AUDIOTECHNIK

L-Line

USER MANUAL

LA 10.4D

System Amplifier

Version 2023-01

Preliminary

Thank you for choosing SE AUDIOTECHNIK!

We are happy to be the solution for your sound reinforcement needs with our professional loudspeaker systems. The system you have purchased is based on more than 20 years of experience as a speaker manufacturer and more than 40 years as a speaker developer. SE AUDIOTECHNIK products are compact, easy to use, modular and reliable.

Please, take the time to carefully read this manual and follow its instructions. It will allow you to get the most out of your product under safe operating conditions and suggest some care instructions leading to long-term endurance. Keep this manual in a safe place for further reference!

If you find any mistakes or have further questions or suggestions, please contact us at info@se-audiotechnik.de.

For more information about SE AUDIOTECHNIK products, visit our website https://se-audiotechnik.de. There you will also find the latest updates to manuals, firmware, software and technical documents for additional support.

The content of this document is subject to change without prior notice to improve reliability, function, design or otherwise.

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SAFETY AND PRECAUTIONS

The products described in this manual have been engineered and manufactured to ensure your personal safety. However, **IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK, FIRE HAZARD AND OTHER HEALTH RISKS.** Always follow the basic precautions listed here to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following items in this chapter.

ELECTRICAL SAFETY PRECAUTIONS

DO NOT EXPOSE THE PRODUCT AND ESPECIALLY THE CONNECTOR PANEL TO RAIN OR MOISTURE, DRIPPING OR SPLASHING LIQUIDS. OBJECTS FILLED WITH LIQUIDS SHOULD NOT BE PLACED ON THIS APPARATUS.

SPEAKER CABLES CONNECTED TO POWER AMPLIFERS CAN CARRY SIGNALS WITH HIGH VOLTAGE AND CURRENT. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT TOUCH ANY OF THE CABLE' S CONNECTORS WHILE AMPLIFIERS ARE WORKING AND CONNECTED TO THE MAINS. ALWAYS ENSURE THAT CABLES, PLUGS AND CONNECTORS ARE IN A GOOD CONDITION.

ALWAYS FOLLOW THE RULES AND REGULATIONS ESTABLISHED BY THE AUTHORITIES, PROFESSIONAL ASSOCIATIONS AND APPLICABLE STANDARDS FOR THE USE OF ELECTRICALLY POWERED EQUIPMENT.

THE USE OF LOUDSPEAKER POWER AMPLFIERS AS WELL AS THE ASSEMBLY AND INSTALLATION OF LOUDSPEAKER SYSTEMS MAY ONLY BE PERFORMED BY AUTHORIZED, TRAINED AND CERTIFIED PERSONELL.

IMPORTANT SAFETY INSTRUCTIONS

1. Keep this user manual and read these instructions.
2. Follow thoroughly all instructions.
3. Heed all warnings.
4. Adhere to and respect any local regulation regarding the use of electrically powered equipment.
5. Observe applicable rules and regulations at the place of use.
6. Do not expose this device to rain, moisture or any kind of liquid. Keep it away from water and do not place objects filled with fluids on top of it.
7. To completely disconnect the product from the AC mains, disconnect the power supply cord plug from the powerCON® socket. The mains plug of the power supply shall remain readily operable.
8. Do not defeat the safety purpose of the grounding-type plug. A grounding-type plug has two blades and a third grounding pole, which is provided for your safety. If the AC plug delivered does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
9. Protect the power cord from being walked-on or pinched, particularly at plugs, receptacles and the point where they exit from the device.
10. Unplug the product during lightning storms or when unused for long periods of time.
11. Clean the device just with a dry cloth and only after disconnecting it from the AC outlet. Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths.
12. Do not block any ventilation openings and keep away from any heat sources such as radiators, heat registers, or other equipment (including amplifiers) that produce heat.
13. Do not insert your fingers, hands or any other foreign objects into any gaps or openings of the device.

14. Do not attempt to open any part of the unit. There are no user-serviceable parts inside.
15. Refer all servicing to qualified service personnel. This is required when the product has been damaged in any way, such as power-supply plug is impaired, liquid has been spilled or objects have fallen into the device, the device has been exposed to rain or moisture, does not operate normally, or has been severely dropped.
16. When the product reaches its end of life, take it to the right collection point designated by local authorities. The appropriate collection and recycling at the time of discarding, will ensure it is properly disposed and will help to conserve natural resources, protect human health and preserve our environment.

GRPAHICAL SYMBOLS ON THE PRODUCT

The lightning bolt triangle is used to alert the user to the risk of electric shock.

The exclamation point triangle is used to alert the user to important operating or maintenance procedures and instructions.

Symbol for conformity with Directive 2002/96/EC and Directive 2003/108/EC of the European Parliament, on waste electrical and electronic equipment (WEEE).

The CE mark indicates the conformity with the relevant EU directives for safety, health and environmental protection. See the **Manufacturer's Declaration** section.

The CCC mark indicates the conformity with the relevant Chinese directives for safety, health and environmental protection.

The RCM mark indicates the conformity with the relevant Australian and New Zealand requirements for electrical safety, EMC, EME and telecommunications compliance.

Symbol indicating that the equipment is for indoor use only.

The EAC mark indicates the conformity with the relevant standards in the Eurasian Customs Union.

The NOM mark indicates la conformidad with the safety standards of the Mexican regulation body Norma Oficial Mexicana.

The C-UL Listing mark indicates the conformity with the relevant safety standards in Canada and the United States.

The EFUP mark states an Environment Friendly Use Period of ten years, according with the Chinese Restriction of Hazardous Substances RoHS. (INCLUDED?)

The PSE mark indicates the conformity with the relevant electrical appliance safety standards in Japan.

GRAPHICAL SYMBOLS IN THIS MANUAL

Symbol for important safety information related with the risk of electric shock.

Symbol for important concepts and information for a better understanding of the functioning of the product.

Symbol to alert the user about important operating or maintenance instructions.

Symbol for practical tips and ideas useful to ensure the correct use of the product and improve its operation.

