LSP 500 PRO
Wireless Integrated PA System

Instruction manual

SENNHEISER

Content

Important safety instructions

1. Read this instruction manual.
2. Keep this instruction manual. Always include this instruction manual when passing the apparatus on to third parties.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Only clean the apparatus when it is not connected to the mains power supply. Clean only with a dry cloth.
7. Always ensure a free air flow around the cooling fins on the rear of the product. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits from the apparatus.
11. Only use attachments/accessories specified by Sennheiser.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, when the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. To completely disconnect this apparatus from the AC mains, disconnect the power supply cord plug from the AC receptacle.
16. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
17. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.
18. The mains plug of the power supply cord shall remain readily accessible.

Hazard warnings on the rear of the product

The label shown on the left is attached to the rear of the product. The symbols on this label have the following meaning:

Presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute risk of electric shock.

Never open the product – there is a risk of electric shock. There are no user serviceable parts inside. Refer servicing to an authorized Sennheiser service partner.

Read and follow the safety and operating instructions contained in the instruction manual.

Risk of fire due to overloading

Do not overload wall outlets and extension cables as this may result in fire and electric shock.

Danger of hearing damage due to high volumes

This product is used for commercial purposes. Commercial use is subject to the rules and regulations of the trade association responsible. Sennheiser, as the manufacturer, is therefore obliged to expressly point out possible health risks arising from use.

The product can produce sound pressure exceeding 85 dB(A). 85 dB(A) is the sound pressure corresponding to the maximum permissible volume which is by law (in some countries) allowed to affect your hearing for the duration of a working day. It is used as a basis according to the specifications of industrial medicine. Higher volumes or longer durations can damage your hearing. At higher volumes, the duration must be shortened in order to prevent hearing damage.

The following are sure signs that you have been subjected to excessive noise for too long a time:

• You can hear ringing or whistling sounds in your ears.
• You have the impression (even for a short time only) that you can no longer hear high notes.

Inform all operators about these facts and, if necessary, ask them to set the volume to a medium level.

Intended use

Intended use of the product includes

• using the product for professional purposes,
• having read and understood this instruction manal, especially the chapter "Important safety instructions",
• using the product within the operating conditions and limitations described in this instruction manual.

"Improper use" means using the product other than as described in this instruction manual, or under operating conditions which differ from those described herein.

www.sennheiser.com

This instruction manual is also availalble on the Internet at www.sennheiser.com.

Safety instructions for lithium-ion rechargeable batteries

If abused or misused, rechargeable batteries may leak or be damaged. In extreme cases, they may even present

- an explosion hazard,
- a fire hazard,
- a heat hazard,
- a smoke or gas hazard.

	Only charge rechargeable batteries with the appropriate Sennheiser chargers.
	Dispose of rechargeable batteries at special collection points or return them to your specialist dealer.
	Observe correct polarity.
	Do not short-circuit.
	Do not expose to moisture.
	Switch rechargeable battery-powered devices off after use.
	Do not continue to use defective rechargeable batteries.
	When not using rechargeable batteries for extended periods of time, charge them regularly (about every three months).
	Do not mutilate or dismantle.
	Keep away from children.
	Do not heat above 70°C/158°F, e.g. do not expose to sunlight or throw into a fire.
	Only charge rechargeable batteries at ambient temperatures between 0°C/32°F and 45°C/113°F.

CAUTION

Danger of explosion due to incorrect rechargeable batteries!

▶ Only use lithium-ion rechargeable batteries.
▶ Only use Sennheiser accessories.

Disposal instructions

Properly dispose of electrical and electronic equipment according to your local regulations. Do not dispose of electrical and electronic equipment in normal household waste. Please help to protect and conserve the environment.

LSP 500 PRO

The Sennheiser Group, with its headquarters in Germany, is one of the world's leading manufacturers of microphones, headphones and wireless transmission systems. We are shaping today the audio world of tomorrow – that is the ambition that we and our company live by from day to day. This vision statement describes what we are hoping to achieve together. The foundation for this is our history, our culture of innovation and our passion for excellence.

With our audio experience of more than 60 years we have designed this LSP 500 PRO as a portable professional sound system for annual meetings, press conferences, bigger events, galas, etc. under the following aspects:

- Very short setup time and long operating time
- The first remote-controlled integrated sound system
- Wireless connectivity
- High speech intelligibility for professional applications
- Understated design suitable for all environments

We wish you every success with your events.

Application example
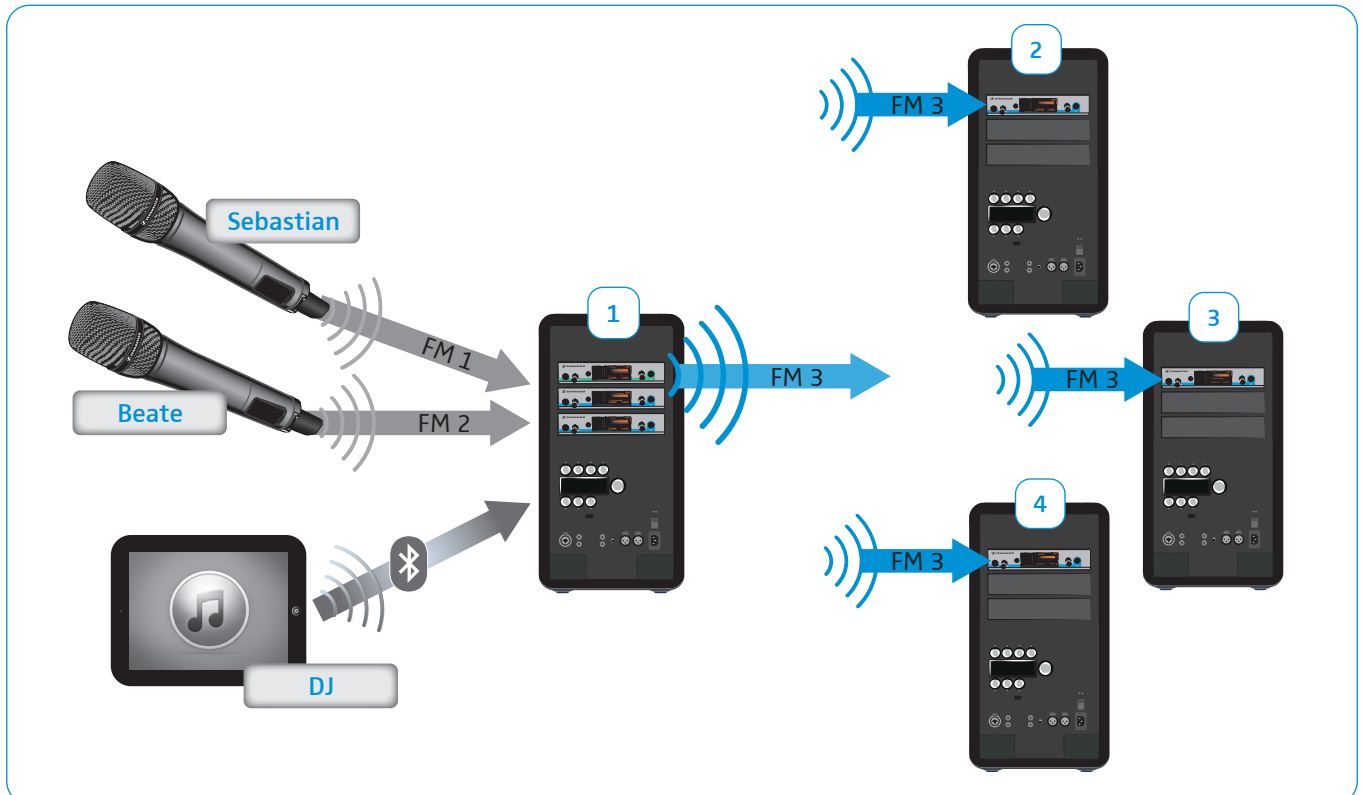
Package contents

1	LSP 500 PRO wireless integrated PA system
1	mains cable
2	LBA 500 battery packs
6	rack mount ''ears'' for Sennheiser evolution wireless G3 devices
1	dust cover
1	quick guide
1	safety guide
1	CD-ROM

i A list of accessories can be found on the LSP 500 PRO product page at www.sennheiser.com and on page 61 in this instruction manual.

