribution units
- Control facilities for an unlimited number of DCN-FCS 32 channel selectors
- 2 x 32 high quality audio channels
- Optical network for coupling the CCU to Integrus transmitter for Infra Red languages distribution and to Audio Expanders and Cobranet Interfaces to allow a variety of audio contribution and distribution facilities
- Optical network designed for redundant cabling. Can be either single branch or redundant loop
- Basic microphone management facilities
- Three operational microphone modes:
  - Open: microphone button control with request-to-speak (Auto)
  - Override: microphone button with override of activated microphones (FIFO)
  - Voice: voice activated microphones
- Number of open microphones between 1 and 4
- Basic voting control for parliamentary voting procedure. Delegates can register 'Present', 'Yes', 'No' and 'Abstain'. The Concentus Chairman unit can start, stop and suspend the voting. The total results can be displayed on hall displays and on the LCD screens of the units. Also a page function is included which activates a voting tone. With this tone the chairman can indicate that a voting round is about to start.
- Basic simultaneous interpretation function with as many as 31 language channels plus one floor channel

- Basic intercom function with function to assign intercom operator and intercom chairman (both can be called from the interpreter desk)
- Automatic camera control
- Extended conference facilities when using control PC software or remote controllers
- 2 audio line inputs and 2 audio line outputs
- Adjustable sensitivity for the audio inputs
- Adjustable level for the audio outputs
- Audio insertion facility to connect external audio processing devices or telephone couplers
- Configuration of CCU and system via a display and a single rotary push button
- Each CCU can be assigned a unique name by the installer for easy identification
- VU meter readings to monitor audio inputs and audio outputs. The audio can be monitored using a headphone
- 19" (2U) housing for table top or rack mounting
- Handgrips for easy transportation
- 19" rack mounting brackets, detachable feet and mounting accessories included
- System installation and user instruction on CD ROM

Controls and Indicators

- Mains on/off switch at front
- 2 x 16 Character LCD display at the front for status information and CCU configuration
- Rotary control at the front to navigate through the LCD menus
- Two red LED overload indicators for the DCN network outputs at the rear
- Two red LED overload indicators for the optical connections at the rear

Interconnections

- Euro mains socket with built-in fuse, matching 1.7 m mains cable (66.9 in) included
- Two DCN outlet sockets for connection of units, plus extension power supplies. Each socket is protected against short-circuit (2 x six-pole circular sockets)
- Two optical network connections for connection of Audio Expanders
- Two three-pole XLR balanced audio line inputs with optional galvanic separation.
- Two stereo Cinch unbalanced audio line inputs
- Two three-pole XLR balanced audio line output with galvanic separation.
- Two stereo Cinch unbalanced audio line outputs
- 1 x headphone output 3.5 mm (0.14 in) stereo
- Two RS-232 serial data connectors for PC connection and diagnostic equipment

Technical Specifications

Electrical

Supply voltage	115/230 V +/- 10 %
Power consumption	200 W
DCN system supply	40 VDC, max 65 W per DCN socket
Optical network supply	40 VDC, max 65 W
Total supply power	130 W
RS-232 connection	2 x nine-pole Sub-D female socket
Frequency response	30 Hz – 20 kHz (-3 dB at nominal level)
THD at nominal level	< 0.5 %
Cross talk attenuation	> 85 dB at 1 kHz
Dynamic range	> 90 dB
Signal-to-noise ratio	> 87 dBA

Audio inputs

XLR nominal output	12 dBV (+/- 6 dB)
XLR maximum output	+12 dBV
Cinch nominal input	24 dBV (+/- 6dB)
Cinch maximum input	+0 dBV

Audio outputs

XLR nominal output	12 dBV (+6/- 24 dB)
XLR maximum output	+12 dBV
Cinch nominal output	24 dBV (+6/- 24 dB)
Cinch maximum output	+0 dBV

Mechanical

Mounting	Free-standing or mounted in a 19"-rack
Dimensions (H x W x D)	88 x 483 x 350 mm (with brackets, without feet) 92 x 440 x 350 mm (without brackets, with feet)
Weight	7 kg (15,4 lb)
Color	Charcoal (PH 10736) with silver

Ordering information

DCN-CCU Central Control Unit
DCN-CCU-UL Central Control Unit UL/CSA intended for North-America region

PRS-4DEX4 Digital Audio Expander

The digital audio expander can contribute audio to and distribute audio from the system. Typical applications are room coupling and audio distribution.

Features and Benefits

- IF design award
- Room coupling facility
- Versatile audio distribution facility
- Optical network for coupling to the CCU
- AES/EBU or SPDIF
- Sample-rate converters (8 – 96 kHz)
- Automatic Gain Control
- Designed for redundant network cabling. The network can be either single branch or redundant loop.
- Four audio channels in for floor and interpretation channels
- Four audio channels out for floor and interpretation channels (16-bit 44.1 kHz)
- Flexible routing of floor and interpretation channels
- Configuration of the Digital Audio Expander via a display and a single rotary push button
- Each Digital Audio Expander can be assigned a unique name by the installer for easy identification
- VU meter readings to monitor audio inputs and audio outputs. The audio can be monitored using headphones
- 19” (2U) housing for table top or rack mounting
- Handgrips for easy transportation
- 19” rack mounting brackets, detachable feet and mounting accessories included
- Unit is powered from the network

Controls and Indicators

- 2 x 16 Character LCD display for status display and configuration of the Audio Expander
- Rotary control at the front to navigate through the LCD menus

Interconnections

- Two optical network connections for connecting to CCU
- Two 3-pole XLR AES/EBU stereo inputs for 2 audio channels per input
- Two Cinch SPDIF stereo inputs for 2 audio channels per input
- Two 3-pole XLR AES/EBU stereo outputs for 2 audio channels per output
- Two Cinch SPDIF stereo outputs for 2 audio channels per output
- 8 x control inputs to enable audio inputs and audio outputs
- 5 x control outputs to indicate channel engaged state
- 1 x headphone output 3.5 mm (0.14 in) stereo

Technical Specifications

Electrical	
Supply voltage	24 – 48 Vdc
Power consumption	6 W
Frequency response	30 Hz – 20 kHz
THD at nominal level	< 0.5 %

Mechanical	
Mounting	Free-standing or mounted in a 19”-rack
Dimensions (H x W x D)	
(with brackets, without feet)	88 x 483 x 350 mm (3,5 x 19,0 x 13,8 in)
(without brackets, with feet)	92 x 440 x 350 mm (3,6 x 17,3 x 13,8 in)
Weight	6 kg (13,2 lb)
Color	Charcoal (PH 10736) with silver

Ordering information

PRS-4DEX4 Digital Audio Expander

LBB 4402/00 Audio Expander

The audio expander can contribute audio to and distribute audio from the system. Typical applications are room coupling and audio distribution.

Features and Benefits

- IF design award
- Room coupling facility
- Versatile audio distribution facility
- Optical network for coupling to the CCU
- Designed for redundant network cabling. The network can be either single branch or redundant loop
- Four audio line inputs (of which 2 can be configured as microphone input) for floor and interpretation channels
- Four audio line outputs for floor and interpretation channels
- Flexible routing of floor and interpretation channels
- Adjustable sensitivity for the audio inputs
- Adjustable level for the audio outputs
- Configuration of the Audio Expander via a display and one single rotary push button
- Each Audio Expander can be assigned a unique name by the installer for easy identification
- VU meter readings to monitor audio inputs and audio outputs. The audio can be monitored using a headphone
- 19" (2U) housing for table top or rack mounting
- Handgrips for easy transportation
- 19" rack mounting brackets, detachable feet and mounting accessories included
- The unit is powered from the network

Controls and Indicators

- 2 x 16 Character LCD display for status display and configuration of the Audio Expander
- Rotary control at the front to navigate through the LCD menus

Interconnections

- Two optical network connections for connecting to the CCU
- Four three-pole XLR balanced audio line inputs with galvanic separation
- Four stereo Cinch unbalanced audio line inputs
- Four three-pole XLR balanced audio line output with galvanic separation
- Four stereo Cinch unbalanced audio line outputs
- 8 x control inputs to enable audio inputs and audio outputs
- 5 x control outputs to indicate channel engaged state
- 1 x headphone output 3.5 mm (0.14 in) stereo

Technical Specifications

Electrical	
Supply voltage	24 – 48 Vdc
Power consumption	7.6 W
Frequency response	30 Hz – 20 kHz (-3 dB at nominal level)
THD at nominal level	< 0.5 %
Cross talk attenuation	> 85 dB at 1 kHz
Dynamic range	> 90 dB
Signal-to-noise ratio	> 87 dBA

Audio line inputs	
XLR nominal input	0 dBV (+/- 6 dB)
XLR maximum input	+12 dBV
Cinch nominal input	12 dBV (+/- 6dB)
Cinch maximum input	+0 dBV

Audio microphone inputs	
Nominal input	57 dBV (+/- 6 dB)
Maximum input	26 dBV
Phantom supply	12 V ± 1 V @ 15 mA

Audio line outputs	
XLR nominal output	12 dBV (+6/- 24 dB)
XLR maximum output	+12 dBV
Cinch nominal output	24 dBV (+6/- 24 dB)
Cinch maximum output	+0 dBV

Mechanical	
Mounting	Free-standing or mounted in a 19"-rack
Dimensions (H x W x D)	
(with brackets, without feet)	88 x 483 x 350 mm (3,5 x 19,0 x 13,8 in)
(without brackets, with feet)	92 x 440 x 350 mm (3,6 x 17,3 x 13,8 in)
Weight	6 kg (13 lb)
Color	Charcoal (PH 10736) with silver

Ordering information

LBB 4402/00 Audio Expander

LBB 4404/00 Cobranet Interface

The Cobranet Interface can interface audio from the DCN system to a CobraNet network using standard Ethernet networks. Typical applications are room coupling and audio distribution over long distances.

Features and Benefits

- IF design award
- Room coupling facility
- Versatile audio distribution facility
- CobraNet compatible using Ethernet
- Optical network for coupling to the CCU
- Automatic Gain Control
- Designed for redundant network cabling. The network can be either single branch or redundant loop.
- Four audio inputs for floor and interpretation channels
- Four audio outputs for floor and interpretation channels
- Flexible routing of floor and interpretation channels
- Configuration of the Cobranet Interface audio channel routing via a display and a single rotary push button
- Configuration of the Cobranet Interface with software tools included
- Each Cobranet Interface can be assigned a unique name by the installer for easy identification
- VU meter readings to monitor audio inputs and audio outputs. The audio can be monitored using a headphone.
- 19" (2U) housing for table top or rack mounting
- Handgrips for easy transportation
- 19" rack mounting brackets, detachable feet and mounting accessories included
- The unit is powered from the network.

Controls and Indicators

- 2 x 16 Character LCD display for status display and audio channel routing of the Cobranet Interface
- Rotary control at front to navigate through the LCD menus

Interconnections

- Two optical network connections for connecting to the CCU
- Two RJ45 Ethernet connectors for the CobraNet
- 8 x control inputs to enable audio inputs and audio outputs
- 5 x control outputs to indicate channel engaged state
- 1 x headphone output 3.5 mm (0.14 in) stereo

Technical Specifications

Electrical	
Supply voltage	24 – 48 Vdc
Power consumption	10.5 W
Frequency response	30 Hz – 20 kHz
THD at nominal level	< 0.5 %
CobraNet	
Physical layer	Ethernet
Channels	4 in / 4 out per device. Max 64 on CobraNet
Compliance	IEEE 802.3
Audio transport	16-, 20-, 24-bit
Sample rate	48 kHz
Latency	5.33 ms
Mechanical	
Mounting	Free-standing or mounted in a 19"-rack
Dimensions (H x W x D)	
(with brackets, without feet)	88 x 483 x 350 mm (3,5 x 19,0 x 13,8 in)
(without brackets, with feet)	92 x 440 x 350 mm (3,6 x 17,3 x 13,8 in)
Weight	7 kg (15,4 lb)
Color	Charcoal (PH 10736) with silver

Ordering information

LBB 4404/00 Cobranet Interface

LBB 1968/00 Plena Feedback Suppressor

The Plena feedback suppressor uses a powerful DSP with a patented algorithm to suppress acoustic feedback. It eliminates feedback by actively filtering out the unwanted room reverb using an echo-cancellation and de-reverberation algorithm. By adding masked (inaudible) noise to the output signal or by shifting the frequency of the output signal by 5 Hz, the Plena feedback suppressor is able to detect the reverb component of the signal and remove it before feedback occurs, leaving the original signal intact.

Features and Benefits

- Patented feedback suppression algorithm
- Suppresses feedback before it occurs
- Automatically adapts to the acoustical situation
- Up to 12 dB additional gain before feedback occurs
- Balanced line or microphone input with phantom supply
- Second microphone input with automatic mixer

Functions

The adaptive filter can be switched between fast mode and accurate mode. The fast mode is for situations where the microphone position changes over time, like in a discussion system with multiple switching microphones. The accurate mode is for situations with a fixed microphone position, such as on a pulpit where the acoustical environment is more stable. The adaptive filter is allowed to converge more slowly to suppress the reverb components even more. Depending on the acoustical environment and the chosen mode of operation, up to 12dB of additional gain is possible before acoustic feedback occurs.
The Plena feedback suppressor also features a built-in automatic mixer for the two microphone inputs. In many situations, like on a rostrum, pulpit or conference table, two microphones are used to better capture the voice of a moving speaker, although this often increases the risk of acoustic feedback. To counter this, the automatic mixer in the Plena feedback suppressor automatically reduces the gain of the microphone with the lowest signal input and increases the gain of the microphone with the highest signal input. This way, it 'tracks' the moving speaker for optimum speech intelligibility, and the maximum feedback margin is maintained by keeping the summed gain constant. Even when the feedback suppressor is switched to 'bypass', the automatic mixer function remains operational.

Controls and Indicators

- Power switch
- Bypass / Active switch with yellow / green LED
- Calibrate button. To start fast calibration cycle
- Signal indicators
  - Overload @ 0 dBFS, red
  - Present @ -40 dBFS, green
  - Auto Mix enabled, green
  - Calibrate, yellow

Certifications and Approvals

EMC emission	acc. to EN 55103-1
EMC immunity	acc. to EN 55103-2

Technical Specifications	
Electrical	
Mains voltage	230 Vac/115 Vac, ±10%, 50/60 Hz
Max power consumption	50 VA
Max mains inrush current	1.5A @ 230 Vac / 3A @ 115 Vac
Sample rate (fs)	32 kHz
Frequency response	125 Hz – 15 kHz
Distortion	< 0.1% @ 1 kHz
Gain (bypass mode)	0 dB Line, in 24/36/48 dB Mic in
Gain (active mode)	0 dB Line in 24/36/48 dB Mic in
S/N	> 90 dB
Signal delay	< 11 ms
Decorrelator	Frequency shift, 5 Hz up Masked noise
Line / Mic input 1 (3-pin XLR, 5-pin DIN, balanced)	
Max input level	18 / 6 / -6 dBV Line in -18 / -30 / -42 dBV Mic in
Impedance	10 kohm / 2 kohm (Line / Mic)
CMRR	> 25 dB (50 Hz-20 kHz)
Phantom power	16 V (Mic only, switchable)
Priority control	Loop through of pin 4 and 5 of DIN
Mic input 2, Mic (3-pin XLR, 5-pin DIN, balanced)	
Max input level	18 / -30 / -42 dBV
Impedance	2 kohm
Phantom power	16 V (switchable)
Priority control	Loop through of pin 4 and 5 of DIN
Line input 3, Line (Cinch, unbalanced)	
Max input level	18 / 6 / -6 dBV
Impedance	20 kohm
Line output 1 (3-pin XLR, balanced)	
Max input level	18 / 6 / -6 dBV (Line in) 6 dBV (Mic in)
Impedance	< 100 ohm
Line output 2 (Cinch, unbalanced)	
Max input level	8 / 6 / -6 dBV (Line in) 6 dBV (Mic in)
Impedance	< 100 ohm
Mic output 3 (5-pin DIN, balanced)	
Max input level	22 / -34 / -46 dBV (Line in) 34 dBV (Mic in)
Impedance	< 100 ohm
Priority control	Loop through of pin 4 and 5 of DIN from inputs
Mechanical	
Dimensions	56 x 430 x 270 mm (2,2 x 16,9 x 10,6 in) with feet, without mounting brackets 19” 1U with mounting brackets, without feet
Weight	3 kg (6,6 lb)
Environmental	
Operating temperature range	10°C to +55°C
Storage temperature range	40°C to +70°C
Relative humidity	< 95%

Ordering information
LBB 1968/00 Plena Feedback Suppressor

LBB 4157/00 ID Card Encoder

Used in combination with the ID Card Encoder software module (LBB 4181/00), the LBB 4157/00 encodes delegate ID cards (LBB 4159/00).

