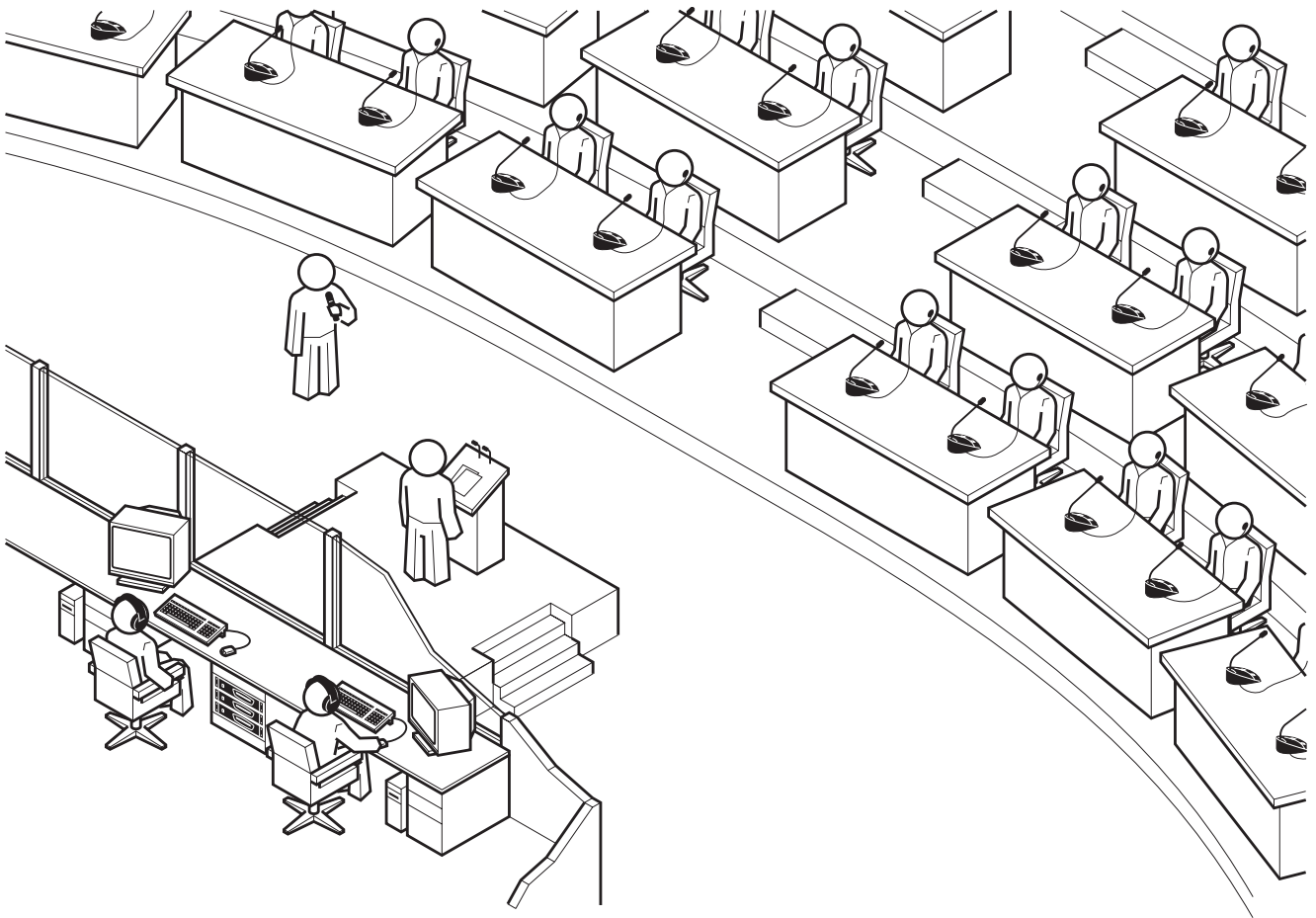


Conference System SDC 8000

System Manual



Thank you for choosing Sennheiser!

We have designed these products to give you reliable operation over many years. Over half a century of accumulated expertise in the design and manufacture of high-quality electro-acoustic equipment have made Sennheiser a world-leading company in this field.

Please take a few moments to read these instructions carefully, as we want you to enjoy your new Sennheiser products quickly and to the fullest.

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Safety information

The Sennheiser SDC 8000 conference and interpretation system is state of the art and has been designed to meet the regulations in force. Nevertheless, the individual components of the SDC 8000 conference and interpretation system can cause danger for persons and material assets if:

- the system is not used as intended,
- the system is set up by personnel not familiar with the safety regulations,
- the system is converted or altered incorrectly,
- the following safety instructions are not observed.

Warning!

If the components of the conference and interpretation system are set up improperly, persons can stumble over cables, fall and suffer serious injury! This can also cause severe damage to units and cables.

Place the components of the system on flat surfaces only. Lay the cables in such a way that no-one can stumble over them.

Attention!

The central units generate heat! If the heat generated cannot dissipate, the central units can be destroyed or combustible materials nearby can catch fire.

Make sure that the air vents of the central units are not covered or blocked. Keep combustible materials away from the central units.

Attention!

If liquids or small parts which conduct electricity find their way into the interior or to the sockets or plug contacts of the units, this can cause a short circuit which may damage the units!

Keep liquids and small parts which conduct electricity away from the units! Before cleaning the units, disconnect all central units from the mains by removing the plug. For cleaning the system components, only use a slightly damp cloth. Do not use solvents as they can damage the surfaces.

Attention!

If you connect defective or unsuitable accessories, the system components can be destroyed!

Only use the connection cables available from Sennheiser electronic GmbH (see "The system cables" on page 24). Sennheiser makes no warranty as to cables not manufactured by Sennheiser.

Warning!

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

SDC 8000 – the digital conference and interpretation system

The new SDC 8000 conference and interpretation system from Sennheiser utilizes all advantages of digital communications technology and offers its users a series of important features:

- Decentralized, clear sound reproduction
- Excellent speech intelligibility due to 16-bit audio transmission
- Easy installation and straight-forward operation
- Conference consoles are extremely easy to operate
- Delegate interaction (e.g. with voting sessions)
- Interpretation facility
- Extended functionality
- Possibility of connecting an infrared language distribution system

SDC stands for Sennheiser Digital Conference System – the new generation of mobile and expandable conference and interpretation equipment.

The SDC 8000 conference and interpretation system is an ideal choice for both small seminars with up to 15 participants and large international conferences with a maximum of 900 participants.

An important feature of the SDC 8000 conference and interpretation system is its modular design. Even if, at first, the system is only required for small conferences, you can later easily add conference consoles and a software control program. In any case, the conference and interpretation system can:

- be set up quickly, since all consoles are connected in series (single-cable system),
- be adapted easily to any room and any number of participants.

Overview of the components of the SDC 8000 system

An SDC 8000 conference and interpretation system consists of the following components:

- Conference consoles for delegates and chairmen
- Interpreter consoles
- Central units
- System cables
- If required, a software control for the conference and interpretation system

The conference consoles

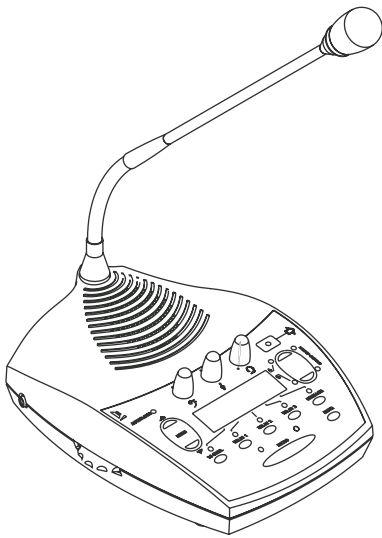
The conference console features a built-in loudspeaker, allowing the participant to directly hear all audio information, e.g. speeches, presentations or any other audio material. This decentralized "loudspeaker system" ensures excellent sound quality at a pleasant volume throughout the entire room.

The console's electret microphone transmits every word in excellent audio quality. The red signal light ring on the microphone serves as an indicator of who is allowed to take the floor.

The conference consoles are available in six different versions with varying levels of functions. Via special consoles with voting function, the conference participants can participate in voting sessions from the consoles.

The conference consoles are connected in series. One cable string can comprise up to 15 conference consoles and up to six cable strings (i.e. up to 90 conference consoles) can be connected to a single central unit. You can, however, interconnect several central units to set up conference systems with up to 900 consoles.

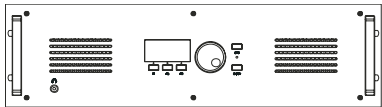
The interpreter consoles



The interpreter console incorporates all functions of a conference console but offers additional features required by the interpreters.

The interpreter consoles are required if simultaneous interpretation is offered at a conference.

The central unit



The central unit is the core of the SDC 8000 conference and interpretation system and, at the same time, serves as an interface for additional audio systems.

Via the central unit's operating menu, the conference and interpretation system can be configured for any room, any number of participants and any conference use.

The central unit serves to manage the entire conference and interpretation system.

On the central unit, you can choose between nine conference modes. However, the selection of some of the conference modes only makes sense if your conference and interpretation system is PC controlled.

The central unit has a built-in power supply for powering up to 90 conference consoles. For larger conference systems, up to 10 central units can be interconnected.

The interpretation capacity of the central unit is 28 languages. Various licenses are available for four, eight or 28 interpretation channels. The floor channel and two interpretation channels can be operated license-free.

The system cables

Power supply of the conference consoles is via the system cables which also transmit the digital audio and status information.

The software control

The optional software control allows a conference manager to control the entire conference via a PC. In contrast to controlling the conference via the central unit, the software control provides several extra functions:

- **Additional functions for controlling the microphones:**
Via the computer screen, the conference manager can easily monitor which participants have made a request to speak, which participants are currently speaking, etc. All participants can be identified and displayed by name. Individual conference consoles can be directly activated or deactivated by clicking the mouse key.
- **Display of voting results as diagrams:**
The results of votings can be presented graphically and can, for example, be displayed via a connected projector. In addition, it is possible to take voting sessions with chip cards. Chip cards make sure that only those who have a chip card have access to the voting function.
- **Configuration of special conference consoles:**
The conference manager can configure more than one chairman unit as well as VIP units.
- **Interpreter management software:**
This software module allows the conference manager to quickly and easily configure the interpreter booths and interpreter consoles (i.e. assign a language to the A-channel and B-channel of an interpreter console, choose the operating mode between and within the interpreter booths, etc.).
- **Delegate database:**
The delegate database allows the conference manager to centrally manage delegate information such as name, organization, etc. During the conference, this information is displayed on the computer screen, allowing the conference manager to identify the participants who are currently speaking or those who wish to make a contribution by name. It is also possible to use the information contained on the chip cards.

The technology used

Both the control and sound transmission of the SDC 8000 conference and interpretation system are fully digital, resulting in excellent audio. The language channels are transmitted within a frequency range of 100 Hz to 14 kHz at 16-bit resolution.

The conference consoles are connected to each other and to the central unit by means of system cables.

The components of the SDC 8000 system in detail

The components described on the following pages are available for the SDC 8000 conference and interpretation system. The components you require depend on the desired size and use of the SDC 8000 system.

Your conference and interpretation system can comprise the following consoles:

- two types of conferences consoles
 - the delegate units for the conference participants
 - the chairman unit for the chairman
- the interpreter consoles

In addition, your conference and interpretation system must comprise:

- at least one central unit

Optionally, you can connect the following components:

- an analog output unit
- a control panel
- a special "ambient sound" conference console

The consoles

Six conference console versions with varying levels of functions as well as an interpreter console are available.

All consoles feature:

- a built-in loudspeaker via which the floor channel is output
- a MICRO key for activating the microphone
- a microphone – if the microphone is active, the red signal light ring and the "Microphone active" LED light up permanently
- a headphone connection with headphone volume control

The **chairman units** (SDC 8000 C, SDC 8000 CC and SDC 8000 CV) additionally feature:

- a PRIOR. key for turning off all active delegate units
- a NEXT key for assigning the "speaking right" to the next participant who has made a request to speak (SDC 8000 C and SDC 8000 CC only).

Conference consoles with channel selection keys (SDC 8000 DC, SDC 8000 CC, SDC 8000 DV and SDC 8000 CV) feature:

- a 2-digit LED channel display for displaying the selected interpretation channel and two channel selection keys ("CHAN. ▲" and "CHAN. ▼") for selecting the interpretation channel.

The selected interpretation channel is output via connected headphones.

Conference consoles with voting function (SDC 8000 CV and SDC 8000 DV) feature:

- five voting keys with LEDs

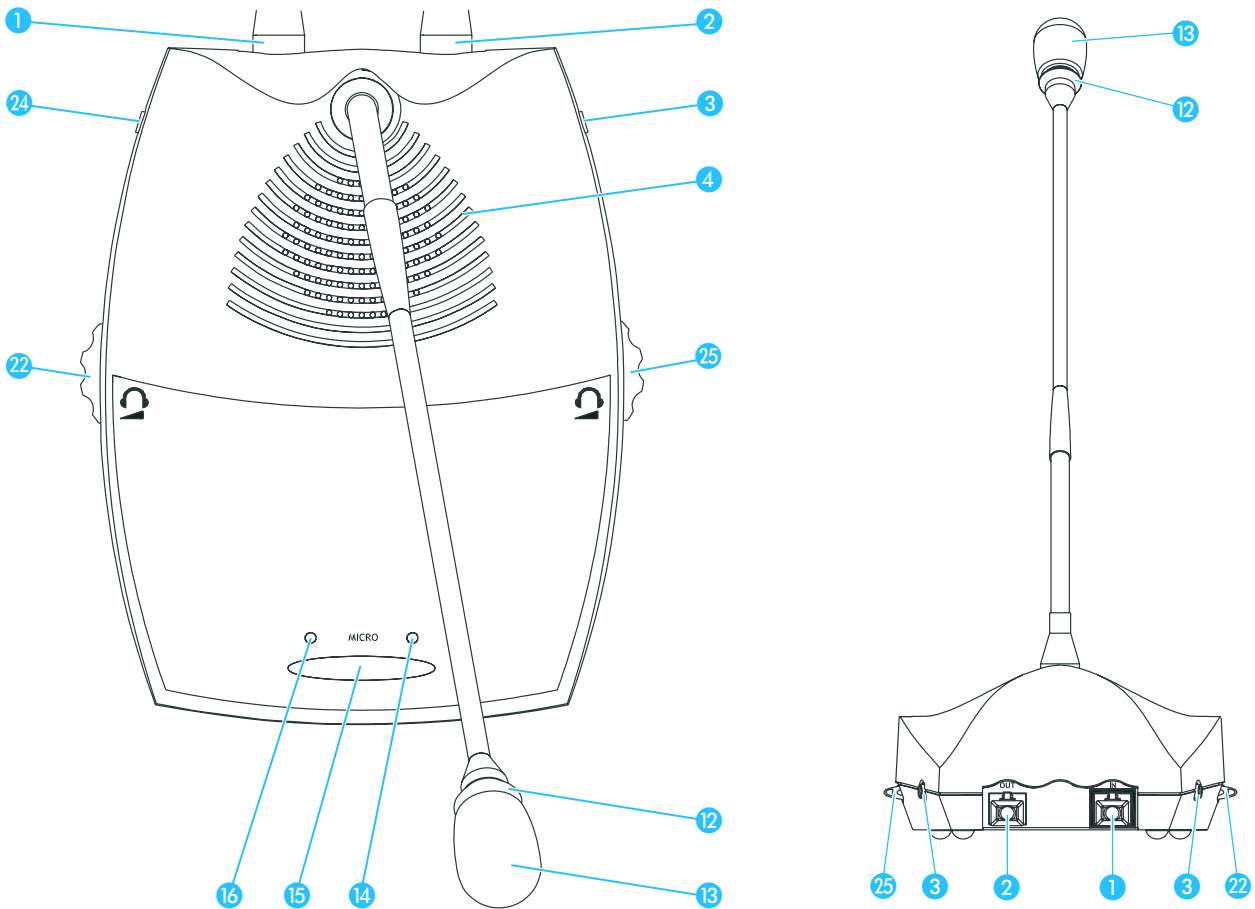
- a dot matrix display (122 x 32 dots) for displaying voting options, voting results and other important information
- a chip card slot for delegate identification

The [interpreter console](#) features:

- special "interpretation" functions
- a muting function (MUTE key)
- tone controls for volume, middle and treble of the headphones and a volume control for the loudspeaker
- a chip card slot

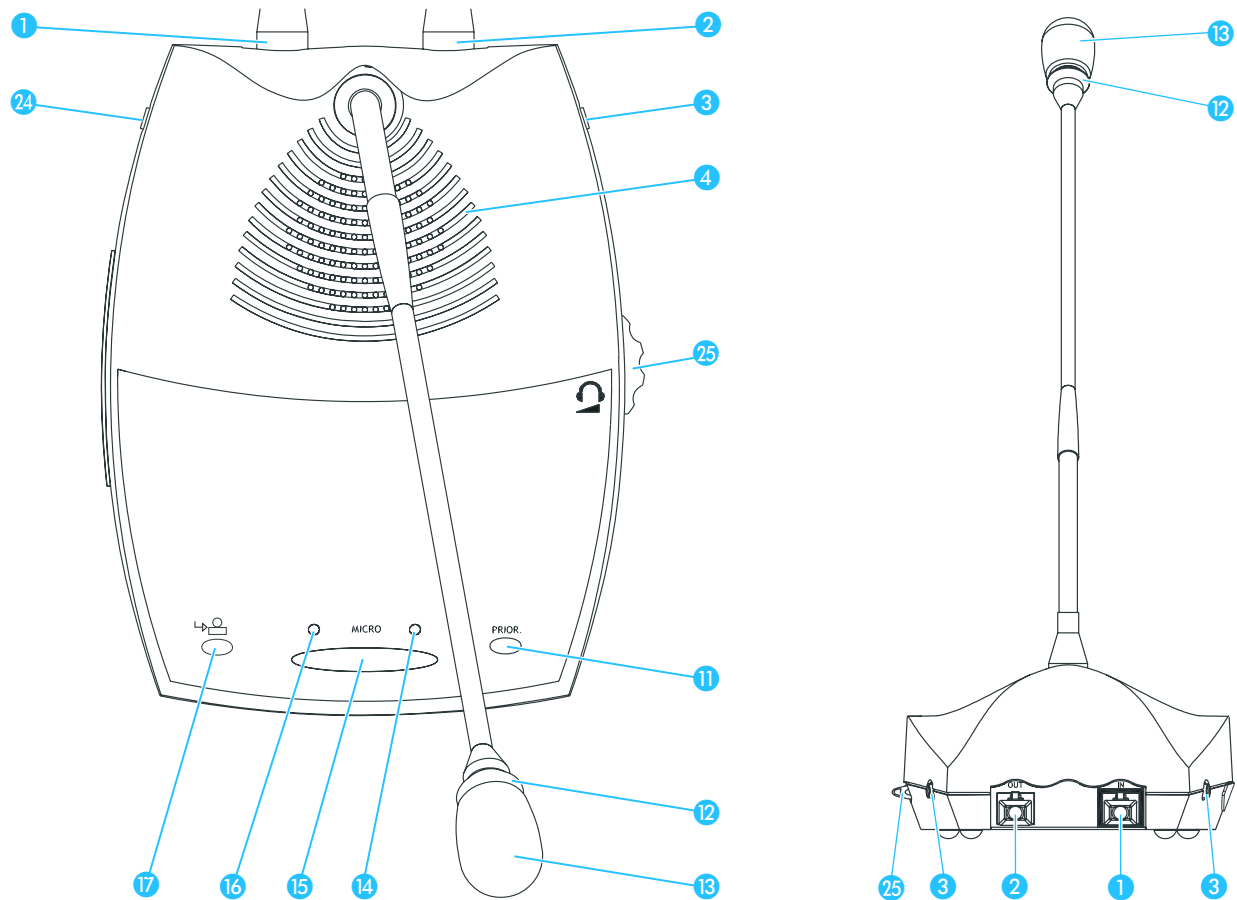
The six conference console versions and the interpreter console are illustrated in detail on the following pages.

SDC 8000 D conference unit



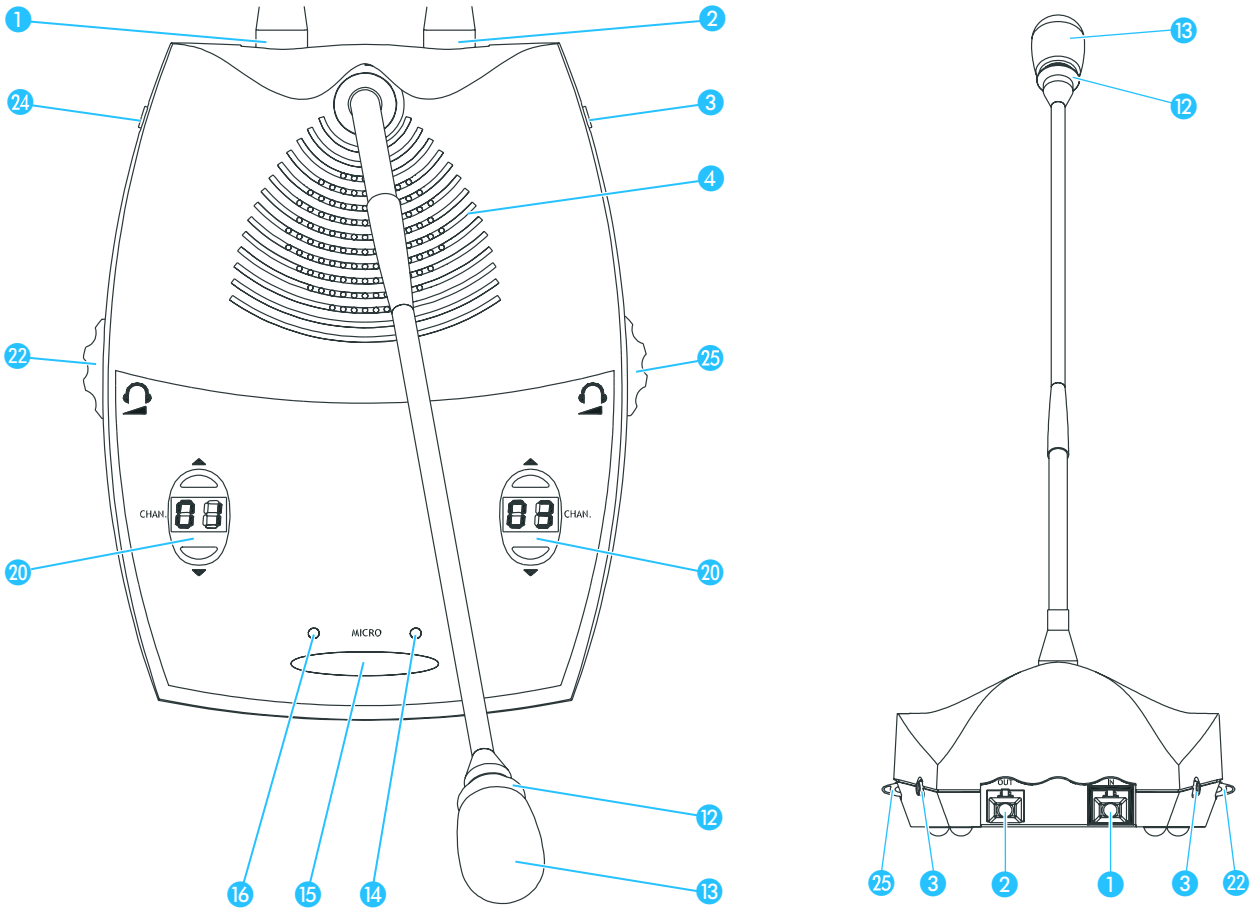
- ① IN socket (RJ 45)
- ② OUT socket (RJ 45)
- ③ Headphone socket (3.5 mm jack)
- ④ Loudspeaker
- ⑫ Red signal light ring
- ⑬ Microphone
- ⑭ "Microphone active" LED
- ⑮ MICRO key
- ⑯ "Request to speak" LED
- ⑳ Headphone volume control for headphone socket ㉔
- ㉒ Headphone socket (3.5 mm jack)
- ㉓ Headphone volume control for headphone socket ③

SDC 8000 C chairman unit



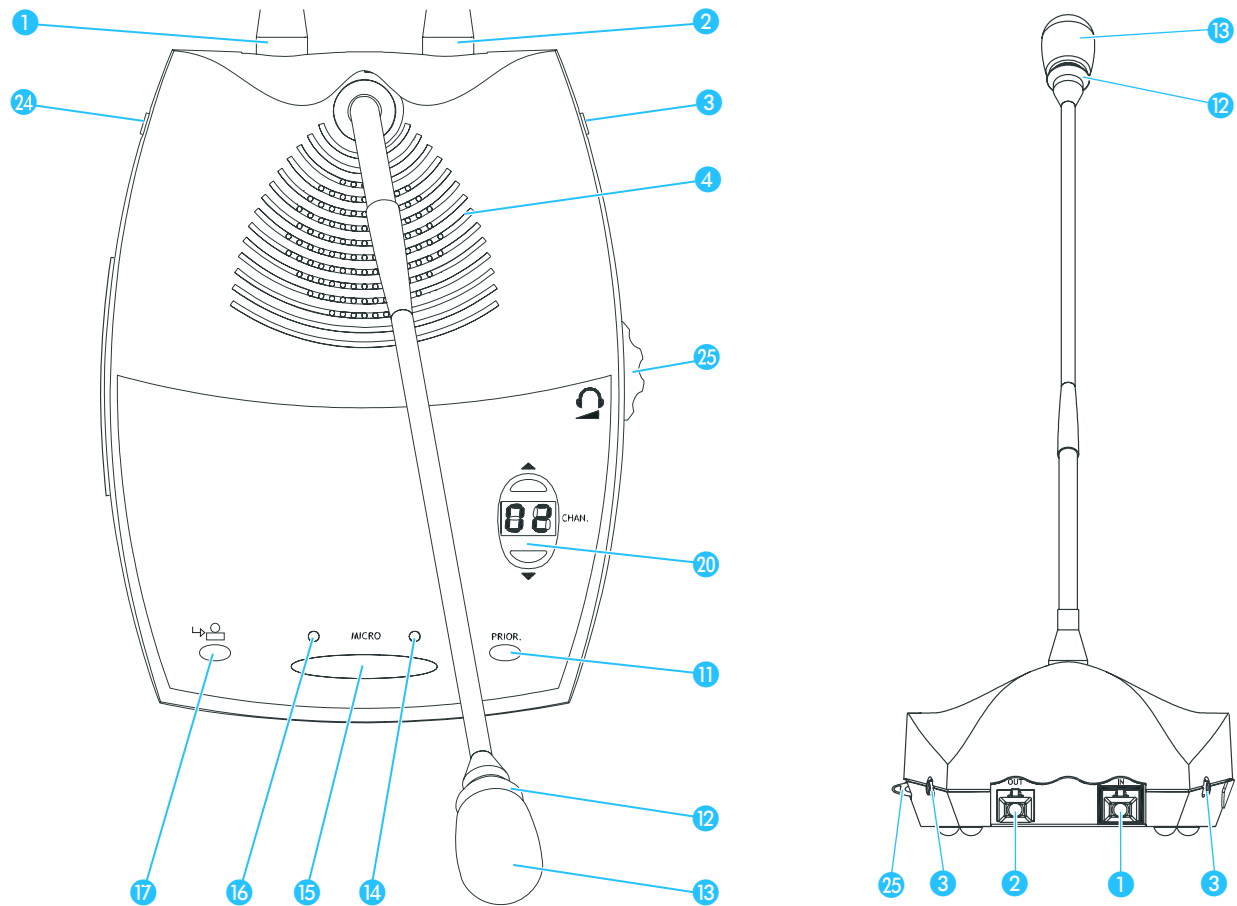
- ① IN socket (RJ 45)
- ② OUT socket (RJ 45)
- ③ Headphone socket (3.5 mm jack)
- ④ Loudspeaker
- ⑪ PRIOR. key
- ⑫ Red signal light ring
- ⑬ Microphone
- ⑭ "Microphone active" LED
- ⑮ MICRO key
- ⑯ "Request to speak" LED
- ⑰ NEXT key
- ⑳ Headphone socket (3.5 mm jack)
- ㉑ Headphone volume control for headphone sockets ③ and ㉒

SDC 8000 DC conference unit



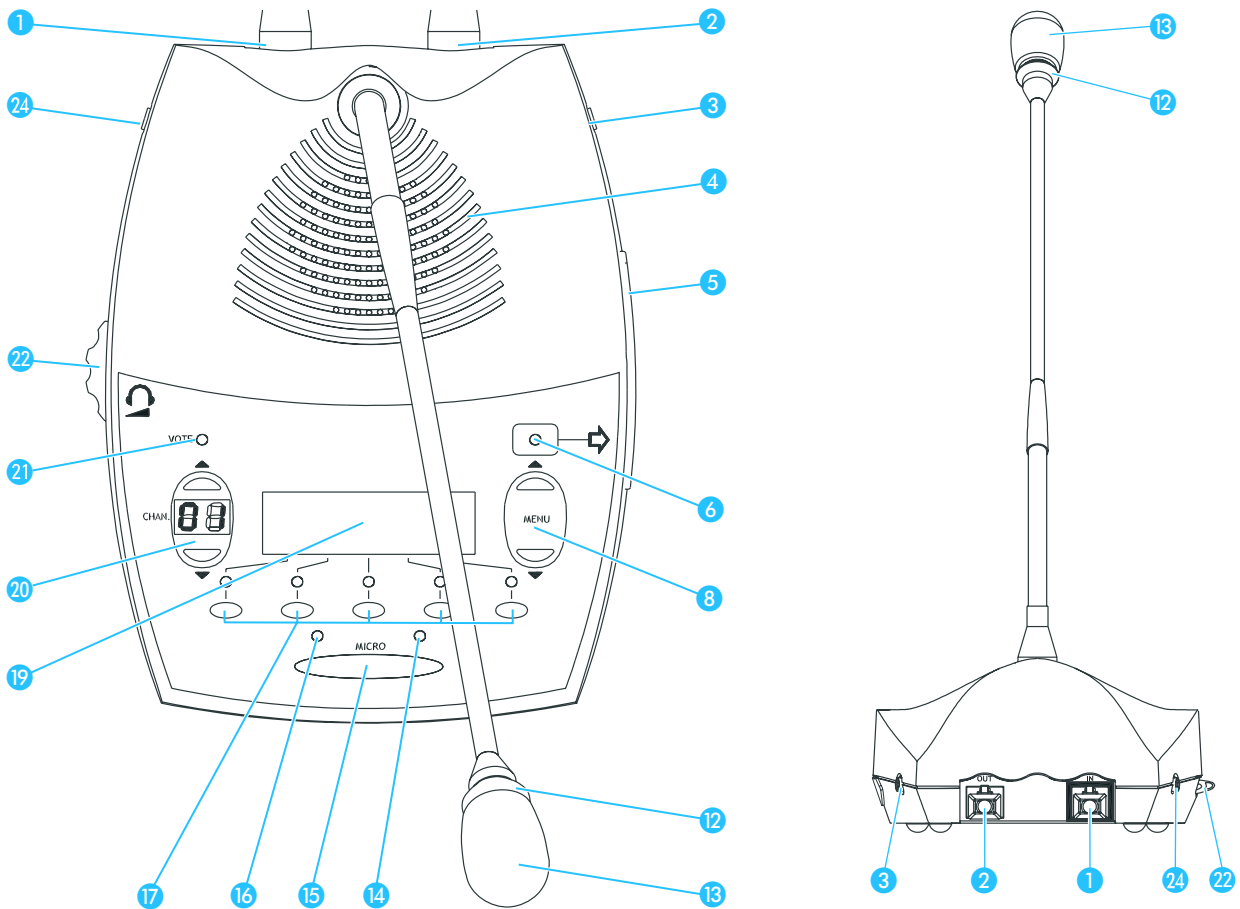
- ① IN socket (RJ 45)
- ② OUT socket (RJ 45)
- ③ Headphone socket (3.5 mm jack)
- ④ Loudspeaker
- ⑫ Red signal light ring
- ⑬ Microphone
- ⑭ "Microphone active" LED
- ⑮ MICRO key
- ⑯ "Request to speak" LED
- ⑰ Channel display with "CHAN. ▲" and "CHAN. ▼" channel selection keys
- ⑲ Headphone volume control for headphone socket ⑳
- ㉑ Headphone socket (3.5 mm jack)
- ㉒ Headphone volume control for headphone socket ③

