

THÖRESS

Parametric . Phono Equalizer . Series

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"THE PHONO ENHANCER MKIII"



PRODUCT DESCRIPTION

THÖRESS proudly presents the Parametric Phono Equalizer MKIII. ..

This exceptionally versatile vacuum tube phono equalizer preamplifier allows for on-the-fly adjustment of the equalization characteristic (the gain versus frequency behaviour of the amplifier) within very wide limits by means of three 6-position rotary switches TCSW1, TCSW2 and TCSW3 assigned with the edge frequencies f_1 , f_2 and f_3 of the de-emphasis function. A design choice which obviously justifies the term PARAMETRIC PHONO EQUALIZER. The three selectors act as bass, middleton and treble controls respectively whereas the favourable control range of each selector has been determined and optimised by evaluating a wide variety of vinyl records with a laboratory sample. In this manner we have created subtle yet most effective tone control functions without the aid of additional (clumsy and sound destructive) tone control circuitry!

As a side effect of this unique implementation, 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 settings of the tone selectors TCSW1, TCSW2 and TCSW3. With selectors in default position the preamplifier provides highly accurate RIAA equalization, the most widely used equalization function (identical with the NEW ORTHOPHONIC prescription established by RCA along with the microgroove vinyl disc in the late 1940s). It should be noted that real-to-real tape NAB and IEC equalization (for various tape velocities) can be installed, aside the phono settings, on request.

The tone selectors can be used for compensating sound degrading artifacts and tonal imperfections which may have been introduced during the recording or cutting process of records. As a result, optimum tonal balance can be restored even to poorly mastered program. Thanks to it-s unique tone control facilities the amplifier will allow the user to listen more deeply into the grooves of records than with a phono preamplifier restricted to RIAA de-emphasis.

Therefore we claim our preamplifier to be a PHONO ENHANCER. It is well known that tone control is especially beneficial for the reproduction of monophonic microgroove records. However, many stereophonic records (including those from the 1970s and 80s or even current productions on vinyl) can be enhanced with the aid the tone control facilities as well. Please refer to the operational manual for a detailed description of the enhancement procedure.

The Enhancer is built with meticulous hand construction using our proven point-to-point hard 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. Once the amplifier is properly installed it delivers excellent signal-to-noise performance in in PURELY ACTIVE operation mode (without the aid of additional step-up transformer gain), even when combined with 0.2mV@5cm/sec cartridges, while offering the utmost refinement in sonic presentation. Making it a reference device which will easily measure up to the expectations of even the most critical and experienced music enthusiast or professional user.

CIRCUIT TOPOLOGY

The Phono Enhancer is entirely based on single-ended (non-balanced) zero-feedback schematics utilizing

(2x6J5GT+1xPCC88)

vacuum tubes. Decidedly ignoring the fact that many music lovers persistently believe in the myth that balanced technology (and the associated cable configuration with XLR terminations) is generally superior over single-ended concepts. Consequently, the Enhancer comes with RCA terminations for signal input and output throughout. Readers who want to learn more about our view on balanced techniques or our general design approach are encouraged to read the paper (THÖRESS - Behind the Curtain) available on request.

INPUTS & OUTPUTS

The amplifier comprises 6 phono inputs, five of which offer (equal) MC gain (65dB@1KHz), whereas one input is reserved for MM amplification, presenting a standard 47.000 ohm load to the cartridge (gain 45dB@1KHz). Hence the gain pattern on the inputs is

(5xMC+1xMM).

Alternatively, a gain pattern (1xMC+5xMM) can be implemented, on request. However, it is important to note that it is not possible to install arbitrary MC+MM gain patterns for technical reasons. The cartridge load presets on (5xMC+1xMC) units is

(100, 200, 300, 500, 1000; 47.000) ohms.

A variety which is believed to cover all possible applications. Nevertheless, other load values can be easily installed on demand. The load preset on (1xMC+5xMM) units is

(100 ohm; 47K, 47K, 47K, 47K, 47K).

The output of the circuit is simultaneously distributed over three pairs of RCA jacks. Thanks to a very low output impedance the user can employ up to 3 (long) interconnect cables simultaneously without compromising sound quality. This design choice is particularly helpful for dual-channel mono installation with monophonic cartridges of the single-coil type, whereas up to 2 cartridges of this kind can be installed simultaneously without the aid of adaptors or other accessories (except for one additional interconnect cable). Proper dual-channel installation is described in detail in the operation manual. The key to hum-free dual-channel mono installation with single-coil cartridges in the context of single-ended (non-balanced) phono circuitry is to duplicate (distribute the signal over the channels) at the OUTPUT of the phono preamplifier rather than at the cartridge terminals.

MAINS TRANSFORMER

The Phono Enhancer is equipped with a proprietary mains transformer manufactured to the highest possible standards in-house. This part has been designed and optimized for low leakage and ultra low body noise emission. In order to eliminate even the slightest interference of residual transformer vibrations with the circuit the mains transformer is mounted to the chassis via isolation elements. Since the mains transformer is produced in-house we can easily build transformers for all kinds of mains voltages on demand, for example 100Vac (Japan), 245Vac (Australia) or 220Vac (Russia, South-Korea, China, Thailand, Indonesia).

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 (2x6J5GT+1xPCC88) 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), 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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