KNIF V804 PRE HIGH-END VACUUM TUBE PREAMPLIFIER



DATASHEET

OVERVIEW

Knif V804 Pre is a high-end vacuum tube microphone preamplifier available in two and four channel versions. The preamplifier pays homage to German engineering from the 1950's while utilizing modern components and construction techniques. The front end is based around the Telefunken EF804S, a very special and sought after pentode, combined with a high step-up ratio Lundahl input transformer. The most distinctive feature from the classic 1950's designs was the use of pentodes in the first stage of sensitive electronics.

Thanks to the special front end, the self noise of V804 Pre is very low, fully comparable to the best solid state rivals, and the maximum gain is also very high. The latter of the two tube stages in the amplifier also features a SQ pentode, the E180F. This stage is also coupled to the outside world through a Lundahl transformer. The core of this transformer is silicon iron, which adds a hint of thickness and smoothness to the top register.

The gain of V804 Pre is adjusted in 4 dB increments via an Elma® rotary switch that features an automated -20 dB pad for the lowest gain settings. There are no electrolytic capacitors in the signal path.

The V804 Pre is also available with optional DI inputs, boasting a capacitance of only 15 pF; which is roughly equivalent to a foot of the best cables available and greatly helps in delivering the last bits of treble available from Hi-Z sources such as guitars.

The performance of the V804 Pre is flawless. 72 dB of gain from tube preamplifier, especially one with only two stages, is rare and requires a perfect symbiosis between the components. It is even more difficult to approach while retaining superb linearity, high output levels, and even frequency response. There are no other tube microphone preamplifiers on the market with such degree of sophistication and minimalism.



TECHNICAL SPECIFICATIONS

MIC / LINE INPUT		
Impedance		1 kΩ
Maximum Level		+26 dBu
Gain		0 dB 72 dB
Connectors		XLR female, Neutrik, 3-pin, gold-plated
DI INPUT(optional)		
Impedance		2 MΩ, 15 pF
Gain		0 dB 52 dB
Connectors		Neutrik 6.35 mm jack, locking
OUTPUT		
Impedance		< 200 Ω
Maximum Level	into $10 k\Omega$ +32 dBu	
	into 600 Ω	+25 dBu
Connectors		XLR male, Neutrik, 3-pin, gold-plated
PERFORMANCE		
Frequency Response,	$\pm 0.5 dB$, Ref. 1 kHz, 50 Ω source	10 Hz 40 kHz
Gain 20 60 dB	± 0.5 dB, Ref. 1 kHz, 150 Ω source	15 Hz 22 kHz
High frequency cutoff, max gain	-1.0 dB, Ref 1 kHz	20 kHz
THD+N,	$10k\Omega$ load, $0\dots 64dB$ gain, $30\dots 20kHz$	0.4%
20 dBu out	600 Ω load, any gain, 30 20 kHz	<0.6%
Channel Balance	Any gain	better than 0.1 dB
Noise (EIN), $60 \mathrm{dB}$ gain, 50Ω source	A-weighting	-133 dBu
Crosstalk,	$100\mathrm{Hz}$	-90 dB
Gain 0 60 dB	1 kHz	-95 dB
	10 kHz 100 Hz	-68 dB -80 dB
Crosstalk,	100 Hz 1 kHz	-80 dB
Gain 72 dB	10 kHz	-55 dB
MAINS		
Mains Voltage		115 / 230 VAC, selectable
Mains Frequency		50 / 60 Hz
Power Consumption	2ch version	27 W
Connector		IEC, C13



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EF804S		2 pcs
E180F		2 pcs
GENERAL		
Dimensions	$w \times l \times h$	430 × 352 × 88 mm (2U)
Weight		8.1 kg
CONTENT		
V804 Pre		1 pcs
Spare tubes (E180F, 2 pcs)		1 set