SDC 8000 CC chairman unit



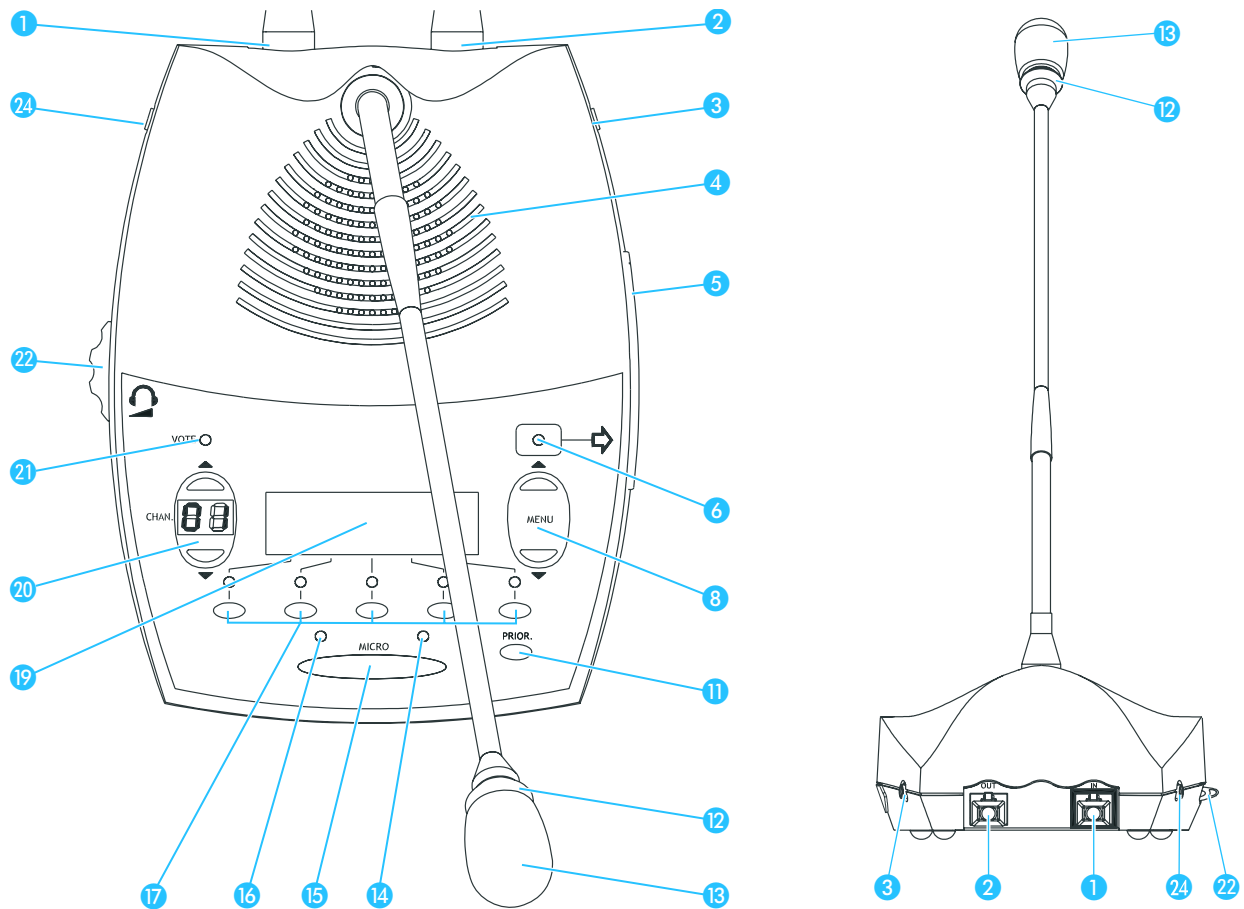
- ① IN socket (RJ 45)
- ② OUT socket (RJ 45)
- ③ Headphone socket (3.5 mm jack)
- ④ Loudspeaker
- ⑪ PRIOR. key
- ⑫ Red signal light ring
- ⑬ Microphone
- ⑭ "Microphone active" LED
- ⑮ MICRO key
- ⑯ "Request to speak" LED
- ⑰ NEXT key
- ⑳ Channel display with "CHAN. ▲" and "CHAN. ▼" channel selection keys
- ㉔ Headphone socket (3.5 mm jack)
- ㉕ Headphone volume control for headphone sockets ③ and ㉔

SDC 8000 DV conference unit



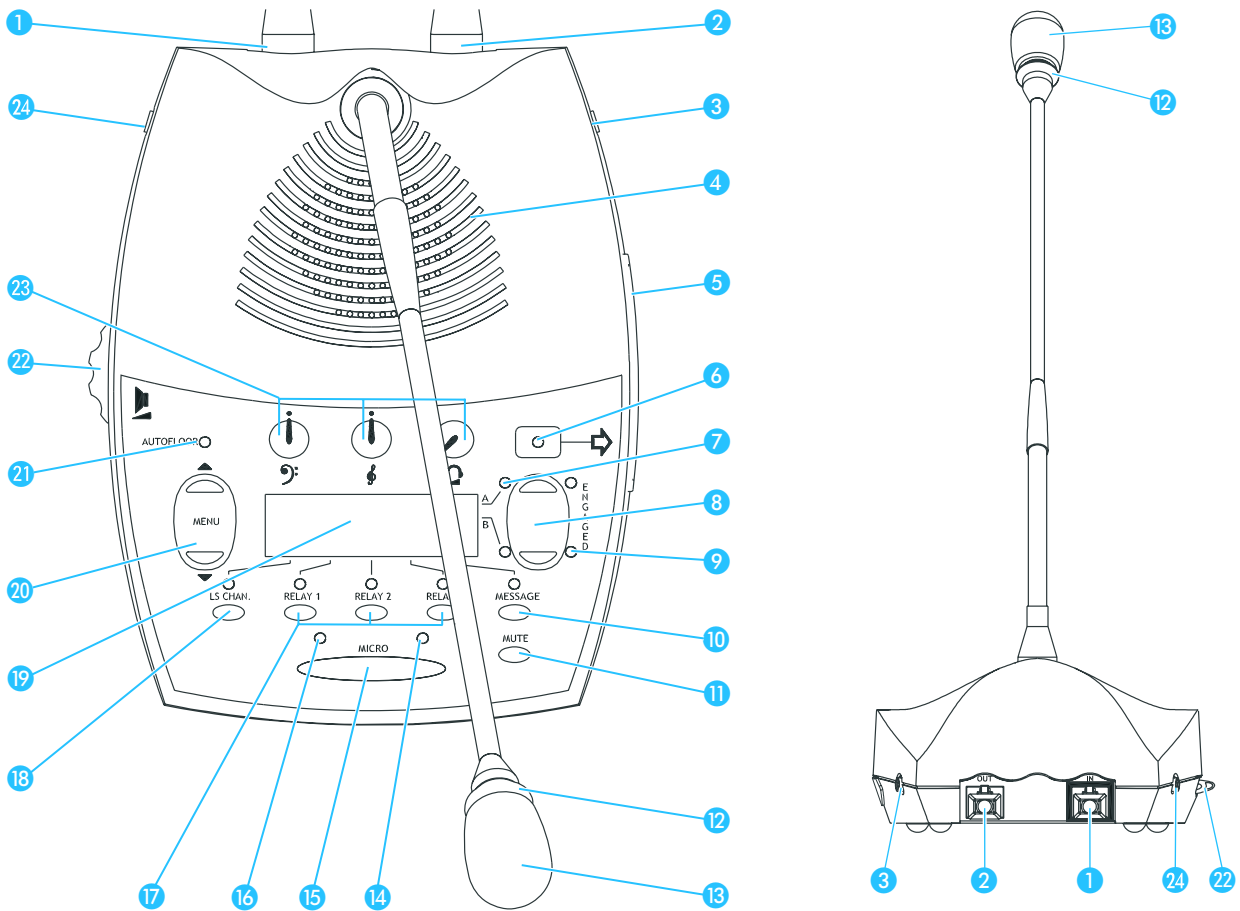
- | | |
|---|---|
| 1 IN socket (RJ 45) | 15 MICRO key |
| 2 OUT socket (RJ 45) | 16 "Request to speak" LED |
| 3 Headphone socket (3.5 mm jack) | 17 Voting keys |
| 4 Loudspeaker | 19 Dot matrix display |
| 5 Chip card slot | 20 Channel display with
"CHAN. ▲" and "CHAN. ▼" channel selection keys |
| 6 "Chip card" LED | 21 VOTE LED |
| 8 "MENU ▲" and "MENU ▼" menu selection keys | 22 Headphone volume control for
headphone sockets 3 and 24 |
| 12 Red signal light ring | 24 Headphone socket (3.5 mm jack) |
| 13 Microphone | |
| 14 "Microphone active" LED | |

SDC 8000 CV chairman unit



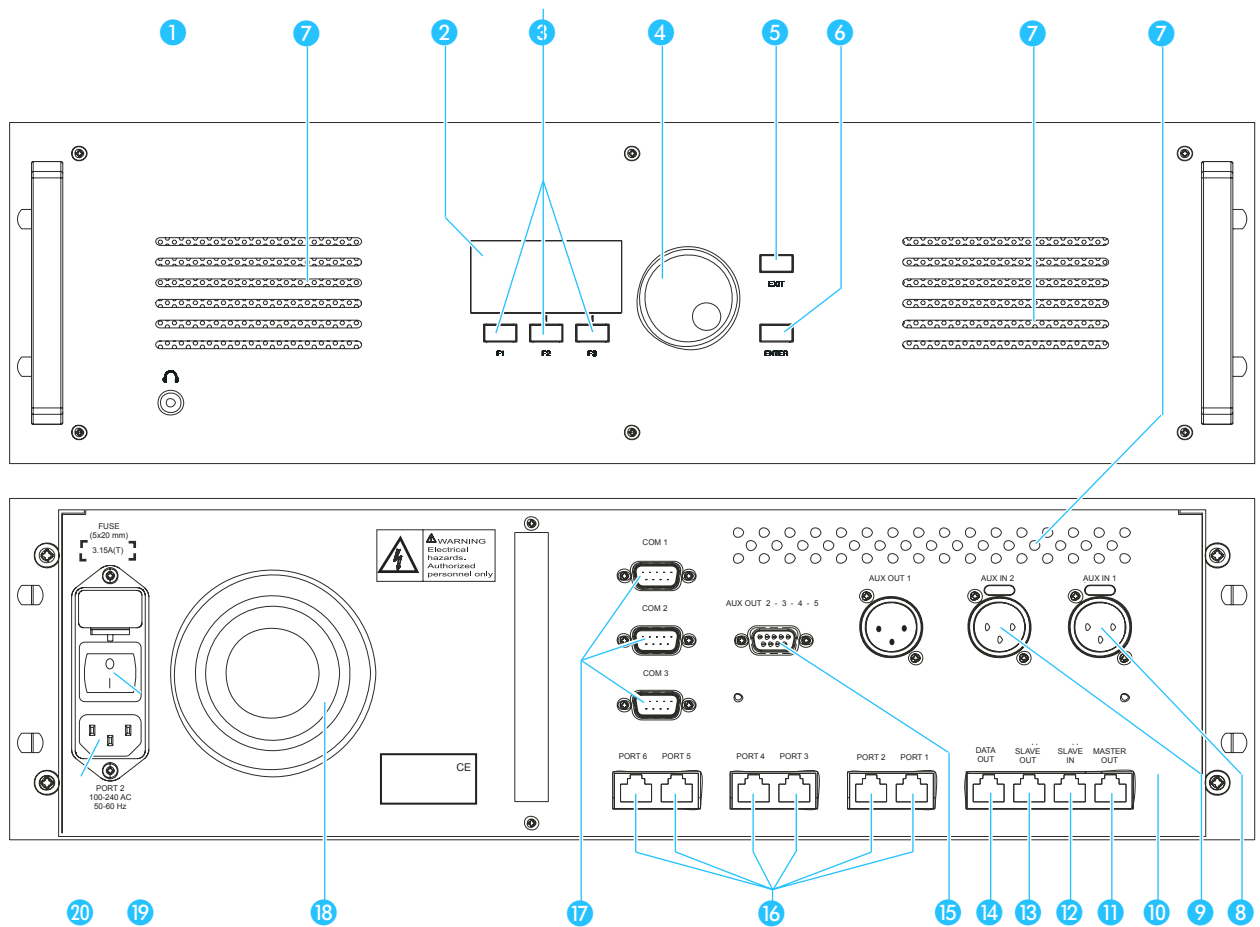
- 1 IN socket (RJ 45)
- 2 OUT socket (RJ 25)
- 3 Headphone socket (3.5 mm jack)
- 4 Loudspeaker
- 5 Chip card slot
- 6 "Chip card" LED
- 8 "MENU ▲" and "MENU ▼" menu selection keys
- 11 PRIOR. key
- 12 Red signal light ring
- 13 Microphone
- 14 "Microphone active" LED
- 15 MICRO key
- 16 "Request to speak" LED
- 17 Voting keys
- 19 Dot matrix display
- 20 Channel display with "CHAN. ▲" and "CHAN. ▼" channel selection keys
- 21 VOTE LED
- 22 Headphone volume control for headphone sockets 3 and 24
- 24 Headphone socket (3.5 mm jack)

SDC 8000 ID interpreter console



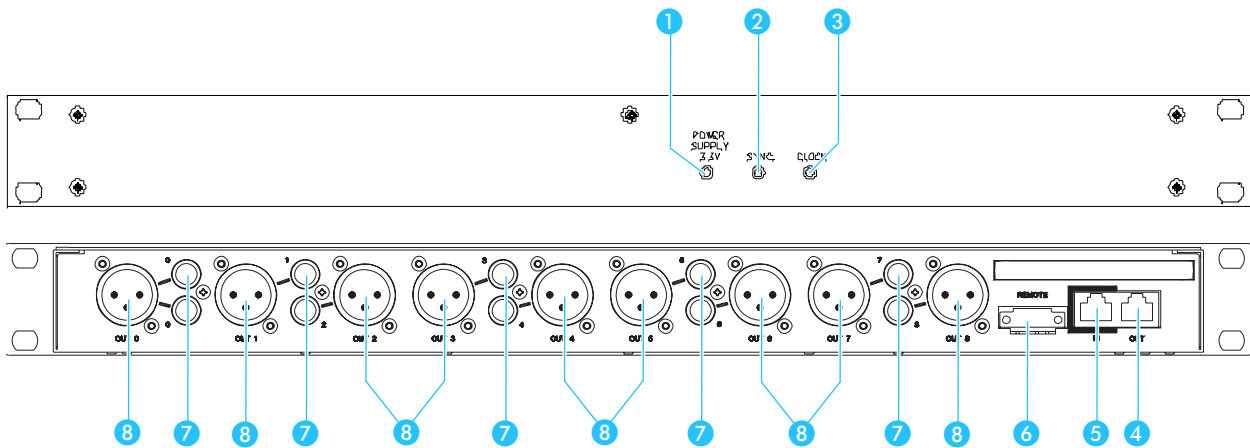
- | | |
|----------------------------------|--|
| 1 IN socket (RJ 45) | 14 "Microphone active" LED |
| 2 OUT socket (RJ 45) | 15 MICRO key |
| 3 Headphone socket (3.5 mm jack) | 16 "Request to speak" LED |
| 4 Loudspeaker | 17 RELAY 1 to RELAY 3 keys |
| 5 Chip card slot | 18 LS CHAN. key |
| 6 "Chip card" LED | 19 Dot matrix display |
| 7 "Channel" LEDs "A" and "B" | 20 "MENU ▲" and "MENU ▼" menu selection keys |
| 8 Channel keys "A" and "B" | 21 AUTOFLOOR LED |
| 9 ENGAGED LEDs "A" and "B" | 22 Loudspeaker volume control |
| 10 MESSAGE key | 23 Tone controls (volume, middle and treble)
for headphone sockets 3 and 24 |
| 11 MUTE key | 24 Headphone socket (3.5 mm jack) |
| 12 Red signal light ring | |
| 13 Microphone | |

The SDC 8000 CU central unit



- | | |
|-------------------------------------|--|
| 1 Headphone socket (3.5 mm jack) | 12 SLAVE IN socket (RJ 45) |
| 2 Display | 13 SLAVE OUT socket (RJ 45) |
| 3 F1 to F3 menu keys | 14 DATA OUT socket (RJ 45) |
| 4 Jog wheel for selecting the menus | 15 AUX OUT 2-3-4-5 audio outputs (9-pole sub-D socket) |
| 5 EXIT key | 16 PORT 1 to PORT 6 sockets (RJ 45) for connecting cable strings |
| 6 ENTER key | 17 COM 1 to COM 3 serial interfaces |
| 7 Air vents | 18 Fan for integrated power supply |
| 8 AUX IN 1 audio input (XLR-3F) | 19 POWER switch |
| 9 AUX IN 2 audio input (XLR-3F) | 20 Socket for mains cable |
| 10 AUX OUT 1 audio output (XLR-3M) | |
| 11 MASTER OUT socket (RJ 45) | |

The SDC 8000 AO analog output unit (optional)



- 1 POWER SUPPLY LED (lights up, if power is supplied to the SDC 8000 AO)
- 2 SYNC. LED (lights up, if the data exchange between the central unit and the SDC 8000 AO functions correctly)
- 3 FLOOR LED (lights up, if the floor channel is being used)
- 4 DIGITAL BUS OUT socket (RJ 45) for connecting an additional analog output unit
- 5 DIGITAL BUS IN socket (RJ 45) for connection of the central unit
- 6 Phoenix connector (e.g. for turning on/off a recording unit via a voltage-free contact)
- 7 Phono socket (unbalanced), 10x
- 8 XLR-3M audio output (transformer balanced), 9x

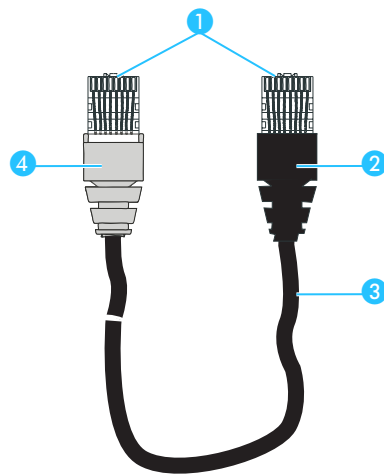
The system cables

The system cables required for your planned conference and interpretation system must be ordered separately. The system cables are available with lengths of 2 m, 3 m, 5 m, 10 m, 20 m and 50 m.

Via the system cables, you can:

- interconnect the conference and interpreter consoles,
- interconnect up to 10 central units for setting up a large conference and interpretation system,
- connect an SDC 8000 AO analog output unit to the central unit,
- connect cable strings to the central unit.

The system cables must meet the following specifications:



- 1 Shielded RJ 45 modular plug, cat 5(e)
- 2 Black cable booth with clip protector
- 3 Round STP cable, cat 5(e), 24AWG
- 4 Grey cable booth with clip protector

Operating the components of the SDC 8000 system

Depending on the type of **delegate unit**, conference participants can:

- listen, take the floor or make a request to speak,
- receive simultaneous interpretation,
- participate in voting sessions.

In addition to the functions and features of the delegate units, the **chairman unit** allows to:

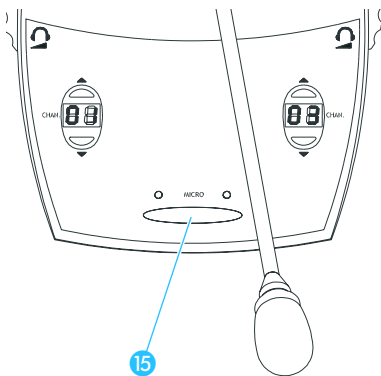
- start a voting session,
- turn off all active conference consoles (priority function).

The **interpreter consoles** are exclusively used by the interpreters.

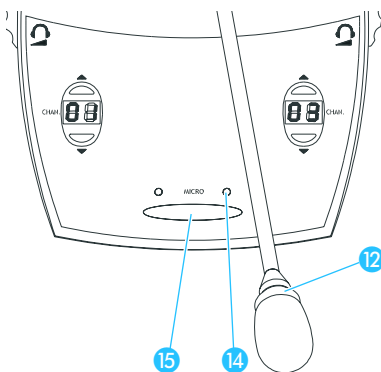
The **central unit** is operated by the conference manager – either directly or via an optional PC with software control.

Operating the delegate units

Taking the floor / Making a request to speak



In order to take the floor or make a request to speak, you have to press the MICRO key 15. Depending on the conference mode chosen, you can either take the floor immediately or you have to wait until your microphone is turned on.



1. In "Direct Access" mode:

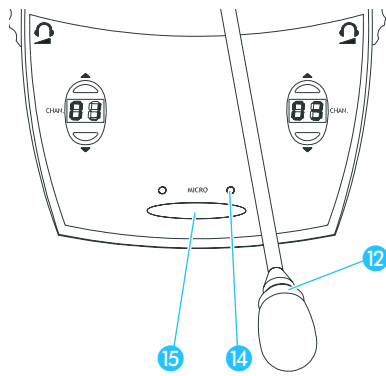
▶ Press the MICRO key 15.

If the speaker limit has not yet been reached, you can take the floor immediately. The red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently, indicating that you can now take the floor.

If the speaker limit has been reached, you have to wait until one of the current speakers has finished speaking and passes on the "speaking right". You then have to press the MICRO key 15 again.

2. In "Fifo" mode:

In this mode, the speaker limit is 1.



- ▶ Press the MICRO key 15.

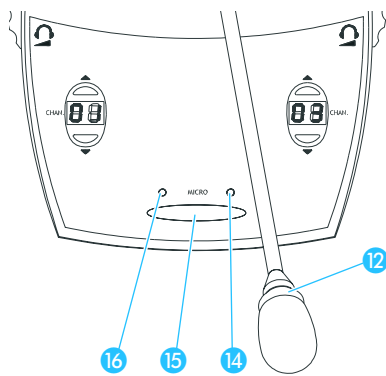
Pressing the MICRO key on your console will automatically turn off the microphone of the previous speaker ("first-in-first-out" principle). The red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently, indicating that you can now take the floor.

Note!

One delegate unit and the chairman unit can be simultaneously active.

3. In "Group 1" mode:

In this mode, the speaker limit is 1.



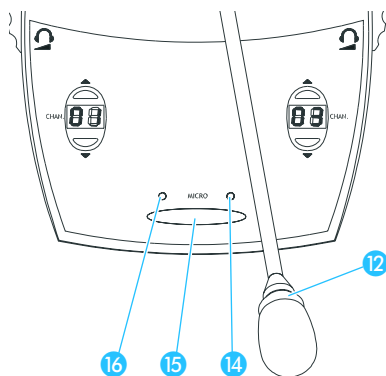
- ▶ Press the MICRO key 15.

If no other participant is currently speaking, you can take the floor immediately. The red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently, indicating that you can now take the floor.

If the speaker limit has been reached, you will join the waiting list and the green "Request to speak" LED 16 on your console starts flashing. As soon as the active microphone is turned off, the microphone of the first participant from the request-to-speak list is turned on, and so on. When it is your turn to speak, the red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently.

4. In "Group 2" mode:

In this mode, the speaker limit is 2.



- ▶ Press the MICRO key 15.

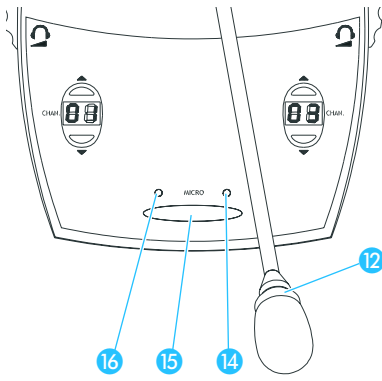
If the speaker limit has not yet been reached, you can take the floor immediately. The red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently, indicating that you can now take the floor.

If the speaker limit has been reached, you will join the waiting list and the green "Request to speak" LED 16 on your console starts flashing. As soon as one of the active microphones is turned off, the microphone of the first participant from the request-to-speak list is turned on, and so on.

When it is your turn to speak, the red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently.

5. In "Group 3" mode:

In this mode, the speaker limit is 3.



- ▶ Press the MICRO key 15.

If the speaker limit has not yet been reached, you can take the floor immediately. The red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently, indicating that you can now take the floor.

If the speaker limit has been reached, you will join the waiting list and the green "Request to speak" LED 16 on your console starts flashing. As soon as one of the active microphones is turned off, the microphone of the first participant from the request-to-speak list is turned on, and so on.

When it is your turn to speak, the red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently.

6. In "Group 4" mode:

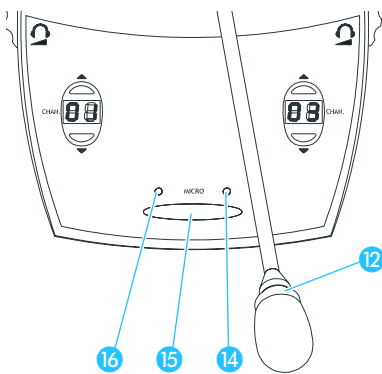
In this mode, the speaker limit is 4.

- ▶ Press the MICRO key 15.

If the speaker limit has not yet been reached, you can take the floor immediately. The red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently, indicating that you can now take the floor.

If the speaker limit has been reached, you will join the waiting list and the green "Request to speak" LED 16 on your console starts flashing. As soon as one of the active microphones is turned off, the microphone of the first participant from the request-to-speak list is turned on, and so on.

When it is your turn to speak, the red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently.



7. In "No request" mode:

For this mode to function, the SDC 8000 system must be PC controlled.

In "No request" mode, you have to "apply" for a comment and wait until the conference manager turns on your microphone. The conference manager has total control of the microphones.

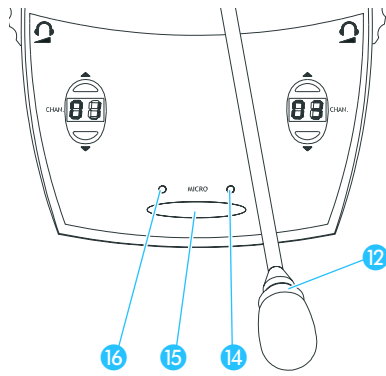
Note!

You cannot "apply" for a comment by pressing the MICRO key 15.

- ▶ Signal your intention to take the floor e.g. by raising your hand or giving another sign.

The conference manager can either assign you the "speaking right" by turning on your microphone or ignore your request to speak.

When the conference manager turns on your microphone, the red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently. When the conference manager withdraws the "speaking right" from you, the red signal light ring 12 and the "Microphone active" LED 14 on your console go off.



8. In "With request" mode:

For this mode to function, the SDC 8000 system must be PC controlled.

In "With request" mode, you have to "apply" for a comment and wait until the conference manager turns on your microphone.

- ▶ Press the MICRO key 15 to "apply" for a comment.

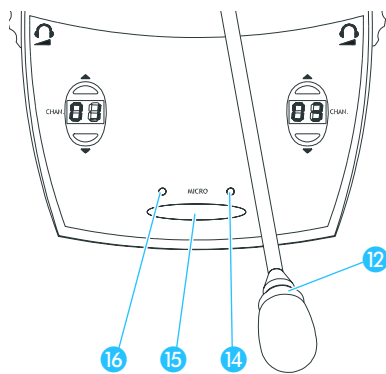
The green "Request to speak" LED 16 on your console starts flashing.

The conference manager can either assign you the "speaking right" by turning on your microphone or ignore your request to speak.

When the conference manager turns on your microphone, the red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently and the green "Request to speak" LED goes off.

Note!

You can cancel your request to speak by pressing the MICRO key once more.



9. In "With Req. No clear" mode:

For this mode to function, the SDC 8000 system must be PC controlled.

In "With Req. No clear" mode, you have to "apply" for a comment and wait until the conference manager turns on your microphone.

- ▶ Press the MICRO key 15 to "apply" for a comment.

The green "Request to speak" LED 16 on your console starts flashing.

The conference manager can either assign you the "speaking right" by turning on your microphone or ignore your request to speak.

When the conference manager turns on your microphone, the red signal light ring 12 and the "Microphone active" LED 14 on your console light up permanently and the green "Request to speak" LED goes off.

Note!

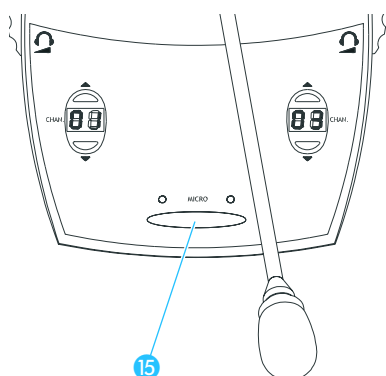
You **cannot** cancel your request to speak by pressing the MICRO key once more!

Turning off the microphone / Cancelling a request to speak

To turn off the microphone when you have finished speaking or to cancel a request to speak:

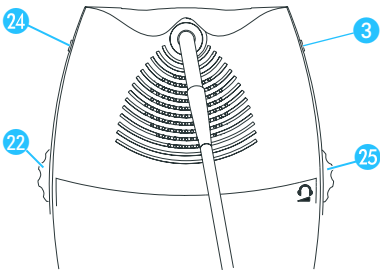
- ▶ Press the MICRO key 15 once more.

The red signal light ring 12 and the "Microphone active" LED 14 on your console go off.



Adjusting the volume of the headphones connected to a conference console

To adjust the volume of the headphones connected to your conference console:



- ▶ Connect Sennheiser mono headphones to the 3.5 mm jack socket (3 and/or 24).
- ▶ First, use the headphone volume control (22 and/or 25) to reduce the headphone volume to the minimum.
- ▶ Put on the headphones and slowly set the volume to a medium level.

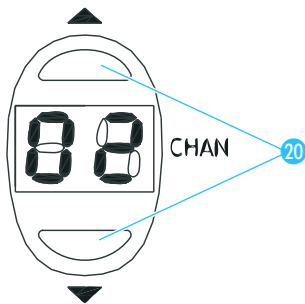
Warning!

When people use headphones, they tend to choose a higher volume than with loudspeakers. Listening at high volume levels for long periods can lead to permanent hearing defects. Please protect your hearing, Sennheiser headphones have an excellent sound quality even at low volumes.

Selecting an interpretation channel

If your console is equipped with channel selection keys (SDC 8000 DC, SDC 8000 CC, SDC 8000 DV and SDC 8000 CV), you can choose between the floor channel and the offered interpretation channels.

To select an interpretation channel:



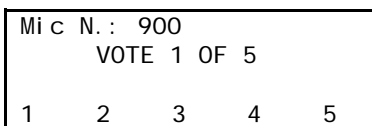
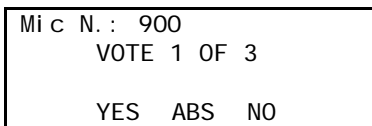
- ▶ Connect Sennheiser mono headphones to your conference console.
- ▶ Press the "CHAN. ▲" or "CHAN. ▼" channel selection key 20. The selected interpretation channel is output via your headphones.

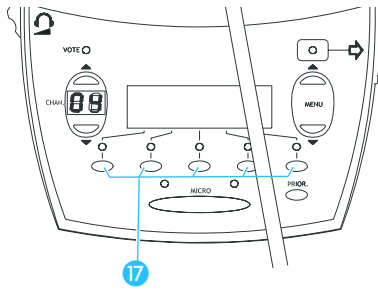
Voting

If your console is equipped with the voting function (only SDC 8000 DV and SDC 8000 CV), you can participate in voting sessions. Please note that voting sessions can only be started via the SDC 8000 CV chairman unit.

There are two voting modes ("Vote 1 of 3" and "Vote 1 of 5") which offer different voting options (depending on the voting mode chosen, your display looks like one of the displays shown on the left).

In the "Vote 1 of 3" mode, you can vote "YES" or "NO" or abstain ("ABS"); in the "Vote 1 of 5" mode, you have the choice of five options (1 to 5):





- ▶ To cast your vote, press the corresponding key **17** below the display. Your vote is counted. After the voting session, the result of the vote is shown on the displays of the consoles.

Using the chip card slot of a conference console

If the conference consoles feature a chip card slot and if your system is PC controlled, you can:

- make sure that only authorized delegates can participate in voting sessions.
- take roll-call votes, i.e. you can see the name of each conference participant and his or her voting position.

Operating the VIP units

VIP units are special delegate units which have the “rights” of a chairman unit.

- With a VIP unit, you can take the floor at any time, regardless of the conference mode and without first having to be assigned the “speaking right”.
- If the chairperson presses the PRIOR. key, all active conference consoles – except for the VIP units – are turned off. The chairperson cannot withdraw the “speaking right” from you.
- The VIP units are operated in the same way as the delegate units.