For information on suppliers, contact your local Sennheiser partner:

www.sennheiser.com > ''Service & Support''

Product overview
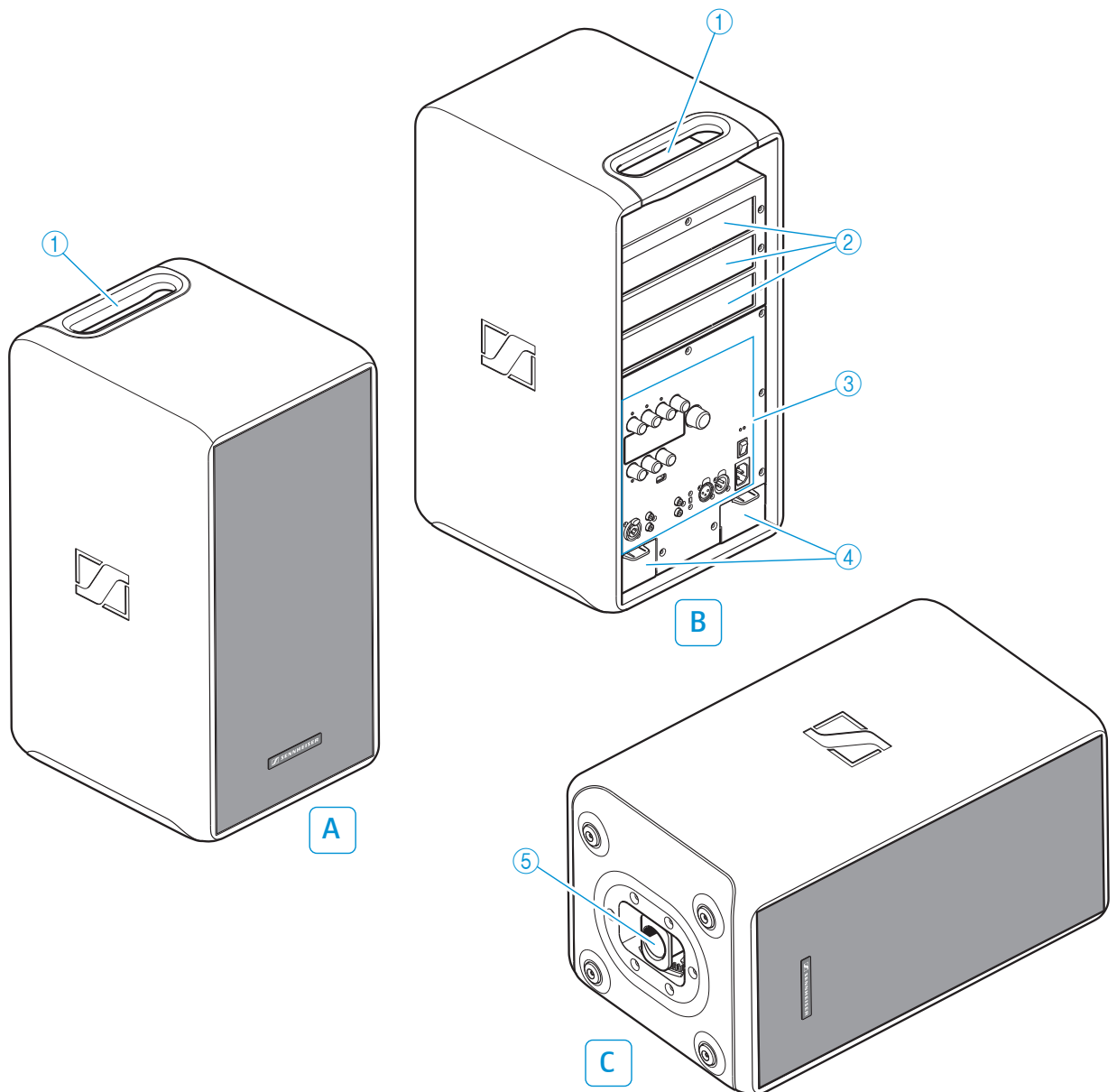
A **Front view**

B **Rear view**

① Carrying handle
② Expansion slots (from top to bottom: slot 1, slot 2, slot 3)
③ Operating elements (see page 9)
④ Battery compartments

C **Bottom view**

⑤ Pole mount

Operating elements

B

SLOT 1
SLOT 2
SLOT 3

⑥ ⑦

MASTER VOLUME

⑧

MENU ⑨

⑩
⑫

⑭ ⑰ ⑱ ⑲ ⑳ ㉑

⑮

㉒

MIC AUX IN USB LINE OUT GROUND LIFT LINK IN LINK OUT

POWER

㉓

LIFT

100-240V 50/60Hz

⑪

GROUND

⑬ ⑯
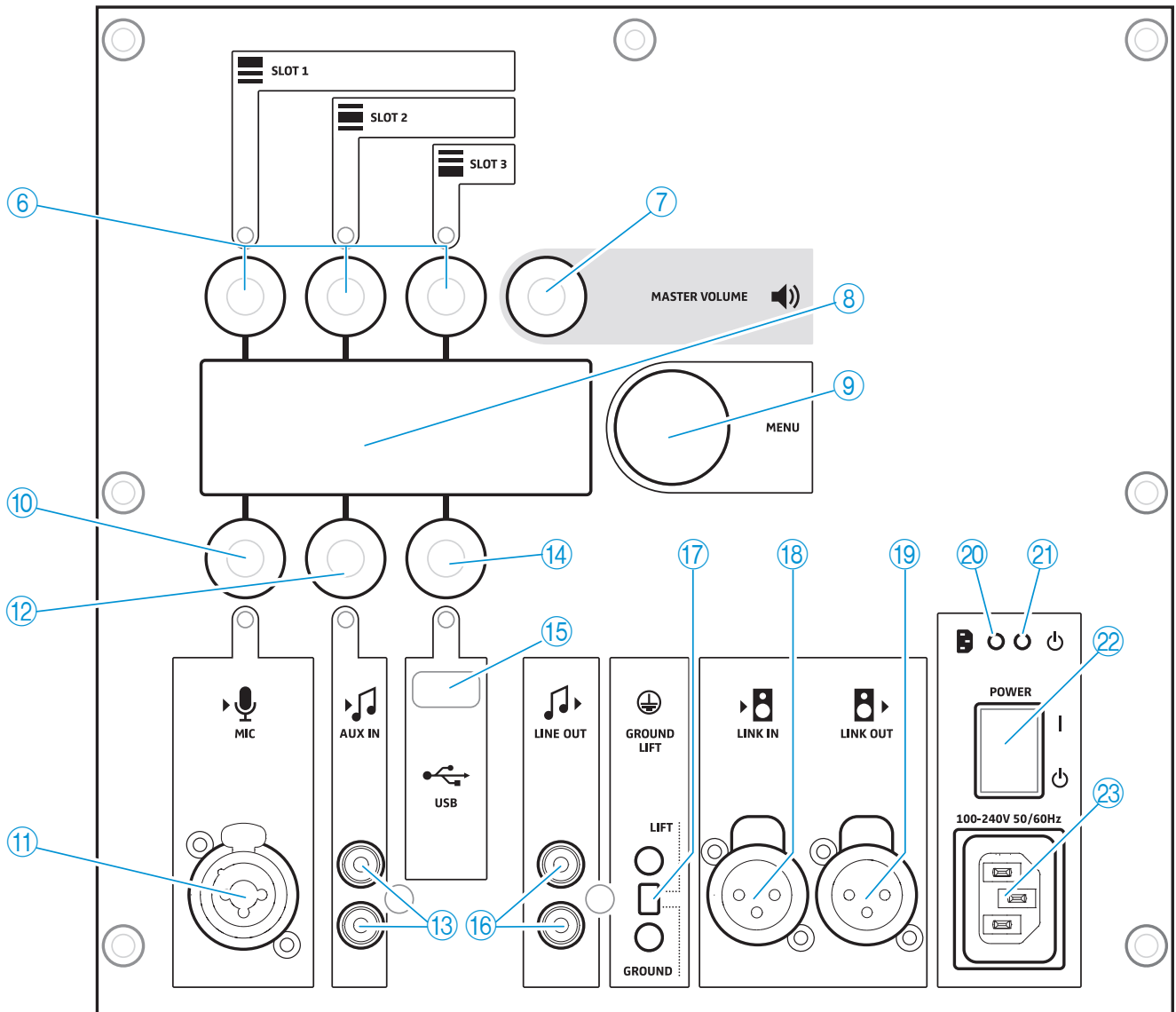
⑥ SLOT 1 / SLOT 2 / SLOT 3 input controls (jog dials)
⑦ MASTER VOLUME control (jog dial)
⑧ Display panel
⑨ MENU control (jog dial)
⑩ MIC input control (jog dial)
⑪ MIC input (XLR-3F/¼" (6.3 mm) jack combo socket)
⑫ AUX IN input control (jog dial)
⑬ AUX IN input (RCA socket)
⑭ USB input control (jog dial)

⑮ USB port
⑯ LINE OUT output (RCA socket)
⑰ GROUND LIFT switch
⑱ LINK IN input (XLR-3F socket)
⑲ LINK OUT output (XLR-3M socket)
⑳ Power indicator
㉑ Operation indicator
㉒ POWER on/off switch
㉓ Mains socket

Using the LSP 500 PRO

Installing the LSP 500 PRO

▶ Place the product on a stable and horizontal surface.

