All-round expertise

Philips Communication, Security and Imaging is a global supplier of products and systems for on-site Communication and Closed-Circuit Television applications. The on-site Communication activity comprises Congress, Public Address and Paging. The CCTV capabilities range from plug-and-play observation products (POS) to integrated systems incorporating cameras, monitors, lenses, switcher, transmission solutions and control systems. The company has its headquarter in Eindhoven (The Netherlands), with regional centers and factories in USA, Europe and Asia.

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CCS 800 Discussion System
DATA BROCHURE

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ARCHITECTS AND CONSULTANTS SPECIFICATIONS

6

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Using this data brochure
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Architects and Consultants Specifications

Chairman Unit with Long Microphone

This unit shall be identical to the standard Chairman Unit, except that the stem length of the microphone shall be 488 mm (19.2 in).

Transport and Storage Suitcase for 10 contribution units

The transport and storage suitcase shall be used to protect contribution units in transit or while in storage. It shall have the capacity to hold 10 contribution units with standard-length microphones. Any combination of delegate/chairman units shall be catered for. The inside of the suitcase shall have specially moulded packing to accommodate the discussion units, which shall give ample protection, while making packing and unpacking easier. The suitcase shall have handles on the top and side, and two wheels on the underside for ease of transportation. There shall be two separate locks for extra security. The suitcase shall be 560 mm (22.0 in) high, 795 mm (31.3) wide and 235 mm (9.2 in) deep. The weight of the empty suitcase shall be 6 kg (13.2 lb). The material used shall be 3 mm (0.12 in) thick ABS. The colour shall be RAL 9004 (black).

Transport and Storage Suitcase for CPSU and 10 contribution units

This suitcase shall be functionally identical to the Transport and Storage Suitcase for 10 contribution units, except that it shall have the capacity to hold one CPSU and six contribution units with either standard or extended microphone stems, and some extension cables. The suitcase shall be 560 mm (22.0 in) high, 795 mm (31.3) wide and 235 mm (9.2 in) deep. The weight of the suitcase shall be 6 kg (13.2 lb). The material used shall be 3 mm (0.12 in) thick ABS. The colour shall be RAL 9004 (black).

Extension Cable Assembly

The extension cable assembly shall consist of 5 m (197 in) and 10 m (394 in) of 6 mm (0.24 in) diameter cable terminated at one end with a moulded 7-pole male circular connector, and at the other end with a moulded 7-pole female circular connector. The installation cable shall consist of 100 m (3940 in) of 6 mm (0.24 in) diameter cable plus 5 connector sets, male & female (7-pole circular)

Set of 25 Cable Locking Clamps

A set of Cable Locking Clamps shall match male and female cable connectors, such as those on Extension Cable Assemblies. Each male/female connector shall require one clamp.

Architects and Consultants Specifications

19-Inch Rack-Mounting Set

This set shall consist of brackets and other necessary fixings to enable the CPSU to be mounted in a 19-inch rack system. Flush-mounting of the CPSU shall be possible by using a custom-made bracket.

2. CONTRIBUTION EQUIPMENT

Delegate Unit

The Delegate Unit shall enable delegates to speak and listen to the proceedings via a loudspeaker or headphones. The unit shall include a microphone with a red indicator ring which shall illuminate when the microphone is on. To prevent acoustic feedback, the built-in loudspeaker shall be muted when the microphone is on, and/or the headphones are connected. Two 3.5 mm stereo headphone sockets (wired for mono) shall allow two pairs of headphones to be connected, enabling two delegates to simultaneously use the unit. The headphone volume level shall be adjustable on the unit for maximum comfort. It shall also be possible to connect a tape recorder to one headphone socket, and use the other headphone socket to listen to the proceedings. The unit shall have the following controls and indicators:

- Microphone with light-ring indicator which illuminates when the microphone is on
- Microphone on/off button
- 'Microphone on' indicator (red LED)
- Rotary volume control for adjusting headphone volume
- Loudspeaker, automatically muted when microphone is on and/or headphones are connected

Each unit shall have a 2 m (78.7 in) cable terminated with a moulded 7-pole circular connector, and a 7-pole circular socket for loop-through connections. There shall be two 3.5 mm (0.1 in) stereo jack headphone sockets. The front panel shall be 63 mm (2.5 in) high and 124 mm (4.9 in) wide, and the unit footprint shall be 63 mm (2.5 in) x 172 mm (6.8 in). The weight of the unit shall be approximately 0.9 kg (2.0 lb). The stem length of the microphone shall be 313 mm (12.3 in).

Delegate Unit with Long Microphone

This unit shall be identical to the standard Delegate Unit, except that the stem length of the microphone shall be 488 mm (19.2 in).

Chairman Unit

The Chairman Unit shall enable the user to function as chairman of a conference or meeting. It shall be similar in appearance to the Delegate Unit, and shall also include a 'chairman priority' button. When pressed, the priority button shall cause all currently active delegate microphones to be temporarily or permanently muted, allowing the chairman to take control of the meeting. To prevent acoustic feedback, the built-in loudspeaker shall be muted when the microphone is on, and/or the headphones are connected. An optional chime shall be selectable to precede chairman priority calls. The unit shall have the following controls and indicators:

- Chairman priority button
- Microphone on/off button
- Rotary volume control for adjusting headphone volume
- Microphone with light-ring indicator which illuminates when the microphone is on
- 'Microphone on' indicator (red LED)
- Internal chime selection switch
- Internal switch for temporary or permanent muting of delegate microphones when chairman priority key is pressed
- Loudspeaker, automatically muted when microphone is on and/or headphones are connected

Note: Both of the above internal switches shall be accessible by first removing a small plastic plate on the bottom of the Chairman Unit. If any Delegate Unit is permanently muted on activation of a 'microphone priority' key, it shall be possible to reactivate it using the 'microphone on' button on the Delegate Unit.

Each unit shall have a 2 m (78.7 in) cable terminated with a moulded 7-pole circular connector, and a 7-pole circular socket for loop-through connections. There shall be two 3.5 mm (0.1 in) stereo jack headphone sockets. The front panel shall be 63 mm (2.5 in) high and 124 mm (4.9 in) wide, and the unit footprint shall be 63 mm (2.5 in) x 172 mm (6.8 in). The weight of the unit shall be approximately 0.9 kg (2.0 lb). The stem length of the microphone shall be 313 mm (12.3 in).