Note:

In order to be able to configure VIP units, you require the software control of the conference system.

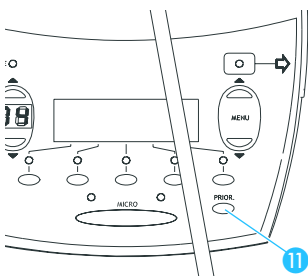
Operating the chairman unit

Turning all active conference consoles off (priority)

All chairman units are equipped with a priority function, allowing the chairman to stop a discussion any time. By using this function, all active conference consoles are turned off.

To use the priority function:

- ▶ Press the PRIOR. key.
All active conference consoles – except for the VIP units – are turned off.



Starting a voting session

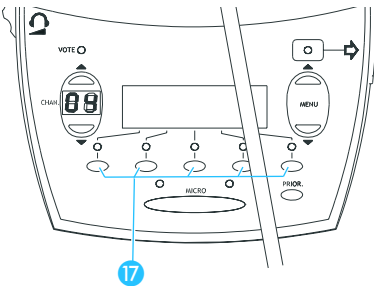
A voting session can be started by either the chairman or – provided that a PC with software control is connected to the central unit – the conference manager.

With the SDC 8000 CV chairman unit with voting function, you can start a voting session as follows:

```
Mi c N. : 0001
START VOTE
1 of 3    1 of 5
```

```
Mi c N. : 0001
VOTE 1/3
000 000 000
YES ABS NO STOP
```

```
Mi c N. : 0001
VOTE 1/5    PRI OR=STOP
000 000 000 000 000
1    2    3    4    5
```



```
Mi c N. : 0001
VOTE 1/3
245 002 150
YES ABS NO STOP
```

```
Mi c N. : 0001
RESULTS    PRI OR=END
032 041 009 015 625
1    2    3    4    5
```

- ▶ Choose one of the two voting modes "1 of 3" or "1 of 5" by pressing the corresponding key below the display.

Depending on the voting mode chosen, your display looks like one of the two displays shown on the left.

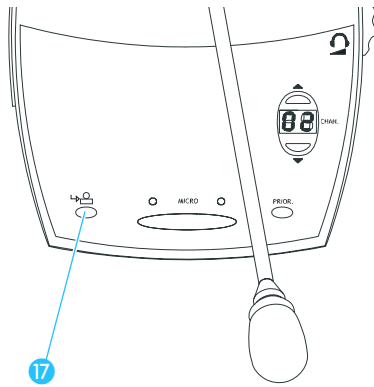
- ▶ Ask the participants to cast their vote.
- ▶ Cast your own vote by pressing one of the keys 17 below "YES", "NO" or "ABS" (mode "1 of 3") or below "1" to "5" (mode "1 of 5").
- ▶ Make sure that all conference participants have cast their vote.
- ▶ To stop the voting session:

- Stop "Vote 1/3" by pressing the key below "STOP".
The voting result is shown on the displays of the consoles.
Press the key below "END" to clear the voting result from the displays.
- Stop "Vote 1/5" by pressing the PRIOR. key.
The voting result is shown on the displays of the consoles.
Press the PRIOR. key again to clear the voting result from the displays.

Assigning a participant the "speaking right"

If – in "With Request" or "With Req. No Clear" mode – a participant presses the MICRO key on his console, he makes a request to speak. All participants who have made a request to speak will join a request-to-speak list.

To assign the first participant from the request-to-speak list the "speaking right" using the SDC 8000 C or SDC 8000 CC chairman unit:



- ▶ Press the NEXT key 17.
The next participant from the request-to-speak list is assigned the “speaking right”.

To assign the first participant from the request-to-speak list the “speaking right” using the SDC 8000 CV chairman unit:

- ▶ Press the “MENU ▲” or “MENU ▼” menu selection key.
The first three consoles from which a request to speak has been made are shown on the displays of all conference consoles. If you do not use chip cards, the microphone numbers are displayed; if you use chip cards, the delegate names stored on the chip cards are displayed (see also next section). In addition, “NEXT” is shown in the lower left corner of the display.

MIC N. :	0001
REQUEST:	MIC N. 0657
	MIC N. 0421
NEXT	MIC N. 0010

MIC N. :	0001
REQUEST:	ARCHER
	VAN BUUREN
NEXT	TAKAHASHI

- ▶ On the left-hand side below the display, press the key which is assigned to the text “NEXT”.
The next participant from the request-to-speak list is assigned the “speaking right”.

Showing the request-to-speak list on the displays of the conference consoles

If – in “With Request” or “With Req. No Clear” mode – a participant presses the MICRO key on his console, he makes a request to speak. All participants who have made a request to speak will join a request-to-speak list.

Using the SDC 8000 CV chairman unit, you can configure all conference consoles with a display so that this request-to-speak list is shown on the display.

- ▶ Press the “MENU ▲” or “MENU ▼” menu selection key.
The first three consoles from which a request to speak has been made are shown on the displays of all conference consoles. If you do not use chip cards, the microphone numbers are displayed; if you use chip cards, the delegate names stored on the chip cards are displayed.

MIC N. :	0001
REQUEST:	MIC N. 0657
	MIC N. 0421
	MIC N. 0010

MIC N. :	0001
REQUEST:	ARCHER
	VAN BUUREN
	TAKAHASHI

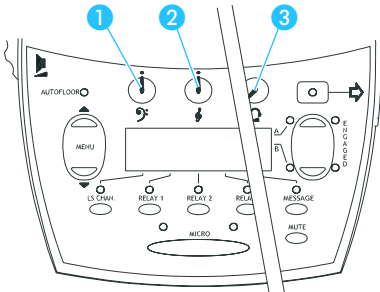
To prevent that that request-to-speak list is shown on the displays of all conference consoles:

- ▶ Press the “MENU ▲” or “MENU ▼” menu selection key.
The microphone numbers of the consoles from which a request to speak has been made are not shown on the displays of the conference consoles.

Operating the interpreter consoles

Adjusting the volume and the middle and treble response of the headphones connected to the interpreter console

To adjust the volume and the middle and treble response of the headphones connected to your interpreter console:



- ▶ Turn the control 3 to adjust the volume of the connected headphones.

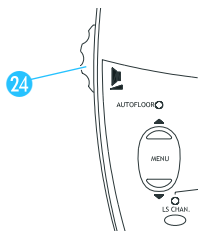
Warning!

When people use headphones, they tend to choose a higher volume than with loudspeakers. Listening at high volume levels for long periods can lead to permanent hearing defects. Please protect your hearing, Sennheiser headphones have an excellent sound quality even at low volumes.

- ▶ Turn the control 1 to adjust the middle response of the connected headphones.
- ▶ Turn the control 2 to adjust the treble response of the connected headphones.

Adjusting the volume of the interpreter consoles' built-in loudspeakers

To adjust the volume of the interpreter console's built-in loudspeaker, proceed as follows:



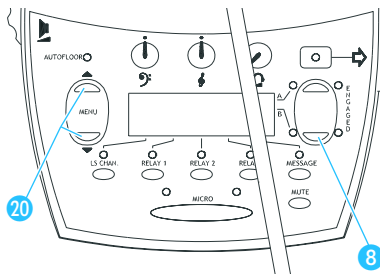
- ▶ Turn the control 22 to adjust the volume of the console's built-in loudspeaker.

Note!

The volume of the conference consoles' built-in loudspeakers can only be adjusted on the central unit!

Configuring the B-channel of an interpreter console

If you interpret into a second language, but also if you interpret for other interpreters who take the relay (Auto-floor), configure the B channel of your console as follows:



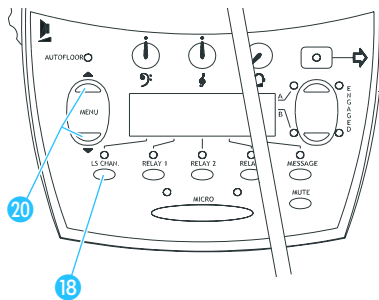
- ▶ Press the "B-channel" key 8 and keep it pressed.
- ▶ While keeping the "B-channel" key pressed, press the "MENU ▲" or "MENU ▼" menu selection key 20 until the desired target language for the B-channel is shown on the display.

Note!

The A-channel of an interpreter console has to be configured via the central unit. The configuration of the A-channel cannot be changed on the console.

Setting the channel to be output via the interpreter console's built-in loudspeaker

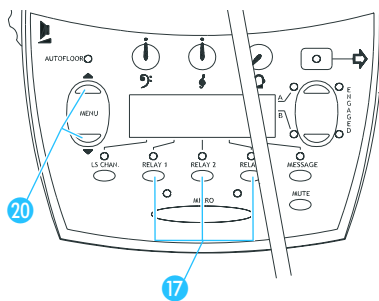
To set the channel (e.g. the floor channel or an interpretation channel) to be output via the interpreter console's built-in loudspeaker:



- ▶ Press the LS CHAN key 18 and keep it pressed.
- ▶ While keeping the LS CHAN key pressed, press the "MENU ▲" or "MENU ▼" menu selection key 20 until the desired channel is shown on the display.

Selecting an interpretation channel

To select an interpretation channel to be output via your headphones:

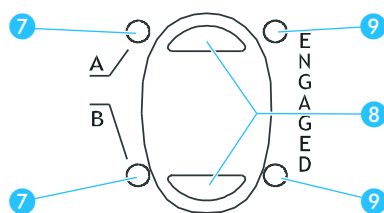


- ▶ Press one of the keys RELAY 1, RELAY 2 or RELAY 3 17 and keep it pressed.
- ▶ While keeping one of the keys RELAY 1, RELAY 2 or RELAY 3 pressed, press the "MENU ▲" or "MENU ▼" menu selection key 20 until the desired language is shown on the display. The pressed key RELAY 1, RELAY 2 or RELAY 3 is assigned the interpretation channel with the selected language.
- ▶ To listen to the interpretation channel assigned to one of the keys RELAY 1, RELAY 2 or RELAY 3, press the corresponding key 17. The LED next to the key lights up. The selected interpretation channel is output via your headphones.

Using the interpreter console

As soon as your interpreter console is configured, you can use it as follows:

- ▶ Make sure that the correct channel for the target language is set (see "Switching between the A-channel and the B-channel" on page 35):
 - If you interpret into the main target language assigned to your booth, choose the A-channel.
 - If you interpret into a target language not assigned to your booth, choose the B-channel. In this case, make sure that the B-channel is configured to the language into which you interpret (see "Configuring the B-channel of an interpreter console" on page 33)!
 - If you interpret a "rare" language into a language of which the other interpreters have a complete understanding and from which they then interpret into their respective languages (Auto-floor), also choose the B-channel.

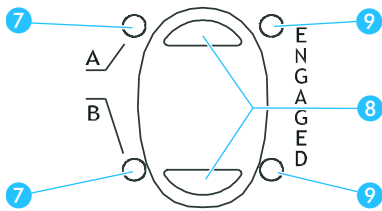


The green LEDs 7 indicate the selected channel (A or B).

- ▶ Make sure that the selected channel is not being used! The red "ENGAGED" LED 9 of the selected channel must not light up!
- ▶ Press the MICRO key 15 and start interpreting. The red LED 9 of the selected channel lights up.
- ▶ Press the MICRO key 15 once more to stop interpreting. The red LED 9 of the selected channel goes off.

Switching between the A-channel and the B-channel

If you interpret into a second language, you have to switch from the A-channel to the B-channel.



To switch to the B-channel:

- ▶ Press the "B-channel" key **8**.
The green LED **7** next to the "B-channel" key lights up.

To switch to the A-channel:

- ▶ Press the "A-channel" key **8**.
The green LED **9** next to the "A-channel" key lights up.

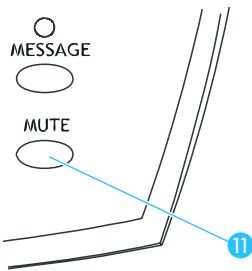
Muting the microphone of the interpreter console

To mute your microphone:

- ▶ Press the MUTE key **11** and keep it pressed.
Your microphone is muted.

To turn on your microphone again:

- ▶ Release the MUTE key **11**.
Your microphone is turned on again.

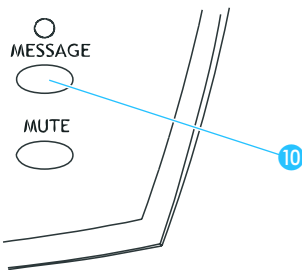


Displaying text messages on the interpreter console's display

If a PC with software control is connected to the central unit, you can receive text messages from the central unit.

When you have received a text message, the MESSAGE LED on your interpreter console lights up.

- ▶ Press the MESSAGE key **10**.
The text message is shown on the display.
- ▶ Press the MESSAGE key **10** again.
The display returns to the standard display.



Operating the central unit

Before a conference starts, you have to configure your entire conference and interpretation system via the central unit's operating menu (see "Configuring the SDC 8000 system" on page 54); it is, however, possible to make changes to individual settings during a conference.

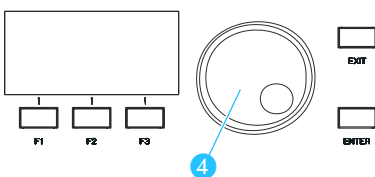
Adjusting the volume of the consoles' built-in loudspeakers

Adjust the volume of the consoles' built-in loudspeakers so that all participants can clearly hear all audio information:

- ▶ Turn the jog wheel **4** on the central unit.
The volume of the consoles' built-in loudspeaker is increased or reduced. The bars on the start display indicate the set volume level.

Note!

The conference participants cannot adjust the volume of their consoles' built-in loudspeakers! However, each participant can individually adjust the headphone volume on his or her console.



The interpreters can individually adjust both the volume of their consoles' built-in loudspeakers and the volume of the connected headphones.

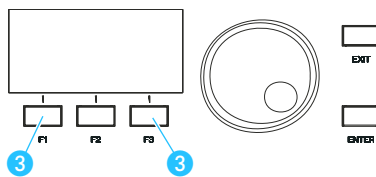
The F1, F2 and F3 menu keys

The F1 and F3 menu keys serve to lock the central unit. The F2 menu key has no function with the current unit.

To lock the central unit:



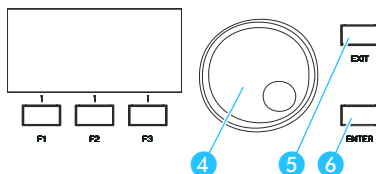
- ▶ Make sure that the start display appears as shown on the left. If the start display does not appear, press the EXIT key repeatedly until the start display appears.



- ▶ Simultaneously press the F1 and F2 menu keys 3 and keeps them pressed for three seconds. The "key" symbol (⌘) appears in the lower right corner of the display. The operating menu of the central unit is locked and you cannot change the settings of your conference.

To unlock the central unit:

- ▶ Simultaneously press the F1 and F2 menu keys 3 and keeps them pressed for three seconds. The "key" symbol (⌘) disappears from the lower right corner of the display. The operating menu of the central unit can be accessed at any time by pressing the ENTER key (see "Working with the central unit's operating menu" on page 37), and you can change all settings of your conference.



The menu operating controls

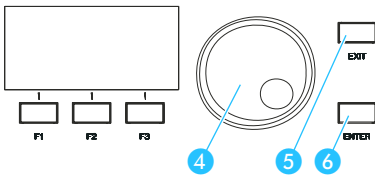
The jog wheel 4 and the ENTER 6 and EXIT 5 keys on the central unit allow you to navigate through the central unit's operating menu, to choose settings and to enter and change values.

Operating control	Menu level	To
Jog wheel	main menu	choose a menu item
	submenu	choose a menu item or choose the desired setting
ENTER key	main menu and submenu	activate a selected menu item or save settings and return to the previous menu level
EXIT key	main menu and submenu	exit a menu item without saving the settings and return to the previous menu level

For a complete overview of all menus of the central unit, see "Introduction to the central unit's operating menu" on page 54 to 75.

Working with the central unit's operating menu

To choose a menu item from the central unit's operating menu:



- ▶ Make sure that the central unit is turned on and that all conference/interpreter consoles are connected.
The start display appears, showing the current volume setting for the consoles' built-in loudspeakers (see "Setting the volume of the consoles' built-in loudspeakers" on page 76) and to which of the central unit's ports P1 to P6 a cable string is connected (see "Making a system diagnosis" on page 98).
- ▶ Press the ENTER key (6).
You get to the first main menu "Conference".
- ▶ Turn the jog wheel (4) until the desired main menu is shown on the display and press the ENTER key (6).
You enter the desired main menu.
- ▶ Turn the jog wheel (4) until the desired submenu is shown on the display and press the ENTER key (6).
You enter the desired submenu where you can choose between additional submenu items by using the jog wheel (4) or choose a setting (in this case, the current value and the text "Press ENTER to Save" are shown on the display).
- ▶ To change the current value:
Turn the jog wheel (4) until the desired value is shown on the display and press the ENTER key (6).
The new value is saved and you return to the previous menu level.
- ▶ To keep the current value unchanged:
Press the EXIT key (5).
The current value remains unchanged and you return to the previous menu level.
- ▶ To exit the central unit's operating menu, press the EXIT key (5) repeatedly until the start display appears.

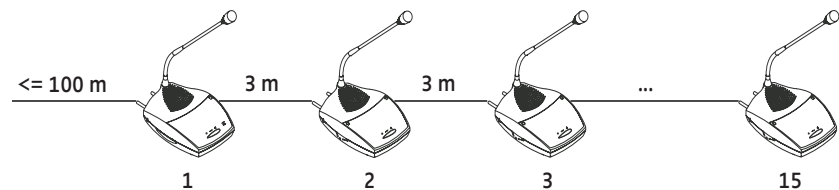
Structuring the SDC 8000 system

This chapter provides information on how your system can be structured and which components are required for the different expansion stages.

Finally, this chapter also gives an overview of additional audio equipment that can be connected to the system.

Interconnecting the conference/interpreter consoles

Via the system cables, interconnect the consoles in cable strings.



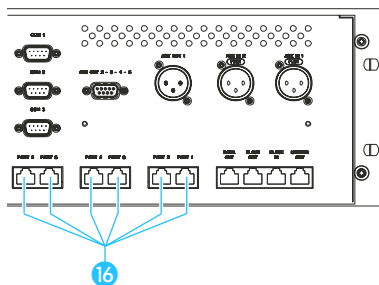
When interconnecting the consoles in strings, please observe the following:

- Conference and interpreter consoles can be interconnected in any desired order.
- A maximum of 15 consoles can be interconnected in one string.
- All consoles must be supplied with a voltage of at least 30 V (see "Determining maximum cable lengths" on page 40).

Connecting cable strings to a central unit

Via each of the six ports **16** of the central unit, you can connect a cable string.

- You can connect up to 90 (6 x 15) consoles to a single central unit.
- The distance between the central unit and the first console of a cable string must not exceed 100 m.



Interconnecting up to 10 central units

For conference and interpretation systems with up to 900 consoles, you can interconnect a total of 10 central units (see "Interconnecting several central units" on page 48).

The three expansion stages

Depending on the number of conference participants, three different expansion stages are distinguished:

- Expansion stage (1) comprising one central unit with up to 15 consoles
- Expansion stage (2) comprising one central unit with up to 90 consoles
- Expansion stage (3) comprising several central units with up to 900 consoles

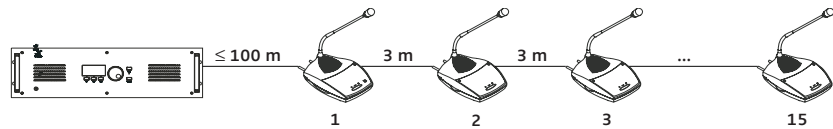
Note!

In the following examples, the standard length of "3 m" is always given for the system cables between the conference consoles. However, it is no problem to use other cable lengths or cables of differing lengths within the same string.

To make sure that all consoles are supplied with a voltage of at least 30 V, please refer to the chapter "Determining maximum cable lengths" on page 40.

Expansion stage (1): one central unit with up to 15 consoles

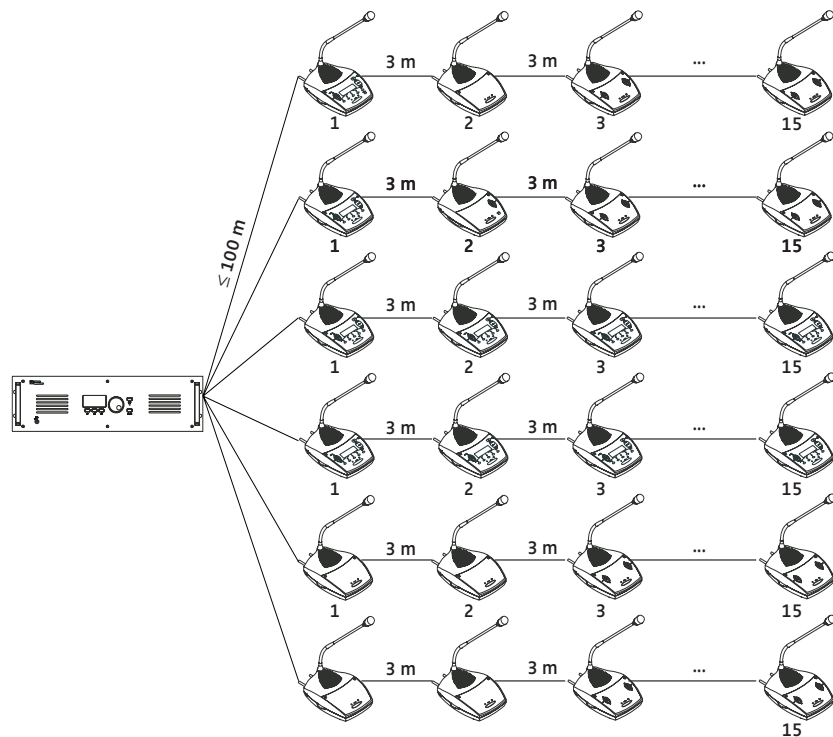
In small conference systems (expansion stage 1), up to 15 conference and interpretation consoles can be interconnected in one string.



The distance between the central unit and the first console must not exceed 100 m.

Expansion stage (2): one central unit with up to 90 consoles

In conference systems of expansion stage (2), up to six cable strings with up to 15 consoles each ($6 \times 15 = 90$) can be connected to a single central unit. This is the maximum number of consoles that can be connected to a single central unit.

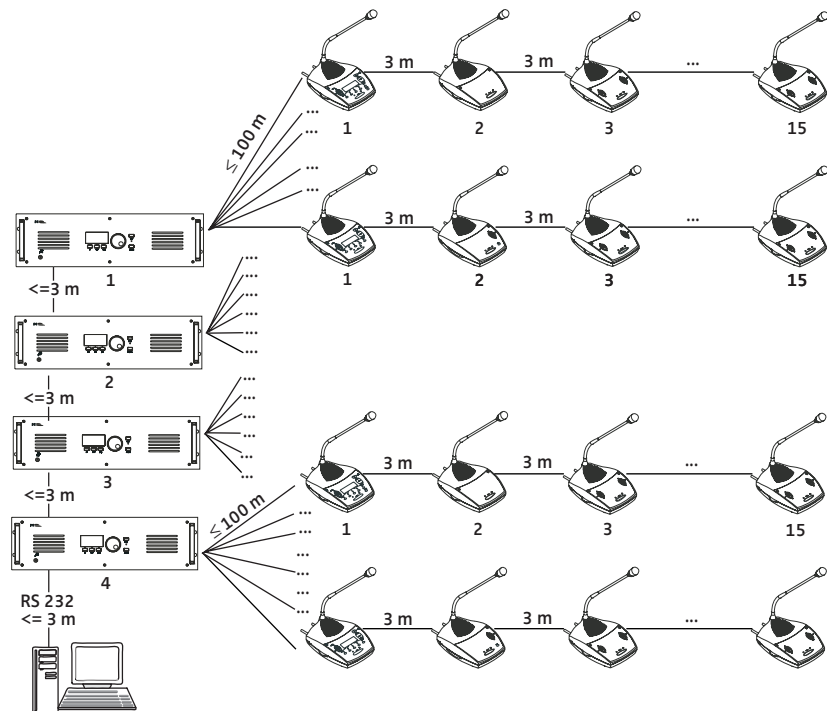


The distance between the central unit and the first console of a cable string must not exceed 100 m.

Expansion stage (3): several central units with up to 900 consoles

For larger conference and interpretation systems with up to 900 consoles, you can interconnect a total of 10 central units. The additional central units are connected as "slaves" to the central unit configured as "master". If the conference and interpretation system is to be PC controlled, the PC must be connected to the "master" central unit.

To set up a conference system with several central units, you first have to interconnect the consoles in cable strings and then connect the cable strings to the central units. Finally, you interconnect the central units (see "Interconnecting several central units" on page 48).



The distance between a central unit and the first console of a cable string must not exceed 100 m. The maximum length of the system cables used for interconnecting the central units must not exceed 3 m.

Determining maximum cable lengths

In the preceding examples, the standard length of "3 m" is always given for the system cables between the conference consoles. However, it is no problem to use other cable lengths or cables of differing lengths within the same string.

However, if you want to use longer cables, make sure that all consoles – including the last one in a string – are supplied with a voltage of at least 30 V!

Calculating the voltage drop on the system cables

Every meter of system cable and every console in a string causes a voltage drop. Thus, the further back a console is located in a string, the less voltage it receives.

Delivery includes a Microsoft Excel document with which you can easily calculate the voltage drops on the individual sections of a string. In this way, you know even before setting up the conference system whether it will work or not.

Structuring an interpretation system

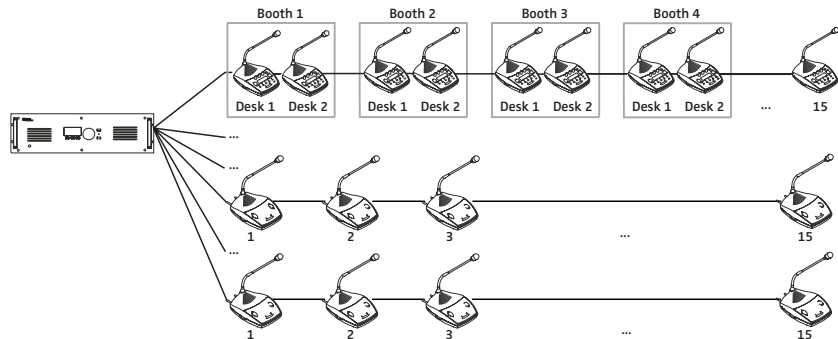
If your SDC 8000 system comprises interpreter consoles, these are usually installed in acoustically isolated interpreter booths so that the interpreters cannot disturb each other or the audience.

One booth with a team of interpreters is normally required per target language. Within one language team, interpreters will take turns every twenty minutes or so, in order to give each other an adequate break and maintain a high level of quality.

With the SDC 8000 system, a maximum of eight interpreter consoles can be installed per booth.

Within a booth, each interpreter console has to be assigned a number, with the numbering starting always from 1.

The interpreter consoles can be connected anywhere in the cable strings.



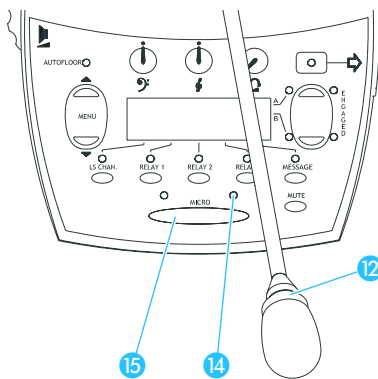
Selectable modes between or within interpreter booths

With the SDC 8000 system, you can choose between three “modes between booths” and two “modes in booth”.

Via the “modes between booths”, you fix the responsibilities of interpreters who are seated in different booths but interpret into the same target language (one on the A-channel and another on the B-channel).

Via the “modes in booths”, you fix the responsibilities of interpreters who are seated in the same booth and interpret into the same target language.

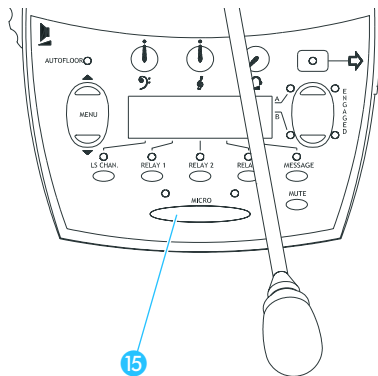
Mode between booths: “Mixed”



Interpreters who are seated in different booths but interpret into the same target language can activate their interpreter consoles any time by pressing the MICRO key 15 – even simultaneously.

When two interpreters simultaneously interpret into the same target language, the red signal light ring 12 and the “Microphone active” LED 14 on their consoles light up.

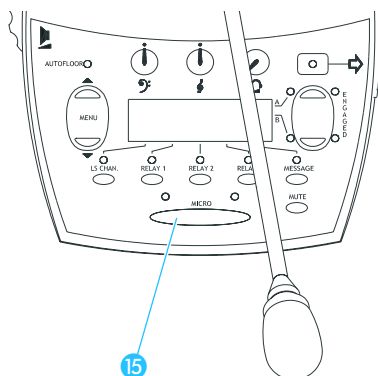
Mode between booths: “Override”



Interpreters who are seated in different booths but interpret into the same target language can activate their interpreter consoles any time by pressing the MICRO key 15 – however, activating an interpreter console will automatically turn off the currently active interpreter console.

In “Override” mode, an interpreter console that was just turned off can only be turned on again if the interpreter console by which it was turned off is deactivated.

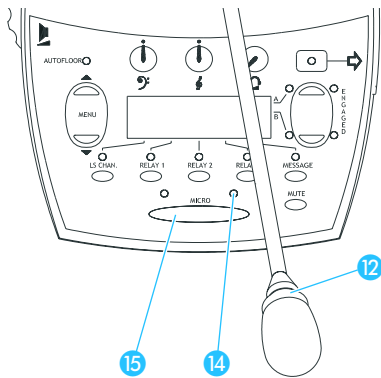
Mode between booths: “Toggle Override”



Interpreters who are seated in different booths but interpret into the same target language can activate their interpreter consoles any time by pressing the MICRO key 15 – however, activating an interpreter console will automatically turn off the currently active interpreter console.

In “Toggle Override” mode, an interpreter console that was just turned off can be turned on again any time by pressing the MICRO key 15.

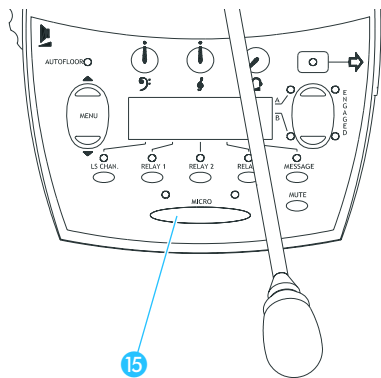
Mode in booths: "Mixed"



Interpreters who are seated in the same booth and interpret into the same target language can activate their interpreter consoles any time by pressing the MICRO key 15 – even simultaneously.

When two interpreters simultaneously interpret into the same target language, the red signal light ring 12 and the "Microphone active" LED 14 on their consoles light up".

Mode in booths: "Override"



Interpreters who are seated in the same booth and interpret into the same target language can activate their interpreter consoles any time by pressing the MICRO key 15 – however, activating an interpreter console will automatically turn off the currently active interpreter console.

In "Override" mode, an interpreter console that was just turned off can only be turned on again if the interpreter console by which it was turned off is deactivated.

The "auto-floor" function

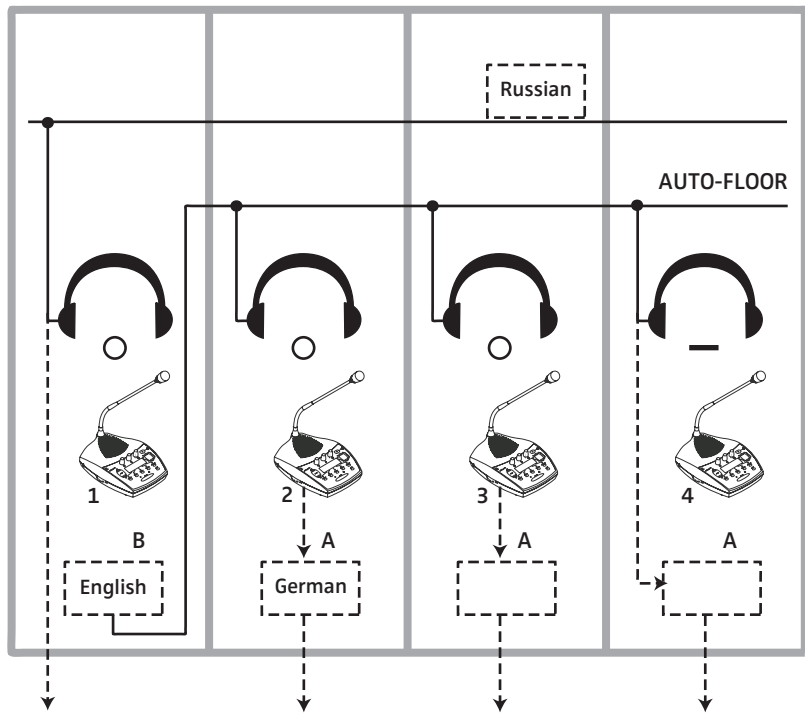
If the original floor language is **not** a language of which all interpreters have a complete understanding and from which they work, you can enable the auto-relay interpretation function (auto-floor): The original floor language is interpreted into a language understood by all interpreters. This interpretation is automatically "relayed" to the floor channel of all other interpreters and serves as the basis from which they interpret into their respective target languages.

