

THÖRESS

845 Single-Ended Triode . Mono . Power Amplifier

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"SE845 Mono"

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PRODUCT DESCRIPTION

The SE845 Mono Amplifier is an all-tube power amplifier employing the famous 845 filamentary power triode in single-ended (Class-A) operation mode for an output power of up to 20 watts into a 4, 8 or 16 ohm loudspeaker load. It is the flagship of our all-tube power amplifier line. 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 on request.

The 845 is a brightly glowing filamentary tube which requires around 300V peak-to-peak voltage swing at the control grid for full excitation while presenting a critically high internal impedance of about 2000 ohms to the output transformer (OPT). Designing a driver stage and an OPT which allow to fully exploit the enormous sonic capabilities of the 845 triode are therefore highly challenging tasks. In our SE845 monoblock the power tube is driven by an extraordinary single-stage arrangement employing two EL822 power pentodes operated in triode mode with high idle current. The driver is so powerful that it could (theoretically) drive a loudspeaker load with very low distortion on its own. Furthermore, the proprietary output transformer (OPT) is made in-house and features a highly elaborated dual-coil winding over a large tape-wound cut core (C-core) to ensure very low transformer distortion and ultimate frequency response. (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 the secondary terminals.) These design choices are to a large extent responsible for the richly textured, clear, warm and dynamic sonic presentation of the SE845 monoblock, particularly when combined with our 2CD12 or 1D66 loudspeaker. The SE845 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 certainly measures up to the expectations of even the most critical and experienced music lover.

The SE845 amplifier is built with meticulous hand construction using our proven point-to-point wiring techniques. 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 SE845 monoblock is combined with a highly efficient loudspeaker such as our 2CD12 model or even a more efficient horn component. At first, the 845 tube is DC heated whereas the cathode point of each individual tube can be balanced with respect to its filament 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 845 filament and residual hum due to ripple of the heater supply voltage vanishes (reaches a minimum). Secondly, our mono block 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 SE845 mono amplifier is equipped with a proprietary 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 easily built transformers for all kinds of mains voltages on demand, 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 filamentary 845 power triode in single-ended operation mode.
- 2x20 watts of output power.
- Minimalist (pure class-A) zero-feedback schematic.
- Powerful single-stage driver utilizing two CV2382 (EL822) power pentodes operated in triode mode at high idle current.
- High grade electrolytic capacitors (made in Germany) in the power supply.
- C-core filter choke made in-house.

- Ultimate tape wound cut core (C-core) output transformer with dual-coil winding manufactured in-house.
- Precise 4, 8 and 16 ohm loudspeaker load matching via jumpers soldered setting to the secondary terminals of output transformer.
- Low noise low leakage mains transformer produced in-house for 230Vac (115Vac via jumper setting). 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 case (aluminium throughout), anodized printing on front and rear panel, powder-coated chassis and lids.
- Dimensions: 150x595xH330 mm,
330=20/feet+210+150/tube over case,
595=575+20/speaker terminals, weight 18 Kg (each monoblock).
- Dimensions of the shipping crate: 950x400xH460 mm.

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

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