

ADN CU1

Control Unit



Instruction manual

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For your safety



Please make sure to read the “Safety information” supplement included separately with the product. This supplement contains important information on the safe operation of the product as well as the manufacturer’s declaration and warranty notes.



A detailed instruction manual for the overall ADN conference system can be found

- on the Internet at www.sennheiser.com or
- on the DVD-ROM supplied with the ADN CU1 central unit.

The ADN CU1 central unit

The ADN CU1 central unit is part of the Sennheiser ADN conference system.

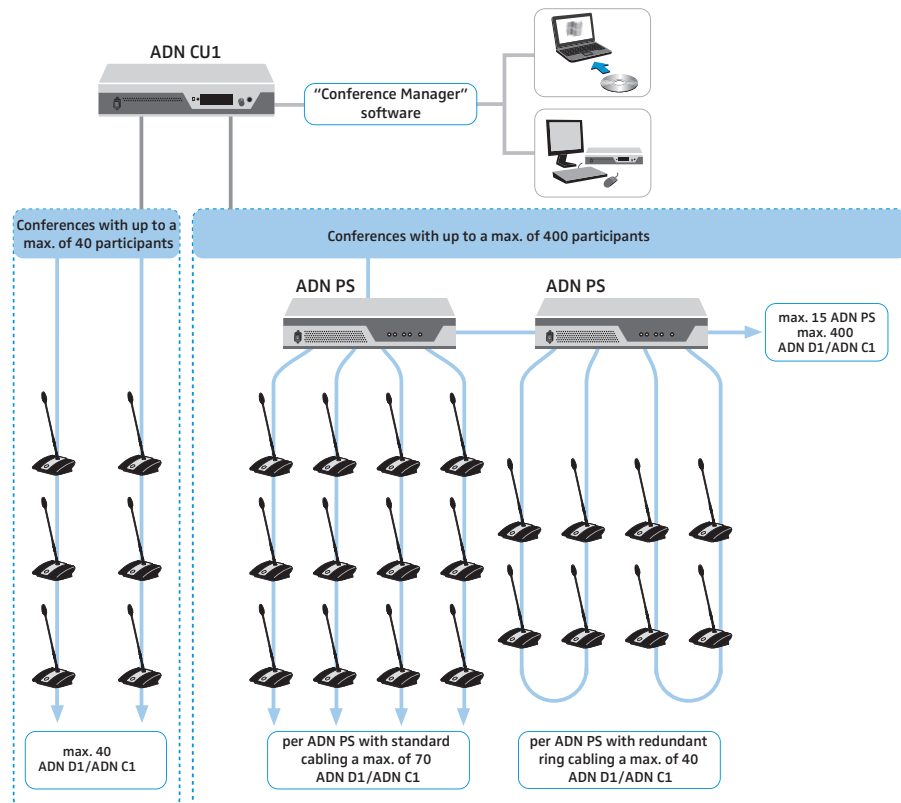
The central unit controls the operation of the entire conference system. For wired operation, up to max. 40 ADN D1 delegate units and ADN C1 chairperson units can be directly connected to the central unit. For larger wired conference systems with up to max. 400 conference units, the central unit can also manage up to 15 ADN PS power supplies which in turn supply power the wired conference units.

For wireless conferencing, you can operate up to 150 ADN-W C1 and ADN-W D1 wireless conference units. For this, you require at least one ADN-W AM antenna module per central unit. With one antenna module, you can operate a maximum of 75 wireless conference units. Depending on room conditions, you may require several antenna modules. Please note that you can connect a maximum of four antenna modules to one central unit.

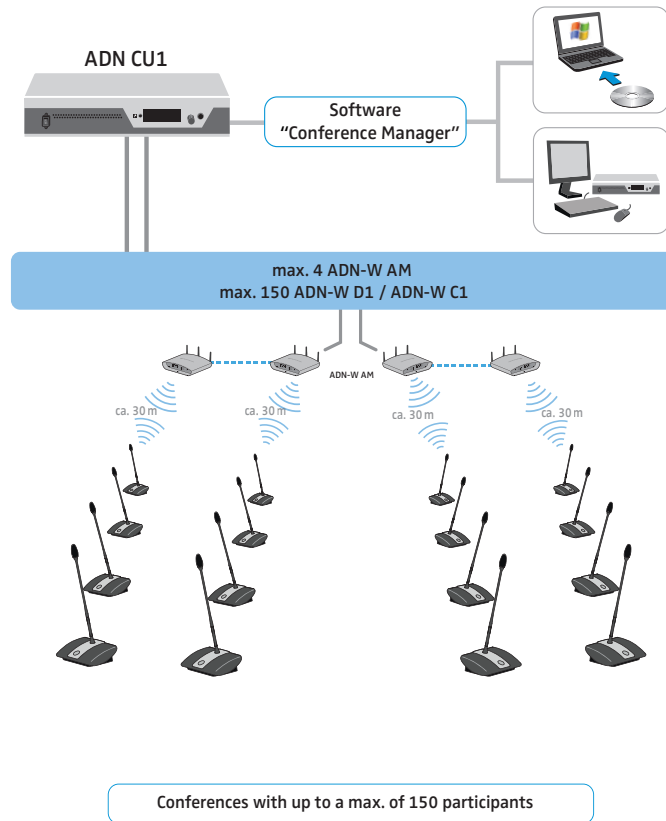
For configuring the conference system, you can either use the central unit's operating menu or the "Conference Manager" software. However, the full functionality of a wireless conference system can only be configured using the "Conference Manager" software. The software also allows you to control and monitor conferences via a graphical interface.

i ADN C1 and ADN D1 wired conference units and ADN-W C1 and ADN-W D1 wireless conference units can be combined arbitrarily as long as you ensure correct set-up and cabling and comply with the specifications (a conference system can comprise a total of 400 conference units of which up to 150 can be wireless).

Overview of a wired conference system



Overview of a wireless conference system



Package contents

- 1 ADN CU1 central unit
- 1 mains cable (with EU, UK or US mains plug, depending on version), length 1.8 m
- 1 instruction manual
- 1 "Safety information" supplement
- 1 DVD-ROM (including, among other things, the "Conference Manager" software, the "ADN Cable Calculator" software and the instruction manual for the overall conference system as PDF)

Components required for operation

Central unit

Number	Description	Cat. No.	Function
1	ADN CU1-EU central unit, EU version	505553	Controls the conference (wired and wireless components) and supplies power to a max. of 40 conference units and/or one antenna module
	ADN CU1-UK central unit, UK version	505554	
	ADN CU1-US central unit, US version	505555	

Wired standard components

Power supplies

Number	Description	Cat. No.	Function
1 - 15 (optional)	ADN PS-EU power supply, EU version	505546	Supplies power to conference units connected in simple strings or in redundant ring topology, for conferences with up to 400 conference units
	ADN PS-UK power supply, UK version	505547	
	ADN PS-US power supply, US version	505548	

Conference units

Number	Description	Cat. No.	Function
max. 400	ADN D1 delegate unit	502758	Allows to make contributions to the conference
1 - 10 (optional)	ADN C1 chairperson unit	502759	Allows to manage the conference

System cables

The system cables are black and have two shielded RJ45 plugs.