NOISE EXPOSURE PRECAUTIONS

LOUDSPEAKERS POWERED BY THIS AMPLIFIER CAN RADIATE HIGH SOUND PRESSURE LEVELS (SPL), WHICH CAN LEAD TO IRREVERSIBLE HEARING DAMAGE. SE AUDIOTECHNIK RECOMMENDS RESPECTING THE TIMES OF EXPOSURE TO HIGH SPL.

Noise level (dBA)	85	94	97	112	127
Max. recommended exposure time per 24 hours	**8 hrs.**	**1 hr.**	**30 min.**	**56 sec.**	**1 sec.**

Noise exposure recommendations according to US National Institute for Occupational Safety and Health (NIOSH).

PACKAGE CONTENTS

The packaging of the LA 10.4D system amplifier includes:

- 1 LA 10.4D system amplifier
- 1 user manual
- 1 QC PASS card
- 1 Warranty card
- 1 AC power cord with 32A powerCON® connector
- 2 dust filters for air intake
- 4 M6 screws for rack mounting

Please inspect your product packaging before unboxing it. If it has been damaged during shipping, unbox the product and check for any visual damage before using it. Notify the shipping company immediately and contact your SE AUDIOTECHNIK dealer or support center for help and assistance.

Finally, save the shipping carton as evidence for the possible claim, which only you can request. We also recommend you to keep all the packing materials and contents for any further transportation.

INTRODUCTION

The LA 10.4D is a four-channel amplifier system with 2,500 W per channel specially designed for SE AUDIOTECHNIK L-Line line array systems and passive loudspeakers. Connect up to 16 loudspeakers to a single LA 10.4D amplifier, depending on the speakers' specifications. The power amplifier serves three most widely used audio formats: 4x analogue XLR inputs with link outputs, 4x AES/EBU inputs and 4 channel DANTE® inputs (optional). The powered output is provided over 4x speakON® NL4 connectors.

The integrated DSP, network remote control and optional network audio offers the possibility to control every parameter of system. The interface (Touch LCD and Software) allows real-time control and monitoring of gain, delay, phase, muting and equalization for each channel. Custom controllers allow to group and modify parameters as needed, for easy and readily audio and performance management. Factory and user presets, as well as the system wizard assists with set-up and operation. This professional Audio Toolkit and custom workflow options, as well as the multiple-users system architecture ensures maximum security and flexibility. Parameter and system settings are stored locally in the amp.

The channel discrete Switch Mode Power Supply guarantees safe and optimal performance with universal connectivity, in both 120 V and 230 V environments. The amplifier is protected against short circuit, overheating and overcurrent and is cooled by two sensor-controlled fans through a front air intake.

Please, read thoroughly the additional documentation related with the L-Line, available on our website https://se-audiotechnik.de . User manuals, technical articles and application guides containing valuable information are available in the download area and may give a better understanding of our products and their capabilities.

Figure 1. Front view of **LA 10.4D** system amplifier.

FRONT PANEL

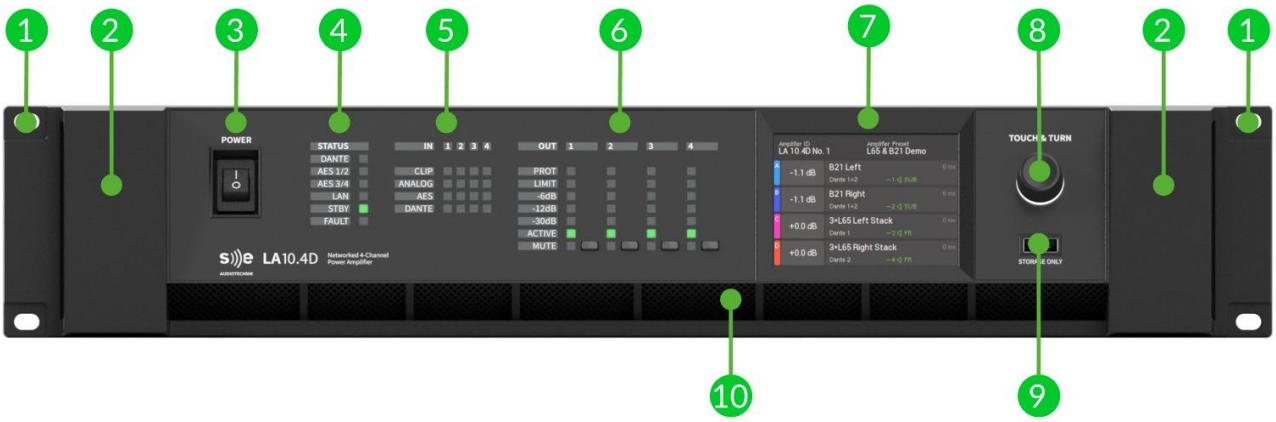


Figure 2. **LA 10.4D** front panel.

1. **Rack Mounting Holes:** Allows to rack mount the amplifier with M6 rack screws.
2. **Side Handles:** Ensures easy handling and front panel protection.
3. **Power Switch:** Powers the amplifier on or off.

> To avoid clicks and pops, turn on your PA system last and turn it off first before other connected devices. Additionally, after turning the unit off, wait for more than five seconds before turning it on again.

4. **Status LEDs:**

- **DANTE** | Indicates if a Dante® module is installed and works properly.
- **AES** | By detecting the presence of a "clock" signal at the corresponding inputs, digital audio connected to one of the 1/2 or 3/4 AES/EBU inputs is indicated.
- **LAN** | Indicates a network connection between the amplifier and a switch or a computer.
- **STBY** | Depending on the firmware, standby or other status are indicated.
- **FAULT** | Lights red when a channel has been affected by short-circuit, overheating, under- or over-voltage/current or any other possible failure.

If firmware and software updates are available, related documentation is provided in the download are of our website https://se-audiotechnik.de .

5. **Input "IN" LEDs:**

- **CLIP |** Lights red if the maximum input voltage has been reached by analogue signals or if a reference level (dBFS) is reached by digital signals. Display is linked to the audio format indication. The respective signal LED and the CLIP LED of an input will blink together in case it is being clipped by a signal.
- **ANALOG, AES, DANTE |** The matrix point of input type and input number lights up green to indicate the presence of a signal. The signal detection happens before the input gain. It is not influenced by any DSP processing.