Introduction

The Philips CCS 800 Discussion System is a versatile, economical discussion system intended for small-scale meetings and gatherings. It provides all the facilities required to control meetings and discussions, and allows delegates to communicate with each other by means of microphones and built-in loudspeakers or personal headphones. It delivers high speech intelligibility, and is ideal for venues such as local government councils, hotel conference rooms, training and educational venues, company board rooms and congress venue breakout rooms.

Simple to install
The system is quick and easy to install, and requires no special training. Each unit is fitted with a 2 m (78.7 in) cable terminated with a plug, and a socket. The units are simply plugged into each other in a 'daisy chain' configuration, with the first unit connected to one of the two Central Power Supply Unit (CPSU) trunk outputs. In this way up to 50 contribution units can be connected (25 units per trunk output) 100 contribution units on request. Extension cables are available to connect units together which are located more than 2 m (78.7 in) from each other. A test mode on the CPSU checks that all connections have been correctly made.

Easy and convenient to use
Once installed, the CCS 800 is simple to set up, and easy to use. Before the meeting begins, a suitable microphone mode can be selected on the CPSU, and other parameters such as loudspeaker volume are set. The system is then ready for use, and will automatically control the conference, for example by limiting the number of microphones simultaneously active, or by allowing delegates to override each other. Settings can also be altered during a meeting, if required.

Users simply have to press a button on the delegate unit to activate the built-in microphone (the microphone only comes on if the selected operating mode permits). The microphone is mounted on a flexible stem, which is easily adjustable to suit personal preferences. It also allows two people to use the same delegate unit, as they can pull the microphone towards them when required to speak. The units have two headphone sockets, so each delegate can listen to the proceedings in comfort. The headphone volume can be adjusted using a built-in volume control.

Extend system possibilities
If required, a graphic equaliser can be connected to the CPSU to improve the sound quality. An external microphone can be connected to facilitate guest speakers or audience participation, and a background music source can also be added. The CCS 800 interfaces with a public address system, to broadcast the proceedings to a wider audience. Delegates can participate remotely via telephone by means of a telephone coupler connected to the CPSU. A tape recorder can also be connected to record and playback some or all of the proceedings.

Attractive and modern design
The CCS 800 contribution units have a modern unobtrusive styling, with smooth, rounded contours, and are finished in charcoal grey. They are a valuable addition to any venue.

Main system elements
The Philips CCS 800 Discussion System comprises the following system elements:

CPSU
The CPSU forms the heart of the system, and controls the microphones of the chairman and delegate units, as well as providing connections for audio inputs and outputs. It supplies the power for all delegate and chairman units in the system. Only one CPSU is needed in a CCS 800 configuration.

Contribution units
There are two kinds of contribution unit; chairman units and delegate units. Both types of contribution unit are available with standard (313 mm, 12.3 in) or with extended (488 mm, 19.2 in) microphone stems.

Introduction

Delegate units enable participants to actively take part in the conference. A built-in microphone allows them to speak to the other delegates, and they can listen to the discussion by means of a built-in loudspeaker, or by using personal headphones. Two headphone sockets are provided, so two delegates can share the same delegate unit. A built-in volume control is used to adjust the headphone output. A microphone on/off button allows each delegate to activate his/her microphone. In addition, an auto-switch-off function, which automatically switches off the microphone if the delegate does not speak for 30 seconds, can be selected on the CPSU. The number of microphones that can be simultaneously active is determined by a control on the CPSU.

Chairman units have a priority button which allows any chairman to temporarily or permanently overrule and mute all active delegate microphones, and so control the discussion. There is also an optional chime tone facility for preceding chairman announcements. Chairman units also perform all the functions of delegate units.

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

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

Fixed or temporary installations
The CCS 800 is ideal for both fixed and temporary installations. The contribution units are intended for table-top use, and the CPSU has three mounting possibilities. It can be used table-top, or flush-mounted in the desk using a special bracket. For permanent installations, it can also be installed in a 19-inch rack using two metal brackets.

To facilitate moving the system between temporary installations, two transport and storage suitcases are available. One can accommodate 10 contribution units with standard microphone stem length. The other can hold one CPSU, six contribution units (with either standard or extended microphone stem length) and extension cables. This means that the CCS 800 can be safely and easily stored and transported between application sites. The lightweight system units are easy to carry and pack, making the CCS 800 an attractive choice for rental companies.

The CCS 800 Discussion System forms part of the Philips range of congress systems. This includes the Digital Congress Network (DCN), DCN Discussion System and Wireless Language Distribution System.

Architects and Consultants Specifications

1. CENTRAL CONTROL EQUIPMENT

Control and Power Supply Unit

The Control and Power Supply Unit (CPSU) shall include features for managing the number of active microphones and determining the operating mode, without the need for a central operator. It shall be possible to connect external equipment to extend the system capabilities. There shall be a built-in loudspeaker to allow the conference to be monitored by, for example, a stenographer.
It shall interface the following equipment to the Analogue Discussion System:
- Graphic equaliser - for improving the sound quality under difficult acoustic conditions
- Tape recorder - for recording and playing back meetings and discussions
- External PA system - for transmitting the proceedings to an audience in the same room or an adjacent room
- External microphone - for use by guest speakers or for audience participation

Note: The external microphone shall be muted when the priority button on a chairman unit is pressed, and when the system is operating in 'chairman only' mode.

- Audio equipment - for providing background music
- Telephone coupler - for allowing a remote delegate to take part via telephone

The following five modes shall be selectable using a rotary control on the unit's front panel:
- Open mode with auto-switch-off - shall allow selection of the number of microphones, from one to four, which can be simultaneously active. If the delegate does not speak for 30 seconds, the microphone shall automatically be switched off. It shall also be possible to switch microphones off manually.
- Open mode without auto-switch-off - shall allow selection of the number of microphones, from one to four, which can be simultaneously active.
- Override mode - shall allow delegates to override each other simply by activating their microphones. It shall only be possible for one microphone to be active at any one time.

Note: In override mode, delegates shall not be able to override chairmen.

- Chairman only mode - shall only allow chairmen to speak. It shall not be possible to activate delegates' microphones, even if no chairman is speaking.
- Test mode - shall be used to check that the system connections have been made correctly. All microphone ring and contribution unit LEDs shall light up if the unit is properly connected.