Technical Specifications

Mechanical

Dimensions (H x W x D)	90 x 70 x 16.5 mm (3,5 x 2,8 x 0,6 in)
Weight	145 g (0,3 lb)

Ordering information

LBB 4157/00	ID Card Encoder
LBB 4181/00	ID Card Encoder Software license

LBB 4159/00 Set of 100 ID Cards

These standard credit-card format ID cards are used by delegates to identify them to the DCN Next Generation system. This can be a pre-requisite for access to contribution units and activities such as attendance registration and voting.

Features and Benefits

- Attractive design
- Ample space for a name or other delegate personal information
- Clear instructions showing how to insert the card into a reader

Technical Specifications

Mechanical

Dimensions (H x W)	85 x 54 mm (3,3 x 2,1 in)

Ordering information

LBB 4159/00	Set of 100 ID Cards

Application software

Introduction

Bosch offers a comprehensive range of software modules for DCN Next Generation systems. These modules run on a system-connected PC in Microsoft Windows, and integrate conference preparation, management and control into this versatile graphic computer environment. Any combination of modules can be activated according to specific system requirements. This software is generally used in larger-scale systems where operator control is required.

PC control software has been added to the software portfolio. This software has a stylish and ergonomic design and is based on the latest trends in software and operation systems. The new PC control software can be extended with various modules, which can be activated at any time.

The choice between new and classic software modules depends on specific system requirements. Additional modules can easily be activated if required, for instance when new hardware is added or the conference changes from unilingual to multilingual.

Software modules

	PC Control Software	Classic Software
Microphone Management	•	•
Synoptic Control	•	•
System Installation	•	•
Parliamentary Voting		•
Multi Voting	•	•
Delegate Database		•
Simultaneous Interpretation		•
Text/Status Display		•
Attendance Registration		•
ID Card Encoding		•
Message Distribution		•
Intercom		•
Video Display		•
Camera Control		•

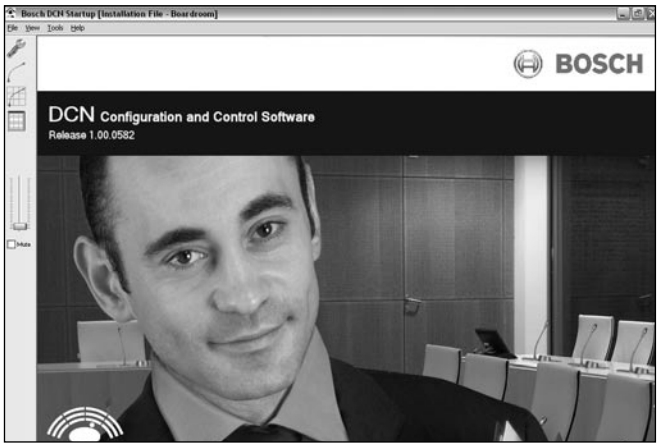
Activating software

DCN Next Generation software (both new and classic) is protected with a license key. The license key depends on the CCU and the set of software modules. This means that an individual license key is required per CCU.

Available languages

	New PC Control Software	Concentus Display	Classic Software
Catalan		•	•
Chinese (simplified)		•	•
Chinese (traditional)		•	•
Czech		•	•
Dutch	•	•	•
English	•	•	•
Finnish		•	•
French	•	•	•
German	•	•	•
Italian	•	•	•
Japanese		•	•
Latvian		•	
Lithuanian		•	
Polish		•	
Portuguese		•	
Russian		•	•
Slovak		•	
Slovenian		•	•
Spanish	•	•	•
Swedish		•	•

DCN-SW PC Control Software



DCN-SW software is the main module and is used as a platform on which all other modules run.

Features and Benefits

- Setting master volume levels
- Opening, closing and deleting Installation File and Names File
- Automatically loads all modules which were activated after previous shutdown
- Accessing, acknowledging and printing error messages
- Single-point control of system installation
- Facilities for assigning functions to audio channels
- In-conference warning message when installation configuration changes

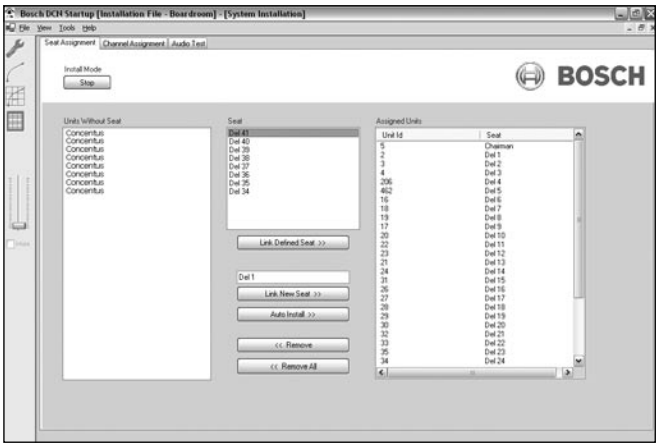
Functions

When the software is loaded, it presents the user with the opening screen.
The other modules are represented by icons in a toolbar, and can be activated simply by clicking. The software automatically loads modules, which were active after a previous shutdown. This saves having to manually select modules.

Ordering information

DCN-SW PC Control Software

DCN-SWSI System Installation



The System Installation software is a powerful and effective module for installers and system operators installing and setting up the system. System installation, set-up and functions are brought under PC control in easy-to-use, Windows-based software.

Features and Benefits

- Single-point control of system installation
- Facilities for assigning functions to audio channels
- In-conference warning message when installation configuration changes

Functions

The System Installation software provides enables specification of the number of audio channels dedicated to interpretation and intercom facilities in an easy yet methodical way.

Assigning seat numbers

The initial task in any installation is to assign seat numbers to delegate contribution units.
The System Installation software simplifies this task with a choice of two assignment methods:

1. The PC automatically allocates a number to the delegate contribution units.
2. The operator selects a random microphone and allocates a number. The next assigned number will follow on sequentially. The software instantly recognizes when a new unit is installed by offering a seat number for the newly installed unit.

Audio channel assignment

The DCN system offers a total of 32 audio output channels, with a default configuration of 26 distribution, 4 contribution and 1 intercom link (2 channels). If required, all 31 channels may be used for interpretation.
All channel assignments are inter-dependent. The number of channels assigned to floor and intercom is dependent on the number required for simultaneous interpretation. In large international conferences using 31 interpretation channels plus one floor channel, a channel is automatically assigned to interpreter use. In such a case, the system performs as an interpretation system.

Audio Test

Audio test consists of two different tests. In the channel test, a test tone can be activated on any channel. In this way, all outputs can be checked. The microphone test is a test, which automatically tests all delegate microphone units and interpreter desks. After the test, a list is available with the state of all contribution units.

System Installation is primarily a preparation module. Once all microphones and delegate units have been assigned seat numbers and the audio channels configured and tested, there is no need to use System Installation for day-to-day monitoring or controlling of a conference. However, if there are physical layout changes in the conference hall (delegate units are added, for example) then the data in System Installation must be updated. In this case, a warning message immediately appears in the installation window.
The conference-related information generated is stored in an installation file. The user can open, create, delete and save these files under a new name.

Ordering information

DCN-SWSI System Installation

DCN-SWMM Microphone Management

The efficient management of delegate microphone status is vital for successful conference control. The Microphone Management module provides the user with a powerful and easy-to-use tool that brings all aspects of microphone management to a single point of control.

Features and Benefits

- Single-point control of all microphone units
- Various microphone control options
- Extensive range of options for microphone-related parameters
- Output to printer and/or external equipment such as cameras

Functions

Microphones are controlled using the name (or device number) of the delegate. The user can select microphones for the speakers list (active microphones) or prepare a request list. The order of delegates within the request list and speakers list can be altered at any time before or during a conference. A search facility is available that allows the operator to locate specific delegates.
It is also possible to give notebook status to delegates, which means they do not have to join the request list and enjoy specific privileges not granted to other delegates. The microphone type must be specified for the notebook. The possibilities are:

- 'Button' where delegates activate their microphones by pressing their microphone buttons. (In this mode, the 'VIP' LED of the contribution units is illuminated.)
- 'Operator' where the microphones of active delegates are activated by the operator
- 'Voice' where the microphones of the delegates are voice-controlled

The DCN Next Generation system automatically recognizes an assigned chairman unit and will automatically add it to the notebook.
Microphone Management offers a number of microphone control options. This has a bearing on both how the Microphone Management module operates and how the conference itself proceeds. These options are:

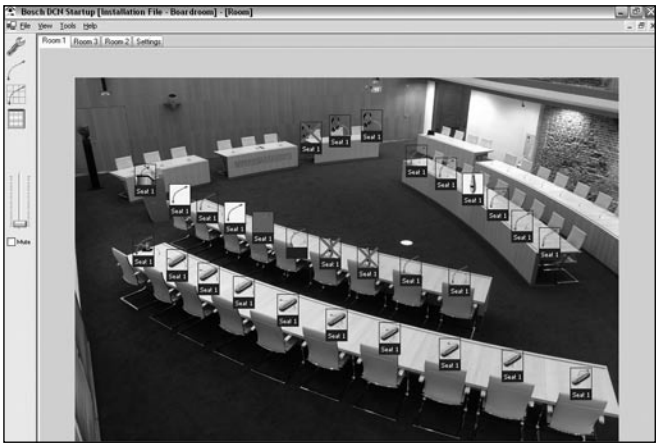
- Control by operator with request-to-speak list (manual)
- Control by operator with request-to-speak list and response list
- Control by delegate with request-to-speak list (open)
- Control by delegate with override of other delegate microphones (first-in-first-out)
- Control by delegate with voice activation

Each mode allows a different level of both operator and delegate control, so almost all situations can be covered. For example, smaller, informal discussions require very little operator control, so a mode such as control by delegate would be ideal. For a full-scale international conference with hundreds of participants, control by operator with request-to-speak list is more appropriate. The operator can specify whether one, two, three or four normal delegate microphones can be active simultaneously.
It is also possible to specify whether delegates are allowed to cancel requests to speak or switch their microphones off. The amount of time delegates are allowed to speak can also be specified.
A number of options are available for presentation of conference information. The contents of the main window can be altered, and the manner in which each delegate is represented in any of the lists is also user-definable. Delegates' microphone activity can be recorded on file or sent to a printer.
During a conference, the main window is used for monitoring and controlling delegate microphone status. Depending on the operating mode, delegate microphones can be switched on or off by simply clicking on the screen microphone icon, or double-clicking on a delegate's name. A single click on a delegate name allows the operator to either insert, delete or replace the delegate from the request-to speak list.

Ordering information

DCN-SWMM Microphone Management

DCN-SWSC Synoptic Control



This software module moves away from the traditional method of control panels and buttons and replaces it with an extremely user-friendly, on-screen means of managing microphone status. A graphic representation of the contribution units in a conference venue is created and then used to control the microphone status of delegates. Through the use of different icons and colors, the user has an overview at a glance of the status of all conference participants. The result is a highly visual 'push-button' conference control facility.

Features and Benefits

- Easily-created synoptic layout used for control
- Single-point control of all microphone units
- Various microphone control options
- Output to printer and/or external equipment such as cameras

Functions

There are two modes of operation within Synoptic Control; layout mode and control mode.

Layout mode

In layout mode, the user creates a graphic representation of the contribution units present in the conference venue. The synoptic layout is a plan view of the conference venue. Layout mode contains dedicated tools for this creating this. Icons representing the contribution equipment are used to build up the layout. Each item of contribution equipment (delegate unit, chairman unit, podium or lavaliere microphone etc.) has its own icon. Viewing options that reduce the size of the icons make it easier to work with larger layouts. An optional on-screen grid helps with alignment and a snap facility lines up icons with the grid

lines. Seat numbers can be automatically assigned to each layout element. The synoptic layout can be simply and quickly changed. Contribution units can be moved by dragging them with the cursor. Standard Windows functions such as cutting and pasting can be used to move, remove or add elements to the layout.

Control mode

While layout mode is used to create a synoptic floor plan (for preparation purposes), the control mode is used to monitor and control a conference. The synoptic layout generated in layout mode becomes a control panel in control mode. The icons in the layout become functional, and are used as status indicators or buttons to initiate actions for the contribution unit the icon represents.
The color of a particular icon is related to the state (request-to-speak, active, etc.) of the actual microphone it represents. Icons cannot be moved in control mode, but a layout can always be edited by returning to layout mode. The state of a delegate microphone can be altered by clicking on the appropriate icon.
Synoptic Control offers the following microphone control mode options:

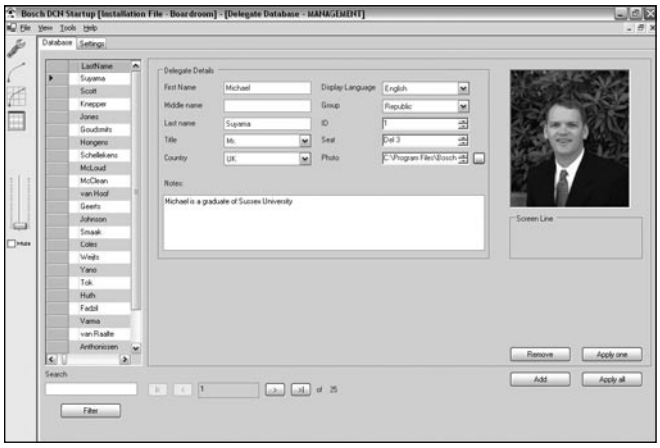
- Control by operator with request-to-speak list (manual)
- Control by delegate with request-to-speak list (open)
- Control by delegate with override of other delegate microphones (first-in-first-out)

The synoptic layout is stored in a layout file. There are a number of options available to the user for working with these files, all of which are standard Windows file options. These consist of opening, creating and saving files under a new name. Delegate microphone activity can be recorded in a file or sent to a printer.
Microphone activity data is also made available for controlling external equipment such as an automatic camera system.