Example:

The active languages at a conference are English, German and French (active languages are the languages into which interpretation is provided).

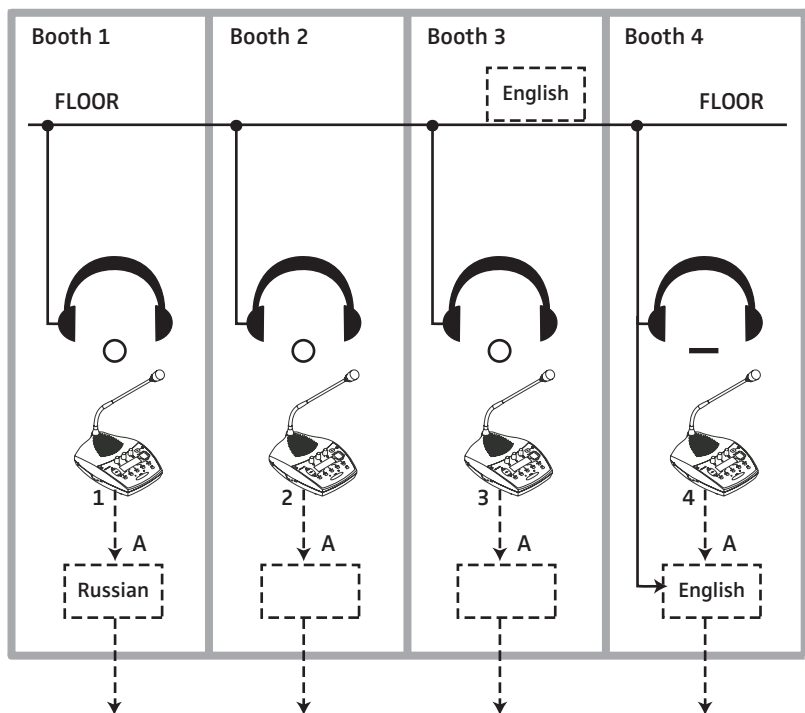
However, some of the delegates speak Russian, a language of which only one interpreter has a complete understanding. This interpreter interprets the contributions of the Russian delegates into English, which the other interpreters then interpret into their respective target languages. The English interpretation is also fed to the English interpretation channel.

The below illustration shows the relay interpretation process (auto-floor).



If the original floor language is a language of which all interpreters have a complete understanding and from which they work, you **do not** have to enable this function. In this case, all interpreters interpret the original floor language into their respective target languages. These interpretations are fed to the corresponding interpretation channels.

The below illustration shows the normal interpretation process where the original floor language is directly interpreted into the target languages



Using external equipment

External audio signals can be fed to the conference and interpretation system and channels (floor channel and interpretation channels) can be output.

You can, for example,

- connect a wireless microphone, enabling a speaker to move around freely and to speak from anywhere in the room,
- feed external audio signals (e.g. the soundtrack of a video, music, announcements from a tape, etc.) into the system,
- connect a PA system,
- connect an infrared language distribution system,
- directly transmit channels to broadcasting and TV stations,
- and record individual channels for documentation or archiving purposes.

Note!

Please note that a total of two audio sources can be connected to the central unit and that a total of three channels plus the floor channel can be output. If you wish to output more channels, you require the optional SDC 8000 AO analog output unit.

Connecting external audio sources

Via the two XLR-3F sockets (AUX IN 1 and AUX IN 2) of the central unit, external audio sources which output a balanced mono signal can be connected to the conference system.

External audio sources are, for example:

- wired microphones
- wireless microphones
- the audio output of a video recorder
- a CD player

The signals available at the audio inputs AUX IN 1 and AUX IN 2 are fed to the floor channel which is output via the consoles' built-in loudspeakers. For information on how to turn on the audio inputs and how to adjust the volume and the input sensitivity, see:

- "Turning the audio inputs or outputs on and off" on page 95,
- "Adjusting the input level of an audio input" on page 96 and
- "Adjusting the input sensitivity of an audio input" on page 96.

Transmitting the floor channel and the interpretation channels to broadcasting and TV stations

Important conferences and specialist congresses are of great interest to the public. The SDC 8000 conference and interpretation system, therefore, allows you to transmit the floor channel and the interpretation channels e.g. to broadcasting and TV stations.

The floor channel is available at the XLR-3M audio output (AUX OUT 1) and the 9-pole sub-D socket (AUX OUT 2).

The signals of up to three interpretation channels are available at the outputs AUX OUT 3-4-5 of the 9-pole sub-D socket.

Additional interpretation channels can be output via the XLR-3M audio outputs of an SDC 8000 AO analog output unit connected to the central unit.

Transmitting the floor channel or an interpretation channel via a PA system

Via the central unit's XLR-3M audio output or via an audio output of the SDC 8000 AO analog output unit, you can connect a PA system via which the floor channel or an interpretation channel can be transmitted to e.g. the foyer or another room.

For information on how to select the channel to be output via an audio output, see "Assigning a channel to an audio output" on page 95.

Transmitting the floor channel and the interpretation channels via an infrared transmission link

You can connect the control of an infrared transmitter to the central unit, allowing guests or participants who don't have their own conference console to follow the conference via infrared headphones. These guests or participants can choose between the floor channel and the interpretation channels.

Setting up the SDC 8000 system

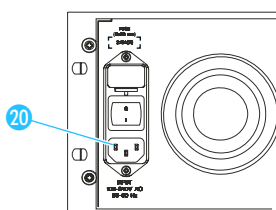
This chapter provides information on how to set up and operate the SDC 8000 conference and interpretation system.

Preparing the SDC 8000 system components for set up

Conference and interpreter consoles

After unpacking the consoles, you simply have to connect them to the central unit and initialize them.

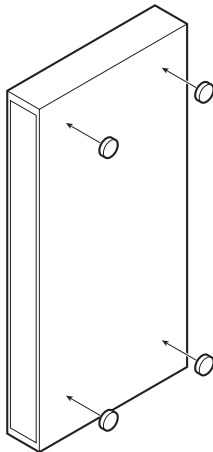
Central unit



- ▶ Connect the mains cable to socket 20.
- ▶ Connect the mains cable to the mains (100 – 240 V, 50 – 60 Hz).

Fixing the central unit feet

To ensure that the cell transmitter cannot slip on the surface on which it is placed, four self-adhesive soft feet are supplied.



Note:

Do not use these feet if rack-mounting the cell transmitter.

- ▶ Ensure that the base of the central unit is clean and free from grease before mounting the feet.
- ▶ Fix the feet to the base of the central unit by peeling off the safety paper and fitting them as shown in the diagram on the left.

Attention!

Some furniture surfaces have been treated with varnish, polish or synthetics which might become stained when they come into contact with other synthetics. Despite a thorough testing of the synthetics used by us, we cannot rule out the possibility of staining, since we don't know your furniture.

Rack-mounting several central units

For larger conference and interpretation systems with several central units, we recommend mounting the central units into a rack.

- ▶ Mount the central unit into a 19" rack and fix it to the rack by means of four screws.

Attention!

Some furniture surfaces have been treated with varnish, polish or synthetics which might cause stains when they come into contact with

other synthetics. Despite a thorough testing of the synthetics used by us, we cannot rule out the possibility of staining.

Interconnecting the SDC 8000 system components

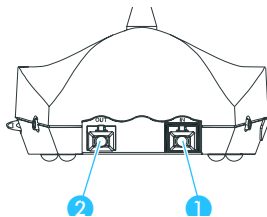
Depending on the expansion stage of your system, you have to:

- interconnect the consoles (all expansion stages),
- interconnect the central units (expansion stage 3),
- connect a PC to the “master” central unit if the system is to be PC controlled.

Interconnecting the consoles

To interconnect the consoles via the system cables:

- ▶ Connect the black RJ 45 plug of the system cable to the OUT socket ② of the console.
- ▶ Connect the grey RJ 45 plug of the system cable to the IN socket ① of the console.



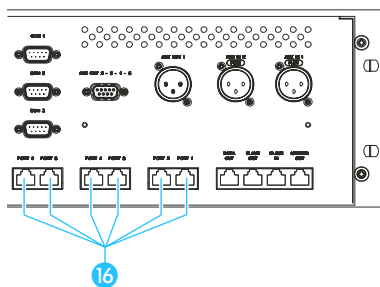
Note!

You can interconnect up to 15 consoles in one cable string.

Connecting a cable string to the central unit

After having interconnected the consoles, connect the cable strings to the central unit. You can connect up to six cable strings to a single central unit. To connect a cable string to the central unit:

- ▶ Connect the black RJ 45 plug of the system cable to one of the RJ 45 sockets labelled PORT 1 to PORT 6 ⑩ of the central unit.
- ▶ Connect the grey RJ 45 plug of the system cable to the IN socket ① of the first console of a cable string.
- ▶ Initialize the consoles as described in the section “Turning on the central unit for the first time” on page 76.

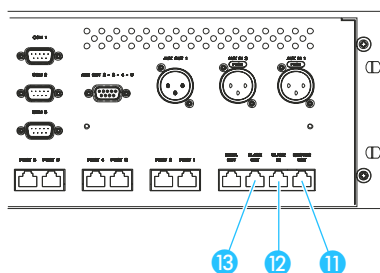


Interconnecting several central units

If you have to interconnect several central units, we recommend mounting the central units into a rack.

To interconnect the central units:

- ▶ At the first central unit, connect the black RJ 45 plug of the system cable to the MASTER OUT socket ⑪. If the SLAVE IN socket ⑫ of a central unit is not connected, this central unit automatically becomes the “master”.
- ▶ Connect the grey RJ 45 plug of the system cable connected to the “master” to the SLAVE IN socket ⑫ of the second central unit. If the SLAVE IN socket ⑫ of a central unit is connected, this central unit automatically becomes a “slave”.
- ▶ To connect additional “slaves”, connect the SLAVE OUT socket of the first “slave” to the SLAVE IN socket of the following “slave”, and so on.



Note!

The entire conference and interpretation system is configured, managed and controlled exclusively via the "master" central unit. All operating controls on the "slaves" are locked. This is indicated by a "key" symbol (⌘) in the lower right corner of the display.

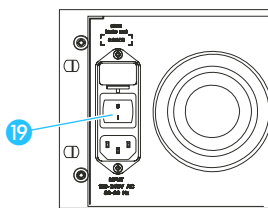
Turning the central units on and off

When turning on a conference and interpretation system with several central units, it is important that the central units are turned on in the correct order.

- ▶ First turn on the "master" central unit.
- ▶ Then turn on the "slave" central units in the order in which they are connected to the "master".

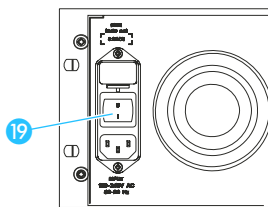
To turn a central unit on:

- ▶ Set the POWER switch 19 to position "I".
The consoles which are powered via this central unit are ready for operation as soon as they are initialized.
The start display is shown on the LC display of this central unit.



To turn a central unit off:

- ▶ Set the POWER switch 19 to position "0".
The display goes off. All consoles which were powered via this central unit are also turned off.

**Note!**

It is, however, possible to simultaneously turn on interconnected central units via a switchable multiple socket.

Connecting additional equipment

Via the two **audio inputs** AUX IN 1 and AUX IN 2 of the central unit, you can connect microphones with suitable preamplifiers or you can feed audio signals from additional audio equipment to the conference system.

The external audio signals are fed to the floor channel which is output via the consoles' built-in loudspeakers.

The output signal of the floor channel is available at the two **audio outputs** AUX OUT 1 and AUX OUT 2. Via the three audio outputs AUX OUT 3 to 5, you can output any desired channel (floor channel or interpretation channels).

Via the audio outputs, you can:

- connect a PA system via which the floor channel or an interpretation channel can be transmitted to e.g. the foyer or another room,

- transmit the audio signal of the floor channel or an interpretation channel as “original soundtrack” to a broadcasting station,
- connect an infrared language distribution system to the central unit, allowing guests or participants who don’t have their own conference console to follow the conference via infrared headphones. These guests or participants can choose between the floor channel and up to 28 interpretation channels.

Optionally, you can connect an SDC 8000 AO analog output unit to the central unit. The analog output unit features nine XLR-3M audio outputs via which you can output the floor channel and up to eight additional interpretation channels and to which you can connect external equipment such as a recording unit, etc.

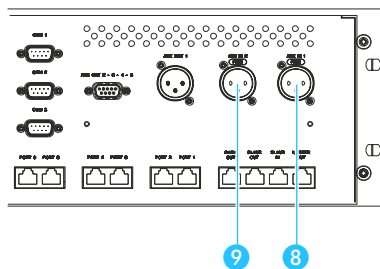
Connecting external audio sources

You can connect external audio sources such as wired microphones, wireless microphone systems, the audio output of a video recorder, a CD player, etc. to the central unit. The audio sources to be connected must deliver a balanced mono signal at the XLR-3F sockets.

The external audio signals are fed to the floor channel which is output via the consoles’ built-in loudspeakers.

To connect an audio source:

- ▶ Use an audio cable with XLR-3 connectors to connect the audio source to one of the XLR-3F sockets (AUX IN 1 **8** or AUX IN 2 **9**) of the central unit.
- ▶ If necessary, adapt the input sensitivity and the volume of the audio input via the central unit’s operating menu (see “Adjusting the input sensitivity of an audio input” on page 96 and “Adjusting the input level of an audio input” on page 96).



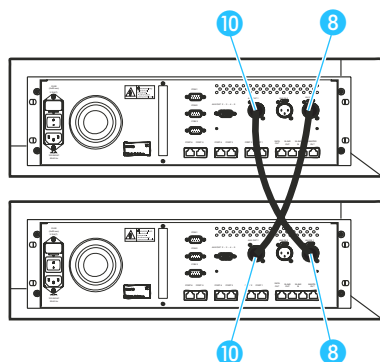
You can turn the audio inputs on and off via the central unit’s operating menu (see “Turning the audio inputs or outputs on and off” on page 95).

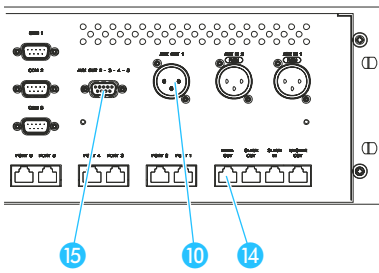
Carrying out remote conferences

Instead of connecting an external audio source to the audio input of your conference system, you can connect the audio output of a conference system installed in a separate room to carry out a remote conference. The participants of both conferences can then participate in a common conference.

To connect two conference systems installed in separate rooms, you require two XLR cables with two XLR-3 connectors respectively:

- ▶ Connect the audio input AUX IN 1 **8** of the first central unit to the audio output AUX OUT 1 **10** of the second central unit.
- ▶ Connect the audio input AUX IN 1 **8** of the second central unit to the audio output AUX OUT 1 **10** of the first central unit.
- ▶ From the central unit’s operating menu, choose “Di st. Conf. = ON” to prevent echo (see “Configuring the audio outputs for remote conferencing” on page 95).





Connecting PA systems, recording units, etc.

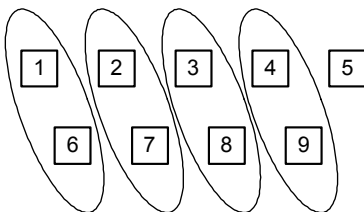
Via the audio outputs you can connect e.g. a PA system, a recording unit, etc.

Connect the desired unit as follows:

- ▶ The signals of the floor channel are available at the XLR-3M audio output AUX OUT 1 (10) and the 9-pole sub-D socket AUX OUT 2 (15).
- ▶ The signals of up to three interpretation channels are available at the outputs AUX OUT 3-4-5 (15) of the 9-pole sub-D socket.
- ▶ If an SDC 8000 AO analog output unit is connected to the DATA OUT socket (14) of the central unit, additional channels can be output via the analog output unit's XLR-3M audio outputs.

Pin assignment of the 9-pole sub-D socket (AUX OUT 2-3-4-5)

When connecting external equipment to the 9-pole sub-D socket (AUX OUT 2-3-4-5 (15)), please observe the following pin assignment:



PIN	SIGNAL
1	Aux Out 2
2	Aux Out 3
3	Aux Out 4
4	Aux Out 5
5	Not connected
6	GND
7	GND
8	GND
9	GND

The audio signal of the floor channel is always available at the two outputs AUX OUT 1 (XLR-3M audio output) and AUX OUT 2 (pin 1 and 6 of the 9-pole sub-D socket). This assignment cannot be changed!

The channel assignment for the three other audio outputs can be changed as described in the section "Assigning a channel to an audio output" on page 95. You can assign these outputs any interpretation channel or the floor channel.

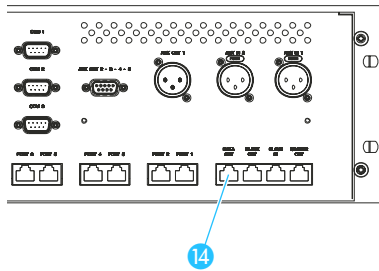
Note!

The audio signal of the channel assigned to the output AUX OUT 4 (pin 3 and 8 of the 9-pole sub-D socket) is also available at the headphone output of the central unit!

Connecting an SDC 8000 AO analog output unit to the central unit

You can output additional interpretation channels via the SDC 8000 AO analog output unit's transformer balanced XLR-3M audio outputs or via the unbalanced phono sockets next to the XLR-3 outputs.

To connect an analog output unit to the central unit:



- ▶ Connect the black RJ 45 plug of the system cable to the DATA OUT socket 14 of the central unit.
- ▶ Connect the grey RJ 45 plug of the system cable to the DIGITAL BUS IN socket of the analog output unit.

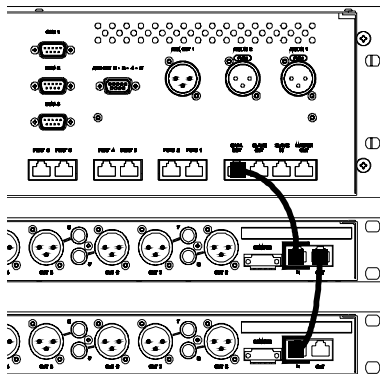
Daisy-chaining SDC 8000 AO analog output units

To daisy-chain SDC 8000 AO analog output units:

- ▶ Connect the DIGITAL BUS OUT socket of the first SDC 8000 AO to the DIGITAL BUS IN socket of the second SDC 8000 AO, and so on.

Note!

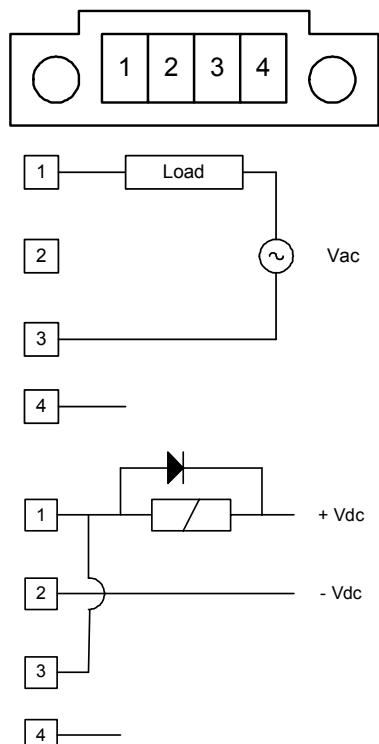
You can connect up to four daisy-chained SDC 8000 AO analog output units to the central unit.



Connecting external equipment to the SDC 8000 AO's phoenix connector

The SDC 8000 AO is fitted with a voltage-free contact (phoenix connector) which turns external equipment (e.g. a recording unit) on and off. When a console is active, the contact is closed and when no console is active, the contact is open.

The phoenix connector is numbered from left to right as shown in the illustration on the left.



If you switch AC loads such as e.g. an electronic relay, the contacts 1 and 3 will be opened or short-circuited. Therefore, make sure that the following limitations are not exceeded!

Maximum load current (continuous) = 1 A

Maximum load voltage = 60 V

On-resistance = 0.5 Ω

If you connect DC sources such as e.g. a relay coil, make sure that the following limitations are not exceeded!

Maximum load current (continuous) = 1.8 A

Maximum load voltage = 60 V

On-resistance = 0.15 Ω

Connecting a PC to the central unit

If your system comprises interpreter consoles, you require a PC with two serial interfaces:

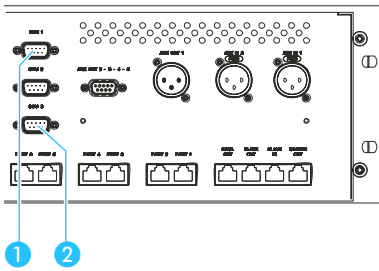
- The conference management software accesses the conference configuration via the central unit's COM 3 interface ②.
- The interpreter management software accesses the interpreter configuration via the central unit's COM 1 interface ①.

To connect a PC to the central unit:

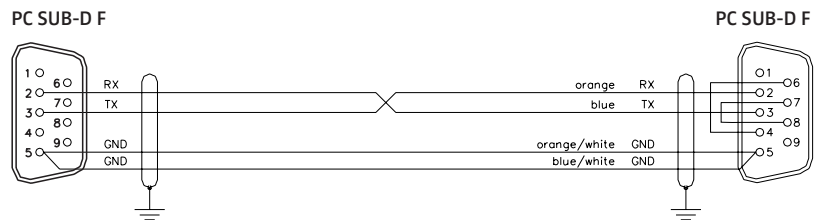
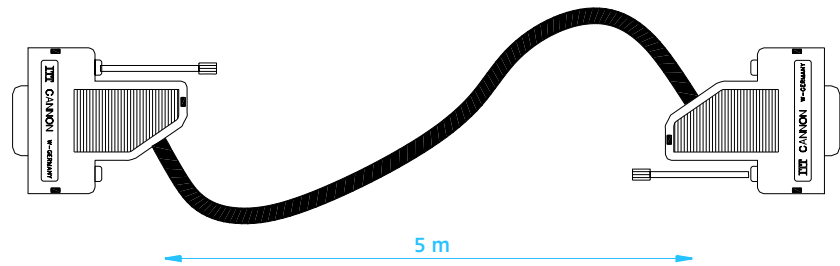
- ▶ Connect one serial interface of the PC to the COM 3 interface ② of the central unit.
- ▶ Connect the other serial interface of the PC to the COM 1 interface ① of the central unit.

Note!

If you are using more than one central unit, the PC has to be connected to the "master" central unit.



For connecting a PC to the central unit, you require the cables shown below:



- Pin 1: Not connected
- Pin 2: RX Receive
- Pin 3: TX Transmit
- Pin 4: Not connected
- Pin 5: GND
- Pin 6: Not connected
- Pin 7: Not connected
- Pin 8: Not connected
- Pin 9: Not connected

- Pin 1: Not connected
- Pin 2: RX Receive
- Pin 3: TX Transmit
- Pin 4: DTR Data Terminal Ready
- Pin 5: GND
- Pin 6: DSR Data Set Ready
- Pin 7: RTS Request to Send
- Pin 8: CTS Clear to send
- Pin 9: Not connected

Configuring the SDC 8000 system

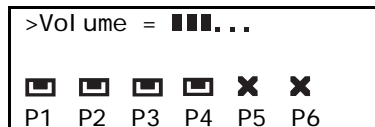
After having connected all system components, you have to configure your conference and interpretation system via the central unit's operating menu.

Introduction to the central unit's operating menu

Via the central unit's operating menu, the SDC 8000 conference and interpretation system can be configured for any room, any number of participants and any conference use.

Note!


General information on how to use the central unit's operating menu is given in the section "Working with the central unit's operating menu" on page 37.




The start display

After turning on the central unit, the start display appears, showing:

- the current volume setting for the consoles' built-in loudspeakers
- to which of the ports P1 to P6 of the central unit a cable string with consoles is connected

: means: A cable string is connected to this port.

: means: No cable string is connected to this port (see section "Making a system diagnosis" on page 98).

To get from the start display into the central unit's operating menu:

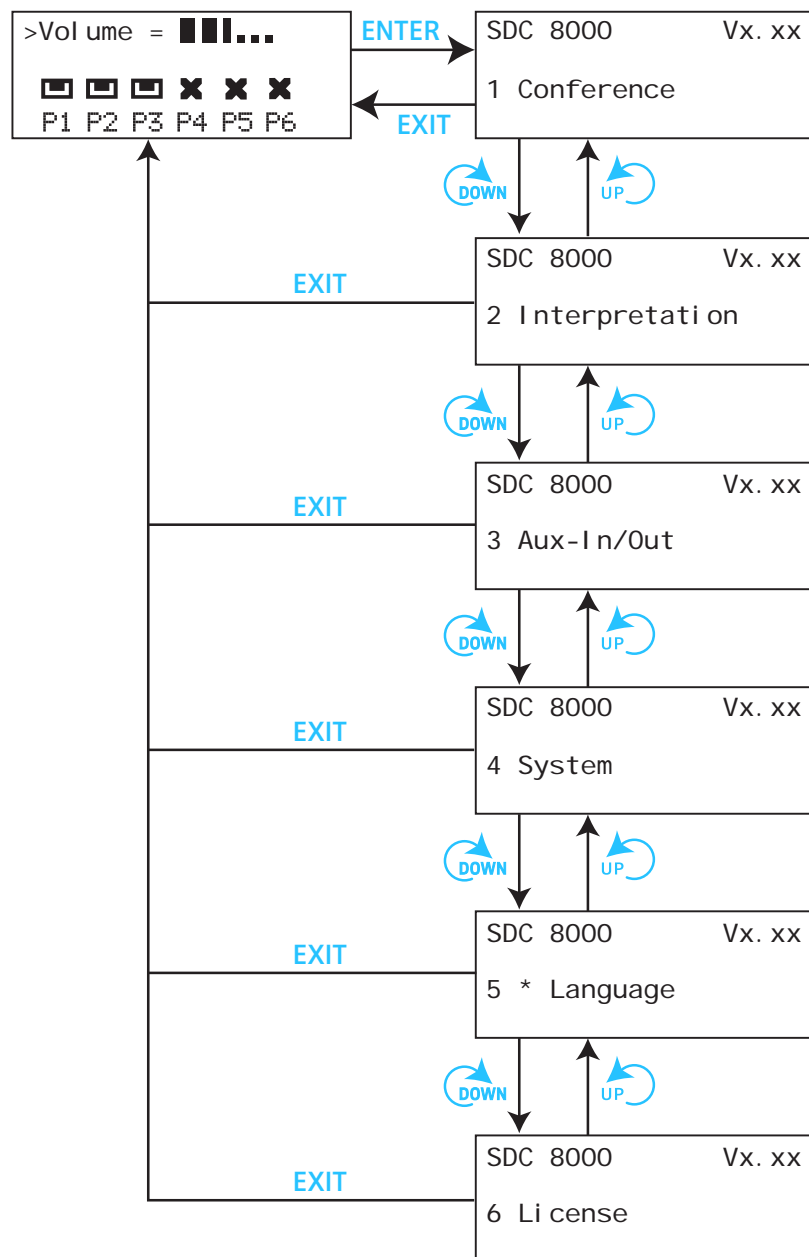
- ▶ Press the ENTER key.
The "Conference" main menu appears on the display.

The six main menus

The central unit's operating menu consists of six main menus:

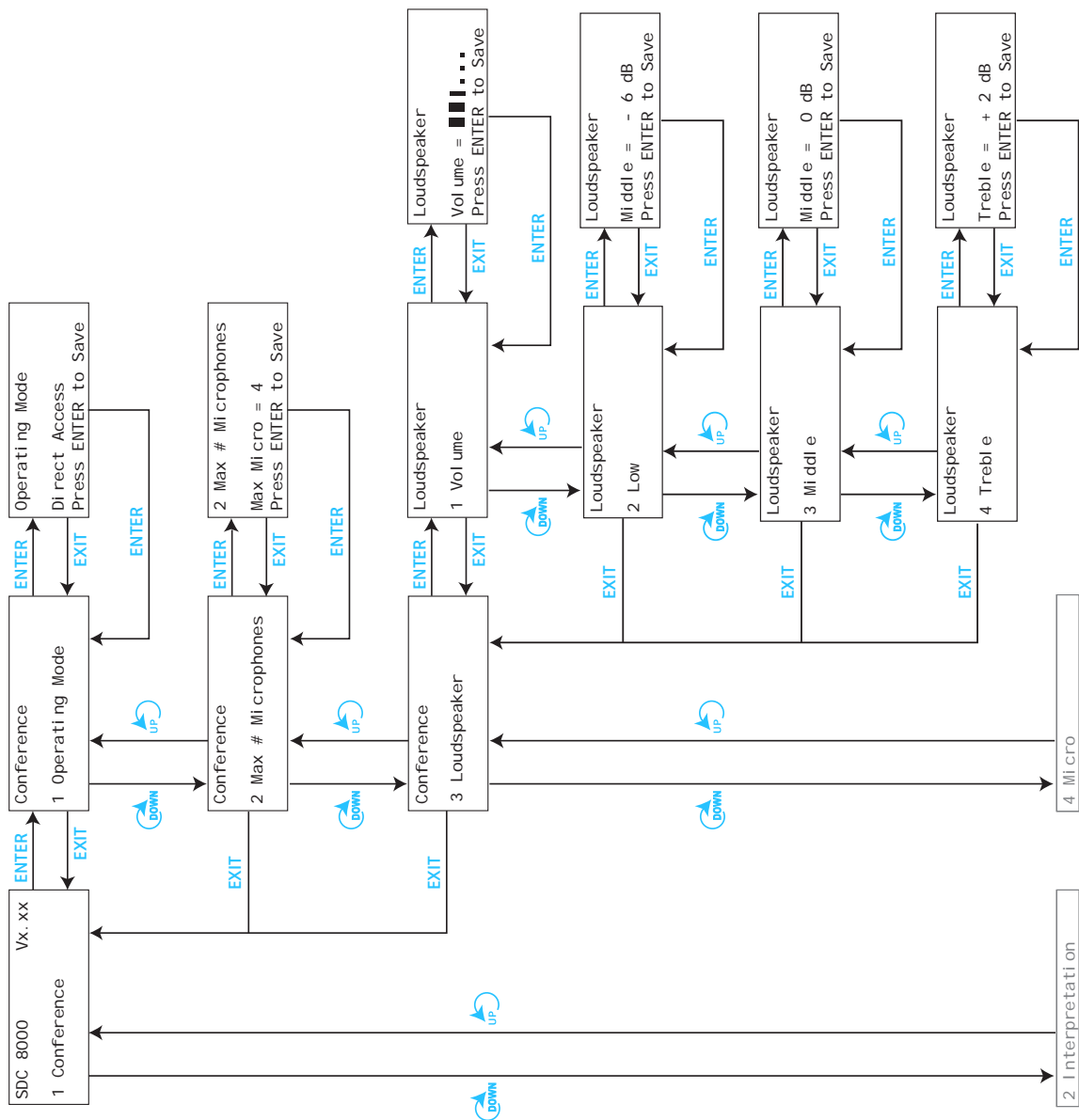
- Via the "Conference" menu, you can configure the conference system and the conference consoles.
- Via the "Interpretation" menu, you can configure the interpretation system and the interpreter consoles.
- Via the "Aux-In/Out" menu, you can choose the audio settings for the AUX inputs and outputs.
- Via the "System" menu, you can make a system diagnosis as well as activate and configure optional components for monitoring and controlling the system.
- Via the "Language" menu, you can choose the language of the operating menu.
- Via the "License" menu, you can display the serial number of the central unit, display the current license code and enter a new license code.

The following overview shows how to navigate through the main menus.