The term dBFS refers to dB "Full Scale", a unit of the level of digital signals. It depends on the maximum voltage allowed by the ADC (analog-to-digital converter) of the device, where this limit corresponds to 0 dBFS.

Clipping input levels will heavily distort the input signals, decrease the amplifier's efficiency and degrade sound quality. In case of input clipping decrease the output level of the signal source.

6. **Outputs LEDs:**

Each channel output is provided with the following indicators:

- **PROT |** Lights red if a channel is in protection mode. The protection mode will be activated in case of short-circuit, overheat, over- under-voltage/current or if any other failure occurs. In any case, the channel will be muted automatically. After reaching normal operating conditions, the device reverts to normal operating mode after some seconds.

- **LIMIT |** Lights up when a gain reduction is applied by any of the limiters to the output signal, referenced to the maximum level allowed by the internal peak/rms limiter. If this LED lights up permanently or for longer periods, the gain level should be reduced.

Gain reduction can be necessary to protect the amplifier from voltage clipping, over-current, over-temperature and power supply overload. In addition, it can prevent distortion and damages in the loudspeakers due to excessive excursion or temperature.

The **SE Mission Control** software offers more possibilities to monitor different kind of limiters and the applied gain reductions.

- **LEVELS |** Lights green as soon as an audio signal with the corresponding level is present at the output of the channel. These levels are referenced to the maximum level allowed by the peak or rms limiter defined by the loaded preset. The monitoring is performed after the Output Gain of the channel.
- **ACTIVE |** Lights green if the physical output of the amplifier has been assigned to a virtual or logical channel.
- **MUTE |** Lights red if the channel has been muted, either with the respective push-button, the touchscreen menu or from the **SE Mission Control** software.

7. **Touch Screen:** 3.5" TFT Color display with Touch Panel
8. **Control Knob:** Rotary encoder with push button for navigation and selection.
9. **USB Port:** Depending on the used firmware, the front USB port offers to load and save presets, update the amplifier' s firmware and to backup settings. This USB port does not work as a power source.
10. **Cooling Openings:** Air intakes of sensor-controlled fans for front-to-back air flow. See subsection Dust Filter Installation for additional information.

REAR PANEL

Figure 3. **LA 10.4D** rear panel.

1. **Rear Rack Mounting Option:** Back rack support mounting option with M6 screws.
2. **Analog Line Inputs:** Balanced analogue line-level input with female Neutrik® XLR-3. It allows input levels up to +22 dBu.
3. **Analog Line Link Outputs:** Buffered line-level outputs through male Neutrik® XLR-3 connectors to pass the input analog signals.
4. **Cooling Fan:** Sensor-controlled fan for heat dissipation.
5. **Digital Audio Inputs:** Female Neutrik® XLR-3 connectors to input AES/EBU digital audio signals. The maximum input level is 0 dBFS, corresponding to max. Vrms.
6. **Digital Audio Link Outputs:** Buffered outputs to pass the input digital AES/EBU signals through male Neutrik® XLR-3 connectors.
7. **Dante® Connection (optional):** Dante® module for digital audio input using Dante® protocol via an etherCON® connector.

   Always use shielded Ethernet cables, as CAT5e or CAT6, for Dante® connections.

8. **Network Control:** etherCON® terminal for LAN connection and remote control with the **SE Mission Control** software.

9. **Speaker Outputs:** Amplified signal outputs through speakON® NL4 connectors, Single-channel outputs use pins 1+/1-. In addition, the sockets 1 and 3 use also pins 2+/2- to output channels 2 and 4 respectively.

The dual-output of sockets 1 and 3 offers great versatility in the signal distribution. With a single NL4 cable, the audio signals can be delivered to two different loudspeakers, or two daisy-chained groups.

10. **Power In:** 32 A powerCON® socket for supplying 85 to 265 VAC, 50/60 Hz, max. 3,600W.

powerCON® supports up to 32 A of current. Do not exceed power limits of the amplifier. The max. amplifier power output requires a stable supply of 120 VAC or more.

Connecting a power cord: The power cord must always be connected first to the amplifier and then to the mains socket.
Disconnecting a power cord: First disconnect the power cord from the mains socket and then from the amplifier.

INSTALLATION

Rack Mounting

The **LA 10.4D** amplifier can be mounted into a 19” rack and requires 2 rack units (RU).

1. In the rack, clear the two unit-slots it will occupy and their respective screw holes.
2. Prepare and keep on hand M6 screws.
3. Put the amplifier on the intended slot of the rack. You may need additional help to hold it in place.
4. On the front, match the holes of the rack with those on the amplifier.
5. Insert and tighten the four screws.
6. On the rear part of the rack, place and fasten on each side the top and bottom screws to the respective lateral structure of the rack.
7. Verify that all the screws are completely tightened in the right position. Check as well the stability of the amplifier on its position.
8. Keep enough space behind and in front of the rack to ensure sufficient airflow and cooling.

Dust Filter Installation

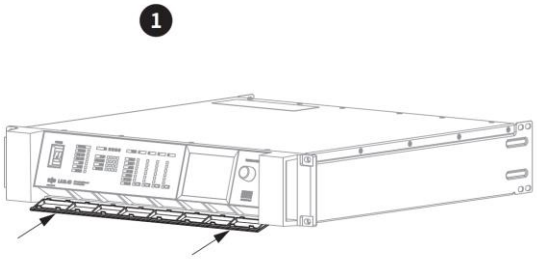
LA 10.4D system amplifier uses two sensor-controlled fans to prevent the temperature inside the cabinet to exceed the working limits of the different components. The device has openings at the front through which the air can flow to the fans at the back.

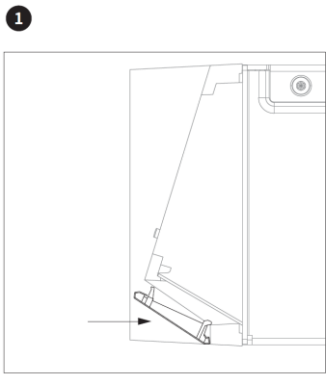
In some environments, a significant amount of dust may get into the amplifier through these air-intakes which, over time, can degrade the components and affect its operation. To reduce the intruding dust and extend the cleaning interval and life of electronics inside, dust filters can be installed.

