

786

PRECISION MIC PREAMP



VISIONARY DESIGN

The craftsmanship of the 786 is as stunning as the engineering is innovative. A striking blue front panel machined from 1/4" aircraft aluminum, hand-crafted solid aluminum knobs, LEDs mounted individually in machined stainless steel housings, custom VU meters with peak indicators, and heavy gauge chassis solidify the 786 as the benchmark preamplifier for decades to come. The 786 combines the best preamplifier features and an absolutely pristine audio path. In addition to having +48V phantom power as well as a phase reverse switch, the 786 also features a patent-pending EQ circuit called "spectrum" with frequency cut and boost up to 40kHz. An 11-position coarse gain switch sets the gain between +10 and +60dB, while the fine gain control varies between -3 and +3dB. Levels may be monitored on peak-program VU meters with adjustable reference levels. The signal path consists of a transformer-coupled, discrete-design premium input stage, utilizing the proprietary dbx M8™ Mic Pre-Amp Module.

REVOLUTIONARY ENGINEERING

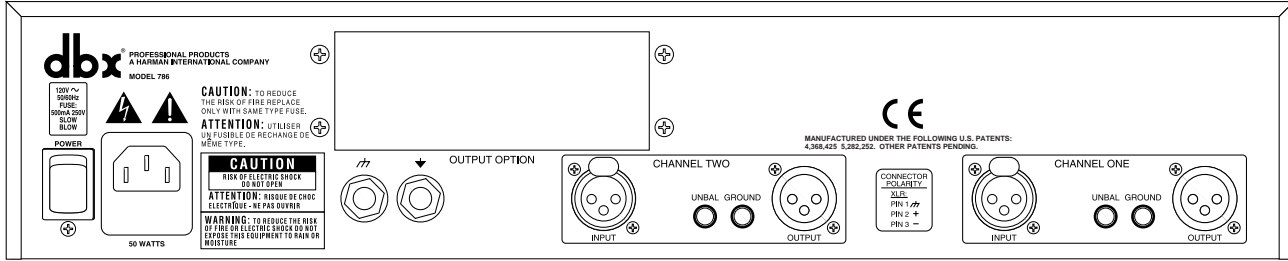
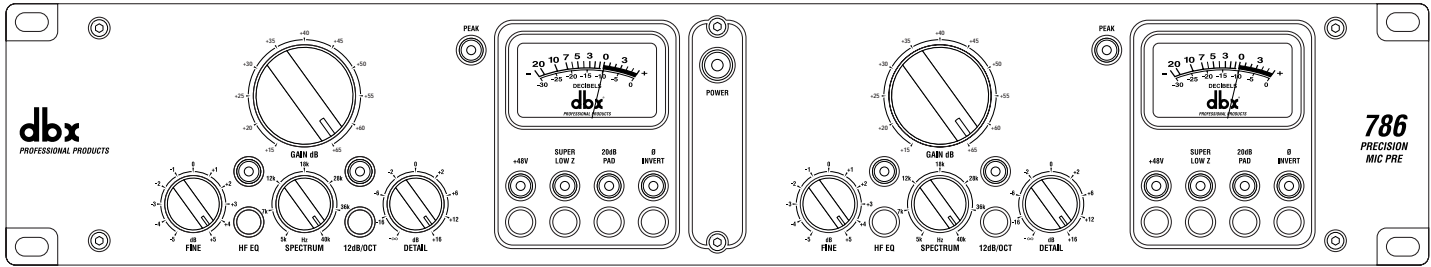
"Spectrum", a unique variable high-frequency equalization circuit employed in the mic pre-amp enhances the high frequency spectral content of the signal while maintaining phase integrity. The "Detail" control varies the amount of high frequency shelving boost at the frequency determined by the Spectrum control. The combination of the Spectrum and Detail controls allow pristine high frequency equalization adjustments without the added "hash" of traditional high-frequency EQ topologies. Premium active electronics, precision 0.1% and 1% metal film resistors, great sounding temperature stable polypropylene capacitors, high-reliability board-to-board connectors with gold-palladium-nickel contacts, Jensen® transformers, gold plated Neutrik® XLRs, rare earth magnet relays with gold contacts in a hermetically sealed nitrogen environment, military grade glass epoxy circuit boards, to mention a few, contribute to the most technologically advanced preamplifier in the world.