▶ Install the product so that it is protected from moisture (rain) and direct sunlight.

⚠️ **CAUTION**

Danger of injury and material damage due to incorrectly laid cables!
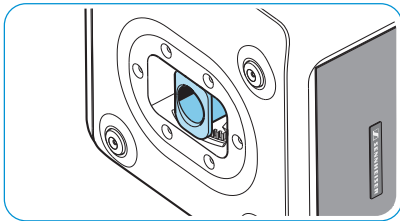
▶ Make sure that all cables to the product are laid so that no one can stumble over them and suffer injury or cause damage to the cables and the product.

Pole mount with tilt function

The bottom of the LSP 500 PRO features a pole mount ⑤ with tilt function for mounting the LSP 500 PRO on a standard loudspeaker stand. For the specifications of the pole mount, refer to page 59.

⚠️ **CAUTION**

Danger of injury and material damage due to tipping/dropping of the product!

▶ When mounting the LSP 500 PRO, secure it against tipping or dropping.

▶ Make sure that the LSP 500 PRO or the loudspeaker stand cannot tip over or drop down, even if the power or audio cables are pulled.

Mounting the LSP 500 PRO on a loudspeaker stand
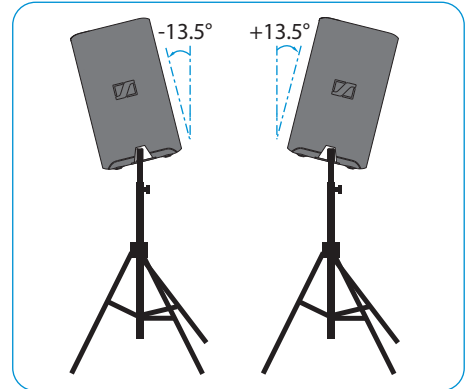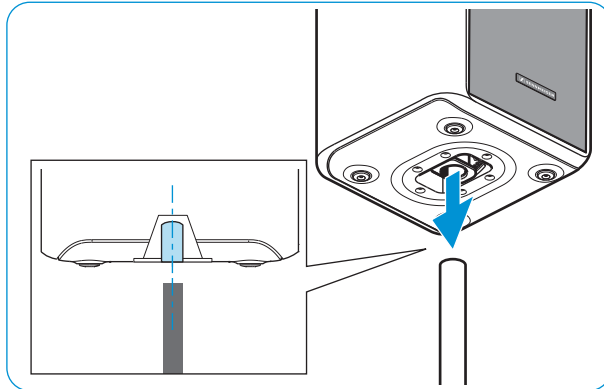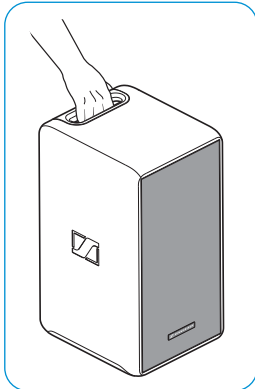
▶ Vertically align the pole mount ⑤ at the bottom of the LSP 500 PRO.

▶ Lift the LSP 500 PRO by the carrying handle ① and place it on a loudspeaker stand.

The pole mount is locked in place by engaging teeth.

▶ Slightly lift the LSP 500 PRO.

The pole mount's teeth disengage and you can tilt the LSP 500 PRO up to +/- 13.5° in 4.5° steps.

▶ Lower the LSP 500 PRO in the desired tilt angle.

The pole mount locks in place.

Mains and battery operation

The LSP 500 PRO can be mains or battery powered. When battery powered, the LSP 500 PRO uses only one of the two battery packs, allowing a discharged battery pack to be replaced during operation. The LSP 500 PRO automatically switches to the second battery pack when the first one is depleted.

> ℹ️ When replacing a battery pack during operation, observe the information on page 13.

> ⚠️ **CAUTION**
>
> **Product damage due to unsuitable mains cables or power outlets!**
>
> An unsuitable power supply can damage the product.
>
> ▶ Only use the supplied mains cable for connecting the product to the mains power supply.
>
> ▶ Only use multi-outlet power strips or extension cables with protective ground contacts.

Connecting the LSP 500 PRO to the mains power supply

▶ Make sure that the POWER on/off switch ㉒ is set to position ''⏻''.

▶ Connect the mains cable to the mains socket ㉓ of the LSP 500 PRO.

▶ Connect the mains plug of the mains cable to a power outlet.

Disconnecting the LSP 500 PRO from the mains power supply

▶ Set the POWER on/off switch ㉒ to position ''⏻''.

▶ Pull out the mains plug from the power outlet.

Inserting the battery packs

To insert the battery packs:
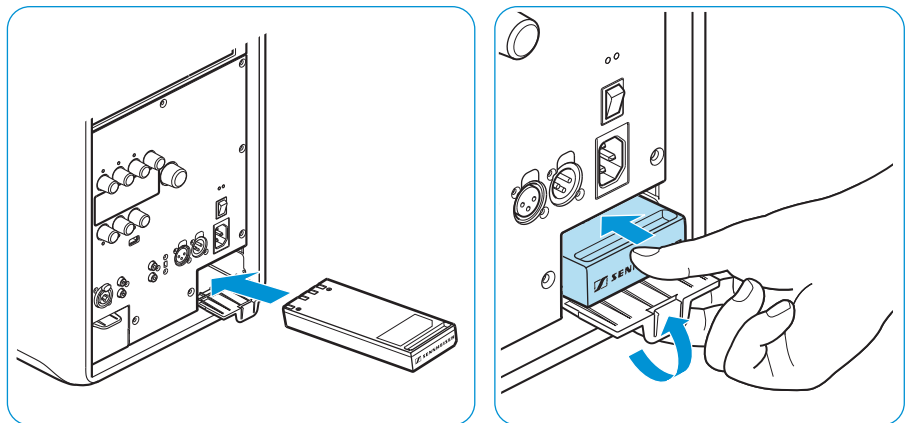
▶ Insert the battery pack slightly diagonally into the battery compartment ④. When inserting, make sure that the charging contacts are located on the top surface of the battery pack (see fig.).

▶ Close the battery compartment by sliding the battery pack into the compartment as shown, while at the same time pushing the cover upwards.

▶ Repeat these two steps for the second battery pack.

Charging/replacing the battery packs

To charge the battery packs:

▶ Insert the battery packs (see page 11).

▶ Connect the LSP 500 PRO to the mains power supply.

The operation indicator ㉑ flashes, the charging process starts. When the battery packs are fully charged, the operation indicator lights up permanently.
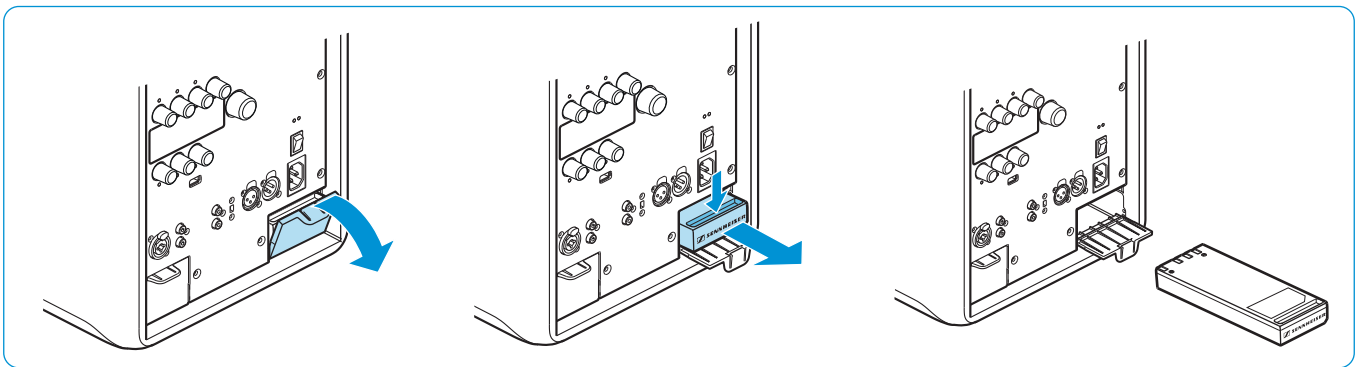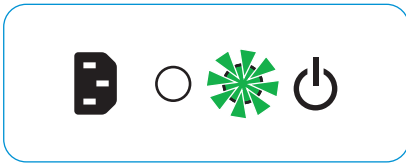
ℹ️ A complete charging cycle takes about 2.5 hours per battery pack when the product is switched off. If you use the product during charging, the charging time will be extended.