Ordering information

DCN-SWSC Synoptic Control

DCN-SWDB Delegate Database



The Delegate Database software allows users to compile a comprehensive database of information relating to participants at a conference or meeting.

Features and Benefits

- Comprehensive database creation for all delegates
- Facility for configuring 'screen line'
- Dedicated fields for ease of use

Functions

The data for each delegate is stored in records, which contain delegate data in dedicated fields. All records are stored in a names file. There are a number of options available for working with these files, all of which are standard Windows file options. These consist of opening, creating, deleting and saving files under a new name. All information is entered via a PC, before or during conference proceedings. A considerable amount of data can be specified for each conference participant. All delegate data is input via the main window. For some entries (first name, last name) the only restriction is the number of characters entered. For other entries (country, group etc.) the input can easily be selected from a list. Certain fields within the record can be identified in order to be associated (as a screen line) with other software modules such as Microphone Management.

Ordering information

DCN-SWDB Delegate Database

Classic software

LBB 4190/00 Startup

The Startup screen is active whenever DCN Next Generation software modules are used for controlling and monitoring. This module is different from other DCN Next Generation software modules as it is primarily used as a platform from which the other modules are selected. However, this is only one aspect of Startup. The following can also be carried out:

Features and Benefits

- Setting master volume levels
- Opening, closing and deleting Installation File
- Configuring the Startup program to automatically load selected DCN Next Generation modules
- Accessing, acknowledging and printing error messages
- On-screen help facility

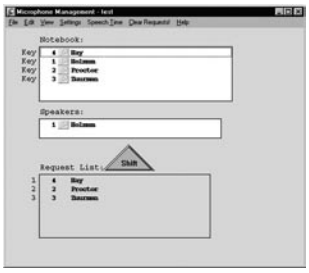
Functions

When Startup is loaded, it presents the user with a desk-top window that is the DCN Next Generation opening screen. The other DCN Next Generation modules are represented by icons in this opening screen, and activated simply by clicking on them. Startup also has a facility, which allows other DCN Next Generation modules to be loaded automatically. This saves having to manually select modules that are used virtually every time the DCN Next Generation system is in operation. The user can specify any combination of modules for automatic Startup.

Ordering information

LBB 4190/00 Startup

LBB 4170/00 Microphone Management



The efficient management of delegate microphone status is a vital element in successful conference control. The Microphone Management software module provides the user with a powerful and easy-to-use tool that brings all aspects of microphone management to a single point of control.

Features and Benefits

- Single-point control of all microphone units
- Various microphone control options
- Extensive range of options for microphone related parameters
- Output to printer and/or external equipment such as cameras
- On-screen help facility

Functions

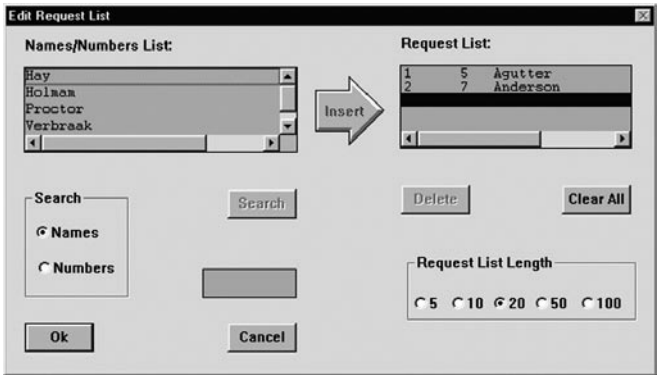
Microphones are controlled using the name (or desk number) of the delegate. The user can select microphones for the speakers list (active microphones) or prepare a request list. The order of delegates within the request list and speakers list can be altered at any time before or during a conference. A search facility is available that allows the operator to locate specific delegates. It is also possible to give notebook status to delegates, which means they do not have to join the request list and can enjoy certain other privileges not granted to other delegates. The microphone type must be specified for the notebook. The possibilities are:

- 'Chair' for chairman microphones
- 'Key' where delegates activate their microphones by pressing their microphone buttons. (in this mode the 'VIP'LED of the contribution units is illuminated)
- 'Operator' where the microphones of more active delegates are activated by the operator

The DCN Next Generation system automatically recognizes an assigned chairman unit and will automatically add it to the notebook.

Microphone Management offers a number of microphone control options. This has a bearing on both how the Microphone Management module operates and how the conference itself proceeds. These options are:

- Control by operator with request-to-speak list (manual)
- Control by operator with request-to-speak list and response list
- Control by delegate with request-to-speak list (open)
- Control by delegate with override of other delegate microphones (first-in-first-out)
- Control by delegate with voice activation



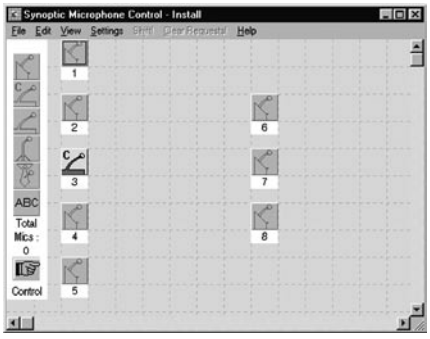
Each mode allows a different level of both operator and delegate control, so almost all situations can be covered. For example, smaller, informal discussions require very little operator control, so a mode such as control by delegate would be ideal. For a full-scale international conference with hundreds of participants, control by operator with request-to-speak list would be more appropriate. The operator can specify whether one, two, three or four normal delegate microphones can be active simultaneously. It is also possible to specify whether delegates are allowed to cancel requests to speak or switch their microphones off. The amount of time delegates are allowed to speak can also be specified.

A number of options are available as to how the conference information is presented. The contents of the main window can be altered, and how each delegate is represented in any of the lists is also user-definable. There is a facility to automatically test and scan all installed microphones individually, with or without a sound generator. The microphone under test is indicated on-screen and the results of the test are made known to the system operator. This program can also be used in combination with the Text/ Status Display module, LBB 4183/00, to show delegate names or seat numbers on a hall display as soon as they are present on the speakers list or request-to-speak list. Delegates' microphone activity can be recorded on file or sent to a printer. Microphone activity data is also made available for controlling external equipment such as an automatic camera system.
During a conference, the main window is used for monitoring and controlling delegate microphone status. Depending on the operating mode, delegate microphones can be switched on or off by simply clicking on the screen microphone icon, or double-clicking on a delegates name. A single click on a delegate name allows the operator to either insert, delete or replace the delegate from the request-to speak list.

Ordering information

LBB 4170/00 Microphone Management

LBB 4171/00 Synoptic Microphone Control



This software module takes microphone control away from the traditional method of control panels and keys and replaces it with an extremely user-friendly, on-screen means of managing microphone status. A graphical representation of the contribution units in a conference venue is created and then used to control the microphone status of delegates. Through the use of different icons and colors, the user has an at-a-glance overview of the status of all conference participants. The result is a highly

visual 'push-button' conference control facility. There are two modes of operation within Synoptic Microphone Control; layout mode and control mode.

Features and Benefits

- Easily-created synoptic layout used for microphone control
- Single-point control of all microphone units
- Various microphone control options
- Output to printer and/or external equipment such as cameras
- On-screen help facility

Functions

Layout mode

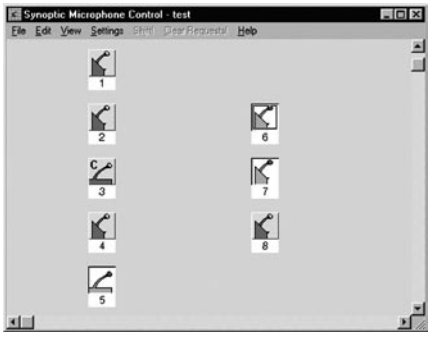
In layout mode, the user creates a graphical representation of the contribution units present in the conference venue. This synoptic layout is a plan view of the conference venue. Layout mode contains dedicated tools for this purpose. Icons representing the contribution equipment are used to build up the layout. Each item of contribution equipment (delegate unit, chairman unit, podium or lavaliere microphone, etc.) has its own icon. Viewing options that reduce the size of the icons make it easier to work with larger layouts. An optional on-screen grid helps with alignment and a snap facility lines up icons with the grid lines. Seat numbers can be automatically assigned to each layout element. The synoptic layout can be changed simply and quickly. Contribution units can be moved by dragging them using the cursor. Standard Windows functions such as cutting and pasting can be used to move, remove or add elements to the layout.

Control mode

While layout mode is used to create a synoptic floor plan of the conference venue (for preparation purposes), control mode is used to monitor and control a conference. The synoptic layout generated in layout mode becomes a control panel in control mode. The icons in the layout become functional, and are used as status indicators or buttons to initiate actions for the contribution unit the icon represents. The color of a particular icon is related to the state (request-to-speak, active, etc.) of the actual microphone it represents. Icons cannot be moved in control mode, but a layout can be edited by returning to layout mode. The state of a delegate microphone can be altered by clicking on the appropriate icon.

Synoptic Microphone Control offers the following microphone control mode options:

- Control by operator with request-to-speak list (manual)
- Control by delegate with request-to-speak list (open)
- Control by delegate with override of other delegate microphones (first-in-first-out)

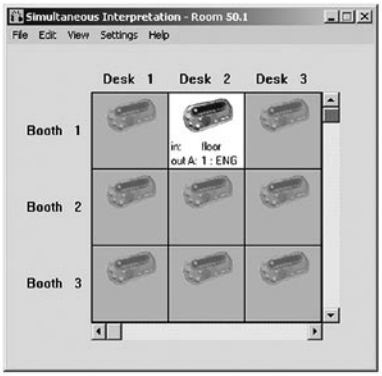


The synoptic layout is stored in a layout file. There are a number of options available to the user for working with these files, all of which are standard DCN Next Generation file options. These consist of opening, creating and saving files under a new name. Delegate microphone activity can be recorded on file or sent to a printer. Microphone activity data is also made available for controlling external equipment such as an automatic camera system. Synoptic Microphone Control has a facility to automatically test and scan all installed microphones individually, with or without a sound generator. The microphone under test is indicated on-screen and the results of the test are made known to the system operator.

Ordering information

LBB 4171/00 Synoptic Microphone Control

LBB 4172/00 Simultaneous Interpretation



Simultaneous interpretation is essential for international congress venues. The Simultaneous Interpretation program supports the preparation of simultaneous interpretation facilities and the monitoring of interpreter activities during a conference. It accommodates 31 interpreter booths, each with up to 6 interpreter desks.

Features and Benefits

- Can accommodate 186 interpreter desks
- Online monitoring of interpretation activities
- Facilitates normal and relay interpretations
- Microphone mode options
- Specifying a language for each of the system interpretation channels
- Determining the microphone interlock mode
- Online monitoring of interpreter activities during a conference
- On-screen help facility

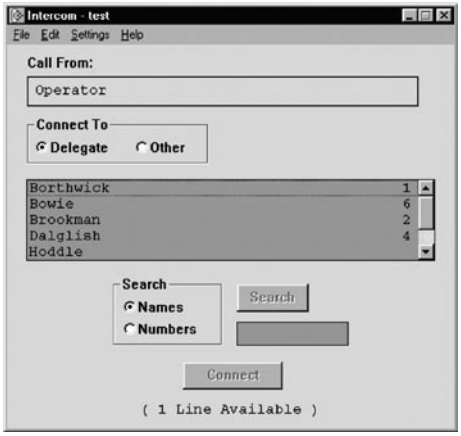
Functions

The main window has two display modes, both with graphics for easy management of information. One gives a channel-oriented overview of system status, such as which language is present on that channel, the mnemonic for that language, on which language the interpretation is based, and the number of the desk and booth generating that language. The other display mode gives the same information in a different form, providing an overview of the status of each desk in each booth. This includes booth and desk status (active or non-active), and the language in and out of each active desk. In addition, the software enables the operator to establish microphone interlocks, between booths and within booths, with or without using an override facility. In interlock mode, the active microphone must first be turned off before any other microphones can become active. In override mode, any microphone can automatically override the current active microphone and become active. The interpreter system settings are stored in an interpreter configuration file. There are a number of options available to the user for working with these files, all of which are standard DCN NG file options. These consist of opening, creating and saving files under a new name. A print function enables a hard copy printout of desk and channel language assignment– ideal for use as a reference to current system settings.

Ordering information

LBB 4172/00 Simultaneous Interpretation

LBB 4173/00 Intercom



The Intercom software module forms the basis of a communication system that allows conference participants to hold two-way private conversations. It provides a means of setting up and controlling intercom calls between delegates, chairmen, interpreters and other PC-users during a conference.
It allows several types of calls to be made:

- Participant to / from operator
- Between participants
- Interpreter to/from operator
- Between interpreters
- Participant to/from interpreter
- Between PC operators in a multi-PC system

Features and Benefits

- Enables private, two-way conversations between delegates, chairmen, interpreters and other PC users
- Search facility to locate delegates
- Allows up to 23 simultaneous conversations
- Simple menus for ease of control
- On-screen help facility

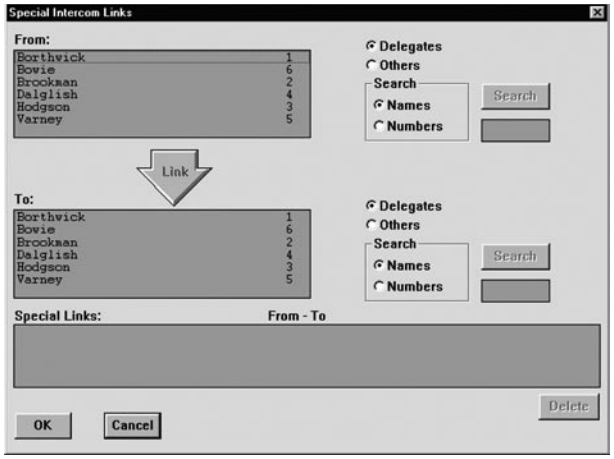
Functions

The Intercom software is used in combination with the Intercom Handset and Cradle. It provides assistance in both the pre-conference creation of an intercom network, and the routing and controlling of intercom calls once the conference is underway. Preparation work includes assigning special intercom links between participants, interpreters or both. Once the conference is taking place, the operator can establish and re-route intercom calls via simple on-screen windows. Each intercom link uses a system channel. The maximum number of intercom links is 5. If no intercom links are assigned, the intercom stop module will not start.

Note: The number of DCN Next Generation audio channels available for intercom purposes is set using the System Installation software LBB 4185/00.

Note: Delegate Database LBB 4180/00 is required if delegate names are used.

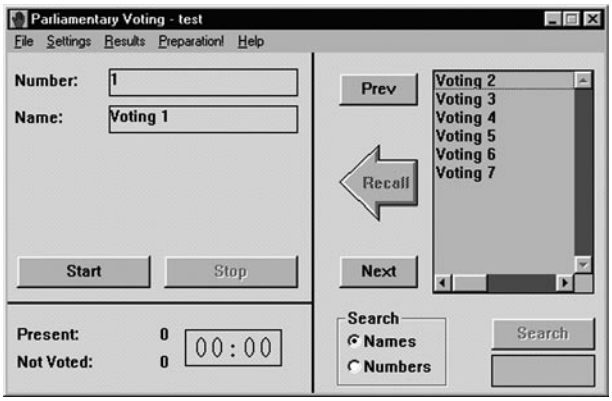
Note: Simultaneous interpretation LBB 4172/00 is required if interpreter names are used.