Number	Description	Cat. No.	Function
Divers	SDC CBL RJ45-2, 2 m	009842	Allows to interconnect components and conference units
	SDC CBL RJ45-3, 3 m	009843	
	SDC CBL RJ45-5, 5 m	009844	
	SDC CBL RJ45-10, 10 m	009845	
	SDC CBL RJ45-20, 20 m	009846	
	SDC CBL RJ45-50, 50 m	009847	

Wireless components

Antenna module

Number	Description	Cat. No.	Function
1 - 4	ADN-W AM antenna module	504743	Allows to transmit data via RF
	ADN-W AM-US antenna module, US version	505715	

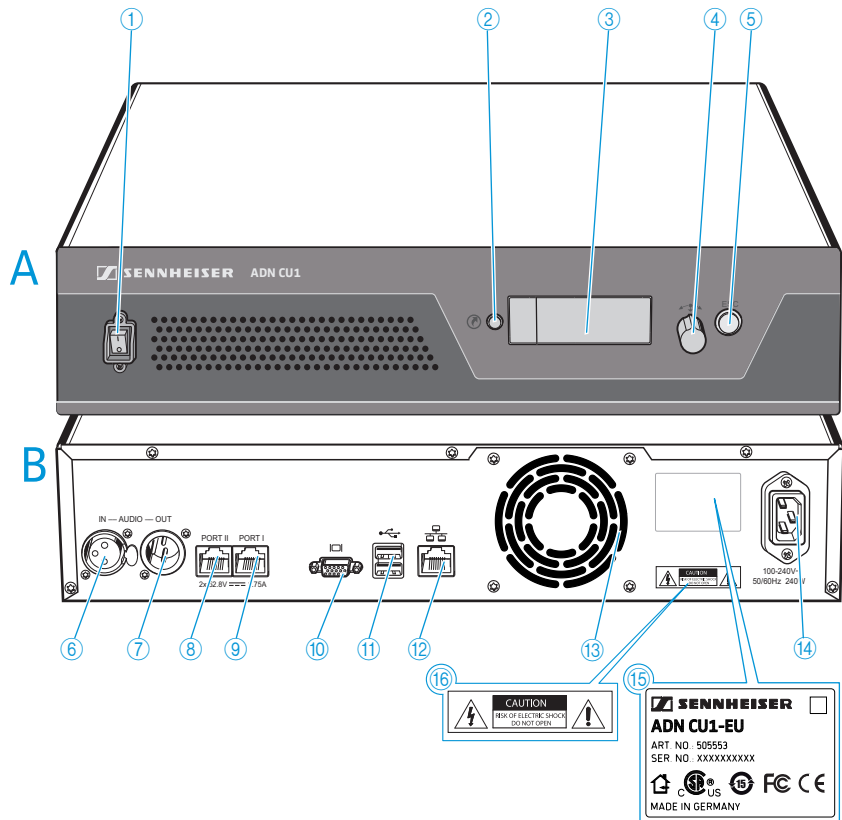
Wireless conference units

Number	Description	Cat. No.	Function
max. 150	ADN-W D1 wireless delegate unit	504748	Allows to make contributions to the conference
1 - 10 (optional)	ADN-W C1 wireless chairperson unit	504745	Allows to manage the conference
depending on the number of wireless conference units	ADN-W BA battery pack	504744	Supplies power to wireless conference units
	ADN-W MIC 15-39	504750	Gooseneck microphones to make contributions
	ADN-W MIC 36-29	504751	
	ADN-W MIC 15-50	504752	
	ADN-W MIC 36-50	504753	



Additional accessories for the ADN conference system can be found at www.sennheiser.com.

Product overview ADN CU1 central unit



A Front view

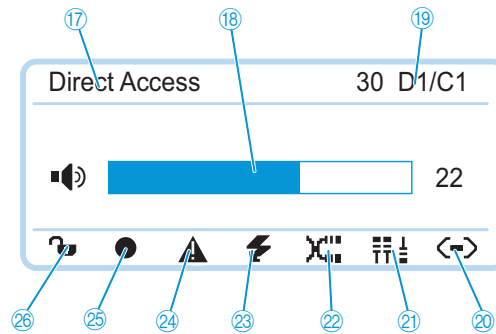
- ① On/off switch
- ② Standard display key
- ③ Display panel
- ④ Jog dial
- ⑤ ESC key (Escape)

B Rear view

- ⑥ IN audio input
- ⑦ OUT audio output
- ⑧ PORT II socket (RJ45) for connection of conference units/ADN PS/ADN-W AM
- ⑨ PORT I socket (RJ45) for connection of conference units/ADN PS/ADN-W AM
- ⑩ VGA monitor output
- ⑪ USB socket (x2)
- ⑫ Network socket (RJ45)
- ⑬ Fans
- ⑭ Mains socket
- ⑮ Type plate
- ⑯ Hazard warnings

Overview of the ADN CU1 display panel

After switch-on, the central unit's display shows progress bars (for the booting routine "Booting..." and the self test "Self-Test...") and then the standard display:



Text/icon	Possible display/function
⑰ Conference mode	Current conference mode: "Direct Access", "Override", "Push To Talk", "Request"
⑱ Floor channel volume	Current volume setting for the conference units' built-in loudspeakers
⑲ Number of conference units	Number of conference units (wired or wireless) connected to the conference system
⑳ Connection status icon	↔ Central unit is not connected to the "Conference Manager" software and/or a media control unit.
	↔ Central unit is connected to the "Conference Manager" software and/or a media control unit.
㉑ Structural change icon	⚠ Icon appears when, since the last initialization, a malfunction/change has occurred in the cabling of the conference units.
㉒ Cable fault icon	⚡ Icon appears when a conference unit is not correctly connected to the ADN CU1 central unit.
㉓ Short-circuit icon	⚡ Icon appears when there is a short circuit in the cabling of the conference units. The display panel lights up red.
㉔ Warning triangle	⚠ Icon appears when there is a malfunction/change. In case of malfunction, the display panel lights up red.
㉕ Audio recording icon	● Icon appears when audio recording of the conference is activated.
	☀ Icon flashes when storage space is low.
	⊗ Icon appears when, after finishing the audio recording, data is still written to the mass storage device.
	⚠ Icon appears when the audio recording failed. The display panel lights up red.
㉖ Lock mode icon (see page 19)	🔒 Lock mode of the central unit is deactivated.
	🔒 Lock mode of the central unit is activated.

For information on troubleshooting when error icons ㉑ to ㉔ are displayed, refer to the ADN system manual.

Structuring and controlling the conference system

Structuring a wired conference system

Basic requirements for a conference system comprising wired conference units

For safe operation of the conference system, make sure that all wired conference units are supplied with a voltage of at least 35 V! The voltage supplied depends on the number of connected conference units and on the cable lengths. The standard cable length between the central unit or power supply and the first conference unit is 50 m max. and the standard cable length between the individual conference units is 2 to 5 m.

If these cable lengths are observed, safe operation of conference systems with the following number of conference units is ensured:

- small conference systems comprising only an ADN CU1 central unit
 - 30-40 conference units connected in simple strings
- large conference systems comprising an ADN CU1 central unit and a max. of 15 ADN PS power supplies
 - max. 400 conference units connected in simple strings or in ring topology per ADN PS power supply
 - 60-70 conference units connected in simple strings
 - 30-40 conference units connected in ring topology

If cable lengths are shorter, it might be that more conference units can be used.

ADN D1 delegate units and ADN C1 chairperson units can be combined in an arbitrary order. The number of chairperson units, however, is limited to 10 max. per conference system. All wired components of the conference system are interconnected using SDC CBL RJ-45 system cables.

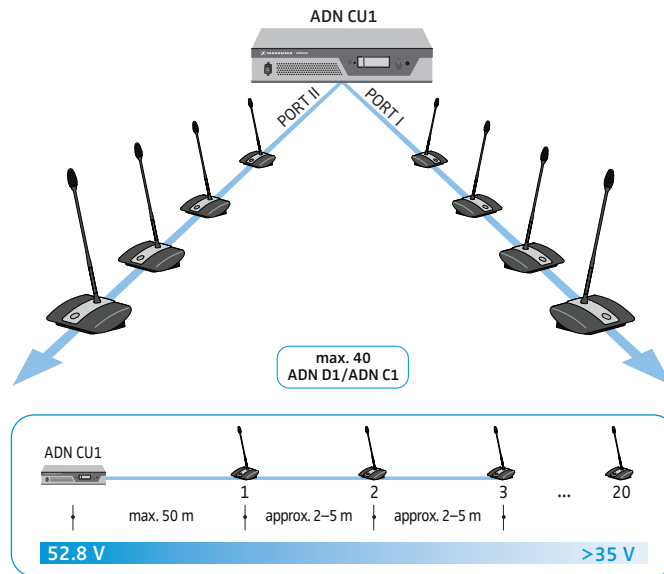
Calculating the voltage supply of the conference units

The “ADN Cable Calculator” software allows you to calculate the voltage supply of the wired conference units on the individual sections of a cable string or cable ring and to plan the structure of the conference system. The software is included on the DVD-ROM (supplied with the ADN CU1) or is available from your Sennheiser partner or from the “Downloads” area on the product page at www.sennheiser.com.