To remove the battery pack from the battery compartment:

▶ Open the cover of the battery compartment (see fig.).

▶ Pull the battery pack out of the battery compartment using the recessed grip (see fig.).

To check the battery charge status directly on the battery pack:
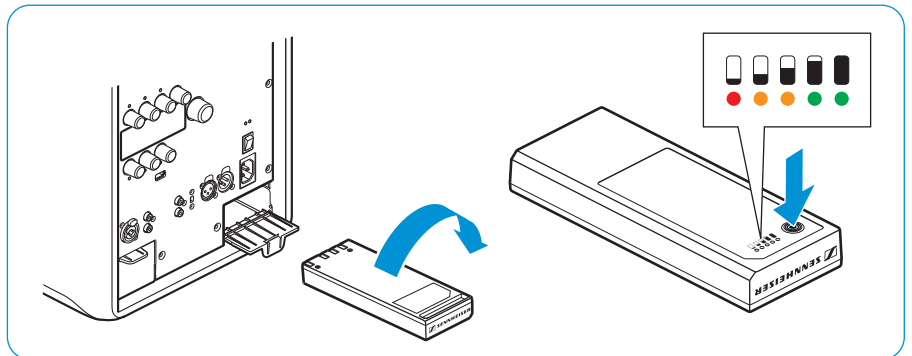
▶ Remove the battery pack.

▶ Press the button to the right of the charge status display.

The battery packs' current capacity is displayed for approx. 5 seconds.

Charge status display on the battery pack
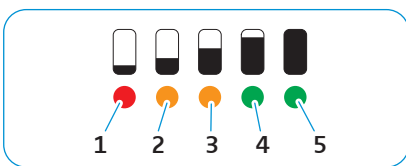
LED	Color	Remaining capacity
1	red, flashing	approx. 0-10% (critical)
1	red, permanently lit	approx. 10-20%
2	orange	approx. 20-40%
3	orange	approx. 40-60%
4	green	approx. 60-80%
5	green	approx. 80-100%

ℹ️ Upon delivery of the product, the capacity is approx. 30 - 50%.

Important information on battery operation

Replacing battery packs during operation

When two battery packs are installed in the LSP 500 PRO and you want to replace one of the two battery pack during operation, make sure to only remove the battery pack that is not in use.

Before removing a battery pack during operation:
▶ Check the LSP 500 PRO's display panel to see which battery pack is currently in use.
   For information on the battery charge status display, refer to page 16.
▶ Only remove the battery pack that is not in use.

Deep discharge protection

The battery packs have a deep discharge protection. When unused for extended periods of time, the battery packs automatically switch off to prevent deep discharge.

To reactivate a battery pack:
▶ Insert the battery pack into the LSP 500 PRO and charge the battery pack (see page 11).

USING THE BATTERY PACK AS SIGNAL BUFFER
At high volume levels, the LSP 500 PRO uses the battery pack to buffer signal peaks. Therefore, if you want to drive a mains powered LSP 500 PRO at high volume levels, at least one battery pack should be installed in the LSP 500 PRO.

Switching the LSP 500 PRO on

> ℹ️ If the LSP 500 PRO is not connected to the mains power supply, it will be battery powered. For that to happen, the battery packs must be inserted and charged.

To switch the LSP 500 PRO on:

▶ Set the POWER on/off switch ㉒ to position "I".

▶ The LSP 500 PRO switches on. The operation indicator ㉑ lights up green. After a few seconds, the following start icon appears on the display panel:


After a few more seconds, the home screen is displayed:
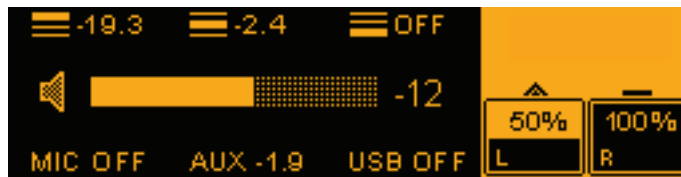
Basic operating functions

The operating functions of the LSP 500 PRO are similar to those of a mixing console. Using the LSP 500 PRO's six jog dials, you can adjust the input volume of the corresponding input. The MASTER VOLUME jog dial ⑦ allows you to adjust the overall volume of the LSP 500 PRO. The MENU jog dial ⑨ allows you to operate the menu in order to configure the LSP 500 PRO.

Functions of the SLOT 1/2/3 ⑥, MIC ⑩, AUX IN ⑫, USB ⑭ jog dials
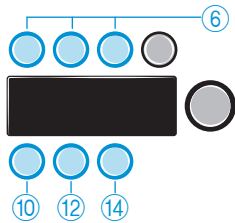
Action	Icon	Function
Turn a jog dial		• Adjusts the input volume of the corresponding input
Press a jog dial		• Activates a function

Functions of the MASTER VOLUME jog dial ⑦
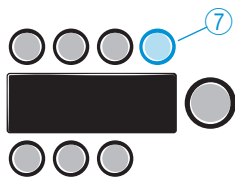
Action	Icon	Function
Turn the MASTER VOLUME jog dial		• Adjusts the overall volume level (possible from any menu level)
Press the MASTER VOLUME jog dial		• Returns you directly to the home screen from any menu level

Functions of the MENU jog dial ⑨
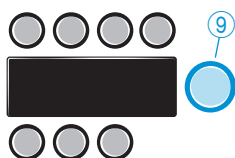
Action	Icon	Function
Turn the MENU jog dial		• Browses through the menu items • Adjusts a value
Press the MENU jog dial		• Calls up a menu item • Stores a setting

Basic indications and functions shown on the display panel

Status area

The status area (highlighted in orange) on the right-hand side of the display panel indicates the battery charge status.

Icon	Explanation
	• The battery pack in use is depicted by the triangle. The triangle is animated and shows if the battery pack is being charged or in use (triangle pointing upwards → battery pack is in use; triangle pointing downwards → battery pack is being charged). • The battery pack not in use is depicted by the bar.
	• Both battery packs are inserted. • The battery pack in the left battery compartment is in use and has a remaining capacity of 50%. • The battery pack in the right battery compartment is fully charged and is currently not in use.
	• The right battery compartment is empty. • The battery pack in the left battery compartment is in use and has a remaining capacity of 50%.
	• The LSP 500 PRO is mains operated. The mains plug icon is displayed. • The battery pack in the right battery compartment is being charged. • The battery pack in the left battery compartment is not in use. As soon as the battery pack in the right battery compartment is fully charged, the battery pack in the left battery compartment will be charged.

"Low battery" warning messages

When the battery charge status is less than 21%, the LOW BATTERY warning message flashes on the black area of the display panel.

When the battery charge status is less than 6%, the BATTERY CRITICAL warning message flashes on the display panel.

Additional indications in the status area

The following additional icons can appear in the status area of the display panel:

Icon	Explanation
(Bluetooth icon)	Icon is displayed steadily: Bluetooth is activated and one device is paired. Icon is displayed flashing: Pairing mode is activated to allow Bluetooth devices to pair.
(WLAN icon)	WLAN is activated and the LSP 500 PRO is connected to a network.
(Play icon) (Pause icon) (REC icon)	Status of the USB player: • Play • Pause • Record

Escape function

When you call up any menu item and **ESC** is displayed in the upper left corner of the display panel, you can exit the menu item without storing the settings made. When navigating the operating menu, the escape function also allows you to return to the previous menu level.
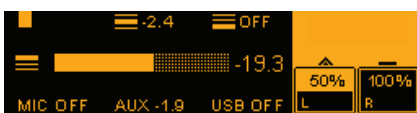
▶ Press the SLOT 1 jog dial to call up the escape function and to exit a menu without storing the settings.

▶ Press the SLOT 1 jog dial to return to the previous menu level.

Adjusting the volume

To adjust the input volume of the inputs:

▶ Turn one of the six input jog dials (SLOT 1, SLOT 2, SLOT 3, MIC, AUX IN, USB).

The icon for the corresponding input is shown on the left of the volume bar.

i The LEDs directly above the SLOT 1, SLOT 2, SLOT 3 jog dials and directly below the MIC, AUX IN, USB jog dials indicate the level of the corresponding input. If an LED flickers green, a signal is present at the input. If an LED flickers or lights up red, the signal is overmodulated. The LED of the USB input cannot light up red.

To adjust the overall volume.

▶ Turn the MASTER VOLUME jog dial.

The icon for the overall volume is shown on the left of the volume bar.

**i** You can adjust the volume from -96 to +6 dB.

Confirmation of stored settings

Once you have adjusted a setting in the menu and stored it or when you have activated a function, the display panel displays STORED.