However, notice that dust filters reduce the air flow through the amplifier. When the environmental temperature exceeds its limit the maximum power of the amplifier is reduced by around 3 dB, which is almost its half. Therefore, if maximum power is needed and a safe and dust free environment can be ensured, the amplifier could be used without installed dust filter. Please notice, that damages caused by dust might not be covered by warranty. The openings are protected by a mesh. If dust filters are used, thy must be checked and cleaned on a regularly basis.

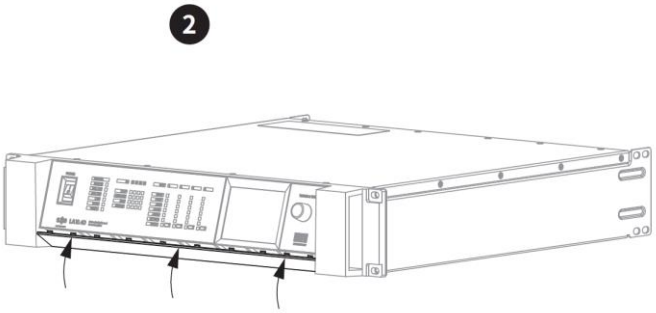
To install or replace a dust filter in the amplifier:

1. Disconnect the amplifier from the AC mains by detaching the power supply cords from the mains socket and the powerCON® socket. Open carefully the lower front cover of the amplifier. Remove and clean the old filter (if applicable).

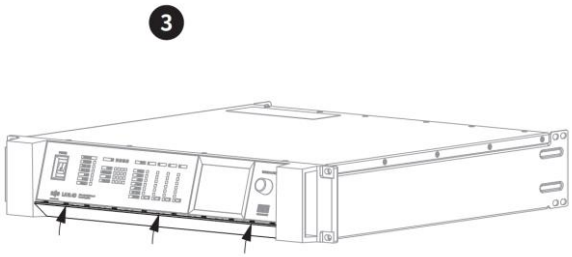


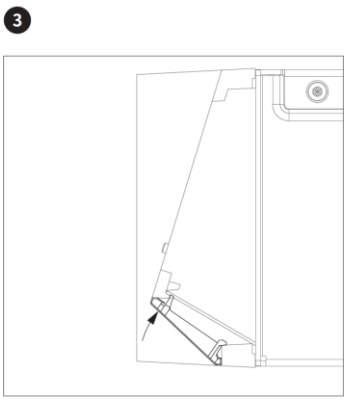


2. Install the cleaned or new filter. Move the lower front cover of the amplifier upwards.



3. Carefully press the lower front cover of the amplifier into its mounting until the clamping bracket clicks into place.





Wiring

In **LA 10.4D** amplifiers, analog and digital audio signals are input and/or passed through female and male XLR-3 connectors. These wires should be connected as shown below:

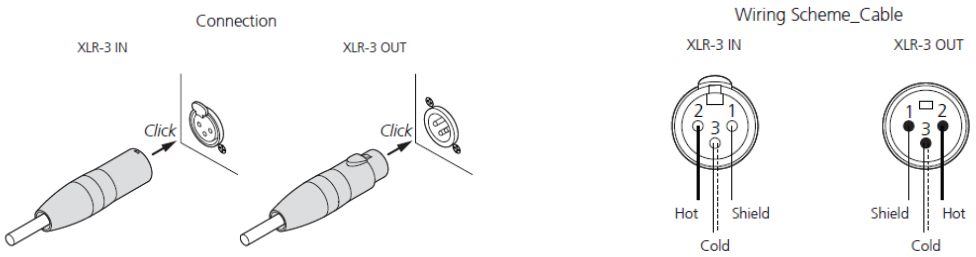


Figure 4. XLR-3 plug-in and cable connection.

Speaker outputs use speakON® NL4 connectors. Those obey the following connection and wiring schemes:

Figure 5. SpeakON® NL4 plug-in and link cable connection.

It is recommended to use cables with at least 0.75 mm² (18 AWG) and maximum 2.08 mm² (14 AWG) conductor size. Cables longer than 30 meters should be avoided. Those wires must be assembled by a qualified technician.

Finally, powerCON® connectors are used for the dual AC mains power inputs.

These power cables should be at least 4.0 mm^2 (12 AWG) and support currents of more than 32 A. In addition, they must be always connected first into the amplifier and then to the wall plug.

All the cables, especially those for the speaker outputs and AC mains, must be assembled and serviced by a qualified technician.

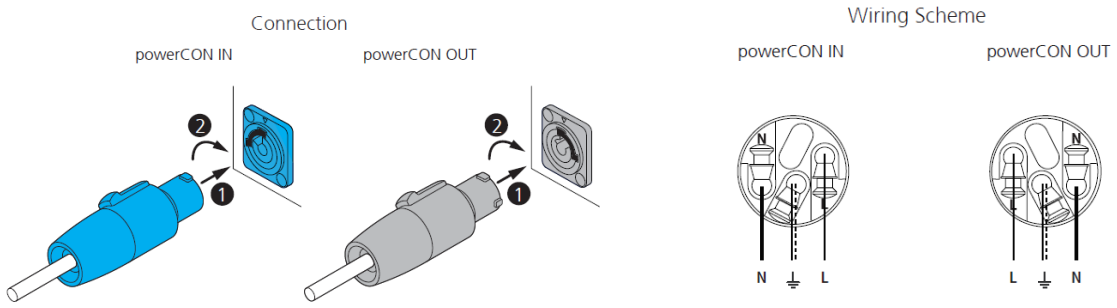


Figure 6. PowerCON® plug-in and link cable connection.

L-Line system amplifier channel capacity

The L-Line system amplifier is capable of driving multiple loudspeakers on a single amplifier channel. This enables you to configure systems with the highest possible efficiency. The following table lists the maximum number of L-Line and B-Line speaker systems that can be connected to one single amplifier channel.

Maximum possible number of speaker systems connected to a single amplifier channel.

	L 35	L 35 FS	L 65	L 65 FS	B 15	B 18	B 21
LA 10.4D	4	2	3	2	2	2	1

You can use less than the maximum stated number of speaker systems on one amplifier channel. If you are using other SE AUDIOTECHNIK loudspeaker systems, determine the nominal impedance of those components and make sure that it matches the minimum load impedance of the amplifier.