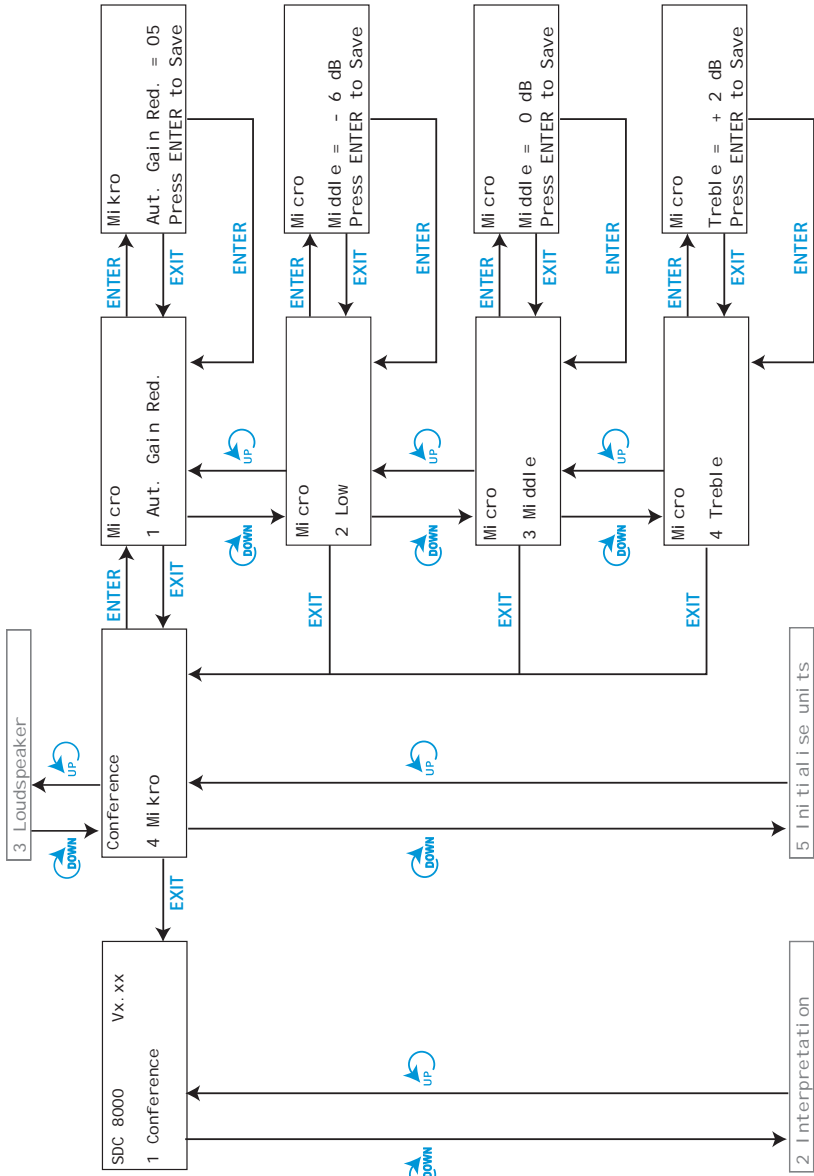


An overview of the settings that can be adjusted in the main and submenus is given on the following pages.

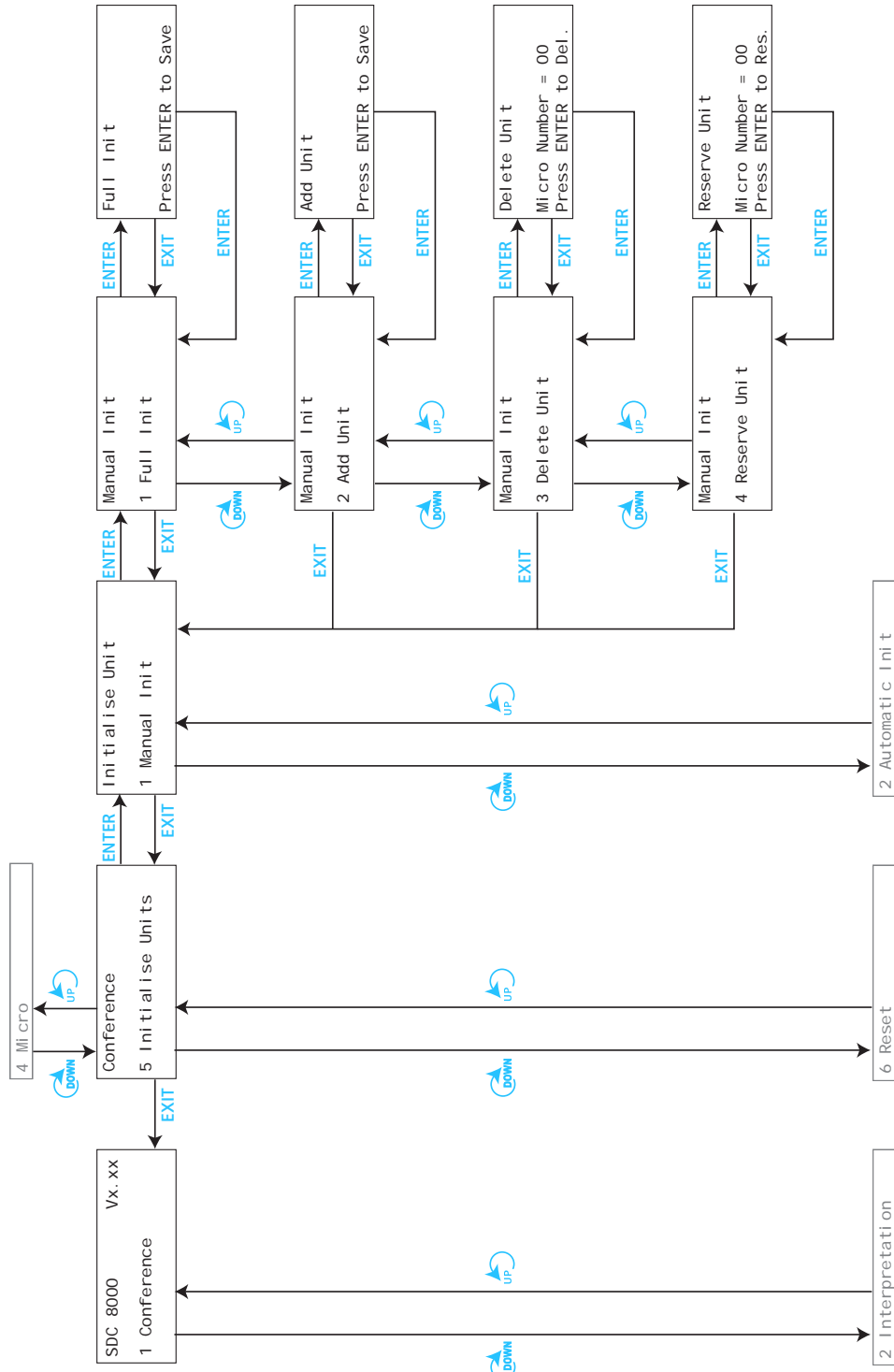
The submenus of the "Conference" menu (part 1 of 6)



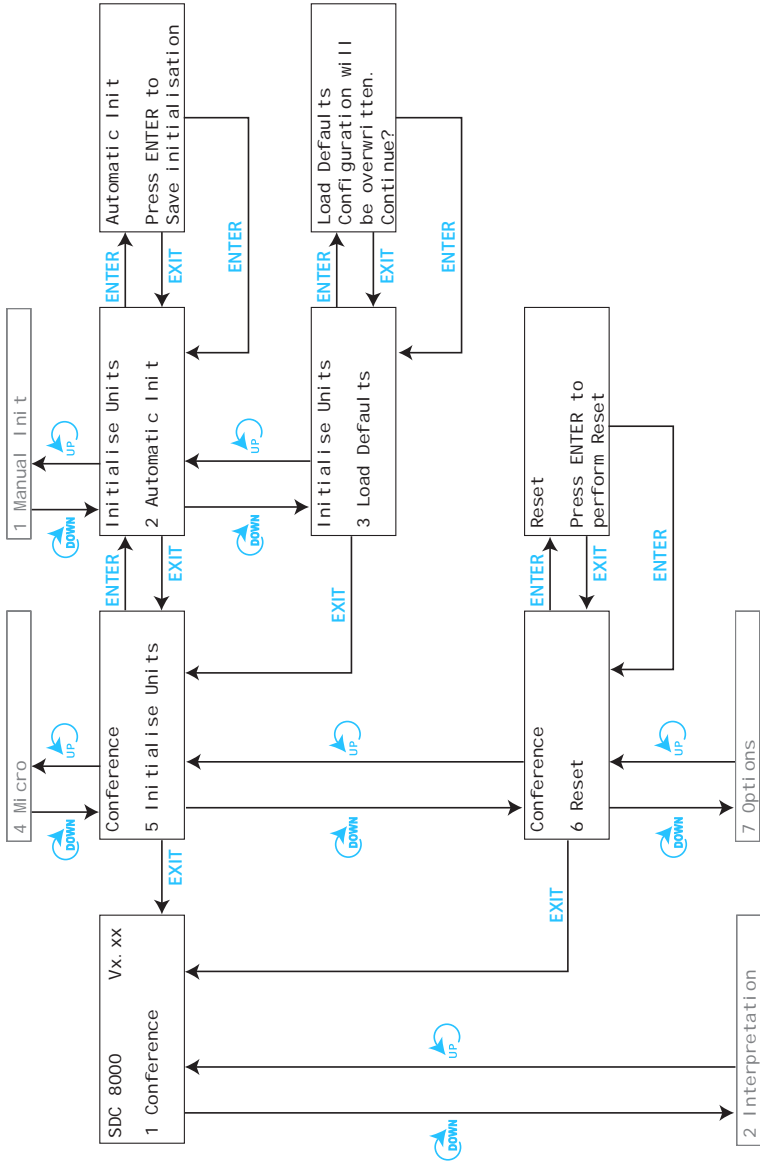
The submenus of the "Conference" menu (part 2 of 6)



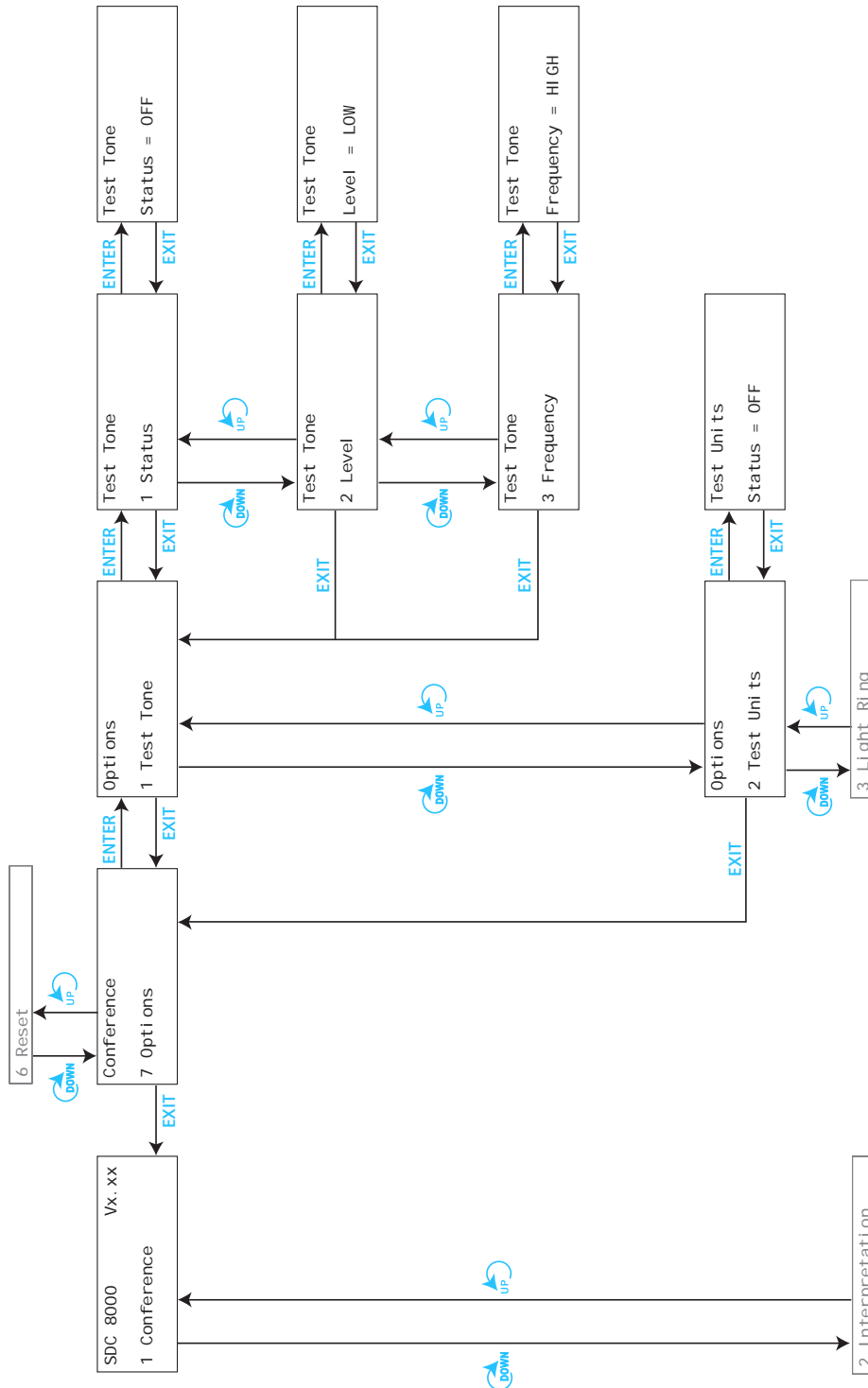
The submenus of the "Conference" menu (part 3 of 6)



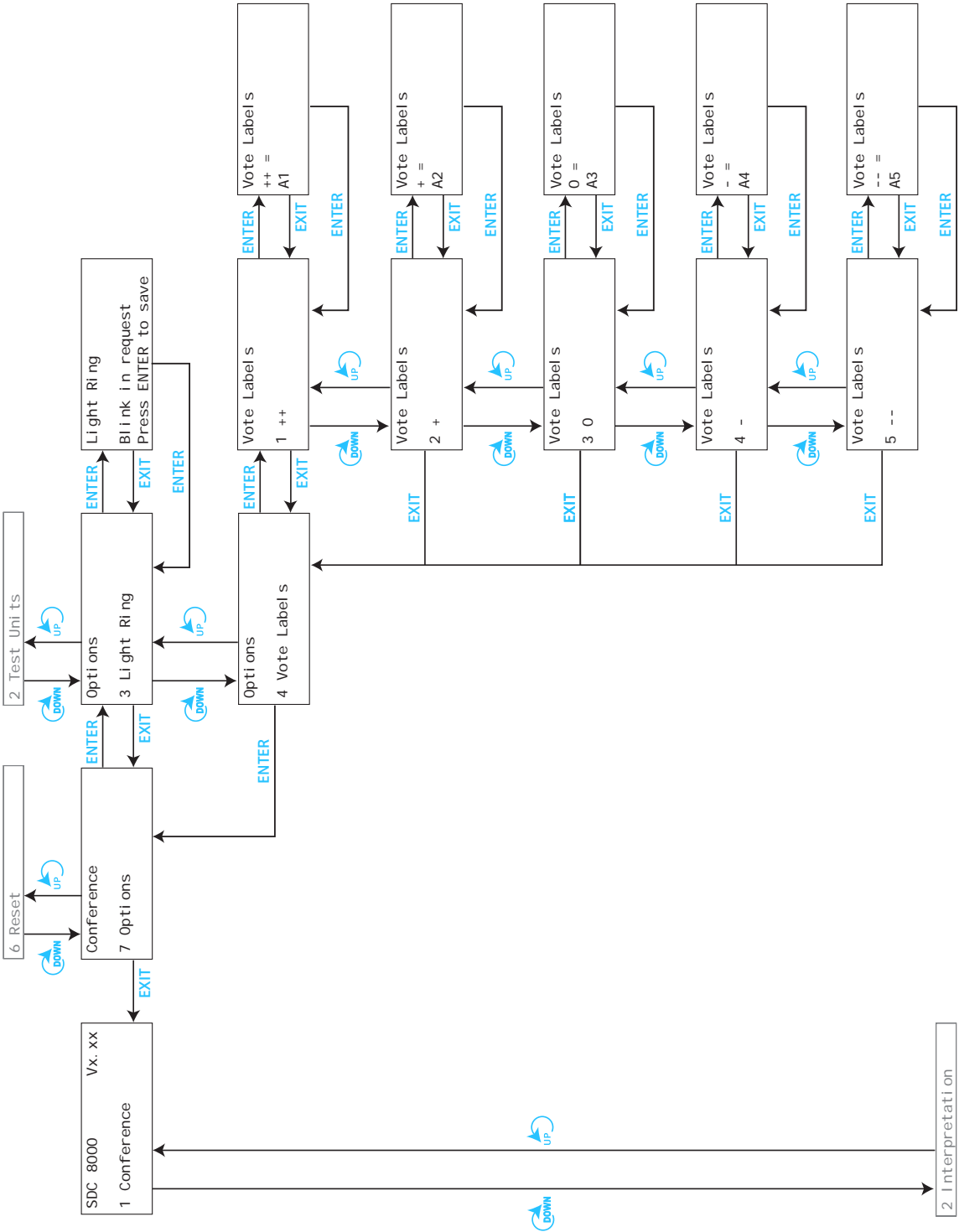
The submenus of the "Conference" menu (part 4 of 6)



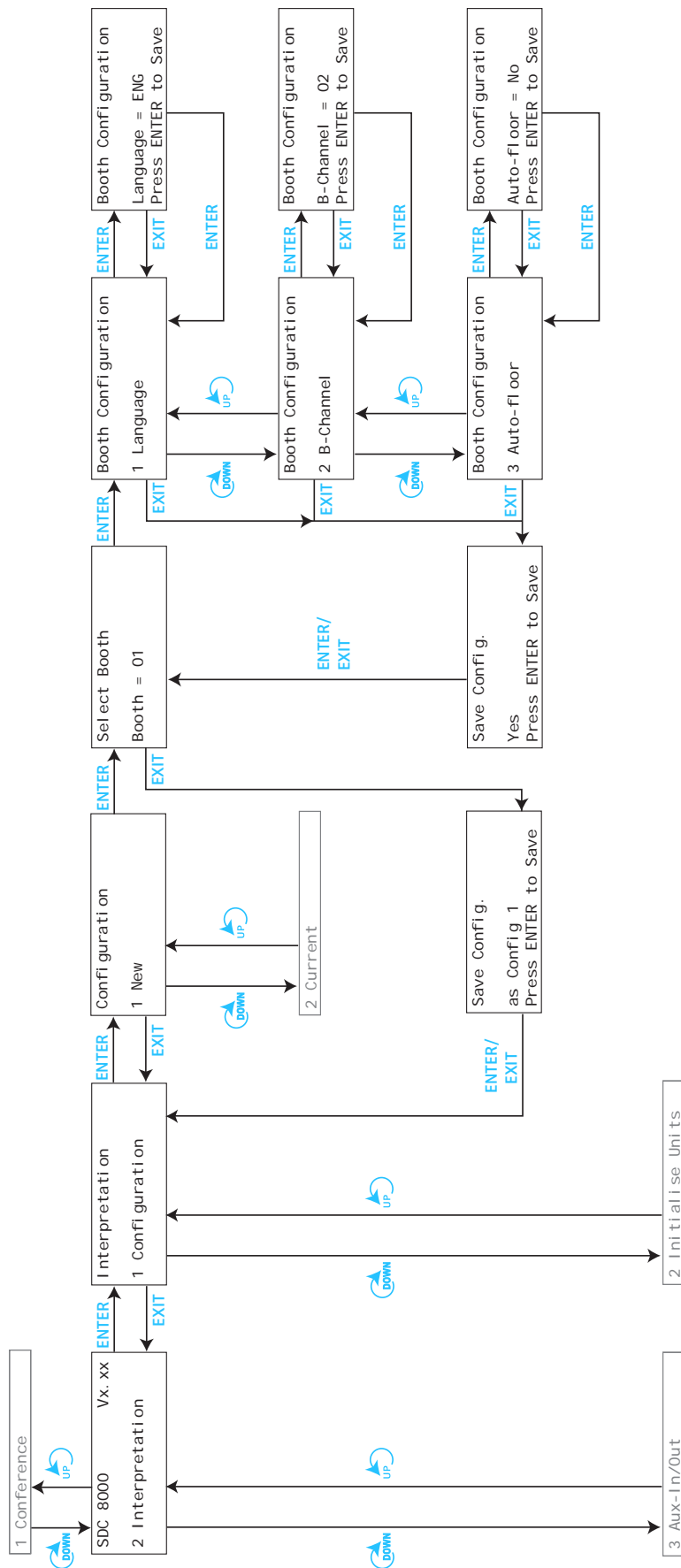
The submenus of the "Conference" menu (part 5 of 6)



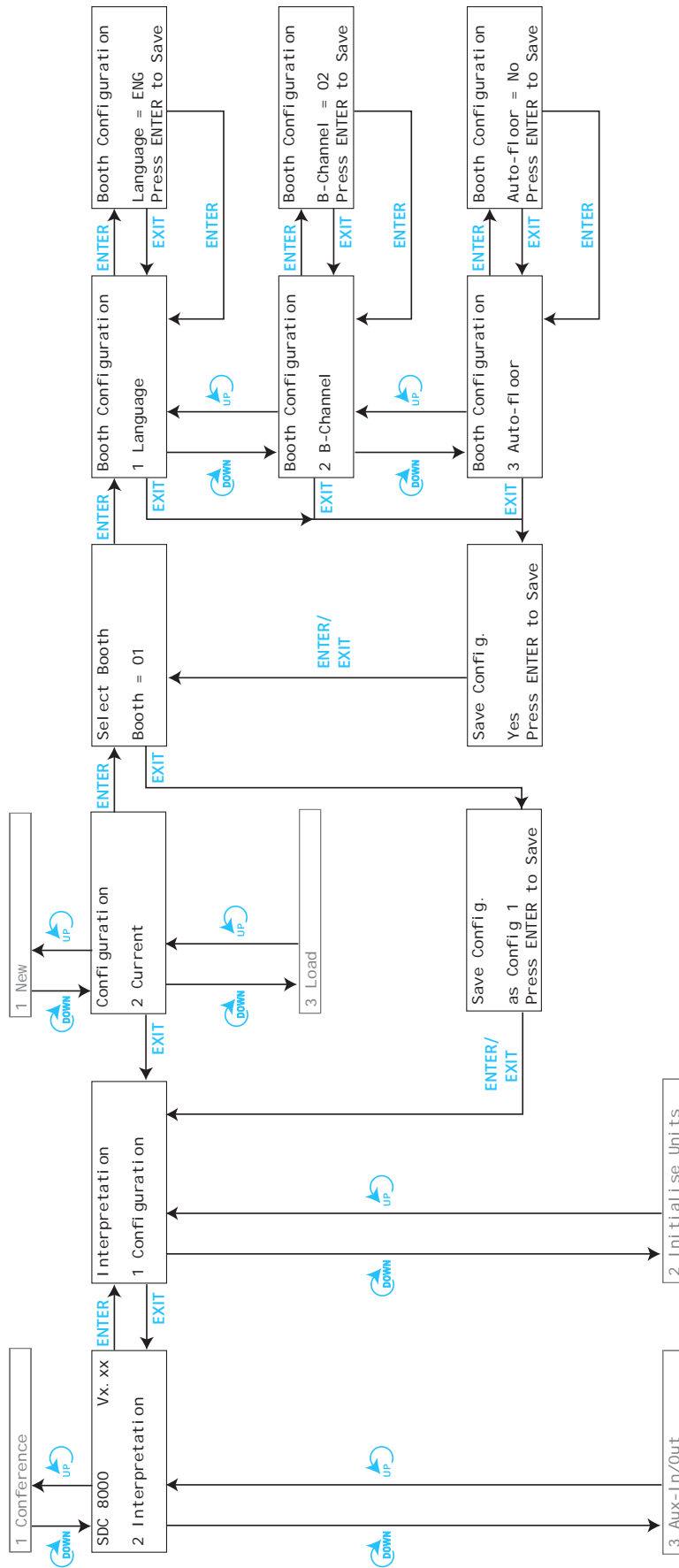
The submenus of the "Conference" menu (part 6 of 6)



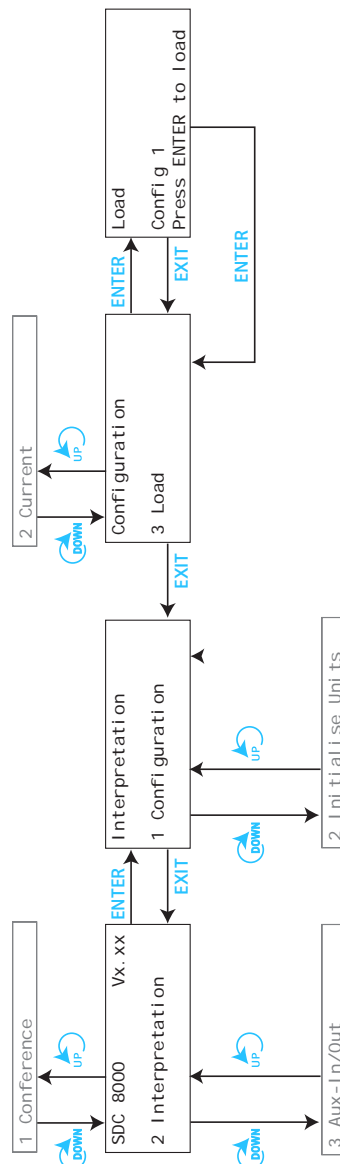
The submenus of the "Interpretation" menu (part 1 of 5)



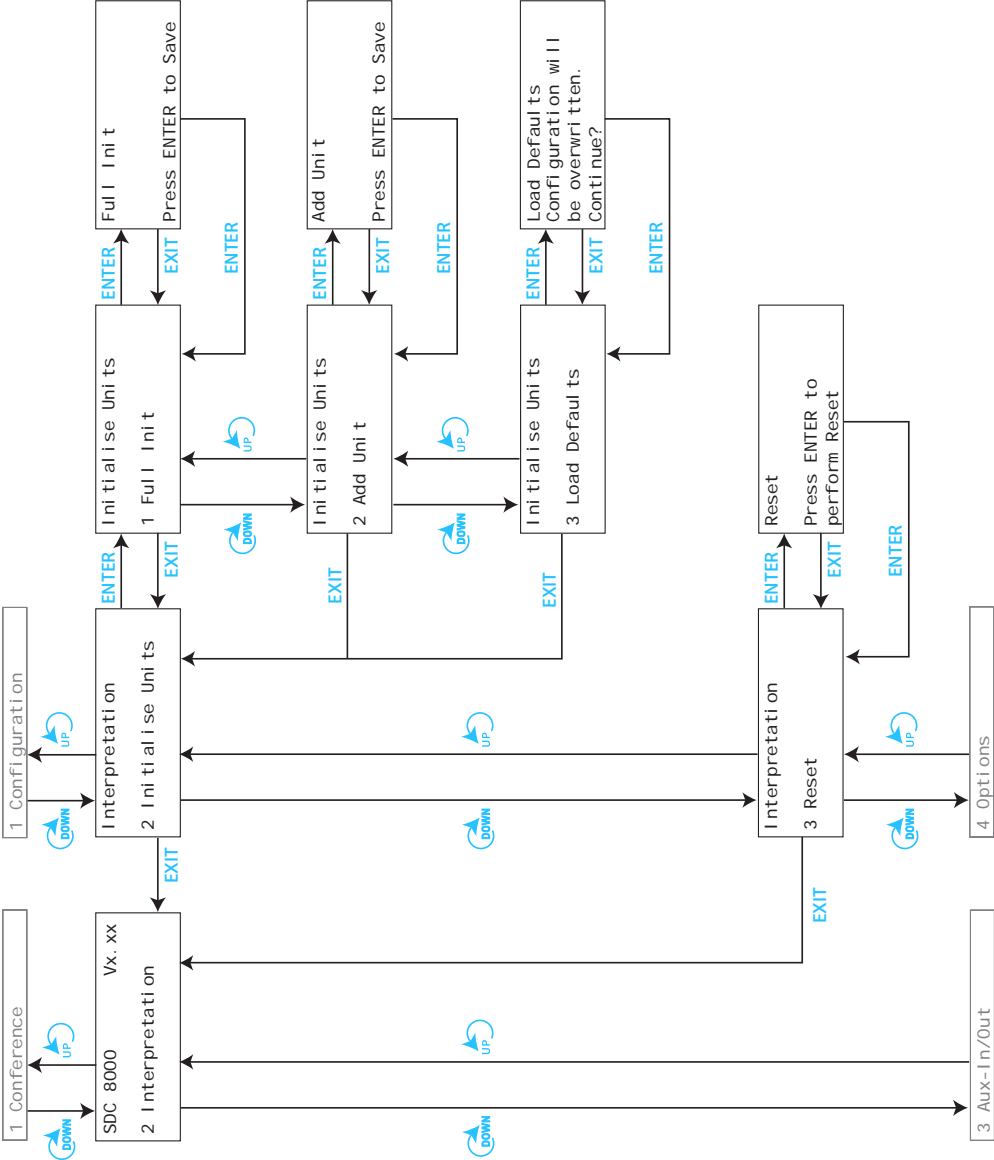
The submenus of the "Interpretation" menu (part 2 of 5)



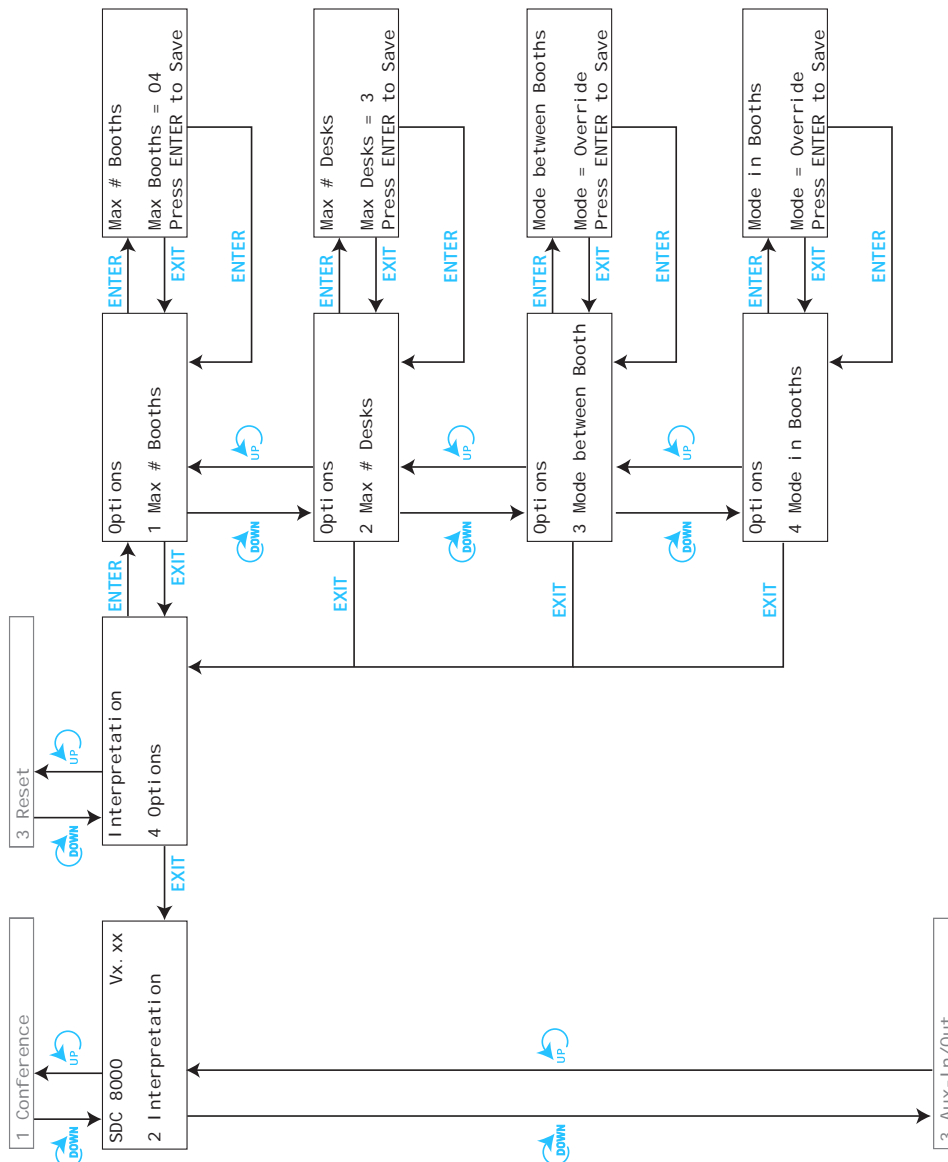
The submenus of the "Interpretation" menu (part 3 of 5)



