

# LINNENBERG

Owner's Manual

LISZT

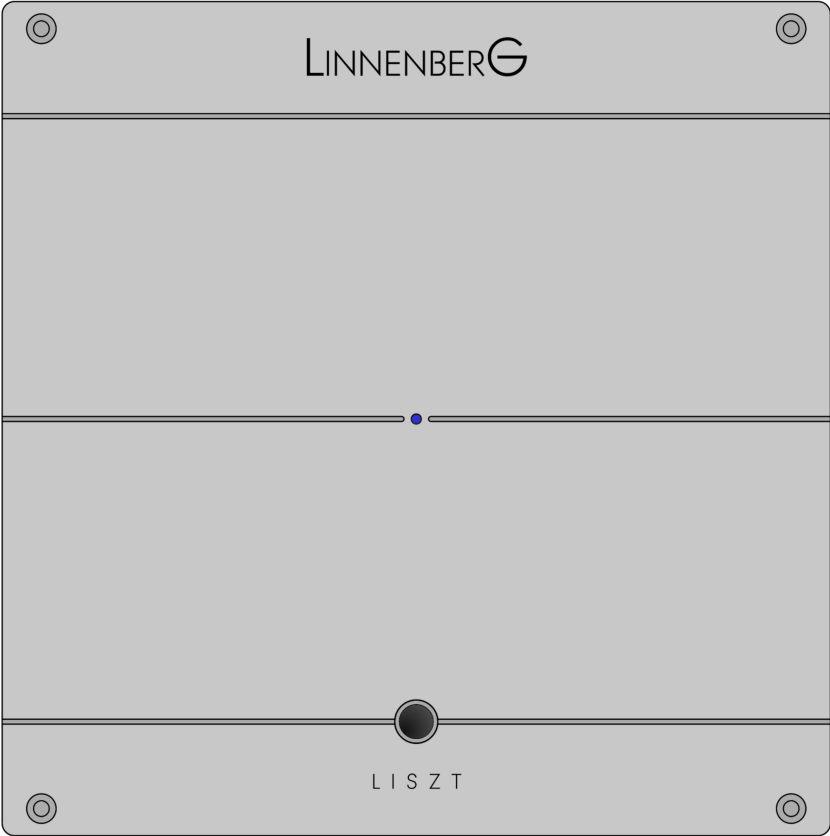


## Introduction



LISZT is a linear class AB mosfet amplifier delivering superiority and authority not to be found in lesser creations due to the high current capability and operating speed. Clever construction techniques enabled us to build an amplifier with high packing density, consequently making the signal and power paths extremely short.

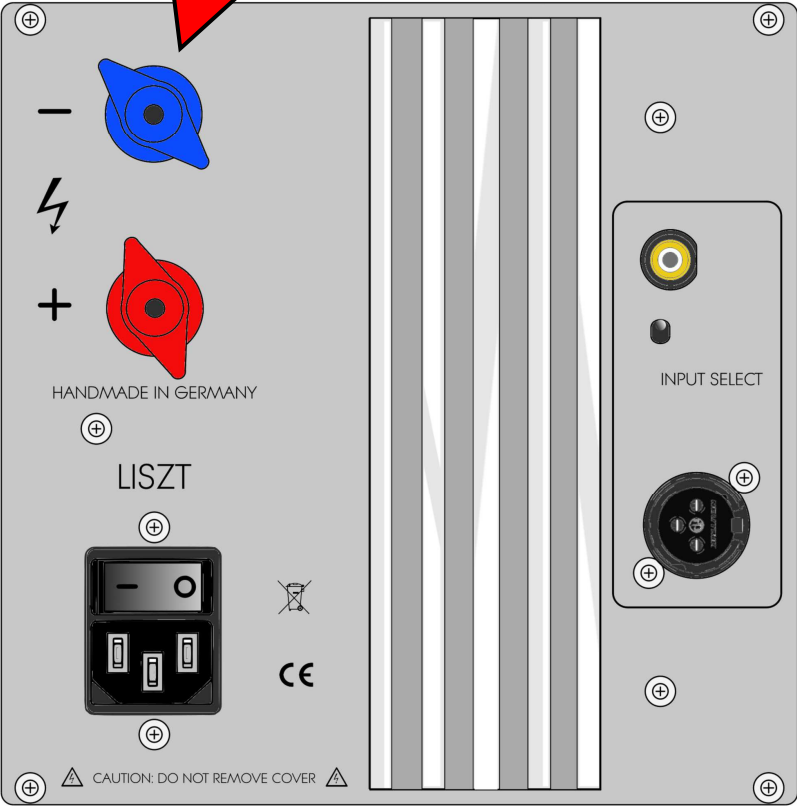
Controls - front



(Figure 1)

Connections - rear

DO NOT CONNECT TO GROUND, THIS IS AN ACTIVE OUTPUT



(Figure 2)

## Basic connections

Room temperatures over 30 degrees Celsius and / or extreme humidity should be avoided. Keep away from heat sources like radiators, heating, ovens or similar appliances dissipating heat. It is important to maintain an adequate supply of airflow to prevent overheating.


Place the unit on a solid, flat level surface such as a shelf or directly on the floor. Virtually, there are no limitations on where to position your LISZT. We suggest positioning the unit so that the connecting cables remain short.

Before connecting the LISZT to your mains the first time, check if the indicated mains voltage is in accordance with your home supply. Never plug an 115V version in a 230V mains socket or serious damage will occur.