IF THE MINIMUM LOAD IMPEDANCE OF THE AMPLIFIER IS TEMPORARILY OR PERMANENTLY EXCEEDED, THE PROTECTIVE MECHANISMS MAY BE TRIGGERED AND CURRENT LIMITING WILL BE APPLIED OR THE AMPLIFIER SWITCHES TO PROTECTION MODE. IF THE LOAD IMPEDANCE FALLS BELOW THE MINIMUM VALUE OR IF THE CURRENT FLOW IS TOO HIGH, DISTURBING NOISES MAY OCCUR.

LCD Touchscreen Menu

This section explains the structure and features of the different menus and functionalities available in the **LA 10.4D** system amplifier. Features are accessible through the touchscreen. You can use your finger along with the rotary push-encoder to control and navigate inside the menu.

FIRMWARE MENU STRUCTURE

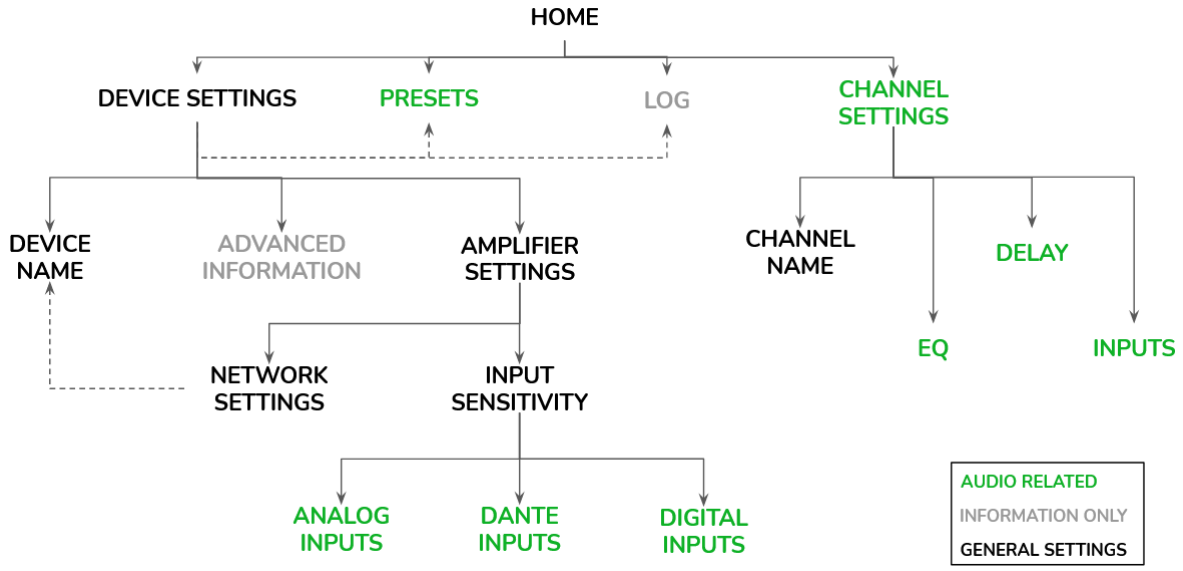


Figure 7. Firmware’ s menus structure.

NAVIGATION AND CONTROL

There are different options available to navigate around the menu and to select menu items, depending on the shown screen and menu layer.

Tap & Scroll Navigation

The Tap & Scroll navigation combines the use of the interactive touch screen and the rotary encoder. Turn the encoder to scroll through lists. Tab on the screen to select a menu item.

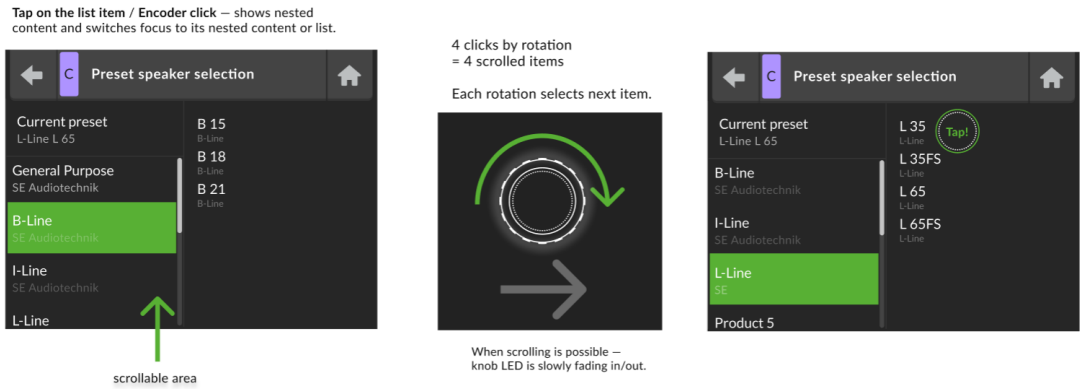


Figure 8. Tap & Scroll Navigation

Swipe Navigation

If an information widget is shown on the screen with parts outside the screen’s display area, it is possible to scroll by using a swipe gesture. Tap and hold your finger slightly pressed on the screen. Start to move your finger up or down to scroll to non-visible areas that are outside of the screen’s display area.

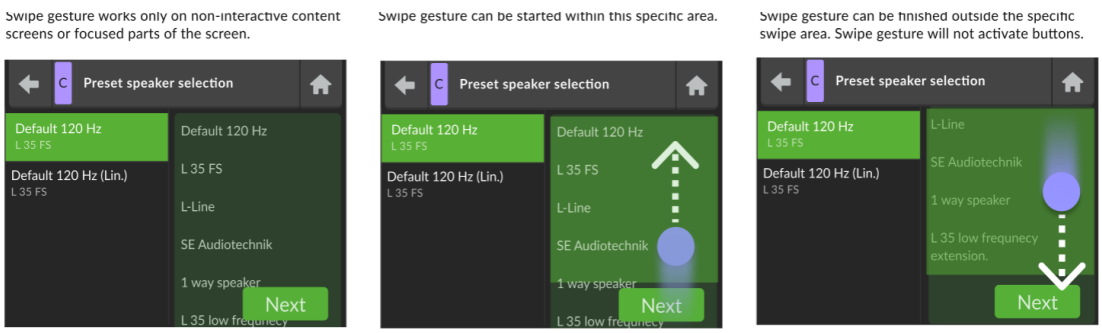


Figure 9. Swipe Navigation

Tap & Click Select

To select a menu item, you can either tap on the touchscreen or press the rotary encoder.