For further information on the installation and use of the “ADN Cable Calculator” software, refer to the help section of the “ADN Cable Calculator” software and to the ADN system manual.

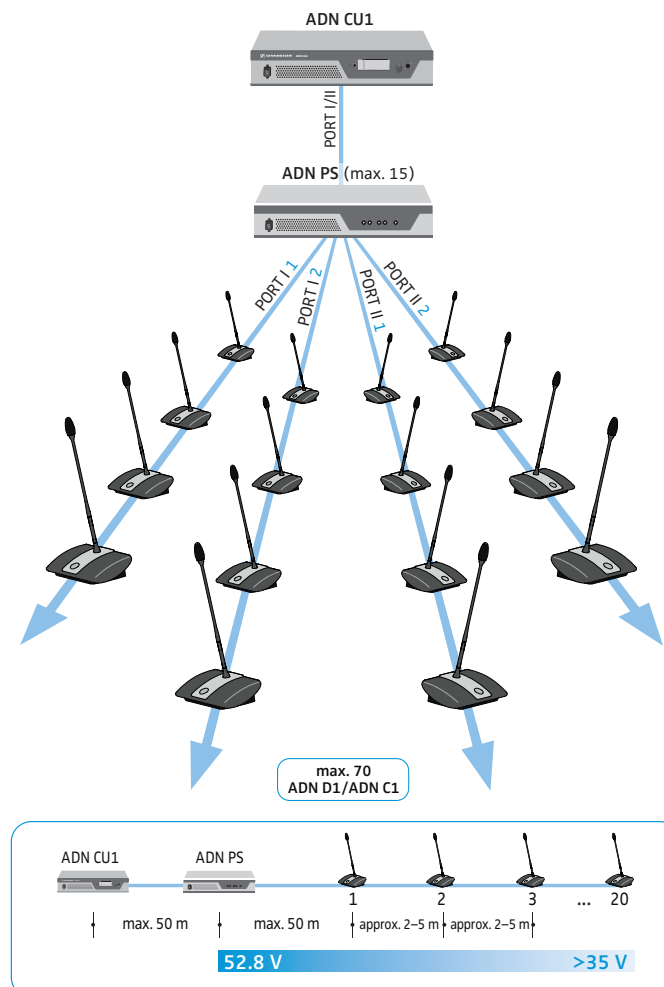
Small conference system with simple cabling

For small conference systems with approx. 30–40 conference units, you require one ADN CU1 central unit for controlling the conference. The conference units are interconnected in two cable strings which are directly connected to the central unit.



Large conference system with simple cabling

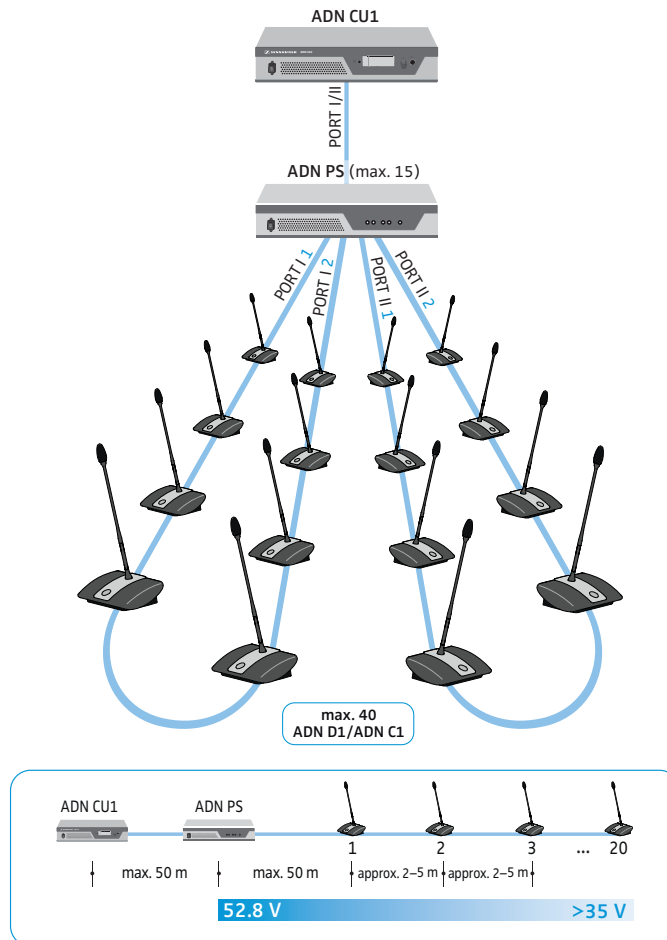
For setting up a large conference system with the maximum number of conference units (i.e. up to 400), you require one ADN CU1 central unit for controlling the conference and additional ADN PS power supplies for powering the conference units. The conference units are interconnected in cable strings and up to four cable strings can be connected to each ADN PS power supply.



Large conference system with redundant ring topology

The redundant ring topology ensures that, should one conference unit or system cable fail or be manipulated, all other conference units of the cable ring will continue to function reliably.

For setting up a large conference system with redundant ring topology, you require one ADN CU1 central unit for controlling the conference and additional ADN PS power supplies for powering the conference units. The conference units are interconnected in rings and two rings can be connected to each ADN PS power supply.



i When connecting the conference units to an ADN PS power supply, you can mix different cable topologies (simple cabling with cable strings or redundant ring topology) as long as you ensure correct cabling and comply with the specifications.

Setting up a wireless conference system

Basic requirements for a conference system comprising wireless conference units

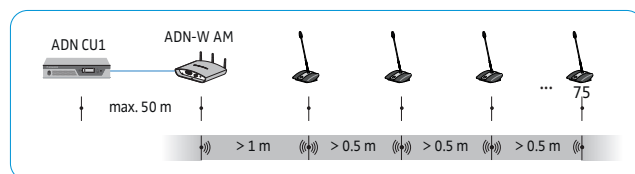
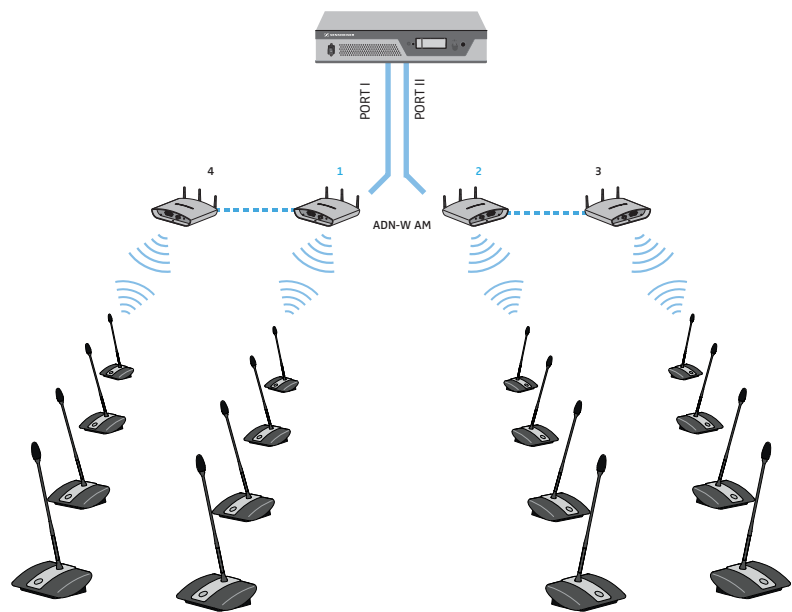
The ADN-W C1 and ADN-W D1 wireless conference units connect wirelessly to the ADN-W AM antenna module, which is connected to the ADN CU1 central unit via system cable. The ADN-W AM antenna module can manage up to 75 wireless conference units. The battery-powered wireless conference units are easy to use and offer a high degree of flexibility. If the power supplied to the antenna module via the system cable is not sufficient, you have to power the antenna module using the NT 12-50C power supply.