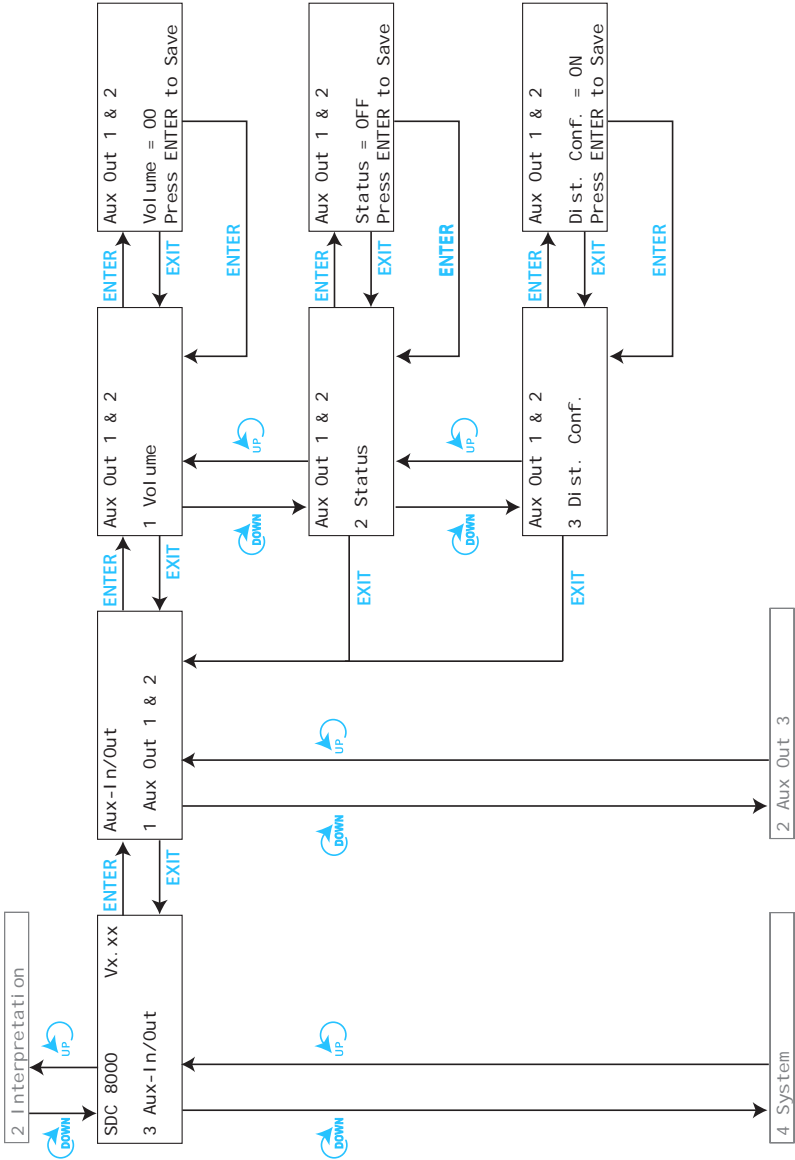
The submenus of the "Interpretation" menu (part 4 of 5)



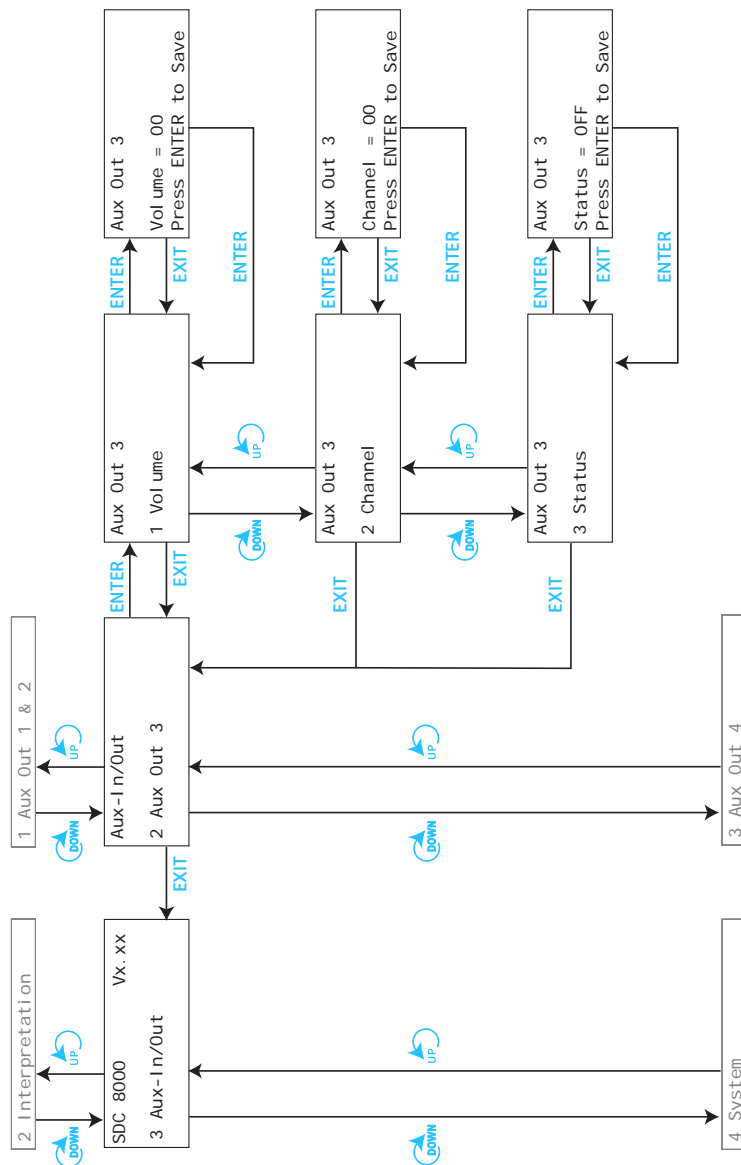
The submenus of the "Interpretation" menu (part 5 of 5)



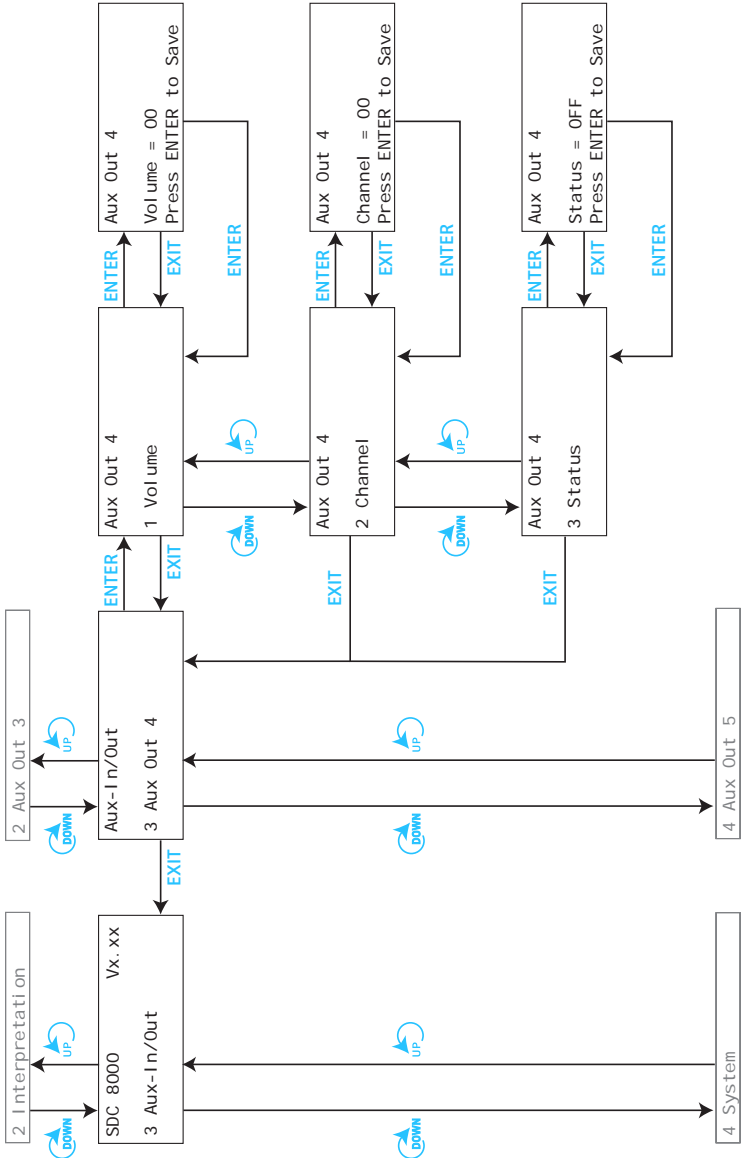
The submenus of the "Aux-In/Out" menu (part 1 of 6)



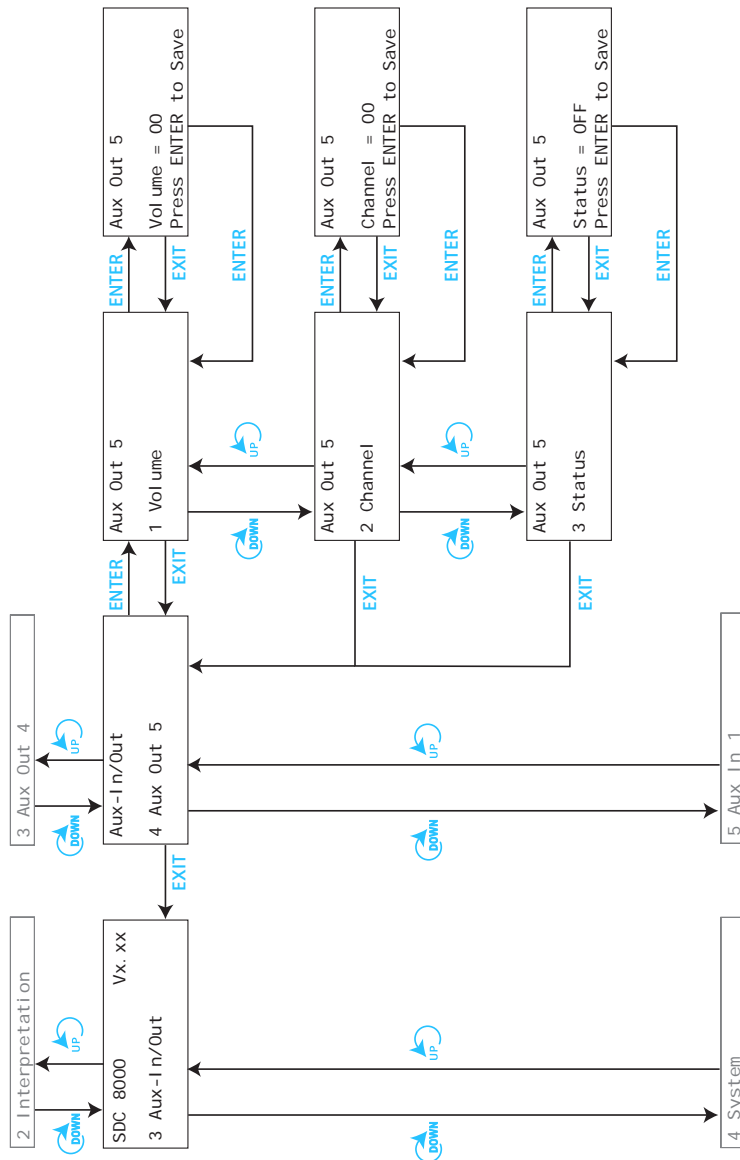
The submenus of the "Aux-In/Out" menu (part 2 of 6)



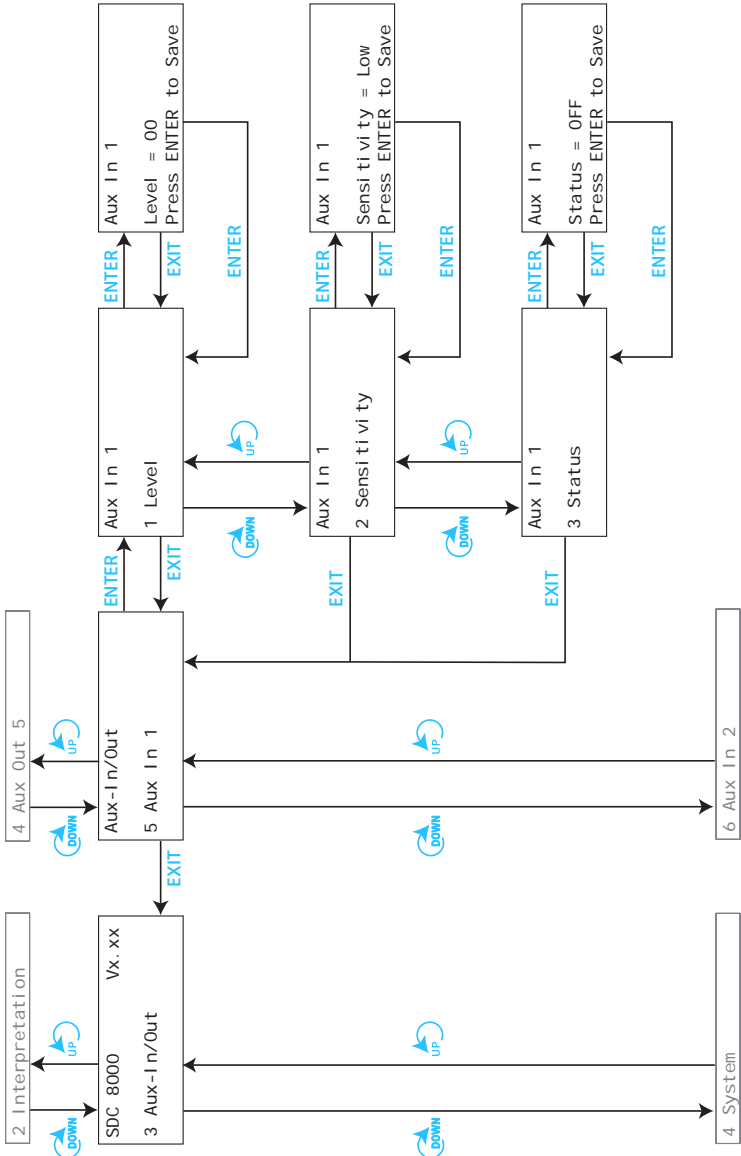
The submenus of the "Aux-In/Out" menu (part 3 of 6)



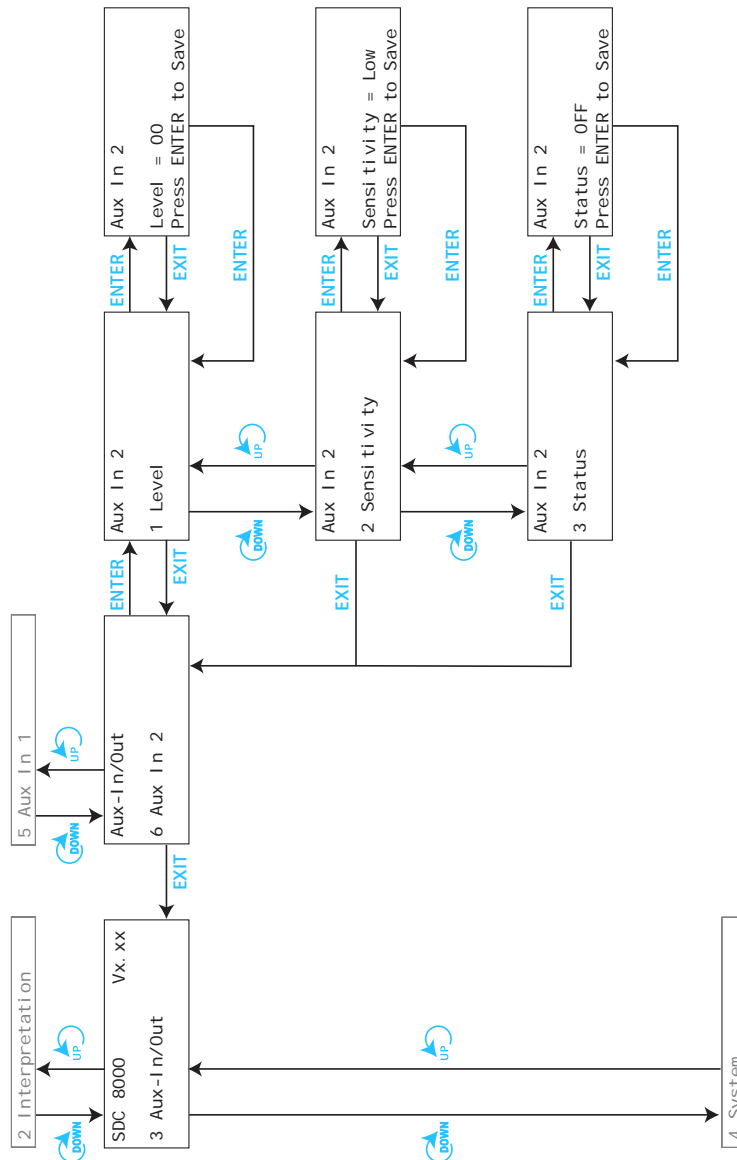
The submenus of the "Aux-In/Out" menu (part 4 of 6)



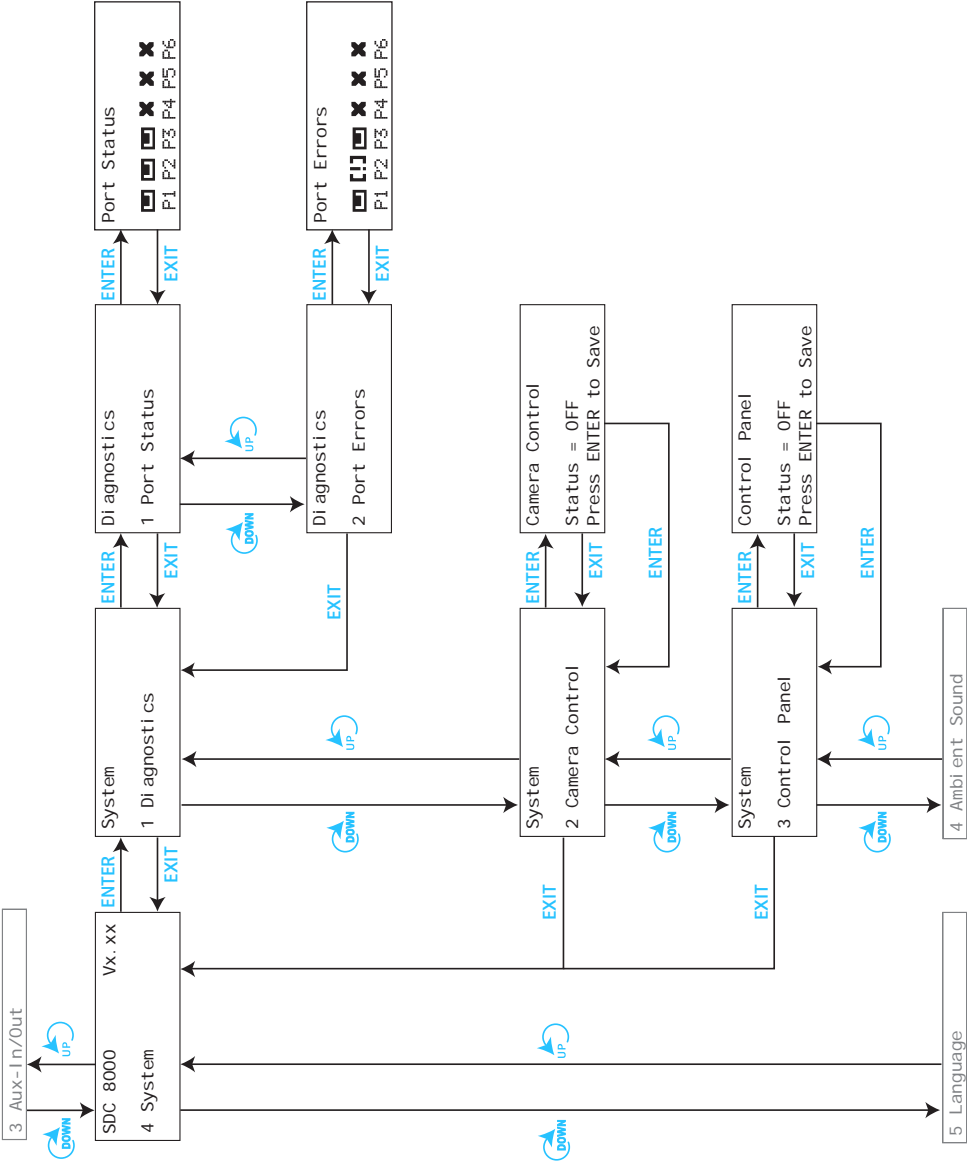
The submenus of the "Aux-In/Out" menu (part 5 of 6)



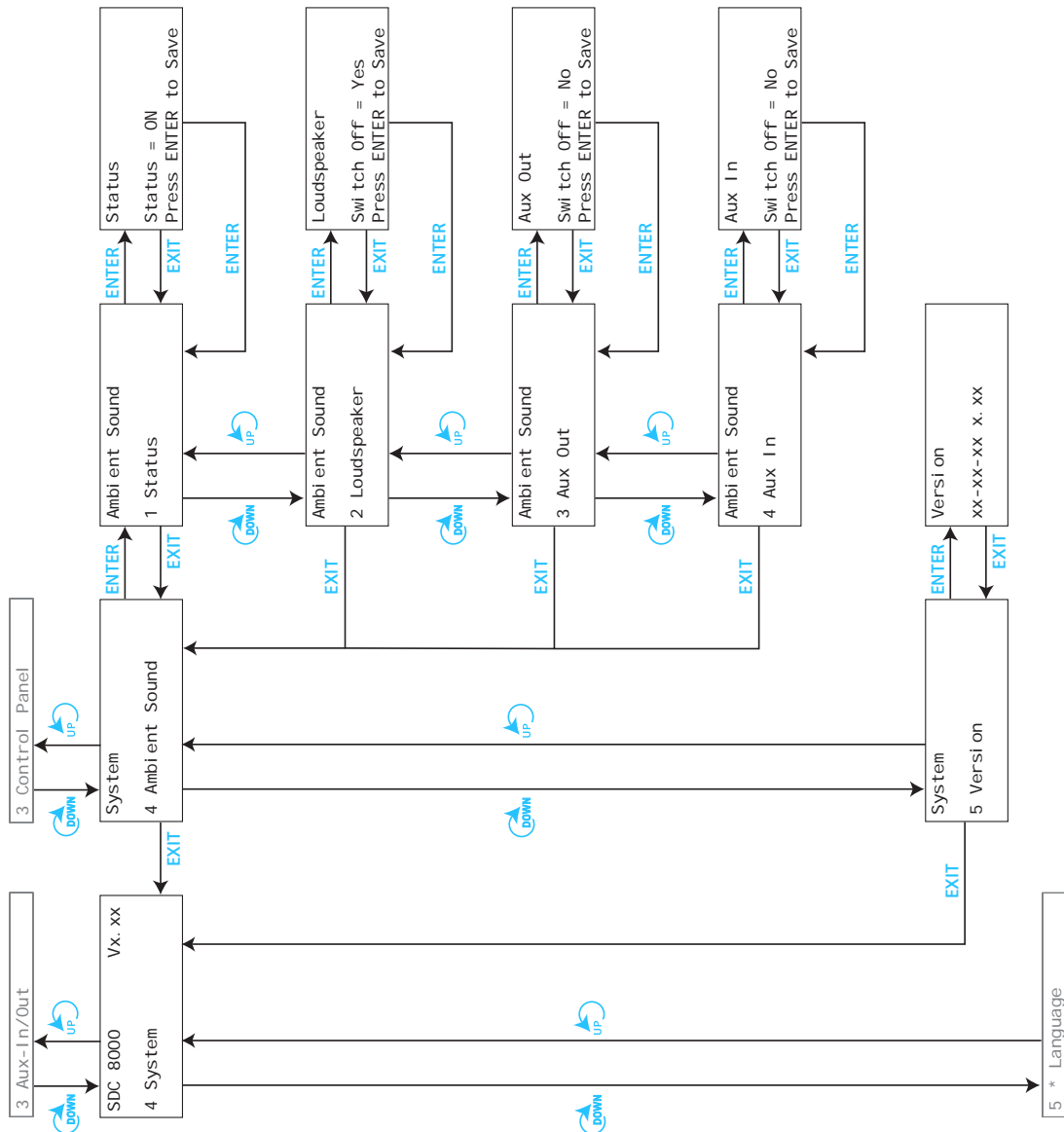
The submenus of the "Aux-In/Out" menu (part 6 of 6)



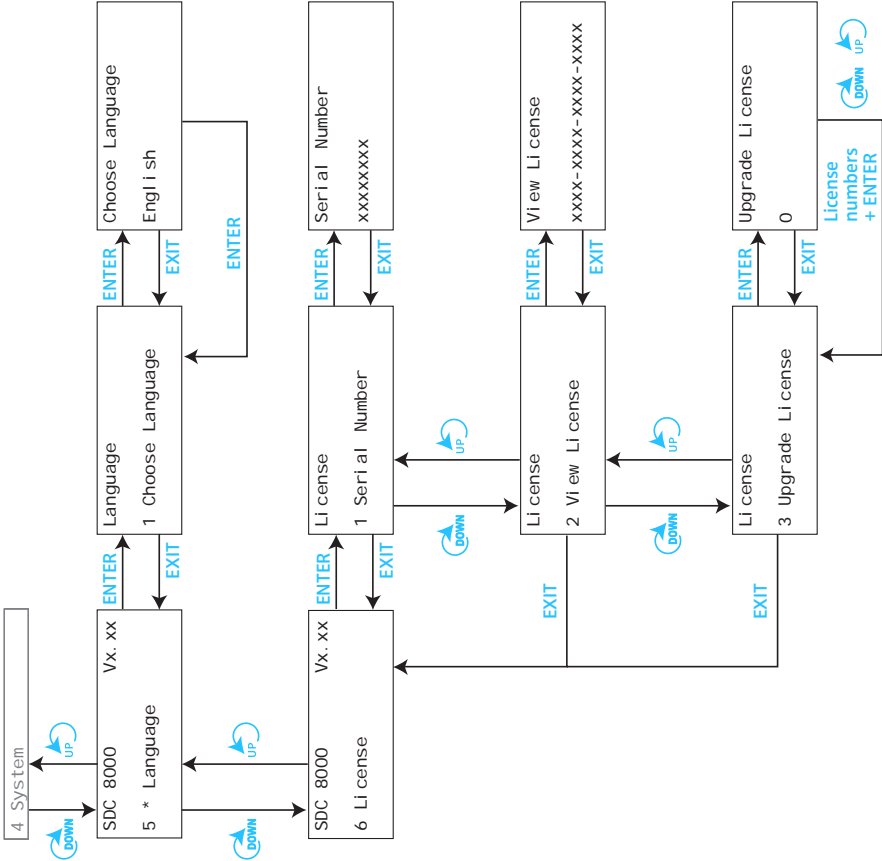
The submenus of the "System" menu (part 1 of 2)



The submenus of the "System" menu (part 2 of 2)



The submenus of the "Language" and the "License" menu (part 1 of 1)



Setting the volume of the consoles' built-in loudspeakers

The bars on the start display indicate the current volume setting for the consoles' built-in loudspeakers.

To set the volume of the consoles' built-in loudspeakers:

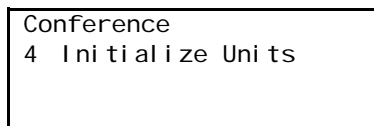


- ▶ Turn the jog wheel 4 on the central unit.
If you turn the jog wheel clockwise, the volume of the consoles' built-in loudspeakers is increased, if you turn the jog wheel counter-clockwise, the volume is reduced.

Configuring the conference system

Turning on the central unit for the first time

When turning on the central unit for the first time, the text "Init Refused" is shown on the displays of the conference consoles connected to the central unit. The conference consoles cannot be detected by the central unit, since they have not yet been assigned a microphone number. Your conference system is not yet operational.



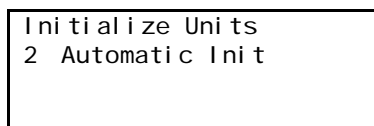
- ▶ First, initialize the conference consoles in order to assign each console an internal microphone number. You can choose between two initialization modes: automatic and manual initialization.

Note!

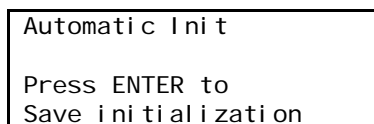
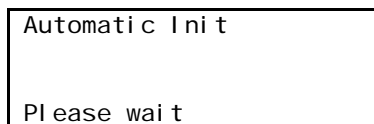
Once you have configured your conference and interpretation system, the configuration will be retained in memory on turn-off. When turning on the central unit again, your conference system is immediately operational.

Automatically initializing all conference consoles

The automatic initialization allows you to initialize all conference consoles at once. In this case, however, the consoles are assigned microphone numbers in an arbitrary order.



- ▶ From the central unit's operating menu, choose "Conference", "Initialize Units" and "Automatic Init" one after the other. The text "Please wait" is shown on the display.



- ▶ When the text "Press ENTER to Save initialization" is shown on the display, press the ENTER key. All connected conference consoles are initialized automatically and any previous configuration is deleted.

Manually initializing all conference consoles

If it is important that the conference consoles are assigned microphone numbers in a certain order, we recommend choosing the manual initialization.

```
Initialize Units
1 Manual Init
```

- ▶ From the central unit's operating menu, choose "Conference", "Initialize Units" and "Manual Init" one after the other. The red signal light rings 12 and the "Microphone active" LEDs 14 on all conference consoles start flashing.

Note!

Only the signal light rings of the conference consoles start flashing while the signal light rings of the interpreter consoles remain dark! Initialization of the interpreter consoles is via the "Interpretation" menu.

```
Full Init

Press ENTER to Save
```

- ▶ Choose "Full Init".
- ▶ One after the other, press the MICRO key 15 of all conference consoles in the order in which they are to be initialized. As soon as the initialization of a conference console is accepted by the central unit, the red signal light ring of the console goes off.
- ▶ Press the ENTER key to save this configuration.

Loading the factory-preset default configuration for the conference system

If necessary, you can load the factory-preset default configuration for the conference system.

Attention!

Loading the factory-preset default configuration will delete all setting of your current configuration! Your conference system then has to be re-configured to become operational!

To load the factory-preset default configuration for the conference system:

```
Initialize Units
3 Load Defaults
```

- ▶ From the central unit's operating menu, choose "Conference", "Initialize Units" and "Load Defaults" one after the other. The text "Configuration will be overwritten. Continue?" is shown on the display.
- ▶ Press the ENTER key to replace your current configuration by the factory-preset default configuration.

Adding a conference console to an already existing configuration

To add newly connected conference consoles to an already existing configuration:

```
Initialize Units
1 Manual Init
```

- ▶ From the central unit's operating menu, choose "Conference", "Initialize Units" and "Manual Init" one after the other. The red signal light rings 12 and the "Microphone active" LEDs 14 on all conference consoles start flashing.

```
Manual Init
2 Add Unit
```

- ▶ Choose "Add Unit".
Only the signal light rings of the conference consoles not yet initialized remain flashing.
- ▶ Press the MICRO key 15 of the conference consoles which you want to add to your configuration.
As soon as the initialization of a conference console is accepted by the central unit, the signal light ring of the console goes off.

Removing a conference console from an already existing configuration

To remove a conference console from an already existing configuration:

```
Initialize Units
1 Manual Init
```

- ▶ From the central unit's operating menu, choose "Conference", "Initialize Units" and "Manual Init" one after the other.
The red signal light rings 12 and the "Microphone active" LEDs 14 on all conference consoles start flashing.

```
Manual Init
3 Delete Unit
```

- ▶ Choose "Delete Unit".
The text "Micro Number = 00" is shown on the display.

```
Delete Unit
Micro Number = 00

Press ENTER to Del.
```

- ▶ Choose the microphone number of the conference console which you want to delete from your configuration.
The signal light ring of the conference console which is assigned the chosen microphone number remains flashing.
- ▶ Press the ENTER key.
You can now remove the conference console from the cable string.