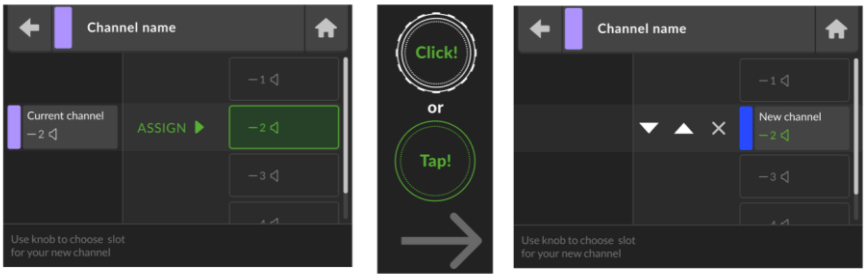


Figure 10. Tap & Click Selection

DASHBOARD (Home)

The DASHBOARD is the main menu (HOME) and is shown when the amplifier is switched on. From here, audio related menus, informational screens and amplifier settings can be accessed. All sub menus show a HOME button to return to the DASHBOARD.

The DASHBOARD menu offers key information about the current device preset, amplifier ID and channel settings/status. It contains information on muting, delay, name, channel preset, gain reduction and input routing. For each channel the gain can be directly set individual or grouped.

Figure 11. Dashboard

❶ **Amplifier ID/Name**: Shows the given name of the amplifier. The amplifier can be identified by this ID in a remote network and the SE Mission Control software. Tap on the menu item to navigate to device settings and system information menus.

❷ **Device Preset:** Indicates the current loaded and active device preset. A device preset contains predefined settings for all channels. Tap on the menu item to navigate to the factory and user presets.

❸ **Channel Gain:** Shows the channel gain. Tap on the gain indicator and change the value with the rotary encoder. Select more than one gain indicator to change the corresponding values relative to each other at once.

❹ **Channel Output, Channel Type and Mute Status:** The number shows the assigned amplifier channel, the color shows the mute status (red=muted) and the letters indicate the channel type (FR=Full Range, SUB = Subwoofer). Tap on the menu item to navigate to the channel menu.

❺ **Channel Name and Input:** This menu item shows the given channel name and the assigned audio input. Tap on the menu item to navigate to the channel menu.

❻ **Delay and Gain Reduction:** Set delay and applied gain reduction is shown with these indicators. Tap on the menu item to navigate to the channel menu.

DEVICE SETTINGS AND SYSTEM INFORMATION MENU

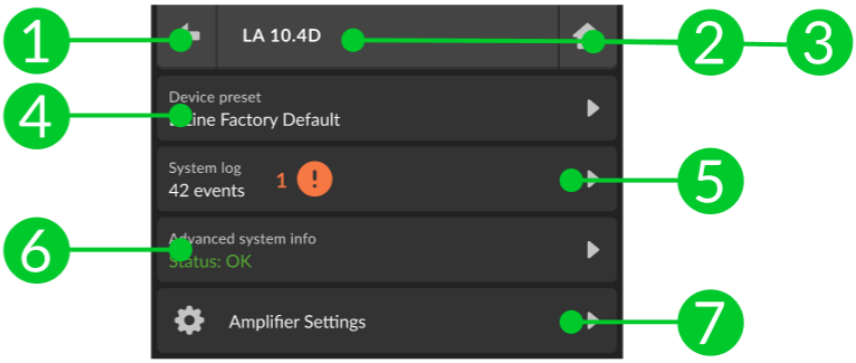


Figure 12. Device Settings & System Information

❶ **Back**: Tap on the arrow to return to the previous screen.

❷ **Device Name:** Displays the device name. Tap on the menu item to change the name.

❸ **Home/Dashboard:** Tap on the "HOME" icon to navigate to the dashboard/home screen.

❹ **Device Preset:** Indicates the current loaded and active device preset. Tap on the menu item to navigate to the factory and user presets.

❺ **System Log:** Shows system events and warnings.

❻ **Advanced System Info:** Indicates directly the all-over system status. Tap on the menu item to navigate to the advanced system information screen to get more information about mains power, temperature, connectivity, fan speed, firmware and serial numbers.

❼ **Amplifier Settings:** Tap on this menu item to navigate to the amplifier settings screen. Setting options are available for Panel and Knob LED Brightness, Screen Backlight Brightness, Sensitivity and Network Settings.

CHANNEL MENU

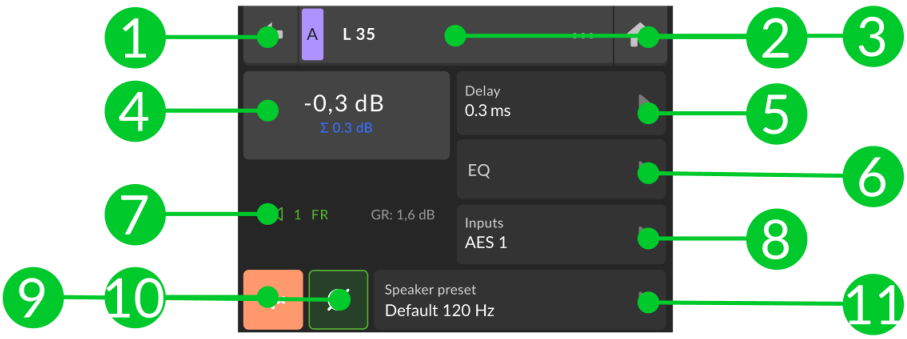


Figure 13. Channel Menu

❶ **Back**: Tap on the arrow to return to the previous screen.

❷ **Channel Name:** Displays the channel name. Tap on the menu item to change the name.

❸ **Home/Dashboard:** Tap on the "HOME" icon to navigate to the dashboard/home screen.