Ordering information

LBB 4173/00 Intercom

LBB 4175/00 Parliamentary Voting



The Parliamentary Voting module is a DCN Next Generation software module designed for controlling and monitoring conferences and discussions using the DCN Next Generation contribution equipment. The module allows an operator to implement and manage voting at a conference.

Features and Benefits

- Allows complete operator control of parliamentary voting sessions
- Extensive motion preparation facilities
- Can output voting results to disk, hall displays or printers
- Wide range of vote-related parameter options
- On-screen help facility

Functions

The program covers a number of functions including vote preparation, specifying vote-related parameters, and starting and controlling voting. The module has two main windows; the Preparation window and the Control window. The preparatory and parameter definition work is mainly carried out from the Preparation window, and the starting and controlling of voting is carried out from the Control window.

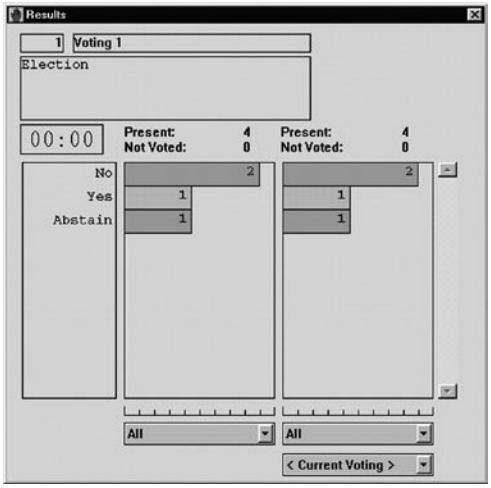
The files created using this module are called script files as they act as the script for voting procedures. The file menu allows script files to be opened, created, deleted, saved, saved under a different name, imported and printed out.

A script file consists of a number of proposals or motions (between 1 and 999), each of which will be voted on. New ones can be created and existing ones edited within script files. Items to be edited are selected from a list in the currently open script file and displayed on-screen. All parameters related to this can be altered, although certain

parameters have to satisfy system-specified criteria. Once a n item has been edited it is inserted back into the list. Every item must have a unique number, which is used by the DCN Next Generation system as a reference. The name and description of each defines it for both users and delegates. It is also possible to enable a quorum function. This specifies how many authorized delegates must be present before voting can legitimately take place. A majority function determines what percentage of votes constitutes a majority voting. Once a vote is ready to be taken, it is recalled in the Control window and the voting process is started. When the program enters the active voting state, delegates can use their delegate units to register votes. The user has full control over the voting procedure, and can stop or suspend a vote at any time. Motions that have already been voted on cannot be edited, but voting again on the same motion is possible. It is also possible to vote without opening a script file.

The program offers the possibility of displaying incoming votes or the final result of a vote on hall displays connected to the DCN Next Generation system, on delegate units with a display facility, and on-screen. It is possible to print out a hard copy of a vote with its results. There is also a facility that automatically prints out the results of a vote once voting is completed.

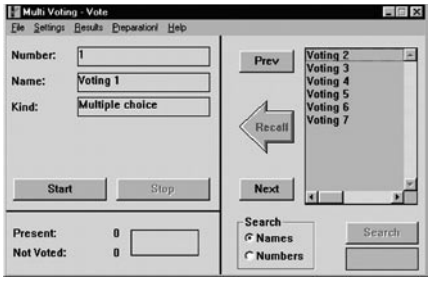
Note: Delegate Database LBB 4180/00 is required if delegate names are used.



Ordering information

LBB 4175/00 Parliamentary Voting

LBB 4176/00 Multi Voting



This software module provides the means to select and control six different kinds of conference voting, including Parliamentary Voting. The voting types that can be implemented or selected are:

- Parliamentary
- Opinion Poll
- Audience Response
- Rating
- Multiple Choice
- For/Against

In each case, the program allows the user to prepare for voting, specify vote-related parameters, display and print voting results and start and control voting.

Features and Benefits

- Allows selection between six different kinds of voting
- Extensive voting preparation facilities
- Wide range of vote-related parameter options
- Choice of three voting results display types
- On-screen help facility

Functions

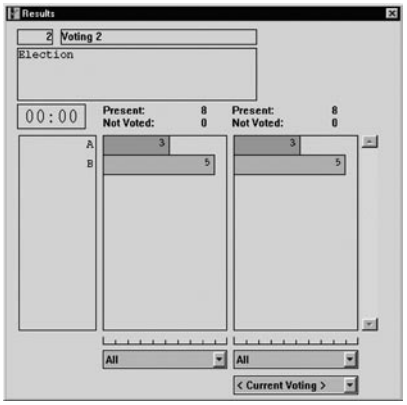
There are two main windows: the Preparation window and the Control window. The Preparation window is where voting motions are created and parameters are defined or changed. The Control window is used for starting and controlling voting. There is also a Results window for displaying voting results. These can be displayed in bar-, pie- or thermometer charts. It is also possible to see voting results while the voting is still taking place. These 'interim results' can be specified in the Preparation window. It is also possible to enable a quorum function. This specifies how many authorized delegates must be present before a voting can legitimately take place. A majority function determines what percentage of votes constitutes a majority voting. The files created are called script files as they act as the script for voting procedures. A file menu allows script files to be opened, created, saved, deleted and printed. There is also a facility for importing script files

that have been created and saved in another application. Each script file can consist of a number of voting motions (up to 9,999), each of which can be selected from a 'voting motions list' in the Preparation window. Once selected, a voting can be edited and then inserted back into the voting list. All parameters related to the voting can be altered although certain parameters have to satisfy system-specific criteria. A search facility is provided to help locate specific voting motions. Vote-related parameters can be specified for each individual voting.
These are:

- Vote type (open or closed, majority or non-majority, timed or non-timed)
- Time related options
- Results display style
- Interim results display
- Screen and print legends
- Hall display, vote weighting, roll call, voting LEDs and abstain options

Once a motion is ready to be voted on, delegates can register votes on their delegate units. Multi Voting incorporates a roll call function which, when activated, means that delegates must vote in a predetermined order that is specified in the Delegate Database Module (LBB 4180/00). Otherwise, delegates can vote in any order at the same time. Voting without a script is also possible, and the same functions are available as with a script. Voting can be stopped or suspended at any time, and incoming votes or the final result of a vote can be displayed on hall displays connected to the DCN Next Generation system, on delegate units with a display facility and on-screen. The user can print the final result of a vote, and it can also be automatically exported to a file.

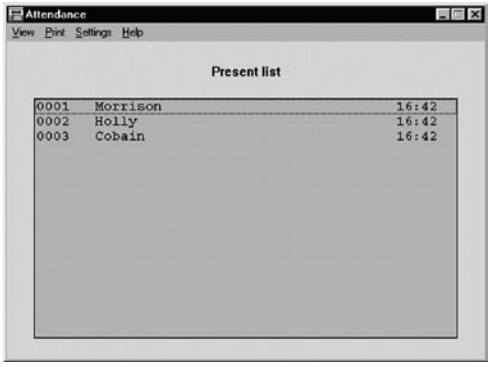
Note: Delegate Database LBB 4180/00 is required if delegate names are used.



Ordering information

LBB 4176/00 Multi Voting

LBB 4178/00 Attendance Registration



Features and Benefits

- Registration using chip card with or without PIN-code, or present key
- Access control facilities
- All data instantly available to operator
- Print facility to reproduce data in several formats
- On-screen help facility

Functions

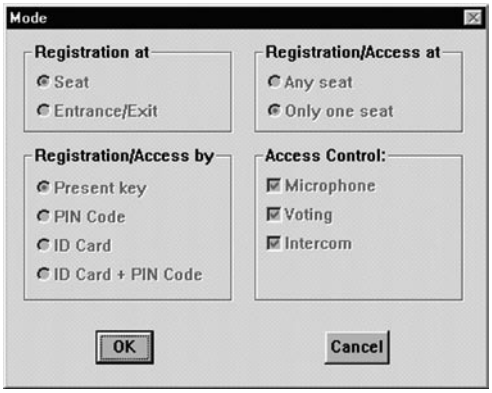
The functionality of Attendance Registration falls in to two categories:

Registration:

It is possible to specify entrance requirements that conference participants have to meet before entering the conference room. This normally means participants have to insert a chip card in a chip card reader, either at the entrance to the conference venue or at the contribution unit. Registration at a contribution unit can also be by means of pressing the 'Present' key. It is possible to display lists on-screen of all 'present' and 'absent' participants, and print hard copies of these lists. There is also a window that can be permanently displayed on-screen that gives an overview of all participants who have registered their presence or absence.

Access:

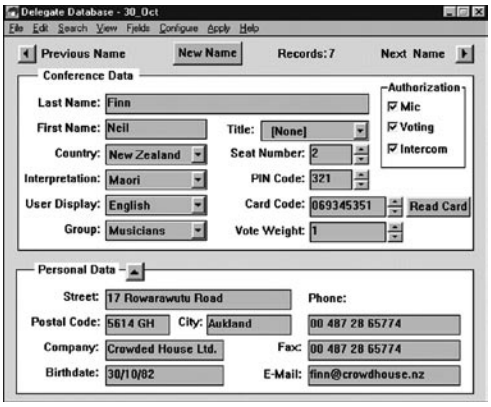
The settings specified for registration can also be used for access. This means that although participants can enter the conference venue, they cannot use any of the contribution unit facilities (such as microphone, voting, intercom) without first satisfying access requirements. Access is also controlled by means of chip cards, with or without PIN code. There is also an option whereby participants register their presence at the entrance using a chip card reader, and a specific contribution unit is then made available for them. You can also control where participants sit by specifying whether they can occupy any seat or a particular, pre-defined one.



Ordering information

LBB 4178/00 Attendance Registration

LBB 4180/00 Delegate Database



The Delegate Database software allows users to compile a comprehensive database of information relating to participants at a conference or meeting. The delegate information is classed as either 'conference-related' or 'personal'.

- Conference-related deals with parameters like interpretation language, vote weight and authorization. This data is used by the DCN Next Generation for conference controlling
- Personal information deals with data such as home address and telephone number, date of birth and fax number. This data is for reference only

Features and Benefits

- Comprehensive database creation for all delegates
- Facility for configuring 'screen line' and 'card label'
- Facility for printing labels and chip card production
- Dedicated fields for ease-of-use
- On-screen help facility

Functions

The data for each delegate is stored in a 'screen card', which contains delegate data in dedicated fields. Screen cards are stored collectively in a names file. There are a number of options available to the user for working with these files, all of which are standard DCN Next Generation file options. These consist of opening, creating, deleting and saving files under a new name. All information is entered via a PC, before or during conference proceedings. A considerable amount of data can be specified for each conference participant. Many parameters are not general but delegate specific, including:

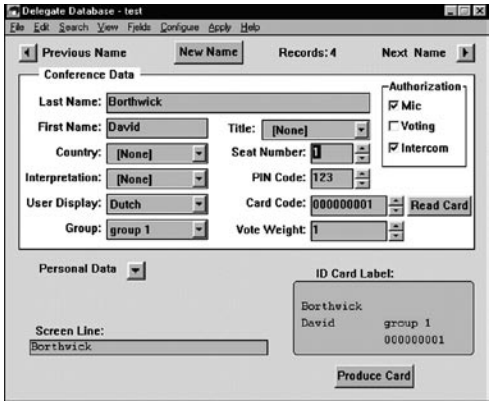
- PIN Code
- Card Code for chip card
- Delegate group
- Delegate country

- Delegate name
- Delegate vote weight
- Delegate seat number
- Language of delegate screen display (French, German, Italian, Dutch, English, Portuguese, Japanese or Spanish)
- Simultaneous interpretation language

If the Chip Card Encoder (LBB 4157/00) and printer are connected to the DCN Next Generation system, chip cards can be encoded by using the ID Card Encoder module (LBB 4181/00) and the labels for the chip cards printed. It is also possible to grant or deny authorization to individual delegates for the following:

- Microphone
- Voting
- Intercom

This is possible when they use an ID card to register, and is carried out using the Attendance Registration and Access Control module (LBB 4178/00). All delegate data is input via the main window. For some entries (first name, last name) the only restriction is the number of characters entered. For other entries (country, group, etc.), the input can easily be selected from a list of options that is presented by the system when the user activates that particular field. This options list can be edited and expanded by the user. In the personal data section, the user can input such delegate data as date-of-birth, address, telephone number, fax and E-mail number. Certain fields within the screen card can be identified in order to print on an ID card label, or associated (as a screen line) with other software packages such as Microphone Management and Attendance Registration and Access Control.



Ordering information

LBB 4180/00 Delegate Database

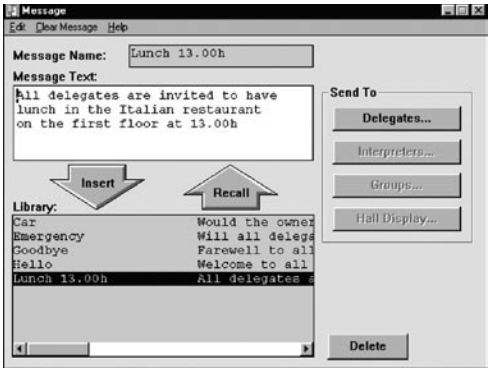
LBB 4181/00 ID card Encoder

Encoder software is used in combination with the Delegate Database software (LBB 4180/00) as a software driver for producing ID cards. These ID Cards are used to identify delegates during a conference and contain information specified using Delegate Database. An encoding unit (LBB 4157/00) is also required to produce the ID cards.

Ordering information

LBB 4181/00 ID card Encoder

LBB 4182/00 Message Distribution



The Message Distribution software allows the operator to originate messages that can be sent via the DCN Next Generation to individual delegates, groups of delegates and other participants to view on their units. Messages can also be sent to hall displays for general viewing by the public and delegates. Messages created can be stored in a library for later use. There is a facility that automatically removes messages after they have been displayed for a pre-specified period of time. The Message Distribution software can be used in combination with the Video Display software (LBB 4184/00) and the Text/Status Display software (LBB 4183/00).

Note: Message text is only available on delegate units with display.

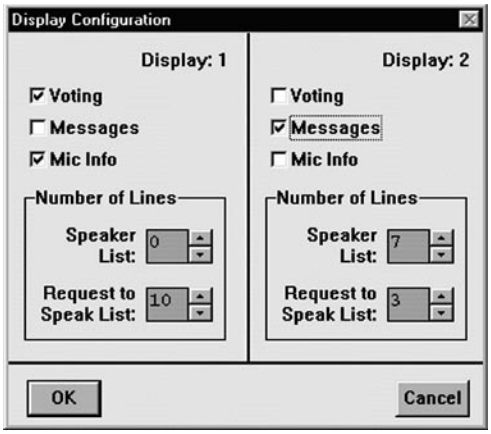
Features and Benefits

- Message distribution to personal or hall displays
- Easy message generation procedure
- Archiving facility allows messages to be retrieved and re-used
- Automatic message removal option
- On-screen help facility

Ordering information

LBB 4182/00 Message Distribution

LBB 4183/00 Text/Status Display



The Text/Status Display module provides a means of displaying conference-related information on character displays in the conference venue. Almost all displayed information is generated by other DCN Next Generation modules. The text that appears on screen to accompany voting results can be generated using Text/ Status Display. It is also possible to specify the display length of the speakers list and the request-to-speak list.