"Reserving" a microphone number

Before initializing the conference consoles, you can "reserve" certain microphone numbers for a future configuration, thus making sure that a certain conference console is assigned the desired microphone number.

To reserve a microphone number:

```
Initialize Units
1 Manual Init
```

- ▶ From the central unit's operating menu, choose "Conference", "Initialize Units" and "Manual Init" one after the other.

```
Full Init

Press ENTER to Save
```

- ▶ Choose "Full Init".
All previously "reserved" microphone numbers are deleted.
- ▶ Press the ENTER key.
The red signal light rings 12 and the "Microphone active" LEDs 14 on all conference consoles start flashing.

```
Manual Init
4 Reserve Unit
```

- ▶ Choose "Reserve Unit".
The text "Micro Number = 00" is shown on the display.

```
Reserve Unit
Micro Number = 00

Press ENTER to Res.
```

- ▶ Choose the microphone numbers which you want to reserve and press the ENTER key each time you have chosen a microphone number.
The chosen microphone numbers are reserved.

```
Initialize Units
1 Manual Init
```

```
Delete Unit
Micro Number = 00
```

```
Press ENTER to Del.
```

```
Manual Init
2 Add Unit
```

To assign a "reserved" microphone number to a conference console to be added to an already existing configuration:

- ▶ From the central unit's operating menu, choose "Conference", "Initialize Units" and "Manual Init" one after the other. The red signal light rings 12 and the "Microphone active" LEDs 14 on all conference consoles start flashing.
- ▶ Choose "Delete Unit". The text "Micro Number = 00" is shown on the display.
- ▶ Choose the "reserved" microphone number and press the ENTER key.
- ▶ Choose "Add Unit". The signal light rings 12 of the conference consoles not yet initialized remain flashing.
- ▶ Press the MICRO key 15 of the conference console to which you want to assign the previously reserved microphone number. The newly added conference console is initialized and assigned the previously reserved microphone number.

Selecting a conference mode

By selecting a certain conference mode, you can strongly influence the character of a discussion:

- You determine the level of control of the chairman.
- You determine whether the conference participants can take the floor any time or if they have to "apply" for comments.

Note!

By pressing the MICRO key 15 of his or her console, the chairman can take the floor any time, regardless of the conference mode chosen. In addition, he or she can turn off all active microphones by pressing the PRIOR. key.

To choose the conference mode:

```
Conference
1 Operating Mode
```

```
Operating Mode
4 Direct Access
```

```
Press ENTER to Save
```

- ▶ From the central unit's operating menu, choose "Conference" and "Operating Mode" one after the other. The current conference mode is shown on the display.
- ▶ Choose the desired conference mode and press the ENTER key.

Note!

The selection of the conference modes "No request", "With request" and "With Req. No clear" only makes sense if your conference and interpretation system is PC controlled.

Setting the speaker limit

You have to set the speaker limit, i.e. the max. number of speakers who can take the floor simultaneously, for the following conference modes:

- "No request"
- "With request"
- "With Req. No clear"
- "Direct Access"

Conference
2 Max # Microphones

- ▶ From the central unit's operating menu, choose "Conference" and "Max # Microphones" one after the other. The current number is shown on the display.

Max # Microphones
Max. Micro = 4

- ▶ Choose the number of speakers who can take the floor simultaneously. The number can be between 1 and 8.
- ▶ Press the ENTER key to save your setting.

Adjusting the audio settings for the consoles' built-in loudspeakers

Via the "Loudspeaker" menu item, you can adjust the audio settings (volume, bass, middle and treble response) for the consoles' built-in loudspeakers.

Conference
3 Loudspeaker

To change the volume setting:

Loudspeaker
1 Volume

- ▶ From the central unit's operating menu, choose "Conference", "Loudspeaker" and "Volume" one after the other. The current volume setting is shown on the display.
- ▶ Choose an new volume setting and press the ENTER key to save your setting.

To change the bass response:

Loudspeaker
2 Low

- ▶ From the central unit's operating menu, choose "Conference", "Loudspeaker" and "Low" one after the other. The current setting for the bass response is shown on the display.
- ▶ Change the value and press the ENTER key to save your setting.

To change the middle response:

Loudspeaker
3 Middle

- ▶ From the central unit's operating menu, choose "Conference", "Loudspeaker" and "Middle" one after the other. The current setting for the middle response is shown on the display.
- ▶ Change the value and press the ENTER key to save your setting.

To change the treble response:

Loudspeaker
4 Treble

- ▶ From the central unit's operating menu, choose "Conference", "Loudspeaker" and "Treble" one after the other. The current setting for the treble response is shown on the display.
- ▶ Change the value and press the ENTER key to save your setting.


```
Conference
5 Micro
```

Adjusting the audio settings for the consoles' microphones

Via the "Micro" menu item, you can adjust the audio settings (automatic gain reduction, bass, middle and treble response) for the consoles' microphones.

If several participants speak simultaneously, feedback and loud hissing can occur. In order to prevent feedback, you can activate the automatic gain reduction. This function reduces the gain per active microphone by the selected level and thus prevents feedback.

```
Micro
1 Aut. Gain Red.
```

- ▶ From the central unit's operating menu, choose "Conference", "Micro" and "Aut. Gain Red.". The current setting for the gain reduction is shown on the display.
- ▶ Enter the desired gain reduction and press the ENTER key to save your setting.

To change the bass response:

```
Micro
2 Low
```

- ▶ From the central unit's operating menu, choose "Conference", "Micro" and "Low" one after the other. The current setting for the bass response is shown on the display.
- ▶ Change the value and press the ENTER key to save your setting.

To change the middle response:

```
Micro
3 Middle
```

- ▶ From the central unit's operating menu, choose "Conference", "Micro" and "Middle" one after the other. The current setting for the middle response is shown on the display.
- ▶ Change the value and press the ENTER key to save your setting.

To change the treble response:

```
Micro
4 Treble
```

- ▶ From the central unit's operating menu, choose "Conference", "Micro" and "Treble" one after the other. The current setting for the treble response is shown on the display.
- ▶ Change the value and press the ENTER key to save your setting.

Resetting the conference system

To reset the conference system:

```
Conference
6 Reset
```

- ▶ From the central unit's operating menu, choose "Conference" and "Reset" one after the other.
- ▶ Press the ENTER key. The conference system is reset.

Note!

Resetting the conference system has no effect on the interpretation system.

Testing the consoles' built-in loudspeakers

Via the "Test Tone" menu item, you can check if the consoles are connected correctly and if the consoles' built-in loudspeakers are working correctly.

To activate the test tone:

Options
1 Test Tone

- ▶ From the central unit's operating menu, choose "Conference", "Options" and "Test Tone" one after the other.
- ▶ Choose "Status = On".
All loudspeakers produce the test tone.
- ▶ To change the volume of the test tone, choose "Level ". You can choose between "High" and "Low".
- ▶ To change the volume of the test tone, choose "Frequency". You can choose between "High" and "Low".
- ▶ To deactivate the test tone, choose "Status = Off" and press the ENTER key.
The test tone is deactivated.

Testing the consoles' microphones

Via the "Test Units" menu item, you can check if the consoles' microphones are working correctly

To activate the microphones:

Options
2 Test Units

- ▶ From the central unit's operating menu, choose "Conference", "Options" and "Test Units" one after the other.
- ▶ Choose "Status = On".
- ▶ All microphones are activated one after the other in the order in which the consoles were initialized. The red signal light ring of the currently active microphone lights up. After all microphones have been activated once, activation re-starts with the first microphone.

Activating/deactivating the flashing of the signal light ring

If – in "With Request" or "With Req. No Clear" mode – a participant presses the MICRO key on his console, he makes a request to speak and the green "Request to speak" LED 16 starts flashing.

To activate the flashing of the signal light ring on all consoles:

Options
3 Light Ring

- ▶ From the central unit's operating menu, choose "Conference", "Options" and "Light Ring" one after the other.
- ▶ Choose "Bl ink in request" and press the ENTER key.
If a participant makes a request to speak, the red signal light ring and the green "Request to speak" LED 16 on his console start flashing.

To deactivate the flashing of the signal light ring on all consoles:

- ▶ Choose "Off".
If a participant makes a request to speak, only the green "Request to speak" LED 16 on his console starts flashing.

Configuring the display of the voting options

If the conference manager or chairman starts a voting session, the voting options are shown on the displays of all conference consoles:

```
MIC N. : 0001
      VOTE 1 OF 3
      + 0 -
```

```
MIC N. : 0001
      VOTE 1 OF 5
      ++ + 0 - --
```

```
Options
4 Vote Labels
```

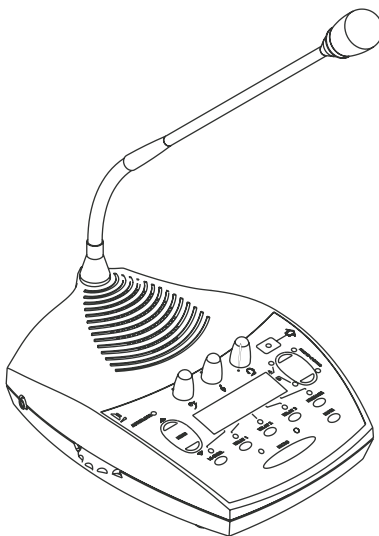
To change the display of the voting options:

- ▶ From the central unit's operating menu, choose "Conference", "Options" and "Vote Labels" one after the other.
- ▶ Choose the voting option whose display you want to change („1 ++", "2 +", "3 0", "4 -" or "5 --") and press the ENTER key.
- ▶ Use the jog wheel to select the first character of the voting option and press the ENTER key.
- ▶ In the same way, select and enter the second and third character of the voting option. You can enter a maximum of three characters. If you wish to enter less than three characters, you have to enter a space instead of a character.

Configuring the interpretation system

Apart from the conference system, the SDC 8000 system comprises a separate interpretation system. To be able to make use of the interpretation system, you require the SDC 8000 ID interpreter consoles.

Via the "Interpretation" menu, you can quickly and easily configure the interpretation system.



Working with the interpreter configuration

The following features of your interpretation system are put together in an interpreter configuration:

- The number of booths and the number of interpreter consoles per booth (see "Setting the max. number of interpreter booths/languages" on page 86 und "Setting the max. number of interpreter consoles per booth" on page 86).
- The operating modes between booths and within booths (see "Configuring the operating mode between booths" on page 87 and "Configuring the operating mode within a booth" on page 87).
- The main target languages of the respective booths (see "Configuring the main target language (A-channel) of a booth" on page 88).
- The second target languages of the respective booths (see "Configuring the second target language (B-channel) of a booth" on page 88).
- The booth from which a relay interpretation is delivered (see "Enabling the auto-relay interpretation function (Auto-floor)" on page 89).
- The initialization of the interpreter consoles (see "Half-automatically initializing all interpreter consoles on the central unit" on page 90).

You can save two different interpreter configurations in the central unit: "CONFIG 1" and "CONFIG 2". This allows you to quickly and easily adapt your interpretation system to a new conference. In addition, you can modify the currently active interpreter configuration at any time.

Creating a new interpreter configuration

To create a new interpreter configuration:

1. Define the number of booths as described under "Setting the max. number of interpreter booths/languages" on page 86.
If you change the number of booths after you have created and saved the interpreter configuration, the new number of booths will automatically be saved in the configuration.
2. Define the number of interpreter consoles per booth as described under "Setting the max. number of interpreter consoles per booth" on page 86.
If you change the number of interpreter consoles after you have created and saved the interpreter configuration, the new number of interpreter consoles will automatically be saved in the configuration.
3. From the central unit's operating menu, choose "Conference", "Configuration" and "New" one after the other.
The "Select Booth" menu appears.
4. (Carry out this step once for each booth.)
Choose the booth number and configure:
 - the main target language as described under "Configuring the main target language (A-channel) of a booth" on page 88.
 - – if necessary – the second target language as described under "Configuring the second target language (B-channel) of a booth" on page 88.
 - – if necessary – the auto-relay interpretation for the interpreters as described under "Enabling the auto-relay interpretation function (Auto-floor)" on page 89.
5. After you have configured the last booth, press the EXIT key repeatedly until the "Save Config." menu appears.
6. Choose "as Config 1" or "as Config 2" and press the ENTER key.
The interpreter configuration is saved.

Configuration
1 New

Select Booth
Booth = 01

Save Config.
as Config. 1
Press ENTER to Save

Attention!

If you exit the "Save Config." menu by pressing the EXIT key, the interpreter configuration will **not** be saved! A new interpreter configuration is not created.

7. Initialize all interpreter consoles on the central unit (see "Half-automatically initializing all interpreter consoles on the central unit" on page 90). This initialization is automatically added to the existing configuration. Your interpretation system is now ready for operation.

Modifying the currently active interpreter configuration

You can modify the following features of the currently active interpreter configuration:

- the main target language (A-channel)
- the second target language (B-channel)
- the auto-relay interpretation for the interpreters (auto-floor)

To modify the currently active interpreter configuration:

Configurati on
Current

Select Booth
Booth = 01

Save Confi g.

as Confi g 1
Press ENTER to Save

1. From the central unit's operating menu, choose "Conference", "Configurati on" and "Current" one after the other. The "Sel ect Booth" menu appears.
2. (Carry out this step once for each booth.) Choose the booth number and modify:
 - the main target language as described under "Configuring the main target language (A-channel) of a booth" on page 88.
 - – if necessary – the second target language as described under "Configuring the second target language (B-channel) of a booth" on page 88.
 - – if necessary – the auto-relay interpretation for the interpreters as described under "Enabling the auto-relay interpretation function (Auto-floor)" on page 89.
3. After you have configured the last booth, press the EXIT key repeatedly until the "Save Confi g." menu appears.
4. Choose "as Confi g 1" or "as Confi g 2" and press the ENTER key. The modified interpreter configuration is saved and becomes effective immediately.

Attention!

If you exit the "Save Confi g." menu by pressing the EXIT key, the interpreter configuration will **not** be saved! The interpreter configuration remains unchanged!

Loading a previously saved interpreter configuration

To load a previously saved interpreter configuration:

Configurati on
3 Load

- ▶ From the central unit's operating menu, choose "Conference", "Configurati on" and "Load" one after the other. The "Load" menu appears.
- ▶ Choose "Confi gurati on 1" or "Confi gurati on 2" and press the ENTER key. The interpreter configuration is loaded. Since the options and the initialization of the interpreter consoles on the central unit have already been saved in this interpreter configuration, your interpretation system is immediately operational. It is therefore not necessary to initialize the interpreter consoles again.

```
Interpretati on
4 Opti ons
```

Attention!

If – after having loaded an interpreter configuration – you have to re-initialize the interpreter consoles, for example because you had to remove or add consoles, it is vital to reset the interpretation system!

Options

The “Opti ons” menu item on the “I nterpretati on” menu allows you to configure the basic features of your interpretation system:

- The max. number of interpreter booths or languages
- The max. number of interpreter consoles per booth
- The operating mode between the interpreter booths
- The operating mode within the interpreter booths

You can connect a total of 28 booths with up to eight interpreter consoles each to a single central unit, i.e. you can realize an interpretation system with up to 224 interpreter consoles.

```
Opti ons
1 Max # Booths
```

Setting the max. number of interpreter booths/languages

You have to configure an interpreter booth for each language offered:

- ▶ From the central unit’s operating menu, choose “I nterpretati on”, “Opti ons” and “Max # Booths” one after the other. The current number of booths is shown on the display.
- ▶ Set the max. number of booths/languages for your interpretation system and press the ENTER key to save your setting.

Note!

The maximum number of configurable languages also depends on your license. The configuration of two languages is license-free. In order to be able to configure more than two languages, you have to purchase one of the language licenses available (see “Licenses” on page 103).

Example:

Let us assume that the active languages at a conference are English, German and French. You then have to configure your system so that it comprises an “English” booth, a “German” booth and a “French” booth.

```
Opti ons
2 Max # Desks
```

Setting the max. number of interpreter consoles per booth

To set the max. number of interpreter consoles per booth:

- ▶ From the central unit’s operating menu, choose “I nterpretati on”, “Opti ons” and “Max # Desks” one after the other. The current number of interpreter consoles is shown on the display.
- ▶ Set the desired number of interpreter consoles and press the ENTER key to save your setting.

Example:

Let us assume that the active languages at a conference are English, German and French and that two interpreters are available for each

language. You then have to configure your system so that it comprises three interpreter booth with two interpreter consoles each.

Configuring the operating mode between booths

To determine whether or not interpreter consoles installed in different booths but configured to the same target language can be simultaneously active:

```
Options
3 Mode between Booth
```

```
Mode between Booths
Mode = Overri de

Press ENTER to Save
```

- ▶ From the central unit's operating menu, choose "I nterpretati on", "Opti ons" and "Mode between Booth" one after the other. The current mode in shown on the display.
- ▶ Choose the desired mode. You can choose between the modes "Mi xed", "Overri de" and "Toggl e Overri de".
 - Choose "Mi xed" if interpreters in different booths interpret into the same target language and work in turns. When two interpreters simultaneously interpret into the same language, the red signal light ring 12 and the "Microphone active" LED 14 on their consoles light up.
 - Choose "Overri de" if activating an interpreter console in another booth turns off the currently active interpreter console. The interpreter console that was just turned off can only be turned on again if the interpreter console by which it was turned off is deactivated.
 - Choose "Toggl e Overri de" if activating an interpreter console in another booth turns off the currently active interpreter console. The interpreter console that was just turned off can be turned on again any time by pressing the MICRO key 15.
- ▶ Press the ENTER key to save your setting.

Configuring the operating mode within a booth

To determine whether or not the interpreter consoles installed within a booth can be simultaneously active:

```
Options
4 Mode i n Booths
```

```
Mode i n Booths
Mode = Mi xed

Press ENTER to Save
```

- ▶ From the central unit's operating menu, choose "I nterpretati on", "Opti ons" and "Mode i n Booths" one after the other. The current mode in shown on the display.
- ▶ Choose the desired mode. You can choose between the modes "Mi xed" and "Overri de".
 - Choose "Mi xed" if several interpreters in the same booth interpret into the same language. When two interpreters simultaneously interpret into the same language, the red signal light ring 12 and the "Microphone active" LED 14 on their consoles light up.
 - Choose "Overri de" if activating another interpreter console within a booth turns off the currently active interpreter console. The interpreter console that was just turned off can only be turned on again, if the interpreter console by which it was turned off is deactivated.

```
Interpretati on
1 Confi gurati on
```

```
Save Confi g. ?
Yes
Press ENTER to Save
```

```
Booth Confi gurati on
1 Language
```

Configuring the language options for the interpreter booths

The “Confi gurati on” menu item on the “I nterpretati on” menu allows you to configure the language options for the interpreter booths:

- the main target language (A-channel)
- the second target language (B-channel)
- the auto-relay interpretation for the interpreters (auto-floor)

- ▶ After having configured the language options as described in the following sections, press the EXIT key to get to the display shown on the left.
- ▶ Press the ENTER key to save your configuration and to exit the “Booth Confi gurati on” menu.

Configuring the main target language (A-channel) of a booth

To configure the main target language of a booth:

- ▶ From the central unit’s operating menu, choose “I nterpretati on”, “Confi gurati on” and “Sel ect Booth” one after the other. The current booth number is shown on the display.
- ▶ Choose the number of the booth whose main target language (A-channel) you want to configure and press the ENTER key.
- ▶ Choose “Language” and press the ENTER key. The current main target language is shown on the display.
- ▶ Choose the desired main target language and press the ENTER key to save your setting. The configuration of the main target language of a booth **cannot** be changed on the interpreter consoles!

Example:

Let us assume that the active languages at a conference are English, German and French. You then have to configure e.g. an “English” booth by choosing “English” as the main target language for this booth.

Configuring the second target language (B-channel) of a booth

An interpreter may work into several target languages. In order that the interpreter is able to interpret into a second language, the B-channel has to be configured to this language.

Note!

The second target language must already be configured as the main target language of another booth!

The B-channel can be configured either via the interpreter console – even during a conference – (see “Configuring the B-channel of an interpreter console” on page 33) or via the central unit’s operating menu:

- ▶ From the central unit’s operating menu, choose “I nterpretati on”, “Confi gurati on” and “Sel ect booth” one after the other. The current booth number is shown on the display.
- ▶ Choose the number of the booth whose second target language (B-channel) you want to configure and press the ENTER key.

Booth Configuration
2 B-channel

- ▶ Choose "B-channel " and press the ENTER key. A booth number is shown on the display.
- ▶ Choose the number of the booth whose main target language corresponds to the language you want to configure for the B-channel.

Example:

Let us assume that there are three interpreter booth:

- Booth 1 for the target language **English**
- Booth 2 for the target language **French**
- Booth 3 for the target language **German**

In order to set the B-channel of booth 3 to English, choose "1" from the "B-channel " menu.

Enabling the auto-relay interpretation function (Auto-floor)


If the original floor language is a language of which all interpreters have a complete understanding and from which they work, you **do not** have to enable this function. In this case, all interpreters interpret the original floor language into their respective target languages. These interpretations are then fed to the corresponding interpretation channels.

If the original floor language is **not** a language of which all interpreters have a complete understanding and from which they work, you can enable the auto-relay interpretation function (auto-floor): The original floor language is interpreted into a language understood by all interpreters. This interpretation is automatically "relayed" to the floor channel of all other interpreters and serves as the basis from which they interpret into their respective target languages.

To enable the auto-relay interpretation function (auto-floor):

Attention!

The interpreter who delivers the relay interpretation has to choose the **B-channel!**

- ▶ From the central unit's operating menu, choose "I nterpretati on", "C onfi gurati on" and "S el ect Booth" one after the other. The current booth number is shown on the display.
- ▶ Choose the number of the booth from which the relay interpretation is to be delivered and press the ENTER key.
- ▶ Choose "A u to -fl oor" and press the ENTER key.
- ▶ Choose "Y es" to enable the auto-floor function and press the ENTER key to save this configuration. The relay interpretation is automatically "relayed" to the floor channel of all other interpreter consoles and the AUTOFLOOR LED  on these interpreter consoles lights up, indicating that the auto-floor function is enabled.

Booth Configuration
3 Auto-floor

1. Booth Configuration

Auto-floor = Yes
Press ENTER to Save

Half-automatically initializing all interpreter consoles on the central unit

Once you have configured the number of interpreter booth (see “Setting the max. number of interpreter booths/languages” on page 86) and the number of interpreter consoles per booth (see “Setting the max. number of interpreter consoles per booth” on page 86), you have to initialize all interpreter consoles on the central unit as follows:

```

Initialize Units
1 Full Init
    
```

```

Press Mic to confirm

      BOOTH      DESK
      01         01
    
```

- ▶ From the central unit’s operating menu, choose “I nterpretati on”, “I ni ti al i ze Uni ts” and “Fu ll I ni t” one after the other.

The red signal light rings on all interpreter consoles start flashing and the displays of the interpreter consoles show “01” for both the booth and the desk number.

1. If all of the interpreter consoles which were configured via the central unit are connected, you can half-automatically initialize the interpreter consoles, i.e. by pressing the MICRO key of an interpreter console, this console is intialized on the central unit with the booth and desk number shown on the console’s display.

- ▶ Start initializing the interpreter consoles by pressing the MICRO key of interpreter console 1 in booth 1.

The red signal light ring of the interpreter console stops flashing. The booth and desk numbers of all subsequent interpreter consoles are automatically increased according to the preset number of booths and the preset number of interpreter consoles per booth.

- ▶ Continue by pressing the MICRO key of interpreter console 2 in booth 1, and so on.

- ▶ If all booth and desk numbers are assigned correctly, press the ENTER key on the central unit to save this configuration.

```

Full Init

Press ENTER to save
    
```

```

                                01 ENG
                                02 ARA
00  00  00  00  [X]
FLO FLO FLO FLO
    
```

The displays of the interpreter consoles show the languages assigned to the A-channel and the B-channel and other related information (see example illustration on the left).

The interpreter consoles are now ready for operation.

2. Alternatively, you can assign the booth and desk number of an interpreter console individually (see “Manually assigning an interpreter console an individual booth number” on page 90 and “Manually assigning an interpreter console an individual desk number (interpreter console number)” on page 91).

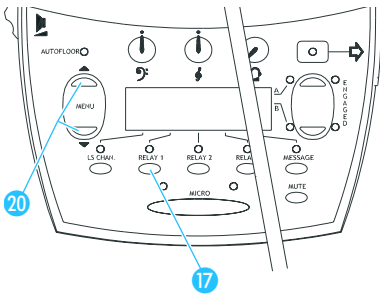
Manually assigning an interpreter console an individual booth number

To manually assign an interpreter console an individual booth number (BOOTH):

```

Initialize Units
1 Full Init
    
```

- ▶ From the central unit’s operating menu, choose “I nterpretati on”, “I ni ti al i ze Uni ts” and “Fu ll I ni t” one after the other.



- ▶ Press the RELAY 1 key 17 of the desired interpreter console and keep it pressed.
- ▶ While keeping the RELAY 1 key pressed, press the "MENU ▲" or "MENU ▼" menu selection key 20 until the desired booth number (BOOTH) is shown on the display.

```

Press Mic to confirm
      BOOTH      DESK
      02         01
    
```

- ▶ Press the MICRO key 15 to transmit the selected booth number to the central unit.

Note!

If an error occurs during initialization, the text "Init Refused" is shown on the displays of the interpreter consoles. In this case, re-initialize the interpreter consoles.

```

Full Init
Press ENTER to save
    
```

```

          01 ENG
          02 ARA
00  00  00  00  [Envelope Icon]
FLO FLO FLO FLO
    
```

- ▶ If all booth and desk numbers are assigned correctly, press the ENTER key on the central unit to save this configuration.

The displays of the interpreter consoles show the languages assigned to the A-channel and the B-channel and other related information (see example illustration on the left).

The interpreter consoles are now ready for operation.

Note!

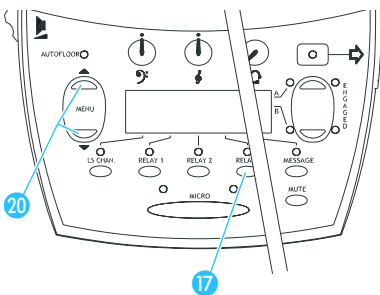
The max. number of interpreter consoles per booth has to be configured via the central unit (see "Setting the max. number of interpreter consoles per booth" on page 86 and "Half-automatically initializing all interpreter consoles on the central unit" on page 90).

Manually assigning an interpreter console an individual desk number (interpreter console number)

To manually assign an interpreter console an individual desk number (DESK):

```

Initialize Units
1 Full Init
    
```



- ▶ From the central unit's operating menu, choose "Interpretation", "Initialize Units" and "Full Init" one after the other.
- ▶ Press the RELAY 3 key 17 of the desired interpreter console and keep it pressed.
- ▶ While keeping the RELAY 3 key pressed, press the "MENU ▲" or "MENU ▼" menu selection key 20 until the desired desk number is shown on the display.

```

Press Mic to confirm
      BOOTH      DESK
      01         02
    
```

- ▶ Press the MICRO key 15 to transmit the selected desk number to the central unit.

Note!

If an error occurs during initialization, the text "Init Refused" is shown on the displays of the interpreter consoles. In this case, re-initialize the interpreter consoles.

```
Full Init
Press ENTER to save
```

```
01 ENG
02 ARA
00 00 00 00
FLO FLO FLO FLO
```

- ▶ If all booth and desk numbers are assigned correctly, press the ENTER key on the central unit to save this configuration.

The displays of the interpreter consoles show the languages assigned to the A-channel and the B-channel and other related information (see example illustration on the left).

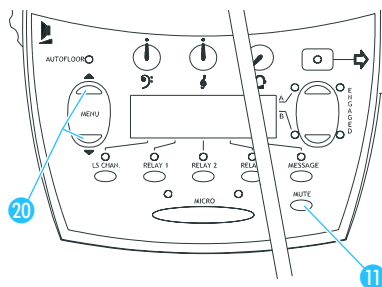
The interpreter consoles are now ready for operation.

Note!

The max. number of interpreter consoles per booth has to be configured via the central unit (see "Setting the max. number of interpreter consoles per booth" on page 86 and "Half-automatically initializing all interpreter consoles on the central unit" on page 90).

Displaying the booth and desk number of an interpreter console

To display the booth and desk number of an interpreter console:



- ▶ Press the MUTE key 11 and keep it pressed.
- ▶ While keeping the MUTE key pressed, press the "MENU ▲" or "MENU ▼" menu selection key 20.

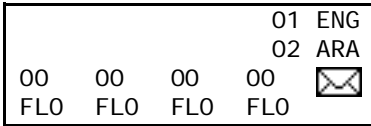
The booth and desk number of this interpreter console appear on the display.

```
Press Mic to confirm
BOOTH    DESK
02       02
```

Adding interpreter consoles to an existing configuration

To add individual interpreter consoles to an already existing configuration:

- ▶ From the central unit's operating menu, choose "Interpretation", "Initialize Units" and "Add Unit" one after the other". The red signal light rings on all interpreter consoles which have not yet been assigned a booth and desk number start flashing and the interpreter consoles' displays show "01" for both the booth and the desk number.
- ▶ On all interpreter consoles not yet initialized, manually assign the booth number (see "Manually assigning an interpreter console an individual booth number" on page 90) and the desk number (see "Manually assigning an interpreter console an individual desk number (interpreter console number)" on page 91)



- ▶ If all booth and desk numbers are assigned correctly, press the ENTER key on the central unit to save this configuration. The displays of the interpreter consoles show the languages assigned to the A-channel and the B-channel and other related information (see example illustration on the left).

The interpreter consoles are now ready for operation.

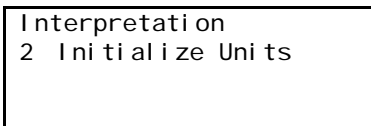
Loading the factory-preset default configuration for the interpretation system

If necessary, you can load the factory-preset default configuration for the interpretation system.

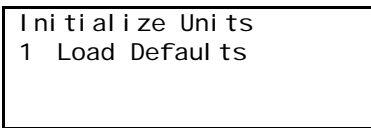
Attention!

Loading the factory-preset default configuration will delete all setting of your current configuration! Your interpretation system then has to be re-configured to become operational!

To load the factory-preset default configuration for the interpretation system:



- ▶ From the central unit's operating menu, choose "Interpretation", "Initialize Units" and "Load Defaults" one after the other. The text "Configuration will be overwritten. Continue?" is shown on the display.

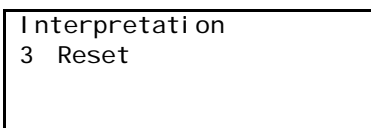


- ▶ Press the ENTER key to replace your current configuration by the factory-preset default configuration.

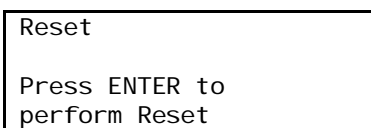
Resetting the interpretation system

You should reset the interpretation system each time you have made changes to the configuration of the interpretation system via the central unit. Resetting the interpretation system has no effect on the conference system, i.e. you can make changes to the configuration of your interpretation system even during a conference.

To reset the interpretation system:



- ▶ From the central unit's operating menu, choose "Interpretation" and "Reset" one after the other.



- ▶ Press the ENTER key. The interpretation system is reset and the saved configuration becomes effective.

Configuring the audio inputs and outputs

You can connect external audio sources such as a CD player, a microphone with preamplifier etc. to the central unit's audio inputs.

Instead of connecting an external audio source, you can connect the audio output of a conference system installed in a separate room to carry out a remote conference.

Via the audio outputs, you can connect e.g. a recording unit.

Via the "Aux-In/Out" menu, you can configure the central unit's audio inputs and outputs for the connected equipment.

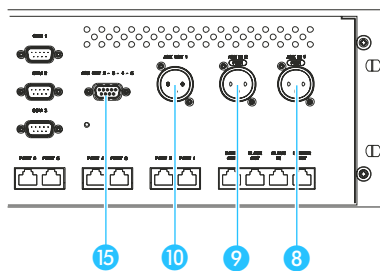
Choosing the audio inputs and outputs

The central unit features five audio outputs.

The output signal of the floor channel is always available at the two outputs AUX OUT 1 (XLR-3M audio output 10) and AUX OUT 2 (pin 1 and 6 of the 9-pole sub-D socket 15).

The outputs AUX OUT 3 - 4 - 5 are available at the 9-pole sub-D socket 15 (for the pin assignment of this socket, please refer to page 51).