❹ **Channel Gain:** Shows the channel gain. Tap on the gain indicator and change the value with the rotary encoder.

❺ **Channel Delay:** Shows the channel delay. Tap on this menu item to navigate to the delay screen to modify the channel delay. In this menu, the delay bypass can be switched on or off.

❻ **EQ:** Shows the channel EQ. Tap on this menu item to navigate to the EQ screen to set and control channel EQ bands. In this menu, the EQ bypass can be switched on or off.

❼ **Channel Output, Channel Type and Mute Status:** The number shows the assigned amplifier channel, the color shows the mute status (red=muted) and the letters indicate

the channel type (FR=Full Range, SUB = Subwoofer). Tap on the menu item to navigate to the channel menu.

❽ **Inputs:** Shows the active channel input. Tap on this menu item to navigate to the input matrix to change input channel and format.

❾ **Mute:** Shows the mute status. Tap on this menu item to mute or unmute the channel output.

❿ **Phase:** Indicates the channel phase. Tap on this menu item to activate or de-activate channel phase.

⓫ **Channel Preset:** Indicates the current loaded and active channel preset. Tap on the menu item to navigate to the speaker preset selection screen.

ONLINE MANUALS

Online manuals are available for the operation of SE Mission Control software and further information about the LA 10.4D amplifier software and its operation. Visit our website at https://se-audiotechnik.de and navigate to the product page. There you will find links to the corresponding online resources.

SPECIFICATIONS

Technical Specifications

ELECTRICAL	
Type:	Networked DSP amplifier with 4x BTL Class-D and channel discrete Switch Mode Power Supply
Channels:	Four
Output Power[1]:	- 4 x 1200 W @ 8 Ω, 1 kHz, 1%THD - 4 x 1400 W @ 8 Ω, 1 kHz, 2%THD - 4 x 1700 W @ 4 Ω, 1 kHz, 1%THD - 4 x 2500 W @ 4 Ω, 1 kHz, 2%THD - 4 x 1400 W @ 8 Ω, 50 Hz, 4%THD - 4 x 1500 W @ 4 Ω, 50 Hz, 4%THD
Minimum load impedance:	4 Ω (with current limiting)
Frequency response (Line In) (4 Ω):	20 Hz to 20 kHz: -1 dB
Damping factor:	8 Ω: > 500 @ 1 kHz 4 Ω: > 250 @ 1 kHz
Input impedance:	> 20 kΩ balanced
Maximum input level:	+22 dBu
SNR Line In to Spk out:	110.7 dB, 113.5 dB(A) (@1500 W/8 Ω, +42 dBu)
Noise Floor:	-68.7 dBu (280 uV), -71.5 dBu(A) (200 uV(A))
Channel crosstalk:	-97.8 dB
THD+N:	< 0.0087% at 175 W into 4 Ω (1/8th of Rated Power) < 0.0095% at 350 W into 4 Ω (1/4th of Rated Power)
DSP:	48 kHz, 32 bit SHARC DSP with floating point processing
System latency:	1 ms to 10 ms (preset dependent)
Protection:	Short circuit, overheating, overcurrent
Cooling:	- Two fans with temperature dependant speed and tacho feedback - Front-to-back air flow
Power efficiency:	> 70 %
Power consumption (both PowerCON® summed):	- Off: 3 W - Idle/play ready: 70 W - at 1/8 of Rated power: 1000 W - at 1/4 of Rated power: 2000 W - at 1/3 of Rated power: 2666 W - Peak power: 8000 W

Inrush current (PowerCON®):	40 A (<1 ms) when connected to mains 9 A (<250 ms) when switching on
Rated current (PowerCON®):	9 A (230 VAC); 18 A (115 VAC) @ 1/4th of rated power
Operating voltage range:	90 – 265 VAC 50/60 Hz
HARDWARE	
Indicators:	- 4x Input signal level Led: -30dB, -12dB, -6dB, Clip - 4x Channel Led: Mute, Active, -30dB, -12dB, -6dB, Limit, Protect - 6x Status Led: Dante, AES1+2, AES3+4, LAN, Stand-By, Fault
Screen:	3.5" TFT Color display with Touch Panel & 320 x 240 resolution RGB
User controls:	- Control encoder with push-button - Touch Screen - 4x channel MUTE - Power On
Input connectors:	- 4x XLR-3 male line-level inputs and buffered link outputs - 2x XLR-3 male AES/EBU inputs and buffered link outputs - 1x Dante® via separate etherCON® terminal (optional) - 1x Network control via separate etherCON® terminal - 1x Front USB
Output connectors:	- 4x Neutrik SpeakON® NL4 outputs
Power connector:	- 1x Neutrik PowerCON® 32 A
SOFTWARE	
DSP Features:	Levels, Parametric EQ, Delay, Phase, RMS Limiter, Peak Limiter, IIR/FIR Filtering
Configuration handling:	- Loading of factory presets provided by SE AUDIOTECHNIK - Storing and recalling of user presets
Remote control via network:	- Controlling of individual amplifiers or parameter groups in distributed amplifiers via desktop software, - Configure any number of amplifiers with specified parameters.
Monitoring:	- Temperatures - Fan speeds - Voltages - Connection states - Fault states - System events - Runtime

MECHANICAL	
Product dimensions [H x W x D]:	89 x 483 x 480 mm / 2 RU
Net weight:	14.5 kg
Packaging dimensions [H x W x D]:	183 x 650 x 565 mm
Total weight:	16.5 kg
Cabinet:	Aluminum front panel, steel housing
Rack mounting:	Four frontal 6 mm holes at sides
Operating ambient temperature range:	[5°C ; 40°C]
Storage temperature range:	[-20°C ; 90°C]
Ingress Protection:	IP20

[1] According to CEA-2006.