FEATURES

- 130dB Dynamic Range
- High-Drive output transformer drives 1000 ft. of Belden at .007% THD
- +48V Phantom Power, Phase Reverse, -20dB Input Pad, Super Low-Z input switch
- Proprietary High Frequency EQ circuit with cut/boost to 40kHz

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ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The dbx Blue Series Solid State 786 Mic Pre-Amp is a 2U two-channel precision mic pre companion product to the 160S Stereo Compressor/Limiter. We refer to this as a "precision mic pre-amp" as it is designed to provide the truest reproduction of the microphone source as is electronically possible, as opposed to "FX" mic pre-amps. The pre-amp features the ubiquitous +48V phantom power, 20dB pad, and phase invert functions, but also includes a switchable "super low Z" setting which optimizes the pre-amp performance for microphones with very low source impedance. An 11-position coarse gain switch sets the gain between +10 and +60dB, while the fine gain control varies between -3 and +3dB. Levels may be monitored on peak-program VU meters with adjustable reference levels.

The signal path consists of a transformer-coupled, discrete-design premium input stage utilizing the proprietary dbx M8™ Mic Pre-Amp Module. The minimum signal path design routes the amplified signal directly to a patented high output drive circuit. Each stage throughout the mic pre-amp is small-signal square wave compensated to assure precise phase alignment at all audio frequencies.

Two output options will be available for the mic pre; an analog card that parallels one extra high drive output per channel acting as a premium signal splitter, and a dbx Type IV Conversion System card that provides proprietary analog-to-digital conversion for both channels with both AES/EBU and S/PDIF outputs.

The dbx Blue Series Solid State Mic Pre has patented high-precision, high-drive, transformer-coupled output stages capable of performing with incredible accuracy and sonic transparency in virtually any audio environment. The custom designed transformer, coupled with a discrete distortion canceling driver circuit, is capable of driving 1000 feet of Belden 8451 cable terminated with a 150 ohm load, while maximum drive levels exceed +30 dBm. Yet this output stage exhibits remarkably low distortion levels, immeasurable using standard audio test equipment.

dbx engineers are constantly working to improve the quality of our products. Specifications are, therefore subject to change without notice.

SPECIFICATIONS

dbx 786 Mic Preamp Input Specifications

Gain	+10 to +60 dB in 5 dB steps
Phantom Power	+48V regulated
Pad	20 dB
Equivalent Input Noise	-132 dBu
THD	>0.002%
Input CMRR	>100 dB
Bandwidth	> 200kHz
Detail	16 dB boost/cut at frequency determined by the Spectrum control
Spectrum	Variable from 5 kHz to 40kHz

Output Specifications

Output Drive Capability	> +30 dBm
Output Stage THD	Immeasurable at +4dBu
Earth Potential Isolation	>200 Volts DC
Output CMRR	110 dB
Bandwidth	>200kHz

Overall Unit Specifications (Preliminary)

Dynamic Range	>130 dB
Head Room	26 dB reference = +4dBu
Signal to Noise	104 dB reference = +4dBu
THD + Noise	0.002%
Frequency Response	+0/-3 dB 2Hz - 200kHz maximally flat phase response. +0/-0.25 dB 20Hz - 20kHz
Deviation from Linear Phase	< 0.5°@20Hz - 20kHz
Power Supply Rails	+/- 24 Volts low noise regulated supply
Power Transformer	60 VA Toroidal in 30dB mu-metal enclosure

Physical

Dimensions:	3.5"Hx19"Wx8"D
Weight:	20.5 lbs. (9.3kg)
Shipping Weight:	25 lbs (11.3 kg)

Note: 0 dBu = 0.775V RMS

FOR MORE INFORMATION CONTACT:

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