Features and Benefits

- Supports numeric, alphanumeric and geographic displays
- Displays voting, message and microphone information
- Automatic priority system for displays
- Accepts information from other DCN Next Generation software modules
- On-screen help facility

Functions

Text/Status Display accepts three different types of display information:

- Voting Results display. This information is generated using the Parliamentary Voting module (LBB 4175/00) and consists of a voting motion (number, description, time) and the results of the vote on that motion
- Messages display. This information is generated using the Message Distribution (LBB 4182/00) and consists of a conference-related text message
- Microphone Information display. This information is generated either using the Microphone Management module (DCNSWMM) or the Synoptic Microphone Control module (DCNSWSC). It consists of a list of delegates whose microphones are active and those waiting to speak

This software supports three different types of conference venue displays:

- Numeric display. This is typically a dot matrix display of only a few characters per line, and allows only purely numerical information to be displayed
- Alphanumeric display. Also typically a dot matrix display, but for up to 10 lines of 33 characters. Information can be displayed using both text and numbers
- Geographic or status display. This kind of display gives information on the voting status of each conference participant (if the vote is non-secret). A representation of the seating plan and different colored LEDs for vote status are used to achieve this.

Ordering information

LBB 4183/00 Text/Status Display

LBB 4184/00 Video Display

Video Display is unlike all other DCN Next Generation modules in that there is no user action required to operate it. It automatically interfaces the DCN Next Generation software with video displays -.
It provides a means of displaying conference-related information on video displays located in the conference venue. The information can consist of text, numbers and graphical elements like bar charts. All information displayed is generated by other DCN Next Generation modules, and it is not possible to alter this information in Video Display.

Features and Benefits

- Interface to monitors, video projectors and Vidiwalls

Functions

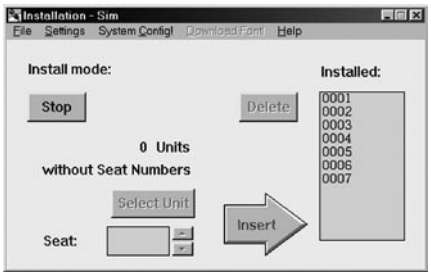
To use Video Display, it is necessary to have a Video Display (VD) Client application. The VD Client application receives the information that is passed to it from the Video Display (server) module. The user can change settings related to how information is displayed on the video screens, such as text or background colors. This can be carried out either during or after installation of Video Display. This VD Client application accepts four different types of display information:

- Voting Results display. A voting motion and the results of the vote on that motion.
- Message display. A conference-related text message (e.g. when and where lunch will be, or when tomorrow's session will begin).
- Microphone Information display. A list of delegates whose microphones are active and those waiting to speak.
- Attendance registration display. Information about how many delegates are absent or present.

Ordering information

LBB 4184/00 Video Display

LBB 4185/00 System Installation



The System Installation software is an effective tool for installers and system operators when installing and setting up the DCN Next Generation system. System installation, set-up and functions are brought entirely under PC control through its easy-to-use, Windows-based software.

Features and Benefits

- Single-point control of system installation
- Facilities for assigning functions to audio channels
- In-conference warning message when installation configuration changes
- On-screen help facility

Functions

The DCN Next Generation System Installation software provides – in an easy yet methodical way – to specify the number of audio channels dedicated to interpretation and intercom facilities.

Assigning seat numbers

The initial task in any installation is to assign seat numbers to delegate contribution units. The System Installation software offers a choice of two assignment methods:

1. From the hall, by physically pressing delegate microphone buttons in sequence. This is registered by the PC, which in turn automatically allocates the unit a number.
2. From the PC, where the operator selects a random microphone and allocates a number. The next assigned number will follow on sequentially. The software instantly recognizes when a new unit is installed by offering a seat number for the newly installed unit.

A dialogue box displaying the system configuration is available at any time, with the total number of installed delegate and chairman units, interpreter desks etc.

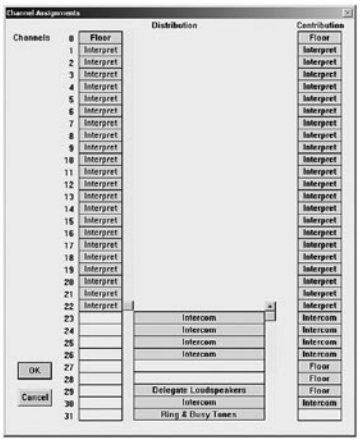
Downloading font sets

It is possible to download special font sets that allow certain DCN Next Generation contribution units to display characters in complex European languages, or icon-based scripts such as Chinese.

Audio channel assignment

The DCN Next Generation system offers 32 audio output channels, with a default configuration of 26 distribution, 4 contribution and 1 intercom link (requires 2 channels) channels. Ten distribution channels can be assigned to combinations of interpretations, floor language and intercom, with two channels reserved for line output and one for delegate loudspeakers as default. If required, all 31 channels can also be used for interpretations.
All channel assignments are interdependent. The number of channels assigned to floor and intercom is dependent on the number required for simultaneous interpretation. In large international conferences using 31 interpretation

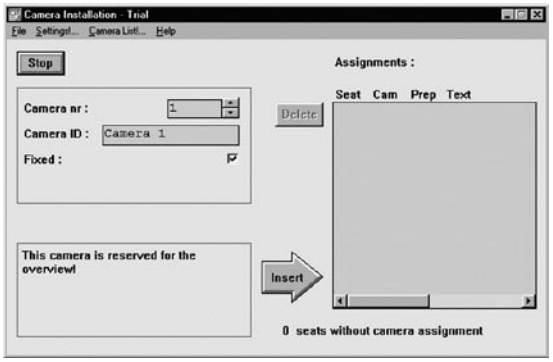
channels plus one floor channel, a channel is automatically assigned to interpreter intercom use. In such a case, the system performs totally as an interpretation system.
The task of assigning audio channels is made easy with the aid of on-screen channel selection, using a display with three scroll bars that gives an instant overview of channel allocation and the effect of altering any of these.
System Installation is primarily a preparation program. Once all microphones and delegate units have been assigned seat numbers and the audio channels configured and tested, there is no need to use System Installation for day-to-day monitoring and controlling of a conference. However, if the physical layout changes in the conference hall (delegate units are added, for example), the data in System Installation must be updated, and a message appears in the installation window.
The conference-related information generated is stored in an installation file. The user can open, create, save, delete and save these files under a new name.



Ordering information

LBB 4185/00 System Installation

LBB 4162/00 LBB 4188/00 Automatic Camera Control



The DCN Next Generation Automatic Camera Control software interfaces DCN Next Generation congress systems with the Bosch Allegiant series of video control switchers. It selects fixed or pre-positioned cameras (such as the Bosch AutoDomes) to be activated to display the current active speaker at a conference.

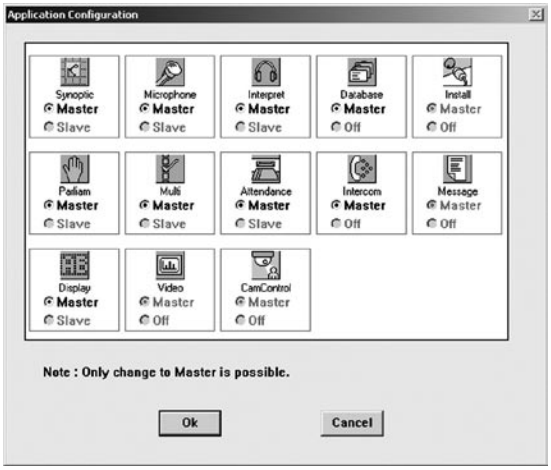
Functions

When a chairman or delegate microphone is activated on the DCN Next Generation equipment, the camera assigned to that position is activated. When no microphones are active, an overview camera is automatically selected. The image can be displayed on hall displays or other monitors together with information about the current speaker if required (such as delegate identification). The system operator has a monitor, which also displays information about which camera is active. This system provides an extra dimension to congress and conference proceedings.

Ordering information

LBB 4162/00 Stand-Alone Automatic Camera Control
For systems without PC Control
LBB 4188/00 Automatic Camera Control
PC controlled

LBB 4189/00 DCN Next Generation Multi PC



The Multi PC software module is needed when more than one PC is required to control the DCN Next Generation system. All Slave PCs in a multi-PC environment are connected via Ethernet to the Master PC, which is connected the CCU.

Features and Benefits

- Master / Slave configuration
- On-screen help facility

Functions

This module sets up the master/slave mode of all other modules in a multi PC environment. The Multi PC configuration is accessed from the menu in the Startup screen (LBB 4190/00).

Ordering information

LBB 4189/00 DCN Next Generation Multi PC

LBB 4187/00 Open Interface

The DCN Next Generation Open Interface software allows remote control of selected DCN Next Generation functions via third party equipment and control software. Control data exchange between DCN Next Generation and the remote control device or system is carried out via an RS232 port on the CCU.

Functions

Possible DCN Next Generation functions for remote control are:

- System Configuration
- System Installation
- Microphone Management
- Parliamentary Voting
- Attendance Registration
- Intercom
- Message Distribution

Ordering information

LBB 4187/00 Open Interface

Information displays

Introduction

A flexible and versatile display system is important for distributing information in conference venues. Bosch information displays provide a quick and effective means of informing participants and audience of the status of events such as congress arrangements, room allocation, changes in the agenda, advertising spots, interpretation distribution, microphone status, voting information and results, and up-to-date news.
Within this range of information displays are products to match the requirements of almost any conference, from small-scale informal discussions to large-scale multi-lingual congresses.

Personal displays

The basic DCN Next Generation personal display system is housed in Concentus units and consists of a graphical LCD display for displaying text messages in almost every available font. They display information generated by DCN Next Generation software modules as well as text to describe the contribution unit soft key functions. LCD technology has also been applied in the development of compact displays that can be built into tabletops or the backs of seats, providing an ideal solution for personal information presentation to selected delegates or groups of delegates or interpreters. These displays are an unobtrusive solution for displaying live or recorded video material, adding a valuable extra dimension to delegate information facilities connected to a separate cable system.

Video display

The Video Display displays conference-related information in the conference venue. The information may consist of text, numbers and graphical elements like bar charts. All information displayed is extracted from the DCN Next Generation software.

Hall displays

Hall displays provide information clearly and effectively to a large number of conference participants. Numeric, alphanumeric and geographic displays are available, and are mainly used for displaying voting results and other text and conference-related data. Also direct view or front or rear projector video displays can be used, e.g. TV receivers. Video projectors are ideal for large audiences or longer distance viewing. These systems allow high quality display of any live or recorded video material as well as computer-generated graphics and text.

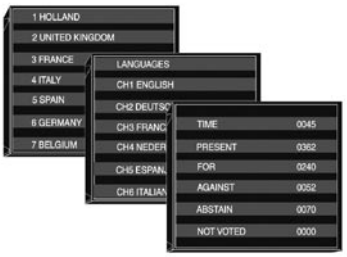
Numeric Hall Display

This dot matrix display with its own built-in power supply unit is used in DCN Next Generation systems to display voting results and remaining voting time. Legends can be fixed to the screen to accompany and clarify the numeric display. These would typically be 'TIME', 'PRESENT', 'FOR', 'AGAINST', 'ABSTAIN' and 'NOTVOTED'. This display can be supplied ready-for-use including an installed Data Distribution Board (DCN-DDB).

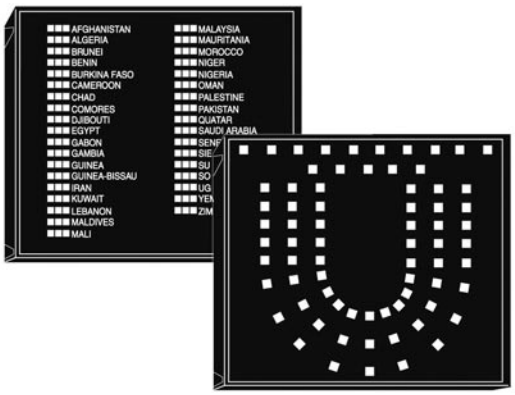
Alphanumeric Hall Display

This dot matrix display with its own built-in power supply can display both numbers and text, and can therefore be used for showing microphone information (speakers list or request-to-speak list), voting results and motion information and messages. This information is generated in the relevant software modules and sent to the hall display via the Text/Status Display software module LBB 4183/00. The Alphanumeric Hall Display can be supplied ready-for-use including an installed Data Distribution Board DCN-DDB. The recommended number of lines is 10 and the number of characters per line is 33.

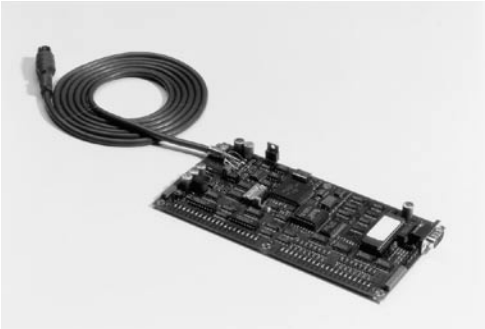
Geographic Hall Display



The hall display screen is built-up using LED modules and is designed to show individual voting results. Each contribution unit in the conference venue is represented by three different colored LEDs that show how each delegate has voted ('YES', 'NO', 'ABSTAIN'.). The layout of the display can be either according to the seating arrangement (synoptic) or according to a list showing delegate names and/or country. The geographic display can be supplied ready-for-use including an installed Data Distribution Board DCN-DDB. Information on connection to the DCN Next Generation system is available on request.



DCN-DDB Data Distribution Board



The DCN-DDB is a printed circuit board that is used with digital equipment such as hall displays, recorder systems and camera controllers to provide the data communication link to the DCN Next Generation. Transparent data transport between data communication boards in the DCN Next Generation system is possible, i.e. for remote control of slide projectors, lights, blinds, projection screens etc. It is intended for mounting in external equipment, and includes an RS232 communication port with a baud rate of 9600 or 1200 baud - selectable by an on-board dip switch. Opto-couplers isolate it from the DCN Next Generation system. It can be powered by DCN Next Generation system supply or an external power source. Other function is to control indicators to show speak slowly and help request from interpreters. When the interpreter presses the speak slowly or help button another output control of the DDB is activated, which can control an indicator of the chairman or operator's position.

Features and Benefits

- Drives hall displays
- Allows transparent data transport for remote control of external equipment
- Speak slowly and help indicator control

Controls and Indicators

- Initialization button with LED indication

Interconnections

- 2 m (78.7 in) cable terminated with a molded six-pole circular connector
- Multi-pole PCB connector for:
  – External initialization button and LED
  – 8-bit parallel data input and output
- Nine-pole D-sub socket for RS232 output

Technical Specifications

Electrical

External supply	7.5 - 35 Vdc.

Mechanical

Dimensions (H x W)	100 x 200 mm (3.93 x 7.87 in)

Ordering information

DCN-DDB Data Distribution Board

Cameras and accessories

Introduction

Transfer and exchange of information is a vital element in conferences, from small informal gatherings to international multi-lingual congresses with hundreds of delegates. Audio systems have traditionally been at the heart of conferences, because a basic requirement of such a gathering is that all present can clearly hear what is being said, in a language they understand. But with increasing sophistication in congress management, it is now possible to incorporate visual elements, thus adding an extra dimension to conference proceedings.