First, establish the AC – power connection. The IEC mains input (Figure 2) is located on the rear panel. Make sure that the AC mains switch is set to (0) = OFF. Connect the power cord to the IEC mains input and plug it into your wall outlet or high quality power strip.

LISZT offers two inputs; one balanced and one in single ended configuration. The toggle switch is used to select the chosen input. When you have a choice, a properly implemented balanced connection will offer higher sound quality than a single-ended connection. The amplifier can be driven by a preamplifier or directly from a line – level source that has a volume control.

Connect your loudspeakers to the amplifier. The speaker cable can be connected via spade plugs or via banana plugs. Before turning the amplifier on, make sure that all cables have been connected firmly and in correct polarity.

Never attempt to ground the negative binding post, as this is an active output. Doing so will short one half of the amplifier and damage may occur. 

## Operation

With the speakers and the source connected, switch the rear mains switch to (1) = ON and press the front panel push button (Figure 1) to activate the amplifier. The blue LED will come on. After switching to operating mode the protective circuits take 10s to check all circuits of the power amplifier before enabling the speaker outputs.

There is no need to operate the mains ON / OFF switch on the back side since the standby power consumption is less than 0,5W. As it is common practice, disconnect LISZT from the mains during a thunderstorm or when going on vacation.

## Protection circuits

LISZT provides comprehensive protection for both the amplifier and your loudspeakers, including faults that may occur in your source components.

If the unit is operated at high playback levels with insufficient ventilation, the internal temperature may become too high, triggering the thermal protection circuitry. In this case the amplifier will shut down, the front-panel status LED will blink at a 1s rate.



Likewise, if the surveillance circuit detects the presence of DC at the output terminal, the amplifier will shut down too. Unallowable DC voltages can origin from the source component or the LISZT amplifier itself. To isolate the source of the problem, disconnect the audio input cable from the LISZT amplifier before proceeding any further.

If the error message persists, the amplifier hasn't cooled down sufficiently, or the unit itself is faulty. If the DC error only shows up, when the source is connected, the source component is faulty. In both cases consult your dealer.

An overcurrent condition is monitored permanently. If the output current to the loudspeakers exceeds 30A the amplifier limits power dissipation in the MOSFET output transistor to safe levels, protecting speakers and the amplifier.

## Mains voltage selection / fuse replacement

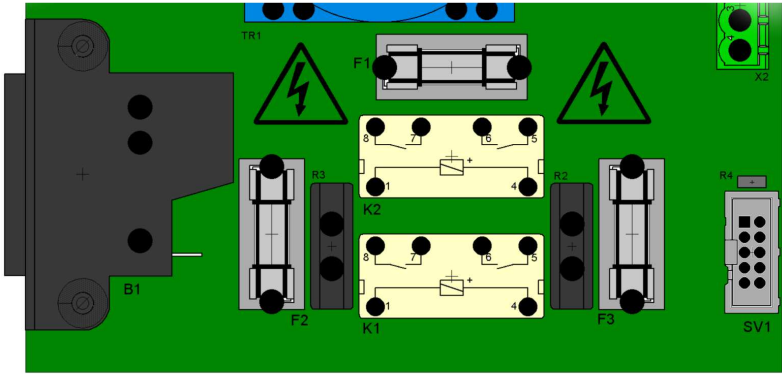
The following work should only be carried out by a qualified technician in accordance to highest electrical safety standards. Risk of electric shock. !

### Replacing the fuse

The fuse must be replaced by a 6,3AT type (5x20mm). Never attempt to short the fuse holder. Normally the fuse should never blow – if it has, it is a sign of a serious fault condition. Further investigation is needed.

### Mains voltage

Altering the mains input voltage range from 115V to 230V or vice versa is done by changing the fuses according to the figure 3 below. You will need 1x 6,3AT (= F1) for 230 V operation and 2x 6,3AT (= F2 and = F3) for 115V operation. Never attempt to apply any other fuse configuration or a short circuit condition will occur.



(Figure 3)

## Specifications

Input sensitivity :	1,5 V rms	
Input impedance:	47k $\Omega$ (single ended RCA) 94k $\Omega$ (balanced XLR)	
Gain :	+ 28,9 dB	
Power output :	200W/8 $\Omega$	
Peak output voltage :	133 V pp / 47V rms	
Peak output current :	+/- 25A continuous 1 : 10 cycle	
Frequency range :	0 ... 400 kHz with filters	0 ... 1.2MHz without filters
Full power bandwidth :	0 ... 400kHz	
Rise time :	650ns	
Damping factor :	> 500	
Signal to Noise ratio (SNR) :	116dB linear BW = 30kHz 122 dB (A)	
Equivalent input noise:	1,5 $\mu$ V linear, BW = 30kHz	
Distortion and noise (THD+N) :	0,003% @ 10W, 8 $\Omega$	

(Table 1)

## CE declaration of conformity

Product Type: Power amplifier

Model: LISZT

Linnenberg-Elektronik declares that this product complies with the Low Voltage Directive 2014/35/EU and the Electromagnetic Compatibility Directive 2014/30/EU as well as the Ecodesign Directive 2009/125/EC.

The unit meets all currently valid regulations only in its original condition. The original, unaltered factory serial number must be present on the outside of the unit and must be clearly legible! The serial number is an essential part of our conformity declaration and therefore of the approval for operation of the LISZT. The serial numbers on the unit and in manual, must not be removed or modified, and must correspond.

Furthermore, the unit has been found to comply with the limits for a Class B digital device, pursuant to Part 15, subpart B (unintentional radiators) of the FCC rules.

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