Display time out

Once you have finished adjusting settings in the menu, all open menu items are automatically closed and the display panels returns to the home screen. The USB player and the test sound menu are not affected by this and remain open.
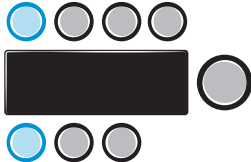
Lock mode

You can activate a lock mode that locks the jog dials against accidental use. This prevents settings from being inadvertently changed during operation.

Activating the lock mode

▶ Simultaneously press the SLOT 1 and MIC jog dials for at least 2 seconds.

   The lock mode is activated. The display panel temporarily displays LOCKED.

> ℹ If you turn or press a jog dial when the lock mode is activated, LOCKED is also briefly displayed. However, when the lock mode is activated, the POWER on/off switch can still be used.

Deactivating the lock mode

▶ Simultaneously press the SLOT 1 and MIC jog dials for at least 2 seconds.

   The lock mode is deactivated and the home screen is displayed.

Lock mode behavior when the LSP 500 PRO is operated using a tablet

If you operate the LSP 500 PRO using a tablet (see page 23), the lock mode is automatically activated. When you deactivate the lock mode directly on the LSP 500 PRO, and as long as you operate the LSP 500 PRO using the tablet, the lock mode is automatically reactivated after 1 minute of inactivity.

Activating ground lift

If there is humming or buzzing noise coming from the input signal cables, you can disconnect pin 1 of the LINK IN XLR input from the ground:

▶ Set the GROUND LIFT switch to position LIFT.

Connection possibilities

Expansion slots

Label	Icon	Function
SLOT 1	**SLOT 1**	Expansion slot for installing a Sennheiser ew G3 device
SLOT 2	**SLOT 2**	Expansion slot for installing a Sennheiser ew G3 device
SLOT 3	**SLOT 3**	Expansion slot for installing a Sennheiser ew G3 device

ℹ️ If you want to install a transmitter into the LSP 500 PRO, it is recommended to install it in SLOT 1 for mounting reasons.

Additional inputs and outputs

Label	Icon	Function
BLUETOOTH		Bluetooth interface for wireless connection to audio sources (e.g. iPod, smartphone)
MIC	**MIC**	XLR-3F/¼" (6.3 mm) jack combo socket for connecting wired audio sources (e.g. microphone, instrument) ℹ️ The MIC input provides a switchable 48V phantom power. The phantom power can be activated via the menu.
AUX IN	**AUX IN**	RCA input for connecting wired audio sources (e.g. CD player, laptop)
USB	**USB**	USB port for playing audio files from USB storage devices (e.g. USB flash drive, external hard disk) ℹ️ For more information on the supported USB storage devices, refer to page 35.
LINE OUT	**LINE OUT**	RCA output for outputting the audio signal to an external device (e.g. recording device)
LINK OUT	**LINK OUT**	XLR-3M output for outputting the audio signal to an additional LSP 500 PRO or an active subwoofer
LINK IN	**LINK IN**	XLR-3F input for connection to the "Link" output of an additional LSP 500 PRO

Installing devices in the expansion slots

The 3 expansion slots of the LSP 500 PRO allow you to install devices of the Sennheiser ew G3 series.

> **i** If you operate the LSP 500 PRO from your tablet using the required app (see page 23), the integrated media control protocol of the installed ew G3 devices sends device status information to the app. For this to happen, a device needs to be detected only once after its installation. For more information, refer to page 51.

⚠ **CAUTION**

Danger of electric shock!

▶ Before installing devices in the expansion slots, switch the LSP 500 PRO off and disconnect it from the mains power supply.

Required accessories and tools

- 2 rack mount "ears" per device (supplied with the LSP 500 PRO)
- 2.5 mm Allen key
- Recessed head screwdriver (PH 2)

Opening the expansion slot

▶ Unscrew and remove the 7 Allen screws of the cover plate frame.
▶ Remove the cover plate frame.
▶ Unscrew and remove the screws at the rear of the cover plate frame.
▶ Remove the cover plate of the slot you want to use.
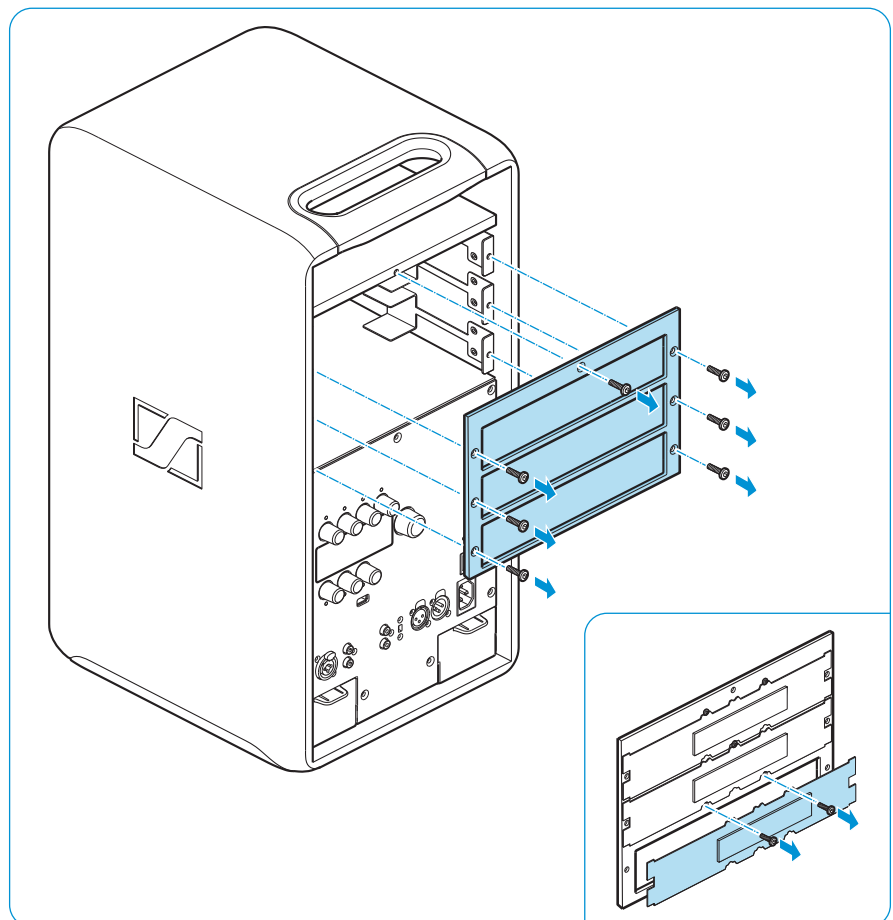
Mounting the rack mount "ears"
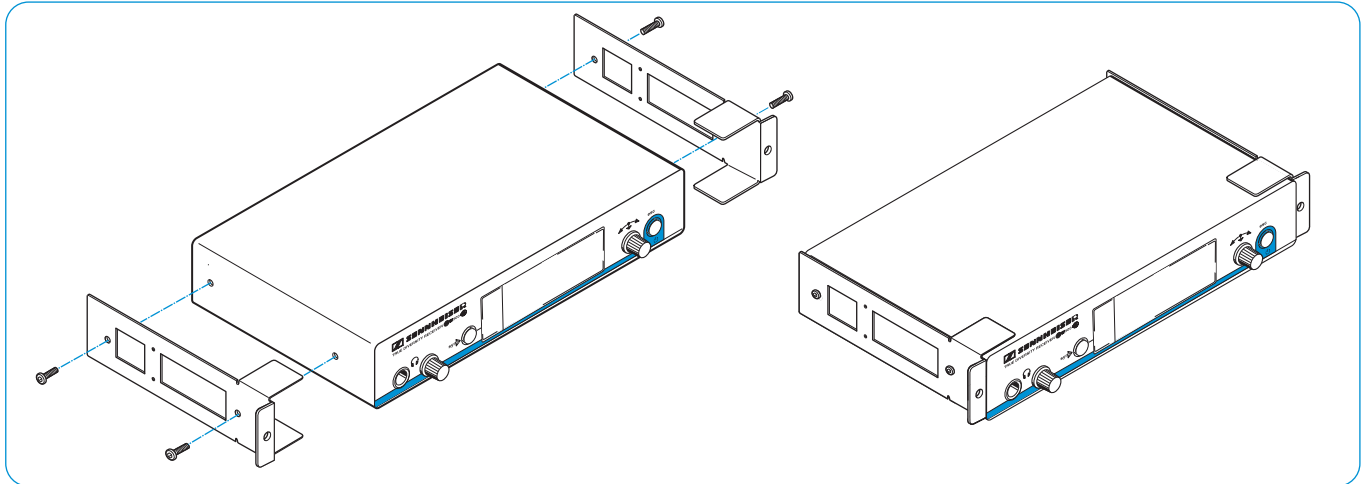
▶ Unscrew and remove the 2 recessed head screws on each side of the receiver / transmitter.