Wireless conference system

For setting up a wireless conference system, you require one ADN CU1 central unit for controlling the conference and at least one ADN-W AM antenna module for operating the wireless conference units (range approx. 30 m).

max. 150 conference units per CU1

max. 75 conference units per antenna



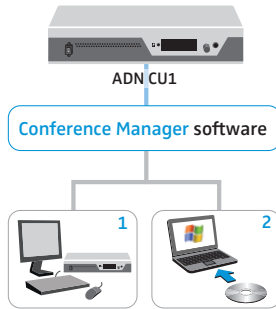
ADN C1 and ADN D1 wired conference units and ADN-W C1 and ADN-W D1 wireless conference units can be combined arbitrarily as long as you ensure correct set-up and cabling and comply with the specifications (a conference system can comprise a total of 400 conference units of which up to 150 can be wireless).

Configuring and controlling the conference system



For configuring the conference system, you can either use the operating menu of the central unit or the “Conference Manager” software. However, the full functionality of a wireless conference system can only be configured using the “Conference Manager” software. The software also allows you to control and monitor conferences via a graphical interface.

The “Conference Manager” software can be run in two different ways:



1. As a program on the central unit’s built-in PC
You have to connect a screen, keyboard, and mouse to the central unit (see page 17).
2. As a program on a Windows PC
You have to install the “Conference Manager” software on the PC and integrate the PC together with the central unit in a network (see page 17).



For information on the installation and use of the “ADN Cable Calculator” software, refer to the ADN system manual.

Input and output of audio signals

Via XLR sockets, you can feed audio signals to the floor channel or output the floor channel.

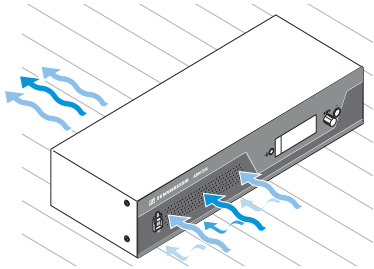
For recording a conference on a USB mass storage device, you can use the recording function of the ADN CU1 central unit, which saves the floor channel and all channels of the conference units as audio files in wav format.

Integration into a media control system

The ADN conference system can be completely integrated into a media control system. You can monitor and control all functions of the conference system via the programmable commands of your media control system. For information on the integration into a media control system, refer to the ADN system manual.

Preparing the ADN CU1 central unit for operation

Setting up the central unit on a flat surface



- ▶ Make sure that the air vents are not covered or blocked.
- ▶ Place the central unit on a flat surface as shown.

i For information on how to mount the central unit into a 19" rack, refer to the ADN system manual.

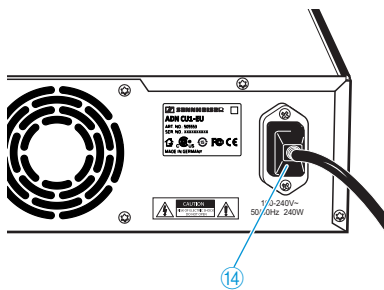
Connecting the central unit to the mains power supply

CAUTION

Product damage due to unsuitable mains cables or power outlets!

An unsuitable power supply can damage the product.


- ▶ Only use the mains cable (supplied) for connecting the product to the mains power supply.
 - ▶ Only use multi-outlet power strips or extension cables with protective ground contacts.
 - ▶ Only use mains cables with a 3-pin connector.
-
- ▶ First connect the connector of the mains cable (supplied) to the mains socket ⑭.
 - ▶ Connect the mains plug (EU, UK or US plug) of the mains cable to the mains power supply.
The ADN CU1 central unit is now ready for operation.




Setting up the conference system

CAUTION

Product damage due to an unsuitable power supply!

If you connect standard network devices with RJ45 plugs (e.g. switches or network cards) to the connection sockets **PORT I**, **PORT II**, **DATA PS** and , the network devices can be damaged due to an unsuitable power supply.

- ▶ Only connect ADN C1 and ADN D1 conference units, ADN PS power supplies and the ADN-W AM antenna module to the connection sockets **PORT I**, **PORT II**, **DATA PS** and .

Regardless of the number of conference units and the room size, we recommend the following procedure for setting up the conference system:

- ▶ Decide if you require wired or mobile wireless conference units. You can also combine wired and wireless conference units.
- ▶ Plan the number of conference units required for your conference system. A total of 400 conference units (of which up to 150 can be wireless) can be used in a conference system (the maximum number of ADN C1 or ADN-W C1 chair-person units is limited to 10). Always take the largest possible number of participants as a starting point.

If you are using wired conference units:

- ▶ Plan if simple cabling is sufficient or if you require a redundant ring topology (see page 7).
- ▶ If necessary, calculate the number of ADN PS power supplies required (a maximum of 15 ADN PS power supplies can be used in a conference system).
- ▶ If necessary, calculate the maximum length of the cabling in order to ensure that all conference units connected are supplied with sufficient voltage (see page 7).
- ▶ Place the ADN CU1 central unit and, if necessary, the ADN PS power supplies e.g. in the electrical equipment room or in the conference room.
- ▶ Place the conference units at the corresponding seats.
- ▶ Put out a sufficient number of SDC CBL RJ45 system cables in the required lengths.



When connecting the conference units to an ADN PS power supply, you can mix different cable topologies (simple cabling or redundant ring topology) as long as you ensure correct cabling and comply with the specifications.

If you are using wireless conference units:

- ▶ Place the ADN CU1 central unit e.g. in the electrical equipment room or in the conference room. If possible, place the ADN-W AM antenna module directly in the conference room. The transmission range of the antenna module is approx. 30 m.
- ▶ Place the operational wireless conference units at the corresponding seats.



In some countries/regions (e.g. Canada), the use of wireless components operating in the 5.15 to 5.25 GHz frequency band (channel 5 to 8) is restricted to indoor use.

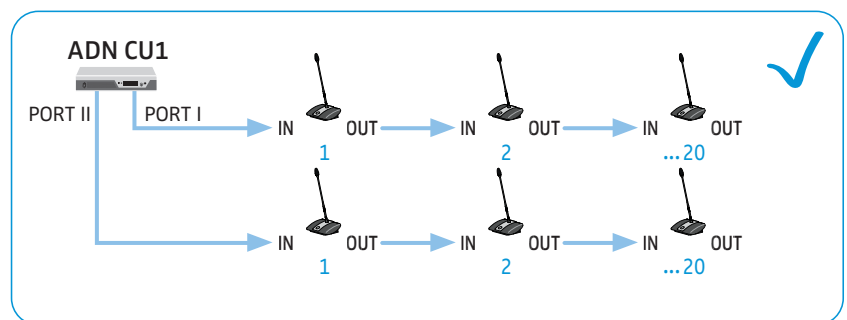
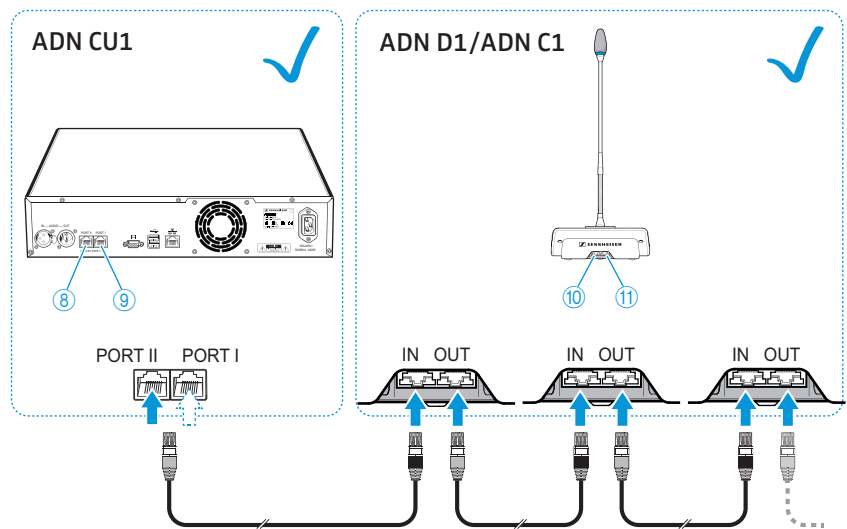
Setting up a small wired conference system with only the central unit

For a small wired conference system, you do not require ADN PS power supplies.