The CPSU shall have the following controls and indicators:
- Mains on/off switch
- Microphone-mode switch for selecting one of four modes (plus test mode)
- Rotary loudspeaker volume control for setting the output level of loudspeakers of contribution units. This control shall also determine the maximum level for the headphone outputs of contribution units and CPSU.
- Monitoring volume control of CPSU loudspeaker or headphones
- 'Power on' green LED indicator

It shall provide the following interconnection facilities:
- Mains input connection
- Two trunk outputs for loop-through connection of contribution units. It shall be possible to connect a maximum of 25 contribution units to each output. The maximum cable length shall be not less than 100 m (109.3 yds). 100 contribution units can be connected in one system on request.
- Microphone input with gain adjustment for connecting an external microphone
- Recorder input and output with gain control
- Line input and output for connecting a PA system or background music source
- Telephone coupler input and output for connecting a telephone line. The input signal shall be isolated from the output to prevent echoing.
- Insertion connector (with by-pass switch) for connecting a graphic equaliser
- One 3.5 mm (0.1 in) stereo headphone socket

It shall be suitable for use in portable or fixed mountings. It shall be 84 mm (3.4 in) high, 361 mm (14.2 in) wide and 143 mm (5.6 in) deep. It shall weigh 1.5 kg (3.3 lb). A suitable version for North and Central America, UL and cUL certified shall also be available.

TECHNICAL DATA

INTRODUCTION
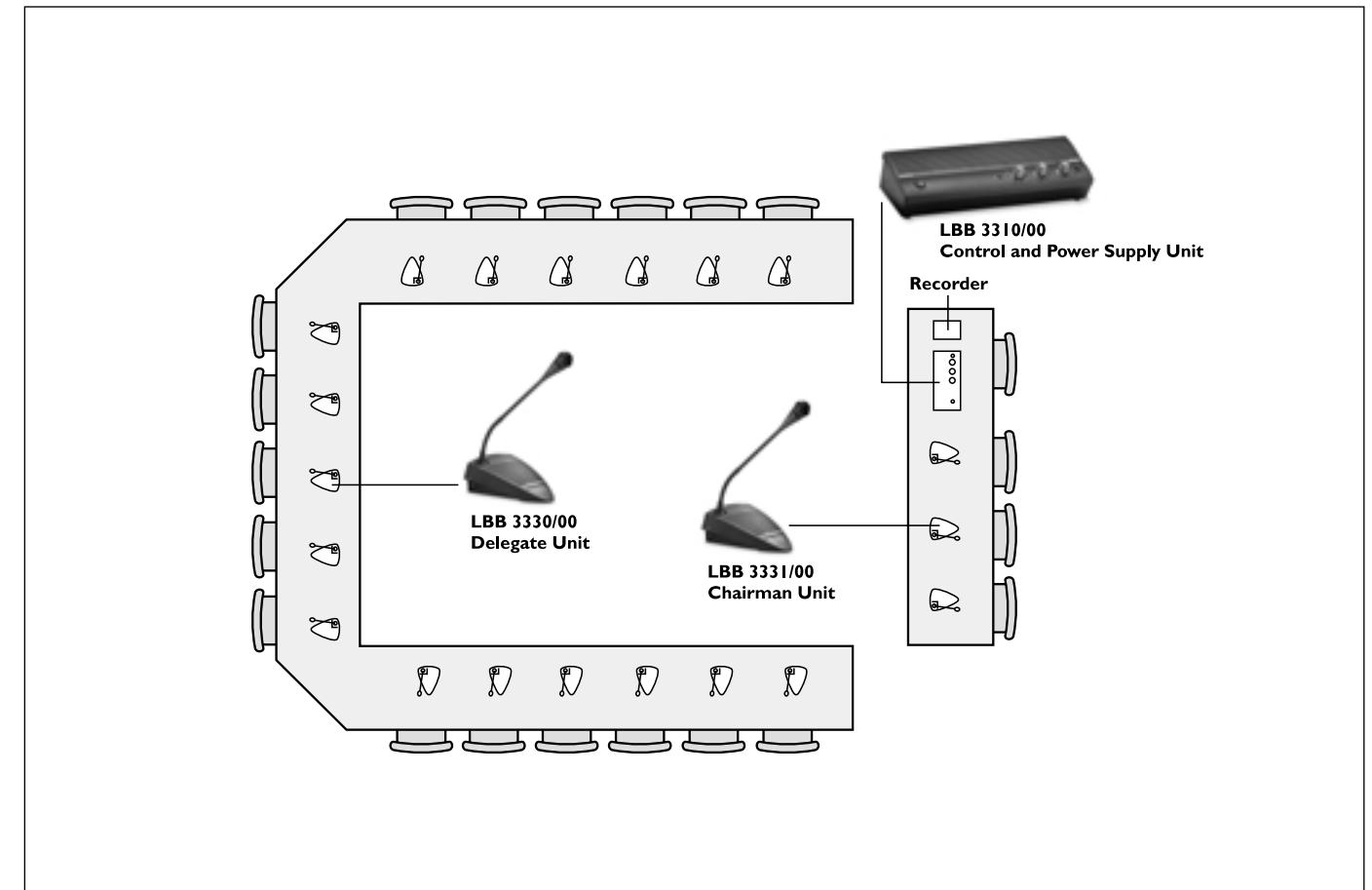
Examples

Example 1 - basic discussion system
The kind of situation represented by this example is typical of small-and medium sized venues such as local government meeting rooms, hotel conference facilities, boardrooms or training/educational venues. The CCS 800 gives structure to the proceedings, while ensuring good speech intelligibility throughout the room.

Each contribution unit is fitted with a 2 m (78.7 in) cable terminated with a plug, and a socket. A maximum of 50 (100 units on request) units are simply plugged into each other in two 'daisy chain' loops of up to 25 units each. In this example there is one chairman unit for extra control over the proceedings, with a priority button which can temporarily or permanently mute all delegate unit microphones. Nineteen delegate units are also connected.