The two inputs AUX IN 1 and AUX IN 2 are available at the two XLR-3F sockets 8 and 9.



```
Aux-In/Out
1 Aux Out 1 & 2
```

To choose the audio output or input to be configured:

- ▶ From the central unit's operating menu, choose "Aux-In/Out".
- ▶ Then choose between the following inputs and outputs:
 - Aux Out 1 & 2
 - Aux Out 3
 - Aux Out 4
 - Aux Out 5
 - Aux In 1
 - Aux In 2
- ▶ Press the ENTER key to active the menu item.

Adjusting the volume of the audio outputs

To set the volume of the output signal available at one of the audio outputs:

- ▶ From the central unit's operating menu, choose "Aux-In/Out".
- ▶ Choose the desired audio output.
- ▶ Choose "Volume".
The current volume is shown on the display.
- ▶ Adjust the volume and press the ENTER key to save your setting.

```
Aux Out 3
1 Volume
```

```
Aux Out 3
Volume = 00
Press ENTER to Save
```

Assigning a channel to an audio output

Each of the audio outputs AUX OUT 3, AUX OUT 4 and AUX OUT 5 can be assigned a channel. The maximum number of channels available depends on your license. The configuration of two channels/languages is license-free. In order to be able to configure more than two channels/languages, you have to purchase one of the language licenses available (see "Licenses" on page 103).

Note!

The floor channel is always assigned to the two outputs AUX OUT 1 (XLR-3M audio output) and AUX OUT 2 (9-pole sub-D socket). This assignment cannot be changed!

To assign a channel:

- ▶ From the central unit's operating menu, choose "Aux-In/Out".
- ▶ Choose one of the audio outputs AUX OUT 3 to AUX OUT 5.
- ▶ Choose "Channel".
The current channel number is shown on the display.
- ▶ Choose the desired channel number and press the ENTER key to save your setting.
The desired channel is available at the selected audio output.

Aux Out 3 2 Channel

Aux Out 3 Channel = 00 Press ENTER to Save
--

Turning the audio inputs or outputs on and off

To turn the audio outputs or inputs on and off:

- ▶ From the central unit's operating menu, choose "Aux-In/Out".
- ▶ Choose the desired audio output or input.
- ▶ Choose "Status".
The current status ("ON" or "OFF") of the audio output or input is shown on the display.
- ▶ Change the status and press the ENTER key to save your setting.
The selected audio output or input is turned on or off.

Aux Out 3 3 Status

Aux Out 3 Status = OFF Press ENTER to Save
--

Configuring the audio outputs for remote conferencing

To prevent echo during remote conferencing:

- ▶ Make sure that the two central units of the conference systems installed in separate rooms are connected correctly (see "Carrying out remote conferences" on page 50).
- ▶ From the central unit's operating menu, choose "Aux-In/Out".
- ▶ Choose the audio output "1 & 2".
- ▶ Choose "Di st. Conf.".
The current setting ("Di st. Conf. = ON" or "Di st. Conf. = OFF") is shown on the display.
- ▶ To prevent echo, choose "Di st. Conf. = ON" (if not yet chosen) and press the ENTER key to save your setting.

Aux Out 1 & 2 3 Di st. Conf.

Aux Out 1 & 2 Di st. Conf. = OFF ENTER fuer Speichern

Aux In 1
1 Level

Aux In 1
Level = 00
Press ENTER to Save

Adjusting the input level of an audio input

To adjust the input level of the two audio inputs:

- ▶ From the central unit's operating menu, choose "Aux-In/Out".
- ▶ Choose the desired audio input.
- ▶ Choose "Level".
The current input level is shown on the display.
- ▶ Adjust the input level and press the ENTER key to save your setting.

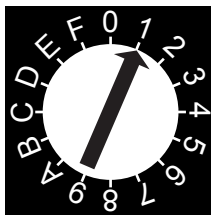
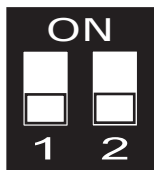
Aux In 1
2 Sensitivity

Aux In 1
Sensitivity = HIGH
Press ENTER to Save

Adjusting the input sensitivity of an audio input

Depending on the strength of the audio signal delivered by the external audio source, adapt the input sensitivity as follows:

- ▶ From the central unit's operating menu, choose "Aux-In/Out".
- ▶ Choose the desired audio input.
- ▶ Choose "Sensitivity".
The current input sensitivity ("LOW" or "HIGH") is shown on the display.
 - Choose "LOW" if the connected audio source delivers a strong signal (e.g. CD player)
 - Choose "HIGH" if the connected audio source delivers a weak signal (e.g. microphone)
- ▶ Adjust the input sensitivity and press the ENTER key to save your setting.



Configuring the outputs of the SDC 8000 analog output unit

You can configure the outputs of the SDC 8000 AO analog output unit via the two DIP switches and the rotary switch located on the printed circuit board of the SDC 8000 AO. For configuring the outputs, you have to open the analog output unit.

The two DIP switches and the rotary switch are located in the middle of the printed circuit board, directly behind the front panel.

Note!

Disconnect the SDC 8000 AO from the central unit before configuring the SDC 8000 AO's outputs!

With the two DIP switches (2 switch positions: ON or OFF) and the rotary switch (16 switch positions: 1 to F), you assign a channel number to the output OUT 1 (reference output). The outputs OUT 2 to OUT 8 are automatically assigned the subsequent channel numbers.

The following table shows the possible switch positions and the resulting channel assignments:

DIP switches		Rotary switch	OUT 0	OUT 1	OUT 2	OUT 3	OUT 4	OUT 5	OUT 6	OUT 7	OUT 8
2	1										
OFF	OFF	0	0	0	1	2	3	4	5	6	7
OFF	OFF	1	0	1	2	3	4	5	6	7	8
OFF	OFF	2	0	2	3	4	5	6	7	8	9
OFF	OFF	...	0	...	...	...	...	...	...	...	...
OFF	OFF	F	0	15	16	17	18	19	20	21	22
(*)	ON	0	0	16	17	18	19	20	21	22	23
(*)	ON	1	0	17	18	19	20	21	22	23	24
(*)	ON	...	0	...	...	...	...	...	...	...	...
(*)	ON	4	0	20	21	22	23	24	25	26	27
(*)	ON	5	0	21	22	23	24	25	26	27	28

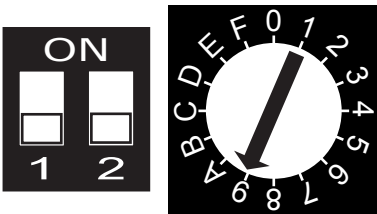
(*) can be set to position "ON" or "OFF"

The row marked in grey shows the factory-preset standard configuration. The column marked in grey shows the reference output OUT 1 and the channel numbers assigned.

Example:

Your system accommodates 16 interpretation channels and you want to output each interpretation channel via its own audio output. To do so, you require two analog output units whose outputs have to be configured as follows:

- ▶ The factory-preset standard configuration of the first analog output unit remains unchanged (the channels 1 to 8 are output via the unit's outputs OUT 1 to OUT 8, the floor channel is output via output OUT 0).
- ▶ Make sure that the second analog output unit is not connected!
- ▶ Open the second analog output unit by removing the seven screws on the top of the housing as well as the screw on the front panel with a 2.0 mm Allan key and lift the cover off the unit.
- ▶ Leave the two DIP switches in position "OFF" as shown in the illustration on the left.
- ▶ Use a screwdriver to set the rotary switch to position "9".
- ▶ Close the housing and tighten the screws. In order to avoid that the two analog output units are later confused, we recommend marking the second analog output unit with a sticker.
- ▶ Connect the second analog output unit as described in the section "Daisy-chaining SDC 8000 AO analog output units" on page 52. The channels 9 to 16 are output via the outputs OUT 1 to OUT 8 of the analog output unit. The floor channel is output via the unit's output OUT 0.



Making a system diagnosis

Displaying the number of consoles connected to the central unit

To display the number of consoles connected to the central unit:

- ▶ From the central unit's operating menu, choose "System", "Diagnosti cs" and "Port Status" one after the other. The ports P1 to P6 with their respective number of connected consoles are shown on the display.

```
Diagnosti cs
1 Port Status
```

```
Port Status

15 15 14 02 15 15
P1 P2 P3 P4 P5 P6
```






Checking the communication within a cable string


To display if and on which port(s) a communications error has occurred:


- ▶ From the central unit's operating menu, choose "System", "Diagnosti cs" and "Port Errors" one after the other. The ports P1 to P6 with a respective symbol are shown on the display. The symbols have the following meanings:

```
Diagnosti cs
1 Port Errors
```

```
Port Errors

   [!]  
P1 P2 P3 P4 P5 P6
```

: A cable string with consoles is connected to the port.

: No cable string is connected to the port. If this symbol appears even though a cable string is connected to the port, check if the cable string is connected correctly.

[!]: A communications error has occurred. This symbol only appears if a cable string is connected to the port.

Configuring connected additional components

Camera control

If the license for your SDC 8000 conference and interpretation system enables the "camera control" function, this function is already activated. If this is not the case, no settings can be made via the "Camera Control" menu item.

```
System
2 Camera Control
```

Turning on a connected control panel

instead of controlling the SDC 8000 conference and interpretations system via a PC with software control, you can use a control panel (optional). The control panel is a miniature physical representation of your conference room, allowing you to turn on or off individual conference consoles, change the volume, change the conference mode, display the status of the interpreter booths, etc.

The control panel will be custom tailored to your specific requirements.

To turn a connected control panel on:

- ▶ From the central unit's operating menu, choose "System" and "Control Panel" one after the other. The current status of the control panel is shown on the display.
- ▶ Choose "Status = ON" and press the ENTER key to turn the control panel on.

```
System
3 Control Panel
```

```
Control Panel

Status = OFF
Press ENTER to Save
```

```
System
4 Ambient Sound
```

Configuring an "ambient sound" console

Optionally, you can use an "ambient sound" console with your SDC 8000 conference and interpretation system. As soon as all other consoles in the conference room are deactivated, the "ambient sound" console automatically turns on in order to reproduce the ambient noise within the conference room. The "ambient sound" console enables the interpreters, who often cannot look into the conference room, to hear what is going on in the conference room, so that they are prepared if a speaker takes the floor again.

Note!

You require a special "ambient sound" console and a separate microphone! For details on how to connect these components to the central unit, please refer to the operating manual of the "ambient sound" console.

```
Ambient Sound
1 Status
```

```
Status
Status = ON
Press ENTER to Save
```

To turn a connected "ambient sound" console on:

- ▶ From the central unit's operating menu, choose "System", "Ambient Sound" and "Status" one after the other.
- ▶ Choose "Status = ON" and press the ENTER key to turn the "ambient sound" console on.

```
Ambient Sound
2 Loudspeaker
```

```
Loudspeaker
Switch Off = No
Press ENTER to Save
```

To turn the built-in loudspeaker of the "ambient sound" console on or off:

- ▶ From the central unit's operating menu, choose "System", "Ambient Sound" and "Loudspeaker" one after the other.
- ▶ To turn the loudspeaker on, choose "Switch Off = No"; to turn the loudspeaker off, choose "Switch Off = Yes".
- ▶ Press the ENTER key to save your setting.

```
Ambient Sound
3 Aux Out
```

```
Aux Out
Switch Off = Yes
Press ENTER to Save
```

```
Ambient Sound
4 Aux In
```

```
Aux In
Switch Off = No
Press ENTER to Save
```

```
System
5 Version
```

```
Version
xx-xx-xx x.xx
```

```
Language
1 Choose Language
```

```
Choose Language
English
```

To turn the AUX output signal of the "ambient sound" console on or off:

- ▶ From the central unit's operating menu, choose "System", "Ambient Sound" and "Aux Out" one after the other.
- ▶ To turn the AUX output signal on, choose "Switch Off = No"; to turn the AUX output signal off, choose "Switch Off = Yes".
- ▶ Press the ENTER key to save your setting.

To turn the AUX input signal of the "ambient sound" console on or off:

- ▶ From the central unit's operating menu, choose "System", "Ambient Sound" and "Aux In" one after the other.
- ▶ To turn the AUX input signal on, choose "Switch Off = No"; to turn the AUX input signal off, choose "Switch Off = Yes".
- ▶ Press the ENTER key to save your setting.

Software, language and license

Displaying the version number of the central unit's software

To display the version number of the central unit's software:

- ▶ From the central unit's operating menu, choose "System" and "Version" one after the other.
The current version number of the central unit's software is shown on the display.

Choosing the language of the central unit's operating menu

You can choose between the following six menu languages:

- English
- French
- Dutch
- German
- Spanish
- Italian

To choose the language:

- ▶ From the central unit's operating menu, choose "Language" and "Choose Language" one after the other.
- ▶ Choose the desired language and press the ENTER key.

Displaying the central unit's serial number

To display the central unit's serial number:

```
Li cense
1  Seri al  Number
```

```
Seri al  Number
xxxxxxx
```

- ▶ From the central unit's operating menu, choose "Li cense" and "Seri al Number" one after the other. The serial number is shown on the display.

Displaying the license code of your conference and interpretation system

To display the license code of your conference and interpretation system:

```
Li cense
2  Vi ew  Li cense
```

```
Vi ew  Li cense
xxxx-xxxx-xxxx-xxxx
```

- ▶ From the central unit's operating menu, choose "Li cense" and "Vi ew Li cense" one after the other. The current license code is shown on the display.

Upgrading the license of your conference and interpretation system


The SDC 8000 CU central unit comes with a basic license, allowing the configuration of two languages/interpretation channels but no "camera control" function.

For configuring further languages/interpretation channels and for enabling the camera control and control panel, you require a license upgrade with a new license code which is available from Sennheiser electronic.

To enter a new license code:

```
Li cense
3  Up grade  Li cense
```

```
Up grade  Li cense
0
```

- ▶ From the central unit's operating menu, choose "Li cense" and "Up grade Li cense" one after the other. "0" is shown on the display.
- ▶ Turn the jog wheel  on the central unit until the first character of the new license code is shown on the display and then press the ENTER key.
- ▶ In the same way, enter all other characters of the new license code one after the other until the new license code is entered completely.

If you entered a wrong character:

- ▶ Press the EXIT key to exit this menu item. "Up grade Li cense" is shown on the display.
- ▶ Press the ENTER key. "0" is shown on the display.
- ▶ Re-start entering the new license code.

If problems occur...

Replacing a fuse

If the fuse of a central unit has blown, the subsequent consoles cannot be powered.

To replace the fuse:

- ▶ Use a screwdriver to carefully loosen the fuse holder and pull it out completely.
- ▶ Remove the faulty fuse.
- ▶ Insert a new fuse (5 x 20 mm, 3.15 AT).

Conference/interpreter console does not work

- ▶ Make sure that the system cables between the central unit and the conference/interpreter console are not defective and that the system cables are connected correctly.
- ▶ Make sure that the central unit is connected to the mains and that it is turned on.

Only the microphone of the chairman unit can be activated

- ▶ Make sure that the max. number of simultaneously active microphones is set to at least "1" (see "Setting the speaker limit" on page 80).

Maintenance and care

- ▶ Use a damp cloth for cleaning the components of the conference and interpretation system from time to time.
Never use solvents or solvent-containing cleansers, as these could damage the surfaces of the components.

Accessories

System components

9411	SDC 8000 CU	Central unit
9419	SDC 8000 AO	Analog output unit with nine outputs
on request		Control panel according to customer specifications
9412	SDC 8000 D	Delegate unit
9415	SDC 8000 C	Chairman unit
9413	SDC 8000 DC	Delegate unit with channel selection keys
9416	SDC 8000 CC	Chairman unit with channel selection keys
9414	SDC 8000 DV	Delegate unit with voting function
9417	SDC 8000 CV	Chairman unit with voting function
9849	SDC 8000 CARD	Chip card
9418	SDC 8000 ID	Interpreter console

Software

9848	SDC 8000 SYS	
9850	SDC 8000 S-MM	Software module "Mic Management"
9851	SDC 8000 S-VM	Software module "Voting Management"
9852	SDC 8000 S-VD	Software module "Result Display"
9853	SDC 8000 S-IM	Software module "Interpreter Management"
9854	SDC 8000 S-DM	Software module "Delegate Management"

System cables

9842	SDC CBL RJ45-2	System cable with two shielded RJ 45 plugs, 2 m
9853	SDC CBL RJ45-3	System cable with two shielded RJ 45 plugs, 3 m
9844	SDC CBL RJ45-5	System cable with two shielded RJ 45 plugs, 5 m
9845	SDC CBL RJ45-10	System cable with two shielded RJ 45 plugs, 10 m
9846	SDC CBL RJ45-20	System cable with two shielded RJ 45 plugs, 20 m
9847	SDC CBL RJ45-50	System cable with two shielded RJ 45 plugs, 50 m

Licenses

9856	SDC 8000 LL-4	License for four language channels
9857	SDC 8000 LL-8	License for eight language channels
9858	SDC 8000 LL-28	License for 28 language channels
9855	SDC 8000 S-SO	License for camera control and serial control

Specifications

Consoles

SDC 8000 D

Frequency response	100 – 14,000 Hz
Pick-up pattern	cardioid
Headphone socket	3.5 mm jack ($\geq 16 \Omega$)
Maximum output level at headphone socket	1.5 V at 32 Ω
S/N at headphone output	> 75 dBA
Power consumption	max. 3.7 W
Operating temperature	0 to +50 °C
Standards	IEC 849
Housing	recyclable ABS
Dimensions	approx. W 150 mm, H 80 mm, D 185 mm
Microphone gooseneck length	approx. 380 mm
Weight	approx. 620 g

SDC 8000 C

Frequency response	100 – 14,000 Hz
Pick-up pattern	cardioid
Headphone socket	3.5 mm jack ($\geq 16 \Omega$)
Maximum output level at headphone socket	1.5 V at 32 Ω
S/N at headphone output	> 75 dBA
Power consumption	max. 3.8 W
Operating temperature	0 to +50 °C
Standards	IEC 849
Housing	recyclable ABS
Dimensions	approx. W 150 mm, H 80 mm, D 185 mm
Microphone gooseneck length	approx. 380 mm
Weight	approx. 620 g

SDC 8000 DC

Frequency response	100 – 14,000 Hz
Pick-up pattern	cardioid
Headphone socket	3.5 mm jack ($\geq 16 \Omega$)
Maximum output level at headphone socket	1.5 V at 32 Ω
S/N at headphone output	> 75 dBA
Power consumption	max. 3.8 W
Operating temperature	0 to +50 °C
Standards	IEC 849
Housing	recyclable ABS
Dimensions	approx. W 150 mm, H 80 mm, D 185 mm
Microphone gooseneck length	approx. 380 mm
Weight	approx. 620 g

SDC 8000 CC

Frequency response	100 – 14,000 Hz
Pick-up pattern	cardioid
Headphone socket	3.5 mm jack ($\geq 16 \Omega$)
Maximum output level at headphone socket	1.5 V at 32 Ω
S/N at headphone output	> 75 dBA
Power consumption	max. 3.8 W
Operating temperature	0 to +50 °C
Standards	IEC 849
Housing	recyclable ABS
Dimensions	approx. W 150 mm, H 80 mm, D 185 mm
Microphone gooseneck length	approx. 380 mm
Weight	approx. 620 g

SDC 8000 DV

Frequency response	100 – 14,000 Hz
Pick-up pattern	cardioid
Headphone socket	3.5 mm jack ($\geq 16 \Omega$)
Maximum output level at headphone socket	1.5 V at 32Ω
S/N at headphone output	> 75 dBA
Power consumption	max. 4 W
Operating temperature	0 to +50 °C
Standards	IEC 849
Housing	recyclable ABS
Dimensions	approx. W 150 mm, H 80 mm, D 185 mm
Microphone gooseneck length	approx. 380 mm
Weight	approx. 650 g

SDC 8000 CV

Frequency response	100 – 14,000 Hz
Pick-up pattern	cardioid
Headphone socket	3.5 mm jack ($\geq 16 \Omega$)
Maximum output level at headphone socket	1.5 V at 32Ω
S/N at headphone output	> 75 dBA
Power consumption	max. 4.2 W
Operating temperature	0 to +50 °C
Standards	IEC 849
Housing	recyclable ABS
Dimensions	approx. W 150 mm, H 80 mm, D 185 mm
Microphone gooseneck length	approx. 380 mm
Weight	approx. 650 g

SDC 8000 ID

Frequency response	100 – 14,000 Hz
Pick-up pattern	cardioid
Headphone socket	3.5 mm jack ($\geq 16 \Omega$)
Maximum output level at headphone socket	1.5 V at 32Ω
S/N at headphone output	> 75 dBA
Power consumption	max. 4 W
Operating temperature	0 to +50 °C
Standards	IEC 849
Housing	recyclable ABS
Dimensions	approx. W 150 mm, H 80 mm, D 185 mm
Microphone gooseneck length	approx. 380 mm
Weight	approx. 675 g

SDC 8000 CU central unit

AUX IN 1,2	XLR-3F, transformer balanced
Input level	max. +14 dBu
Input impedance	> 6 k Ω at 1 kHz
Frequency response	100 – 14,000 Hz
AUX OUT 1	XLR-3M, transformer balanced
Output level	max. +6 dBu
Output impedance	< 200 Ω at 1 kHz
S/N	max. 78 dBA
Frequency response	100 – 14,000 Hz
THD+N	\leq 0.05 % (0 dBu)
AUX OUT 2,3,4,5	9-pole sub-D, unbalanced
Output level	max. +0 dBu
Output impedance	< 100 Ω at 1 kHz
S/N	max 75 dBA
Frequency response	100 – 14,000 Hz
THD+N	< 0.5 % (0 dBu)
Headphone output	
Output level	max. 750 mV at 32 Ω
S/N	max. 75 dBA
Frequency response	100 – 14,000 Hz
THD+N	< 0.5 % (0 dBu)
PC interface COM 1	RS 232 SUB-D-9 for interpreter software
PC interface COM 2	RS 232 SUB-D-9
PC interface COM 3	RS 232 SUB-D-9 for conference software
Test tone	400 Hz / 1 kHz
Mains voltage	100 – 240 V \pm 10 % (50 – 60 Hz)
Mains current	max. 3.5 A / 230 V; 7.0 A / 115 V
Power consumption	approx. 300 VA
Fuse	3.15 A / 230 V; 7.0 A / 115 V
Output voltage ports 1-6	approx. 48 V
Operating temperature	0 to +50 $^{\circ}$ C
Sound pressure level of fan	48 dBA SPL at 1 m
Dimensions	approx. 485 x 141 x 265 mm
Weight	approx. 6 kg

SDC 8000 AO analog output unit

Power supply	48 V DC supplied via SDC 8000 CU DATA OUT port
Frequency response	100 – 14,000 Hz
Output level (XLR)	max. 0 dBu, balanced
Output level (RCA):	max. 0 dBu, unbalanced
Output Impedance	≤ 80 Ω at 1 kHz
S/N	77 dBA
Operating temperature	0 to +50 °C
Dimensions	483 (19") x 43.2 x 178 mm
Weight	3 kg

RJ 45 cable

Length:	2 m, 3 m, 5 m, 10 m, 50 m
Wire cross section:	24 AWG

Attention!

Do not use any standard Ethernet cable (26 AWG)!

Appendix A: Camera control protocol

The SDC 8000 conference and interpretation system supports camera control. The central unit sends a control command to the connected camera control:

- when a delegate or chairman unit is activated,
- when a delegate or chairman unit is deactivated,
- when all active microphones are deactivated one after the other,
- when all active microphones are deactivated simultaneously (priority function),
- every 5 seconds for synchronization.

These commands are evaluated by the camera control which then automatically aims the camera at a speaker and adjusts the focus.

The camera control must be connected to the SDC 8000 CU central unit's COM 2 interface (RS 232 connection). The settings for the communications port for camera control are:

Bits per second: 19,200

Data bits: 8

Parity: None

Stop bits: 1

Flow control: None

Note!

In order to activate camera control on the central unit, you have to purchase the serial output license SDC 8000 S-SO (Cat. No. 9855)

The syntax of the commands

All commands sent by the SDC 8000 CU central unit start with a "%" sign. The last character is a character which states the end of the transmission. Just before the end-of-transmission character, there are four characters within the command sent to the camera control which account for the CRC checksum.

STX "%"	data	CRC	ETX
Start of Transmission Character (0x25 = "%")	Data of the command	16 bit sum of the ASCII characters between STX and CRC	End of Transmission Character (0x0D)

The CRC checksum is in uppercase hexadecimal form while all other numbers are in decimal form.

Commands:

General syntax	General meaning	Examples
{'%' }{'1'}{'R'}{'00'}{CRC(4)}	The first microphone is activated.	%1R0053 The first microphone is activated. The camera control is activated.
{'%' }{'P'}{Mic.-No. (4)}{CRC(4)}	The chairman unit is activated.	%P00010111 The chairman unit is activated and it has the microphone number '0001'.
{'%' }{'p'}{Mic.-No. (4)}{CRC(4)}	The chairman unit is deactivated.	%p00010131 The chairman unit '0001' is deactivated.
{'%' }{'M'}{Mic.-No. (4)}{CRC(4)}	A delegate unit is activated.	%M00030110 A delegate unit is activated and it has the microphone number '0003'.
{'%' }{'m'}{Mic.-No. (4)}{CRC(4)}	A delegate unit is deactivated.	%m00030130 The delegate unit '0003' is deactivated.
{'%' }{'1'}{'r'}{'00'}{CRC(4)}	All active microphones are deactivated and the camera control should reset itself to a neutral starting position.	%1r000052 The camera control should reset itself to its starting position.
{'%' }{'S'}{Mic.-No. (4)} ₁₊ {CRC(4)}	At a time interval of approx. 5 seconds, a synchronization message is sent to the camera control.	%S00030116 Synchronization check while only the delegate unit with the microphone number '0003' is active.
{'%' }{'S'}{0(4)}{CRC(4)}	The message contains all the numbers of the active microphones or the number 0 to stipulate that there are no microphones active.	%S000200030004029C Synchronization check while the delegate units '0002', '0003' and '0004' are active.
{'%' }{'V'}{'0000'}{CRC(4)}	All active microphones are deactivated simultaneously.	%V00000116 No microphones are active. All active microphones are deactivated simultaneously.

Notation of the general syntax:

- All separate entities in a message are represented between curly brackets, e.g. {CRC}
- Literal strings are between quotes, e.g. 'P'
- Logical entities are neither between brackets nor quotes, e.g. Mic.-No. (microphone number)
- A logical entity will also contain a number between brackets. This number states how many characters the entity exists of, e.g. (4)
- If the subscript ₁₊ is attached to the entity between curly brackets, this means that one or more occurrences of this entity may occur

Appendix B: Control panel protocol

The SDC 8000 conference and interpretation system supports a control panel. The central unit sends a control command to the connected control panel:

- when a delegate or chairman unit is activated,
- when a delegate or chairman unit is deactivated,
- a microphone goes into request mode,
- when all active microphones are deactivated simultaneously (priority function).

The control panel sends a control command to the central unit:

- when a delegate or chairman unit is to be activated,
- when a delegate or chairman unit is to be deactivated,
- when the control panel is to be reset (Reset)

The control panel must be connected to the SDC 8000 CU central unit's COM 2 interface (RS 232 connection). The settings for the communications port for the control panel are:

Bits per second: 19,200

Data bits: 8

Parity: None

Stop bits: 1

Flow control: None

Note!

In order to connect a control panel to the central unit, you have to purchase the serial output license SDC 8000 S-SO (Cat. No. 9855)

Commands

All commands sent by the SDC 8000 CU central unit start with a "%" sign. The last character is a character which states the end of the transmission. Just before the end-of-transmission character, there are four characters within the command sent to the camera control which account for the CRC checksum.

STX "%"	data	CRC	ETX
Start of Transmission Character (0x25 = "%")	Data of the command	16 bit sum of the ASCII characters between STX and CRC	End of Transmission Character (0x0D)

The CRC checksum is in uppercase hexadecimal form while all other numbers are in decimal form.

The commands sent by the central unit and received by the control panel:

General syntax	General meaning	Examples
{ '% ' } { 'L' } { 'L' } { Mic. -No. (4) } { CRC (4) }	A microphone is activated.	%L0001013E The microphone with the number '0001' is activated.
{ '% ' } { 'L' } { 'L' } { Mic. -No. (4) } { CRC (4) }	A microphone is deactivated.	%110001015E The microphone with the number '0001' is deactivated.
{ '% ' } { 'L' } { 'D' } { Mic. -No. (4) } { CRC (4) }	A microphone goes into request.	%1D00020137 The microphone with the number '0002' goes into request mode.
{ '% ' } { 'E' } { '00' } { CRC (4) }	All microphones should be reset (priority function).	%1E0000D6 All microphones are turned off.

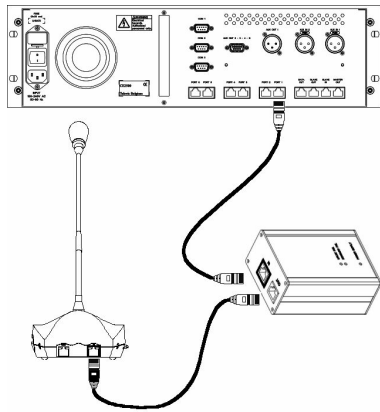
The commands sent by the control panel and received by the central unit:

General syntax	General meaning	Examples
{ '% ' } { 'L' } { 'T' } { Mic. -No. (4) } { CRC (4) }	Activate a microphone.	%1T00020147 The microphone with the number '0002' is to be activated.
{ '% ' } { 'L' } { 'V' } { CRC (4) }	Restart the control panel and get information about the microphones to reinitialize the control panel.	%1V00087 The control panel is to be restarted and the correct information about all active microphones and all microphones in request mode is to be received.
{ '% ' } { 'L' } { 'X' } { Volume (2) } { Treble response (2) } { Middle response (2) } { Bass response (2) } { CRC (4) }	Change the volume and sound settings of the consoles' built-in loudspeakers.	%1X060606060221 Volume, treble, middle and bass response are each to be set to the value "06". %1X00060606021B All microphones are to be muted.
{ '% ' } { 'L' } { 'U' } { Conference mode (2) } { CRC (4) }	Change the conference mode.	%1U0400EA The conference mode is to be changed to "FIFO" mode.
{ '% ' } { 'L' } { 'V' } { CRC (4) }	Activate the test tone.	
{ '% ' } { 'L' } { 'W' } { CRC (4) }	Deactivate the test tone.	

Notation of the general syntax:

- All separate entities in a message are represented between curly brackets, e.g. {CRC}
- Literal strings are between quotes, e.g. 'P'
- Logical entities are neither between brackets nor quotes, e.g. Mic. -No. (microphone number)
- A logical entity will also contain a number between brackets. This number states how many characters the entity exists of, e.g. (4)
- Volume, treble, middle and bass response are two-digit values from "00" (minimum) to "12" (maximum)
- The two-digit numbers for the conference modes are: "00" (No Request), "01" (With Request), "02" (With Req. No Clear), "03" (Direct Access), "04" (FIFO),

Appendix C: Repeater for the SDC 8000 system



A repeater is used to boost the signal on a system cable. When a system cable reaches a length of 100 m, the signal over the system cables becomes too weak.

You can insert a repeater into the system cable to boost this signal.

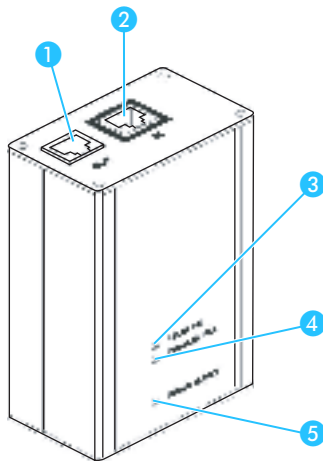
The repeater features an IN and an OUT socket. The cable from the central unit should be connected to the IN socket (2) and the following daisy-chain of conference consoles should be connected to the OUT socket (1).

It is also possible to connect a cable daisy-chain with conference consoles to the central unit and – when the cable daisy-chain reaches 100 m – insert a repeater into the daisy-chain.

The DC power supply which reaches the repeater is 30 to 60 VDC straight from the central unit.

The repeater features three LEDs:

- 3 UPLINK FAIL LED: lights up when there is no communication with a conference console (normally OFF).
- 4 DOWNLINK FAIL LED: lights up when there is no communication from the central unit (normally OFF).
- 5 POWER SUPPLY LED: lights up when power is supplied to the repeater (normally ON).





Approval

SENNHEISER electronic GmbH & Co. KG declare that these devices are in compliance with the applicable CE standards and regulations.



Sennheiser electronic GmbH & Co. KG
30900 Wedemark, Germany
Phone +49 (5130) 600 0
Fax +49 (5130) 600 300
www.sennheiser.com

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