▶ Secure the rack mount "ears" (supplied with the LSP 500 PRO) to the sides of the receiver / transmitter using the previously removed 4 recessed head screws. You require 2 rack mount "ears" per receiver / transmitter.

▶ Tighten the screws on the rack mount "ears" using a recessed head screwdriver (PH 2).

Connecting and installing a receiver / transmitter
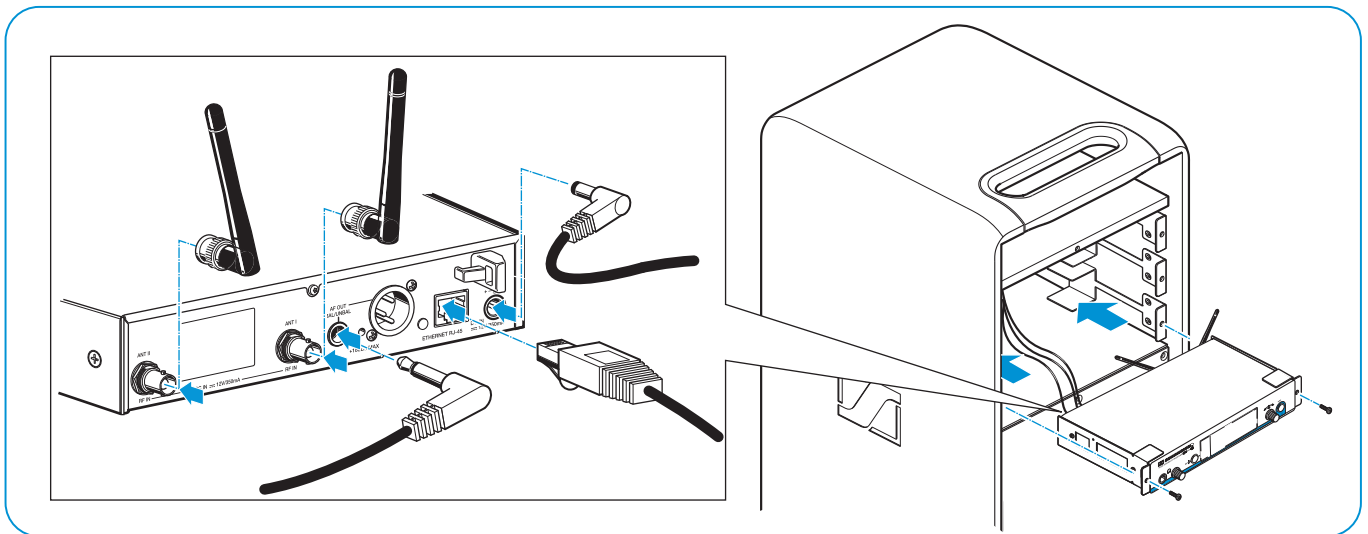
▶ If necessary, remove the rubber feet from the receiver / transmitter.

▶ Connect the cable of the corresponding expansion slot to the receiver / transmitter.

The cables of the expansion slots are labeled to ensure proper connection andd installation. The network plugs (RJ 45) are universal and are not labeled.

ℹ If you install a stereo transmitter (e.g. Sennheiser SR 300 IEM G3), you have to set the transmitter to mono operation. For further information and for information on the connection sockets of the stereo transmitter, refer to the corresponding instruction manual.

▶ Connect the rod antennas of the receiver / transmitter and align them in a V-shape.

▶ Make sure that the antennas are pointing away from each other and do not cross to ensure optimum reception and full diversity performance.

▶ Carefully slide the receiver / transmitter into the expansion slot.

▶ Take care that no cables are pinched when inserting the receiver / transmitter.

▶ Screw the rack mount "ears" to the front of the LSP 500 PRO.

▶ Replace the cover plate frame and tighten the 7 Allen screws.

ℹ Leave unused cables in their plastic wraps and, if necessary, fix them to the expansion slot. Due to the vibrations of the LSP 500 PRO, loose cables can cause unwanted noise.

Operating the LSP 500 PRO via a tablet

The optionally available ''LSP 500 PRO'' app allows you to operate the LSP 500 PRO from your tablet. The app turns your tablet into a mobile mixing console and allows you to adjust the settings of an individual LSP 500 PRO and to also adjust common settings for several LSP 500 PRO at the same time. The app supports the operation of up to 20 LSP 500 PRO simultaneously.

> **i** Information on downloading and installing the app as well as information on supported mobile devices can be found on the LSP 500 PRO product page at www.sennheiser.com.

> **i** In order to be able to operate the LSP 500 PRO from your tablet using the app, you first have to connect the LSP 500 PRO to a wireless network (WLAN). For information on how to connect the LSP 500 PRO to a wireless network, refer to page 42.

Information on using the app

The app is available in the following languages: English, German, French, Italian, Spanish, Dutch and Russian. The app opens automatically in the language you have set up for your tablet. If the operating system on your tablet uses a language that is not supported by the app, the app opens in English.

"Positioning" screen

After opening the app, it will show all the LSP 500 PRO available in the network.
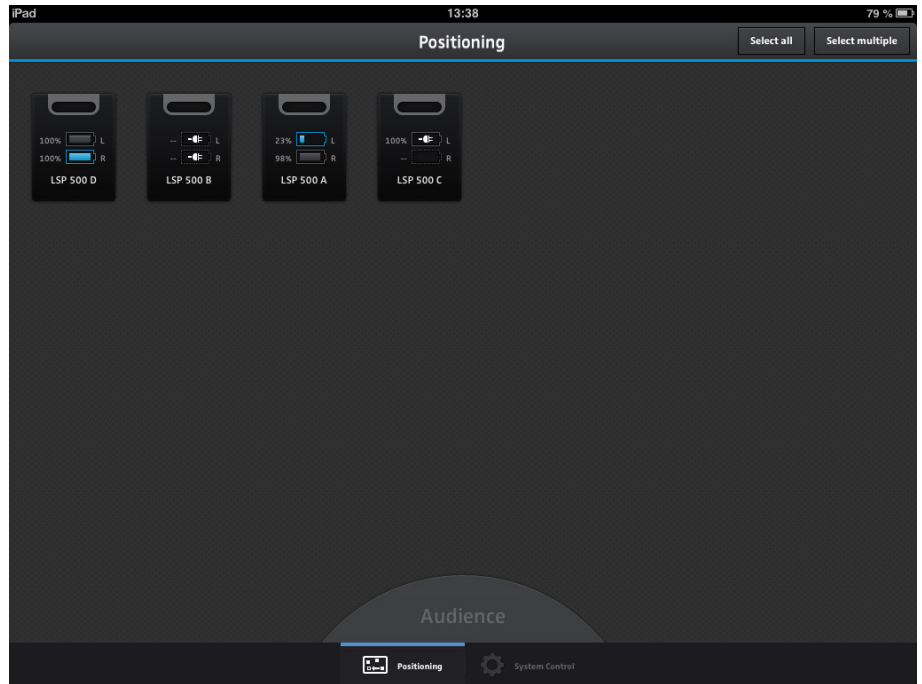
On this screen, you can perform the following actions:

▶ Position the boxes as desired by dragging them to any location on the screen.
▶ Drag the "Audience" to the desired position.
▶ Tap on a box to edit the settings of this box.
▶ Tap on the "Select multiple" option to select several boxes at the same time and to edit their common settings.
▶ Tap on the "Select all" option to select all boxes and to edit their common settings.