Connecting conference units connected in a cable string to the ADN CU1 central unit

The following describes how to connect one cable string to the ADN CU1 central unit. If necessary, repeat these steps for a second cable string.

- ▶ Use a system cable to connect the **PORT II** socket ⑧ or **PORT I** socket ⑨ of the ADN CU1 central unit to the **IN** socket ⑩ of the first conference unit.
- ▶ Use a system cable to connect the **OUT** socket ⑪ of the first conference unit to the **IN** socket ⑩ of the second conference unit.
- ▶ Repeat these steps for additional conference units.
- ▶ If necessary, repeat all steps for a second cable string.



i Please note that there is a limited number of approx. 15-20 conference units per cable string due to the voltage drop on the cable string (see page 7).

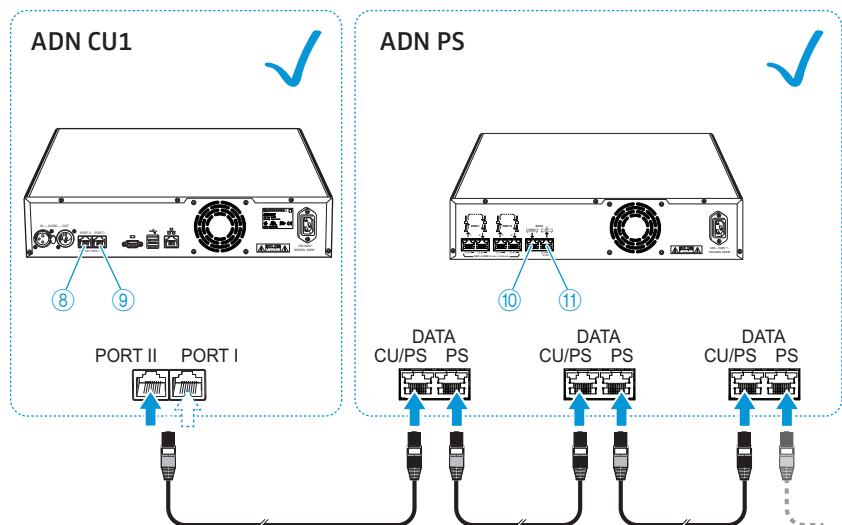
i You can use optional cable holders for guiding the system cables. For detailed information, refer to the ADN system manual.

Setting up a large wired conference system

For conference systems comprising more than 40 conference units or when the conference units are connected in a redundant ring topology, you require ADN PS power supplies. A maximum of 15 ADN PS power supplies can be used in a conference system.

Connecting ADN PS power supplies to the ADN CU1 central unit

- ▶ Use a system cable to connect the **PORT II** socket ⑧ or **PORT I** socket ⑨ of the ADN CU1 central unit to the **DATA CU/PS** input socket ⑩ of the first ADN PS power supply (the maximum cable length allowed is 50 m).
- ▶ Use a system cable to connect the **DATA PS** output socket ⑪ of the first ADN PS power supply to the **DATA CU/PS** input socket ⑩ of the second ADN PS power supply.
- ▶ Repeat these steps for the remaining ADN PS power supplies.



- ▶ Connect the conference units to the ADN PS power supply (refer to the instruction manual of the ADN PS power supply or to the ADN system manual).

Setting up a wireless conference system

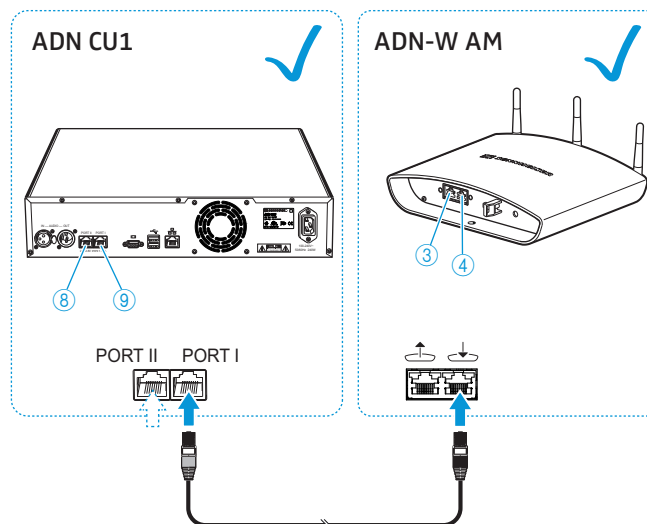
For operating the wireless conference units, you require at least one ADN-W AM antenna module.

Connecting the ADN-W AM antenna module to the ADN CU1 central unit

- ▶ Use a system cable (supplied with the ADN-W AM; the maximum cable length allowed is 50 m) to connect the **PORT II** socket ⑧ or **PORT I** socket ⑨ of the ADN CU1 central unit to the input socket ④ of the ADN-W AM antenna module.

i If the power supplied to the antenna module via the system cable is not sufficient, you have to power the antenna module using the NT 12-50C power supply (detailed information can be found in the ADN system manual).

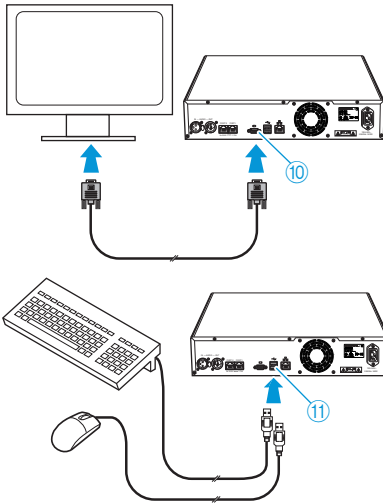
i You can also connect the ADN-W AM antenna module to the **PORT** sockets of an ADN PS power supply. It does not matter if you are using a string or ring topology. The antenna module is connected just like a conference unit to the cable string or cable ring.





Preparing to use the “Conference Manager” software


Running the software installed on the central unit

To use the “Conference Manager” software installed on the central unit, you require the following devices:



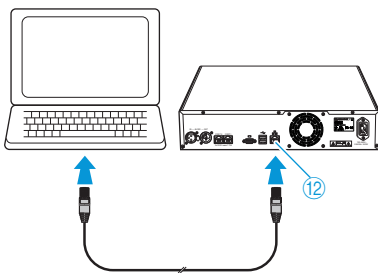
Device	Requirements
Screen	Connection: 15-pin Sub-D VGA Resolution: 800 x 600 pixels or higher 1024 x 768 or 1280 x 1024 pixels recommended
Mouse	Standard USB for Windows PCs
Keyboard	Standard USB for Windows PCs Supported language layouts: e.g. English, German, French, Spanish, Italian, Dutch, Russian, Chinese, Japanese (for the complete list, refer to the ADN system manual)

- ▶ Use a Sub-D VGA cable to connect a screen to the VGA monitor output  ⑩.
- ▶ Connect the keyboard and the mouse to the two USB sockets  ⑪.
- ▶ Configure the screen, the keyboard and the mouse using the “Conference Manager” software (for detailed information, refer to the ADN system manual).

 Use a USB hub if the number of USB sockets ⑪ on the central unit is not sufficient.

