



PRODUCT INFO

EBS-PRE ACTIVE BASS GUITAR CIRCUITRY

- Extremely low noise input stages
- Separate input stages for each pickup
- Two types of active equalization
- Easily installable
- Small dimensions
- Operates up to 30V power supply
- Battery reverse polarity protected

The EBS-PRE active circuitry for instruments is designed for use in high quality amplification systems where low noise, reliability and a wide range of useful options are required.

Equipped with ultra low noise input stages with very high input impedance, this unit maintains the natural sound of the instrument, without adding any unwanted noise. It can even be used with low magnetic field pickups having very low signal strength.

The equalization stage providing bass and treble control, operates in two different modes with the aid of

the filter option switch; standard boost/cut design or "enhanced operation" with the treble control also functioning as a reversed middle control allowing quick access for rapidly changing the outgoing sound.

In the mid position of the tone controls, the unit gives a flat frequency response without effecting neither the low, middle nor the high frequency bands. The unit is small and will fit into almost every instrument without any extra modifications.

The EBS-PRE is available in different configurations:

- Input gain setting either LOW (+3dB), MID (+8 dB) or HIGH (+13 dB).
- HIGH CUT roll-off mode which converts the treble filter from shelving filter to bell filter peaking at 8 kHz.

By default the unit is shipped with the MID GAIN option and the HI-CUT filter activated.

Specifications:

Input Impedance	1 M Ω // 47 pF
Input Gain	3 dB (low gain), 8 dB (mid gain) or 13 dB (high gain)
Input Noise	-130 dB linear
Equivalent Input Noise	6.5 nV/ $\sqrt{\text{Hz}}$ @ 1 kHz (in application)
Frequency Response	10 - 50k Hz +/-1 dB
Bass Gain Range	+/- 15 dB @ 40 Hz
Treble Gain Range	+/- 15 dB @ 10 kHz
Midrange Gain Range	+/- 12 dB @ 8 kHz (Hi-Cut Option set)
Maximum Output Level	-/+ 7dB @ 450 Hz (Enhanced Filter Mode)
Output Impedance	9 dBv @ 9 V power supply
Power Supply Range	500 Ω directly from unit
Current Consumption	6 - 30 V
Dimensions	1.0 mA (1.3 mA max) @ 9 V power supply
	30 x 40 x 10mm (1.2 x 1.6 x 0.4")

Specifications are subject to change without notice.

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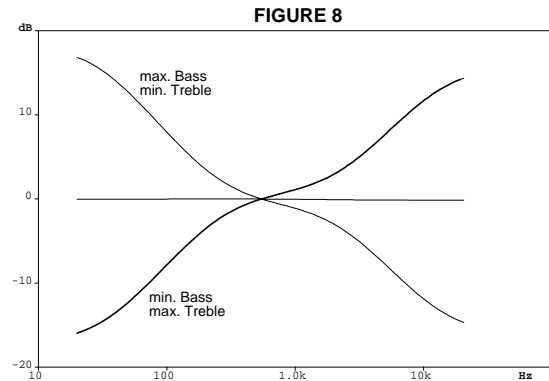
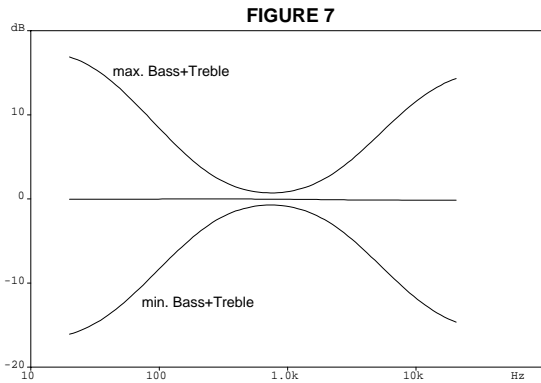
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The following diagrams shows the basic difference between the two different filter modes available in the EBS-PRE. These modes are controlled by the 1-pole filter mode switch.

Normal filter mode:



Enhanced filter mode:

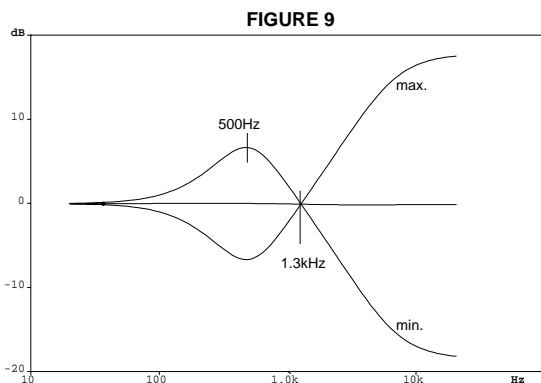


Figure 9 shows the enhanced filter mode operation for the treble control. This mode works as an inverted damped midrange control with its' center frequency close to 500Hz. The zero gain point in this mode is set to 1.3kHz as indicated in graph. This function is very useful for rapidly changing the tonal character from the instrument, adapting a form of constant energy filter principle, as shown in the following figures 10 and 11.

