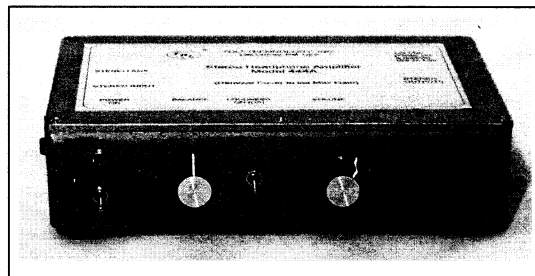


STEREO HEADPHONE AMPLIFIER

Model 444A

Revised: September 2006

This is a very high quality headphone amplifier featuring a non-inverting output, wide bandwidth, low noise, an excellent loudness control and DC operated balance and volume. The cast aluminum enclosure minimizes the pickup of unwanted signals. (All measurements were made with 100 ohm resistive loads on both the left and right outputs.)



INPUT: The input resistance is 47K for each stereo channel.

GAIN: The basic gain is zero to 11 dB (X3.5) using the single-turn (audio taper) volume control. Maximum gain (11, 17 or 21 dB) is user selectable by removing the top cover and setting two jumpers -- details are in the User Guide (and on the under side of the top cover). This is useful for headphones with a low sensitivity and/or a low impedance (for example, the Koss ESR6A electrostatics).

BALANCE: A balance control is very desirable in a headphone amplifier to adjust out small variations in your hearing or just for a more pleasing sound.

RESPONSE: The frequency response is flat (± 1 dB) from 20 Hz to 80 kHz (-1.7 dB at 10 Hz) into a 100 ohm load when the loudness control is off (toggle switch down). When loudness is on, the frequency response depends on the signal level and varies as is shown in Figure 1.

OUTPUT NOISE: The Spectrogram in Figure 2 shows the output noise level and dynamic range.

DISTORTION: Typically not more than 0.06% total at full volume.

CONNECTORS: A $\frac{1}{4}$ inch stereo phone jack input connector. A $\frac{1}{4}$ inch stereo phone jack labeled STEREO AUX is connected in parallel with the input connector and can be used to route the input signal to another headphone amplifier or to another audio device. Two $\frac{1}{4}$ inch stereo phone jacks for output. 2.5 mm male input power connector (the center pin is positive). A red LED lights when the amplifier is on.

POWER: Mains operation from a 24 VDC, 400 mA (or higher) "wall wart" supply that plugs into any (US) standard 115 VAC, 60 Hz outlet. (Power supplies for other mains voltages and outlets available on special order.)

FURNISHED ACCESSORIES: 24 VDC wall power supply and Printed User Guide. The User Guide in .pdf format may also be downloaded from our web site.

PHYSICAL: Cast aluminum enclosure measuring 241 x 165 x 63 mm (9.5 x 6.5 x 2.5 inches) overall including connectors and knobs. Weight is 860 gm (about 30 ounces). There are rubber bumpers on the four corners of the enclosure bottom.

PRICE: See price list.



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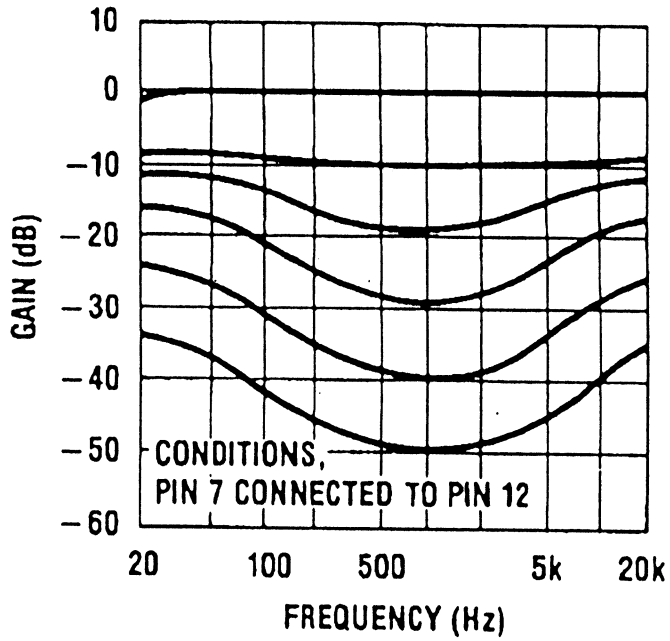


Figure 1 – When loudness is on, the frequency response varies with the volume control setting.

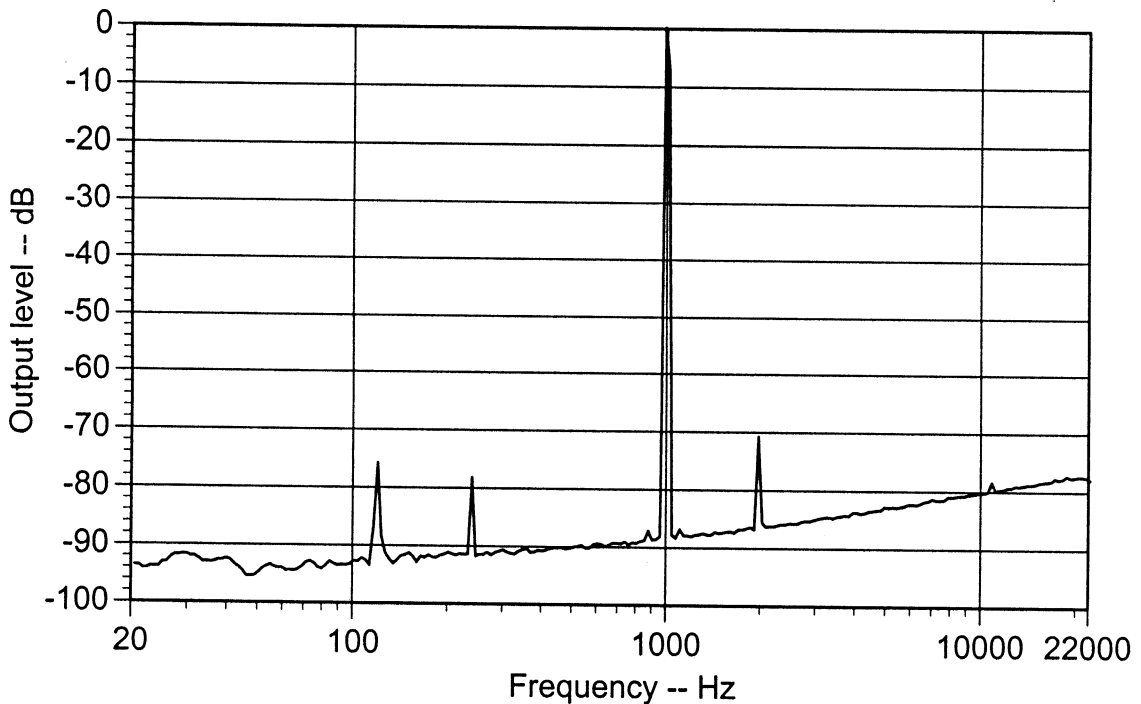


Figure 2 – Output noise and dynamic range. Zero dB = 1 V RMS into a 100 ohm resistive load, (10 mW).