"Edit box" screen

If you tap on an individual box on the "Positioning" screen, you can configure the selected LSP 500 PRO. The following screen appears:

"Mixing Panel" screen

The "Mixing Panel" screen shows a summary of all activated inputs of all boxes. You can activate a total of 7 inputs. The "Mixing Panel" screen allows you to configure the activated inputs.
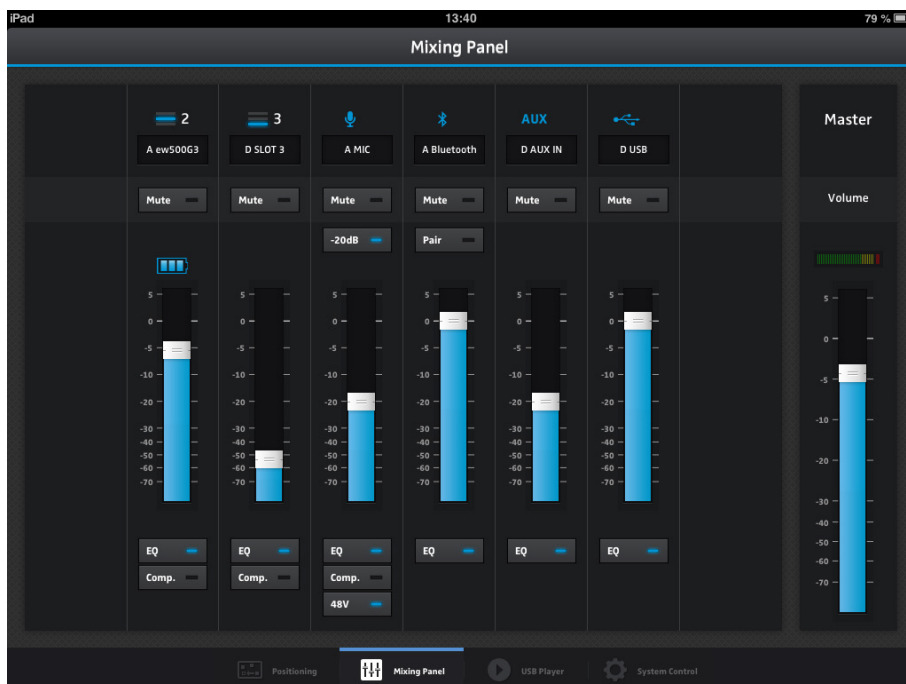
Selecting several boxes

On the "Positioning" screen, you can either tap on "Select all" to simultaneously select all boxes or you can tap on "Select multiple" to simultaneously select certain boxes.
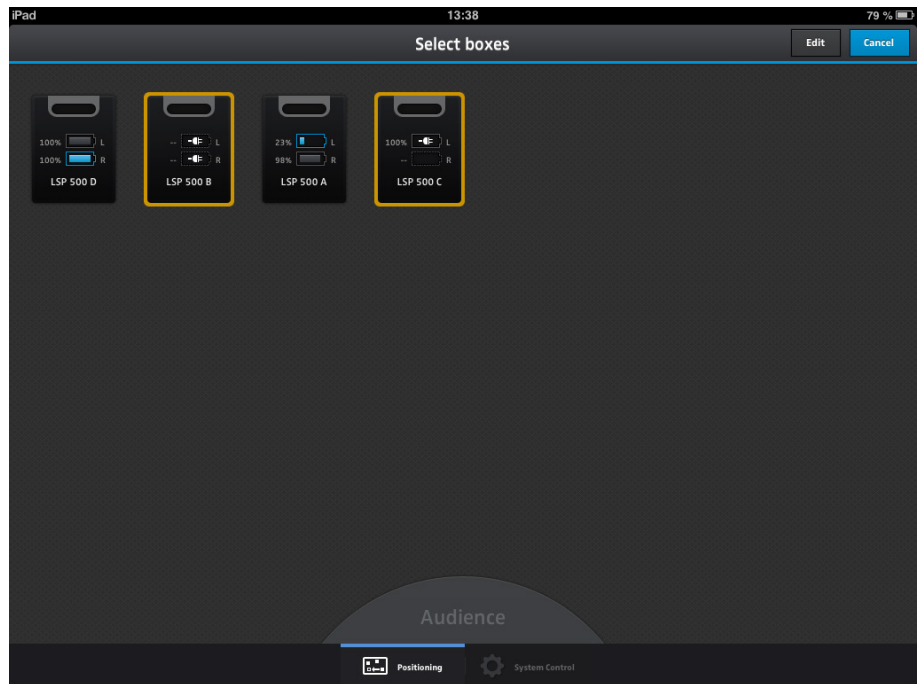
Adjusting common settings for several boxes

If you have selected several boxes on the previous screen, you can adjust common settings for the selected boxes by tapping on "Edit" in the upper right corner of the screen. The following screen appears:

Equalizer

You can operate the equalizer of the LSP 500 PRO via the app.
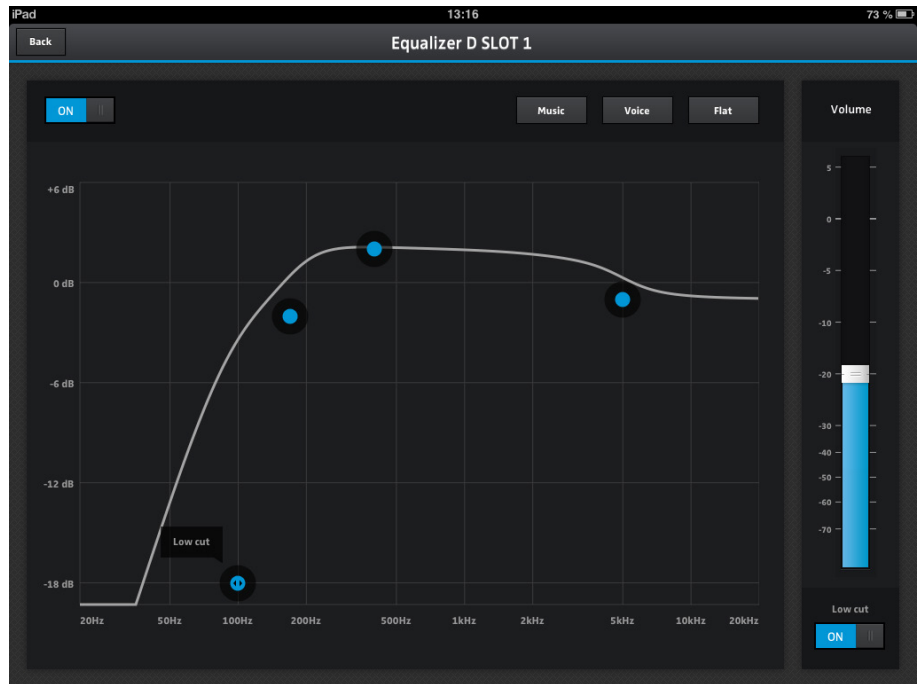
Compressor

You can operate the compressor of the LSP 500 PRO via the app.
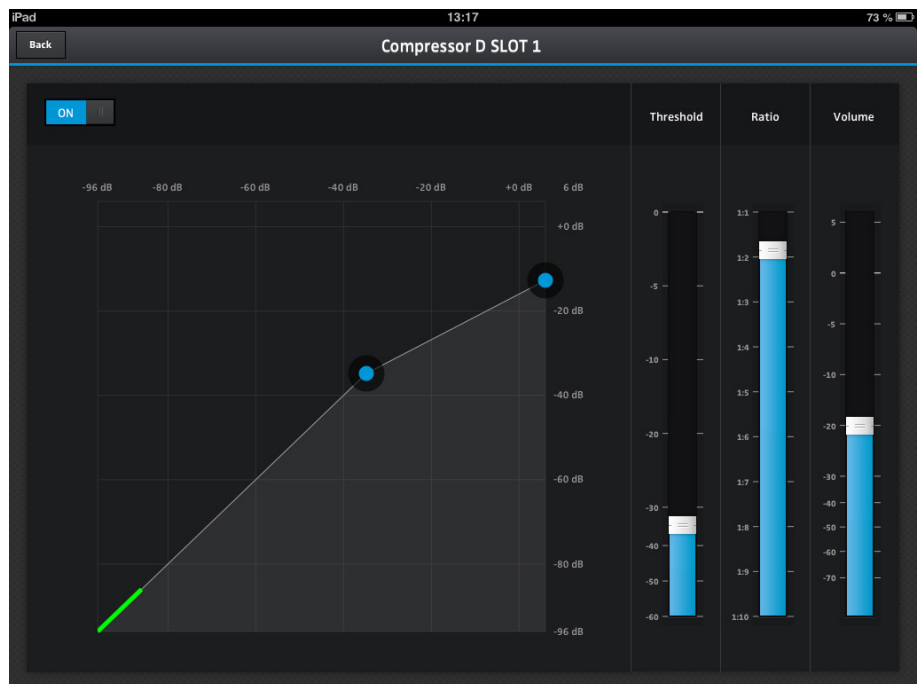
The operating menu

Menu structure

This overview shows the structure and functions of the LSP 500 PRO's menu which can be operated using the MENU jog dial.

Equalizer
Equalizer
Master
Slot 1
Slot 2
Slot 3
MIC
AUX
USB
Bluetooth

Virtual Bass

Compressor
Compressor
Slot 1
Slot 2
Slot 3
MIC

Delay

USB Player

Bluetooth
Bluetooth
Pairing
Volume

Settings
Settings
Test Sound
Daisy Chain
Display Brightness
WLAN
MAC Address
IP Mode
IP Address
IP Net Mask
SSID List Selection
SSID Entry
WPA2 Key
MIC
Input Sensitivity
Phantom Power
Device Detection
Reset

Service
Service
System Info
Maintenance
Firmware Update

To call up the operating menu:

▶ When the home screen is displayed, turn the MENU jog dial to the left or right to browse up or down through the operating menu.