The CPSU provides both microphone management and power for all contribution units. It also interfaces with external equipment such as a tape recorder, and a microphone for guest speakers or audience participation.
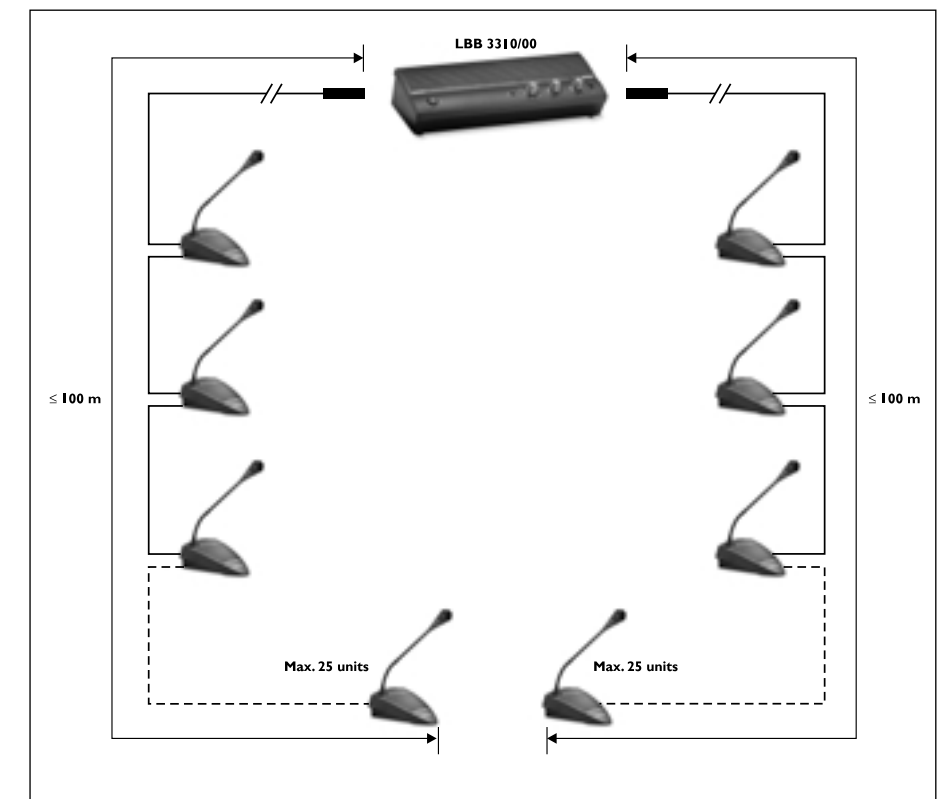
System limits

Examples
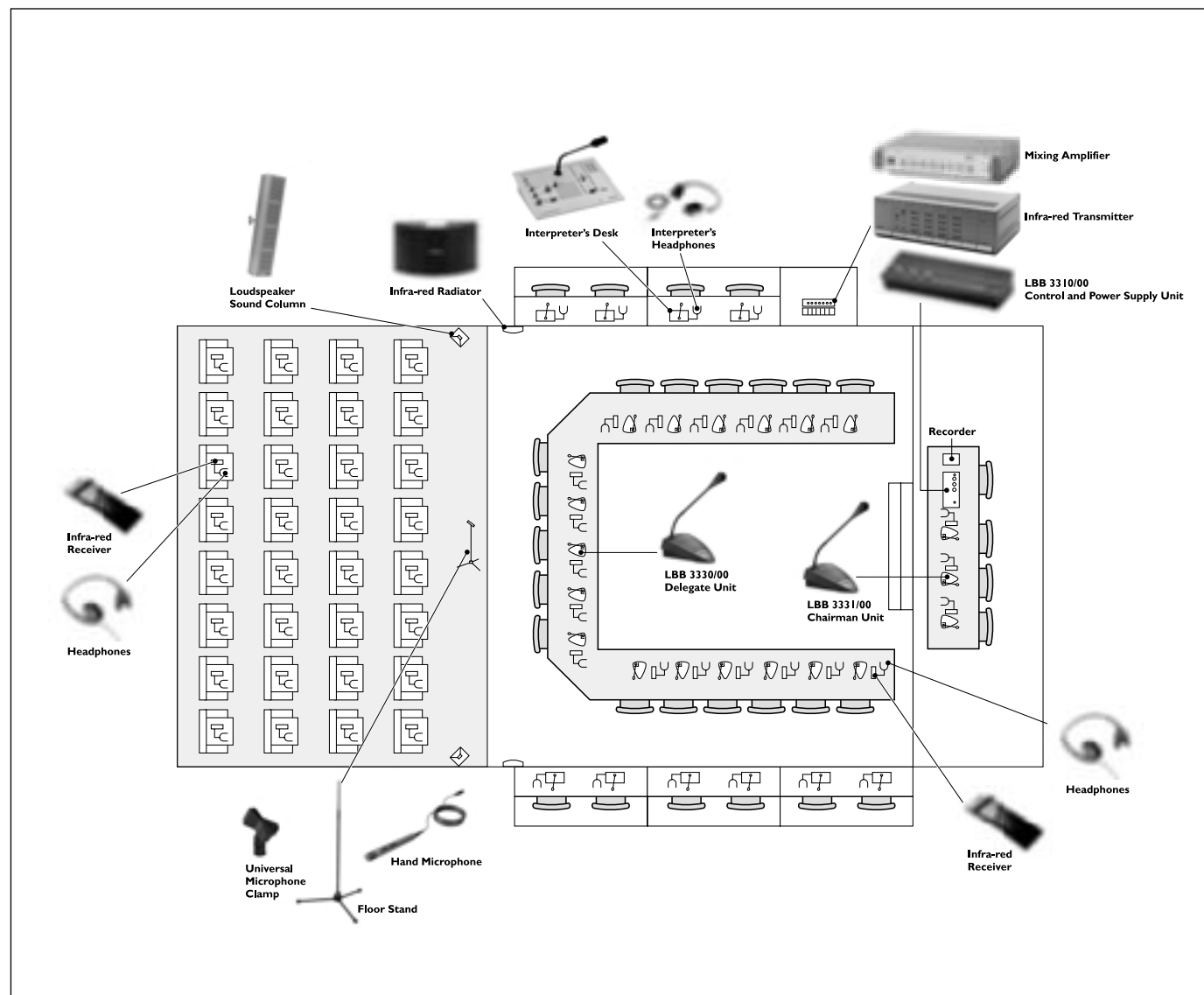
Example 2 - conference with interpretation

This example is typical of larger-scale international conferences. Extra facilities are provided, in particular a wireless distribution system to allow delegates and members of the audience to listen to simultaneous interpretations of the floor language. The floor language is also transmitted to the audience via a public address amplifier and loudspeakers. Additional equipment includes one Hand-Held Microphone which can be used by members of the audience.