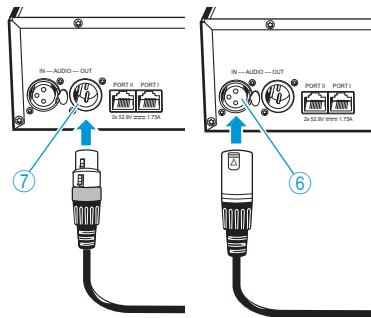
Running the software on a separate Windows PC

To run the “Conference Manager” software on a separate Windows PC, the PC must meet the following system requirements:



Component	Requirement
Processor	Intel Pentium 4 or AMD Athlon XP, 2 GHz or more
RAM	Min. 1 GB, depending on your operating system
Hard disk	Min. 500 MB free hard disk memory
Drives	DVD-ROM
Interfaces/network	Ethernet 100 MBit/s
TCP/IP internet protocol	Internet Protocol version 4 (IPv4)
Screen	Minimum resolution: 800 x 600 pixels Recommended: 1024 x 768 pixels
Operating system	Microsoft Windows XP Professional with SP3 Microsoft Windows Vista with SP2 Microsoft Windows 7 Microsoft Windows 8

- ▶ Use a network cable (Cat5) to connect the Ethernet socket ⑫ of the central unit to the network interface of your PC.
You can also connect the PC and the central unit using a switch or similar.
- ▶ Install the “Conference Manager” software supplied on the DVD-ROM on your connected PC and configure the network (for detailed information, refer to the ADN system manual).



Connecting external audio devices to the central unit

To output the floor channel via an external audio device:

- ▶ Use an XLR cable to connect the **OUT** audio output (7) of the central unit to an external audio device.

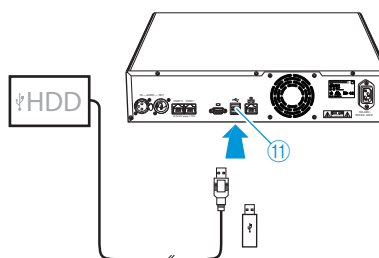
To connect an external audio source and to feed its signals to the floor channel:

- ▶ Use an XLR cable to connect the external audio source to the **IN** audio input (6) of the central unit.

Connecting a USB mass storage device for audio recordings to the central unit

In order to be able to use the audio recording function of the ADN CU1 central unit, you require a USB mass storage device with the following characteristics:

USB mass storage device	Requirements
Recommended memory size	> 500 GB
File system	NTFS, FAT32
Partition	1
Connection	USB type A plug
Interface	USB 2.0
Power supply	via USB socket (approx. 500 mA) or separate mains unit



- ▶ Connect the USB mass storage device to one of the two USB sockets (11).
- ▶ If necessary, connect the mains unit of the USB mass storage device.

i Use a USB hub if the number of USB sockets (11) is not sufficient or if the USB mass storage device is too large for connection to the central unit.

Using the ADN CU1 central unit

Switching the conference system on/off

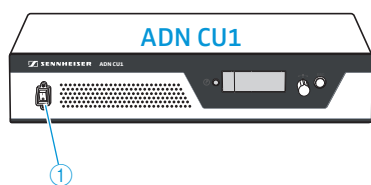
Switching on a conference system comprising wired conference units

- ▶ On the ADN CU1 central unit and, if connected, on the ADN PS power supplies, set the on/off switch (1) to position "I".
The central unit switches on and its display panel lights up. If ADN PS power supplies are connected, they are also switched on.

Switching on a conference system comprising an antenna module for wireless operation

- ▶ Set the on/off switch (1) of the ADN CU1 central unit to position "I".
The central unit switches on and its display panel lights up. The connected ADN-W AM antenna module is also switched on.

i If you are using ADN PS power supplies in a conference system in which wireless conference units are used, you have to switch on the ADN PS power supplies as well (see previous section).



Switching off the conference system



If you have made changes to a configuration using the “Conference Manager” software, you have to save these changes before switching the central unit off. All other settings of the central unit are automatically saved.

- ▶ Set the on/off switch ① of the ADN CU1 central unit to position “0”. The central unit is switched off and the display panel goes off. If ADN PS power supplies are connected to the central unit and switched on, they are switched off and the status LEDs go off. If an ADN-W AM antenna module is connected to the central unit, it is also switched off.

To **completely switch the ADN CU1 central unit off**:

- ▶ Pull out the mains plug from the wall socket.

Deactivating the lock mode of the central unit

If the lock mode is activated, you have to deactivate it in order to be able to operate the central unit:



- ▶ Press the jog dial or any other key.
“Lock” appears on the display panel.







- ▶ Turn the jog dial.
The “Off” setting is selected.

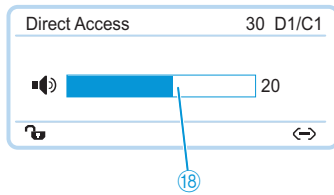


- ▶ Press the jog dial.
The lock mode is deactivated.

Functions of the keys

Action	Functions
Press the ESC key 	<ul style="list-style-type: none"> • Cancels the entry and returns to the next higher menu level or to the standard display
Press the jog dial 	<ul style="list-style-type: none"> • Changes from the standard display to the operating menu • Calls up a menu item • Enters a submenu • Stores the settings and returns to the operating menu
Turn the jog dial 	<ul style="list-style-type: none"> • Increases or reduces the floor channel volume (when the standard display is shown) • Changes to the next/previous menu item • Changes the setting of a menu item
Press the standard display key 	<ul style="list-style-type: none"> • Returns to the standard display

Setting the volume of the conference units' built-in loudspeakers



You can set the volume of the conference units' built-in loudspeakers via the jog dial on the central unit. The standard display displays the current volume setting 18.



CAUTION

Danger of hearing damage due to loud hissing!

When the floor channel volume is set to a high level or when several participants speak simultaneously, feedback (loud hissing noise) can occur. This can cause hearing damage.

- ▶ Reduce the floor channel volume (see below).
- ▶ Activate the "Feedback Suppression" function to be able to increase the volume before feedback can occur (see page 24).
- ▶ Make sure that the "Audio Gain Reduction" function is activated (see page 24). This function reduces the gain per active microphone by the selected level and thus prevents feedback noise.
- ▶ Increase the distance between the individual conference units to at least 50 cm.



- ▶ Turn the jog dial
 - to the right to increase the volume or
 - to the left to reduce the volume.



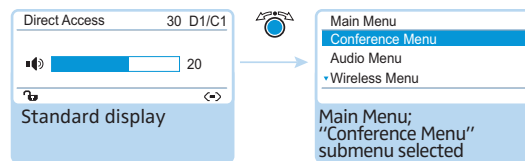
Use the "Feedback Suppression" function to be able to increase the floor channel volume by up to 5 dB without feedback occurring (see page 24).

Configuring the conference system

Working with the operating menu

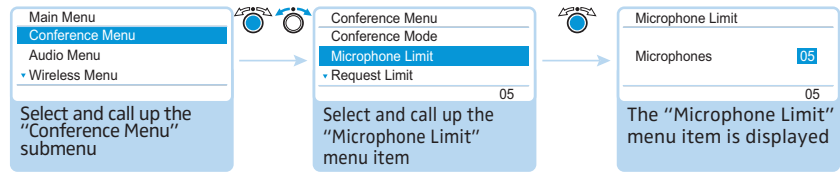
By way of example of the "Microphone Limit" menu item, this section describes how to use the operating menu.

Changing from the standard display to the operating menu



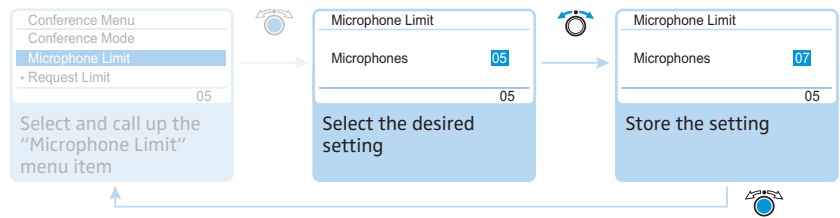
- ▶ Press the jog dial. The standard display is replaced by the "Main Menu". The last called-up menu item is highlighted.