There is an extremely wide range of visual aids suitable for use with the DCN Next Generation system. The most basic include overhead projectors and slides. There are also televisions, monitors and large screen video projectors, using pre-recorded video tapes and cassettes and TV camera pictures. But the use of the PC, presentation software, laser disc, advanced LCD technology and CCDs for color TV cameras has revolutionized visual presentation and turned it into an indispensable part of effec tive congress management. Ever decreasing prices of the new technology has also made sophisticated visual presentation a reality for congresses and conferences of all sizes. This visual equipment, combined with the facilities offered by the Bosch DCN Next Generation, offers each type of congress venue the possibility to fulfill even the most demanding wishes of their customers. The fully digital DCN Next Generation combines excellent audio quality with a wide range of visual presentation possibilities. Many integral conference management functions, such as voting information and results, messages and microphone status can be displayed in the conference venue. The type of display used, such as video projector, TV or monitor, depends on the number of people who have to access the information.

Video cameras are also widely used in many venues. They can show delegates in a congress venue and allow both internal viewing and external distribution to broadcasting organizations. Special cameras called visualizers or imagers are available for displaying documents and objects. All these cameras have a flexibility that enables them to be used in venues ranging from small meeting rooms to parliaments and large commercial congress venues. Video cameras are often combined with video switching facilities and in many cases with camera control systems. For distribution of video and audio signals to video display equipment, distribution amplifiers or an MATV system are often required. Video recording equipment for recording and playback purposes is used in almost all applications. Editing equipment is indispensable if recorded meetings require post production to create video cassettes for archiving, distributing among meeting participants and for promotional purposes.

This section contains a summary of Bosch products suitable for use as video elements in a DCN Next Generation system. Bosch also supplies many more own-brand and third-party products for this purpose. For more information, please contact your local Bosch representative.

The DCN Next Generation can operate with a range of Allegiant Video Switchers. These units are used in combination with Allegiant Keyboards and the DCN Next Generation Automatic Camera Control software to configure a camera switching system. This ensures that speaking delegates are always displayed on the hall displays.

An outline is given below of the Allegiant Video Switchers available. The LTC 8200 is recommended for DCN Next Generation. This allows up to 16 camera to be connected, and has five video outputs. Information about other Allegiant Video Switchers and CCTV equipment can be found in the CCTV Data Book and relevant data sheets.

LTC 8200 Allegiant Video Switcher

The LTC 8200 Allegiant Video Switcher provides automatic camera switching in conference venues. It is easily configured using the DCN Next Generation Automatic Camera Control software, and an Allegiant Keyboard. It ensures that cameras are automatically switched to cover the speaking delegate in conferences.
The LTC 8200 has 16 video inputs for connecting cameras. Either fixed or dome cameras can be connected. There are also five video outputs used to connect hall displays or monitors.
Up to four Allegiant Keyboards can be connected.

Features and Benefits

- 16 camera inputs and five video outputs
- Control of AutoDome Series dome cameras
- 48-character on-screen display
- Compact single bay construction

Interconnections

- BNC Video inputs and monitor outputs
- Console, RS232 port for external PC or control interface (CCU of DCN system) - 9-pin D-type connector
- Biphase out, multiple ports (12 for LTC 8200) for camera control - removable screw terminal connection blocks.
- Keyboards, Multiple ports (4 for LTC 8200) for keyboard connection - 6-pin RS485 ports for Allegiant Keyboard use.

Technical Specifications

Electrical

LTC 8200/50	
Rated voltage	220 to 240 Vac. (50/60 Hz)
Voltage range	198 to 264 Vac.
Power consumption	50 W
LTC 8200/60	
Rated voltage	120 Vac. (50/60 Hz)
Voltage range	100 to 140 Vac.
Power consumption	50 W
LTC 8200/50 And LTC 8200/60	
Video input signal	0.5 Vpp to 2 Vpp (composite negative sync.)
Gain	Unity ± 2 % (75 W)
Video bandwidth (-3 dB)	25 MHz

Mechanical

Dimensions (W x D x H)	440 x 305 x 40 mm (17.3 x 12 x 1.7 in)
Weight	4 kg (8.8 lb)
Mounting	Rack mounting brackets included

Ordering information

Type number	No. of video inputs	No. of video outputs	Max. No. of keyboards
LTC 8100	8	2	2
LTC 8200	16	5	3
LTC 8300	32	6	4

LTC 8555/00 Allegiant Keyboard

The LTC 8555/00 Allegiant Keyboard is used with the LTC 8200 Allegiant Video Switcher. It provides a convenient means of operating and configuring the switcher. It is equipped with a variable-speed pan and tilt joystick control for positioning cameras, and also has an attractive screen for displaying camera information.

Features and Benefits

- Full-function, ergonomically-designed keyboard
- Variable speed joystick control
- 48-character on-screen display

Functions

The Allegiant Keyboard and Allegiant Video Switcher are used with the DCN Next Generation Automatic Camera Control software. A range of Allegiant Keyboard accessories is available, including a keyboard extension cable, keyboard extension kit and keyboard rack mount kit.

Technical Specifications

Mechanical	
Dimensions (W x D x H)	220 x 51 x 155 mm (8.7 x 2 x 6.11 in)
Weight	0.55 kg (1.2 lb)

Ordering information

LTC 8555/00 Allegiant Keyboard

LTC 5136 Autodome Controller

This Autodome Controller provides the same functionality as a Allegiant Keyboard and Allegiant video switcher to configure and control a Bosch AutoDome system. It is required in DCN Next Generation systems with Direct Camera Control to pre-position an AutoDome system. The AutoDome is temporarily connected for this purpose to the Autodome Controller for setting the pre-positions as required for the different DCN Next Generation microphone units. After this, setting the AutoDome system is connected to the DCN Next Generation CCU. The Autodome Controller is also needed to change the programmed pre-positions when required.

Technical Specifications

Electrical	
LTC 5136/51	
Rated voltage	220 to 240 Vac. (50/60 Hz)
Voltage range	195.5 to 253 Vac.
Power consumption	6 W
LTC 5136/61	
Rated voltage	120 Vac. (50/60 Hz)
Voltage range	105 to 132 Vac.
Power consumption	6 W

Mechanical	
Dimensions (W x D x H)	220 x 101 x 155 mm (8.7 x 4 x 6.11 in)
Weight	0.55 kg (1.2 lb)

Ordering information

LTC 5136/51 Autodome Controller
230 Vac
LTC 5136/61 Autodome Controller
120 Vac

G3A Series AutoDome System

The G3A Series AutoDome System allows total observation of a large area with a single camera system. The system, with its built-in camera, driver and integral high-speed pan and tilt, provides 360° observation. It is possible to program the system with up to 99 pre-positions.

Features and Benefits

- Integral camera pan/tilt and receiver/driver system
- 360 degrees observation
- High-speed pan/tilt operation
- Up to 99 pre-positions

Functions

The Bosch G3A Series AutoDome System is ideal for conference venues. Its powerful auto-focus zoom lens allows it to produce clear, close-up shots of speaking delegates, in all sizes of congress venue. The high-speed pan-tilt operation means it can quickly switch positions, and the 360° angle of operation means all seating positions can be covered. It is comprised of a camera/lens module, a backbox/ power supply module and a dome module.
The dome system is a compact, lightweight system containing a high-performance 1/4-inch color CCD camera with an 18:1 auto-iris, auto-focus zoom lens. Additional zoom power is provided by a 12 x digital electronic zoom. Integral high-speed pan/tilt and variable speed operation allow accurate, high-speed camera positioning. The camera, lens and pan/tilt module can easily be removed from the domed enclosure to simplify installation and service. The cameras can be either suspended or in a pendant mount. The camera/lens modules are available in two versions, the in-ceiling AutoDome kit for PAL/NTSC and pendant AutoDome kit, including wall mount for PAL/NTSC.

Direct Camera control

The DCN Next Generation can also be used in the Direct Camera Control (DCC) mode. A single AutoDome system is then directly connected to a CCU for automatic camera control. The video output of the AutoDome system is connected to a monitor or other video display device. The DCC mode is available both for DCN Next Generation stand-alone systems without a control PC and for DCN Next Generation systems with control PC. Setting AutoDome system pre-positions in DCN Next Generation systems with DCC requires use of Autodome controller, both for DCN Next Generation stand-alone systems and PC-controlled DCN Next Generation systems.
The DCC mode can only be used in combination with:

- a Bosch AutoDome
- Central Control Unit DCN-CCU or DCN-CCUB

Technical Specifications

	G3ACS5C	G3ACS6C
Camera type	In-ceiling	In-ceiling
TV standard	PAL	NTSC
Power	24 Va.c/50 Hz	24 Va.c/60 Hz
Clear bubble	Yes	Yes
Power supply	No transformer included. Use PSU TC220PSX-24	No transformer included. Customer must supply 24 VAC, 15 W (min) transformer

	G3ACPW2CW	G3ACPW6CW
Camera type	Pendant	Pendant
TV standard	PAL	NTSC
Power	230 Va.c/50 Hz	24 Va.c/60 Hz
Clear bubble	Yes	Yes
Power supply	Transformer included in Wall mount	No transformer included. Customer must supply 24 VAC, 15 W (min) transformer

For more information, refer to the CCTV Data Book.

LTC 0455 Series Color Camera

The LTC 0455 series are compact rugged, 1/3-inch image format digital color CCD cameras. They are ideal for overview cameras in conference venues. Their superior sensitivity, high resolution and picture quality provide optimal performance in virtually all situations.
The LTC 0455 cameras also come with a lens wizard that automatically detects the type of lens installed and provides an OSD guide that allows the installer to easily adjust the lens level and focus without special tools or filters.

Features and Benefits

- 1/3-inch format CCD imager
- High sensitivity
- Easy to install
- Accepts AC or DC voltages

Functions

Bilinx Technology

The LTC 0455 series cameras incorporate Bilinx, a bi-directional communication capability embedded in the video signal of all Bosch Dinion cameras. With Bilinx, technicians can check status, change camera settings and even update firmware from virtually anywhere along the video cable.

Certifications and Approvals

Electromagnetic compatibility:

EMC immunity	According EN50130-4
EMC emission	According EN505022 class B,
	According FCC, class B part 15

Safety:

LTC 0455/10 and LTC 0455/50: EN60065

LTC 0455/20 and LTC 0455/60: UL6500

Technical Specifications

Electrical

Model No.	Rated Voltage	Voltage Range	System
LTC 0455/10	12 VDC 24 VAC 50 Hz	10.8-39 VDC 12-28 VAC 45-65 Hz	PAL
LTC 0455/20	12 VDC 24 VAC 60 Hz	10.8-39 VDC 12-28 VAC 45-65 Hz	NTSC
LTC 0455/50	230 VAC 50 Hz	85-265 VAC 45-65 Hz	PAL
LTC 0455/60	120 VAC 60 Hz	85-265 VAC 45-65 Hz	NTSC

Power Consumption	4 W, excluding lens
Imager	Interline transfer CCD, 1/3-inch image format
Active Picture Elements	
PAL Models	752 H x 582 V
NTSC Models	768 H x 494 V

Mechanical

Connectors	Video Output Video/DC-IRIS connector BNC 4-pin EIA-J
Camera mounting	Top and Bottom, 1/4-inch 20 UNC
Lens mounting	C and CS
Dimensions (H x W x D) including connectors	58 x 66 x 122 mm (2.28 x 2.6 x 4.8 in)
Weight	0.45 kg (0.99 lb)

Environmental

Operating Temperature	20°C to 50°C (-4°F to 122°F)
Storage Temperature	25°C to 70°C (-13°F to 158°F)
Operating Humidity	5% to 93% non-condensing

Ordering information

LTC 0455/10 Series Color Camera
12 V, PAL

LTC 0455/20 Series Color Camera
12 V, NTSC

LTC 0455/50 Series Color Camera
230 V, PAL

LTC 0455/60 Series Color Camera
230 V, NTSC

For more information, refer to the CCTV Data Book.

MON152CL LCD Monitor

The MON152CL is a high-resolution, high performance liquid crystal display (LCD) video monitor. It can be used as an operator display with the DCN Automatic Camera Control software. Available in an ergonomic, aesthetically pleasing design, this state-of-the-art monitor includes a 38-cm (15-inch) color thin film transistor (TFT) active matrix LCD panel with 1024 by 768 pixels.

Features and Benefits

- Provides 500 TV lines resolution
- Y/C (S-video) and loop-through composite video and audio inputs
- Analog VGA input
- Space-saving, compact design
- 50% Less power consumption than conventional CRT monitors
- NTSC and PAL formats
- Picture-in-Picture feature
- Universal power source
- Front panel control lockout
- On-screen display (OSD) for setup and adjustment

Technical Specifications

Electrical	
Rated Voltage	120/230 VAC, 50/60 Hz
Voltage Range	90 to 264
Power at Rated Voltage	38 W
Sync Format	PAL/NTSC
LCD Panel	TFT LCD
Screen Size	304.1 (H) x 228.1 (V) mm (12 x 9 in)
Viewable Picture	38 cm (15 in) measured diagonally Area
Pixel Pitch	0.297 (H) x 0.297 (V) mm
Resolution	1024 x 768 pixels; 500 TVL Typical
Aspect Ratio	4:3
Mechanical	
Cabinet	Material: ABS94V0 plastic Finish: Charcoal
Dimensions	
LCD Panel with Base	391 (W) x 183 (D) x 395 (H) mm (15.4 x 7.2 x15.6 in)
LCD Panel Only	391 (W) x 70 (D) x 306 (H) mm (15.4 x 2.75 x 12 in)
Weight	LCD Panel with Base: 4.9 kg (10.8 lb) LCD Panel Only: 3.6 kg (8.0 lb)
Environmental	
Operating Temp.	0°C to +50°C (+32°F to 122°F)
Storage Temp.	–20°C to +60°C (–4°F to 140°F)
Humidity	10%–95%, non condensing

Ordering information

MON152CL LCD Monitor

For more information, refer to the CCTV Data Book.

Installation Equipment

Introduction

The range of installation accessories greatly simplifies system installation by the use of readymade cables with connectors for both trunk cables and optical network cables. Splitters allow cables to be split and run in diverse directions, which mean contribution units and central equipment can be located precisely where they are required in a conference venue. Dedicated optical network interfaces are available to make it possible to run the system signal and data over great distances. Installation equipment is used for both fixed and portable installations.

DCN-EPS Extension Power Supply

The Extension Power Supply unit is used in combination with a CCU to supply extra power to the DCN network.