Conference participants are centrally positioned and take part in the conference proceedings using CCS 800 contribution units as described in Example 1. They can also listen to simultaneous interpretations of the floor language by means of an Infra-Red Receiver and a pair of headphones.

Interpreters are located in interpreter booths and equipped with LBB 3222/04 6-channel Interpreter Desks and LBB 9095/30 Headphones. Up to two Interpreter Desks can be placed in each booth, and are simply loop-through connected. They allow generation of simultaneous interpretations of the floor language, which are then transmitted to delegates and the audience using the infra-red distribution system.

The infra-red distribution system consists of an Infra-Red Transmitter which is connected to the LBB 3222/04 Interpreter Desks and the LBB 3310/00 Control and Power Supply Unit. It receives the interpretations and transmits them to the Infra-Red Radiators, which are strategically positioned to cover the conference area. Delegates and members

of the audience each have an Infra-Red Receiver and a pair of lightweight headphones. They can select the language of their choice by means of a channel selection facility on the receiver, and listen to it through headphones. A volume control is provided on each receiver.

The LBB 3310/00 Control and Power Supply Unit provides microphone management and power for the contribution units, and interfaces with a Philips Public Address Mixing Amplifier, and the Infra-Red Transmitter, both of which are conveniently mounted in a 19-inch rack.

Technical Data

Microphones

Technical performance data acc. to IEC 268-4

	LBB 9510/20	LBB 9512/20
Type	hand-held	hand-held
Polar pattern	cardioid	cardioid
Frequency range (after filter setting)	100 Hz to 16 kHz	100 Hz to 16 kHz 200 Hz to 16 kHz 350 Hz to 16 kHz 100 Hz to 18.5 kHz
Sensitivity	2 mV/Pa ±3 dB	2 mV/Pa ±3 dB
Rated output impedance	200 Ω	<200 Ω
Phantom power supply	11 to 52 V	11 to 52 V
Current consumption	1.5 mA	1.5 mA

Headphones

LBB 3441/00

Type	Under the chin
Impedance	300 Ω
Frequency response	50 Hz to 5 kHz (-10 dB)
Max. power	60 mW
Sensitivity (1 kHz)	107 dB SPL/earpiece at 1 dBV/system

LBB 3442/00

Type	Dynamic
Impedance	32 Ω
Frequency response	100 Hz to 5 kHz (-10 dB)
Max. power	5 mW
Sensitivity	114 dB SPL at 1 mW

LBB 3015/04

Type	Dynamic
Impedance	360 Ω
Frequency response	250 Hz to 13 kHz (-10 dB)
Max. power	200 mW
Sensitivity (1 kHz)	97 dB SPL/earpiece at 0 dBV/system (96 dB SPL/earpace at 1 mW/system)
Replacement earpads	8222 321 16451

LBB 3440/00

Type	Dynamic
Impedance	300 Ω
Frequency response	80 Hz to 15 kHz (-10 dB)
Max. power	100 mW
Sensitivity (1 kHz)	87 dB SPL/earpiece at 0 dBV/system (85 dB SPL/earpiece at 1 mW/system)
Replacement earpads	LBB 3440/50

Technical Data

System limits

Delegate and chairman units	
Number of contribution units connected to CPSU	
Maximum in total	50 (100 units on request)
Maximum per trunk output	25
Maximum trunk length using CCS 800 standard cabling	100 m

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

Combined units

Delegate microphones with transmission links to delegate headphones and auxiliary outputs.

General	
Typical frequency control	125 Hz to 12.5 kHz tolerances acc. to IEC 914 standard
Total harmonic distortion	
at nominal input level (85 dB SPL)	<0.5%
at max. input level (110 dB SPL)	<3%

System environmental conditions

General	
Ambient temperature range	
operating:	
contribution units	+5 to +45 °C (+41 to 113 °F)
CPSU	+5 to +55 °C (+41 to 131 °F)
storage and transport	-20 to +70 °C (-4 to 158 °F)
Ambient humidity	
operating	20 to 95% RH
storage	up to 99% RH
Air pressure	600 to 1100 mBar
Safety	according to EN 60065, according to UL/CSA
Shock resistance, vibration resistance, bump and transport	according to IEC 68, 5G acceleration
EMC emission	according to EN 55103-1, FCC rules (part 15) class A
EMC immunity	according to EN 55103-2
ESD	according to IEC 801-2 and 801-4
Mains harmonics	prepared to EN 61000-3-2 and EN 61000-3-3
Transport	UN-D 1400