The menu items are displayed as follows:

The opened menu level or menu item is shown at the bottom left of the display panel. The ESC function allows you to return to the previous menu level.

Menu ⟶ Equalizer

Equalizer

You can either open and configure a master EQ for the overall signal of the LSP 500 PRO or you can open and configure an equalizer with 3 presets for each individual input (SLOT 1, SLOT 2, SLOT 3, MIC, AUX IN, USB, BLUETOOTH).

To open the equalizer:

▶ At the first menu level, turn the MENU jog dial until the EQUALIZER menu item is displayed.

▶ Press the MENU jog dial to open the EQUALIZER menu item.

▶ Turn the MENU jog dial to select the MASTER menu item for the master EQ or to select one of the SLOT 1, SLOT 2, SLOT 3, MIC, AUX IN, USB or BLUETOOTH menu items for the corresponding input EQ.

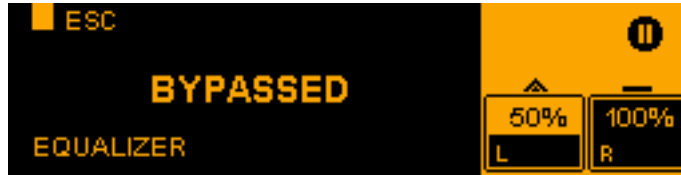▶ Press the MENU jog dial to open the selected equalizer.

Master

Master EQ

The master EQ allows you to configure the overall signal of the LSP 500 PRO. The master EQ is a semiparametric 3-band equalizer.

▶ Turn the MENU jog dial to switch the master EQ on or off.

Display example when EQ is switched off

Display example when EQ is switched on
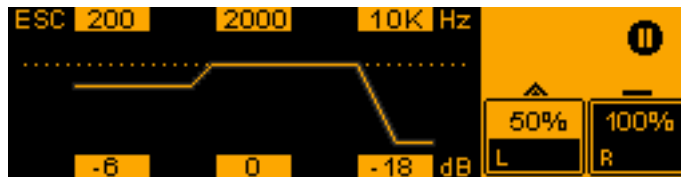
▶ Configure the master EQ using the jog dials that are assigned the following functions:

Jog dial	Action	Function
SLOT 1		Sets the cut-off frequency of the low frequency band
SLOT 2		Sets the cut-off frequency of the mid frequency band
SLOT 3		Sets the cut-off frequency of the high frequency band
MIC		Sets the level of the low frequency band
AUX IN		Sets the level of the mid frequency band
USB		Sets the level of the high frequency band

▶ Press the MENU jog dial to store your settings.

ℹ The app (see page 23) allows you to make more detailed settings (e.g. notch filter) for the master EQ. The settings made in the app are also displayed on the display panel of the LSP 500 PRO. When you return to making settings directly on the LSP 500 PRO, the display panel shows again the simplified representation and all settings made in the app are overwritten.

EQ presets for the inputs

EQ On/Off

Switching an input EQ on or off

To switch an input equalizer on or off:

▶ Select the desired input in the EQUALIZER menu and turn the MENU jog dial until the EQ ON/OFF menu item is displayed.

▶ Press the MENU jog dial to open the EQ ON/OFF menu item.

```
 ESC                              ⏸
         ON    OFF
                              △       —
                             50%    100%
 EQ ON/OFF                    L       R
```

▶ Turn the MENU jog dial to choose between ON and OFF.

▶ Press the MENU jog dial to activate your selection and to switch the input EQ on or off.

ℹ️ The following menu items are only available when the input EQ is switched on.

EQ Presets

Selecting an EQ preset for an input

To select an EQ preset for an input:

▶ Select the desired input in the EQUALIZER menu and turn the MENU jog dial until the EQ PRESETS menu item is displayed.

▶ Press the MENU jog dial to open the EQ PRESETS menu item.

3 presets are available for each input.

```
 ESC                              ⏸
      VOICE  MUSIC  FLAT
                              △       —
                             50%    100%
 SLOT 1                       L       R
```

▶ Turn the MENU jog dial to choose between VOICE, MUSIC and FLAT.

EQ preset	Explanation
VOICE	Optimized for speech
MUSIC	Optimized for music
FLAT	No influence

▶ Press the MENU jog dial to activate the selected preset.

ℹ️ If none of the 3 presets is highlighted in orange on the display panel, the equalizer settings have been made in the ''LSP 500 PRO'' app (see page 23). If you select a preset, the settings made in the app are overwritten.

Low Cut

Activating the low-cut filter

To suppress unwanted noise such as, e.g., impact noise, you can activate a low-cut filter for the inputs SLOT 1, SLOT 2, SLOT 3 and MIC.

To switch the low-cut for an input on or off:

▶ Select the desired input in the EQUALIZER menu and turn the MENU jog dial until the LOW CUT menu item is displayed.

▶ Press the MENU jog dial to open the LOW CUT menu item.

▶ Turn the MENU jog dial to switch the low-cut filter on or off.

▶ Press the MENU jog dial to activate your selection.

Menu → Virtual Bass

Virtual Bass

You can activate a virtual bass function to enhance the perceived bass reproduction for the inputs AUX IN, USB and BLUETOOTH. The virtual bass function uses the **SRS WOW HD™ technology**.

To switch the virtual bass function on or off:

▶ At the first menu level, turn the MENU jog dial until the VIRTUAL BASS menu item is displayed.

▶ Press the MENU jog dial to open the VIRTUAL BASS menu item.

▶ Turn the MENU jog dial to choose between ON and OFF.

▶ Press the MENU jog dial to activate your selection and to switch the virtual bass function on or off.

Menu → Compressor

Compressor

You can activate and configure a compressor for the inputs SLOT 1, SLOT 2, SLOT 3 and MIC.

To open the compressor:

▶ At the first menu level, turn the MENU jog dial until the COMPRESSOR menu item is displayed.

▶ Press the MENU jog dial to open the COMPRESSOR menu item.

▶ Turn the MENU jog dial to select the desired input.

▶ Press the MENU jog dial to open the compressor for the selected input.

▶ Turn the MENU jog dial to switch the compressor for the selected input on or off.

Display example when compressor is switched off

```
ESC
              BYPASSED              ⏸
                                 ⌃   —
                               50% 100%
COMPRESSOR                     L    R
```

Display example when compressor is switched on

```
ESC
0      ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▌   TH      ⏸
1:2    [═══▌═══════════]    RATIO  ⌃   —
                                 50% 100%
COMPRESSOR                       L    R
```

ℹ The dotted area in the TH slider displays the level of the audio signal.

▶ Configure the compressor using the jog dials that are assigned the following functions:

Jog dial	Action	Function
SLOT 3		Adjusts the compressor threshold (TH)
USB		Adjusts the compressor ratio (RATIO)

▶ Press the MENU jog dial to store your settings.

Setting recommendations for the compressor

Use as …	To …	Ratio	Gain reduction
… leveler	… compensate for volume differences, e.g. due to different talking distances to the mic or different speakers	1.2 to 2	The rain reduction should be between 0 - 6 dB.
… peak limiter	… compensate for sudden signal peaks, e.g. due to throat-clearing or touching the sound inlet basket	4 to 10	Normally, filesthere should be no gain reduction.

▶ First, set the threshold to +6 dB.

▶ Make the desired ratio settings according to the table.

▶ During operation, slowly lower the threshold until the desired acoustic effect is achieved.

⚠ A gain reduction of more than 10 dB can cause an increased susceptibility to feedback. This is why the gain reduction should be continuously monitored, and, if necessary, adjusted during operation.

| Menu | ⟶ | Delay |

Delay

To open the delay function:

▶ At the first menu level, turn the MENU jog dial until the DELAY menu item is displayed.

▶ Press the MENU jog dial to open the DELAY menu item.

▶ Turn the MENU jog dial to adjust a delay value.

ℹ️ The delay can be adjusted in the range from 0 to 34 m (0 to 112 ft), in steps of 0.2 m (0.5 ft).

▶ Press the MENU jog dial to store the adjusted value.

| Menu | ⟶ | USB Player |

USB player

The USB player allows you to playback audio files or to record the audio signal of the LSP 500 PRO.

All USB storage devices that are to be connected to the LSP 500 PRO have to comply with the following requirements.

• File system	FAT 32
• Maximum file size	4 GB
• Maximum memory	8 TB
• Maximum current consumption of external hard disks	500 mA
• Maximum number of audio files to be read in	2000

ℹ️ Due to the large number of different USB flash drives on the market, incompatibilities may still occur, even if the above requirements are complied with.

To open the USB player:

▶ At the first menu level, turn the MENU jog dial until the USB PLAYER menu item is displayed.

▶ Press the MENU jog dial to open the USB player.

The USB player has a playback and a recording mode. When opening the USB player, the playback mode is displayed.