Features and Benefits

- Easy to connect to DCN
- Maximum supply power of 255 W
- Installable at any convenient point in the system cabling due to its built-in DCN network splitter
- Using loop-through cabling
- Switches on automatically when the CCU is switched on
- All outputs are protected against short circuit
- Freestanding on a tabletop or mounted in a 19” rack

Controls and Indicators

- “Power on” LED indicator
- Three indicators to indicate DCN outlet overload (red LEDs)

Interconnections

- Euro-mains socket with built-in fuse holder, mains cable 1.7 m (66.9 in) included
- 2 m (78.7 in) DCN cable with molded six-pole circular connector
- Six-pole circular socket for loop-through connection to the DCN network
- Three DCN outlet sockets for connection of units, plus extension power supplies. Each socket is protected against short-circuit (3 x six-pole circular sockets)

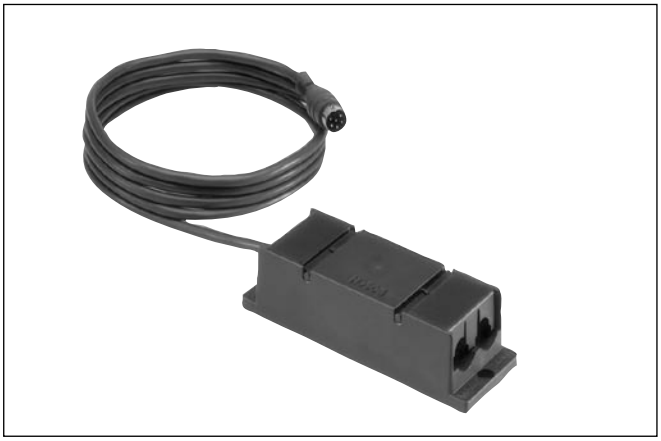
Technical Specifications	
Electrical	
Supply voltage	105, 115, 125, 220, 230, 240 Vac., 50/60 Hz
Power consumption	350 W
DCN system supply	40 VDC, max 85 W per DCN socket
Mechanical	
Mounting	Free-standing on a table top or mounted in a 19" rack unit (requires 2U, 19" width)
Dimensions (H x W x D)	100 x 220 x 308 mm (3.9 x 8.7 x 12.1 in)
Weight	8.3 kg (18.3 lb)
Color cabinet	Charcoal (PH 10736)
Color handles	Charcoal (PH 10736)

Ordering information

DCN-EPS Extension Power Supply

DCN-EPS-UL Extension Power Supply UL/CSA intended for North-America region

LBB 4114/00 Trunk Splitter



The Trunk Splitter is used in conjunction with the system installation to divide the trunk-line cabling, thus allowing system installers to optimize layout of the trunk-line and contribution equipment to suit the conference venue. The Trunk Splitter comes complete with cable restraining clamps and includes mounting holes for fixing to a floor or wall.

Interconnections

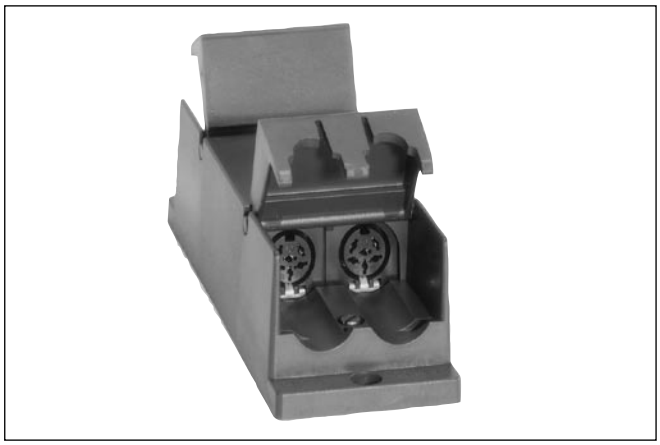
- 2 m (78.7 in) long cable terminated with a molded six-pole circular connector
- Six-pole circular connector for loop-through connections
- 2 x six-pole circular connector for trunk cable splitting and pulse regeneration purposes

Technical Specifications	
Mechanical	
Mounting	Floor, cable duct or wall mounting
Dimensions (H x W x D)	35 x 49 x 140 mm (1.4 x 1.9 x 5.5 in)
Weight	0.3 kg (0.66 lb)
Color	Charcoal (PH 10736)

Ordering information

LBB 4114/00 Trunk splitter

LBB 4115/00 Tap-Off Unit



The Tap-Off Units create short-circuit proof tap-off points on the trunk line cabling. Each tap-off point allows for connection of up to five channel selector panels or one tabletop contribution unit such as Discussion unit, Concentus unit or Interpreter Desk. A Tap-Off Unit consists of two tap-off points. The Tap-Off Unit comes complete with cable restraining clamps and includes mounting holes for fixing purposes.

Interconnections

- 2 m (78.7 in) long cable terminated with a molded six-pole circular connector
- Six-pole circular connector for loop-through connections
- 2 x six-pole circular connector for trunk cable splitting and pulse regeneration purposes
- Short-circuit proof tap-off points at the system cable

Technical Specifications

Electrical

Max power at Tap-offs	4.5 W each

Mechanical

Mounting	Floor, cable duct or wall mounting
Dimensions (H x W x D)	35 x 49 x 140 mm (1.4 x 1.9 x 5.5 in)
Weight	0.3 kg (0.66 lb)
Color	Charcoal (PH 10736)

Ordering information

LBB 4115/00 Tap-Off Unit

LBB 4116 DCN Extension Cable

Cable terminated at both ends with a molded six-pole circular connector (male and female). The extension to the type number gives the length of the cable.

Technical Specifications

Mechanical

Grey PVC sheath 6 mm (0.24 in) dia.

Ordering information

LBB 4116/00 100mm DCN installation cable without connectors

LBB 4116/02 Extension Cable 2 m (6.6 ft) terminated with connectors

LBB 4116/05 Extension Cable 5 m (16.0 ft) terminated with connectors

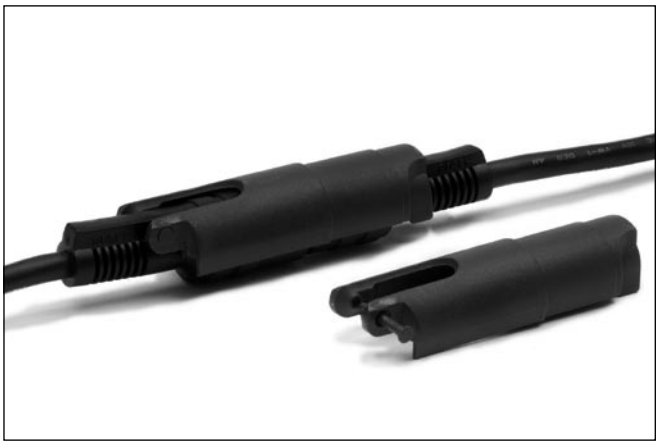
LBB 4116/10 Extension Cable 10 m (33.0 ft) terminated with connectors

LBB 4116/15 Extension Cable 15 m (49.2 ft) terminated with connectors

LBB 4116/20 Extension Cable 20 m (66.0 ft) terminated with connectors

LBB 4116/25 Extension Cable 25 m (82.0 ft) terminated with connectors

LBB 4117/00 Set of 25 cable locking clamps



Matching clamps for male/female cable connectors such as those on the DCN Extension Cable (LBB 4416). One clamp per male/ female connector required.

Ordering information

LBB 4117/00 Set of 25 cable locking clamps

LBB 4119/00 Set DCN Connectors

The set DCN Connectors contains 25 female and 25 male connectors that can be used with the 100 m (328 ft) DCN Installation Cable LBB 4116/00.

Ordering information

LBB 4119/00 Set DCN Connectors

LBB 4118/00 Termination plug for cable

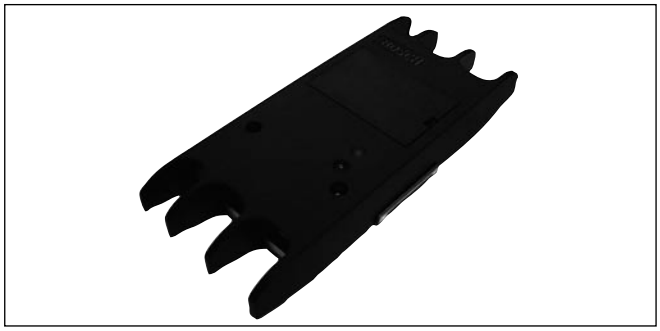
The termination plug is specially designed for use with opened-ended DCN cabling.

Ordering information

LBB 4118/00 Termination plug for cable

LBB 4410/00 Optical network Splitter

The optical network splitter is used in conjunction with the system installation to tap off two branches from the optical network cable run.



Features and Benefits

- Redundant network connection
- Power on indicator
- Error indication
- Powered externally (48 V DC) or from the CCU
- External power is not fed into the main cable run
- Automatically powered from the external power supply
- Maximum power feed to tap-off outlets can be reduced
- Repeater function to extend the cable length with
- 50 meter (164 ft)

Controls and Indicators

- 2 LEDs for diagnostics
- Jumpers to select maximum power fed to the tap offs Interconnection
- 2 optical network connection for main run
- 2 optical network connection for tap off
- External power supply connector

Technical Specifications

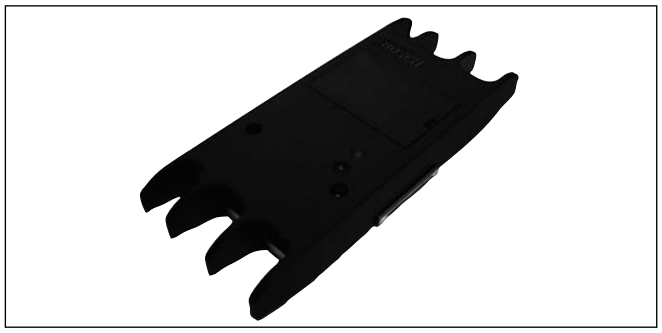
Mechanical

Mounting	By 2 screws in bracket
Dimensions (H x W x D)	200 x 82.5 x 28.9 mm
(with and without bracket)	(7.8 x 3.2 x 1.1 in)
Weight	0.3 kg (0.66 lb)
Color	Charcoal grey

Ordering information

LBB 4410/00 Optical network Splitter

LBB 4414/10 Fiber interface without Address



The fiber interface is used in conjunction with the system installation to convert from plastic optical network cable to glass optical fiber and vice versa.

Features and Benefits

- Redundant network connection
- Power on indicator
- Error indication
- Powered externally (48 V DC) or from the CCU
- Automatically powered from the external power supply

Controls and Indicators

- 2 LEDs for diagnostics
- 2 control inputs (for future use)

Interconnections

- 1 optical network connection for plastic optical fiber
- 1 optical network connection for glass optical fiber
- External power supply connector

Technical Specifications

Mechanical

Mounting	By 2 screws in bracket
Dimensions (H x W x D)	200 x 82.5 x 28.9 mm
(with and without bracket)	(7.8 x 3.2 x 1.1 in)
Weight	0.3 kg (0.66 lb)
Color	Charcoal grey

Ordering information

LBB 4414/10 Fiber interface without Address

LBB 4416/xx Optical Network Cables

This is a special cable with 2 plastic fibers for data and audio communication and 2 copper cores for the power supply. The cable is supplied with the network connectors fitted. This cable can be used to connect the CCU to audio expanders.
The network cables are supplied in different lengths. The extension (/xx) on the type number indicates the length of the cable. Only the LBB 4416/00 is without connectors. The connectors are available separately (LBB 4417/00).

Ordering information

LBB 4416/00 100 installation network cable
without connectors
LBB 4416/01 Optical Network cable 0.5 m (1.6 ft)
terminated with connectors
LBB 4416/02 Optical Network cable 2 m (6.6 ft)
terminated with connectors
LBB 4416/05 Optical Network cable 5 m (16 ft)
terminated with connectors
LBB 4416/10 Optical Network cable 10 m (33 ft)
terminated with connectors
LBB 4416/20 Optical Network cable 20 m (66 ft)
terminated with connectors
LBB 4416/50 Optical Network cable 50 m (164 ft)
terminated with connectors

LBB 4417/00 Set of 20 optical network connectors

The set of network connectors contains 20 connectors that can be used with the network cable (LBB 4416/00). For assembly the cable/connector the Optical cable/connector tool kit is required.

Ordering information

LBB 4417/00 Set of 20 optical network connectors

LBB 4418/00 Optical cable & connector tool kit

The tool kit contains the following items:
- Standard cutting pliers
- Stripping pliers
- Crimping pliers
- POF cutting/stripping tool
- POF positioning and indent tool
- Torx screw driver
- Spare cutting system

Ordering information

LBB 4418/00 Optical cable & connector tool kit

LBB 4419/00 Set of 10 optical cable couplers

Cable couplers are used to couple LBB 4419/00 network cable assemblies for extension.

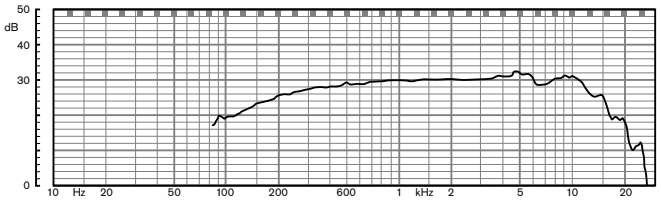
Ordering information

LBB 4419/00 Set of 10 optical cable couplers

Technical Data

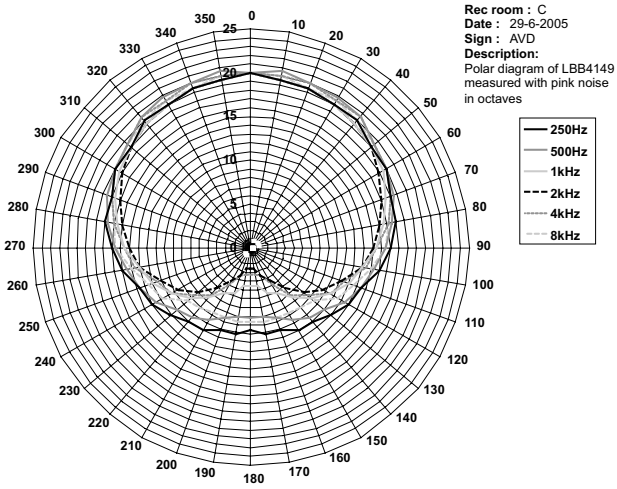
Conforms to the international standard IEC 60914, the international standard for conference systems.

Microphones



Micophone frequency response

Frequency response	100 Hz to 16 kHz
Transducer type	condenser
Directional pattern	cardioid
Sensitivity	9.3 mV at 85 dB SPL (Rl=3k3, U=5V)
Max. SPL for THD	< 3% 110 dB
Equivalent input noise level	24 dB lin, 21 dBA



Microphone polar pattern

	250	500	1k	2k	4k	8k	Hz
F-Rear Sensitivity Index	10.5	12	15.5	17.5	17	11.5	[dB]
F-Random Sensitivity Index	3.7	3.7	4.6	5.0	4.3	3.9	[dB]

Transmission links

- From delegate to interpreter
- From delegate to delegate
- From interpreter to delegate
- From interpreter to interpreter
- From auxiliary input to delegate
- From auxiliary input to interpreter
- From delegate to auxiliary output
- From interpreter to auxiliary output

General

Frequency response	125 Hz to 20 kHz*
Harmonic distortion	< 0.5%
Harmonic distortion at overload	< 1%
Crosstalk attenuation at 4 kHz	> 80 dB
Dynamic range	> 90 dB

* Intercom links: 125 Hz to 5 KHz

Combined units

- Delegate microphone with transmission link to interpreter headphone
- Delegate microphone with transmission link to delegate headphone
- Delegate microphone with transmission link to auxiliary output
- Interpreter microphone with transmission link to interpreter headphone
- Interpreter microphone with transmission link to delegate headphone
- Interpreter microphone with transmission link to auxiliary output

General

Typical frequency response	125 Hz (-8 dB) to 16 kHz(-8 dB)
Front-to-random sensitivity index	> 4.6 dB
Rated equivalent sound pressure level due to inherent noise	< 24 dB (A)
Total harmonic distortion at overload	< 1%
Crosstalk attenuation	> 96 dB

System electrical and electro-acoustic characteristics	
General	
Nominal input level	85 dB SPL
Overload input level	110 dB SPL
Automatic gain reduction at Overload input level	25 dB interpretation channels, 21 dB delegate loudspeaker channel (not for PA-floor output)
Operator master gain control	24 x 1 dB and OFF (Mute)

System environmental conditions	
General	
Working conditions	Fixed/stationary/transportable
Temperature range	
- transport	20°C to +55°C (-4°F to 131°F)
- operating	+5°C to +45°C (41°F to 113°F)
Relative humidity	15 - 90% max.
Safety	According to IEC 60065, and according to CAN/CSA-E65 (Canada and USA) and UL6500
EMC emission	According to harmonized standard EN 55103-1 and FCC Rules (Part 15) complying with the limits for a class A digital device
EMC immunity	According to harmonized standard EN 55103-2
EMC approvals	Affixed with the CE mark.
ESD	According to harmonized standard EN 55103-1
Mains harmonics	According to harmonized standard EN 55103-1
Other legal requirements	No cadmium used other than in the Nickel-Cadmium battery housed in the central unit
Shock resistance	According to IEC 60069 - 2 - 29 Eb
Vibration resistance	According to IEC 60068 - 2 - 6 Fc

Power consumption and nodes

The Power Consumption and the nodes of units connected to a CCU have a bearing on the total number of such units that can be connected.
The maximum power of all units connected to DCN-CCU must not exceed 130 Watts.
The maximum number of nodes must not exceed 63.