Examples
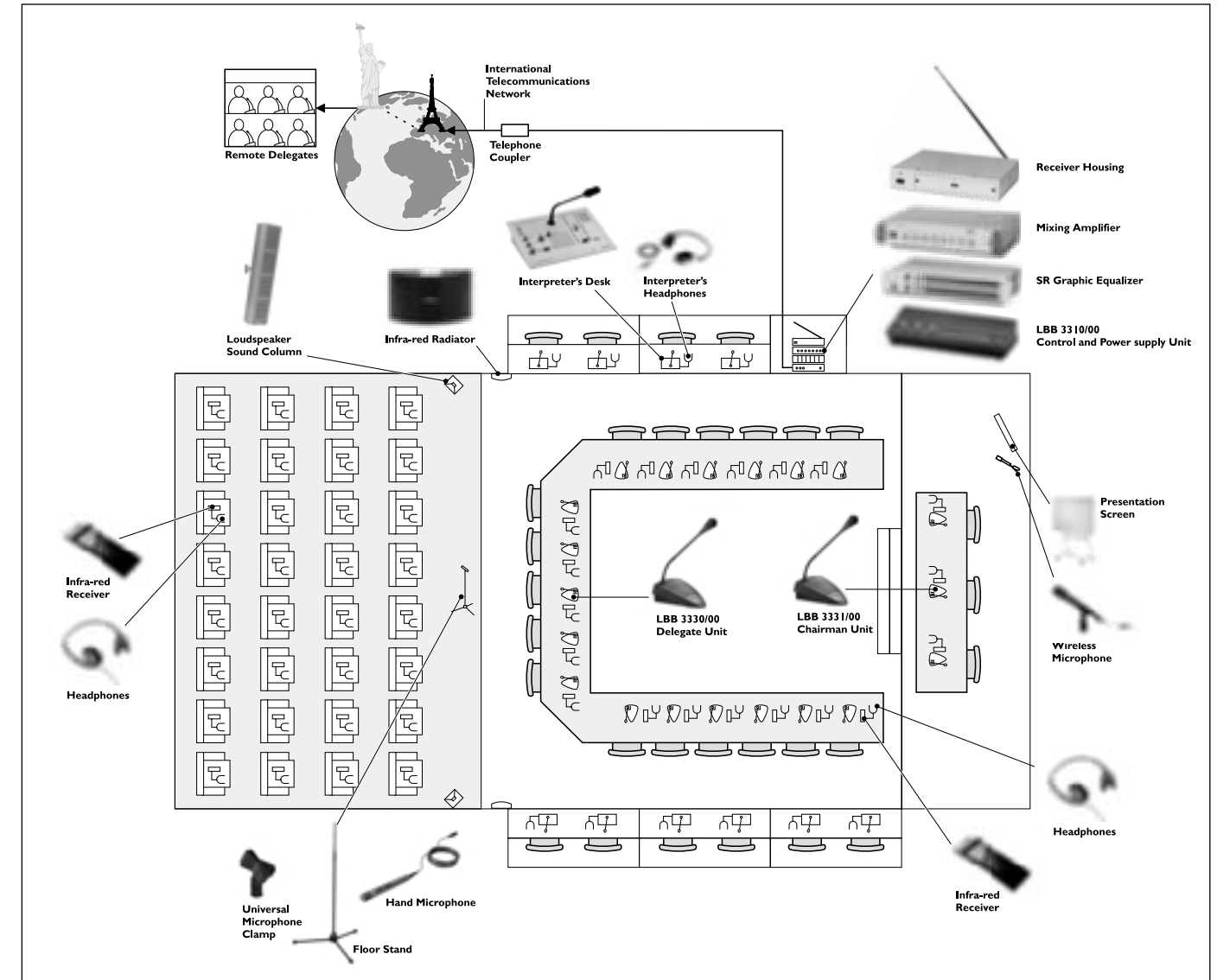
Example 3 - conference with telephone link

This example illustrates a single-language conference with the added facility of a telephone link, which allows delegates to contribute to the proceedings from a remote location.

A telephone coupler is connected to the LBB 3310/00 Control and Power Supply Unit, providing a global telecommunications link, allowing delegates from anywhere in the world to contribute, either alone or in groups. Video conferencing is also possible by using video conferencing equipment, so remotely-located delegates can be seen on conference displays as well as heard on loudspeakers and contribution units.

Conference participants take part as described in Example 1. Members of the audience can listen to the conference proceedings by means of a loudspeakers fed by a public address amplifier, as described in example 2.

Delegates or guest speakers can take advantage of the wireless microphone facility to speak and give presentations, without being hampered or restricted in their movements. A graphic equaliser is used to improve the sound quality.

The LBB 3310/00 Control and Power Supply Unit provides microphone management and power for the contribution units, and interfaces with a Philips Public Address Mixing Amplifier and a graphic equaliser. These units and the wireless microphone receiver are conveniently mounted in a 19-inch rack.

Technical Data

Conforming to the international standard IEC 914; Conference systems - electrical and audio requirements.

System electrical and electro-acoustical characteristics

CPSU	
Mains voltage	100 to 240 Va.c. ± 10 %
Current consumption	max. 0.9 A (100 Va.c.) to 0.3 A (240 Va.c.)
d.c. supply to contribution units	24 V ± 1 V (current limited)
Loudspeaker volume control	mute (50 dB att.) + 10 steps of 1.9 dB
Limiter threshold level to unit	10 dB above nominal level loudspeaker/headphone
Gain reduction due to Number of open microphones (NOM)	$\sqrt{NOM}$ ± 1 dB

CPSU inputs and outputs - unbalanced

Line, telephone and insertion	
Input sensitivity	-14 dBV (nominal)/+11 dBV (maximum)
Input impedance	33 kΩ
Output level	-14 dBV (nominal)/+11 dBV (maximum)
Output impedance	500 Ω

Tape recorder	
Input sensitivity	-20 dBV (nominal)/+5 dBV (maximum)
Input sensitivity adjustment	0 dBV (nominal)/-20 dBV (maximum)
Input impedance	47 kΩ (for left and right channel)
Output level	-20 dBV (nominal)/+5 dBV (maximum)
Output impedance	500 Ω

External microphone input - balanced	
Input sensitivity	-56 dBV
Input sensitivity adjustment	+6 dBV (nominal)/-6 dBV (maximum)
Phantom supply	12 V ± 1 V, 2 x 680 Ω (± 2%), acc. to DIN45596

Monitor loudspeaker	
Output level at 0.5 m	72 dB SPL (nominal)/82 dB SPL (maximum)
Frequency response	320 Hz to 10 kHz (-10 dB, reference 1 kHz)
Impedance	25 Ω
Volume control	50 dB attenuation range

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

Headphones

LBB 3441/00
Under the Chin Headphone

Lightweight headphone for under the chin use. Fitted with a 1.2 m (47.2 in) cable terminated with a 3.5 mm (0.14 in) jack plug.

Technical data	
Weight	33 g (0.07 lb)
Colour	black

LBB 3441/50
Replacement earpads for LBB 3441/00

Set of 1000 replacement earpads for headphone LBB 3441/00, allowing optimal hygiene in the use of these headphones.

LBB 3442/00
Single Earphone

Lightweight single earphone, fitted with a 1.2 m (47.2 in) cable terminated with a 3.5 mm (0.14 in) jack plug.

