

LINNENBERG

ES30

MONO POWER
AMPLIFIER

Owner's Manual



ES30 is a linear class A / AB 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.

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(s) 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 ES30. We suggest positioning the unit(s) so that the speaker connecting cables remain short.

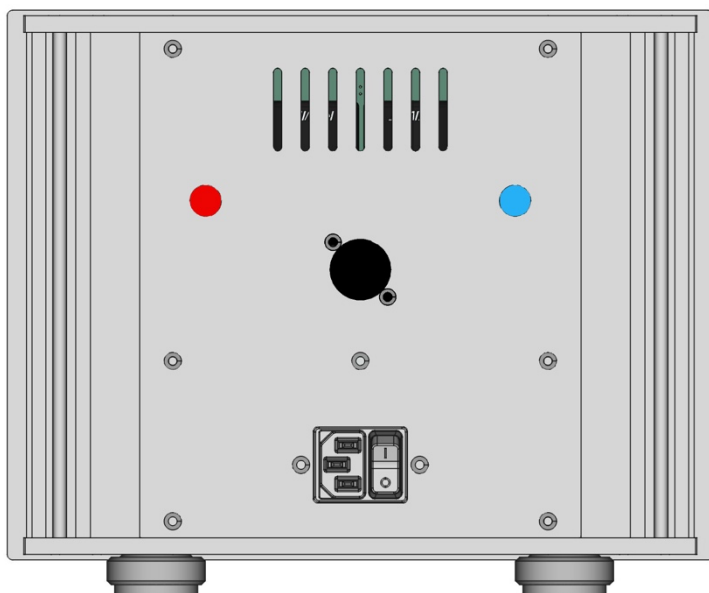
First, establish the AC – power connection. The IEC mains input is located on the rear panel. Connect the power cord to the IEC mains input and plug it into your wall outlet or high-quality power strip.

ES30 offers a balanced input, because 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 MUST be connected via banana plugs. Avoid speaker cables with excessive capacitance. As with any other high-speed amplifier, such cables can lead to instability. If in doubt, please consult your speaker cable manufacturer. Now, 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, press the front panel push button to activate the amplifier. The red 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.

As it is common practice, disconnect ES30 from the mains during a thunderstorm or when going on vacation.

Protection circuits

ES30 provides comprehensive protection for the amplifier and your speakers, including faults that may occur in your source components.

(1) If the unit is operated at high playback levels and with insufficient ventilation, the internal temperature may become too high for safe operation of the output devices.

(2) Likewise, the amplifier will shut down if the monitoring circuit detects the presence of DC current at the output terminal. Unacceptable DC voltages may be coming from the source component or the ES30 amplifier itself. To isolate the cause of the problem, disconnect the audio input cable from the ES30 amplifier before proceeding.

(3) An overcurrent condition is constantly monitored. Should the output current to the speakers exceed 20 A (continuous), the protection circuit will kick in. Important: there is no current limiting that could ruin the sound in normal operation.

(4) The amplifier also has a detection feature to determine whether one of the output terminals is connected to ground. There is no current limiting here either. The protection circuit is only triggered by high fault currents.

In each of the above cases (1) ... (4) the amplifier switches off completely and does not start again on its own. To restart, press the on-off button on the front 2x. If the error was temporary, the power amplifier will work normally again, which is confirmed by the red LED lighting up. We strongly advise against testing the overcurrent behaviour just for fun, as this puts unnecessary strain on the amplifier. All protection circuits are designed in such a way that the sound is not affected, but operational safety is guaranteed.

Specifications

Input sensitivity	1,8V rms		
Input impedance	94k Ω (balanced XLR)		
Gain	+ 28,9 dB		
Power output	300W/8 Ω	600W/4 Ω	1200W/2 Ω (1: 10 cycle)
Peak output voltage	138 V pp / 50V rms		
Peak output current	+/- 80A (1: 10 cycle)		
Frequency response	20 Hz ... 20kHz: +/- 0,02dB		
	0 ... 400 kHz -3dB @ 8 Ω		
Output impedance	<0,02 Ω @ 1kHz		
Signal – to – noise ratio	127dB(A) 103dB(A), ref. 1W / 8Ω (= 0dBW)		
Equivalent Input Noise	0,7 μ V = -123dBV		
Distortion and noise (THD+N)	0,001% @ 20W, 1kHz, 8 Ω < 0,01% @ 200W, 20kHz, 2 Ω		
Dimensions (W x H x D):	260 x 210 x 400 mm		
Weight:	21kg		

CE declaration of conformity

Product Type: Power amplifier

Model: ES30

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 ES30. 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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