Calling up a menu item



- ▶ Press the jog dial to call up the "Conference Menu" menu item. The "Conference Menu" submenu appears.
- ▶ Turn the jog dial to select the "Microphone Limit" menu item.
- ▶ Press the jog dial to call up the "Microphone Limit" menu item.

Changing and storing settings



- ▶ Turn the jog dial to adjust settings in the "Microphone Limit" menu item.
- ▶ Press the jog dial. Your setting is stored. You are back to the operating menu.

i By briefly turning the jog dial to the left or right, the next or the previous menu item or setting is displayed.

If you turn the jog dial to the left or right and hold it in this position, the menu items or settings change in quick succession ("fast search" function).

Canceling an entry

- ▶ Press the **ESC** key. The operating menu or the next higher menu level appears.

Or:

- ▶ Press the standard display key. The standard display appears.

To subsequently directly return to the last edited menu item:

- ▶ Press the jog dial repeatedly until the last edited menu item appears.

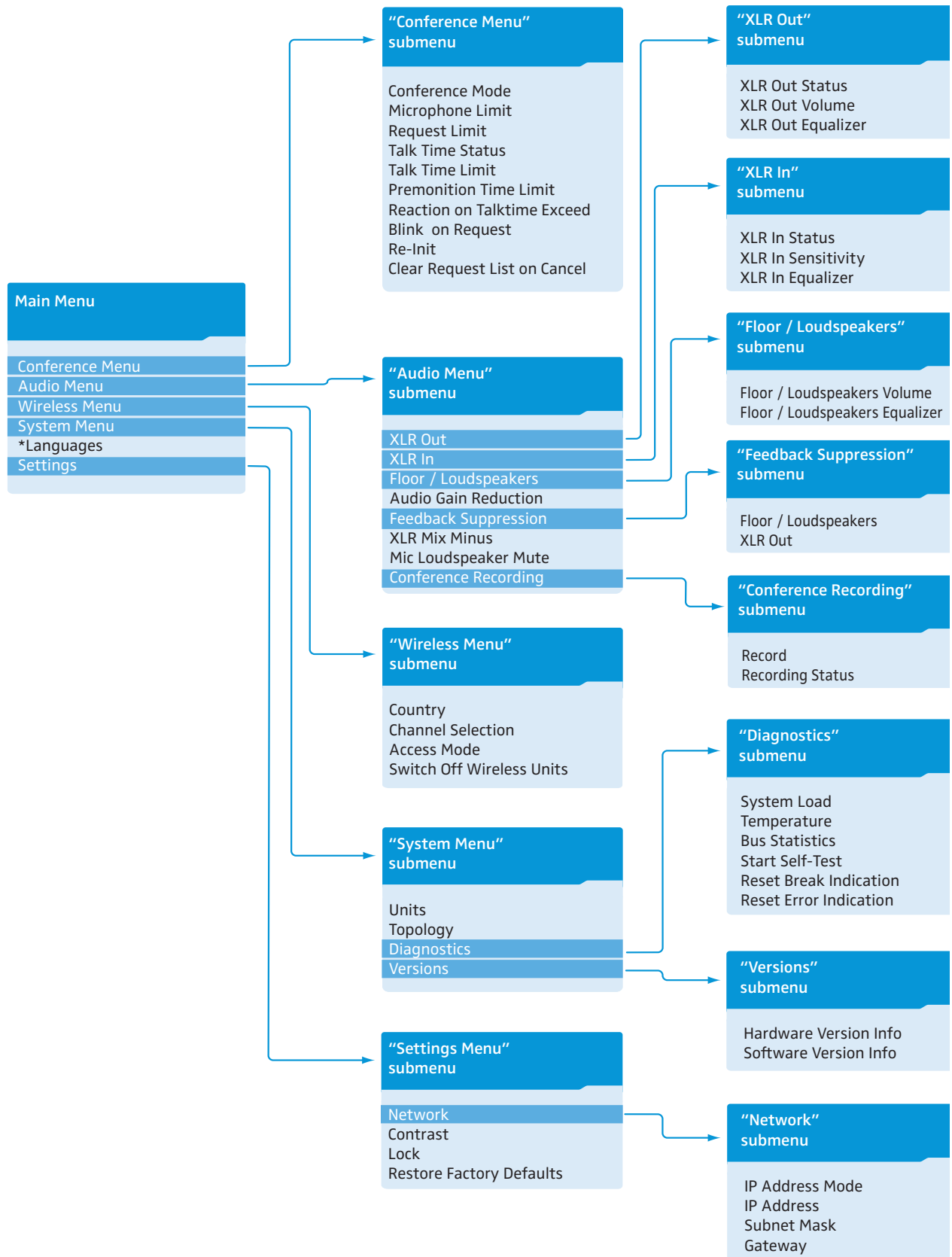
Exiting the operating menu


- ▶ Press the standard display key. The standard display appears.

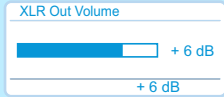
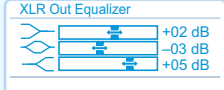
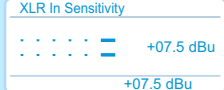
Or:

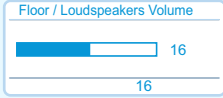
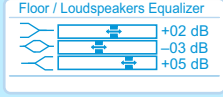
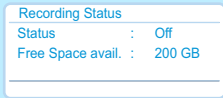
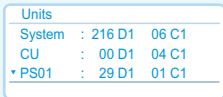

- ▶ Press the **ESC** key repeatedly until the standard display appears.

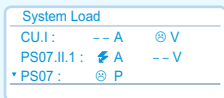

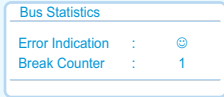
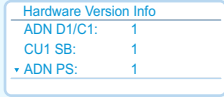
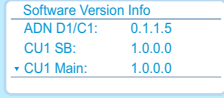
Overview of the operating menu



Display	Function of the menu item	Option/display
"Main Menu"		
"Conference Menu"	Calls up the "Conference Menu" submenu	–
"Audio Menu"	Calls up the "Audio Menu" submenu	–
"Wireless Menu"	Calls up the "Wireless Menu" submenu	–
"System Menu"	Calls up the "System Menu" submenu	–
"*Languages"	Adjusts the language	"German", "English", "Español"...
"Settings"	Calls up the "Settings" submenu	–
"Conference Menu"		
"Conference Mode"	Adjusts the conference mode "Direct Access", "Override" and "Push to talk": These conference modes do not require the use of a chairperson unit. If the maximum number of speakers who can take the floor simultaneously has not been reached, a further speaker can take the floor immediately. "Request": For this mode to function, a chairman unit is required. The chairperson receives requests to speak and grants speaking privileges according to the FIFO principle (First In – First Out), i.e. the participant with the longest waiting time is granted speaking privileges.	"Direct Access", "Override", "Push to talk" or "Request"
"Microphone Limit"	Sets the maximum number of speakers who can take the floor simultaneously for all conference modes	"1" ... "10"
"Request Limit"	Sets the maximum number of requests to speak for "Request" and "Direct Access" mode	"0" ... "10"
"Talk Time Status"	Activates/deactivates the speaking time limit	"On"/"Off"
"Talk Time Limit"	Sets the speaking time limit	"01" ... "60" in steps of 1 minute
"Premonition Time Limit"	Sets the advance warning time (warns speakers that they are approaching the end of the individual speaking time)	"00" ... "120" in steps of 10 seconds
"Reaction on Talktime Exceed"	Determines the behavior when the individual speaking time is exceeded "Continue": The individual speaking time is continued. "Cancel": The individual speaking time is terminated.	"Continue"/"Cancel"
"Blink on Request"	Activates/deactivates the flashing of the signal light ring when a request to speak is made	"On"/"Off"
"Re-Init"	Re-initializes the conference units If you connect ADN C1 or ADN-W C1 chairperson units to the conference system during a running conference, you have to re-initialize them. When conference units are re-initialized, the conference will be interrupted.	"Yes"/"No"
"Clear Request List on Cancel"	Sets the function of the priority key  of the chairperson unit "On": Pressing the priority key deactivates all ADN D1 or ADN-W D1 delegate units. All requests to speak are deleted. "Off": Pressing the priority key deactivates all currently active ADN D1 or ADN-W D1 delegate units. All requests to speak are retained.	"On"/"Off"