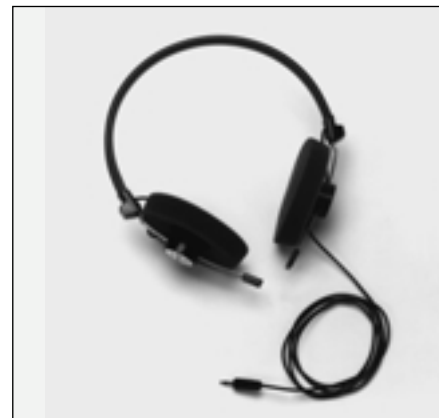| Technical data	
Weight	25 g (0.06 lb)
Colour	dark grey

LBB 3015/04
High-Quality Dynamic Headphones

Durable dynamic headphones offering high-quality sound reproduction. Fitted with a 1.2 m (47.2 in) cable terminated with a 3.5 mm (0.14 in) jack plug.

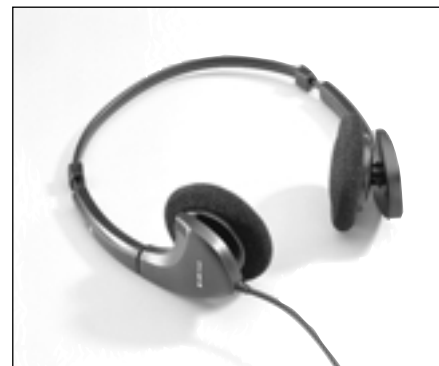| Technical data	
Weight	90 g (0.20 lb)
Colour	black/grey

8222 321 16451
Replacement Ear Pads for LBB 3015/04 Headphones

Single pair of replacement ear pads for headphones LBB 3015/04.

LBB 3440/00
Lightweight Headphones

Technical data	
Weight	84 g (0.19 lb)
Colour	black

LBB 3440/50
Replacement Ear Pads for LBB 3044/00 Headphones

Set of 50 pairs of replacement ear pads for headphones LBB 3440/00, allowing optimal hygiene in the use of these headphones. Each pair is individually packed.

Contribution Equipment

LBB 3330/00
Delegate Unit
- Compact, attractive delegate unit
- Microphone with flexible stem and light ring
- Built-in loudspeaker
- Two headphone sockets
- Built-in volume control for headphones

The LBB 3330/00 delegate unit enables delegates to speak and listen to the proceedings via a loudspeaker or headphones. This stylish and ergonomically-designed unit includes a microphone with a red indicator ring which illuminates when the microphone is on. To prevent acoustic feedback, the built-in loudspeaker is muted when the microphone is on. Two 3.5 mm (0.14 in) stereo headphone sockets (wired for mono) allow two pairs of headphones to be connected so two delegates can simultaneously use the unit. The headphone volume level can be adjusted on the unit for maximum comfort. It is also possible to connect a tape recorder to one headphone socket, and use the other headphone socket to listen to the proceedings.

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

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

Technical data	
Mounting	table top (portable or fixed mounting)
Dimensions (H x W x D)	63 x 124 x 172 mm (2.5 x 4.9 x 6.8 in) (without microphone). Height is 127 mm (5.0 in) with microphone in horizontal position)
Length of microphone from mounting surface	313 mm (12.3 in)
Weight	0.9 kg (2.0 lb)
Colour	cover; charcoal (PH 10736). base; black (PH 80007)

LBB 3330/50
Delegate Unit with Long Microphone

This unit is identical to the LBB 3330/00 Delegate Unit, except that the stem length of the microphone is 488 mm (19.2 in).

Contribution Equipment

LBB 3331/00
Chairman Unit
- Priority button for chairman microphone
- Temporary or permanent muting of delegate microphones
- Optional chime tone facility for preceding chairman announcements
- Incorporates all functions of LBB 3330/00 Delegate Unit
- Microphone with flexible stem and light ring

This stylish and ergonomically-designed chairman unit enables the user to function as chairman of a conference or meeting.

Similar in appearance to the LBB 3330/00 Delegate Unit, the LBB 3331/00 Chairman Unit also includes a 'chairman priority' button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently muted, allowing the chairman to take control of the meeting. An optional chime can be selected to precede chairman priority calls.

Controls and indicators
- Chairman priority button
- Microphone on/off button
- Rotary volume control for adjusting headphone volume
- Microphone with light-ring indicator which illuminates when the microphone is on
- 'Microphone on' indicator (red LED)
- Internal chime selection switch
- Internal switch for temporary or permanent muting of delegate microphones when chairman priority switch is pressed
- Loudspeaker, automatically muted when microphone is on and/or headphones are connected

Note: Both of the above internal switches are accessible by first removing a small plastic plate on the bottom of the chairman unit. If any delegate unit is permanently muted on activation of a 'chairman priority' button, the microphone must be reactivated using the 'microphone on' button on the delegate unit.

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

Technical data	
Mounting	table top (portable or fixed mounting)
Dimensions (H x W x D)	63 x 124 x 172 mm (2.5 x 4.9 x 6.8 in) (without microphone). Height is 127 mm (5.0 in) with microphone in horizontal position)
Length of microphone from mounting surface	313 mm (12.3 in)
Weight	0.9 kg (2.0 lb)
Colour	cover; charcoal (PH 10736). base; black (PH 80007)

Accessories

LBB 9512/20 and LBB 9510/20
Hand-Held Condenser Microphones

The LBB 9512/20 is a condenser microphone with frequency-independent cardioid directivity. It features switchable filters for modifying the frequency response. In addition to the on/off switch, a low-frequency cut switch, and a high-frequency boost switch are provided. A 3-pole male XLR connector is fitted in the base of the housing. It is supplied with an adjustable angle quick-release clamp with a Whitworth-threaded screw fitting with multi-thread adaptor (3/8", 1/2" and 5/8") for mounting purposes. For suitable connection cable, refer to page 4.2. The LBB 9510/20 is a similar microphone, but has no filters.

Technical data LBB 9512/20 and LBB 9510/20	
Mounting	using a clamp on floor or table stand
Dimensions (L x Dia)	210 x 53 mm (8.3 x 2.1 in)
Weight	300 g (0.7 lb)
Colour	dark grey (PH 10714)

LBC 1221/01 and LBC 1226/01
Floor Stand and Adjustable Boom

Collapsible matt black floor stand, height adjustable from 85 to 160 cm (33.5 to 62.7 in). The widely-spaced legs ensure good stability. The head of the stand has a standard 3/8" Whitworth thread. The adjustable matt black boom has a quick-release boom lock. Maximum boom reach 67 cm (26.4 in). Fitted with a 3/8" Whitworth thread for connecting to floor stand LBC 1221/01.