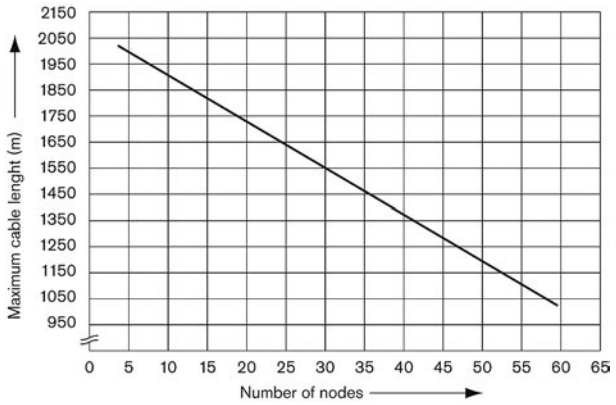
The power of all units that can be connected to DCN-CCU is given below:

Device	Watt	Nodes
DCN-DISS / DCN-DISL	2.75	–
DCN-DISD	2.8	–
DCN-DISCS	2.9	–
DCN-DISDCS	3.15	–
DCN-DISV	3.05	–
DCN-DISVCS	3.20	–
DCN-CON	3.4	–
DCN-CONCS	3.7	–
DCN-CONFF	4.2	–
DCN-CONCM	4.2	–
DCN-DDB	2	–
DCN-DDI	4.9	–
DCN-EPS	0.1	–
DCN-FCS	0.9	–
DCN-FVU	1.0	–
DCN-FVU-CN	1.0	–
DCN-IDESK	3.6	–
LBB 4114/00	1.3	–
LBB 4115/00	1.4	–
DCN-CCU	n.a.	2
LBB 4402/00	7.6	1
PRS-4DEX4	6	1
LBB 4404/00	10.5	1
LBB 4414/10	4.6	1*
LBB 4410/00	3.9	1
INT-TX04	–	1
INT-TX08	–	2
INT-TX16	–	4
INT-TX32	–	8

* LBB 4414/10 does not count in the maximum of 63 nodes.

System Limits

- The total DCN cable length (using standard LBB 4116/xx cable) between the central control unit and the last unit in any branch of the system must not exceed 250 m (820 ft 2 in). This includes all extension cables and the 2 m (78.74 in) long cable attached to each system unit
- The total number of units from the central control DCN-CCU unit to the first regenerative tap-off (i.e., from Trunk Splitter LBB 4114/00 or Extension Power Supply Unit DCN-EPS) must not exceed 50 pieces
- The total length of the extension cable between regenerative tap-offs outputs must not exceed 100 m (328 ft 1 in)
- The maximum distance between units is normally 160 cm (62.99 in), each units has 2m (78.74 in) cable. This distance can be increased by using the LBB 4116/xx Extension Cable
- The maximum Plastic Optical Fiber (POF) length (using standard LBB 4416/xx cable) between two units is 50 m. When more than 50 and less than 1500 meter is required, fiber interfaces LBB 4414/10 and Glass Optical Fiber (GOF) must be used. Only multimode GOF with a maximum attenuation of 2 dB/km and a wavelength of 1300 and terminated with SC connectors is supported. It is also possible to increase the 50m by inserting a network splitter LBB 4410/00 every 50 m or less.
- The maximum length of all optical fibers together (POF and GOF) depends on the number of nodes in the system. The graph below shows the relation between the number of nodes and the fiber lengths.



The examples given below of the DCN-CCU, DCN-EPS show the following:

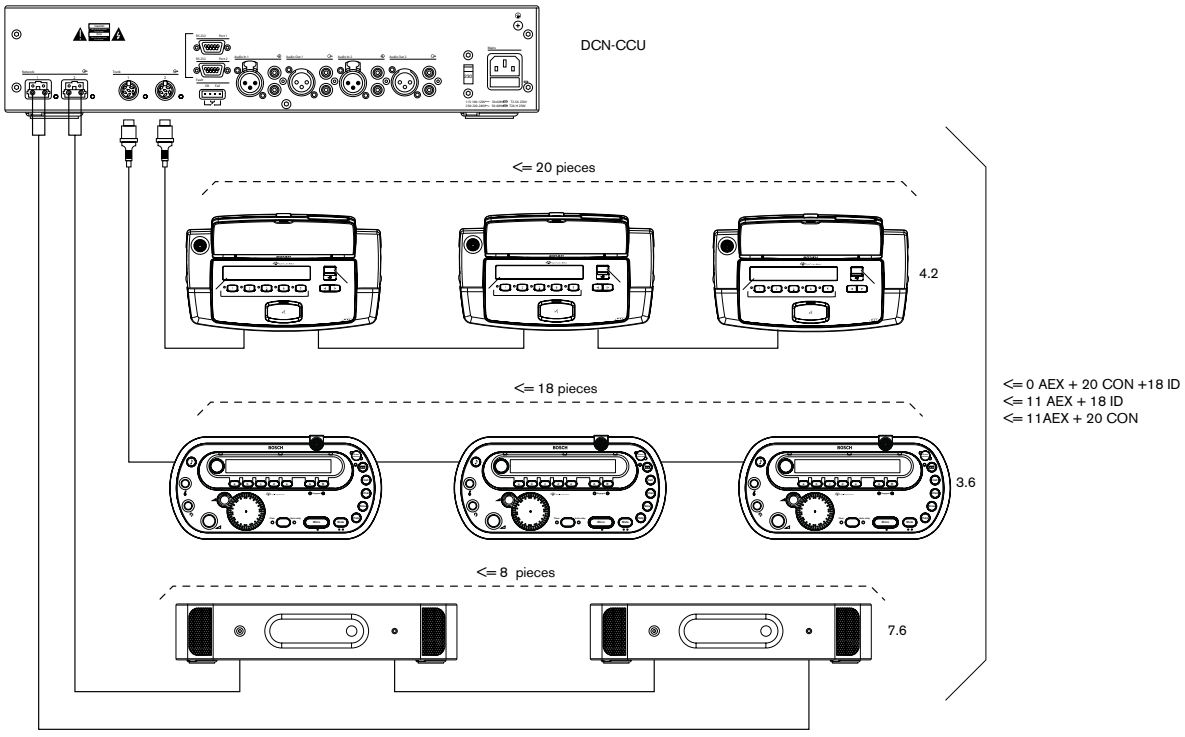
- Maximum number of units that can be connected to a single output
- Maximum number of units that can be connected to all outputs
- Maximum DCN cable length from an output to the last unit

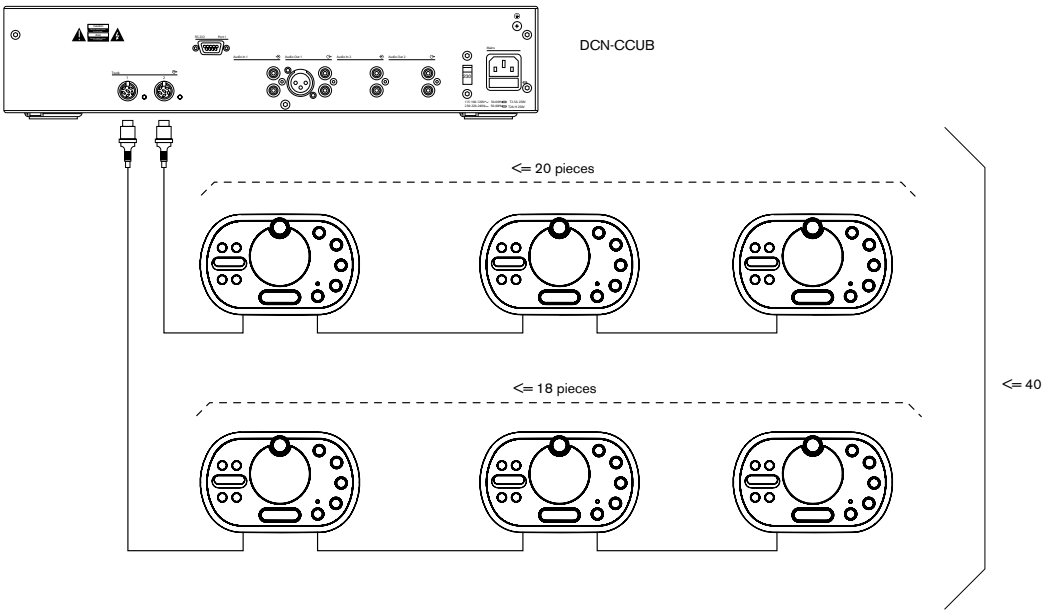
Examples

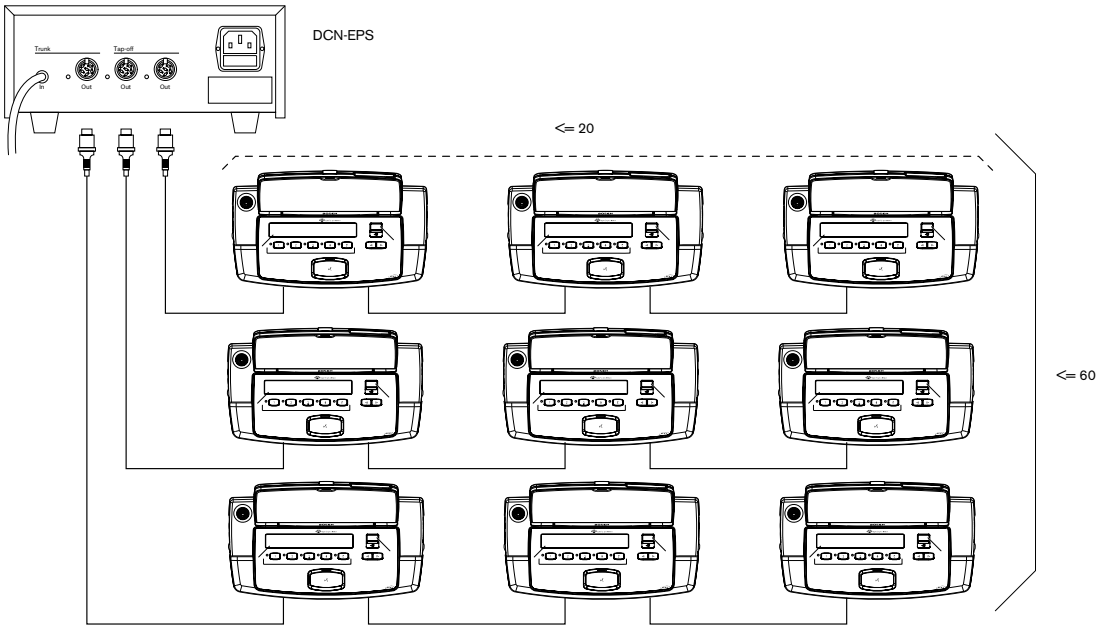
The examples given below of the DCN-CCUB, DCN-CCU and DCN-EPS show the following:

- Maximum number of units that can be connected to a single output
- Maximum number of units that can be connected to all outputs
- Maximum cable length from an output to the last unit

In these examples, the following annotations are used:
DIS = Discussion unit DCN-DISS
CON = Concentus DCN-CON
AEX = Audio Expander LBB 4402




DCN-CCUB
<= 20 pieces
<= 18 pieces
<= 40


DCN-EPS
Trunk
Tap-off
Out
Out
Out
<= 20
<= 60

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DCN-CCU Central control unit 64
DCN-CONCM Concentus Chairman Unit. 38
DCN-CONCS Concentus Unit with Channel Selector 35
DCN-CONFF Concentus Unit Full Function. 36
DCN-CON Concentus Unit 34
DCN-DDB Data Distribution Board 93
DCN-DDI Dual Delegate Interface 43
DCN-DISBCM 10 sets of buttons for Chairman Discussion Unit . 31
DCN-DISBDD 10 sets of buttons for Dual Use Discussion Unit . 31
DCN-DISCLM Set of 25 cable clamps for Discussion Unit 32
DCN-DISCS Discussion Unit with Channel Selector. 24
DCN-DISDCS Discussion Unit with Dual Channel Selector. 25
DCN-DISD Basic Discussion Unit 22
DCN-DISR Set of 10 Rims for Discussion Units 30
DCN-DISS / DCN-DISL Discussion Unit with fixed Microphone . 21
DCN-DISVCS Discussion Unit with Voting and Channel Selector 28
DCN-DISV Discussion Unit with Voting. 27
DCN-EPS Extension Power Supply. 101
DCN-FBP Set of Blank Panels. 49
DCN-FCCON Flight Case for Concentus units 40
DCN-FCDIS Flight Case for Discussion units 32
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DCN-FCS Channel Selector unit for 32 channels 58
DCN-FEC Set of 50 End Caps 49
DCN-FHH Hand-held microphone 44
DCN-FLSP Loudspeaker Panel 47
DCN-FMICB Microphone Control Panel 45
DCN-FMIC Microphone Connection Panel. 45
DCN-FPRIOB Priority Panel. 46
DCN-FPT Flush Positioning Tool 50
DCN-FVCRD Voting and Card Panel 48
DCN-FVU-CN Voting Unit Chinese 52
DCN-FVU Voting Unit 51
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DCN-MICS/L Pluggable microphone short/long stem. 39
DCN-SWDB Delegate Database 77
DCN-SWMM Microphone Management 75
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LBB 3441/10 Under-the-Chin Stereo Headphones 60
LBB 3442/00 Single Earphone 61
LBB 3443/00 Lightweight Stereo Headphones. 60
LBB 3555/00 Intercom Handset and Cradle 40
LBB 3555/00 Intercom Handset and Cradle 50
LBB 4114/00 Trunk Splitter 102
LBB 4115/00 Tap-Off Unit 103
LBB 4116 DCN Extension Cable 103
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LTC 0455 Series Color Camera **99**
LTC 5136 Autodome Controller 97
LTC 8200 Allegiant Video Switcher 96
LTC 8555/00 Allegiant Keyboard 97

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Printed in The Netherlands
Data subject without notice
CO-EH-en-05_4998146634_01