Display	Function of the menu item	Option/display
"Audio Menu"		
"XLR Out"	Calls up the "XLR Out" submenu	–
"XLR In"	Calls up the "XLR In" submenu	–
"Floor / Loudspeakers"	Calls up the "Floor / Loudspeakers" submenu	–
"Audio Gain Reduction"	The sum signal of all active conference units is output via the floor channel ("Floor / Loudspeakers"). The "Audio Gain Reduction" menu item allows you to adjust how the volume levels of the signals of the individual conference units are processed.	"0.0 dB per Mic." ... "–3.0 dB per Mic." "Linear Division"
"Feedback Suppression"	Calls up the "Feedback Suppression" submenu	–
"XLR Mix Minus"	Activates the filtering of the IN audio input from the OUT audio output in order to avoid, for example, double audio signals during teleconferencing	"On"/"Off"
"Mic Loudspeaker Mute"	Deactivates the conference units' built-in loudspeakers for contributions coming from the conference units' microphones	"On"/"Off"
"Conference Recording"	Calls up the "Conference Recording" submenu	–
"XLR Out" menu		
"XLR Out Status"	Activates/deactivates the OUT audio output	"On"/"Off"
"XLR Out Volume"	Adjusts the volume of the XLR output	 "01" ... "32"
"XLR Out Equalizer"	Adjusts the tone color of the XLR output	 "–12 dB" ... "+12 dB"
"XLR In" menu		
"XLR In Status"	Activates/deactivates the IN audio input	"On"/"Off"
"XLR In Sensitivity"	Adjusts the sensitivity of the XLR input	 "–18.0 dBu" ... "+18.0 dBu"
"XLR In Equalizer"	Adjusts the tone color of the XLR input	 "–12 dB" ... "+12 dB"

Display	Function of the menu item	Option/display
"Floor / Loudspeakers" menu		
"Floor / Loudspeakers Volume"	Adjusts the floor channel volume ("Floor / Loudspeakers")	 <p>"00" ... "32"</p>
"Floor / Loudspeakers Equalizer"	Adjusts the tone color of the floor channel	 <p>"-12 dB" ... "+12 dB"</p>
"Feedback Suppression" menu		
"Floor / Loudspeakers"	Changes the volume adjustment of the conference units' built-in loudspeakers in order to increase the max. possible volume while the risk of feedback due to the increased volume is reduced.	"Off" low (approx. +2 to +3 dB) "Low Intensity" high (approx. +5 to +6 dB) "High Intensity"
"XLR Out"	Changes the volume adjustment of the OUT audio output in order to increase the max. possible volume while the risk of feedback due to the increased volume is reduced.	
"Conference Recording" menu		
"Record"	Starts/stops the audio recording of the conference channels on a USB mass storage device	"On"/"Off"
"Recording Status"	Provides information on the status of the audio recording and on the available memory space on the USB mass storage device	
"Wireless Menu"		
"Country"	Country/area settings for radio communication	"Europa", "USA/Canada", "Mexico", ...
"Channel Selection"	Adjusts the channel selection mode	"Automatic"/"Manual"
"Access Mode"	Adjusts the connection mode for wireless conference units	"Open"/"Closed"
"Switch Off Wireless Units"	Switches off all connected wireless conference units	"Yes"/"No"
"System Menu"		
"Units"	Displays the type and number of the conference units connected to the ADN CU1 central unit or ADN PS power supplies or connected wirelessly to an ADN-W AM antenna module	
"Topology"	Displays the type of topology connected to the ADN PS power supplies (simple cabling ↔ or redundant ring topology ↻)	
"Diagnostics"	Calls up the "Diagnostics" submenu	—
"Versions"	Calls up the "Versions" submenu	—

Display	Function of the menu item	Option/display
“Diagnostics” menu		
“System Load”	Provides information on the current supply (A), voltage supply (V) and power (P)	
“Temperature”	Provides information on the temperature status	
“Bus Statistics”	Provides information on the status of data transmission/errors	
“Start Self-Test”	Performs a self-test on the conference system	“Yes”/“No”
“Reset Break Indication”	Resets the error counter (“Break Counter”) in the “Bus Statistics” menu item	“Yes”/“No”
“Reset Error Indication”	Resets the display for data bus errors (“Error Indication”) in the “Bus Statistics” menu item	“Yes”/“No”
“Versions” menu		
“Hardware Version Info”	Displays the hardware version	
“Software Version Info”	Displays the software version	
“Settings” menu		
“Network”	Calls up the “Network” submenu	–
“Contrast”	Adjusts the contrast of the display panel	“1” ... “15”
“Lock”	Activates/deactivates the lock mode	“On”/“Off”
“Restore Factory Defaults”	Restores the factory default settings	“Yes”/“No”
“Network” menu		
“IP Address Mode”	Sets the IP address allocation mode	“Static IP”/“Dynamic IP”
“IP Address”	Sets the IP address of the central unit	“xxx . xxx . xxx . xxx”
“Subnet Mask”	Sets the subnet mask of the central unit	“xxx . xxx . xxx . xxx”
“Gateway”	Sets the IP address of a standard gateway	“xxx . xxx . xxx . xxx”

Cleaning and maintaining the conference system

CAUTION

Liquids can damage the product!

Liquids entering the product can cause a short-circuit in the electronics or damage the mechanics.

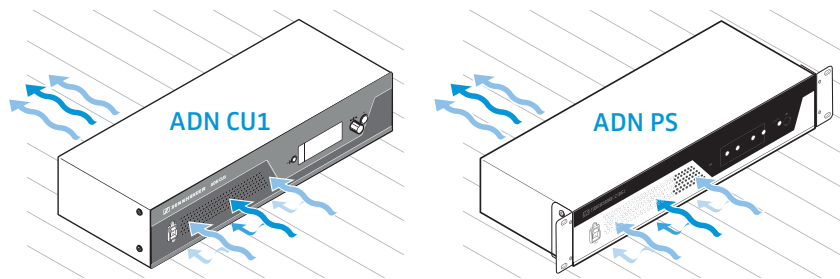
Solvents or cleansing agents can damage the surfaces of the product.

- ▶ Keep all liquids away from the product.
- ▶ Do not use any solvents or cleansing agents.

- ▶ Switch the conference system off (see page 18).
- ▶ Before cleaning, disconnect the ADN CU1 central unit and the ADN PS power supplies from the mains power supply.
- ▶ Only use a dry and soft cloth to clean the product.

To ensure optimum cooling of the ADN CU1 central unit and the ADN PS power supplies:

- ▶ Clean the air vents on the front, back and bottom from time to time with a soft brush or paintbrush in order to avoid dust deposits.



Specifications ADN CU1

Nominal input voltage	100 to 240 V~
Mains frequency	50 to 60 Hz
Power consumption	245 W
Output voltage at RJ45 EtherCAT	52.8 V ===
Nominal output current	max. 1.75
Temperature range	operation: +5°C to +50°C storage: -25°C to +70°C
Relative humidity	operation: 10 to 80% storage: 10 to 90%
Dimensions (W x H x D)	approx. 417 x 100 x 345 mm
Weight	approx. 6.5 kg

XLR IN

Input resistance	$R_{IN} > 10 \text{ k}\Omega$
Input level	max. +18 dBu min. -18 dBu
Nominal level	+7.5 dBu

XLR OUT

Output resistance	$R_{OUT} < 100 \Omega$
Frequency response	20 Hz to 14.5 kHz; -3 dB
Output level	max. +11 dBu
Nominal level	+6 dBu
THD (at 1 kHz)	< 0.02 % A-weighted at +7.5 dBu
Signal-to-noise ratio	> 80 dB A-weighted at +11 dBu



Sennheiser electronic GmbH & Co. KG

Am Labor 1, 30900 Wedemark, Germany
www.sennheiser.com

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