Technical data LBC 1221/01	
Dimensions (H x W)	folded 850 x 110 mm (33.5 x 4.3 in)
Weight	2.4 kg (5.3 lb)
Colour	black

Technical data LBC 1226/01	
Dimensions (length)	840 mm (33.1 in)
Weight	700 g (1.5 lb)
Colour	black

LBC 1208/30
Cable, 3-pole XLR
- 10 m (394 in) extension cable (black)
- Twin-core screened cable
- 3-pole lockable male and female XLR connectors (metal)

Central Control Equipment

Interconnection

- Mains input connection
- Two trunk outputs for loop-through connection of contribution units. A maximum of 25 contribution units can be connected to each output. The maximum cable length is 100 m (109.3 yds).
- Microphone input with gain adjustment for connecting an external microphone
- Recorder input and output with gain control
- Line input and output for connecting a PA system or background music source
- Telephone coupler input and output for connecting a telephone line. The input signal is isolated from the output to prevent echoing.
- Insertion connector (with by-pass switch) for connecting a graphic equaliser
- One 3.5 mm (0.14 in) stereo headphone socket

Note: A custom-made mounting bracket is recommended for flush-mounting the CPSU. For an example of this bracket, refer to the CCS 800 installation and operating instructions.

Technical data	
Mounting	table top (portable orfixed mounting)
Dimensions (H x W x D)	84 x 361 x 143 mm (3.4 x 14.2 x 5.6 in) incl. 5.5 mm (0.22 in) feet
Weight	1.5 kg (3.3 lb)
Colour	cover; charcoal (PH 10736). base; black (PH 80007)

LBB 3311/00
19-Inch Rack-Mounting Set

A set of brackets and other necessary fixings to enable the CPSU to be mounted in a 19-inch rack system.

Technical data	
Colour	charcoal (PH 10736)

Contribution Equipment and Accessories

LBB 3331/50
Chairman Unit with Long Microphone

This unit is identical to the LBB 3331/00 Chairman Unit, except that the stem length of the microphone is 488 mm (19.2 in)

LBB 3312/00
Transport and Storage Suitcase

- Can accommodate up to ten contribution units
- Attractive finish, yet sturdy construction
- Simplify packing and unpacking
- Easy to carry and store

This transport and storage suitcase is for use in applications where CCS 800 contribution units will not be used in one fixed location, and therefore has to be easily transportable. This is often the case in town halls, hotels, business centres, local government offices, or smaller halls in major conference venues.

The LBB 3312/00 is designed to accommodate 10 contribution units with standard-length microphones. Any combination of delegate/chairman units can be catered for. The inside of the suitcase has specially moulded packing to accommodate the discussion units, which gives ample protection while making packing and unpacking easier.

The suitcase is attractive but also extremely durable and very practical. It has handles on the top and side, and two wheels on the underside for ease of transportation. There are two separate locks for extra security.

Technical data	
Dimensions (H x W x D)	560 x 795 x 235 mm (22.0 x 31.3 x 9.3 in)
Material:	3 mm (0.12 in) thick ABS
Weight (empty)	6 kg (13.2 lb)
Colour	black (RAL 9004)

Accessories

LBB 3312/10
Transport and Storage Suitcase

This is functionally identical to the LBB 3312/00 Transport and Storage Suitcase, except that it can accommodate one CPSU and six contribution units with either standard or extended microphone stems, and some extension cables.

LBB 3316/05 and LBB 3316/10
Extension Cables

Extension cables of 5 m (197 in) (LBB 3316/05) and 10 m (394 in) (LBB 3316/10) are available to give additional system flexibility in larger application sites. The cables are terminated at both ends with moulded 7-pole DIN connectors (male and female).

Technical data	
Grey PVC sheath	5.9 ± 0.3 mm (0.2 ± 0.01 in) dia.

LBB 3316/00
Extension Cable

100 m installation cable plus 5 connector sets, male and female.

LBB 3517/00
Cable Locking Clamps

A set of 25 matching locking clamps for extension cables LBB 3316/05 and LBB 3316/10. One clamp per male/female connector required.

Central Control Equipment

LBB 3310/00
Control and Power Supply Unit
* Conference control without operator
* Four selectable microphone modes and a test mode
* Controls up to 50 contribution units
* Interfaces the system with external audio equipment
* Provides power for all system elements
* Built-in listening facilities

The Control and Power Supply Unit (CPSU) is the heart of a discussion system. This versatile unit includes features for managing the number of active microphones and determining the operating mode, without the need for a central operator. External equipment can be connected to extend system possibilities. A built-in loudspeaker allows the conference to be monitored (to allow a stenographer, for example, to take notes on the conference).

The CPSU interfaces the following equipment to the CCS 800 Analogue Discussion System:
* Graphic equaliser - for optimising the sound quality under difficult acoustic conditions
* Tape recorder - for recording and playing back meetings and discussions
* External PA system - for transmitting the proceedings to an audience in the same room or an adjacent room
* External microphone - for guest speakers or audience participation

Note: The external microphone is muted when the priority button on a chairman unit is pressed, and when the system is operating in chairman only mode.

* Audio equipment - for providing background music
* Telephone coupler - to allow a remote delegate to take part via telephone

The following five modes can be selected using a rotary control on the unit's front panel:
* Open mode with auto-switch-off - allows you to select the number of microphones, from one to four, which can be simultaneously active. If the delegate does not speak for 30 seconds, the microphone is automatically switched off. Microphones can also be switched off manually.
* Open mode without auto-switch-off - allows you to select the number of microphones, from one to four, which can be simultaneously active.
* Override mode - delegates can override each other simply by activating their microphones. Only one microphone can be active at any one time.

Note: In override mode, delegates cannot override chairmen

* Chairman only mode - Only chairmen can speak. Delegates microphones cannot be activated, even if no chairman is speaking.
* Test mode - to ensure that the system connections have been made correctly. All microphone ring and contribution unit LEDs light up if the unit is properly connected.

Controls and indicators
* Mains on/off switch
* Microphone-mode switch for selecting one of four modes (plus test mode)
* Loudspeaker volume control for setting the output level of loudspeakers of contribution units. This control also determines the maximum level for the headphone outputs of contribution units and CPSU.
* Monitoring volume control of CPSU loudspeaker or headphones
* Power 'on' indicator (green LED)