Mechanical Drawings

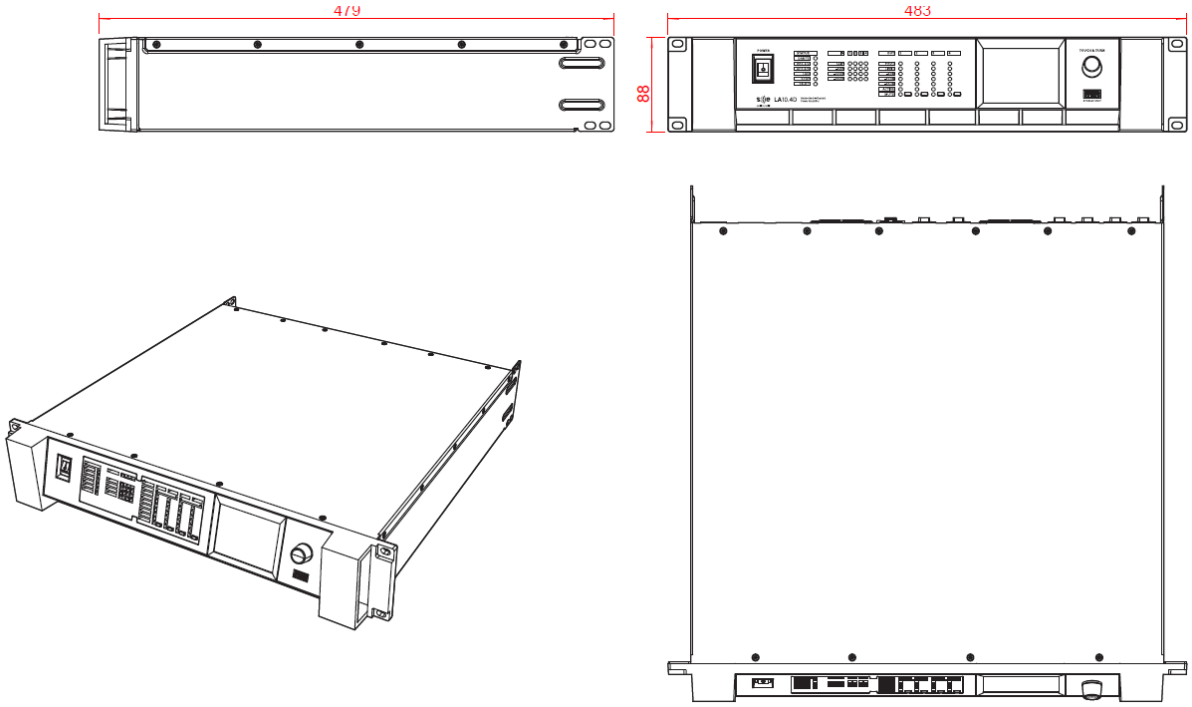


Figure 13. **LA 10.4D** views and dimensions. Annotations given in millimeters.

MANUFACTURER’S DECLARATIONS

WARRANTY

SE AUDIOTECHNIK gives a warranty of 4 years on SE AUDIOTECHNIK products. The warranty period begins with the purchasing date. The warranty applies to material or production defects that occur. Defective components or products will be repaired or replaced free of charge by SE AUDIOTECHNIK at its own sole and exclusive discretion during the warranty period.

EXTENDED WARRANTY

Customers who register their product with SE AUDIOTECHNIK within 180 days of the date of purchase are entitled to a free 2-year warranty extension. After this free registration period, SE AUDIOTECHNIK offers a chargeable warranty extension.

WARRANTY TRANSFER

The warranty given is non-transferable and refers to the original purchaser. In the event of a change of ownership, SE AUDIOTECHNIK offers the option of warranty coverage at a charge.

NOTE

SE AUDIOTECHNIK does not guarantee the uninterrupted and fault-free operation of the products.

The warranty does not apply:

- For wear parts and natural abrasion.
- For damage, defects or malfunctions caused by improper use or use for other than the intended purpose.
- For damage, defects and malfunctions caused by the use of force or environmental conditions.
- For unauthorized repair efforts.

REQUESTING WARRANTY SERVICES

The request for warranty service can be submitted to SE AUDIOTECHNIK or to the dealer from whom the SE AUDIOTECHNIK products were purchased.

Contact details SE AUDIOTECHNIK

SE AUDIOTECHNIK Head office
Neuenhofer Straße 42-44,
Solingen, 42657
Germany
Phone: +49 212 – 38226 – 0

E-Mail: info@se-audiotechnik.de

In order to claim warranty service, you must provide proof of purchase and allow SE AUDIOTECHNIK to examine the warranty claim (e.g. sending in the products, examination at an authorized partner). Without proof of purchase, the provision of a warranty service can be rejected. During the extended warranty period, proof of product registration must be provided in addition.

IMPORTANT NOTE

Your statutory warranty rights are not affected by this warranty. Furthermore, this warranty has no influence on any agreements you may have concluded with a dealer.

LIMITATION OF LIABILITIES

SE AUDIOTECHNIK is not liable for personal injury, material damage or claims resulting from inappropriate, dangerous or incorrect use of the products.

EU DECLARATION OF CONFORMITY

SE AUDIOTECHNIK devices comply with the fundamental requirements and other relevant specifications of the directives of the European Union. The detailed declaration and the list of these directives and harmonized standards are provided on the website https://se-audiotechnik.de/. Included are all product variants, as long as they comply with the original technical design and have not been subsequently modified mechanically, electrically or in their original condition.

CORRECT DISPOSAL OF PRODUCTS (ELECTRICAL WASTE)

(Applicable in the European Union and other European countries with separate waste collection systems).

SE AUDIOTECHNIK products must not be disposed of with other waste at the end of their service life to avoid possible harm to the environment or human health.

Private users can contact either the dealer from whom they purchased the products or the local authority for information on environmentally friendly disposal. Commercial users can contact their supplier, if they have any questions about disposal.

DECLARATION ON WEEE POLICY

SE AUDIOTECHNIK products are designed and manufactured with high quality materials and components that are intended to be recyclable and/or reusable.

SE AUDIOTECHNIK is WEEE registered in accordance with WEEE policy.

LICENSES AND COPYRIGHT

SE AUDIOTECHNIK products may contain software directly or indirectly that is necessary or complementary for their use. These software components may be SE AUDIOTECHNIK own developments or licensed and open-source products and solutions or a combination of the mentioned. In the case of open-source licenses, SE AUDIOTECHNIK will provide a copy of the source code and the full text of the corresponding license upon request in accordance with the license terms. Excluded from this and protected by copyright are own and licensed software solutions and software components.