

THÖRESS

Parametric . Phono Equalizer . Series

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"THE PHONO ENHANCER MKIII"



PRODUCT DESCRIPTION

THÖRESS proudly presents the Parametric Phono Equalizer MKIII...

A highly versatile vacuum tube phono preamplifier which offers MM and MC amplification with excellent signal-to-noise performance in purely active operation mode (without the aid of step-up transformer gain). And, furthermore, unique on-the-fly tone adjustments. More specifically, the frequency response of the amplifier can be controlled within wide limits by varying the three de-emphasis edge frequencies f_1 , f_2 , f_3 by means of three 6-position rotary switches TCSW1, TCSW2, TCSW3, which we call tone selectors. Obviously, this design concept justifies the term PARAMETRIC PHONO EQUALIZER. With selectors in default position the amplifier performs highly accurate RIAA de-emphasis, the most widely used equalization characteristic, given by the NEW ORTHOPHONIC prescription established by RCA along with the microgroove vinyl disc in the late 1940s.

As a side effect of this unique concept, the entire range of phono equalization characteristics used by the prominent record labels throughout history (including those of pre-microgroove 78-rpm era) can be activated or at least closely approximated by choosing appropriate tone selector settings. Real-to-real tape NAB and IEC equalization (for various tape velocities) can be installed, aside the phono settings, on request.

The three tone selectors give rise to subtle bass, midgetone and treble control functions which are highly effective tools for restoring tonal imperfections of the replayed vinyl programm (eventually introduced during the recording or cutting process) without involving additional clumsy and sound destructive tone control circuitry! The favorable range of the selectors has been determined and optimized by evaluating a wide variety of vinyl records with a laboratory sample. Thanks to its unique tone control facilities the amplifier will allow you to listen more deeply into the groove of records than it is ever possible with a phono preamplifiers restricted to a fixed (RIAA) de-emphasis. Therefore we claim our preamplifier to be a PHONO ENHANCER! Please refer to the use manual for a detailed description of the enhancement procedure. Tone control is particularly crucial for the playback of

monophonic records, nonetheless numerous stereophonic records (including those from the 1970s and 80s or even current productions) benefit from subtle tone control facilities, as well.

The Phono Enhancer 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. In view of our commitment to single-ended design principles, the exclusive use of RCA jacks for signal input and output was obligatory.

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. The Phono Enhancer is an ultimate component and as such a worthy complement to our Dual Function Amplifier. The sonic presentation of the amplifier is of utmost refinement and thus will easily measure up to the highest expectations of every discerning music lover or professional user.

CIRCUIT TOPOLOGY

Our Phono Enhancer MKIII employs

(2x12J5GT+2xPC86) or (2x6J5GT+2xPC86)

vacuum tubes and 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.

INPUTS

The amplifier comprises 6 phono inputs with gain pattern (5xMC+1xMM), five inputs with 65dB MC gain and one input with 45dB MM gain (presenting a standard 47K load to the cartridge). Alternatively, a gain pattern (1xMC+5xMM) can be implemented on request. However, it is not possible to install an arbitrary MC+MM gain pattern for technical reasons. The cartridge loading is

(100, 200, 300, 500, 1000 / 47.000) ohms and (500 ohm/47K, 47K, 47K, 47K, 47K).
on (5xMC+1xMC) and (1xMC+5xMM) standard units respectively. Other load values
can be easily installed on demand.

OUTPUTS

The output impedance of the Phono Enhancer is sufficiently low (around 300 ohms) to simultaneously drive long cable runs and line inputs with an input impedance as low as 10.000 ohms without compromising sound quality. The 3dB-down frequency under 10.000 ohm loading conditions is still well below the audio band (lower than 5Hz, 3.3MFD output coupling capacitor). The circuit outputs terminate in 2x3 RCA jacks connected in parallel. This design choice is useful for proper (hum-free) dual-channel mono installation with single-coil cartridges, without involving any inconvenient adaptations. Please refer to the user manual for a detailed description of proper dual-channel mono installation in the context of single-coil phono cartridges.

MAINS TRANSFORMER

The Phono Enhancer is equipped with a proprietary mains transformer produced in-house to ensure the highest possible quality. This part has been specifically designed 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, such as 100Vac (Japan), 120Vac (USA, Canada), 220Vac (South Korea, China, Thailand, Indonesia), 240Vac (UK) or 245 Vac (Australia).

FEATURE OVERVIEW

- Highly versatile vacuum tube phono preamplifier (phono equalizer).
- 6 phono inputs with gain pattern (5xMC+1xMM) and cartridge loading (100, 200, 300, 500, 1000; 47.000) ohms. Alternatively, a gain pattern (1xMC+5xMM) can be implemented on request.
- MC gain with state-of-the-art signal-to-noise-performance in purely active operation mode (without the aid of step-up transformer gain).
- Minimalist single-ended zero-feedback schematic with passive de-emphasis installation utilizing (2x12J5GT+2xPC86) vacuum tubes.
- Edge frequencies of the de-emphasis characteristic independently on-the-fly adjustable within wide limits by means of three 6-position rotary selectors. Real-

to-reap tape NAB and IEC equalization settings can be installed on aside the phono settings on request.

- Entire range of phono equalization characteristics used by the prominent record labels throughout history can be activated by choosing appropriate selector settings. Equalization settings suitable for 78-rpm playback included. Highly accurate RIAA equalization with tone selectors in default position.
- Subtle yet highly effective tone control facilities for restoring tonal imperfections of the vinyl program, implemented without the aid of clumsy sound-degrading conventional tone control circuitry.
- 3 outputs (RCA terminals) with very low output resistance.
- Full hand construction, point-to-point wiring throughout.
- Ultra low noise 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).
- 220Vac (Thailand, China-ML, Russia, Korea, Indonesia, 100Vac (Japan) or 245Vac (Australia) available on request.
- Non-magnetic aluminum casework, front and rear panel with anodized printing, powder coated lids.
- Dimensions: 434x434x154 mm, 154=134+20 (case feet).
- Dimensions of the shipping box: 650x650x350 mm, weight 11.6Kg.

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THÖRESS...

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

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