

# THÖRESS

## 300B Single-Ended Triode . Mono . Power Amplifier

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### "SE300B Mono"



## PRODUCT DESCRIPTION

The SE300B Mono Amplifier is an all-tube power amplifier employing the famous 300B filamentary triode in single-ended (Class-A) operation mode for an output of up to 10 watts into a 4, 8 or 16 ohm loudspeaker load. The amplifier is entirely based on SINGLE-ENDED ZERO-FEEDBACK schematics, decidedly ignoring the fact that many music lovers persistently believe in the myth that balanced technology (and the associated cable configuration with XLR connectors) is generally superior over single-ended concepts. Readers who want to learn more about our view on balanced techniques and our general design approach are encouraged to read the paper (THÖRESS - Behind the Curtain) available as download on the ABOUT button of our website.

The 300B power tube is excited by an extraordinary single-stage driver employing two EL822/CV2382 power pentodes operated in triode mode with high idle current and works into a tape wound cut core (C-core) output transformer (OPT) which is built in-house to the highest possible standards to ensure ultimate performance. The driver stage is so powerful that it could (theoretically) drive a loudspeaker load with very low distortion on its own whereas the OPT allows for precise matching of a 4, 8 or 16 ohm loudspeaker load to the power tube by way of jumpers soldered to its secondary terminals. These design choices are to a large extent responsible for the richly textured, clear, warm and dynamic sonic presentation of the amplifier, particularly when combined with our horn based 2CD12 or underhung-motor based 1D66 loudspeaker. The SE300B Mono Amplifier is an ultimate component and as such a worthy complement to our Dual Function Amplifier or Full Function Preamplifier. It easily outperforms competitive products regardless of price and will certainly measure up to the expectations of even the most critical and experienced music lover.

The amplifier is built with meticulous hand construction using our proven point-to-point wiring techniques, whereas much care has been taken in arranging each aspect of the internal construction to ensure low noise performance, ease of service and the highest reliability for many years to come.

## LOW NOISE OPERATION

Specific design choices guarantee low noise operation even when the SE300B mono block is combined with a highly efficient loudspeaker such as our 2CD12 model. At first, the 300B power tube is DC heated whereas the cathode point of the amplifier circuit can be balanced with respect to the filament of the given power tube by means of a control knob (rotary potentiometer) on the rear panel. Once the balance adjustment has been carried out the signal current is distributed uniformly over both ends of the 300B filament and residual hum due to ripple of the heater supply voltage vanishes (reaches a minimum). Secondly, the amplifier has been specifically designed to have a moderate gain (low input sensitivity). This ensures that the idle noise of the line device remains inaudible in all possible scenarios. Notably, this design choice also ensures conveniently fine volume adjustment.

## MAINS TRANSFORMERS

The SE300B mono amplifier is equipped with a mains transformer produced in-house to ensure the highest possible quality and reliability. This part has been optimized for low body noise emission and low leakage. Nevertheless, it is mounted to the chassis via isolation elements in order to eliminate even the slightest interference of residual transformer vibrations with the circuit. Since the mains transformer is produced in-house we can readily customize the amplifier for all kinds of mains voltages, for example 100Vac (Japan), 120Vac (USA, Canada), 220Vac (South Korea, China, Thailand, Indonesia), 240Vac (UK) or 245 Vac (Australia).

## FEATURE OVERVIEW

- All-Tube Mono Power Amplifier utilizing the famous classic 300B filamentary power triode in single-ended (class-A) operation mode.
- 2x10 watts of output power.
- Powerful single-stage driver utilizing two EL822/CV2382 pentodes operated in triode mode at high idle current.
- Minimalist (pure class-A) zero-feedback schematic.
- Ultimate tape wound cut core (C-core) output transformer manufactured in-house.
- Precise 4, 8 and 16 ohm loudspeaker load matching via jumpers soldered to the secondary terminals of the output transformer.
- C-core filter choke made in-house.
- High grade foil-in-oil capacitors (made in Germany) in the power supply.
- Ultra-low noise mains transformer produced in-house for 230Vac, 100Vac

(Japan), 120Vac (USA, Canada), 220Vac (South Korea, China, Thailand, Indonesia), 240Vac (UK) or 245 Vac (Australia).

- Full hand construction, point-to-point wiring throughout.
- Non-magnetic (aluminum) case, anodized printing on front and rear panel, powder-coated chassis and lids.
- Dimensions: 150x595xH330 mm, 330=20/feet+210+100/power tube over case, 595=575+20/speaker binding posts;
- weight: 14 Kg each Mono Block.
- Dimensions of the shipping crate: 950x400xH460 mm.

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**A Tribute to Professional Audio Components  
from the Golden Age of the Vacuum Tube !**

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